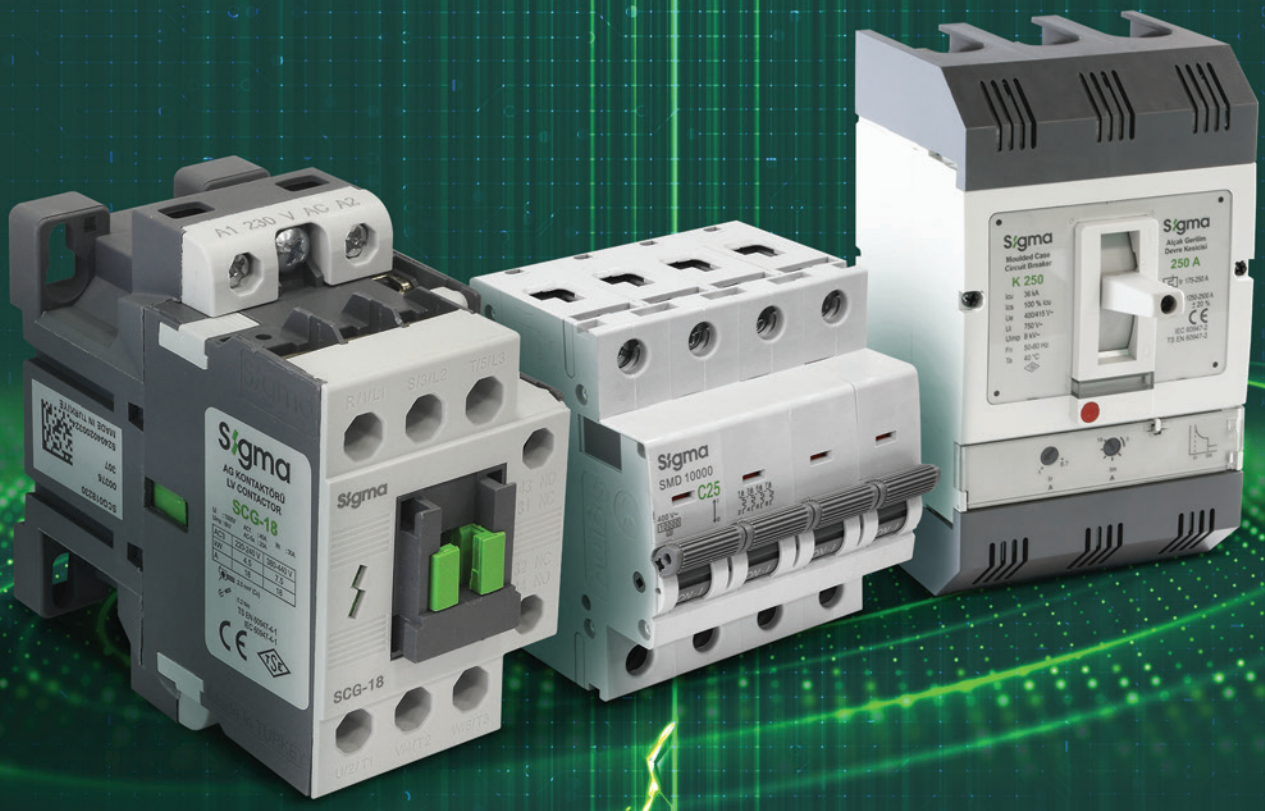
Sigma elektrik



LOW VOLTAGE PRODUCTS

Sigma elektrik

Sigma elektrik

www.sigmaelektrik.com

1993

Company Profile

Since 1992, ÜNLÜ GRUP has been supporting Turkish economy by production and export in textile, construction and foreign trade in its 26,000 m^2 facility in Istanbul\Sancaktepe with more than 1500 employees. SİGMA ELEKTRİK, which entered electricity sector with automatic fuse production in 1993, continues its operations under ÜNLÜ GRUP since 2009 in its factory in Istanbul\Sancaktepe with more than 320 expert staffs.

SİGMA ELEKTRİK serves both Turkish and global markets with its domestic production since 1993.

Thanks to the power that comes from its expert staff, SİGMA ELEKTRİK serves Low Voltage Switchgear Products sector, mainly with Solar Products, LV Circuit Breakers, Miniature Circuit Breakers, Residual Current Circuit Breakers, LV Current Transformers, Fuse Switch Disconnectors, NH Fuses, Automatic Transfer Switches, LV Contactors and with other various LV Protection and Measurement Devices in seven regions of Türkiye through its dealership network. Besides, with a commitment to quality and competitive pricing, it has secured significant market shares through its distributors in more than 50 countries in Europe, South America, Africa, Asia, Australia and the Middle East.

SİGMA ELEKTRİK has also many government approvals for projects in and abroad, participating and being granted with approval certificates.

SİGMA ELEKTRİK as a global company participates every year in worldwide known fairs such as Frankfurt Light and Building Fair, Messe Hannover, Middle East Energy in Dubai, Asean Super 8 Fair in Malaysia, Elcom in Ukraine and many others.

SİGMA ELEKTRİK, having various quality certificates including especially TSE, has expanded the certificate range by attaining international ASTA certificate recently. In addition to those certificates, SİGMA ELEKTRİK executes all work processes under ISO9000 quality assurance. Quality and customer satisfaction are the priorities of SİGMA ELEKTRİK. Therefore, all input raw materials are tested in laboratories that possess the latest version of test instruments, according to international standards; only after they pass the regarding tests, they are dispatched to production. Likewise, process control is executed throughout the whole production phases in accordance with quality criteria, and the products are transferred to customers only after their final quality inspection just before the shipment.

NEW PRODUCT

Sigma Soligma Series LV Moulded Case Circuit Breakers **“on page 226”**

NEW PRODUCT

Sigma Soligma Series LV Air Circuit Breakers **“on page 228”**

NEW PRODUCT

800V AC String Inverter LV Surge Protection Devices **“on page 233”**

NEW PRODUCT

800V AC NH Fuses **“on page 233”**

NEW PRODUCT

800V AC Horizontal Type Fuse Switch Disconnectors **“on page 232”**

NEW PRODUCT

Ui:1000V LV Moulded Case Circuit Breakers **“on page 217”**

NEW PRODUCT

Adjustable Current-Voltage Protection Relay **“on page 130”**

NEW PRODUCT

Residential Type Automatic Transfer Switches **”on page 81”**

NEW PRODUCT

Changeover (Transfer) Switch **“on page 86”**

NEW PRODUCT

Manual Changeover (Transfer) Switch **”on page 88”**

NEW PRODUCT

SMP Series Thermal Magnetic Characteristic Motor Protection Switches **“on page 169”**

NEW PRODUCT

Collector Type Current Transformers **“on page 178”**

NEW PRODUCT

SCM Series 3 Pole Power Contactors and Accessories **“on page 143”**

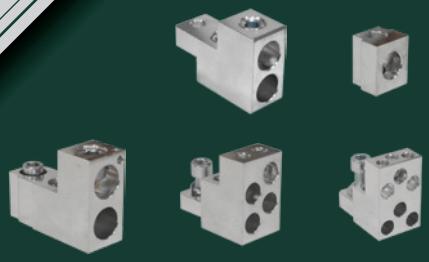
NEW PRODUCT

Compensation Contactors (For SCM Series Contactors) **“on page 212”**

NEW PRODUCT

Delay Adjustable Electronic Thermal Relay **“on page 158”**

NEW PRODUCT



Cable Connection Terminals **“on page 43”**

NEW PRODUCT

400V- 525V Heavy Duty Capacitors
400V- 525V Super Heavy Duty Capacitors
"on page 211"

NEW PRODUCT

2 Poles DC LV Moulded Case Circuit Breakers **"on page 217"**

NEW PRODUCT

Split-Core Type Toroidal Current Transformers **"on page 45"**

NEW PRODUCT

New Air Circuit Breakers **“on page 66”**

CONTENTS

Sigma elektrik

LV MOULDED CASE
CIRCUIT BREAKERS

The most important function of compact switches, also known as circuit breakers, is to protect the circuit in short circuit and overload situations, as well as to enable on-off operations of the circuit. At the same time, when used with the combination of leakage current protection relays and toroidal transformers, they protect the circuit against leakage currents.

- ⇨ 1, 2, 3 and 4 poles
- ⇨ Rated currents from 16A to 1600A
- ⇨ Up to 20kA to 150kA breaking capacity
- ⇨ Thermal-magnetic adjustable and fixed type options
- ⇨ Short circuit interruption time thanks to the limiter feature
- ⇨ Additional protection and control functions thanks to their compatibility with accessories (motor mechanism, trip coil, low voltage coil, connection terminal block, extension bar set, rotary extension arm, rotary control arm, mechanical padlock apparatus, auxiliary contact, alarm contacts)
- ⇨ Highly durable body design with BMC material

LV MCCB, Thermal-Magnetic Adjustable Type - Technical Specifications

				B160			B250		B400	B630	K160		K250		K400	K630
Standard				IEC / EN 60947-2							IEC / EN 60947-2					
Rated current (at 40°C)	In		A	25, 32, 40, 50, 63, 80, 100, 125, 160			100, 125, 160, 200, 250		315, 400	500, 600	25, 32, 40, 50, 63, 80, 100, 125, 160		63, 80, 100, 125, 160, 200, 250		315, 400	500, 630
Number of poles				2	3	4	3	4	3	3	3	4	3	4	3	3
Rated operating voltage	Ue	V	AC	690V AC / 250V DC							690V AC / 250V DC					
Rated insulation voltage	Ui	V	AC	750			750		750	750	750		750		750	750
Rated impulse Withstand voltage	Uimp	kV	AC	8			8		8	8	8		8		8	8
Rated ultimate short circuit breaking capacity	Icu	kA	690V AC	8			8		12	12	8		8		12	12
			500V AC	7			9		20	20	9		9		20	20
			440V AC	15			22		25	25	22		22		25	25
			415V AC	25			36				36					
			240V AC	35			50		65	65	50		50		65	65
			250V DC (3P serial)	10			15		25	25	15		15		25	25
Rated service short circuit breaking capacity	Ics	kA	690V AC	5			8		12	12	8		8		12	12
			500V AC	7			9		20	20	9		9		20	20
			440V AC	10			22		25	25	22		22		25	25
			415V AC	25			36				36					
			240V AC	15			25		36	36	50		50		36	36
			250V DC (3P serial)	5			5		20	23	15		10		20	23
Category (IEC/EN 60947-2)				A			A		A	A	A		A		A	A
Pollution degree				3			3		3	3	3		3		3	3
Electrical life (No. operation)	ON - OFF		415V	4.000			4.000		6.000	5.000	8.000		8.000		6.000	5.000
Mechanical life (No. operation)	ON - OFF			10.000			10.000		15.000	15.000	20.000		20.000		15.000	15.000
Protection unit				Thermal Adjustable Magnetic Fixed					Thermal Adjustable Magnetic Adjustable		Thermal Adjustable Magnetic Fixed		Thermal Adjustable Magnetic Adjustable			
Protection unit (power & network system protection)				Ir: (0,8-1)xIn; Im: 10xIn			Ir: (0,8-1)xIn; Im: 10xIn		Ir: (0,7-1)xIn Im: (5-10)xIn		Ir: (0,7-1)xIn; Im: 10xIn		Ir: (0,7-1)xIn; Im: (5-10)xIn		Ir: (0,8-1)xIn ; Im: (5-10)xIn	
Ambient operating temperature		°C		-20 ... +60			-20 ... +60		-20 ... +60		-20 ... +60		-20 ... +60		-20 ... +60	
Ambient storage temperature		°C		-40 ... +80			-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80	
Relative humidity		%		95			95		95		95		95		95	
Dimensions	Width		mm	49,5	74,5	99,5	105	140	140	140	105	140	105	140	140	140
	Length		mm	141			177	177	267	267	178	169	178	169	267	267
	Depth		mm	60			88,5	88,5	104	104	89	89	89	89	104	104

M160	M250		M400	M630	M800	S250	S400		S630		S800
IEC / EN 60947-2						IEC / EN 60947-2					
25,32, 40, 50, 63, 80, 100, 125, 160	63, 80, 100, 125, 160, 200, 250	100, 125, 160, 200, 250	315, 400	500, 630	800	100, 125, 160, 200, 250	315, 400		500, 630		800
3	3	4	3	3	3	3	3	4	3	4	3
690V AC / 250V DC						690V AC / 250V DC					
750	750		750	750	750	750	750		750		750
8	8		8	8	8	8	8		8		8
10	10		17	17	22	16	16		16		16
18	18		25	25	35	42	42		42		42
42	42		35	35	42	50	50		50		50
50						70					
65	65		50	80	100	100	100		100		100
25	25		30	30	30	30	30		30		30
8	10		17	17	22	8	8		8		8
14	18		25	25	35	21	21		21		21
32	42		35	35	42	25	25		25		25
50						70					
50	65		80	50	50	50	50		50		50
19	25		23	23	23	23	23		23		23
A	A		A	A	A	A	A		A		A
3	3		3	3	3	3	3		3		3
8.000	8.000		6.000	5.000	5.000	8.000	6.000		5.000		5.000
20.000	20.000		15.000	15.000	10.000	20.000	15.000		15.000		10.000
Thermal Adjustable Magnetic Fixed	Thermal Adjustable Magnetic Adjustable					Thermal Adjustable Magnetic Adjustable					
Ir: (0,8-1)xIn; Im: 10xIn	Ir: (0,7-1)xIn; Im: (5-10)xIn		Ir: (0,8-1)xIn; Im: (5-10)xIn			Ir: (0,8-1)xIn; Im: (5-10)xIn					
-20 ... +60	-20 ... +60		-20 ... +60	-20 ... +60	-20 ... +60	-20 ... +60	-20 ... +60		-20 ... +60		-20 ... +60
-40 ... +80	-40 ... +80		-40 ... +80	-40 ... +80	-40 ... +80	-40 ... +80	-40 ... +80		-40 ... +80		-40 ... +80
95	95		95	95	95	95	95		95		95
90	105	140	140	140	210	105	140	188	140	188	210
138	178	169	267	267	280	161	263	263	263	263	280
82	89	89	104	104	107	89	117	117	117	117	107

LV MCCB, Electronic Type - Technical Specifications

				U250		U400		U630		U1600
Standard				IEC / EN 60947-2		IEC / EN 60947-2		IEC / EN 60947-2		IEC / EN 60947-2
Rated current (at 40°C)	In	A	A	40, 100, 160, 250		400		630		800, 1000, 1250, 1600
Number of poles				3	4	3	4	3	4	3
Rated operating voltage	Ue	V	AC	690V AC / 250V DC		690V AC / 250V DC		690V AC / 250V DC		690V AC / 250V DC
Rated insulation voltage	Ui	V	AC	750		750		750		750
Rated impulse Withstand voltage	Uimp	kV	AC	8		8		8		8
Rated ultimate short circuit breaking capacity	Icu	kA	690V AC	8		16		16		25
			500V AC	9		42		42		35
			440V AC	22		50		50		50
			415V AC	**36**		**70**		**70**		**70**
			240V AC	50		85		85		85
			250V DC (3P serial)	15		30		30		–
Rated service short circuit breaking capacity	Ics	kA	690V AC	8		16		16		25
			500V AC	9		42		42		35
			440V AC	22		50		50		50
			415V AC	**36**		**70**		**70**		**70**
			240V AC	50		85		85		85
			250V DC (3P serial)	10		23		23		–
Category (IEC/EN 60947-2)				A		A		A		A
Pollution degree				3		3		3		3
Electrical life (No. operation)	ON - OFF		415V	8.000		8.000		8.000		4.000
Mechanical life (No. operation)	ON - OFF			20.000		15.000		15.000		8.000
Protection unit				Electronic		Electronic		Electronic		Electronic
Protection unit (power & network system protection)				Io: 0,4-1 Ir: (0,9-1) x Io Isd: (1,5-10) x Ir		Io: 0,5-1 Ir: (0,8-1) x Io Isd: (2-10) x Ir		Io: 0,5-1 Ir: (0,8-1) x Io Isd: (2-10) x Ir		Ir: (0,4-1)xIn; Im: (2-10)xIn
Ambient operating temperature			°C	-20 ... +60		-20 ... +60		-20 ... +60		-20 ... +60
Ambient storage temperature			°C	-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80
Relative humidity			%	95		95		95		95

ELECTRONIC TYPE
LV CIRCUIT BREAKERS

LV MCCB, Thermal-Magnetic Fixed Type - Technical Specifications

				KM200	A125		A160			A250			A400		A630		A800
Standard				IEC / EN 60947-2	IEC / EN 60947-2		IEC / EN 60947-2			IEC / EN 60947-2			IEC / EN 60947-2		IEC / EN 60947-2		IEC / EN 60947-2
Rated current In (at 40°C)	In	A		16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200	20, 25, 32, 40, 50, 63, 80,100, 125, 160(3p)		16, 20, 25, 32, 40, 50, 63, 80,100, 125, 160			200, 250	100, 125, 160, 200, 250	200, 250	315, 400		500, 630		800
Number of poles				1	3	4	1	3	4	1	3	4	3	4	3	4	4
Rated operating voltage	Ue	V	AC	690V AC 250V DC	690V AC 250V DC		690V AC 250V DC			690V AC 250V DC			690V AC 250V DC		690V AC 250V DC		690V AC / 250V DC
Rated insulation voltage	Ui	V	AC	750	750		750			750			750		750		750
Rated impulse withstand voltage	Uimp	kV		8	8		8			8			8		8		8
Rated ultimate short circuit breaking capacity	Icu	kA	690V AC	12	7		8			12			12		12		12
			500V AC	20	8		10			25			20		20		20
			440V AV	25	15		20			25			25		25		25
			415V AC	36	20		25			36			36		36		36
			240V AC	50	30		35			50			50		50		50
			250V DC (3P serial)	15	8		15			15			15		15		15
Rated service short circuit breaking capacity	Ics	kA	690V AC	12	7		8			12			12		12		12
			500V AC	20	8		10			20			20		20		20
			440V AC	25	15		20			25			25		25		25
			415V AC	36	20		25			36			36		36		36
			240V AC	50	30		35			50			50		50		50
			250V DC (3P serial)	15	8		15			15			15		15		15
Pollution degree				3	3		3			3			3		3		3
Electrical life (No. operation)	ON-OFF		400/415V AC	4.000	4.000		5.000			4.000			3.000		1.000	2.000	1.500
Mechanical life (No. operation)	ON-OFF			10.000	8.000		12.000			10.000			7.000		4.000	6.000	5.000
Thermal adjustment				Fixed	Fixed		Fixed			Fixed			Fixed		Fixed		Fixed
Magnetic adjustment				Fixed	Fixed		Fixed			Fixed			Fixed		Fixed		Fixed
Operating ambient temperature			°C	-20 ... +60	-20 ... +60		-20 ... +60			-20 ... +60			-20 ... +60		-20 ... +60		-20 ... +60
Storage temperature			°C	-40 ... +80	-40 ... +80		-40 ... +80			-40 ... +80			-40 ... +80		-40 ... +80		-40 ... +80
Relative humidity			%	95	95		95			95			95		95		95
Dimensions	Width		mm	35	50	75	24,5	74,5	99,5		105	140	139	186	139	280	280
	Length		mm	158	130	135	141	141	141		177	177	267	262	267	281	281
	Depth		mm	89	60	65	60	60	60		60,5	60,5	104	104	104	108	108

FIXED TYPE
LV CIRCUIT BREAKERS

Earth Leakage Circuit Breakers - Technical Specifications

				H125	H125N	H250	H250N	D125	D250	D400	D630
Number of poles				3	4	3	4	4	4	4	4
Rated current (at 40°C)	In		A	40, 50, 63, 80,100, 125	25, 32, 40, 50, 63, 80, 100, 125	160, 200, 250		40, 50, 63, 80, 100, 125	160, 200, 250	315, 400	630
Sensitivity settings IΔn			mA	30, 300, 500		30, 300, 500		30, 100, 300, 500			
Tripping time IΔn			mili second	100, 300, 1000		100, 300, 1000		100, 300, 500, 1000			
Instantaneous tripping time			mili second	<100		<100		<100	<100	<100	<100
Rated operating voltage	Ue	V	AC	690V AC / 250V DC		690V AC / 250V DC		690V AC / 250V DC			
Rated insulation voltage	Ui	V	AC	690		690		690	690	690	690
Rated impulse withstand voltage	Uimp	kV	AC	8		8		8	8	8	8
Rated ultimate short circuit breaking capacity	Icu	kA	690V AC	7		8		8	8	10	10
			500V AC	8		9		9	9	18	18
			440V AC	15		22		22	22	42	42
			415V AC	25		36		36	36	50	50
			240V AC	35		50		50	50	65	65
			250V DC (3P serial)	10		15		15	15	25	25
Rated service short circuit breaking capacity	Ics	kA	690V AC	7		8		8	8	7	7
			500V AC	8		10		10	10	8	8
			440V AC	12		14		14	14	15	15
			415V AC	12,5		18		18	18	25	25
			240V AC	18		25		25	25	35	35
			250V DC (3P serial)	7		9		9	9	10	10
Pollution degree				3		3		3	3	3	3
Electrical life (No. operation)	ON - OFF		400 / 415V AC	1.000		1.000		5.000	5.000	5.000	4.000
Mechanical life (No. operation)	ON - OFF			7.000		7.000		15.000	15.000	15.000	10.000
Overload protection				(0,8-1)xIn		(0,8-1)xIn		Fixed	Fixed	Fixed	Fixed
Rated short circuit breaking protection				10xIn		10xIn		10xIn	10xIn	10xIn	10xIn
Operating ambient temperature			°C	-20 ... +60		-20 ... +60		-20 ... +60	-20 ... +60	-20 ... +60	-20 ... +60
Storage temperature			°C	-40 ... +80		-40 ... +80		-40 ... +80	-40 ... +80	-40 ... +80	-40 ... +80
Relative humidity			%	95		95		95	95	95	95
Dimensions	Width		mm	75	100	105	140	120	140	184	280
	Length		mm	130	130	165	165	203	221	308	347
	Depth		mm	60	60	60	60	68	86	103	103

EARTH LEAKAGE
CIRCUIT BREAKERS

Earth Leakage Circuit Breakers - Technical Specifications

				G160N	G250N	G400N	G630N
Number of poles				4	4	4	4
Rated current In (at 40°C)			A	25, 32, 40, 50, 63, 80, 100, 125, 160	200, 250	315, 400	500, 630
Sensitivity settings IΔn			mA	30, 300, 500, 1000, 3000	30, 300, 500, 1000, 3000	30, 100, 500, 1000, 3000, 10000, 30000	30, 100, 500, 1000, 3000, 10000, 30000
Tripping time IΔn			mili second	100, 300, 500, 1000	100, 300, 500, 1000	60,150, 300, 1200, 4000	60,150, 300, 1200, 4000
Instantaneous tripping time			mili second	<100	<100	<100	<100
Rated operating voltage	Ue	V	AC	800	800	800	800
Rated insulation voltage	Ui	V	AC	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp	kV	AC	8	8	8	8
Rated ultimate short circuit breaking capacity	Icu	kA	690V AC	15	15	15	15
			500V AC	20	20	20	20
			415V AC	**50**	**50**	**50**	**50**
			240V AC	70	70	70	70
			250V DC (3P serial)	20	20	20	20
Rated service short circuit breaking capacity	Ics	kA	690V AC	15	15	15	15
			500V AC	20	20	20	20
			415V AC	**50**	**50**	**50**	**50**
			240V AC	70	70	70	70
			250V DC (3P serial)	20	20	20	20
Pollution degree				3	3	3	3
Electrical life (No. operation)	ON - OFF		400 / 415V AC	4.000-8.000	4.000-8.000	4.000-8.000	4.000-8.000
Mechanical life (No. operation)	ON - OFF			20.000	20.000	20.000	20.000
Overload protection				Thermal Adjustable - Magnetic Fixed	Thermal Adjustable - Magnetic Adjustable	Thermal Adjustable- Magnetic Adjustable	Thermal Adjustable- Magnetic Adjustable
Rated short circuit breaking protection				Ir: (0,7-1)xIn Im: 10xIn	Ir: (0,7-1)xIn Im: (5-10)xIn	Ir: (0,7-1)xIn Im: (5-10)xIn	Ir: (0,7-1)xIn Im: (5-10)xIn
Operating ambient temperature			°C	-20 ... +70	-20 ... +70	-20 ... +70	-20 ... +70
Storage temperature			°C	-40 ... +80	-40 ... +80	-40 ... +80	-40 ... +80
Relative humidity			%	95	95	95	95
Dimensions	Width		mm	105	105	185	185
	Length		mm	236	236	355	355
	Depth		mm	92	92	120	120

LV MCCB, Thermal-Magnetic Adjustable Type - Technical Specifications

				KLT 160		MLT 160		SLT 160		ULT 160		XLT 160		KLT 250		MLT 250		SLT 250		ULT 250		XLT 250	
Standard				IEC / EN 60947-2										IEC / EN 60947-2									
Rated current In (at 40°C)	In		A	20, 25, 32, 40, 50, 63, 80, 100, 125, 160										63, 80, 100, 125, 160, 200, 250									
Number of poles				3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
Rated operating voltage	Ue	V	AC	800		800		800		800		800		800		800		800		800		800	
Rated insulation voltage	Ui	V	AC	1000		1000		1000		1000		1000		1000		1000		1000		1000		1000	
Rated impulse Withstand voltage	Uimp	kV	AC	8		8		8		8		8		8		8		8		8		8	
Rated ultimate short circuit breaking capacity	Icu	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50	
			480-500V AC	12		20		45		50		70		12		20		45		50		70	
			380-415V AC	36		50		70		100		150		36		50		70		100		150	
			220-240V AC	50		70		100		120		150		50		70		100		120		150	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36	
Rated service short circuit breaking capacity	Ics	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50	
			480-500V AC	12		20		45		50		70		12		20		45		50		70	
			415V AC	36		50		70		100		150		36		50		70		100		150	
			220-240V AC	50		70		100		120		150		50		70		100		120		150	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36	
Category (IEC/EN 60947-2)				A		A		A		A		A		A		A		A		A		A	
Pollution degree				3		3		3		3		3		3		3		3		3		3	
Electrical life (No. operation)	ON - OFF		415V	4.000 - 8.000										4.000 - 8.000									
Mechanical life (No. operation)	ON - OFF			20.000		20.000		20.000		20.000		20.000		20.000		20.000		20.000		20.000		20.000	
Protection unit				Thermal Adjustable - Magnetic Fixed										Thermal - Magnetic Adjustable									
Protection unit (power & network system protection)				Ir: (0,7-1)xIn - Im: 10xIn										Ir: (0,7-1)xIn - Im: (0,5-10)xIn									
Ambient operating temperature			°C	-20 ... +70		-20 ... +70		-20 ... +70		-20 ... +70		-20 ... +70		-20 ... +70		-20 ... +70		-20 ... +70		-20 ... +70		-20 ... +70	
Ambient storage temperature			°C	-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80		-40 ... +80	
Relative humidity			%	95		95		95		95		95		95		95		95		95		95	
Dimensions	Width		mm	105	140	105	140	105	140	105	140	105	140	105	140	105	140	105	140	105	140	105	140
	Length		mm	161		161		161		161		161		161		161		161		161		161	
	Depth		mm	126		126		126		126		126		126		126		126		126		126	

				KLT 400		MLT 400		SLT 400		ULT 400		XLT 400		KLT 630		MLT 630		SLT 630		ULT 630		XLT 630		BST 1600	
Standard				IEC / EN 60947-2										IEC / EN 60947-2										IEC / EN 60947-2	
Rated current In (at 40°C)	A			320, 400										500, 630										1000, 1250, 1600	
Number of poles				3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
Rated operating voltage	Ue	V	AC	800		800		800		800		800		800		800		800		800		800		800	
Rated insulation voltage	Ui	V	AC	1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		1000	
Test Voltage at Industrial Frequency for 1 Minute	Icw	V	AC	12		15		20		25		30		12		15		20		25		30		15	
Rated impulse Withstand voltage	Uimp	kV	AC	8		8		8		8		8		8		8		8		8		8		8	
Rated ultimate short circuit breaking capacity	Icu	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50		15	
			480-500V AC	12		20		45		50		70		12		20		45		50		70		20	
			380-415V AC	36		50		70		100		150		36		50		70		100		150		50	
			220-240V AC	50		70		100		120		150		50		70		100		120		150		70	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36		20	
Rated service short circuit breaking capacity	Ics	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50		15	
			480-500V AC	12		20		45		50		70		12		20		45		50		70		20	
			415V AC	36		50		70		100		150		36		50		70		100		150		50	
			220-240V AC	50		70		100		120		150		50		70		100		120		150		70	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36		20	
Category (IEC/EN 60947-2)				A		A		A		A		A		A		A		A		A		A		A	
Pollution degree				3		3		3		3		3		3		3		3		3		3		3	
Electrical life (No. operation)	ON - OFF		415V	4.000-8.000										4.000-8.000										4.000-8.000	
Mechanical life (No. operation)	ON - OFF			20.000		20.000		20.000		20.000		20.000		20.000		20.000		20.000		20.000		20.000		20.000	
Protection unit				Thermal - Magnetic Adjustable										Thermal - Magnetic Adjustable										Electronic	
Protection unit (power & network system protection)				Ir: (0,7-1)xIn - Im: (0,5-10)xIn										Ir: (0,7-1)xIn - Im: (0,5-10)xIn										Ir: (0,7-1)xIn Im: (0,5-10)xIn	
Ambient operating temperature	°C			-20 ... +70										-20 ... +70										-20 ... +70	
Ambient storage temperature	°C			-40 ... +80										-40 ... +80										-40 ... +80	
Relative humidity	%			95		95		95		95		95		95		95		95		95		95		95	
Dimensions	Width		mm	140	185	140	185	140	185	140	185	140	185	140	185	140	185	140	185	140	185	140	185	212	282
	Length		mm	255		255		255		255		255		255		255		255		255		255		310	
	Depth		mm	168		168		168		168		168		168		168		168		168		168		165	

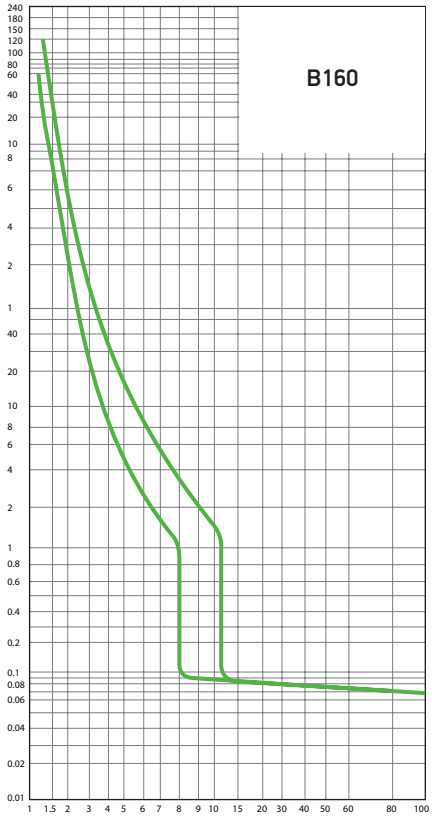
LV MCCB, Thermal-Magnetic Adjustable Type - Technical Specifications

				KLE 160		MLE 160		SLE 160		ULE 160		XLE 160		KLE 250		MLE 250		SLE 250		ULE 250		XLE 250	
Standard				IEC / EN 60947-2										IEC / EN 60947-2									
Rated current In (at 40°C)		A		40, 100, 160										250									
Number of poles				3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
Rated operating voltage	Ue	V	AC	800										800									
Rated insulation voltage	Ui	V	AC	1000										1000									
Rated impulse Withstand voltage	Uimp	kV	AC	8		8		8		8		8		8		8		8		8		8	
Rated ultimate short circuit breaking capacity	Icu	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50	
			480-500V AC	12		20		45		50		70		12		20		45		50		70	
			380-415V AC	36		50		70		100		150		36		50		70		100		150	
			220-240V AC	50		70		100		120		150		50		70		100		120		150	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36	
Rated service short circuit breaking capacity	Ics	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50	
			480-500V AC	12		20		45		50		70		12		20		45		50		70	
			415V AC	36		50		70		100		150		36		50		70		100		150	
			220-240V AC	50		70		100		120		150		50		70		100		120		150	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36	
Category (IEC/EN 60947-2)				A		A		A		A		A		A		A		A		A		A	
Pollution degree				3		3		3		3		3		3		3		3		3		3	
Electrical life (No. operation)	ON - OFF		415V	4.000 - 8.000										4.000 - 8.000									
Mechanical life (No. operation)	ON - OFF			20.000										20.000									
Protection unit				Electronic										Electronic									
Protection unit (power & network system protection)				Ir: (0.4-1)xIn, Im: 1.5-10)xIn										Ir: (0.4-1)xIn, Im: 1.5-10)xIn									
Ambient operating temperature		°C		-20 ... +70										-20 ... +70									
Ambient storage temperature		°C		-40 ... +80										-40 ... +80									
Relative humidity		%		95		95		95		95		95		95		95		95		95		95	
Dimensions	Width		mm	105	140	105	140	105	140	105	140	105	140	105	140	105	140	105	140	105	140	105	140
	Length		mm	161		161		161		161		161		161		161		161		161		161	
	Depth		mm	126		126		126		126		126		126		126		126		126		126	

				KLE 400		MLE 400		SLE 400		ULE 400		XLE 400		KLE 630		MLE 630		SLE 630		ULE 630		XLE 630		BSE 1600	
Standard				IEC / EN 60947-2										IEC / EN 60947-2										IEC / EN 60947-2	
Rated current In (at 40°C)	A			400										630										800, 1000, 1250, 1600	
Number of poles				3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
Rated operating voltage	Ue	V	AC	800										800										800	
Rated insulation voltage	Ui	V	AC	1000										1000										1000	
Rated impulse Withstand voltage	Uimp	kV	AC	8		8		8		8		8		8		8		8		8		8		8	
Rated ultimate short circuit breaking capacity	Icu	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50		15	
			480-500V AC	12		20		45		50		70		12		20		45		50		70		20	
			380-415V AC	36		50		70		100		150		36		50		70		100		150		50	
			220-240V AC	50		70		100		120		150		50		70		100		120		150		70	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36		20	
Rated service short circuit breaking capacity	Ics	kA	660-690V AC	10		15		20		36		50		10		15		20		36		50		15	
			480-500V AC	12		20		45		50		70		12		20		45		50		70		20	
			415V AC	36		50		70		100		150		36		50		70		100		150		50	
			220-240V AC	50		70		100		120		150		50		70		100		120		150		70	
			250V DC (3P serial)	15		20		25		30		36		15		20		25		30		36		20	
Category (IEC/EN 60947-2)				A		A		A		A		A		A		A		A		A		A		A	
Pollution degree				3		3		3		3		3		3		3		3		3		3		3	
Electrical life (No. operation)	ON - OFF		415V	4.000 - 8.000										4.000 - 8.000										4.000 - 8.000	
Mechanical life (No. operation)	ON - OFF			20.000										20.000										20.000	
Protection unit				Electronic										Electronic										Electronic	
Protection unit (power & network system protection)				Ir: (0.4-1)xIn, Im: 1.5-10)xIn										Ir: (0.4-1)xIn, Im: 1.5-10)xIn										Ir: (0.4-1)xIn, Im: 2-10)xIn	
Ambient operating temperature	°C			-20 ... +70										-20 ... +70										-20 ... +70	
Ambient storage temperature	°C			-40 ... +80										-40 ... +80										-40 ... +80	
Relative humidity	%			95		95		95		95		95		95		95		95		95		95		95	
Dimensions	Width		mm	140	185	140	185	140	185	140	185	140	185	140	185	140	185	140	185	140	185	140	185	212	282
	Length		mm	255		255		255		255		255		255		255		255		255		255		310	
	Depth		mm	168		168		168		168		168		168		168		168		168		168		165	

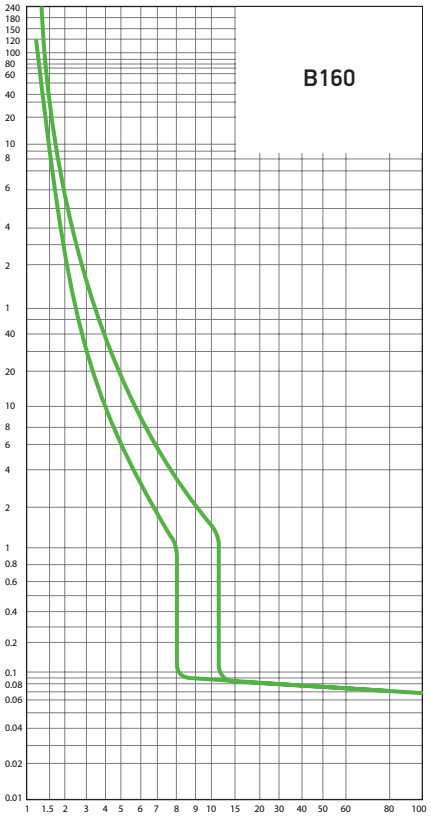
Time-Current Characteristic

16A~63A



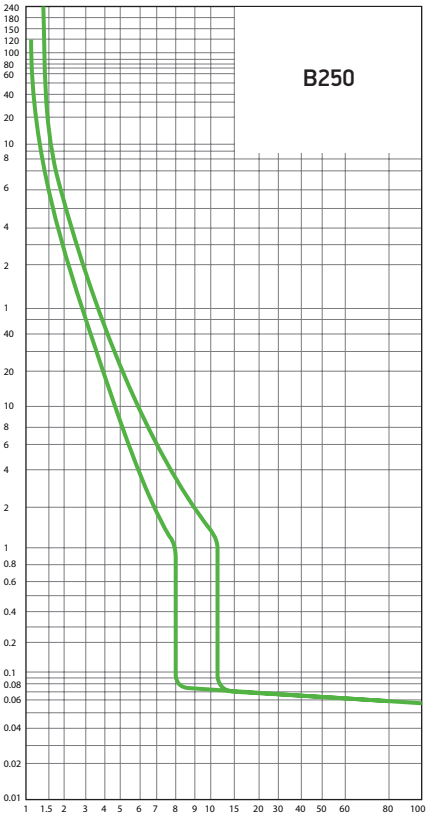
Attention: In≤32
Ii=400A(±%20)

80A~125A

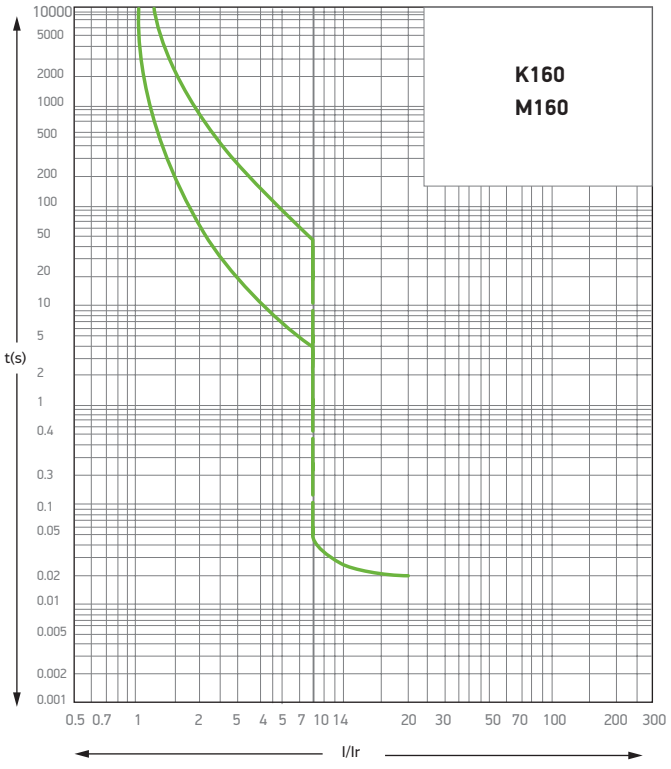


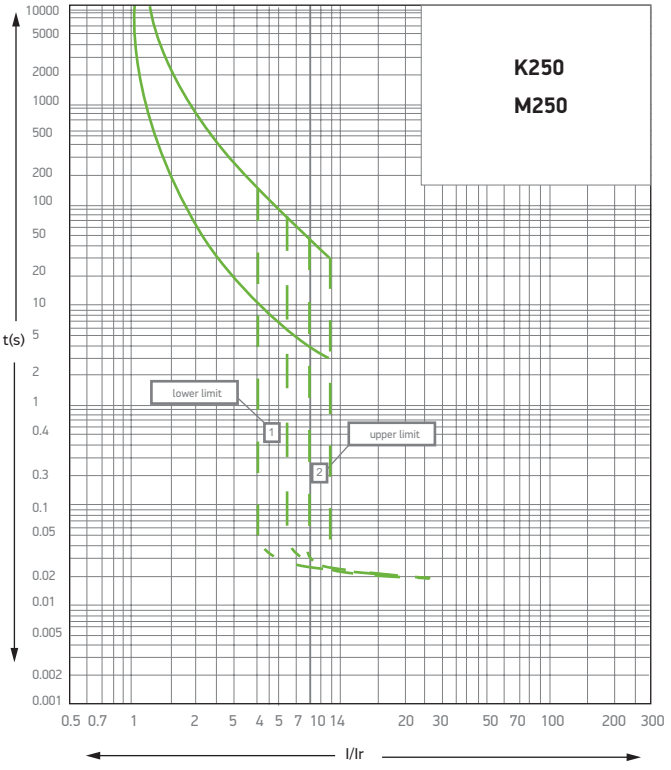
Attention: In>32
Ii=10*In(±%20)

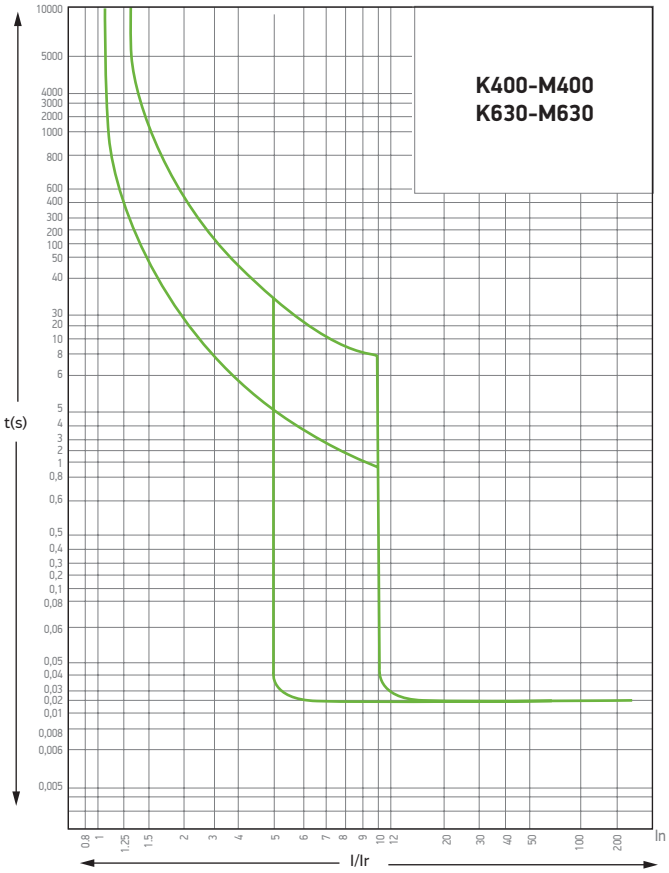
160A~250A

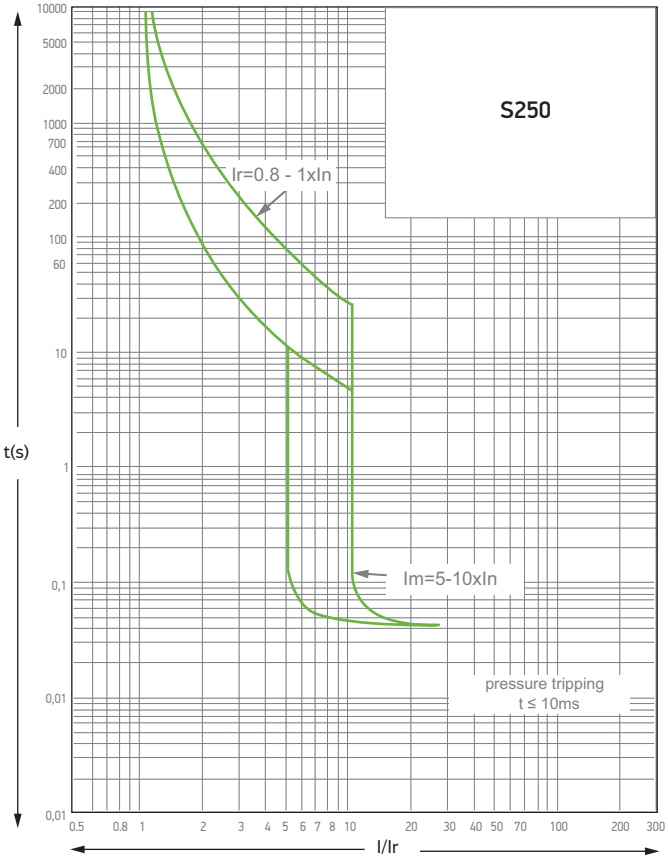


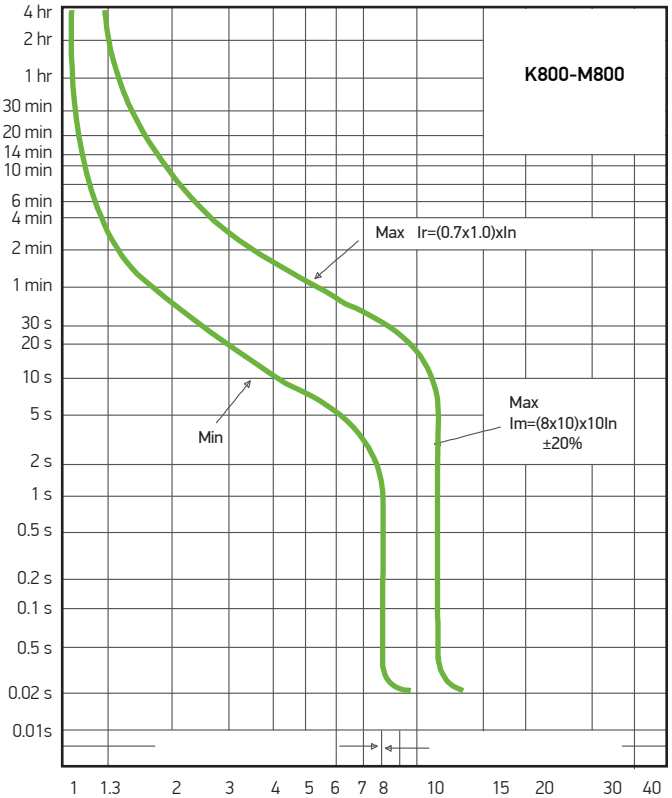
Attention: In>32
Ii=10*In(±%20)

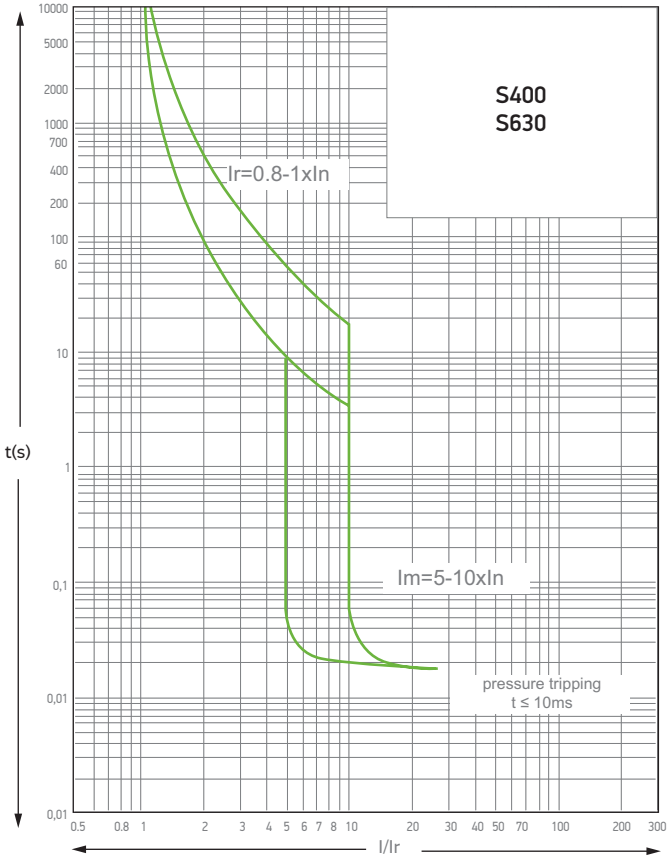


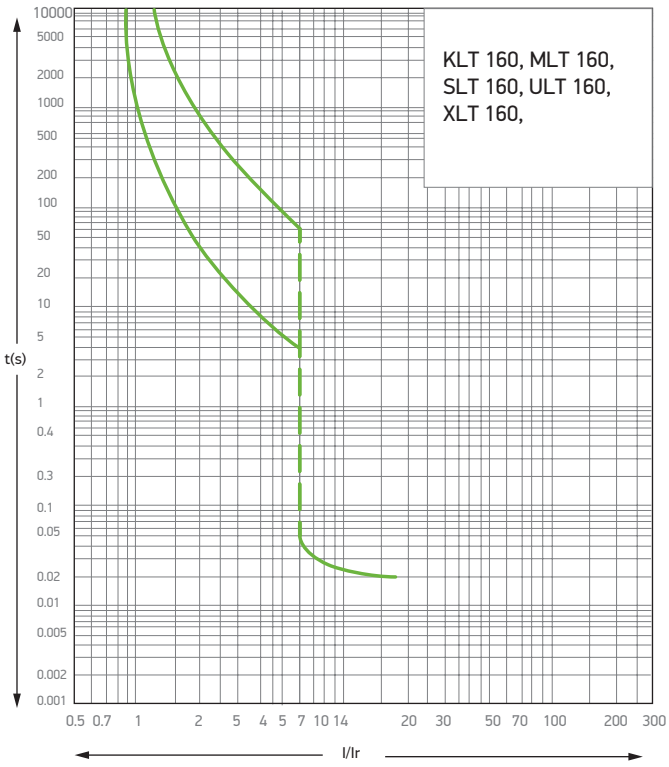


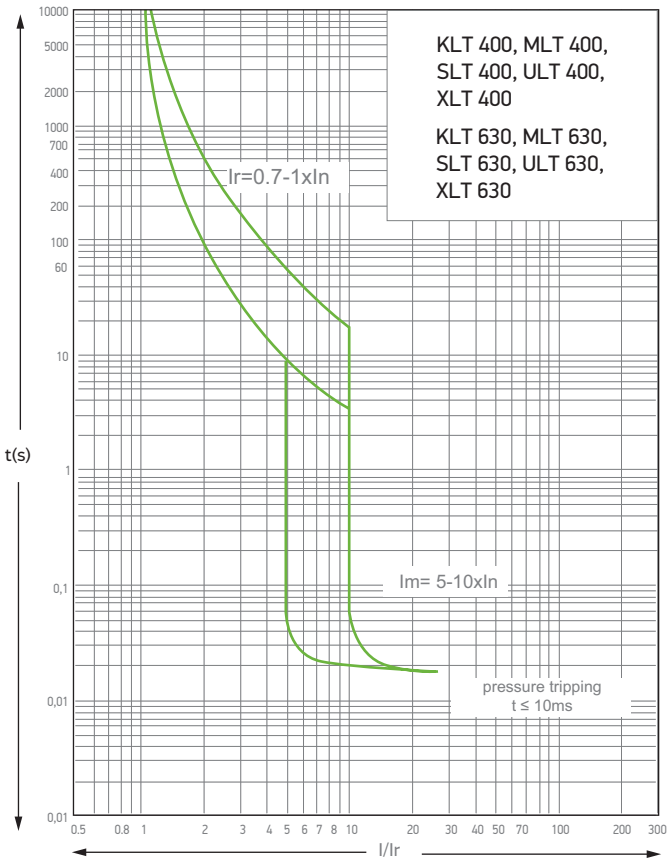

K400-M400
K630-M630
t(s)
In
I/Ir

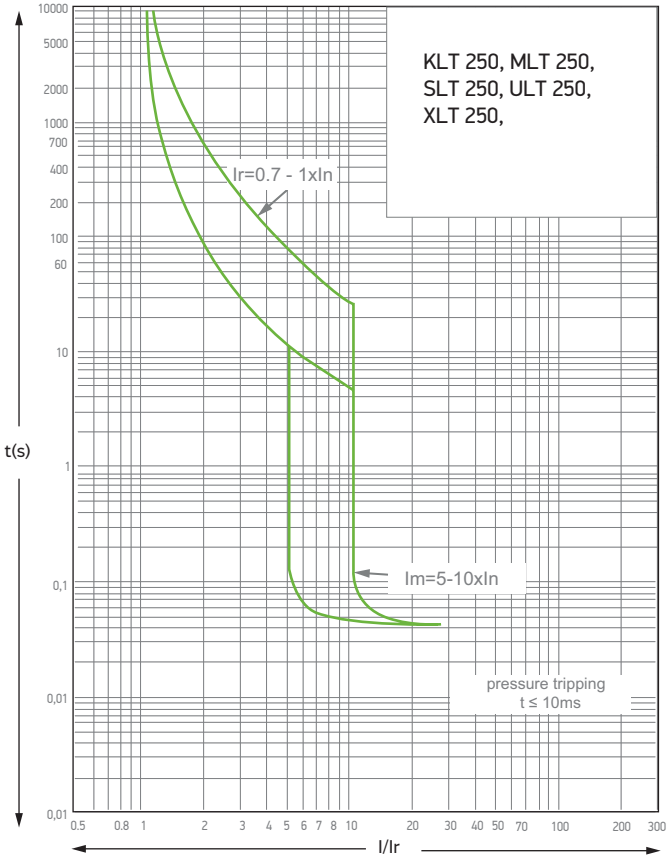

S250
Ir=0.8 - 1xIn
Im=5-10xIn
pressure tripping
t ≤ 10ms
t(s)
I/Ir

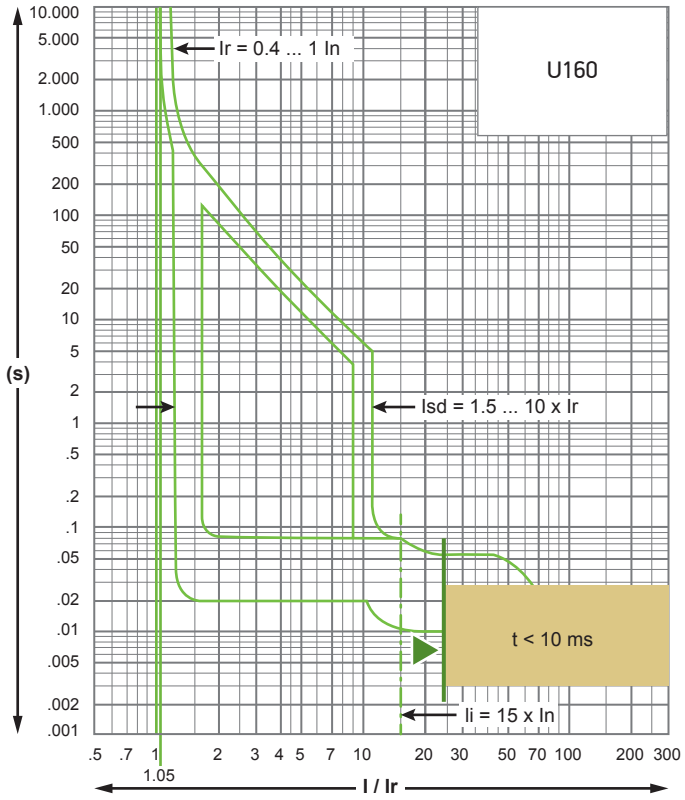

K800-M800
Max Ir=(0.7x1.0)xIn
Max
Im=(8x10)x10In
±20%
Min

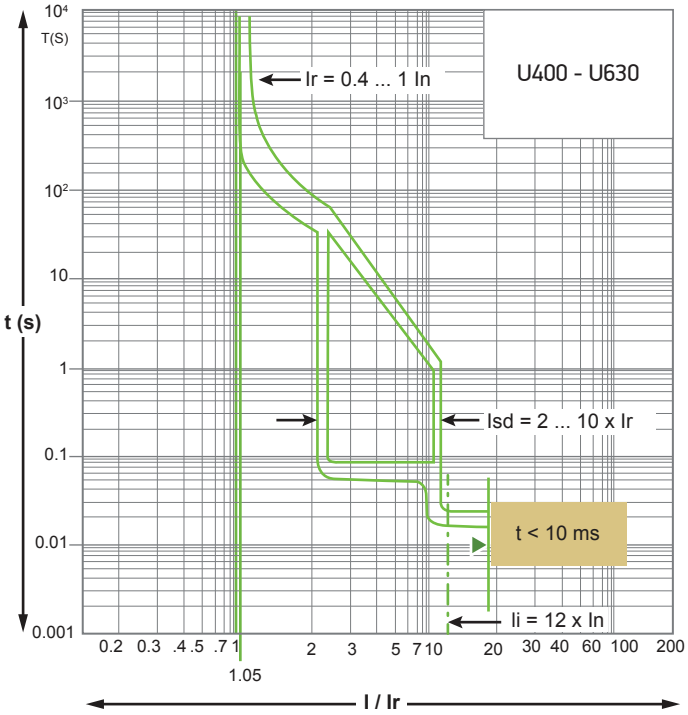

S400
S630
Ir=0.8-1xIn
Im=5-10xIn
pressure tripping
t ≤ 10ms
t(s)
I/Ir

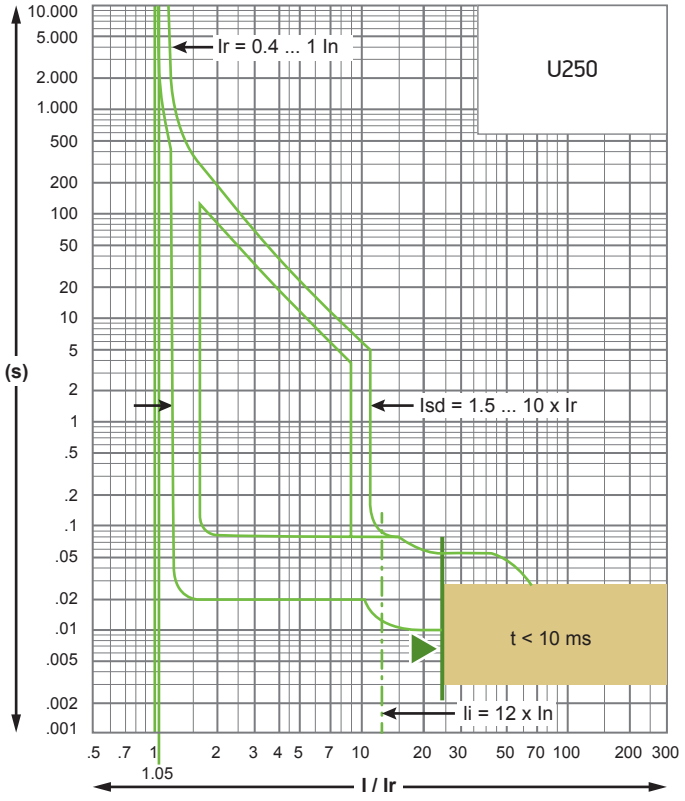

KLT 160, MLT 160,
SLT 160, ULT 160,
XLT 160,
t(s)
I/Ir

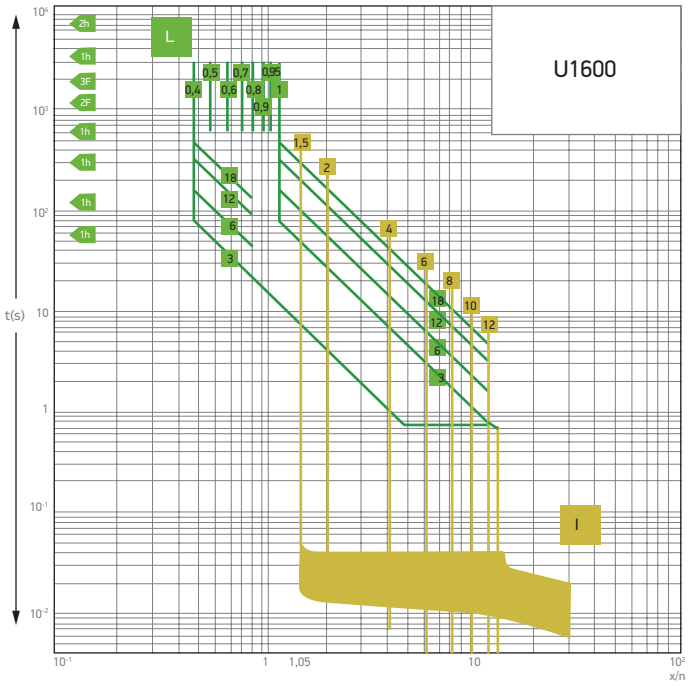

KLT 400, MLT 400,
SLT 400, ULT 400,
XLT 400
KLT 630, MLT 630,
SLT 630, ULT 630,
XLT 630
Ir=0.7-1xIn
Im= 5-10xIn
pressure tripping
t ≤ 10ms
t(s)
I/Ir

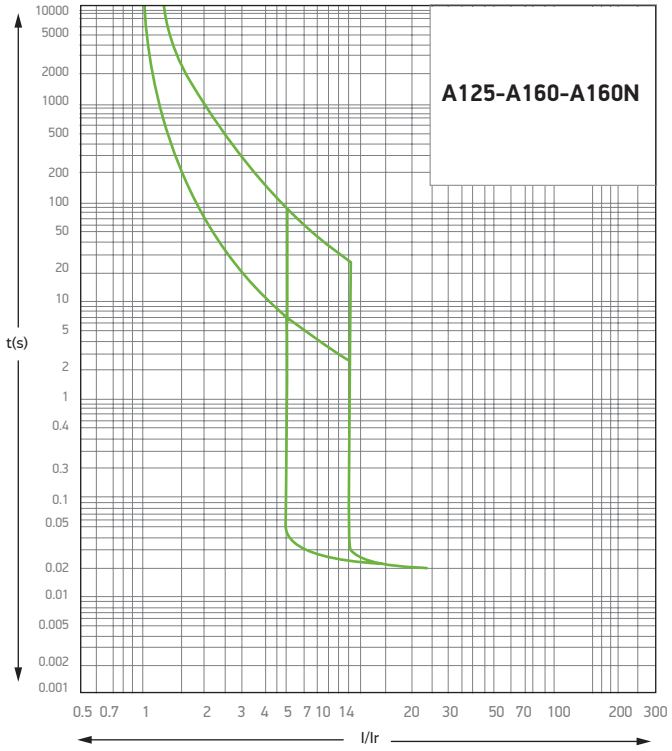

KLT 250, MLT 250,
SLT 250, ULT 250,
XLT 250,
Ir=0.7 - 1xIn
Im=5-10xIn
pressure tripping
t ≤ 10ms
t(s)
I/Ir

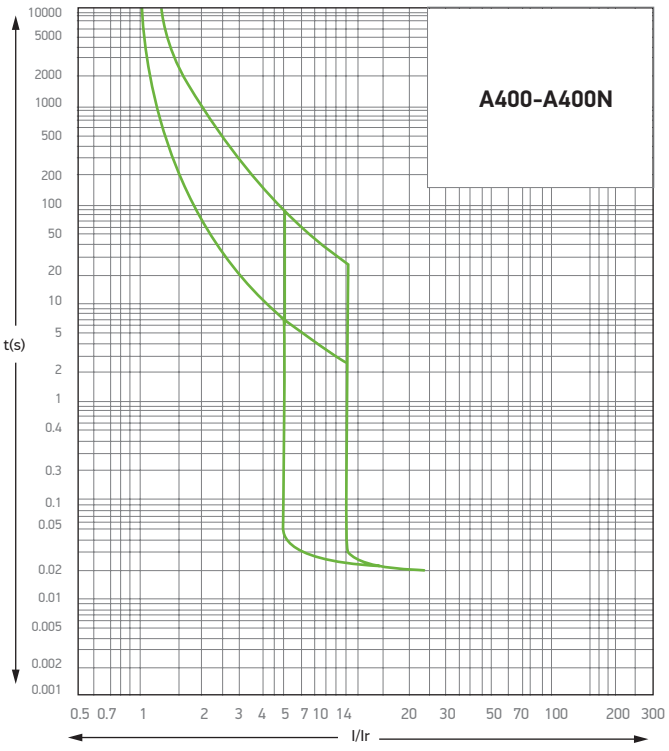

U160
Ir = 0.4 ... 1 In
Isd = 1.5 ... 10 x Ir
t < 10 ms
Ii = 15 x In
(s)
I / Ir

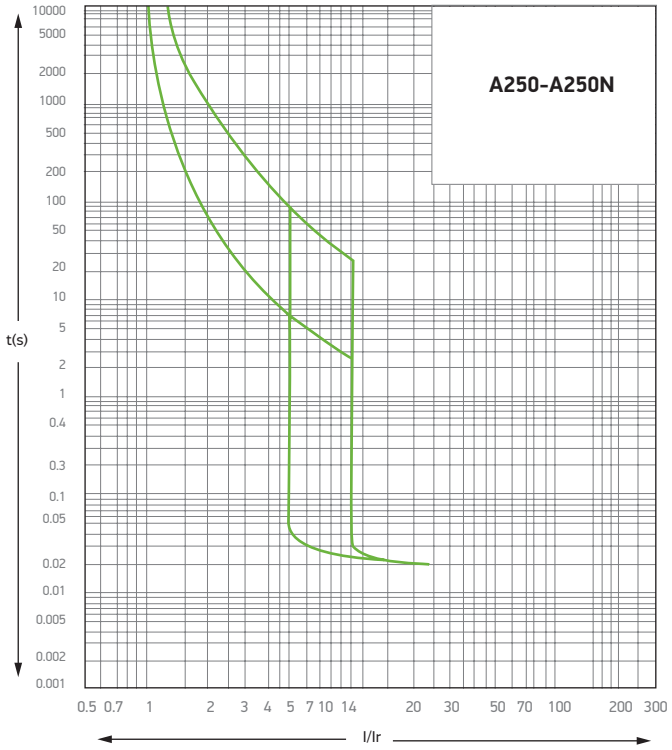

U400 - U630
Ir = 0.4 ... 1 In
Isd = 2 ... 10 x Ir
t < 10 ms
Ii = 12 x In
T(S)
t (s)
I / Ir

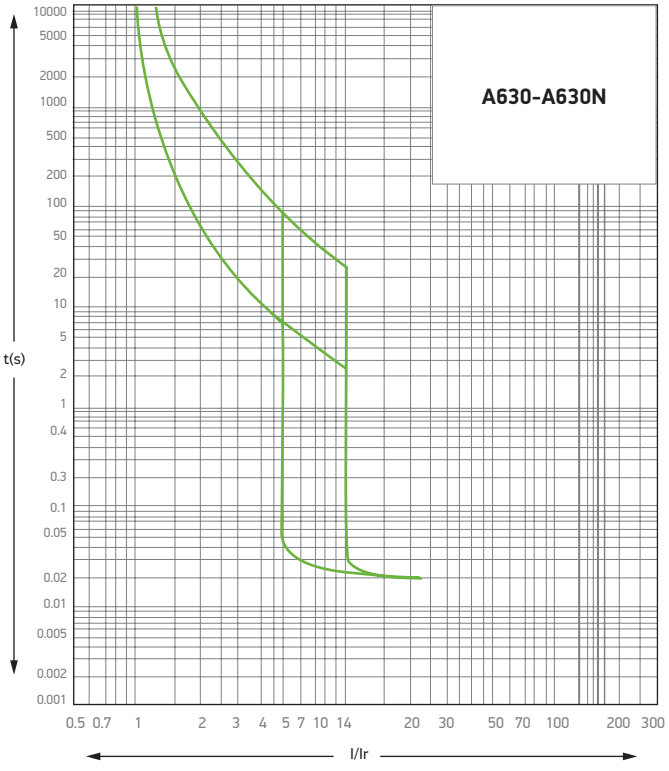

U250
Ir = 0.4 ... 1 In
Isd = 1.5 ... 10 x Ir
t < 10 ms
Ii = 12 x In
(s)
I / Ir


U1600
L
I
t(s)
x/n


A125-A160-A160N
t(s)
10000
5000
2000
1000
500
200
100
50
20
10
5
2
1
0.4
0.3
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.5 0.7 1 2 3 4 5 7 10 14 20 30 50 70 100 200 300
I/Ir


A400-A400N
t(s)
10000
5000
2000
1000
500
200
100
50
20
10
5
2
1
0.4
0.3
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.5 0.7 1 2 3 4 5 7 10 14 20 30 50 70 100 200 300
I/Ir


A250-A250N
t(s)
10000
5000
2000
1000
500
200
100
50
20
10
5
2
1
0.4
0.3
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.5 0.7 1 2 3 4 5 7 10 14 20 30 50 70 100 200 300
I/Ir


A630-A630N
t(s)
10000
5000
2000
1000
500
200
100
50
20
10
5
2
1
0.4
0.3
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.5 0.7 1 2 3 4 5 7 10 14 20 30 50 70 100 200 300
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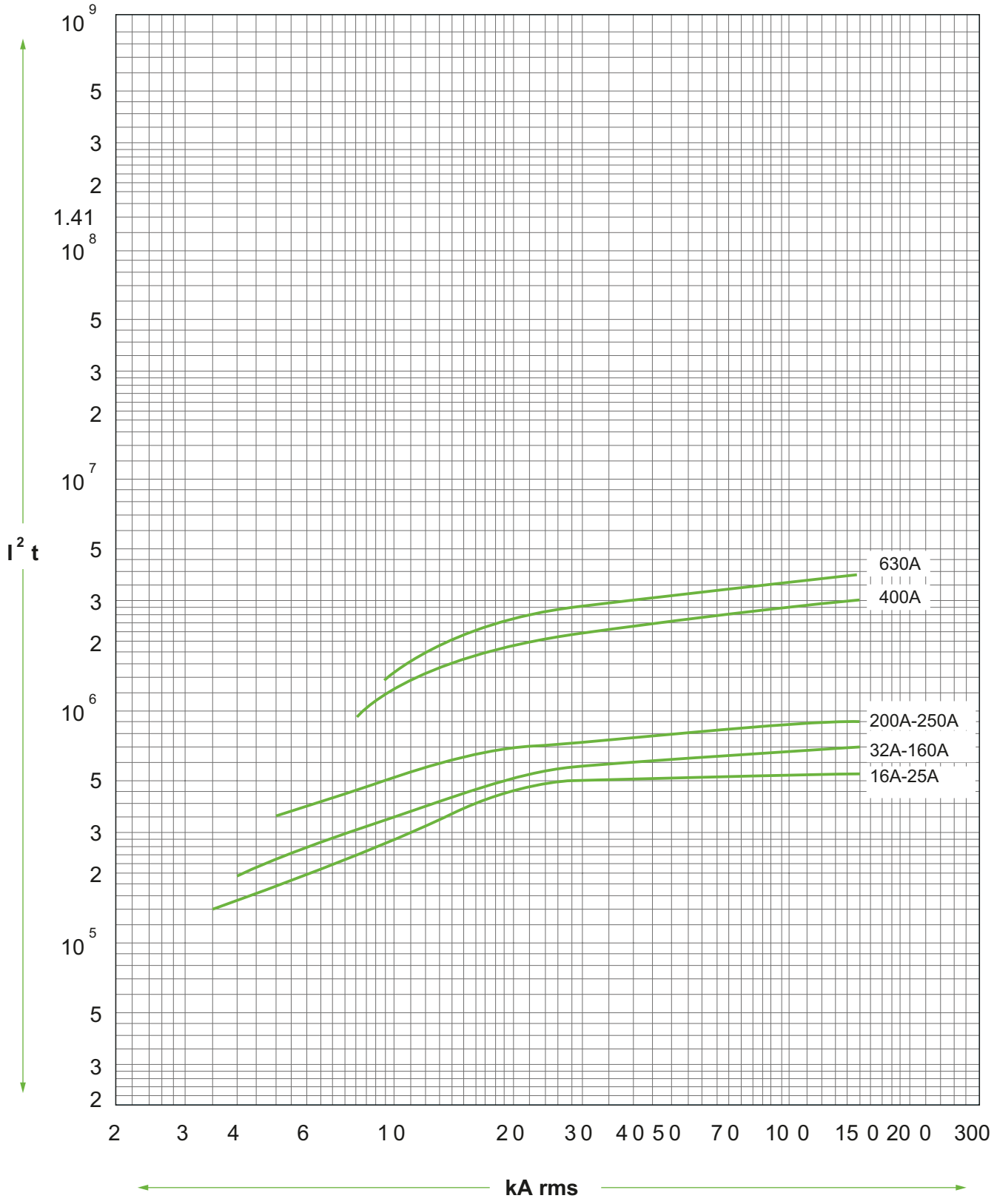
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3 Poles - KLT Series Thermal-Magnetic MCCB - Adjustable - 36kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
KLT160	20	(0.7-1)xIn	320A	36	1000	6	3KLT160020
	25			36	1000	6	3KLT160025
	32			36	1000	6	3KLT160032
	40		10xIn	36	1000	6	3KLT160040
	50			36	1000	6	3KLT160050
	63			36	1000	6	3KLT160063
	80			36	1000	6	3KLT160080
	100			36	1000	6	3KLT160100
	125			36	1000	6	3KLT160125
	160			36	1000	6	3KLT160160
KLT250	63	(0.7-1)xIn	(5-10)xIn	36	1000	6	3KLT250063
	80			36	1000	6	3KLT250080
	100			36	1000	6	3KLT250100
	125			36	1000	6	3KLT250125
	160			36	1000	6	3KLT250160
	200			36	1000	6	3KLT250200
	250			36	1000	6	3KLT250250
KLT400	320	(0.7-1)xIn	(5-10)xIn	36	1000	2	3KLT400320
	400			36	1000	2	3KLT400400
KLT630	500	(0.7-1)xIn	(5-10)xIn	36	1000	2	3KLT630500
	630			36	1000	2	3KLT630630

4 Poles - KLT Series Thermal-Magnetic MCCB - Adjustable - 36kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
KLT160N	20	(0.7-1)xIn	320A	36	1000	4	4KLT160020
	25			36	1000	4	4KLT160025
	32			36	1000	4	4KLT160032
	40		10xIn	36	1000	4	4KLT160040
	50			36	1000	4	4KLT160050
	63			36	1000	4	4KLT160063
	80			36	1000	4	4KLT160080
	100			36	1000	4	4KLT160100
	125			36	1000	4	4KLT160125
	160			36	1000	4	4KLT160160
KLT250N	63	(0.7-1)xIn	(5-10)xIn	36	1000	4	4KLT250063
	80			36	1000	4	4KLT250080
	100			36	1000	4	4KLT250100
	125			36	1000	4	4KLT250125
	160			36	1000	4	4KLT250160
	200			36	1000	4	4KLT250200
	250			36	1000	4	4KLT250250
KLT400N	320	(0.7-1)xIn	(5-10)xIn	36	1000	2	4KLT400320
	400			36	1000	2	4KLT400400
KLT630N	500	(0.7-1)xIn	(5-10)xIn	36	1000	2	4KLT630500
	630	(0.7-1)xIn	(5-10)xIn	36	1000	2	4KLT630630

3 Poles - MLT Series Thermal-Magnetic MCCB - Adjustable - 50kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
MLT160	20	(0.7-1)xIn	320A	50	1000	8	3MLT160020
	25			50	1000	8	3MLT160025
	32			50	1000	8	3MLT160032
	40		10xIn	50	1000	8	3MLT160040
	50			50	1000	8	3MLT160050
	63			50	1000	8	3MLT160063
	80			50	1000	8	3MLT160080
	100			50	1000	8	3MLT160100
	125			50	1000	8	3MLT160125
	160			50	1000	8	3MLT160160
MLT250	63	(0.7-1)xIn	(5-10)xIn	50	1000	6	3MLT250063
	80			50	1000	6	3MLT250080
	100			50	1000	6	3MLT250100
	125			50	1000	6	3MLT250125
	160			50	1000	6	3MLT250160
	200			50	1000	6	3MLT250200
	250			50	1000	6	3MLT250250
MLT400	320	(0.7-1)xIn	(5-10)xIn	50	1000	2	3MLT400320
	400			50	1000	2	3MLT400400
MLT630	500	(0.7-1)xIn	(5-10)xIn	50	1000	2	3MLT630500
	630			50	1000	2	3MLT630630

4 Poles - MLT Series Thermal-Magnetic MCCB - Adjustable - 50kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
MLT160N	20	(0.7-1)xIn	320A	50	1000	4	4MLT160020
	25			50	1000	4	4MLT160025
	32			50	1000	4	4MLT160032
	40		10xIn	50	1000	4	4MLT160040
	50			50	1000	4	4MLT160050
	63			50	1000	4	4MLT160063
	80			50	1000	4	4MLT160080
	100			50	1000	4	4MLT160100
	125			50	1000	4	4MLT160125
	160			50	1000	4	4MLT160160
MLT250N	63	(0.7-1)xIn	(5-10)xIn	50	1000	4	4MLT250063
	80			50	1000	4	4MLT250080
	100			50	1000	4	4MLT250100
	125			50	1000	4	4MLT250125
	160			50	1000	4	4MLT250160
	200			50	1000	4	4MLT250200
	250			50	1000	4	4MLT250250
MLT400N	320	(0.7-1)xIn	(5-10)xIn	50	1000	2	4MLT400320
	400			50	1000	2	4MLT400400
MLT630N	500	(0.7-1)xIn	(5-10)xIn	50	1000	2	4MLT630500
	630			50	1000	2	4MLT630630

3 Poles - SLT Series Thermal-Magnetic MCCB - Adjustable - 70kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
SLT160	20	(0.7-1)xIn	320A	70	1000	6	3SLT160020
	25			70	1000	6	3SLT160025
	32			70	1000	6	3SLT160032
	40		10xIn	70	1000	6	3SLT160040
	50			70	1000	6	3SLT160050
	63			70	1000	6	3SLT160063
	80			70	1000	6	3SLT160080
	100			70	1000	6	3SLT160100
	125			70	1000	6	3SLT160125
	160			70	1000	6	3SLT160160
SLT250	100	(0.7-1)xIn	(5-10)xIn	70	1000	6	3SLT250100
	125			70	1000	6	3SLT250125
	160			70	1000	6	3SLT250160
	200			70	1000	6	3SLT250200
	250			70	1000	6	3SLT250250
SLT400	320	(0.7-1)xIn	(5-10)xIn	70	1000	2	3SLT400320
	400			70	1000	2	3SLT400400
SLT630	500	(0.7-1)xIn	(5-10)xIn	70	1000	2	3SLT630500
	630			70	1000	2	3SLT630630

4 Poles - SLT Series Thermal-Magnetic MCCB - Adjustable - 70kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
SLT160N	20	(0.7-1)xIn	320A	70	1000	4	4SLT160020
	25			70	1000	4	4SLT160025
	32			70	1000	4	4SLT160032
	40		10xIn	70	1000	4	4SLT160040
	50			70	1000	4	4SLT160050
	63			70	1000	4	4SLT160063
	80			70	1000	4	4SLT160080
	100			70	1000	4	4SLT160100
	125			70	1000	4	4SLT160125
	160			70	1000	4	4SLT160160
SLT250N	100	(0.7-1)xIn	(5-10)xIn	70	1000	4	4SLT250100
	125			70	1000	4	4SLT250125
	160			70	1000	4	4SLT250160
	200			70	1000	4	4SLT250200
	250			70	1000	4	4SLT250250
SLT400N	320	(0.7-1)xIn	(5-10)xIn	70	1000	2	4SLT400320
	400			70	1000	2	4SLT400400
SLT630N	500	(0.7-1)xIn	(5-10)xIn	70	1000	2	4SLT630500
	630			70	1000	2	4SLT630630

3 Poles - ULT Series Thermal-Magnetic MCCB - Adjustable - 100kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
ULT160	20	(0.7-1)xIn	320A	100	1000	6	3ULT160020
	25			100	1000	6	3ULT160025
	32			100	1000	6	3ULT160032
	40		10xIn	100	1000	6	3ULT160040
	50			100	1000	6	3ULT160050
	63			100	1000	6	3ULT160063
	80			100	1000	6	3ULT160080
	100			100	1000	6	3ULT160100
	125			100	1000	6	3ULT160125
	160			100	1000	6	3ULT160160
ULT250	100	(0.7-1)xIn	(5-10)xIn	100	1000	6	3ULT250100
	125			100	1000	6	3ULT250125
	160			100	1000	6	3ULT250160
	200			100	1000	6	3ULT250200
	250			100	1000	6	3ULT250250
ULT400	320	(0.7-1)xIn	(5-10)xIn	100	1000	2	3ULT400320
	400			100	1000	2	3ULT400400
ULT630	500	(0.7-1)xIn	(5-10)xIn	100	1000	2	3ULT630500
	630			100	1000	2	3ULT630630

4 Poles - ULT Series Thermal-Magnetic MCCB - Adjustable - 100kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
ULT160N	20	(0.7-1)xIn	320A	100	1000	4	4ULT160020
	25			100	1000	4	4ULT160025
	32			100	1000	4	4ULT160032
	40		10xIn	100	1000	4	4ULT160040
	50			100	1000	4	4ULT160050
	63			100	1000	4	4ULT160063
	80			100	1000	4	4ULT160080
	100			100	1000	4	4ULT160100
	125			100	1000	4	4ULT160125
	160			100	1000	4	4ULT160160
ULT250N	100	(0.7-1)xIn	(5-10)xIn	100	1000	4	4ULT250100
	125			100	1000	4	4ULT250125
	160			100	1000	4	4ULT250160
	200			100	1000	4	4ULT250200
	250			100	1000	4	4ULT250250
ULT400N	320	(0.7-1)xIn	(5-10)xIn	100	1000	2	4ULT400320
	400			100	1000	2	4ULT400400
ULT630N	500	(0.7-1)xIn	(5-10)xIn	100	1000	2	4ULT630500
	630			100	1000	2	4ULT630630

3 Poles - XLT Series Thermal-Magnetic MCCB - Adjustable - 150kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
XLT160	20	(0.7-1)xIn	320A	150	1000	6	3XLT160020
	25			150	1000	6	3XLT160025
	32			150	1000	6	3XLT160032
	40		10xIn	150	1000	6	3XLT160040
	50			150	1000	6	3XLT160050
	63			150	1000	6	3XLT160063
	80			150	1000	6	3XLT160080
	100			150	1000	6	3XLT160100
	125			150	1000	6	3XLT160125
	160			150	1000	6	3XLT160160
XLT250	100	(0.7-1)xIn	(5-10)xIn	150	1000	6	3XLT250100
	125			150	1000	6	3XLT250125
	160			150	1000	6	3XLT250160
	200			150	1000	6	3XLT250200
	250			150	1000	6	3XLT250250
XLT400	320	(0.7-1)xIn	(5-10)xIn	150	1000	2	3XLT400320
	400			150	1000	2	3XLT400400
XLT630	500	(0.7-1)xIn	(5-10)xIn	150	1000	2	3XLT630500
	630			150	1000	2	3XLT630630

4 Poles - XLT Series Thermal-Magnetic MCCB - Adjustable - 150kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
XLT160N	20	(0.7-1)xIn	320A	150	1000	4	4XLT160020
	25			150	1000	4	4XLT160025
	32			150	1000	4	4XLT160032
	40		10xIn	150	1000	4	4XLT160040
	50			150	1000	4	4XLT160050
	63			150	1000	4	4XLT160063
	80			150	1000	4	4XLT160080
	100			150	1000	4	4XLT160100
	125			150	1000	4	4XLT160125
	160			150	1000	4	4XLT160160
XLT250	100	(0.7-1)xIn	(5-10)xIn	150	1000	6	3XLT250100
	125			150	1000	6	3XLT250125
	160			150	1000	6	3XLT250160
	200			150	1000	6	3XLT250200
	250			150	1000	6	3XLT250250
XLT400	320	(0.7-1)xIn	(5-10)xIn	150	1000	2	3XLT400320
	400			150	1000	2	3XLT400400
XLT630	500	(0.7-1)xIn	(5-10)xIn	150	1000	2	3XLT630500
	630			150	1000	2	3XLT630630

3 Poles - KLE Series Electronic MCCB - Adjustable - 36kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
KLE160	40	(0.4-1)xIn	(1.5-10)xIn	36	1000	6	3KLE160040
	100			36	1000	6	3KLE160100
	160			36	1000	6	3KLE160160
KLE250	250	(0.4-1)xIn	(1.5-10)xIn	36	1000	6	3KLE250250
KLE400	400	(0.4-1)xIn	(1.5-10)xIn	36	1000	4	3KLE400400
KLE630	630	(0.4-1)xIn	(1.5-10)xIn	36	1000	4	3KLE630630

4 Poles - KLE Series Electronic MCCB - Adjustable - 36kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
KLE160N	40	(0.4-1)xIn	(1.5-10)xIn	36	1000	6	4KLE160040
	100			36	1000	6	4KLE160100
	160			36	1000	6	4KLE160160
KLE250N	250	(0.4-1)xIn	(1.5-10)xIn	36	1000	6	4KLE250250
KLE400N	400	(0.4-1)xIn	(1.5-10)xIn	36	1000	4	4KLE400400
KLE630N	630	(0.4-1)xIn	(1.5-10)xIn	36	1000	4	4KLE630630

3 Poles - MLE Series Electronic MCCB - Adjustable - 50kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
MLE160	40	(0.4-1)xIn	(1.5-10)xIn	50	1000	6	3MLE160040
	100			50	1000	6	3MLE160100
	160			50	1000	6	3MLE160160
MLE250	250	(0.4-1)xIn	(1.5-10)xIn	50	1000	6	3MLE250250
MLE400	400	(0.4-1)xIn	(1.5-10)xIn	50	1000	4	3MLE400400
MLE630	630	(0.4-1)xIn	(1.5-10)xIn	50	1000	4	3MLE630630

4 Poles - MLE Series Electronic MCCB - Adjustable - 50kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
MLE160N	40	(0.4-1)xIn	(1.5-10)xIn	50	1000	6	4MLE160040
	100			50	1000	6	4MLE160100
	160			50	1000	6	4MLE160160
MLE250N	250	(0.4-1)xIn	(1.5-10)xIn	50	1000	6	4MLE250250
MLE400N	400	(0.4-1)xIn	(1.5-10)xIn	50	1000	4	4MLE400400
MLE630N	630	(0.4-1)xIn	(1.5-10)xIn	50	1000	4	4MLE630630

3 Poles - SLE Series Electronic MCCB - Adjustable - 70kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
SLE160	40	(0.4-1)xIn	(1.5-10)xIn	70	1000	6	3SLE160040
	100			70	1000	6	3SLE160100
	160			70	1000	6	3SLE160160
SLE250	250	(0.4-1)xIn	(1.5-10)xIn	70	1000	6	3SLE250250
SLE400	400	(0.4-1)xIn	(1.5-10)xIn	70	1000	4	3SLE400400
SLE630	630	(0.4-1)xIn	(1.5-10)xIn	70	1000	4	3SLE630630

4 Poles - SLE Series Electronic MCCB - Adjustable - 70kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
SLE160N	40	(0.4-1)xIn	(1.5-10)xIn	70	1000	6	4SLE160040
	100			70	1000	6	4SLE160100
	160			70	1000	6	4SLE160160
SLE250N	250	(0.4-1)xIn	(1.5-10)xIn	70	1000	6	4SLE250250
SLE400N	400	(0.4-1)xIn	(1.5-10)xIn	70	1000	4	4SLE400400
SLE630N	630	(0.4-1)xIn	(1.5-10)xIn	70	1000	4	4SLE630630

3 Poles - ULE Series Electronic MCCB - Adjustable - 100kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
ULE160	40	(0.4-1)xIn	(1.5-10)xIn	100	1000	6	3ULE160040
	100			100	1000	6	3ULE160100
	160			100	1000	6	3ULE160160
ULE250	250	(0.4-1)xIn	(1.5-10)xIn	100	1000	6	3ULE250250
ULE400	400	(0.4-1)xIn	(1.5-10)xIn	100	1000	4	3ULE400400
ULE630	630	(0.4-1)xIn	(1.5-10)xIn	100	1000	4	3ULE630630

4 Poles - ULE Series Electronic MCCB - Adjustable - 100kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
ULE160N	40	(0.4-1)xIn	(1.5-10)xIn	100	1000	6	4ULE160040
	100			100	1000	6	4ULE160100
	160			100	1000	6	4ULE160160
ULE250N	250	(0.4-1)xIn	(1.5-10)xIn	100	1000	6	4ULE250250
ULE400N	400	(0.4-1)xIn	(1.5-10)xIn	100	1000	4	4ULE400400
ULE630N	630	(0.4-1)xIn	(1.5-10)xIn	100	1000	4	4ULE630630

3 Poles - XLE Series Electronic MCCB - Adjustable - 150kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
XLE160	40	(0.4-1)xIn	(1.5-10)xIn	150	1000	6	3XLE160040
	100			150	1000	6	3XLE160100
	160			150	1000	6	3XLE160160
XLE250	250	(0.4-1)xIn	(1.5-10)xIn	150	1000	6	3XLE250250
XLE400	400	(0.4-1)xIn	(1.5-10)xIn	150	1000	4	3XLE400400
XLE630	630	(0.4-1)xIn	(1.5-10)xIn	150	1000	4	3XLE630630

4 Poles - XLE Series Electronic MCCB - Adjustable - 150kA

NEW PRODUCT

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
XLE160N	40	(0.4-1)xIn	(1.5-10)xIn	150	1000	6	4XLE160040
	100			150	1000	6	4XLE160100
	160			150	1000	6	4XLE160160
XLE250N	250	(0.4-1)xIn	(1.5-10)xIn	150	1000	6	4XLE250250
XLE400N	400	(0.4-1)xIn	(1.5-10)xIn	150	1000	4	4XLE400400
XLE630N	630	(0.4-1)xIn	(1.5-10)xIn	150	1000	4	4XLE630630

Under Voltage Release - 400V AC

Applicable MCCB	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLT400, KLT400N, KLT630, KLT630N, KLE160, KLE160N, KLE250, KLE250N, KLE400, KLE400N, KLE630, KLE630N	K0250DG400AC
MLT160, MLT160N, MLT250, MLT250N, MLT400, MLT400N, MLT630, MLT630N, MLE160, MLE160N, MLE250, MLE250N, MLE400, MLE400N, MLE630, MLE630N	
SLT160, SLT160N, SLT250, SLT250N, SLT400, SLT400N, SLT630, SLT630N, SLE160, SLE160N, SLE250, SLE250N, SLE400, SLE400N, SLE630, SLE630N	
XLT160, XLT160N, XLT250, XLT250N, XLT400, XLT400N, XLT630, XLT630N, XLE160, XLE160N, XLE250, XLE250N, XLE400, XLE400N, XLE630, XLE630N	
ULT160, ULT160N, ULT250, ULT250N, ULT400, ULT400N, ULT630, ULT630N, ULE160, ULE160N, ULE250, ULE250N, ULE400, ULE400N, ULE630, ULE630N	

Alarm Contact- 1NO+1NC

Applicable MCCB	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLT400, KLT400N, KLT630, KLT630N, KLE160, KLE160N, KLE250, KLE250N, KLE400, KLE400N, KLE630, KLE630N	K0250AK
MLT160, MLT160N, MLT250, MLT250N, MLT400, MLT400N, MLT630, MLT630N, MLE160, MLE160N, MLE250, MLE250N, MLE400, MLE400N, MLE630, MLE630N	
SLT160, SLT160N, SLT250, SLT250N, SLT400, SLT400N, SLT630, SLT630N, SLE160, SLE160N, SLE250, SLE250N, SLE400, SLE400N, SLE630, SLE630N	
XLT160, XLT160N, XLT250, XLT250N, XLT400, XLT400N, XLT630, XLT630N, XLE160, XLE160N, XLE250, XLE250N, XLE400, XLE400N, XLE630, XLE630N	
ULT160, ULT160N, ULT250, ULT250N, ULT400, ULT400N, ULT630, ULT630N, ULE160, ULE160N, ULE250, ULE250N, ULE400, ULE400N, ULE630, ULE630N	

Shunt Trip Release

Applicable MCCB	Coil Voltage	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLT400, KLT400N, KLT630, KLT630N, KLE160, KLE160N, KLE250, KLE250N, KLE400, KLE400N, KLE630, KLE630N	230V AC	K0250AB230AC
MLT160, MLT160N, MLT250, MLT250N, MLT400, MLT400N, MLT630, MLT630N, MLE160, MLE160N, MLE250, MLE250N, MLE400, MLE400N, MLE630, MLE630N		
SLT160, SLT160N, SLT250, SLT250N, SLT400, SLT400N, SLT630, SLT630N, SLE160, SLE160N, SLE250, SLE250N, SLE400, SLE400N, SLE630, SLE630N	24-30V DC	K0250AB030DC
XLT160, XLT160N, XLT250, XLT250N, XLT400, XLT400N, XLT630, XLT630N, XLE160, XLE160N, XLE250, XLE250N, XLE400, XLE400N, XLE630, XLE630N		
ULT160, ULT160N, ULT250, ULT250N, ULT400, ULT400N, ULT630, ULT630N, ULE160, ULE160N, ULE250, ULE250N, ULE400, ULE400N, ULE630, ULE630N		

