Sigma elektrik

ORDER CATALOGUE

LOW VOLTAGE PRODUCTS

Sigma
elektrik

Company Profile

Sigma Elektrik® located in İstanbul, is one of the leading company, focuses on designing, manufacturing and marketing of low voltage switchgear components such as MCCB, MCB, RCCB, Contactors, Current Transformers, Motor Protection switches e.g since 1993 in Turkey. The key figure of the company's growth strategies are its subsidiaries in Turkey and abroad and close cooperation with selected strategic partners. Its products are being distributed through 5 different continents over the World.

In Sigma Elektrik® considering quality is an indispensable principle at each step of manufacturing, all work processes are completed according to ISO Quality Management System and awarded by ISO 9001:2015, ISO 14001 certificates. All products are manufactured according to applicable EN, IEC, UKRSEPRO, GOST and CE Conformance Certificates from international accredited laboratories.

Consequence of overachievements of Sigma Elektrik®, it expanded business operation and distribution channel by foreign Joint Venture investment from Netherland in 2009. Currently, %50 of its shares belongs to a Dutch company. Sigma Elektrik® is a leading supplier of solutions and services for low voltage products in residential and commercial buildings as well as for switchgear applications in industrial projects. The quality of the products and services are constantly aimed at achieving customer's satisfaction and corresponding business excellence.

Sigma Elektrik® has a modern moulding room equipped with modern workbenches. We use Uni-graphics NX software which is advanced for design, modelling, production, engineering analyse, improvement, integrated with CAD / CAM / CAE applications, and this is one of the most popular software in aviation, automation, defence, mechanical, plastic and moulding industries. We provide you large scale of solution for your LV Electro mechanical component requirements by using these assets and create extra value for solution.

Contents

LV MCCB, Thermal-Magnetic Adjustable Type - Technical Specifications

Type				B160	B160N	K160	K160N	M160	M160N	B250	B250N	K 250	K250N
Standard				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)	A			25, 32, 40, 50, 63, 80, 100, 125, 160		16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160		16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160		200, 250	100, 125, 160, 200, 250	63, 80, 100, 125, 160, 200, 250	200, 250
No of poles				3	4	3	4	3	4	3	4	3	4
Rated operating voltage	Ue	V	AC	400		415		415		400		400	
Rated insulation voltage	Ui	V	AC	690		750		750		750		750	
Power frequency withstand test at 1 minute		V	AC	3000		3000		3000		3000		3000	
Rated impulse Withstand voltage	Uimp	kV	AC	8		8		8		8		8	
Rated ultimate short circuit breaking capacity	Icu	kA	690 V AC	8		8		10		8		8	
			500 V AC	7		9		18		9		9	
			440 V AC	15		22		42		22		22	
			415 V AC	25		36		50		36		36	
			240 V AC	35		50		65		50		50	
			250 V DC (3 poles serial)	10		15		25		15		15	
Rated service short circuit breaking capacity	Ics	kA	690 V AC	5		8		8		8		8	
			500 V AC	7		9		14		9		9	
			440 V AC	10		22		32		22		22	
			415 V AC	25		36		50		36		36	
			240 V AC	15		50		50		25		50	
			250 V DC (3 poles serial)	5		10		19		5		10	
Category (IEC/EN 60947-2)				A		A		A		A		A	
Pollution degree				3		3		3		3		3	
Electrical life (operation)	ON - OFF		415 V	1000		8000		8000				8000	
Mechanical life (operation)	ON - OFF			7000		20000		20000				20000	
Protection unit				Thermal Adjustable Magnetic Fixed								Thermal Magnetic Adjustable	
Protection unit (power & network system protection)				Ir: (0,8-1)xIn ; Im: 10xIn		Ir: (0,7-1)xIn ; Im: 10xIn		Ir: (0,8-1)xIn ; Im: 10xIn		Ir: (0,8-1)xIn ; Im: 10xIn		Ir: (0,7-1)xIn ; Im: (5-10)xIn	
Ambient operating temperature	°C			-20 to +60		-20 to +60		-20 to +60		-20 to +60		-20 to +60	
Ambient storage temperature	°C			-40 to +80		-40 to +80		-40 to +80		-40 to +80		-40 to +80	
Dimensions	Width		mm	74/98		105	140	105	140	105	140	105	140
	Length		mm	140		178	169	178	169	177	177	178	169
	Depth		mm	60		89	89	89	89	88,5	88,5	89	89
Accessories													
Shunt trip release				√		√		√		√		√	
Under voltage release				_		√		√		_		√	
Auxiliary contact				√		√		√		√		√	
Alarm contact				√		√		√		_		√	
Motor operator				_		√		√		_		√	
Ext. Rotary handle				_		√		√		_		√	
Connection clamp				√		√		√		√		√	
Mechanical lock ped				_		√		√		_		√	
Extention bus bar				√		√		√		_		√	

	M250	M250N	S250	U250	K 400	M400	S400	S400N	K 630	M630
	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	IEC / EN 60947-2
	63, 80, 100, 125, 160, 200, 250	100, 125, 160, 200, 250	100, 125, 160, 200, 250	100, 160, 250	315, 400	315, 400	315, 400		500, 630	500, 630
	3	4	3	3	3	3	3	4	3	3
	400		400	400	400	400	400		400	400
	750		750	750	690	750	690		750	750
	3000		3000	3000	3000	3000	3000		3000	3000
	8		8	8	8	8	8		8	8
	10		16	8	12	17	16		12	17
	18		42	9	20	25	42		20	25
	42		50	22	25	35	50		25	35
	50		70	36	36	50	70		36	50
	65		100	50	65	50	100		65	80
	25		30	15	25	30	30		25	30
	10		8	8	12	17	8		12	17
	18		21	9	20	25	21		20	25
	42		25	22	25	35	25		25	35
	50		52	36	18	50	52		18	50
	65		50	50	36	80	50		36	50
	25		23	10	20	23	23		23	23
	A		A	A	A	A	A		A	A
	3		3	3	3	3	3		3	3
	8000		8000	8000	6000	6000	6000		5000	5000
	20000		20000	20000	15000	15000	15000		15000	15000
	Thermal Magnetic Adjustable			Electronic	Thermal Magnetic Adjustable					
	Ir: (0,7-1)xIn ; Im: (5-10)xIn		Ir: (0,8-1)xIn ; Im: (5-10)xIn	Ir: (0,4-1)xIn ; Im: (2-10)xIn	Ir: (0,8-1)xIn ; Im: (5-10)xIn	Ir: (0,8-1)xIn ; Im: (5-10)xIn	Ir: (0,8-1)xIn ; Im: (5-10)xIn		Ir: (0,8-1)xIn ; Im: (5-10)xIn	Ir: (0,8-1)xIn ; Im: (5-10)xIn
	-20 to +60		-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60		-20 to +60	-20 to +60
	-40 to +80		-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80		-40 to +80	-40 to +80
	105	140	105	105	140	140	140	188	140	140
	178	169	161	178	161	267	267	263	267	267
	89	89	89	89	89	104	104	117	104	104
	√		√	√	√	√	√		√	√
	√		√	√	√	√	√		√	√
	√		√	√	√	√	√		√	√
	√		√	√	√	√	√		√	√
	√		_	√	√	√	√		√	√
	√		√	√	√	√	√		√	√
	√		_	√	_	_	_		_	_
	√		_	√	√	√	√		√	√
	√		√	√	Standard	√	√		Standard	Standard

LV MCCB, Thermal-Magnetic Adjustable Type - Technical Specifications

Type				S630	S630N	M800	S800	U1600
Standard				IEC / EN 60947-2		IEC / EN 60947-2	IEC / EN 60947-2	IEC / EN 60947-2
Rated current In (at 40°C)	A			500, 630		800	800	800, 1000, 1250, 1600
No of poles				3	4	3	3	3
Rated operating voltage	Ue	V	AC	400		400	400	415
Rated insulation voltage	Ui	V	AC	750		750	750	690
Power frequency withstand test at 1 minute		V	AC	3000		3000	3000	3000
Rated impulse withstand voltage	Uimp	kV	AC	8		8	8	8
Rated ultimate short circuit breaking capacity	Icu	kA	690 V AC	16		22	16	25
			500 V AC	42		35	42	35
			440 V AC	50		42	50	50
			415 V AC	70		50	70	70
			240 V AC	100		100	100	85
			250 V DC (3 poles serial)	30		30	30	–
Rated service short circuit breaking capacity	Ics	kA	690 V AC	8		22	8	25
			500 V AC	21		35	21	35
			440 V AC	25		42	25	50
			415 V AC	52		25	35	35
			240 V AC	50		50	50	65
			250 V DC (3 poles serial)	23		23	23	–
Category (IEC/EN 60947-2)				A		A	A	B
Pollution degree				3		3	3	3
Electrical life (operation)	ON - OFF		415 V	5000		5000	5000	4000
Mechanical life (operation)	ON - OFF			15000		10000	10000	8000
Protection unit				Thermal Magnetic Adjustable				Electronic
Protection unit (power & networksystem protection)				Ir: (0,8-1)xIn ; Im: (5-10)xIn		Ir: (0,8-1)xIn ; Im: (5-10)xIn	Ir: (0,8-1)xIn ; Im: (5-10)xIn	Ir: (0,4-1)xIn ; Im: (2-10)xIn
Ambient operating temperature	°C			-20 to +60		-20 to +60	-20 to +60	-20 to +60
Ambient storage temperature	°C			-40 to +80		-40 to +80	-40 to +80	-40 to +80
Dimensions	Width		mm	140	188	210	210	210
	Length		mm	263	263	280	280	408
	Depth		mm	117	117	107	107	143
Accessories								
Shunt trip release				√		√	√	√
Under voltage release				√		√	√	√
Auxiliary contact				√		√	√	√
Alarm contact				√		√	√	√
Motor operator				√		√	√	√
Ext. Rotary handle				√		√	√	√
Connection clamp				–		–	–	–
Mechanical lock ped				√		–	–	–
Extention bus bar				√		Standard	Standard	Standard

LV MCCB, Thermal-Magnetic Fixed Type - Technical Specifications

Type				KM200	A125		A160	A160N	A250	A250N	A400N	A630N	A800N
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	IEC / EN 60947-2
Rated current in (at 40°C)		A		16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200	20, 25, 32, 40, 50, 63, 80,100, 125		20, 25, 32, 40, 50, 63, 80,100, 125, 160		200, 250		315, 400	500, 630	800
No of poles				1	2	3	3	4	3	4	4	4	4
Rated operating voltage	Ue	V	AC	400-415	400-415		415		400	415	415	415	415
Rated insulation voltage	Ui	V	AC	750	750		750		750		750	750	750
Power frequency with-stand test at 1 minute		V	AC	3000	3000		3000		3000		3000	3000	3000
Rated impulse withstand voltage	Uimp	kV		8	8		8		8		8	8	8
Rated ultimate short circuit breaking capacity	Icu	kA	400/415 V AC	36	20		25		25	36	36	36	36
Rated service short circuit breaking capacity	Ics	kA	400/415 V AC	18	10		18		12,5	27	27	27	27
Pollution degree				3	3		3		3		3	3	3
Electrical life (operation)	ON-OFF		400/415 V AC	4000	4000		5000		4000		3000	2000	1500
Mechanical life (operation)	ON-OFF			10000	8000		12000		10000		7000	6000	5000
Thermal adjustment				Fixed	Fixed		Fixed		Fixed		Fixed	Fixed	Fixed
Magnetic adjustment				Fixed	Fixed		Fixed		Fixed		Fixed	Fixed	Fixed
Ambient temperature		°C		-20 to +60	-20 to +60		-20 to +60		-20 to +60		-20 to +60	-20 to +60	-20 to +60
Storage temperature		°C		-40 to +80	-40 to +80		-40 to +80		-40 to +80		-40 to +80	-40 to +80	-40 to +80
Dimensions	Width		mm	35	50	75	74,5	99,5	105	140	185	280	280
	Length		mm	158	130	135	141	141	177	177	265	281	281
	Depth		mm	89	60	65	60	60	60,5	60,5	104	108	110
Accessories													
Shunt trip release				_			√		√		√	√	√
Under voltage release				_			√		√		√	√	√
Auxiliary contact				_			√		√		√	√	√
Alarm contact				_			√		√		√	√	√
Motor operator				-			_		_		√	-	√
Ext. Rotary handle				_			_		_		_	√	√
Extention bus bar				_			√		√		√	√	√

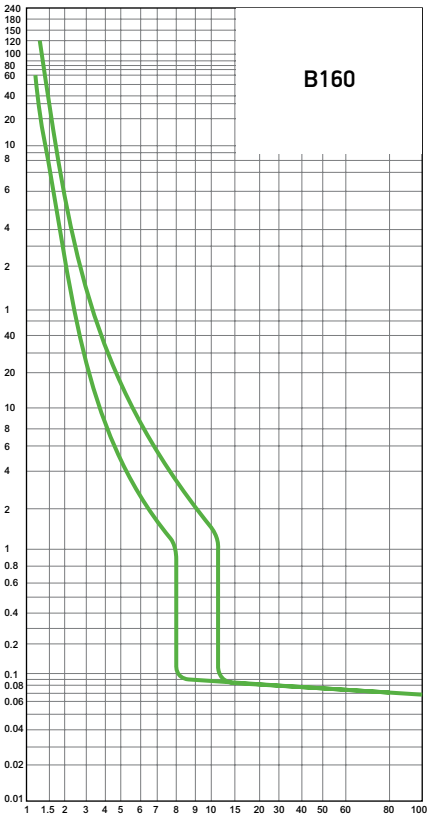
Earth Leakage Circuit Breakers - Technical Specifications

Type				H125	H125N	H250	H250N	
No of poles				3	4	3	4	
Rated current in (at 40°C)	A			40, 50, 63, 80,100, 125	40, 50, 63, 80,100, 125	160, 200, 250	160, 200, 250	
Rated threshold current	mA			30, 300, 500	30, 300, 500	30, 300, 500	30, 300, 500	
Threshold tripping time (adjustable)	mili second			100, 300, 1000	100, 300, 1000	100, 300, 1000	100, 300, 1000	
Instantaneous tripping time (adjustable)	mili second			<200	<200	<200	<200	
Rated operating voltage	Ue	V	AC	400	400	400	400	
Rated insulation voltage	Ui	V	AC	690	690	690	690	
Rated impulse withstand voltage	Uimp	kV	AC	8	8	8	8	
Rated ultimate short circuit breaking capacity	Icu	kA	400 / 415V AC	25	25	36	36	
Rated service short circuit breaking capacity	Ics	kA	400 / 415V AC	12,5	12,5	18	18	
Pollution degree				3	3	3	3	
Electrical life (operation)	ON - OFF		400 / 415 V AC	1000	1000	1000	1000	
Mechanical life operation)	ON - OFF			7000	7000	7000	7000	
Overload protection				>1.3xIn	>1.3xIn	>1.3xIn	>1.3xIn	
Rated short circuit breaking protection				8xIn	8xIn	10xIn	10xIn	
Threshold current protection				(30-500 mA)	(30-500 mA)	(30-500 mA)	(30-500 mA)	
Ambient temperature	°C			-20 to +60	-20 to +60	-20 to +60	-20 to +60	
Storage temperature	°C			-20 to +60	-20 to +60	-20 to +60	-20 to +60	
Dimensions	Width		mm	75	100	105	140	
	Length		mm	128	128	165	165	
	Depth		mm	60	60	60	60	
Accessories								
Shunt trip release				√	√	√	√	
Under voltage release				–	–	–	–	
Auxiliary contact				√	√	√	√	
Alarm contact				√	√	√	√	
Motor operator				–	–	–	–	
Ext. Rotary handle				–	–	–	–	
Extention bus bar				–	–	–	–	

	F250	D125	D250	D400	D630
	3	4	4	4	4
	40, 50, 63, 80, 100, 125, 160, 200, 250	40, 50, 63, 80, 100, 125	160, 200, 250	250, 315, 400	630
	30, 300, 500, 1000, 3000	30, 100, 300, 500	30, 100, 300, 500	100, 200, 300, 500	100, 200, 300, 500
	100, 500, 1000	100, 300, 500, 1000	100, 300, 500, 1000	100, 300, 500, 1000	100, 300, 500, 1000
	<200	<200	<200	<200	<200
	400	400	400	400	400
	750	750	750	750	750
	8	8	8	8	8
	36	36	36	50	50
	18	18	18	25	25
	3	3	3	3	3
	5000	5000	5000	5000	4000
	15000	15000	15000	15000	10000
	>1.3xIn	>1.3xIn	>1.3xIn	>1.3xIn	>1.3xIn
	8xIn	8xIn	8xIn	8xIn	8xIn
	(30-3000 mA)	(30-500 mA)	(30-500 mA)	(100-500 mA)	(100-500 mA)
	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60
	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80
	105	120	140	184	280
	252	203	221	302	347
	89	68	86	103	103
	√	√	√	√	√
	–	–	–	–	–
	√	√	√	√	√
	–	–	–	–	–
	–	√	√	√	√
	–	–	–	–	–
	√	√	√	√	√

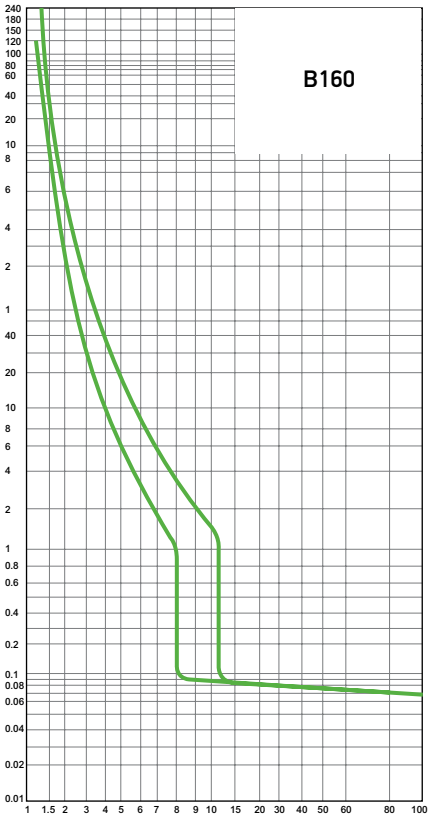
Time-Current Characteristic

16A~63A



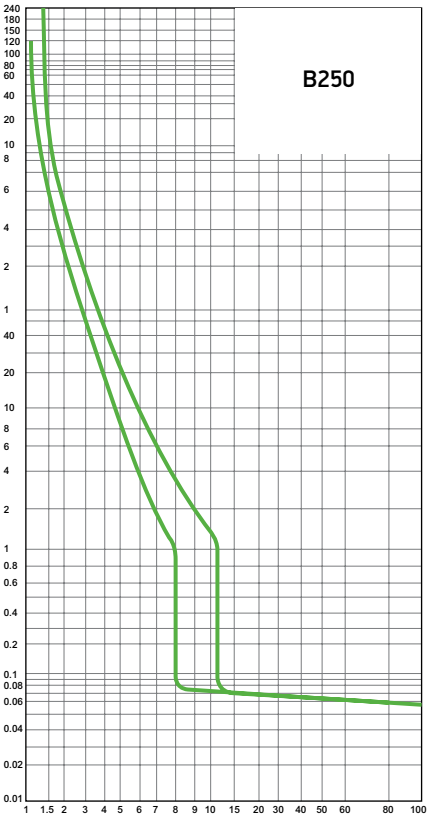
Uyarı: In≤32
Ii=400A(±%20)

80A~125A

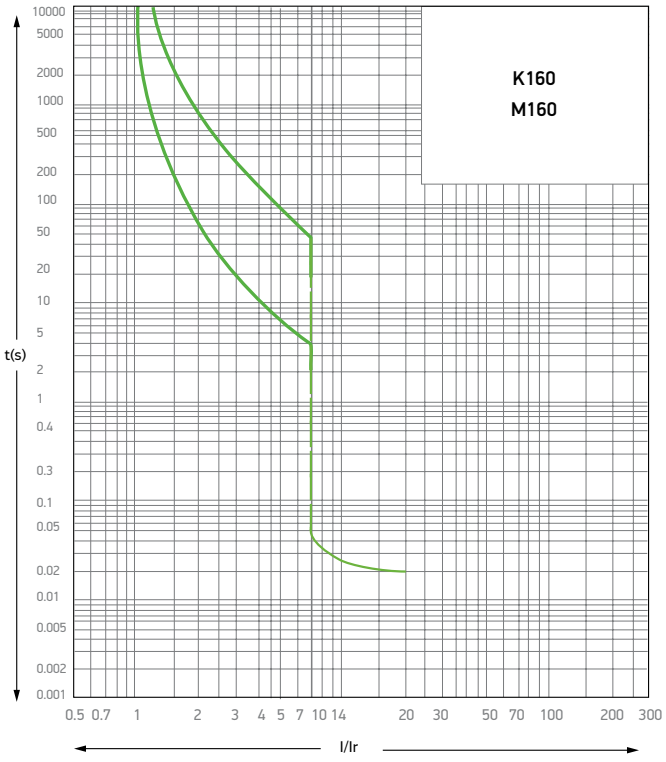


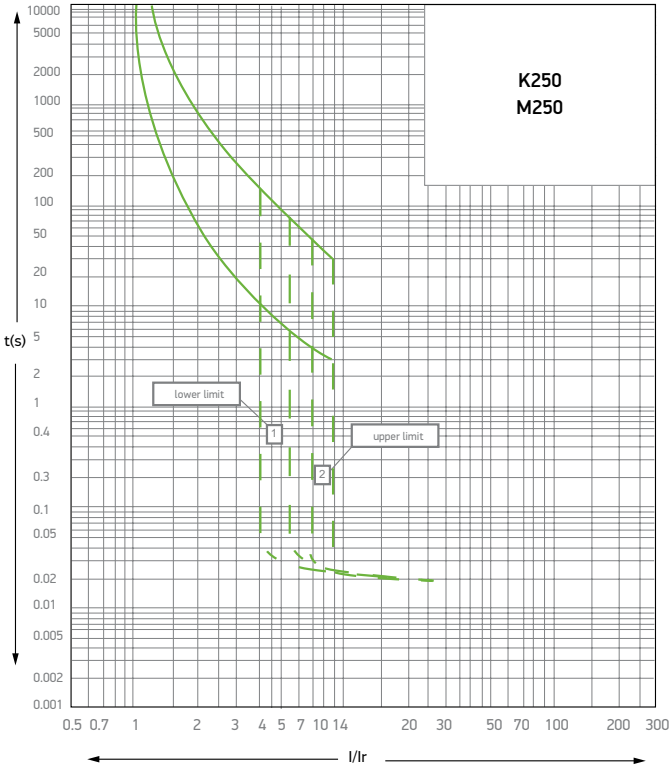
Uyarı: In>32
Ii=10*In(±%20)

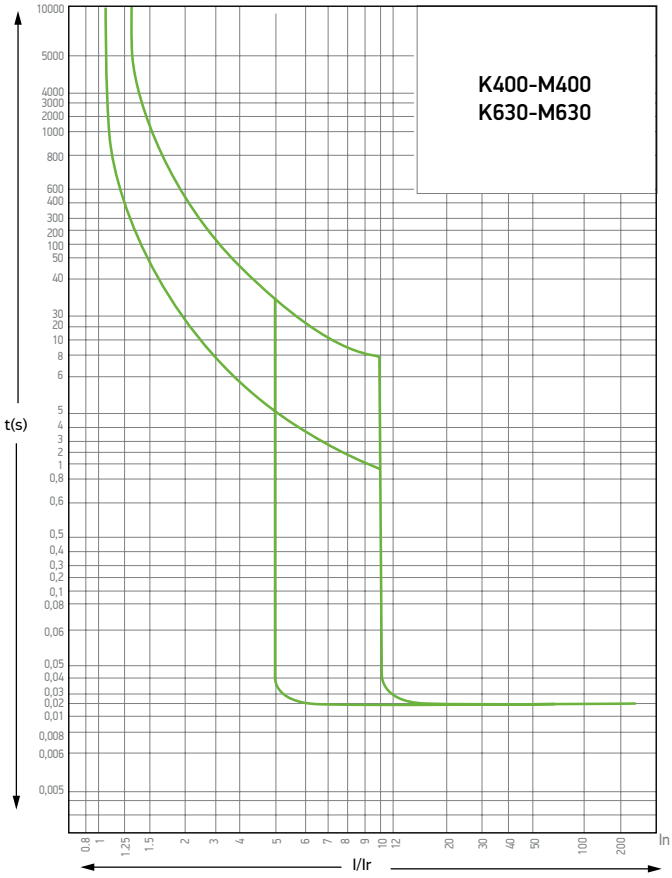
160A~250A

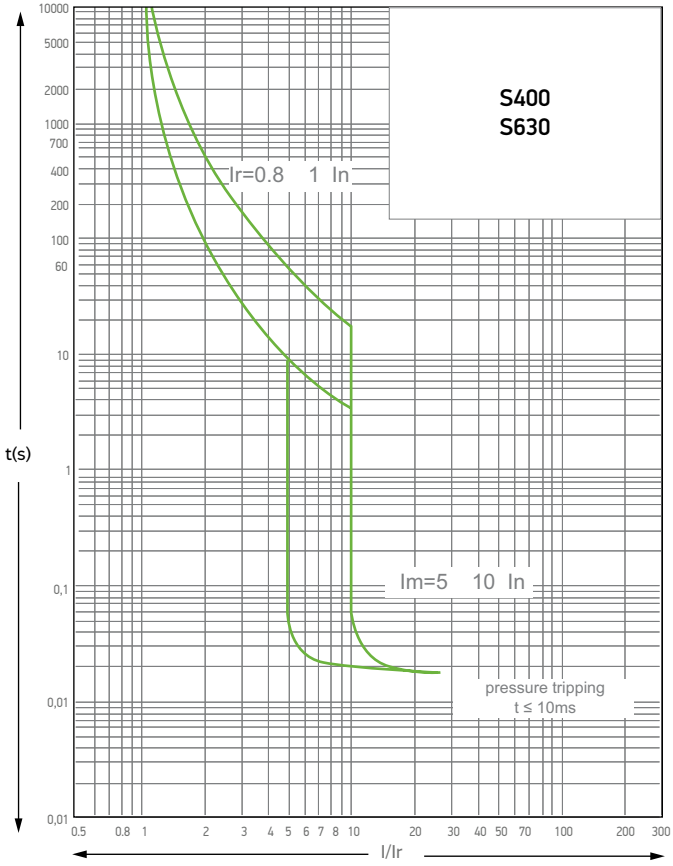


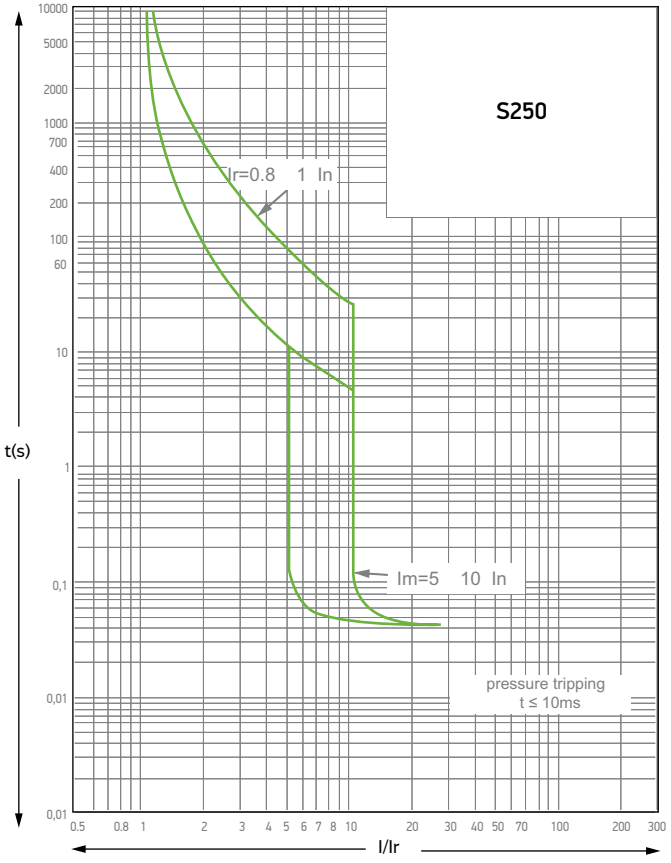
Uyarı: In>32
Ii=10*In(±%20)

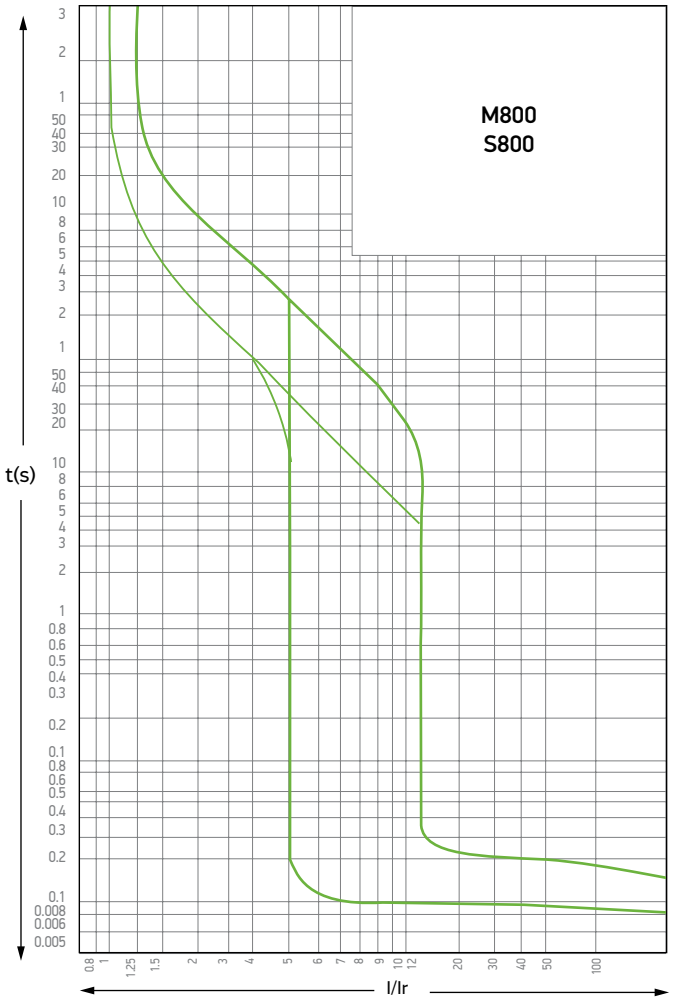


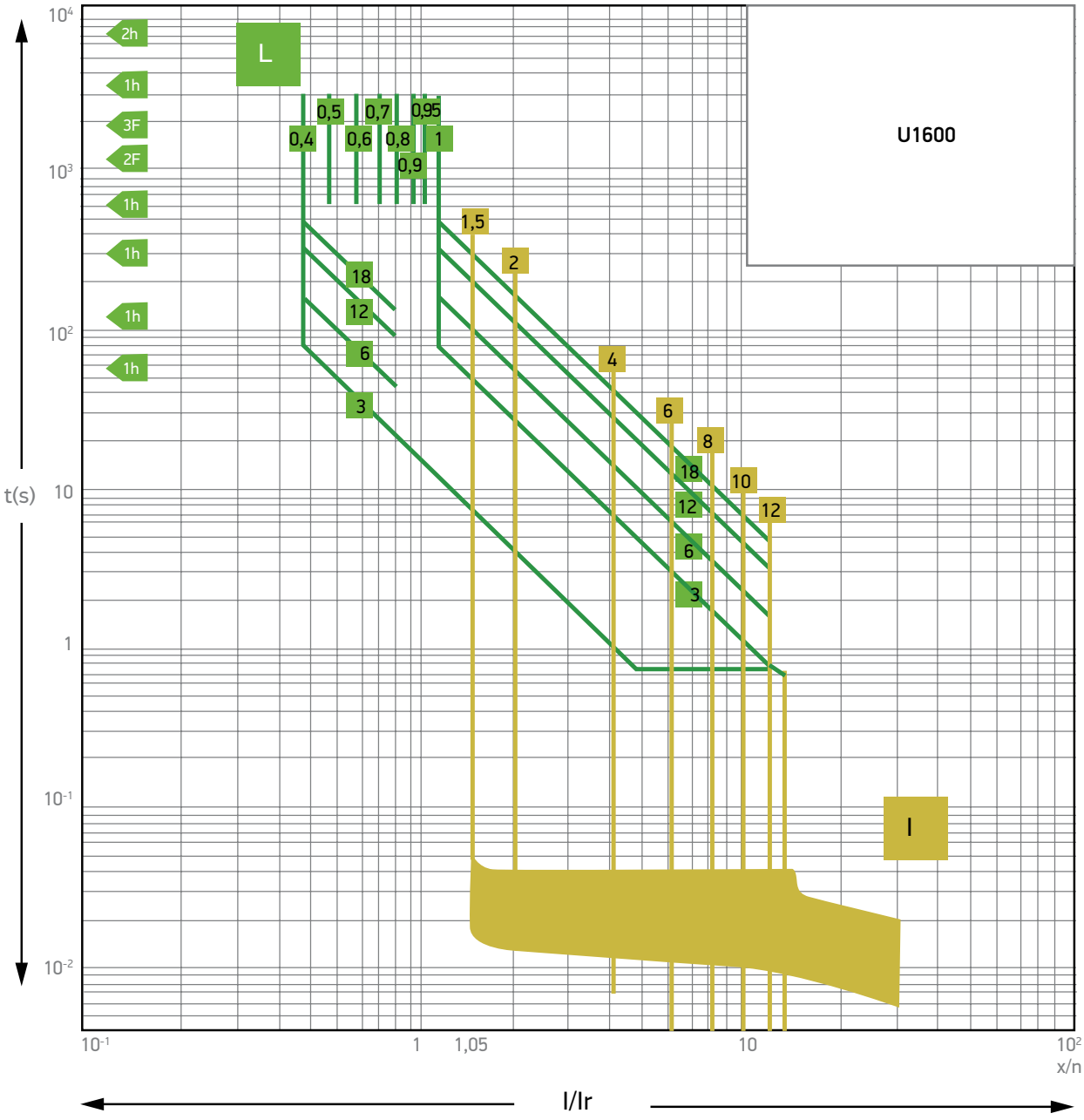



K400-M400
K630-M630
t(s)
In
I/Ir


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


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


M800
S800
t(s)
I/Ir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1h
3F
2F
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1h
1h
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0,6
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0,9
0,95
1
1,5
2
3
4
6
8
10
12
18
t(s)
10⁴
10³
10²
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10⁻²
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1
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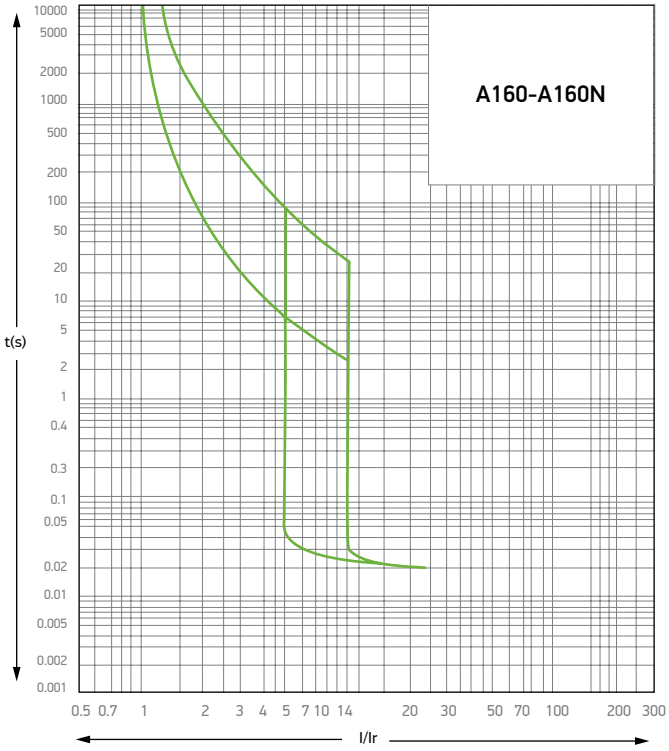
10
10²
x/n
I/Ir


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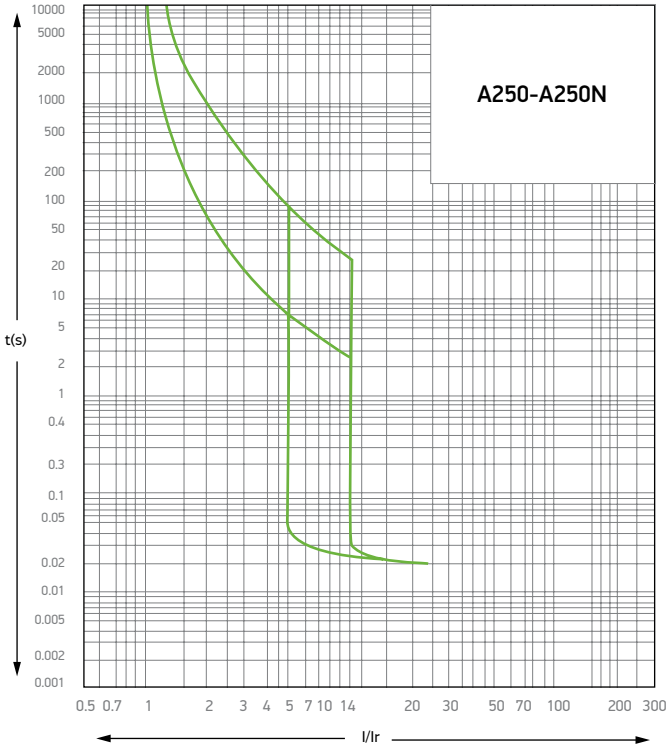
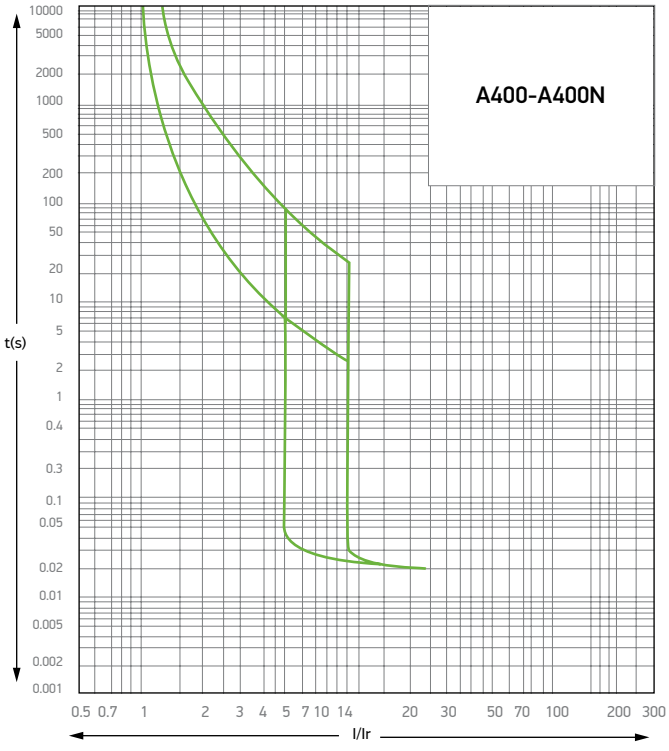
2000
1000
500
200
100
50
20
10
5
2
1
0.4
0.3
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.5 0.7 1 2 3 4 5 7 10 14 20 30 50 70 100 200 300
I/Ir