Mechanical Pad Lock

Applicable MCCB	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLT400, KLT400N, KLT630, KLT630N, KLE160, KLE160N, KLE250, KLE250N, KLE400, KLE400N, KLE630, KLE630N	SEMK101
MLT160, MLT160N, MLT250, MLT250N, MLT400, MLT400N, MLT630, MLT630N, MLE160, MLE160N, MLE250, MLE250N, MLE400, MLE400N, MLE630, MLE630N	
SLT160, SLT160N, SLT250, SLT250N, SLT400, SLT400N, SLT630, SLT630N, SLE160, SLE160N, SLE250, SLE250N, SLE400, SLE400N, SLE630, SLE630N	
XLT160, XLT160N, XLT250, XLT250N, XLT400, XLT400N, XLT630, XLT630N, XLE160, XLE160N, XLE250, XLE250N, XLE400, XLE400N, XLE630, XLE630N	
ULT160, ULT160N, ULT250, ULT250N, ULT400, ULT400N, ULT630, ULT630N, ULE160, ULE160N, ULE250, ULE250N, ULE400, ULE400N, ULE630, ULE630N	

Auxiliary Contact

Applicable MCCB	Coil Voltage	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLT400, KLT400N, KLT630, KLT630N, KLE160, KLE160N, KLE250, KLE250N, KLE400, KLE400N, KLE630, KLE630N	1NO+1NC	K0250YK
MLT160, MLT160N, MLT250, MLT250N, MLT400, MLT400N, MLT630, MLT630N, MLE160, MLE160N, MLE250, MLE250N, MLE400, MLE400N, MLE630, MLE630N		
SLT160, SLT160N, SLT250, SLT250N, SLT400, SLT400N, SLT630, SLT630N, SLE160, SLE160N, SLE250, SLE250N, SLE400, SLE400N, SLE630, SLE630N		
XLT160, XLT160N, XLT250, XLT250N, XLT400, XLT400N, XLT630, XLT630N, XLE160, XLE160N, XLE250, XLE250N, XLE400, XLE400N, XLE630, XLE630N		
ULT160, ULT160N, ULT250, ULT250N, ULT400, ULT400N, ULT630, ULT630N, ULE160, ULE160N, ULE250, ULE250N, ULE400, ULE400N, ULE630, ULE630N		

Connection Terminal

Applicable MCCB	Piece	Order Code
KLT160, KLT250, KLE160, KLE250	6	K3250BK
MLT160, MLT250, MLE160, MLE250		
SLT160, SLT250, SLE160, SLE250		
ULT160, ULT250, ULE160, ULE250		
XLT160, XLT250, XLE160, XLE250		
KLT160N, KLT250N, KLE160N, KLE250N	8	K4250BK
MLT160N, MLT250N, MLE160N, MLE250N		
SLT160N, SLT250N, SLE160N, SLE250N		
ULT160N, ULT250N, ULE160N, ULE250N		
XLT160N, XLT250N, XLE160N, XLE250N		

Extension Bus Bar Set (6-8 Pcs/Set)

Applicable MCCB	Piece	Order Code
KLT160, KLT250, KLE160, KLE250	6	K0250UB
MLT160, MLT250, MLE160, MLE250		
SLT160, SLT250, SLE160, SLE250		
ULT160, ULT250, ULE160,ULE250		
XLT160 XLT250 XLE160 XLE250		
KLT160N, KLT250N, KLE160N, KLE250N	8	K0250UN
MLT160N, MLT250N, MLE160N, MLE250N		
SLT160N, SLT250N, SLE160N, SLE250N		
ULT160N, ULT250N, ULE160N, ULE250N		
XLT160N, XLT250N, XLE160N, XLE250N		
KLT400, KLE400, MLT400, MLE400, SLT400, SLE400, ULT400, ULE400, XLT400, XLE400	6	A0400UB
KLT400N, KLE400N, MLT400N, MLE400N, SLT400N, SLE400N, ULT400N, ULE400N, XLT400N, XLE400N	8	A0400UN
KLT630, KLE630, MLT630, MLE630, SLT630, SLE630, ULT630, ULE630, XLT630, XLE630	6	KLT0630UB
KLT630N, KLE630N, MLT630N, MLE630N, SLT630N, SLE630N, ULT630N, ULE630N, XLT630N, XLE630N	8	KLT0630UN

Motor Operator - 230V AC

Applicable MCCB	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLE160, KLE160N, KLE250, KLE250N	K0250MM
MLT160, MLT160N, MLT250, MLT250N, MLE160, MLE160N, MLE250, MLE250N	
SLT160, SLT160N, SLT250, SLT250N, SLE160, SLE160N, SLE250, SLE250N	
ULT160, ULT160N, ULT250, ULT250N, ULE160, ULE160N, ULE250, ULE250N	
XLT160, XLT160N, XLT250, XLT250N, XLE160, XLE160N, XLE250, XLE250N	
KLT400, KLT400N, KLT630, KLT630N, KLE400, KLE400N, KLE630, KLE630N	K0630MM
MLT400, MLT400N, MLT630, MLT630N, MLE400, MLE400N, MLE630, MLE630N	
SLT400, SLT400N, SLT630, SLT630N, SLE400, SLE400N, SLE630, SLE630N	
ULT400, ULT400N, ULT630, ULT630N, ULE400, ULE400N, ULE630, ULE630N	
XLT400, XLT400N, XLT630, XLT630N, XLE400, XLE400N, XLE630, XLE630N	

Rotary Handle (Direct Assembly)

Applicable MCCB	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLE160, KLE160N, KLE250, KLE250N	K0250DU
MLT160, MLT160N, MLT250, MLT250N, MLE160, MLE160N, MLE250, MLE250N	
SLT160, SLT160N, SLT250, SLT250N, SLE160, SLE160N, SLE250, SLE250N	
ULT160, ULT160N, ULT250, ULT250N, ULE160, ULE160N, ULE250, ULE250N	
XLT160, XLT160N, XLT250, XLT250N, XLE160, XLE160N, XLE250, XLE250N	

Extension Rotary Handle (with extension shaft)

Applicable MCCB	Order Code
KLT160, KLT160N, KLT250, KLT250N, KLE160, KLE160N, KLE250, KLE250N	K0250DK
MLT160, MLT160N, MLT250, MLT250N, MLE160, MLE160N, MLE250, MLE250N	
SLT160, SLT160N, SLT250, SLT250N, SLE160, SLE160N, SLE250, SLE250N	
ULT160, ULT160N, ULT250, ULT250N, ULE160, ULE160N, ULE250, ULE250N	
XLT160, XLT160N, XLT250, XLT250N, XLE160, XLE160N, XLE250, XLE250N	
KLT400, KLT400N, KLT630, KLT630N, KLE400, KLE400N, KLE630, KLE630N	K0630DK
MLT400, MLT400N, MLT630, MLT630N, MLE400, MLE400N, MLE630, MLE630N	
SLT400, SLT400N, SLT630, SLT630N, SLE400, SLE400N, SLE630, SLE630N	
ULT400, ULT400N, ULT630, ULT630N, ULE400, ULE400N, ULE630, ULE630N	
XLT400, XLT400N, XLT630, XLT630N, XLE400, XLE400N, XLE630, XLE630N	

2 Poles - A Series Thermal-Magnetic Type MCCB - Fixed - 20kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
A125	20	Fixed	10xIn	20	750	24	2A125020
	25			20	750	24	2A125025
	32			20	750	24	2A125032
	40			20	750	24	2A125040
	50			20	750	24	2A125050
	63			20	750	24	2A125063
	80			20	750	24	2A125080
	100			20	750	24	2A125100
	125			20	750	24	2A125125

3 Poles - A Series Thermal-Magnetic MCCB - Fixed - 20kA

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
A125	20	Fixed	10xIn	20	750	A0125AB230AC	6	3A125020
	25			20	750		6	3A125025
	32			20	750		6	3A125032
	40			20	750		6	3A125040
	50			20	750		6	3A125050
	63			20	750		6	3A125063
	80			20	750		6	3A125080
	100			20	750		6	3A125100
	125			20	750		6	3A125125

1 Pole - A Series Thermal-Magnetic MCCB - Fixed - 25kA

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
A160	16	Fixed	400A	25	750	20	1A160016
	20			25	750	20	1A160020
	25			25	750	20	1A160025
	32			25	750	20	1A160032
	40		10xIn	25	750	20	1A160040
	50			25	750	20	1A160050
	63			25	750	20	1A160063
	80			25	750	20	1A160080
	100			25	750	20	1A160100
	125			25	750	20	1A160125
	160			25	750	20	1A160160

2 Poles - A Series Thermal-Magnetic Type MCCB - Fixed - 25kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
A160	20	Fixed	400A	25	750	24	2A160020
	25			25	750	24	2A160025
	32			25	750	24	2A160032
	40		10xIn	25	750	24	2A160040
	50			25	750	24	2A160050
	63			25	750	24	2A160063
	80			25	750	24	2A160080
	100			25	750	24	2A160100
	125			25	750	24	2A160125
	160			25	750	24	2A160160

3 Poles - A Series Thermal-Magnetic MCCB - Fixed - 25kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
A160	16	Fixed	400A	25	750	B0160AB230AC	6	3A160016
	20			25	750		6	3A160020
	25			25	750		6	3A160025
	32			25	750		6	3A160032
	40		10xIn	25	750		6	3A160040
	50			25	750		6	3A160050
	63			25	750		6	3A160063
	80			25	750		6	3A160080
	100			25	750		6	3A160100
	125			25	750		6	3A160125
	160			25	750		6	3A160160

4 Poles - A Series Thermal-Magnetic MCCB - Fixed - 25kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
A160N	16	Fixed	400A	25	750	B0160AB230AC	6	4A160016
	20			25	750		6	4A160020
	25			25	750		6	4A160025
	32			25	750		6	4A160032
	40		10xIn	25	750		6	4A160040
	50			25	750		6	4A160050
	63			25	750		6	4A160063
	80			25	750		6	4A160080
	100			25	750		6	4A160100
	125			25	750		6	4A160125
	160			25	750		6	4A160160

1 Pole - KM Series Thermal-Magnetic MCCB - Fixed - 36kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
KM200	16	Fixed	500A	36	20	1KM200016
	20			36	20	1KM200020
	25			36	20	1KM200025
	32			36	20	1KM200032
	40			36	20	1KM200040
	50		10xIn	36	20	1KM200050
	63			36	20	1KM200063
	80			36	20	1KM200080
	100			36	20	1KM200100
	125			36	20	1KM200125
	160			36	20	1KM200160
	200			36	20	1KM200200

1 Pole - A Series Thermal-Magnetic MCCB - Fixed - 36kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
A250	200	Fixed	10xIn	36	750	40	1A250200
	250			36	750	40	1A250250

3 Poles - A Series Thermal-Magnetic MCCB - Fixed - 36kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
A250	100	Fixed	10xIn	36	750	B0250AB230AC	6	3A250100
	125			36	750		6	3A250125
	160			36	750		6	3A250160
	200			36	750		6	3A250200
	250			36	750		6	3A250250
A400	315	Fixed	10xIn	36	750	B0630AB230AC	2	3A400315
	400			36	750		2	3A400400
A630	500	Fixed	10xIn	36	750		2	3A630500
	630			36	750		2	3A630630

4 Poles - A Series Thermal-Magnetic MCCB - Fixed - 36kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
A250N	200	Fixed	10xIn	36	750	B0250AB230AC	6	4A250200
	250			36	750		6	4A250250
A400N	315	Fixed	10xIn	36	750	M0800AB230AC	2	4A400315
	400			36	750		2	4A400400
A630N	500	Fixed	10xIn	36	750		1	4A630500
	630			36	750		1	4A630630
A800N	800	Fixed	10xIn	36	750		1	4A800800

2 Pole - B Series Thermal-Magnetic MCCB - Adjustable - 25kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
B160	16	(0.8-1)xIn	400A	25	750	B0160AB230AC	21	2B160016
	20			25	750		21	2B160020
	25			25	750		21	2B160025
	32			25	750		21	2B160032
	40		10xIn	25	750		21	2B160040
	50			25	750		21	2B160050
	63			25	750		21	2B160063
	80			25	750		21	2B160080
	100			25	750		21	2B160100
	125			25	750		21	2B160125
	160			25	750		21	2B160160

3 Poles - B Series Thermal-Magnetic MCCB - Adjustable - 25kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
B160	16	(0.8-1)xIn	400A	25	750	B0160AB230AC	8	3B160016
	20			25	750		8	3B160020
	25			25	750		8	3B160025
	32			25	750		8	3B160032
	40		10xIn	25	750		8	3B160040
	50			25	750		8	3B160050
	63			25	750		8	3B160063
	80			25	750		8	3B160080
	100			25	750		8	3B160100
	125			25	750		8	3B160125
	160			25	750		8	3B160160

4 Poles - B Series Thermal-Magnetic MCCB - Adjustable - 25kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
B160N	16	(0.8-1)xIn	400A	25	750	B0160AB230AC	8	4B160016
	20			25	750		8	4B160020
	25			25	750		8	4B160025
	32			25	750		8	4B160032
	40		10xIn	25	750		8	4B160040
	50			25	750		8	4B160050
	63			25	750		8	4B160063
	80			25	750		8	4B160080
	100			25	750		8	4B160100
	125			25	750		8	4B160125
	160			25	750		8	4B160160

3 Poles - B Series Thermal-Magnetic MCCB - Adjustable - 36kA (Protection for Power Distribution & Network)

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
B250	100	(0.8-1)xIn	10xIn	36	750	B0250AB230AC	4	3B250100
	125			36	750		4	3B250125
	160			36	750		4	3B250160
	200			36	750		4	3B250200
	250			36	750		4	3B250250
B400	315	(0.7-1)xIn	(5-10)xIn	36	750	B0630AB230AC	2	3B400315
	400			36	750		2	3B400400
B630	500			36	750		2	3B630500
	630			36	750		2	3B630630

4 Poles - B Series Thermal-Magnetic MCCB - Adjustable - 36kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
B250N	100	(0.8-1)xIn	10xIn	36	750	B0250AB230AC	4	4B250100
	125			36	750		4	4B250125
	160			36	750		4	4B250160
	200			36	750		4	4B250200
	250			36	750		4	4B250250

3 Poles - K Series Thermal-Magnetic MCCB - Adjustable - 36kA (For Motor Protection)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
K160	25	(0.7-1)xIn	15xIn	36	750	K0250AB230AC K0250AB030DC	8	MK160025
	32			36	750		8	MK160032
	40			36	750		8	MK160040
	50			36	750		8	MK160050
	63			36	750		8	MK160063
	80			36	750		8	MK160080
	100			36	750		8	MK160100
	125			36	750		8	MK160125
	160			36	750		8	MK160160
K250	200	(0.7-1)xIn	(10-15)xIn	36	750	K0250AB230AC K0250AB030DC	6	MK250200
	250			36	750		6	MK250250
K400	315	250-315	(0.8-1)xIn	36	750	K0630AB230AC	2	MK400315
	400	315-400		36	750		2	MK400400
K630 (with Extention Bar)	500	400-500	(0.8-1)xIn	36	750	K0630AB230AC	2	MK630500
	630	500-630		36	750		2	MK630630

3 Poles - K Series Thermal-Magnetic MCCB - Adjustable - 36kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
K160	25	(0.7-1)xIn	320A	36	750	K0250AB230AC K0250AB030DC	6	3K160025
	32			36	750		6	3K160032
	40		10xIn	36	750		6	3K160040
	50			36	750		6	3K160050
	63			36	750		6	3K160063
	80			36	750		6	3K160080
	100			36	750		6	3K160100
	125			36	750		6	3K160125
	160			36	750		6	3K160160
K250	63	(0.7-1)xIn	(5-10)xIn	36	750	K0250AB230AC K0250AB030DC	6	3K250063
	80			36	750		6	3K250080
	100			36	750		6	3K250100
	125			36	750		6	3K250125
	160			36	750		6	3K250160
	200			36	750		6	3K250200
	250			36	750		6	3K250250
K400	315	(0.8-1)xIn	(5-10)xIn	36	750	K0630AB230AC	2	3K400315
	400			36	750		2	3K400400
K630	500	(0.8-1)xIn	(5-10)xIn	36	750	K0630AB230AC	2	3K630500
	630			36	750		2	3K630630

4 Poles - K Series Thermal-Magnetic MCCB - Adjustable - 36kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
K160N	25	(0.7-1)xIn	320A	36	750	K0250AB230AC K0250AB030DC	4	4K160025
	32			36	750		4	4K160032
	40		10xIn	36	750		4	4K160040
	50			36	750		4	4K160050
	63			36	750		4	4K160063
	80			36	750		4	4K160080
	100			36	750		4	4K160100
	125			36	750		4	4K160125
	160			36	750		4	4K160160
K250N	63	(0.7-1)xIn	(5-10)xIn	36	750	K0250AB230AC K0250AB030DC	4	4K250063
	80			36	750		4	4K250080
	100			36	750		4	4K250100
	125			36	750		4	4K250125
	160			36	750		4	4K250160
	200			36	750		4	4K250200
	250			36	750		4	4K250250

3 Poles - K Series Magnetic MCCB - Fixed - 36kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
K160	25	400A	36	750	K0250AB230AC K0250AB030DC	6	3K160025M
	32	400A	36	750		6	3K160032M
	40	10xIn	36	750		6	3K160040M
	50	10xIn	36	750		6	3K160050M
	63	10xIn	36	750		6	3K160063M
	80	10xIn	36	750		6	3K160080M
	100	10xIn	36	750		6	3K160100M
	125	10xIn	36	750		6	3K160125M
	160	10xIn	36	750		6	3K160160M

3 Poles - K Series Magnetic MCCB - Adjustable - 36kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
K250	63	(5-10)xIn	36	750	K0250AB230AC K0250AB030DC	6	3K250063M
	80	(5-10)xIn	36	750		6	3K250080M
	100	(5-10)xIn	36	750		6	3K250100M
	125	(5-10)xIn	36	750		6	3K250125M
	160	(5-10)xIn	36	750		6	3K250160M
	200	(5-10)xIn	36	750		6	3K250200M
	250	(5-10)xIn	36	750		6	3K250250M
K400	315	(5-10)xIn	36	750	K0630AB230AC	2	3K400315M
	400	(5-10)xIn	36	750		2	3K400400M
K630	500	(5-10)xIn	36	750	K0630AB230AC	2	3K630500M
	630	(5-10)xIn	36	750		2	3K630630M

4 Poles - K Series Magnetic MCCB - Adjustable - 36kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
K160N	25	400A	36	750	K0250AB230AC K0250AB030DC	4	4K160025M
	32	400A	36	750		4	4K160032M
	40	10xIn	36	750		4	4K160040M
	50	10xIn	36	750		4	4K160050M
	63	10xIn	36	750		4	4K160063M
	80	10xIn	36	750		4	4K160080M
	100	10xIn	36	750		4	4K160100M
	125	10xIn	36	750		4	4K160125M
	160	10xIn	36	750		4	4K160160M

4 Poles - K Series Magnetic MCCB - Adjustable - 36kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
K250N	200	(5-10)xIn	36	750	K0250AB230AC K0250AB030DC	4	4K250200M
	250	(5-10)xIn	36	750		4	4K250250M

3 Poles - M Series Thermal-Magnetic MCCB - Adjustable - 50kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
M160	25	(0.8-1)xIn	400A 10xIn	50	750	S0630AB230AC	6	3M160025
	32			50	750		6	3M160032
	40			50	750		6	3M160040
	50			50	750		6	3M160050
	63			50	750		6	3M160063
	80			50	750		6	3M160080
	100			50	750		6	3M160100
	125			50	750		6	3M160125
	160			50	750		6	3M160160
M250	63	(0.7-1)xIn	(5-10)xIn	50	750	K0250AB230AC K0250AB030DC	6	3M250063
	80			50	750		6	3M250080
	100			50	750		6	3M250100
	125			50	750		6	3M250125
	160			50	750		6	3M250160
	200			50	750		6	3M250200
	250			50	750		6	3M250250
M400	315	(0.8-1)xIn	(5-10)xIn	50	750	K0630AB230AC	2	3M400315
	400			50	750		2	3M400400
M630	500	(0.8-1)xIn	(5-10)xIn	50	750	K0630AB230AC	2	3M630500
	630			50	750		2	3M630630
M800	800	(0.8-1)xIn	(5-10)xIn	50	750	M0800AB230AC	2	3M800800

4 Poles - M Series Thermal-Magnetic MCCB - Adjustable - 50kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
M250N	63	(0.7-1)xIn	(5-10)xIn	50	750	K0250AB230AC K0250AB030DC	4	4M250063
	80			50	750		4	4M250080
	100			50	750		4	4M250100
	125			50	750		4	4M250125
	160			50	750		4	4M250160
	200			50	750		4	4M250200
	250			50	750		4	4M250250

BST Series Thermal-Magnetic MCCB - Adjustable - 70kA (Protection for Power Distribution & Network)

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
BST1600	1000	(0.7-1)xIn	(7-10)xIn	70	1000	BS1600AB230AC	1	3BST160010
	1250			70	1000		1	3BST160012
	1600			70	1000		1	3BST160016

NEW PRODUCT

BST1600N	1000	(0.7-1)xIn	(7-10)xIn	70	1000	BS1600AB230AC	1	4BST160010
	1250			70	1000		1	4BST160012
	1600			70	1000		1	4BST160016

3 Poles - M Series Magnetic MCCB - Fixed - 50kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
M160	40	10xIn	50	750	S0630AB230AC	8	3M160040M
	50		50	750		8	3M160050M
	63		50	750		8	3M160063M
	80		50	750		8	3M160080M
	100		50	750		8	3M160100M
	125		50	750		8	3M160125M
	160		50	750		8	3M160160M

3 Poles - M Series Magnetic MCCB - Adjustable - 50kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
M250	63	(5-10)xIn	50	750	K0250AB230AC K0250AB030DC	6	3M250063M
	80		50	750		6	3M250080M
	100		50	750		6	3M250100M
	125		50	750		6	3M250125M
	160		50	750		6	3M250160M
	200		50	750		6	3M250200M
	250		50	750		6	3M250250M
M400	315	(5-10)xIn	50	750	K0630AB230AC	2	3M400315M
	400		50	750		2	3M400400M
M630	500	(5-10)xIn	50	750	K0630AB230AC	2	3M630500M
	630		50	750		2	3M630630M
M800	800	(5-10)xIn	50	750	M0800AB230AC	2	3M800800M

BST Series Magnetic MCCB - Adjustable - 70kA (without Thermal Protection)

NEW PRODUCT

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
BST1600	1000	(7-10)xIn	70	1000	BS1600AB230AC	1	3BST160010M
	1250		70	1000		1	3BST160012M
	1600		70	1000		1	3BST160016M

NEW PRODUCT

BST1600N	1000	(7-10)xIn	70	1000	BS1600AB230AC	1	4BST160010M
	1250		70	1000		1	4BST160012M
	1600		70	1000		1	4BST160016M

3 Poles - S Series Thermal-Magnetic MCCB - Adjustable - 70kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
S250	100	(0.8-1)xIn	(5-10)xIn	70	750	S0630AB230AC	6	3S250100
	125			70	750		6	3S250125
	160			70	750		6	3S250160
	200			70	750		6	3S250200
	250			70	750		6	3S250250
S400	315	(0.8-1)xIn	(5-10)xIn	70	750	S0630AB230AC	2	3S400315
	400			70	750		2	3S400400
S630	500	(0.8-1)xIn	(5-10)xIn	70	750	S0630AB230AC	2	3S630500
	630			70	750		2	3S630630
S800	800	(0.8-1)xIn	(5-10)xIn	70	750	M0800AB230AC	2	3S800800

4 Poles - S Series Thermal-Magnetic MCCB - Adjustable - 70kA (Protection for Power Distribution & Network)

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
S400N	315	(0.8-1)xIn	(5-10)xIn	70	750	S0630AB230AC	2	4S400315
	400			70	750		2	4S400400
S630N	500	(0.8-1)xIn	(5-10)xIn	70	750	S0630AB230AC	2	4S630500
	630			70	750		2	4S630630

3 Poles - S Series Magnetic MCCB - Adjustable - 70kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
S250	100	(5-10)xIn	70	750	S0630AB230AC	6	3S250100M
	125		70	750		6	3S250125M
	160		70	750		6	3S250160M
	200		70	750		6	3S250200M
	250		70	750		6	3S250250M
S400	315	(5-10)xIn	70	750	S0630AB230AC	2	3S400315M
	400		70	750		2	3S400400M
S630	500	(5-10)xIn	70	750	S0630AB230AC	2	3S630500M
	630		70	750		2	3S630630M
S800	800	(5-10)xIn	70	750	M0800AB230AC	2	3S800800M

4 Poles - S Series Magnetic MCCB - Adjustable - 70kA (without Thermal Protection)

Type Code	Rated Current In (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
S400N	315	(5-10)xIn	70	750	S0630AB230AC	2	4S400315M
	400		70	750		2	4S400400M
S630N	500	(5-10)xIn	70	750	S0630AB230AC	2	4S630500M
	630		70	750		2	4S630630M

3 Poles - U Series Electronic MCCB - Adjustable - 36kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
U250	40	(0.4-1)xIn	(1,5-10)xIn	36	750	K0250AB230AC	6	3U250040
	100			36	750		6	3U250100
	160			36	750		6	3U250160
	250			36	750		6	3U250250

3 Poles - U Series Electronic MCCB - Adjustable - 70kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
U400	400	(0.4-1)xIn	(2-10)xIn	70	750	S0630AB230AC	4	3U400400
U630	630	(0.4-1)xIn	(2-10)xIn	70	750	S0630AB230AC	4	3U630630
U1600	800	(0.4-1)xIn	(1,5-10)xIn	70	750	U1600AB230AC	1	3U160080
	1000			70	750		1	3U160010
	1250			70	750		1	3U160012
	1600			70	750		1	3U160016

3 Poles - MLE Series Electronic MCCB - Adjustable - 70kA

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
BSE1600	800	(0.4-1)xIn	(2-10)xIn	70	1000	BS1600AB230AC	1	3MLE160080
	1000			70	1000		1	3MLE160010
	1250			70	1000		1	3MLE160012
	1600			70	1000		1	3MLE160016

4 Poles - U Series Electronic MCCB - Adjustable - 36kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
U250N	40	(0.4-1)xIn	(1,5-10)xIn	36	750	K0250AB230AC	4	4U250040
	100			36	750		4	4U250100
	160			36	750		4	4U250160
	250			36	750		4	4U250250

4 Poles- U Series Electronic MCCB - Adjustable - 70kA

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
U400N	400	(0.4-1)xIn	(2-10)xIn	70	750	S0630AB230AC	2	4U400400
U630N	630	(0.4-1)xIn	(2-10)xIn	70	750	S0630AB230AC	2	4U630630

4 Poles - MLE Series Electronic MCCB - Adjustable - 70kA

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Ui (V)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
BSE1600N	800	(0.4-1)xIn	(2-10)xIn	70	1000	BS1600AB230AC	1	4MLE160080
	1000			70	1000		1	4MLE160010
	1250			70	1000		1	4MLE160012
	1600			70	1000		1	4MLE160016

Under Voltage Release

Applicable MCCB	Coil Voltage	Order Code
K160, K250, M250, K160N, K250N, M250N, U250	400V AC	K0250DG400AC
M160, S250, S400, S630, S400N, S630N, U400, U630	400V AC	S0630DG400AC
K400, M400, K630, M630	400V AC	K0630DG400AC
A400, A630, B400, B630	400V AC	B0630DG400AC
A400N, A630N, M800, S800, A800N	400V AC	A0800DG400AC
U1600	400V AC	U1600DG400AC
BST1600, BST1600N, BSE1600, BSE1600N	400V AC	BS1600DG400AC
BST1600, BST1600N, BSE1600, BSE1600N	230V AC	BS1600DG230AC

Alarm Contacts - 1NO+1NC

Applicable MCCB	Order Code
B160, B160N, B250, B250N, A160, A160N, A250, A250N	B0250AK
K160, K250, M250, K160N, K250N, M250N, U250	K0250AK
M160, S250, S400, S630, S400N, S630N, U400, U630	S0630AK
A400, A630, B400, B630	B0630AK
K400, M400, K630, M630	K0630AK
A400N, A630N, M800, S800, A800N	A0800AK
U1600	U1600AK
BST1600, BST1600N, BSE1600, BSE1600N	BS1600AK

Shunt Trip Release

Applicable MCCB	Coil Voltage	Order Code
A125, A125N	230V AC	A0125AB230AC
B160, B160N, A160, A160N	230V AC	B0160AB230AC
B250, B250N, A250, A250N	230V AC	B0250AB230AC
A400, A630, B400, B630	230V AC	B0630AB230AC
K160, K250, M250, K160N, K250N, M250N, U250	230V AC	K0250AB230AC
K160, K250, M250, K160N, K250N, M250N, U250	24-30V DC	K0250AB030DC
M160, S250, S400, S630, S400N, S630N, U400, U630	230V AC	S0630AB230AC
K400, M400, K630, M630	230V AC	K0630AB230AC
A400N, A630N, A800, M800, S800, A800N	230V AC	M0800AB230AC
U1600	230V AC	U1600AB230AC
BST1600, BST1600N, BSE1600, BSE1600N	230V AC	BS1600AB230AC

Mechanical Pad Lock

Applicable MCCB	Order Code
KM160, K160, K250, M250, K400, M400, K630, M630, U250, K160N, K250N, M250N, S400N, S630N, A400, A630	SEMK101

Connection Terminals

Applicable MCCB	Piece	Order Code
K160, K250, M250, U250	6	K3250BK
K160N, K250N, M250N, U250N	8	K4250BK
A160, B160	6	A3160BK
A160N, B160N	8	A4160BK
B250	6	B3250BK
B250N	8	B4250BK

Auxiliary Contact

Applicable MCCB	Auxiliary Contact	Order Code
A125, A125N	1NO+1NC	A0125YK
B160, B160N, B250, B250N, A160, A160N, A250, A250N	1NO+1NC	B0250YK
B160, B160N, B250, B250N, A160, A160N, A250, A250N	2NO+2NC	B0250YL
K160, K250, M250, K160N, K250N, M250N, U250	1NO+1NC	K0250YK
M160, S250, S400, S630, S400N, S630N, U400, U630	1NO+1NC	S0630YK
A400, A630, B400, B630	1NO+1NC	B0630YK
K400, M400, K630, M630	1NO+1NC	K0630YK
A400N, A630N, M800, S800, A800N	1NO+1NC	A0800YK
U1600	1NO+1NC	U1600YK
BST1600, BST1600N, BSE1600, BSE1600N	1NO+1NC	BS1600YK

Extension Bus Bar Set (6-8 Pcs/Set)

Applicable MCCB	Piece	Order Code
A160, B160, M160	6	B0160UB
A160N, B160N	8	B0160UN
K160, K250, M250, S250, A250, U250, B250	6	K0250UB
K160N, K250N, M250N, A250N, B250N	8	K0250UN
K400, M400, A400, S400	6	A0400UB
A400N, S400N	8	A0400UN
S630	6	S0630UB
S630N	8	S0630UN
M800, S800	6	M0800UB
A800N	8	M0800UN
U1600	6	U1600UB
BST1600, BSE1600	6	BS1600UB
BST1600N, BSE1600N	8	BS1600UN

Motor Operator - 230V AC

Applicable MCCB	Order Code
K160, K250, M250, K160N, K250N, M250N, U250	K0250MM
K400, M400, K630, M630	K0630MM
A400, A630, B400, B630	B0630MM
S250	S0250MM
S400, S630, S400N, S630N, U400, U630	S0400MM
M160	M0160MM
A400N	A0400MM
A630N, A800N, M800, S800	A0800MM
U1600	U1600MM
BST1600, BST1600N, BSE1600, BSE1600N	BS1600MM

Extension Rotary Handle (with extension shaft)

Applicable MCCB	Order Code
K160, K250, M250, K160N, K250N, M250	K0250DK
M160	M0160DK
S250	S0250DK
K400, M400, K630, M630	K0630DK
A400, A630, B400, B630	B0630DK
A400N	A0400DK
M800 , S800	M0800DK
A630N, A800N	A0800DK
U1600	U1600DK

Rotary Handle (Direct Assembly)

Applicable MCCB	Order Code
K160, K250, M250, K160N, K250N, M250N, U250	K0250DU
M160	M0160DU
S250	S0250DU
BST1600, BST1600N, BSE1600, BSE1600N	BS1600DU

NEW PRODUCT

Cable Connection Terminals

MCCB Type	Material	Number of Cable Connections	Cable Range (mm²)	Tightening Torque (N.M)	Order Code
K250	Aluminium	6	Ø10 - 35	10	KBTA0250001035
	Aluminium	1	Ø16 - 95	15	KBTA0250001695
	Aluminium	2	Ø25 - 150	30	KBTA0250025150
	Aluminium	1	Ø50 - 240	30	KBTA0250050240
K630	Aluminium	4	Ø35 - 95	15	KBTA0630003595
	Aluminium	1	Ø120 - 240	30	KBTA0630120240-1
	Aluminium	2	Ø120 - 240	30	KBTA0630120240-2
	Aluminium	2	Ø120 - 240	30	KBTA0630120240-3

KBTA0250001035	KBTA0250001695	KBTA0250025150	KBTA0250050240	KBTA0630003595	KBTA0630120240-1	KBTA0630120240-2	KBTA0630120240-3
							

3 Poles - H Series Earth Leakage MCCB (with Shunt Trip Release) - Adjustable - 36kA

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Residual Current IΔn (mA)	Tripping Time (s)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
H125	40	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	3J125040
	50	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	3J125050
	63	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	3J125063
	80	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	3J125080
	100	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	3J125100
	125	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	3J125125
H250	160	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	4	3J250160
	200	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	4	3J250200
	250	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	4	3J250250

4 Poles - H Series Earth Leakage MCCB (with Shunt Trip Release) - Adjustable - 36kA

Type Code	Rated Current (A)	Thermal Adj. Current Ir (A)	Residual Current IΔn (mA)	Tripping Time (s)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
NEW PRODUCT	25	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125025
	32	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125032
H125N	40	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125040
	50	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125050
	63	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125063
	80	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125080
	100	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125100
	125	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	8	4J125125
H250N	160	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	4	4J250160
	200	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	4	4J250200
	250	(0.8-1)xIn	0,03-0,3-0,5	0,1-0,3-1	36	750	4	4J250250

4 Poles - D Series Earth Leakage MCCB (with Shunt Trip Release) - Fixed - 36kA (Digital Leakage Current Indicator)

Type Code	Rated Current In (A)	Residual Current IΔn (mA)	Tripping Time (s)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
D125	40	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	4	4E100040
	50	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	4	4E100050
	63	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	4	4E100063
	80	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	4	4E100080
	100	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	4	4E100100
	125	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	2	4E100125
D250	160	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	2	4E250160
	200	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	2	4E250200
	250	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	36	750	2	4E250250

4 Poles - D Series Earth Leakage MCCB (with Shunt Trip Release) - Adjustable - 50kA (Digital Leakage Current Indicator)

Type Code	Rated Current In (A)	Residual Current IΔn (mA)	Tripping Time (s)	Breaking Capacity Icu (kA)	Ui (V)	Pcs in a Box	Order Code
D400	315	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	50	750	2	4E400315
	400	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	50	750	2	4E400400
D630	630	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	50	750	1	4E630630

4 Poles - MLT Series Earth Leakage MCCB (with Shunt Trip Release) - Adjustable

NEW PRODUCT

Type Code	Rated Current (A)	Breaking Capacity Icu/Ics (kA)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Residual Current IΔn (mA)	Tripping Time (s)	Order Code
MLT160N	25	50/50	(0.7-1)xIn	320A	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160025
	32	50/50	(0.7-1)xIn	320A	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160032
	40	50/50	(0.7-1)xIn	10xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160040
	50	50/50	(0.7-1)xIn	10xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160050
	63	50/50	(0.7-1)xIn	10xIn	0,03-0,3-0,5-1-3	0,1-0,3,0,5-1	4G160063
	80	50/50	(0.7-1)xIn	10xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160080
	100	50/50	(0.7-1)xIn	10xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160100
	125	50/50	(0.7-1)xIn	10xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160125
	160	50/50	(0.7-1)xIn	10xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G160160
MLT250N	200	50/50	(0.7-1)xIn	(5-10)xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G250200
	250	50/50	(0.7-1)xIn	(5-10)xIn	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	4G250250
MLT400N	315	50/50	(0.7-1)xIn	(5-10)xIn	0,03-0,1-0,5-1-3-10-30	0,06-0,15-0,3-1,2-4	4G400315
	400	50/50	(0.7-1)xIn	(5-10)xIn	0,03-0,1-0,5-1-3-10-30	0,06-0,15-0,3-1,2-4	4G400400
MLT630N	500	50/50	(0.7-1)xIn	(5-10)xIn	0,03-0,1-0,5-1-3-10-30	0,06-0,15-0,3-1,2-4	4G630500
	630	50/50	(0.7-1)xIn	(5-10)xIn	0,03-0,1-0,5-1-3-10-30	0,06-0,15-0,3-1,2-4	4G630630

Earth Leakage Module

Type Code	Threshold Current (A)	Tripping Time (s)	Suitable RCCB	Pcs in a Box	Order Code
SAR-103LE	0,03 - 30	0,05-3	SHM-2 – SHM-4	48	SAR103LE

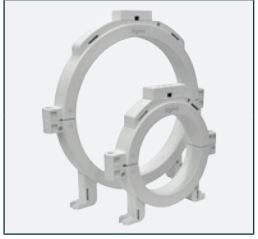
Toroidal Current Transformers

Type Code	Type	Inner Diameter Φ (mm)	Suitable MCCB	Pcs in a Box	Order Code
ST-80	Toroidal	80	B160, A160	40	ST080
ST-110	Toroidal	110	B250, K160, M160, K250, M250, A250, S250, U250, A160N, B160N	30	ST110
ST-160	Toroidal	160	K400, M400, S400, A400, K630, M630, S630, A250N, B250N, K250N, M250N, K160N	15	ST160
ST-210	Toroidal	210	A630, S800, A400N, S400N, S630N, U1600	12	ST210
ST-300	Toroidal	300	A630N, A800N	1	ST300
ST-280x115	Rectangle	280x115	A630N, A800N	1	STD280
ST-470x160	Rectangle	470x160	SFA1600, SFA2000, SFA1600N, SFA2000N, SFA2500, SFA3200, SDA1000, SDA1250, SDA1600, SDA2000	1	STD470

Note: Toroidal Current Transformers should be ordered with SAR-103LE Earth Leakage Protection Relay.

Toroidal Current Transformers

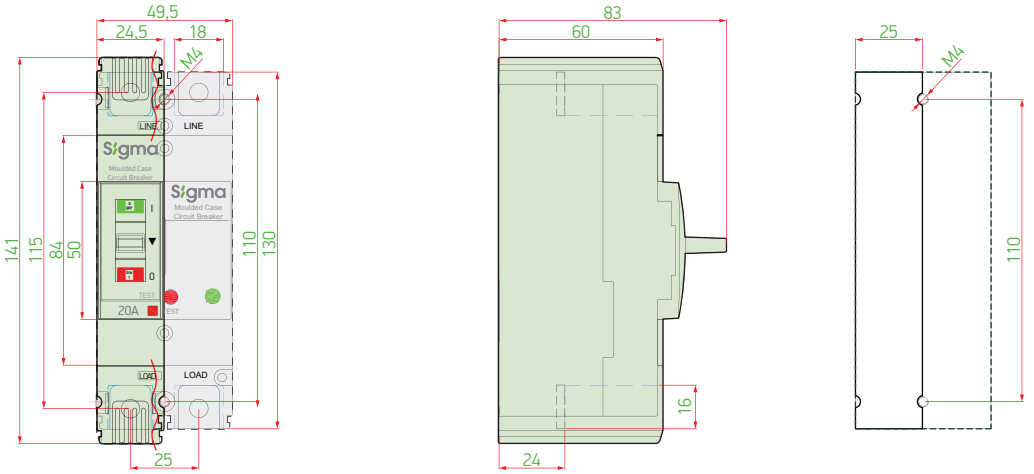
NEW PRODUCT



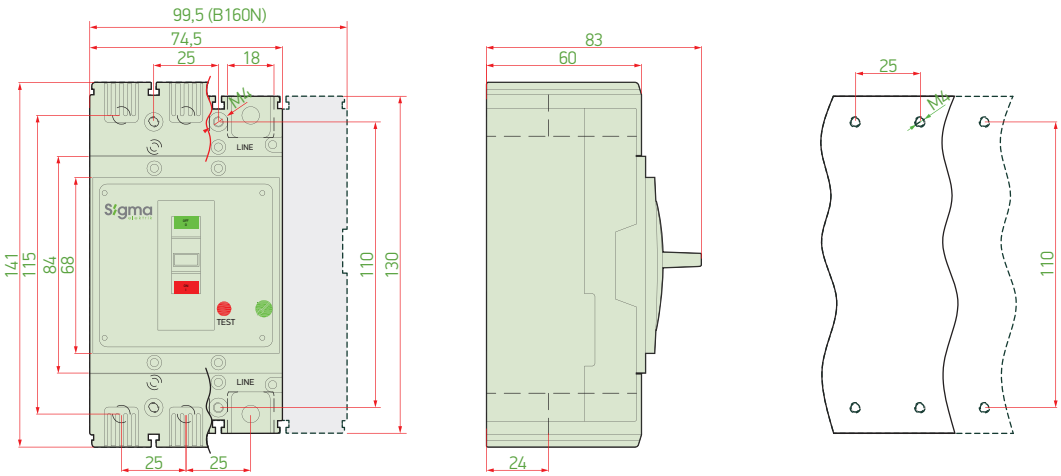
Type Code	Type	Inner Diameter Φ (mm)	Pcs in a Box	Order Code
STA-110	Toroidal (Split-Core)	110	1	STA-110
STA-210	Toroidal (Split-Core)	210	1	STA-210

Dimensions

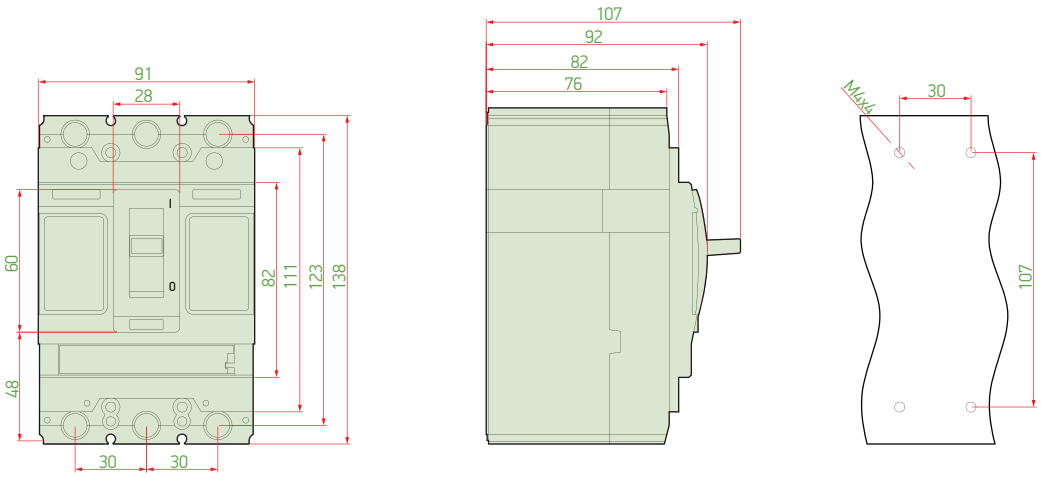
A160(1P) - B160 (1P - 2P)



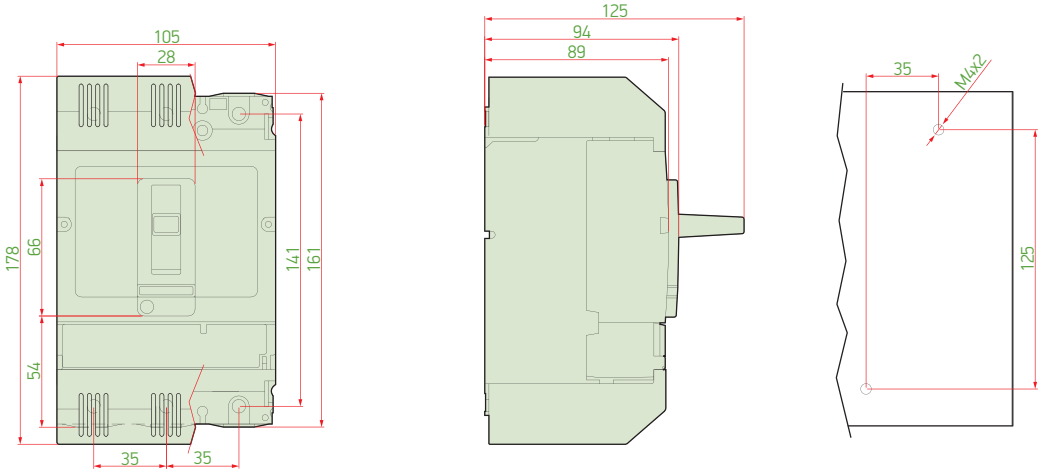
B160 - B160N



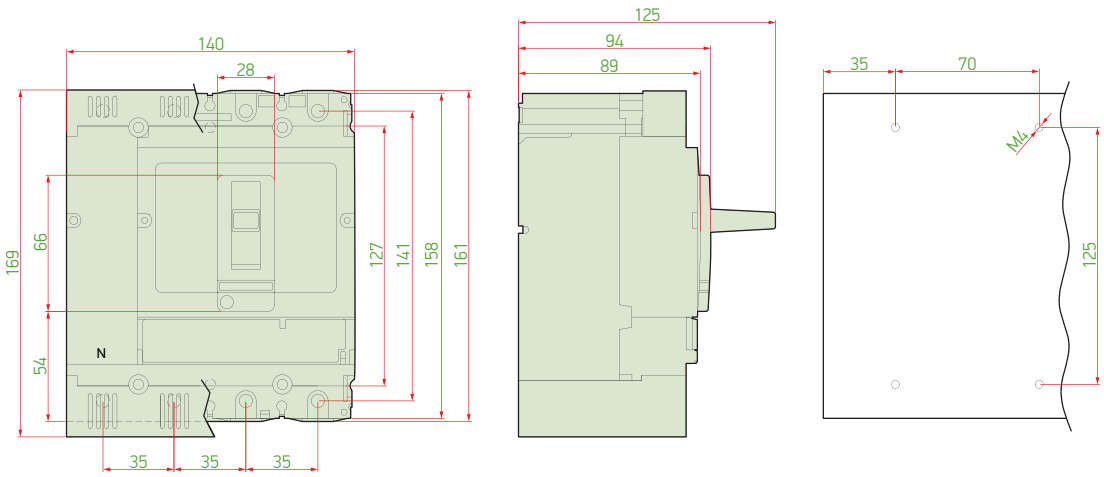
M160



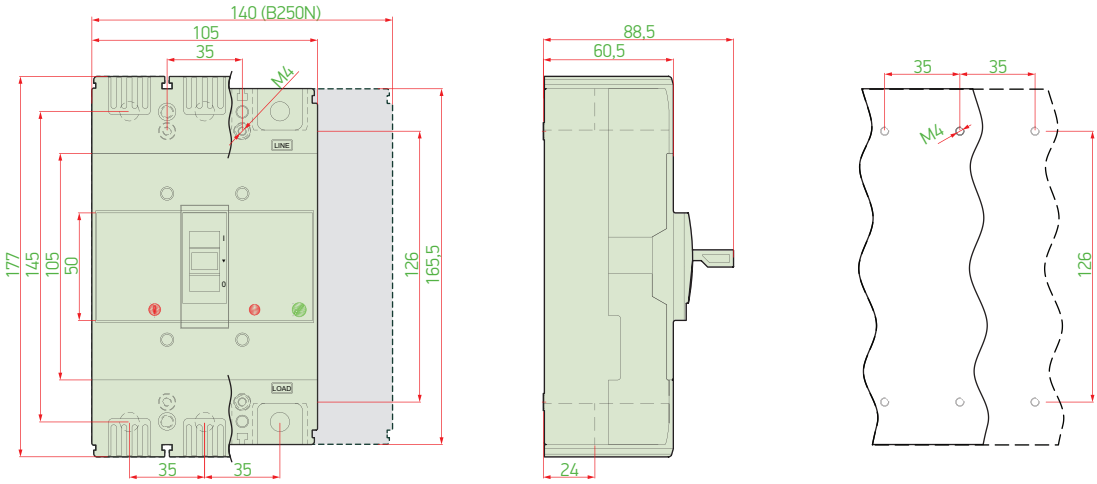
K160 - K250 - M250



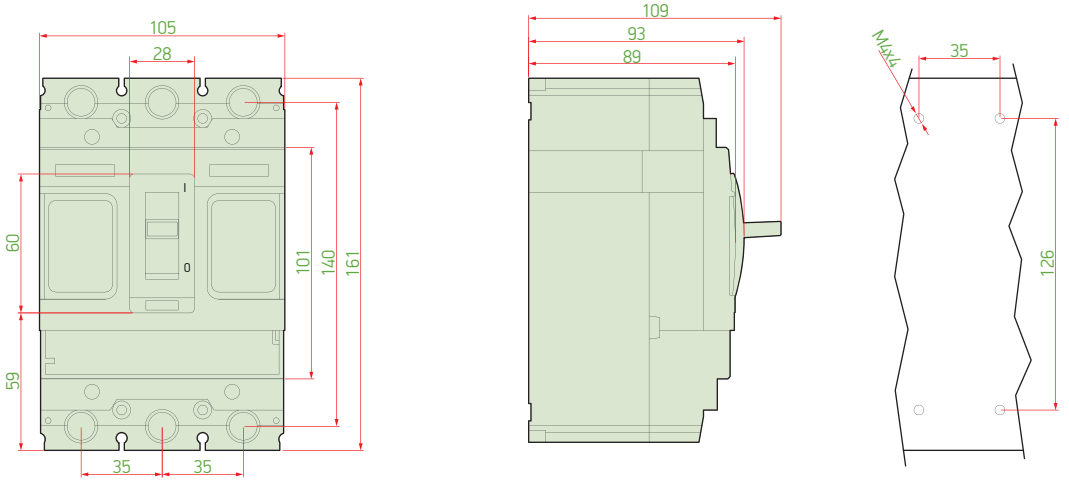
K160N - K250N - M250N



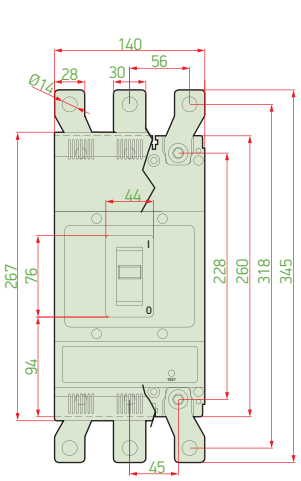
B250 - B250N

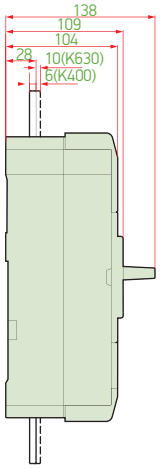


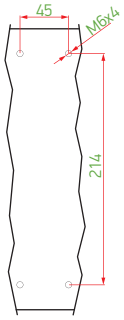
S250



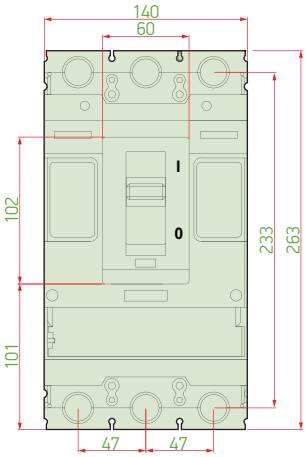
K400-K630 (Extension bars are not available in K400)
M400-M630 (Extension bars are not available in M400)

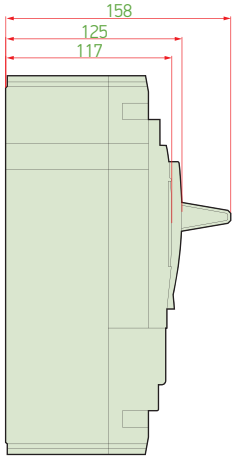


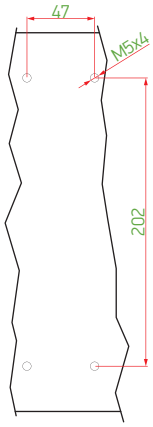




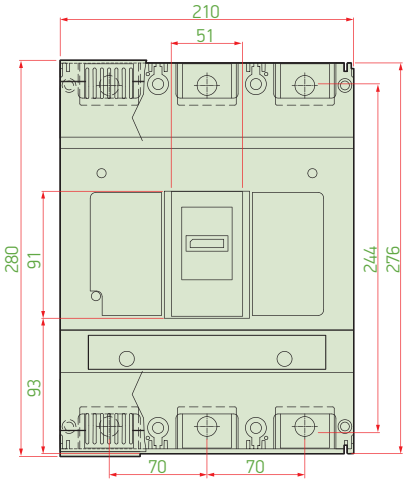
S400-S630

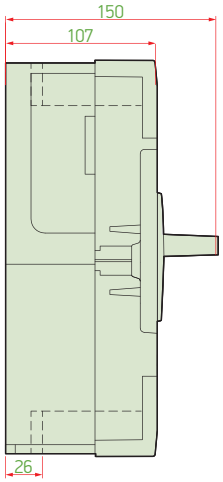


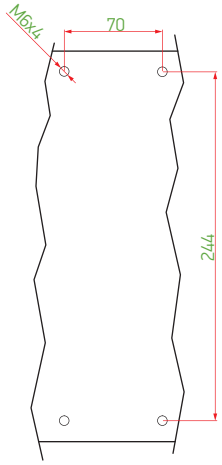




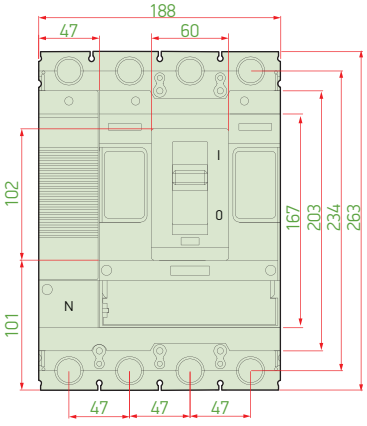
M800-S800

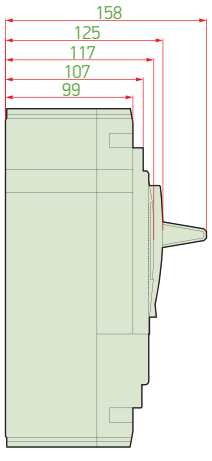


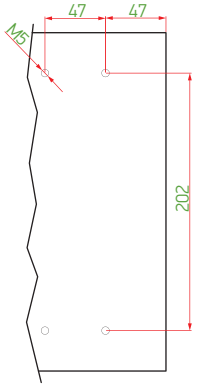




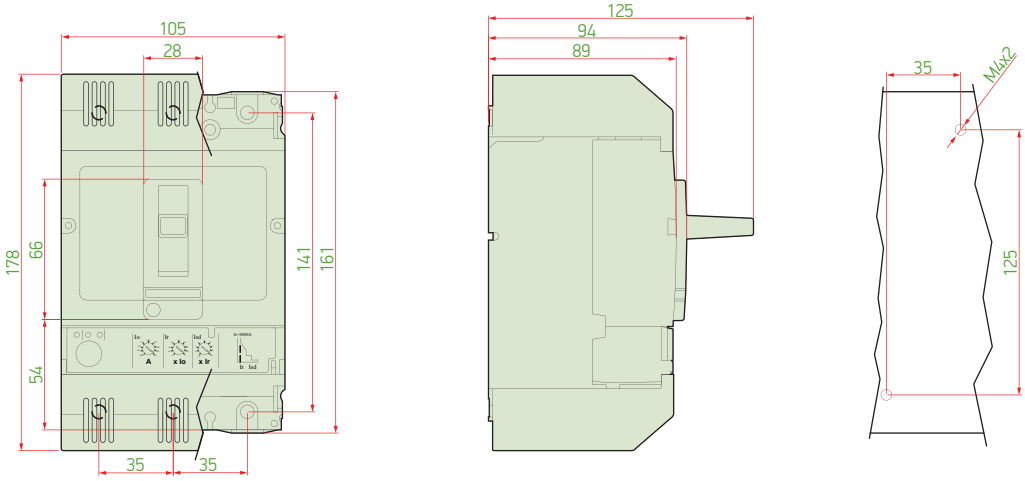
S400N - S630N







U250



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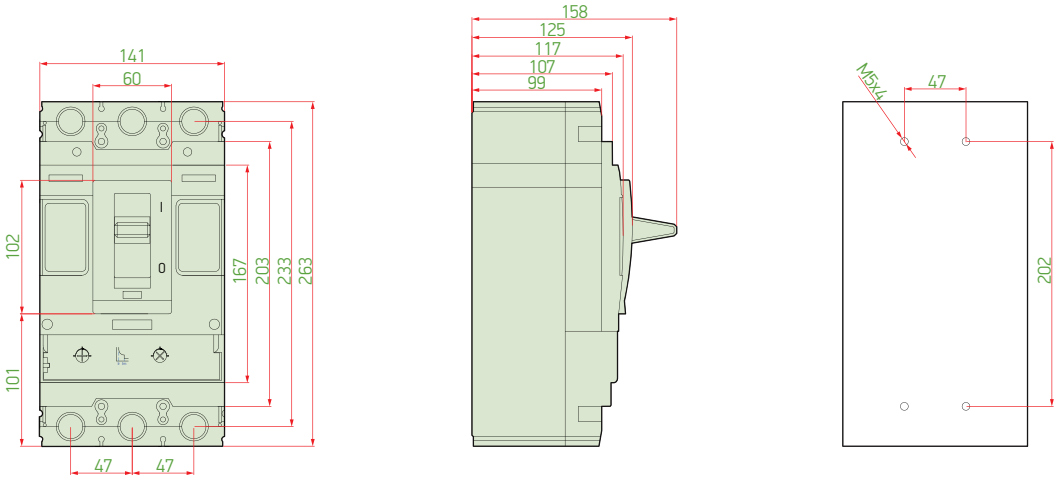

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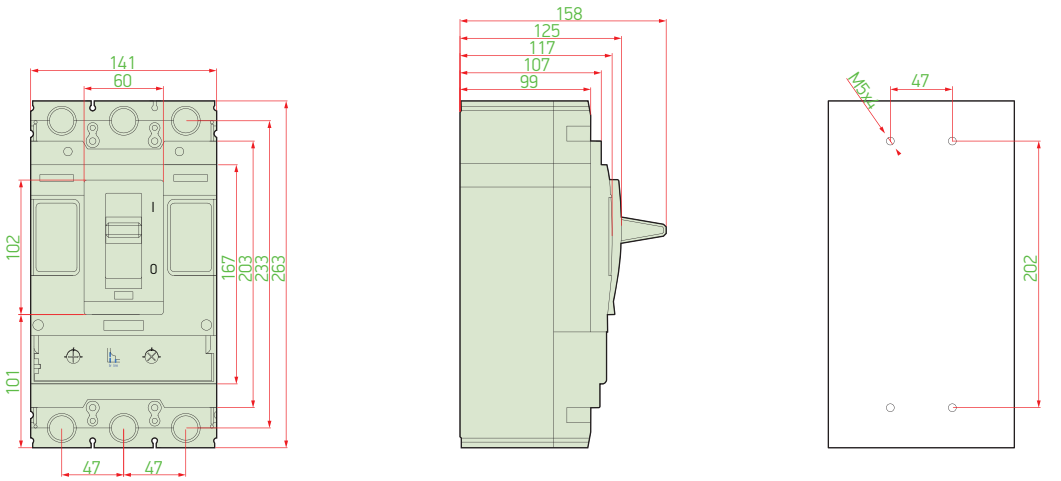
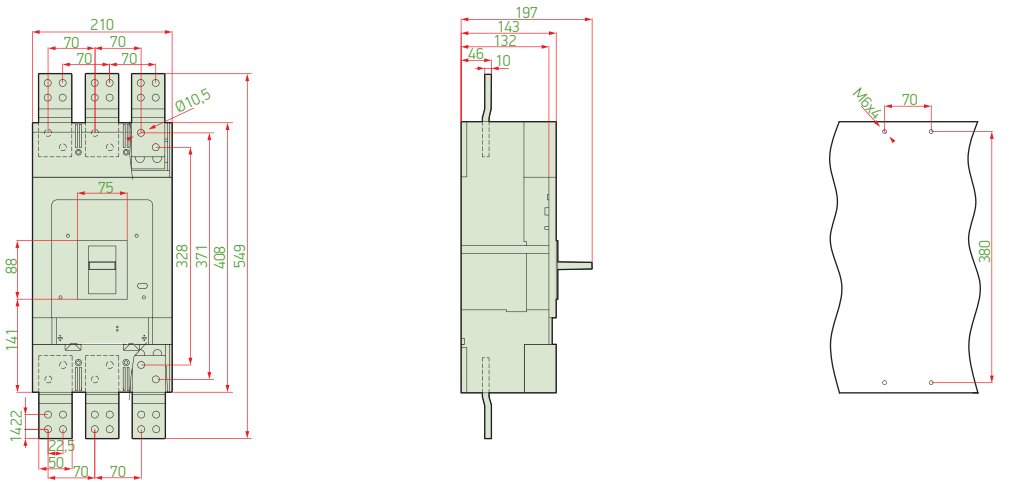
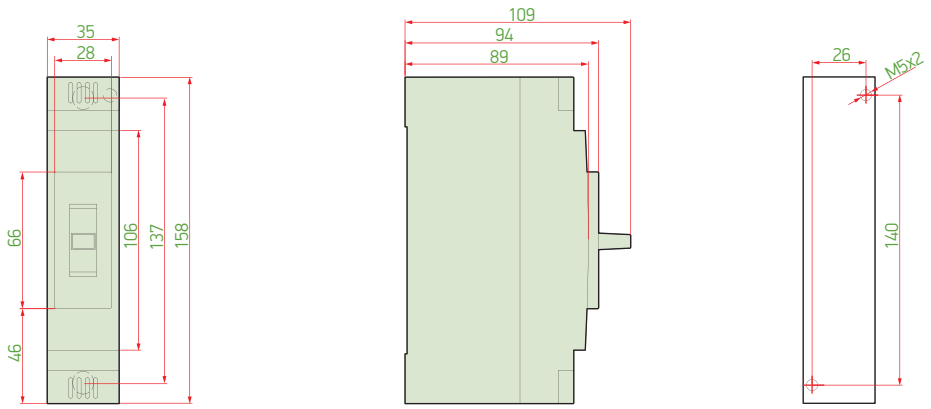


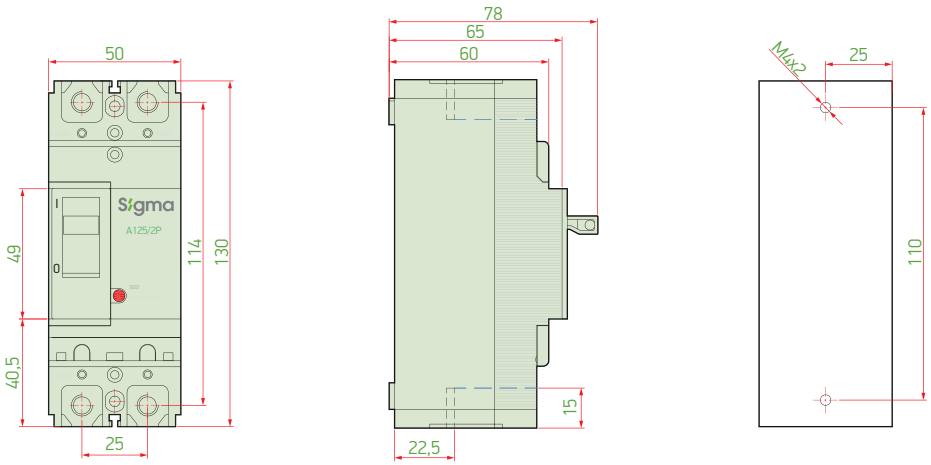
U1600



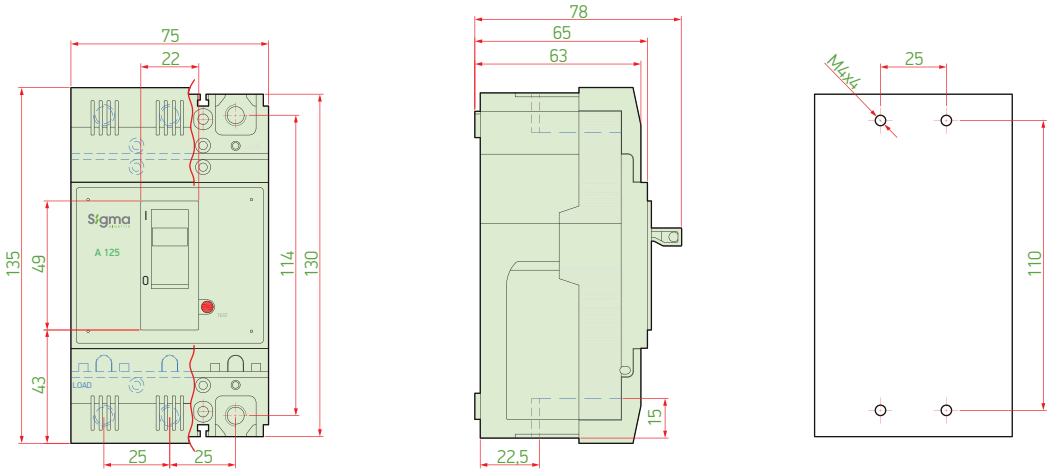
KM200



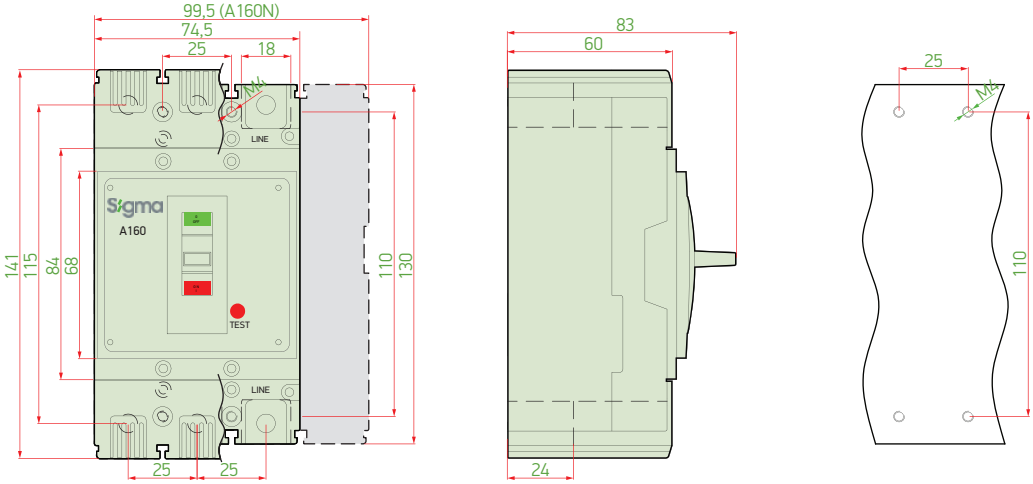
A125-2P



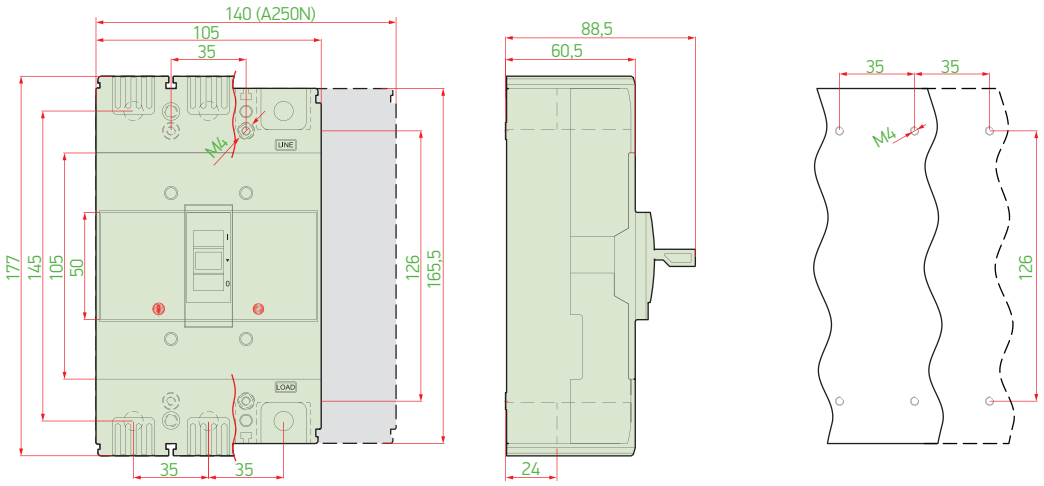
A125-3P



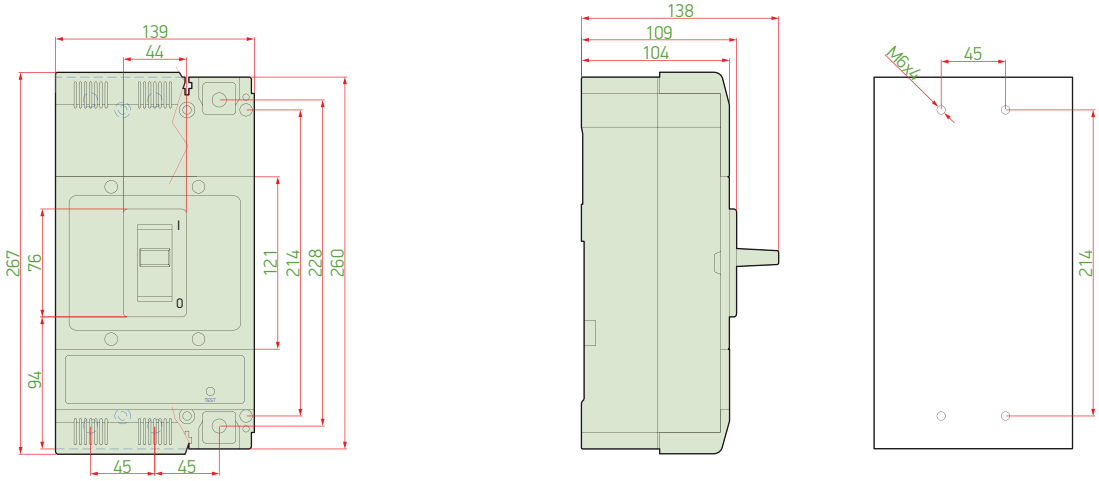
A160 - A160N



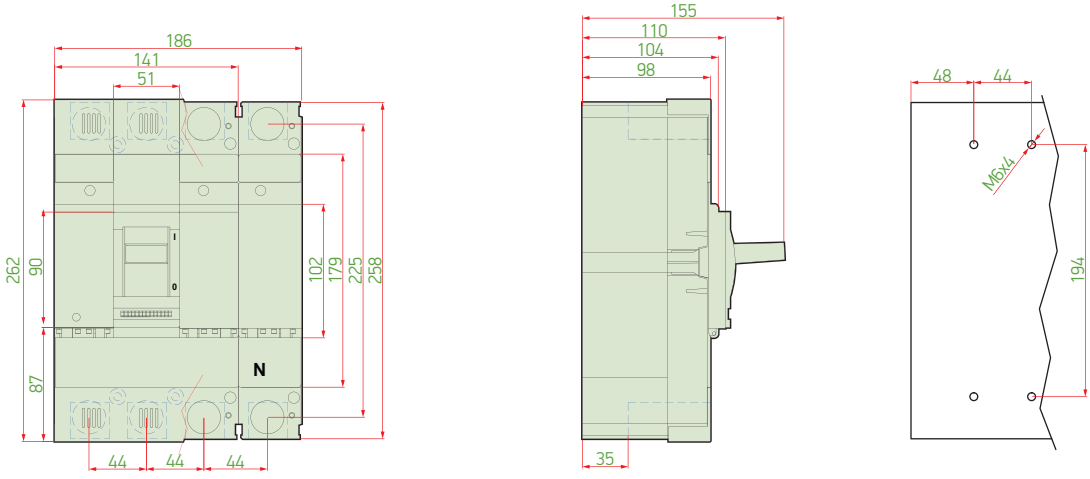
A250 - A250N



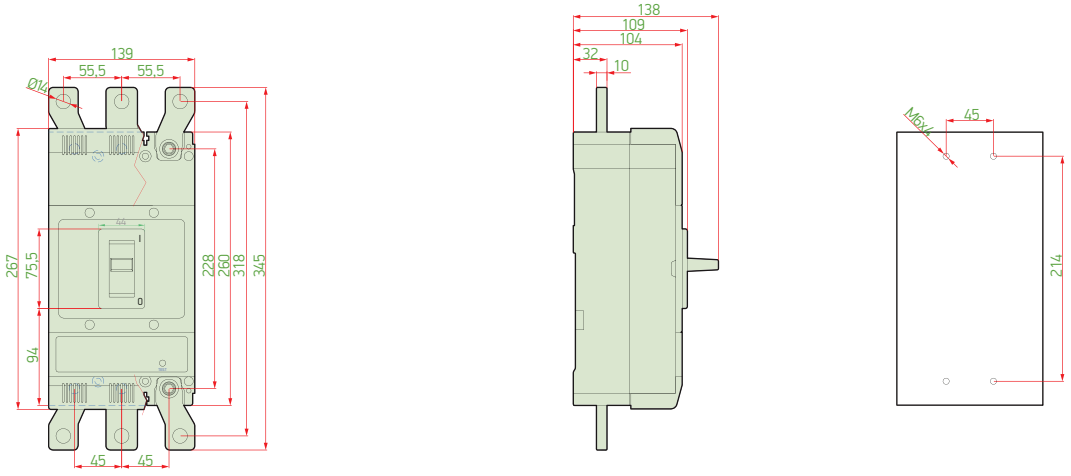
A400



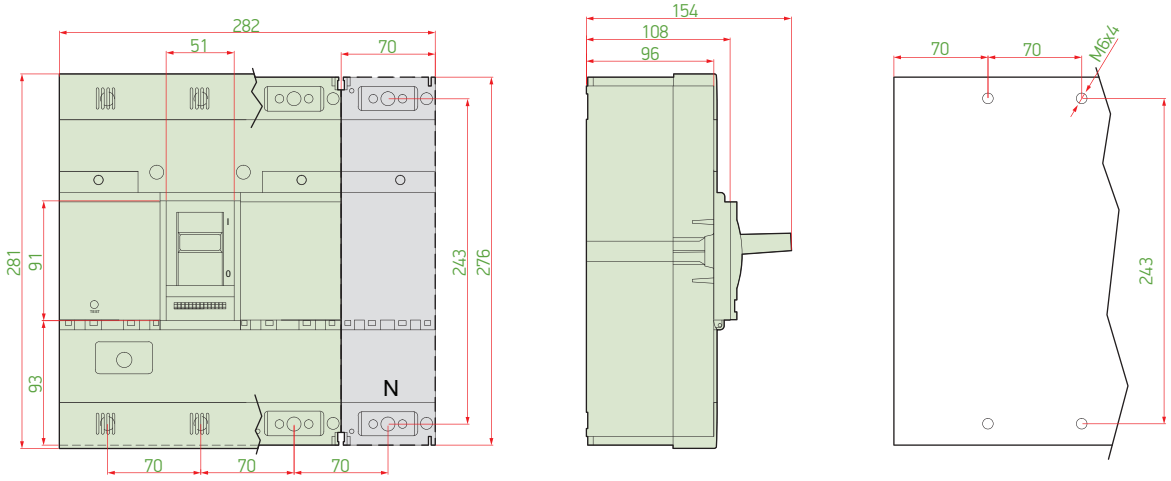
A400N



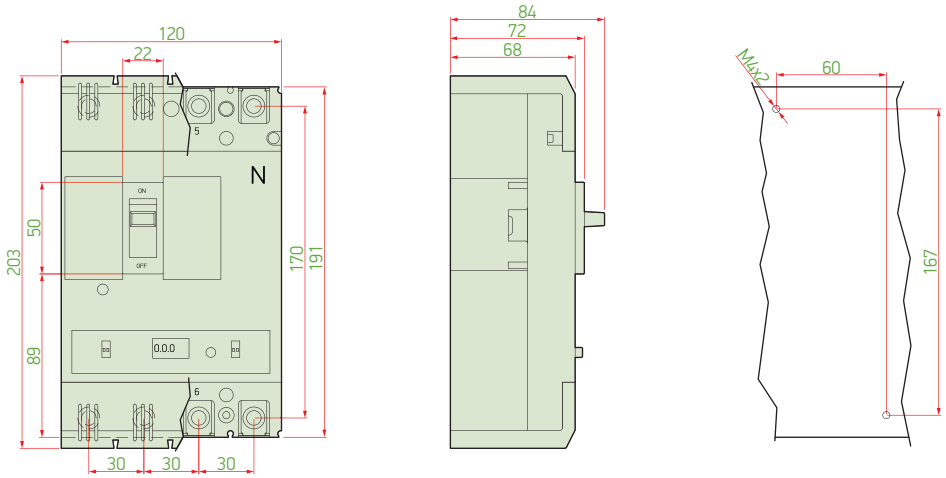
A630



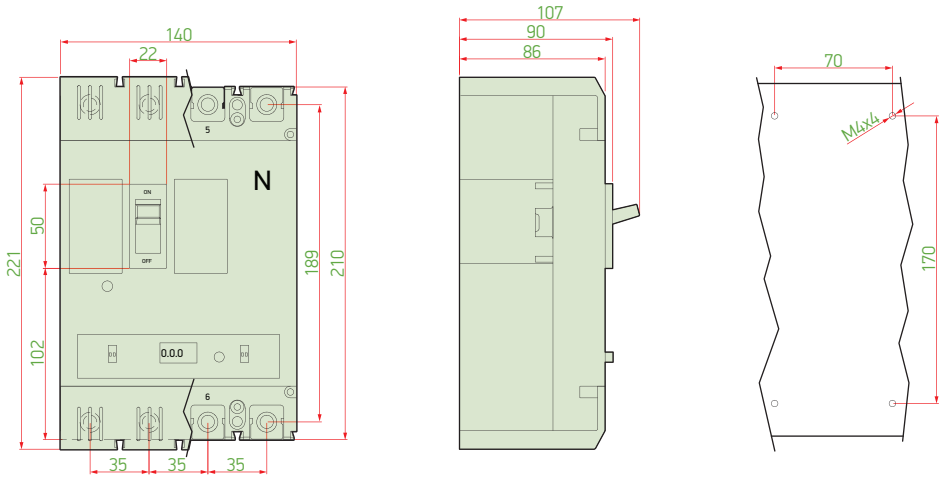
A630N-A800N



D125



D250



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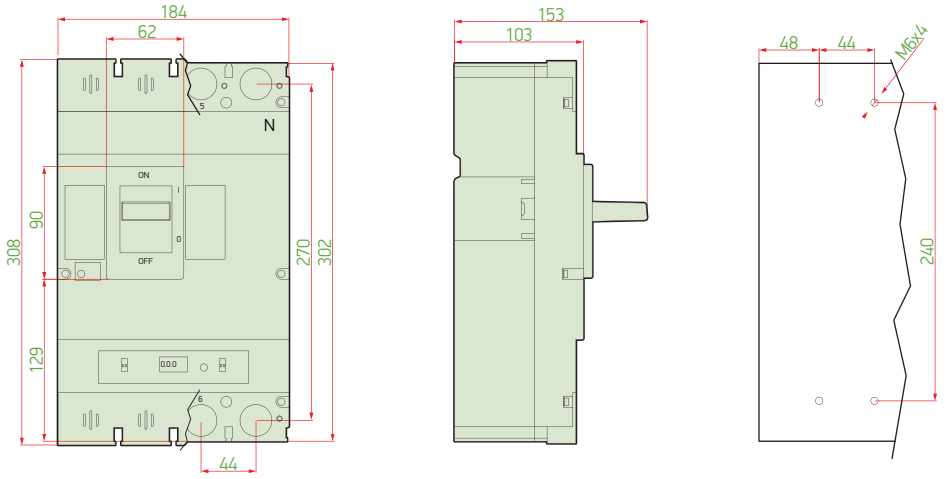
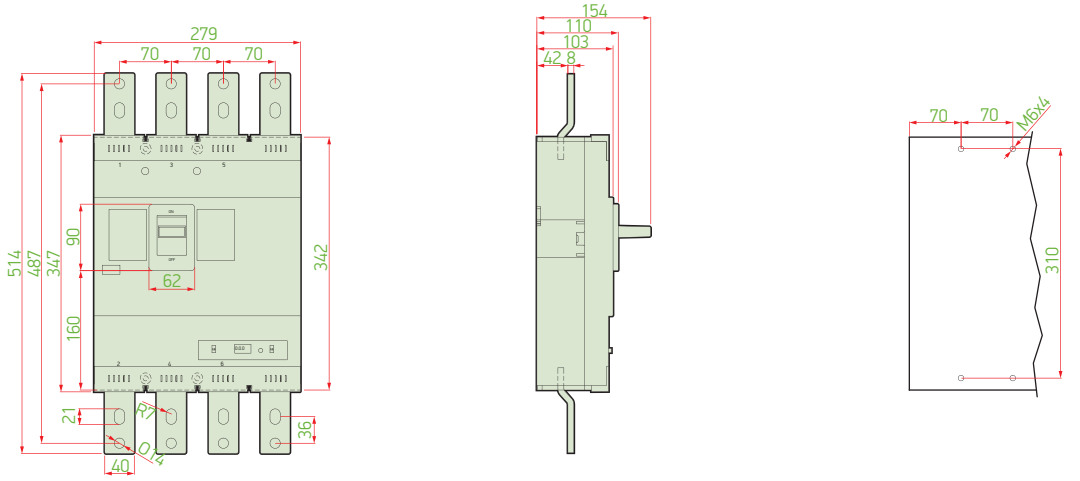
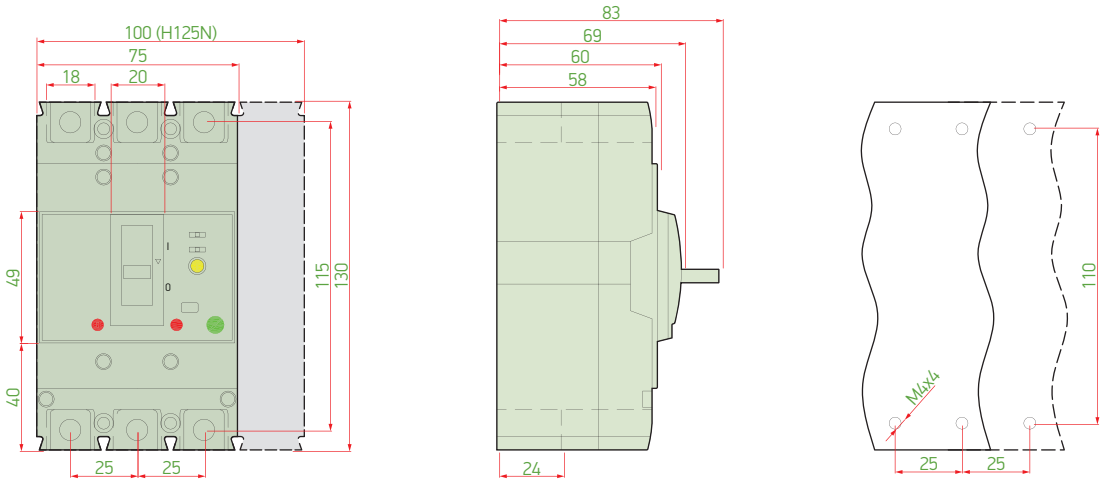


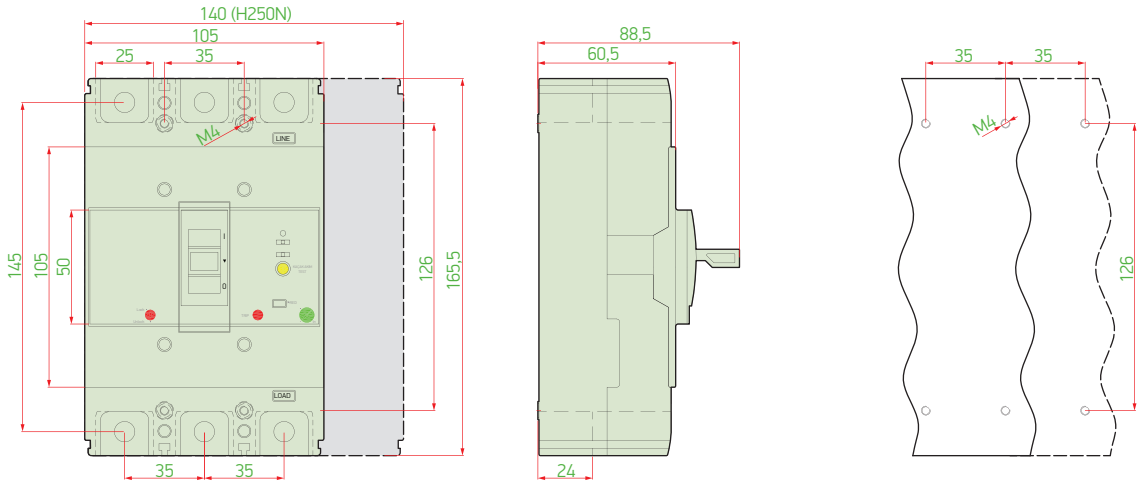
D630



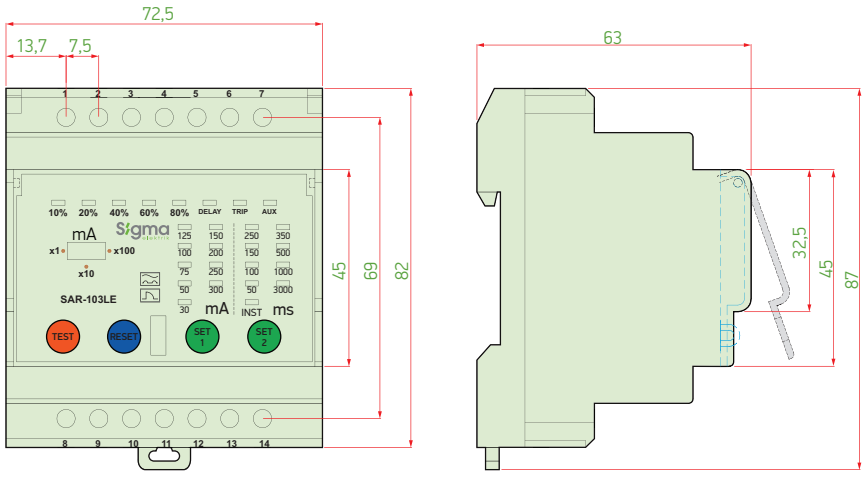
H125 - H125N



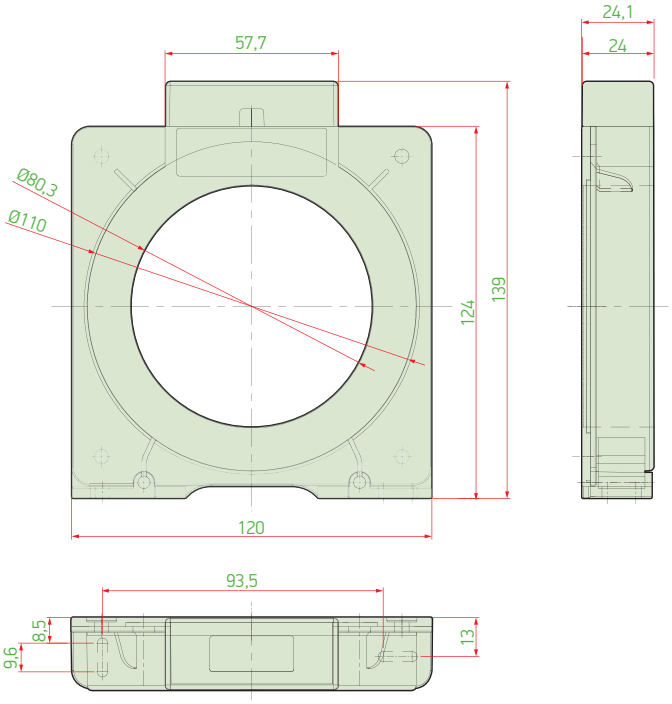
H250 - H250N



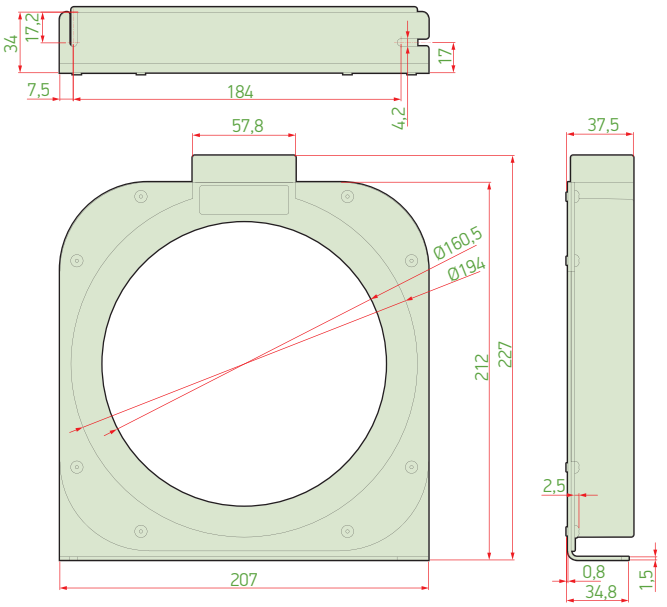
SAR-103LE



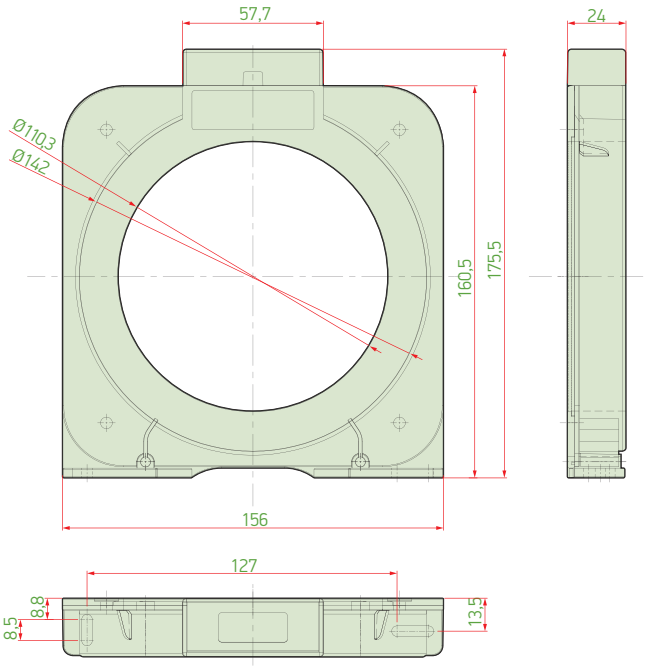
ST80



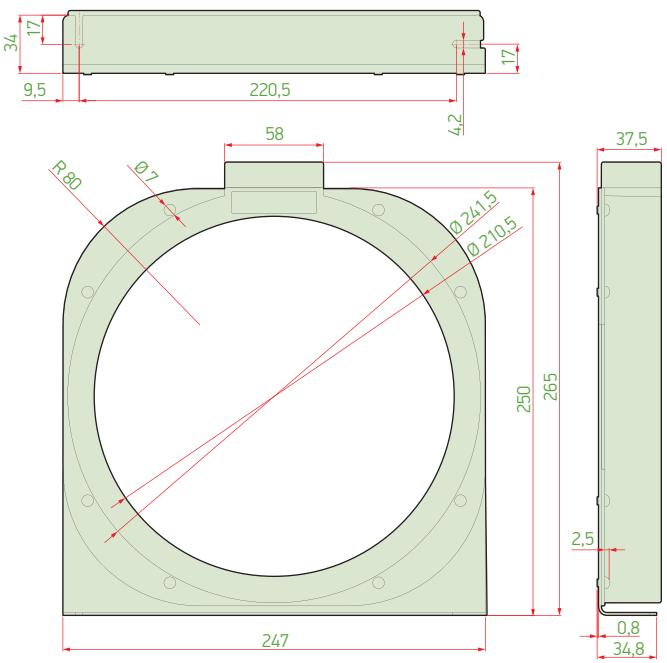
ST160



ST110



ST210



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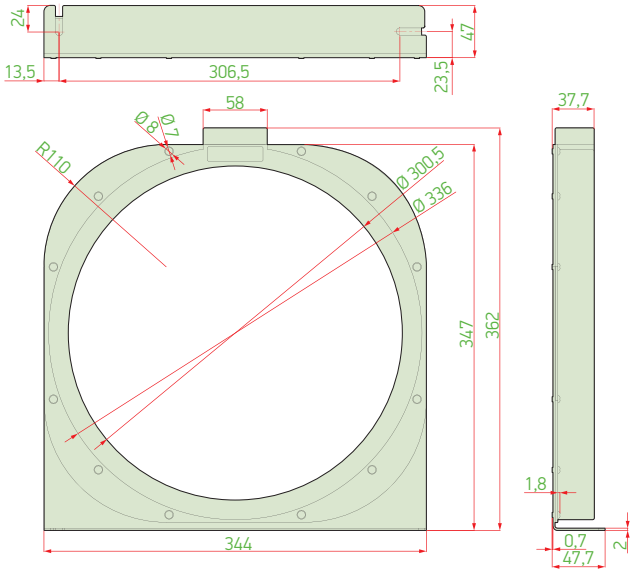
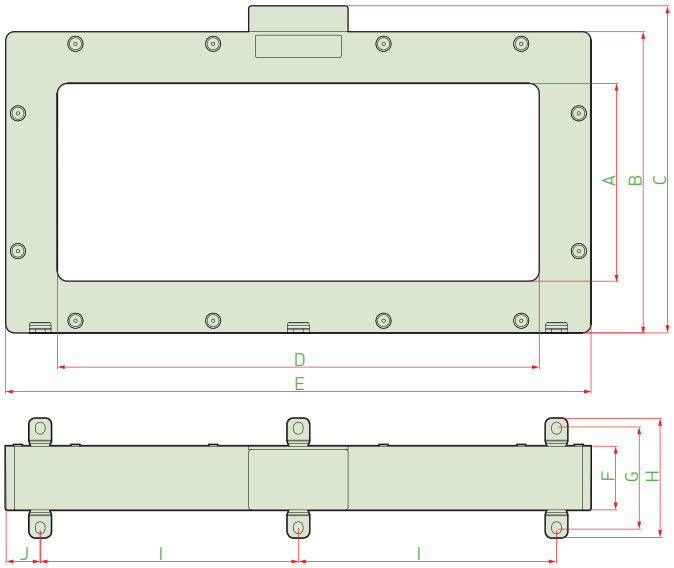
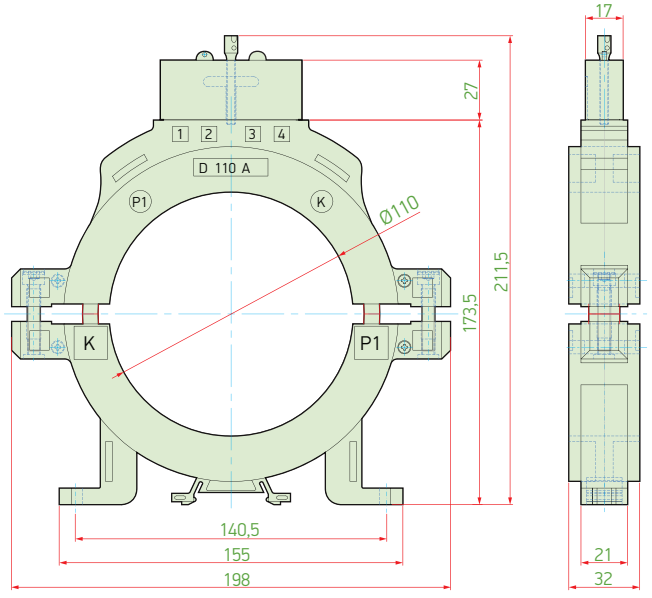