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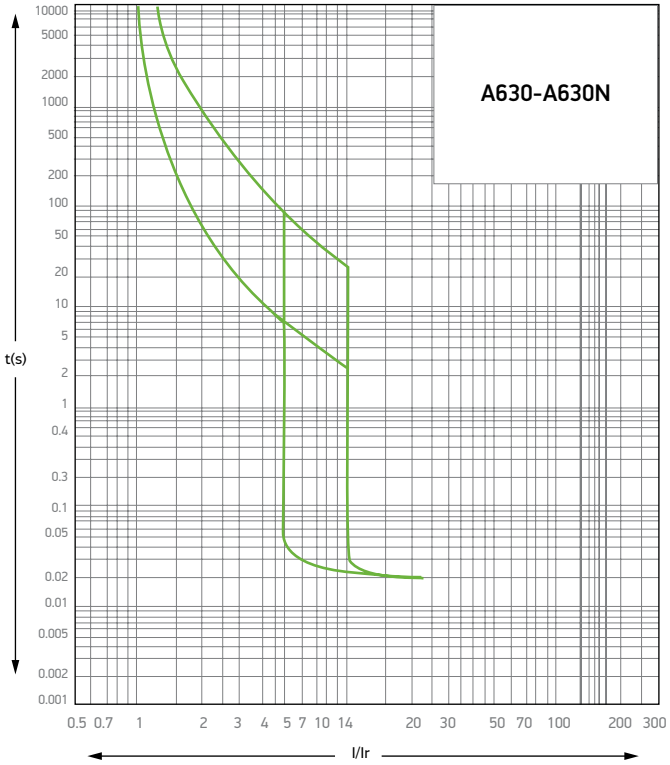
2
1
0.4
0.3
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.5 0.7 1 2 3 4 5 7 10 14 20 30 50 70 100 200 300
I/Ir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t(s)
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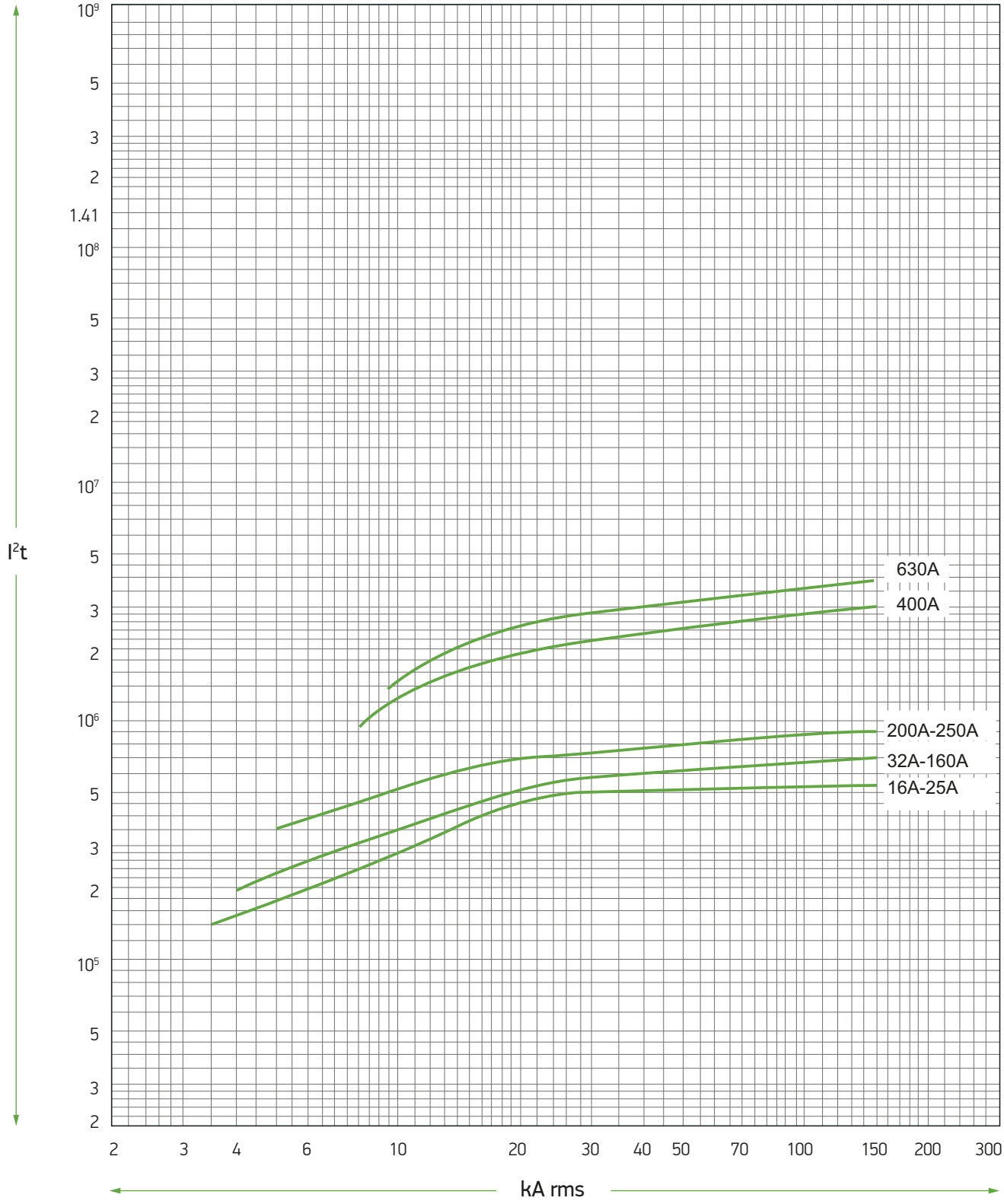
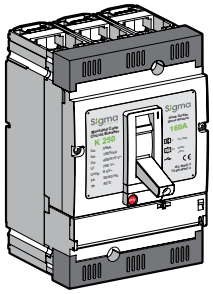
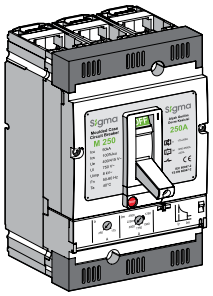
5000
2000
1000
500
200
100
50
20
10
5
2
1
0.4
0.3
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.5 0.7 1 2 3 4 5 7 10 14 20 30 50 70 100 200 300
I/Ir

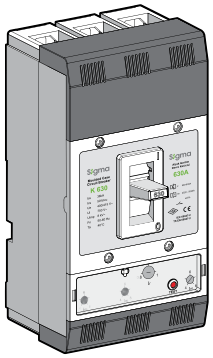
MCCB I^2T


I²t
10⁹
5
3
2
1.41
10⁸
5
3
2
10⁷
5
3
2
10⁶
5
3
2
10⁵
5
3
2
630A
400A
200A-250A
32A-160A
16A-25A
2
3
4
6
10
20
30
40
50
70
100
150
200
300
kA rms

3 Poles, Thermal-Magnetic Adjustable Type, MCCB (Protection for Power Distribution & Network)

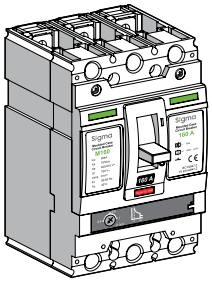


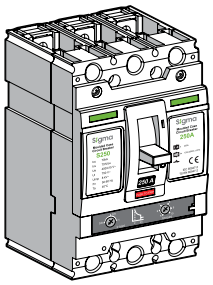


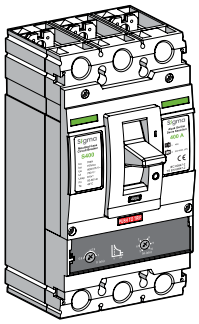


Type Code	Rated Current In (A)	Thermal Adj. Current Range Ir (A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
B160	25	20-25	10xIn	25	8	**3B160025**
	32	25-32	10xIn	25	8	**3B160032**
	40	32-40	10xIn	25	8	**3B160040**
	50	40-50	10xIn	25	8	**3B160050**
	63	50-63	10xIn	25	8	**3B160063**
	80	63-80	10xIn	25	8	**3B160080**
	100	80-100	10xIn	25	8	**3B160100**
	125	100-125	10xIn	25	8	**3B160125**
	160	125-160	10xIn	25	8	**3B160160**
B250	200	160-200	10xIn	36	4	**3B250200**
	250	200-250	10xIn	36	4	**3B250250**
K160	25	18-25	10xIn	36	6	**3K160025**
	32	23-32	10xIn	36	6	**3K160032**
	40	28-40	10xIn	36	6	**3K160040**
	50	35-50	10xIn	36	6	**3K160050**
	63	44-63	10xIn	36	6	**3K160063**
	80	56-80	10xIn	36	6	**3K160080**
	100	70-100	10xIn	36	6	**3K160100**
	125	88-125	10xIn	36	6	**3K160125**
	160	112-160	10xIn	36	6	**3K160160**
K250	63	44-63	(5-10)xIn	36	6	**3K250063**
	80	56-80	(5-10)xIn	36	6	**3K250080**
	100	70-100	(5-10)xIn	36	6	**3K250100**
	125	88-125	(5-10)xIn	36	6	**3K250125**
	160	112-160	(5-10)xIn	36	6	**3K250160**
	200	140-200	(5-10)xIn	36	6	**3K250200**
	250	175-250	(5-10)xIn	36	6	**3K250250**
K400	315	250-315	(5-10)xIn	36	2	**3K400315**
	400	315-400	(5-10)xIn	36	2	**3K400400**
K630	500	400-500	(5-10)xIn	36	2	**3K630500**
	630	500-630	(5-10)xIn	36	2	**3K630630**
M160	25	18-25	10xIn	50	6	**3M160025**
	32	23-32	10xIn	50	6	**3M160032**
	40	28-40	10xIn	50	6	**3M160040**
	50	35-50	10xIn	50	6	**3M160050**
	63	44-63	10xIn	50	6	**3M160063**
	80	56-80	10xIn	50	6	**3M160080**
	100	70-100	10xIn	50	6	**3M160100**
	125	88-125	10xIn	50	6	**3M160125**
	160	112-160	10xIn	50	6	**3M160160**

3 Poles, Thermal-Magnetic Adjustable Type, MCCB (Protection for Power Distribution & Network)

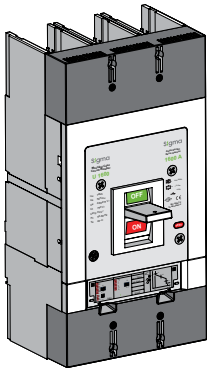






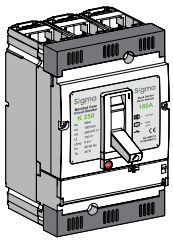
Type Code	Rated Current In (A)	Thermal Adj. Current Range Ir (A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
M250	63	44-63	(5-10)xIn	50	6	3M250063
	80	56-80	(5-10)xIn	50	6	3M250080
	100	70-100	(5-10)xIn	50	6	3M250100
	125	88-125	(5-10)xIn	50	6	3M250125
	160	112-160	(5-10)xIn	50	6	3M250160
	200	140-200	(5-10)xIn	50	6	3M250200
	250	175-250	(5-10)xIn	50	6	3M250250
M400	315	250-315	(5-10)xIn	50	2	3M400315
	400	315-400	(5-10)xIn	50	2	3M400400
M630	500	400-500	(5-10)xIn	50	2	3M630500
	630	500-630	(5-10)xIn	50	2	3M630630
M800	800	630-800	(5-10)xIn	50	2	3M800800
S250	100	80-100	(5-10)xIn	70	6	3S250100
	125	100-125	(5-10)xIn	70	6	3S250125
	160	125-160	(5-10)xIn	70	6	3S250160
	200	160-200	(5-10)xIn	70	6	3S250200
	250	200-250	(5-10)xIn	70	6	3S250250
S400	315	250-315	(5-10)xIn	70	2	3S400315
	400	315-400	(5-10)xIn	70	2	3S400400
S630	500	400-500	(5-10)xIn	70	2	3S630500
	630	500-630	(5-10)xIn	70	2	3S630630
S800	800	630-800	(5-10)xIn	70	2	3S800800

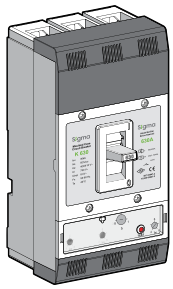
3 Poles, Electronic Type, MCCB



Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
U250	100	40-100	(1,5-10)xIn	36	6	3U250100
	160	64-160	(1,5-10)xIn	36	6	3U250160
	250	100-250	(1,5-10)xIn	36	6	3U250250
U1600	800	320-800	(1,5-10)xIn	36	1	3U160080
	1000	400-1000	(1,5-12)xIn	70	1	3U160010
	1250	500-1250	(1,5-12)xIn	70	1	3U160012
	1600	640-1600	(1,5-12)xIn	70	1	3U160016

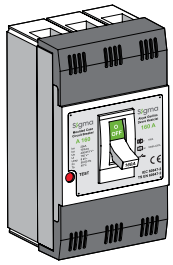
3 Poles, Thermal-Magnetic Adjustable Type, MCCB (For Motor Protection)

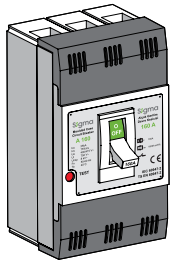


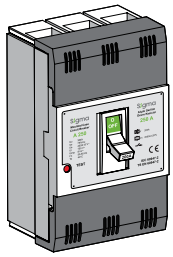


Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
K160	25	18-25	15xIn	36	8	MK160025
	32	23-32	15xIn	36	8	MK160032
	40	28-40	15xIn	36	8	MK160040
	50	35-50	15xIn	36	8	MK160050
	63	44-63	15xIn	36	8	MK160063
	80	56-80	15xIn	36	8	MK160080
	100	70-100	15xIn	36	8	MK160100
	125	88-125	15xIn	36	8	MK160125
	160	112-160	15xIn	36	8	MK160160
K250	200	140-200	(10-15)xIn	36	6	MK250200
	250	175-250	(10-15)xIn	36	6	MK250250
K400 (with Extention Bar)	315	250-315	(8-12)xIn	36	2	MK400315
	400	315-400	(8-12)xIn	36	2	MK400400
K630 (with Extention Bar)	500	400-500	(8-12)xIn	36	2	MK630500
	630	500-630	(8-12)xIn	36	2	MK630630

3 Poles, Thermal-Magnetic Fixed Type, MCCB (Protection for Power Distribution & Network)





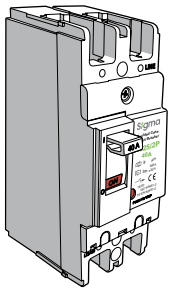


Type Code	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
A125	20	Fixed	10xIn	20	8	3A125020
	25	Fixed	10xIn	20	8	3A125025
	32	Fixed	10xIn	20	8	3A125032
	40	Fixed	10xIn	20	8	3A125040
	50	Fixed	10xIn	20	8	3A125050
	63	Fixed	10xIn	20	8	3A125063
	80	Fixed	10xIn	20	8	3A125080
	100	Fixed	10xIn	20	8	3A125100
	125	Fixed	10xIn	20	8	3A125125
A160	20	Fixed	10xIn	25	6	3A160020
	25	Fixed	10xIn	25	6	3A160025
	32	Fixed	10xIn	25	6	3A160032
	40	Fixed	10xIn	25	6	3A160040
	50	Fixed	10xIn	25	6	3A160050
	63	Fixed	10xIn	25	6	3A160063
	80	Fixed	10xIn	25	6	3A160080
	100	Fixed	10xIn	25	6	3A160100
	125	Fixed	10xIn	25	6	3A160125
	160	Fixed	10xIn	25	6	3A160160
A250	200	Fixed	10xIn	36	6	3A250200
	250	Fixed	10xIn	36	6	3A250250

1 Pole, Fixed Type, MCCB

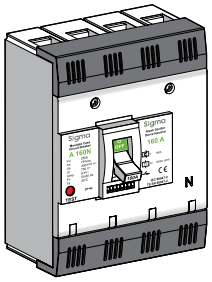
Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
KM200	16	Fixed	12xIn	36	20	1KM200016
	20	Fixed	12xIn	36	20	1KM200020
	25	Fixed	12xIn	36	20	1KM200025
	32	Fixed	10xIn	36	20	1KM200032
	40	Fixed	10xIn	36	20	1KM200040
	50	Fixed	10xIn	36	20	1KM200050
	63	Fixed	10xIn	36	20	1KM200063
	80	Fixed	10xIn	36	20	1KM200080
	100	Fixed	10xIn	36	20	1KM200100
	125	Fixed	10xIn	36	20	1KM200125
	160	Fixed	10xIn	36	20	1KM200160
	200	Fixed	10xIn	36	20	1KM200200

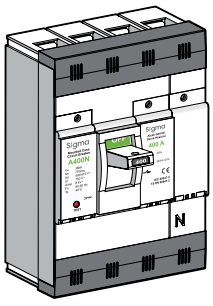
2 Poles, Thermal-Magnetic Fixed Type, MCCB



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

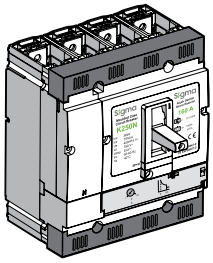
4 Poles, Thermal-Magnetic Fixed Type, MCCB (Protection for Power Distribution & Network)

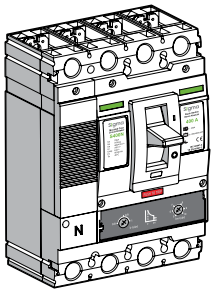




Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping Current Im (A)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
A160N	20	Fixed	10xIn	25	6	4A160020
	25	Fixed	10xIn	25	6	4A160025
	32	Fixed	10xIn	25	6	4A160032
	40	Fixed	10xIn	25	6	4A160040
	50	Fixed	10xIn	25	6	4A160050
	63	Fixed	10xIn	25	6	4A160063
	80	Fixed	10xIn	25	6	4A160080
	100	Fixed	10xIn	25	6	4A160100
	125	Fixed	10xIn	25	6	4A160125
	160	Fixed	10xIn	25	6	4A160160
A250N	200	Fixed	10xIn	36	6	4A250200
	250	Fixed	10xIn	36	6	4A250250
A400N	315	Fixed	10xIn	36	2	4A400315
	400	Fixed	10xIn	36	2	4A400400
A630N	500	Fixed	10xIn	36	1	4A630500
	630	Fixed	10xIn	36	1	4A630630
A800N	800	Fixed	10xIn	36	1	4A800800

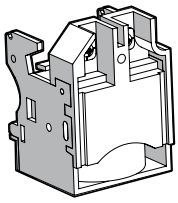
4 Poles, Thermal-Magnetic Adjustable Type, MCCB (Protection for Power Distribution & Network)





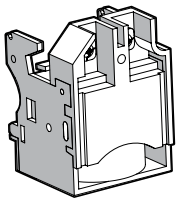
Type Code	Rated Current In (A)	Thermal Adj. Current Ir (A)	Instantaneous Tripping CurrentIm (A)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
B160N	25	20-25	10xIn	25	8	**4B160025**
	32	25-32	10xIn	25	8	**4B160032**
	40	32-40	10xIn	25	8	**4B160040**
	50	40-50	10xIn	25	8	**4B160050**
	63	50-63	10xIn	25	8	**4B160063**
	80	63-80	10xIn	25	8	**4B160080**
	100	80-100	10xIn	25	8	**4B160100**
	125	100-125	10xIn	25	8	**4B160125**
	160	125-160	10xIn	25	8	**4B160160**
K160N	25	18-25	10xIn	36	4	**4K160025**
	32	23-32	10xIn	36	4	**4K160032**
	40	28-40	10xIn	36	4	**4K160040**
	50	35-50	10xIn	36	4	**4K160050**
	63	44-63	10xIn	36	4	**4K160063**
	80	56-80	10xIn	36	4	**4K160080**
	100	70-100	10xIn	36	4	**4K160100**
	125	88-125	10xIn	36	4	**4K160125**
	160	112-160	10xIn	36	4	**4K160160**
B250N	100	70-100	10xIn	36	4	**4B250100**
	125	88-125	10xIn	36	4	**4B250125**
	160	112-160	10xIn	36	4	**4B250160**
	200	160-200	10xIn	36	4	**4B250200**
	250	200-250	10xIn	36	4	**4B250250**
K250N	200	140-200	(5-10)xIn	36	4	**4K250200**
	250	175-250	(5-10)xIn	36	4	**4K250250**
M250N	100	70-100	(5-10)xIn	50	4	**4M250100**
	125	88-125	(5-10)xIn	50	4	**4M250125**
	160	112-160	(5-10)xIn	50	4	**4M250160**
	200	140-200	(5-10)xIn	50	4	**4M250200**
	250	175-250	(5-10)xIn	50	4	**4M250250**
S400N	315	250-315	(5-10)xIn	70	2	**4S400315**
	400	315-400	(5-10)xIn	70	2	**4S400400**
S630N	500	400-500	(5-10)xIn	70	2	**4S630500**
	630	500-630	(5-10)xIn	70	2	**4S630630**

Shunt Trip Release



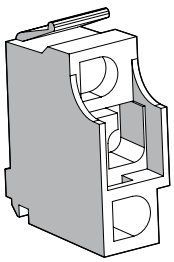
Applicable MCCB	Coil Voltage (V)	Order Code
B160 - B160N - A160 - A160N	230 AC	**B0160AB230AC**
B250 - B250N - A250 - A250N	230 AC	**B0250AB230AC**
K160 - K250 - M250 - K160N - K250N - M250N - U250	230 AC	**K0250AB230AC**
K160 - K250 - M250 - K160N - K250N - M250N - U250	24- 30 DC	**K0250AB030DC**
M160 - S250 - S400 - S630 - S400N - S630N	230 AC	**S0630AB230AC**
K400 - M400 - K630 - M630 - A400 - A630	230 AC	**K0630AB230AC**
A400N - A630N - M800 - S800 - A800N	230 AC	**A0800AB230AC**
U1600	230 AC	**U1600AB230AC**

Under Voltage Release



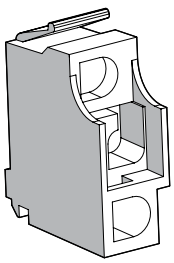
Applicable MCCB	Coil Voltage (V)	Order Code
K160 - K250 - M250 - K160N - K250N - M250N - U250	400 AC	**K0250DG400AC**
M160 - S250 - S400 - S630 - S400N - S630N	400 AC	**S0630DG400AC**
K400 - M400 - K630 - M630 - A400 - A630	400 AC	**K0630DG400AC**
A400N - A630N - M800 - S800 - A800N	400 AC	**A0800DG400AC**
U1600	400 AC	**U1600DG400AC**

Auxiliary Contact



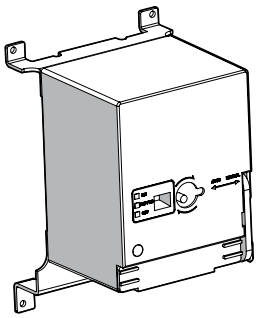
Applicable MCCB	Auxiliary Contact	Order Code
B160 - B160N - B250 - B250N - A160 - A160N - A250 - A250N	1NO+1NC	**B0160YK**
B160 - B160N - B250 - B250N - A160 - A160N - A250 - A250N	2NO+2NC	**B0160YL**
K160 - K250 - M250 - K160N - K250N - M250N - U250	1NO+1NC	**K0250YK**
M160 - S250 - S400 - S630 - S400N - S630N	1NO+1NC	**S0630YK**
K400 - M400 - K630 - M630 - A400 - A630	1NO+1NC	**K0630YK**
A400N - A630N - M800 - S800 - A800N	1NO+1NC	**A0800YK**
U1600	1NO+1NC	**U1600YK**

Alarm Contact



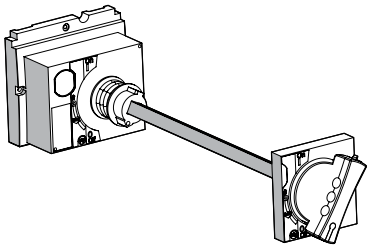
Applicable MCCB	Auxiliary Contact	Order Code
B160 - B160N - B250 - B250N - A160 - A160N - A250 - A250N	1NO+1NC	**B0160AK**
K160 - K250 - M250 - K160N - K250N - M250N - U250	1NO+1NC	**K0250AK**
M160 - S250 - S400 - S630 - S400N - S630N	1NO+1NC	**S0630AK**
K400 - M400 - K630 - M630 - A400 - A630	1NO+1NC	**K0630AK**
A400N - A630N - M800 - S800 - A800N	1NO+1NC	**A0800AK**
U1600	1NO+1NC	**U1600AK**

Motor Operator



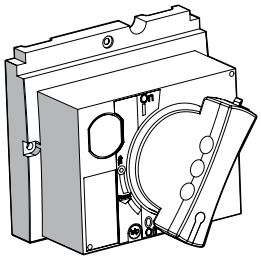
Applicable MCCB	Coil Voltage (V)	Order Code
K160 - K250 - M250 - K160N - K250N - M250N - U250	230 AC	**K0250MM**
K400 - M400 - K630 - M630 - A400 - A630	230 AC	**K0630MM**
S250	230 AC	**S0250MM**
S400-S630	230 AC	**S0400MM**
M160	230 AC	**M0160MM**
A400N	230 AC	**A0400MM**
A630N - A800N - M800 - S800	230 AC	**A0800MM**
U1600	230 AC	**U1600MM**

Extension Rotary Handle (with extension shaft)



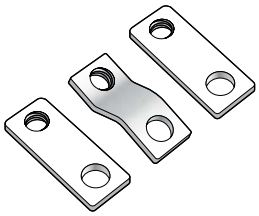
Applicable MCCB	Order Code
K160 - K250 - M250 - K160N - K250N - M250N - U250	**K0250DU**
M160	**M0160DU**
S250	**S0250DU**

Rotary Handle (Direct Assembly)



Applicable MCCB	Order Code
K160 - K250 - M250 - K160N - K250N - M250N	**K0250DK**
M160	**M0160DK**
S250	**S0250DK**
K400 - M400 - K630 - M630 - A400 - A630	**K0630DK**
A400N	**A0400DK**
A630N - M800 - K800 -S800 - A800N	**A0800DK**
U1600	**U1600DK**

Extension Bus Bar Set (6 Pcs/Set)

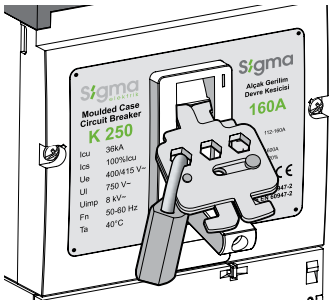


Applicable MCCB	Piece	Order Code
K160 - K250 - M250 - S250 - A250 - U250	6	**K0250UB**
K160N - K250N - M250N - A250N	8	**K0250UN**
A160 - M160	6	**A0160UB**
A160N	8	**A0160UN**
A400 - S400	6	**A0400UB**
A400N - S400N	8	**A0400UN**
S630	6	**S0630UB**
S630N	8	**S0630UN**
U1600	6	**U1600UB**
B160	6	**B0160UB**
B160N	8	**B0160UN**

Connection Terminals

Applicable MCCB	Piece	Order Code
K160 - K250 - M250 - U250	6	**K0250BK**
A160-B160	6	**A3160BK**
A160N-B160N	8	**A4160BK**
B250	6	**B3250BK**
B250N	8	**B4250BK**

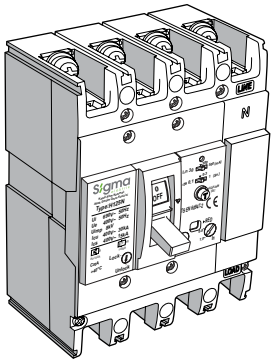
Mechanical Pad Lock



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

Note: Padlock is not included offered price.

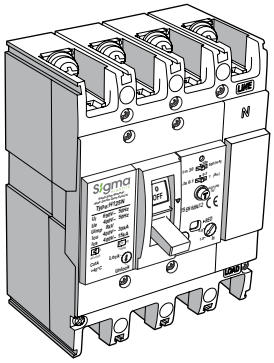
4 Poles Earth Leakage Circuit Breakers, Thermal Adjustable



Type Code	Rated Current (A)	Breaking Capacity Icu (kA)	Thermal Adj. Current Ir (A)	No of Poles	Residual Current IΔn (mA)	Threshold Tripping Time (s)	Pcs in a Box	Order Code
H125N	40	30	32-40	4	30-300-500	0.1-0.3-1	8	**4H125040**
	50	30	40-50				8	**4H125050**
	63	30	50-63				8	**4H125063**
	80	30	63-80				8	**4H125080**
	100	30	80-100				8	**4H125100**
	125	30	100-125				8	**4H125125**
H250N	160	30	128-160	4	30-300-500	0.1-0.3-1	4	**4H250160**
	200	30	160-200				4	**4H250200**
	250	30	200-250				4	**4H250250**

Note: Please ask delivery period for 160-200-250 A.

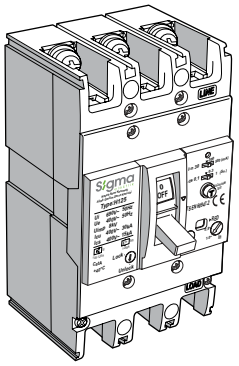
4 Poles Earth Leakage Circuit Breakers, Thermal Adjustable (with Shunt Trip Release)



Type Code	Rated Current (A)	Breaking Capacity Icu (kA)	Thermal Adj. Current Ir (A)	No of Poles	Residual Current IΔn (mA)	Threshold Tripping Time (s)	Pcs in a Box	Order Code
H125N	40	30	32-40	4	30-300-500	0.1-0.3-1	8	**4J125040**
	50	30	40-50				8	**4J125050**
	63	30	50-63				8	**4J125063**
	80	30	63-80				8	**4J125080**
	100	30	80-100				8	**4J125100**
	125	30	100-125				8	**4J125125**
H250N	160	30	128-160	4	30-300-500	0.1-0.3-1	4	**4J250160**
	200	30	160-200				4	**4J250200**
	250	30	200-250				4	**4J250250**

Note: Please ask delivery period for 160-200-250 A.

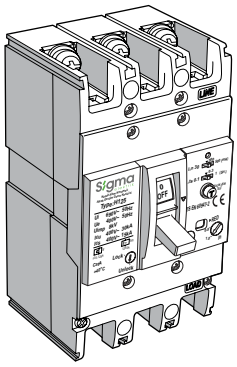
3 Poles Earth Leakage Circuit Breakers, Thermal Adjustable



Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Thermal Adj. Current Ir (A)	No of Poles	Residual Current IΔn (mA)	Threshold Tripping Time (s)	Pcs in a Box	Order Code
H125	40	30	32-40	3	30-300-500	0.1-0.3-1	8	**3H125040**
	50	30	40-50				8	**3H125050**
	63	30	50-63				8	**3H125063**
	80	30	63-80				8	**3H125080**
	100	30	80-100				8	**3H125100**
	125	30	100-125				8	**3H125125**
H250	160	30	128-160	3	30-300-500	0.1-0.3-1	4	**3H250160**
	200	30	160-200				4	**3H250200**
	250	30	200-250				4	**3H250250**

Note: Please ask delivery period for 160-200-250 A.

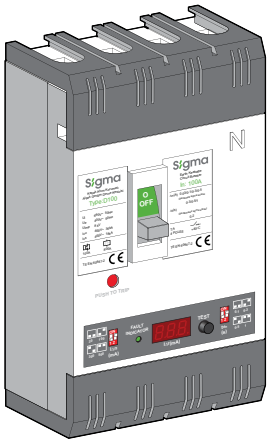
3 Poles Earth Leakage Circuit Breakers, Thermal Adjustable (with Shunt Trip Release)



Type Code	Rated Current (A)	Breaking Capacity Icu (kA)	Thermal Adj. Current Ir (A)	No of Poles	Residual Current IΔn	Threshold Tripping Time (s)	Pcs in a Box	Order Code
H125	40	30	32-40	3	30-300-500 mA	0.1-0.3-1	8	**3J125040**
	50	30	40-50				8	**3J125050**
	63	30	50-63				8	**3J125063**
	80	30	63-80				8	**3J125080**
	100	30	80-100				8	**3J125100**
	125	30	100-125				8	**3J125125**
H250	160	30	128-160	3	30-300-500 mA	0.1-0.3-1	4	**3J250160**
	200	30	160-200				4	**3J250200**
	250	30	200-250				4	**3J250250**

Note: Please ask delivery period for 160-200-250 A.

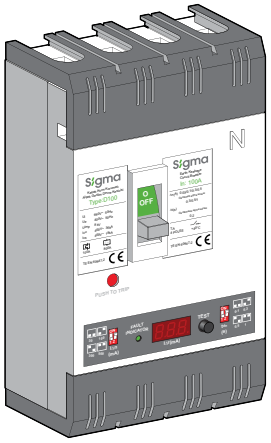
4 Poles, Earth Leakage Circuit Breakers



Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Threshold Current (A)	Threshold Time (s)	Minimum Order	Pcs in a Box	Order Code
D100	40	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4D100040**
	50	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4D100050**
	63	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4D100063**
	80	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4D100080**
	100	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4D100100**
	125	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4D250125**
D250	160	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4D250160**
	200	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4D250200**
	250	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4D250250**
D400	250	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	2	**4D400250**
	315	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	2	**4D400315**
	400	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	2	**4D400400**
D630	630	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	1	**4D630630**

Note: D400 and D630 type LV Circuit breakers are dispatched with bus bars as standard.
Please ask delivery period for D250 250A LV MCCB.

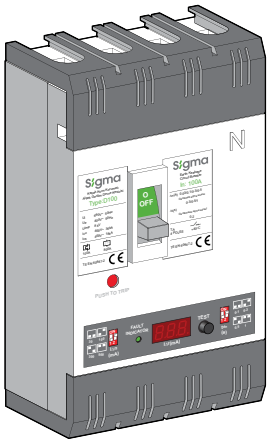
4 Poles, Earth Leakage Circuit Breakers (with Shunt Trip Release)



Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Threshold current (A)	Threshold time (s)	Minimum Order	Pcs in a Box	Order Code
D100	40	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4E100040**
	50	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4E100050**
	63	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4E100063**
	80	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4E100080**
	100	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	4	**4E100100**
	125	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4E250125**
D250	160	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4E250160**
	200	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4E250200**
	250	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4E250250**
D400	250	50	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	1	2	**4E400250**
	315	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	2	**4E400315**
	400	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	2	**4E400400**
D630	630	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	1	**4E630630**

Note: D400 and D630 type LV Circuit breakers are dispatched with bus bars as standard.
Please ask delivery period for D250 250A

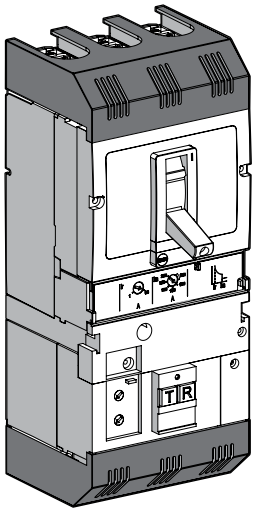
4 Poles, Earth Leakage Circuit Breakers (Shunt Trip Release +Auxiliary Contacts)



Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Threshold Current (mA)	Threshold Tripping Time (sec)	Pcs in a Box	Order Code
D100	40	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	4	**4F100040**
	50	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	4	**4F100050**
	63	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	4	**4F100063**
	80	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	4	**4F100080**
	100	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	4	**4F100100**
D250	125	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	2	**4F250125**
	160	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	2	**4F250160**
	200	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	2	**4F250200**
	250	36	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	2	**4F250250**
D400	250	50	0,03-0,1-0,3-0,5	0,1-0,3-0,5-1	2	**4F400250**
	315	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	2	**4F400315**
	400	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	2	**4F400400**
D630	630	50	0,1-0,2-0,3-0,5	0,1-0,3-0,5-1	1	**4F630630**

Note: D400 and D630 type LV Circuit breakers are dispatched with bus bars as standard.
Please ask delivery period for D250 250A

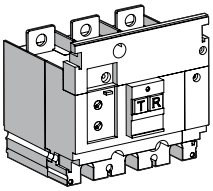
3 Poles, Earth Leakage Circuit Breakers



Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Threshold Current (mA)	Threshold Tripping Time (sec)	Pcs in a Box	Order Code
F250	25	36	0,03-0,3-0,5-1-3	0-0,1-0,5-1	6	**3F250025**
	32	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250032**
	40	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250040**
	50	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250050**
	63	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250063**
	80	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250080**
	100	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250100**
	125	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250125**
	160	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250160**
	200	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250200**
	250	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3F250250**

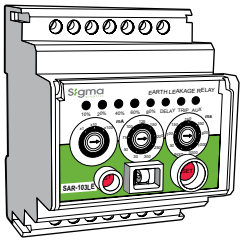
Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Threshold Current (mA)	Threshold Tripping Time (sec)	Pcs in a Box	Order Code
F250 (With Shunt Trip Release)	25	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250025**
	32	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250032**
	40	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250040**
	50	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250050**
	63	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250063**
	80	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250080**
	100	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250100**
	125	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250125**
	160	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250160**
	200	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250200**
	250	36	0,03-0,3-0,5-1-3	0,1-0,3-0,5-1	6	**3G250250**

Earth Leakage Module



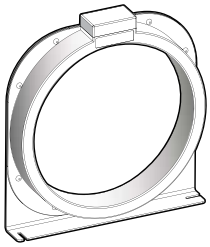
Applicable MCCB	Threshold Current (mA)	Threshold Tripping Time (sec)	Order Code
K160 - K250 - M250 - U250	0,03-0,3-0,5-1-3	0-0,1-0,5-1	**3F250**

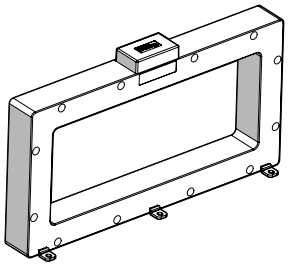
Earth Leakage Detection Relay



Threshold Current (mA)	Threshold Tripping Time (sec)	Order Code
0,03 - 30	0,03-3	**SAR103LE**

Troidal Current Transformer





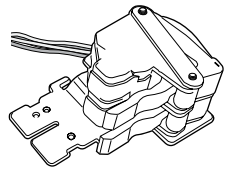
Type	İnner Diameter Φ (mm)	Pcs in a Box	Order Code
ST-80	80	40	**ST080**
ST-110	110	30	**ST110**
ST-160	160	15	**ST160**
ST-210	210	12	**ST210**
ST-300	300	1	**ST300**
STA-110*	110	1	**STA-110**
STA-210*	210	1	**STA-210**
ST-280x115 (Rectangle)	280x115	1	**STD280**
ST-470x160 (Rectangle)	470x160	1	**STD470**

Toroidal Current Transformers should be ordered with SAR-103LE Earth Leakage Protection Relay.
* Split-Core Type Current Transformers

Choosing the Right Toroidal Current Transformer

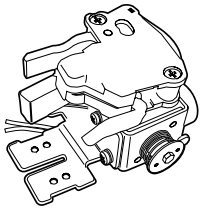
Type	Diameter	Applicable MCCB
ST-80	**80**	B160, A160
ST-110, STA-110	**110**	B250, K160, M160, K250, M250, A250, S250, U250, A160N, B160N
ST-160	**160**	K400, M400, S400, A400, K630, M630, S630, A250N, B250N, K250N, M250N, K160N
ST-210, STA210	**210**	A630, S800, A400N, S400N, S630N, U1600
ST-300	**300**	A630N, A800N
ST-280*115	**280*115**	A630N, A800N
ST-470*160	**470*160**	SFA1600, SFA2000, SFA1600N, SFA2000N, SFA2500, SFA3200, SDA1000, SDA1250, SDA1600, SDA2000

Auxiliary Contacts



Applicable MCCB	Auxiliary Contact	Order Code
D100	1NO+1NC	**D0100YK**
D250	1NO+1NC	**D0250YK**
D400	1NO+1NC	**D0400YK**
D630	1NO+1NC	**D0630YK**
F250	1NO+1NC	**K0250YK**

Shunt Trip Release

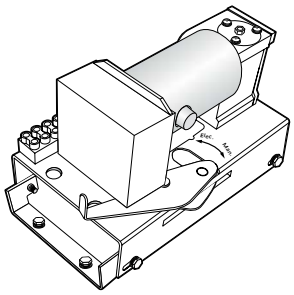


Applicable MCCB	Coil Voltage (V)	Order Code
D100	230 AC	**D0100AB**
D250	230 AC	**D0250AB**
D400	230 AC	**D0400AB**
D630	230 AC	**D0630AB**
F250	230 AC	**K0250AB**

Shunt Trip Release

Type Code	Rated Current In (A)	Applicable MCCB	Order Code
H125AB	230	40-250 A	**H125AB**
H250AB	230	40-250 A	**H250AB**

Motor Operator

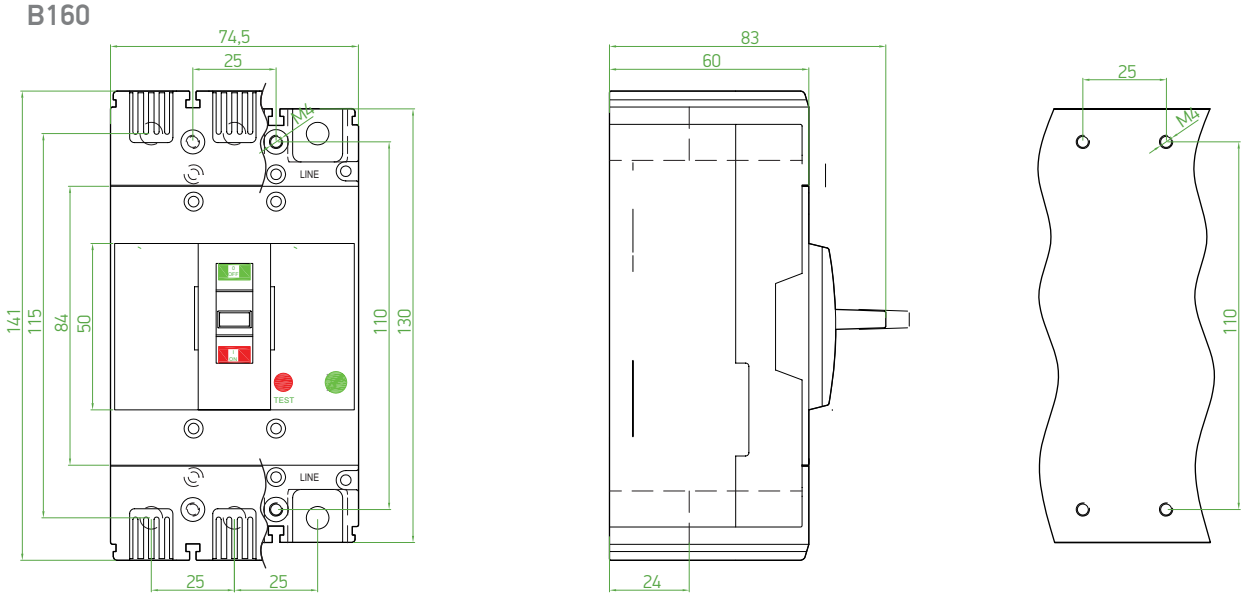


Applicable MCCB	Coil Voltage (V)	Order Code
D100	230 AC	**D0100MM**
D250	230 AC	**D0250MM**
D400	230 AC	**D0400MM**
D630	230 AC	**D0630MM**

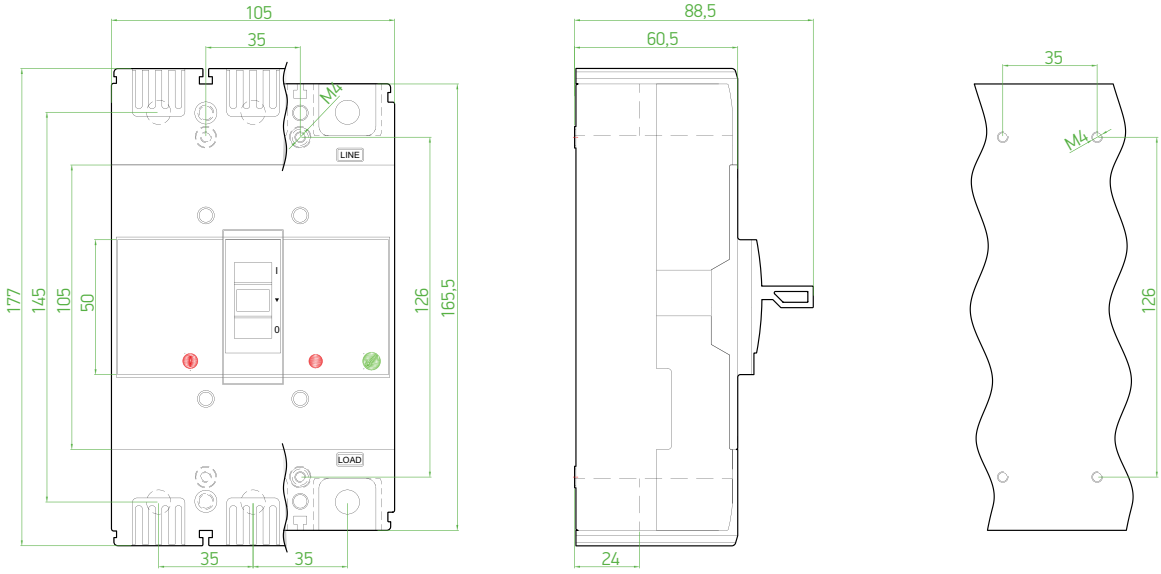
Note: Ask delivery time for Motor Mechanism to be used in D Type AG Circuit Breakers.

Dimensions

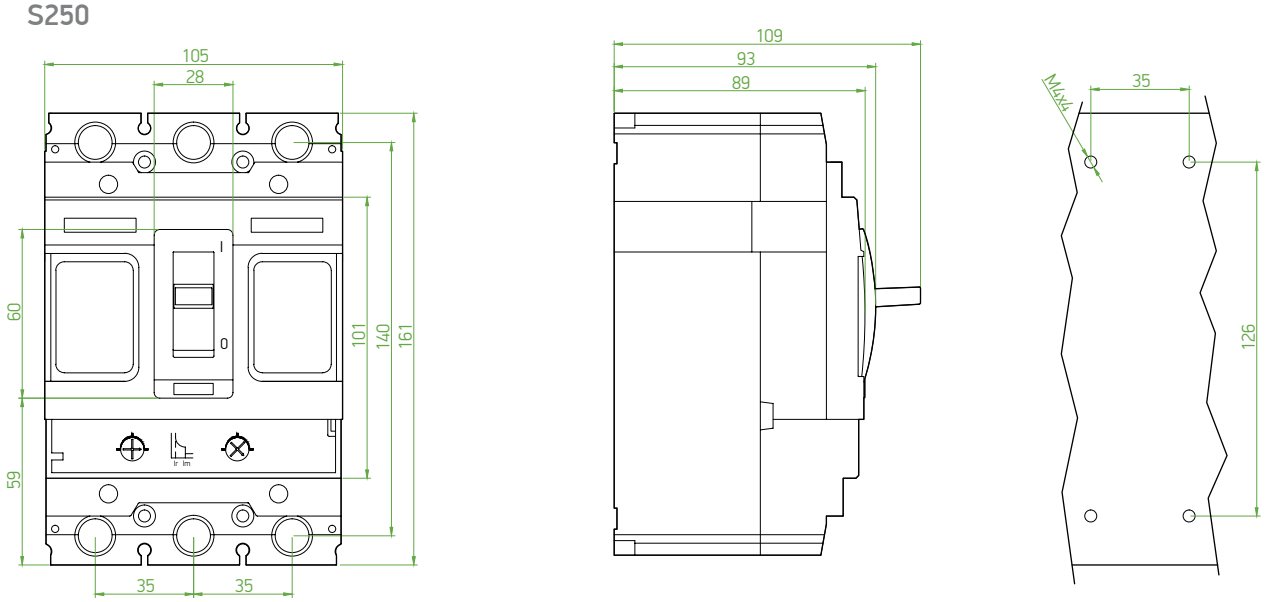
B160



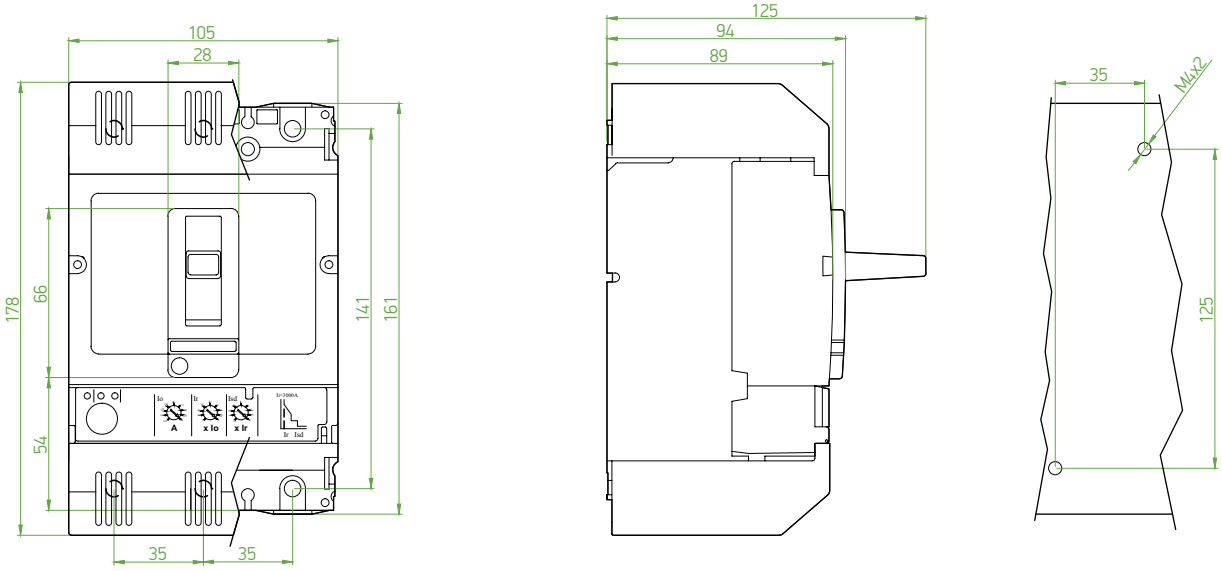
B250



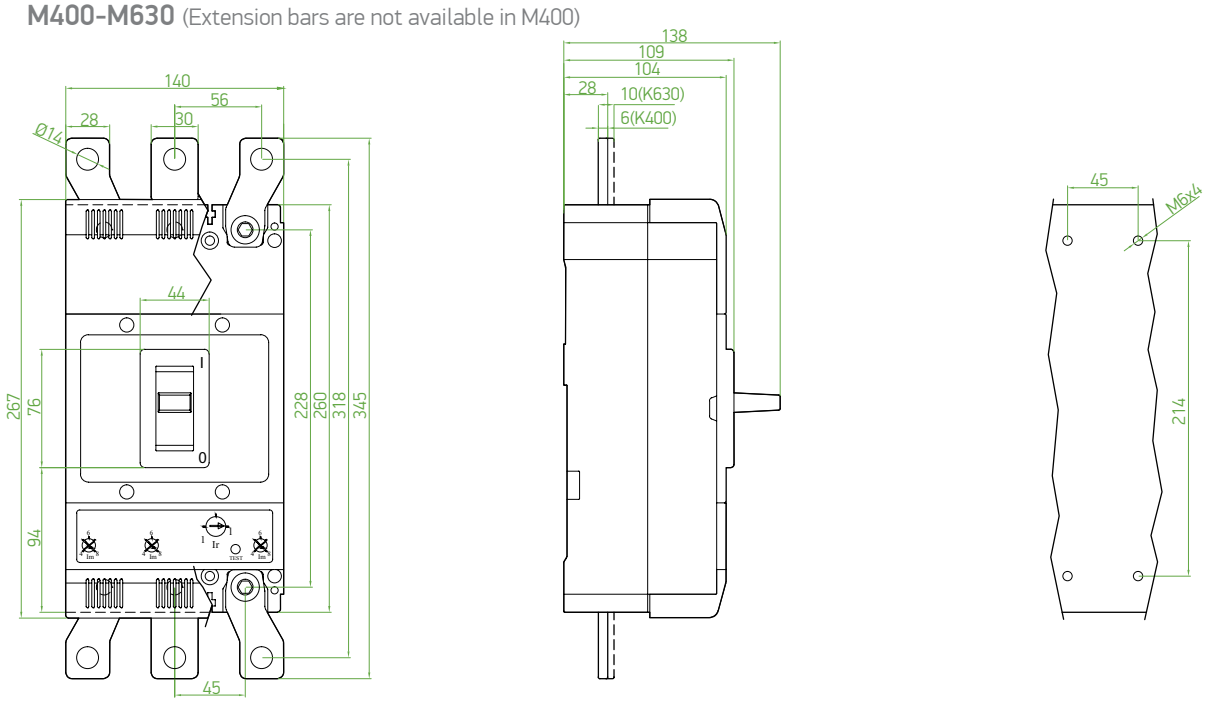
S250



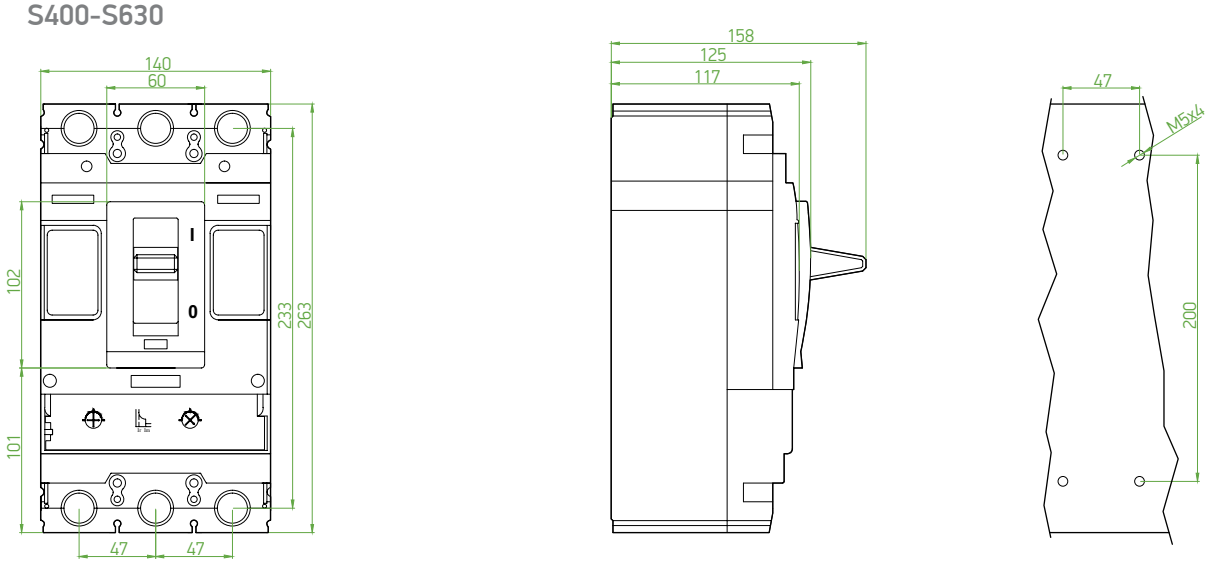
U250



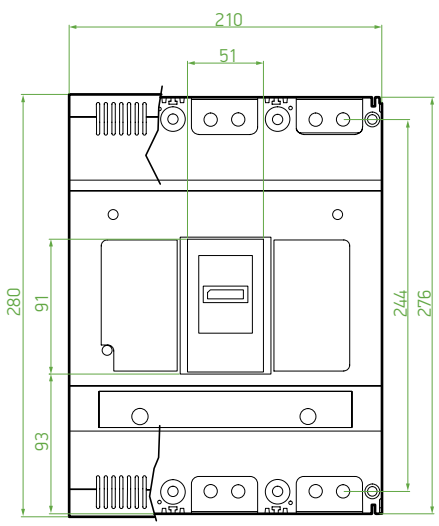
M400-M630 (Extension bars are not available in M400)

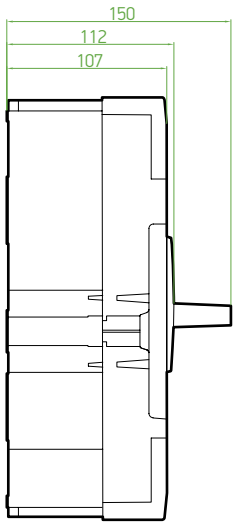


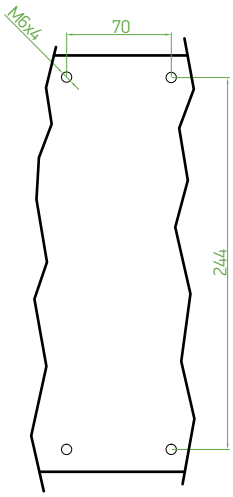
S400-S630



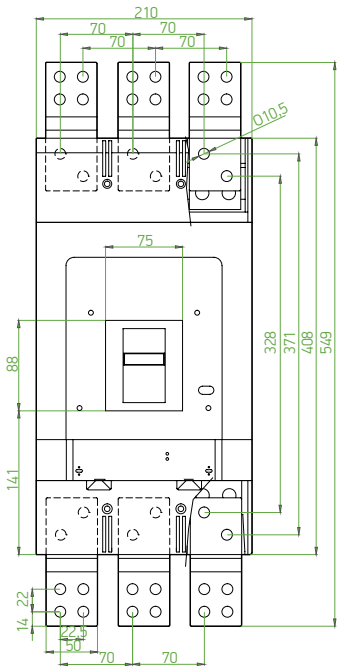
M800-S800

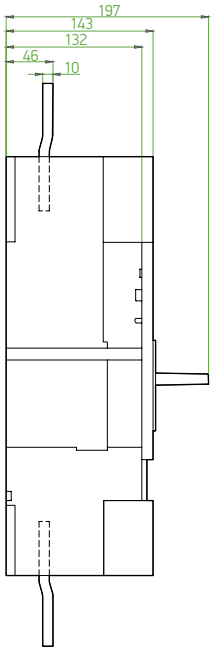


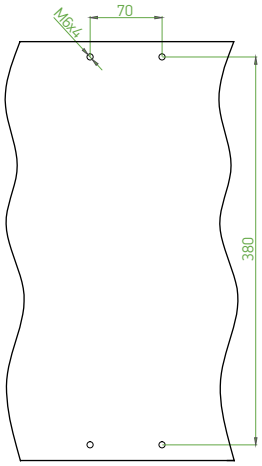




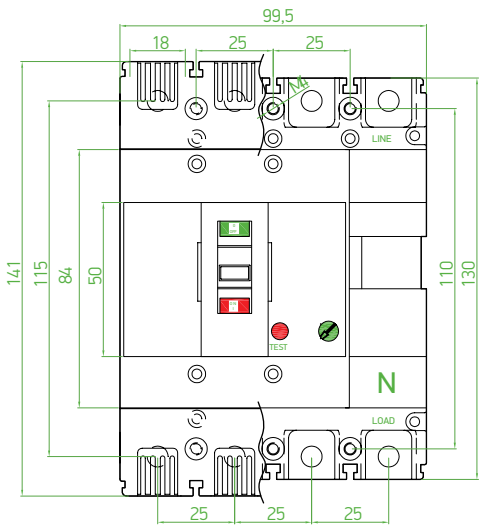
U1600

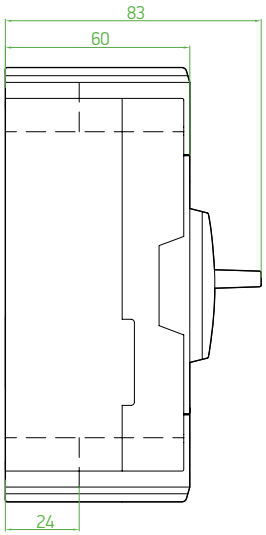


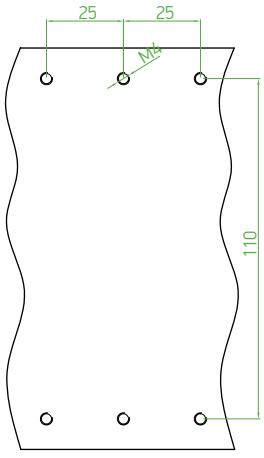




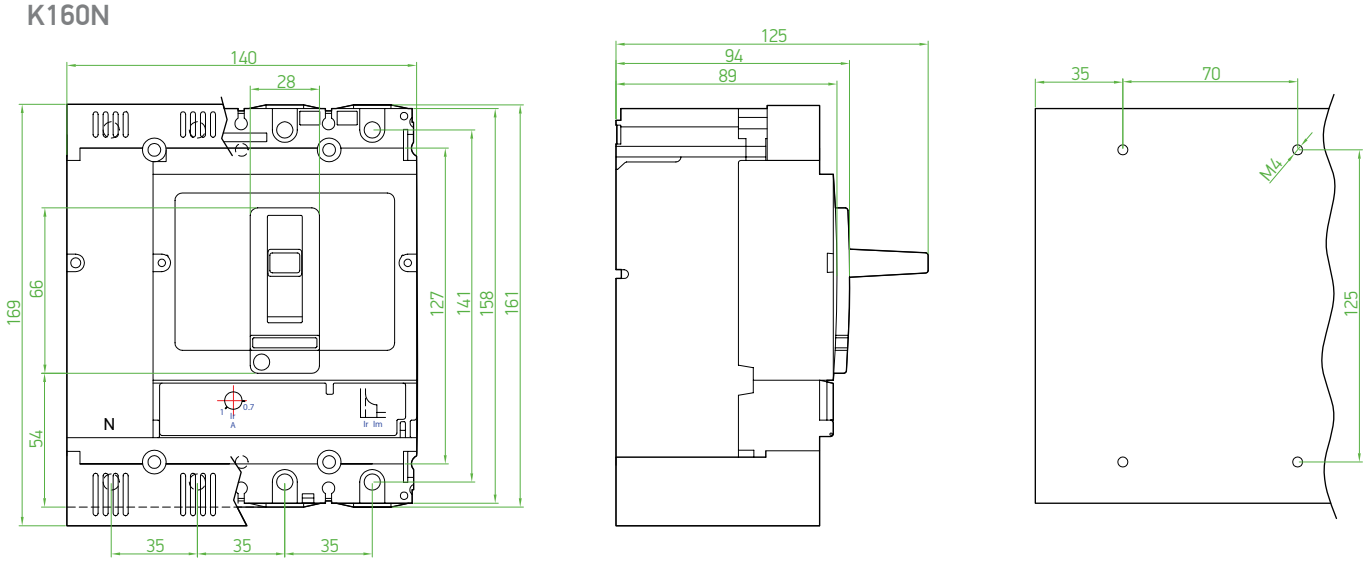
B160N



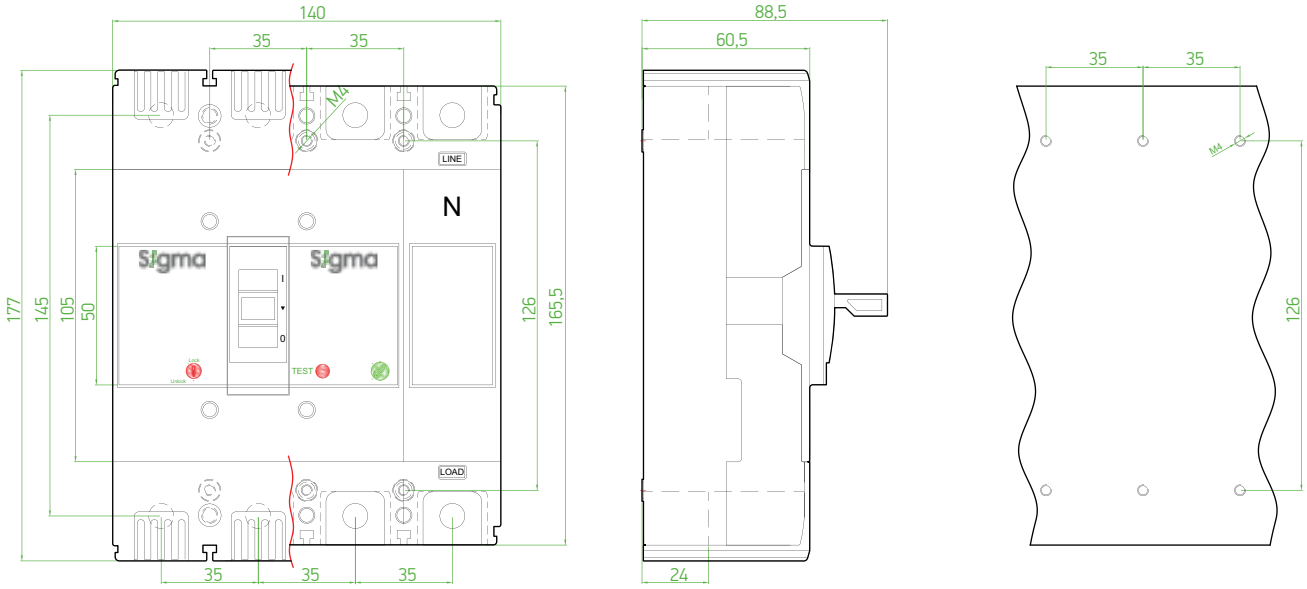




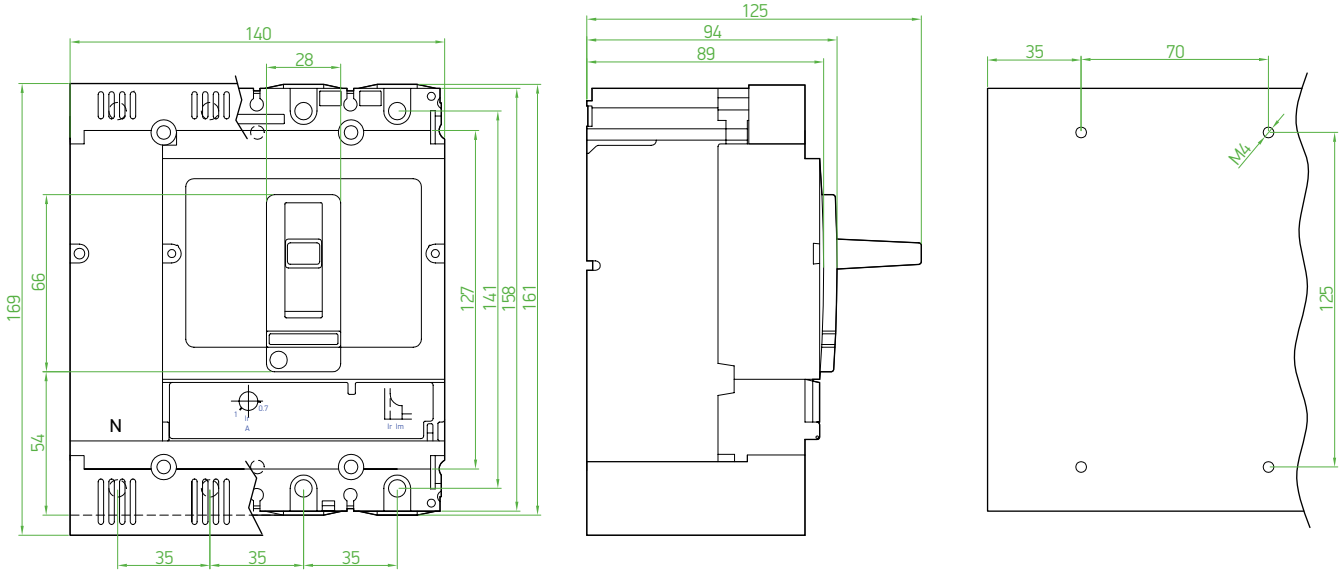
K160N



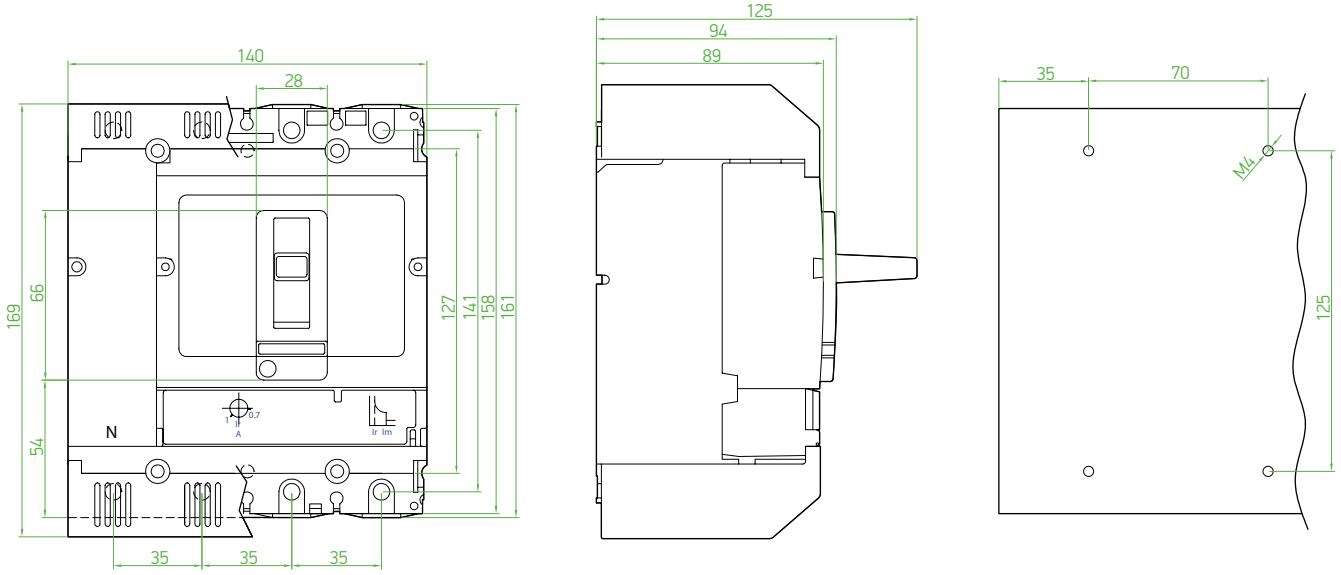
B250N



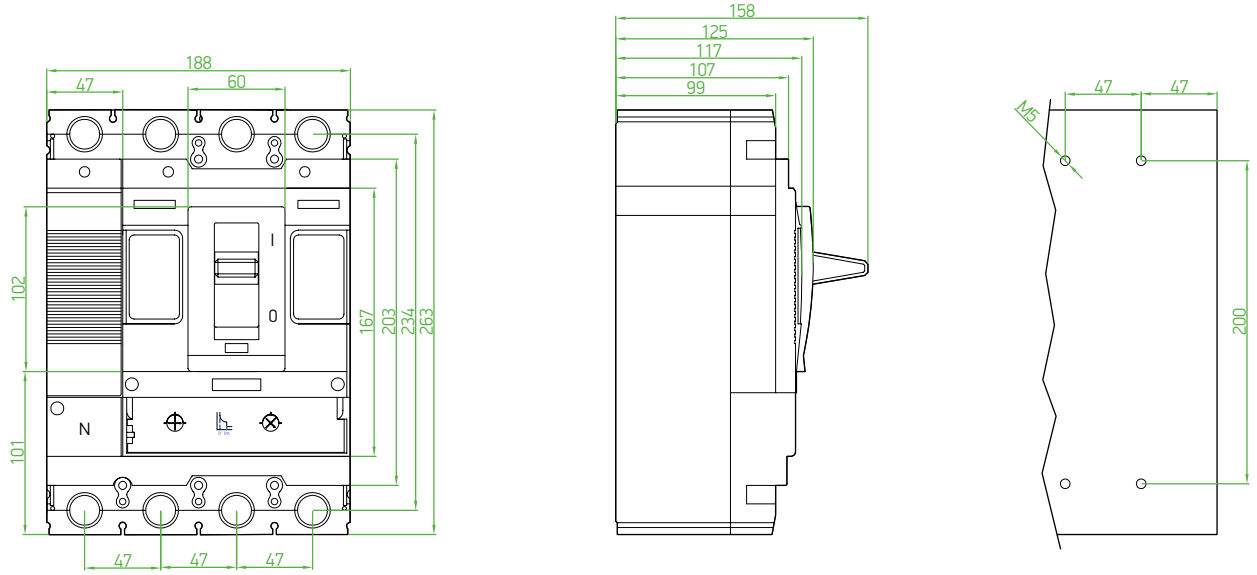
K250N



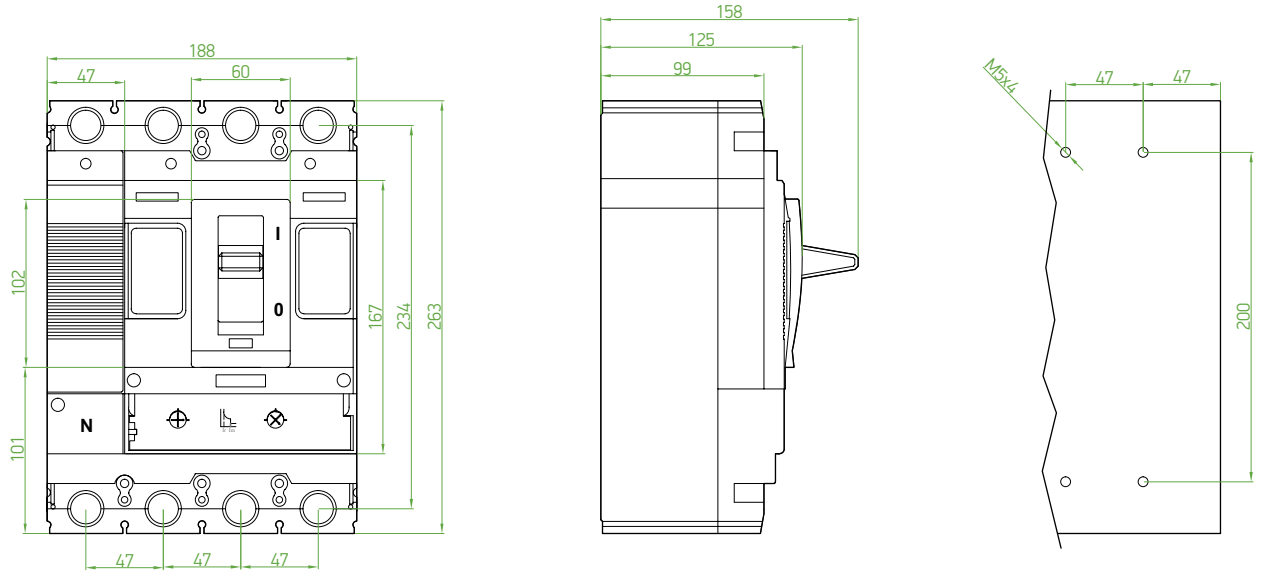
M250N



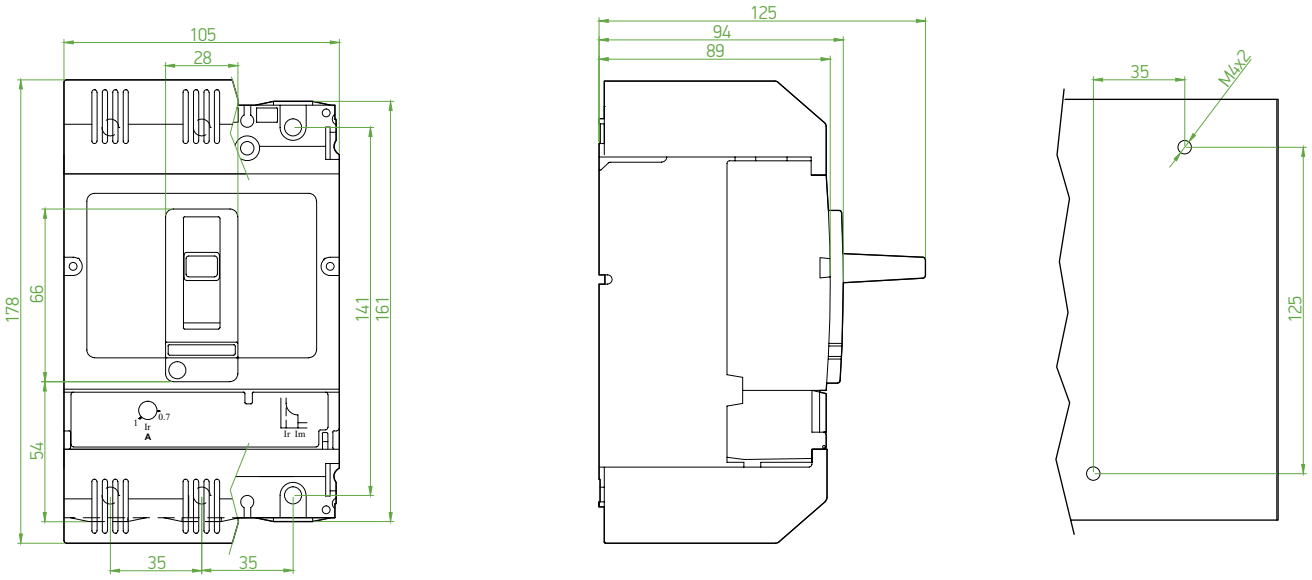
S400N



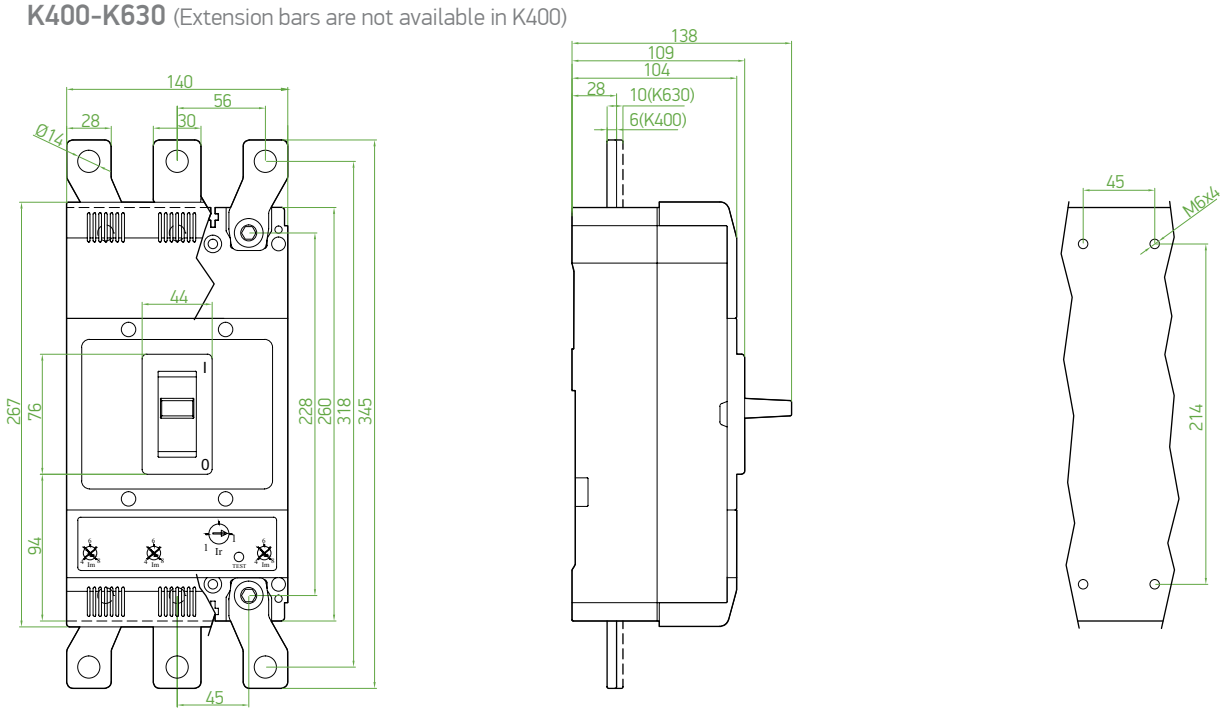
S630N



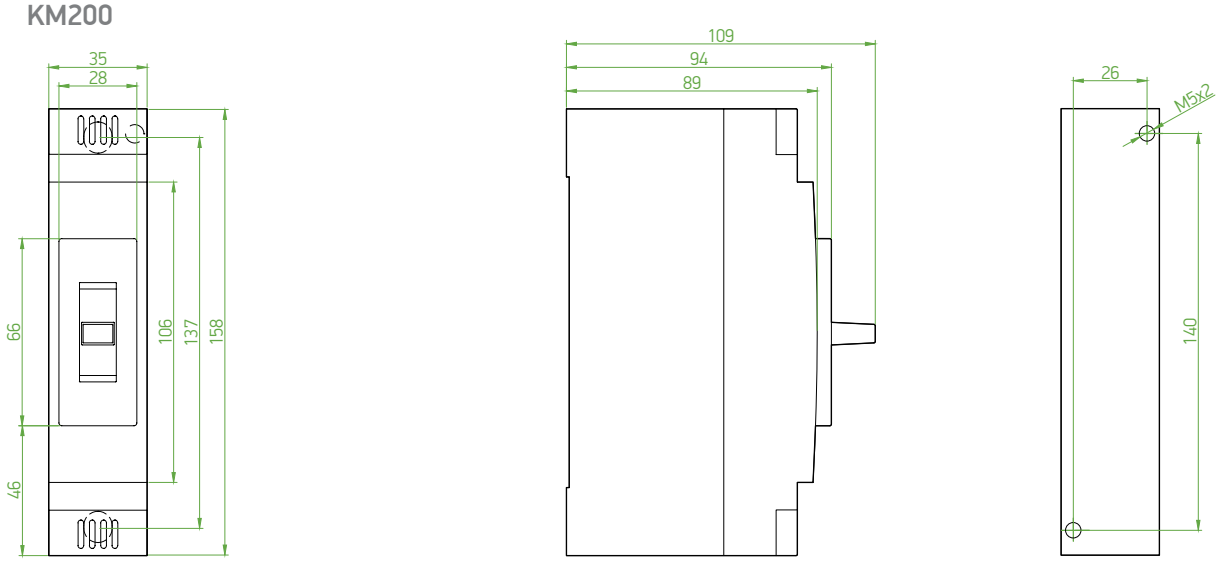
K160-K250-M160-M250



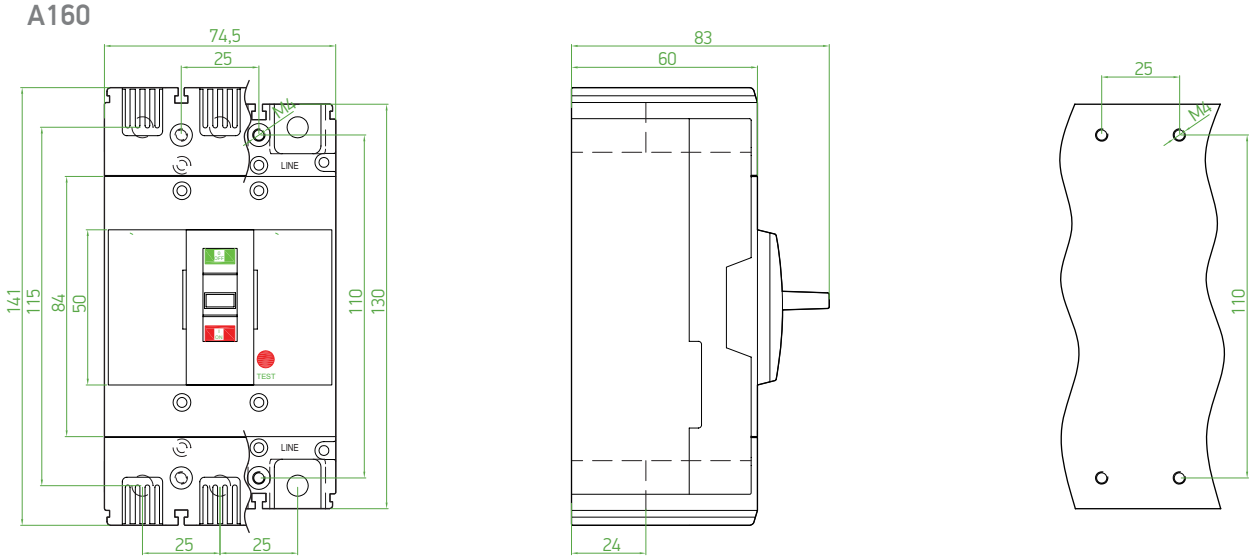
K400-K630 (Extension bars are not available in K400)