STD280x115 - STD470x160

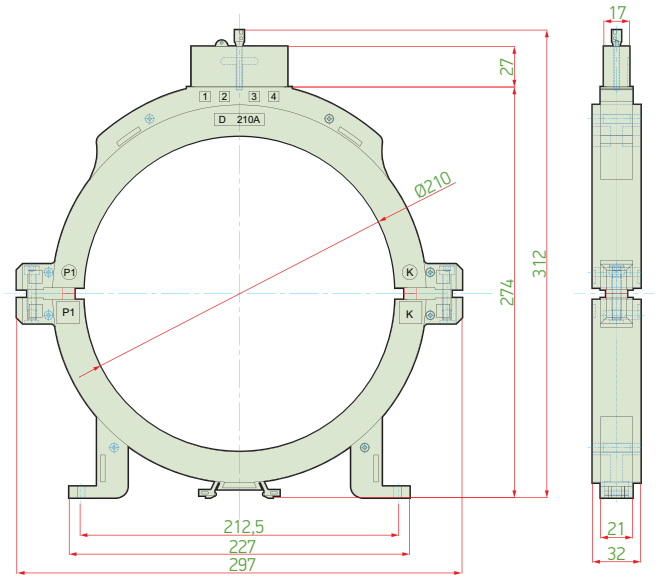


	A	B	C	D	E	F	G	H	I	J
STD280x115	115	175	190	280	340	37	59	69	150	20
STD470x160	161	234	249	471	546	37,5	64	78	180	-

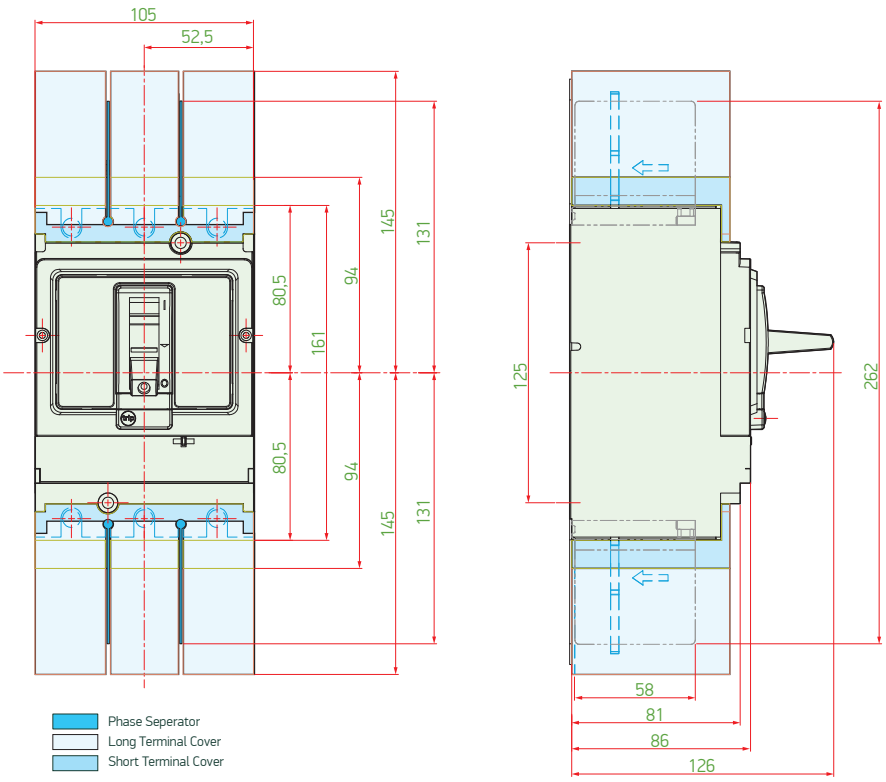
STA-110



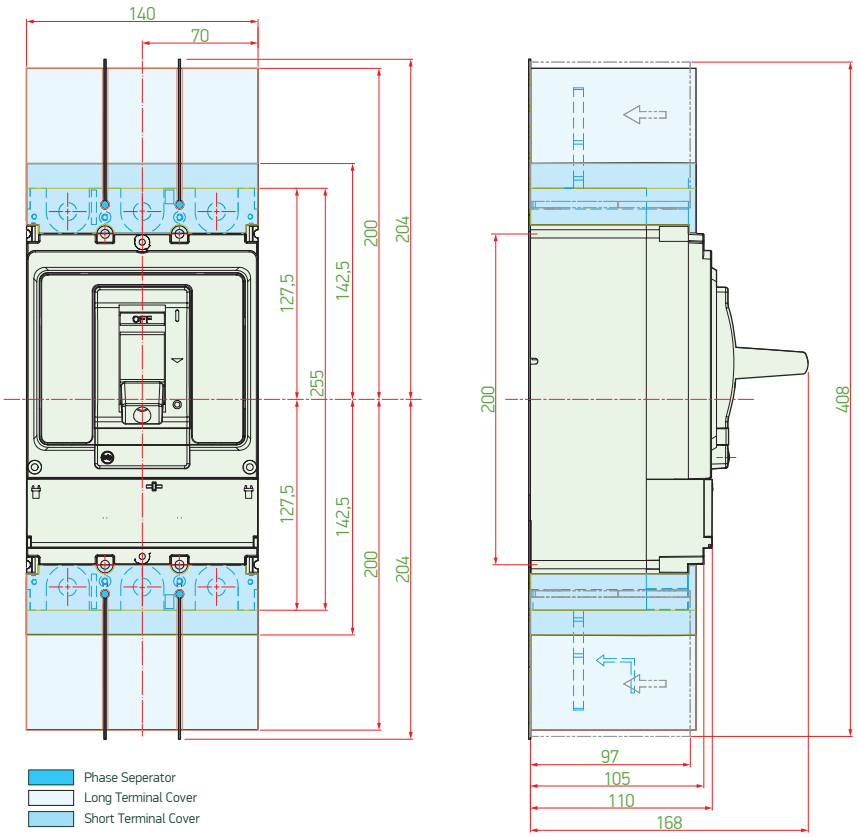
STA-210



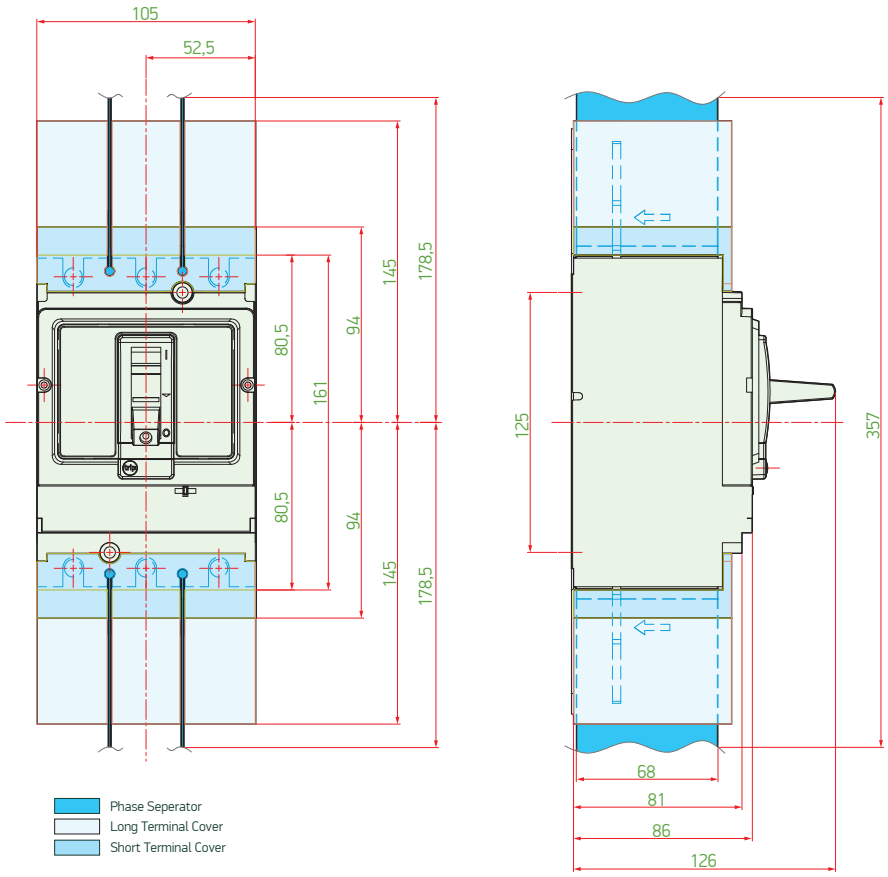
KLT-MLT-SLT-ULT 250



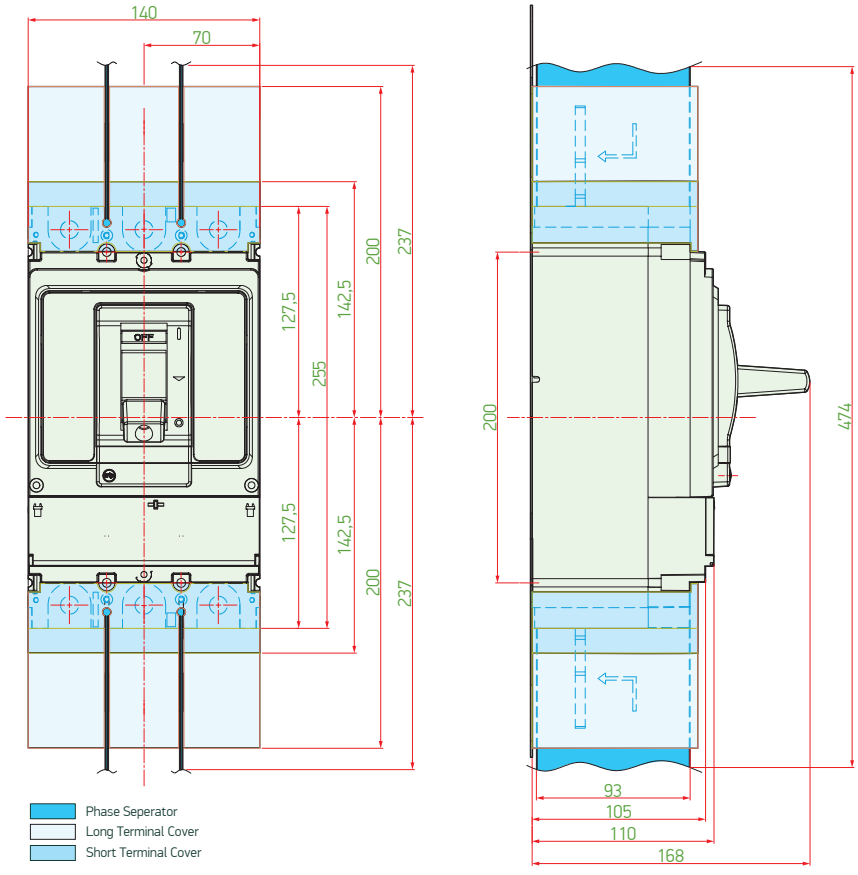
KLT-MLT-SLT-ULT 630



XLT 160 - XLT 250



XLT 400 - XLT 630



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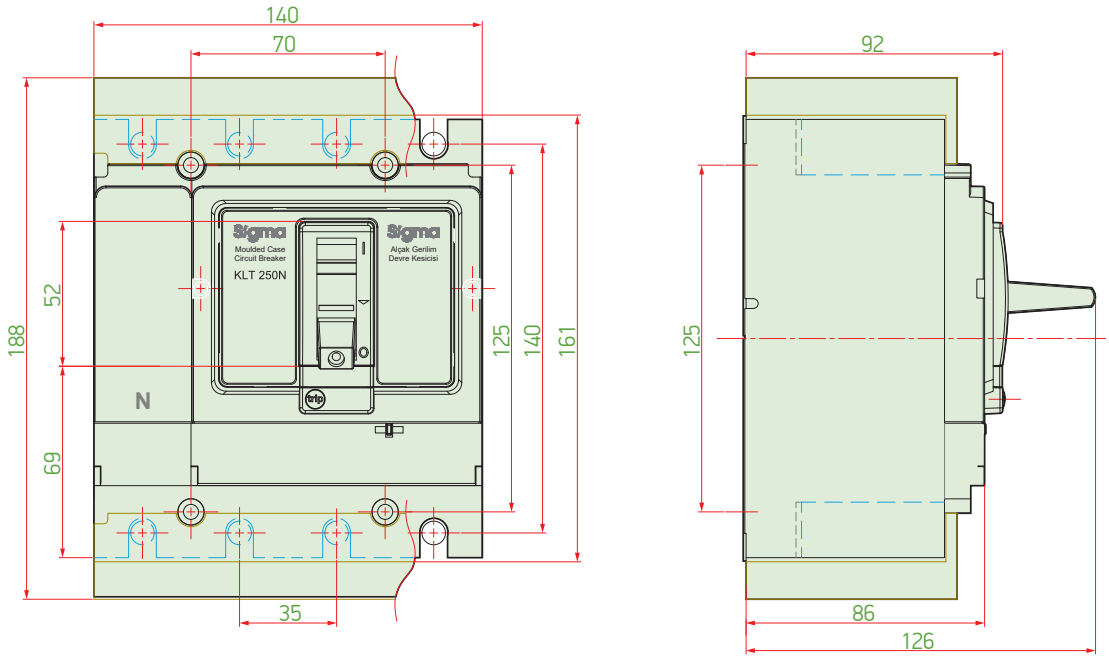
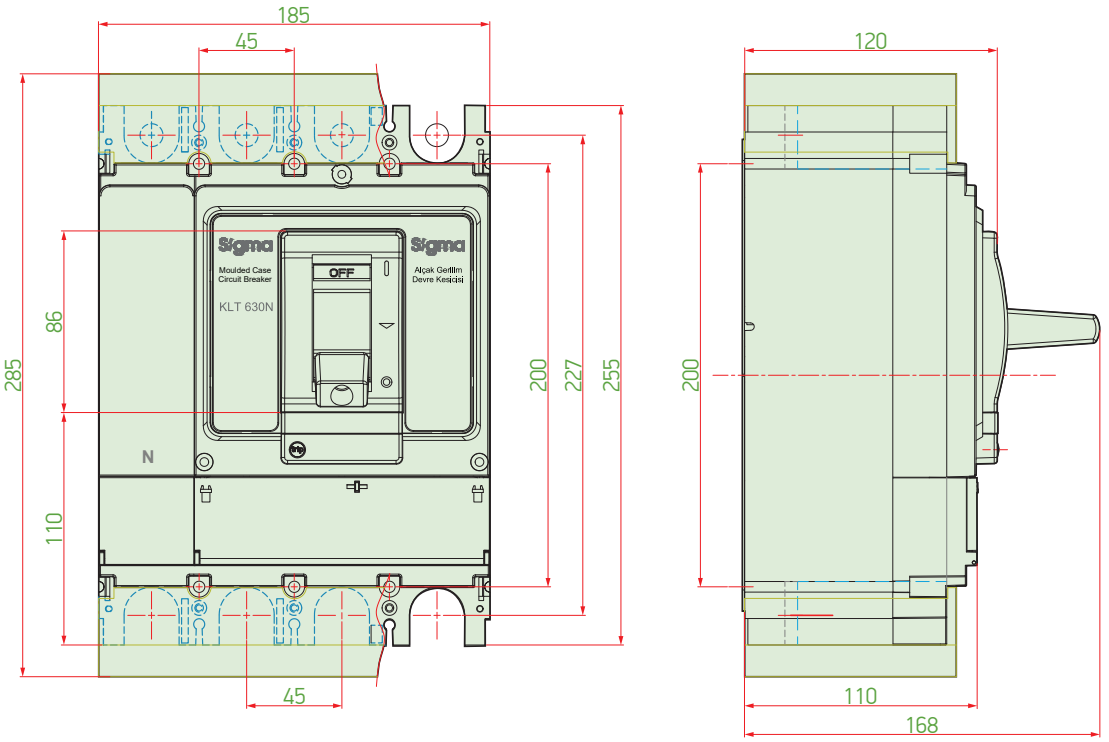
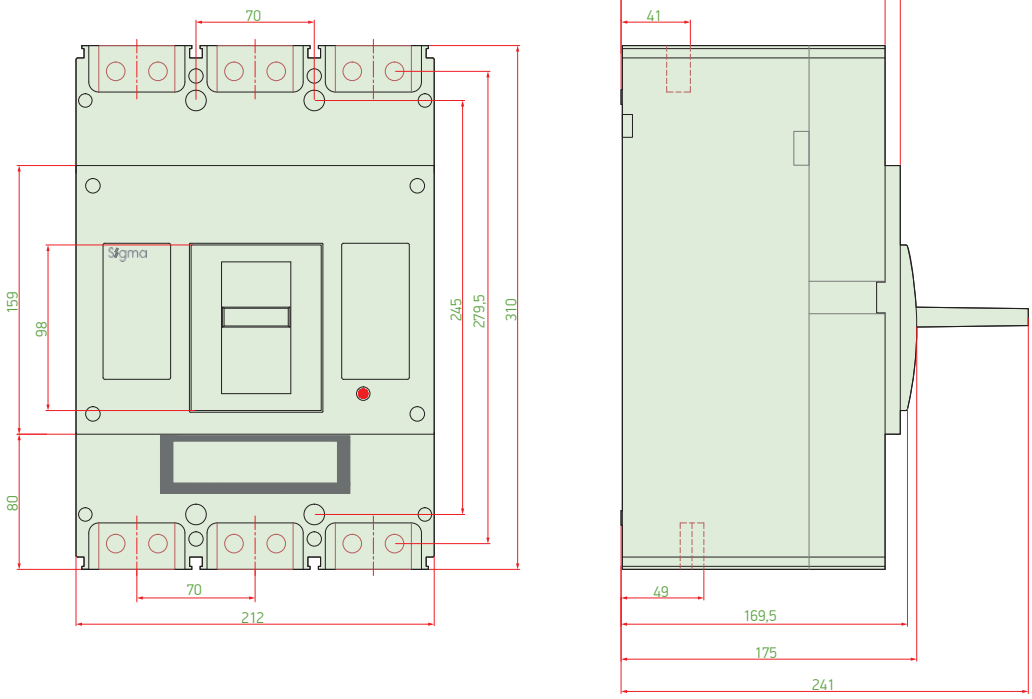


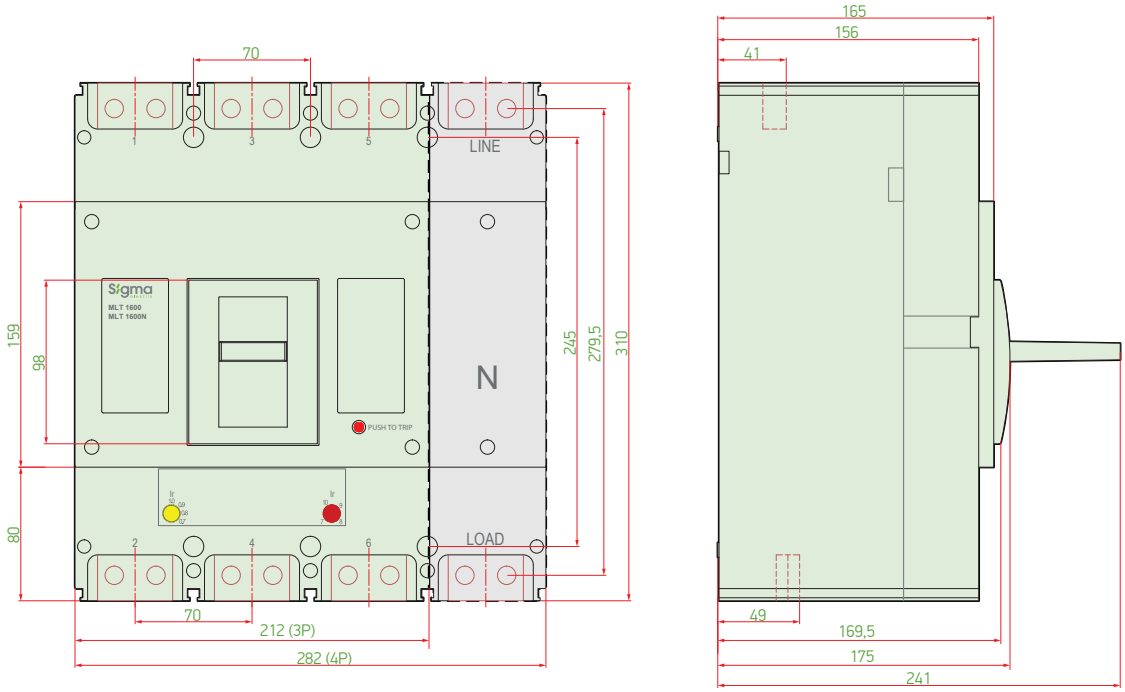
KLT-MLT-SLT-ULT 630N



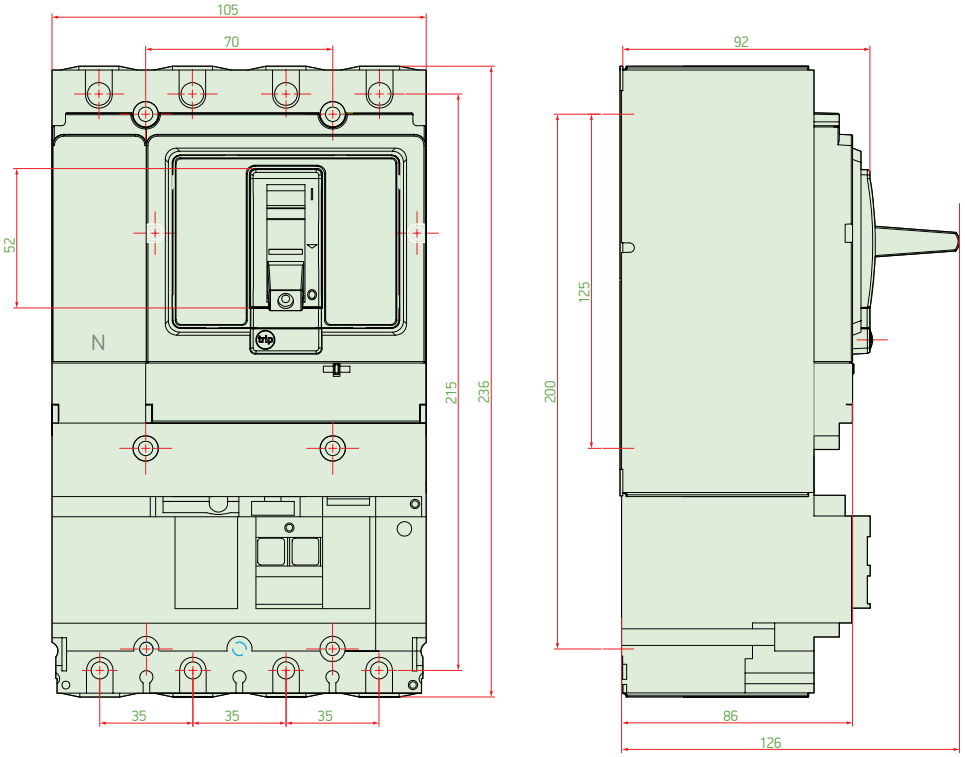
BST1600 - BSE1600



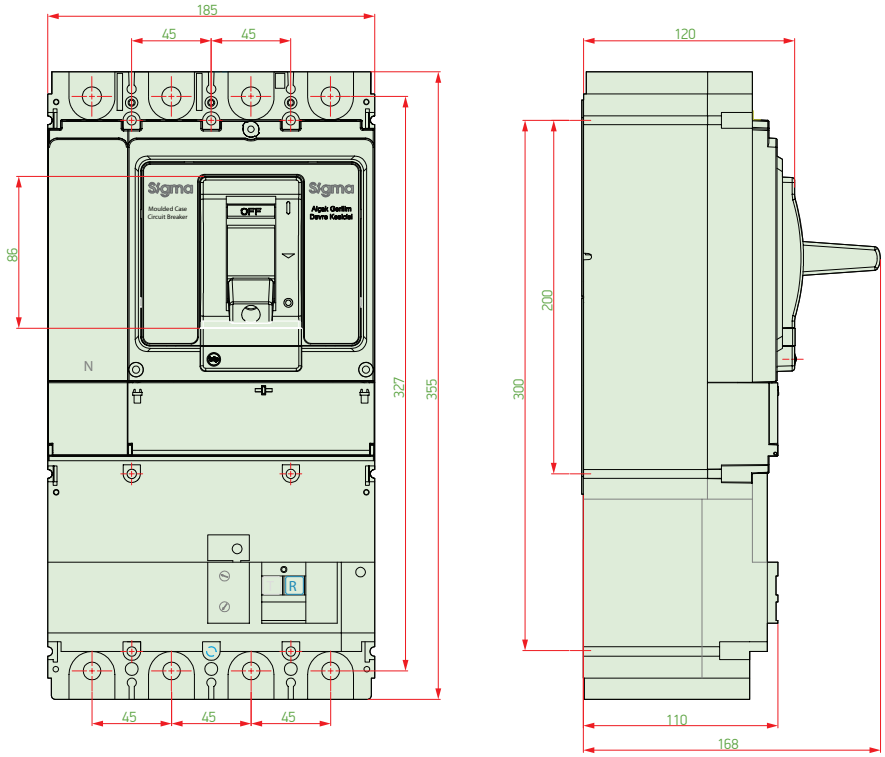
BST1600N - BSE1600N



G 250N


105
70
52
N
215
236
35
35
35
92
125
200
86
126

G 630N


185
45
45
Sigma
Moulded Case Circuit Breaker
Sigma
Açık Devre Kesici
OFF
86
N
327
355
R
45
45
45
120
200
300
110
168

Sigma elektrik

LOW VOLTAGE
AIR CIRCUIT BREAKERS

Air type power circuit breakers are designed as main breaker to protect electrical equipment against overload currents, short circuit currents and ground faults. They are suitable for use in power plants, factories, mines and smart building distribution systems, especially in buildings that are expected to draw high loads. When equipped with a motor mechanism, they are ready to get shut off at any time.

- ⇨ 3 and 4 poles
- ⇨ 42kA, 80kA, 100kA and 120kA short circuit breaking capacity
- ⇨ Rated current from 630A to 6300A
- ⇨ 1000V AC rated insulation voltage
- ⇨ Possibility of maintenance and repair without cutting off system power with draw-out types
- ⇨ Possibility to monitor phase voltages and phase currents on the LCD screen
- ⇨ Showing phase information where the error occurred
- ⇨ Versions that communicate via RS485
- ⇨ Internal counter feature

LV Air Circuit Breakers - Technical Specifications

				SMA-1600 SCA-1600	SDA-2000 SFA-2000	SDA-3200 SFA-3200	SDA-4000 SFA-4000	SDA-6300 SFA-6300
Type of structure				Draw-Out/Fixed	Draw-Out/Fixed	Draw-Out/Fixed	Draw-Out/Fixed	Draw-Out/Fixed
Number of poles				3-4	3-4	3-4	3-4	3-4
Electrical specifications								
Rated current (at 40°C)		A		630, 800, 1000, 1250, 1600	630, 800, 1000, 1250, 1600, 2000	2500, 3200	4000	5000, 6300
Rated operating voltage	Ue	V	AC	415	415	415	415	415
Rated insulation voltage	Ui	V		1000	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp	kV		8	8	8	8	8
Breaking capacity								
Rated ultimate short circuit breaking capacity	Icu	kA	690V AC	35	50	80	80	80
			415V AC	42	80	100	100	120
Rated service short circuit breaking capacity	Ics	kA	690V AC	25	40	50	50	50
			415V AC	30	50	65	65	65
Utilization category				A, B	A, B	A, B	A, B	A, B
Pollution degree				3	3	3	3	3
Electrical life (No. operation)	ON-OFF		415V	500	1000	500	500	500
Mechanical life (No. operation)	ON-OFF			10000	10000	10000	8000	8000
Protection unit				Electronic	Electronic	Electronic	Electronic	Electronic
Long time delay current	Ir1	A		(0,4-1)xIn	(0,4-1)xIn	(0,4-1)xIn	(0,4-1)xIn	(0,4-1)xIn
Long time delay time	t1	sec		0-480	0-480	0-480	0-480	0-480
Short time delay current	Ir2	A		(0,4-15)xIn	(0,4-15)xIn	(0,4-15)xIn	(0,4-15)xIn	(0,4-15)xIn
Short time delay time	t1	sec		0.1-1	0,1-1	0,1-1	0,1-1	0,1-1
Instantaneous breaking current	Ir3	A		In ... 50kA +OFF	In ... 50kA +OFF	In ... 50kA +OFF	In ... 50kA +OFF	In ... 50kA +OFF
Earth fault current	Ir4	A		(0,2-0.8)xIn+OFF	(0,2-0,8)xIn+OFF	(0,2-0,8)xIn+OFF	(0,2-0,8)xIn.OFF	(0,2-0,8)xIn.OFF
Operating ambient temperature		°C		-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Storage temperature		°C		-40 ... +80	-40 ... +80	-40 ... +80	-40 ... +80	-40 ... +80
Relative humidity		%		95	95	95	95	95
Accessories								
Shunt trip coil (230V AC)				On request	On request	On request	On request	On request
Under voltage coil (230V AC)				On request	On request	On request	On request	On request
Delay type under voltage coil (230V AC)				On request	On request	On request	On request	On request
Closing coil (230V AC)				On request	On request	On request	On request	On request
Auxiliary contact (2NO+2NC)				Standard	Standard	Standard	Standard	Standard
Motor operator (230V AC)				On request	On request	On request	On request	On request
Mechanical interlock				On request	On request	On request	On request	On request
Counter	NEW FEATURE			Standard	Standard	Standard	Standard	Standard

Protection Specifications for Air Circuit Breakers

Long-Time Delay Overcurrent Protection

Setting Current (Ir1)	Error	Current	Tripping Time (sec)						Time Error
(0.4~1)xIn	±%10	1.05xIr1	<2h non-tripping						
		1.30xIr1	<1h trip						
		1.5x Ir1 (t1)	15	30	60	120	240	480	±10%
		2.0xIr1	8.4	16.9	33.7	67.5	135	270	±10%

Short-Time Delay Overcurrent Protection

Setting Current (Ir1)	Error	Current	Tripping Time (sec)				Time Error
(0,4~15)xIr2	±%10	≤0.9xIr2	<2h non-tripping				
		>1.1xIr2	<1h trip				
		Delay setting (ts)	0.1	0.2	0.3	0.4	±15%
		>8xIr2	0.06	0.14	0.23	0.35	±15%

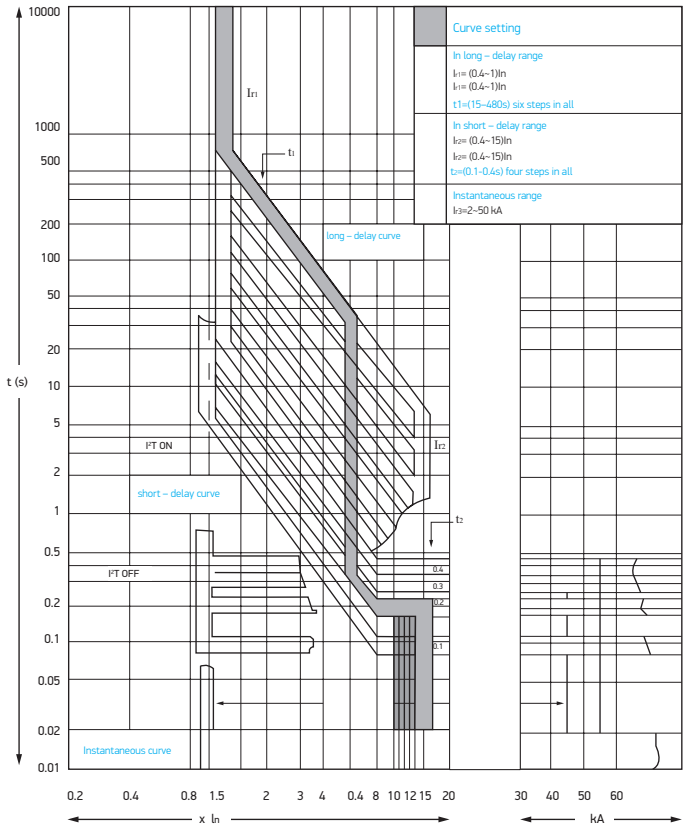
Instantaneous Tripping Protection

Setting Current (Ir1)	Error	Current	Time Error
1.0 In~50kA	±%15	≤0.85Ir3	non-tripping
		>1.15Ir3	trip

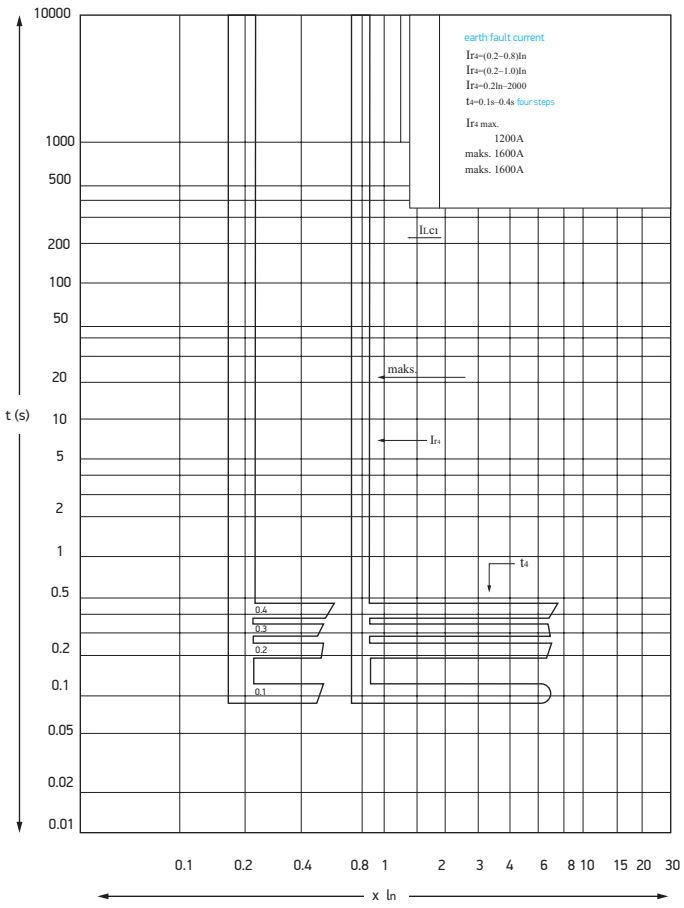
Ground Fault Protection

Setting Current (Ir1)	Error	Current	Tripping Time (sec)				Time Error
(0.2~0.8)Ir4	±%10	≤0.9xIr4	non-tripping				
		>1.10Ir4	Tripping				
		Tripping time (sec)	0.1	0.2	0.3	0.4	±15%

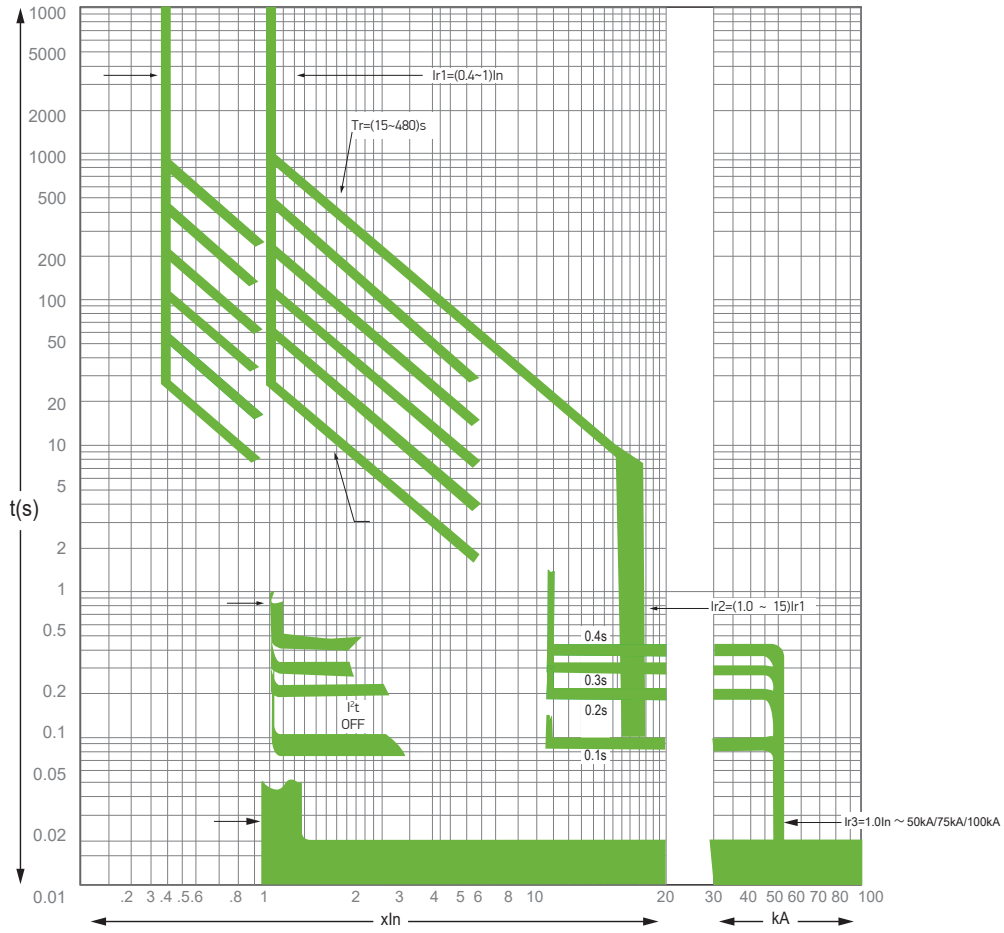
Overcurrent Protection Current-Time Curve



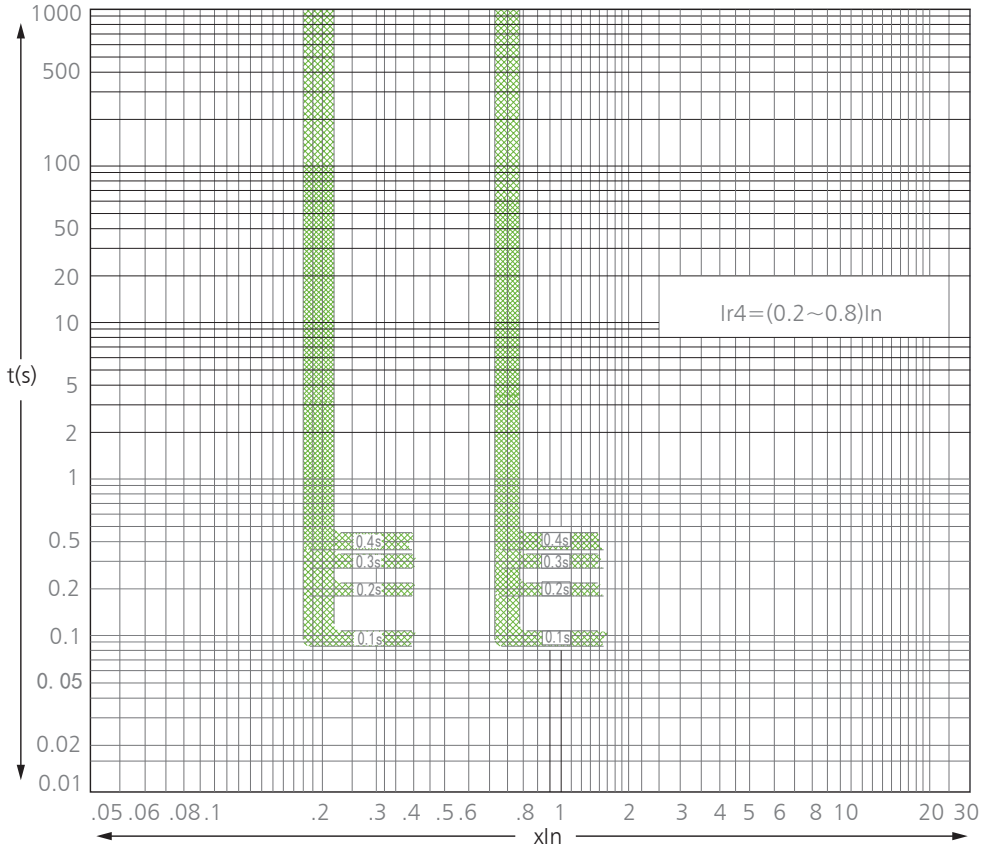
Ground Fault Protection Current-Time Curve



Overload Time-Current Characteristic for ACB



Ground Fault Protection Time-Current Characteristic for ACB



Sigma
elektrik

3 Poles, Fixed Type, Air Circuit Breakers (LSIG protection)

Type Code		Rated Current In (A)	Adjustable Current Range (Ir1)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code	Order Code (with RS485)
SMA-1600	NEW PRODUCT	630	252-630	42	Manual	SMA0630H3	—
		800	320-800	42	Manual	SMA0800H3	—
		1000	400-1000	42	Manual	SMA1000H3	—
		1250	500-1250	42	Manual	SMA1250H3	—
		1600	640-1600	42	Manual	SMA1600H3	—
SFA-2000		630	252-630	80	Manual	SFA0630H3	SFA0630H3C
		800	320-800	80	Manual	SFA0800H3	SFA0800H3C
		1000	400-1000	80	Manual	SFA1000H3	SFA1000H3C
		1250	500-1250	80	Manual	SFA1250H3	SFA1250H3C
		1600	640-1600	80	Manual	SFA1600H3	SFA1600H3C
		2000	1200-2000	80	Manual	SFA2000H3	SFA2000H3C
SFA-3200		2500	1000-2500	100	Manual	SFA2500H3	SFA2500H3C
		3200	1280-3200	100	Manual	SFA3200H3	SFA3200H3C
SFA-4000		4000	1600-4000	100	Manual	SFA4000H3	SFA4000H3C
SFA-6300	NEW PRODUCT	5000	2000-5000	120	Manual	SFA5000H3	SFA5000H3C
		6300	2520-6300	120	Manual	SFA6300H3	SFA6300H3C
SMA-1600	NEW PRODUCT	630	252-630	42	Motorized	SMA0630M3	—
		800	320-800	42	Motorized	SMA0800M3	—
		1000	400-1000	42	Motorized	SMA1000M3	—
		1250	500-1250	42	Motorized	SMA1250M3	—
		1600	640-1600	42	Motorized	SMA1600M3	—
SFA-2000		630	252-630	80	Motorized	SFA2000M3	SFA0630M3C
		800	320-800	80	Motorized	SFA0800M3	SFA0800M3C
		1000	400-1000	80	Motorized	SFA1000M3	SFA1000M3C
		1250	500-1250	80	Motorized	SFA1250M3	SFA1250M3C
		1600	640-1600	80	Motorized	SFA1600M3	SFA1600M3C
		2000	1200-2000	80	Motorized	SFA2000M3	SFA2000M3C
SFA-3200		2500	1000-2500	100	Motorized	SFA2500M3	SFA2500M3C
		3200	1280-3200	100	Motorized	SFA3200M3	SFA3200M3C
SFA-4000		4000	1600-4000	100	Motorized	SFA4000M3	SFA4000M3C
SFA-6300	NEW PRODUCT	5000	2000-5000	120	Motorized	SFA5000H3	SFA5000H3C
		6300	2520-6300	120	Motorized	SFA6300H3	SFA6300H3C

Note: All ACBs have 4NO+4NC auxiliary contacts as standard product.

3 Poles Draw-Out Type Air Circuit Breakers (LSIG protection)

Type Code		Rated Current In (A)	Adjustable Current Range (Ir1)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code	Order Code (with RS485)
SCA-1600	NEW PRODUCT	630	252-630	42	Manual	SCA0630H3	—
		800	320-800	42	Manual	SCA0800H3	—
		1000	400-1000	42	Manual	SCA1000H3	—
		1250	500-1250	42	Manual	SCA1250H3	—
		1600	640-1600	42	Manual	SCA1600H3	—
SDA-2000	NEW PRODUCT	630	252-630	80	Manual	SDA0630H3	SDA0630H3C
		800	320-800	80	Manual	SDA0800H3	SDA0800H3C
		1000	400-1000	80	Manual	SDA1000H3	SDA1000H3C
		1250	500-1250	80	Manual	SDA1250H3	SDA1250H3C
		1600	640-1600	80	Manual	SDA1600H3	SDA1600H3C
		2000	1200-2000	80	Manual	SDA2000H3	SDA2000H3C
SDA-3200		2500	1000-2500	100	Manual	SDA2500H3	SDA2500H3C
		3200	1280-3200	100	Manual	SDA3200H3	SDA3200H3C
SDA-4000		4000	1600-4000	100	Manual	SDA4000H3	SDA4000H3C
SDA-6300		5000	2000-5000	120	Manual	SDA5000H3	SDA5000H3C
		6300	2560-6300	120	Manual	SDA6300H3	SDA6300H3C
SCA-1600	NEW PRODUCT	630	252-630	42	Motorized	SCA0630M3	—
		800	320-800	42	Motorized	SCA0800M3	—
		1000	400-1000	42	Motorized	SCA1000M3	—
		1250	500-1250	42	Motorized	SCA1250M3	—
		1600	640-1600	42	Motorized	SCA1600M3	—
SDA-2000	NEW PRODUCT	630	252-630	80	Motorized	SDA0630M3	SDA0630M3C
		800	320-800	80	Motorized	SDA0800M3	SDA0800M3C
		1000	400-1000	80	Motorized	SDA1000M3	SDA1000M3C
		1250	500-1250	80	Motorized	SDA1250M3	SDA1250M3C
		1600	640-1600	80	Motorized	SDA1600M3	SDA1600M3C
		2000	1200-2000	80	Motorized	SDA2000M3	SDA2000M3C
SDA-3200		2500	1000-2500	100	Motorized	SDA2500M3	SDA2500M3C
		3200	1280-3200	100	Motorized	SDA3200M3	SDA3200M3C
SDA-4000		4000	1600-4000	100	Motorized	SDA4000M3	SDA4000M3C
SDA-6300		5000	2000-5000	120	Motorized	SDA5000M3	SDA5000M3C
		6300	2560-6300	120	Motorized	SDA6300M3	SDA6300M3C

Note: (*) All ACBs have 4NO+4NC auxiliary contacts as standard product.

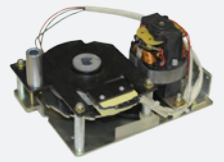
4 Poles, Fixed Type, Air Circuit Breakers (LSIG protection)

Type Code		Rated Current In (A)	Adjustable Current Range (Ir1)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code	Order Code (with RS485)
SMA-1600	NEW PRODUCT	630	252-630	42	Manual	SMA0630H4	—
		800	320-800	42	Manual	SMA0800H4	—
		1000	400-1000	42	Manual	SMA1000H4	—
		1250	500-1250	42	Manual	SMA1250H4	—
		1600	640-1600	42	Manual	SMA1600H4	—
SFA-2000	NEW PRODUCT	630	252-630	80	Manual	SFA0630H4	SFA0630H4C
		800	320-800	80	Manual	SFA0800H4	SFA0800H4C
		1000	400-1000	80	Manual	SFA1000H4	SFA1000H4C
		1250	500-1250	80	Manual	SFA1250H4	SFA1250H4C
		1600	640-1600	80	Manual	SFA1600H4	SFA1600H4C
		2000	1200-2000	80	Manual	SFA2000H4	SFA2000H4C
SFA-3200		2500	1000-2500	100	Manual	SFA2500H4	SFA2500H4C
		3200	1280-3200	100	Manual	SFA3200H4	SFA3200H4C
SFA-4000	NEW PRODUCT	4000	1600-4000	100	Manual	SFA4000H4	SFA4000H4C
SFA-6300	NEW PRODUCT	5000	2000-5000	120	Manual	SFA5000H4	SFA5000H4C
		6300	2520-6300	120	Manual	SFA6300H4	SFA6300H4C
SMA-1600	NEW PRODUCT	630	252-630	42	Motorized	SMA0630M4	—
		800	320-800	42	Motorized	SMA0800M4	—
		1000	400-1000	42	Motorized	SMA1000M4	—
		1250	500-1250	42	Motorized	SMA1250M4	—
		1600	640-1600	42	Motorized	SMA1600M4	—
SFA-2000	NEW PRODUCT	630	252-630	80	Motorized	SFA0630M4	SFA0630M4C
	NEW PRODUCT	800	320-800	80	Motorized	SFA0800M4	SFA0800M4C
		1000	400-1000	80	Motorized	SFA1000M4	SFA1000M4C
		1250	500-1250	80	Motorized	SFA1250M4	SFA1250M4C
		1600	640-1600	80	Motorized	SFA1600M4	SFA1600M4C
		2000	1200-2000	80	Motorized	SFA2000M4	SFA2000M4C
SFA-3200		2500	1000-2500	100	Motorized	SFA2500M4	SFA2500M4C
		3200	1280-3200	100	Motorized	SFA3200M4	SFA3200M4C
SFA-4000	NEW PRODUCT	4000	1600-4000	100	Motorized	SFA4000M4	SFA4000M4C
SFA-6300	NEW PRODUCT	5000	2000-5000	120	Motorized	SFA5000M4	SFA5000M4C
		6300	2520-6300	120	Motorized	SFA6300M4	SFA6300M4C

4 Poles Draw-Out Type Air Circuit Breakers (LSIG protection)

Type Code		Rated Current In (A)	Adjustable Current Range (Ir1)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code	Order Code (with RS485)
SCA-1600	NEW PRODUCT	630	252-630	42	Manual	SCA0630H4	—
		800	320-800	42	Manual	SCA0800H4	—
		1000	400-1000	42	Manual	SCA1000H4	—
		1250	500-1250	42	Manual	SCA1250H4	—
		1600	640-1600	42	Manual	SCA1600H4	—
SDA-2000	NEW PRODUCT	630	252-630	80	Manual	SDA0630H4	SDA0630H4C
		800	320-800	80	Manual	SDA0800H4	SDA0800H4C
		1000	400-1000	80	Manual	SDA1000H4	SDA1000H4C
		1250	500-1250	80	Manual	SDA1250H4	SDA1250H4C
		1600	640-1600	80	Manual	SDA1600H4	SDA1600H4C
		2000	1200-2000	80	Manual	SDA2000H4	SDA2000H4C
SDA-3200		2500	1000-2500	100	Manual	SDA2500H4	SDA2500H4C
		3200	1280-3200	100	Manual	SDA3200H4	SDA3200H4C
SDA-4000		4000	1600-4000	100	Manual	SDA4000H4	SDA4000H4C
SDA-6300	NEW PRODUCT	5000	2000-5000	120	Manual	SDA5000H4	SDA5000H4C
		6300	2520-6300	120	Manual	SDA6300H4	SDA6300H4C
SCA-1600	NEW PRODUCT	630	252-630	42	Motorized	SCA0630M4	—
		800	320-800	42	Motorized	SCA0800M4	—
		1000	400-1000	42	Motorized	SCA1000M4	—
		1250	500-1250	42	Motorized	SCA1250M4	—
		1600	640-1600	42	Motorized	SCA1600M4	—
SDA-2000	NEW PRODUCT	630	252-630	80	Motorized	SDA0630M4	SDA0630M4C
		800	320-800	80	Motorized	SDA0800M4	SDA0800M4C
		1000	400-1000	80	Motorized	SDA1000M4	SDA1000M4C
		1250	500-1250	80	Motorized	SDA1250M4	SDA1250M4C
		1600	640-1600	80	Motorized	SDA1600M4	SDA1600M4C
		2000	1200-2000	80	Motorized	SDA2000M4	SDA2000M4C
SDA-3200		2500	1000-2500	100	Motorized	SDA2500M4	SDA2500M4C
		3200	1280-3200	100	Motorized	SDA3200M4	SDA3200M4C
SDA-4000		4000	1600-4000	100	Motorized	SDA4000M4	SDA4000M4C
SDA-6300	NEW PRODUCT	5000	2000-5000	120	Motorized	SDA5000M4	SDA5000M4C
		6300	2520-6300	120	Motorized	SDA6300M4	SDA6300M4C

Accessories

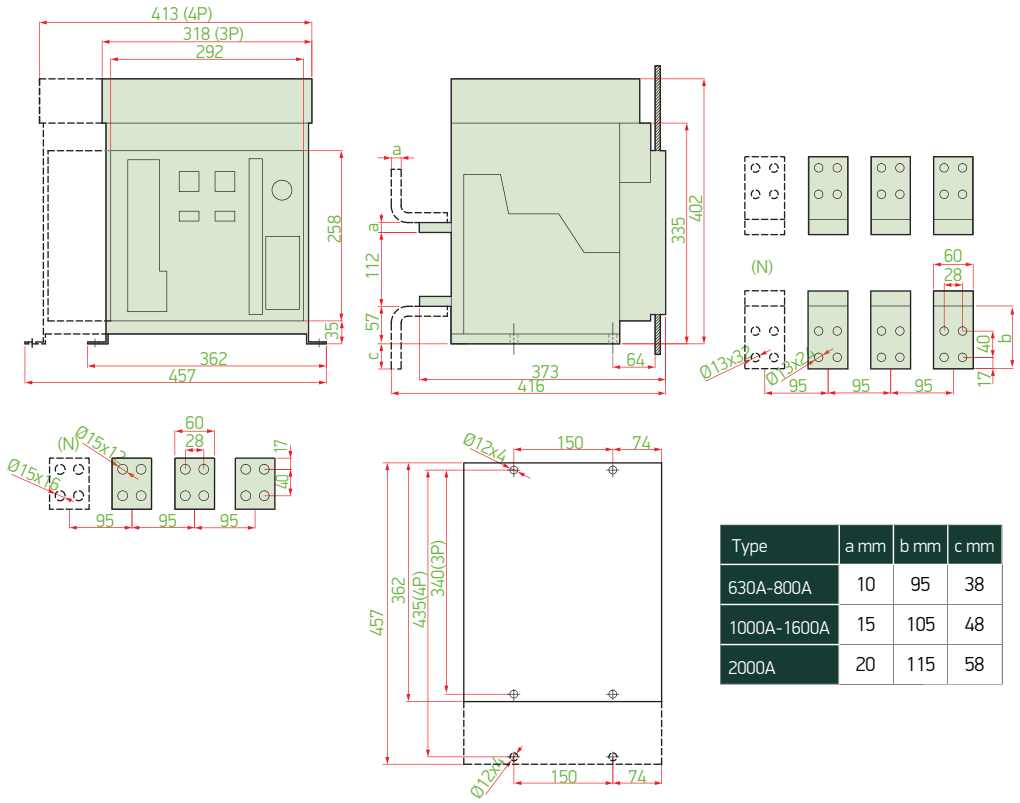


Type Code		Description	Features	Suitable Air Circuit Breakers	Order Code
SAAB		Shunt Trip Coil	230V AC	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SAAB
SMAB	NEW PRODUCT	Shunt Trip Coil	230V AC	SMA-1600, SCA-1600	SMAB
SAKB		Closing Coil	230V AC	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SAKB
SMKB	NEW PRODUCT	Closing Coil	230V AC	SMA-1600, SCA-1600	SMKB
SADG		Under Voltage Release - Without Delay	230V AC	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SADG230
		Under Voltage Release - Without Delay	400V AC	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SADG400
SMDG	NEW PRODUCT	Under Voltage Release - Without Delay	230V AC	SMA-1600, SCA-1600	SMDG230
		Under Voltage Release - Without Delay	400V AC	SMA-1600, SCA-1600	SMDG400
SAGDG		Under Voltage Release - With Delay	230V AC	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SAGDG230
		Under Voltage Release - With Delay	400V AC	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SAGDG400
SMGDG	NEW PRODUCT	Under Voltage Release - With Delay	230V AC	SMA-1600, SCA-1600	SMGDG230
		Under Voltage Release - With Delay	400V AC	SMA-1600, SCA-1600	SMGDG400
SRTC*	NEW PRODUCT	Under Voltage Release (with delay) + Closing Coil + RTC Switch	230V AC	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SRTC-230AC
SMM	NEW PRODUCT	Motor Operator (630 ... 1600A)	230V AC	SMA-1600, SCA-1600	SMM
SAM-1		Motor Operator (630 ... 2000A)	230V AC	SFA-2000, SDA-2000	SAM1
SAM-2		Motor Operator (2500 ... 6300A)	230V AC	SFA-3200, SFA-4000 SDA-3200, SDA-4000	SAM2
SAM-3		Motor Operator (5000 ... 6300A)	230V AC	SFA-6300, SDA-6300	SAM3
SAMK		Mechanical Interlock	Wire Type	SFA-2000, SFA-3200, SFA-4000, SFA-6300, SDA-2000, SDA-3200, SDA-4000, SDA-6300	SAMK
SMAK	NEW PRODUCT	Mechanical Interlock	Wire Type	SMA-1600	SMAK
SCAK		Mechanical Interlock	Wire Type	SCA-1600	SCAK

Note: When performing transfer operation in air circuit breakers, low voltage coil and closing coil should not be activated at the same time. To prevent this situation, it is recommended to use a under voltage Release (with delay) + closing coil + RTC switch combination.

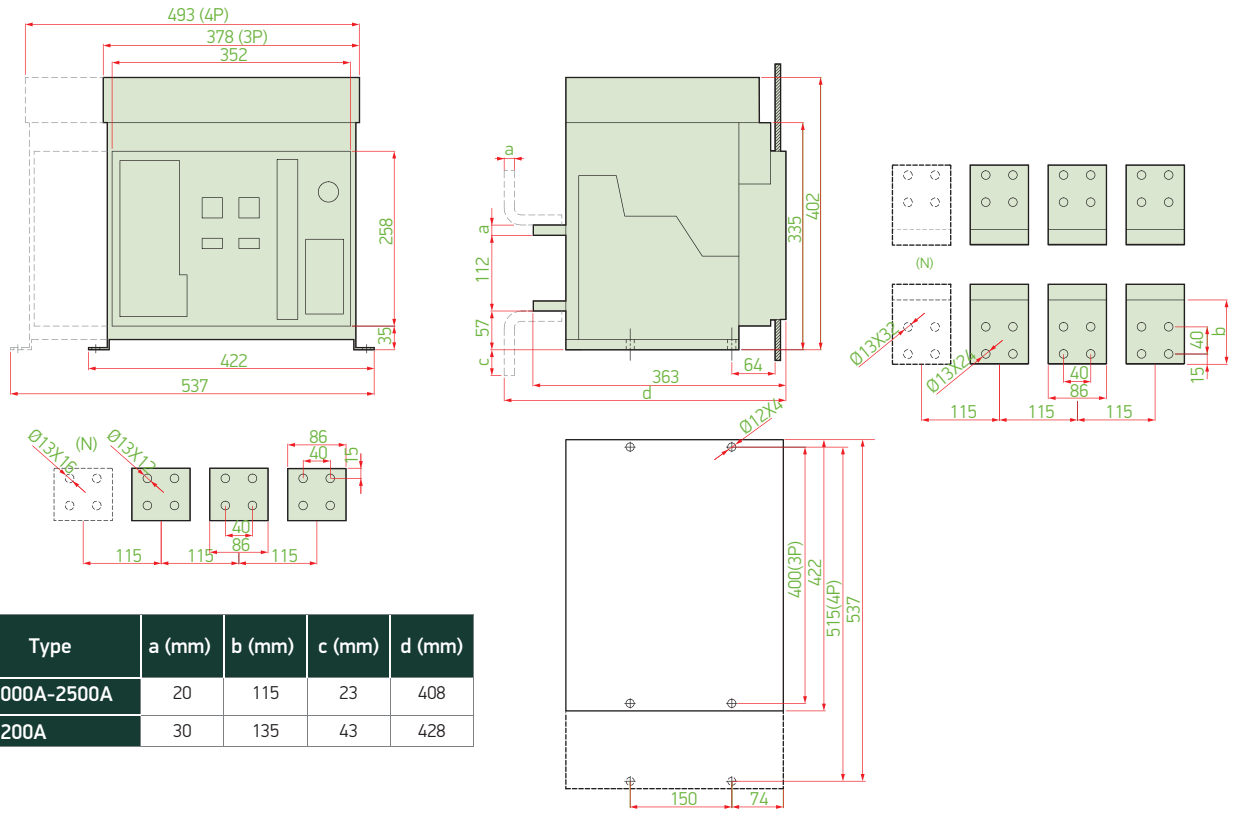
Dimensions

SFA-1600, SFA-2000 - SFA-1600(N), SFA-2000(N)



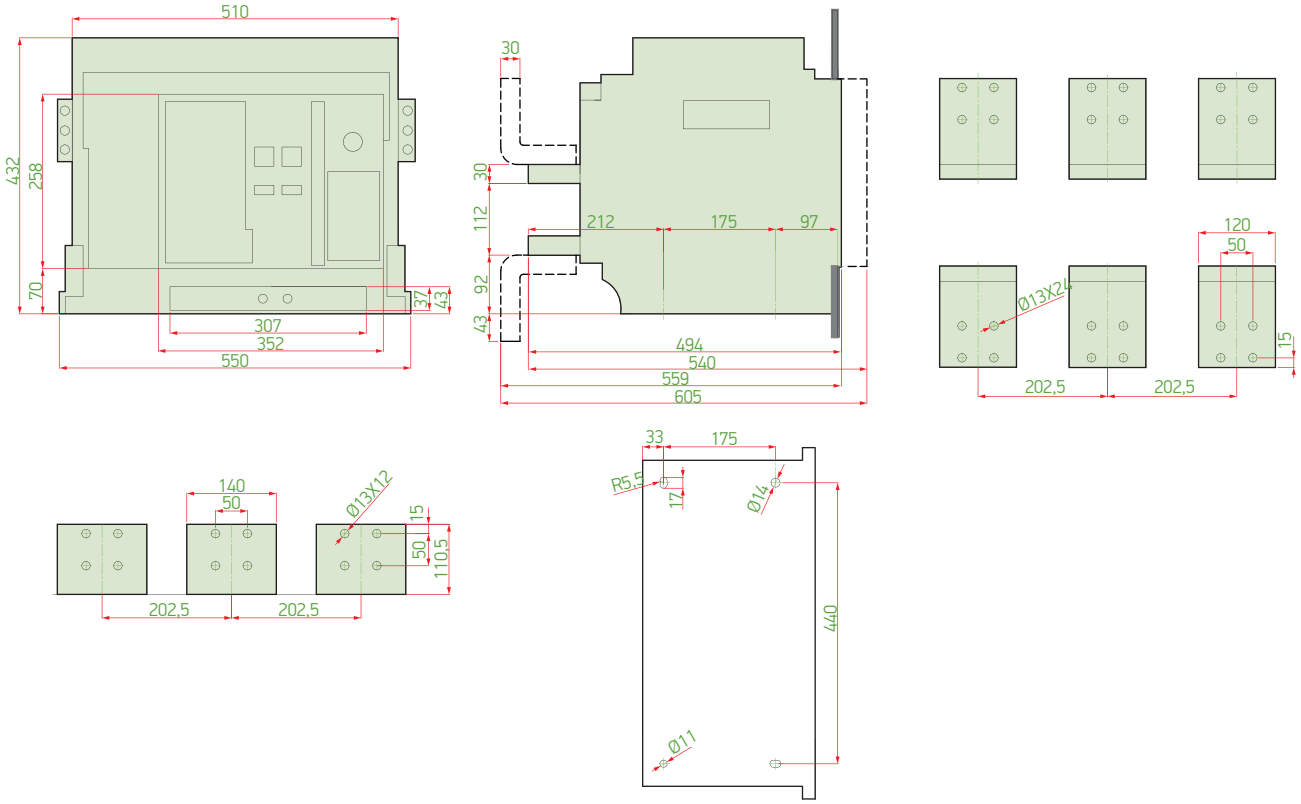
Type	a mm	b mm	c mm
630A-800A	10	95	38
1000A-1600A	15	105	48
2000A	20	115	58

SFA-2500, SFA-3200 - SFA-2500(N), SFA-3200(N)

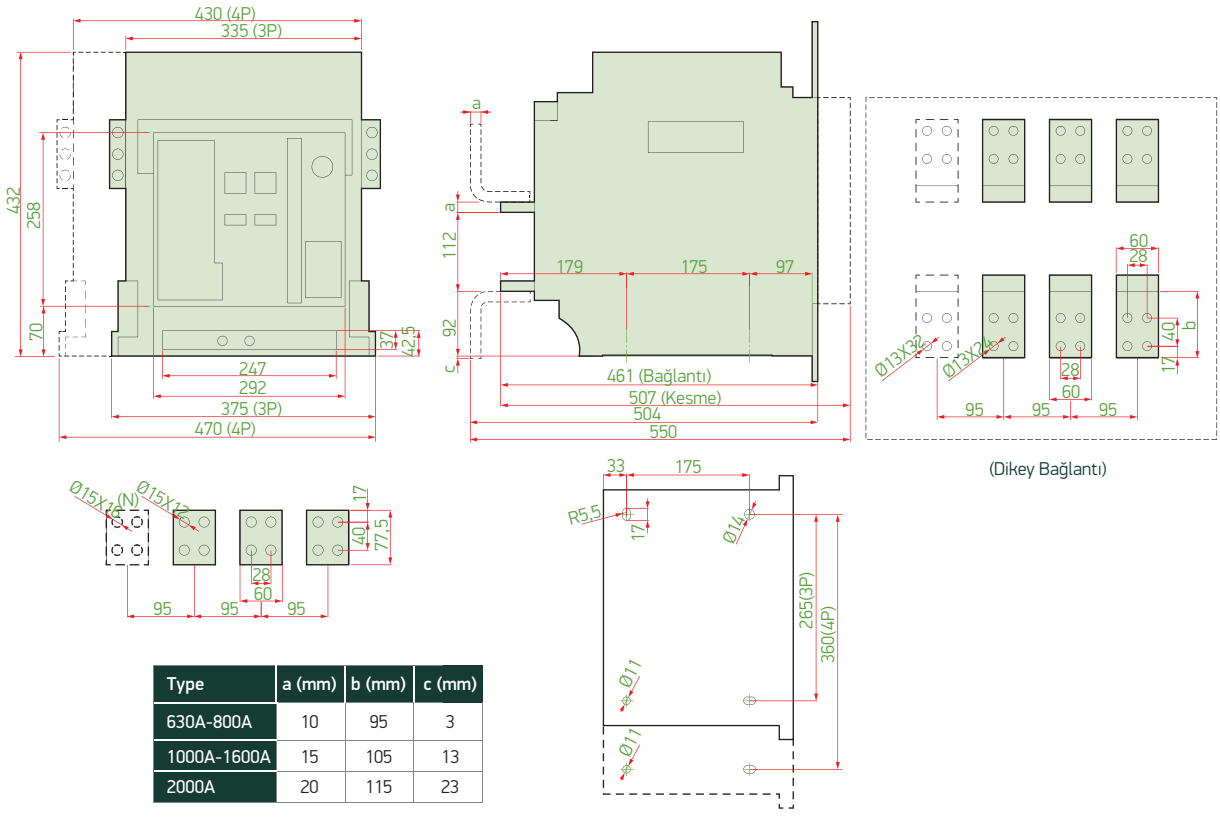


Type	a (mm)	b (mm)	c (mm)	d (mm)
2000A-2500A	20	115	23	408
3200A	30	135	43	428

SFA-4000



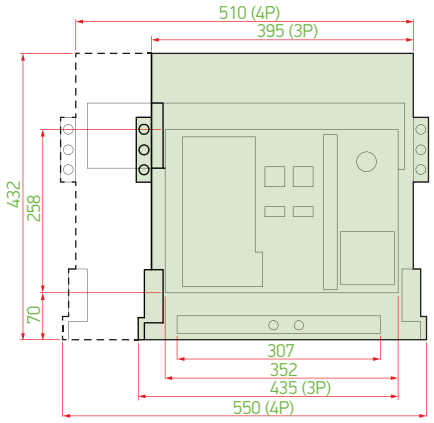
SDA-(1000-1250-1600-2000)

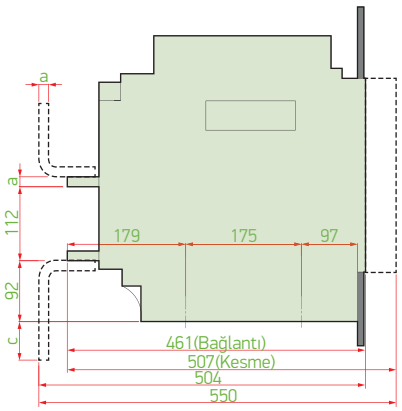


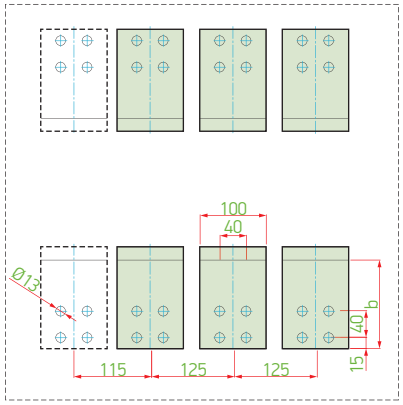
(Dikey Bağlantı)

Type	a (mm)	b (mm)	c (mm)
630A-800A	10	95	3
1000A-1600A	15	105	13
2000A	20	115	23

SDA-2500, SDA-3200







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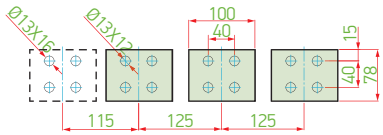
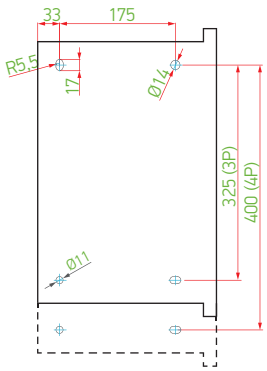
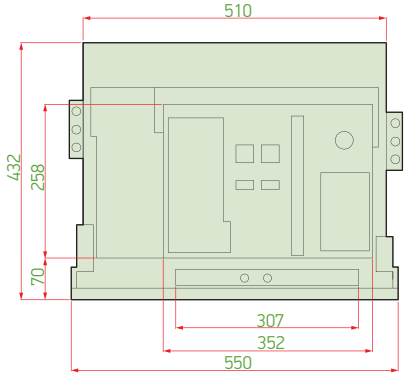
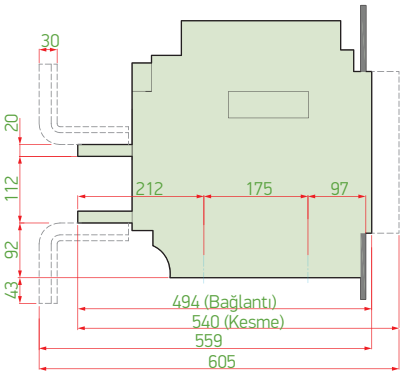


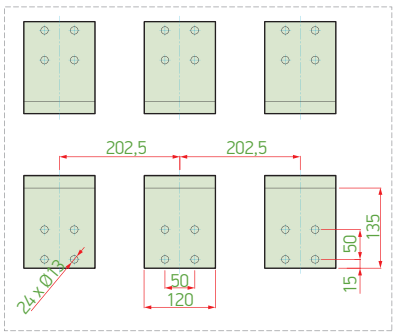
Type	a (mm)	b (mm)	c (mm)
2000A-2500A	20	115	58
3200A	30	135	78



SDA-4000 (3P)







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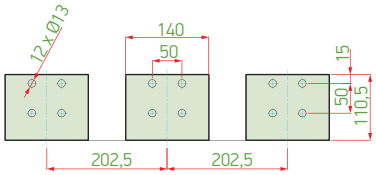
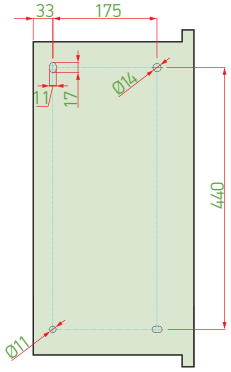
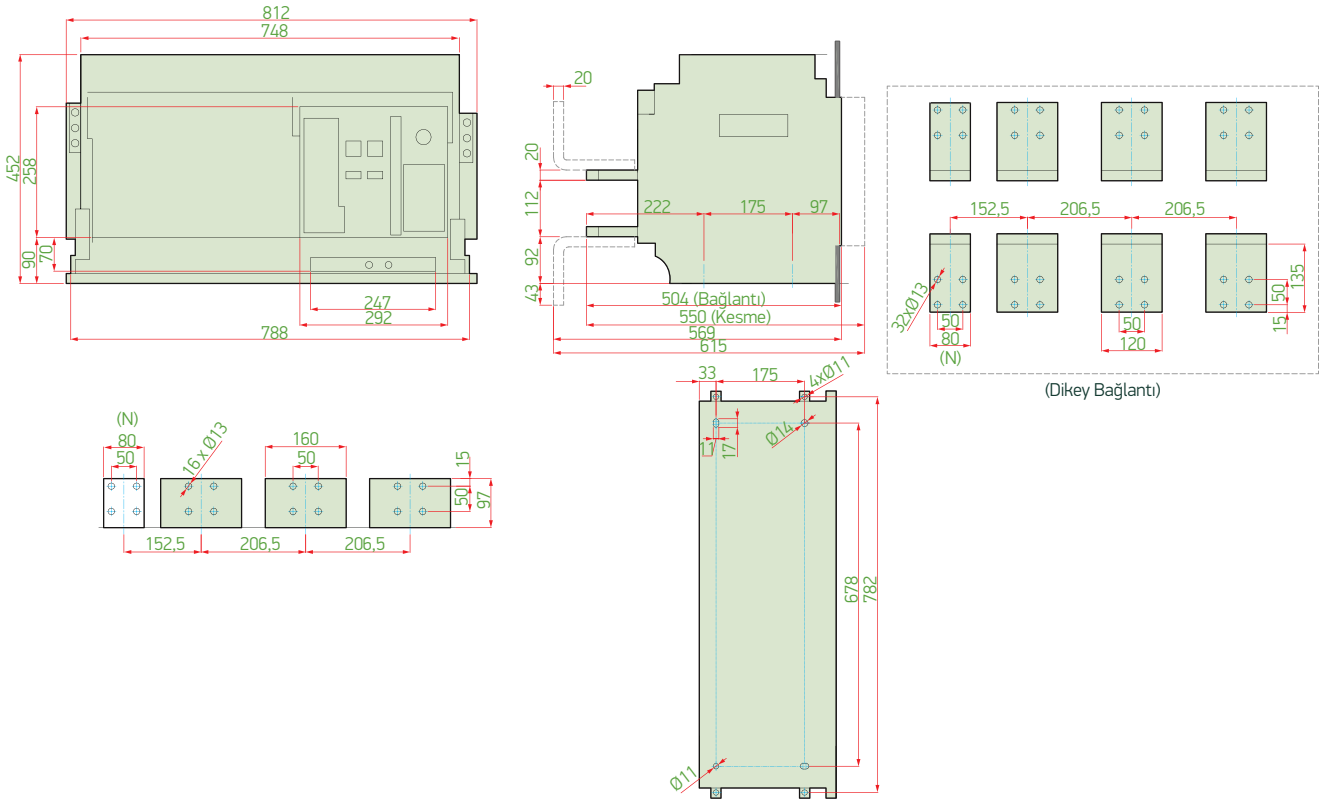




SDA-4000 (4P)



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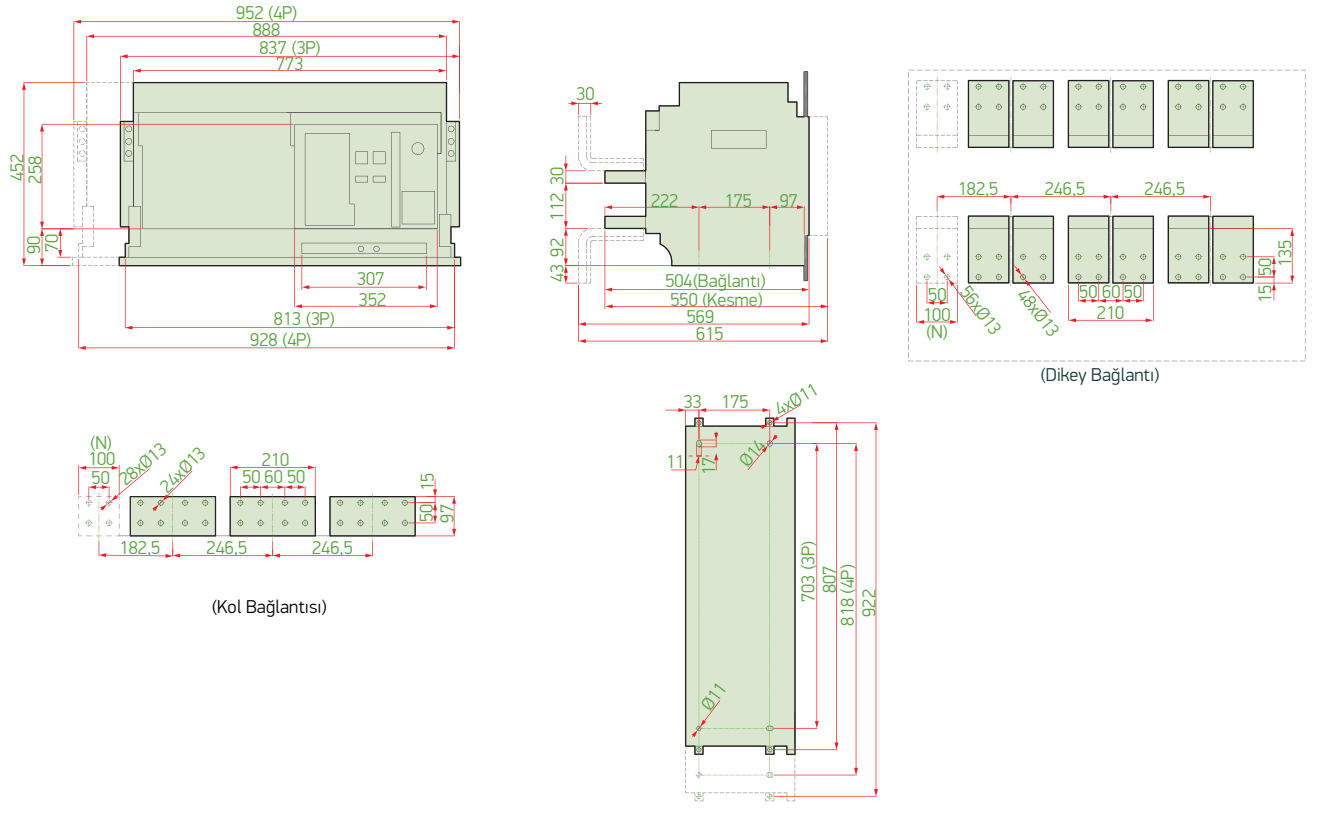
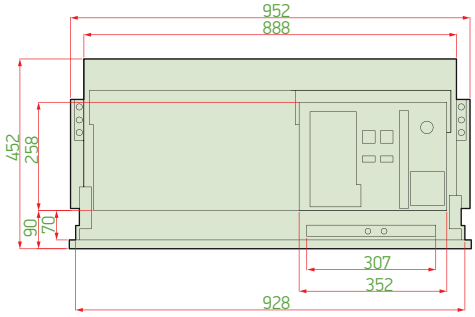
SDA-6300 (3P-4P 5000A)

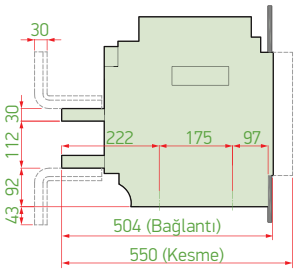


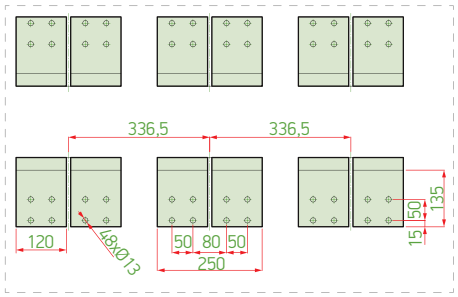
(Kol Bağlantısı)

(Dikey Bağlantı)

SDA-6300 (3P-6300A)







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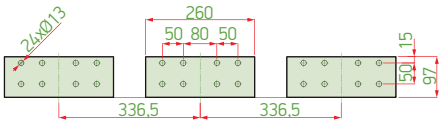
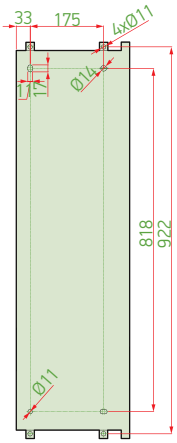
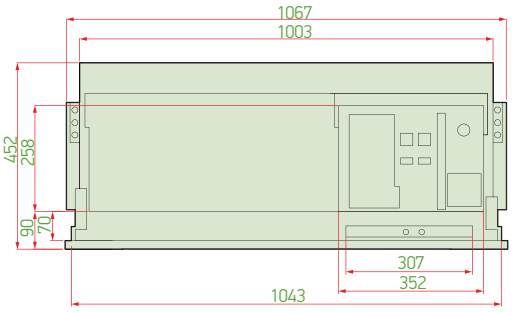
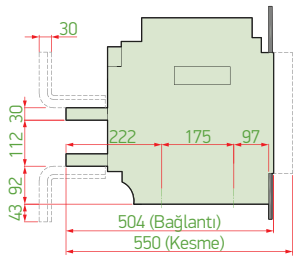
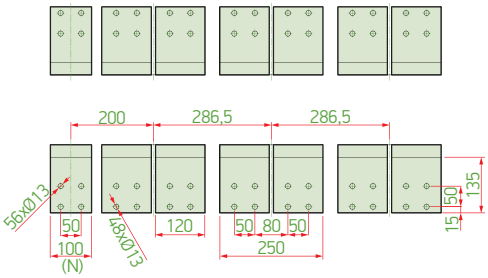


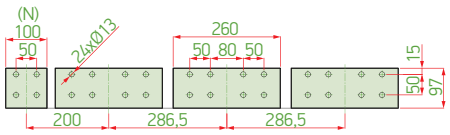


SDA-6300 (4P-6300A)









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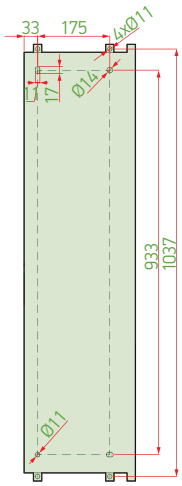
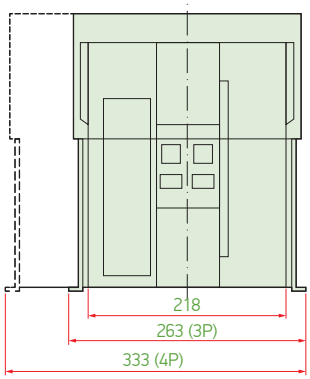
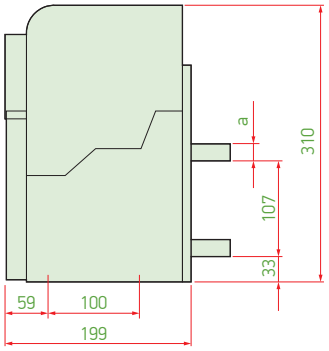
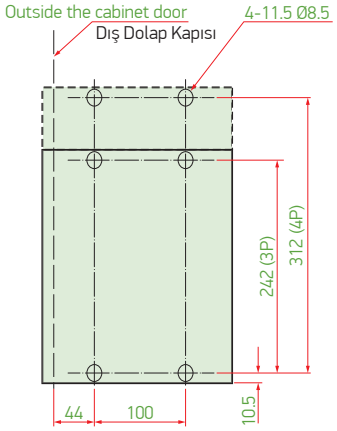


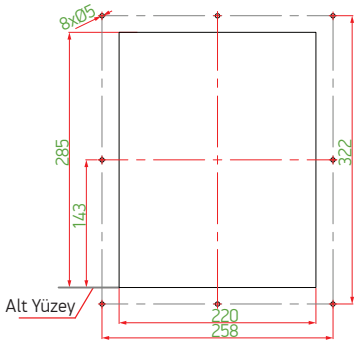
SMA-1600

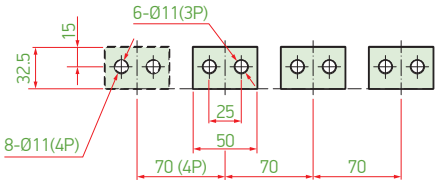


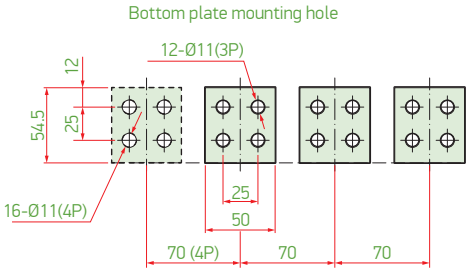




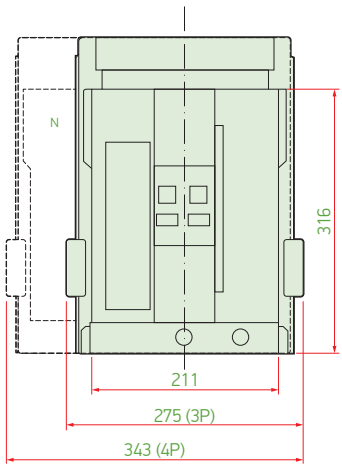
In (A)	a mm
200~630A	6
800~1000A	10
1250~1600A	18

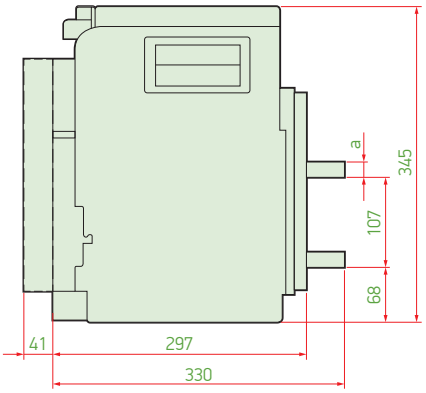


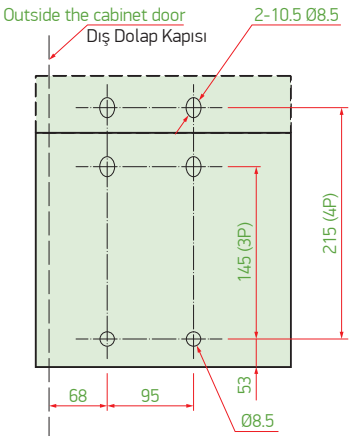




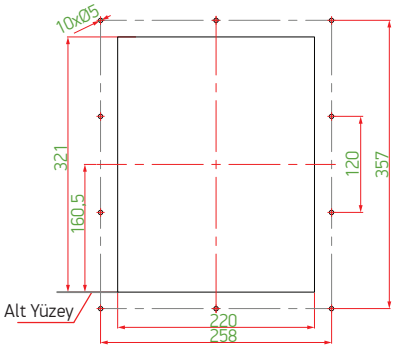
SCA-1600

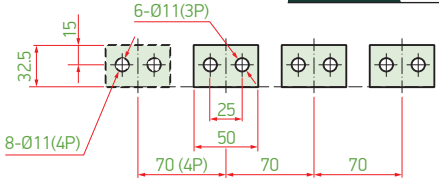


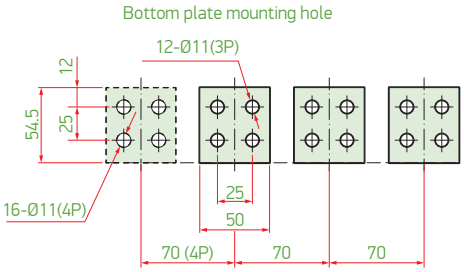




In (A)	a mm
200~630A	6
800~1000A	10
1250~1600A	18







Sigma elektrik

AUTOMATIC
TRANSFER SWITCHES

Automatic transfer switches are devices that automatically transfer the load from one power source (mains, UPS, generator, etc.) to another power source (mains, UPS, generator, etc.), allowing them to break, transmit, carry and isolate the current. They are used to carry out load transfers safely in areas where power outages are frequent, where uninterrupted power is needed and where the outage would cause great damage (hospitals, shopping malls, banks, factories, residences, etc.).