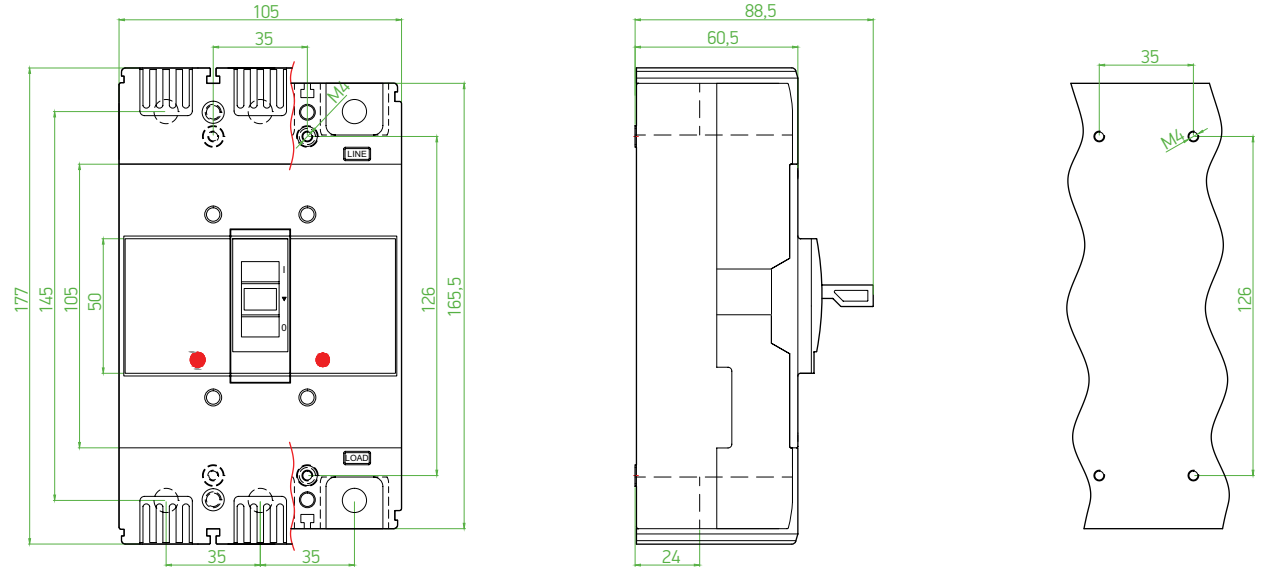
KM200



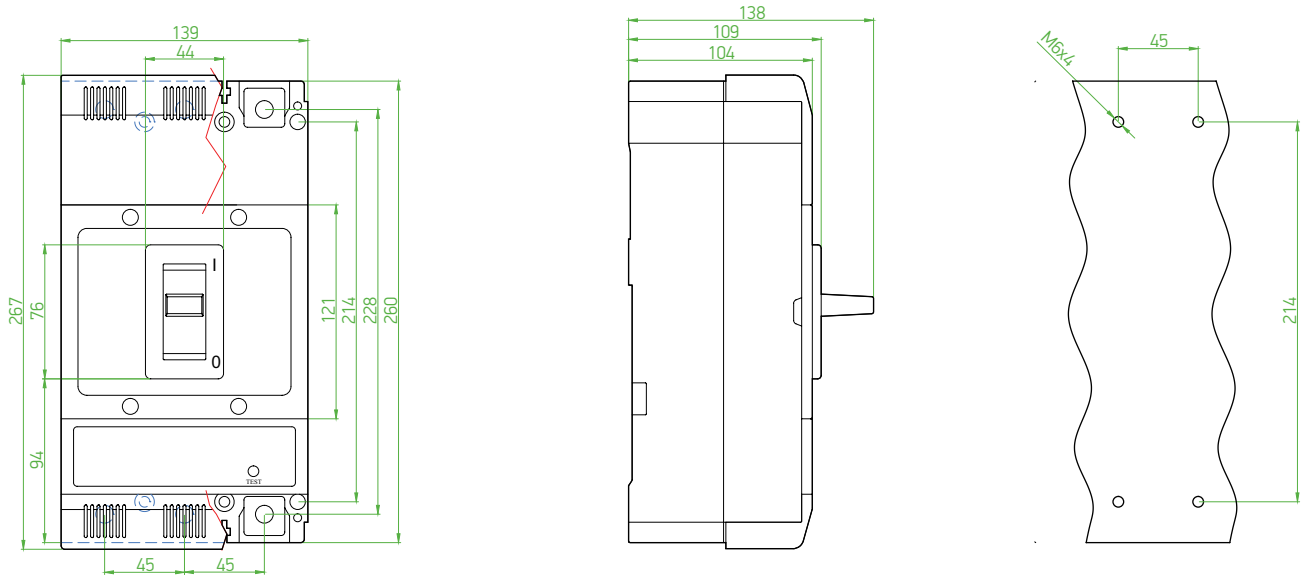
A160



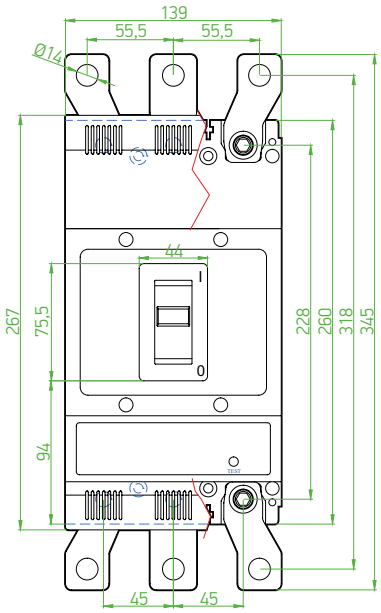
A250

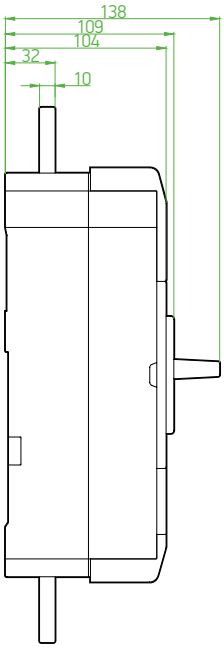


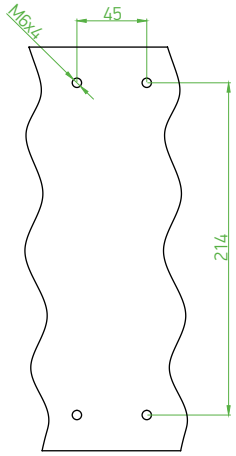
A400



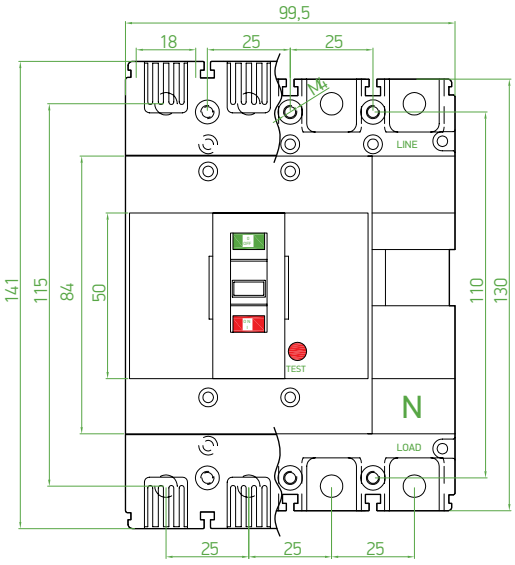
A630

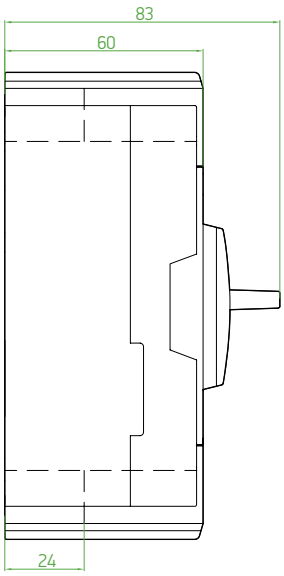


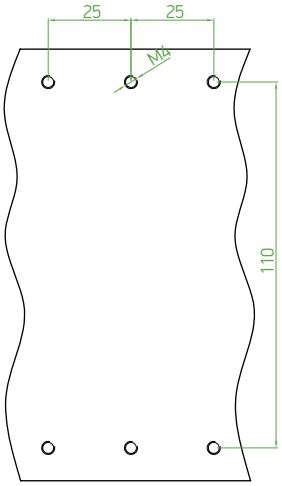




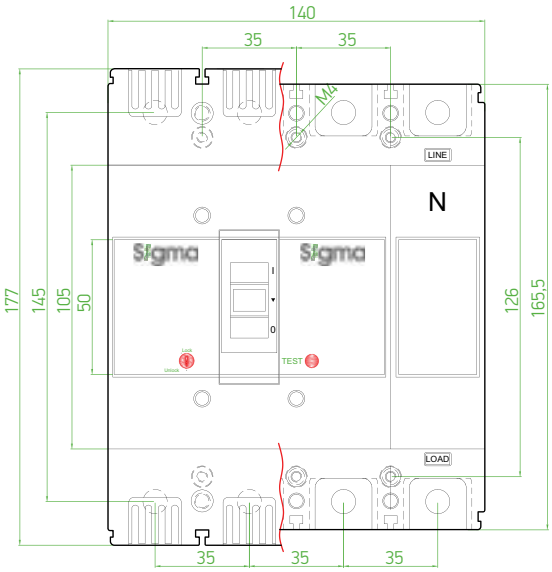
A160N

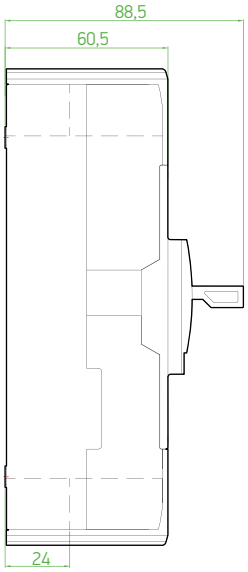


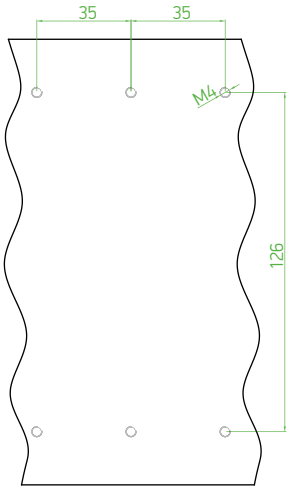




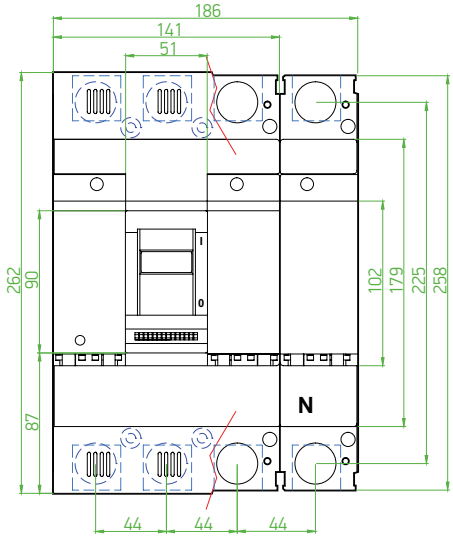
A250N

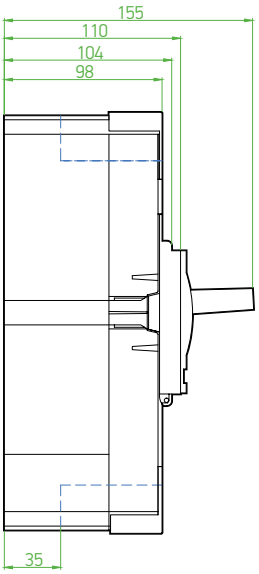


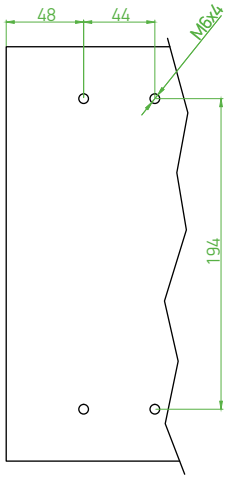




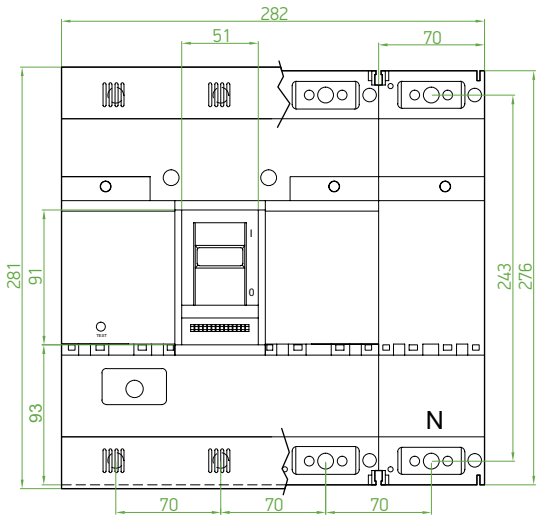
A400N

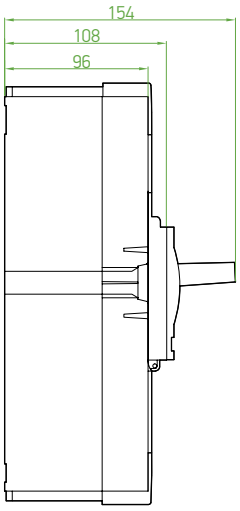


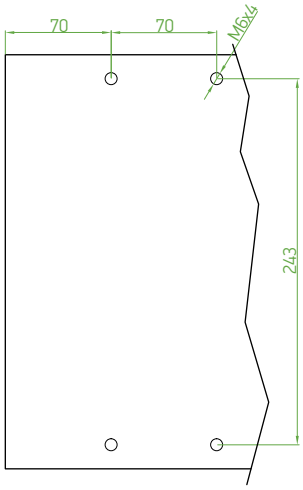




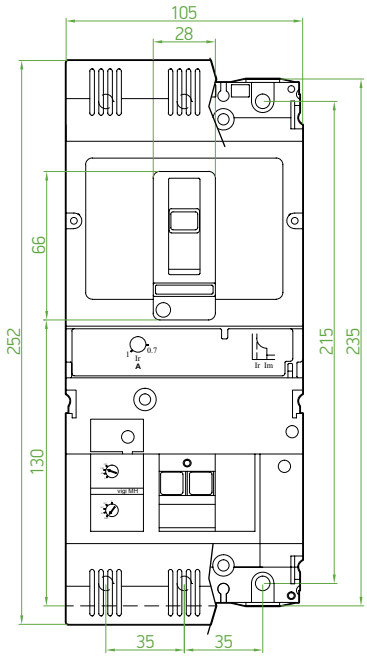
A630N-A800N

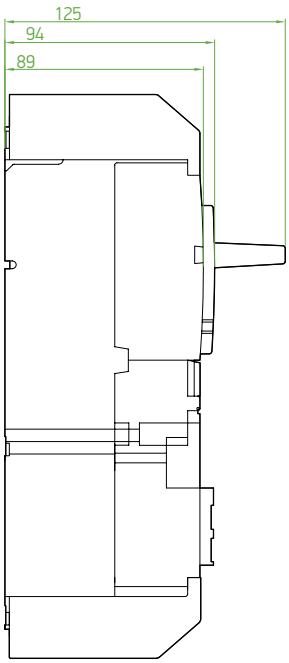


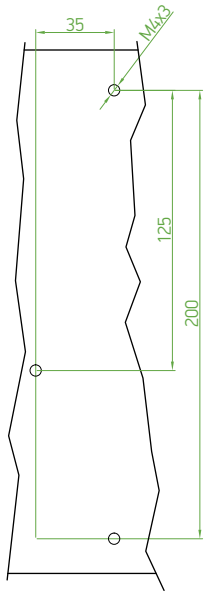




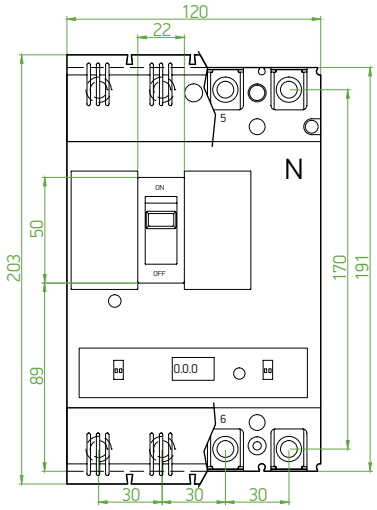
F250

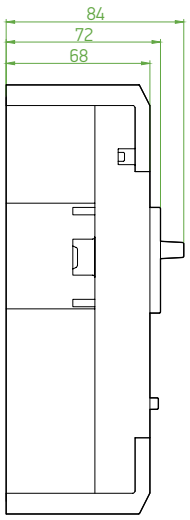


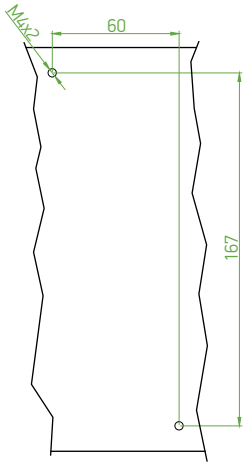




D125







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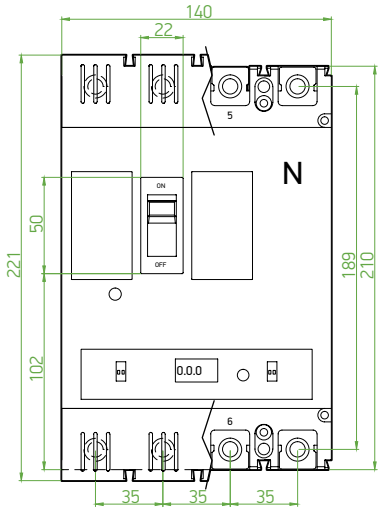

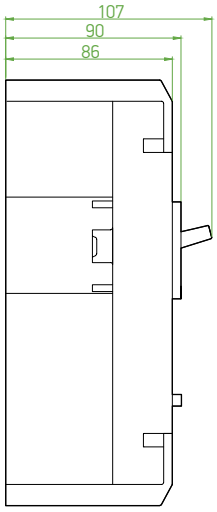

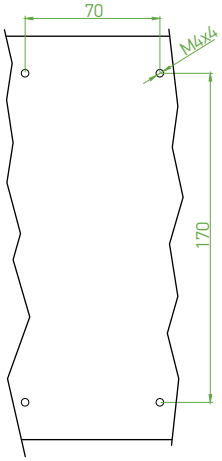

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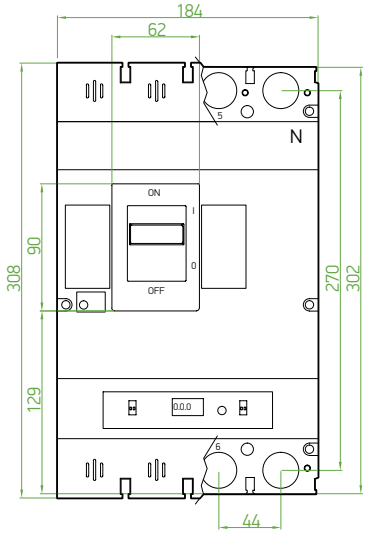

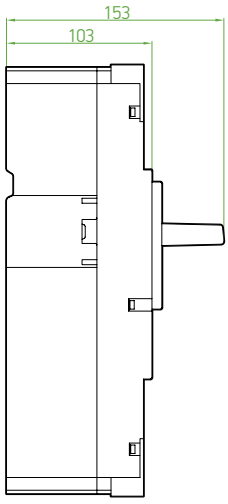

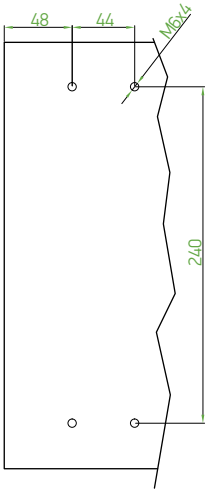

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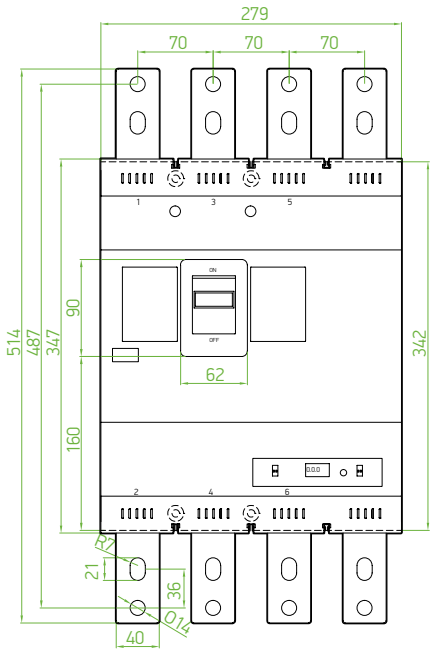
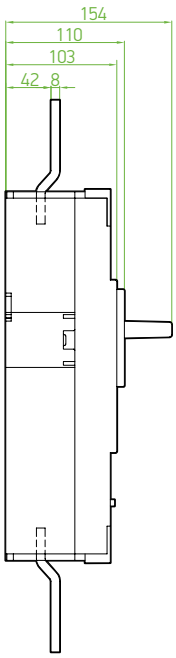
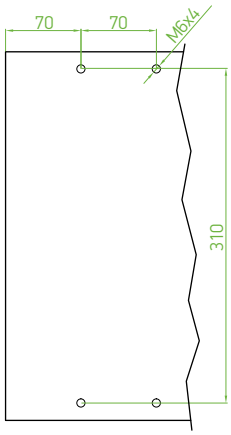
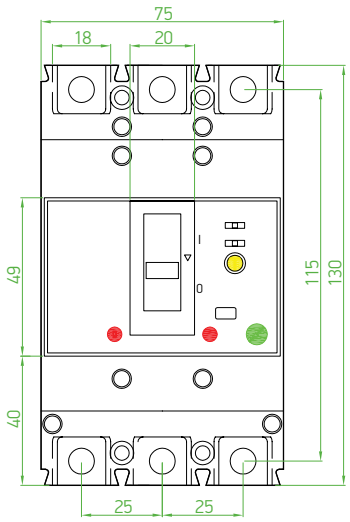
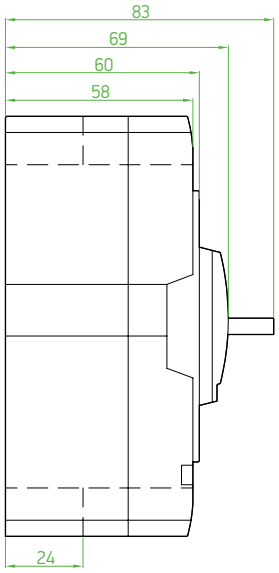


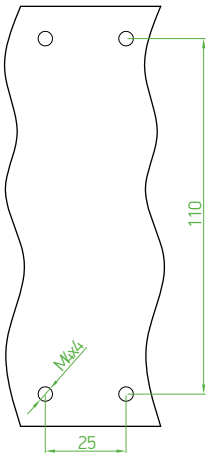




H125







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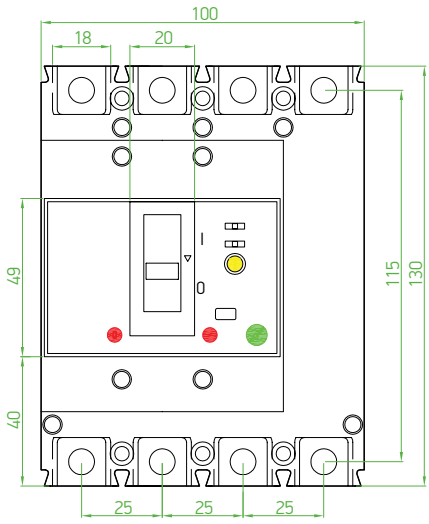

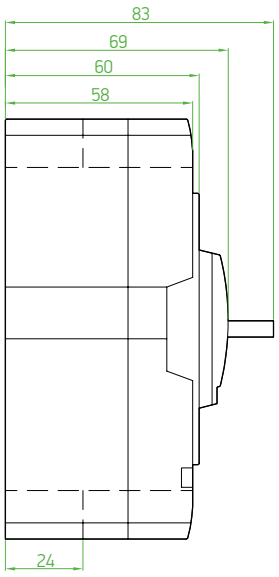

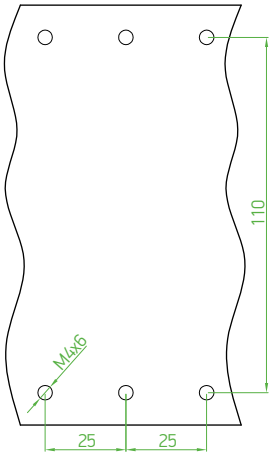

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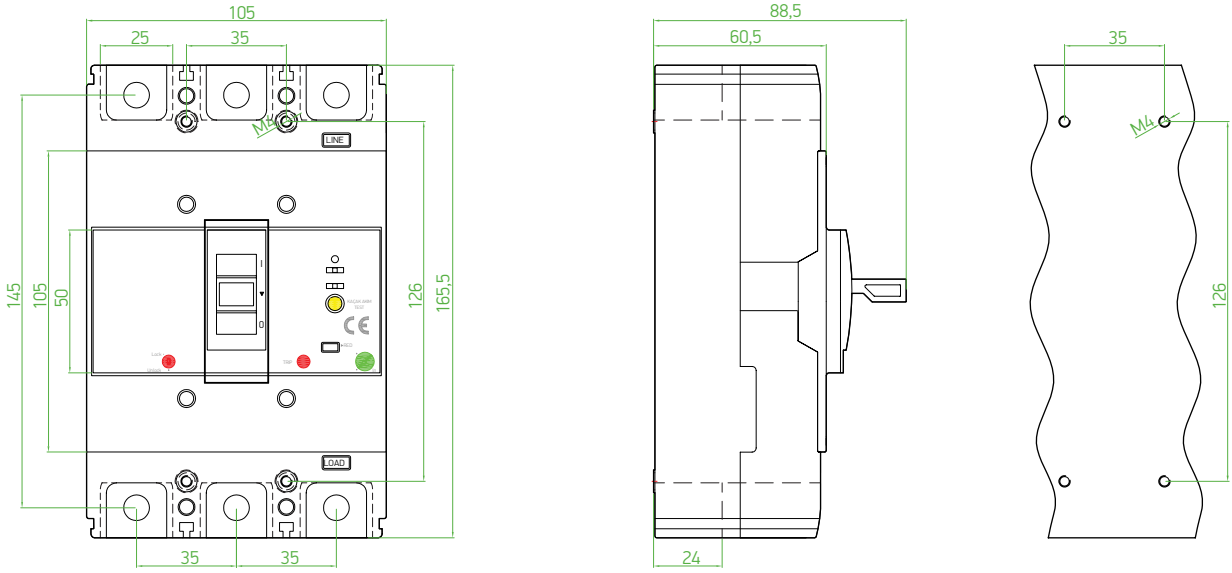

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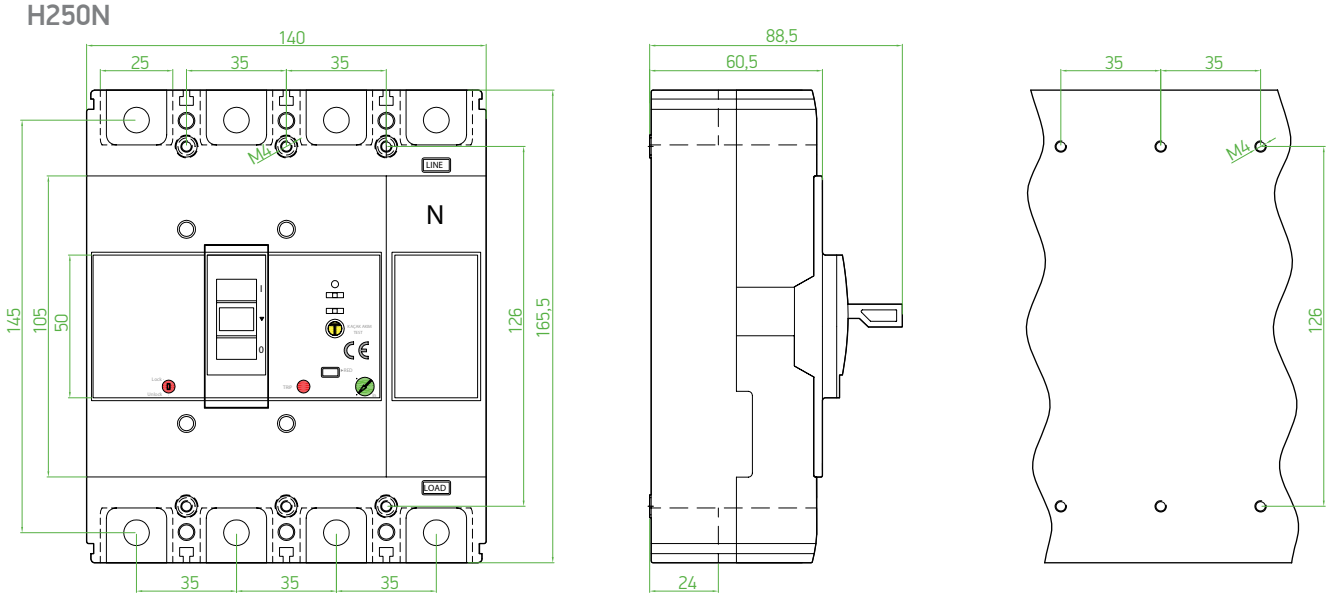
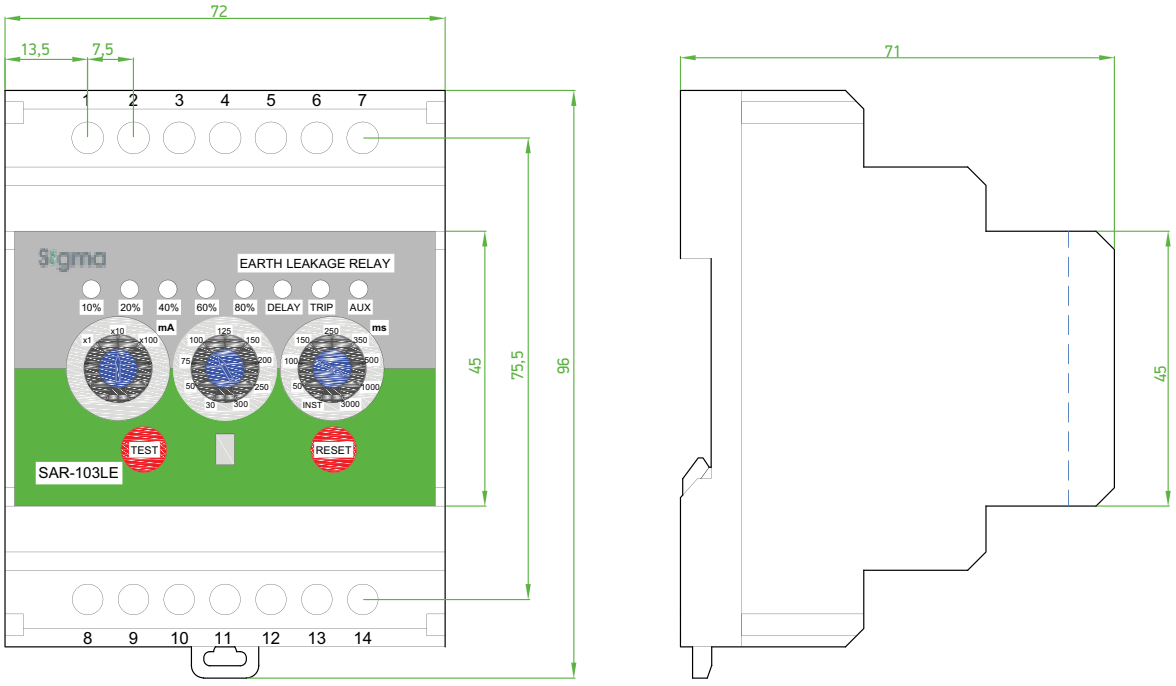
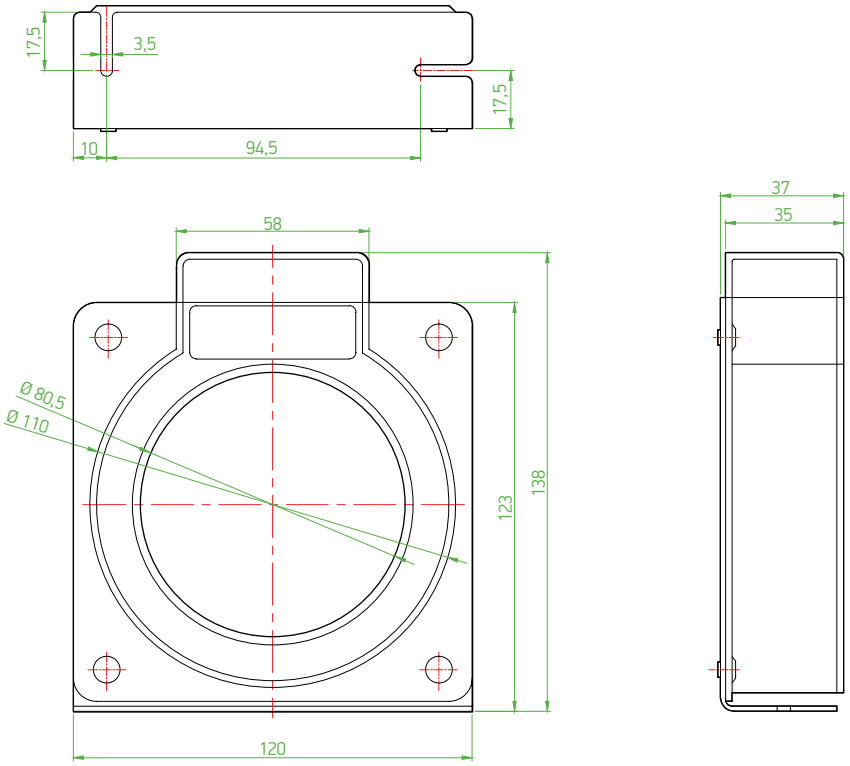