- ⇨ Rated current from 32A to 3200A
- ⇨ 3 different product ranges with Automatic Fuse, Thermal Magnetic Switch and Load Breaker types
- ⇨ Possibility of adjusting transfer times (optional)
- ⇨ Ability to protect the system against overvoltages and undervoltages caused by the source
- ⇨ DIN rail-adapted residential models

Automatic Transfer Switches (with MCCB) - Technical Specifications

	SATS-100	SATS-250				SATS-400	SATS-630	SATS-800
Nominal current Ith (40°C)	100A	125A	160A	200A	250A	400A	630A	800A
Standard	TS EN 60974-6-1	TS EN 60974-6-1				TS EN 60974-6-1	TS EN 60974-6-1	TS EN 60974-6-1
Number of poles	4P	4P				4P	4P	4P
Nominal operating voltage (Ue)	400V AC 50Hz							
Nominal insulation voltage Ui (V)	800	800	800	800	800	800	1000	1000
Rated impulse withstand voltage Uimp (kV)	8	8	8	8	8	8	12	12
Nominal short circuit breaking capacity (Icu) (kA)	25	36	36	36	36	36	36	36
UN-UR or UR-UN switching time (s)	0-180s	0-180s	0-180s	0-180s	0-180s	0-180s	0-180s	0-180s
UN-0 or UR-0 switching time (s)	2s	2s	2s	2s	2s	2s	2s	2s
Mechanical service life	6000	6000	6000	6000	4000	4000	3000	3000
Protection degree	IP30 (Other than Terminals)							
Maximum copper cable section (mm^2)	35	35	50	85	95	185	2x150	2x240
Tightening torque min / max (Nm)	9/13	9/13	9/13	20/26	20/26	20/26	20/26	20/26
Ambient operating temperature range	-5°C ... +40°C (24 hours average not more than 35°C)							
Ambient storage temperature range	-20°C ... +60°C							
Relative Humidity	95%							
Pollution degree	3							

Control Unit Properties	
Nominal application voltage	230V ±%20
Power consumption	10W
Installation mode	Fixed Type
Connection mode	Frontal
Operating frequency	50/60Hz
Auxiliary power supply	24V DC (-10%, +15%)

Automatic Transfer Switches (with MCB) - Technical Specifications

	SATS2-63				SATS4-63				SATS4-125		
Nominal current (Ith) (at 40°C)	32	40	50	63	32	40	50	63	80	100	125
Standard	TS EN 60974-6-1				TS EN 60974-6-1				TS EN 60974-6-1		
Number of poles	2P				4P				4P		
Nominal operating voltage (Ue)	415V AC				415V AC				415V AC		
Nominal insulation voltage (Ui)	750V				750V				750V		
Rated impulse withstand voltage (Uimp)	4kV				6kV				6		
Nominal short circuit breaking capacity (Icu)	3kA				6kA				6		
UN-UR or UR-UN switching time	< 3s				200ms				200ms		
UN-0 or UR-0 switching time	-				50ms				50ms		
Mechanical service life	3000				3.000				3000		
Protection degree	IP20				IP20				IP20		
Ambient operating temperature range	-5°C ... +40°C				-30°C ~ +60°C				-30°C ~ +60°C		
Ambient storage temperature range	-20°C ~ +60°C				-20°C ~ +60°C				-20°C ~ +60°C		
Relative Humidity	%95				%95				%95		
Pollution degree	III				III				III		
Altitude	2000m				2000m				2000m		

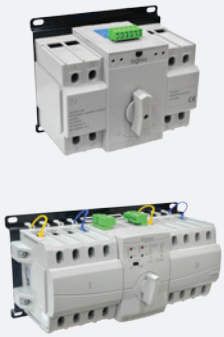
Residential Automatic Transfer Switches (Without Protection)

	MATS2-63	MATS4-63	MATS2-125	MATS4-125
Rated operating current Ue (A)	63		125	
Pole number	2	4	2	4
Rated operating voltage (V)	230	400	230	400
Rated insulation voltage Ui (V)	800		500	
Rated impulse withstand voltage Uimp (kV)	8		4	
Rated short-circuit current Iq (kA)	5		3	
Frequency (Hz)	50/60		50/60	
Short circuit protection device (fuse)	SNH00-63A		SNH00-125A	
Mechanical life	3000 times		3000 times	
Electrical life	1500 times		1500 times	
Usage category	AC-33iB		AC-33iB	
Ambient operating temperature	-5°C ... +40°C		-5°C ... +40°C	
Ambient storage temperature	-25°C ... +55°C		-25°C ... +55°C	
Relative humidity	95%		95%	

Automatic Transfer Switches - Technical Specifications (Motorized Switch Disconnector)

	MATS-100	MATS-160	MATS-250	MATS-630	MATS-1000	MATS-1600	MATS-2000	MATS-2500	MATS-3200
Rated thermal current (Ith)	100	160	250	630	1000	1600	2000	2500	3200
Rated insulation voltage [Ui(V)]	800	800	800	800	800	800	1000	1000	1000
Rated impulse withstand voltage Uimp (kV)	8	8	8	8	8	8	12	12	12
Rated short circuit making capacity Icm(kA) peak	8	17	17	26	55	55	55	55	55
Short Circuit Resistance Capacity Icw (kA/0.1sn)	9	25	25	50	90	90	50	50	55
Rated limited short circuit current Iq (kA)	120	120	120	120	120	120	80	80	80
Transfer time	1,7	2,3	3,1	2,1	2,6	2,6	2.45	2.45	2.45
Contact transfer time	0,7	1	1,2	0,8	1	1	1	1	1
Weight (kg)	4	6,1	10,7	22	54	61	102	102	113
Phase lost detect	3 phase								
Utilization category	AC-33İB (GB standart) / AC-32B (IEC standart)								

Automatic Transfer Switches (with MCB)



Type Code		Number of Poles	Rated Current In (A)	Rated Voltage (V)	Breaking Capacity Icu (kA)	Order Code
SATS2-63	NEW PRODUCT	2P	32	230	6	SATS2032
		2P	40	230	6	SATS2040
		2P	50	230	6	SATS2050
		2P	63	230	6	SATS2063
SATS4-125		4P	32	400	6	SATS4032
		4P	40	400	6	SATS4040
		4P	50	400	6	SATS4050
		4P	63	400	6	SATS4063
	NEW PRODUCT	4P	80	400	6	SATS4080
		4P	100	400	6	SATS4100
		4P	125	400	6	SATS4125

Note: Sats type automatic transfer switch is protected by in built MCB against overcurrents.

Automatic Transfer Switches (with MCCB)

Type Code	Number of Poles	Rated Current In (A)	Rated Voltage (V)	Breaking Capacity Icu (kA)	Order Code
SATS-100	4P	100	400	25	SATS100
SATS-250	4P	125	400	36	SATS125
	4P	160	400	36	SATS160
	4P	200	400	36	SATS200
	4P	250	400	36	SATS250
SATS-400	4P	400	400	36	SATS400
SATS-630	4P	630	400	36	SATS630
SATS-800	4P	800	400	36	SATS800

Note: 3 phases of Sats type automatic transfer switch is protected against over voltage and under voltage.

HOW TO CONNECT SATS TYPE AUTOMATIC TRANSFER SWITCHES (Thermal-Magnetic Compact Switch)?

You can watch from the link “youtube.com/sigmaelektrik”, you can have easy and fast access with the QR code on the side

Residential Automatic Transfer Switches (Without Protection)

NEW PRODUCT

Type Code	Number of Poles	Rated Current In (A)	Rated Voltage (V)	Short Circuit Withstand Capacity Icw (kA/1sn)	Order Code
MATS2-63	2P	63	230	5	MATS20063
MATS4-63	4P	63	400	5	MATS40063

Automatic Transfer Switches (Motorized Switch Disconnector)

Type Code	Number of Poles	Rated Current In (A)	Rated Voltage (V)	Rated short circuit making capacity Icm(kA) peak	Order Code
MATS-100	4P	100	400	8	MATS100-B
MATS-160	4P	160	400	17	MATS160-B
MATS-250	4P	250	400	17	MATS250-B
MATS-630	4P	630	400	26	MATS630-B
MATS-1000	4P	1000	400	55	MATS1000-B
MATS-1600	4P	1600	400	55	MATS1600-B
MATS-2000	4P	2000	400	55	MATS2000-B
MATS-2500	4P	2500	400	55	MATS2500-B
MATS-3200	4P	3200	400	55	MATS3200-B

Note: Over current protection is not available for Mats type Automatic Transfer Switch.
Note: 3 phase of Mats type Automatic Transfer switch are protected against phase losses.

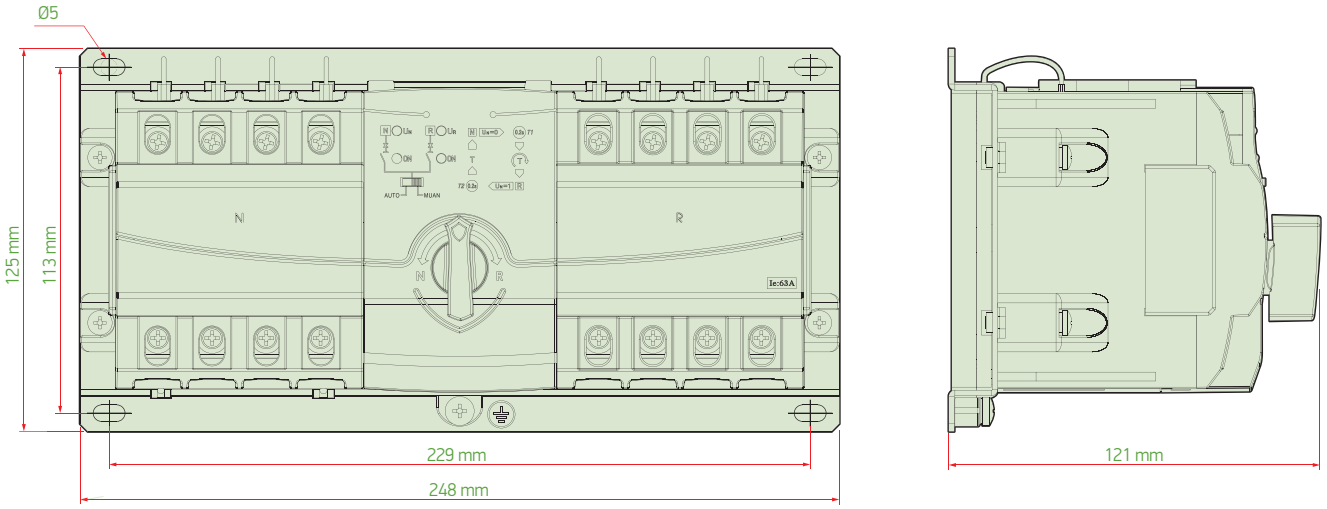
NEW PRODUCT

Type Code	Number of Poles	Rated Current In (A)	Rated Voltage (V)	Short Circuit Withstand Capacity Icw (kA/1sn)	Order Code
MATS2-125	2P	125	230	5	MATS20125
MATS4-125	4P	125	400	5	MATS40125

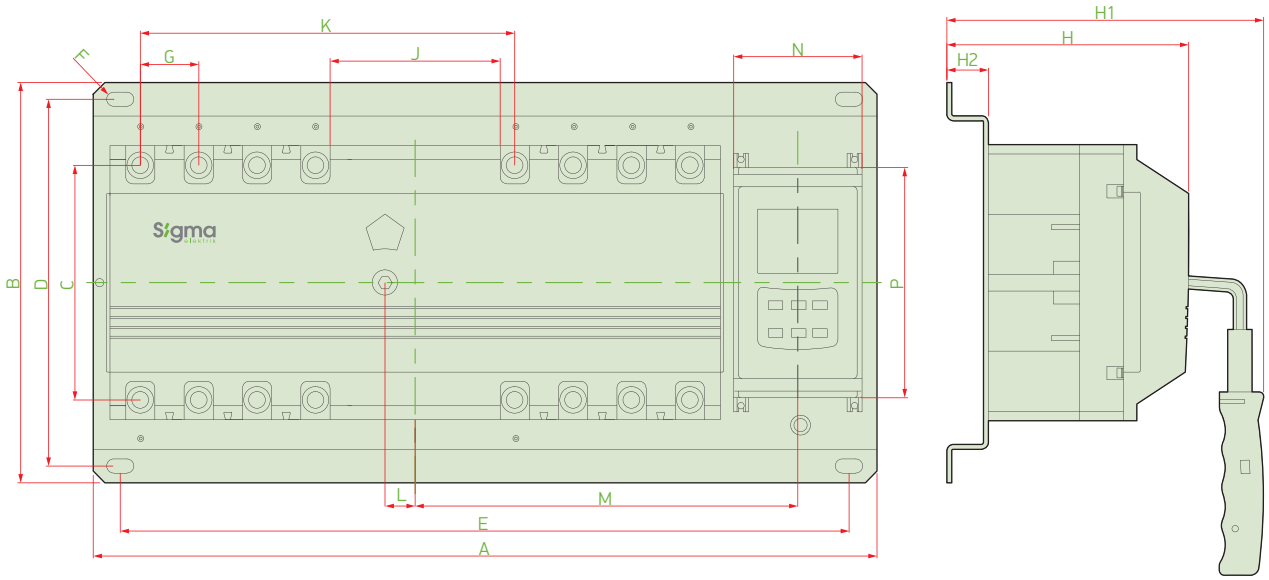
HOW TO CONNECT MATS TYPE AUTOMATIC TRANSFER SWITCHES?

You can watch from the link “youtube.com/sigmaelektrik”, you can access easily and quickly with the QR code on the side

Automatic Transfer Switches (with MCB) (32A-63A)

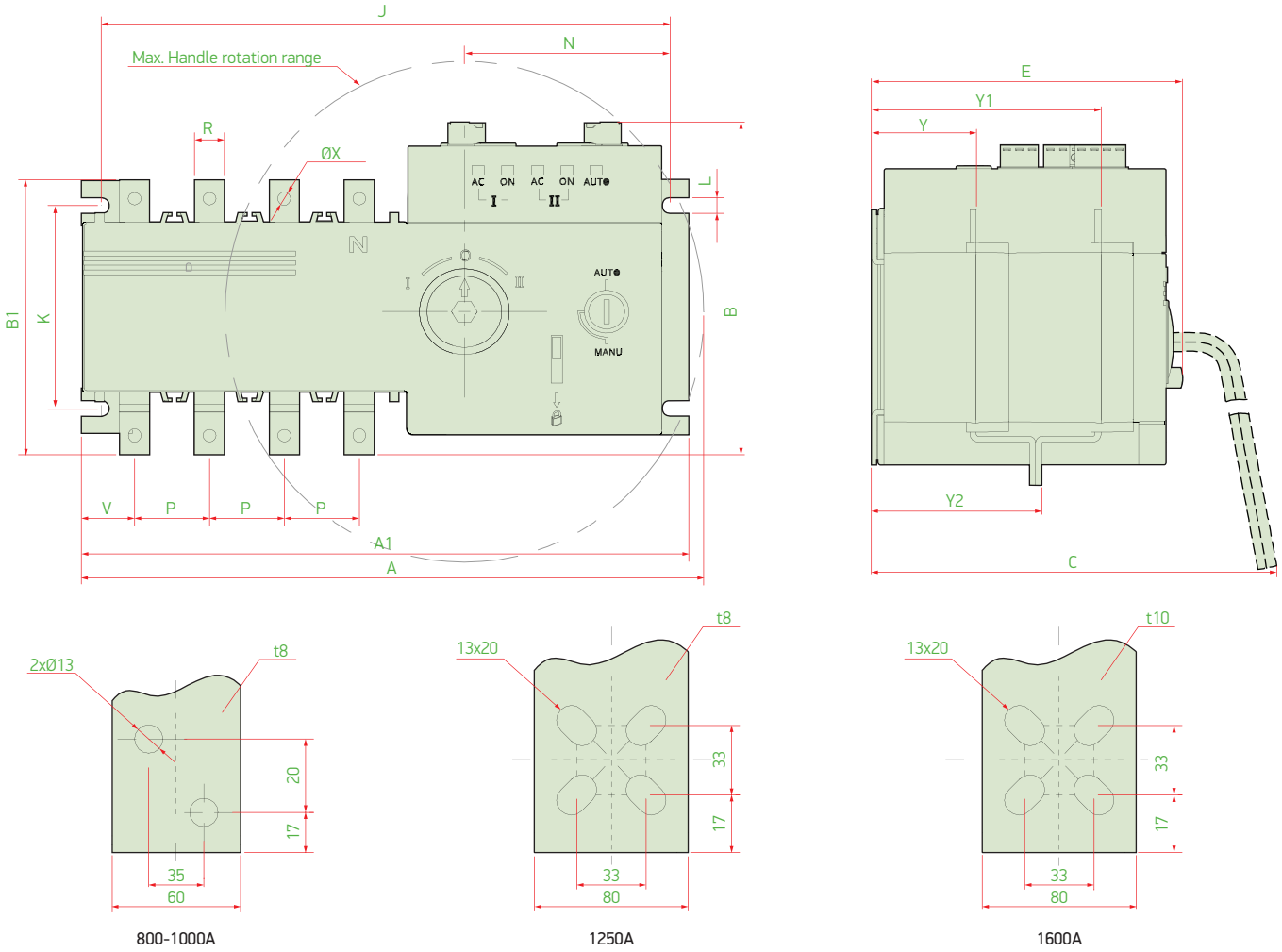


Automatic Transfer Switches (with MCCB) (100A-800A)



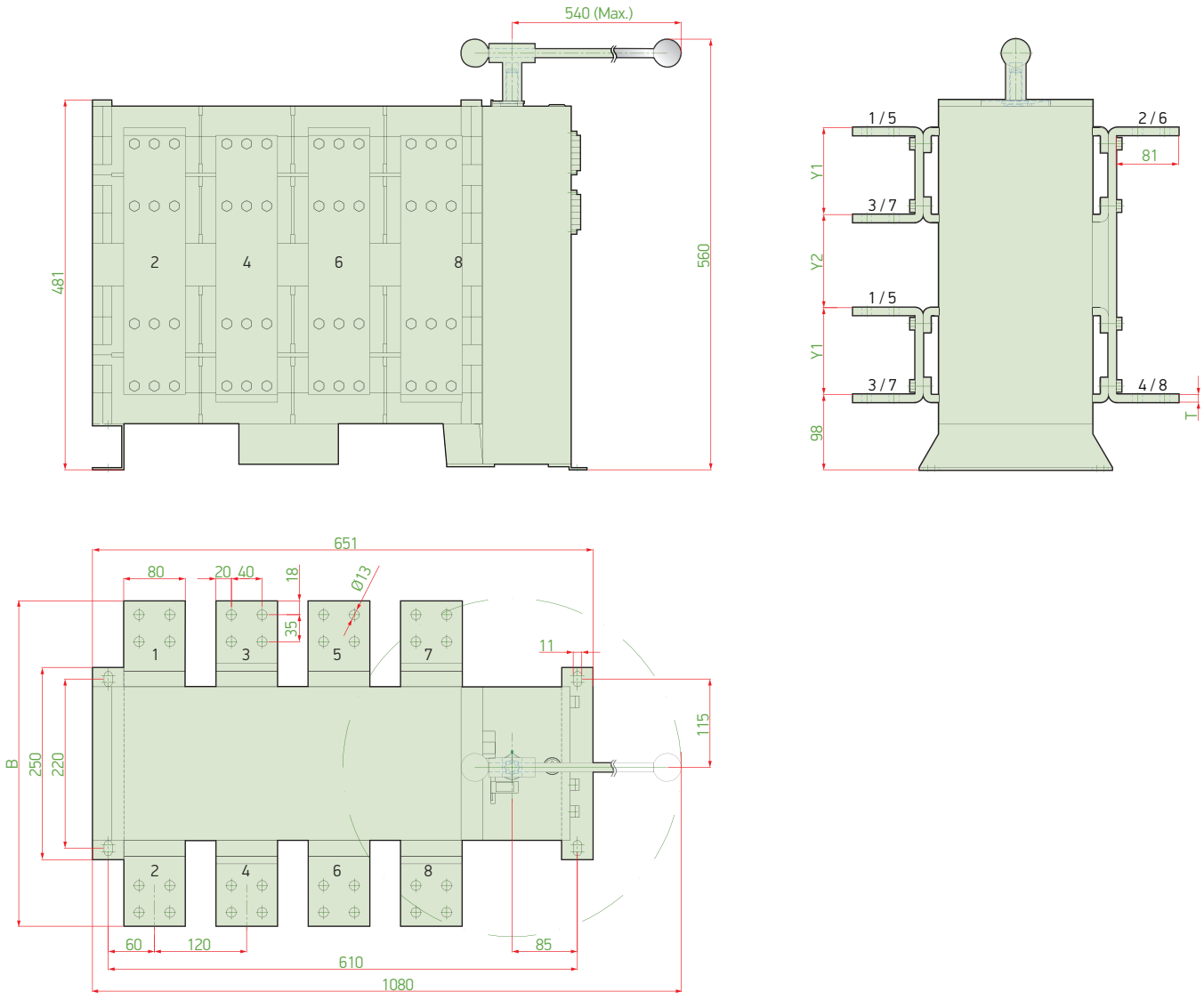
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	P (mm)	H (mm)	H1 (mm)	H2 (mm)
SATS 100	420	240	135	220	387	M8	30	86	194	16	205	77	140	145	190	25
SATS 125-200-250	470	240	141	220	437	M8	35	102	225	18	230	77	140	145	190	25
SATS 400	615	330	224	300	555	M10	48	133	303	25	303	82	260	200	235	24
SATS 630	740	330	234	300	680	M10	58	180	385	34	360	82	260	200	259	24
SATS 800	790	350	243	320	735	M10	70	155	395	38	390	82	260	200	262	24

Automatic Transfer Switches (Motorized Switch Disconnector - (100A-1600A))



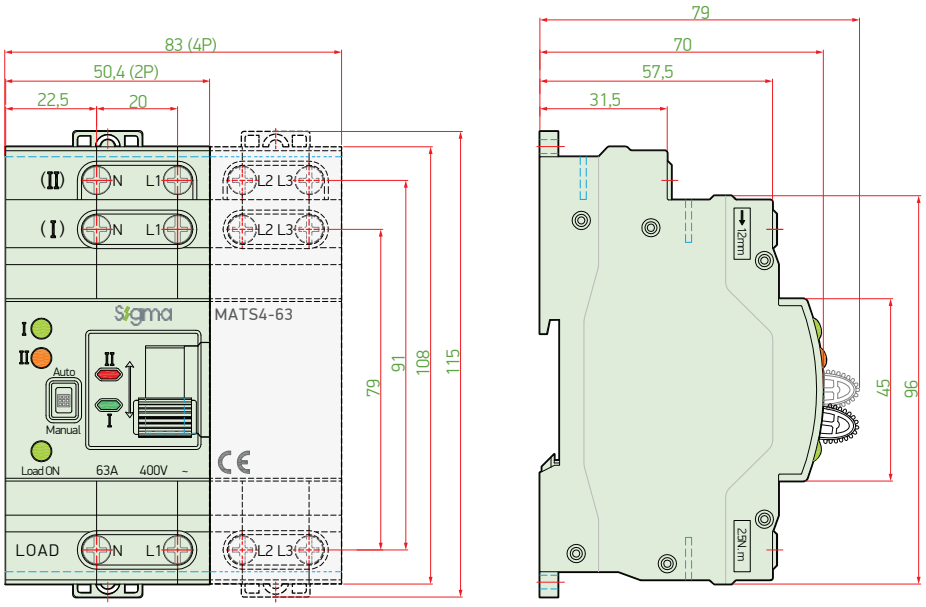
	A (mm)	A1 (mm)	B (mm)	B1 (mm)	C (mm)	E (mm)	J (mm)	K (mm)	L (mm)	N (mm)	P (mm)	R (mm)	V (mm)	ØX (mm)	Y (mm)	Y1 (mm)	Y2 (mm)
MATS 100	330	244	135	115	165	125	228	85	6,5	83	30	12	21	6,5	41,5	91,5	66,5
MATS 160	374	301	175	140	200	150	285	102	7	94	36	20	31	8,5	55,5	125,5	92,5
MATS 250	436	373	200	178	250	198	344	108	6,5	99	50	24	37	11	72	157	116
MATS 630	502	433	265	260	295	244	416	180	9	101	65	40	47,5	12	83	193	140
MATS 800	1050	636	345	337	373	320	612	220	11	83,5	120	60	71	13	108	241	196
MATS 1000	1050	636	345	337	373	320	612	220	11	83,5	120	80	71	13	108	241	196
MATS 1250	1050	636	345	337	373	320	612	220	11	83,5	120	80	71	13	108	241	106
MATS 1600	1050	636	345	337	373	320	612	220	11	83,5	120	80	71	13	109	242	106

Automatic Transfer Switches (Motorized Switch Disconnector - (2000A-3200A))

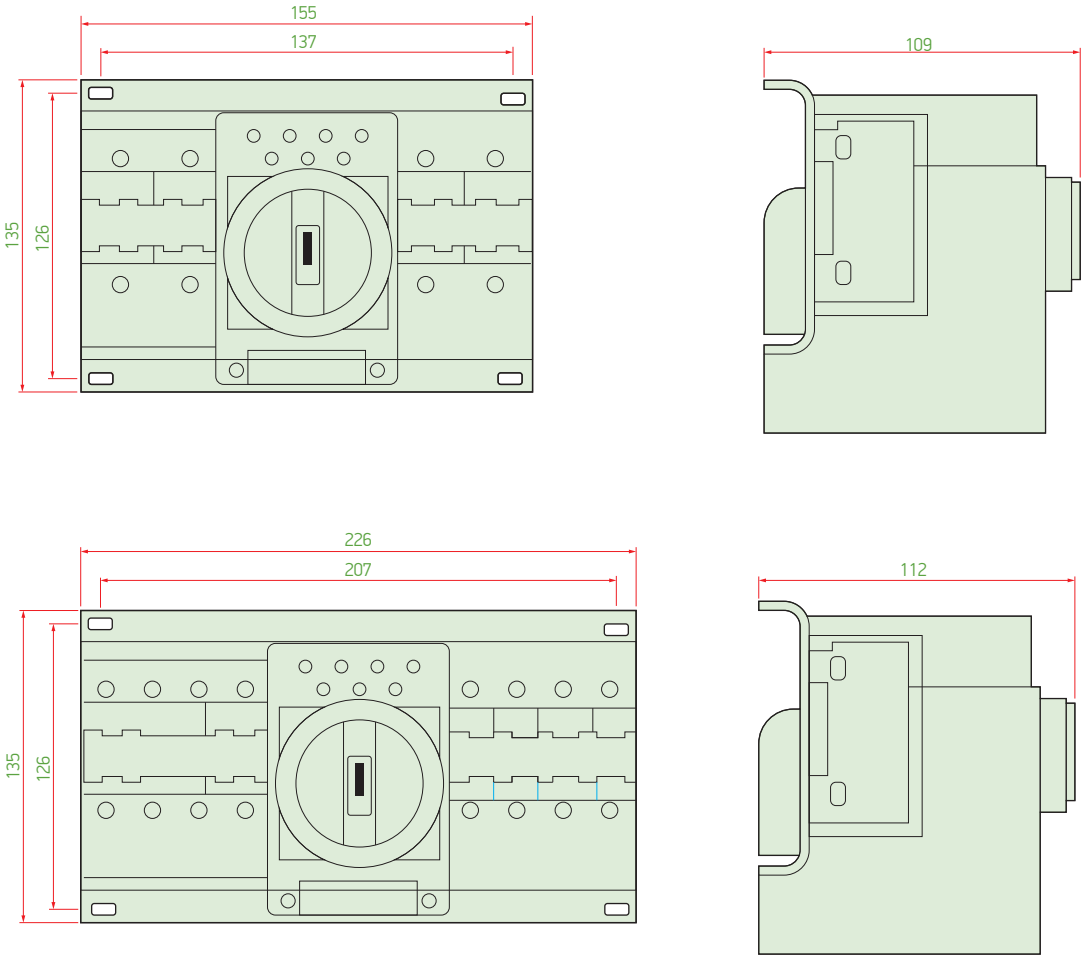


	B (mm)	T (mm)	Y1 (mm)	Y2 (mm)
MATS 2000	423	10	113	121
MATS 2500	433	15	118	116
MATS 3200	443	20	123	111

Residential Automatic Transfer Switches (Without Protection) (63A) - (2P, 4P)



Residential Automatic Transfer Switches (Without Protection) (125A)



SCO - MCB Type Changeover Switches (No Protection)

Aplication

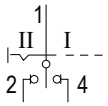
The Changeover Switch can switch on, Load and break the circuit under normal conditions, using as Switch Disconnectors.

Technical Data

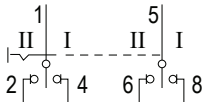
Rated Voltage	240/415V~
Rated Current	63, 80, 100, 125, 160A
Rated Fruquency	50/60 Hz
Number of Poles	1, 2, 3, 4P
Contact Form	1-0-2
Electrical Life	1.500 Cycles
Mechanical Life	8.500 Cycles
Protection Degree	IP20
Ambient Temperature	-5°C ... 40°C
Terminal / Cabe Size	16-70mm²
Mounting	On DIN rail EN60715(35mm) by means os fast clip device

Circuit Diagram

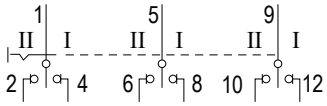
1P



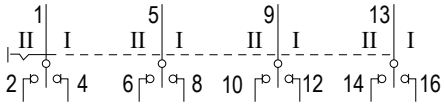
2P



3P



4P

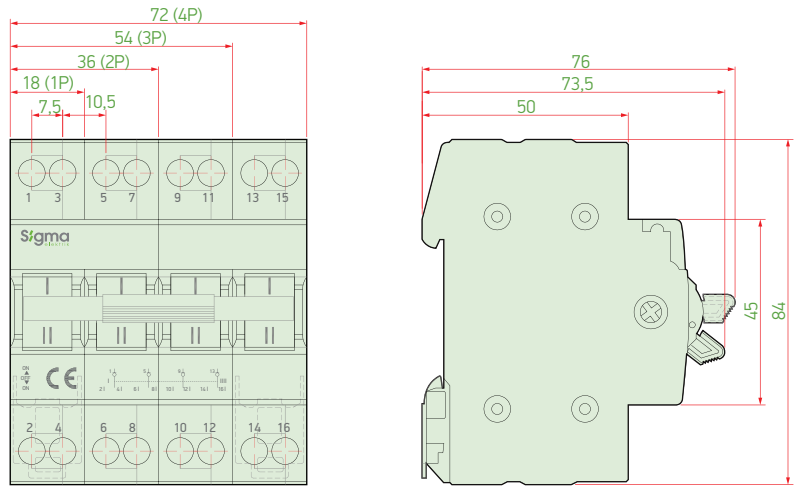


NEW PRODUCT

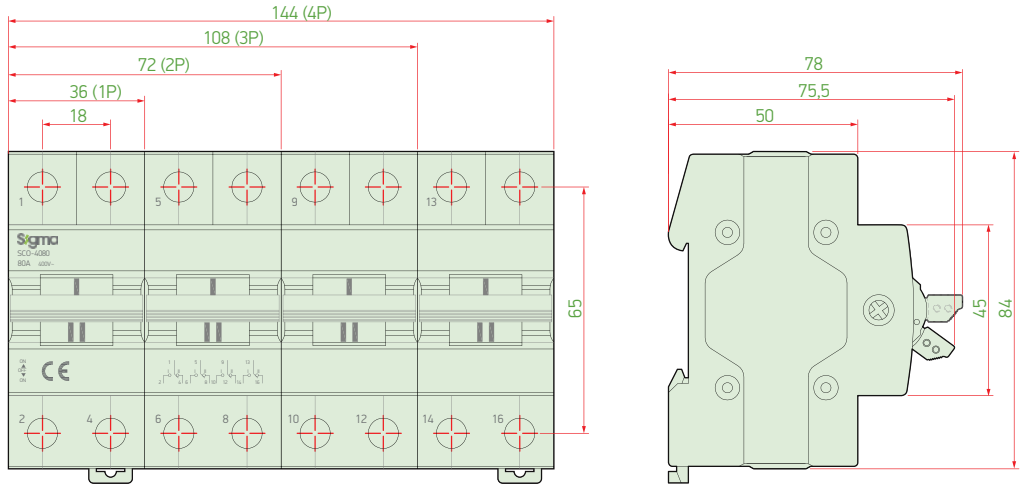
Type Code	Number of Poles	Rated Current In (A)	Rated Operating Voltage (V)	Order Code
SCO1-63	1P	25	230	SCO-1025
	1P	40	230	SCO-1040
	1P	63	230	SCO-1063
SCO1-160	1P	80	230	SCO-1080
	1P	100	230	SCO-1100
	1P	125	230	SCO-1125
	1P	160	230	SCO-1160
SCO2-63	2P	25	230	SCO-2025
	2P	40	230	SCO-2040
	2P	63	230	SCO-2063
SCO2-160	2P	80	230	SCO-2080
	2P	100	230	SCO-2100
	2P	125	230	SCO-2125
	2P	160	230	SCO-2160
SCO3-63	3P	25	400	SCO-3025
	3P	40	400	SCO-3040
	3P	63	400	SCO-3063
SCO3-160	3P	80	400	SCO-3080
	3P	100	400	SCO-3100
	3P	125	400	SCO-3125
	3P	160	400	SCO-3160
SCO4-63	4P	25	400	SCO-4025
	4P	40	400	SCO-4040
	4P	63	400	SCO-4063
SCO4-160	4P	80	400	SCO-4080
	4P	100	400	SCO-4100
	4P	125	400	SCO-4125
	4P	160	400	SCO-4160

Dimentions (mm)

SCO-4040 – SCO-4063



SCO-4080 – SCO-4100 – SCO-4125



Manual Changeover Switches (without protection)

Technical Data

Conventional heating current Ith			100	160	250	400	630	800	1000	1250	1600	2000	2500	3200
Rated insulation voltage Ui(V)			750	800	1000									
Dielectric strength (V)			2000		2200									
Rated impulse withstand voltage Uimp(kV)			6	8	12									
Rated working voltage Ue(V)			400V AC											
Rated frequency			50-60 Hz											
Utilization category			AC-21, 22, 23											
Rated working current Ie(A)	AC440V	AC-21	100	160	250	400	630	800	1000	1250	1600	2000	2500	3200
		AC-22	100	160	250	400	630	800	1000	1250	1600	2000	2500	3200
		AC-23	80	160	250	400	630	630	800	1000	1250	1250	2000	2500
	AC660V	AC-21	100	160	250	400	630	800	1000	1250	1600	2000	2500	3200
		AC-22	80	100	200	315	400	630	630	630	800	1000	1000	1250
		AC-23	63	63	125	200	250	250	250	400	500	-	-	-
Rated making capacity (A)			10Ie											
Rated breaking capacity (A)			8Ie											
Rated short-circuit makingcapacity Icm (kA)			1,7	3,4	5,3	8,4	13	17	33			70		
1s short time withstand current Icw (kA)			3	6	10	15	15	20	35			40		
Mechanical life (times)			5000			3000			2000			1000		
Electrical life (times)			1000			600			300			200		
Operating torque (N.m)			3,5	6,5	10	15	15	15	27	27	27	60		
Weight (kg) (Without handle)		3P	0,39	0,88	1,6	3,8	4,2	4,2	10,5	10,5	16	31	31	42
		4P	0,41	1,1	2	4,6	5	5	13	13	20	40	40	49

NEW PRODUCT

Type Code	Poles Number	Rated Current In (A)	Rated Voltage (V)	Order Code
SMTS4-100	4P	100	1000	SMTS4-0100
SMTS4-160	4P	160	1000	SMTS4-0160
SMTS4-250	4P	250	1000	SMTS4-0250
SMTS4-400	4P	400	1000	SMTS4-0400
SMTS4-630	4P	630	1000	SMTS4-0630
SMTS4-800	4P	800	1000	SMTS4-0800
SMTS4-1000	4P	1000	1000	SMTS4-1000
SMTS4-1250	4P	1250	1000	SMTS4-1250
SMTS4-1600	4P	1600	1000	SMTS4-1600
SMTS4-2000	4P	2000	1000	SMTS4-2000
SMTS4-2500	4P	2500	1000	SMTS4-2500
SMTS4-3200	4P	3200	1000	SMTS4-3200

Sigma elektrik

FUSE SWITCH
DISCONNECTORS

They provide safe separation of rated currents under load in AC circuits in accordance with the usage category and operating voltage, while also providing safe protection against overload currents and short circuit currents.

- ⇨ Design suitable for NHC00, NH00, NH1, NH2, NH3 fuse use
- ⇨ Option to open 3 phases together or separately (Vertical type)
- ⇨ Fireproof BMC body material with very high mechanical and electrical insulation features
- ⇨ Saving on maintenance and repair costs

Vertical Type Fuse Switch Disconnectors - Technical Specifications

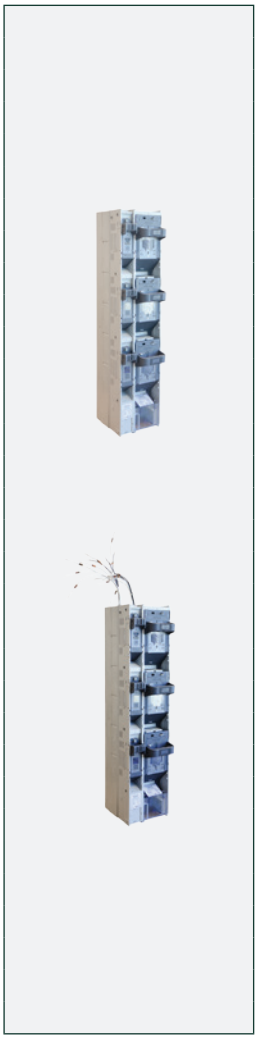
Type			SDY160	SDY250	SDY400	SDY630
Standard			TS EN 60947-3, IEC60947-3			
Rated current		A	160A	250A	400A	630A
Rated Thermal Current (with NH fuse) (Ith)		A	160	250	400	630
Rated Thermal Current with Solid Links (Ith)		A	200	400	630	800
Number of poles			3	3	3	3
Rated operating voltage (Ue)		V (AC)	400 - 500 - 690	400 - 500 - 690	400 - 500 - 690	400 - 500 - 690
Rated insulation voltage (Ui)		V (AC)	1000	1000	1000	1000
Rated impulse withstand voltage (Uimp)		kV (AC)	12	12	12	12
Rated Short Circuit Breaking Capacity with Fuse Protection (Icc)		kA	100	100	100	100
NH Fuse link size			NHC00 - NH00	NH1 - NH2	NH1 - NH2 - NH3	NH1 - NH2 - NH3
Electrical life (No. operation)	ON - OFF		200	200	200	200
Mechanical life (No. operation)	ON - OFF		1600	1600	1000	1000
IP degree of protection	On	Off	IP20 / IP30	IP20 / IP30	IP20 / IP30	IP20 / IP30
Ambient operating temperature		°C	(-25 / +55)*	(-25 / +55)*	(-25 / +55)*	(-25 / +55)*
Relative Humidity		%	95	95	95	95
Rated frequency		Hz	50-60HZ	50-60HZ	50-60HZ	50-60HZ
Utilization category			AC23B/AC22B/AC21B	AC23B/AC22B/AC21B	AC23B/AC22B/AC21B	AC23B/AC22B/AC21B
Connection Cross Section		mm^2	70	120	240	2x185
Power loss per pole		W	12	23	34	48
Tightening torque		Nm	6	10	10	14
Hole diameter		Ø	M8	M10	M10	M12
Distance between main busbar terminals		mm	185	185	185	185
Weight		kg	2,3	4,7	4,7	5,85
Accessories						
Fuse holder			√	√	√	√
Terminal cover			√	√	√	√
Parking position			√	√	√	√
Micro switch			Optional	Optional	Optional	Optional
Mechanical padlock apparatus			Optional	Optional	Optional	Optional
Position indicator + mechanic fuse monitor			√	√	√	√
Fixing screws			√	√	√	√

* 24 hours operating average can not exceed + 35 ° C.

Horizontal Type Fuse Switch Disconnectors - Technical Specifications

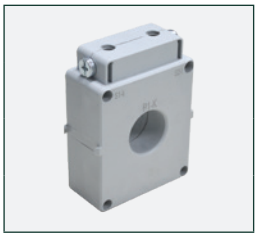
Type		SFH 160			SFH 250			SFH 400			SFH 630		
Standard		TS EN 60947-3, EN 60947-3											
Nh fuse link size		NHC00 - NH00			NH1			NH2			NH3		
Number of poles		3			3			3			3		
Rated operational current	A	160	160	100	250	250	200	400	400	315			
Rated voltage	V	400	500	690	400	500	690	400	500	690	400	500	690
Rated insulation voltage	V	800			800			800			800		
Fuse protected rated short circuit current	kA	100	100	80	100	100	80	100	100	80	100	100	80
Utilization category		AC23B, AC22B, AC21B			AC23B, AC22B, AC21B			AC23B, AC22B, AC21B			AC23B, AC22B, AC21B		
Relative Humidity	%	95			95			95			95		
Weight	kg	0,7			1,5			3,3			3,3		

Vertical Type Fuse Switch Disconnectors



Type	Rated Current	Feature	NH Fuse / Length	Order Code
SDY-160	160A	3 phase can open separately	NHC00- NH00	SDY1160N
	160A	3 phase can open separately (with current transformer)		SDY1160CT
	160A	3 phase can open together		SDY3160N
	160A	3 phase can open together (with current transformer)		SDY3160CT
SDY-250	250A	3 phase can open separately	NH0-NH1-NH2	SDY1250N
	250A	3 phase can open separately (with current transformer)		SDY1250CT
	250A	3 phase can open together		SDY3250N
	250A	3 phase can open together (with current transformer)		SDY3250CT
	250A	3 phase can open separately (with right side output)		SDY1250R
	250A	3 phase can open together (with right side output)		SDY3250R
	250A	3 phase can open separately (with left side output)		SDY1250L
	250A	3 phase can open together (with left side output)		SDY3250L
SDY-400	400A	3 phase can open separately	NH1-NH2-NH3	SDY1400N
	400A	3 phase can open separately (with current transformer)		SDY1400CT
	400A	3 phase can open together		SDY3400N
	400A	3 phase can open together (with current transformer)		SDY3400CT
	400A	3 phase can open separately (with right side output)		SDY1400R
	400A	3 phase can open together (with right side output)		SDY3400R
	400A	3 phase can open separately (with left side output)		SDY1400L
	400A	3 phase can open together (with left side output)		SDY3400L
SDY-630	630A	3 phase can open separately	NH1-NH2-NH3	SDY1630N
	630A	3 phase can open separately (with current transformer)		SDY1630CT
	630A	3 phase can open together		SDY3630N
	630A	3 phase can open together (with current transformer)		SDY3630CT
	630A	3 phase can open separately (with right side output)		SDY1630R
	630A	3 phase can open together (with right side output)		SDY3630R
	630A	3 phase can open separately (with left side output)		SDY1630L
	630A	3 phase can open together (with left side output)		SDY3630L
SDY-800	800A	3 phase can open separately (2x400A Parallel connection)	NH1-NH2-NH3	SDYB1800N
	800A	3 phase can open separately (2x400A Parallel connection)		SDYB3800N
SDY-1250	1250A	3 phase can open separately (2x630A Parallel connection)	NH1-NH2-NH3	SDYB11250N
	1250A	3 phase can open separately (2x630A Parallel connection)		SDYB31250N

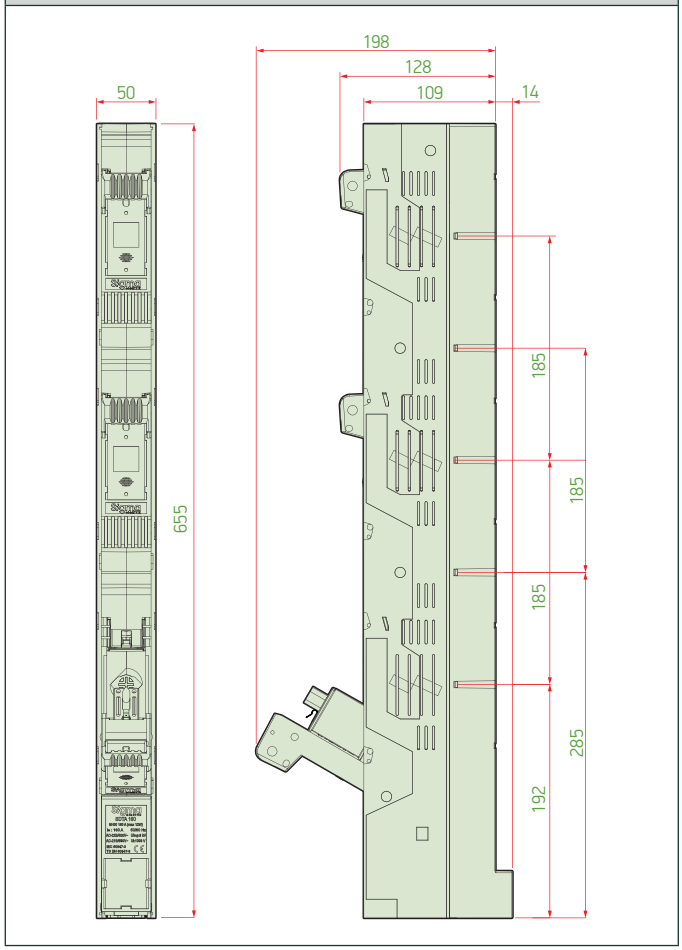
Current Fransformers for Vertical Type Fuse Switch Disconnectors



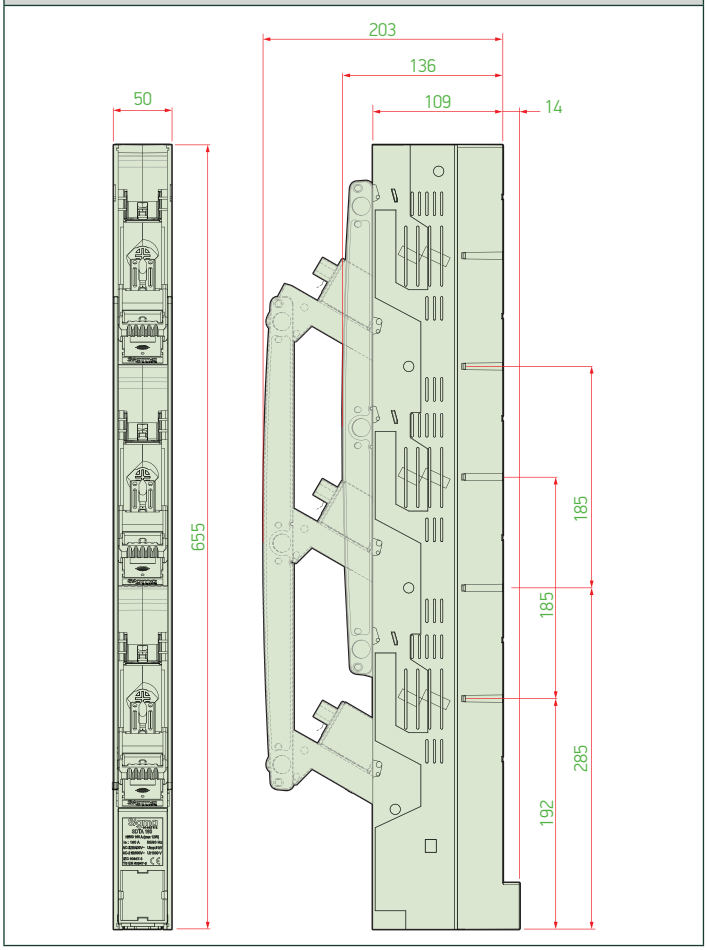
Type Code	Primary Current	Secondary Current	Power (VA)	Class	Order Code
SDY20	160A	1A	2,5VA	0,5cl	SDY201600502
	250A	1A	2,5VA	0,5cl	SDY202500502
	400A	1A	2,5VA	0,5cl	SDY204000502
	630A	1A	2,5VA	0,5cl	SDY206300502

Dimensions

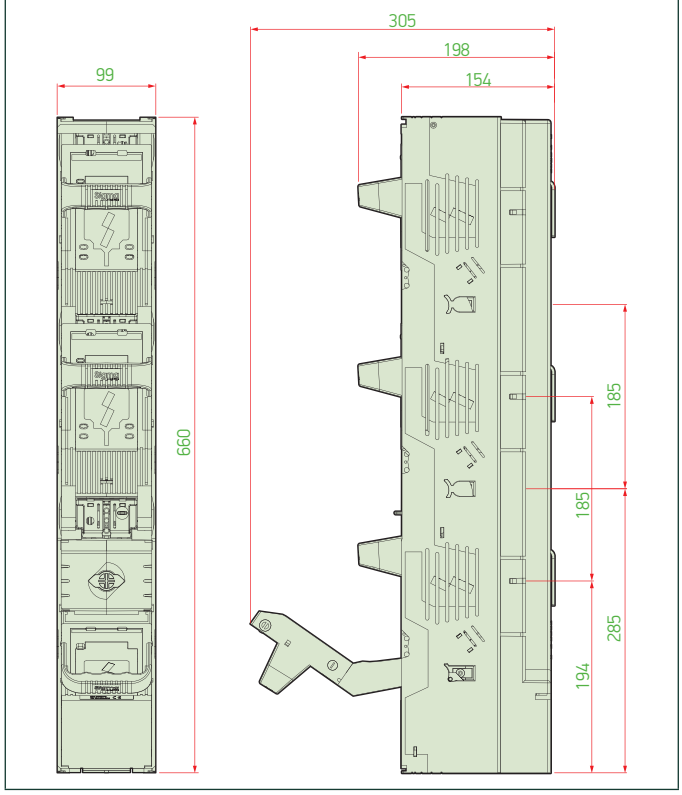
SDY160
(3 Phase can open seperately)



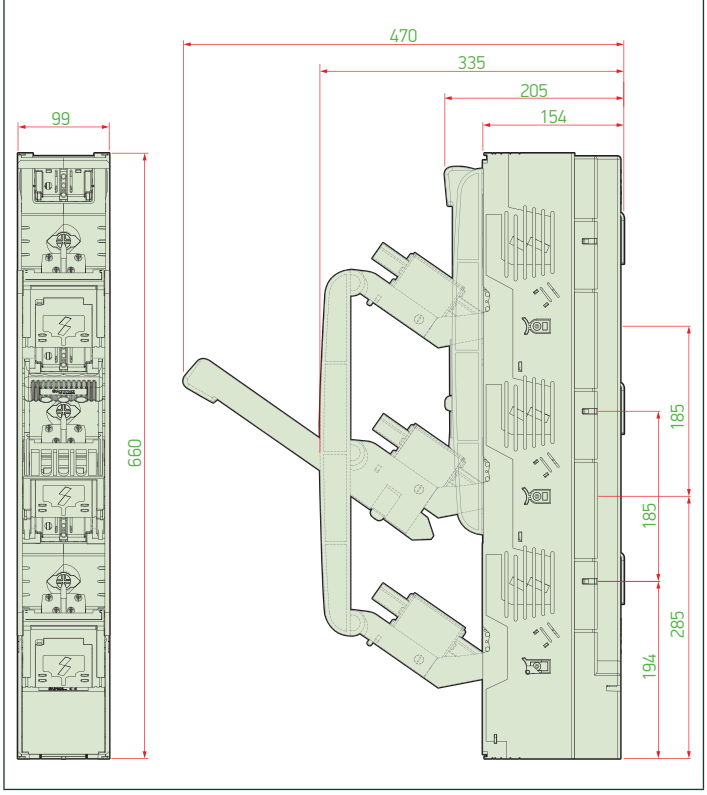
SDY160
(3 Phase can open together)



SDY250-400-630
(3 Phase can open seperately)



SDY250-400-630
(3 Phase can open together)



Horizontal Type Fuse Switch Disconnectors

Size	Rated Current In (A)	Fuse Size	Minimum Order (pcs)	Pcs in a Box (pcs)	Order Code
SFH-160	160	C00-00	1	9	SFH160
SFH-250	250	1	1	3	SFH250
SFH-400	400	2	1	1	SFH400
SFH-630	630	3	1	1	SFH630

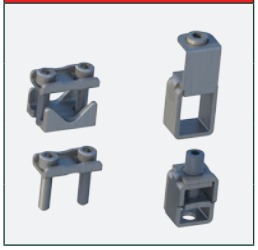
160A Horizontal Type Fuse Switch Disconnector with Electronic NH Fuse Monitoring Module

NEW PRODUCT

Size	Rated Current In (A)	Fuse Size	Minimum Order (pcs)	Pcs in a Box (pcs)	Order Code
SFH-160M	160	C00-00	1	9	SFH160M

Horizontal Type Fuse Switch Disconnectors Accesories

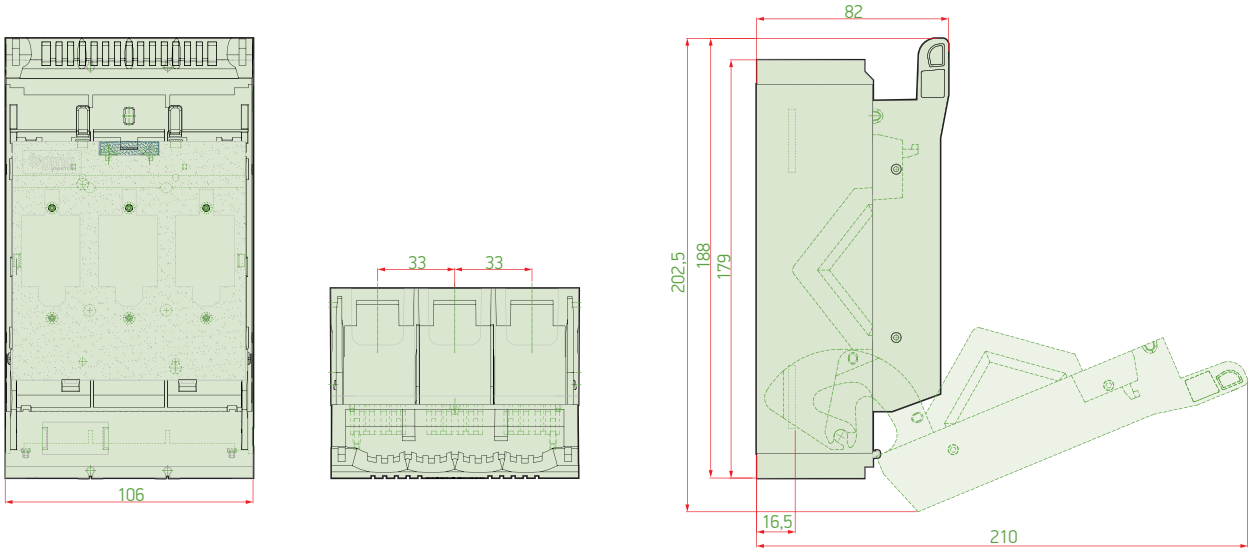
NEW PRODUCT



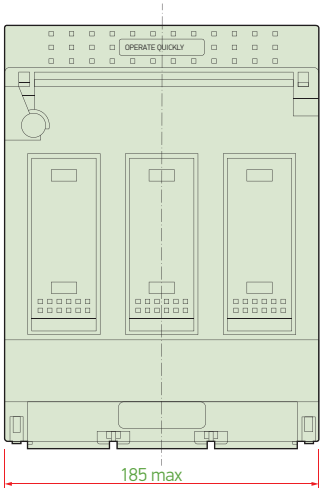
Type Code	Description	Quantity	Order Code
SFH-160	SFH160 V clamp	1 Set - 3 Pieces	SFH160YKK
	SFH160 Rising clamp	1 Set - 3 Pieces	SFH160AK
	SFH160 Bridge clamp	1 Set - 3 Pieces	SFH160KK
	SFH160 Box Type clamp	1 Set - 3 Pieces	SFH160PK

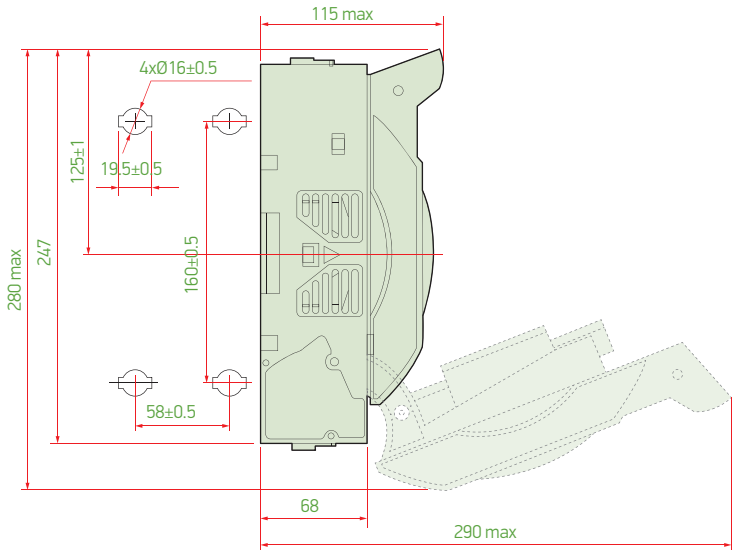
Dimensions

SFH160

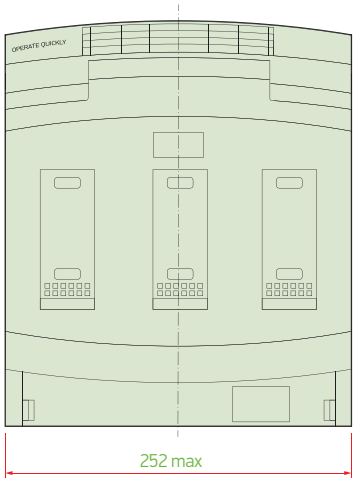


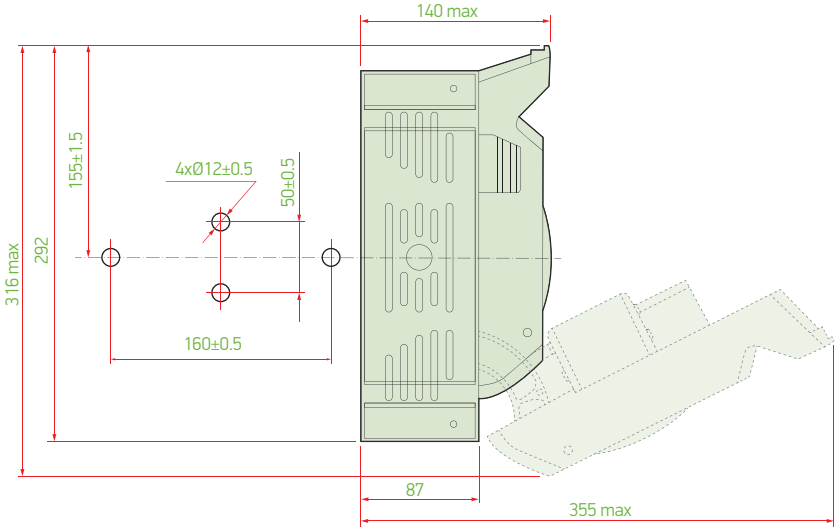
SFH250



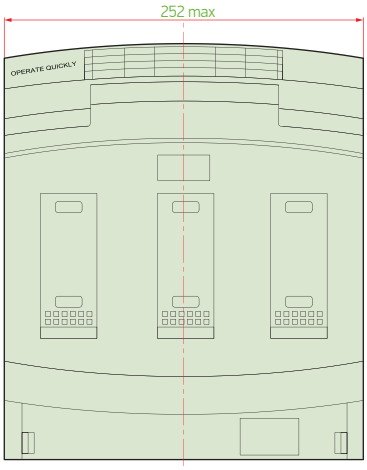


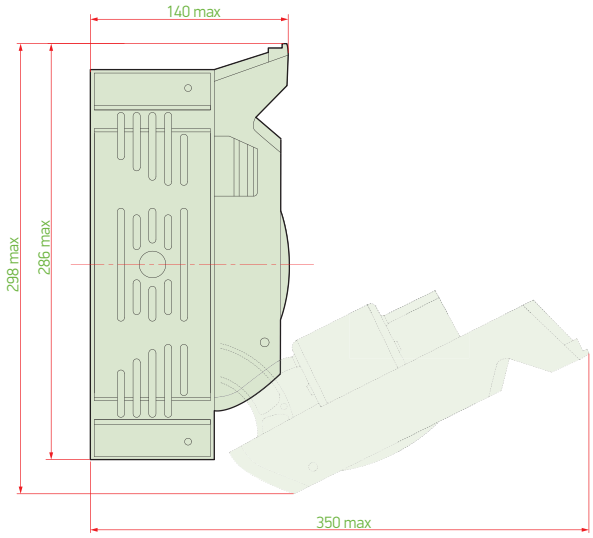
SFH400





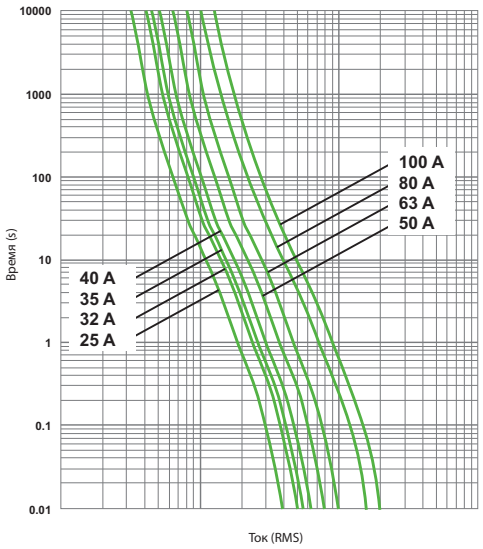
SFH400



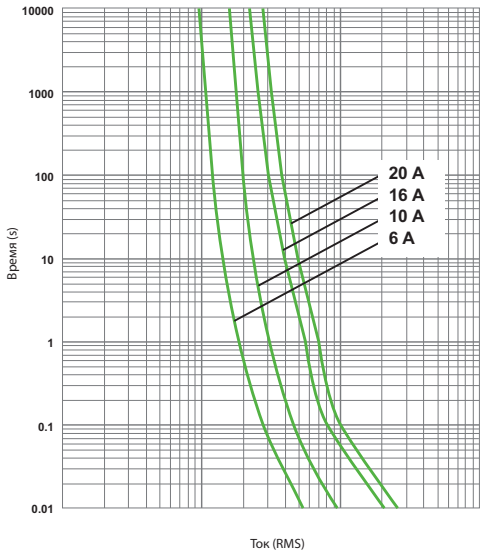


Time-Current Curves

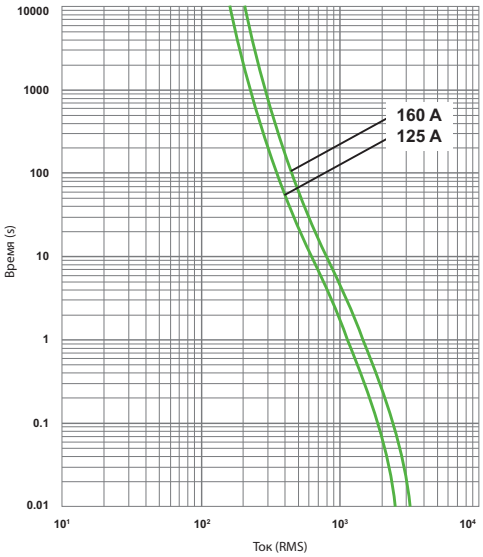
NH00C



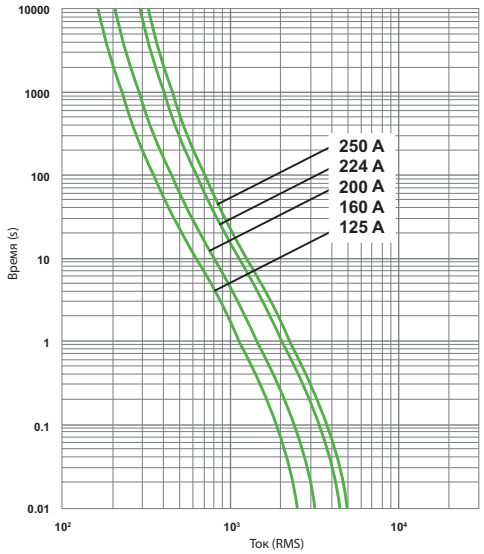
NH00C



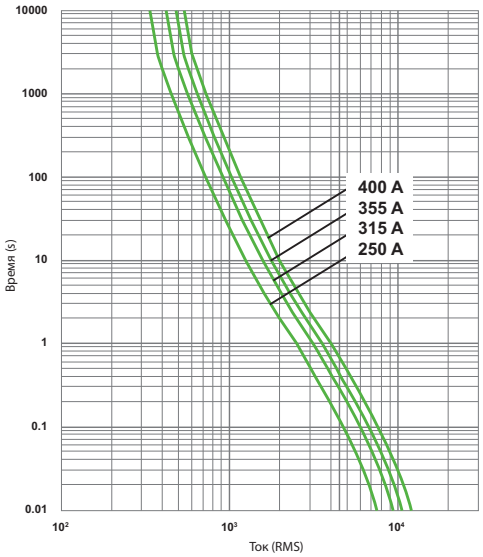
NH00



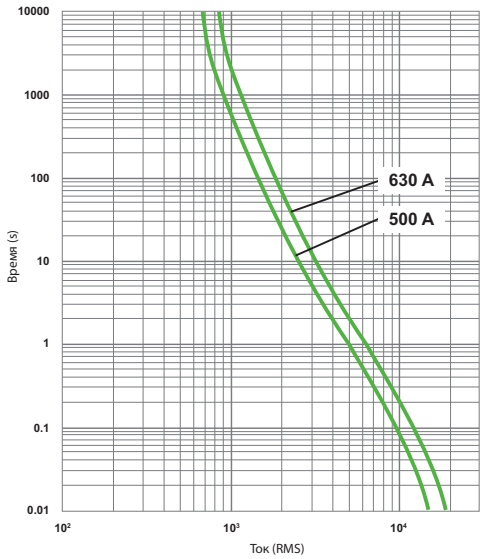
NH1



NH2



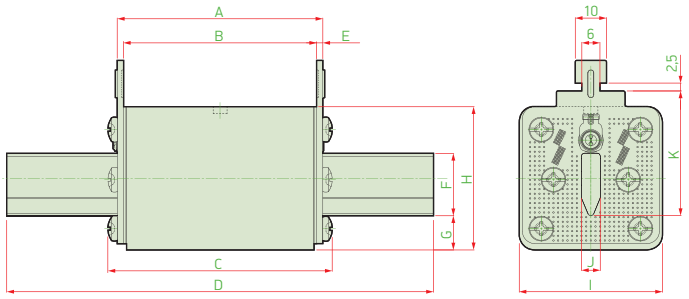
NH3



NH Fuses (Double Indicator)

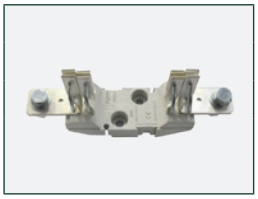
Size	Rated Current In (A)	Breaking Cap. (kA)	Indicator	Minimum Order	Pcs in a Box	Order Code
NHC00	6	120	Double Indicator	3	180	SNHC00I006
	10	120	Double Indicator	3	180	SNHC00I010
	16	120	Double Indicator	3	180	SNHC00I016
	20	120	Double Indicator	3	180	SNHC00I020
	25	120	Double Indicator	3	180	SNHC00I025
	32	120	Double Indicator	3	180	SNHC00I032
	40	120	Double Indicator	3	180	SNHC00I040
	50	120	Double Indicator	3	180	SNHC00I050
	63	120	Double Indicator	3	180	SNHC00I063
	80	120	Double Indicator	3	180	SNHC00I080
	100	120	Double Indicator	3	180	SNHC00I100
NH00	6	120	Double Indicator	3	96	SNH00I0006
	10	120	Double Indicator	3	96	SNH00I0010
	16	120	Double Indicator	3	96	SNH00I0016
	20	120	Double Indicator	3	96	SNH00I0020
	25	120	Double Indicator	3	96	SNH00I0025
	32	120	Double Indicator	3	96	SNH00I0032
	40	120	Double Indicator	3	96	SNH00I0040
	50	120	Double Indicator	3	96	SNH00I0050
	63	120	Double Indicator	3	96	SNH00I0063
	80	120	Double Indicator	3	96	SNH00I0080
	100	120	Double Indicator	3	96	SNH00I0100
	125	120	Double Indicator	3	96	SNH00I0125
	160	120	Double Indicator	3	96	SNH00I0160
NH0	63	120	Double Indicator	3	96	SNH0I0063
	80	120	Double Indicator	3	96	SNH0I0080
	100	120	Double Indicator	3	96	SNH0I0100
	125	120	Double Indicator	3	96	SNH0I0125
	160	120	Double Indicator	3	96	SNH0I0160
NH1	40	120	Double Indicator	3	36	SNH1I00040
	63	120	Double Indicator	3	36	SNH1I00063
	80	120	Double Indicator	3	36	SNH1I00080
	100	120	Double Indicator	3	36	SNH1I00100
	125	120	Double Indicator	3	36	SNH1I00125
	160	120	Double Indicator	3	36	SNH1I00160
	200	120	Double Indicator	3	36	SNH1I00200
	250	120	Double Indicator	3	36	SNH1I00250
NH2	63	120	Double Indicator	3	24	SNH2I00063
	80	120	Double Indicator	3	24	SNH2I00080
	100	120	Double Indicator	3	24	SNH2I00100
	125	120	Double Indicator	3	24	SNH2I00125
	160	120	Double Indicator	3	24	SNH2I00160
	200	120	Double Indicator	3	24	SNH2I00200
	250	120	Double Indicator	3	24	SNH2I00250
	315	120	Double Indicator	3	24	SNH2I00315
	400	120	Double Indicator	3	24	SNH2I00400
NH3	315	120	Double Indicator	3	24	SNH3I0315
	400	120	Double Indicator	3	24	SNH3I0400
	500	120	Double Indicator	3	24	SNH3I0500
	630	120	Double Indicator	3	24	SNH3I0630
NH4	800	120	Single Indicator	3	24	SNH4I0800
	1000	120	Single Indicator	3	24	SNH4I1000
	1250	120	Single Indicator	3	24	SNH4I1250

Dimensions



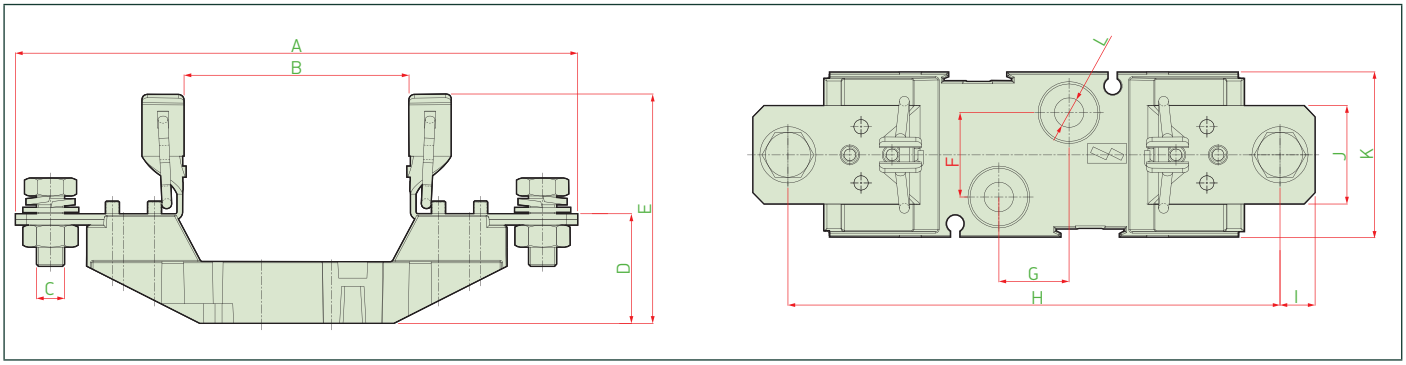
	A	B	C	D	E	F	G	H	I	J	K
NH4	79		90	200		49			88	8	
NH3	66	62	72	151	2	32	17	72	72	6	60
NH2	66	62	72	151	2	25	15	57	57	6	48,5
NH1	66	62	72	137	2	20	11	46	46	6	40
NH0	68	62		125	3	15		48	30	6	35
NH00	50	46	54	79	2	15	13	43	30	6	35
NHC00	50	46	54	79	2	15	8	40	21	6	35

NH Fuse Bases



Size	Rated Current In (A)	Body Material	Minimum Order	Box Qty	Order Code
NHC00 - NH00	160	BMC	5	45	SNB00
NH0 - NH1	250	BMC	5	15	SNB01
NH2	400	BMC	5	9	SNB02
NH3	630	BMC	5	9	SNB03
NH4	1250	BMC	5	9	SNB04

Dimensions



	A	B	C	D	E	F	G	H	I	J	K	L
SNB04	302	113,5	M16	48	145	30	45	260	21	45	86	Ø10
SNB03	240	80	M10	40	98	30	25	210	15	35	59	Ø10,5
SNB02	225	80	M10	39,5	89	30	25	200	12,5	35	59	Ø10,5
SNB01	200	80	M10	39	82	30	25	175	12,5	35	59	Ø10,5
SNB00	120	58	M8	23	56	-	25	100	10	20	35	Ø7,5

NH Fuse Handle

Type Code	Rated Voltage	Order Code
SNHE	1000	SNHE

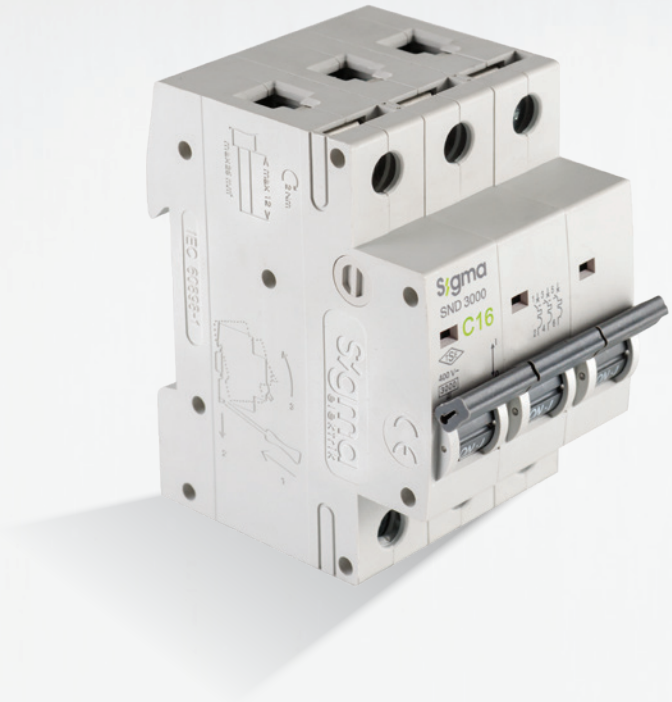
Maximum Power Dissipation for NH Fuse Links

	Rated Current In (A)	IEC EN 60269-1	SİGMA
SNHC00	6	12 W	1.8 W
	10	12 W	2.1 W
	16	12 W	2.4 W
	20	12 W	2.7 W
	25	12 W	2.9 W
	32	12 W	3.7 W
	40	12 W	4.3 W
	50	12 W	4.7 W
	63	12 W	6 W
	80	12 W	6.8 W
	100	12 W	8.8 W
SNH00	6	12 W	2 W
	10	12 W	3 W
	16	12 W	3 W
	20	12 W	4 W
	25	12 W	4 W
	32	12 W	4 W
	40	12 W	5 W
	50	12 W	6 W
	63	12 W	7 W
	80	12 W	9 W
	100	12 W	10 W
	125	12 W	12 W
	160	12 W	12 W

	Rated Current In (A)	IEC EN 60269-1	SİGMA
SNH0	63	23 W	9,5 W
	80	23 W	10 W
	100	23 W	12 W
	125	23 W	14 W
	160	23 W	16 W
SNH1	40	23 W	8,5 W
	63	23 W	9,5 W
	80	23 W	10 W
	100	23 W	12 W
	125	23 W	14 W
	160	23 W	16 W
	200	23 W	18 W
	250	23 W	22 W
SNH2	63	34 W	10 W
	80	34 W	12 W
	100	34 W	14 W
	125	34 W	16 W
	160	34 W	18 W
	200	34 W	20 W
	250	34 W	30 W
	315	34 W	32 W
	400	34 W	34 W

	Rated Current In (A)	IEC EN 60269-1	SİGMA
SNH3	315	48 W	30 W
	400	48 W	36 W
	500	48 W	48 W
	630	48 W	48 W
SNH4	800	-	68W
	1000	-	80W
	1250	-	108W

Sigma elektrik



MINIATURE CIRCUIT **BREAKERS**

Miniature circuit breakers are devices that protect the circuit they are connected to against overload and short circuits, and also perform the function of opening and closing the circuit.

- ⇨ Rated current from 1A to 125A
- ⇨ Production available in B, C and D types
- ⇨ 4.5kA, 6kA, 10kA, 16kA short circuit breaking capacity
- ⇨ 1, 2, 3 and 4 pole product variety
- ⇨ IP20 protection degree
- ⇨ High electrical and mechanical life
- ⇨ Crowning handle compatible with accessories (Auxiliary contact, opening coil, motor mechanism, alarm contact)

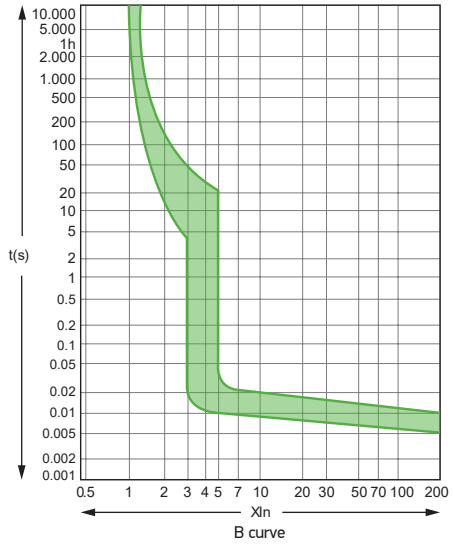
Miniature Circuit Breaker - Technical Specifications

			SND 4500				SND 6000				SKD 6000			
Number of poles			1	2	3	4	1	2	3	4	1	2	3	4
Rated nominal current (at 30°C)	In	A	2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63				1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63				80, 100, 125			
Instantaneous tripping class			B : (3-5)xIn C : (5-10)xIn				B : (3-5)xIn C : (5-10)xIn D: (10-20)xIn				C : (5-10)xIn			
Power supply			AC				AC				AC			
Rated operating voltage	Ue	AC (V)	230/400	400			230/400	400			230/400	400		
Rated insulation voltage	Ui	V	750				750				750			
Rated impulse withstand voltage	Uimp	kV	6				6				6			
Rated short circuit capacity	Icn	kA	4,5				6				6			
Energy limiting class			3				3				3			
Electrical life (No. operation)	op.	230V	4.000				6.000				5.000			
Mechanical life (No. operation)	op.		20.000				20.000				20.000			
Protection class			IP 20				IP 20				IP 20			
Operating temperature		°C	-30 ... +60				-30 ... +60				-30 ... +60			
Storage temperature		°C	-40 ... +70				-40 ... +70				-40 ... +70			
Relative Humidity		%	95				95				95			
Assembly (EN 60715)			35mm DIN Rail				35mm DIN Rail				35mm DIN Rail			
Min. Max. Connection section		mm^2	1 – 25				1 – 25				25 – 50			
Max. Clamping torque		Nm	2				2				3,5			

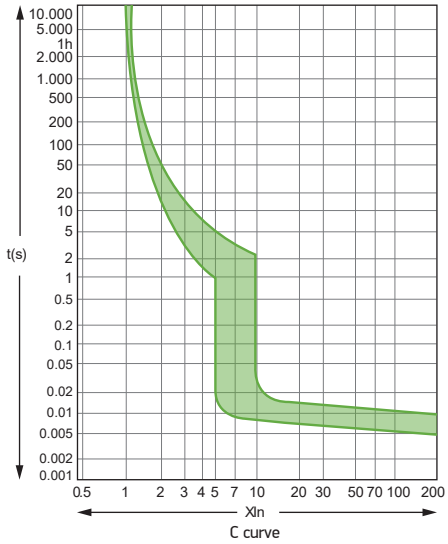
			SMD 10000				SLD 10000				SND 16000			
Number of poles			1	2	3	4	1	2	3	4	1			
Rated nominal current (at 30°C)	In	A	2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63				80, 100, 125				40, 50, 63, 80, 100, 125			
Instantaneous tripping class			B : (3-5)xIn C : (5-10)xIn D: (10-20)xIn				C : (5-10)xIn				C : (5-10)xIn			
Power supply			AC				AC				AC			
Rated operating voltage	Ue	AC (V)	230/400	400			230/400	400			230/400			
Rated insulation voltage	Ui	V	750				750				750			
Rated impulse withstand voltage	Uimp	kV	6				6				6			
Rated short circuit capacity	Icn	kA	10				10				16			
Energy limiting class			3				3				3			
Electrical life (No. operation)	op.	230V	6.000				5.000				4.000			
Mechanical life (No. operation)	op.		20.000				20.000				15.000			
Protection class			IP 20				IP 20				IP 20			
Operating temperature		°C	-30 ... +60				-30 ... +60				-30 ... +60			
Storage temperature		°C	-40 ... +70				-40 ... +70				-40 ... +70			
Relative Humidity		%	95				95				95			
Assembly (EN 60715)			35mm DIN Rail				35mm DIN Rail				35mm DIN Rail			
Min. Max. Connection section		mm^2	1 – 25				25 – 50				2,5 – 50			
Max. Clamping torque		Nm	2				3,5				3,5			

Time- Current Characteristic

SND 4500

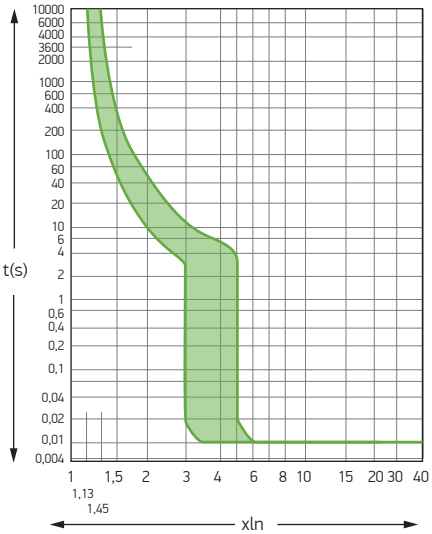


B curve



C curve

SND 6000



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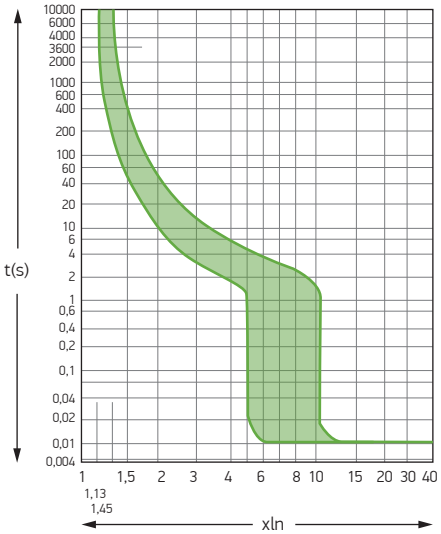
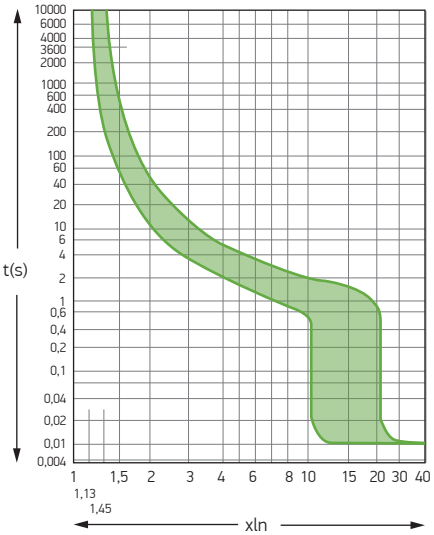
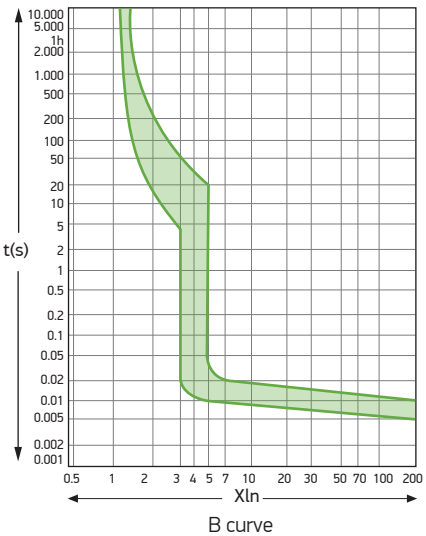


C curve

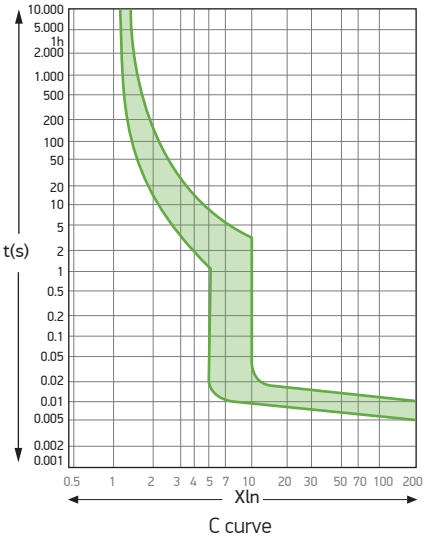


D curve

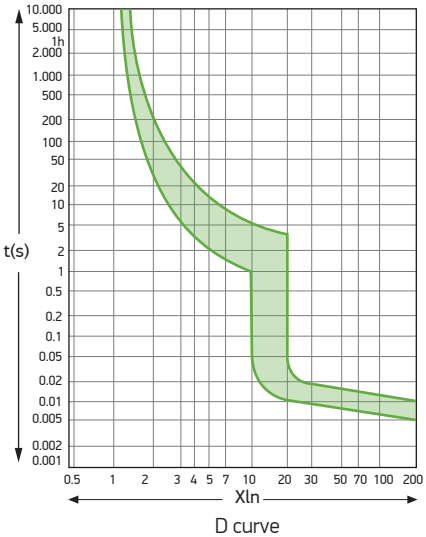
SMD 10000 (TÜV Approved)



B curve

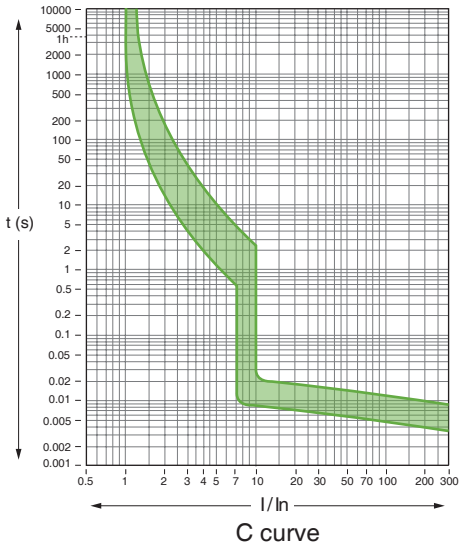


C curve

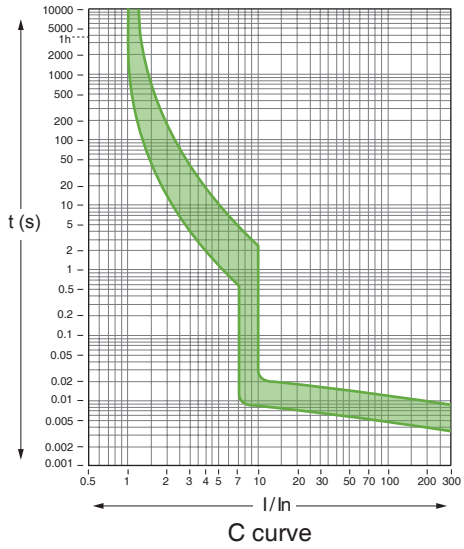


D curve

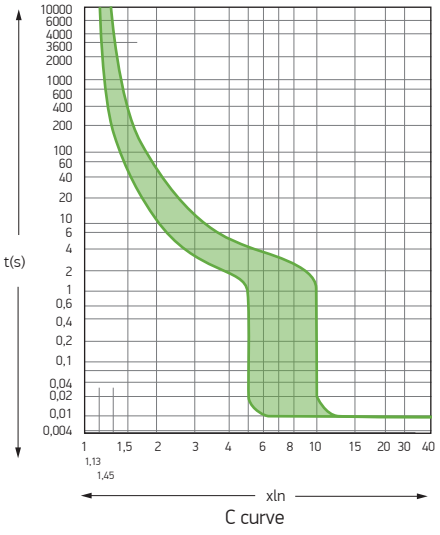
SKD 6000



SLD 10000

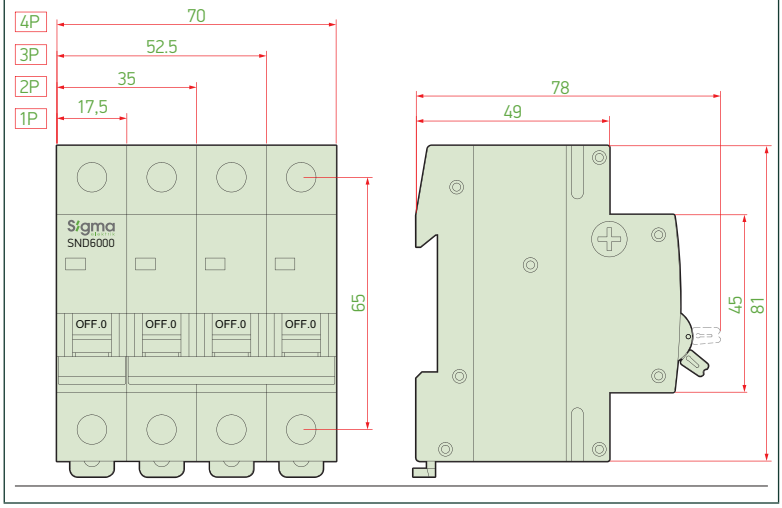


SND 16000

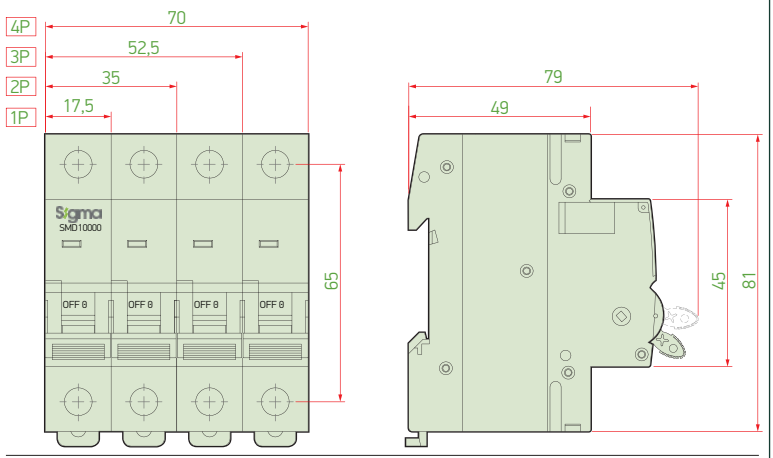


Dimensions

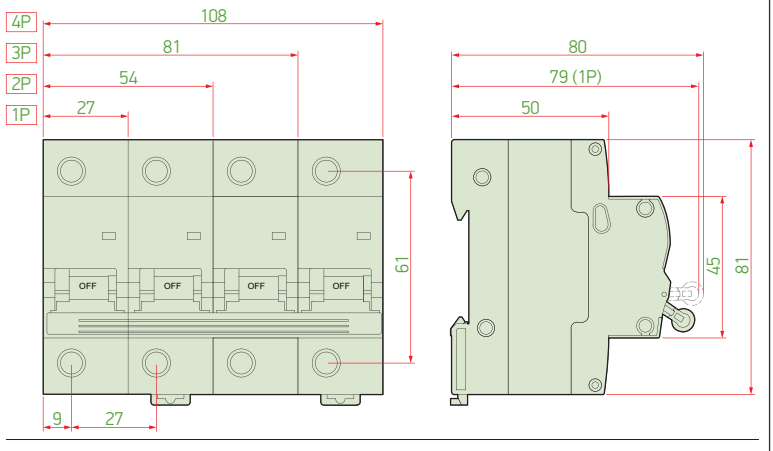
4,5 kA - 6 kA (1A-63A) [SND 4500, SND 6000]
6 kA (80A-100A-125A) [SKD 6000]



10 kA (2A-63A) [SMD 10000]



10kA (80A-100A-125A) [SLD 10000]



4.5 kA MCB / SND 4500

Number of poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code for B Type	Order Code for C Type
1P	2	12	240	4SM102B	4SM102C
	4	12	240	4SM104B	4SM104C
	6	12	240	4SM106B	4SM106C
	10	12	240	4SM110B	4SM110C
	16	12	240	4SM116B	4SM116C
	20	12	240	4SM120B	4SM120C
	25	12	240	4SM125B	4SM125C
	32	12	240	4SM132B	4SM132C
	40	12	240	4SM140B	4SM140C
	50	12	240	4SM150B	4SM150C
	63	12	240	4SM163B	4SM163C

2P	2	6	120		4SM202C
	4	6	120		4SM204C
	6	6	120		4SM206C
	10	6	120		4SM210C
	16	6	120		4SM216C
	20	6	120		4SM220C
	25	6	120		4SM225C
	32	6	120		4SM232C
	40	6	120		4SM240C
	50	6	120		4SM250C
	63	6	120		4SM263C

3P	2	4	80		4SM302C
	4	4	80		4SM304C
	6	4	80		4SM306C
	10	4	80		4SM310C
	16	4	80		4SM316C
	20	4	80		4SM320C
	25	4	80		4SM325C
	32	4	80		4SM332C
	40	4	80		4SM340C
	50	4	80		4SM350C
	63	4	80		4SM363C

4P	2	3	60		4SM402C
	4	3	60		4SM404C
	6	3	60		4SM406C
	10	3	60		4SM410C
	16	3	60		4SM416C
	20	3	60		4SM420C
	25	3	60		4SM425C
	32	3	60		4SM432C
	40	3	60		4SM440C
	50	3	60		4SM450C
	63	3	60		4SM463C

Note: Please kindly ask delivery time and prices for RoHS approved MCBs

6 kA MCB / SND 6000

Number of poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code for B Type	Order Code for C Type	Order Code for D Type
1P	1	12	240	6SM101B	6SM101C	6SM101D
	2	12	240	6SM102B	6SM102C	6SM102D
	3	12	240	6SM103B	6SM103C	6SM103D
	4	12	240	6SM104B	6SM104C	6SM104D
	5	12	240	6SM105B	6SM105C	6SM105D
	6	12	240	6SM106B	6SM106C	6SM106D
	10	12	240	6SM110B	6SM110C	6SM110D
	16	12	240	6SM116B	6SM116C	6SM116D
	20	12	240	6SM120B	6SM120C	6SM120D
	25	12	240	6SM125B	6SM125C	6SM125D
	32	12	240	6SM132B	6SM132C	6SM132D
	40	12	240	6SM140B	6SM140C	6SM140D
	50	12	240	6SM150B	6SM150C	6SM150D
	63	12	240	6SM163B	6SM163C	6SM163D

2P	2	6	120		6SM202C	6SM202D
	4	6	120		6SM204C	6SM204D
	6	6	120		6SM206C	6SM206D
	10	6	120		6SM210C	6SM210D
	16	6	120		6SM216C	6SM216D
	20	6	120		6SM220C	6SM220D
	25	6	120		6SM225C	6SM225D
	32	6	120		6SM232C	6SM232D
	40	6	120		6SM240C	6SM240D
	50	6	120		6SM250C	6SM250D
	63	6	120		6SM263C	6SM263D

3P	2	4	80		6SM302C	6SM302D
	4	4	80		6SM304C	6SM304D
	6	4	80		6SM306C	6SM306D
	10	4	80		6SM310C	6SM310D
	16	4	80		6SM316C	6SM316D
	20	4	80		6SM320C	6SM320D
	25	4	80		6SM325C	6SM325D
	32	4	80		6SM332C	6SM332D
	40	4	80		6SM340C	6SM340D
	50	4	80		6SM350C	6SM350D
	63	4	80		6SM363C	6SM363D

4P	2	3	60		6SM402C	6SM402D
	4	3	60		6SM404C	6SM404D
	6	3	60		6SM406C	6SM406D
	10	3	60		6SM410C	6SM410D
	16	3	60		6SM416C	6SM416D
	20	3	60		6SM420C	6SM420D
	25	3	60		6SM425C	6SM425D
	32	3	60		6SM432C	6SM432D
	40	3	60		6SM440C	6SM440D
	50	3	60		6SM450C	6SM450D
	63	3	60		6SM463C	6SM463D

Note: Please kindly ask delivery time and prices for RoHS approved MCBs

10 kA MCB / SMD 10000 (TÜV Approved)

TÜVRheinland®

Number of poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code for B Type	Order Code for C Type	Order Code for D Type
1P	2	12	240	1SMD102B	1SMD102C	1SMD102D
	4	12	240	1SMD104B	1SMD104C	1SMD104D
	6	12	240	1SMD106B	1SMD106C	1SMD106D
	10	12	240	1SMD110B	1SMD110C	1SMD110D
	16	12	240	1SMD116B	1SMD116C	1SMD116D
	20	12	240	1SMD120B	1SMD120C	1SMD120D
	25	12	240	1SMD125B	1SMD125C	1SMD125D
	32	12	240	1SMD132B	1SMD132C	1SMD132D
	40	12	240	1SMD140B	1SMD140C	1SMD140D
	50	12	240	1SMD150B	1SMD150C	1SMD150D
	63	12	240	1SMD163B	1SMD163C	1SMD163D

2P	2	6	120		1SMD202C	1SMD202D
	4	6	120		1SMD204C	1SMD204D
	6	6	120		1SMD206C	1SMD206D
	10	6	120		1SMD210C	1SMD210D
	16	6	120		1SMD216C	1SMD216D
	20	6	120		1SMD220C	1SMD220D
	25	6	120		1SMD225C	1SMD225D
	32	6	120		1SMD232C	1SMD232D
	40	6	120		1SMD240C	1SMD240D
	50	6	120		1SMD250C	1SMD250D
	63	6	120		1SMD263C	1SMD263D

3P	2	4	80		1SMD302C	1SMD302D
	4	4	80		1SMD304C	1SMD304D
	6	4	80		1SMD306C	1SMD306D
	10	4	80		1SMD310C	1SMD310D
	16	4	80		1SMD316C	1SMD316D
	20	4	80		1SMD320C	1SMD320D
	25	4	80		1SMD325C	1SMD325D
	32	4	80		1SMD332C	1SMD332D
	40	4	80		1SMD340C	1SMD340D
	50	4	80		1SMD350C	1SMD350D
	63	4	80		1SMD363C	1SMD363D

4P	2	3	60		1SMD402C	1SMD402D
	4	3	60		1SMD404C	1SMD404D
	6	3	60		1SMD406C	1SMD406D
	10	3	60		1SMD410C	1SMD410D
	16	3	60		1SMD416C	1SMD416D
	20	3	60		1SMD420C	1SMD420D
	25	3	60		1SMD425C	1SMD425D
	32	3	60		1SMD432C	1SMD432D
	40	3	60		1SMD440C	1SMD440D
	50	3	60		1SMD450C	1SMD450D
	63	3	60		1SMD463C	1SMD463D

Note: Please kindly ask delivery time and prices for RoHS approved MCBs

80-100-125A MCB 6 kA / SKD 6000

Number of poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code
1P	80	12	120	6SK180C
	100	12	120	6SK100C
	125	12	120	6SK112C
2P	80	6	60	6SK280C
	100	6	60	6SK200C
	125	6	60	6SK212C
3P	80	4	40	6SK380C
	100	4	40	6SK300C
	125	4	40	6SK312C
4P	80	3	30	6SK480C
	100	3	30	6SK400C
	125	3	30	6SK412C

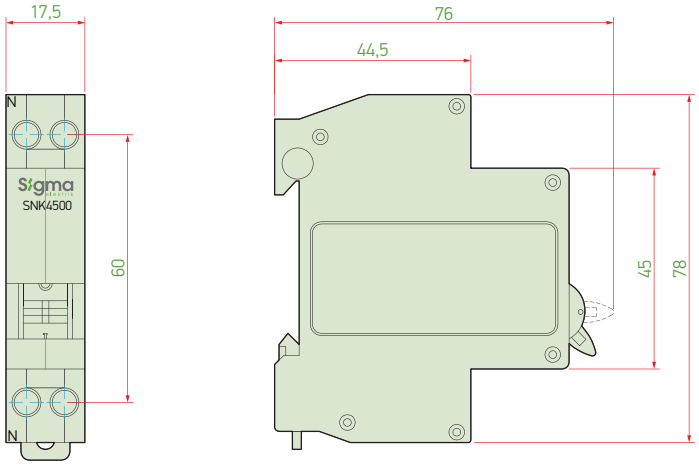
80-100-125A MCB 10 kA / SLD 10000

Number of poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code
1P	80	12	120	1SL180C
	100	12	120	1SL100C
	125	12	120	1SL112C
2P	80	6	60	1SL280C
	100	6	60	1SL200C
	125	6	60	1SL212C
3P	80	4	40	1SL380C
	100	4	40	1SL300C
	125	4	40	1SL312C
4P	80	3	30	1SL480C
	100	3	30	1SL400C
	125	3	30	1SL412C

4.5 kA Phase-Neutral MCB 1P+N (18mm) / SNK 4500

Number of poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code
1P+N	6	12	240	4SN106C
	10	12	240	4SN110C
	16	12	240	4SN116C
	20	12	240	4SN120C
	25	12	240	4SN125C
	32	12	240	4SN132C

SNK 4500



Accessories

Type Code	Description	Order Code
SEYK011	1NO+1NC Aux Contact (for SND 6000 and SDC 10000)	SEYK011
SMDYK	1NO+1NC Aux Contact (for SND 4500 and SMD 10000)	SMDYK011
SLDYK	1NO+1NC Aux Contact (Ith:3A, 415V AC) (for SLD 10000)	SLDYK011
SND6AK	1NO+1NC Alarm Contact (Ith:4A, 250V AC) (for SND 6000 - SDC10000)	SND6AK
SMDAK	1NO+1NC Alarm Contact (Ith:4A, 250V AC) (for SND 4500 - SMD 10000)	SMDAK
SND6AB	24-48 V AC-DC Shunt Trip Release (for SND 6000 - SDC 10000)	SND6AB024
SND6AB	230V AC Shunt Trip Release (for SND 6000 - SDC 10000)	SND6AB230
SMDAB	230V AC Shunt Trip Release (for SND 4500 - SMD 10000)	SMDAB
SNDDG	230V AC Under Voltage Release (for SND 6000 - SDC 10000)	SNDDG230
SMDDG	230V AC Under Voltage Release (for SND 4500 - SMD 10000)	SMDDG
SMEK	Safety Lock (for all type MCB)	SMEK
SMDRD1	Motor operator (for 1 P SMD 10000)	SMDRD1
SMDRD2	Motor operator (for 2 P SMD 10000)	SMDRD2
SMDRD3	Motor operator (for 3 P SMD 10000)	SMDRD3
SMDRD4	Motor operator (for 4 P SMD 10000)	SMDRD4

Required Data for a MCB Order

- ⇨ Rated Current (1 ... 125A)
- ⇨ Rated Breaking Capacity (4.5kA - 6kA - 10kA - 16kA)
- ⇨ Required Number of Poles (1P - 2P - 3P - 4P)
- ⇨ Tripping Curve Type (B - C - D)

MCB Selection According to Instantaneous Tripping Curve

B Curve: It is used for protection of illumination of incondescent light bulb and heaters.