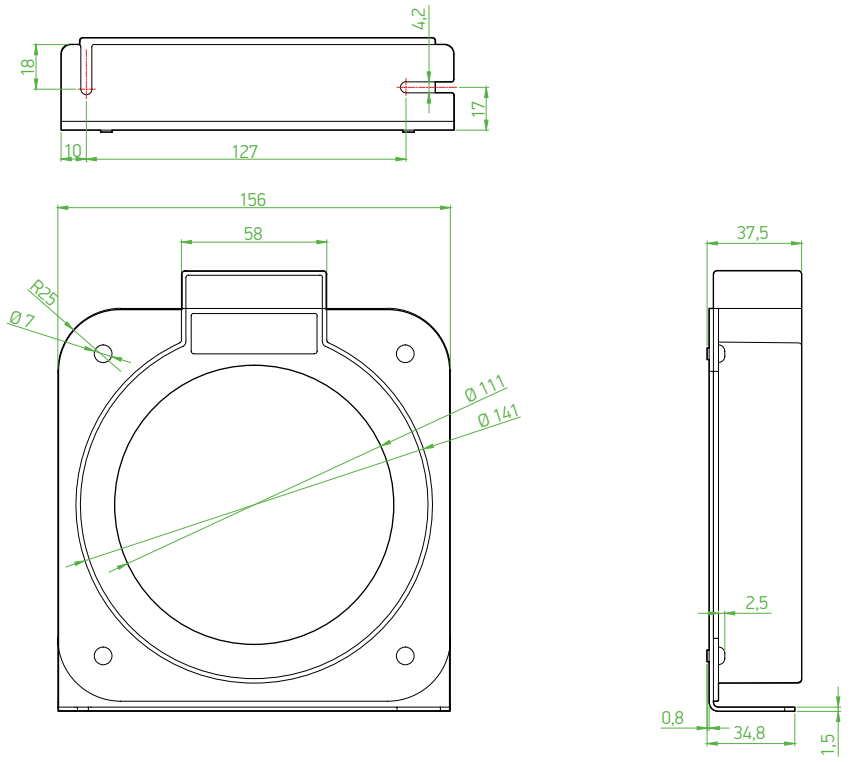
SAR-103LE



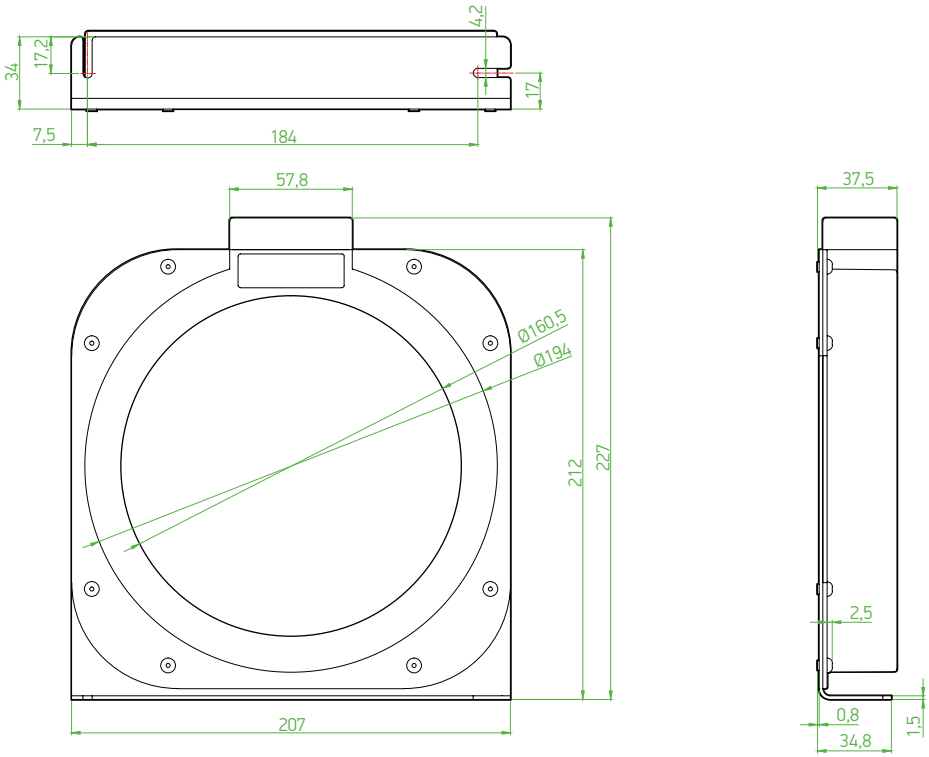
ST80


17,5
3,5
17,5
10
94,5
58
Ø 80,5
Ø 110
123
138
120
37
35

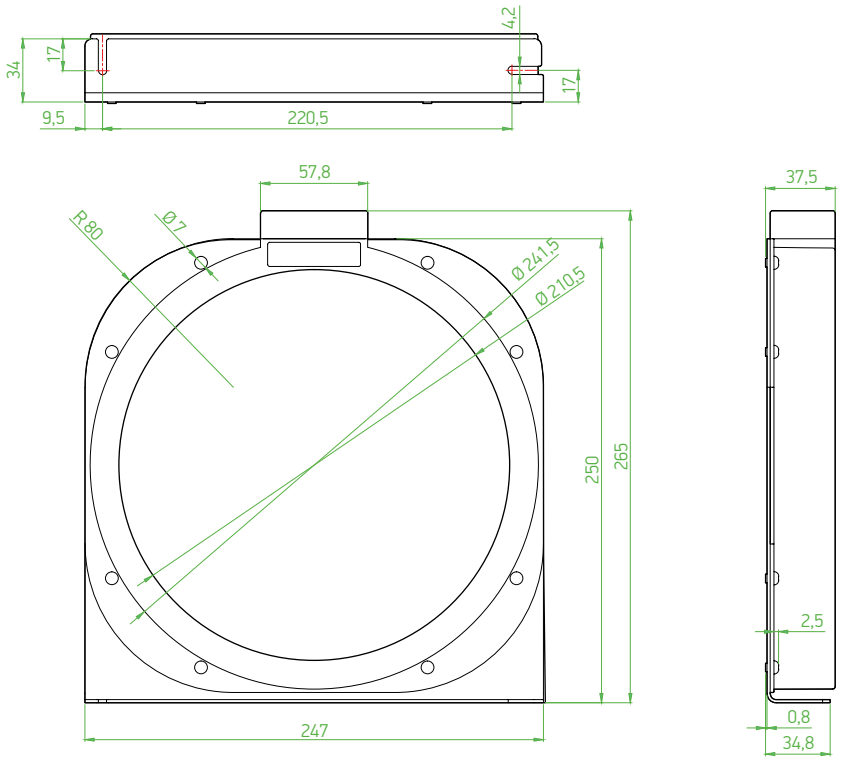
ST110


4,2
18
17
10
127
156
58
R25
Ø 7
Ø 111
Ø 141
37,5
2,5
0,8
34,8
1,5

ST160


4,2
34
17,2
17
7,5
184
57,8
37,5
Ø160,5
Ø194
212
227
207
2,5
0,8
1,5
34,8

ST210


4,2
34
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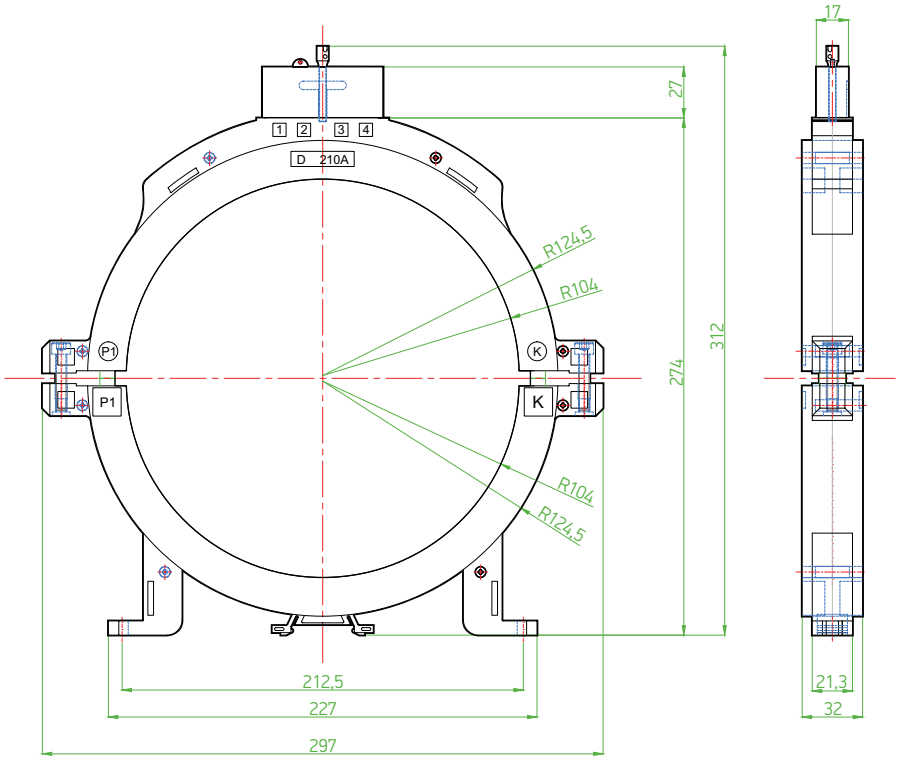
17
9,5
220,5
57,8
37,5
R80
Ø7
Ø241,5
Ø 210,5
250
265
247
2,5
0,8
34,8

STA-210



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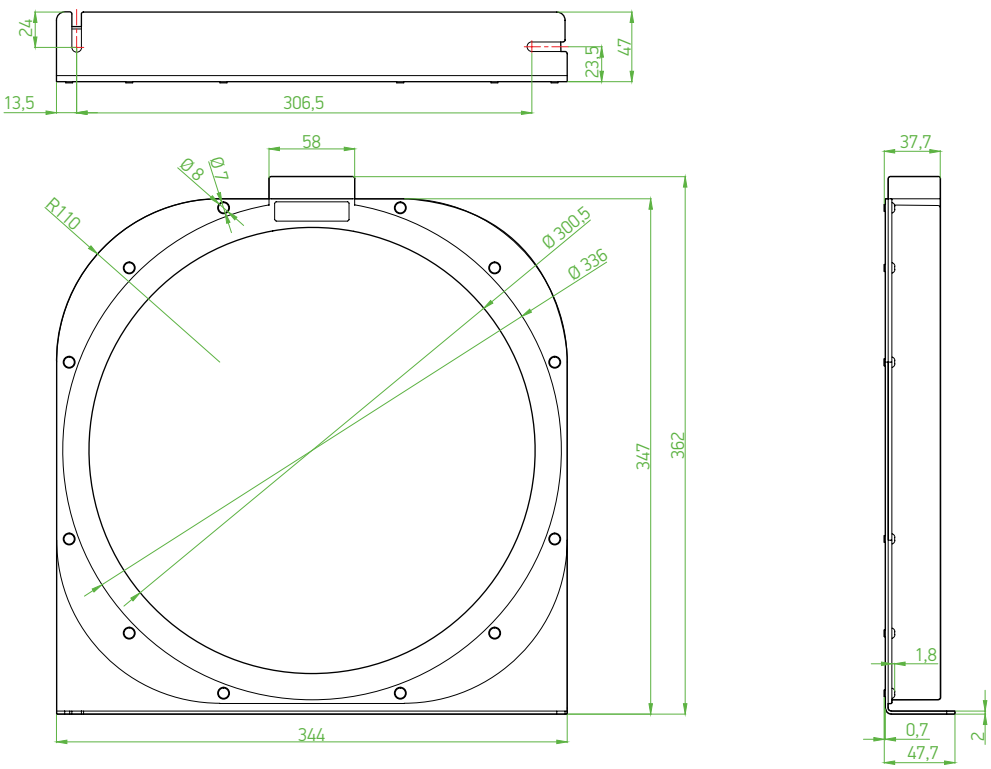
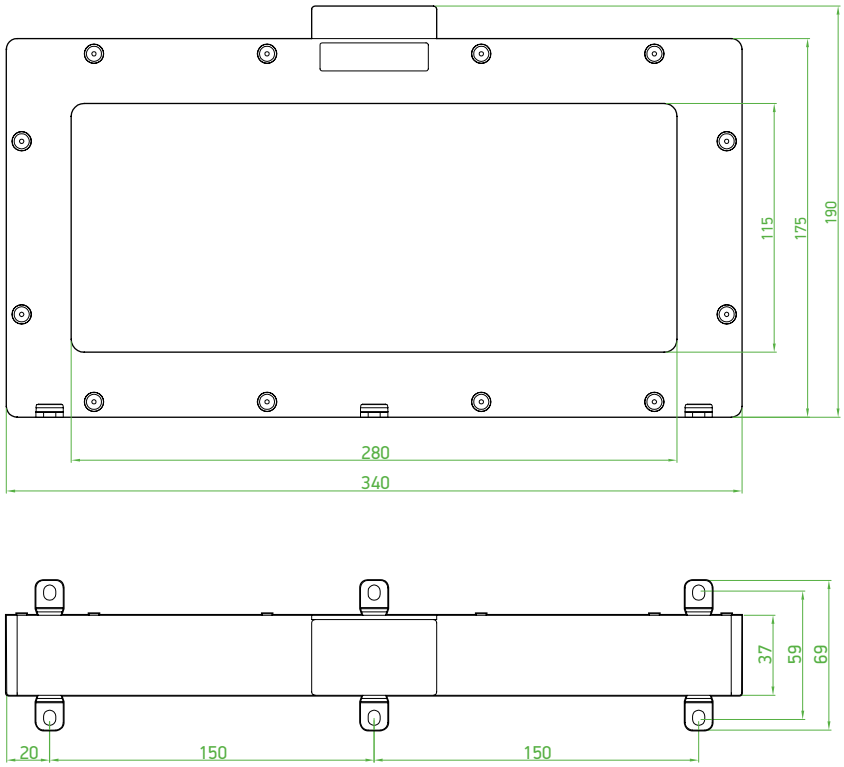
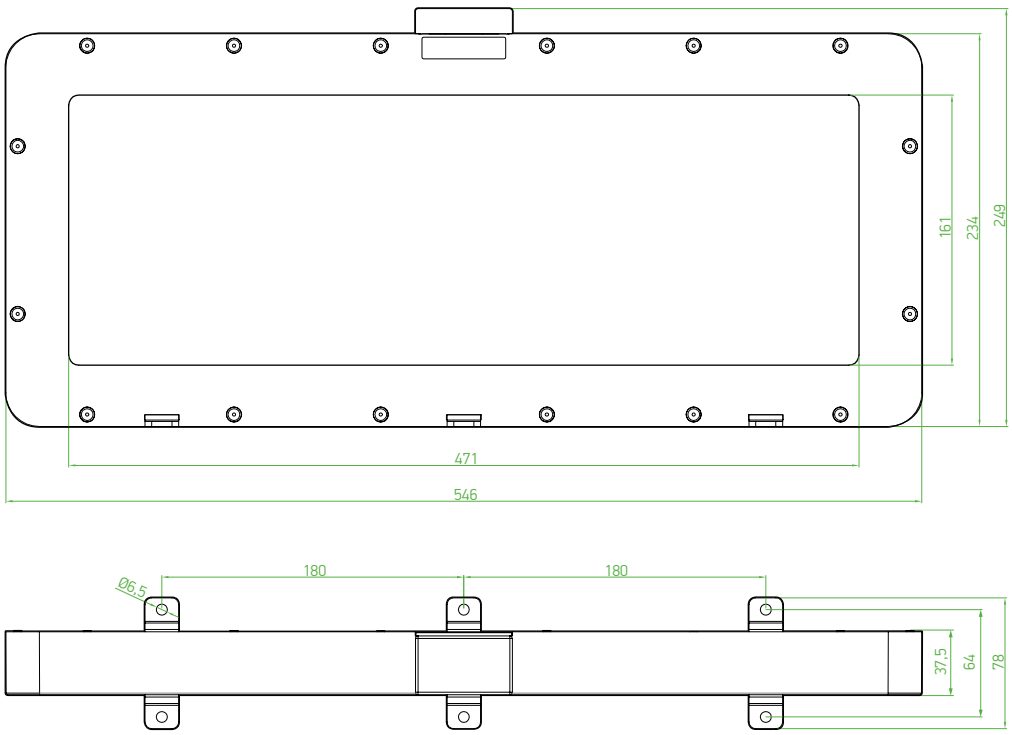


STD280x115



STD470x160



LV Air Circuit Breakers - Technical Specifications

Type				SDA-2000/ SFA-2000	SDA-3200/ SFA-3200	SDA-4000/ SFA-4000	SDA-6300
Type of structure				Draw-Out/Fixed	Draw-Out/Fixed	Draw-Out/Fixed	Draw-Out/Fixed
No of poles				3/4	3/4	3/4	3/4
Electrical specifications							
Rated current (at 40°C)		A		630, 800, 1000, 1250, 1600, 2000	2500, 3200	4000	5000, 6300
Rated operating voltage	Ue	V	AC	415	415	415	415
Rated insulation voltage	Ui	V		1000	1000	1000	1000
Rated impulse withstand voltage	Uimp	kV		8	8	8	8
Disconnecting capacity							
Rated ultimate short circuit breaking capacity	Icu	kA	690 V AC	50	65	65	65
			415 V AC	80	100	100	100
Rated service short circuit breaking capacity	Ics	kA	690 V AC	40	50	50	50
			415 V AC	50	65	65	65
Utilization category				A, B	A, B	A, B	A, B
Pollution degree				3	3	3	3
Electrical life	ON-OFF		415 V	1000	500	500	500
Mechanical life	ON-OFF			10000	10000	8000	8000
Protection unit				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
Long time delay time	t1	sn		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
Short time delay time	t1	sn		0,1-1	0,1-1	0,1-1	0,1-1
Instantaneous breaking current	Ir3	A		In...50 kA +OFF	In...50 kA +OFF	In...50 kA +OFF	In...50 kA +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
Ambient temperature							
Max. Operating ambient temperature		°C		-25 to +70	-25 to +70	-25 to +70	-25 to +70
Max. Storage temperature		°C		-40 to +80	-40 to +80	-40 to +80	-40 to +80
Accessories							
Shunt trip coil (230 V AC)				On request	On request	On request	On request
Under voltage coil (230 V AC)				On request	On request	On request	On request
Delay type under voltage coil (230 V AC)				On request	On request	On request	On request
Closing coil (230 V AC)				On request	On request	On request	On request
Auxilary contact (2NO+2NC)				Standard	Standard	Standard	Standard
Motor operator (230 V AC)				On request	On request	On request	On request
Mechanical interlock				Optional	On request	On request	On request

Protection Properties for Air Circuit Breakers

Long-Time Delay Overcurrent Protection

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

Short-Time Delay Overcurrent Protection

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

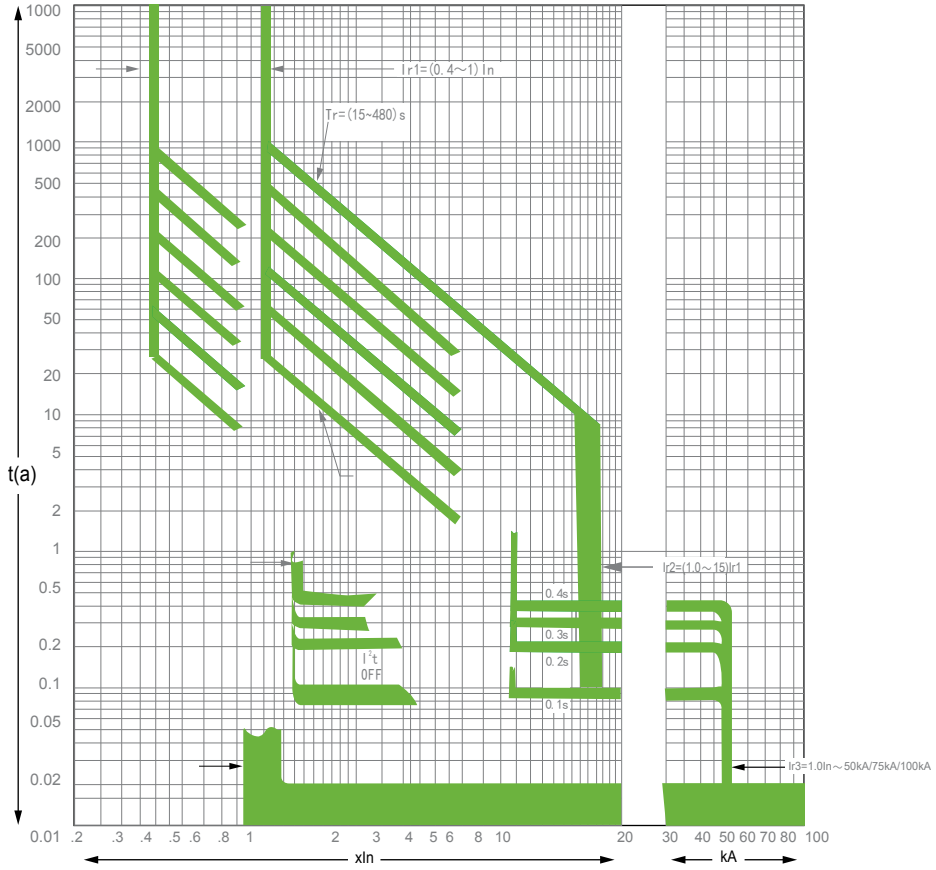
Instantaneous Tripping Protection

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

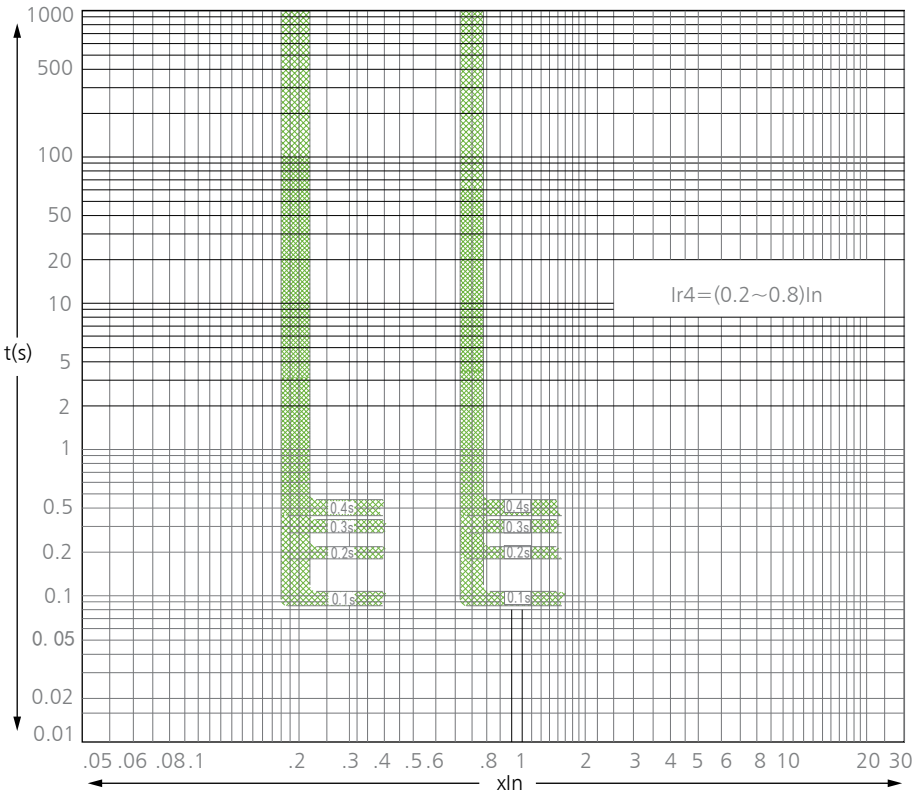
Earthing Fault Protection

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

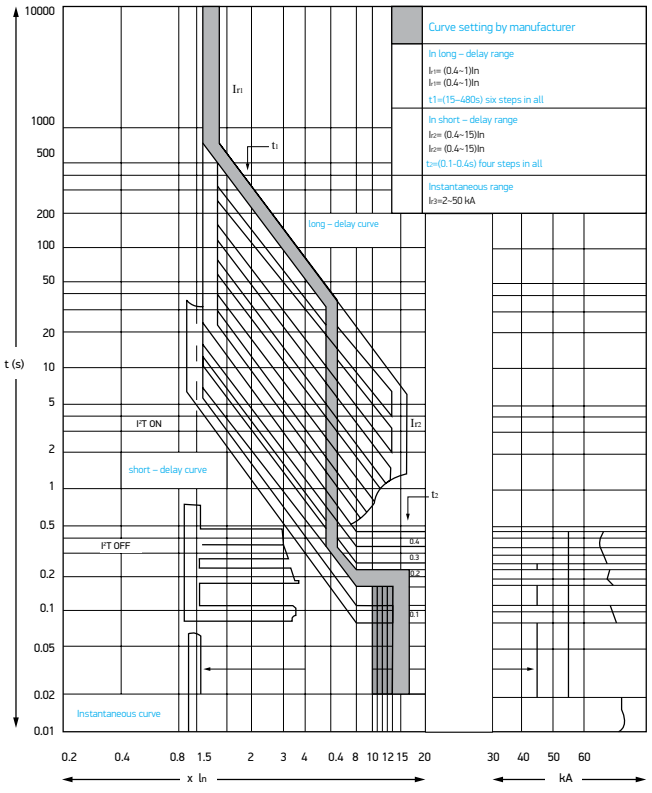
Overload Current Time-Current Characteristic for ACB



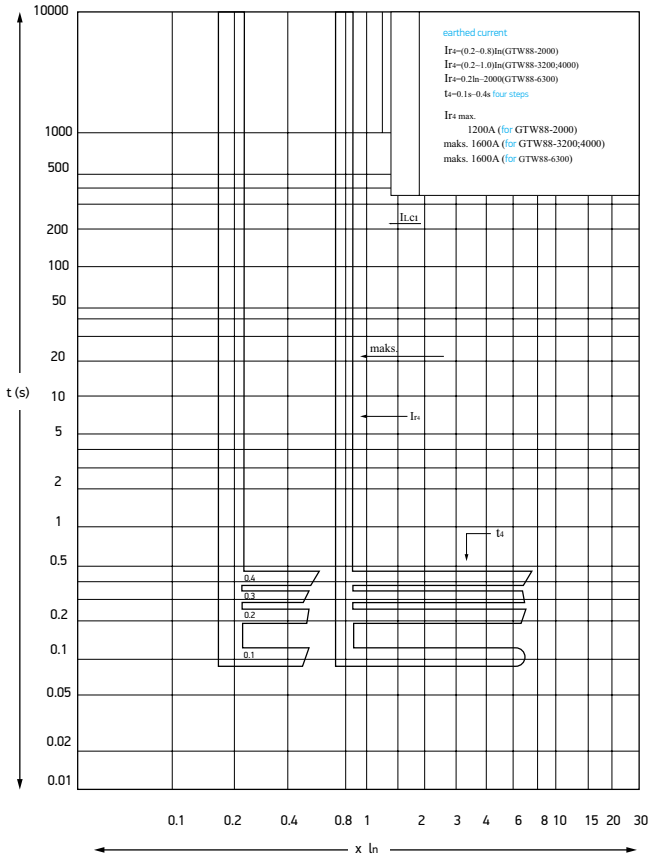
Earth Fault Protection Time-Current Characteristic for ACB



Overcurrent Protection Current-Time Curve



Earth Fault Protection Current-Time Curve

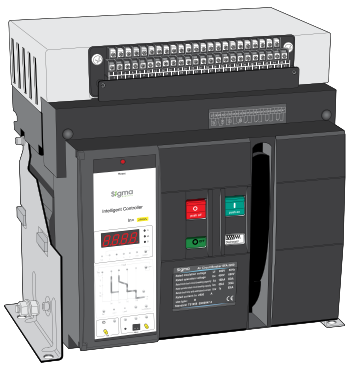


3 Poles, Fixed Type, Air Circuit Breakers

Type Code	Rated Current In (A)	Rated Current Adjustment (Ir1)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code
SFA-1600	630	252-630	80	Manuel	**SFA0630H3**
	800	320-800	80	Manuel	**SFA0800H3**
	1000	400-1000	80	Manuel	**SFA1000H3**
	1250	500-1250	80	Manuel	**SFA1250H3**
	1600	640-1600	80	Manuel	**SFA1600H3**
SFA-2000	2000	1200-2000	80	Manuel	**SFA2000H3**
SFA-2500	2500	1000-2500	100	Manuel	**SFA2500H3**
SFA-3200	3200	1280-3200	100	Manuel	**SFA3200H3**
SFA-4000	4000	1600-4000	100	Manuel	**SFA4000H3**
SFA-1600	630	252-630	80	Motorized	**SFA0630M3**
	800	320-800	80	Motorized	**SFA0800M3**
	1000	400-1000	80	Motorized	**SFA1000M3**
	1250	500-1250	80	Motorized	**SFA1250M3**
	1600	640-1600	80	Motorized	**SFA1600M3**
SFA-2000	2000	1200-2000	80	Motorized	**SFA2000M3**
SFA-2500	2500	1000-2500	100	Motorized	**SFA2500M3**
SFA-3200	3200	1280-3200	100	Motorized	**SFA3200M3**
SFA-4000	4000	1600-4000	100	Motorized	**SFA4000M3**

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

4 Poles, Fixed Type, Air Circuit Breakers



Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code
SFA-1600	400-1000	80	Manuel	**SFA1000H4**
	500-1250	80	Manuel	**SFA1250H4**
	640-1600	80	Manuel	**SFA1600H4**
SFA-2000	1200-2000	80	Manuel	**SFA2000H4**
SFA-2500	1000-2500	100	Manuel	**SFA2500H4**
SFA-3200	1280-3200	100	Manuel	**SFA3200H4**
SFA-1600	400-1000	80	Motorized	**SFA1000M4**
	500-1250	80	Motorized	**SFA1250M4**
	640-1600	80	Motorized	**SFA1600M4**
SFA-2000	1200-2000	80	Motorized	**SFA2000M4**
SFA-3200	1000-2500	100	Motorized	**SFA2500M4**
SFA-3200	1280-3200	100	Motorized	**SFA3200M4**

3 Poles Draw-Out Type Air Circuit Breakers

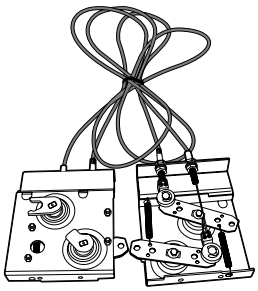
Type Code	Rated Current In (A)	Rated Current Adjustment (Ir1)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code
SDA-1000	1000	400-1000	80	Manuel	**SDA1000H3**
SDA-1250	1250	500-1250	80	Manuel	**SDA1250H3**
SDA-1600	1600	640-1600	80	Manuel	**SDA1600H3**
SDA-2000	2000	1200-2000	80	Manuel	**SDA2000H3**
SDA-2500	2500	1000-2500	100	Manuel	**SDA2500H3**
SDA-3200	3200	1280-3200	100	Manuel	**SDA3200H3**
SDA-4000	4000	1600-4000	100	Manuel	**SDA4000H3**
SDA-5000	5000	2000-5000	100	Manuel	**SDA5000H3**
SDA-6300	6300	2560-6300	100	Manuel	**SDA6300H3**
SDA-1000	1000	400-1000	80	Motorized	**SDA1000M3**
SDA-1250	1250	500-1250	80	Motorized	**SDA1250M3**
SDA-1600	1600	640-1600	80	Motorized	**SDA1600M3**
SDA-2000	2000	1200-2000	80	Motorized	**SDA2000M3**
SDA-2500	2500	1000-2500	100	Motorized	**SDA2500M3**
SDA-3200	3200	1280-3200	100	Motorized	**SDA3200M3**
SDA-4000	4000	1600-4000	100	Motorized	**SDA4000M3**
SDA-5000	5000	2000-5000	100	Motorized	**SDA5000M3**
SDA-6300	6300	2560-6300	100	Motorized	**SDA6300M3**

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

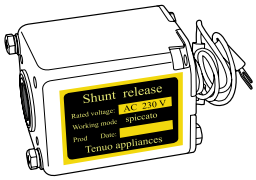
4 Poles Draw-Out Type Air Circuit Breakers

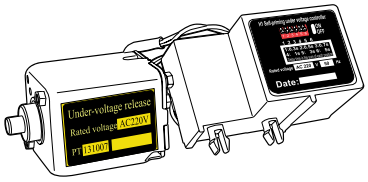
Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Operation Mechanism	Order Code
SDA-1600	400-1000	80	Manuel	**SDA1000H4**
	500-1250	80	Manuel	**SDA1250H4**
	640-1600	80	Manuel	**SDA1600H4**
SDA-2000	1200-2000	80	Manuel	**SDA2000H4**
SDA-2500	1000-2500	100	Manuel	**SDA2500H4**
SDA-3200	1280-3200	100	Manuel	**SDA3200H4**
SDA-4000	1600-4000	100	Manuel	**SDA4000H4**
SDA-1600	400-1000	80	Motorized	**SDA1000M4**
	500-1250	80	Motorized	**SDA1250M4**
	640-1600	80	Motorized	**SDA1600M4**
SDA-2000	1200-2000	80	Motorized	**SDA2000M4**
SDA-3200	1000-2500	100	Motorized	**SDA2500M4**
SDA-3200	1280-3200	100	Motorized	**SDA3200M4**
SDA-4000	1600-4000	100	Motorized	**SDA4000M4**

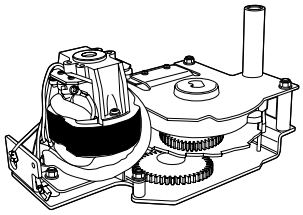
Accessories for Air Circuit Breakers



Type Code	Description	Features	Order Code
SADG	Under Voltage Release - Without Delay	230 V AC	**SADG230**
	Under Voltage Release - Without Delay	380 V AC	**SADG380**
SAGDG	Under Voltage Release - With Delay	230 V AC	**SAGDG230**
	Under Voltage Release - With Delay	380 V AC	**SAGDG380**
SAAB	Shunt Trip Coil	230 V AC	**SAAB**
SAKB	Closing Coil	230 V AC	**SAKB**
SAMM-1	Motor Operator (630...2000 A)	230 V AC	**SAM1**
SAMM-2	Motor Operator (2500..6300 A)	230 V AC	**SAM2**
SAMK	Mechanical Interlock	Wire Type	**SAMK**

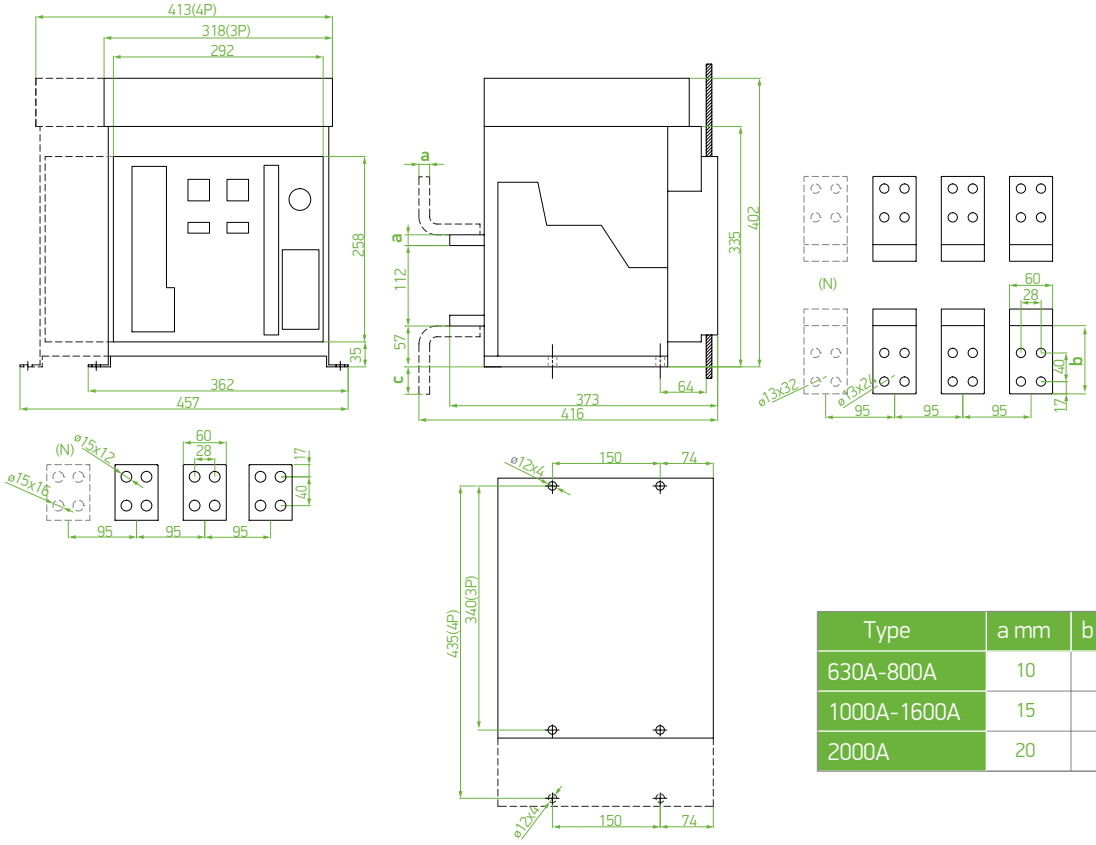






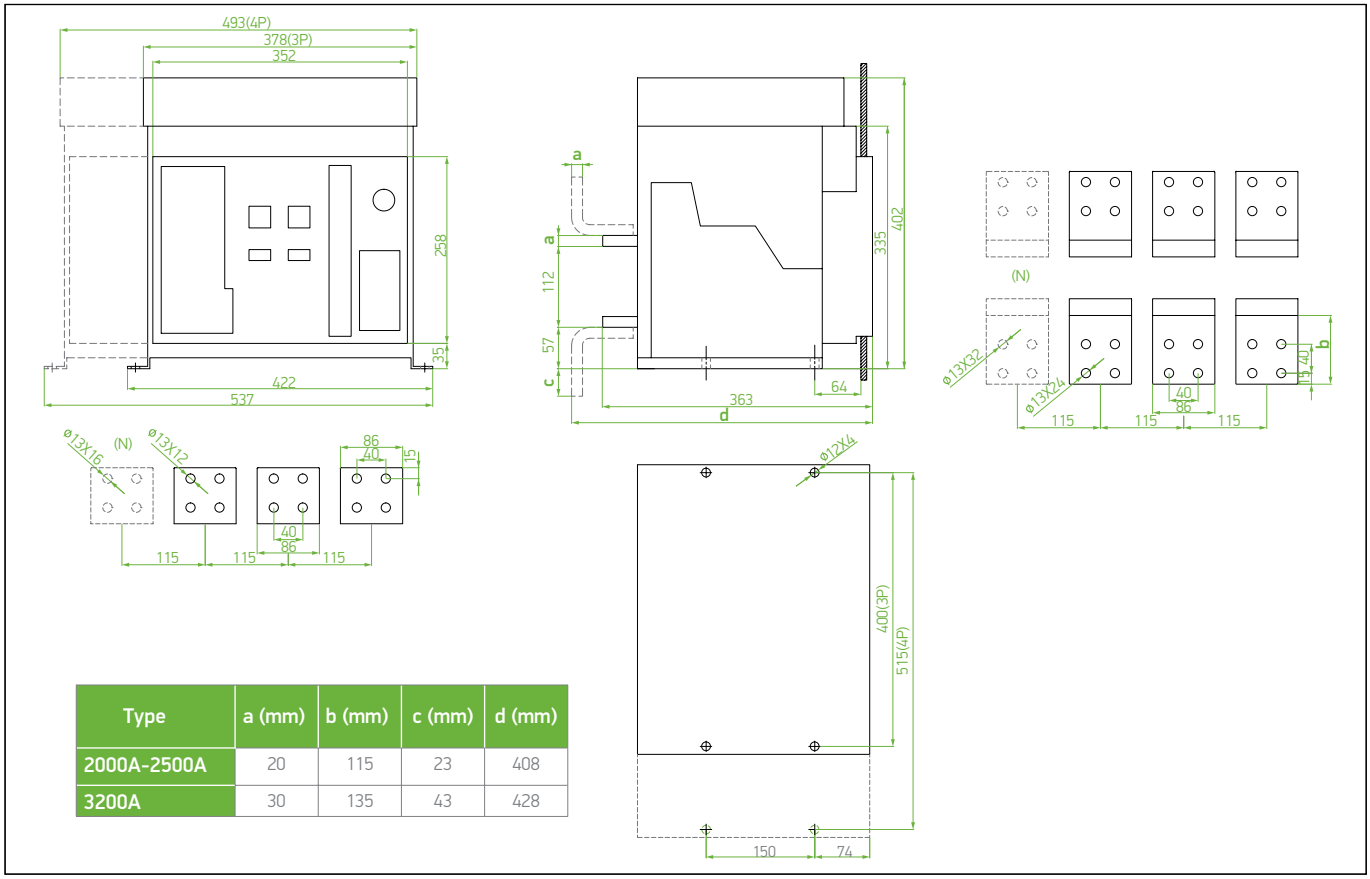
Dimensions

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



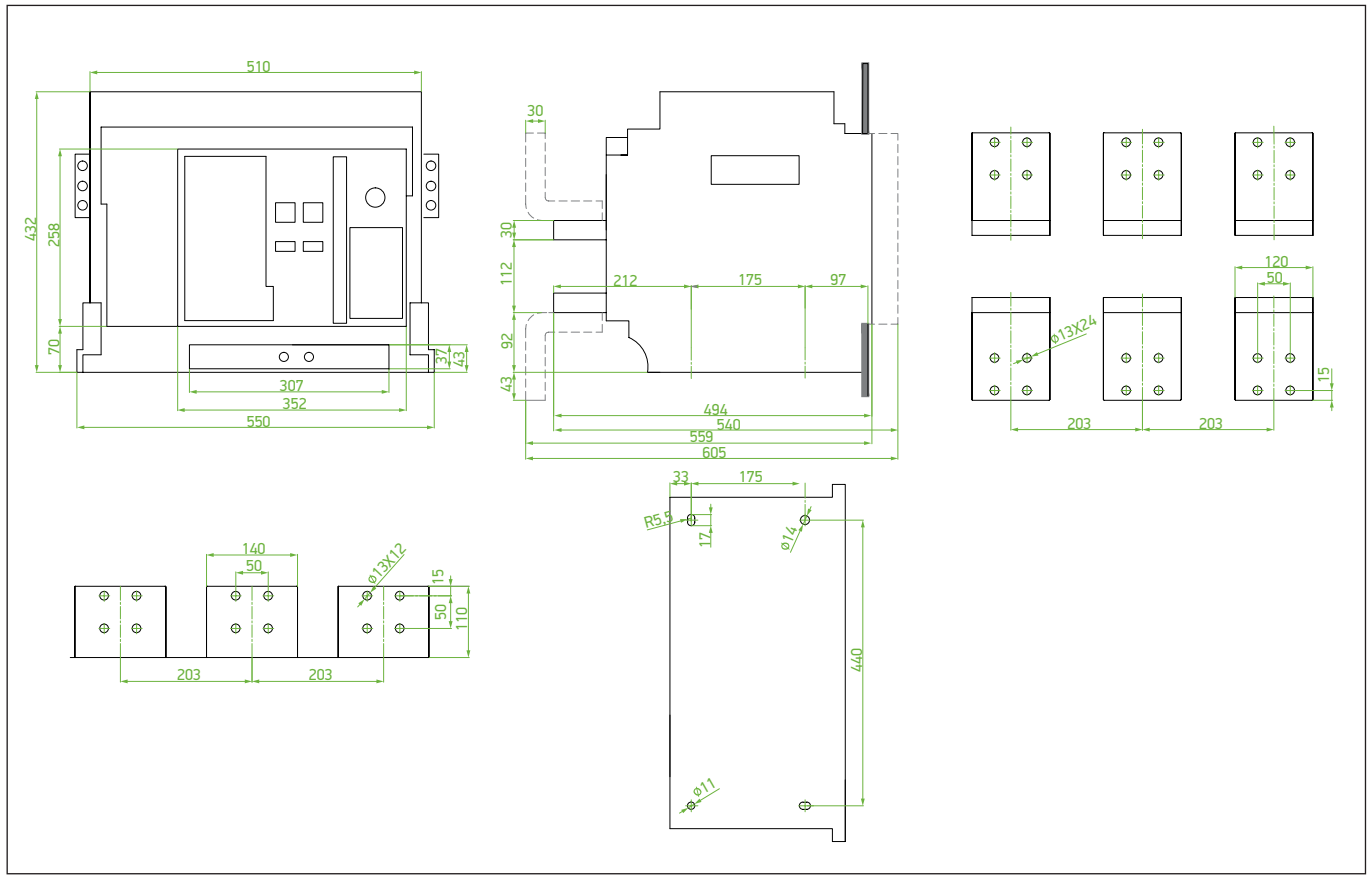
Type	a mm	b mm	c mm
630A-800A	10	95	38
1000A-1600A	15	105	48
2000A	20	115	58

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

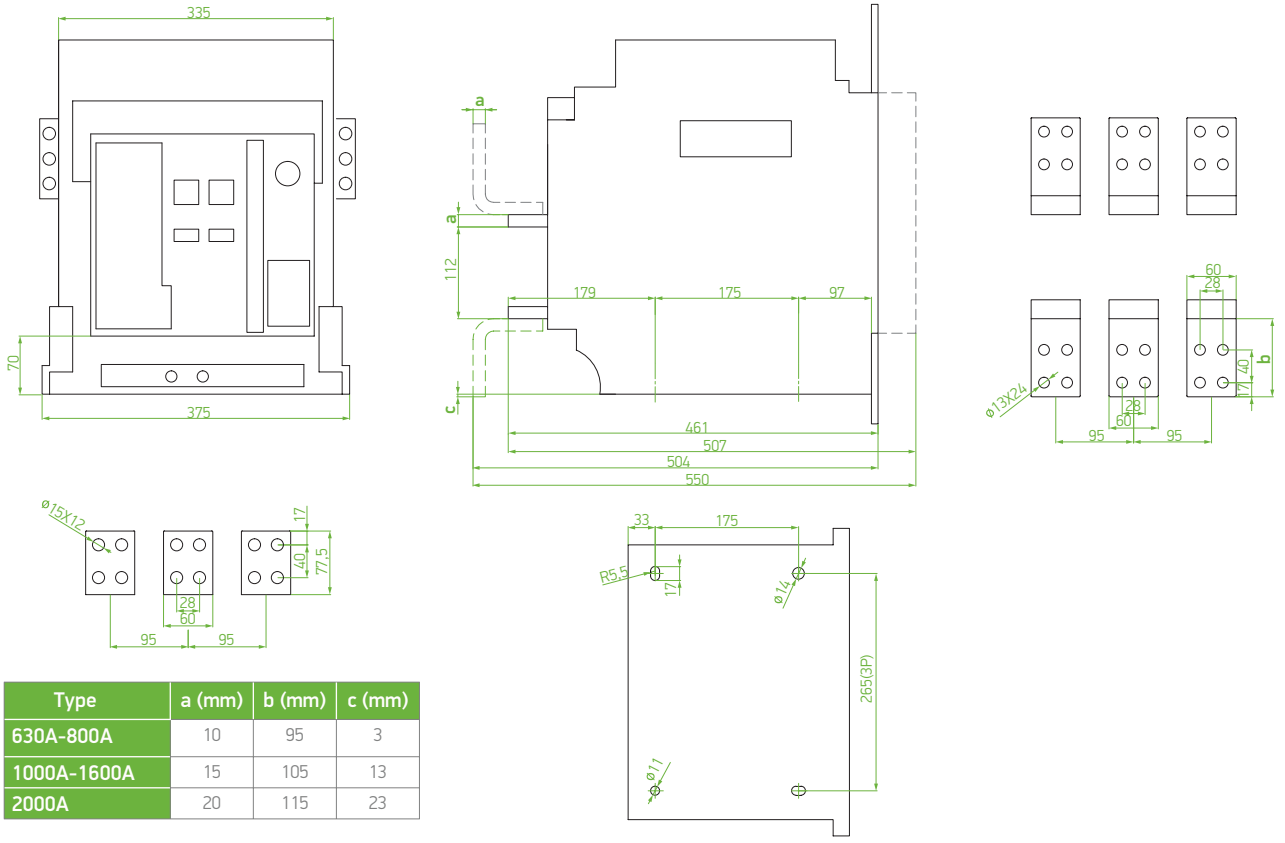


Type	a (mm)	b (mm)	c (mm)	d (mm)
2000A-2500A	20	115	23	408
3200A	30	135	43	428

SFA-4000

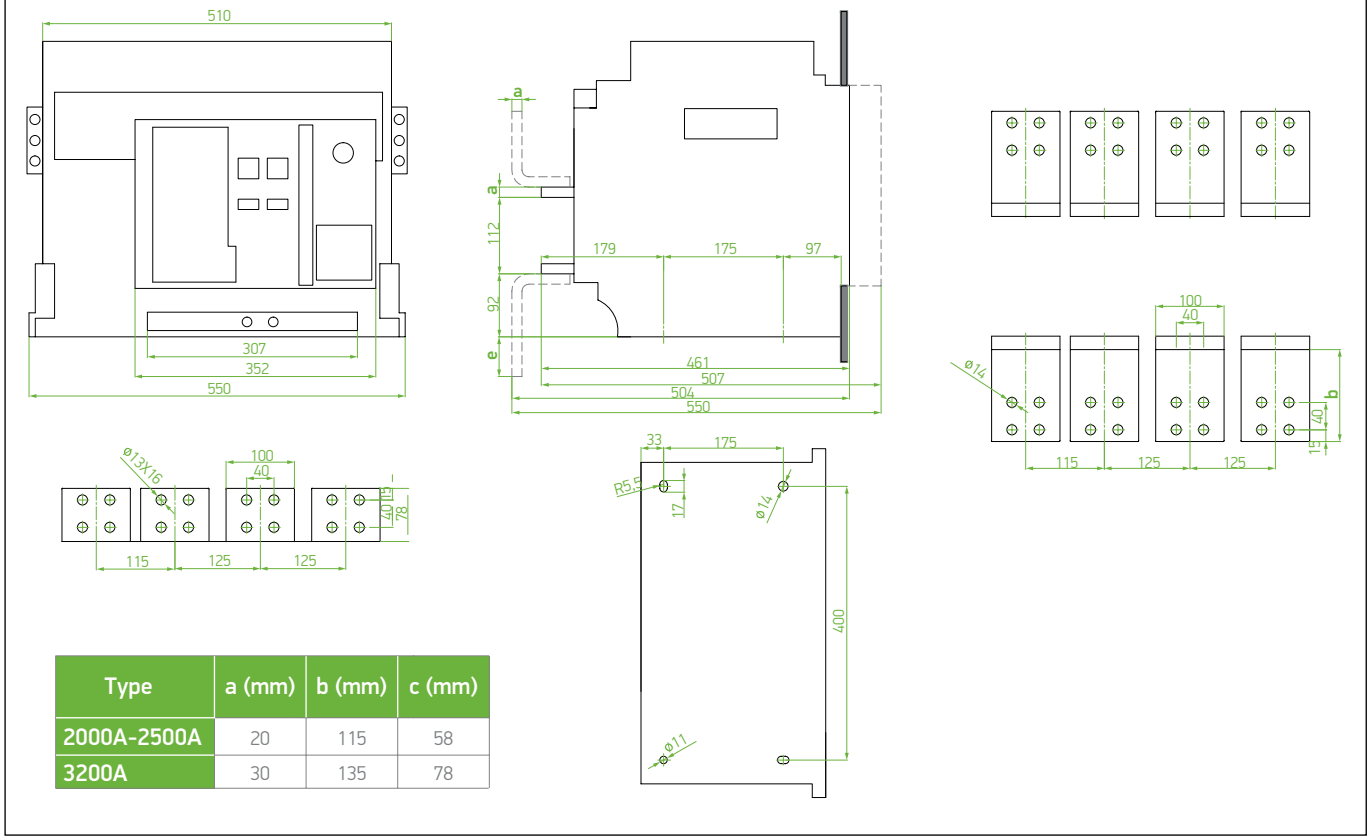


SDA-(1000-1250-1600-2000)



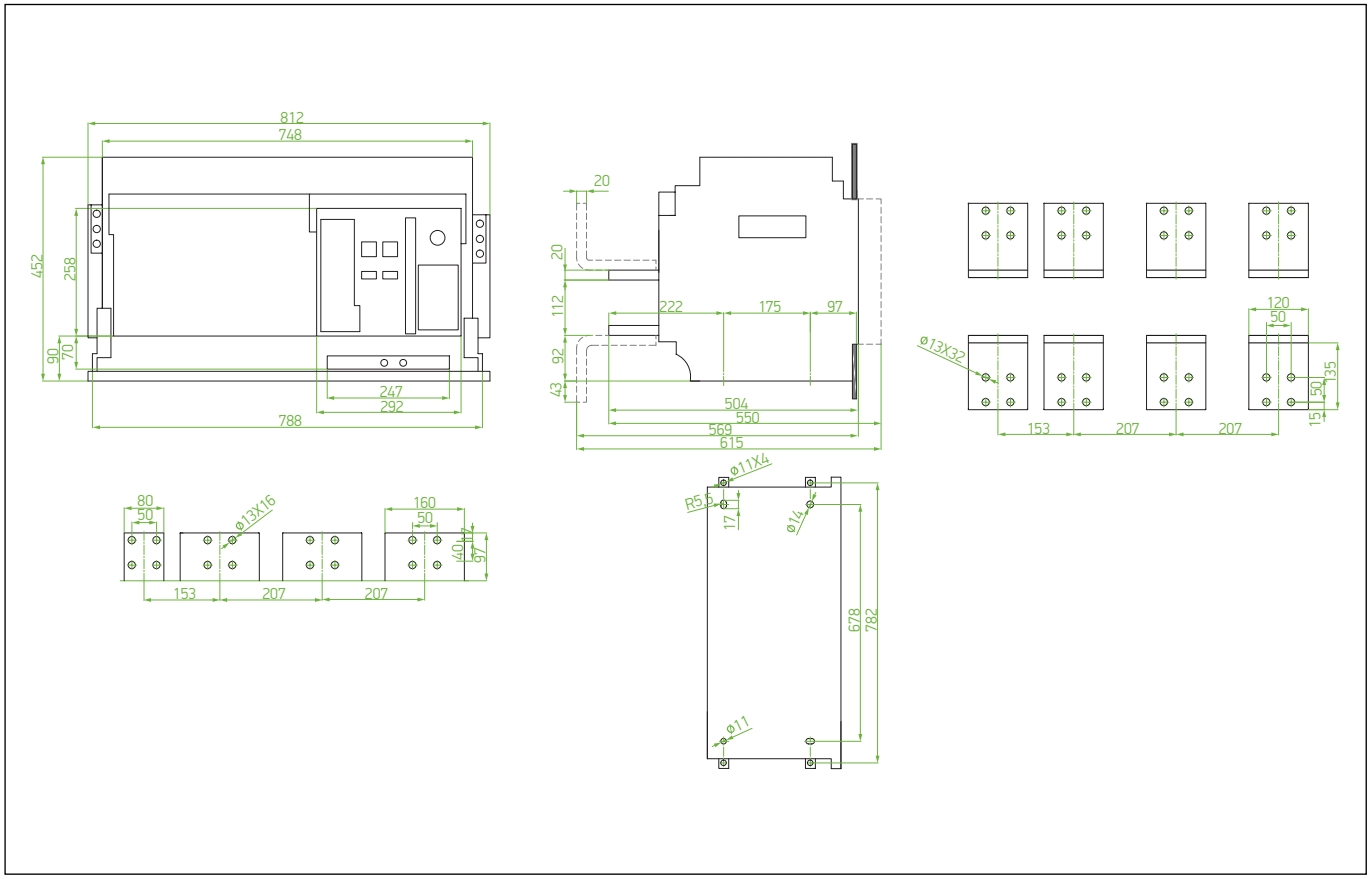
Type	a (mm)	b (mm)	c (mm)
630A-800A	10	95	3
1000A-1600A	15	105	13
2000A	20	115	23

SDA-2500, SDA-3200

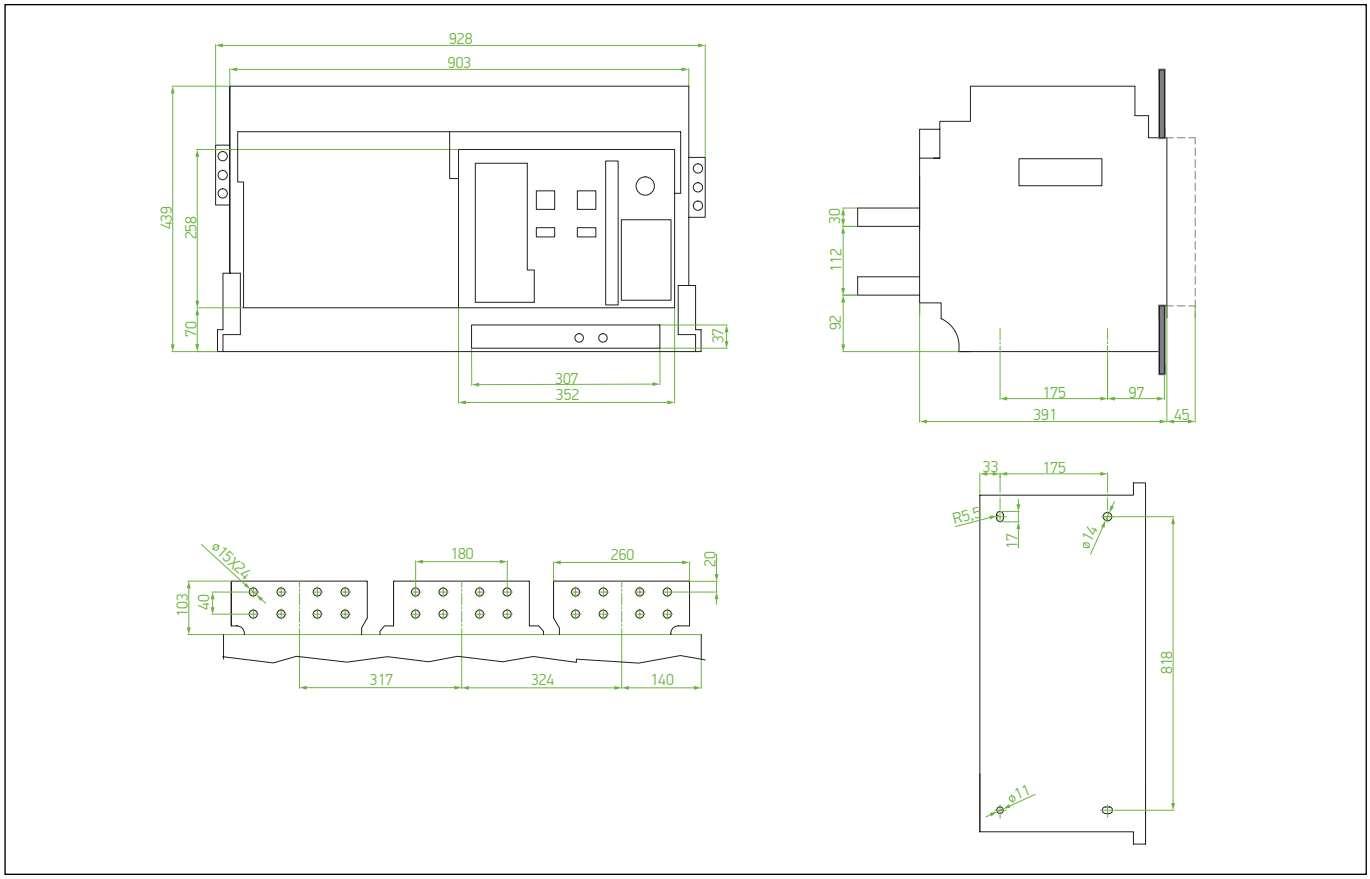


Type	a (mm)	b (mm)	c (mm)
2000A-2500A	20	115	58
3200A	30	135	78

SDA-4000



SDA-5000, SDA-6300



Automatic Transfer Switches - Technical Specifications

Type	SATS-100	SATS-250				SATS-400	SATS-630	SATS-800
Nominal current Ith (40°C)	100 A	125 A	160 A	200 A	250 A	400 A	630 A	800 A
Ambient operating temperature range	-5°C~+40°C							
Ambient storage temperature range	-20°C~+60°C							
Altitude	2000m							
Contamination degree	3							
Nominal operating voltage (Ue)	400VAC 50Hz							

Electrical Specifications								
Number of poles	4P	4P	4P	4P	4P	4P	4P	4P
Nominal current Ith (40°C)	100 A	125 A	160 A	200 A	250 A	400 A	630 A	800 A
Nominal insulation voltage Ui (V)	800	800	800	800	800	800	1000	1000
Nominal lightning impulse voltage Uimp (kV)	8	8	8	8	8	8	12	12
Nominal short circuit breaking capacity (Icu) (kA)	35	35	35	50	50	70	70	70

Switching Time								
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 Properties								
Mechanical service life	6000	6000	6000	6000	4000	4000	3000	3000
Protection degree	IP30 (Other than Terminals)							
Weight (kg)								

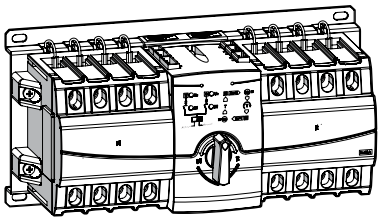
Electrical Connection								
Maximum copper cable section (mm^2)	35	35	50	85	95	185	2x150	2x240
Tightening torque min / max (Nm)	9/13	9/13	9/13	20/26	20/26	20/26	20/26	20/26

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

Automatic Transfer Switches - (Motorized Switch Fuse)

Ith		MATS-100	MATS-250	MATS-630
In(A)		100	250	630
Ui(V)		500	500	500
(V)		5000	5000	5000
Uimp kV		8	8	12
(A)	AC-33iB	100	250	630
Icw (kA Rms) 0.1S/1S		9/5	12/25	50/25
(A Rms) AC-33iB 380V		800	2000	5000
(A Rms) AC-33iB 380V		1000	2500	6300
Transfer Time		0.5	1.1	1.2
		0.3	0.7	0.8
3 poles		4.45	10.4	19
4 poles		4.5	11.3	22
		AC-33İB (PC)		

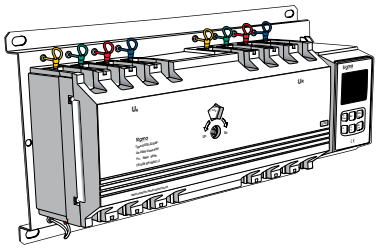
Automatic Transfer Switches (with MCB)



Type Code	Rated Current In (A)	Breaking Capacity Icu (kA)	Order Code
SATS-32	32	6	**SATS032**
SATS-40	40	6	**SATS040**
SATS-50	50	6	**SATS050**
SATS-63	63	6	**SATS063**

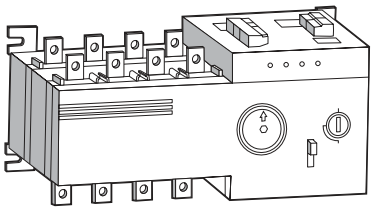
Note: Automatic transfering and protection between 32A and 63A are made by using MCB.

Automatic Transfer Switches (with MCCB)



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

Automatic Transfer Switches (Motorized Switch Disconnector)



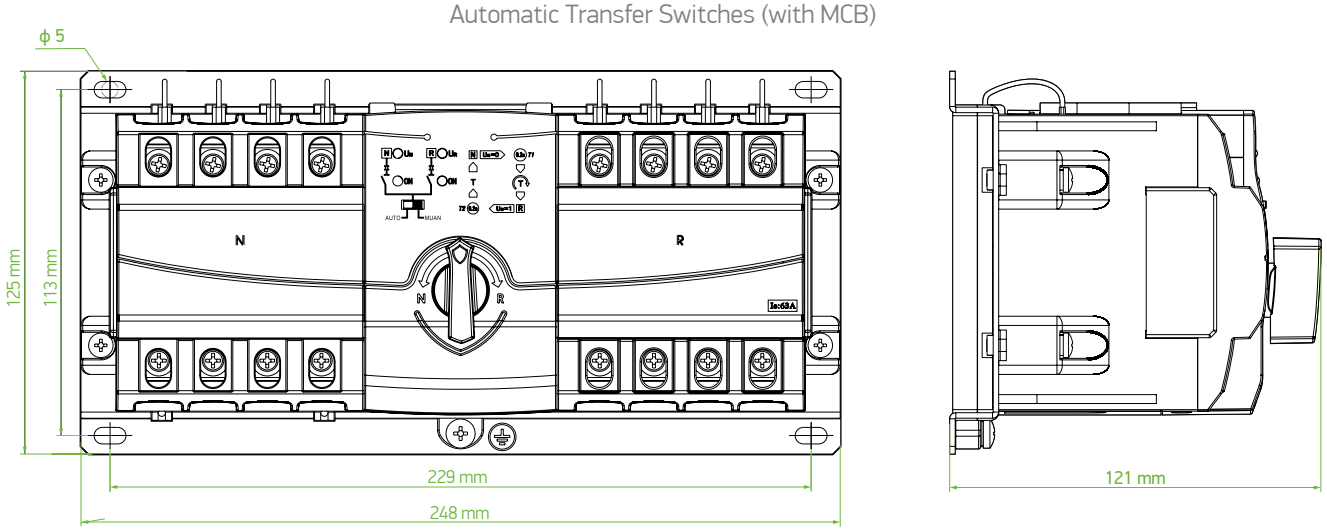
Type Code	Rated Current In (A)	Short Circuit Resistance Capacity Icw (kA/1sn)	Order Code
MATS-100	100	9	**MATS100**
MATS-160	160	12	**MATS160**
MATS-250	250	12	**MATS250**
MATS-630	630	50	**MATS630**
MATS-1000	1000	90	**MATS1000**
MATS-1600	1600	90	**MATS1600**
MATS-2000	2000	50	**MATS2000**
MATS-2500	2500		**MATS2500**
MATS-3200	3200		**MATS3200**

NEW PRODUCT

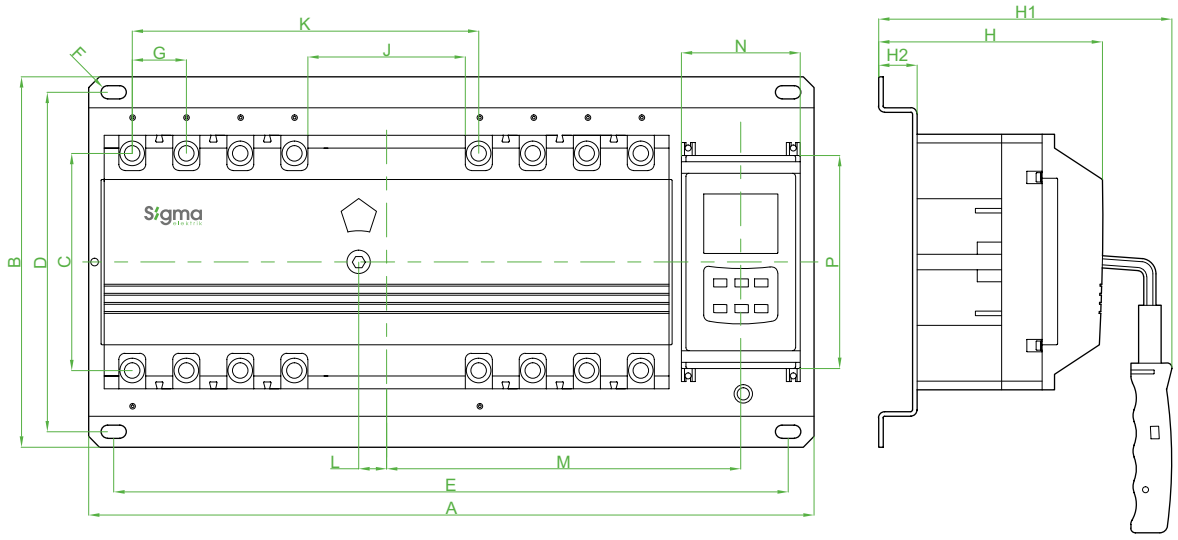
Note: There are no thermal and magnetic protection function in MATS type Automatic Transfer switch.

Dimensions

Automatic Transfer Switches (with MCB)

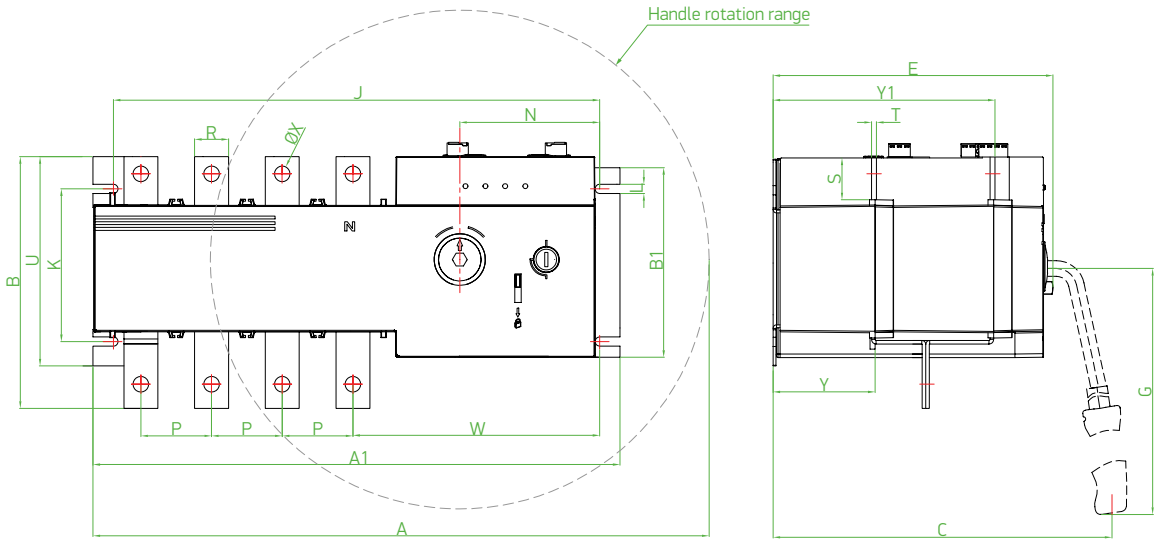


Automatic Transfer Switches (with MCCB)



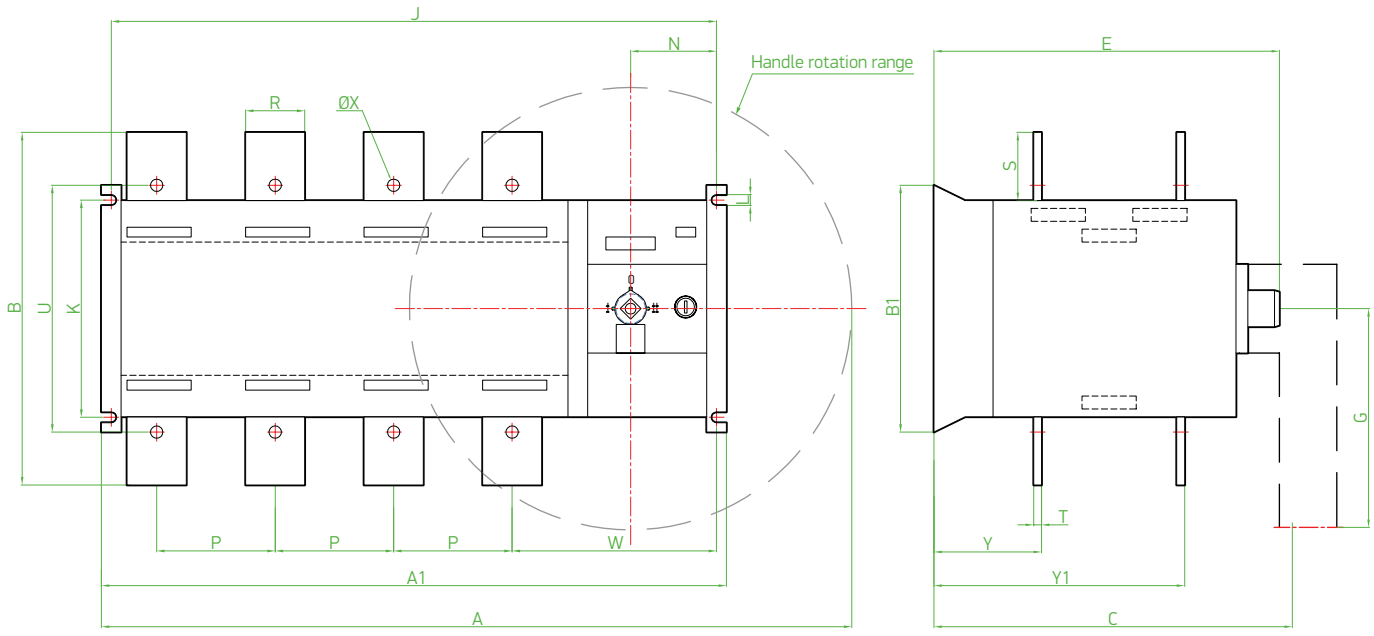
Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	P (mm)	H (mm)	H1 (mm)	H2 (mm)
SATS 100	420	240	135	220	387	M8	30	86	194	16	205	77	140	145	190	25
SATS 125-250	470	240	141	220	437	M8	35	102	225	18	230	77	140	145	190	25
SATS 400	615	330	224	300	555	M10	48	133	303	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-630A))



Rated Current	Dimensions (mm)																		
In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	W	ØX	Y	Y1
100A	330	244	115	107	182	125	174	228	85	6.5	83	30	12	18	2.5	99	125	6.2	42	92
160A	370	301	—	—	—	164	—	285	102	7	—	36	20	—	—	—	—	—	55,5	125,5
250A	436	373	178	134	240	198	174	344	108	7	99	50	24	30	3.5	148	173	11	72	157
630A	502	433	260	222	282	244	174	416	180	9	101	65	40	50	5	222	185	12	83	193

Automatic Transfer Switches (Motorized Switch Disconnector - (1000A-2000A))



Rated Current	Dimensions (mm)																		
In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	W	ØX	Y	Y1
1000A	760	633	357	250	363	350	443	613	220	11	87	120	60	69	8	250	207	12,5	109	254
1600A	760	633	357	250	363	350	443	613	220	11	87	120	80	69	10	250	207	13	110	255
2000A	800	633	460	250	542	495	447	610	220	11	84,5	120	80	120	10	250	—	13	—	169

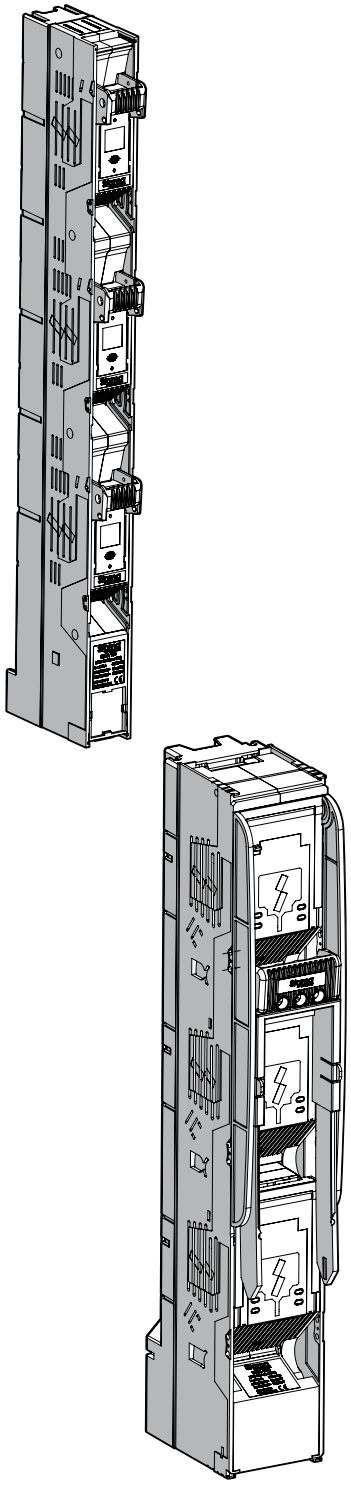
Vertical Type Fuse Switch Disconnectors - Technical Specifications

NEW PRODUCT

Type				SDY160	SDY250	SDY400	SDY630
Standard					TS EN 60269-1, IEC60269-1		
Rated current			A	160A	250A	400A	630A
Rated Thermal Current (with NH fuse) (Ith)			A	160	250	400	630
Rated Thermal Current (with Nh Fuse) (Ith)			A	200	400	630	800
No 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 lighting impulse voltage (Uimp)			kV (AC)	12	12	12	12
Rated Short Circuit Breaking Capacity with Fuse Protection (Icc)			kA	100	100	100	100
Fuse type				NH00C - NH00	NH1 - NH2	NH1 - NH2 - NH3	NH1 - NH2 - NH3
Electrical life	ON - OFF			200	200	200	200
Mechanical life	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)*
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
Dimensions	Width		mm	48	99	99	99
	Length		mm	655	655	655	655
	Depth		mm	142	197	197	197
Accessories							
Fuse holder				√	√	√	√
Terminal cover				√	√	√	√
Parking position				√	√	√	√
Micro switch				√	√	√	√
Mechanical padlock apparatus				√	√	√	√
Position indicator + mechanic fuse monitor				√	√	√	√
Fixing screws				√	√	√	√

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

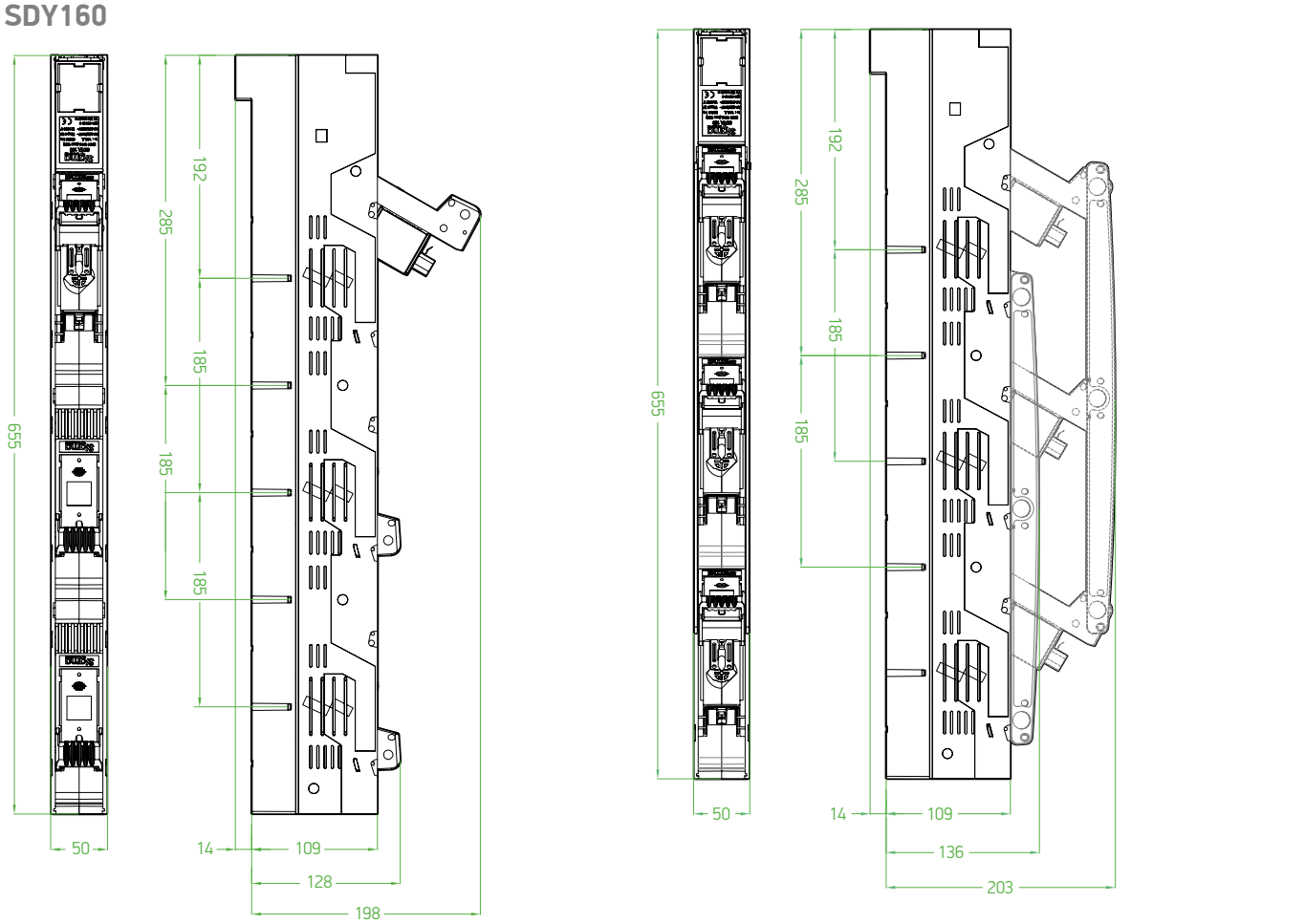
Vertical Type Fuse Switch Disconnectors - Order Information



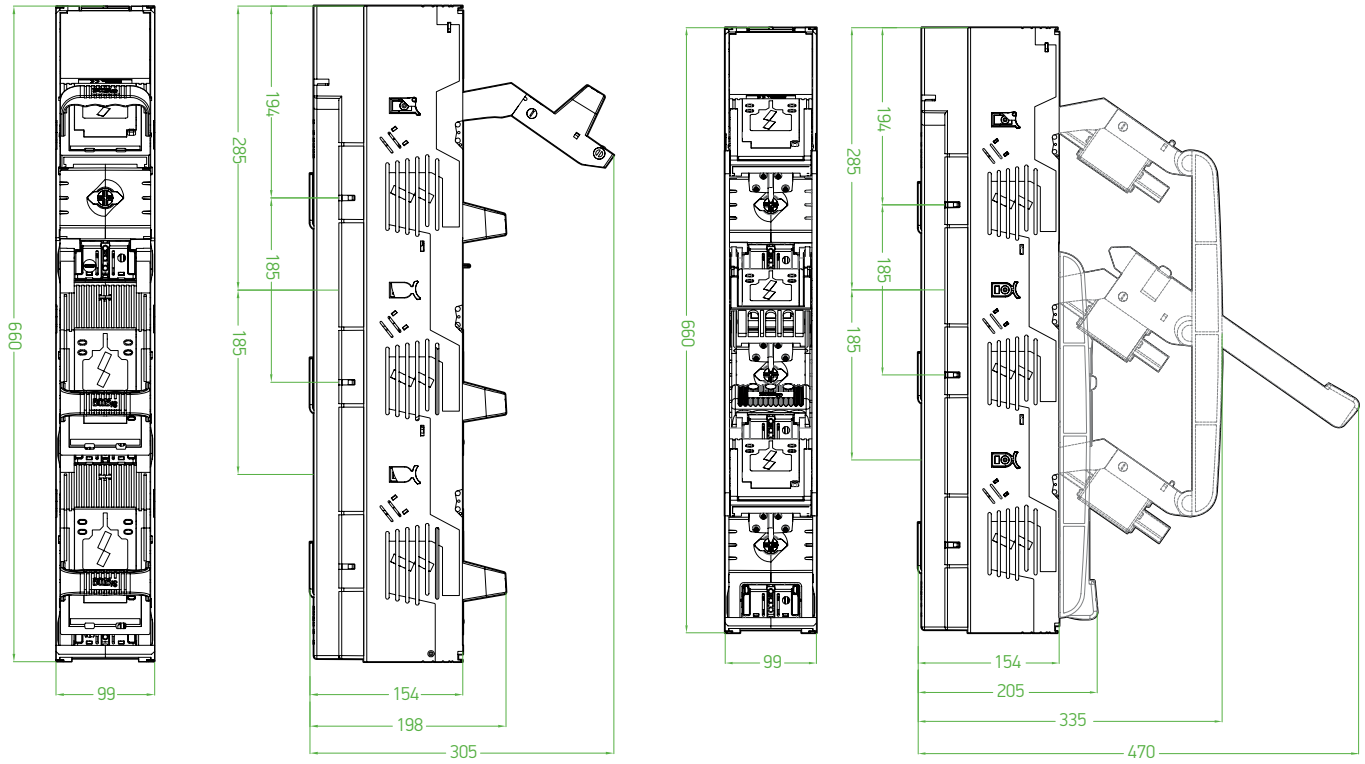
Type	Rated Current	Feature	NH Fuse / Length	Order Code
SDY-160	160A	3 phase can open separately	NH000- NH00	SDY1160N
	160A	3 phase can open separately with current transformer		SDY1160A
	160A	3 phase can open together		SDY3160N
	160A	3 phase can open together with current transformer		SDY3160A
SDY-250	250A	3 phase can open separately	NH1-NH2	SDY1250N
	250A	3 phase can open separately with current transformer		SDY1250A
	250A	3 phase can open together		SDY3250N
	250A	3 phase can open together with current transformer		SDY3250A
	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		SDY1400A
	400A	3 phase can open together		SDY3400N
	400A	3 phase can open together with current transformer		SDY3400A
	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		SDY1630A
	630A	3 phase can open together		SDY3630N
	630A	3 phase can open together with current transformer		SDY3630A
	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