C Curve: It is used for protection of inductive loads like fluorescent lamps, transformers, power socket plugs, machines, low power motors, air-conditions, cooling machines, power distribution panels.

D Curve: It is used for protection of high power motors, pomps, compressors, capacitors and welding machines.

Miniature Circuit Breakers Tripping and Non-Tripping Conditions

Tripping Curve	Rated Current	Applied Test Current	Tripping Time	Result (should be)
B, C, D	In≤63	1.13 In	t ≥ 3600s	Non trip
B, C, D	In≤63	1.45 In	t < 3600s	Trip
B, C, D	In>63	1.13 In	t ≥ 7200s	Non trip
B, C, D	In>63	1.45 In	t < 7200s	Trip
B, C, D	In≤32	2.55 In	1s < t < 60s	Trip
B, C, D	In>32	2.55 In	1s < t < 120s	Trip
B	All	3 In	t ≥ 0.1s	Non trip
B	All	5 In	t <0.1s	Trip
C	All	5 In	t ≥ 0.1s	Non trip
C	All	10 In	t <0.1s	Trip
D	All	10 In	t ≥ 0.1s	Non trip
D	All	20 In	t <0.1s	Trip

Sigma elektrik

RESIDUAL CURRENT
CIRCUIT BREAKERS

Residual Current Circuit Breakers are protection equipments that help protect living beings from the harmful effects of electrical energy. RCCBs prevent from possible dangers by opening the circuit in case of a leakage current in the system, in order not to endanger the lives of living beings and to prevent from damage to the devices in the system.

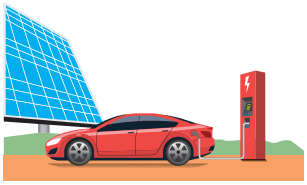
- ⇨ Product diversity in AC, A, B and A+6mA DC types
- ⇨ Life (human protection) protection function at 10mA and 30mA, installation (fire protection) protection function at 100mA and 300mA
- ⇨ 2 and 4 pole product variety
- ⇨ 6kA and 10kA short circuit breaking capacity
- ⇨ Rated current from 16A to 125A
- ⇨ Delayed types, AC type at 300mA and A type at 300mA
- ⇨ Test button that allows testing electrical and mechanical operability
- ⇨ Double indicator design

WHICH TYPE OF SIGMA RESIDUAL CURRENT CIRCUIT BREAKERS SWITCH SHOULD WE CHOOSE?

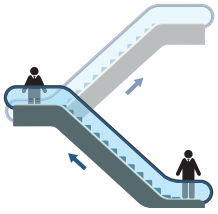
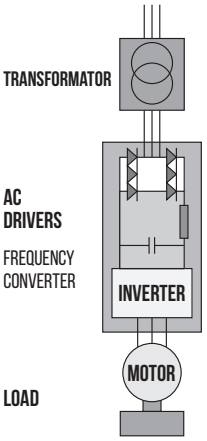


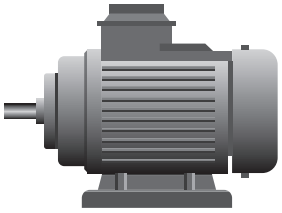
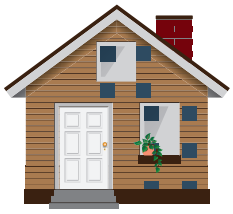

AC TYPE	A TYPE	A+6mA DC TYPE	B TYPE
Alternative residual current(AC)	Alternative residual current(AC), Pulsed DC residual current(AC)	Alternative residual current(AC), Pulsed and non-pulsed DC Current	Alternative residual current(AC), Pulsed and non-pulsed DC Current, High frequency alternative current
SHM (6kA) **SGM** (10kA) **SDM** Gecikmeli (10kA)	**SFM** (10kA) **SLM** Gecikmeli (10kA)	**SNM** (10kA)	**SKM** (10kA)
Resistive loads, Classical lighting, Electric heaters, Classical lighting residences without elevators	LED Drivers and Dimmers, Escalators, Elevators, Elevators and Led Lighting, Housing	Electric vehicle charging station	AC/DC motor drives, Photovoltaic facilities, UPS, Frequency converters







Residual Current Circuit Breakers - Technical Specification

			SGM-2	SGM-4	SFM-2		SFM-4	SHM-2		SHM-4
Number of poles			2	4	2		4	2		4
Rated current	In	A	25, 32,40, 63, 80, 100, 125		25, 40, 63	25, 32, 40, 63, 80, 100		16, 25	25, 32, 40, 50, 63, 80, 100	
Rated residual current	IΔ	mA	30, 100, 300		30	100, 300	30, 100, 300	10	30, 100, 300	
Rated frequency		Hz	50-60		50-60			50-60		
Type of residual current			AC		A			AC		
Tripping unit			Electro-mechanic		Electro-mechanic			Electro-mechanic		
Tripping time			0.5 ... 1 x IΔn		0.11 ... 1.4 x IΔn			0.5 ... 1 x IΔn		
Breaking time at residual current (IΔn)		ms	< 50		< 50			< 50		
Operating characteristic			General		General			General		
Rated operating voltage	Ue	(AC) V	240	415	240	240	415	240	240	415
Rated insulation voltage	Ui	V	660		660			660		
Rated impulse withstand voltage	Uimp	kV	6		6			6		
Rated short circuit withstand current with fuse (Inc/IΔc)		kA	10		10			6		
Electrical life (No. operation)	operation	(230V)	6.000		6.000			6.000		
Mechanical life (No. operation)	operation		20.000		20.000			20.000		
Degree of protection (after assembly)			IP 20 (IP 40)		IP 20 (IP 40)			IP 20 (IP 40)		
Ambient operating temperature		°C	-25 ... +60		-25 ... +60			-25 ... +60		
Storage temperature		°C	-40 ... +70		-40 ... +70			-40 ... +70		
Relative humidity		%	95		95			95		
Dimensions	Width	mm	35	70	35		70	35	35	70
	Length	mm	80		80		80	80		
Assembly type (EN 60715)			35mm DIN Rail		35mm DIN Rail			35mm DIN Rail		
Min.. Max. Connection section		mm^2	4 - 50		4 - 35			4 - 35		

			SDM-2	SDM-4	SLM-2	SLM-4	SKM-2	SKM-4	SNM-2	SNM-4
Number of poles			2	4	2	4	2	4	2	4
Rated current	In	A	25, 32, 40, 63, 80		25, 40, 63, 80, 100		25, 40, 63		25, 40, 63	
Rated residual current	IΔ	mA	300		300		30, 300		30 mA AC - 6 mA DC	
Rated frequency		Hz	50-60		50-60		50-60		50-60	
Type of residual current			AC		A		B		B	
Tripping unit			Electro-mechanic		Electro-mechanic		Electro-mechanic		Electro-mechanic	
Tripping time			0.5 ... 1 x IΔn		0.5 ... 1 x IΔn		0.5 ... 1 x IΔn		0.5 ... 1 x IΔn	
Breaking time at residual current (IΔn)		ms	130 < t < 500		130 < t < 500		< 50		< 50	
Operating characteristic			Delay Time Selectivity		Delay Time Selectivity		General		General	
Rated operating voltage	Ue	(AC) V	240	415	230	415	230	415	230	415
Rated insulation voltage	Ui	V	660		660		660		660	
Rated impulse withstand voltage	Uimp	kV	6		6		6		6	
Rated short circuit withstand current with fuse (Inc/IΔc)		kA	6		10		10		10	
Electrical life (No. operation)	operation	(230V)	6.000		6.000		1.000		2.000	
Mechanical life (No. operation)	operation		20.000		20.000		2.000		3.000	
Degree of protection (after assembly)			IP 20 (IP 40)		IP 20 (IP 40)		IP 20 (IP 40)		IP 20 (IP 40)	
Ambient operating temperature		°C	-25 ... +60		-25 ... +60		-25 ... +40		-25 ... +40	
Storage temperature		°C	-40 ... +70		-40 ... +70		-25 ... +70		-25 ... +70	
Relative humidity		%	95		95		95		95	
Dimensions	Width	mm	35	70	35	70	53,5	71,5	53,5	71,5
	Length	mm	80		80		81,5		81,5	
Assembly type (EN 60715)			35mm DIN Rail		35mm DIN Rail		35mm DIN Rail		35mm DIN Rail	
Min.. Max. Connection section		mm^2	4 - 35		4 - 35		4 - 35		4 - 35	

Residual Current Circuit Breakers (AC Type) 6 kA (Double Indicator)

Type Code	Rated Current In (A)	Number of poles	Protection	Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
NEW PRODUCT	16	2P	Shock Protection (Pool Usage)	10	Instantaneously	100	SHM2016010
	25					100	SHM2025010
SHM-2	25	2P	Shock Protection	30	Instantaneously	100	SHM2025030
	32					100	SHM2032030
	40					100	SHM2040030
	50					100	SHM2050030
	63					100	SHM2063030
	80					100	SHM2080030
	100					100	SHM2100030
	25	2P	Shock Protection	100	Instantaneously	100	SHM2025100
	32					100	SHM2032100
	40					100	SHM2040100
	50					100	SHM2050100
	63					100	SHM2063100
	80					100	SHM2080100
	100					100	SHM2100100
	25	2P	Fire Protection	300	Instantaneously	100	SHM2025300
	32					100	SHM2032300
	40					100	SHM2040300
	50					100	SHM2050300
	63					100	SHM2063300
	80					100	SHM2080300
	100					100	SHM2100300

Type Code	Rated Current In (A)	Number of poles	Protection	Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SHM-4	25	4P	Shock Protection	30	Instantaneously	50	SHM4025030
	32					50	SHM4032030
	40					50	SHM4040030
	50					50	SHM4050030
	63					50	SHM4063030
	80					50	SHM4080030
	100					50	SHM4100030
	25	4P	Fire Protection	100	Instantaneously	50	SHM4025100
	32					50	SHM4032100
	40					50	SHM4040100
	50					50	SHM4050100
	63					50	SHM4063100
	80					50	SHM4080100
	100					50	SHM4100100
	25	4P	Fire Protection	300	Instantaneously	50	SHM4025300
	32					50	SHM4032300
	40					50	SHM4040300
	50					50	SHM4050300
	63					50	SHM4063300
	80					50	SHM4080300
	100					50	SHM4100300

Type Code	Rated Current In (A)	Number of poles	Protection	Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SDM-2 (Selective Type)	25	2P	Fire Protection (Selectivity Option)	300	Min. 130 ms	100	SDM2025300
	40					100	SDM2040300
	63					100	SDM2063300
	80					100	SDM2080300
SDM-4 (Selective Type)	25	4P	Fire Protection (Selectivity Option)	300	Min. 130 ms	50	SDM4025300
	40					50	SDM4040300
	63					50	SDM4063300
	80					50	SDM4080300

Residual Current Circuit Breakers (AC Type) 10 kA (Double Indicator)

Type Code	Rated Current In (A)	Number of poles	Protection	Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SGM-2	25	2P	Shock Protection	30	Instantaneously	100	SGM2025030
	32					100	SGM2032030
	40					100	SGM2040030
	63					100	SGM2063030
	80					100	SGM2080030
	100					100	SGM2100030
	125					100	SGM2125030
	25	2P	Fire Protection	100	Instantaneously	100	SGM2025100
	32					100	SGM2032100
	40					100	SGM2040100
	63					100	SGM2063100
	80					100	SGM2080100
	100					100	SGM2100100
	125					100	SGM2125100
	25	2P	Fire Protection	300	Instantaneously	100	SGM2025300
	32					100	SGM2032300
	40					100	SGM2040300
	63					100	SGM2063300
	80					100	SGM2080300
	100					100	SGM2100300
	125					100	SGM2125300

Type Code	Rated Current In (A)	Number of poles	Protection	Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SGM-4	25	4P	Shock Protection	30	Instantaneously	50	SGM4025030
	32					50	SGM4032030
	40					50	SGM4040030
	63					50	SGM4063030
	80					50	SGM4080030
	100					50	SGM4100030
	125					50	SGM4125030
	25	4P	Fire Protection	100	Instantaneously	50	SGM4025100
	32					50	SGM4032100
	40					50	SGM4040100
	63					50	SGM4063100
	80					50	SGM4080100
	100					50	SGM4100100
	125					40	SGM4125100
	25	4P	Fire Protection	300	Instantaneously	50	SGM4025300
	32					50	SGM4032300
	40					50	SGM4040300
	63					50	SGM4063300
	80					50	SGM4080300
	100					50	SGM4100300
	125					40	SGM4125300

Residual Current Circuit Breakers (A Type) 10 kA (Double Indicator)

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SFM-2	25	2P	Shock Protection (AC residual current Pulsating DC residual current)	30	Instantaneously	100	SFM2025030
	40					100	SFM2040030
	63					100	SFM2063030
	25	2P	Fire and Equipment Protection (AC residual current Pulsating DC residual current)	100	Instantaneously	100	SFM2025100
	40					100	SFM2040100
	63					100	SFM2063100
	80					100	SFM2080100
	100					100	SFM2100100
	25	2P	Fire and Equipment Protection (AC residual current Pulsating DC residual current)	300	Instantaneously	100	SFM2025300
	40					100	SFM2040300
	63					100	SFM2063300
	80					100	SFM2080300
	100					100	SFM2100300

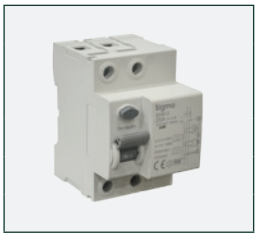
Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SFM-4	25	4P	Shock Protection (AC residual current Pulsating DC residual current)	30	Instantaneously	50	SFM4025030
	40					50	SFM4040030
	63					50	SFM4063030
	80					50	SFM4080030
	100					50	SFM4100030
	25	4P	Fire and Equipment Protection (AC residual current Pulsating DC residual current)	100	Instantaneously	50	SFM4025100
	40					50	SFM4040100
	63					50	SFM4063100
	80					50	SFM4080100
	100					50	SFM4100100
	25	4P	Fire and Equipment Protection (AC residual current Pulsating DC residual current)	300	Instantaneously	50	SFM4025300
	40					50	SFM4040300
	63					50	SFM4063300
	80					50	SFM4080300
	100					50	SFM4100300

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SLM-2 (Selective Type)	25	2P	Fire and Equipment Protection (Selectivity Option)	300	Min. 130 ms	100	SLM2025300
	40					100	SLM2040300
	63					100	SLM2063300
	80					100	SLM2080300
	100					100	SLM2100300

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SLM-4 (Selective Type)	25	4P	Fire and Equipment Protection (Selectivity Option)	300	Min. 130 ms	50	SLM4025300
	40					50	SLM4040300
	63					50	SLM4063300
	80					50	SLM4080300
	100					50	SLM4100300

Note: A Type RCB's are used to provide protection against residual currents of electronic devices including UPS, Power Supplies, Elevators, Thyristor and Diode

Residual Current Circuit Breakers (B Type) 10 kA



Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SKM-2	25	2P	Shock Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	30 mA	Instantaneously	100	SKM2025030
	40					100	SKM2040030
	63					100	SKM2063030
	25	2P	Fire and Equipment Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	300 mA	Instantaneously	100	SKM2025300
	40					100	SKM2040300
	63					100	SKM2063300

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SKM-4	25	4P	Shock Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	30 mA	Instantaneously	50	SKM4025030
	40					50	SKM4040030
	63					50	SKM4063030
	25	4P	Fire and Equipment Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	300 mA	Instantaneously	50	SKM4025300
	40					50	SKM4040300
	63					50	SKM4063300

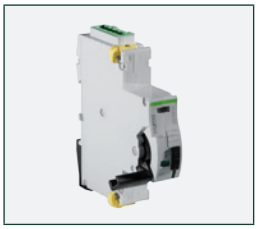
Residual Current Circuit Breakers (A+6 mA DC Type) 10 kA (For the protection of Electric Vehicle Charging Units)

NEW PRODUCT

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SNM-2	25	2P	Shock Protection (AC and DC residual current)	30 mA AC / 6 mA DC	Instantaneously	100	SNM2025030
	40					100	SNM2040030
	63					100	SNM2063030

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SNM-4	25	4P	Shock Protection (AC and DC residual current)	30 mA AC / 6 mA DC	Instantaneously	50	SNM4025030
	40					50	SNM4040030
	63					50	SNM4063030

Auto Reclosing Device for RCCB



Type Code	Rated Voltage (V)	Function	Pcs in a Box	Compatible Types	Order Code
SCRC-03	230	Reclose time periods: 1st: 10s, 2nd: 60s, 3th: 300s, 4th: locked	100	SHM-2 SHM-4	SCRC03

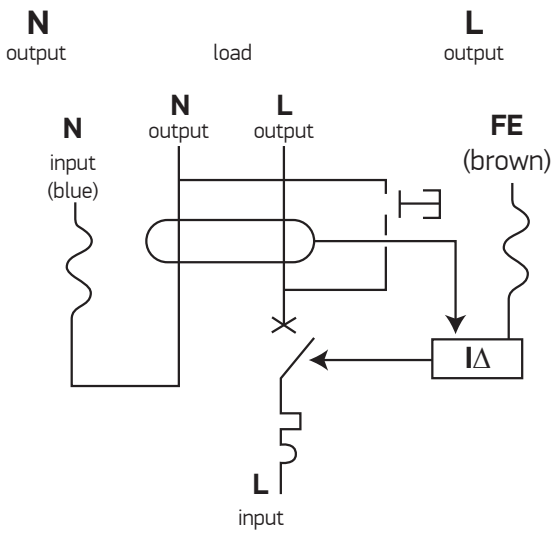
Residual Current Circuit Breakers with Auto Reclosing Device (AC Tipi) 6 kA

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn	Operating characteristic	Pcs in a Box	Order Code
SHM-2	40	2	Shock Protection	30mA	Instantaneously	100	SHM2040030RC
	40		Fire Protection	300mA		100	SHM2040300RC
SHM-4	40	4	Shock Protection	30mA	Instantaneously	50	SHM4040030RC
	40		Fire Protection	300mA		50	SHM4040300RC

RCBO - Technical Specifications

		SRE-2	SRM-2
Instantaneous tripping characteristic		B, C	B, C
Rated operating voltage	V AC	230 (240)	230
Rated frequency	Hz	50 ... 60	50 ... 60
Rated current (In)	A	6, 10, 16, 20, 32, 40	6, 10, 16, 20, 32, 40
Residual current (IΔn)	mA	30-100-300	30-300
Rated ultimate short-circuit breaking capacity	kA	6	6
Connection section	mm^2	0.75 ... 16	1.5 - 3.5
Max. clamping torque	Nm	2	2
Degree of protection		IP20	IP20
Electrical life (No. operation)		6.000	6.000
Mechanical life (No. operation)		20.000	20.000
Storage ambient temperature	°C	-40 ... +75	-40 ... +70
Operating ambient temperature	°C	-25 ... +55	-25 ... +55
Relative humidity	%	95	95
CFC-silicone free		Yes	Yes

Circuit Diagram



RCBO - Residual Current Circuit Breaker with Over Current Protection (Wired) (B and C Protection Curve)

Type Code	Rated Current In (A)	Number of poles	Residual Current IΔn (mA)	Type of Residual Current	Breaking Capacity	Pcs in a Box	Order Code
SRE-2	6	1P+N	30mA	AC	6 kA	100	SRE2006030
	10		30mA	AC	6 kA	100	SRE2010030
	16		30mA	AC	6 kA	100	SRE2016030
	20		30mA	AC	6 kA	100	SRE2020030
	25		30mA	AC	6 kA	100	SRE2025030
	32		30mA	AC	6 kA	100	SRE2032030
	40		30mA	AC	6 kA	100	SRE2040030
	6		100mA	AC	6 kA	100	SRE2006100
	10		100mA	AC	6 kA	100	SRE2010100
	16		100mA	AC	6 kA	100	SRE2016100
	20		100mA	AC	6 kA	100	SRE2020100
	25		100mA	AC	6 kA	100	SRE2025100
	32		100mA	AC	6 kA	100	SRE2032100
	40		100mA	AC	6 kA	100	SRE2040100
	6		300mA	AC	6 kA	100	SRE2006300
	10		300mA	AC	6 kA	100	SRE2010300
	16		300mA	AC	6 kA	100	SRE2016300
	20		300mA	AC	6 kA	100	SRE2020300
	25		300mA	AC	6 kA	100	SRE2025300
	32		300mA	AC	6 kA	100	SRE2032300
	40		300mA	AC	6 kA	100	SRE2040300

Residual Current Circuit Breaker with Over Current Protection (B and C Protection Curve) (AC Tip)

Type Code	Rated Current In (A)	Number of poles	Residual Current IΔn (mA)	Type of Residual Current	Breaking Capacity	Pcs in a Box	Order Code for B Type	Order Code for C Type
SRM-2	6	1P+N	30mA	AC	6 kA	100	SRM2006030B	SRM2006030
	10		30mA	AC	6 kA	100	SRM2010030B	SRM2010030
	16		30mA	AC	6 kA	100	SRM2016030B	SRM2016030
	20		30mA	AC	6 kA	100	SRM2020030B	SRM2020030
	25		30mA	AC	6 kA	100	SRM2025030B	SRM2025030
	32		30mA	AC	6 kA	100	SRM2032030B	SRM2032030
	40		30mA	AC	6 kA	100	SRM2040030B	SRM2040030
	6		300mA	AC	6 kA	100	SRM2006300B	SRM2006300
	10		300mA	AC	6 kA	100	SRM2010300B	SRM2010300
	16		300mA	AC	6 kA	100	SRM2016300B	SRM2016300
	20		300mA	AC	6 kA	100	SRM2020300B	SRM2020300
	25		300mA	AC	6 kA	100	SRM2025300B	SRM2025300
	32		300mA	AC	6 kA	100	SRM2032300B	SRM2032300
	40		300mA	AC	6 kA	100	SRM2040300B	SRM2040300

Type Code	Rated Current In (A)	Number of poles	Residual Current IΔn (mA)	Type of Residual Current	Breaking Capacity	Pcs in a Box	Order Code for B Type	Order Code for C Type
SRM-4	6	3P+N	30mA	AC	6 kA	50	SRM4006030B	SRM4006030
	10		30mA	AC	6 kA	50	SRM4010030B	SRM4010030
	16		30mA	AC	6 kA	50	SRM4016030B	SRM4016030
	20		30mA	AC	6 kA	50	SRM4020030B	SRM4020030
	25		30mA	AC	6 kA	50	SRM4025030B	SRM4025030
	32		30mA	AC	6 kA	50	SRM4032030B	SRM4032030
	40		30mA	AC	6 kA	50	SRM4040030B	SRM4040030
	6		300mA	AC	6 kA	50	SRM4006300B	SRM4006300
	10		300mA	AC	6 kA	50	SRM4010300B	SRM4010300
	16		300mA	AC	6 kA	50	SRM4016300B	SRM4016300
	20		300mA	AC	6 kA	50	SRM4020300B	SRM4020300
	25		300mA	AC	6 kA	50	SRM4025300B	SRM4025300
	32		300mA	AC	6 kA	50	SRM4032300B	SRM4032300
	40		300mA	AC	6 kA	50	SRM4040300B	SRM4040300

Residual Current Circuit Breaker with Over Current Protection (B and C Protection Curve) (A Tip)

Type Code	Rated Current In (A)	Number of poles	Residual Current IΔn (mA)	Type of Residual Current	Breaking Capacity	Pcs in a Box	Order Code for B Type	Order Code for C Type
SRM-2	6	1P+N	30mA	A	6 kA	100	SRMA2006030B	SRMA2006030
	10		30mA	A	6 kA	100	SRMA2010030B	SRMA2010030
	16		30mA	A	6 kA	100	SRMA2016030B	SRMA2016030
	20		30mA	A	6 kA	100	SRMA2020030B	SRMA2020030
	25		30mA	A	6 kA	100	SRMA2025030B	SRMA2025030
	32		30mA	A	6 kA	100	SRMA2032030B	SRMA2032030
	40		30mA	A	6 kA	100	SRMA2040030B	SRMA2040030
	6		300mA	A	6 kA	100	SRMA2006300B	SRMA2006300
	10		300mA	A	6 kA	100	SRMA2010300B	SRMA2010300
	16		300mA	A	6 kA	100	SRMA2016300B	SRMA2016300
	20		300mA	A	6 kA	100	SRMA2020300B	SRMA2020300
	25		300mA	A	6 kA	100	SRMA2025300B	SRMA2025300
	32		300mA	A	6 kA	100	SRMA2032300B	SRMA2032300
	40		300mA	A	6 kA	100	SRMA2040300B	SRMA2040300

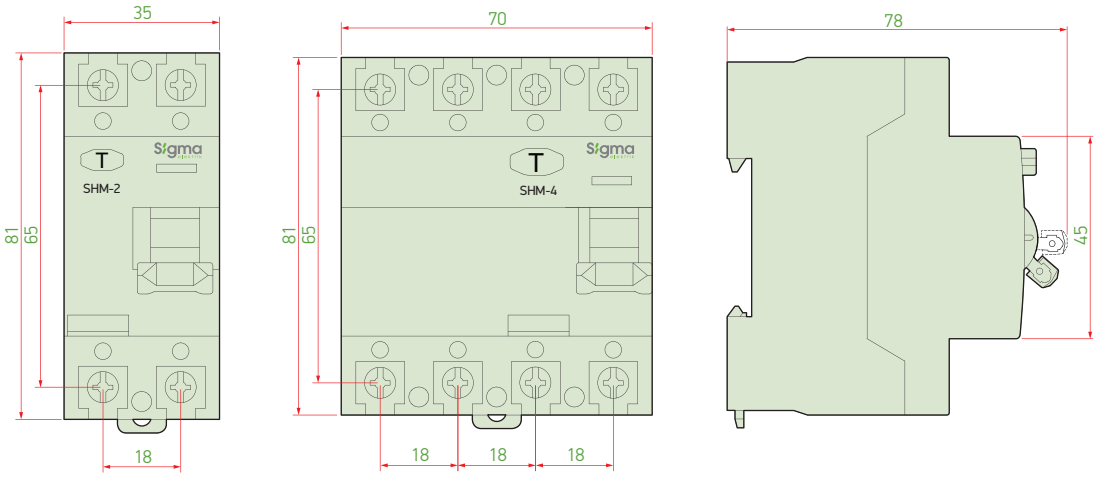
Type Code	Rated Current In (A)	Number of poles	Residual Current IΔn (mA)	Type of Residual Current	Breaking Capacity	Pcs in a Box	Order Code for B Type	Order Code for C Type
SRM-4	6	3P+N	30mA	A	6 kA	100	SRMA4006030B	SRMA4006030
	10		30mA	A	6 kA	100	SRMA4010030B	SRMA4010030
	16		30mA	A	6 kA	100	SRMA4016030B	SRMA4016030
	20		30mA	A	6 kA	100	SRMA4020030B	SRMA4020030
	25		30mA	A	6 kA	100	SRMA4025030B	SRMA4025030
	32		30mA	A	6 kA	100	SRMA4032030B	SRMA4032030
	40		30mA	A	6 kA	100	SRMA4040030B	SRMA4040030
	6		300mA	A	6 kA	100	SRMA4006300B	SRMA4006300
	10		300mA	A	6 kA	100	SRMA4010300B	SRMA4010300
	16		300mA	A	6 kA	100	SRMA4016300B	SRMA4016300
	20		300mA	A	6 kA	100	SRMA4020300B	SRMA4020300
	25		300mA	A	6 kA	100	SRMA4025300B	SRMA4025300
	32		300mA	A	6 kA	100	SRMA4032300B	SRMA4032300
	40		300mA	A	6 kA	100	SRMA4040300B	SRMA4040300

Residual Current Circuit Breakers Test Instrument

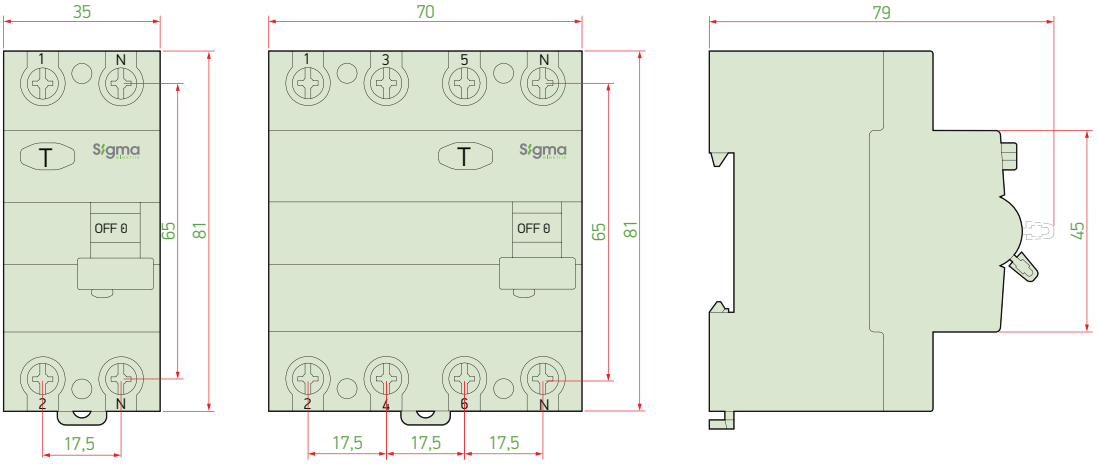
Residual Current Circuit Breakers Test Instrument Characteristics		Order Code
Residual current test levels	15 - 30 - 50-100 - 150 -300 mA - adjustable:	SCT-100
Trip time measurement	Trip time measurement on the basis of ms at 15 - 30 - 50-100 - 150 -300 mA	
Max. Signal application period for the test	1000 ms	
Phase measurement	It is possible to see on the screen with PWR Led light whether there is energy in the socket to be controlled	
Product operating voltage	230V AC	
Screen	2x8 LCD screen	

Dimensions

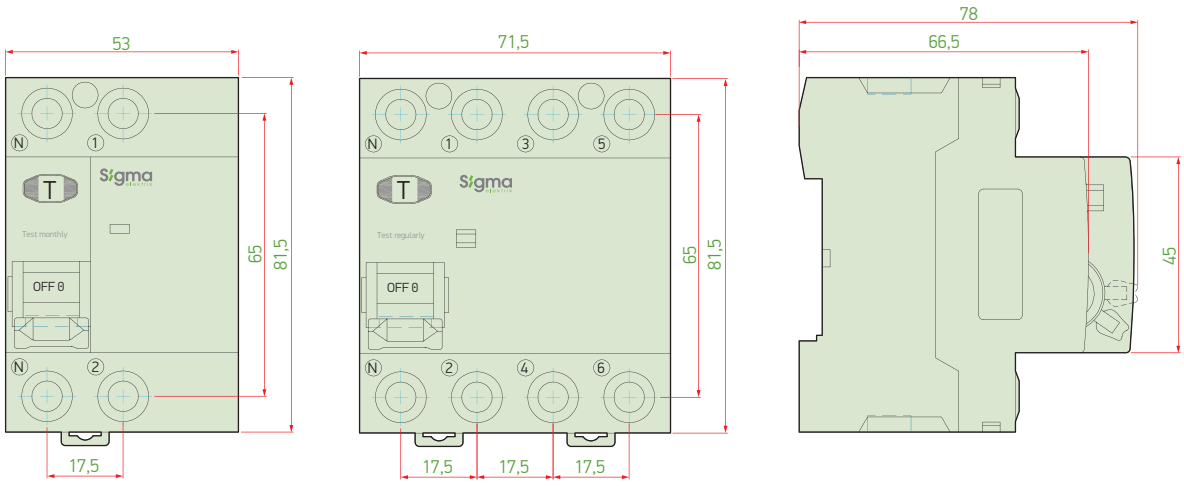
SHM2 - SHM4 / SDM2 - SDM4



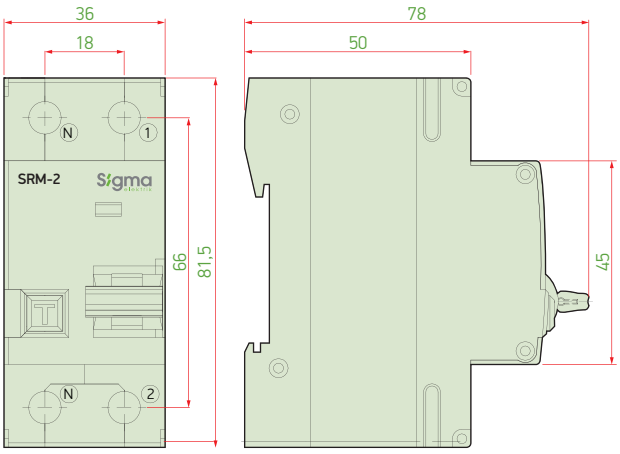
SFM-2 / SFM-4 / SGM-2 / SGM-4



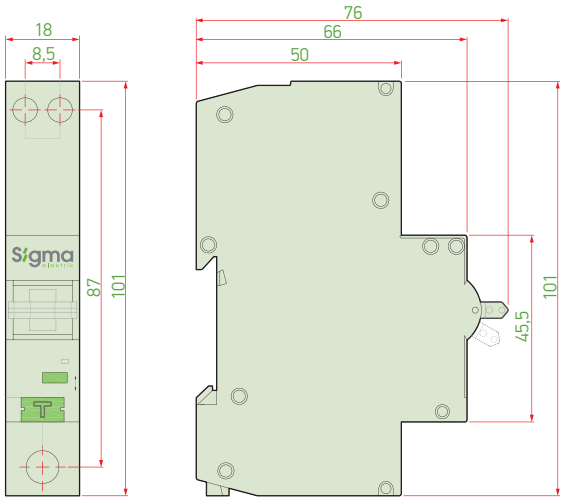
SKM-2 - SKM-4 / SNM-2 - SNM-4



SRM-2


36
18
78
50
N
1
SRM-2
Sigma
66
81,5
45
N
2

SRE-2


18
8,5
76
66
50
Sigma
87
101
45,5
101

Sigma Auto Recloser (SCRC03)

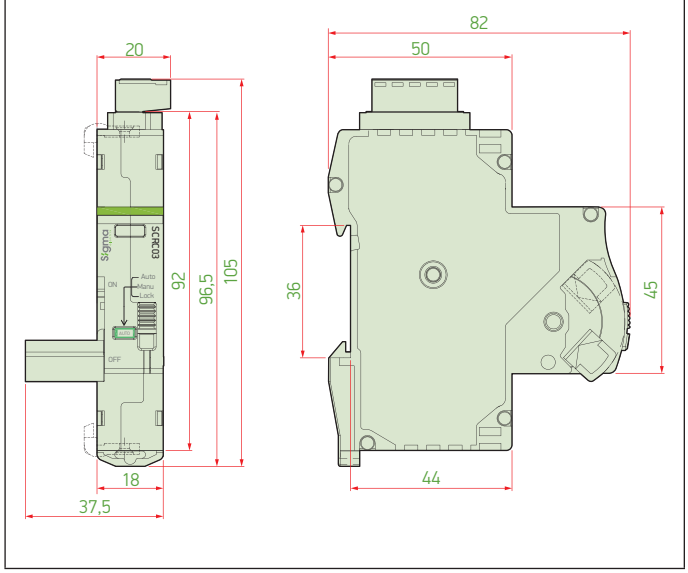
The recloser is a device with an innovative and technological structure that ensures auto reclosing of the residual current circuit breaker in case of unwanted tripping. A residual current circuit breaker can often cause power outage due to temporary or permanent faults.

Technical Data

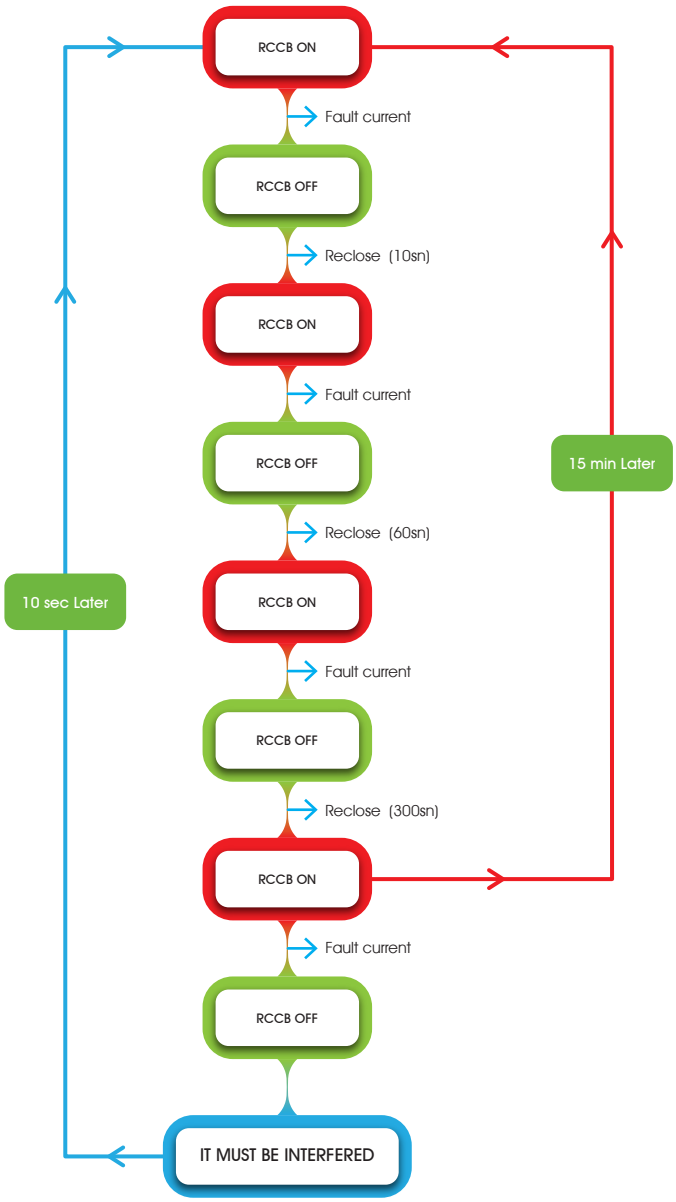
Power wiring	1P+N
Rated voltage	230V
Rated frequency	50/60Hz
Mechanical life	10.000 times
Trip time	Trips ≤ 0.2s Reclose ≤ 0.3s (time delay excluded)
Reclose time delay	1st: 10s, 2nd: 60s, 3th: 300s, 4th: locked
Suitable RCCB	SHM-2 / SHM-4
Protection Grade	IP20
Operation / Storage Temperature	-25 ... +55 / -40 ... +70
Relative Humidity	95%
Auto/Manu/Lock Operation Mode	**Auto:** Auto reclose function in work condition, as well as both open & close contacts work well.
	Manu: Auto reclose function doesn't work, both open & close contacts doesn't work as well.
	Lock: the device won't reclose after locked with hole diameter is 4.5mm, even manually.
Displays	**Green & Long Bright:** Normal work
	Red & flash (1time/1s): Auto-reclosing
	Red & Long Bright: Locked, auto reclose function and both open & close contacts doesn't work
Release "LOCK"	After visit at site and solved the faulty problem, the electrician needs to switch "AUTO" to "MANU"and "AUTO"again;

Dimensions

SCRC-03



Function Description (Auto Mode)



Sigma
elektrik

MODULAR **PRODUCTS**

Modular products are products that combine monitoring (measurement), efficiency, functionality and comfort.

DIN Rail Type LED Signal Indicators and LED Signal Indicators

- ⇨ Long service life, high brightness and low power loss opportunities
- ⇨ Options with connection clamps or rail mounting for mounting on device covers, panels, control cabinets
- ⇨ Single piece rail mounting or cabin front cover plate mounting option
- ⇨ 5 color options: red, green, yellow, blue, white

Cylindrical (Cartridge) Fuses

- ⇨ Series suitable for AC and DC loads,
- ⇨ Options for fuses suitable for load classes; gG, aM, Ar
- ⇨ Product variety from 1A to 100A

Cylindrical (Cartridge) Fuse Holders

- ⇨ Product variety from 32A, 50A and 100A
- ⇨ 1, 1P+N, 3, 4 pole options in cartridge slots

Modular DIN Rail Sockets

- ⇨ Design resistant to high temperatures having thermoplastic body material
- ⇨ IP20 protection degree
- ⇨ 230V, 6A
- ⇨ Easy mounting on DIN rail

Impulse Relays

- ⇨ 16A and 32A
- ⇨ 24V AC, 24V DC and 230V AC
- ⇨ 1NO, 2NO, 1NO+1NC and 2NO+2NC
- ⇨ 960°C heat resistant body material
- ⇨ IP20 protection degree
- ⇨ High electrical and mechanical life

Isolator Switches (without protection)

- ⇨ 1, 2, 3 and 4 poles
- ⇨ 40A and 125A rated current

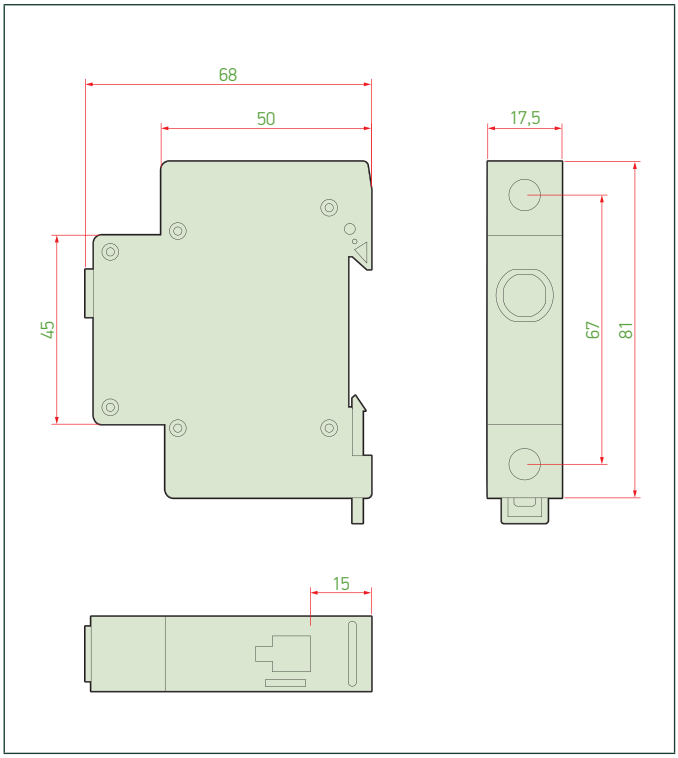
DIN Rail Type Led Signal Indicators

Colour	Rated Voltage (V)	Min. Order Quantity	Pcs in a Box	Order Code
Blue	220V AC	12	120	SSL-B220A
	24V AC	12	120	SSL-B024A
	24V DC	12	120	SSL-B024D
Red	220V AC	12	120	SSL-R220A
	24V AC	12	120	SSL-R024A
	24V DC	12	120	SSL-R024D
Green	220V AC	12	120	SSL-G220A
	24V AC	12	120	SSL-G024A
	24V DC	12	120	SSL-G024D
Yellow	220V AC	12	120	SSL-Y220A
	24V AC	12	120	SSL-Y024A
	24V DC	12	120	SSL-Y024D

Technical Specifications

			SSL
Standard			EN 60947-5-1
Rated current AC12	In	A	20
Lamp type			LED
Colors			Green, Red, Blue, Yellow
Rated operating voltage	Ue	V	230 (AC), 24 (AC), 24 (DC)
Rated insulation voltage	Ui	V	500
Electrical life (No. operation)		hour	> 30.000
Degree of protection			IP 20
Operating ambient temperature		°C	-30 ... +60
Storage ambient temperature		°C	-40 ... +70
Relative Humidity		%	95
Mounting type (EN 60715)			35mm DIN Rail
Connection section		mm^2	1-16
Max. clamping torque		Nm	3,5

Dimensions



Panel Type Led Signal Indicators

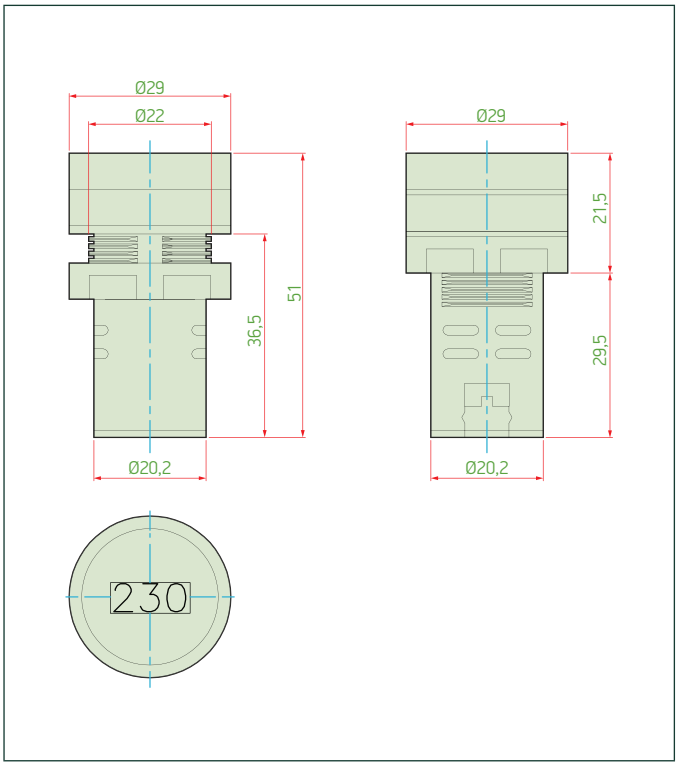
Type Code	Description	Rated Voltage (V)	Dimensions (mm)	Colour	Pcs in a Box	Order Code
SL-22-22DS	Led Indicator	220V AC	22	Red	240	SL22-220DSR
	Led Indicator	220V AC	22	Green	240	SL22-220DSG
	Led Indicator	220V AC	22	Yellow	240	SL22-220DSY
	Led Indicator	220V AC	22	Blue	240	SL22-220DSB
	Led Indicator	220V AC	22	White	240	SL22-220DSW
	Led Indicator	24V AC/DC	22	Red	240	SL22-024DSR
	Led Indicator	24V AC/DC	22	Green	240	SL22-024DSG
	Led Indicator	24V AC/DC	22	Yellow	240	SL22-024DSY
	Led Indicator	24V AC/DC	22	Blue	240	SL22-024DSB
	Led Indicator	24V AC/DC	22	White	240	SL22-024DSW

Type Code	Description	Rated Voltage (V)	Dimensions (mm)	Colour	Pcs in a Box	Order Code
SL-22-22VM	Led Indicator with Voltmeter Function	50-500V AC	22	Red	240	SL22-22VMR
				Green	240	SL22-22VMG
				Yellow	240	SL22-22VMY
				Blue	240	SL22-22VMB
				White	240	SL22-22VMW
	Led Indicator with Voltmeter Function	5-60V DC	22	Red	240	SL22-22VMRD
				White	240	SL22-22VMWD
SL-22-22AM	Led Indicator with Ammeter Function	0-100A	22	Red	240	SL22-22AMR
				White	240	SL22-22AMW
SL-22-22VAM	Led Indicator with Voltmeter-Ammeter Functions	50-500V AC 0-100A AC	22	Red	240	SL22-22VAMR
				White	240	SL22-22VAMW
SL-22-22HM	Led Indicator with Frequency Meter Function	0-99 Hz	22	Red	240	SL22-22HMR
				White	240	SL22-22HMW
SL-22-22TM	Led Indicator with Temperature Function	-20 ...+ 199°C	22	Red	240	SL22-22TMR
				White	240	SL22-22TMW

Technical Specifications

		Led Indicators	Led Indicators with measurement functions (V-A-VA-Hz-°C)
Standard		IEC/EN60947-5-1	
Mounting diameter		22mm	
Device mounting		Fixing hole: Ø 22,5mm	
Source of light		Led	
Color		Red, Green, Yellow, Blue, White	Red, Green, Yellow, White
Rated operating voltage	V	220V AC, 24V AC DC	12-500V AC
Rated impulse voltage	kV	6 kV	
Electrical life (No. operation)	Hour	70.000 hour at nominal voltage and 25°C	
Degree of protection		IP20 (back side), IP40 (front side)	
Operating ambient temperature	°C	-25 ... 55°C	
Storage ambient temperature	°C	-40 ... 70°C	
Relative Humidity	%	95	
Connection terminal		Screw clamp terminals : <= 2 x 1,5mm² cable terminal	
Height	mm	29	
Width	mm	29	
Depth	mm	54	
Weight	Kg	0.018	
Overvoltage category		Class III	
Tightening torque	Nm.	0.8 ... 1.2	

Dimensions



Cylindrical (Cartridge) Fuses

Type	Rated Current (A)	Cartridge Diameter (Øxmm)	Min. Order Quantity	Pcs in a Box	Order Code
gG Type cylindrical fuses (General protection of cables and electrical systems against overload and short circuit).	1	10x38	10	2000	SFLG01
	2	10x38	10	2000	SFLG02
	4	10x38	10	2000	SFLG04
	6	10x38	10	2000	SFLG06
	10	10x38	10	2000	SFLG10
	16	10x38	10	2000	SFLG16
	20	10x38	10	2000	SFLG20
	25	10x38	10	2000	SFLG25
	32	10x38	10	2000	SFLG32
	40	14x51	10	2000	SFNG040
	50	14x51	10	2000	SFNG050
	63	22x58	10	2000	SFMG063
	80	22x58	10	2000	SFMG080
	100	22x58	10	2000	SFMG100

Type	Rated Current (A)	Cartridge Diameter (Øxmm)	Min. Order Quantity	Pcs in a Box	Order Code
aM Type cylindrical fuses (Protection of Motor systems against short circuits)	2	10x38	10	2000	SFLM02
	4	10x38	10	2000	SFLM04
	6	10x38	10	2000	SFLM06
	10	10x38	10	2000	SFLM10
	16	10x38	10	2000	SFLM16
	20	10x38	10	2000	SFLM20
	25	10x38	10	2000	SFLM25
	32	10x38	10	2000	SFLM32

Type	Rated Current (A)	Cartridge Diameter (Øxmm)	Min. Order Quantity	Pcs in a Box	Order Code
aR Type high speed fuses (Protection against short-circuit of semi-conductor and power systems ; UPS, soft starter, inverter, converter, AC/DC starters e.g.)	2	10x38	10	2000	SFLR02
	4	10x38	10	2000	SFLR04
	6	10x38	10	2000	SFLR06
	10	10x38	10	2000	SFLR10
	16	10x38	10	2000	SFLR16
	20	10x38	10	2000	SFLR20
	25	10x38	10	2000	SFLR25
	32	10x38	10	2000	SFLR32

Cylindrical (Cartridge) Fuse Holders

Type	Rated Current (A)	Number of poles	Cartridge Diameter (Øxmm)	Min. Order Quantity	Pcs in a Box	Order Code
SFH032	32	1	10x38	12	144	SFH132
	32	1P+N	10x38	6	72	SFH232
	32	3	10x38	4	48	SFH332
	32	4	10x38	3	36	SFH432
SFH050	50	1	14x51	1	50	SFH1050
	50	1P+N	14x51	1	50	SFH2050
	50	3	14x51	1	50	SFH3050
SFH100	100	1	22x58	1	60	SFH1100
	100	1P+N	22x58	1	60	SFH2100
	100	3	22x58	1	60	SFH3100

Modular DIN Rail Socket

Specification	Min. Order Quantity	Pcs in a Box	Order Code
16A, 230V	5	50	SPP-16T

Isolator Switch (Without Protection)

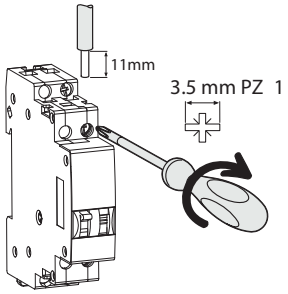
Number of poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code
1P	40	12	240	SYA1040
	63	12	240	SYA1063
	80	12	240	SYA1080
	100	12	240	SYA1100
	125	12	240	SYA1125
2P	40	6	120	SYA2040
	63	6	120	SYA2063
	80	6	120	SYA2080
	100	6	120	SYA2100
	125	6	120	SYA2125
3P	40	4	80	SYA3040
	63	4	80	SYA3063
	80	4	80	SYA3080
	100	4	80	SYA3100
	125	4	80	SYA3125
4P	40	3	60	SYA4040
	63	3	60	SYA4063
	80	3	60	SYA4080
	100	3	60	SYA4100
	125	3	60	SYA4125

Impulse Relay

NEW PRODUCT

Rated Current (Ie)	Contact Structure	Coil Voltage	Min. Order Quantity	Pcs in a Box	Order Code
16A	1NO	230V AC	12	120	SDA1610230AC
	2NO	230V AC	12	120	SDA1620230AC
	1NO+1NC	230V AC	12	120	SDA1611230AC
	2NO+2NC	230V AC	12	120	SDA1622230AC
16A	1NO	24V AC	12	120	SDA1610024AC
	2NO	24V AC	12	120	SDA1620024AC
	1NO+1NC	24V AC	12	120	SDA1611024AC
	2NO+2NC	24V AC	12	120	SDA1622024AC
16A	1NO	24V DC	12	120	SDA1610024DC
	2NO	24V DC	12	120	SDA1620024DC
	1NO+1NC	24V DC	12	120	SDA1611024DC
	2NO+2NC	24V DC	12	120	SDA1622024DC
32A	1NO	230V AC	12	120	SDA3210230AC

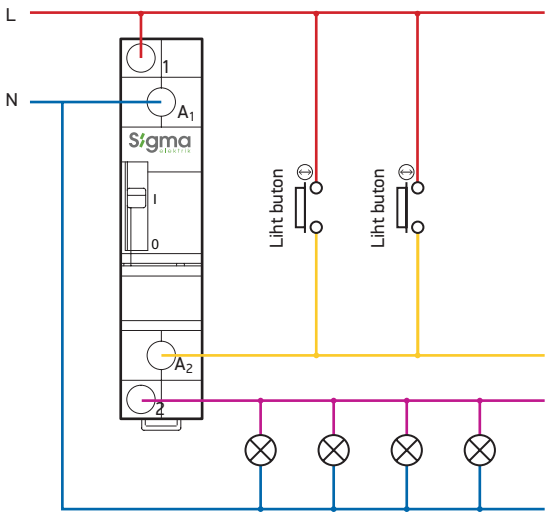
Impulse Relay Connection



Type	Rated Current	Circuit	Tightening torque	Copper cables	
				Rigid or ferrule	Flexible or ferrule
SDA-16	16A	Control	1N.m	0.5 ~ 4mm²	1 ~ 4mm²
		Control		1.5 ~ 4mm²	1.5 ~ 4mm²

Main Parameters

Control Circuit		
Dissipated power (during the impulse)		19VA
Illuminated PB control		Max. current 3mA (if > use an ATLz)
Operating threshold		Min. 85 % of Un
Duration of the control order		50ms to 1s (200 ms recommended)
Response time		50ms
Power Circuit		
Voltage rating (Ue)	1P, 2P	250V AC
Frequency		50/60 Hz
Maximum number of operations per minute		5
Maximum number of switching operation a day		100
Endurance		200.000 cycles AC21
		100.000 cycles AC22
High Voltage Category		IV
Insulation voltage (Ui)		440V AC
Pollution degree		III
Rated impulse withstand voltage (Uimp)		6kV
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular	IP40 (Insulation class II)
Operating temperature		-5 ... +60
Storage temperature		-40 ... +70
Tropicalization (IEC 60068.1)		Relative humidity 95, at 55°C

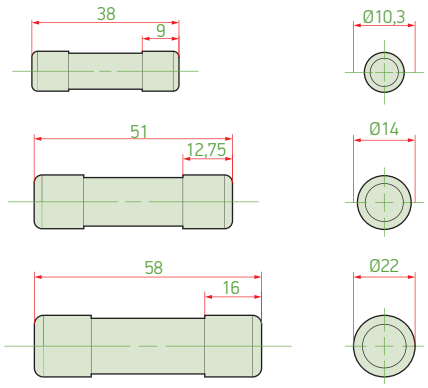


WARNING!

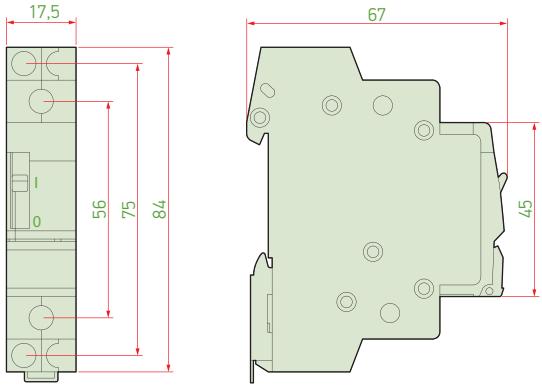
LIHT BUTTON must be used to switch the coil voltage.

Dimensions

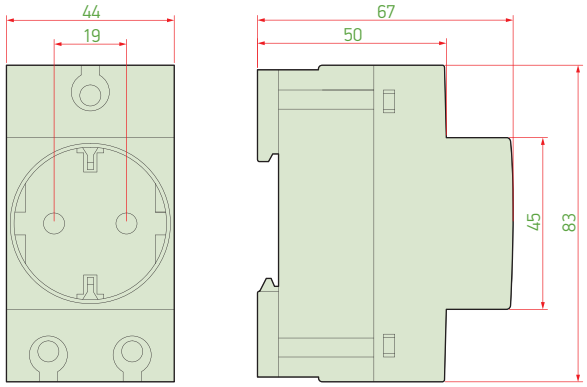
Cylindrical Fuses



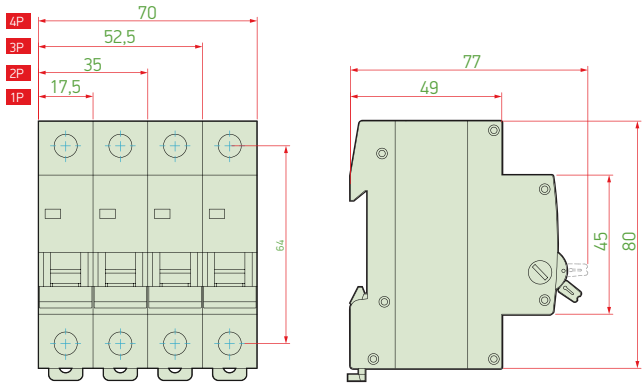
Impulse Relay



DIN Rail Type Socket for Panel Boards

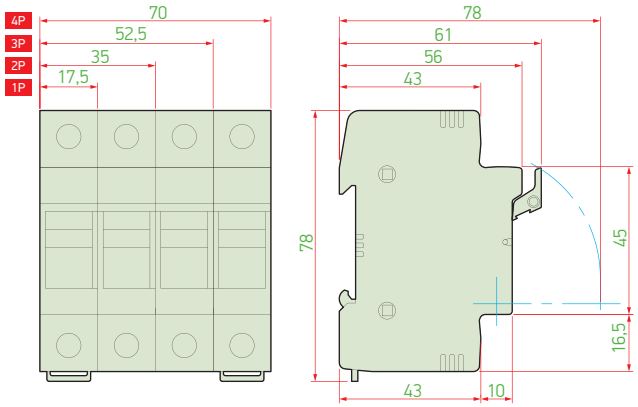


Isolator Switch

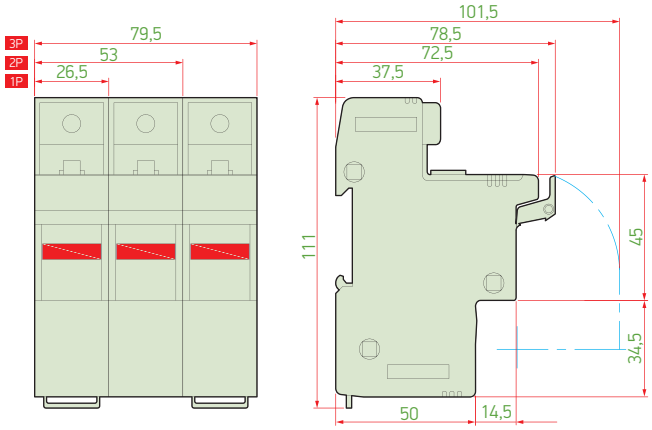


Cylindrical (cartridge) Fuse Holders

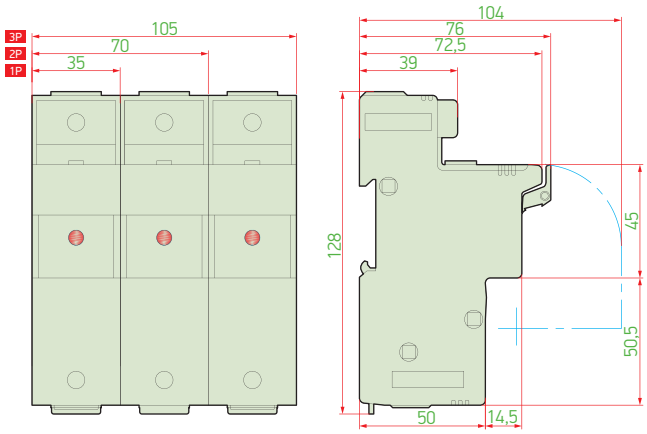
SFH032



SFH050



SFH0100



Single Phase Adjustable Current-Voltage Protection Relays

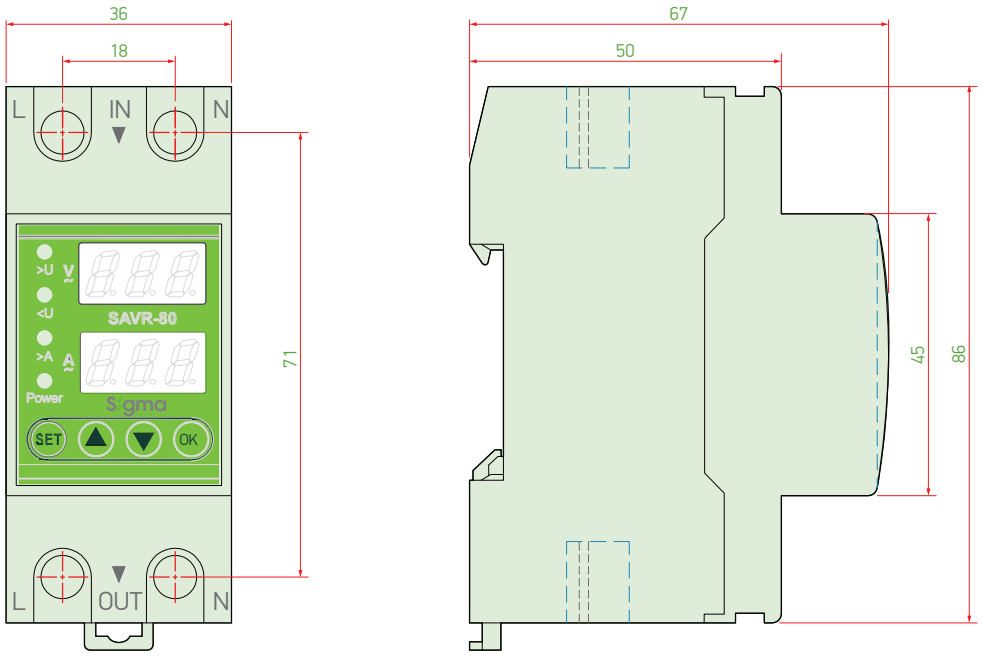
Technical Specification

Model	SAVR-80
Pole number	1P (36mm)
Rated voltage	220/230V AC
Rated current	1-40A, 1-63A, 1-80A
Over-voltage range	230-300V (Default 270V)
Under-voltage range	110-210V (Default 170V)
Tripping time	1-30sec. (Default 5sec.)
Reconnect time	1-500sec. (Default 5sec.)
Power consumption	<2W
Ambient temperature	-20°C ... 70°C
Electro-mechanical life	100,000
Installation	35mm symmetrical DIN rail

NEW PRODUCT

Type	Overvoltage Adjustment (V)	Low Voltage Setting (V AC)	Current Setting (A)	Tripping Time (sec)	Re-commissioning Time Setting (sec)	Order Code
SAVR-80	230-300	110-210	1-40	1-30	1-500	SAVR-80040
	230-300	110-210	1-63	1-30	1-500	SAVR-80063
	230-300	110-210	1-80	1-30	1-500	SAVR-80080

SAVR-80



Three Phase Adjustable Current-Voltage Protection Relays

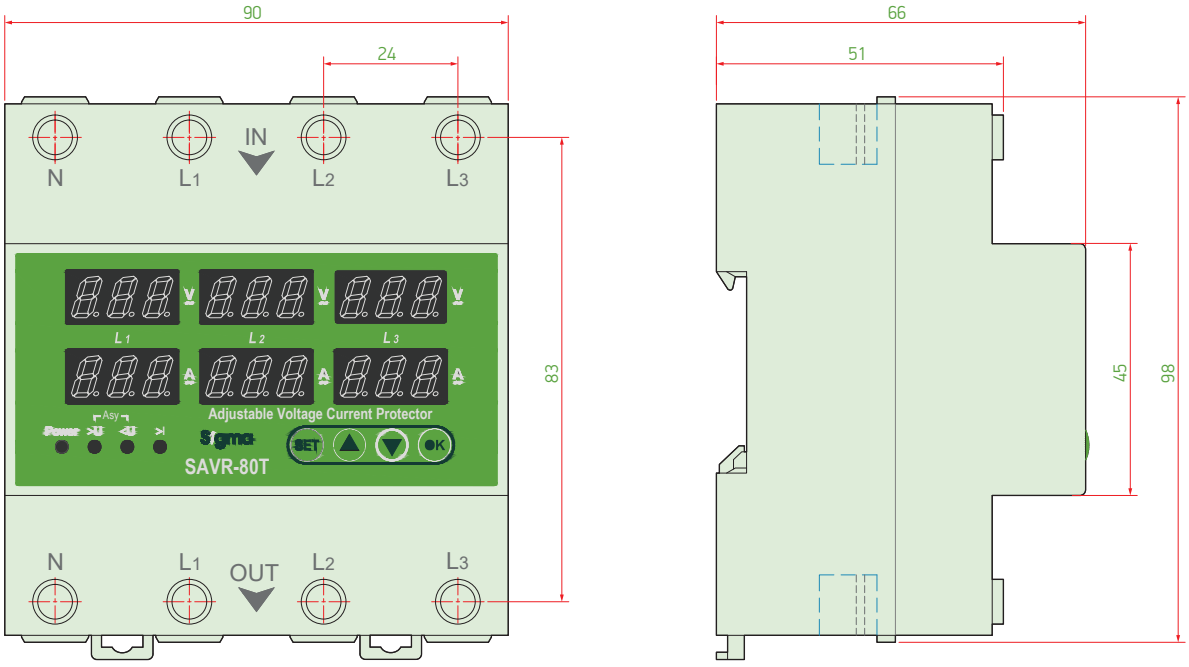
Technical Specification

Model	SAVR-80T1	SAVR-80T3
Number of Phase	3 Phase	3 Phase
Rated voltage	80-400V (N-L), 140-690V (L-L) AC	80-400V (N-L), 140-690V (L-L) AC
Over current protection	1-80A	1-80A
Over-voltage protection range	230/300V AC	390/500V AC
Under-voltage protection range	110-210V	140-370V
Voltage trip time	0.1-30sec.	0.1-30sec.
Auto reconnect time	1-500sec.	1-500sec.
Power consumption	<2W	<2W
Ambient temperature	-20°C ... 70°C	-20°C ... 70°C
Electro-mechanical life	100,000	100,000
Installation	35mm symmetrical DIN rail	35mm symmetrical DIN rail
3Phase asymmetry protection	—	20-99V
Phase sequence protection Current auto-reconnect times	—	ON/OFF

NEW PRODUCT

Function	Over-voltage protectionı (V AC)	Under-voltage protection (V AC)	Over-current protection (A)	Tripping Time (sec)	Auto-reconnect time (sec)	Neutral protection	Phase asymmetry protection	Phase sequence protection	Order Code
3-phase operate separate	230-300	110-210	1-80	0,1 - 30	1-500	✓	—	—	SAVR-80T1
3-phase operate together	390-500	140-370	1-80	0,1 - 30	1-500	✓	✓	✓	SAVR-80T3

SAVR-80T1 / SAVR-80T3



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LV SURGE PROTECTION **DEVICES**

Surge arresters are protection equipments that discharge excessive voltage occurring in energy transmission lines to the ground. They act as open circuit when no pulse passes through it and provide isolation between active circuit elements and ground. When exposed to a voltage pulse, they increase their impedance within nanoseconds, act as closed circuit, and transmit the pulse current to the ground.

- ⇨ Product diversity in B, C, B+C and D types
- ⇨ 5kA, 40kA and 100kA short circuit breaking capacities
- ⇨ 1, 2, 3 and 4 poles
- ⇨ Possibility of remote monitoring with auxiliary contact function

LV Surge Protection Devices

Type	Description	Number of poles	Uc (V) AC	Iimp	Imax (kA)	In (kA)	Up (V)	PE grounding section*	Order Code
SP1-B100	Type 1 B Class (install before electricity meter)	1P	255	50 (10/350µs)		100 (8/20µs)	2.5	16mm²	SP1-B100
SP4-B100	Type 1 B Class (install before electricity meter)	4P	255	50 (10/350µs)		100 (8/20µs)	2.5	16mm²	SP4-B100
SP4-BC100	Type 1+Type 2 B+C Class (install before electricity meter)	4P	385	12,5 (10/350µs)	100 (8/20µs)	20 (8/20µs)	1.6	16mm²	SP4-BC100
SP1-C040	Type 2 C Class (install after electricity meter)	1P	275		40 (8/20µs)	20 (8/20µs)	1.4	4mm²	SP1-C040
SP2-C040	Type 2 C Class (install after electricity meter)	2P	275		40 (8/20µs)	20 (8/20µs)	1.4	4mm²	SP2-C040
SP3-C040	Type 2 C Class (install after electricity meter)	3P	275		40 (8/20µs)	20 (8/20µs)	1.4	4mm²	SP3-C040
SP4-C040	Type 2 C Class (install after electricity meter)	4P	275		40 (8/20µs)	20 (8/20µs)	1.4	4mm²	SP4-C040
SP1-D005	Type 3 D Class (install after electricity meter)	1P	275		5 (8/20µs)	3 (8/20µs)	1,6	4mm²	SP1-D005
SP1-C040K	Spare cartridge for C Class surge protection	1P	275		40 (8/20µs)	20 (8/20µs)	1.4	–	SP1-C040K
SLP12.5-950	Type 1+Type 2 B+C Class. 800V AC surge protection device for string inverter protection	3P	950	12,5	100	20 (8/20µs)	4	25mm²	SLP12.5-950

Note: The LV Surge Protection devices are offered with signal contact except B type.
Note: Connection cross-sections are shown as min.

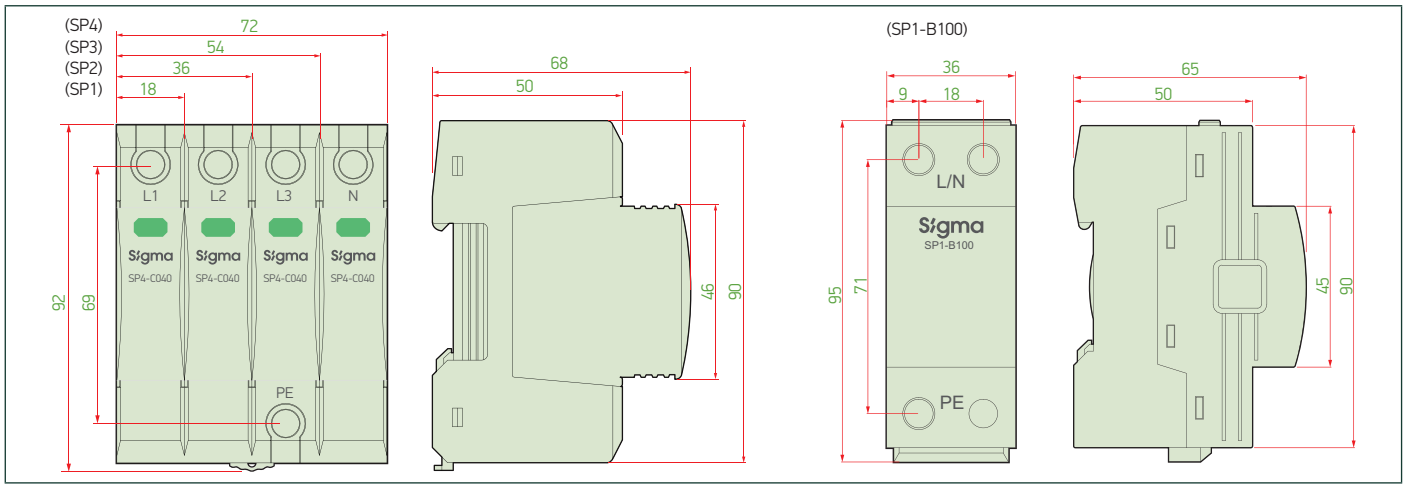
Selection of cable cross-section

Connection between the energy supply and the surge arrester: In post-meter input connections, the cable must have at least the same cross-section as the cable coming from the upper circuit. In pre-meter connections, phases and neutral should be 10mm² in the main panel and ground should be 16mm².

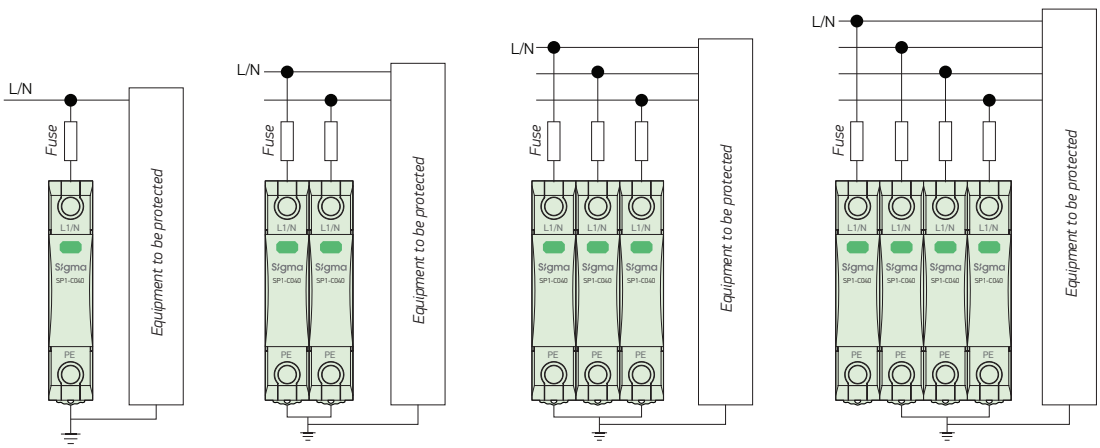
Surge arrester ground connection:

If there is no lightning rod, the minimum cross-section should be 4mm², and if there is a lightning rod, it should be minimum 10mm². However, it is recommended to choose a larger cross-section of 10-20mm². Standard terminal connection for single-core sections max. 35mm², max. in multi-core sections. 25mm² connection can be made.

Dimensions

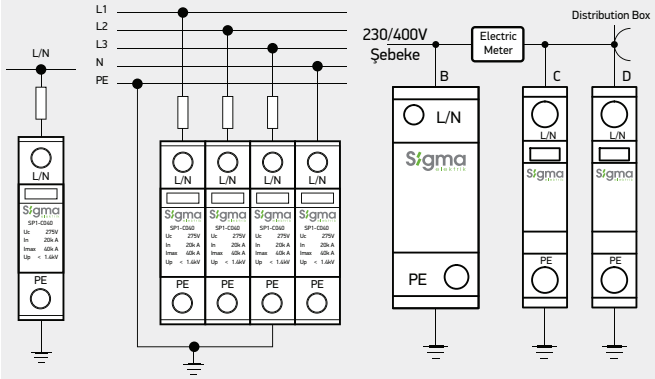


Wiring Diagram



Wiring Diagram

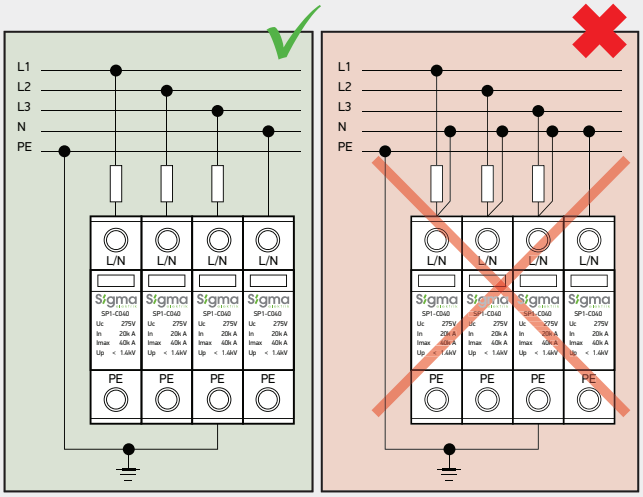
Monophase, Threephase line connections

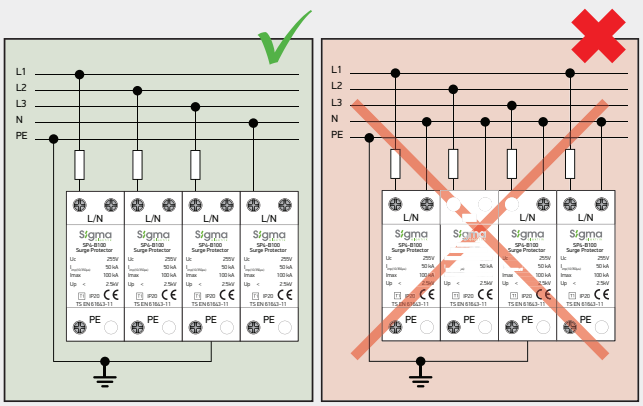


ATTENTION !!!

L/N EXPRESSION INDICATES THAT PHASE OR NEUTRAL CAN BE CONNECTED TO THE TERMINAL BLOCKS. SINCE THE TERMINAL BLOCKS HAVE SHORT CIRCUIT FROM THE INTERNAL SIDE, **ONLY PHASE** OR **ONLY NEUTRAL** CAN BE CONNECTED.

SEE THE FIGURES BELOW.





CAT6 Data Line Surge Protection Device

SP1-D003 Data and signal surge protective device is mainly used to protect such as Ethernet network, security camera, data communication, server equipment, working station (intranet).

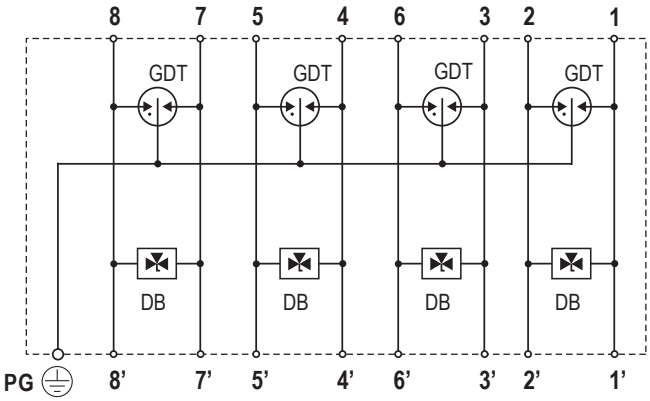
Type	Description	Number of poles	Uc (V) AC	Imax (kA)	In (kA)	Up (V)	Order Code
SP1-D003	Ethernet lines, IP Cameras, Data lines, Server equipment and systems, Intranet protection	1P	48V DC	10	3	≤100	SP1-D003

Technical Data

Electrical			
Number of Protected Pairs			4 Pairs (8 Conductors)
Nominal Operating Voltage (DC)		Un	48V
Maximum Continuous Operating Voltage (DC)	(Line-Line)	Uc	50V
	(Pair-Pair)		72V
Rated Load Current at 25°C		IL	1A
Nominal Discharge Current (8/20 µs)	(Line-Line)	In	150A
C2 Total Discharge Current (8/20 µs)	(Lines-Ground)	In	10kA
D1 Impulse Current (10/350 µs)		Iimp	1kA
Voltage Protection Level at In	(Line-Line)	Up	150V
	(Line-Ground)		550V
Response Time		tA	< 10 ns
Cut-off Frequency		fG	250 MHz

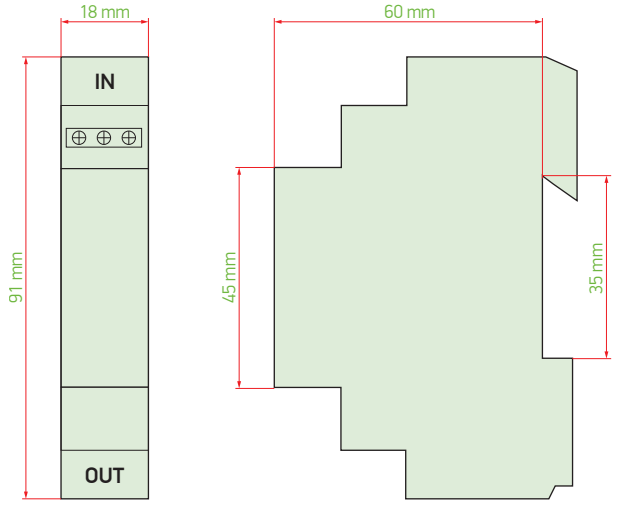
Mechanical	
Operating Temperature Range	-40°C ... +80°C [-40°F ... +176°F]
Relative Humidity	95%
Connection Type	Input/Output: RJ45 Sockets
Degree of Protection IEC/EN 60529	IP 20
Housing Material	Plastic
Mounting IEC/EN 60715	35mm DIN Rail
Place of installation	Indoor Installation

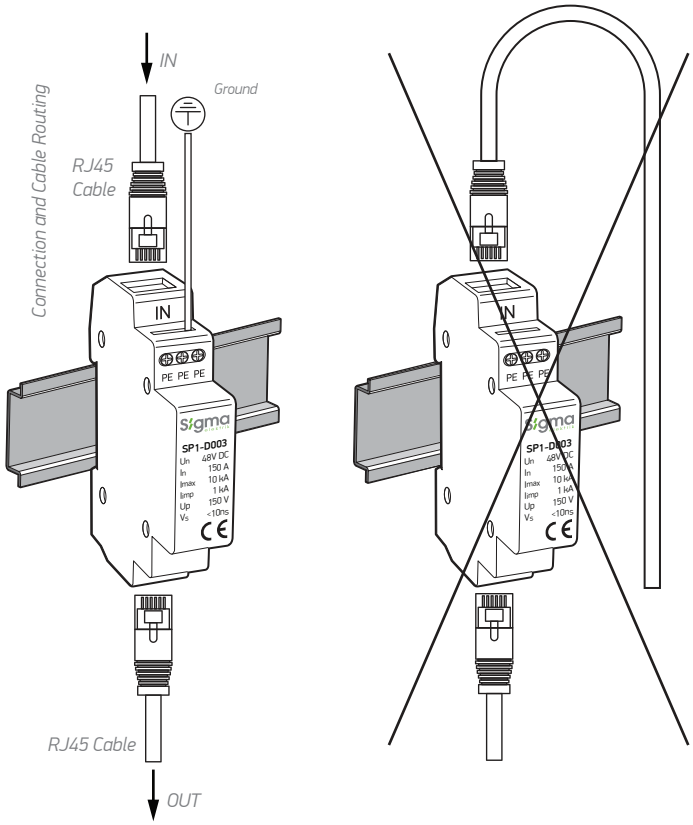
Internal Configuration



Diode block	DB
Gas discharge tube	GDT
Protective grounding	PG

Dimension





800V AC Surge Protection Device For String Inverter Protection

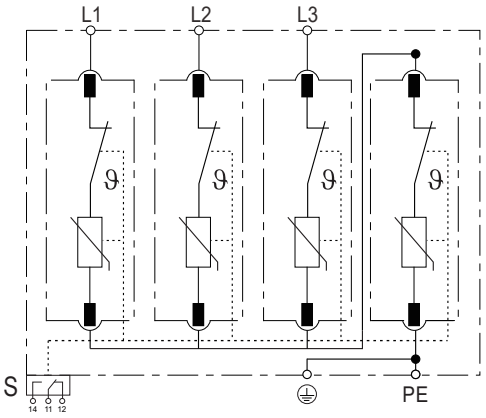
800V AC string inverter protection surge arrester is used to protect string inverters against overvoltages in solar energy systems.

Type	Description	Number of poles	Uc (V) AC	Iimp	Imax (kA)	In (kA)	Up (kV)	PE grounding section*	Order Code
SLP12,5	Type 1+Type 2 B+C Class. 800V AC surge protection device for string inverter protection	**3P**	950	12,5	100	20 (8/20µs)	4	25mm²	**SLP12.5-950**

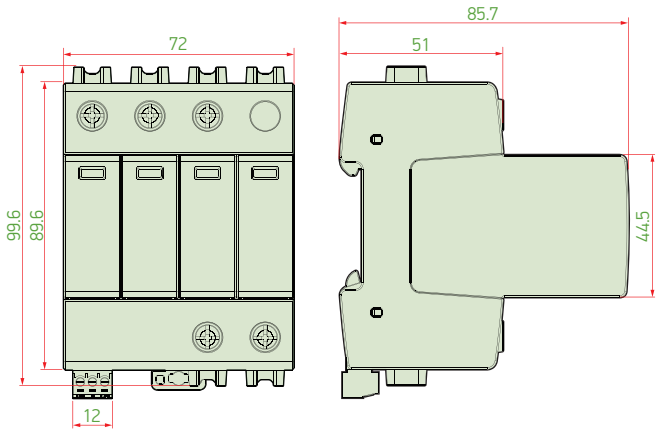
Technical Data

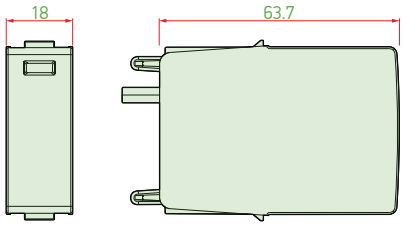
IEC Electrical		
Nominal AC Voltage (50/60Hz)	U_o / U_n	800V
Maximum Continuous Operating Voltage (AC)	U_c	950V
Nominal Discharge Current (8/20 µs)	I_n	20 kA
Maximum Discharge Current (8/20 µs)	I_{max}	100 kA
Impulse Discharge Current (10/350 µs)	I_{imp}	12.5 kA
Voltage Protection Level	U_p	4000V
Residual Current at Uc	I_{PE}	< 0, 5 mA
Response Time	tA	< 25 ns
Back-Up Fuse (max)		160A gL / gG
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA
Number of Ports		1
Mechanical & Environmental		
Operating Temperature Range	T_a	-40°C ... +70°C [-40°F ... +158°F]
Permissible Operating Humidity	RH	5% ... 95%
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500 m ... 2000 m
Terminal Screw Torque	M_{max}	39.9 lbf-in [4.5 Nm]
Conductor Cross Section (max)		2AWG (Solid, Stranded) / 4AWG (Flexible)
		35mm² (Solid, Stranded) / 25mm² (Flexible)
Mounting		35mm DIN Rail, EN 60715
Degree of Protection		IP 20 (built-in)
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection		Green ok / Red defect
Operating State / Fault Indication		Optional
Remote Contacts (RC)		Yes
RC Switching Capacity		AC: 250V / 0.5A; DC: 250V / 0.1A; 125V / 0.2A; 75V / 0.5A
RC Conductor Cross Section (max)		16AWG (Solid) / 1.5mm² (Solid)

Internal Configuration



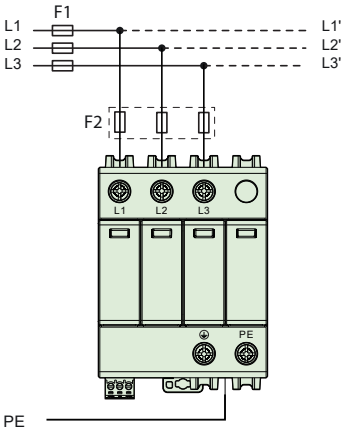
Dimension





Wiring Diagram

TN-C, IT (3 Faz / *Three-phase*, 3+0)



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POWER **CONTACTORS**

Contactors are switching products that work according to the electromagnetic field principle that controls the opening and closing of the electrical circuit.

They allow remote control of electrical facilities such as electric motors, compensation and heating systems via cable. When used with thermal relays, they protect facilities and devices in the system against overload currents.

- ⇨ 3 and 4 pole product options
- ⇨ Wide range from 6A to 1300A
- ⇨ Wide coil options (24, 42, 48, 110, 230, 400, 415AC/DC)
- ⇨ Wide product range, including power, modular (silent), 6-pole and 8-pole reversing contactor, compensation and mini type contactors
- ⇨ Possibility of attaching accessories from the top, left side and right side
- ⇨ Double-sided coil terminal inputs (for SCG types)

Technical Specifications

		3 poles	AC coil	SCG 9	SCG 12	SCG 18	SCG 25	SCG 32	SCG 40	SCG 50	SCG 65	SCG 80	SCG 95	SCG 100
TypeRated operational current for AC-3 (Ue : 400V)		A		9	12	18	25	32	40	50	65	80	95	100
Rated thermal current (at 40°C)	Ith	A		20	25	40	40	50	60	80	100	110	135	135
Rated operational current for AC-1 (Ue: 400V) (≤ 40°C)		A		20	25	40	40	50	60	80	100	110	135	135
Rated insulation voltage	Ui	V		1000										
Rated impulse voltage	Uimp	kV		8										
Max. Rating of slipring or squirrel-cage motors	AC-3	kW	500V	4	7.5	7.5	15	18.5	22	30	37	45	45	55
			380-440V	4	5.5	7.5	11	15	18.5	22	30	37	45	55
			220-240V	2.5	3.5	4.5	5.5	7.5	11	15	18.5	22	25	30
Switching discharge lamps (mercury vapour lamps)	AC-5a	A		14	16	25	32	40	55	80	85	105	120	125
Electrical life (No. operation) (x1000) (In)	cycle			2.000					1.500			1.000		500
Mechanical life (No. operation) (x1000)	cycle			20.000						15.000				10.000
Auxiliary contact technical specifications														
Number of auxiliary contacts (standard)				1NO+1NC										
Number of auxiliary contact options				1NO+1NC, 2NO+2NC, 4NO, 4NC, 3NO+1NC, 1NO+3NC										
Control unit specifications														
Coil type				SGB 1						SGB 2				
Supply voltages		V	AC	24, 42, 48, 110, 230, 400, 415										
Max. Operating temperature		°C		-25 ... +55										
Max. Storage temperature		°C		-40 ... +65										
Relative humidity		%		95										

		4 poles	AC coil	SCF-9	SCF-12	SCF-18	SCF-22	SCF-32	SCF-40	SCF-50	SCF-65	SCF-75	SCF-85
		3 poles	DC coil	SDM-9	SDM-12	SDM-18	SDM-22	SDM-32	SDM-40				
Rated operational current for AC-3 (Ue : 400V)		A		9	12	18	22	32	40	50	65	75	85
Rated thermal current (at 40°C)	Ith	A		20	25	40	40	50	60	80	100	110	110
Rated operational current for AC-1 (Ue: 400V) (≤ 40°C)		A		20	25	40	40	50	60	80	100	110	110
Rated insulation voltage	Ui	V		1.000						1.000			
Rated impulse voltage	Uimp	kV		8						8			
Max. Rating of slipring or squirrel-cage motors	AC-3	kW	400V	4	5.5	7.5	11	15	18.5	22	30	37	45
			230V	2.5	3.5	4.5	5.5	7.5	11	15	18.5	22	25
Switching discharge lamps (mercury vapour lamps)	AC-5a	A		14	16	25	30	40	45	80	85	105	120
Electrical life (No. operation) (x1000) (In)	cycle			2.000					1.500	1.500		1.000	
Mechanical life (No. operation) (x1000)	cycle			20.000						15.000			
Auxiliary contact technical specifications													
Number of auxiliary contacts (standard)				1NO+1NC									
Number of auxiliary contact options				1NO+1NC, 2NO+2NC, 4NO, 4NC, 3NO+1NC, 1NO+3NC									
Rated thermal current	Ith	A		16									
Control for non-inductive loads	AC-1	A	220V AC	16									
Control for ohmic and static loads	AC-12	A	220V AC	8									
Max. Operating temperature		°C		-25 ... +55									
Max. Storage temperature		°C		-40 ... +65									
Relative humidity		%		95									

		3 poles	AC coil	SCG 115	SCG 150	SCG 185	SCG 225	SCG 265	SCG 330	SCG 400	SCG 500	SCG 630	SCG 800
		4 poles	AC coil	SCF-115	SCF-150	SCF-185	SCF-225	SCF-265	SCF-330	SCF-400	SCF-500	SCF-630	SCF-800
Rated operational current for AC-3 (Ue : 400V)		A		115	150	185	225	265	330	400	500	630	800
Rated thermal current (at 40°C)	Ith	A		200	200	275	315	350	400	500	700	1000	1200
Rated operational current for AC-1 (Ue: 400V) (≤ 40°C)		A		200	200	275	315	350	400	500	700	1000	1200
Rated insulation voltage	Ui	V		1000									
Rated impulse voltage	Uimp	kV		8									
Max. Rating of slipring or squirrel-cage motors	AC-3	kW	400V	60	75	90	110	132	160	200	250	335	400
			230V	30	40	55	63	75	100	110	147	200	250
Switching discharge lamps (mercury vapour lamps)	AC-5a	A		140	180	220	260	300	350	470	560	730	880
Electrical life (No. operation) (x1000) (In)	cycle			500					300				
Mechanical life (No. operation) (x1000)	cycle			10.000		5.000			3.000				
Auxiliary contact technical specifications													
Number of auxiliary contacts (standard)				2NO+2NC									
Number of auxiliary contact options				2NO+2NC									4NO+4NC
Rated thermal current	Ith	A		16									
Control for non-inductive loads	AC-1	A	220V AC	16									
Control for ohmic and static loads	AC-12	A	220V AC	8									
Max. Operating temperature		°C		-25 ... +55									
Max. Storage temperature		°C		-40 ... +65									
Relative humidity		%		95									

Note: Request i,nformation for DC coil voltage.

Technical Specifications

				SCG 1050
				SCF 1050
Rated Operating Current		Ie	A	1050
Load Type				AC-1
Conventional Free Air Thermal Current		Ith	A	1050
Rated Insulation Voltage		Ui	V	1000
Rated Operating Voltage		Ue	V	660/690
Rated Impulse Withstand Voltage		Uimp	kV	12
Rated Making Capacity		Ue≤690V		5000
Rated Breaking Capacity		Ue≤690V		4000
Short-time Withstand Current	1s			8000
	10s			8000
	30s			5200
	1min			4000
	3min			3000
	10min			2000
Mechanical Life	Life cycle/fan thousand times			80
	Operating Frequencytimes -h^{-1}			≤600
Electrical Life Ue≤ 440V	Life cycle/fan thousand times			20
	Operating Frequencytimes -h^{-1}			≤200
Electrical Life Ue≤ 440V	Life cycle/fan thousand times			15
	Operating Frequencytimes -h^{-1}			≤150

3 Poles Power Contactors-Coil Voltage: 100-240V AC / 100-220V DC (Common Coil)

		3 poles			SCM 100	SCM 125	SCM 150	SCM 180
Rated operational current for AC-3 (Ue: 400V)		A			100	125	150	180
Rated thermal current (at 40°C)	Ith	A			160	160	200	230
Rated operational current for AC-1 (Ue: 400V) (≤ 40°C)		A			160	160	200	230
Rated insulation voltage	Ui	V			1.000			
Rated impulse voltage	Uimp	kV			8			
Max. Rating of slipring or squirrel-cage motors	AC-3	kW	400V		55	60	75	90
			230V		30	37	45	55
Switching discharge lamps (mercury vapour lamps)	AC-5a	A			70	90	100	150
Electrical life (No. operation) (x1000) (In)	cycle				500			
Mechanical life (No. operation) (x1000)	cycle				10.000			5.000
Auxiliary contact technical specifications								
Number of auxiliary contacts (standard)					2NO+2NC			
Rated thermal current	Ith	A			16			
Control for non-inductive loads	AC-1	A	220V AC		16			
Control for ohmic and static loads	AC-12	A	220V AC		8			
Max. Operating temperature					-25 ... +55			
Max. Storage temperature					-40 ... +65			
Relative humidity		%			95			

3 Poles Power Contactor with Double Coil Connection - Coil Voltage: 230V AC

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCG-9	4	9	20	1NO+1NC	1	42	SCG009230
SCG-12	5,5	12	25	1NO+1NC	1	42	SCG012230
SCG-18	7,5	18	40	1NO+1NC	1	42	SCG018230
SCG-25	11	25	40	1NO+1NC	1	42	SCG025230
SCG-32	15	32	50	1NO+1NC	1	24	SCG032230
SCG-40	18,5	40	60	1NO+1NC	1	24	SCG040230
SCG-50	22	50	80	1NO+1NC	1	10	SCG050230
SCG-65	30	65	100	1NO+1NC	1	10	SCG065230
SCG-80	37	80	110	1NO+1NC	1	10	SCG080230
SCG-95	45	95	135	1NO+1NC	1	10	SCG095230
SCG-100	55	100	135	1NO+1NC	1	10	SCG100230

3 Poles Power Contactor - Coil Voltage: 230V AC

NEW PRODUCT

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Rated Current AC-5a (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCG 115	60	115	200	140	2NO+2NC	1	10	SCG115230
SCG 150	75	150	200	180	2NO+2NC	1	3	SCG150230
SCG 185	90	185	275	220	2NO+2NC	1	1	SCG185230
SCG 225	110	225	315	260	2NO+2NC	1	1	SCG225230
SCG 265	132	265	350	300	2NO+2NC	1	1	SCG265230
SCG 330	160	330	400	350	2NO+2NC	1	1	SCG330230
SCG 400	200	400	500	470	2NO+2NC	1	1	SCG400230
SCG 500	250	500	700	560	2NO+2NC	1	1	SCG500230
SCG 630	335	630	1000	730	2NO+2NC	1	1	SCG630230
SCG 800	400	800	1200	880	2NO+2NC	1	1	SCG800230
SCG 1050	630	1050	1300	960	2NO+2NC	1	1	SCG1050230
SCG 1300	780	1300	1500	1150	2NO+2NC	1	1	SCG1300230

Note: The last 3 digits of the order code indicate the coil voltage.
Note: In SCG type contactors; Coil options with **24V AC, 42V AC, 48V AC, 110V AC, 230V AC, 400V AC, 415V AC** operating voltage are available.

EXAMPLE: SCG 009 230 : 9A (AC-3) 230V AC coil voltage, SCG type contactor

- 230 — Coil voltage
- 009 — AC-3 current

EXAMPLE: SCG 009 048 : 9A (AC-3) 48V AC coil voltage, SCG type contactor

- 048 — Coil voltage
- 009 — AC-3 current

SCM Series, 3 Poles Power Contactors - Coil Voltage: 230V AC

NEW PRODUCT

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCM 9	4	9	20	1NO+1NC	1	42	SCM009230
SCM 12	5,5	12	25	1NO+1NC	1	42	SCM012230
SCM 18	7,5	18	32	1NO+1NC	1	42	SCM018230
SCM 25	11	25	40	1NO+1NC	1	42	SCM025230
SCM 32	15	32	50	1NO+1NC	1	42	SCM032230
SCM 40	18,5	40	50	1NO+1NC	1	42	SCM040230

Mechanical interlock for SCM Series

NEW PRODUCT

Type Code	Compatible with	Order Code
SCMMK	SCM09-SCM25	SCMMK-01

Time Relay for SCM Series

NEW PRODUCT

Type Code	Properties	Auxiliary Contact	Compatible with	Order Code
SCMT-1S11	0-30 sec. delayed on pickup	1NO+1NC	SCM09-SCM25	SCMT-1S11

Auxiliary Contact Blocks for SCM Series

NEW PRODUCT

Type Code	Auxiliary Contact	Type of Assembly	Compatible with	Order Code
SAM-2	1NO+1NC	top	SCM09-SCM40	SAM-2S11
	2NO	top		SAM-2S20
SAM-4	2NO+2NC	top	SCM09-SCM40	SAM-4S22
	4NO	top		SAM-4S40
	4NC	top		SAM-4S04

3 Poles Power Contactors - Coil Voltage: 110-240 V AC/DC (Common Coil)

NEW PRODUCT

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Order Code
SGD 9	4	9	25	1NO+1NC	1	SGD009ADC
SGD 12	5,5	12	25	1NO+1NC	1	SGD012ADC
SGD 18	7,5	18	32	1NO+1NC	1	SGD018ADC
SGD 25	11	25	40	1NO+1NC	1	SGD025ADC
SGD 32	15	32	50	1NO+1NC	1	SGD032ADC
SGD 40	18,5	40	50	1NO+1NC	1	SGD040ADC
SGD 50	22	50	80	1NO+1NC	1	SGD050ADC
SGD 65	30	65	100	1NO+1NC	1	SGD065ADC
SGD 80	37	80	110	1NO+1NC	1	SGD080ADC
SGD 95	45	95	135	1NO+1NC	1	SGD095ADC
SGD 110	50	110	160	1NO+1NC	1	SGD110ADC
SGD 115	60	125	200	2NO+2NC	1	SGD115ADC
SGD 150	75	150	210	2NO+2NC	1	SGD150ADC
SGD 185	90	185	275	2NO+2NC	1	SGD185ADC
SGD 225	110	225	315	2NO+2NC	1	SGD225ADC
SGD 265	132	265	350	2NO+2NC	1	SGD265ADC
SGD 330	160	330	400	2NO+2NC	1	SGD330ADC
SGD 400	200	400	500	2NO+2NC	1	SGD400ADC
SGD 500	250	500	700	2NO+2NC	1	SGD500ADC
SGD 630	335	630	1000	2NO+2NC	1	SGD630ADC
SGD 800	400	800	1200	2NO+2NC	1	SGD800ADC

3 Poles Power Contactors - Coil Voltage: 24V DC

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SDM-9	4	9	20	1NO+1NC	1	32	SDM009024
SDM-12	5,5	12	25	1NO+1NC	1	32	SDM012024
SDM-18	7,5	18	40	1NO+1NC	1	32	SDM018024
SDM-22	11	22	40	1NO+1NC	1	32	SDM022024
SDM-32	15	32	50	1NO+1NC	1	16	SDM032024
SDM-40	18,5	40	60	1NO+1NC	1	16	SDM040024

NEW PRODUCT

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SDM 50	22	50	70	1NO+1NC	1	8	SDM050024
SDM 65	30	65	80	1NO+1NC	1	8	SDM065024
SDM 80	37	80	125	1NO+1NC	1	8	SDM080024
SDM 95	45	95	140	1NO+1NC	1	8	SDM095024
SDM 115	60	115	200	2NO+2NC	1	1	SDM115024
SDM 150	75	150	230	2NO+2NC	1	1	SDM150024
SDM 185	90	185	275	2NO+2NC	1	1	SDM185024
SDM 225	110	225	315	2NO+2NC	1	1	SDM225024
SDM 265	132	265	350	2NO+2NC	1	1	SDM265024
SDM 330	160	330	400	2NO+2NC	1	1	SDM330024
SDM 400	200	400	500	2NO+2NC	1	1	SDM400024
SDM 500	250	500	700	2NO+2NC	1	1	SDM500024
SDM 630	335	630	1000	2NO+2NC	1	1	SDM630024
SDM 800	400	800	1200	2NO+2NC	1	1	SDM800024

Note: The last 3 digits of the order code indicate the coil voltage.
Note: In SDM type contactors; Coil options with 24V DC, 48V DC, 60V DC, 110V DC operating voltage are available.

EXAMPLE: SDM 009 048 : 9A (AC-3) 48V DC coil voltage, SDM type contactor

Coil voltage

AC-3 current

4 Poles Power Contactors - Coil Voltage: 230V AC

NEW PRODUCT

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCF 9	4	9	20	1NO+1NC	1	33	SCF009230
SCF 12	5,5	12	25	1NO+1NC	1	33	SCF012230
SCF 18	7,5	18	40	1NO+1NC	1	33	SCF018230
SCF 22	11	22	40	1NO+1NC	1	33	SCF022230
SCF 32	15	32	50	1NO+1NC	1	24	SCF032230
SCF 40	18,5	40	60	1NO+1NC	1	24	SCF040230
SCF 50	22	50	80	1NO+1NC	1	8	SCF050230
SCF 65	30	65	100	1NO+1NC	1	8	SCF065230
SCF 75	37	75	110	1NO+1NC	1	8	SCF075230
SCF 85	45	85	110	1NO+1NC	1	8	SCF085230
SCF 115	55	115	200	2NO+2NC	1	1	SCF115230
SCF 150	75	150	200	2NO+2NC	1	1	SCF150230
SCF 185	90	180	275	2NO+2NC	1	1	SCF185230
SCF 225	110	225	315	2NO+2NC	1	1	SCF225230
SCF 265	132	265	350	2NO+2NC	1	1	SCF265230
SCF 330	160	330	400	2NO+2NC	1	2	SCF330230
SCF 400	200	400	500	2NO+2NC	1	2	SCF400230
SCF 500	250	500	700	2NO+2NC	1	2	SCF500230
SCF 630	335	630	1000	2NO+2NC	1	2	SCF630230
SCF 800	400	800	1200	2NO+2NC	1	2	SCF800230
SCF 1050	630	1050	1300	2NO+2NC	1	2	SCF1050230
SCF 1300	780	1300	1550	2NO+2NC	1	2	SCF1300230

4 Poles Power Contactors - Coil Voltage: 24V DC

NEW PRODUCT

Type Code	Rated Power (kW) (at 400 V)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact	Min. Order Quantity	Pcs in a Box	Order Code
SDF 9	4	9	25	—	1	32	SDF009024
SDF 12	5,5	12	25	—	1	32	SDF012024
SDF 18	7,5	18	40	—	1	32	SDF018024
SDF 22	11	22	40	—	1	32	SDF025024
SDF 32	15	32	50	—	1	16	SDF032024
SDF 40	18,5	40	60	—	1	16	SDF040024
SDF 50	22	50	70	—	1	8	SDF050024
SDF 65	30	65	80	—	1	8	SDF065024
SDF 80	37	80	125	—	1	8	SDF080024
SDF 95	45	95	140	—	1	8	SDF095024
SDF 115	60	115	200	2NO+2NC	1	1	SDF115024
SDF 150	75	150	230	2NO+2NC	1	1	SDF150024
SDF 185	90	185	275	2NO+2NC	1	1	SDF185024
SDF 225	110	225	315	2NO+2NC	1	1	SDF225024
SDF 265	132	265	350	2NO+2NC	1	1	SDF265024
SDF 330	160	330	400	2NO+2NC	1	1	SDF330024

Note: For 4 Poles power contactors please contact for different coil voltage.

3 Poles Reversing Contactors - Coil Voltage: 230V AC

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Min. Order Quantity	Pcs in a Box	Order Code
SCR-9	4	9	25	1	10	SCR009230
SCR-12	5,5	12	25	1	10	SCR012230
SCR-18	7,5	18	40	1	10	SCR018230
SCR-25	11	25	40	1	10	SCR022230
SCR-32	15	32	50	1	10	SCR032230
SCR-40	18,5	40	60	1	10	SCR040230
SCR-50	22	50	80	1	4	SCR050230
SCR-65	30	65	100	1	4	SCR065230
SCR-80	37	80	110	1	4	SCR075230
SCR-95	45	95	135	1	4	SCR085230
SCR-100	55	100	160	1	1	SCR100230

4 Poles Reversing Contactors - Coil Voltage: 230V AC

Type Code	Rated Power at 400V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Min. Order Quantity	Pcs in a Box	Order Code
SCT-9	4	9	25	1	10	SCT009230
SCT-12	5,5	12	25	1	10	SCT012230
SCT-18	7,5	18	40	1	10	SCT018230
SCT-22	11	22	40	1	10	SCT022230
SCT-32	15	32	50	1	10	SCT032230
SCT-40	18,5	40	60	1	10	SCT040230
SCT-50	22	50	80	1	4	SCT050230
SCT-65	30	65	100	1	4	SCT065230
SCT-75	37	75	110	1	4	SCT075230
SCT-85	45	85	135	1	4	SCT085230

Mechanical Interlock

Type Code	Applicable Contactors	Order Code
SCGMK	SCG115 - SCG150 / SCF115 - SCF150	SCGMK-001
	SCG185 - SCG225 / SCF185 - SCF225	SCGMK-002
	SCG265 - SCG330 - SCG400 - SCG500 / SCF265 - SCF330 - SCF400 - SCF500	SCGMK-003
	SCG630 - SCG800 / SCF630 - SCF800	SCGMK-004

Auxiliary Contact Blocks

Type Code	Compatible with	Auxiliary Contact on Body	Type of Assembly	Order Code
SAC-1	SCG-9 ... SCG-100	1NO+1NC	left Side	SAC-1G11
SAC-100	SCM-100 ... SCM-250	1NO+1NC	left Side	SAC-1B11
SAC-2	SCG-9 ... SCG-100	1NO+1NC	Top	SAC-2S11
	SCG-9 ... SCG-100	2NO	Top	SAC-2S20
SAC-4	SCG-9 ... SCG-100	2NO+2NC	Top	SAC-4S22
	SCG-9 ... SCG-100	3NO+1NC	Top	SAC-4S31
	SCG-9 ... SCG-100	1NO+3NC	Top	SAC-4S13
	SCG-9 ... SCG-100	4NO	Top	SAC-4S40
	SCG-9 ... SCG-100	4NC	Top	SAC-4S04
SAC-5	SCG-115 ... SCG-630	2NO+2NC	Top	SAC-5S22

3 Poles Mini Contactors - Coil Voltage: 230V AC

Type Code	Rated Power at (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCM-6M	2.2	6	20	1NO	1	80	SCM0610230
	2.2	6	20	1NC	1	80	SCM0601230
SCM-9M	4	9	20	1NO	1	80	SCM0910230
	4	9	20	1NC	1	80	SCM0901230
SCM-12M	5.5	12	20	1NO	1	80	SCM1210230
	5.5	12	20	1NC	1	80	SCM1201230
SCM-16M	7.5	16	20	1NO	1	80	SCM1610230
	7.5	16	20	1NC	1	80	SCM1601230

Note: The last 3 digits of the order code indicate the coil voltage.
Note: In SCM type mini contactors; Coil options with 24V AC, 42V AC, 48V AC, 110V AC, 230V AC operating voltage are available.

EXAMPLE: SCM 06 10 110 : 9A (AC-3) 110V AC coil voltage, 1NO Auxiliary Contact, SCM type mini contactor.

- 110 — Coil voltage
- 10 — 1NO Auxiliary Contact
- 06 — AC-3 current

3 Poles Mini Contactors - Coil Voltage: 24V DC

Type Code	Rated Power at (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SDM-6M	2.2	6	20	1NO	1	80	SDM0610024
	2.2	6	20	1NC	1	80	SDM0601024
SDM-9M	4	6	20	1NO	1	80	SDM0910024
	4	9	20	1NC	1	80	SDM0901024
SDM-12M	5.5	12	20	1NO	1	80	SDM1210024
	5.5	12	20	1NC	1	80	SDM1201024
SDM-16M	7.5	16	20	1NO	1	80	SDM1610024
	7.5	16	20	1NC	1	80	SDM1601024

Note: The last 3 digits of the order code indicate the coil voltage
Note: In SDM type mini contactors; Coil options with 24V DC, 48V DC, 110V DC operating voltage are available

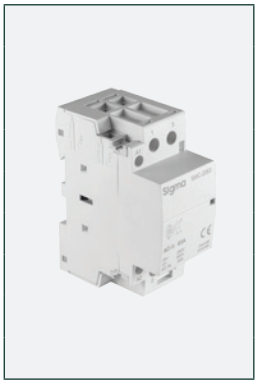
EXAMPLE: SDM 06 01 110 : 9A (AC-3) 110V DC coil voltage, 1NC Auxiliary Contact, SDM type mini contactor.

- 110 — Coil voltage
- 01 — 1NC Auxiliary Contact
- 06 — AC-3 current

Auxiliary Contact Blocks for Mini Contactors

Type Code	Auxiliary Contact on Body	Type of Assembly	Order Code
SAC-4M	2NO+2NC	Top	SAC-4M22
	3NO+1NC	Top	SAC-4M31
	4NO	Top	SAC-4M40
	4NC	Top	SAC-4M04

Modular Contactors - 240V AC



Type Code	Rated Current (A)	Number of poles	Contact Structure	Coil Voltage	Order Code
SMC-2025	25	2	1NO+1NC	240V AC	SMC-2025-1NO+1NC
	25	2	2 NO	240V AC	SMC-2025-2NO
SMC-2063	63	2	2 NO	240V AC	SMC-2063-2NO
SMC-4025	25	4	2NO+2NC	240V AC	SMC-4025-2NO+2NC
	25	4	4 NO	240V AC	SMC-4025-4NO
SMC-4040	40	4	2NO+2NC	240V AC	SMC-4040-2NO+2NC
SMC-4063	63	4	2NO+2NC	240V AC	SMC-4063-2NO+2NC
	63	4	4 NO	240V AC	SMC-4063-4NO
SMC-4100	100	4	4 NO	240V AC	SMC-4100-4NO

Modular Contactors - 240V AC/DC Common Coil

NEW PRODUCT

Type Code	Rated Current (A)	Number of poles	Contact Structure	Coil Voltage	Order Code
SMC-2025	25	2	2 NO	240V AC/DC	SMC-2025-2NO/ACDC240
SMC-2063	63	2	2 NO	240V AC/DC	SMC-2063-2NO/ACDC240
SMC-4025	25	4	4 NO	240V AC/DC	SMC-4025-4NO/ACDC240
SMC-4063	63	4	4 NO	240V AC/DC	SMC-4063-4NO/ACDC240

Note: Please contact our sales department for modular contactors with different coil supply and contact structure.

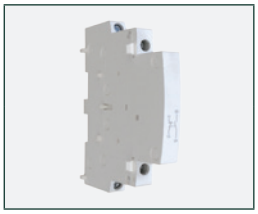
Modular Contactors - 24V AC/DC Common Coil

NEW PRODUCT

Type Code	Rated Current (A)	Number of poles	Contact Structure	Coil Voltage	Order Code
SMC-2025	25	2	2 NO	24V AC/DC	SMC-2025-2NO/ACDC24
SMC-2063	63	2	2 NO	24V AC/DC	SMC-2063-2NO/ACDC24
SMC-4025	25	4	4 NO	24V AC/DC	SMC-4025-4NO/ACDC24
SMC-4063	63	4	4 NO	24V AC/DC	SMC-4063-4NO/ACDC24

Note: Please contact our sales department for modular contactors with different coil supply and contact structure.

Auxiliary Contact for Modular Contactor



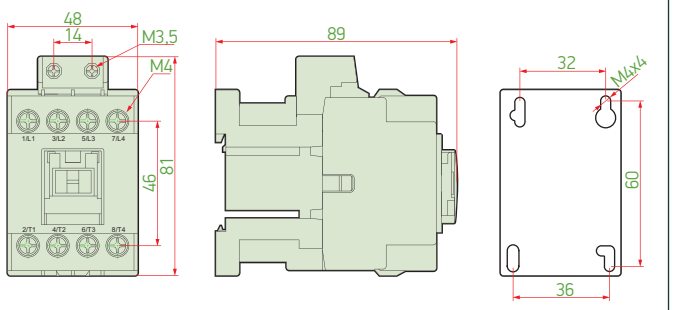
Type Code	Contact Structure	Order Code
SMC-YK	1 NO +1 NC	SMCYK
	2NO	SMCYK20

Spare Coils

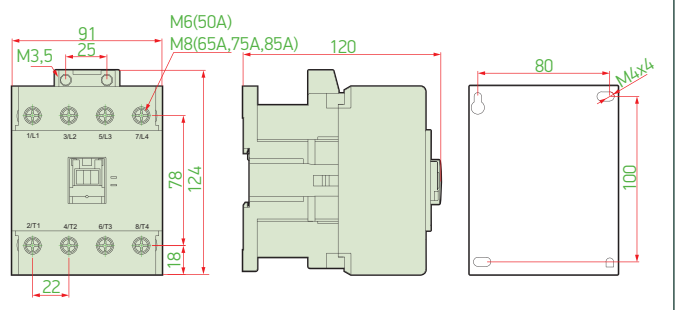
Type Code	Compatible with	Coil Voltage	Order Code
SGB-1	SCG 9 ... SCG 40	24V AC 50/60Hz	SGB1-024AC
	SCG 9 ... SCG 40	42V AC 50/60Hz	SGB1-042AC
	SCG 9 ... SCG 40	48V AC 50/60Hz	SGB1-048AC
	SCG 9 ... SCG 40	110V AC 50/60Hz	SGB1-110AC
	SCG 9 ... SCG 40	230V AC 50/60Hz	SGB1-230AC
	SCG 9 ... SCG 40	400V AC 50/60Hz	SGB1-400AC
	SCG 9 ... SCG 40	415V AC 50/60Hz	SGB1-415AC
SGB-2	SCG 50 ... SCG 100	24V AC 50/60Hz	SGB2-024AC
	SCG 50 ... SCG 100	42V AC 50/60Hz	SGB2-042AC
	SCG 50 ... SCG 100	48V AC 50/60Hz	SGB2-048AC
	SCG 50 ... SCG 100	110V AC 50/60Hz	SGB2-110AC
	SCG 50 ... SCG 100	230V AC 50/60Hz	SGB2-230AC
	SCG 50 ... SCG 100	400V AC 50/60Hz	SGB2-400AC
	SCG 50 ... SCG 100	415V AC 50/60Hz	SGB2-415AC
SGB-3	SCG 115 ... SCG 150	230V AC 50/60Hz	SGB3-230AC
	SCG 115 ... SCG 150	400V AC 50/60Hz	SGB3-400AC
	SCG 115 ... SCG 150	110V DC	SGB3-110DC
SGB-4	SCG 185 ... SCG 225	230V AC 50/60Hz	SGB4-230AC
	SCG 185 ... SCG 225	400V AC 50/60Hz	SGB4-400AC
	SCG 185 ... SCG 225	110V DC	SGB4-110DC
SGB-5	SCG 265 ... SCG 330	230V AC 50/60Hz	SGB5-230AC
	SCG 265 ... SCG 330	400V AC 50/60Hz	SGB5-400AC
	SCG 265 ... SCG 330	110V DC	SGB5-110DC
SGB-6	SCG 400	230V AC 50/60Hz	SGB6-230AC
	SCG 400	400V AC 50/60Hz	SGB6-400AC
	SCG 400	110V DC	SGB6-110DC
SGB-7	SCG 500	230V AC 50/60Hz	SGB7-230AC
	SCG 500	400V AC 50/60Hz	SGB7-400AC
	SCG 500	110V DC	SGB7-110DC
SGB-8	SCG 630 ... SCG 800	230V AC 50/60Hz	SGB8-230AC
	SCG 630 ... SCG 800	400V AC 50/60Hz	SGB8-400AC
	SCG 630 ... SCG 800	110V DC	SGB8-110DC
SYB-3 (full set coil)	SCM 100 ... SCM 150	100-240V AC / 100-220V DC	SYB3-0ACDC
SYB-4 (full set coil)	SCM 180 ... SCM 250	100-240V AC / 100-220V DC	SYB4-0ACDC
SYD-1	SDM 9 ... SDM 40	24V DC	SYD1-024DC
	SDM 9 ... SDM 40	48V DC	SYD1-048DC
	SDM 9 ... SDM 40	60V DC	SYD1-060DC
	SDM 9 ... SDM 40	110V DC	SYD1-110DC
SYM-1	SCM 6M ... SCM 16M	24V AC 50/60Hz	SYM1-024AC
	SCM 6M ... SCM 16M	42V AC 50/60Hz	SYM1-042AC
	SCM 6M ... SCM 16M	48V AC 50/60Hz	SYM1-048AC
	SCM 6M ... SCM 16M	110V AC 50/60Hz	SYM1-110AC
	SCM 6M ... SCM 16M	230V AC 50/60Hz	SYM1-230AC
SMD-1	SDM 6M ... SDM 16M	24V DC	SMD1-024DC
	SDM 6M ... SDM 16M	48V DC	SMD1-048DC
	SDM 6M ... SDM 16M	110V DC	SMD1-110DC

Dimensions

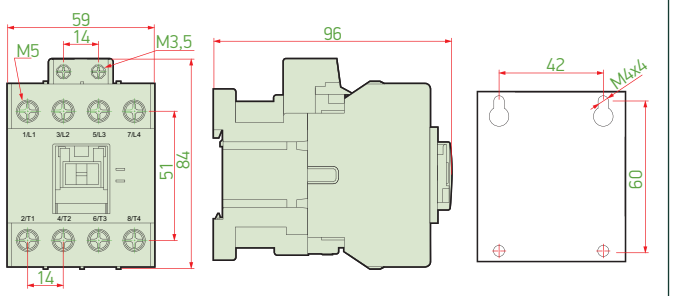
SCF 9-22



SCF 50-85



SCF 32-40



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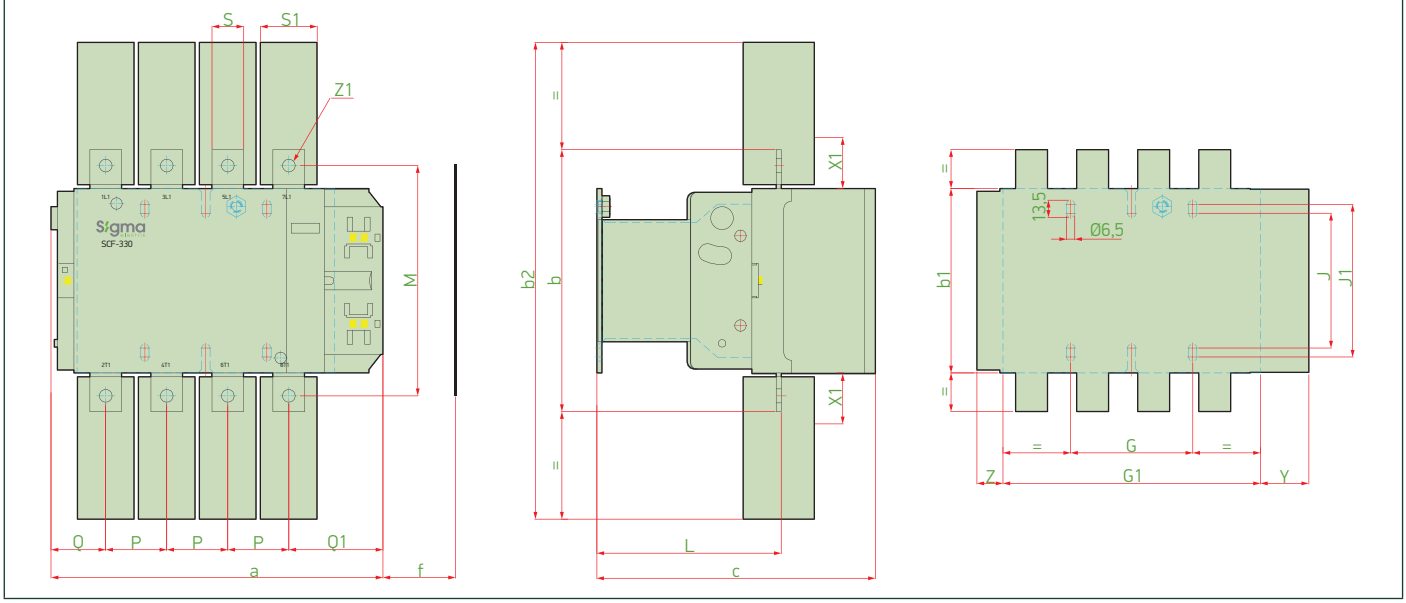
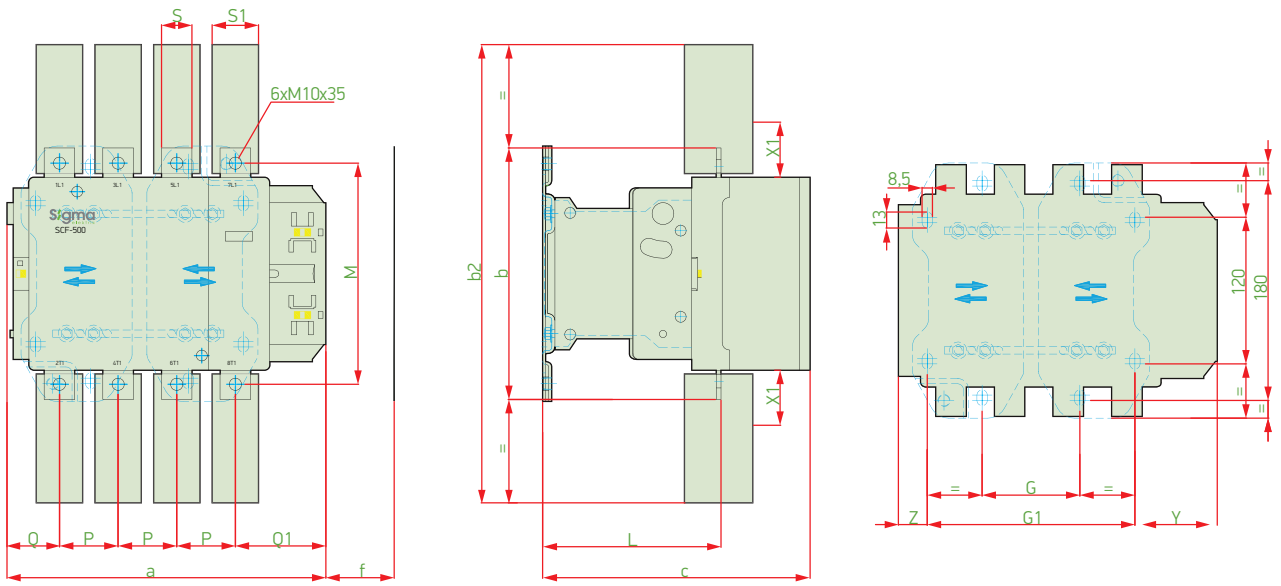


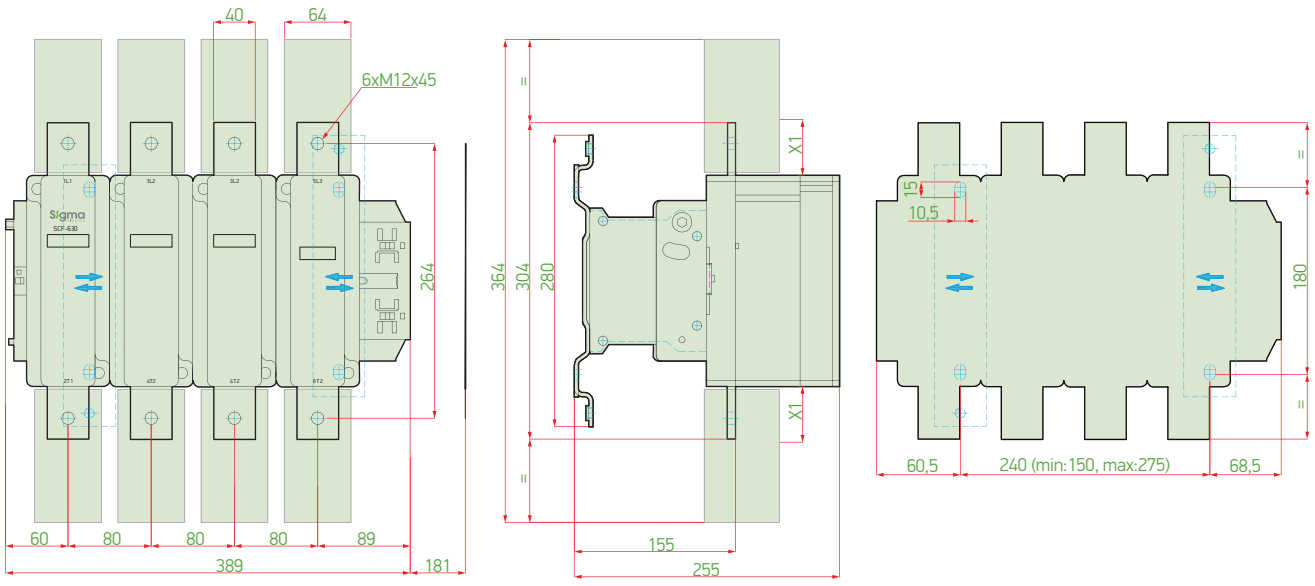
SCF	a	b	b1	b2	c	f	G	G1	J	J1	L	M	P	Q	Q1	S	S1	Y	Z	Z1
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
115A	200,5	162	137	265	171	131	80	143	106	120	107	147	37	29,5	60	20	26	44	13,5	M6x25
150A	200,5	170	137	301	171	131	80	143	106	120	107	150	40	26	55,5	20	34	44	13,5	M8x25
185A	208,5	174	137	305	181	130	80	151	106	120	113,5	154	40	29	59,5	20	34	44	13,5	M8x25
225A	208,5	197	137	364	181	130	80	151	106	120	113,5	172	48	17	47,5	25	44,,5	44	13,5	M10x25
265A	244,5	203	145	375	213	147	96	190	106	120	141	178	48	34	66,5	25	44,5	38	21,5	M10x25
330A	261	206	145	375	219	147	96	202,5	106	120	145	181	48	43	74	25	44,5	38	20,5	M10x25

SCF 400 - SCF 500

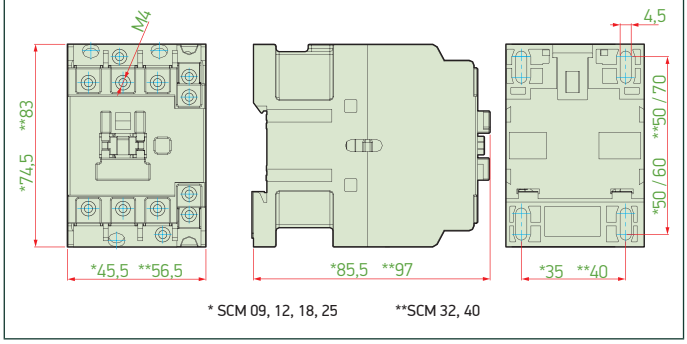


SCF	a	b	b2	c	f	G	Gmin	Gmax	G1	G1min	G1max	L	M	P	Q	Q1	S	S1	Y	Z
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
400A	261	206	375	219	119	80	66	150	170	156	240	145	181	48	43	74	25	44,5	67,5	23,5
500A	288	238	400	232	141	140	66	175	230	156	265	146	208	55	46	77	30	44,5	34,5	23,5

SCF 630 - SCF 800

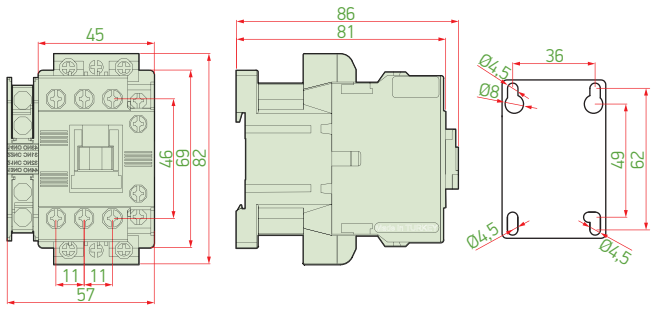


SCM 9-40

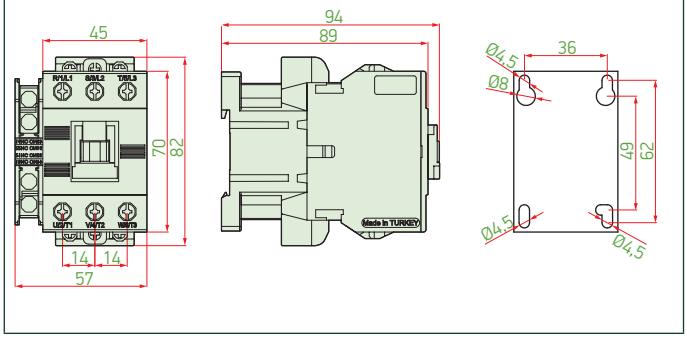


* SCM 09, 12, 18, 25 **SCM 32, 40

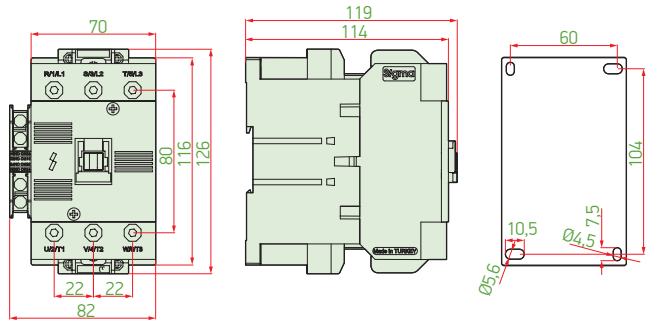
SCG 9-25



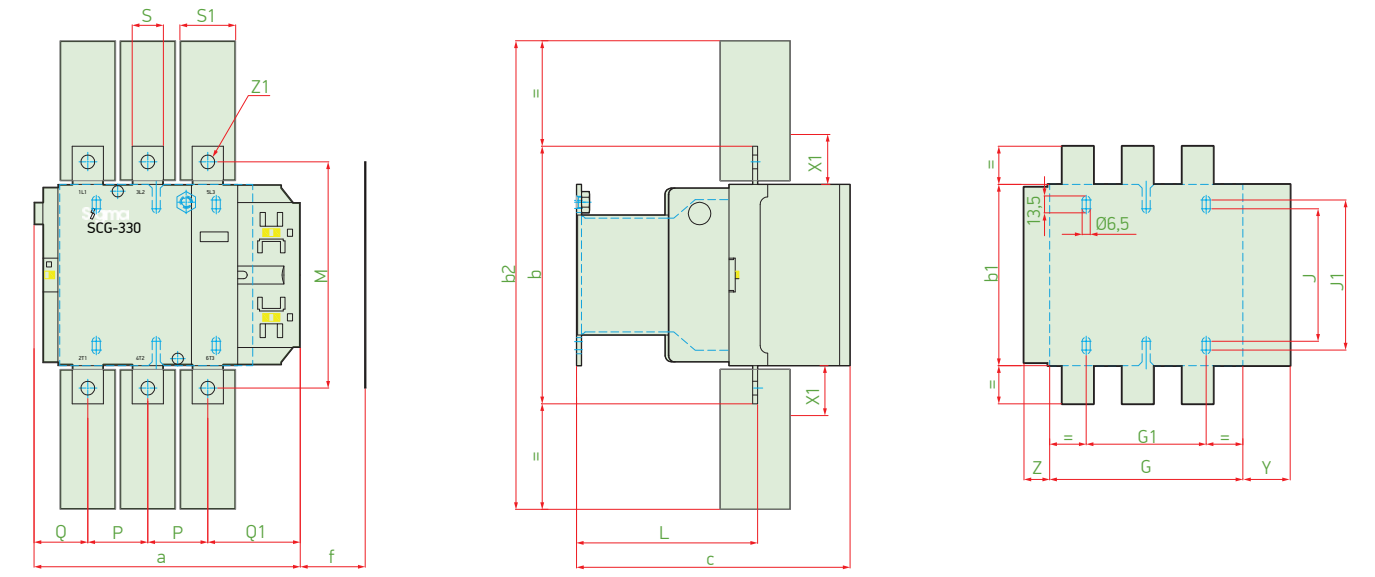
SCG 32-40



SCG 50-100

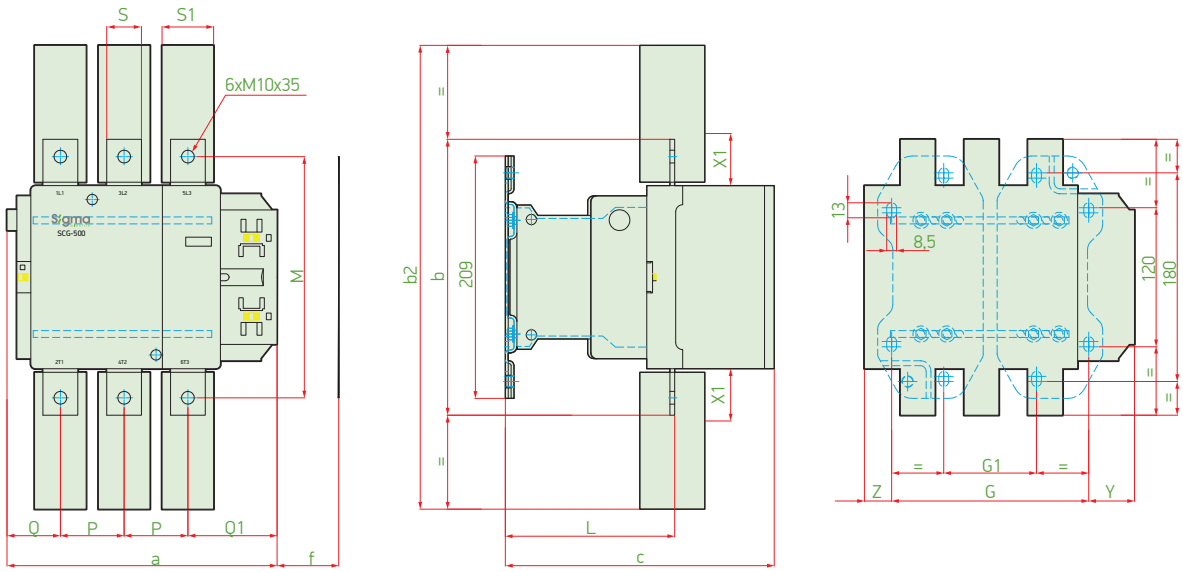


SCG 115-330



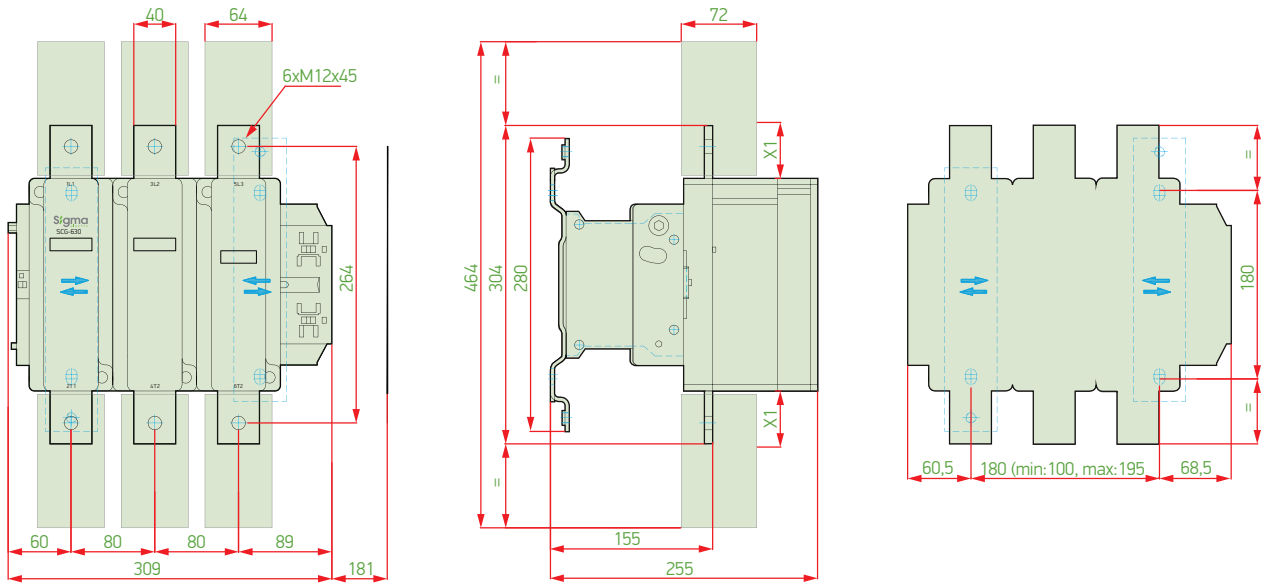
SCG	a	b	b1	b2	c	f	G	G1	j	j1	L	M	P	Q	Q1	S	S1	Y	Z	Z1
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
115A	163,5	162	137	265	171	131	106	80	106	120	107	147	37	29,5	60	20	26	44	13,5	M6x25
150A	163,5	170	137	301	171	131	106	80	106	120	107	150	40	26	57,5	20	34	44	13,5	M8x25
185A	168,5	174	137	305	181	130	111	80	106	120	113,5	154	40	29	59,5	20	34	44	13,5	M8x25
225A	168,5	197	137	364	181	130	111	80	106	120	113,5	172	48	21	51,5	25	44,5	44	13,5	M10x35
265A	201,5	203	145	375	213	147	142	96	106	120	141	178	48	39	66,5	25	44,5	38	21,5	M10x35
330A	213	206	145	375	219	147	154,5	96	106	120	145	181	48	43	74	25	44,5	38	20,5	M10x35

SCG 400-500

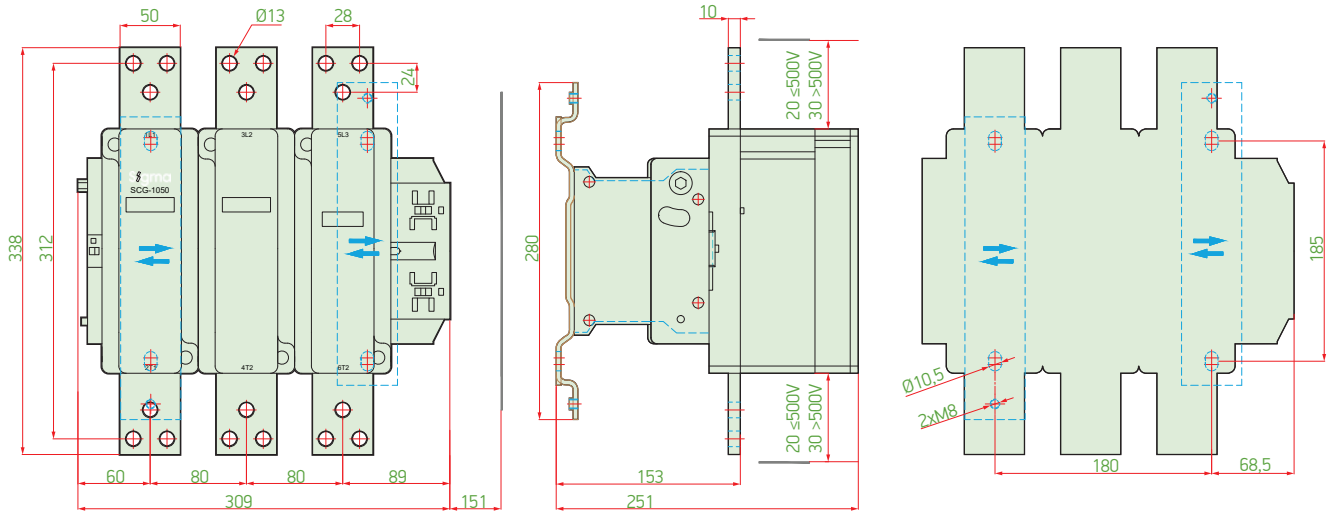


SCG	a	b	b2	c	f	G	Gmin.	Gmax.	G1	G1 min.	G1 max.	L	M	P	Q	Q1	S	S1	Y	Z
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
400A	213	206	375	219	119	170	156	192	80	66	102	145	181	48	43	74	25	44,5	19,5	23,5
500A	233	238	400	232	141	170	156	210	80	66	120	146	208	55	46	77	30	44,5	39,5	23,5

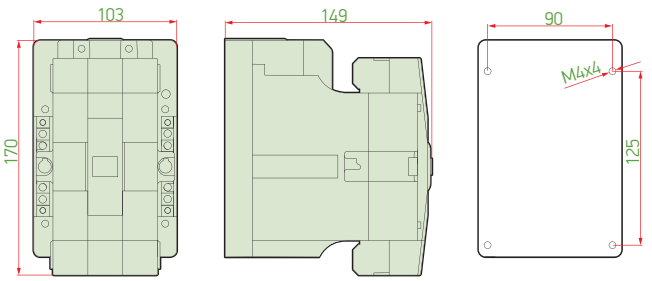
SCG 630-800



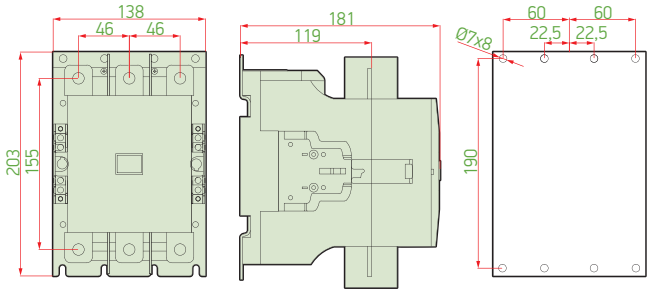
SCG 1050



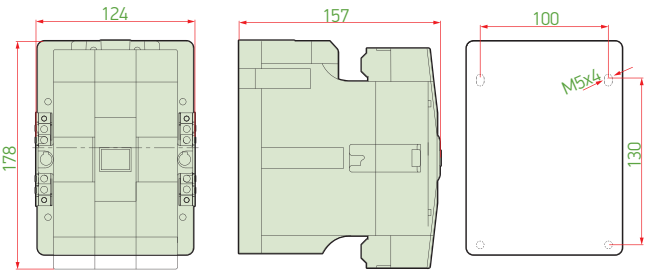
SCM 100-125



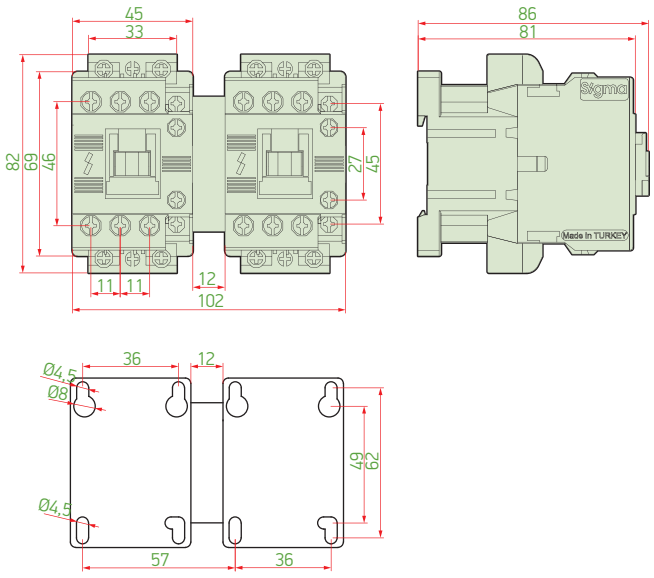
SCM 180-250



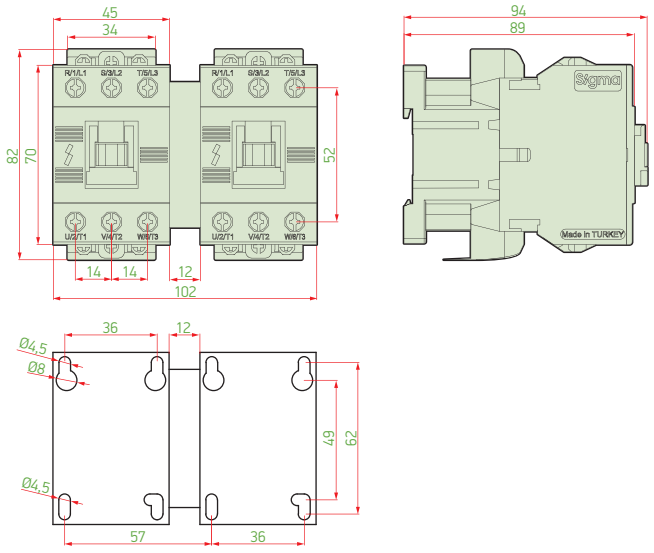
SCM 150



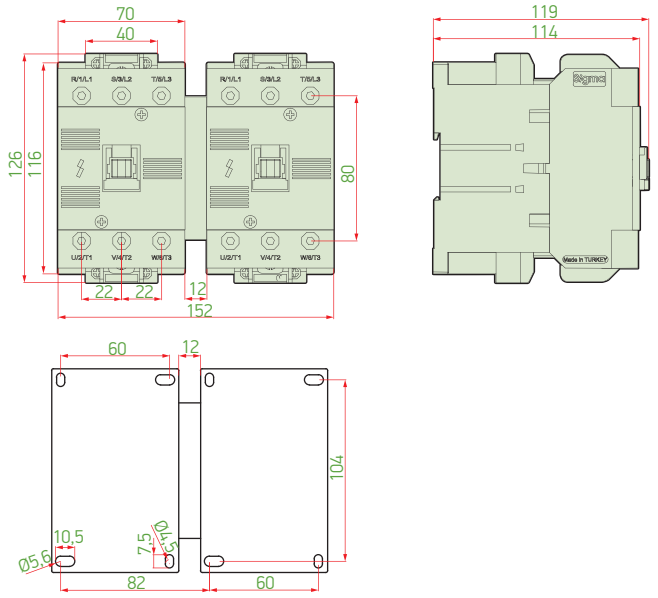
SCR 9-25



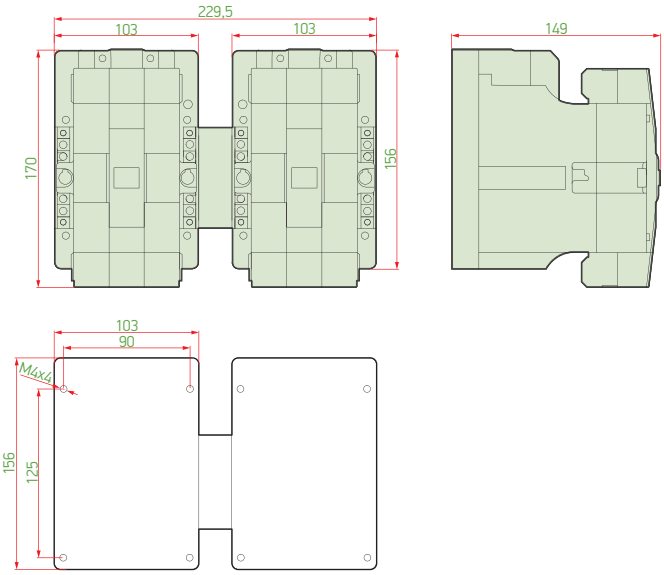
SCR 32-40



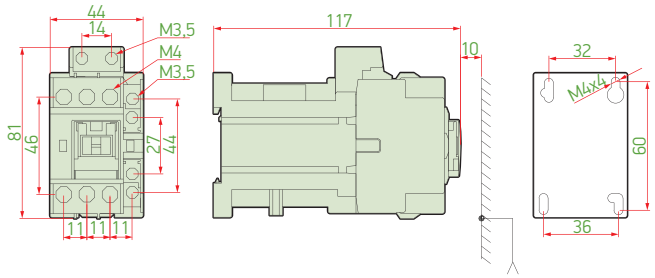
SCR 50-95



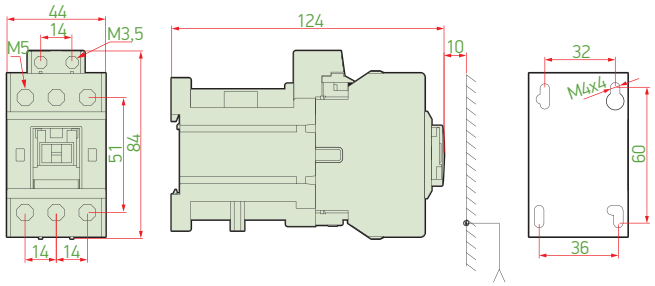
SCR 100



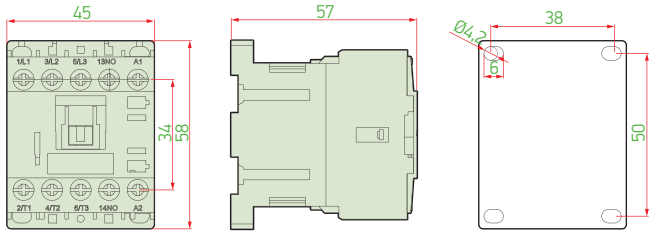
SDM 9-22



SDM 32-40



SCM 16M



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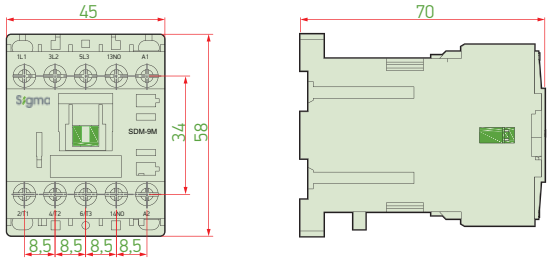
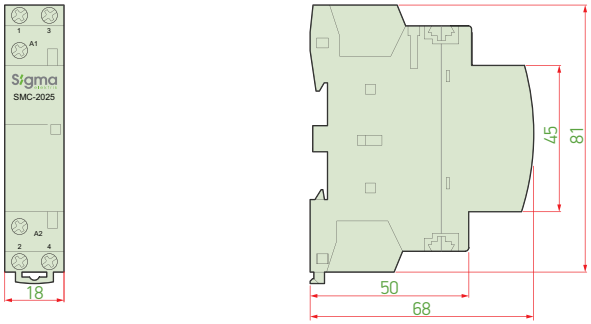
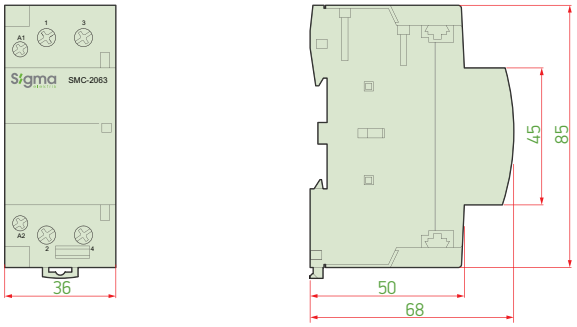


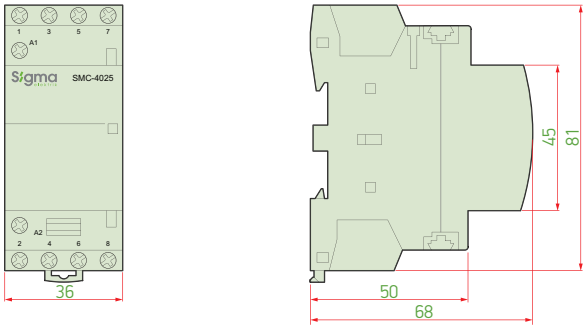
SMC-2025



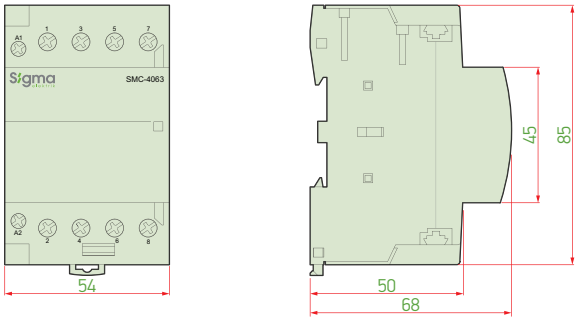
SMC-2063



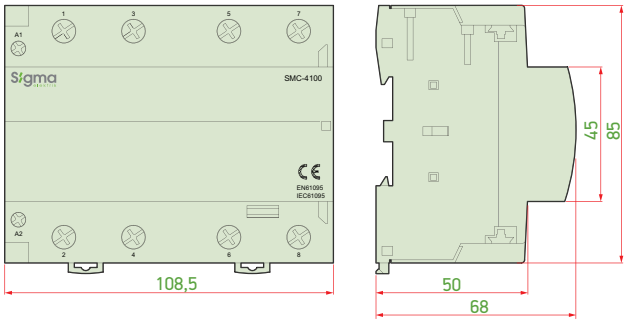
SMC-4025



SMC-4063



SMC-4100



Thermal Overload Relays

Type Code		Rated Current In (A)	Rated Current Range (A)	Type of Contactors	Min. Order Quantity	Pcs in a Box	Order Code
STRP-22		0.16	0.1-0.16	SCG 9 ... SCG 25	1	54	STRP22-016
		0.25	0.16-0.25	SCG 9 ... SCG 25	1	54	STRP22-025
		0.40	0.25-0.40	SCG 9 ... SCG 25	1	54	STRP22-040
		0.63	0.40-0.63	SCG 9 ... SCG 25	1	54	STRP22-063
		1	0.63-1	SCG 9 ... SCG 25	1	54	STRP22-1
		1.6	1-1.6	SCG 9 ... SCG 25	1	54	STRP22-1.6
		2.5	1.6-2.5	SCG 9 ... SCG 25	1	54	STRP22-2.5
		4	2.5-4	SCG 9 ... SCG 25	1	54	STRP22-4
		6	4-6	SCG 9 ... SCG 25	1	54	STRP22-6
		8	5-8	SCG 9 ... SCG 25	1	54	STRP22-8
		10	7-10	SCG 12 ... SCG 25	1	54	STRP22-10
		13	9-13	SCG 18 ... SCG 25	1	54	STRP22-13
		18	12-18	SCG 18 ... SCG 25	1	54	STRP22-18
		22	16-22	SCG 25	1	54	STRP22-22
STRP-40		26	18-26	SCG 32 ... SCG 40	1	36	STRP40-26
		36	24-36	SCG 40	1	36	STRP40-36
		40	28-40	SCG 40	1	36	STRP40-40
STRP-85		50	34-50	SCG 50 ... SCG 100	1	24	STRP85-50
		65	45-65	SCG 65 ... SCG 100	1	24	STRP85-65
		75	54-75	SCG 80 ... SCG 100	1	24	STRP85-75
		85	63-85	SCG 95 ... SCG 100	1	24	STRP85-85
STRP-100		100	65-100	SCM 100 ... SCM 125	1	1	STRP100-100
		125	85-125	SCM 100 ... SCM 125	1	1	STRP100-125
STRP-150		150	100-150	SCM 150	1	1	STRP150-150
STRP-220		180	120-180	SCM 250	1	2	STRP220-180
		240	160-240	SCM 250	1	2	STRP220-240
STRP-150G	NEW PRODUCT	150	90-150	SCG 115-SCG 150	1		STRP150-150G
STRP-220G		220	132-220	SCG 185-SCG 225	1		STRP225-220G
STRP-330G		330	200-330	SCG 265-SCG 330	1		STRP330-330G
STRP-500G		500	300-500	SCG 400-SCG 500	1		STRP500-500G
STRP-630G		630	380-630	SCG 630	1		STRP630-630G
STRK-25	NEW PRODUCT	0.16	0.1-0.16	SCM 09 - SCM 25	1	54	STRK25-016
		0,25	0.16-0.25	SCM 09 - SCM 25	1	54	STRK25-025
		0,4	0.25-0.40	SCM 09 - SCM 25	1	54	STRK25-040
		0,63	0.4-0.63	SCM 09 - SCM 25	1	54	STRK25-063
		1	0.63-1	SCM 09 - SCM 25	1	54	STRK25-1
		1.6	1-1.6	SCM 09 - SCM 25	1	54	STRK25-1.6
		2.5	1.6-2.5	SCM 09 - SCM 25	1	54	STRK25-2.5
		4	2.5-4	SCM 09 - SCM 25	1	54	STRK25-4
		6	4-6	SCM 09 - SCM 25	1	54	STRK25-6
		8	5-8	SCM 09 - SCM 25	1	54	STRK25-8
		10	7-10	SCM 09 - SCM 25	1	54	STRK25-10
		13	9-13	SCM 09 - SCM 25	1	54	STRK25-13
		18	12-18	SCM 09 - SCM 25	1	54	STRK25-18
		25	17-25	SCM 09 - SCM 25	1	54	STRK25-25
STRK-40	NEW PRODUCT	32	23-32	SCM 32 - SCM 40	1	36	STRK40-32
		40	30-40	SCM 32 - SCM 40	1	36	STRK40-40

Electronic Thermal Relays with Delay Adjustable

NEW PRODUCT

Type Code	Rated Current Range (A)	Tripping Time Range	Type of Contactors	Order Code
SERP-25	3-25A	0,2-10 s	SCG 9 ... SCG 25	SERP-25
SERP-40	5-40A	0,2-10 s	SCG 32 ... SCG 40	SERP-40

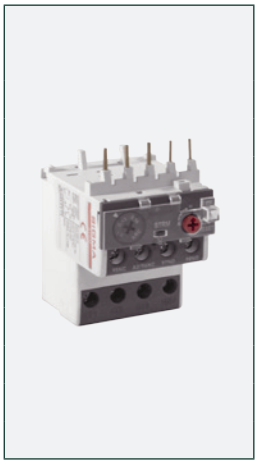
DIN RAIL Mounting Part for Thermal Overload Relays

Type Code	Compatible with	Pcs in a Box	Order Code
SDR-22	STRP-22	96	SDR-22
SDR-40	STRP-40	60	SDR-40
SDR-85	STRP-85	30	SDR-85

DIN RAIL Mounting Part for Mini-Thermal Overload Relay

Type Code	Compatible with	Pcs in a Box	Order Code
SDR-16	STRM-16	120	SDR-16

Thermal Overload Relays for Mini Contactors



Type Code	Rated Current In (A)	Rated Current Range (A)	Min. Order Quantity	Pcs in a Box	Order Code
STRM-16	0.16	0.1-0.16	1	80	STRM16-0.16
	0.25	0.16-0.25	1	80	STRM16-0.25
	0.40	0.25-0.40	1	80	STRM16-0.40
	0.63	0.40-0.63	1	80	STRM16-0.63
	1	0.63-1	1	80	STRM16-1
	1.6	1-1.6	1	80	STRM16-1.6
	2.5	1.6-2.5	1	80	STRM16-2.5
	4	2.5-4	1	80	STRM16-4
	6	4-6	1	80	STRM16-6
	9	6-9	1	80	STRM16-9
	13	9-13	1	80	STRM16-13
	16	12-16	1	80	STRM16-16

Utilization Categories According to IEC/EN 60947-4-1

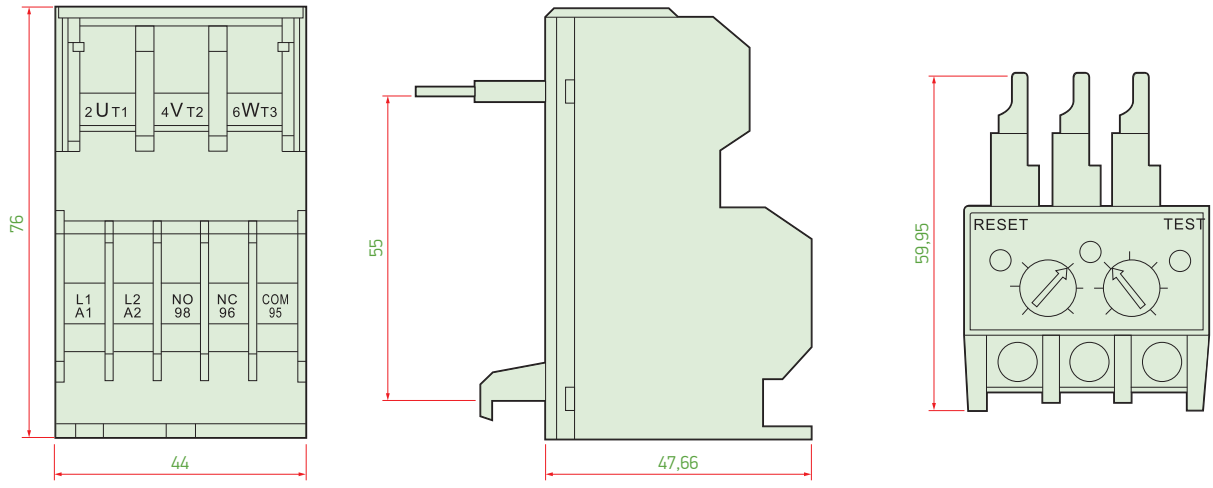
Utilization Category	Typical Use
AC-1	Non-Inductive or Slighly Inductive loads (heating systems, resistance furnace e.g..)
AC-2	Driving and/or stopping slip-ring motors. (Lifting and metallurgy applications, wire drawing machines e.g..)
AC-3	Driving Squirrel Cage asynchronous motors, motor stop in operation (Compressors, pomps, fans, valves, elevators, conveyors, air conditioner. e.g..)
AC-4	Stepping Drive Squirrel Cage asynchronous motors, reversing operation, (Printing press machines, wire drawing machines, stepping operation looms)
AC-5a	Switching of electrical discharge lamps (high or lower pressure sodium vapor lamps, mercury discharge lamps)
AC-5b	Switching of Incandescent lamps
AC-6a	Switching of Transformatores
AC-6b	Switching of Capacitor groups
AC-8a	Controlling of Hermetic type compressor's motors which equipped with Manuel-reset thermal overload relays.
AC-8b	Controlling of Hermetic type compressor's motors which equipped with Auto-reset thermal overload relays.
DC-1	Non-Inductive or lower Inductive loads
DC-3	Driving of Shunt Motors, Stepping, reversing, motor stop in operation, dynamic breaking of DC motors
DC-5	Driving of Serial Motors, Stepping, reversing, motor stop in operation, dynamic breaking of DC motors

Utilization Categories of Contactors

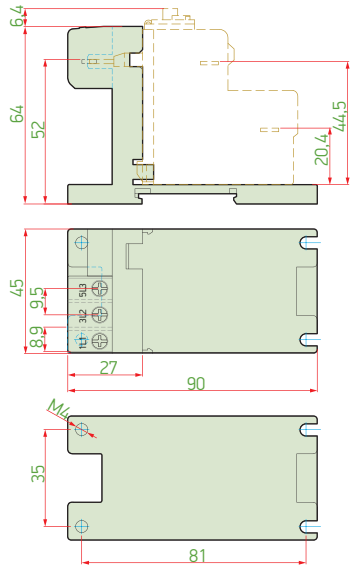
Utilization Category	Load Characteristic	Power Factor	Application Examples	Making Current (I)	Breaking Current (Ic)
AC-1	Non-Inductive loads	Cosθ=0.8	The most common example is heating system (When 3P contactors are used to control of 1P heating systems, contactor's pole should be serially connected. In case which 2 poles are serially connected, Rated Current (In) should be considered at 1,6 times of nominal current (Ie) and if 3 poles are serially connected, 2,25 times of nominal current (Ie).	Ie	Ie
AC-2	Driving Slip-Ring Motors, reversing, stepping operation	Cosθ=0.65	Lifting and metallurgy applications, wire drawing machines	2.5xIe	8xIe
AC-3	Driving Squirrel Cage asynchronous motors, motor stop in operation	Cosθ=0.45 for Ie<100A Cosθ=0.35 for Ie>100A	Compressors, pomps, fans, valves, elevators, conveyors, air conditioner.	6xIe	8xIe
AC-4	Driving Squirrel Cage asynchronous motors, reversing operation	Cosθ=0.45 for Ie<100A Cosθ=0.35 for Ie>100A	Printing press machines, wire drawing machines, stepping operation looms	6xIe	8xIe

Dimensions

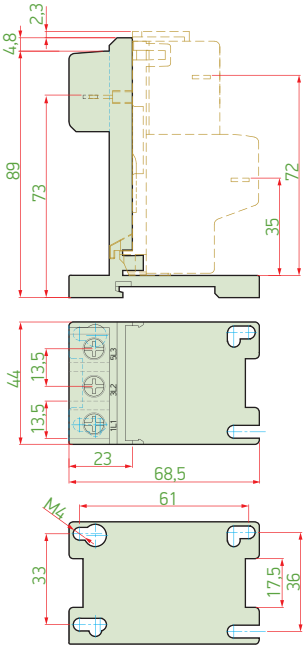
SERP 25 - SERP 40



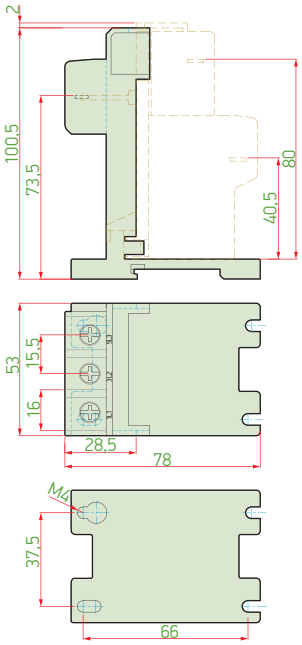
SDR-16



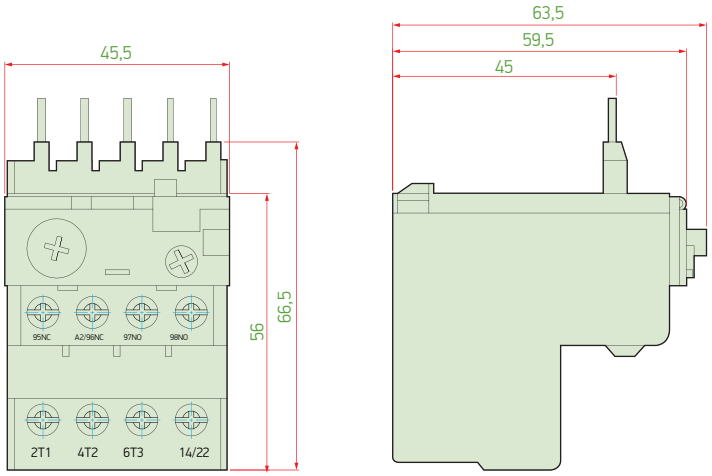
SDR-22



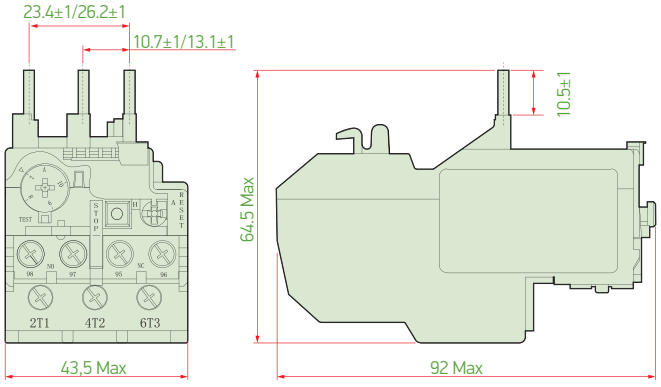
SDR-40



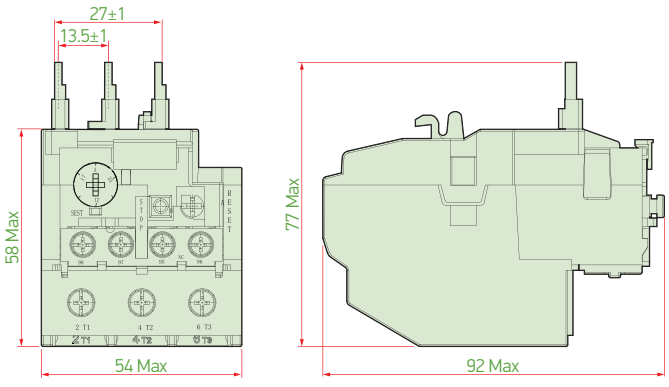
STRM-16



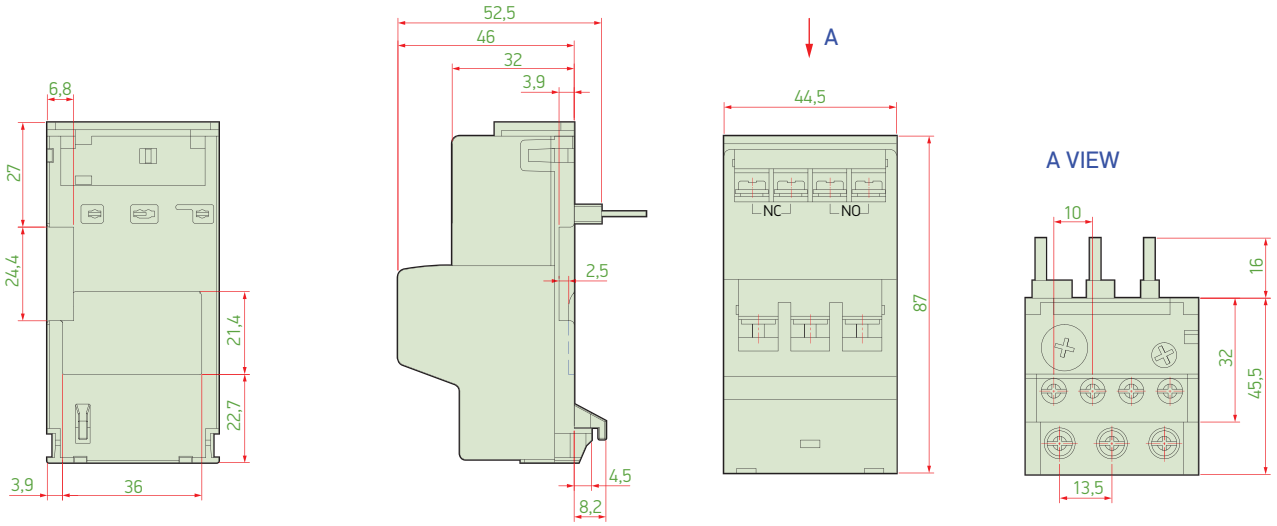
STRK-25



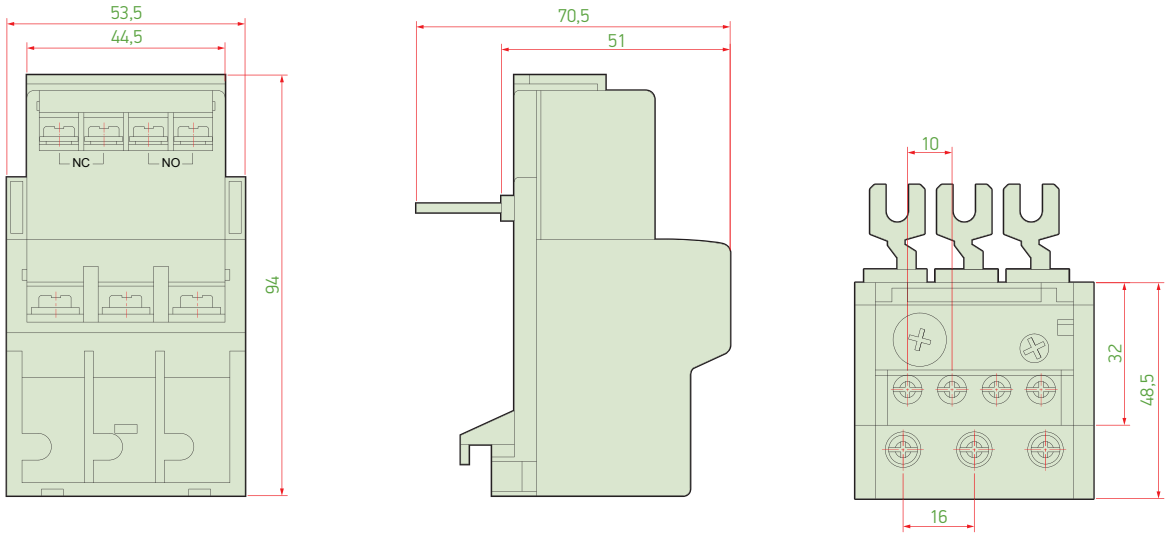
STRK-40



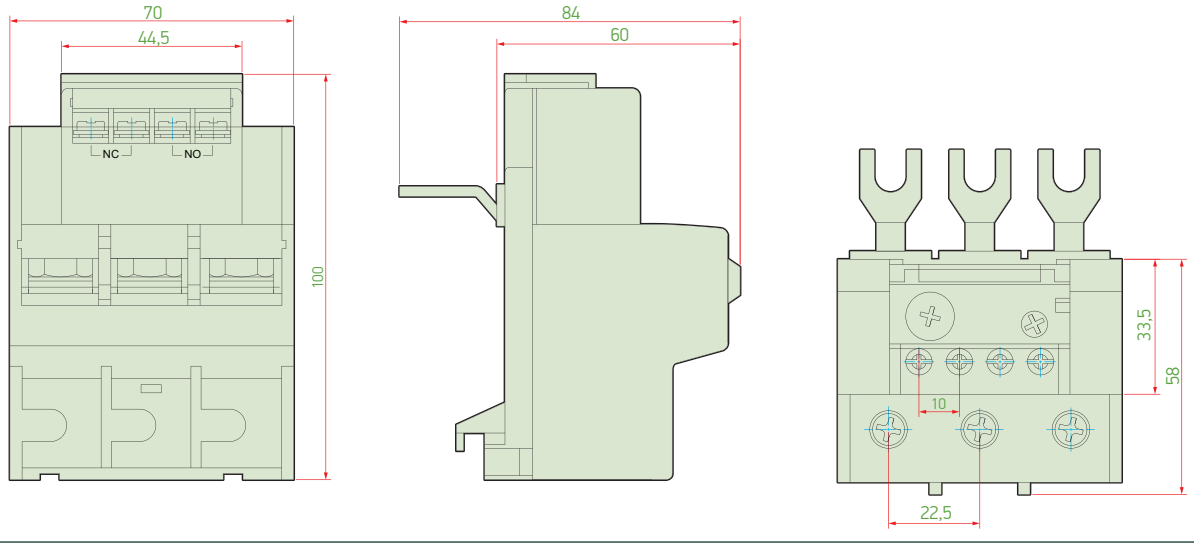
STRP 22



STRP 40



STRP 85



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ROTARY CAM **SWITCHES**

Rotary Cam Switches are mechanical switching products that work with the effect of rotation.