Dimensions

SDY160

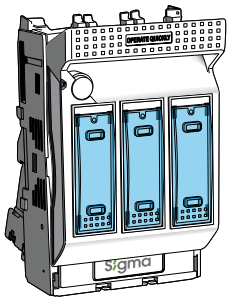


SDY250-400-630



Fuse Switch Disconnectors - Technical Specifications

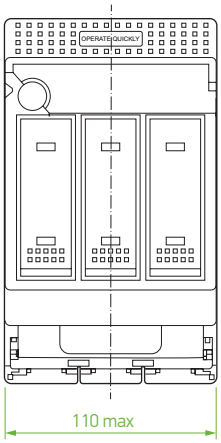
Type		SFH 160			SFH 250			SFH 400		
Standard		TS EN 60947-3, EN 60947-3								
Nh fuse link size		NH00C- NH00			NH1			NH2		
No of poles		3			3			3		
Rated operational current	a	160	160	100	250	250	200	400	400	315
Rated voltage	v	400	500	690	400	500	690	400	500	690
Rated insulation voltage	v	800			800			800		
Breaking capacity of fuse link	kA	100	100	80	100	100	80	100	100	80
Utilization category		AC23B	AC22B	AC21B	AC23B	AC22B	AC21B	AC23B	AC22B	AC21B
Weight	kg	0,7			1,5			3,3		

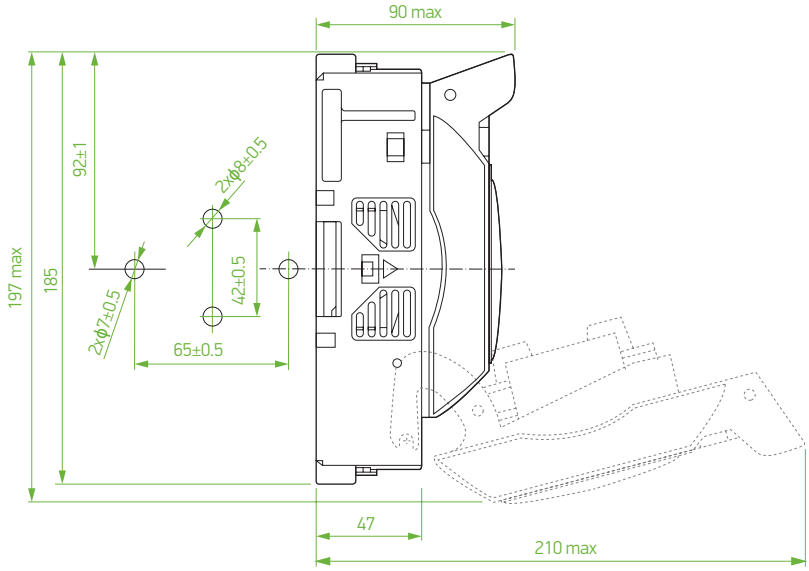


Size	Rated Current In (A)	Fuse Size	Minimum Order (pcs)	Pcs in a Box (pcs)	Order Code
SFH-160	160	00 (without Cartridge)	1	9	**SFH160**
SFH-250	250	1 (without Cartridge)	1	3	**SFH250**
SFH-400	400	2 (without Cartridge)	1	1	**SFH400**

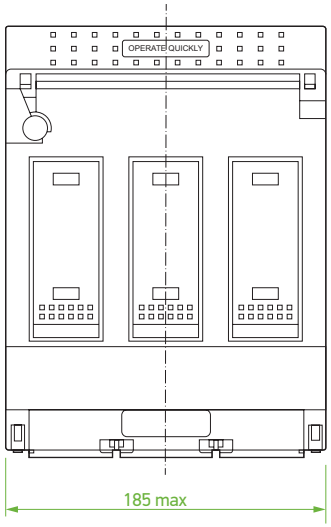
Dimensions

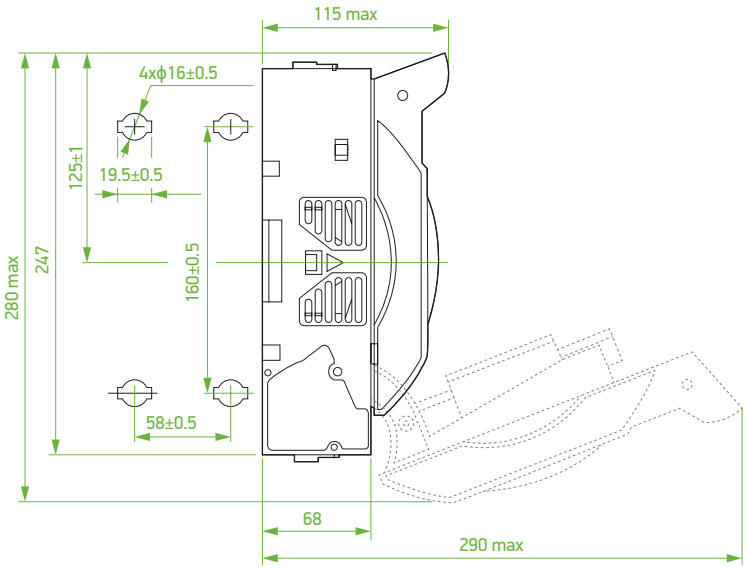
SFH160



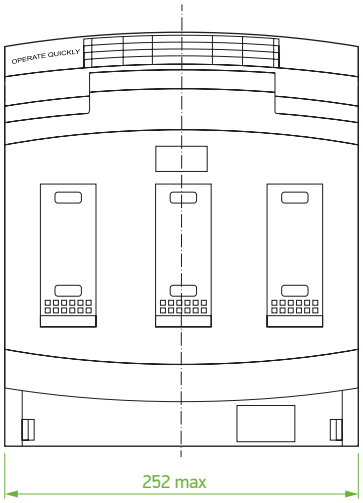


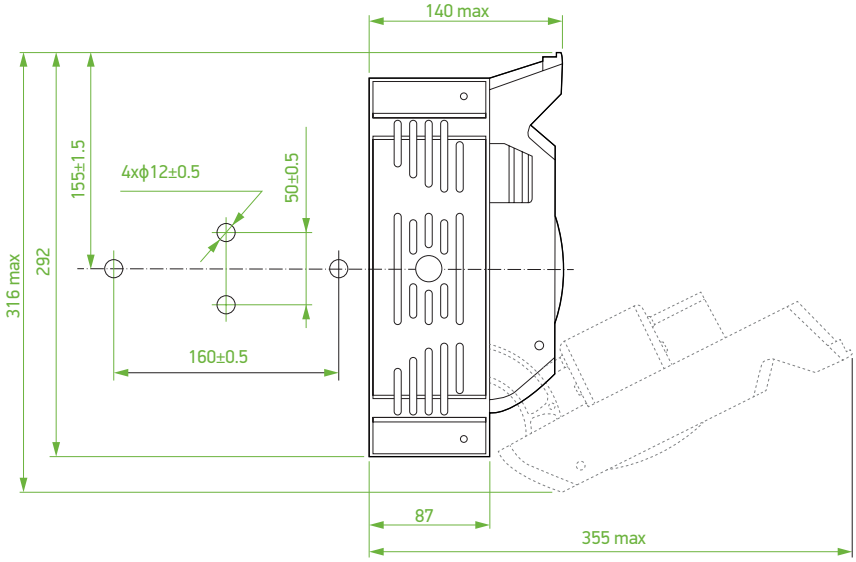
SFH250





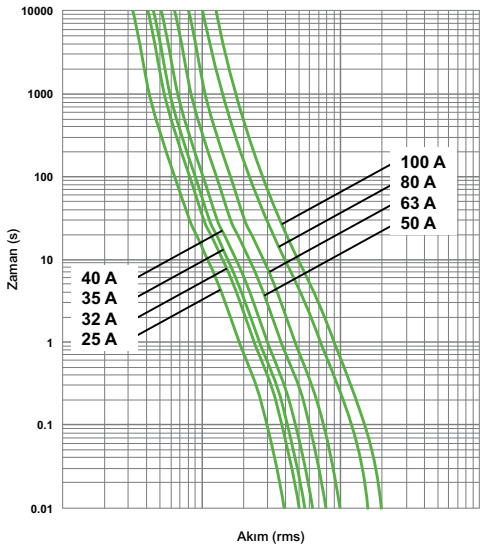
SFH400



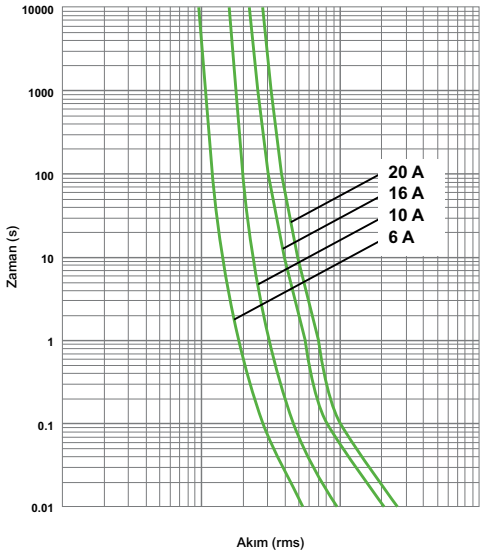


Time-Current Curves

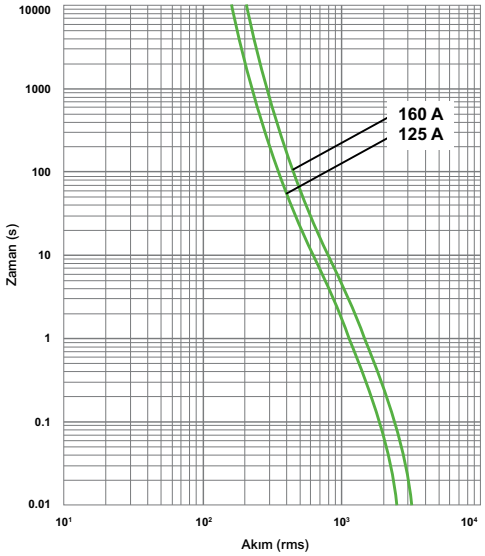
NH00C



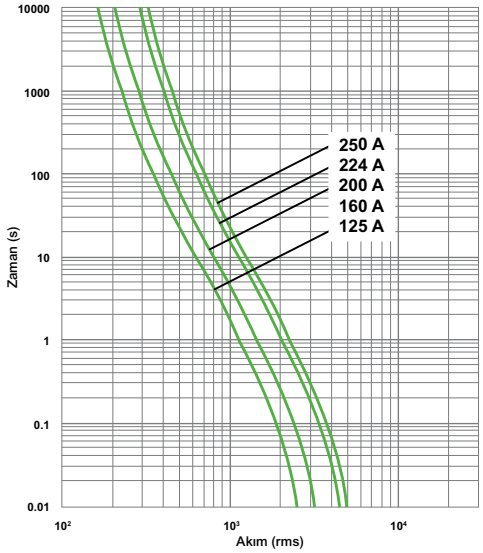
NH00C



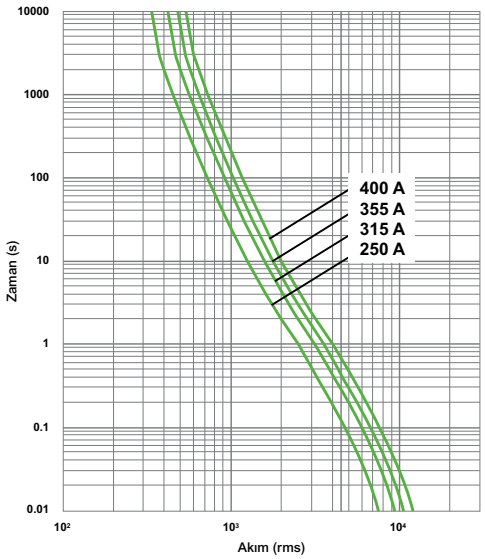
NH00



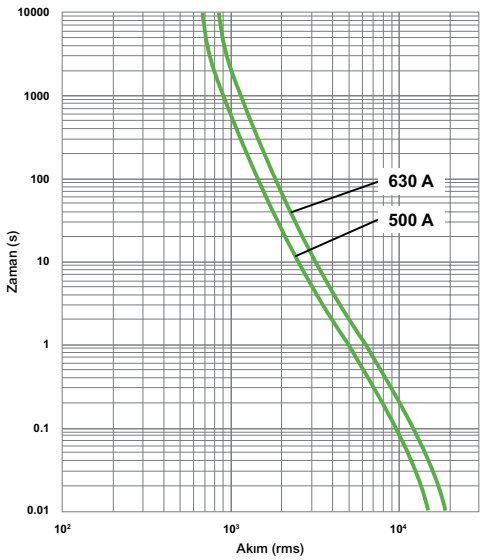
NH1



NH2

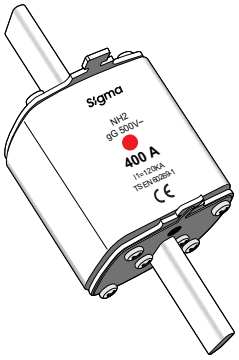


NH3



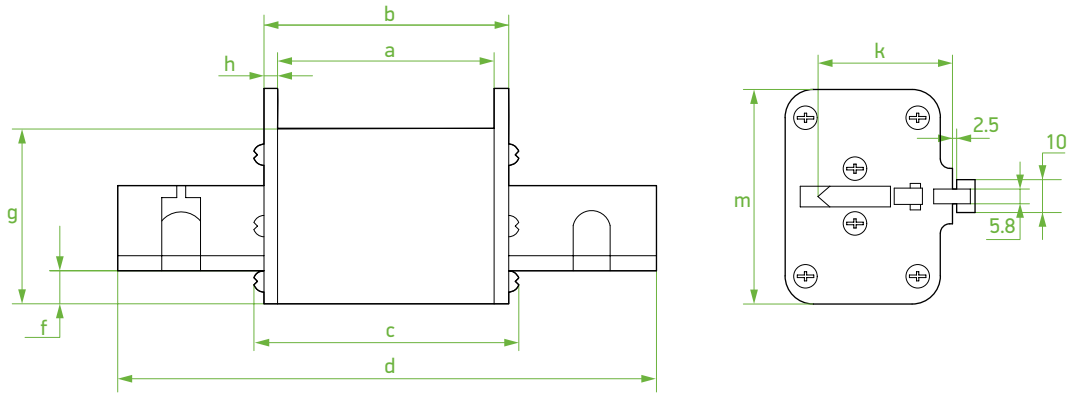
NH Fuse Links (Double Indicator)

NEW PRODUCT



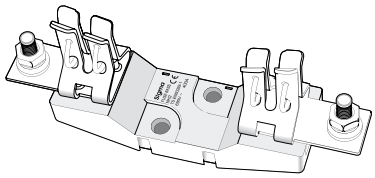
Size	Rated Current In (A)	Breaking Cap. (kA)	Minimum Order	Pcs in a Box	Order Code
NHC00	6	120	3	180	SNHCI00006
	10	120	3	180	SNHCI00010
	16	120	3	180	SNHCI00016
	20	120	3	180	SNHCI00020
	25	120	3	180	SNHCI00025
	32	120	3	180	SNHCI00032
	40	120	3	180	SNHCI00040
	50	120	3	180	SNHCI00050
	63	120	3	180	SNHCI00063
	80	120	3	180	SNHCI00080
	100	120	3	180	SNHCI00100
NH00	16	120	3	96	SNH00I0016
	20	120	3	96	SNH00I0020
	25	120	3	96	SNH00I0025
	32	120	3	96	SNH00I0032
	40	120	3	96	SNH00I0040
	50	120	3	96	SNH00I0050
	63	120	3	96	SNH00I0063
	80	120	3	96	SNH00I0080
	100	120	3	96	SNH00I0100
	125	120	3	96	SNH00I0125
	160	120	3	96	SNH00I0160
NH1	160	120	3	36	SNH1I00160
	200	120	3	36	SNH1I00200
	250	120	3	36	SNH1I00250
NH2	160	120	3	24	SNH2I00160
	200	120	3	24	SNH2I00200
	250	120	3	24	SNH2I00250
	315	120	3	24	SNH2I00315
	400	120	3	24	SNH2I00400
NH3	500	120	3	24	SNH3I00500
	630	120	3	-	SNH3I00630

Dimensions



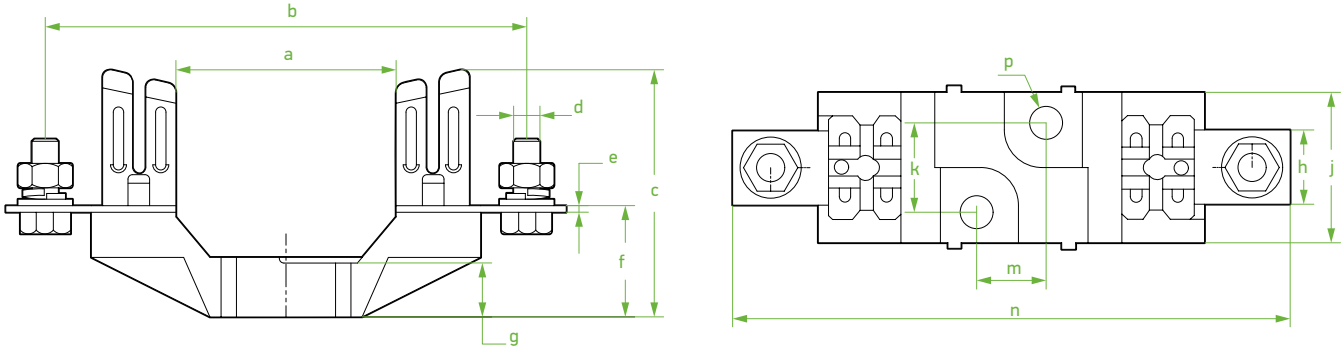
Type	a	b	c	d	e	f	g	h	k	m
NH00C	45	48	52	79	15	6	36	1,5	35	21
NH000	47	50	54	79	15	12	45	1,5	35	29
NH01	62	66	72	135	20	11	48	2	40	48
NH02	62	66	72	150	25	14	58	2	48	58
NH03	62	67	72	150	32	14	70	2,5	60	70

NH (H.R.C.) Fuse Base



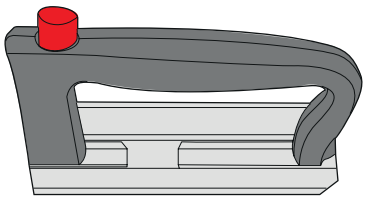
Size	Rated Current In (A)	Body Material	Minimum Order	Box Qty	Order Code
NH00	160	Steatit	5	60	**SNB00**
NH1	250	BMC	5	60	**SNB01**
NH2	400	BMC	5	60	**SNB02**
NH3	630	BMC	5	*	**SNB03**

Dimensions



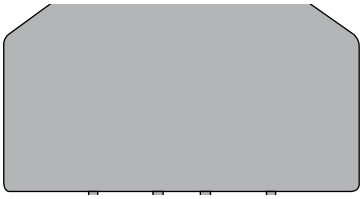
Size	a	b	c	d	e	f	g	h	j	k	m	n	p
NH000	59	102	56	M8	2	23	13	21	32	0	25	118	7,5
NH01	82	175	82	M10	2	36	19	25	50	30	25	199	10,5
NH02	82	200	96	M10	2,5	37	19	31	50	30	25	225	10,5
NH03	82	210	85	M12	2,5	37	20	36	56	30	25	238	10,5

NH Fuse Handle



Type Code	Rated Voltage	Order Code
SNHE	1000	**SNHE**

NH Fuse Base Seperator



Size	Order Code
NH00	**SNBS**

Note: When used 3 pcs NH00 Fuse Base together, it is used for isolation between Phases.

Maximum Power Dissipation for NH Fuse Links

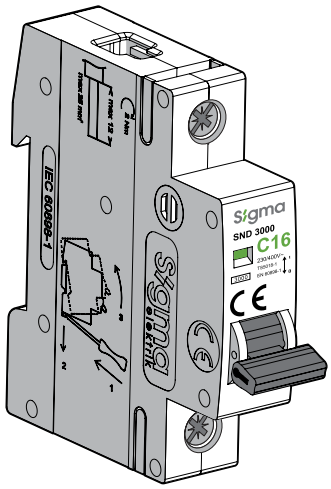
Size	Rated Current In (A)	TS EN 60269-1	SİGMA
SNH00C	6	12 W	1.8 W
	10	12 W	2.1 W
	16	12 W	2.4 W
	20	12 W	2.7 W
	25	12 W	2.9 W
	32	12 W	3.7 W
	40	12 W	4.3 W
	50	12 W	4.7 W
	63	12 W	6 W
	80	12 W	6.8 W
	100	12 W	8.8 W
SNH00	125	12 W	10.2 W
	160	12 W	12 W
SNH1	125	23 W	10.2 W
	160	23 W	13.1 W
	200	23 W	17.6 W
	250	23 W	23 W
SNH2	200	34 W	17.8 W
	250	34 W	20.5 W
	315	34 W	25.4 W
	400	34 W	31 W

Miniature Circuit Breaker - Technical Specifications

Type			SNB 3000				SNB 6000				SDC 6000			
No of poles			1	2	3	4	1	2	3	4	1	2	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				6, 10, 16, 20, 25, 32, 40, 50, 63			
Instantaneous tripping class			B : (3-5)xIn C : (5-10)xIn				B : (3-5)xIn C : (5-10)xIn D : (10-20)xIn				C : (7-14)xIn			
Power supply			AC								DC			
Rated operating voltage	Ue	AC (V)	230/400	400			230/400	400			250	500	1000	
Rated insulation voltage	Ui	V	690								440			
Rated impulse withstanding voltage	Uimp	kV	6								4			
Rated short circuit breaking capacity	Ics	kA	3				6				6			
Widthergy class			3				3				3			
Electrical life (operation)	op.	230 V	3000				5000				4000			
Mechanical life (operation)	op.		20000				20000				20000			
Protection class			IP 20				IP 20				IP 20			
Operating temperature		°C	-30 to +60				-30 to +60				-30 to +60			
Storage temperature		°C	-40 to +70				-40 to +70				-40 to +70			
Colour			RAL 7035				RAL 7035				RAL 7035			
Assembly (EN 60715)			35 mm. DIN Rail				35 mm. DIN Rail				35 mm. DIN Rail			
Min. Max. Connection section		mm^2	1 – 25				1 – 25				1 – 25			
Min. Max. Clamping torque		Nm	2				2				2			

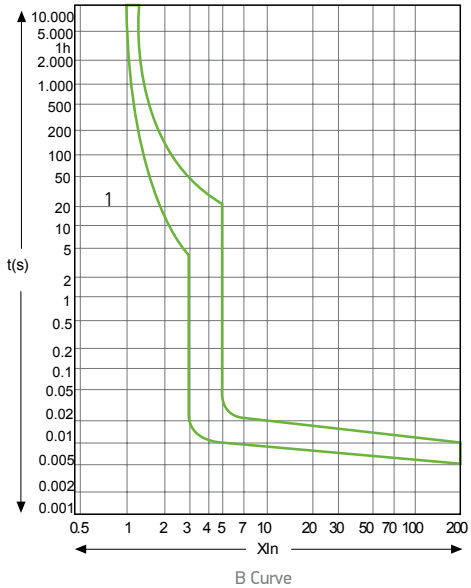
	SLD 6000				SMD 10000				SLD 10000				SND 16000
	1	2	3	4	1	2	3	4	1	2	3	4	1
	80, 100, 125				2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63				80, 100, 125				40, 50, 63, 80, 100, 125
	C : (5-10)xIn				B : (3-5)xIn C : (5-10)xIn D : (10-20)xIn				C : (5-10)xIn				C : (5-10)xIn
	AC				AC				AC				AC
	230 / 400	400			230/400	400			230/400	400			230/400
	690				690				690				690
	6				6				6				6
	6				10								16
	3				3				3				3
	4000				5000				4000				4000
	20000				20000				20000				15000
	IP 20				IP 20				IP 20				IP 20
	-30 to +60				-30 to +60				-30 to +60				-30 to +60
	-40 to +70				-40 to +70				-40 to +70				-40 to +70
	RAL 7035				RAL 7035				RAL 7035				RAL 7035
	35 mm. DIN Rail				35 mm. DIN Rail				35 mm. DIN Rail				35 mm. DIN Rail
	25 – 50				1 – 25				25 – 50				2,5 – 50
	3,5				2				3,5				3,5

3 kA Miniature Circuit Breakers

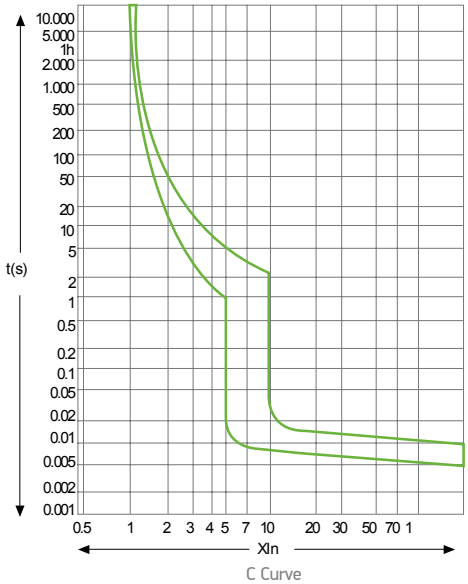


Type		SNB 3000			
No of poles		1	2	3	4
Rated current (at 30°C)	A	2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63			
Rated voltage (Ue)	AC (V)	230/400	400		
Rated insulation voltage	AC (V)	690			
Rated impulse voltage (Uimp)	kV	6			
Rated breaking capacity (Ics)	kA	3			
Frequency	Hz	50-60			
Widthergy class		3			
Electrical life (ope.)	230 V	3.000			
Mechanical life (ope.)		20.000			
Protection class		IP 20			
Ambient operating temperature	°C	-30 to +60			
Storage temperature	°C	-40 to +70			
Colour		RAL 7035			
Assembly (EN 60715)		35 mm DIN Rail			
Connection capacity (min - max)	mm^2	1 – 25			
Max. Tightening torque	Nm	2			

Time- Current Characteristic

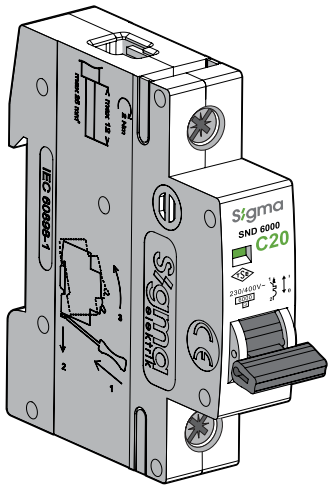


B Curve



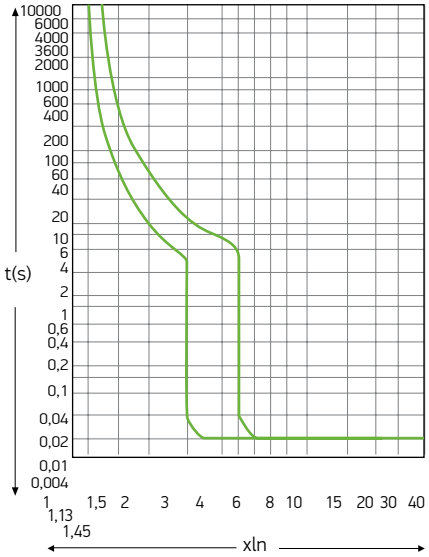
C Curve

6 kA Miniature Circuit Breakers

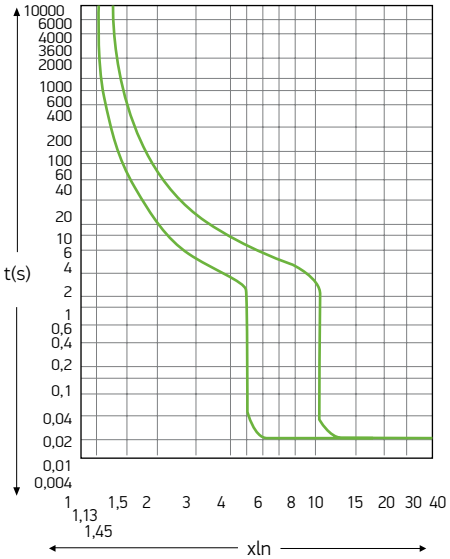


Type		SNB 6000			
No of poles		1	2	3	4
Rated current (at 30°C)	A	1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63			
Rated voltage (Ue)	AC (V)	230/400	400		
Rated insulation voltage	AC (V)	690			
Rated impulse voltage (Uimp)	kV	6			
Rated breaking capacity (Ics)	kA	6			
Frequency	Hz	50-60			
Widthergy class		3			
Electrical life (ope.)	230 V	5.000			
Mechanical life (ope.)		20.000			
Protection class		IP 20			
Ambient operating temperature	°C	-30 to +60			
Storage temperature	°C	-40 to +70			
Colour		RAL 7035			
Assembly (EN 60715)		35 mm DIN Rail			
Connection capacity (min - max)	mm^2	1 – 25			
Max. Tightening torque	Nm	2			

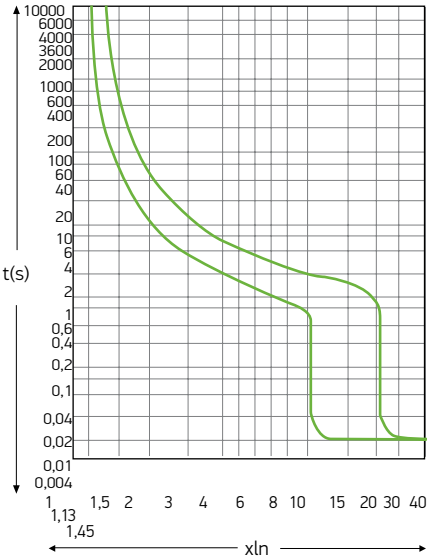
Time- Current Characteristic



B curve



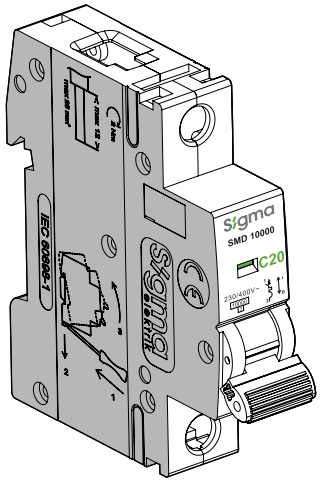
C curve



D curve

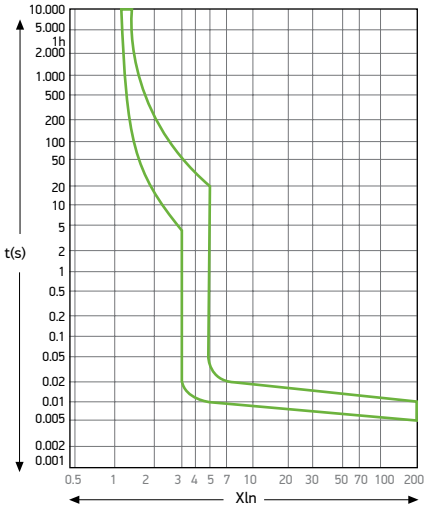
10 kA Miniature Circuit Breakers (SMD 10000)

TÜVRheinland®

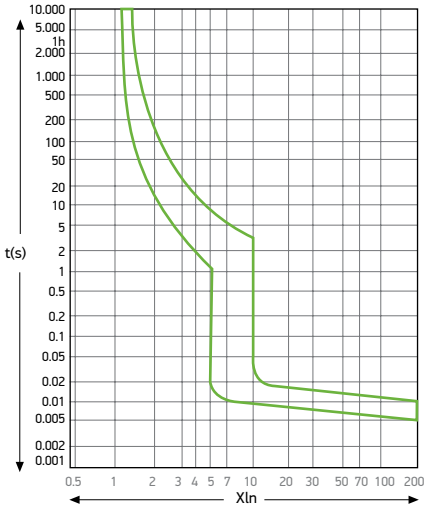


Type		SMD 10000 (TÜV Approved)			
No of poles		1	2	3	4
Rated current (at 30°C)	A	2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63			
Rated voltage (Ue)	AC (V)	230/400	400		
Rated insulation voltage	AC (V)	690			
Rated impulse voltage (Uimp)	kV	6			
Rated breaking capacity (Ics)	kA	10			
Frequency	Hz	50-60			
Widthergy class		3			
Electrical life (ope.)	230 V	5.000			
Mechanical life (ope.)		20.000			
Protection class		IP 20			
Ambient operating temperature	°C	-30 to +60			
Storage temperature	°C	-40 to +70			
Colour		RAL 7035			
Assembly (EN 60715)		35 mm DIN Rail			
Connection capacity (min - max)	mm^2	1 – 25			
Max. Tightening torque	Nm	2			

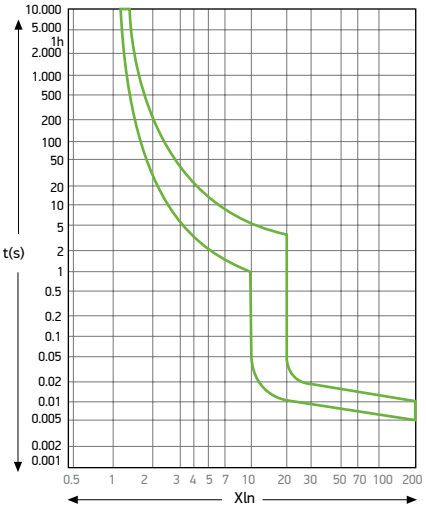
Time- Current Characteristic



B curve

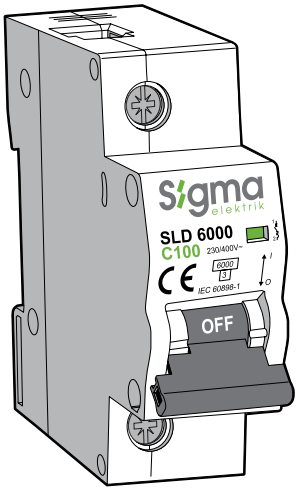


C curve



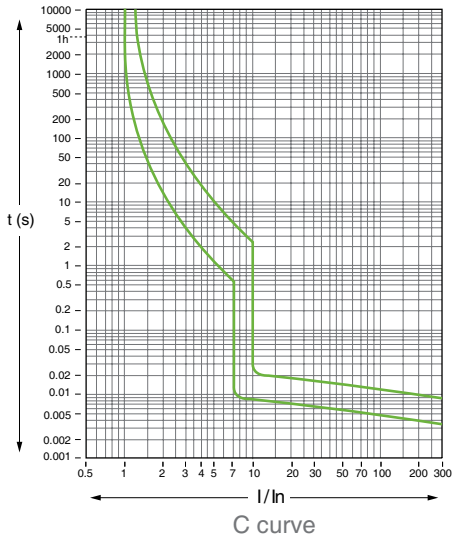
D curve

6 kA Miniature Circuit Breakers (80-100-125 A)



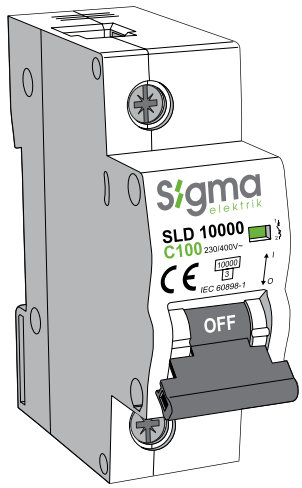
Type		SLD 6000			
No of poles		1	2	3	4
Rated current (at 30°C)	A	80, 100, 125			
Rated voltage (Ue)	AC (V)	230/400	400		
Rated insulation voltage	AC (V)	690			
Rated impulse voltage (Uimp)	kV	6			
Rated breaking capacity (Ics)	kA	6			
Frequency	Hz	50-60			
Widthergy class		3			
Electrical life (ope.)	230 V	4.000			
Mechanical life (ope.)		20.000			
Protection class		IP 20			
Ambient operating temperature	°C	-30 to +60			
Storage temperature	°C	-40 to +70			
Colour		RAL 7035			
Assembly (EN 60715)		35 mm DIN Rail			
Connection capacity (min - max)	mm^2	25 – 50			
Max. Tightening torque	Nm	3,5			

Time- Current Characteristic



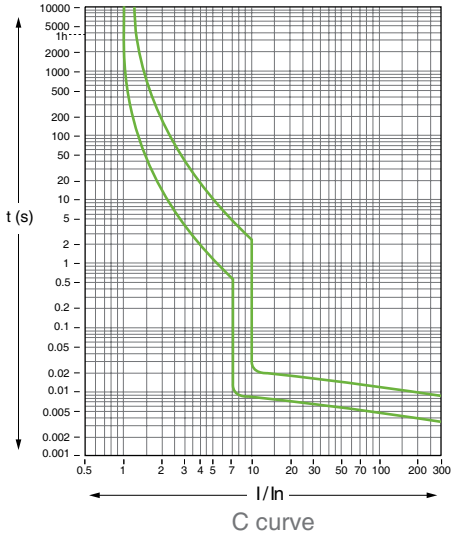
C curve

10 kA Miniature Circuit Breakers (80-100-125 A)



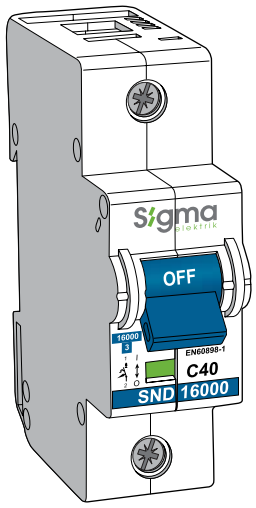
Type		SLD 10000			
No of poles		1	2	3	4
Rated current (at 30°C)	A	80, 100, 125			
Rated voltage (Ue)	AC (V)	230/400	400		
Rated insulation voltage	AC (V)	690			
Rated impulse voltage (Uimp)	kV	6			
Rated breaking capacity (Ics)	kA	10			
Frequency	Hz	50-60			
Widthergy class		3			
Electrical life (ope.)	230 V	4.000			
Mechanical life (ope.)		20.000			
Protection class		IP 20			
Ambient operating temperature	°C	-30 to +60			
Storage temperature	°C	-40 to +70			
Colour		RAL 7035			
Assembly (EN 60715)		35 mm DIN Rail			
Connection capacity (min - max)	mm^2	25 – 50			
Max. Tightening torque	Nm	3,5			