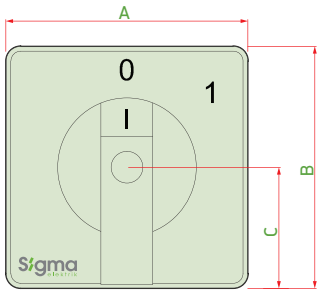
- ⇨ 1, 2, 3 and 3P+N pole product options
- ⇨ Continuous operating currents from 10A to 63A
- ⇨ Transmitting the electrical energy needed by the motor in star-delta and direct starting circuits
- ⇨ Sending current to the engine during the operation of engine control circuits
- ⇨ Acting as a measurement switch in measurement circuits
- ⇨ Controlling double-speed engines
- ⇨ Determining the direction of energy in control circuits

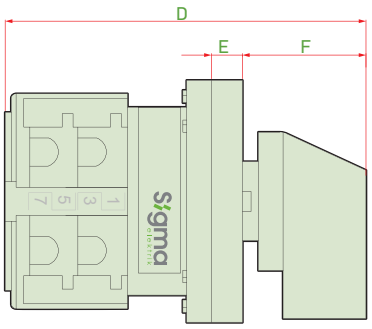
0 -1 On - Off Cam Switches

Type Code		Number of Phases	Continuous Operating Current (Ith) A	Order Code
SPA1		1	10	SPA1-10
		1	16	SPA1-16
		1	20	SPA1-20
		1	25	SPA1-25
		1	32	SPA1-32
	NEW PRODUCT	1	40	SPA1-40
		1	63	SPA1-63
SPA2	NEW PRODUCT	2	10	SPA2-10
		2	16	SPA2-16
		2	20	SPA2-20
		2	25	SPA2-25
		2	32	SPA2-32
		2	40	SPA2-40
		2	63	SPA2-63
SPA3		3	10	SPA3-10
		3	16	SPA3-16
		3	20	SPA3-20
		3	25	SPA3-25
		3	32	SPA3-32
	NEW PRODUCT	3	40	SPA3-40
		3	63	SPA3-63
SPA4	NEW PRODUCT	(3 Phase + Neutral)	10	SPA4-10
		(3 Phase + Neutral)	16	SPA4-16
		(3 Phase + Neutral)	20	SPA4-20
		(3 Phase + Neutral)	25	SPA4-25
		(3 Phase + Neutral)	32	SPA4-32
		(3 Phase + Neutral)	40	SPA4-40
		(3 Phase + Neutral)	63	SPA4-63

Change Over Switches (1 - 0 - 2)

Type Code		Number of poles	Continuous Operating Current (Ith) A	Order Code
SPN1		1P	16	SPN1-16
		1P	25	SPN1-25
		1P	32	SPN1-32
	NEW PRODUCT	1P	40	SPN1-40
		1P	63	SPN1-63
SPN2	NEW PRODUCT	2P	16	SPN2-16
		2P	25	SPN2-25
		2P	32	SPN2-32
		2P	40	SPN2-40
		2P	63	SPN2-63
SPN3		3P	16	SPN3-16
		3P	25	SPN3-25
		3P	32	SPN3-32
		3P	40	SPN3-40
		3P	63	SPN3-63





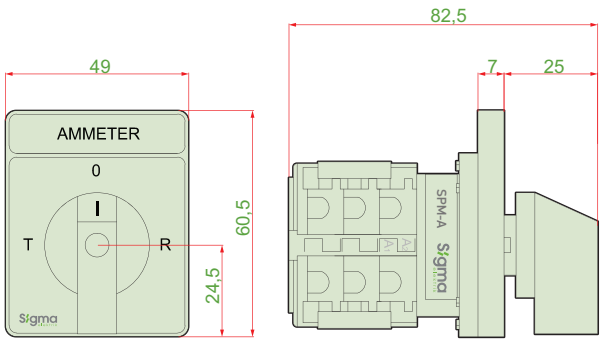
	A	B	C	D	E	F
SPA1-10 / 16 / 20	49	49	24,5	63	6,3	25
SPA1-25	49	49	24,5	66	6,3	25
SPA1-32	65	65	32,5	81	8	30
SPA1-63	65	65	32,5	90	8	30
SPN1-16	49	49	24,5	63	6,3	25
SPN1-25	49	49	24,5	66	6,3	25
SPN1-32	65	65	32,5	81	8	30
SPN1-63	65	65	32,5	90	8	30

	A	B	C	D	E	F
SPA3-10 / 16 / 20	49	49	24,5	73	6,3	25
SPA3-25	49	49	24,5	80	6,3	25
SPA3-32	65	65	32,5	93,5	8	30
SPA3-63	65	65	32,5	112	8	30
SPN3-16	49	49	24,5	83	6,3	25
SPN3-25	49	49	24,5	93	6,3	25
SPN3-32	65	65	32,5	107	8	30
SPN3-63	65	65	32,5	107	8	30

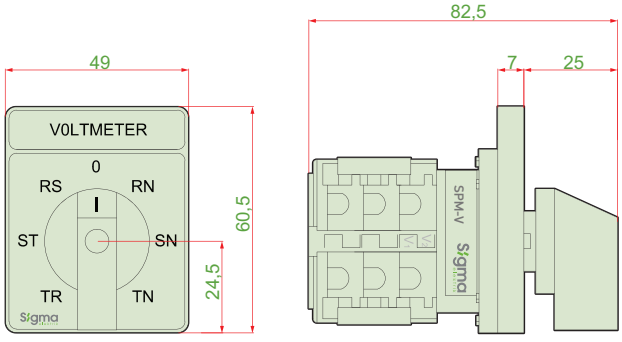
Instrument Selector Switches

Type Code	Stages	Continuous Operating Current (Ith) A	Order Code
SPM-A	4 Stages	20	SPM-A
SPM-V	7 Stages	20	SPM-V

AMMETER



VOLTMETER



Motor Control Switches

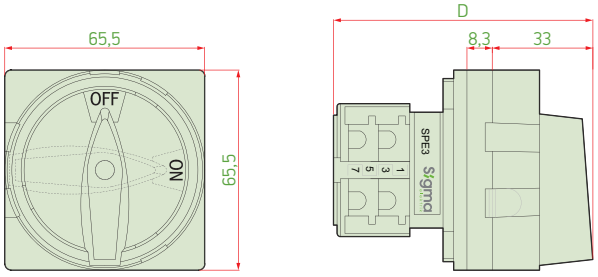
NEW PRODUCT

Type Code	Features	Continuous Operating Current (Ith) A	Pcs in a Box	Order Code
SPY-3	Star-delta switch (0-Y-Δ)	16	50	SPY3-16
	Star-delta switch (0-Y-Δ)	25	50	SPY3-25

Type Code	Features	Continuous Operating Current (Ith) A	Pcs in a Box	Order Code
SPR-1	Single-phase invertor switch (Right-left)	16	50	SPR1-16
	Single-phase invertor switch (Right-left)	20	50	SPR1-20
	Single-phase invertor switch (Right-left)	25	50	SPR1-25
SPR-3	Three-phase invertor switch (Right-left)	16	50	SPR3-16
	Three-phase invertor switch (Right-left)	20	50	SPR3-20
	Three-phase invertor switch (Right-left)	25	50	SPR3-25

Locking Safety Switches (Red - Yellow)

Type Code	Number of Phase	Continuous Operating Current (Ith) A	Pcs in a Box	Order Code
SPE3	3P	16	20	SPE3-16
	3P	20	20	SPE3-20
	3P	25	20	SPE3-25
	3P	32	20	SPE3-32
	3P	40	20	SPE3-40
	3P	63	20	SPE3-63
	3P	80	20	SPE3-80



Order Code	D
SPE3-16	85
SPE3-20	85
SPE3-25	93
SPE3-32	98
SPE3-63	115

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MOTOR PROTECTION **SWITCHES**

Motor protection switches are electrical control, command and protection products designed to protect electric motors against overload current (thermal current), short circuit currents and to manually activate and deactivate the electric motor.

- ⇨ 10kA, 15kA and 100kA short circuit breaking capacity
- ⇨ Rated current from 0.16A to 80A
- ⇨ Possibility to use padlock to fix in OFF position
- ⇨ Terminals protected against finger contact
- ⇨ Design compatible with accessories (auxiliary contact, low voltage coil, trip coil)

Motor Protection Switches

		SMK-25	SMK-80	SMP-25
Number of poles		3	3	3
Rated insulation voltage	Ui (V)	690	690	690
Rated impulse withstand voltage	Uimp (kV)	6	6	6
Electrical life (No. operation)	Op.	100.000	80.000	100.000
Mechanical life (No. operation)	Op.	100.000	100.000	100.000
Compatibility		AC-3	AC-3	AC-3
Rated operating voltage	Ue (V)	690	690	690
Rated operating frequency	Hz	50/60	50/60	50/60
Utilization category		A	A	A
Contamination degree		3	3	3
Vibration strength		5 g (from 5 to 150 Hz)	5 g (from 5 to 150 Hz)	5 g (from 5 to 150 Hz)
Maximum ambient operating temperature	°C	From -20 ... + 60°C (from -4 ... +140°F)	From -20 ... + 60°C (from -4 ... +140°F)	From -20 ... + 60°C (from -4 ... +140°F)
Maximum ambient storage temperature	°C	From -40 ... + 80°C) (from -40 ... +176°F)	From -40 ... + 80°C) (from -40 ... +176°F)	From -40 ... + 80°C) (from -40 ... +176°F)
Relative Humidity	%	95	95	95
Flame resistance	°C	960°C (1760°F)	960°C (1760°F)	960°C (1760°F)
Tightening torque	Nm	1,2	2	1,2
Auxiliary contact		Yes	Yes	Yes
Under voltage release		Yes	Yes	Yes
Remote tripping coil		Yes	Yes	Yes
Container		Yes	Yes	Yes
Contactor combination block		Yes	Yes	Yes
Standards		TS EN 60947-4-1, 60947-2	TS EN 60947-4-1, 60947-2	TS EN 60947-4-1, 60947-2

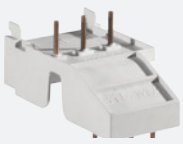
Type Code	Rated Power at 400V AC3 (kW)	Rated Current Range (A)	Rated Short Circuit Breaking Capacity at 400V Icu (kA)	Min. Order Quantity	Pcs in a Box	Order Code
SMK-25	0,02	0.1-0.16	100	1	48	SMK25-0.16
	0,06	0.16-0.25	100	1	48	SMK25-0.25
	0,09	0.25-0.4	100	1	48	SMK25-0.4
	0,12	0.4-0.63	100	1	48	SMK25-0.63
	0,25	0.63-1	100	1	48	SMK25-1
	0,37	1-1,6	100	1	48	SMK25-1.6
	0,75	1.6-2.5	100	1	48	SMK25-2.5
	1,5	2,5-4	100	1	48	SMK25-4
	2,2	4-6,3	100	1	48	SMK25-6.3
	4	6-10	100	1	48	SMK25-10
	5,5	9-14	15	1	48	SMK25-14
	7,5	13-18	15	1	48	SMK25-18
	9	17-23	15	1	48	SMK25-23
	11	20-25	15	1	48	SMK25-25
	15	24-32	10	1	48	SMK25-32
SMK-80	18,5	25-40	15	1	24	SMK80-40
	22	37-50	15	1	24	SMK80-50
	30	40-63	15	1	24	SMK80-63
	40	56-80	15	1	24	SMK80-80

SMP Series Thermal Magnetic Characteristic Motor Protection Switches

NEW PRODUCT

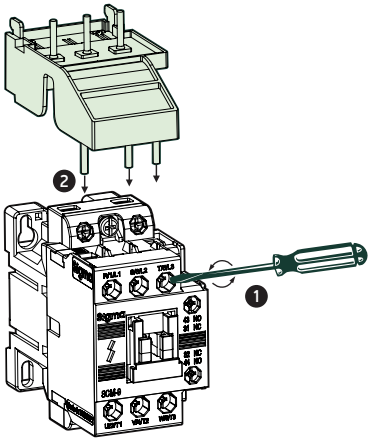
Type Code	Rated Power at 400V AC3 (kW)	Rated Current Range (A)	Rated Short Circuit Breaking Capacity at 400V Icu (kA)	Min. Order Quantity	Pcs in a Box	Order Code
SMP-25	0,02	0,1-0,16	100	1	48	SMP25-0.16
	0,06	0,16-0,25	100	1	48	SMP25-0.25
	0,09	0,25-0,4	100	1	48	SMP25-0.4
	0,12	0,4-0,63	100	1	48	SMP25-0.63
	0,25	0,63-1	100	1	48	SMP25-1
	0,37	1-1,6	100	1	48	SMP25-1.6
	0,75	1,6-2,5	100	1	48	SMP25-2.5
	1,5	2,5-4	100	1	48	SMP25-4
	2,2	4-6,3	100	1	48	SMP25-6.3
	4	6-10	100	1	48	SMP25-10
	5,5	9-14	15	1	48	SMP25-14
	7,5	13-18	15	1	48	SMP25-18
	9	17-23	15	1	48	SMP25-23
	11	20-25	15	1	48	SMP25-25
	15	24-32	15	1	48	SMP25-32

Accessories for Motor Protection Switches

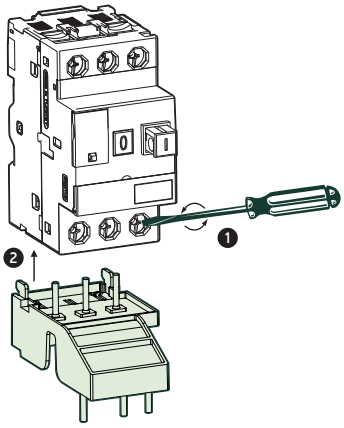


Type Code	Description	Suitable Motor Protection Switch	Order Code
SMK25-F11	Auxiliary Contact 1NO+1NC (Front Mounting)	SMK-25 / SMP-25	SMK25-F11
SMK25-F20	Auxiliary Contact 2NO (Front Mounting)	SMK-25 / SMP-25	SMK25-F20
SMK25-L11	Auxiliary Contact 1NO+1NC (Side Mounting)	SMK-25 / SMP-25	SMK25-L11
SMK25-L20	Auxiliary Contact 2NO (Side Mounting)	SMK-25 / SMP-25	SMK25-L20
SMK80-L11	Auxiliary Contact 1NO+1NC (Side Mounting)	SMK-80	SMK80-L11
SMK80-L20	Auxiliary Contact 2NO (Side Mounting)	SMK-80	SMK80-L20
SMK25-DG	Under Voltage Release 380V	SMK-25 / SMP-25	SMK25-DG
SMK25-AB	Shunt Trip Release 230V	SMK-25 / SMP-25	SMK25-AB
SMK25-A	Combination Block for Contactor (SCM9-40)	SMK-25 / SMP-25	SMK25-A
SMK25-K	Widthclosure for Motor Protection Switch	SMK-25 / SMP-25	SMK25-K

SMK25-A - Mounting

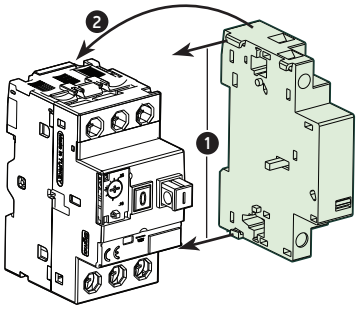


1. *Loosen the main contactor contact's screws*
2. *Mount the joint adapter to the contactor*



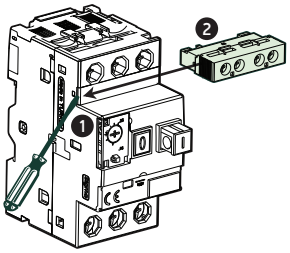
1. *Loosen motor protection switch main contact's screws*
2. *Install and mount SMK25-A's accessory combiner tab into the motor protection switch's housing, as indicated by the arrow*

SMK25-DG, SMK25-AB - Mounting



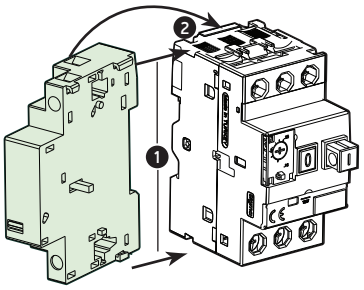
1. *Install the both SMK 25-DG and SMK25-AB auxiliary contacts tabs in the slot on the product right side as indicated by the arrow*
2. *Slide the blue locking tab into the slot and lock it, which is under the auxiliary contacts.*

SMK25-F11, SMK25-F20 - Mounting



1. *Gently push the locking tab and remove the accessory cover by pulling it upwards. As indicated by the arrow*
2. *Insert the auxiliary contact into its housing and push it into its space.*

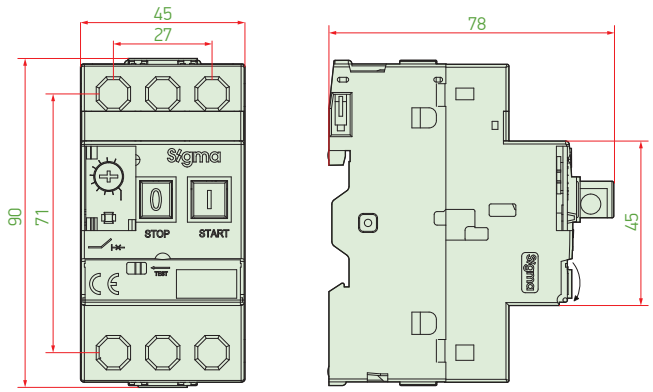
SMK25-L11, SMK25-L20 - Mounting



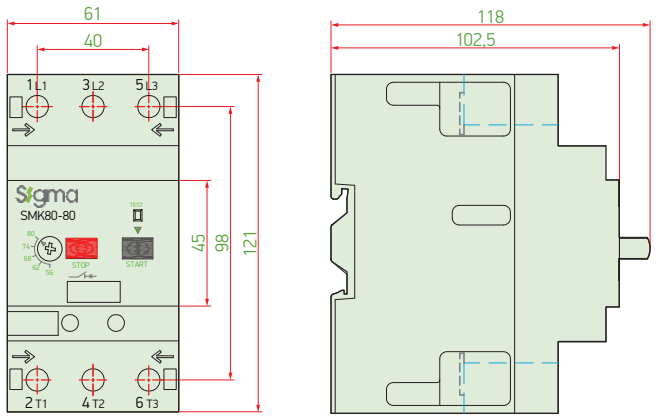
1. *At the first step: insert the securing tab into the slot on the left side of the SMK25-L11 and SMK25-L20 as indicated by the arrow.*
2. *Insert the blue locking tab into its housing and lock it*

Dimensions

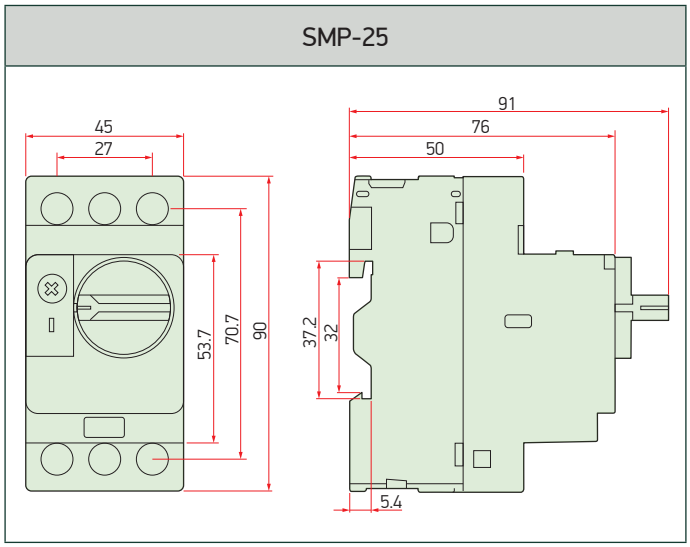
SMK-25



SMK-80



SMP-25



Motor Starters with Widthclosure (DOL)

Type Code	Rated Motor Power (kW) 380V	Setting Range (A)	Coil Voltage (V) AC	Pcs in a Box	Order Code
SMS009230	0.37	1-1.6	230	8	SMS090037
	0.75	1.6-2.5	230	8	SMS090075
	1.5	2.5-4	230	8	SMS090115
	2.2	4-6	230	8	SMS090220
	3	5-8	230	8	SMS090300
	4	7-10	230	8	SMS090400
SMS012230	5.5	9-13	230	8	SMS0120550
SMS018230	7.5	12-18	230	8	SMS0180750
SMS025230	11	16-22	230	8	SMS0251110
SMS032230	15	24-36	230	4	SMS0321150
SMS040230	18.5	28-40	230	4	SMS0401185
SMS050230	22	34-50	230	1	SMS0501220
SMS065230	30	45-65	230	1	SMS0651300
SMS080230	37	54-75	230	1	SMS0801370
SMS095230	45	63-85	230	1	SMS0951450

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LV CURRENT
TRANSFORMERS

Current transformers are measurement transformers used to measure the current passing through the circuit when high currents cannot be measured directly by measuring instruments.

Sigma current transformers convert primary currents from 20A to 5000A into secondary current (5A value) with a high accuracy class, while offering both space-saving and economic solutions with their very compact dimensions.

- ⇨ Primary currents between 20A - 5000A
- ⇨ Class 0.2 - 0.2s- 0.5 - 0.5s - 1 - 3 measurement accuracy
- ⇨ High reliability with test report of each product
- ⇨ Product variety including split core, mini, micro, with and without busbar, round, narrow and summation types
- ⇨ Sealable models
- ⇨ Special production possibility in accordance with project demands

Technical Specifications

Standard	IEC 60044-1/ 61869-2
Rated operational voltage (Un)	720V
Rated frequency	50/60Hz (on demand 400 Hz)
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Operating humidity	up to 95% relative humidity
Rated thermal continuous current	1.2xIn
Rated short time thermal current (Ith)	60xIn / 1 sec. - 100xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power-frequency withstand voltage	3kV eff. (50 Hz) /1 min.
Thermal class of insulation	E (120 deg.C max.)
Casing	Non-flammable, self extinguishing, glass reinforced PA6
Degree of protection	IP20
Instrument security factor (Fs)	5
Secondary terminals	Brass plated nickel M5 screws
Recommended tightening torque	2 Nm (for secondary terminals)
Accuracy class	Metering; 0.2, 0.2s, 0.5, 0.5s, 1, 3 ; Protection 5P, 10P
Burden	from 1 to 30VA
Rated primary current	up to 5000A
Rated secondary current	1 or 5A

Main Dimensions

Type	Cable Diameter (mm)	Window (mm)	Busbar (mm)	Cable Section (mm^2)	Outer Dimensions wxhxd (mm)
S25B		–			80x100x40
S20M		20x10	20x10		62x80x30
S20ML		20x10	20x10		62x80x45
S30	24	31x11	30x10	35 ... 300	80x100x40
S30L		31x11	30x10		80x100x60
S30M	24	30x10	30x10	50 ... 300	62x80x30
S30ML		30x10	30x10		62x80x45
S30A		37x25	2x(30x10)		97x110x34
S40	31	41x11	40x10	185 ... 400	80x100x40
S50	38	51x11	50x10	–	80x100x40
S60	46	61x21	60x20	–	107x132x45
S60D	30	61x31	60x30	–	82x134x60
S60A	30	61x31	3x(60x10)	–	102x145x40
S80	67	82x32	80x30	–	145x165x55
S100	62	101x11	100x10	–	145x165x55
S100D	70	101x73	4x(100x10)	–	128x193x61
S125	126	131x11	3x(125x10) 130x10	–	190x220x55
S120A		126x84	4x(120x10)		158x201x36
S160A		164x82	4x (160x10)		195x254x59

Round Type Current Transformers

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SMT30	50	1,5	3	30	3	51	SMT0300050301
	60	2,5	3	30	3	51	SMT0300060302
	75	2,5	3	30	3	51	SMT0300075302
	100	2,5	3	30	3	51	SMT0300100302
	125	2,5	3	30	3	51	SMT0300125302
	150	2,5	3	30	3	51	SMT0300150302
	200	2,5	3	30	3	51	SMT0300200302
	250	2,5	0,5	30	3	51	SMT0300250505
	300	5	0,5	30	3	51	SMT0300300505
SMT40	100	2,5	3	40	3	42	SMT0400100302
	150	2,5	3	40	3	42	SMT0400150302
	200	2,5	3	40	3	42	SMT0400200102
	400	5	0,5	40	3	42	SMT0400400505
	500	5	0,5	40	3	42	SMT0400500505
	600	5	0,5	40	3	42	SMT0400600505
SMT70	800	5	0,5	70	3	42	SMT0700800505
	1000	10	0,5	70	3	42	SMT0701000510
	1200	10	0,5	70	3	42	SMT0701200510
	1250	10	0,5	70	3	42	SMT0701250510
	1500	10	0,5	70	3	42	SMT0701500510
SMT100	800	5	0,5	100	3	42	SMT1000800505
	1000	5	0,5	100	3	42	SMT1001000505
	1250	10	0,5	100	3	42	SMT1001250510
	1600	15	0,5	100	3	42	SMT1001600515
	2000	15	0,5	100	3	42	SMT1002000515
	2500	15	0,5	100	3	42	SMT1002500515
SMT125	2000	15	0,5	125	3	42	SMT1252000515
	2500	15	0,5	125	3	42	SMT1252500515
	3000	15	0,5	125	3	42	SMT1253000515
	4000	15	0,5	125	3	42	SMT1254000515
	5000	30	0,5	125	3	42	SMT1255000530

Current Transformers

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code for Sealed Type	Order Code
S20M	60	1,5	1	20x10	3	51		SM2000601015
	75	1,5	1	20x10	3	51		SM2000751015
	80	2,5	1	20x10	3	51		SM2000801002
	100	2,5	1	20x10	3	51		SM2001001002
	125	2,5	1	20x10	3	51		SM2001251002
S20ML	40	1,5	1	20x10	3	51		SM2000401005
	50	2,5	1	20x10	3	51		SM2000501025
	60	2,5	1	20x10	3	51		SM2000601025
	75	2,5	1	20x10	3	51		SM2000751002
	80	2,5	1	20x10	3	51		SM2000801002
	100	5	1	20x10	3	51		SM2001001005
	125	5	1	20x10	3	51		SM2001251005
	150	5	1	20x10	3	51		SM2001501005
S30M	100	1,5	0,5	30x10	3	51		SM3001001505
	125	2,5	0,5	30x10	3	51		SM3001250502
	150	2,5	0,5	30x10	3	51		SM3001500502
	200	2,5	0,5	30x10	3	51		SM3002000502
	250	5	0,5	30x10	3	51		SM3002500505
S30ML	50	1,5	1	30x10	3	51		SM3000501005
	60	1,5	1	30x10	3	51		SM3000601005
	75	1,5	1	30x10	3	51		SM3000751005
	100	2,5	1	30x10	3	51		SM3001001002
	150	5	0,5	30x10	3	51		SM3001500505
	200	5	0,5	30x10	3	51		SM3002000505
	250	10	0,5	30x10	3	51	MM3002500510	SM3002500510
	300	10	0,5	30x10	3	51	MM3003000510	SM3003000510
	400	10	0,5	30x10	3	51	MM3004000510	SM3004000510
	500	10	0,5	30x10	3	51	MM3005000510	SM3005000510
	600	10	0,5	30x10	3	51	MM3006000510	SM3006000510
S25B	20	10	0,5	with bus bar	3	30	MS2500200510	SS2500200510
	25	10	0,5	with bus bar	3	30	MS2500250510	SS2500250510
	30	10	0,5	with bus bar	3	30	MS2500300510	SS2500300510
	40	10	0,5	with bus bar	3	30	MS2500400510	SS2500400510
	50	10	0,5	with bus bar	3	30	MS2500500510	SS2500500510
	60	10	0,5	with bus bar	3	30	MS2500600510	SS2500600510
	75	10	0,5	with bus bar	3	30	MS2500750510	SS2500750510
	100	10	0,5	with bus bar	3	30	MS2501000510	SS2501000510
	125	10	0,5	with bus bar	3	30	MS2501250510	SS2501250510
	150	10	0,5	with bus bar	3	30	MS2501500510	SS2501500510
S30	75	2,5	1	30x10	3	42		SS3000750102
	100	5	1	30x10	3	42		SS3001001005
	150	5	0,5	30x10	3	42		SS3001500505
	200	10	0,5	30x10	3	42	MS3002000510	SS3002000510
S30L	100	5	0,5	30x10	3	30		SS3001000505
	125	5	0,5	30x10	3	30		SS3001250505
	150	10	0,5	30x10	3	30	MS3001500510	SS3001500510
S40	300	10	0,5	40x10	3	42	MS4003000510	SS4003000510
	400	10	0,5	40x10	3	42	MS4004000510	SS4004000510
	500	10	0,5	40x10	3	42	MS4005000510	SS4005000510
	600	10	0,5	40x10	3	42	MS4006000510	SS4006000510

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code for Sealed Type	Order Code
S50	500	10	0,5	50x10	3	42		SS5005000510
	600	10	0,5	50x10	3	42		SS5006000510
	750	10	0,5	50x10	3	42		SS5007500510
	800	15	0,5	50x10	3	42		SS5008000515
	1000	15	0,5	50x10	3	42		SS5001000515
S60	750	15	0,5	60x20	3	36	MS6007500515	SS6007500515
	800	15	0,5	60x20	3	36	MS6008000515	SS6008000515
	1000	15	0,5	60x20	3	36	MS6001000515	SS6001000515
S60D (Narrow Type)	750	10	0,5	60x30	3	18	MD6007500510	SD6007500510
	800	10	0,5	60x30	3	18	MD6008000510	SD6008000510
	1000	10	0,5	60x30	3	18	MD6010000510	SD6010000510
	1200	15	0,5	60x30	3	18	MD6012000515	SD6012000515
	1250	15	0,5	60x30	3	18	MD6012500515	SD6012500515
	1500	15	0,5	60x30	3	18	MD6015000515	SD6015000515
	1600	15	0,5	60x30	3	18	MD6016000515	SD6016000515
S80	750	10	0,5	80x30	3	18		SS8007500510
	800	10	0,5	80x30	3	18		SS8008000510
	1000	15	0,5	80x30	3	18		SS8010000515
	1200	15	0,5	80x30	3	18		SS8012000515
	1250	15	0,5	80x30	3	18		SS8012500515
	1500	15	0,5	80x30	3	18		SS8015000515
	1600	15	0,5	80x30	3	18		SS8016000515
	2000	15	0,5	80x30	3	18		SS8020000515
S100	1000	15	0,5	100x10	3	18	MS1001000515	SS1001000515
	1200	15	0,5	100x10	3	18	MS1001200515	SS1001200515
	1250	15	0,5	100x10	3	18	MS1001250515	SS1001250515
	1500	15	0,5	100x10	3	18	MS1001500515	SS1001500515
	1600	15	0,5	100x10	3	18	MS1001600515	SS1001600515
	2000	15	0,5	100x10	3	18	MS1002000515	SS1002000515
	2500	15	0,5	100x10	3	18	MS1002500515	SS1002500515
	3000	15	0,5	100x10	3	18	MS1003000515	SS1003000515
S100D (Narrow Type)	1000	15	0,5	4x(100x10)	3	12	MD1001000515	SD1001000515
	1200	15	0,5	4x(100x10)	3	12	MD1001200515	SD1001200515
	1250	15	0,5	4x(100x10)	3	12	MD1001250515	SD1001250515
	1600	15	0,5	4x(100x10)	3	12	MD1001600515	SD1001600515
	2000	15	0,5	4x(100x10)	3	12	MD1002000515	SD1002000515
	2500	15	0,5	4x(100x10)	3	12	MD1002500515	SD1002500515
	3000	15	0,5	4x(100x10)	3	12	MD1003000515	SD1003000515
	3200	15	0,5	4x(100x10)	3	12	MD1003200515	SD1003200515
	4000	15	0,5	4x(100x10)	3	12	MD1004000515	SD1004000515
S125	1000	15	0,5	3x(125x10) 130x10	3	12	MS1251250515	SS1251250515
	1500	15	0,5	3x(125x10) 130x10	3	12	MS1251500515	SS1251500515
	1600	15	0,5	3x(125x10) 130x10	3	12	MS1251600515	SS1251600515
	2000	15	0,5	3x(125x10) 130x10	3	12	MS1252000515	SS1252000515
	2500	15	0,5	3x(125x10) 130x10	3	12	MS1252500515	SS1252500515
	3000	30	0,5	3x(125x10) 130x10	3	12	MS1253000530	SS1253000530
	4000	30	0,5	3x(125x10) 130x10	3	12	MS1254000530	SS1254000530
	5000	30	0,5	3x(125x10) 130x10	3	12	MS1255000530	SS1255000530

Split-Core Type Current Transformers

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S30A	200	1.5	1	2x(30x10)	3	18	SA3002001001
	250	2.5	1	2x(30x10)	3	18	SA3002501002
	300	2.5	1	2x(30x10)	3	18	SA3003001002
	400	3.75	1	2x(30x10)	3	18	SA3004001003
S60A	400	3,75	1	3x(60x10)	3	18	SA6004001003
	500	5	1	3x(60x10)	3	18	SA6005000505
	600	5	0,5	3x(60x10)	3	18	SA6006000505
	800	7,5	0,5	3x(60x10)	3	18	SA6008000507
	1000	10	0,5	3x(60x10)	3	18	SA6010000510
S120A	1200	10	0.5	4x(120x10)	3	18	SA12012000510
	1600	10	0.5	4x(120x10)	3	18	SA12016000510
	2000	15	0.5	4x(120x10)	3	18	SA12020000515
	2500	15	0.5	4x(120x10)	3	18	SA12025000515
	3000	15	0.5	4x(120x10)	3	18	SA12030000515
	4000	15	0.5	4x(120x10)	3	18	SA12040000515
S160A	800	10	0,5	4x (160x10)	1	3	SA16008000510
	1000	10	0,5	4x (160x10)	1	3	SA16010000510
	1200	10	0,5	4x (160x10)	1	3	SA16012000510
	1600	10	0,5	4x (160x10)	1	3	SA16016000510
	2000	15	0,5	4x (160x10)	1	3	SA16020000515
	2500	15	0,5	4x (160x10)	1	3	SA16025000515
	3000	15	0,5	4x (160x10)	1	3	SA16030000515
	4000	30	0,5	4x (160x10)	1	3	SA16040000530
	5000	30	0,5	4x (160x10)	1	3	SA16050000530
	6000	30	0,5	4x (160x10)	1	3	SA16060000530

Micro Type Current Transformers

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S20MC	30	1	3	Ø20	3	51	S20MC00300301
	40	1	3	Ø20	3	51	S20MC00400301
	50	1,5	1	Ø20	3	51	S20MC00500115
	60	1,5	1	Ø20	3	51	S20MC00600115
	75	1,5	1	Ø20	3	51	S20MC00750115
	80	1,5	1	Ø20	3	51	S20MC00800115
	100	2,5	1	Ø20	3	51	S20MC01000125
	125	2,5	1	Ø20	3	51	S20MC01250125
	150	2,5	1	Ø20	3	51	S20MC01500125
	200	2,5	1	Ø20	3	51	S20MC02000125
	250	5	1	Ø20	3	51	S20MC02500105
	300	5	1	Ø20	3	51	S20MC03000105

Current Transformers for Vertical Type Fuse Switch Disconnectors

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Sekonder Current	Min. Order Quantity	Pcs in a Box	Order Code
SDY20	160A	2,5VA	0,5cl	1A	3	51	SDY201600502
	250A	2,5VA	0,5cl	1A	3	51	SDY202500502
	400A	2,5VA	0,5cl	1A	3	51	SDY204000502
	630A	2,5VA	0,5cl	1A	3	51	SDY206300502

STA Type Summation Current Transformer

NEW PRODUCT

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
STA-2	5+5	10	0,5	SUMMATION	3	36	STA20510
STA-2	5+5	15	0,5	SUMMATION	3	36	STA20515
STA-3	5+5+5	10	0,5	SUMMATION	3	36	STA30510
STA-3	5+5+5	15	0,5	SUMMATION	3	36	STA30515

Determination of Current Transformer's Power

The below formula can be used to determine current transformer's power. The most important matter is; determined power of current transformer should not exceed from maximum load of transformer power and not less than 1/4 of rated power. Otherwise, It may cause fault measuring or create fault protection signals.

$P_S = P_A + P_K + P_T$

P_S : Total Secondary Power (VA)

P_A : Secondary rated Power (VA)

P_K : Dielectric Cable Loss (VA)

P_T : Contact Loss (considered 0.5VA)

P_K= (Isn2x2L) / S x 56

Isn = Secondary Rated Current (A)

L = Length of the cable on secondary side (m)

S = Section of copper cable (mm^2)

56 = Conductivity of Copper Cable (m/ohm x mm^2)

Distance Between Current Transformer and Load (meter)	Cable Loss (P_K) According to Secondary Cable Section (VA)			
	2.5mm^2	4mm^2	6mm^2	10mm^2
1m	0.36	0.22	0.15	0.09
2m	0.71	0.45	0.3	0.18
3m	1.07	0.67	0.45	0.27
4m	1.43	0.89	0.6	0.36
5m	1.78	1.12	0.74	0.44
6m	2.14	1.34	0.89	0.54
7m	2.5	1.56	1.04	0.63
8m	2.86	1.79	1.19	0.71
9m	3.21	2.01	1.34	0.8
10m	3.57	2.24	1.49	0.89

**You can use this formula to calculate cable loss which apart from above mentioned cable length.

Power of devices connected to current transformers (PA)

Device	Power (VA)
Ammeter	0,7 ... 1,5
Wattmeter	0,2 ... 5,0
CosØmeter	2,0 ... 6,0
Counters (active and reactives)	0,4 ... 1,0
Reactive power control relays	0,5 ... 1,0
Over current relays	0,2 ... 6,0
Reverse current relays	1,0 ... 2,0
Secondary Thermal Relays	7,2 ... 9,0

Current error and Phase shifting limits (According to IEC 60044-1, IEC 385 class 0.1-0.2-0.5-1)

Accuracy Class	Current (proportion) error ± percentage for the rated currents given below				± Phase shifting for rated current percentages given below							
					Minutes				Centi-radians			
	%5	%20	%100	%120	%5	%20	%100	%120	%5	%20	%100	%120
0,1	0,4	0,2	0,1	0,1	15	5	5	5	0,45	0,24	0,15	0,15
0,2	0,75	0,35	0,2	0,2	30	10	10	10	0,9	0,45	0,3	0,3
0,5	1,5	0,75	0,5	0,5	90	30	30	30	2,7	1,35	0,9	0,9
1,0	3,0	1,5	1,0	1,0	180	90	60	60	5,4	2,7	1,8	1,8

When current fault and phase shift at rated frequency varies between 1/1 and 1/4 of the secondary load, rated load, the values in the table should not be exceeded.

General informations

When the currents in different feeders need to be metered with single meter or instrument, a summation transformer can be used. Summation current transformers are designed for summation of several synchronous AC currents in same phase belt.
The secondary circuits of the main CTs are to be connected to the corresponding marked primary terminals of the summation CT. If the ratios of the main CTs are not equal, in order to obtain a correct vectorial sum, it is necessary to specify the ratio values of the individual main CTs.

In consumer installation, where there are more than one feeder, it is more economical to use summation metering and for this purpose, summation CT is required. 2 to 12 different currents of different feeders in the same phase can be summed. The standard primary & secondary currents are 5 or 1 amp.

TYPE	Primary (A)	Rated power (VA) max	
		Class 0,5	Class 1
STA-2	5+5/5	10	15
STA-3	5+5+5/5	10	15

Example:

Main C.T. : $\frac{300A}{5}$, $\frac{100A}{1}$, $\frac{100A}{5}$

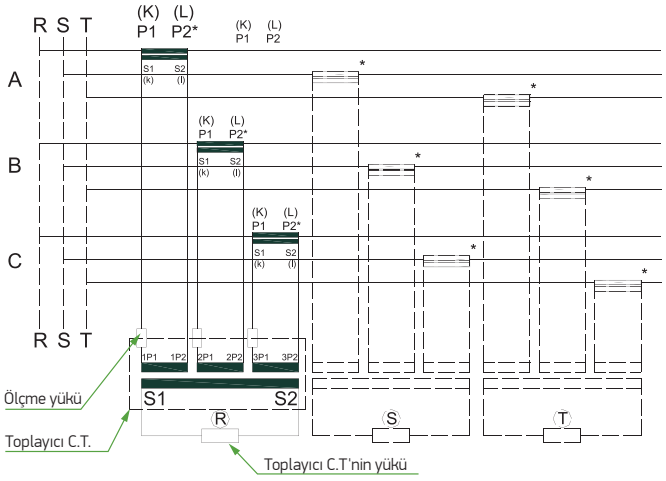
Summation C.T. : $\frac{5+1+5}{5}$ A

Result C.T. : $\frac{300+100+100}{5}$: 100 “Ratio”

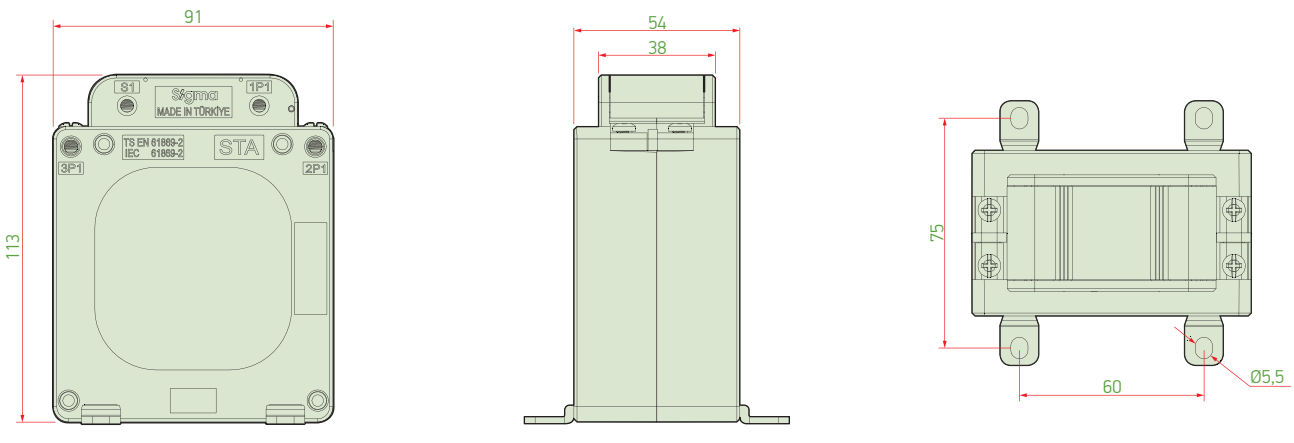
Connection diagram of summation current transformer:

(Type STA-3) One phase (R) of the three-phase A, B, C groups are shown in the picture

* Main current transformer



STA2 -STA3



S20M-S20ML Series Current Transformers

Product Identification

Compact type current transformers are suitable for primary current from 40A to 150A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Technical Specifications

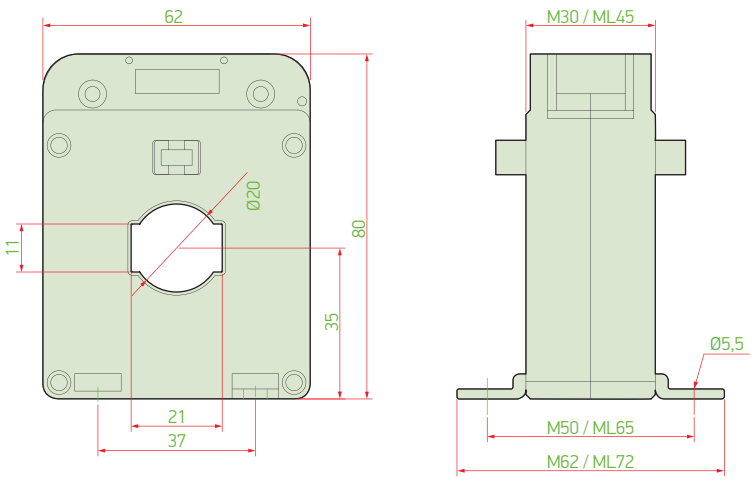
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	3,75 - 20VA
Rated primary current	From 40A to 150A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S20M	60	1,5	1	20x10	-
	75	1,5	1	20x10	-
	80	2,5	1	20x10	-
	100	2,5	1	20x10	-
	125	2,5	1	20x10	-
S20ML	40	1,5	1	20x10	-
	50	2,5	1	20x10	-
	60	2,5	1	20x10	-
	75	2,5	1	20x10	-
	80	2,5	1	20x10	-
	100	5	1	20x10	-
	125	5	1	20x10	-
	150	5	1	20x10	-

Dimensions

S20M-S20ML



S30-S30L Series Current Transformer

Product Identification

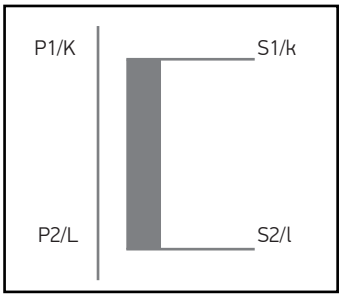
Compact type current transformers are suitable for primary current from 75A to 200A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

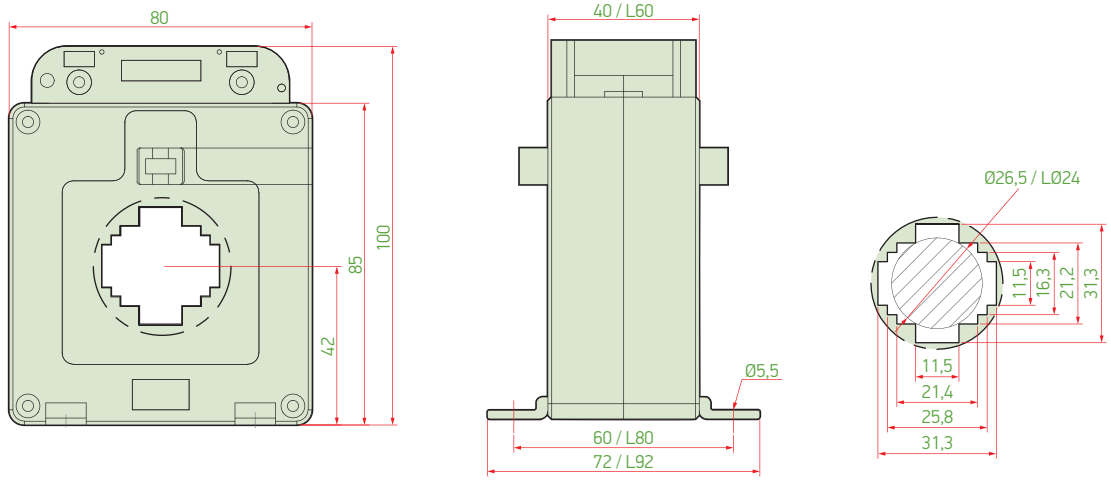
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	2,5 - 20VA
Rated primary current	From 50A to 600A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S30	75	2,5	1	30x10	-
	100	5	1	30x10	-
	150	5	0,5	30x10	-
	200	10	0,5	30x10	✓
S30L	100	5	0,5	30x10	-
	125	5	0,5	30x10	-
	150	10	0,5	30x10	✓

Dimensions

S30-S30L



S25B Series Bar Type Current Transformer

Product Identification

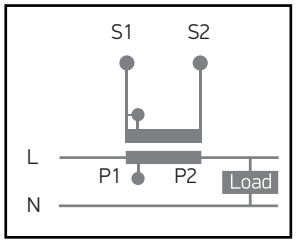
Compact type current transformers are suitable for primary current from 20A to 150A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

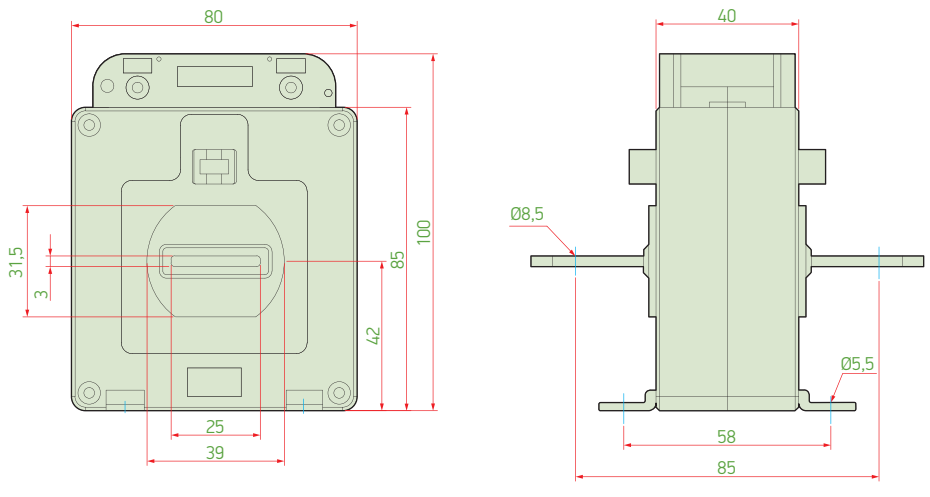
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	3,75 - 20VA
Rated primary current	From 20A to 150A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S25B	20	10	0,5	with bus bar	✓
	25	10	0,5	with bus bar	✓
	30	10	0,5	with bus bar	✓
	40	10	0,5	with bus bar	✓
	50	10	0,5	with bus bar	✓
	60	10	0,5	with bus bar	✓
	75	10	0,5	with bus bar	✓
	100	10	0,5	with bus bar	✓
	125	10	0,5	with bus bar	✓
	150	10	0,5	with bus bar	✓

Dimensions

S25B



S30M-S30ML Series Current Transformer

Product Identification

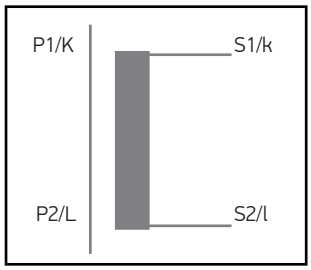
Compact type current transformers are suitable for primary current from 50A to 600A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

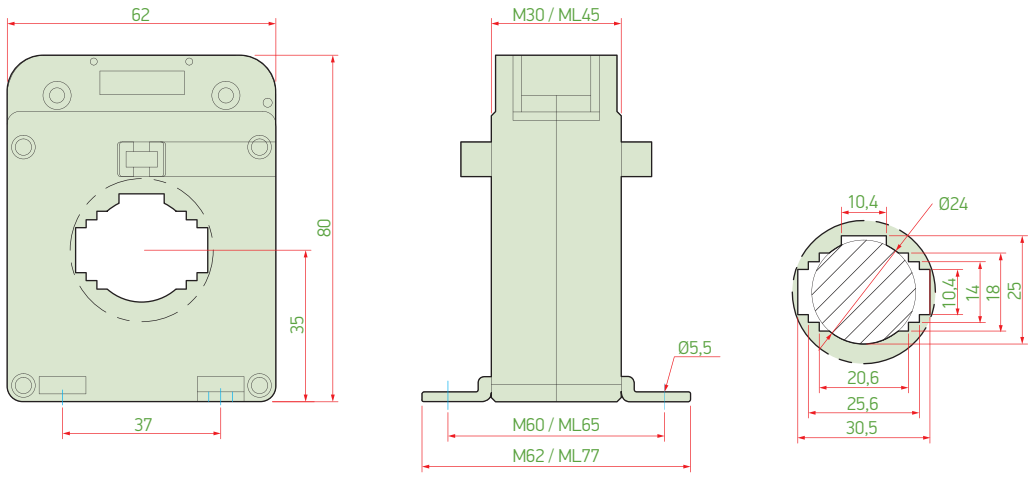
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5-1-3
Burden	1,25 - 10VA
Rated primary current	From 75A to 200A
Rated secondary current	5A

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S30M	100	1,5	0,5	30x10	-
	125	2,5	0,5	30x10	-
	150	2,5	0,5	30x10	-
	200	2,5	0,5	30x10	-
	250	5	0,5	30x10	-
S30ML	50	1,5	1	30x10	-
	60	1,5	1	30x10	-
	75	1,5	1	30x10	-
	100	2,5	1	30x10	-
	150	5	0,5	30x10	-
	200	5	0,5	30x10	-
	250	10	0,5	30x10	✓
	300	10	0,5	30x10	✓
	400	10	0,5	30x10	✓
	500	10	0,5	30x10	✓
	600	10	0,5	30x10	✓

Note: Additional information is provided upon request.

Dimensions

S30M-S30ML



S40 Series Current Transformer

Product Identification

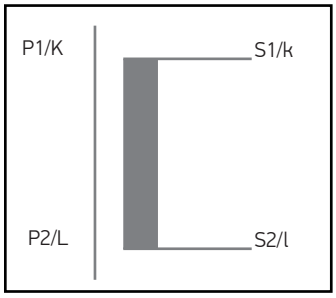
Compact type current transformers are suitable for primary current from 300A to 600A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

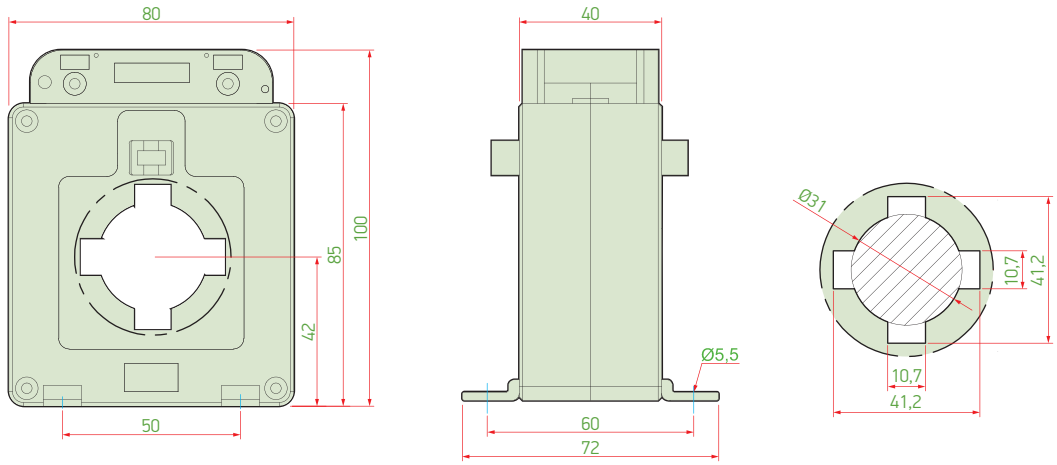
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	2.5 - 30VA
Rated primary current	From 300A to 600A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S40	300	10	0,5	40x10	✓
	400	10	0,5	40x10	✓
	500	10	0,5	40x10	✓
	600	10	0,5	40x10	✓

Dimensions

S40



S50 Series Current Transformer

Product Identification

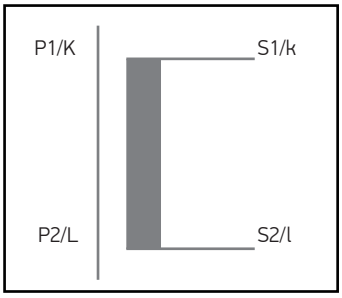
A range of compact low cost moulded case current transformers suitable for primary currents from 500A to 1000A with built in sealable terminal covers.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

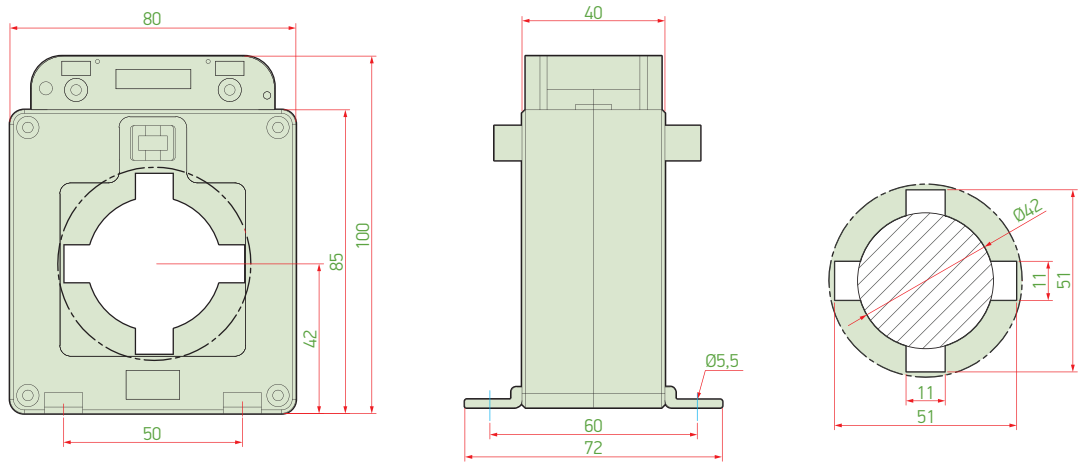
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	2,5 - 30VA
Rated primary current	From 500A to 1000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S50	500	10	0,5	50x10	-
	600	10	0,5	50x10	-
	750	10	0,5	50x10	-
	800	15	0,5	50x10	-
	1000	15	0,5	50x10	-

Dimensions

S50



S60 Series Current Transformer

Product Identification

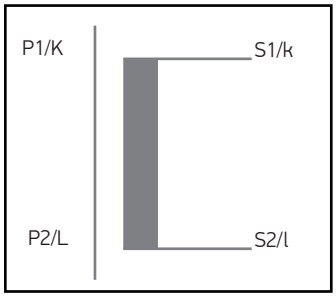
Compact type current transformers are suitable for primary current from 750A to 1000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

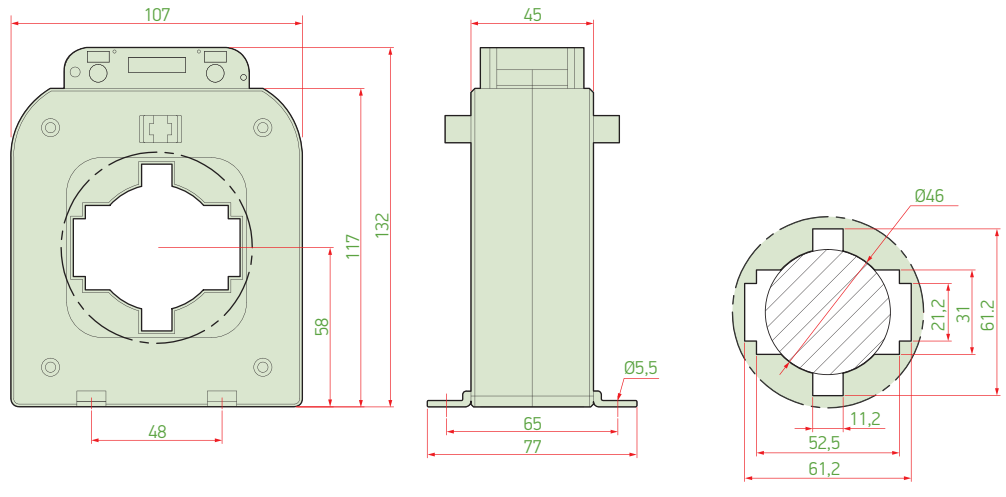
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	3,75 - 30VA
Rated primary current	From 750A to 1000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S60	750	15	0,5	60x20	✓
	800	15	0,5	60x20	✓
	1000	15	0,5	60x20	✓

Dimensions

S60



S60D Series Current Transformer

Product Identification

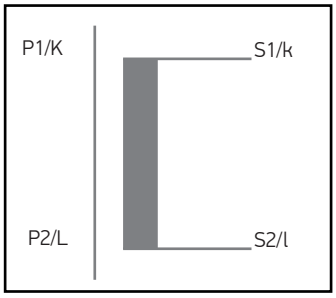
Compact type current transformers are suitable for primary current from 750A to 1600A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

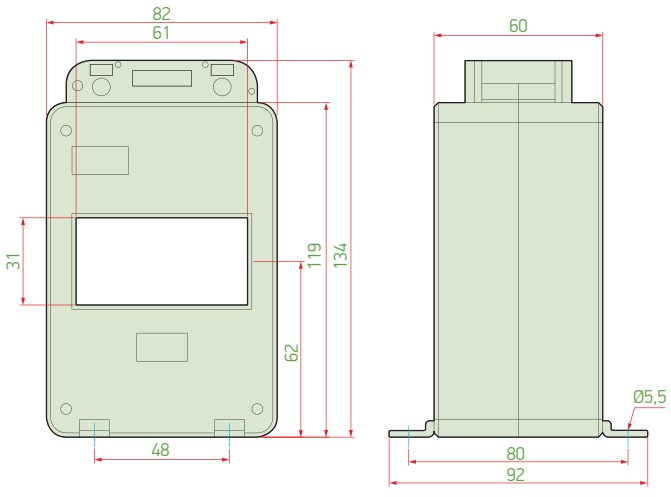
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5-1-3
Burden	5 - 30VA
Rated primary current	From 750A to 1600A
Rated secondary current	5A

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S60D (Narrow Type)	750	10	0,5	60x30	✓
	800	10	0,5	60x30	✓
	1000	10	0,5	60x30	✓
	1200	15	0,5	60x30	✓
	1250	15	0,5	60x30	✓
	1500	15	0,5	60x30	✓
	1600	15	0,5	60x30	✓

Note: Additional information is provided upon request.

Dimensions

S60D



S80 Series Current Transformer

Product Identification

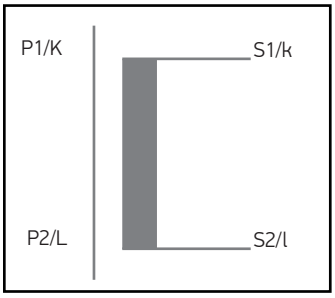
Compact type current transformers are suitable for primary current from 750A to 2000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

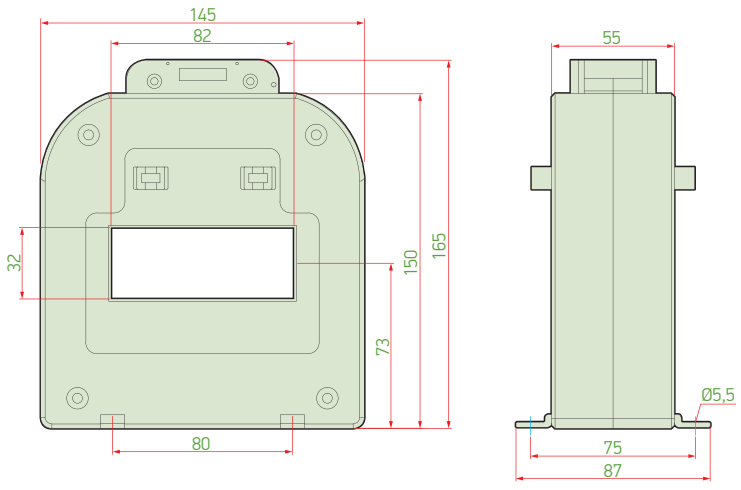
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	2,5 - 30VA
Rated primary current	From 750A to 2000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S80	750	10	0,5	80x30	-
	800	10	0,5	80x30	-
	1000	15	0,5	80x30	-
	1200	15	0,5	80x30	-
	1250	15	0,5	80x30	-
	1500	15	0,5	80x30	-
	1600	15	0,5	80x30	-
	2000	15	0,5	80x30	-

Dimensions

S80



S100 Series Current Transformer

Product Identification

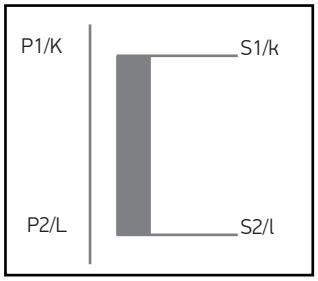
Compact type current transformers are applicable for primary current from 1000A to 3000A and sealable terminal cover is available.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

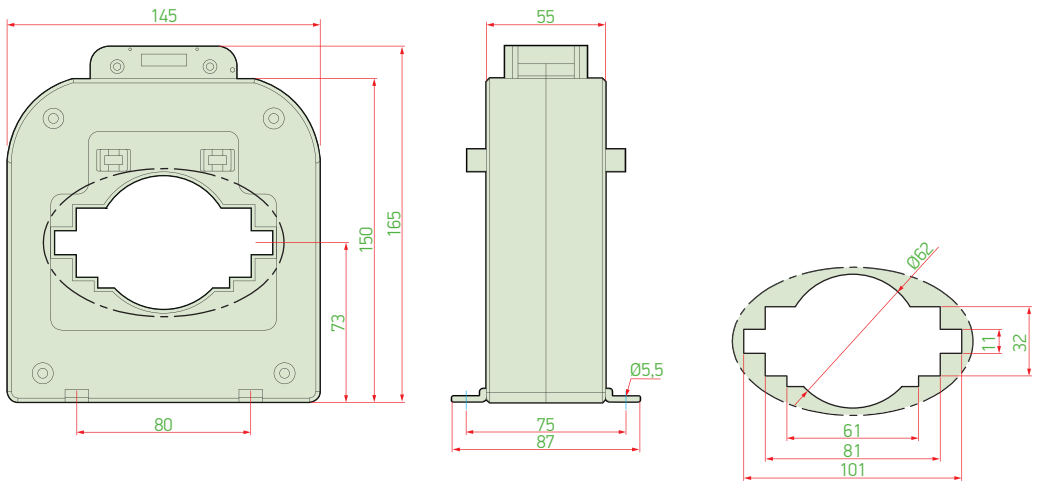
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	2,5 - 30VA
Rated primary current	From 1000A to 3000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S100	1000	15	0,5	100x10	✓
	1200	15	0,5	100x10	✓
	1250	15	0,5	100x10	✓
	1500	15	0,5	100x10	✓
	1600	15	0,5	100x10	✓
	2000	15	0,5	100x10	✓
	2500	15	0,5	100x10	✓
	3000	15	0,5	100x10	✓

Dimensions

S100



S100D Series Current Transformer

Product Identification

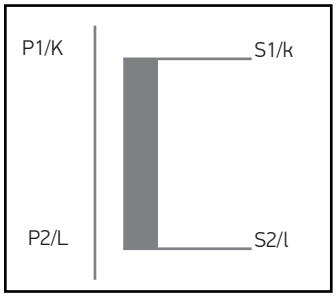
Compact type current transformers are suitable for primary current from 1000A to 4000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

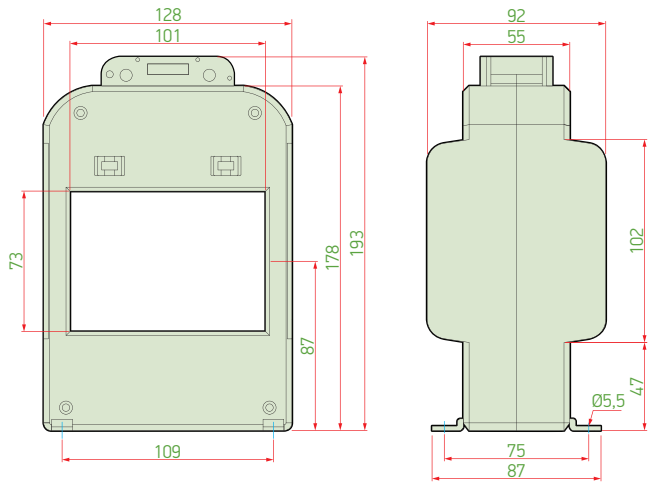
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA 1 sn
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5-1-3
Burden	10 - 30VA
Rated primary current	From 1000A to 4000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S100D (Narrow Type)	1000	15	0,5	4x(100x10)	✓
	1200	15	0,5	4x(100x10)	✓
	1250	15	0,5	4x(100x10)	✓
	1600	15	0,5	4x(100x10)	✓
	2000	15	0,5	4x(100x10)	✓
	2500	15	0,5	4x(100x10)	✓
	3000	15	0,5	4x(100x10)	✓
	3200	15	0,5	4x(100x10)	✓
	4000	15	0,5	4x(100x10)	✓

Dimensions

S100D



S125 Series Current Transformer

Product Identification

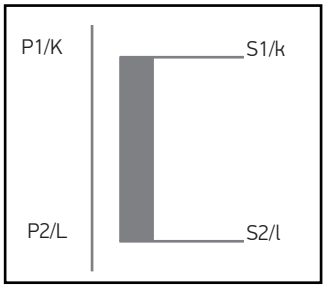
Compact type current transformers are suitable for primary current from 1000A to 5000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

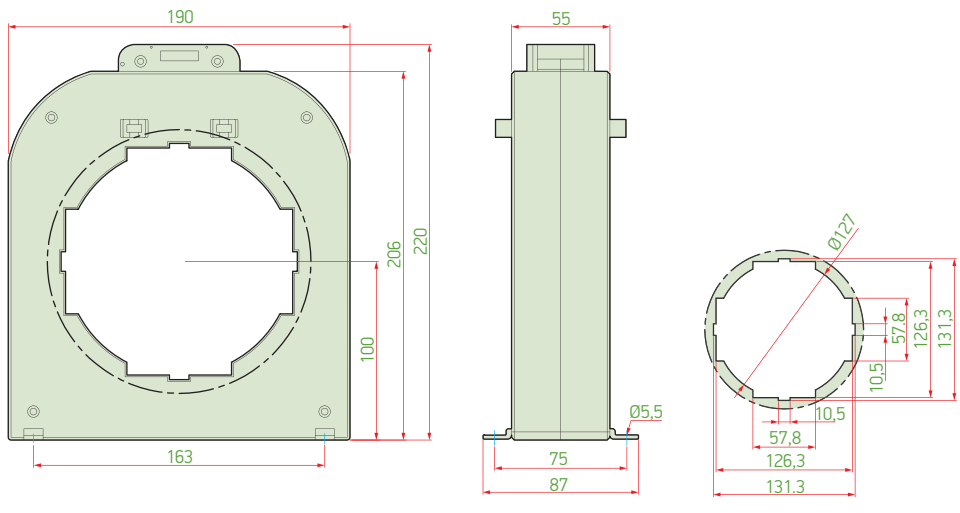
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA 1 sn
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.2s-0.2-0.5-1-3
Burden	3,75 - 30VA
Rated primary current	From 1000A to 5000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S125	1000	15	0,5	3x(125x10) 130x10	✓
	1500	15	0,5	3x(125x10) 130x10	✓
	1600	15	0,5	3x(125x10) 130x10	✓
	2000	15	0,5	3x(125x10) 130x10	✓
	2500	15	0,5	3x(125x10) 130x10	✓
	3000	30	0,5	3x(125x10) 130x10	✓
	4000	30	0,5	3x(125x10) 130x10	✓
	5000	30	0,5	3x(125x10) 130x10	✓

Dimensions

S125



S30A Series Current Transformer (Split-Core Type Current Transformers)

Product Identification

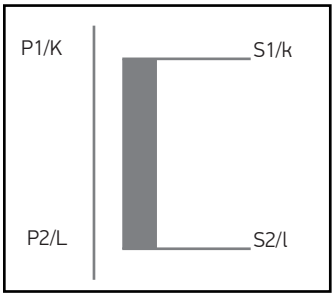
Compact type current transformers are suitable for primary current from 200A to 400A and they have sealable terminal cover

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

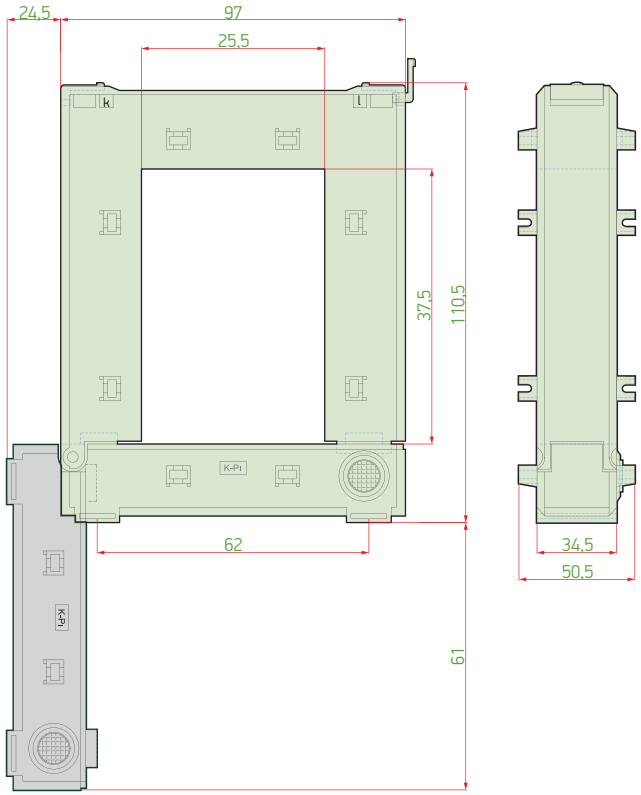
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	1
Burden	1,5 - 3,75VA
Rated primary current	From 200A to 400A
Rated secondary current	5A

Note: Additional information is provided upon request.

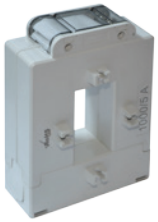
Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S30A	200	1.5	1	2x(30x10)	-
	250	2.5	1	2x(30x10)	-
	300	2.5	1	2x(30x10)	-
	400	3.75	1	2x(30x10)	-

Dimensions

S30A



S60A Series Current Transformer (Split-Core Type Current Transformers)



Product Identification

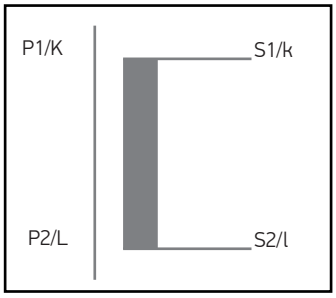
Compact type current transformers are suitable for primary current from 400A to 1000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



Technical Specifications

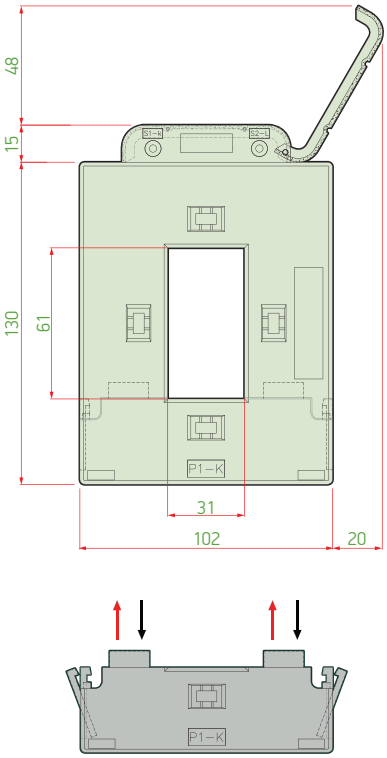
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 10
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5-1-3
Burden	3,75 - 15VA
Rated primary current	From 400A to 1000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S60A	400	3,75	1	3x(60x10)	-
	500	5	1	3x(60x10)	-
	600	5	0,5	3x(60x10)	-
	800	7,5	0,5	3x(60x10)	-
	1000	10	0,5	3x(60x10)	-

Dimensions

S60A



S120A Series Current Transformer (Split-Core Type Current Transformers)

Product Identification

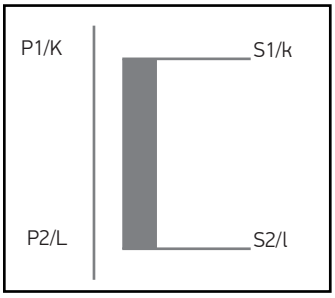
Compact type current transformers are suitable for primary current from 1200A to 4000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Application Diagram



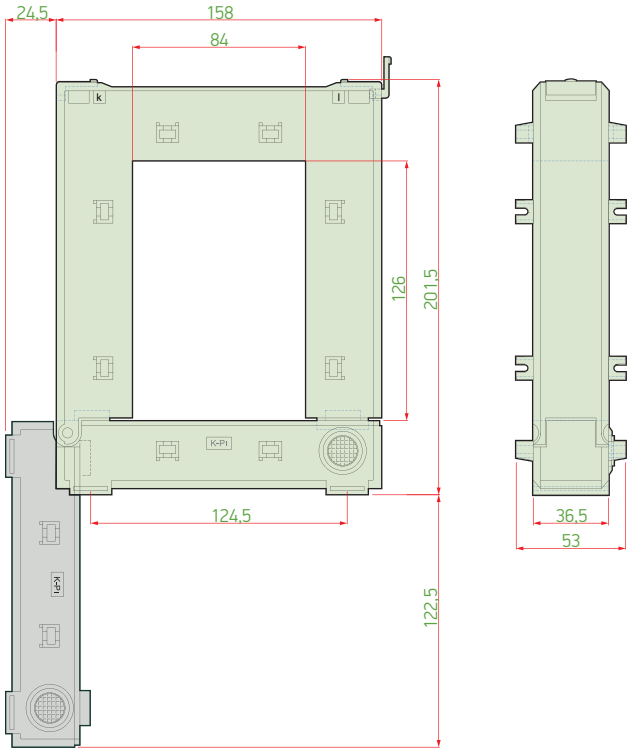
Technical Specifications

Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA /1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5
Burden	10 - 15VA
Rated primary current	From 1200A to 4000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Dimensions

S120A



Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S120A	1200	10	0.5	4x(120x10)	-
	1600	10	0.5	4x(120x10)	-
	2000	15	0.5	4x(120x10)	-
	2500	15	0.5	4x(120x10)	-
	3000	15	0.5	4x(120x10)	-
	4000	15	0.5	4x(120x10)	-

S160A Series Current Transformer (Split-Core Type Current Transformers)

Product Identification

Compact type current transformers are suitable for primary current from 800A to 6000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Technical Specifications

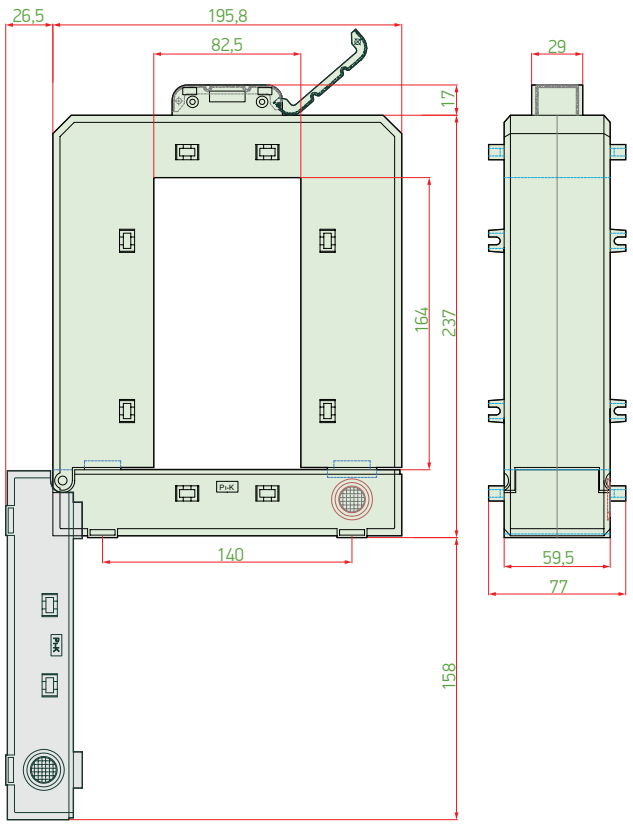
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA/1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5
Burden	10 - 15VA
Rated primary current	From 800A to 6000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
S160A	800	10	0,5	4x (160x10)	-
	1000	10	0,5	4x (160x10)	-
	1200	10	0,5	4x (160x10)	-
	1600	10	0,5	4x (160x10)	-
	2000	15	0,5	4x (160x10)	-
	2500	15	0,5	4x (160x10)	-
	3000	15	0,5	4x (160x10)	-
	4000	30	0,5	4x (160x10)	-
	5000	30	0,5	4x (160x10)	-
	6000	30	0,5	4x (160x10)	-

Dimensions

S160A



SMT30 Round Type Current Transformer

Product Identification

Compact type current transformers are suitable for primary current from 50A to 300A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Technical Specifications

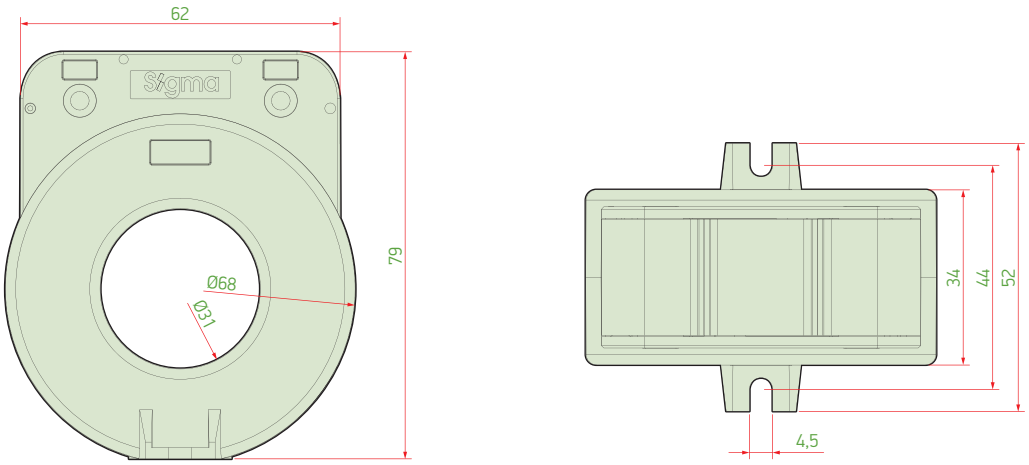
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5-1-3
Burden	1,5 - 5VA
Rated primary current	From 50A to 300A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
SMT30	50	1,5	3	30	-
	60	2,5	3	30	-
	75	2,5	3	30	-
	100	2,5	3	30	-
	125	2,5	3	30	-
	150	2,5	3	30	-
	200	2,5	3	30	-
	250	2,5	0,5	30	-
	300	5	0,5	30	-

Dimensions

SMT30



SMT40 Round Type Current Transformer

Product Identification

Compact type current transformers are suitable for primary current from 100A to 600A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Technical Specifications

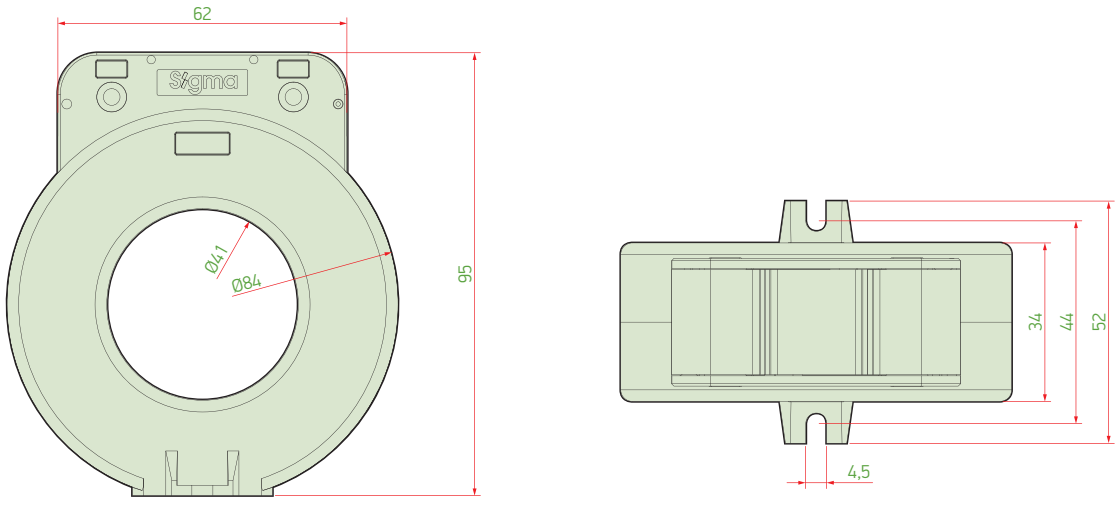
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5-1-3
Burden	2,5 - 5VA
Rated primary current	From 100A to 600A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
SMT40	100	2,5	3	40	-
	150	2,5	3	40	-
	200	2,5	3	40	-
	400	5	0,5	40	-
	500	5	0,5	40	-
	600	5	0,5	40	-

Dimensions

SMT40



SMT70 Round Type Current Transformer

Product Identification

Compact type current transformers are suitable for primary current from 800A to 1500A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Technical Specifications

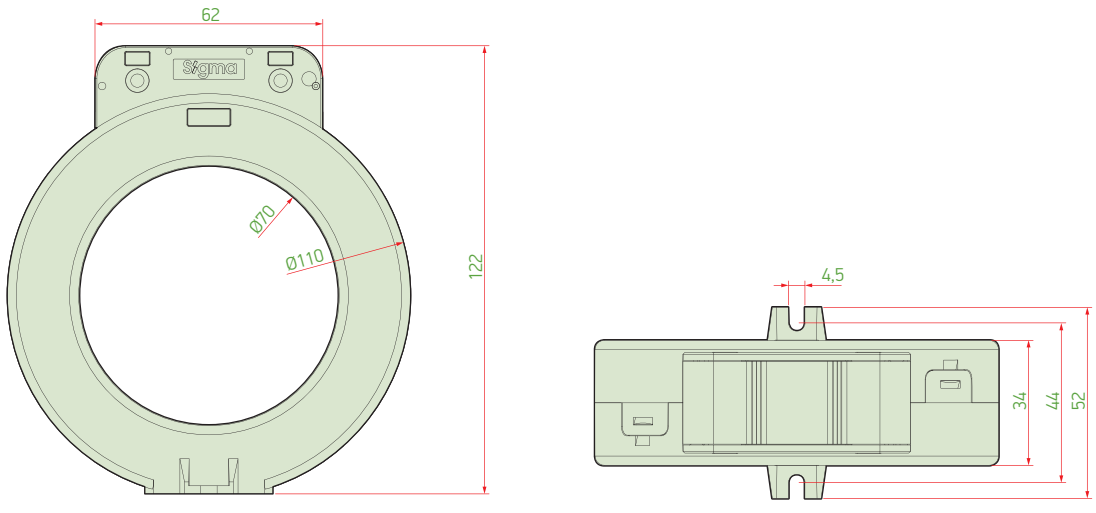
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	40 kA / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5
Burden	5 - 10VA
Rated primary current	From 800A to 1500A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
SMT70	800	5	0,5	70	-
	1000	10	0,5	70	-
	1200	10	0,5	70	-
	1250	10	0,5	70	-
	1500	10	0,5	70	-

Dimensions

SMT70



SMT100 Round Type Current Transformer

Product Identification

Compact type current transformers are suitable for primary current from 800A to 2500A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Technical Specifications

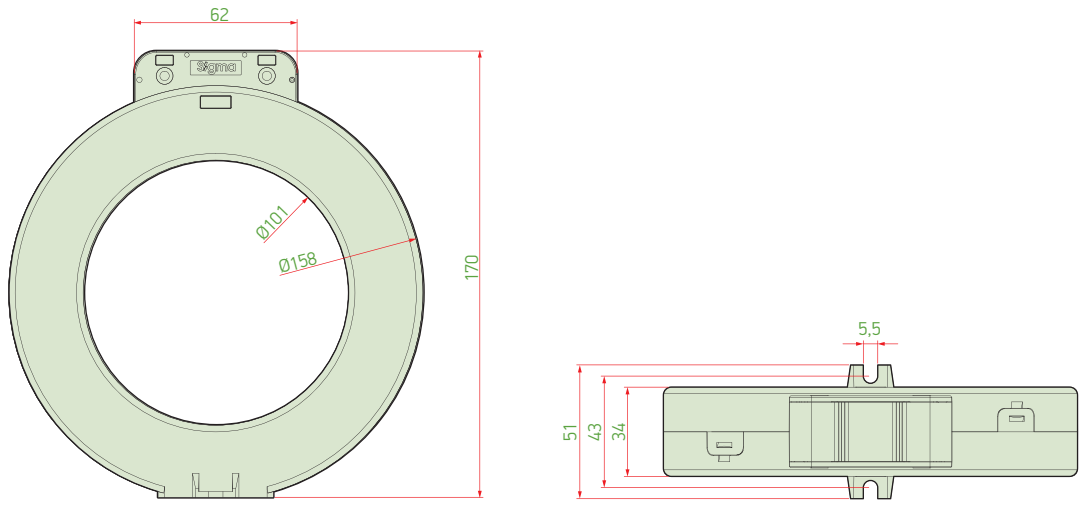
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	40 kA / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5
Burden	5 - 15VA
Rated primary current	From 800A to 2500A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
SMT100	800	5	0,5	100	-
	1000	5	0,5	100	-
	1250	10	0,5	100	-
	1600	15	0,5	100	-
	2000	15	0,5	100	-
	2500	15	0,5	100	-

Dimensions

SMT100



SMT125 Round Type Current Transformer

Product Identification

Compact type current transformers are suitable for primary current from 2000A to 5000A and they have sealable terminal cover.

Application

Fit for measurement applications in AC power systems.

For measurement and application in low voltage panels.

Technical Specifications

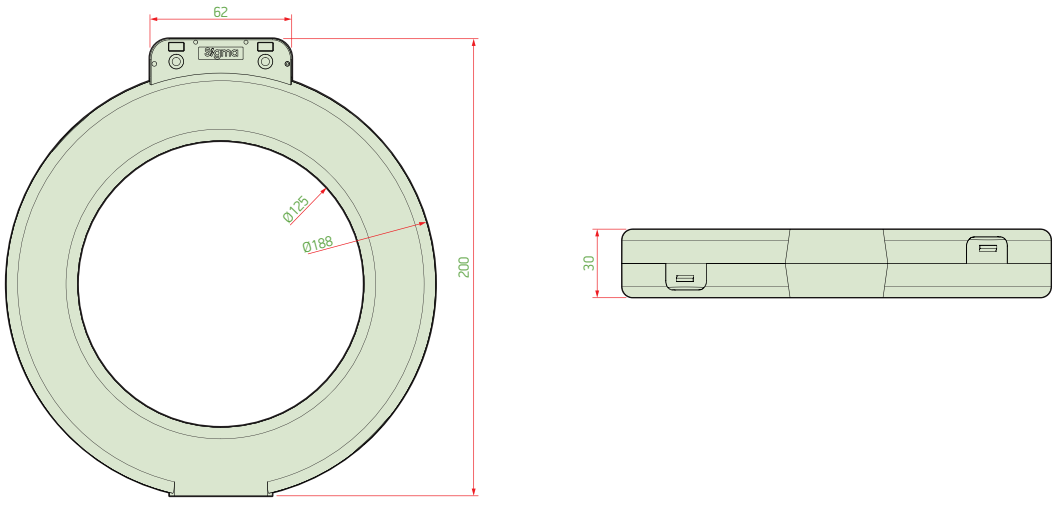
Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	40 kA / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5
Burden	10 - 30VA
Rated primary current	From 2000A to 5000A
Rated secondary current	5A

Note: Additional information is provided upon request.

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Sealed Type
SMT125	2000	15	0,5	125	-
	2500	15	0,5	125	-
	3000	15	0,5	125	-
	4000	15	0,5	125	-
	5000	30	0,5	125	-

Dimensions

SMT125



S20MCS - S20MD Series Current Transformer

Product Identification

S20MCS type current transformers is available 160A, S20MD type current transformers are available 250, 400, 630A primary current rates.They can be sealed if required. Nickel coated brass is used for secondary transformer outputs.

Application

It is used for energy measurement with Sigma Vertical Type fuse switch disconnectors. It is suitable for measurement purposes in low voltage panels.

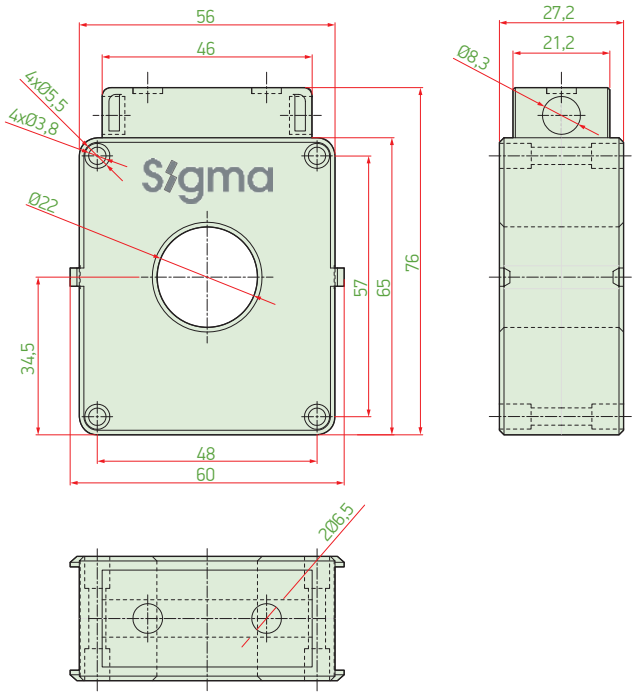
Technical Specifications

Standard	IEC 61869-2
Rated operating voltage (Un)	720V
Rated frequency	50/60Hz
Operating ambient temperature	-20°C ... 75°C
Storage temperature	-50°C ... 80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sn.
Rated dynamic current (Idyn)	2.5 x Ith / 1 period
Rated power frequency withstand voltage	3kV (50 Hz) /1 min.
Thermal class of insulation	E (120°C max.)
Degree of protection	IP20
Instrument security factor	< 5
Secondary terminals	Nickel plated brass material
Recommended tightening torque	For 2 Nm secondary terminal screws
Accuracy class	0.5
Burden	2,5VA
Rated primary current	160A-250A-400A-630A
Rated secondary current	1A

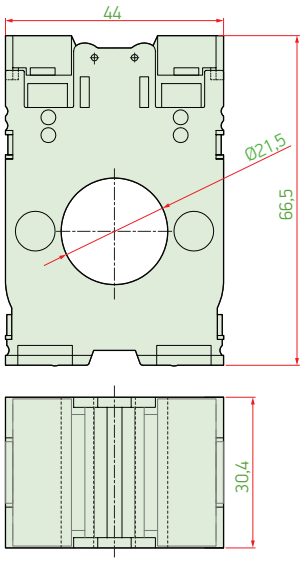
Note: Additional information is provided upon request.

Dimensions

S20MD



S20MCS



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DIGITAL MEASUREMENT **DEVICES**

Digital Measurement Devices measure the electrical parameters in your facility with high precision and reliability.

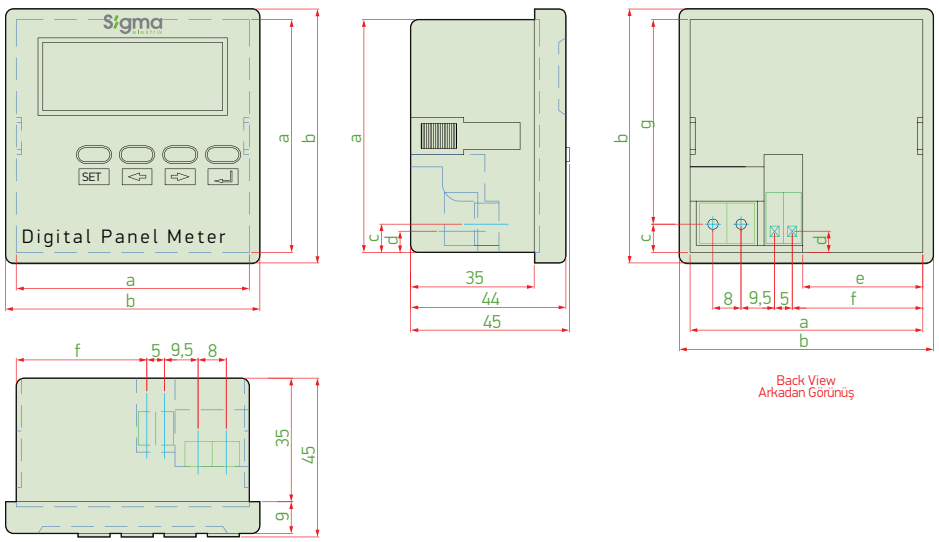
- ⇨ Class 0.5 measurement accuracy
- ⇨ Compact type design
- ⇨ Variety of sizes (72x72mm, 96x96mm)
- ⇨ CATIII degree of protection (model based)
- ⇨ Communication via RS485 (model based)

Digital Measurement Devices

	Ammeters	Voltmeters
Operating Voltage (Un)	220V AC	220V AC
Operating Voltage Range	(0.9-1.1) x Un	(0.9-1.1) x Un
Frequency	50/60 Hz	50/60 Hz
Measuring range	0-5000A~	0-600V~
Mounting class	CAT III	CAT III
Accuracy	Class 0.5	Class 0.5
Ambient Air Temperature	-5°C.:+50°C	-5°C.:+50°C

Type Code	Description	Diameter (mm)	Accuracy Class	Min. Order Quantity	Pcs in a Box	Order Code
SD 72A	Ammeter with Current Transformer 1-5000/5A	72x72	Cl 0.5	1	72	SD72A-5000
SD 96A	Ammeter with Current Transformer 1-5000/5A	96x96	Cl 0.5	1	72	SD96A-5000
SD 72V	Voltmeter 0-600V AC	72x72	Cl 0.5	1	72	SD72V-0600
SD 96V	Voltmeter 0-600V AC	96x96	Cl 0.5	1	72	SD96V-0600
SD 96M	I-V-Hz Multimeter	96x96	Cl 0.5	1	27	SD96M
SD 96MP	Multifunctional Powermeter (with RS485)	96x96	Cl 0.5	1	27	SD96MP
SD 96MAC	Multifunctional Network Analyser (with harmonic measurement)	96x96	Cl 0.5	1	27	SD96MAC
SD8MAC	DIN Rail Type Multifunctional Network Analyser (with harmonic measurement)	DIN type	Cl 0.5	1	27	SD8MAC

Dimensions



	a	b	c	d	e	f	g
SD 72A	66	72	8	6	34	37	58
SD 96A	90	96	20	28	45	48	70
SD 72V	66	72	8	6	34	37	58
SD 96V	90	96	20	28	45	48	70

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RELAYS

Relay is a switch model that can control the circuit electrically. The main reason why relays working with an electromechanical system are used in electrical and electronic circuits is that they can control high currents with low currents. Relays are generally used in controlling the circuits.

- ⇨ Level Control Relay: In monitoring environments such as tanks, water tanks and wells containing conductive liquids
- ⇨ 3-Phase Voltage Relay: In protecting devices and motors from overvoltage and undervoltage
- ⇨ Asymmetrical Cycle Time Relay: General room ventilation, periodic dehumidification, lighting control, circulation pumps, signage, etc.
- ⇨ Star-Delta Delayed Time Relay: Providing the required time interval during the transition from star connection to delta connection
- ⇨ Single Function Time Relay: It is used in applications where function and time requirements are known.
- ⇨ Thermistor Motor Protection Relay: To protect against thermal overload of motors caused by high switching frequency, heavy duty starting, phase failure on one phase, bad cooling, high ambient temperature.

Relays

Type	Description	Explanation	Supply Voltage	Order Code
SRV8-01	Voltage Relay	Over/High Voltage	230V AC	SRV801230
SRV8-03	Voltage Relay	Phase sequence and phase failure protection	220-460V	SRV803460
SRV8-05	Voltage Relay	Over voltage Under voltage Asymmetry time delay Phase sequence Phase failure	220-460V	SRV805460
SRT8-A30S	Single - Function Time Relay	0.1-30 Second delay ON	230V AC	SRT8A30S
SRT8-A60S	Single - Function Time Relay	0.1-60 Second delay ON	230V AC	SRT8A60S
SRT8-A10D	Multi-Function Time Relay	0.1 s - 10 days, ON-OFF	230V AC	SRT8A10D
SRT8-M1	Multi-Function Time Relay	1xSPDT	AC/DC 24V~240V	SRT8-M1
SRT8-M2	Multi-Function Time Relay	2xSPDT	AC/DC 24V~240V	SRT8-M2
SRT8-STD	Delay On Star/Delta Relay	Range of time delay t1:0.1s -10min, Switch time t2:0.1s-1s	AC/DC 24V~240V	SRT8ST240
SRT8-STA	Delay On Star/Delta Relay	Range of time delay t1:0.1s -10min, Switch time t2:0.1s-1s	230V AC	SRT8STA
SRT8-S1	Asymmetric Cycler Relay	0.1 s - 100 days	AC/DC 24V~240V	SRTSS1240
SRL8-01	Level Control Relay	2 Level control mode	AC/DC 24V~240V	SRL801240
SRP8-01 NEW PRODUCT	Thermistor motor protection relay	1xSPDT	AC/DC 24V~240V	SRP8-01
SRP8-02	Thermistor motor protection relay	2xSPDT	AC/DC 24V~240V	SRP8-02


SRV8-05


SRT8-A30S


SRT8-A60S


SRT8-A10D


SRP8-01


SRT8-M2


SRT8-STD


SRT8-STA


SRL8-LS


SRP8-02

Analogue Time Switches

Type	Description	Explanation	Supply Voltage	Pcs in a Box	Order Code
STS8-01	Analogue Time Switch	100 hours reserve time (with supercapacitor)	230V AC	80	STS8-01
STS8-01C	Analogue Time Switch	72 hours reserve time (wit battery)	230V AC	80	STS8-01C

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COMPENSATION **PRODUCTS**

Reactive penalty is a type of penalty system applied when the reactive power generated in electricity consumption exceeds a certain limit. Compensation is a method used to balance reactive power consumption and correct the power factor.

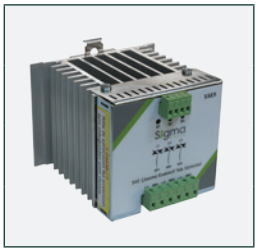
Thanks to compensation products, businesses can;

- ⇨ Prevent from penalty payments by minimizing the reactive energy drawn from the network
- ⇨ Reduce in electrical losses and voltage drops
- ⇨ Make energy systems work more efficiently
- ⇨ Ensure energy efficiency by reducing energy losses

Power Factor Controllers

Type Code	Min. current limit (mA)	Steps	Shunt reactor	Mobile remote monitoring	Remote parameter adjustment	Up to 63th harmonic	Up to 31st harmonic	Up to 11th harmonic	Automatic setup	Password protection	Internal temperature measurement	RS485	Display type	Real time clock	Protection of steps lifetime	Automatic correction of connection faults	SVC / TCR output	Thristor switch controller	Energy Meters	Pcs in a Box	Order Code
SR12E NEW PRODUCT	20	12	+	-	-	-	-	+	+	+	-	-	2x16LCD	+	+	+	-	-	+	6	SR12E
SR12SVC	20	12	+	-	-	-	-	+	+	+	-	-	2x16LCD	+	+	+	+	-	+	6	SR12SVC
SR15K	20	15	+	-	-	-	+	-	+	+	-	-	128x64LCD	-	+	+	-	-	+	6	SR15K
SR15SVC	5	12	+	-	-	+	-	-	+	+	+	-	240x160LCD	+	+	+	+	-	+	6	SR15SVC
SR15SVC-H	5	12	+	+	+	+	-	-	+	+	+	+	240x160LCD	+	+	+	+	-	+	6	SR15SVC-H
SR27SVC-H	5	24	+	+	+	+	-	-	+	+	+	+	240x160LCD	+	+	+	+	-	+	6	SR27SVC-H

Not: Please contact our related sales manager for power factor controllers which makes measurement through medium voltage.



Inductive Load Drivers

Type Code	Power (KVar)	Driving capability of shunt reactor	Operating Voltage (V)	Nominal current of MCB (A)	Thermal protection	Switching Voltage	Response time	Dimensions	Order Code
SSE 5	3x1,66 kVAr	3- Single Phase	230V	16	☒	5V DC	20 ms	120x90x120	SSE5
SSE 10	3x3,66 kVAr	3- Single Phase	230V	25	☒	5V DC	20 ms	75x125x125	SSE10
SSE 20	3x6,66 kVAr	3- Single Phase	230V	63	☒	5V DC	20 ms	130x190x135	SSE20
SSE 50	3x16,66 kVAr	3- Single Phase	230V	100	☒	5V DC	20 ms	189x198x129	SSE50

Single Phase Shunt Reactors

Type Code	Power (KVar)	Voltage (V)	I rms (A)	Dimensions (mm)	Order Code
SESRM	1,66	230	7,22	150x130x125	SESRM-1,66
	3,33	230	14,48	192x160x144	SESRM-3,33
	6,66	230	28,96	195x290x160	SESRM-6,66
	16,66		Ask for information		SESRM-16,66

Single Phase Shunt Reactors

Type Code	Power (KVar)	Voltage (V)	I rms (A)	Dimensions (mm)	Order Code
SESRM	0,25	230	1,09	120x100x95	SESRM-0,25
	0,5	230	2,17	120x100x95	SESRM-0,5
	1	230	4,35	150x130x125	SESRM-1
	1,5	230	6,52	150x130x125	SESRM-1,5
	1,66	230	7,22	150x130x125	SESRM-1,66
	2,5	230	10,87	192x160x144	SESRM-2,5
	3	230	13,04	192x160x144	SESRM-3
	3,33	230	14,48	192x160x144	SESRM-3,33
	5	230	21,74	195x300x155	SESRM-5
	6,66	230	28,96	195x290x160	SESRM-6,66
	7,5	230	32,61	195x365x155	SESRM-7,5
	10	230	43,48	235x365x185	SESRM-10

Three Phase Shunt Reactors

Type Code	Power (KVar)	Voltage (V)	I rms (A)	Dimensions (mm)	Order Code
SESRT	0,25	400	0,36	200x180x85	SESRT-0,25
	0,5	400	0,72	200x180x85	SESRT-0,5
	1	400	1,44	200x180x120	SESRT-1
	1,5	400	2,17	200x180x120	SESRT-1,5
	2,5	400	3,62	240x270x140	SESRT-2,5
	5	400	7,24	290x320x150	SESRT-5
	7,5	400	10,86	190x320x160	SESRT-7,5
	10	400	14,49	360x375x160	SESRT-10
	15	400	21,73	360x375x170	SESRT-15
	20	400	28,98	415x400x175	SESRT-20
	25	400	36,23	415x400x220	SESRT-25
	30	400	43,47	415x400x220	SESRT-30
	40	400	57,97	520x480x280	SESRT-40
	50	400	72,46	570x530x300	SESRT-50

230V Single Phase Cylindrical Type Capacitor

Type Code	kVAr@ 230V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
1SK230	0,25	Ø35x55	3	10	1SK230-0.25
	0,5	Ø45x65	3	10	1SK230-0.5
	1	Ø50x75	3	7	1SK230-1
	1,5	Ø50x100	3	10	1SK230-1.5
	2,5	Ø60x100	3	10	1SK230-2.5
	5	Ø76x145	3	7	1SK230-5

400V Three Phase Cylindrical Type Capacitor

Type Code	kVAr@ 400V, 50 Hz	kVAr@ 415V, 50 Hz	kVAr@ 440V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
3SK400	0,5	0,54	0,61	Ø76x90	3	8	3SK400-0.5
	1	1,08	1,21	Ø76x90	3	8	3SK400-1
	1,5	1,61	1,81	Ø76x90	3	8	3SK400-1.5
	2,5	2,69	3,03	Ø76x110	3	6	3SK400-2.5
	5	5,38	6,05	Ø76x205	3	6	3SK400-5
	7,5	8,07	9,08	Ø76x205	3	6	3SK400-7.5
	10	10,76	12,10	Ø76x235	3	6	3SK400-10
	12,5	13,46	15,13	Ø76x280	3	6	3SK400-12.5
	15	16,15	18,15	Ø76x280	3	6	3SK400-15
	20	21,53	24,20	Ø86x280	3	6	3SK400-20
	25	26,91	30,25	Ø96x280	3	4	3SK400-25
	30	32,29	36,30	Ø106x280	3	3	3SK400-30
	40	43,06	48,40	Ø126x280	3	2	3SK400-40
	50	53,80	60,50	Ø136x280	3	2	3SK400-50

440V Three Phase Cylindrical Type Capacitor

NEW PRODUCT

Type Code	kVAr@ 440V, 50 Hz	kVAr@ 415V, 50 Hz	kVAr@ 400V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
3SK440	0,5	0,44	0,41	Ø76x90	3	10	3SK440-0.5
	1	0,89	0,83	Ø76x90	3	10	3SK440-1
	1,5	1,33	1,24	Ø76x90	3	10	3SK440-1.5
	2,5	2,22	2,07	Ø76x110	3	10	3SK440-2.5
	5	4,45	4,13	Ø76x205	3	10	3SK440-5
	7,5	6,67	6,20	Ø76*205	3	10	3SK440-7.5
	10	8,90	8,26	Ø76x235	3	7	3SK440-10
	12,5	11,12	10,33	Ø76x235	3	7	3SK440-12.5
	15	13,34	12,40	Ø76x280	3	5	3SK440-15
	20	17,79	16,53	Ø86x280	3	4	3SK440-20
	25	22,24	20,66	Ø96x280	3	4	3SK440-25
	30	26,69	24,79	Ø106x280	3	3	3SK440-30
	40	35,58	33,06	Ø116x280	3	2	3SK440-40
	50	44,48	41,32	Ø126x280	3	2	3SK440-50

525V Three Phase Cylindrical Type Capacitor

Type Code	kVAr@ 525V, 50 Hz	kVAr@ 480V, 50 Hz	kVAr@ 400V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
NEW PRODUCT	5	4,18	2,90	Ø63,5x150	3	7	3SK525-5
	7,5	6,27	4,35	Ø76x175	3	7	3SK525-7.5
	10	8,40	5,80	Ø76x205	3	7	3SK525-10
NEW PRODUCT	12,5	10,45	7,26	Ø76x235	3	7	3SK525-12.5
	15	12,60	8,70	Ø76x280	3	4	3SK525-15
3SK525	20	16,80	11,60	Ø86x280	3	3	3SK525-20
	25	21,00	14,50	Ø96x280	3	3	3SK525-25
	30	25,10	17,40	Ø106x280	3	3	3SK525-30

400V Heavy Duty Capacitor

NEW PRODUCT

Type Code	kVAr@ 400V, 50 Hz	kVAr@ 415V, 50 Hz	kVAr@ 440V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
	0,5	0,53	0,6	Ø50x65	3	10	3UK400-0.5
	1	1,07	1,21	Ø50x85	3	10	3UK400-1
	1,5	1,61	1,81	Ø50x125	3	10	3UK400-1.5
	2,5	2,69	3,02	Ø50x125	3	10	3UK400-2.5
	5	5,38	6,04	Ø63.5x150	3	7	3UK400-5
	7,5	8,07	9,07	Ø76x175	3	7	3UK400-7.5
	10	10,76	12,09	Ø76x205	3	7	3UK400-10
3UK400	12,5	13,45	15,12	Ø76x235	3	5	3UK400-12.5
	15	16,15	18,15	Ø76x280	3	4	3UK400-15
	20	21,52	24,19	Ø86x280	3	3	3UK400-20
	25	26,91	30,24	Ø96x280	3	3	3UK400-25
	30	32,28	36,29	Ø106x280	3	3	3UK400-30
	40	43,05	48,39	Ø116x280	3	2	3UK400-40
	50	53,81	60,49	Ø126x280	3	2	3UK400-50

525V Heavy Duty Capacitor

NEW PRODUCT

Type Code	kVAr@ 525V, 50Hz	kVAr@ 480V, 50Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
	0,5	0,42	Ø50x65	3	10	3UK525-0.5
	1	0,84	Ø50x85	3	10	3UK525-1
	1,5	1,26	Ø50x125	3	10	3UK525-1.5
	2,5	2,10	Ø50x150	3	10	3UK525-2.5
	5	4,18	Ø63,5x150	3	7	3UK525-5
	7,5	6,27	Ø76x175	3	7	3UK525-7.5
	10	8,40	Ø76x205	3	7	3UK525-10
3UK525	12,5	10,45	Ø76x235	3	5	3UK525-12.5
	15	12,60	Ø76x280	3	4	3UK525-15
	20	16,80	Ø86x280	3	3	3UK525-20
	25	21,00	Ø96x280	3	3	3UK525-25
	30	25,20	Ø106x280	3	3	3UK525-30
	40	33,60	Ø116x280	3	2	3UK525-40
	50	42,00	Ø126x280	3	2	3UK525-50

400V Super Heavy Duty Capacitor

NEW PRODUCT

Type Code	kVAr@ 400V, 50 Hz	kVAr@ 415V, 50 Hz	kVAr@ 440V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
3XK400	2,5	2,69	3,02	Ø50x150	3	10	3XK400-2.5
	5	5,38	6,04	Ø63.5x150	3	7	3XK400-5
	10	10,76	12,09	Ø76x235	3	7	3XK400-10
	15	16,15	18,15	Ø86x280	3	4	3XK400-15
	20	21,52	24,19	Ø96x280	3	3	3XK400-20
	25	26,91	30,24	Ø96x280	3	3	3XK400-25
	30	32,28	36,29	Ø106x280	3	3	3XK400-30
	40	43,05	48,39	Ø126x280	3	2	3XK400-40
	50	53,81	60,49	Ø136x280	3	2	3XK400-50

525V Super Heavy Duty Capacitor

NEW PRODUCT

Type Code	kVAr@ 525V, 50Hz	kVAr@ 480V, 50Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
3XK525	5	4,18	Ø76x175	3	7	3XK525-5
	10	8,4	Ø76x235	3	7	3XK525-10
	15	12,6	Ø86x280	3	4	3XK525-15
	20	16,8	Ø96x280	3	3	3XK525-20
	25	21	Ø106x280	3	3	3XK525-25
	30	25,2	Ø106x280	3	3	3XK525-30
	40	33,6	Ø126x280	3	2	3XK525-40
	50	42	Ø136x280	3	2	3XK525-50

Contactors for Capacitor Bank - Coil Voltage: 230V AC

Type Code	Rated Capacitor Power at 220/240V (kVAr) Θ≤55°C	Rated Capacitor Power at 380/440V (kVAr) Θ≤55°C	Oparation / hour	Electrical Life (Cycle)	Auxiliary Contact	Current Limiting Block	Pcs in a Box	Order Code
SCK-2,5	1,5	2,5	240 op/h	200.000	1NO	—	20	SCK2.5
SCK-5	3	5	240 op/h	200.000	1NO	—	20	SCK5
SCK-10	6	10	240 op/h	200.000	1NO	✓	20	SCK10
SCK-15	8	15	240 op/h	200.000	1NO	✓	14	SCK15
SCK-20	12	20	240 op/h	200.000	1NO	✓	14	SCK20
SCK-25	15	25	240 op/h	200.000	1NO	✓	8	SCK25
SCK-33	20	33,3	100 op/h	100.000	1NO	✓	8	SCK33
SCK-40	22	40	100 op/h	100.000	1NO	✓	8	SCK40
SCK-50	33,3	50	100 op/h	100.000	1NO	✓	8	SCK50
SCK-60	45	60	100 op/h	100.000	1NO	✓	8	SCK60

Contactors for Capacitor Bank (for SCM Series Contactors)

NEW PRODUCT

Type Code	Rated Capacitor Power (kVAr) θ≤55°C			Used Contactor	Electrical Life (Cycle)	Auxiliary Contact	Current Limiting Block	Pcs in a Box	Order Code
	220/240V	380/440V	480/525V						
SCC-2.5	1,5	2,5	3	SCM-12	100.000	2NO + 1NC	—	20	SCC2.5
SCC-5	3	5	6	SCM-18	100.000	2NO + 1NC	—	20	SCC5
SCC-10	6	10	12,5	SCM-18	100.000	2NO + 1NC	✓	20	SCC10
SCC-15	8	15	16,7	SCM-25	100.000	2NO + 1NC	✓	14	SCC15
SCC-20	12	20	24	SCM-32	100.000	2NO + 1NC	✓	14	SCC20
SCC-25	15	25	25	SCM-40	100.000	2NO + 1NC	✓	8	SCC25
SCC-30	20	30	30	SCM-50	100.000	2NO + 1NC	✓	8	SCC30
SCC-40	25	40	45	SCM-65	100.000	2NO + 1NC	✓	8	SCC40
SCC-50	30	50	50	SCM-80	100.000	2NO + 1NC	✓	8	SCC50
SCC-60	35	60	60	SCM-95	100.000	2NO + 1NC	✓	8	SCC60
SCC-75	45	75	70	SCM-115	100.000	2NO + 1NC	✓	8	SCC75

Horizontal Type Fuse Switch Disconnectors for Compensation Systems

Type Code	Rated Current In (A)	Size	Min. Order Quantity	Pcs in a Box	Order Code
SFH-160	160	00 (without fuse) C00 (without fuse)	1	9	SFH160
SFH-250	250	1 (without fuse)	1	3	SFH250

NH Fuses (Double Indicator) for Compensation Systems

Size	Rated Current In (A)	Breaking Capacity (kA)	Min. Order Quantity	Pcs in a Box	Order Code
NHC00	6	120	10	180	SNHC00I006
	10	120	10	180	SNHC00I010
	16	120	10	180	SNHC00I016
	20	120	10	180	SNHC00I020
	25	120	10	180	SNHC00I025
	32	120	10	180	SNHC00I032
	40	120	10	180	SNHC00I040
	50	120	10	180	SNHC00I050
	63	120	10	180	SNHC00I063
	80	120	10	180	SNHC00I080
	100	120	10	180	SNHC00I100
NH00	6	120	10	96	SNH00I0006
	10	120	10	96	SNH00I0010
	16	120	10	96	SNH00I0016
	20	120	10	96	SNH00I0020
	25	120	10	96	SNH00I0025
	32	120	10	96	SNH00I0032
	40	120	10	96	SNH00I0040
	50	120	10	96	SNH00I0050
	63	120	10	96	SNH00I0063
	80	120	10	96	SNH00I0080
	100	120	10	96	SNH00I0100
	125	120	10	96	SNH00I0125
	160	120	10	96	SNH00I0160

Not: Belirtilen fiyatlar gümüş kaplamalı NH bıçaklı sigorta fiyatlarıdır. Kalay kaplamalı NH bıçaklı sigortalar için lütfen fiyat isteyiniz.

Current Transformers for Compensation Systems

Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S20MC	30	1	3	Ø20	3		S20MC00300301
	40	1	3	Ø20	3		S20MC00400301
	50	1,5	1	Ø20	3		S20MC00500115
	60	1,5	1	Ø20	3		S20MC00600115
	75	1,5	1	Ø20	3		S20MC00750115
	80	1,5	1	Ø20	3		S20MC00800115
	100	2,5	1	Ø20	3		S20MC01000125
	125	2,5	1	Ø20	3		S20MC01250125
	150	2,5	1	Ø20	3		S20MC01500125
	200	2,5	1	Ø20	3		S20MC02000125
	250	5	1	Ø20	3		S20MC02500105
	300	5	1	Ø20	3		S20MC03000105
S30ML	50	1,5	1	30x10	3	51	SM3000501005
	60	1,5	1	30x10	3	51	SM3000601005
	75	1,5	1	30x10	3	51	SM3000751005
	100	2,5	1	30x10	3	51	SM3001001002
	200	5	0,5	30x10	3	51	SM3002000505
	250	10	0,5	30x10	3	51	SM3002500510
	300	10	0,5	30x10	3	51	SM3003000510
	400	10	0,5	30x10	3	51	SM3004000510
	500	10	0,5	30x10	3	51	SM3005000510
	600	10	0,5	30x10	3	51	SM3006000510
SMT30	50	1,5	3	30	3	51	SMT0300050301
	60	2,5	3	30	3	51	SMT0300060302
	75	2,5	3	30	3	51	SMT0300075302
	100	2,5	3	30	3	51	SMT0300100302
	125	2,5	3	30	3	51	SMT0300125302
	150	2,5	3	30	3	51	SMT0300150302
	200	2,5	3	30	3	51	SMT0300200302
	250	2,5	0,5	30	3	51	SMT0300250502
	300	5	0,5	30	3	51	SMT0300300505
SMT40	100	2,5	3	40	3	42	SMT0400100302
	150	2,5	3	40	3	42	SMT0400150302
	200	2,5	3	40	3	42	SMT0400200302
	400	5	0,5	40	3	42	SMT0400400505
	500	5	0,5	40	3	42	SMT0400500505
	600	5	0,5	40	3	42	SMT0400600505

Sigma elektrik

AC AND DC RENEWABLE **ENERGY PRODUCTS**

DC products are needed in every field where DC circuits are used.

DC Miniature Circuit Breakers

- 1, 2 and 4 poles
- 10kA short circuit breaking capacity
- Rated current from 6A to 125A
- Type C

DC LV Moulded Case Circuit Breakers

- Rated current from 80A to 630A
- 25kA and 36kA breaking capacity
- 1000V DC and 1500V DC rated voltage

DC LV Surge Protection Device

- 20kA short circuit breaking capacity
- Possibility of remote monitoring with auxiliary contact function

DC Cylindrical (Cartridge) Fuse Bases

- 1 pole
- 25A and 32A rated currents

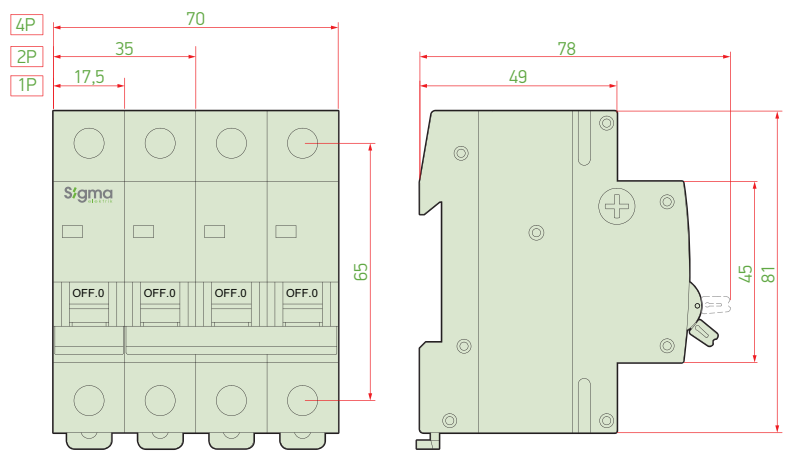
DC Cylindrical (Cartridge) Fuse

- Rated current from 8A to 50A
- 20kA and 25kA short circuit breaking capacity
- 10x38mm,10x85mm and 14x85mm cartridge size

DC MCB - 10kA

	SDC 10000		
Number of poles	1P	2P	4P
Rated nominal current	6-63A		
Rated insulation voltage	1000V		
Rated operating voltage	250V	500V	1000V
Rated impulse withstand voltage	4kV		
Rated short circuit breaking capacity	10kA		
Instantaneous tripping class	C		
Mechanical life (No. operation)	20.000		
Electrical life (No. operation)	2.500		
Operating temperature	-25 ... +60		
Storage temperature	-40 ... +80		
Relative Humidity	95%		

Dimensions



Number of poles	Rated Current In (A)	Rated short circuit breaking capacity	Rated operating voltage	Min. Order Quantity	Pcs in a Box	Order Code
1P	6	10kA	250	12	240	1SD106C
	10	10kA	250	12	240	1SD110C
	16	10kA	250	12	240	1SD116C
	20	10kA	250	12	240	1SD120C
	25	10kA	250	12	240	1SD125C
	32	10kA	250	12	240	1SD132C
	40	10kA	250	12	240	1SD140C
	50	10kA	250	12	240	1SD150C
	63	10kA	250	12	240	1SD163C
NEW PRODUCT	80	10kA	250	12	240	1SD180C
NEW PRODUCT	100	10kA	250	12	240	1SD100C
NEW PRODUCT	125	10kA	250	12	240	1SD112C

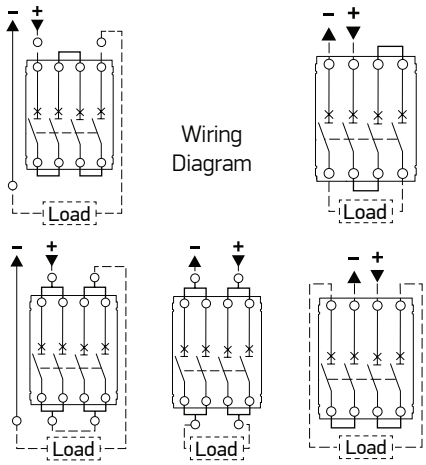
2P	6	10kA	500	6	120	1SD206C
	10	10kA	500	6	120	1SD210C
	16	10kA	500	6	120	1SD216C
	20	10kA	500	6	120	1SD220C
	25	10kA	500	6	120	1SD225C
	32	10kA	500	6	120	1SD232C
	40	10kA	500	6	120	1SD240C
	50	10kA	500	6	120	1SD250C
	63	10kA	500	6	120	1SD263C
NEW PRODUCT	80	10kA	500	6	120	1SD280C
NEW PRODUCT	100	10kA	500	6	120	1SD200C
NEW PRODUCT	125	10kA	500	6	120	1SD212C

4P	6	10kA	1000	3	60	1SD406C
	10	10kA	1000	3	60	1SD410C
	16	10kA	1000	3	60	1SD416C
	20	10kA	1000	3	60	1SD420C
	25	10kA	1000	3	60	1SD425C
	32	10kA	1000	3	60	1SD432C
	40	10kA	1000	3	60	1SD440C
	50	10kA	1000	3	60	1SD450C
	63	10kA	1000	3	60	1SD463C
NEW PRODUCT	80	10kA	1000	3	60	1SD480C
NEW PRODUCT	100	10kA	1000	3	60	1SD400C
NEW PRODUCT	125	10kA	1000	3	60	1SD412C

DC LV MCCB - 1000V - 1500V Technical Specifications

				DC160				DC250				2DC250	2DC630
Standard				IEC / EN 60947-2				IEC / EN 60947-2				IEC / EN 60947-2	IEC / EN 60947-2
Rated current (at 40°C)		A		80, 100, 125, 160				200, 250				63, 80, 100,125, 160, 200, 250	315, 400, 500, 630
Number of poles				1	2	3	4	1	2	3	4	2	2
Rated operating voltage	Ue	V	DC	250	500	750	1000	250	500	750	1000	1500	1500
Rated insulation voltage	Ui	V	DC	1000				1000				1000	1000
Rated impulse withstand voltage	Uimp	kV		8				8				12	12
Rated ultimate short circuit capacity	Icu	kA	1000V DC	36				36				25	25
Utilization category				A				A				A	A
Pollution degree				3				3				3	3
Electrical life (No. operation)	ON - OFF		1000V DC	1500				1500				1250	1000
Mechanical life (No. operation)	ON - OFF			10000				10000				8000	6000
Protection unit				Thermal Adjustable Magnetic Fixed				Thermal-Magnetic Fixed				Thermal-Magnetic Fixed	Thermal-Magnetic Fixed
Ip degree of protection				IP40				IP40				IP40	IP40
Current threshold for overload protection				0,7 ... 1xIn				1xIn				1xIn	1xIn
Current threshold for short-circuit protection				7xIn				7xIn				6xIn	6xIn
Ambient operating temperature		°C		-20 ... +60				-20 ... +60				-20 ... +60	-20 ... +60
Ambient storage temperature		°C		-40 ... +80				-40 ... +80				-40 ... +80	-40 ... +80
Relative Humidity		%		95				95				95	95
Accessories													
Shunt trip release				√				√				√	√
Under voltage release				√				√				–	–
Auxiliary contact				√				√				√	√
Alarm contact				√				√				√	√
Motor operator				√				–				√	√
Ext. Rotary handle				√				√				√	√
Connection clamp				√				–				–	–
Mechanical lock ped				√				√				–	–
Extention bus bar				√				√					

4 Poles - DC LV MCCB - 1000V - Connection Diagram



4 Poles - DC LV MCCB - 1000V - Order Information

Type Code	Rated Voltage DC (V)	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
DC160	1.000	80	(0.7-1)xIn	7xIn	36	4	DC160080
	1.000	100	(0.7-1)xIn	7xIn	36	4	DC160100
	1.000	125	(0.7-1)xIn	7xIn	36	4	DC160125
	1.000	160	(0.7-1)xIn	7xIn	36	4	DC160160
DC250	1.000	200	200	7xIn	36	4	DC250200
	1.000	250	250	7xIn	36	4	DC250250

2 Poles - DC LV MCCB - 1500V - Order Information

NEW PRODUCT

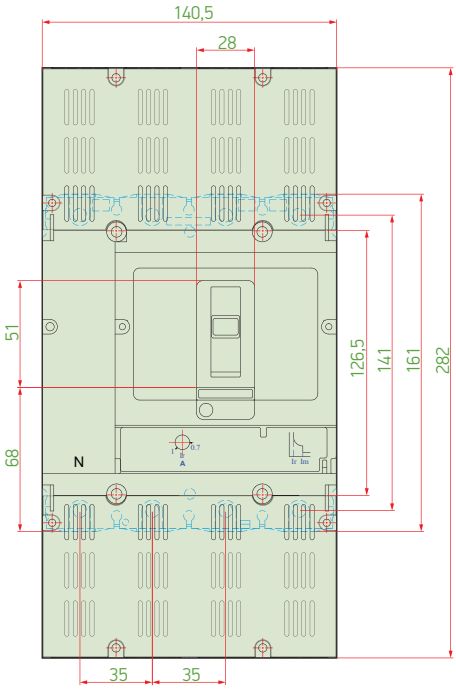
Type Code	Rated Voltage DC (V)	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA) 1000V DC	Breaking Capacity Icu (kA) 1500V DC	Pcs in a Box	Order Code
2DC250	1500	63	Fixed	6xIn	50	25	4	2DC250063
	1500	80	Fixed	6xIn	50	25	4	2DC250080
	1500	100	Fixed	6xIn	50	25	4	2DC250100
	1500	125	Fixed	6xIn	50	25	4	2DC250125
	1500	160	Fixed	6xIn	50	25	4	2DC250160
	1500	200	Fixed	6xIn	50	25	4	2DC250200
	1500	250	Fixed	6xIn	50	25	4	2DC250250
2DC630	1500	315	Fixed	6xIn	50	25	4	2DC630315
	1500	400	Fixed	6xIn	50	25	4	2DC630400
	1500	500	Fixed	6xIn	50	25	4	2DC630500
	1500	630	Fixed	6xIn	50	25	4	2DC630630

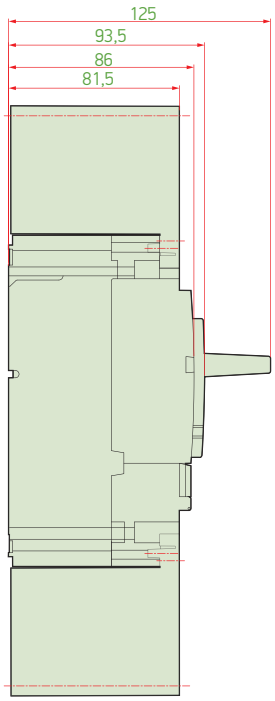
2 Poles - DC LV MCCB - 1500V - Accessories

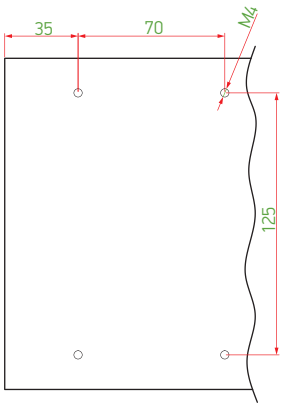
MCCB Type	Accessories	Feature	Order Code
2DC250	Shunt Trip Release	230V AC	DC250AB230AC
	Alarm Contact		DC250AK
	Auxiliary Contact		DC250YK
	Alarm + Auxiliary Contact		DC250AYK
2DC630	Shunt Trip Release	230V AC	DC630AB230AC
	Alarm Contact		DC630AK
	Auxiliary Contact		DC630YK
	Alarm + Auxiliary Contact		DC630AYK
	Uzatma Milli Döner Kumanda Kolu		DC630DK
	Motor Mekanizması	230V AC	DC630MM

4 Poles - DC LV MCCB - 1000V - Dimensions

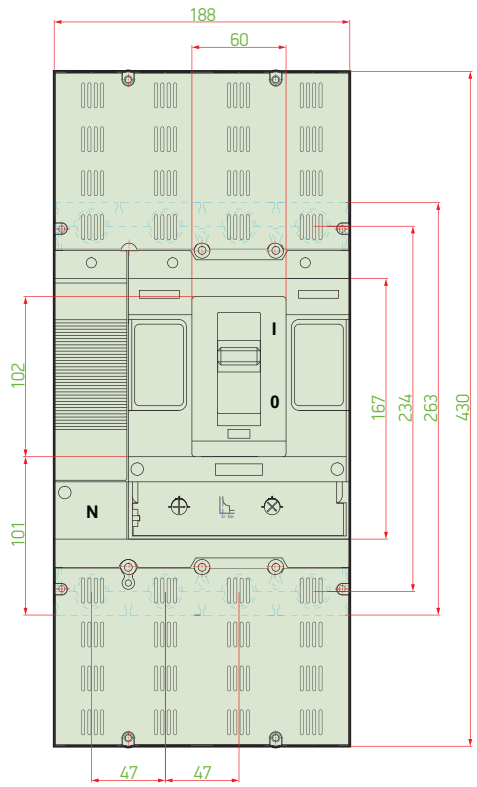
DC160

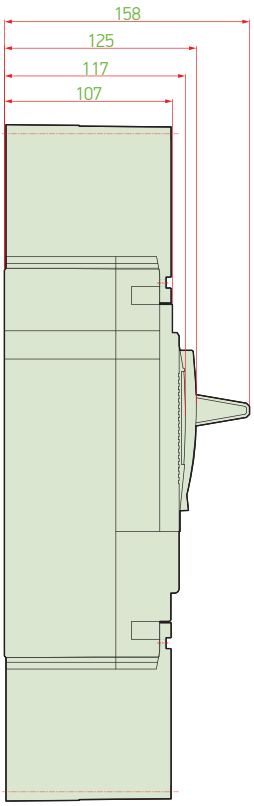


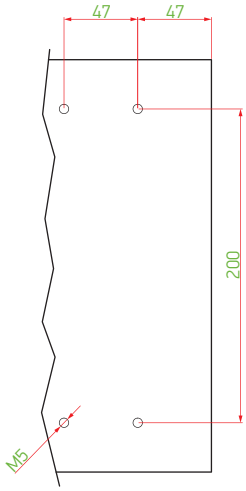




DC250

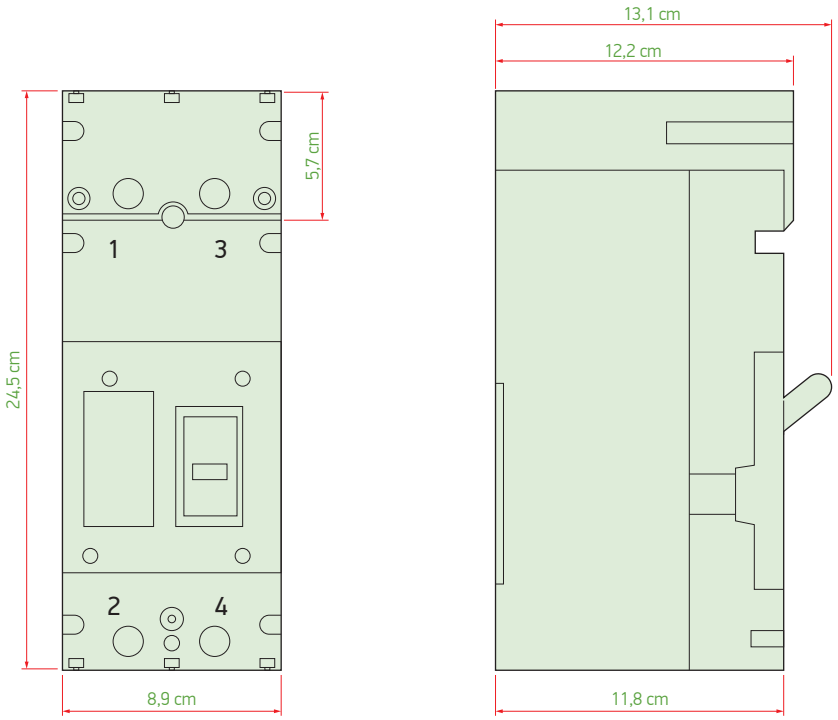




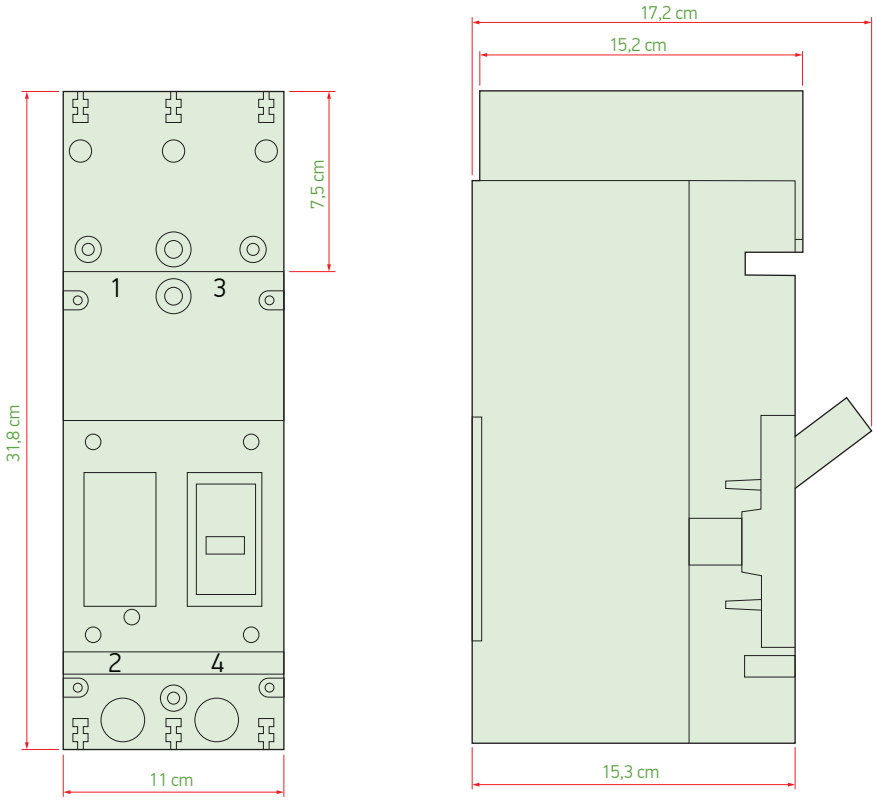


2 Poles - DC LV MCCB - 1500V - Dimensions

2DC250



2DC630

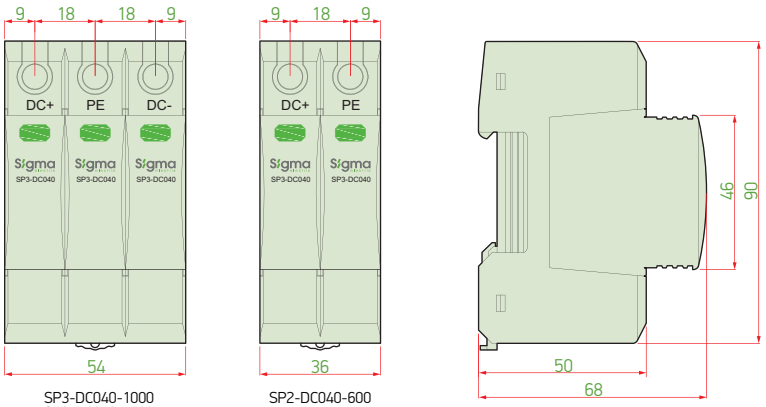


DC Low Voltage Surge Arresters

Type		Un(V) DC	Imax (kA)	In (kA)	Up (V)	Order Code
SP2-DC040	NEW PRODUCT	600	40	20	<3	SP2-DC040-0600
SP3-DC040		1000	40	20	<3	SP3-DC040-1000
	NEW PRODUCT	1500	40	20	<4	SP3-DC040-1500

Dimensions

SP2 - SP3



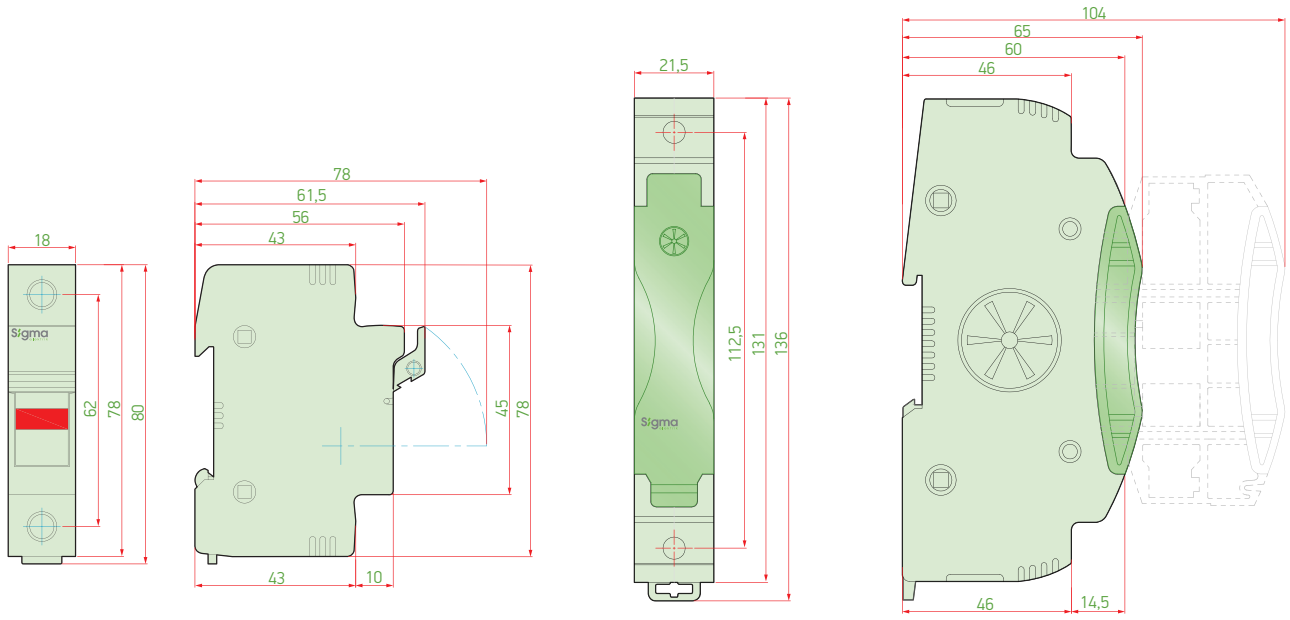
SP3-DC040-1000
SP3-DC040-1500

SP2-DC040-600

DC Cylindrical (Cartridge) Fuse Bases

Type	Rated Current (A)	Rated Voltage DC (V)	Number of poles	Cartridge (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SDC-125	25	1000	1	10x38	12	360	SDC125
SDC-132	32	1500	1	10X85	1	1	SDC132

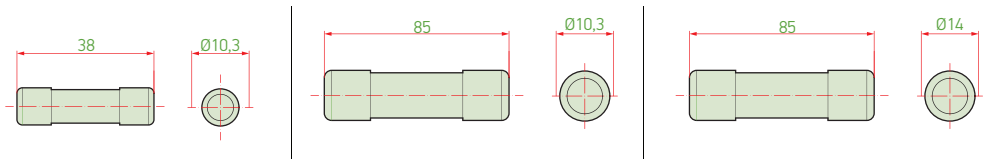
SDC125 - SDC132



DC Cylindrical (Cartridge) Fuses

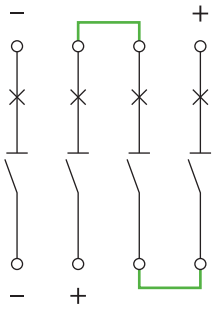
Type	Rated Current (A)	I1 (kA)	Rated Voltage DC (V)	Cartridge (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SFDC	8	25	1000	10x38	10	2000	SFDC08
	20	25	1000	10x38	10	2000	SFDC20
	25	25	1000	10x38	10	2000	SFDC25
NEW PRODUCT	32	25	1000	10x38	10	2000	SFDC32
SLDC	20	20	1500	10x85	1	1000	SLDC20
	25	20	1500	10x85	1	1000	SLDC25
	30	20	1500	10x85	1	1000	SLDC30
NEW PRODUCT	40	20	1500	14x85	1	1000	SLDC40
	50	20	1500	14x85	1	1000	SLDC50

SFDC - SLDC

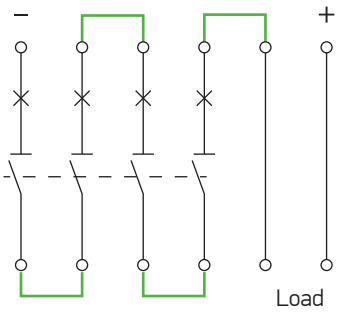


Circuit Diagram

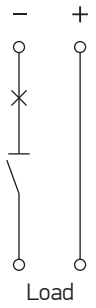
DC MCCB (750 V - 3P)



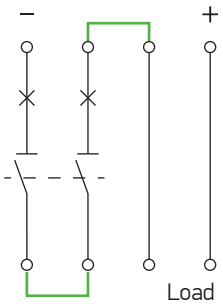
DC MCCB (1000 V - 4P)



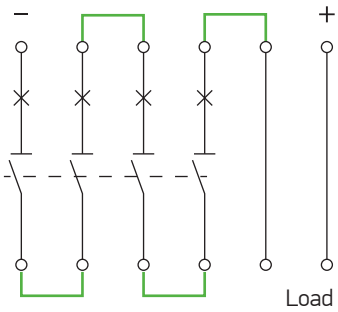
DC Fuse 1P
(SDC10000 - 250 V)



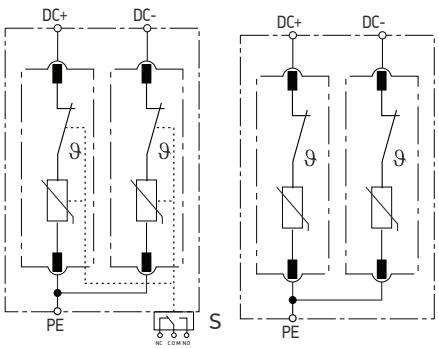
DC Fuse 2P
(SDC10000 - 500 V)



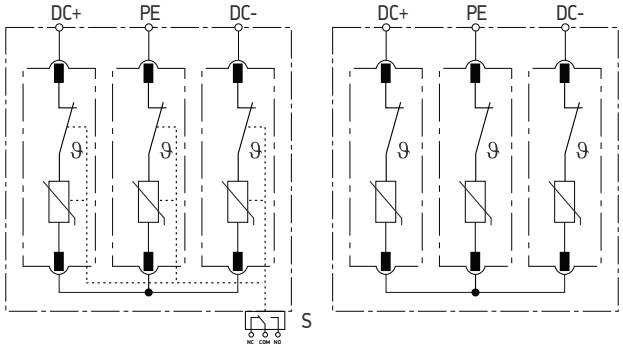
DC Fuse 4P
(SDC10000 - 1000 V)



DC Low Voltage Surge Arresters
(SP2-DC040-600)



DC Low Voltage Surge Arresters
(SP3-DC040-1000, SP3-DC040-1500)




SOLIGMA
SERIES

RELIABLE AND SUPERIOR PROTECTION AT ALL TIMES IN SOLAR ENERGY SYSTEMS WITH SOLİGMA

Protect your Solar Energy Systems safely, **reduce** maintenance costs and achieve **maximum efficiency** with **Soligma Series**!

800V AC Circuit Breaker

Soligma Series LV Circuit Breakers are specially designed for 800V AC Solar Energy Systems and thanks to their superior features, they safely perform the switching and protection function of the systems they are connected to.

- ⇨ High operating voltage for 800V AC photovoltaic systems
- ⇨ 1000V nominal insulation voltage with internal phase separators
- ⇨ 36kA short circuit breaking capacity with the double contact (Double Break) breaking system
- ⇨ Short circuit opening time down to 2ms thanks to the design technology
- ⇨ 800V type test report according to IEC 60947-2 approved by an accredited laboratory

800V AC Air Circuit Breakers

Soligma Series Air Circuit Breakers are specially designed for 800V AC Solar Energy Systems and are produced as a solution against overload currents, short circuit currents and ground faults in the system and electrical equipment it is connected to with its superior features. Thanks to its remote communication electronic trip unit and high short circuit breaking capacity, it shows faster detection and action in overload, short circuit and ground fault situations.

- ⇨ 50kA short circuit breaking capacity
- ⇨ Rated current between 630A and 6300A
- ⇨ 1000V AC rated insulation voltage
- ⇨ (1-20)xIn+OFF instantaneous breaking current, (0.2-1) xIn+OFF ground fault current
- ⇨ LSIG protection
- ⇨ Active power, reactive power, apparent power, power factor, phase voltages, phase currents, trip and alarm records can be viewed on the LCD screen
- ⇨ Internal counter feature showing the number of opening and closing of the circuit
- ⇨ Efficient and uninterrupted communication with RS485

800V AC Surge Protection Device for String Inverter Protection

800V AC string inverter protection surge protection device is specially designed to protect string inverters in solar energy systems.

- ⇨ Special production designed for use in solar systems
- ⇨ 3-Pole production
- ⇨ B+C type
- ⇨ IP20 Protection Class

Soligma 800V AC Horizontal Type Fuse Switch Disconnectors

Sigma 800V AC Horizontal Type Fuse Switch Disconnectors specially designed for Solar Systems, are electrical circuit protection and control elements that, when used with NH fuses, enable the circuit to be manually opened and closed, as well as to safely cut off the circuit in the event of any short circuit or overload current.

- ⇨ Special design suitable for use in 800V AC Solar systems
- ⇨ Design suitable for NH00, NH1, NH2, NH3 sizes
- ⇨ Lockability feature to ensure maintenance and repair safety

Soligma 800V AC NH Fuses

Specially designed for safe use in solar systems, Soligma 800V AC NH Fuses are from the group of melting wire fuses and safely protect your system against overload currents and short circuits.

- ⇨ Product variety up to 400A in NH00, NH1, NH2, NH3 sizes
- ⇨ Easy fault detection thanks to the double-indicator structure
- ⇨ Short circuit breaking capacity up to 120kA,
- ⇨ Steatite body material resistant to short circuits, pressure and high heat
- ⇨ High-speed response time

800V AC 3 Poles LV Moulded Case Circuit Breakers (for Photovoltaic Systems)

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
Thermal Adjustable - Magnetic Fixed							
XLT160	20	(0.7-1)xIn	320A	36	K0250AB230AC K0250AB030DC	6	3XLT160020S
	25			36		6	3XLT160025S
	32			36		6	3XLT160032S
	40	(0.7-1)xIn	10xIn	36		6	3XLT160040S
	50			36		6	3XLT160050S
	63			36		6	3XLT160063S
	80			36		6	3XLT160080S
	100			36		6	3XLT160100S
	125			36		6	3XLT160125S
	160			36		6	3XLT160160S
Thermal Adjustable - Magnetic Adjustable							
XLT250	100	(0.7-1)xIn	(5-10)xIn	36	K0250AB230AC K0250AB030DC	6	3XLT250100S
	125			36		6	3XLT250125S
	160			36		6	3XLT250160S
	200			36		6	3XLT250200S
	250			36		6	3XLT250250S
XLT400	320			36		2	3XLT400320S
	400			36		2	3XLT400400S
XLT630	500			36		2	3XLT630500S
	630			36		2	3XLT630630S

800V AC 4 Poles LV Moulded Case Circuit Breakers (for Photovoltaic Systems)

NEW PRODUCT

Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Suitable Shunt Trip Release	Pcs in a Box	Order Code
Thermal Adjustable - Magnetic Fixed							
XLT160N	20	(0.7-1)xIn	320A	36	K0250AB230AC K0250AB030DC	6	4XLT160020S
	25			36		6	4XLT160025S
	32			36		6	4XLT160032S
	40	(0.7-1)xIn	10xIn	36		6	4XLT160040S
	50			36		6	4XLT160050S
	63			36		6	4XLT160063S
	80			36		6	4XLT160080S
	100			36		6	4XLT160100S
	125			36		6	4XLT160125S
	160			36		6	4XLT160160S
Thermal Adjustable - Magnetic Adjustable							
XLT250N	100	(0.7-1)xIn	(5-10)xIn	36	K0250AB230AC K0250AB030DC	6	4XLT250100S
	125			36		6	4XLT250125S
	160			36		6	4XLT250160S
	200			36		6	4XLT250200S
	250			36		6	4XLT250250S
XLT400N	320			36		2	4XLT400320S
	400			36		2	4XLT400400S
XLT630N	500			36		2	4XLT630500S
	630			36		2	4XLT630630S

800V AC LV Moulded Case Circuit Breaker Accessories

Shunt Trip Release

Applicable MCCB	Coil Voltage	Order Code
XLT160-XLT250-XLT400-XLT630-XLT160N-XLT250N-XLT400N-XLT630N	230V AC	K0250AB230AC
XLT160-XLT250-XLT400-XLT630-XLT160N-XLT250N-XLT400N-XLT630N	24-30V DC	K0250AB030DC

Under Voltage Release - 400V AC

Applicable MCCB	Order Code
XLT160-XLT250-XLT400-XLT630-XLT160N-XLT250N-XLT400N-XLT630N	K0250DG400AC

Auxiliary Contact

Applicable MCCB	Contact Number	Order Code
XLT160-XLT250-XLT400-XLT630-XLT160N-XLT250N-XLT400N-XLT630N	1NO+1NC	K0250YK

Alarm Contact

Applicable MCCB	Contact Number	Order Code
XLT160-XLT250-XLT400-XLT630-XLT160N-XLT250N-XLT400N-XLT630N	1NO+1NC	K0250AK

Mechanical Pad Lock

Applicable MCCB	Order Code
XLT160-XLT250-XLT400-XLT630-XLT160N-XLT250N-XLT400N-XLT630N	SEMK101

Motor Operator - 230V AC

Applicable MCCB	Order Code
XLT160-XLT250-XLT160N-XLT250N	K0250MM
XLT400-XLT630-XLT400N-XLT630N	X0630MM

Rotary Handle (with extension shaft)

Applicable MCCB	Order Code
XLT160-XLT250-XLT160N-XLT250N	K0250DK
XLT400-XLT630-XLT400N-XLT630N	KLT630DK

Extension Rotary Handle (Direct Assembly)

Applicable MCCB	Order Code
XLT160-XLT250-XLT160N-XLT250N	K0250DU
XLT400-XLT630-XLT400N-XLT630N	KLT630DU

Extension Bus Bar Set (6-8 Pcs/Set)

Applicable MCCB	Piece	Order Code
XLT160	3	X0160UB3
XLT250	3	X0250UB3
XLT400	3	X0400UB3
XLT630	3	X0630UB3
XLT160N	4	X0160UB4
XLT250N	4	X0250UB4
XLT400N	4	X0400UB4
XLT630N	4	X0630UB4

Terminal Protectors (2 Piece/set)

Applicable MCCB	Order Code
XLT160-XLT250 Short Terminal Protector	K0250KTK3
XLT160-XLT250 Long Terminal Protector	K0250UTK3
XLT400-XLT630 Short Terminal Protector	KLT630KTK3
XLT400-XLT630 Long Terminal Protector	KLT630UTK3
XLT160N-XLT250N Short Terminal Protector	K0250KTK4
XLT160N-XLT250N Long Terminal Protector	K0250UTK4
XLT400N-XLT630N Short Terminal Protector	KLT630KTK4
XLT400N-XLT630N Long Terminal Protector	KLT630UTK4

DC LV Moulded Case Circuit Breaker

Circuit Breaker Type	Accessory	Feature	Order Code
2DC250	Shunt Trip Release	230V AC	DC250AB230AC
	Alarm Contact		DC250AK
	Auxiliary Contact		DC250YK
	Alarm + Auxiliary Contact		DC250AYK
2DC630	Shunt Trip Release	230V AC	DC630AB230AC
	Alarm Contact		DC630AK
	Auxiliary Contact		DC630YK
	Alarm + Auxiliary Contact		DC630AYK
	Rotary Handle (Direct Assembly)		DC630DK
	Motor Mechanism	230V AC	DC630MM

800V AC 3 Poles Fixed Air Circuit Breakers

NEW PRODUCT

Type Code	Rated Current (A)	Adjustable Current Range (Ir1)	Icu 800V (kA)	Ics 800V (kA)	Operation Mechanism	Order Code
XLFA-2000	630	252-630	65	65	Manual	XLFA0630H3
	800	320-800	65	65	Manual	XLFA0800H3
	1000	400-1000	65	65	Manual	XLFA1000H3
	1250	500-1250	65	65	Manual	XLFA1250H3
	1600	640-1600	65	65	Manual	XLFA1600H3
	2000	1200-2000	65	65	Manual	XLFA2000H3
XLFA-3200	2500	1000-2500	65	65	Manual	XLFA2500H3
	3200	1280-3200	65	65	Manual	XLFA3200H3
XLFA-4000	4000	1600-4000	65	65	Manual	XLFA4000H3
XLFA-6300	5000	2000-5000	65	65	Manual	XLFA5000H3
	6300	2520-6300	65	65	Manual	XLFA6300H3
XLFA-2000	630	252-630	65	65	Motorized	XLFA0630M3
	800	320-800	65	65	Motorized	XLFA0800M3
	1000	400-1000	65	65	Motorized	XLFA1000M3
	1250	500-1250	65	65	Motorized	XLFA1250M3
	1600	640-1600	65	65	Motorized	XLFA1600M3
	2000	1200-2000	65	65	Motorized	XLFA2000M3
XLFA-3200	2500	1000-2500	65	65	Motorized	XLFA2500M3
	3200	1280-3200	65	65	Motorized	XLFA3200M3
XLFA-4000	4000	1600-4000	65	65	Motorized	XLFA4000M3
XLFA-6300	5000	2000-5000	65	65	Motorized	XLFA5000M3
	6300	2520-6300	65	65	Motorized	XLFA6300M3

800V AC 4 Poles Fixed Air Circuit Breakers

NEW PRODUCT

Type Code	Rated Current (A)	Adjustable Current Range (Ir1)	Icu 800V (kA)	Ics 800V (kA)	Operation Mechanism	Order Code
XLFA-2000	630	252-630	65	65	Manual	XLFA0630H4
	800	320-800	65	65	Manual	XLFA0800H4
	1000	400-1000	65	65	Manual	XLFA1000H4
	1250	500-1250	65	65	Manual	XLFA1250H4
	1600	640-1600	65	65	Manual	XLFA1600H4
	2000	1200-2000	65	65	Manual	XLFA2000H4
XLFA-3200	2500	1000-2500	65	65	Manual	XLFA2500H4
	3200	1280-3200	65	65	Manual	XLFA3200H4
XLFA-4000	4000	1600-4000	65	65	Manual	XLFA4000H4
XLFA-6300	5000	2000-5000	65	65	Manual	XLFA5000H4
	6300	2520-6300	65	65	Manual	XLFA6300H4
XLFA-2000	630	252-630	65	65	Motorized	XLFA0630M4
	800	320-800	65	65	Motorized	XLFA0800M4
	1000	400-1000	65	65	Motorized	XLFA1000M4
	1250	500-1250	65	65	Motorized	XLFA1250M4
	1600	640-1600	65	65	Motorized	XLFA1600M4
	2000	1200-2000	65	65	Motorized	XLFA2000M4
XLFA-3200	2500	1000-2500	65	65	Motorized	XLFA2500M4
	3200	1280-3200	65	65	Motorized	XLFA3200M4
XLFA-4000	4000	1600-4000	65	65	Motorized	XLFA4000M4
XLFA-6300	5000	2000-5000	65	65	Motorized	XLFA5000M4
	6300	2520-6300	65	65	Motorized	XLFA6300M4

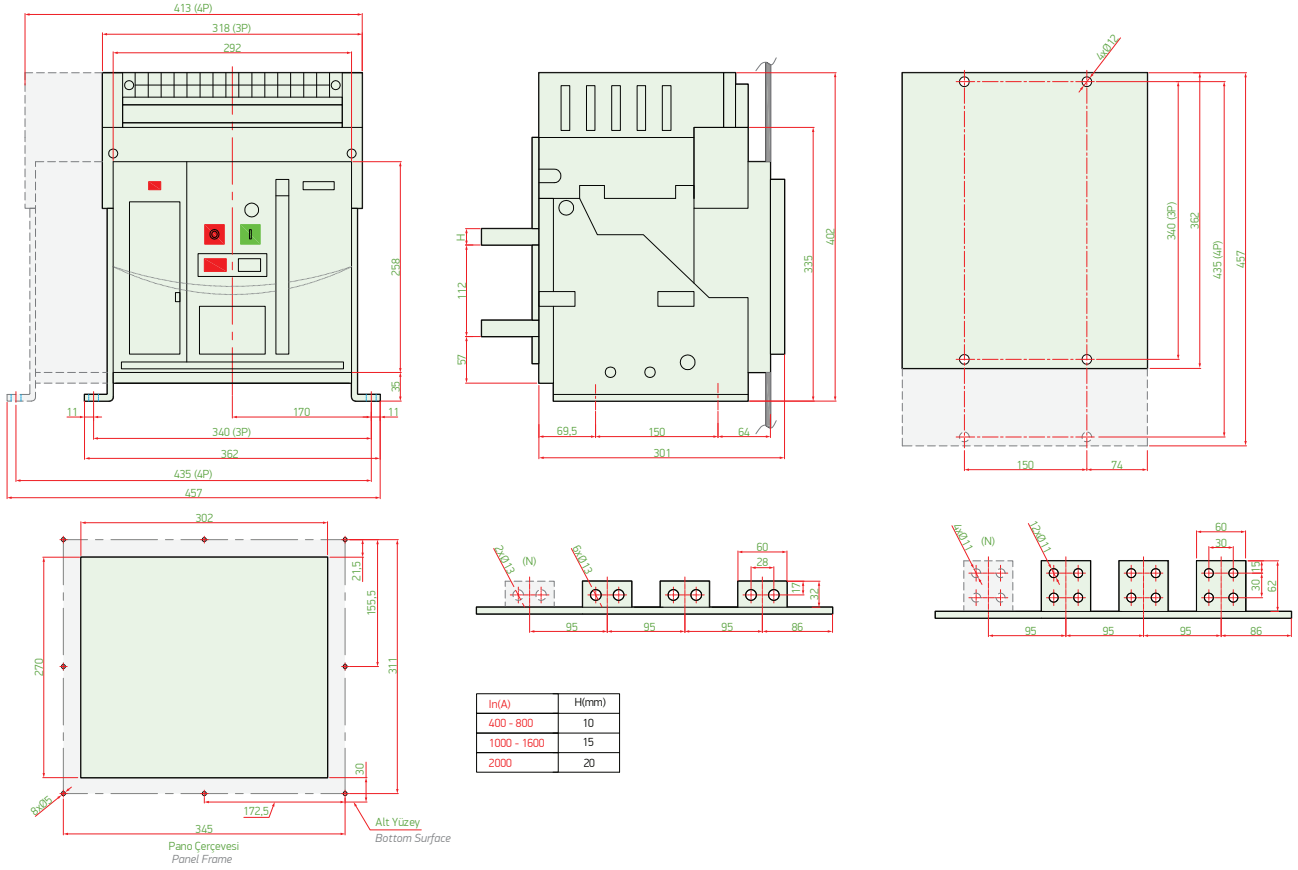
Accessories

Type Code		Description	Features	Suitable Air Circuit Breakers	Order Code
SAAB		Shunt Trip Coil	230V AC	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SAAB
SAKB		Closing Coil	230V AC	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SAKB
SADG		Under Voltage Release - Without Delay	230V AC	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SADG230
		Under Voltage Release - Without Delay	400V AC	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SADG400
SAGDG		Under Voltage Release - With Delay	230V AC	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SAGDG230
		Under Voltage Release - With Delay	400V AC	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SAGDG400
SRTC*	NEW PRODUCT	Under Voltage Release (with delay) + Closing Coil + RTC Switch	230V AC	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SRTC-230AC
SAM-1		Motor Operator (630 ... 2000A)	230V AC	XLFA-2000	SAM1
SAM-2		Motor Operator (2500 ... 6300A)	230V AC	XLFA-3200, XLFA-4000	SAM2
SAM-3		Motor Operator (5000 ... 6300A)	230V AC	XLFA-6300	SAM3
SAMK		Mechanical Interlock	Wire Type	XLFA-2000, XLFA-3200, XLFA-4000, XLFA-6300	SAMK

Note: When performing transfer operation in air circuit breakers, low voltage coil and closing coil should not be activated at the same time. To prevent this situation, it is recommended to use a under voltage Release (with delay) + closing coil + RTC switch combination.

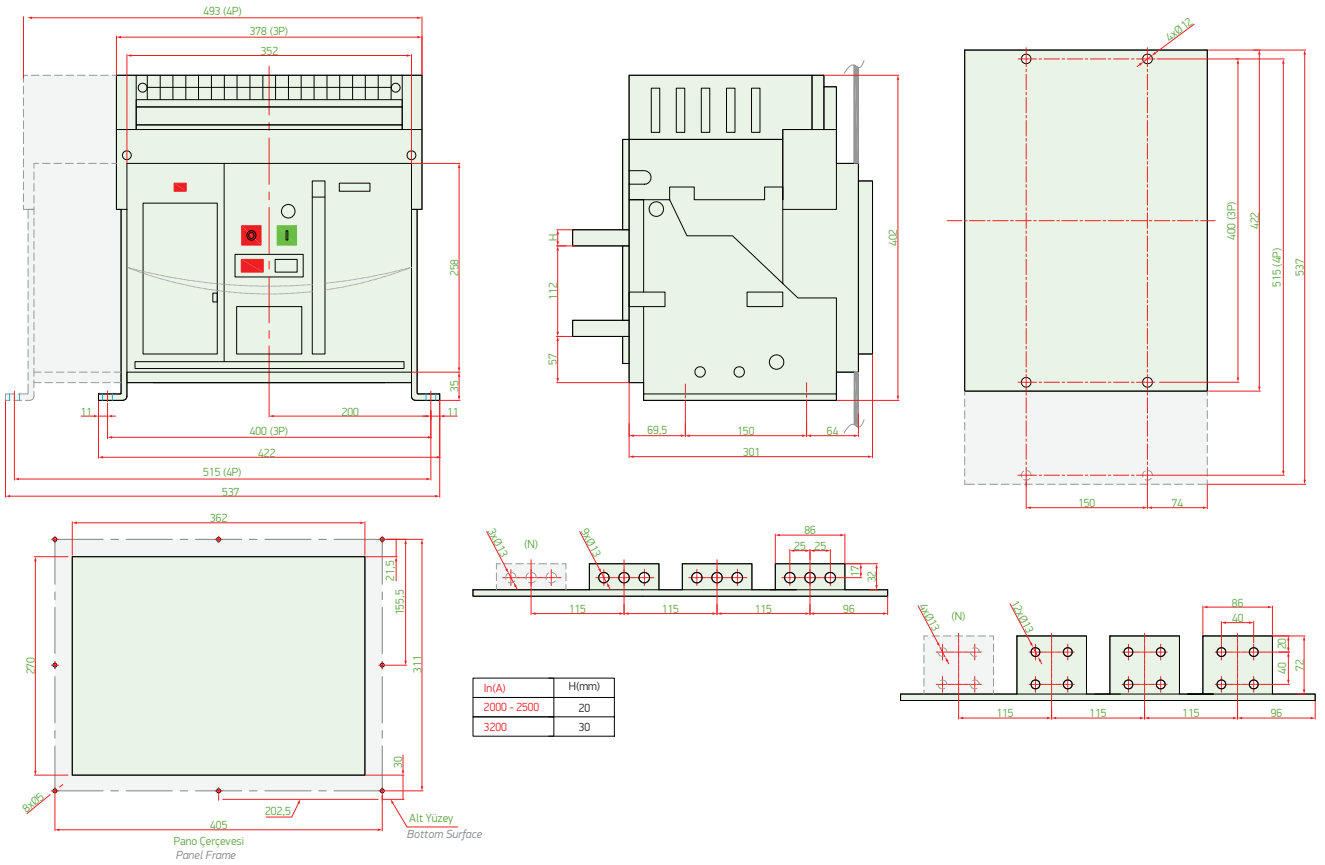
Dimensions

XLFA-2000 (3P-4P)



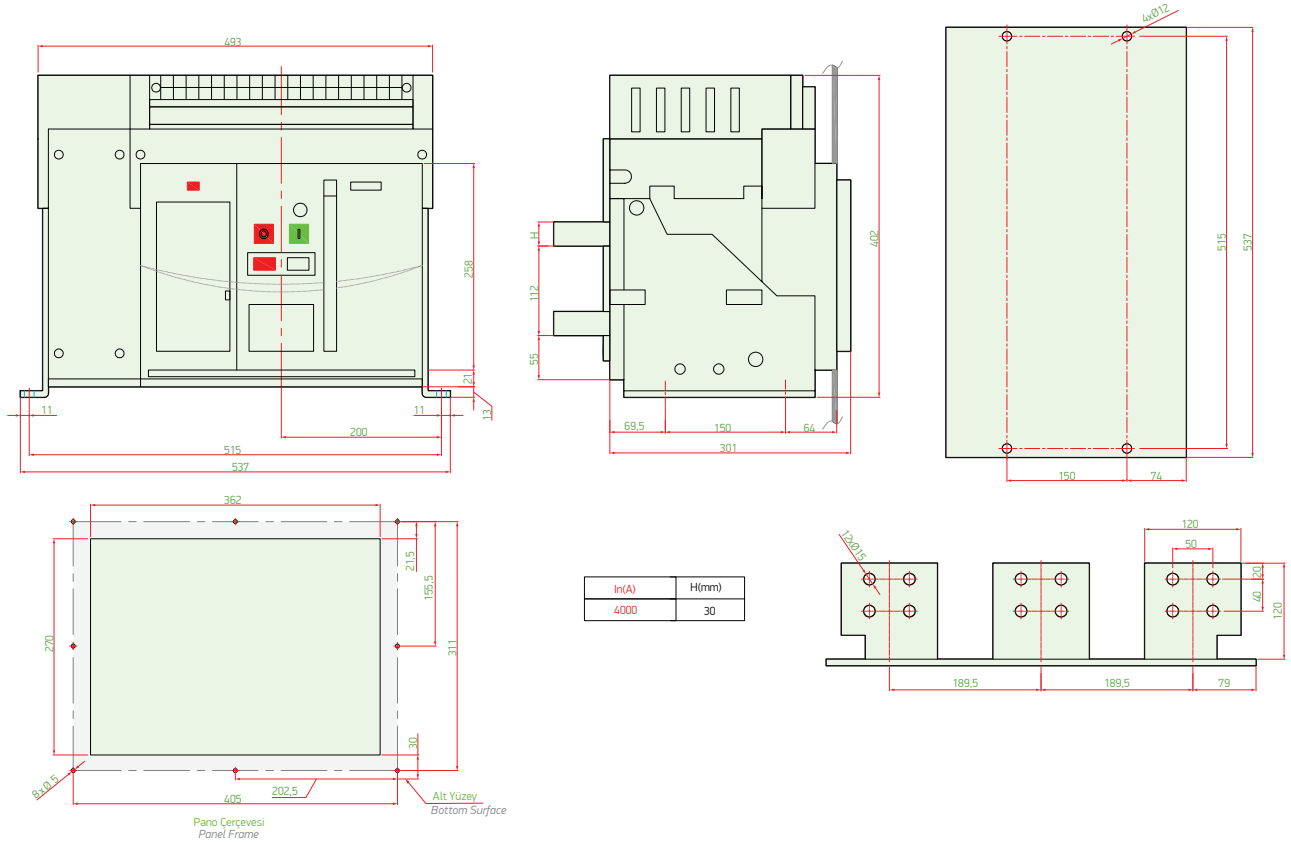
In(A)	H(mm)
400 - 800	10
1000 - 1600	15
2000	20

XLFA-3200 (3P-4P)



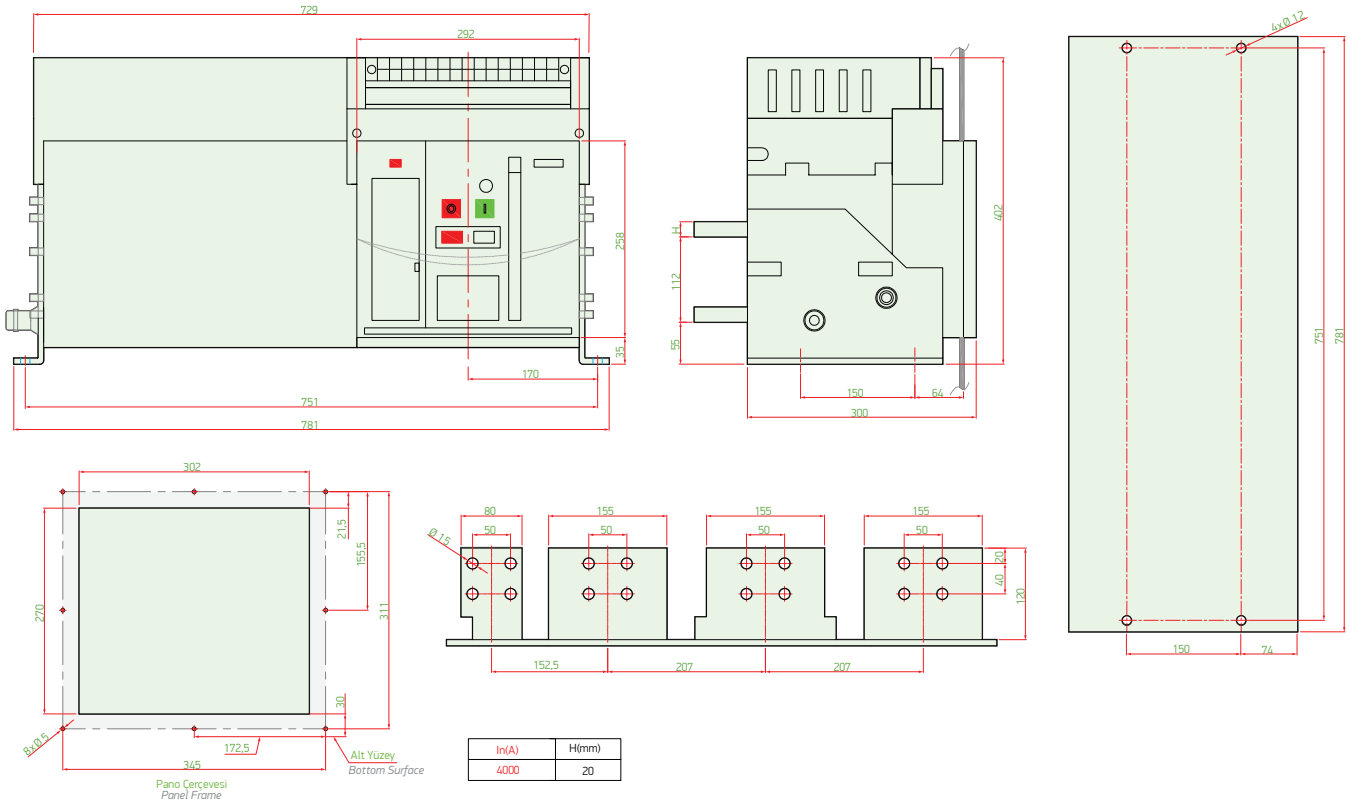
In(A)	H(mm)
2000 - 2500	20
3200	30

XLFA-4000 (3P)



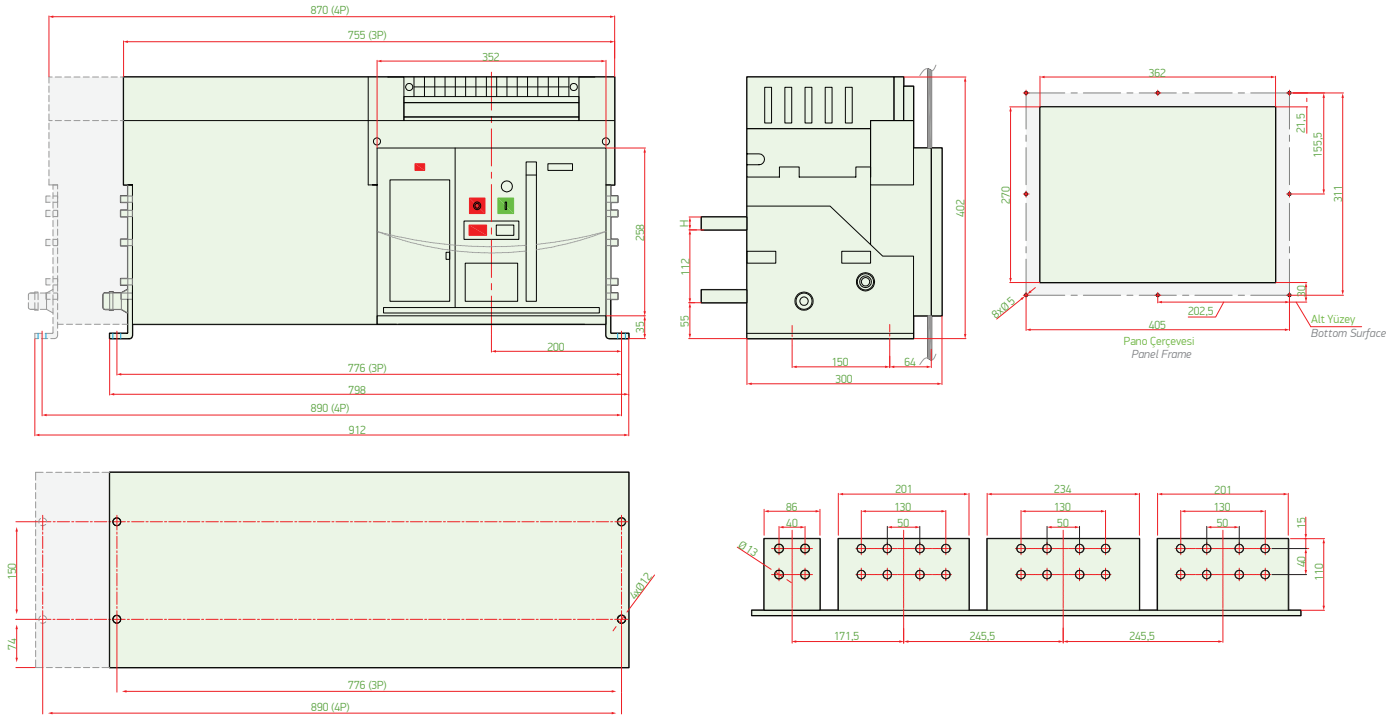
In(A)	H(mm)
4000	30

XLFA-4000 (4P)



In(A)	H(mm)
4000	20

XLFA-6300 (3P-4P)



800V AC Double Indicator NH Fuses (Steatite Body)

NEW PRODUCT

Size	Rated Current In (A)	Breaking Capacity (kA)	Minimum Order	Pcs in a Box	Order Code
NH00	16	50	10	96	SNH00I0016S
	20	50	10	96	SNH00I0020S
	25	50	10	96	SNH00I0025S
	32	50	10	96	SNH00I0032S
	40	50	10	96	SNH00I0040S
	50	50	10	96	SNH00I0050S
	63	50	10	96	SNH00I0063S
NH1	63	80	3	36	SNH1I00063S
	80	80	3	36	SNH1I00080S
	100	80	3	36	SNH1I00100S
	125	80	3	36	SNH1I00125S
	160	80	3	36	SNH1I00160S
NH2	125	120	3	24	SNH2I00125S
	160	120	3	24	SNH2I00160S
	200	120	3	24	SNH2I00200S
	250	120	3	24	SNH2I00250S
NH3	250	120	3	24	SNH3I0250S
	315	120	3	24	SNH3I0315S
	400	120	3	24	SNH3I0400S

800V AC NH Fuse Bases

Size	Rated Current In (A)	Body Material	Minimum Order	Box Qty	Order Code
NH00	160	BMC	5	45	SNB00
NH1	250	BMC	5	15	SNB01
NH2	400	BMC	5	9	SNB02
NH3	630	BMC	5	9	SNB03

800V AC Horizontal Type Switch Disconnectors

NEW PRODUCT

Type Code	Rated Current In (A)	Boy	Minimum Order	Pcs in a Box	Order Code
SFH-160	63	00 (without fuse)	1	9	SFH160S
SFH-250	160	1 (without fuse)	1	3	SFH250S
SFH-400	250	2 (without fuse)	1	3	SFH250S
SFH-630	400	3 (without fuse)	1	3	SFH250S

Note: Horizontal type switch disconnectors are shipped without fuse.

800V AC Surge Protection Device for String Inverter Protection (Tip 1+Tip 2, B+C sınıfı)

NEW PRODUCT

Type	Number of poles	Uc (V AC)	Iimp (kA)	Imax (kA)	In (kA)	Up (V)	PE grounding cross section*	Pcs in a Box	Order Code
SLP12.5-950	3P	950	12.5	100	20 (8/20µs)	4	25mm²	32	SLP12.5-950

Note: 800V AC string inverter protection surge protection devices is used to protect string inverters in solar energy systems.

Kaçak Akım Algılama Rölesi

NEW PRODUCT

Type Code	Threshold Current (A)	Tripping Time (s)	Work Class	Order Code
SAR-53LE	0,03 - 30	0-10 (Does not cover below 30mA)	F	SAR53LE

800V AC Residual Current Circuit Breakers (B Type) 10 kA

Type Code	Rated Current In (A)	Number of poles	Protection	Rated Residual Current IΔn (mA)	Operating characteristic	Pcs in a Box	Order Code
SKM-2	25	2P	Shock Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	30 mA	Instantaneously	100	SKM2025030
	40					100	SKM2040030
	63					100	SKM2063030
	25	2P	Fire and Equipment Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	300 mA	Instantaneously	100	SKM2025300
	40					100	SKM2040300
	63					100	SKM2063300
SKM-4	25	4P	Shock Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	30 mA	Instantaneously	50	SKM4025030
	40					50	SKM4040030
	63					50	SKM4063030
	25	4P	Fire and Equipment Protection (AC residual current Pulsating DC residual current Smooth DC residual current Mixed frequency current up to 1kHz)	300 mA	Instantaneously	50	SKM4025300
	40					50	SKM4040300
	63					50	SKM4063300

Notes

Sustainability and Eco-Friendly Production

The First and Only Domestic Manufacturer with a Carbon Footprint Verification Certificate in the LV Switchgear field. As Sigma Elektrik, we carry a great responsibility to add value to the future and protect our environment with our determined steps in the field of sustainability.

We are proud to be the first and only domestic manufacturer brand among LV switchgear manufacturers in Türkiye having the ISO 14064-3:2019 Carbon Footprint Verification Certificate. In the scope of our goal of reducing carbon emissions, we aim to be a pioneer in the sustainability journey with the mission of promoting a cleaner world with our eco-friendly production processes. Sigma Elektrik offers eco-friendly solutions at every step to contribute to projects that shape the future and minimize our environmental impact.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ISO 14001:2015
ISO 45001:2018
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Circuit-breakers for overcurrent protection for household and similar installations


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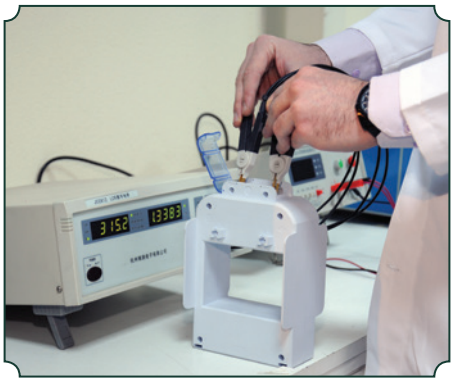
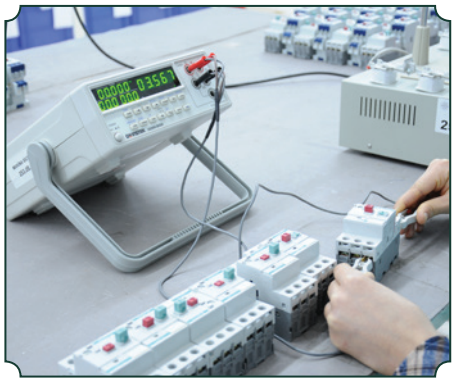
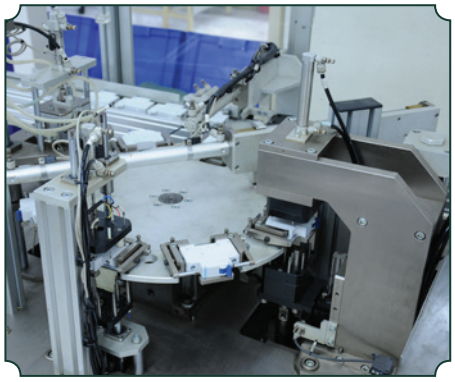
Rational



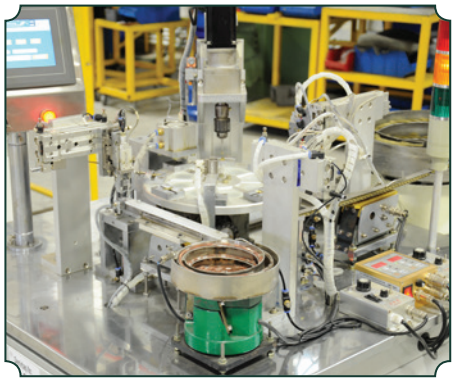









OTOMATİK SİGORTA

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