Time- Current Characteristic



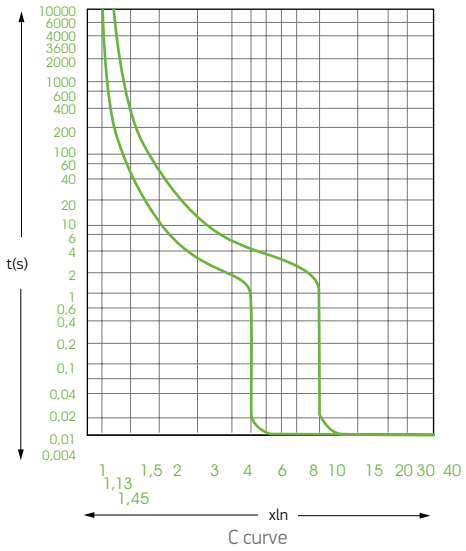
C curve

16 kA Miniature Circuit Breakers

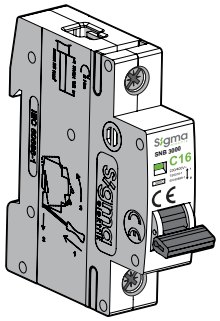


Type		SND 16000
No of poles		1
Rated current (at 30°C)	A	40, 50, 63, 80, 100, 125
Rated voltage (Ue)	AC (V)	230/400
Rated insulation voltage	AC (V)	690
Rated impulse voltage (Uimp)	kV	6
Rated breaking capacity (Ics)	kA	16
Frequency	Hz	50-60
Widthergy class		3
Electrical life (ope.)	230 V	4.000
Mechanical life (ope.)		15.000
Protection class		IP 20
Ambient operating temperature	°C	-30 to +60
Storage temperature	°C	-40 to +70
Colour		RAL 7035
Assembly (EN 60715)		35 mm DIN Rail
Connection capacity (min - max)	mm^2	10 – 50
Max. Tightening torque	Nm	3,5

Time- Current Characteristic



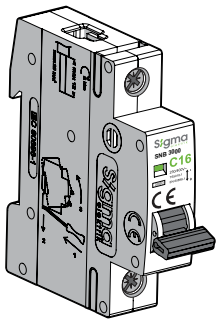
3 kA / SNB 3000 (B Curve)

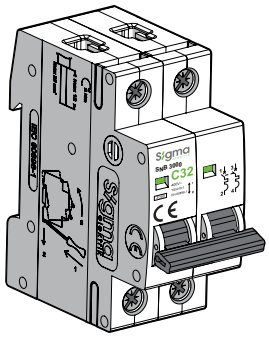


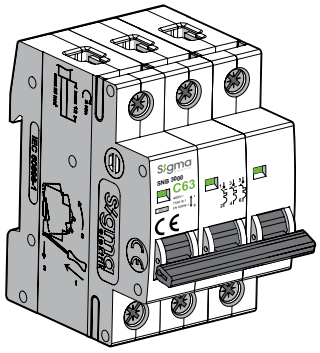
No of Poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code for B Type
1P	2	12	240	**3SB102B**
	4	12	240	**3SB104B**
	6	12	240	**3SB106B**
	10	12	240	**3SB110B**
	16	12	240	**3SB116B**
	20	12	240	**3SB120B**
	25	12	240	**3SB125B**
	32	12	240	**3SB132B**
	40	12	240	**3SB140B**
	50	12	240	**3SB150B**
	63	12	240	**3SB163B**

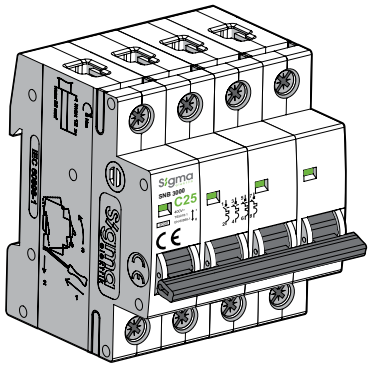
Note: Pls kindly ask delivery time and prices for RoHS approved MCBs

3 kA / SNB 3000 (C Curve)





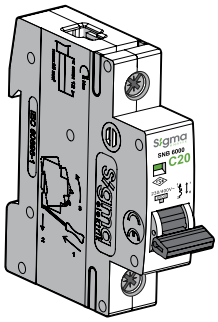


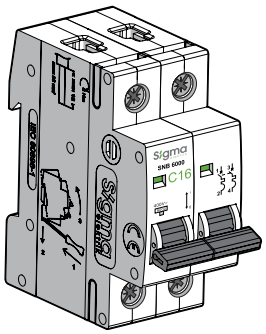


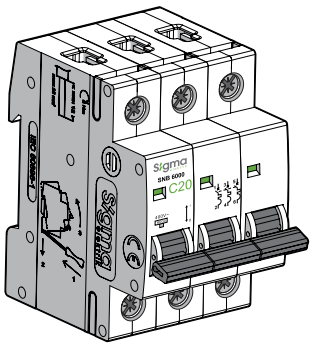
No of Poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code for C Type
1P	2	12	240	3SB102C
	4	12	240	3SB104C
	6	12	240	3SB106C
	10	12	240	3SB110C
	16	12	240	3SB116C
	20	12	240	3SB120C
	25	12	240	3SB125C
	32	12	240	3SB132C
	40	12	240	3SB140C
	50	12	240	3SB150C
	63	12	240	3SB163C
2P	2	6	120	3SB202C
	4	6	120	3SB204C
	6	6	120	3SB206C
	10	6	120	3SB210C
	16	6	120	3SB216C
	20	6	120	3SB220C
	25	6	120	3SB225C
	32	6	120	3SB232C
	40	6	120	3SB240C
	50	6	120	3SB250C
	63	6	120	3SB263C
3P	2	4	80	3SB302C
	4	4	80	3SB304C
	6	4	80	3SB306C
	10	4	80	3SB310C
	16	4	80	3SB316C
	20	4	80	3SB320C
	25	4	80	3SB325C
	32	4	80	3SB332C
	40	4	80	3SB340C
	50	4	80	3SB350C
	63	4	80	3SB363C
4P	2	3	60	3SB402C
	4	3	60	3SB404C
	6	3	60	3SB406C
	10	3	60	3SB410C
	16	3	60	3SB416C
	20	3	60	3SB420C
	25	3	60	3SB425C
	32	3	60	3SB432C
	40	3	60	3SB440C
	50	3	60	3SB450C
	63	3	60	3SB463C

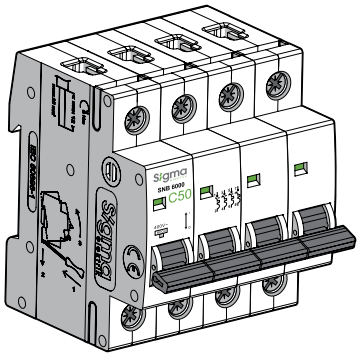
Note: Pls kindly ask delivery time and prices for RoHS approved MCBs

6 kA / SNB 6000







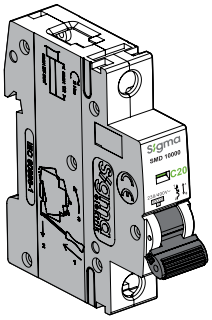


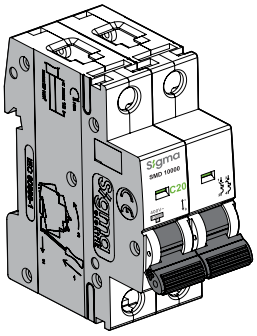
No of Poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code for C Type
1P	1	12	240	**6SB101C**
	2	12	240	**6SB102C**
	3	12	240	**6SB103C**
	4	12	240	**6SB104C**
	5	12	240	**6SB105C**
	6	12	240	**6SB106C**
	10	12	240	**6SB110C**
	16	12	240	**6SB116C**
	20	12	240	**6SB120C**
	25	12	240	**6SB125C**
	32	12	240	**6SB132C**
	40	12	240	**6SB140C**
	50	12	240	**6SB150C**
	63	12	240	**6SB163C**
2P	2	6	120	**6SB202C**
	4	6	120	**6SB204C**
	6	6	120	**6SB206C**
	10	6	120	**6SB210C**
	16	6	120	**6SB216C**
	20	6	120	**6SB220C**
	25	6	120	**6SB225C**
	32	6	120	**6SB232C**
	40	6	120	**6SB240C**
	50	6	120	**6SB250C**
	63	6	120	**6SB263C**
3P	2	4	80	**6SB302C**
	4	4	80	**6SB304C**
	6	4	80	**6SB306C**
	10	4	80	**6SB310C**
	16	4	80	**6SB316C**
	20	4	80	**6SB320C**
	25	4	80	**6SB325C**
	32	4	80	**6SB332C**
	40	4	80	**6SB340C**
	50	4	80	**6SB350C**
	63	4	80	**6SB363C**
4P	2	3	60	**6SB402C**
	4	3	60	**6SB404C**
	6	3	60	**6SB406C**
	10	3	60	**6SB410C**
	16	3	60	**6SB416C**
	20	3	60	**6SB420C**
	25	3	60	**6SB425C**
	32	3	60	**6SB432C**
	40	3	60	**6SB440C**
	50	3	60	**6SB450C**
	63	3	60	**6SB463C**

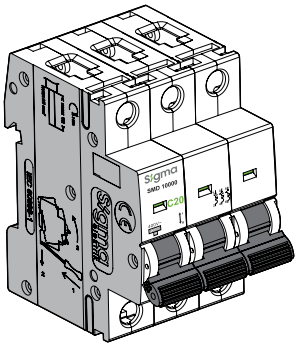
Note: Pls kindly ask delivery time and prices for RoHS approved MCBs

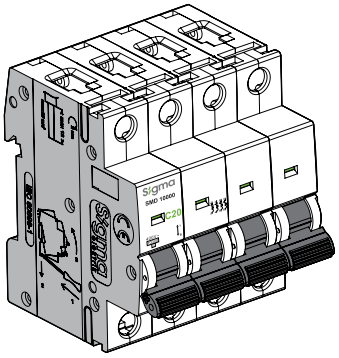
10 kA / SMD 10000 (TÜV Approved)

TÜVRheinland®





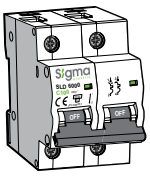
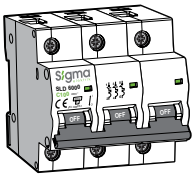
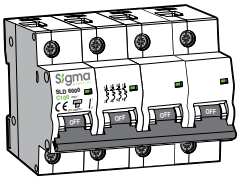




No of Poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code for B Type	Order Code for C Type	Order Code for D Type
1P	2	12	240	1SMD102B	1SMD102C	1SMD102D
	4	12	240	1SMD104B	1SMD104C	1SMD104D
	6	12	240	1SMD106B	1SMD106C	1SMD106D
	10	12	240	1SMD110B	1SMD110C	1SMD110D
	16	12	240	1SMD116B	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

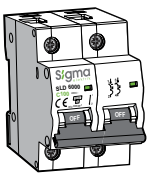
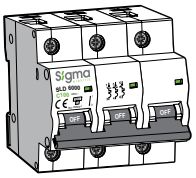
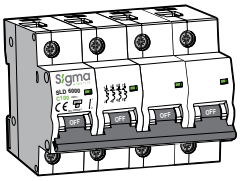
Note: Pls kindly ask delivery time and prices for RoHS approved MCBs

80-100-125A Miniature Circuit Breakers 6 kA / SLD 6000

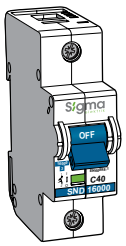
No of Poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code
1P	80	12	120	**6SL180C**
	100	12	120	**6SL100C**
	125	12	120	**6SL112C**
2P	80	6	60	**6SL280C**
	100	6	60	**6SL200C**
	125	6	60	**6SL212C**
3P	80	4	40	**6SL380C**
	100	4	40	**6SL300C**
	125	4	40	**6SL312C**
4P	80	3	30	**6SL480C**
	100	3	30	**6SL400C**
	125	3	30	**6SL412C**

80-100-125A Miniature Circuit Breakers 10 kA / SLD 10000

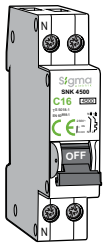
No of Poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code
1P	80	12	120	**1SL180C**
	100	12	120	**1SL100C**
	125	12	120	**1SL112C**
2P	80	6	60	**1SL280C**
	100	6	60	**1SL200C**
	125	6	60	**1SL212C**
3P	80	4	40	**1SL380C**
	100	4	40	**1SL300C**
	125	4	40	**1SL312C**
4P	80	3	30	**1SL480C**
	100	3	30	**1SL400C**
	125	3	30	**1SL412C**

16 kA / SND 16000



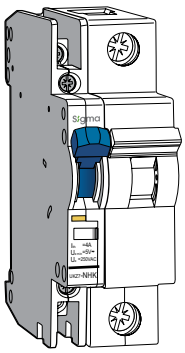
No of Poles	Rated Current In (A)	Min. Order Quantity	Order Code
1P	C40	1	5SM140C
	C50	1	5SM150C
	C63	1	5SM163C
	C80	1	5SM180C
	C100	1	5SM100C
	C125	1	5SM125C

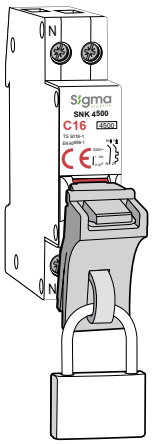
4.5 kA Phase-Neutral Miniature Circuit Breakers 1P+N (18 mm)



No 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

Accessories





NEW PRODUCT

Type Code	Description	Order Code
SNAB	AC-DC 110-400 V Shunt Trip Release (for 4.5-6 kA MCB)	SNAB220
	AC-DC 24-48 V Shunt Trip Release (for 4.5-6 kA MCB)	SNAB024
SNYK	1NO+1NC Auxiliary Contact (for 3-6 Ka MCB)	SNYK011
SMDAB	110-415 V AC/110-220 V DC Shunt Trip Release (for SMD 10000)	SMDAB
SMDYK	1NO+1NC Aux Contact (Ith:4 A, 250 V AC) (for SMD 10000)	SMDYK
SMDAK	1NO+1NC Alarm Contact (Ith:4 A, 250 V AC) (for SMD 10000)	SMDAK
SLDYK	1NO+1NC Aux Contact (Ith:3 A, 415 V AC) (for SLD6000-SLD10000)	SLDYK011
SMEK	Safety Lock (for all type MCB)*	SMEK
RD1	Motor operator (for 1 P SMD 10000)	SMDRD1
RD2	Motor operator (for 2 P SMD 10000)	SMDRD2
RD3	Motor operator (for 3 P SMD 10000)	SMDRD3
RD4	Motor operator (for 4 P SMD 10000)	SMDRD4

*Pedlock is NOT included our offer.

Required Data for Mcb Order

- Rated Current (1...125A)
- Rated Breaking Capacity (3kA - 6kA - 10kA - 16kA)
- Required No 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 houses, plugs, heaters, PLC and control circuits.

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

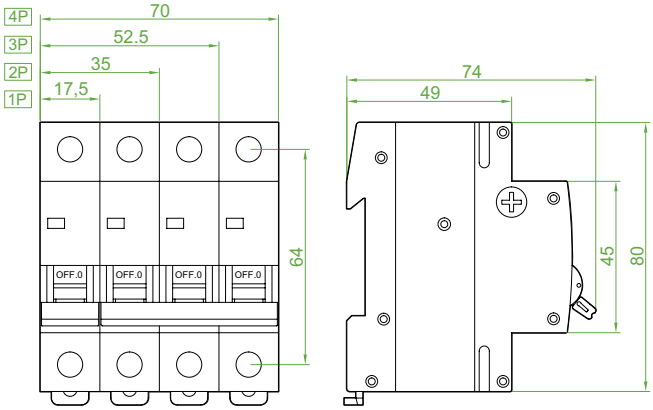
D Curve: It is used for protection of motor starters, pomps, compressors, capacitors and welding machines.

Miniature Circuit Breakers Tripping and Non-Tripping Conditions

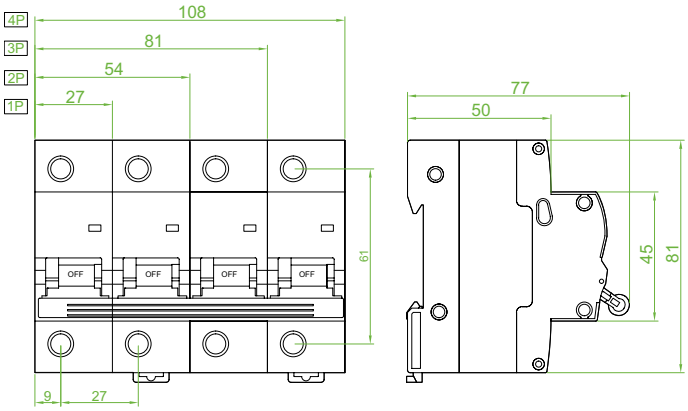
Tripping Curve	Rated Current	Applied Test Current	Tripping Time	Result (should be)
B, C, D	In≤63	1.13 In	t ≥ 3600s	Non trip
B, C, D	In≤63	1.45 In	t < 3600s	Trip
B, C, D	In>63	1.13 In	t ≥ 7200s	Non trip
B, C, D	In>63	1.45 In	t < 7200s	Trip
B, C, D	In≤32	2.55 In	1s < t < 60s	Trip
B, C, D	In>32	2.55 In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

Dimensions

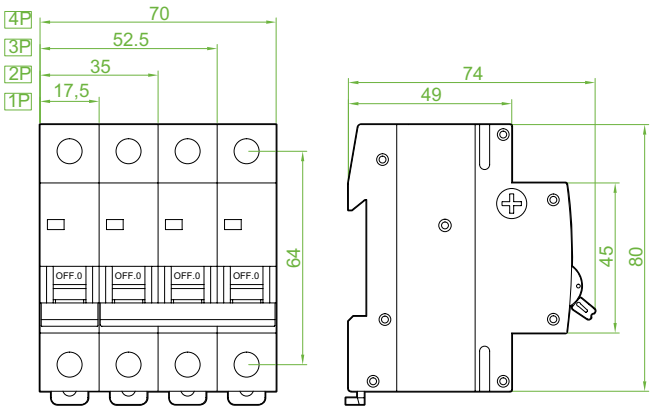
3 kA - 6 kA (1A-63A)

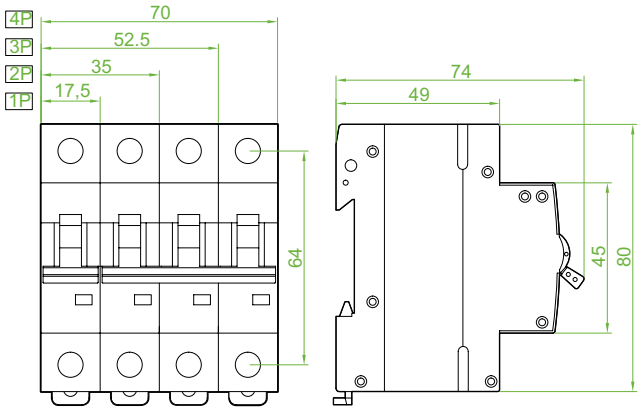


6kA - 10kA (80A-100A-125A)

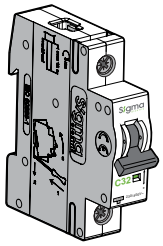


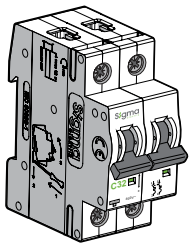
10 kA (2A-63A)

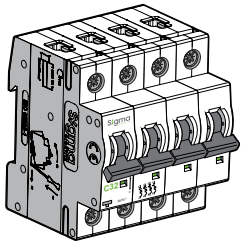




DC Miniature Circuit Breakers - 6 kA

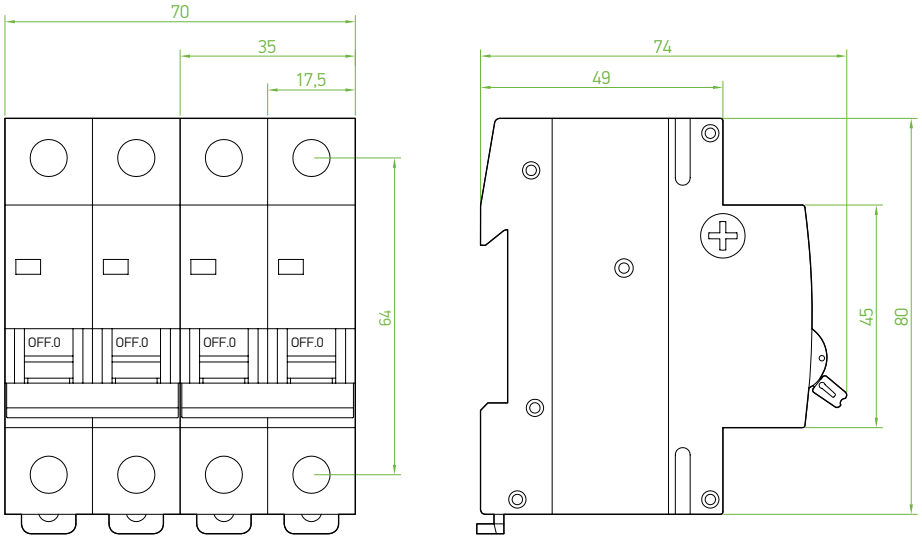






No of Poles	Rated Current In (A)	Rated Operation Voltage DC (V)	Min. Order Quantity	Pcs in a Box	Order Code
1P	6	250	12	240	1SD106C
	10		12	240	1SD110C
	16		12	240	1SD116C
	20		12	240	1SD120C
	25		12	240	1SD125C
	32		12	240	1SD132C
	40		12	240	1SD140C
	50		12	240	1SD150C
	63		12	240	1SD163C
2P	6	500	6	120	1SD206C
	10		6	120	1SD210C
	16		6	120	1SD216C
	20		6	120	1SD220C
	25		6	120	1SD225C
	32		6	120	1SD232C
	40		6	120	1SD240C
	50		6	120	1SD250C
	63		6	120	1SD263C
4P	6	1000	3	60	1SD406C
	10		3	60	1SD410C
	16		3	60	1SD416C
	20		3	60	1SD420C
	25		3	60	1SD425C
	32		3	60	1SD432C
	40		3	60	1SD440C
	50		3	60	1SD450C
	63		3	60	1SD463C

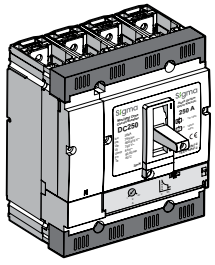
Dimensions



DC LV MCCB - 1000 V Technical Specifications

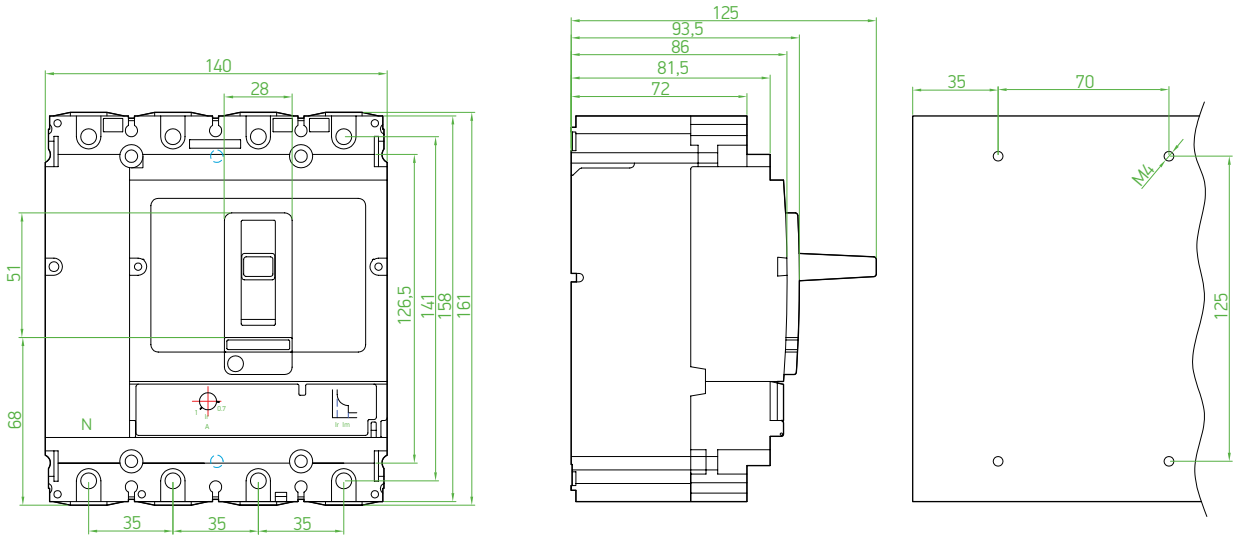
Type				DC160		DC250	
Standard				IEC / EN 60947-2		IEC / EN 60947-2	
Rated current (at 40°C)	A			80, 100, 125, 160		200, 250	
No of poles				3	4	3	4
Rated operating voltage	Ue	V	DC	750	1000	750	1000
Rated insulation voltage	Ui	V	DC	1000		1000	
Rated lighting impulse voltage	Uimp	kV		8		8	
Rated ultimate short circuit capacity	Icu	kA	1000 V DC	10		10	
Utilization category				A		A	
Pollution degree				3		3	
Electrical life	ON - OFF		1000V DC	1500		1500	
Mechanical life	ON - OFF			10000		10000	
Protection unit				Thermal Adjustable Magnetic Fixed		Thermal Magnetic Adjustable	
Ip degree of protection				IP40		IP40	
Thermal current trip unit				0,7...1xIn		0,7...1xIn	
Instantaneous Tripping Adjustment Current				10xIn		10xIn	
Ambient operating temperature	°C			-20 to +60		-20 to +60	
Ambient storage temperature	°C			-40 to +80		-40 to +80	
Dimensions	Width		mm	140		188	
	Length		mm	169		263	
	Depth		mm	89		117	
Accessories							
Shunt trip release				√		√	
Under voltage release				√		√	
Auxiliary contact				√		√	
Alarm contact				√		√	
Motor operator				√			
Ext. Rotary handle				√		√	
Connection clamp				√			
Mechanical lock ped				√			
Extention bus bar				√			

DC LV MCCB - 1000 V - Order Information

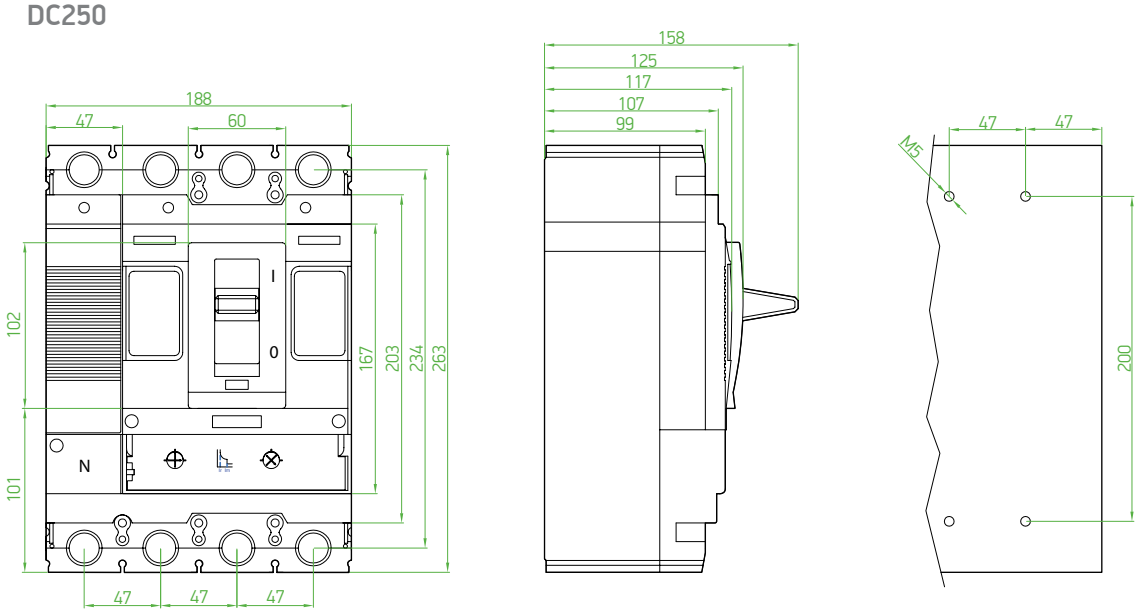


Type Code	Rated Voltage DC (V)	Rated Current In (A)	Thermal Adj. Current Ir(A)	Instantaneous Tripping Current (Im)	Breaking Capacity Icu (kA)	Pcs in a Box	Order Code
DC160	1.000	80	56-80	10xIn	36	4	**DC160080**
	1.000	100	70-100	10xIn	36	4	**DC160100**
	1.000	125	88-125	10xIn	36	4	**DC160125**
	1.000	160	112-160	10xIn	36	4	**DC160160**
DC250	1.000	200	140-200	(5-10)xIn	36	4	**DC250200**
	1.000	250	175-250	(5-10)xIn	36	4	**DC250250**

DC160

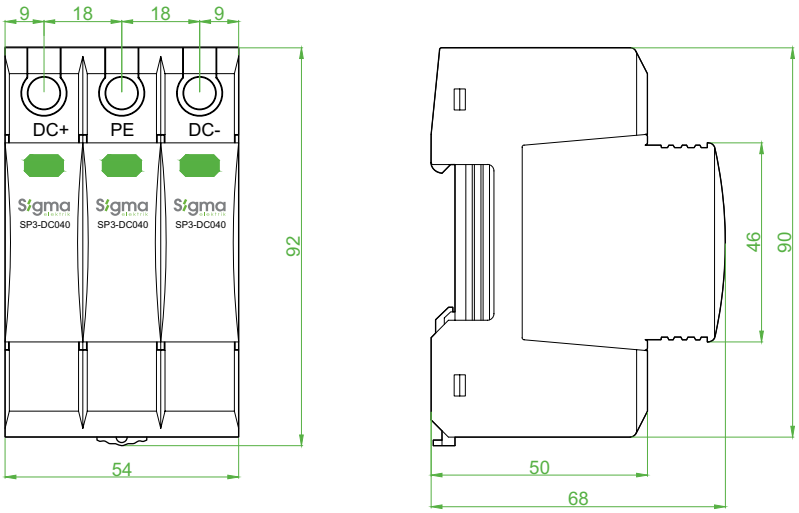


DC250



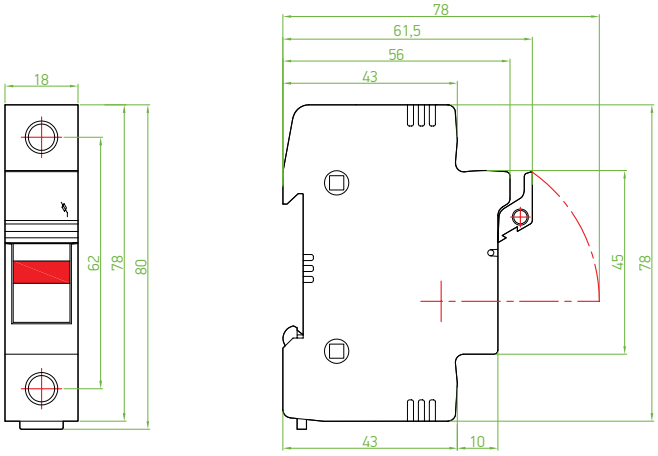
DC Low Voltage Surge Arresters

Type	Un(V) AC	Imax (kA)	In (kA)	Up (kV)	Order Code
SP3-DC40	1000	40	20	<3	**SP3-DC40**



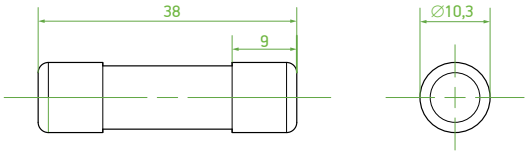
DC Cylindrical (Cartridge) Fuse Bases

Type	Rated Current (A)	Rated Voltage DC (V)	No of Poles	Cartridge (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SDC-125	25	1000	1	10x38	12	360	**SDC125**
NEW PRODUCT SDC-132	50	1500	1	10X85	1	1	**SDC132**



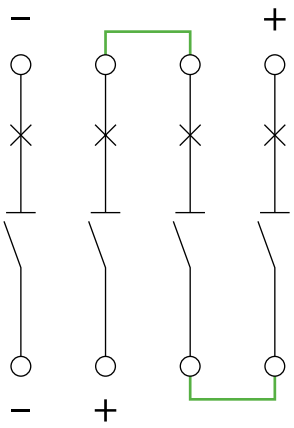
10x38 mm DC Cylindrical (Cartridge) Fuses

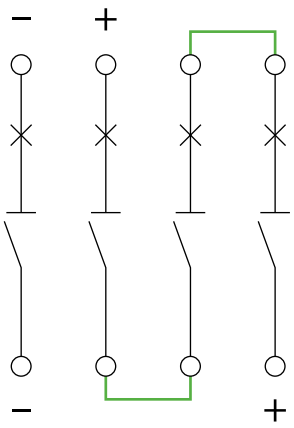
Type	Rated Current (A)	I1 (kA)	Rated Voltage DC (V)	Cartridge (mm)	Min. Order Quantity	Pcs in a Box	Order Code
DC systems protection	8	25	1000	10x38	10	2000	**SFDC08**
	20	25	1000	10x38	10	2000	**SFDC20**
	25	25	1000	10x38	10	2000	**SFDC25**
NEW PRODUCT	20	20	1500	10X85	1	1000	**SLDC20**
	25	20	1500	10X85	1	1000	**SLDC25**
	30	20	1500	10X85	1	1000	**SLDC30**



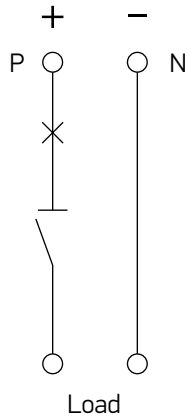
Circuit Diagram

DC MCCB

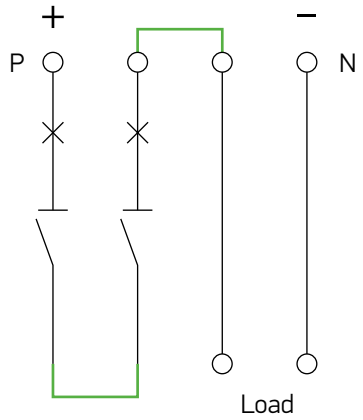




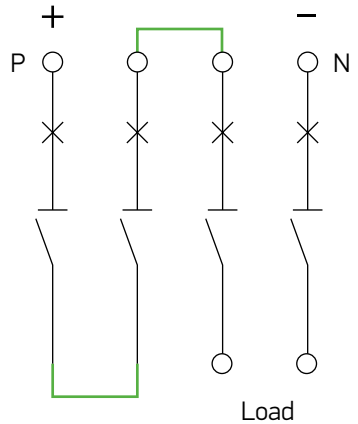
DC Fuse (1 pole)



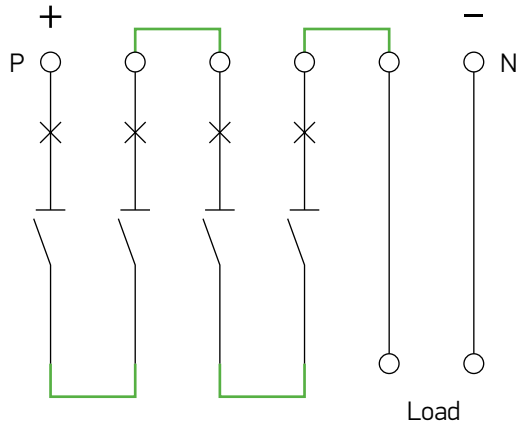
DC Fuse (2 poles)



DC Fuse (750 V - 4 poles)



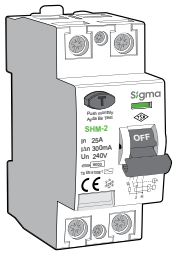
DC Fuse (1000 V - 4 poles)

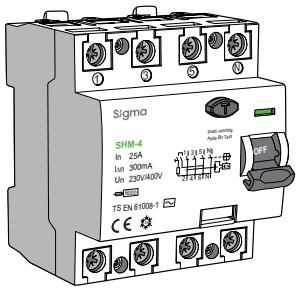


Residual Current Circuit Breakers - Technical Specification

Type			SGM-2	SGM-4	SFM-2	SFM-4	SHM-2	SHM-4	SDM-2	SDM-4
No of poles			2	4	2	4	2	4	2	4
Rated current	In	A	25, 32,40, 63, 80, 100, 125		25, 32, 40, 63, 80, 100		25, 32, 40, 50, 63, 80, 100		25, 32, 40, 63, 80, 100	
Rated residual current	IΔ	mA	30, 300							
Rated frequency		Hz	50-60							
Current selectivity			AC		A		AC			
Tripping unit			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	< 200						130 < t < 500	
Delay type according to residual current			General						Delay Time Selectivity	
Rated operating voltage	Ue	(AC) V	240	415	240	415	240	415	240	415
Rated insulation voltage	Ui	V	660							
Rated impulse withstand voltage	Uimp	kV	6							
Rated short circuit withstand current with fuse (Inc/IΔc)		kA	10				6			
Electrical life (operation)	operation	(230 V)	6000							
Mechanical life (operation)	operation		20000							
Degree of protection (after assembly)			IP 20 (IP 40)							
Ambient operating temperature		°C	-25 to +60							
Max. Storage temperature		°C	-40 to +70							
Dimensions	Width	mm	35	70	35	70	35	70	35	70
	Length	mm	80							
Colour			RAL 7035							
Assembly type (EN 60715)			35 mm DIN Rail							
Min.. Max. Connection section		mm^2	1.5 - 35							

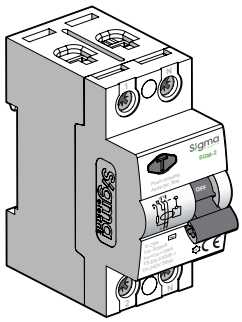
Residual Current Circuit Breakers (AC Type) 6 kA

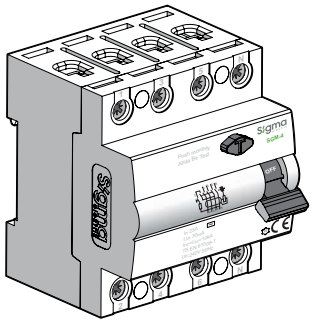




Type Code	Rated Current In (A)	No of Poles	Protection	Residual Current IΔn (mA)	Tripping Time at Residual Current (ms)	Pcs in a Box	Order Code
SHM-2	25	2	Life Protection	30 mA	Instantaneously	100	**SHM2025030**
	32					100	**SHM2032030**
	40					100	**SHM2040030**
	50					100	**SHM2050030**
	63					100	**SHM2063030**
	80					100	**SHM2080030**
	100					100	**SHM2100030**
	25	2	Life Protection	300 mA	Instantaneously	100	**SHM2025300**
	32					100	**SHM2032300**
	40					100	**SHM2040300**
	50					100	**SHM2050300**
	63					100	**SHM2063300**
	80					100	**SHM2080300**
SHM-4	25	4	Life Protection	30 mA	Instantaneously	50	**SHM4025030**
	32					50	**SHM4032030**
	40					50	**SHM4040030**
	50					50	**SHM4050030**
	63					50	**SHM4063030**
	80					50	**SHM4080030**
	100					50	**SHM4100030**
	25	4	Fire Protection	300 mA	Instantaneously	50	**SHM4025300**
	32					50	**SHM4032300**
	40					50	**SHM4040300**
	50					50	**SHM4050300**
	63					50	**SHM4063300**
	80					50	**SHM4080300**
	100					50	**SHM4100300**
SDM-2 (Delay)	25	2	Fire Protection (Selectivity Option)	300 mA	Min. 130 ms	100	**SDM2025300**
	40					100	**SDM2040300**
	63					100	**SDM2063300**
	80					100	**SDM2080300**
SDM-4 (Delay)	25	4				50	**SDM4025300**
	40					50	**SDM4040300**
	63					50	**SDM4063300**
	80					50	**SDM4080300**

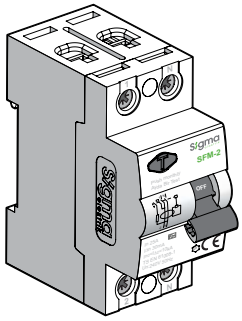
Residual Current Circuit Breakers (AC Type) 10 kA

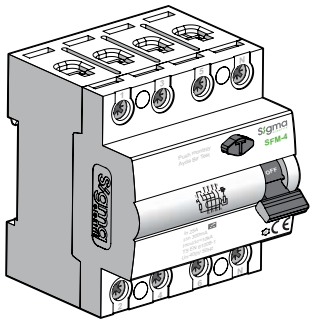




Type Code	Rated Current In (A)	No of Poles	Protection	Residual Current IΔn (mA)	Tripping Time at Residual Current (ms)	Pcs in a Box	Order Code
SGM-2	25	2	Life Protection	30	Instantaneously	100	SGM2025030
	32					100	SGM2032030
	40					100	SGM2040030
	63					100	SGM2063030
	80					100	SGM2080030
	100					100	SGM2100030
	125					100	SGM2125030
	25	2	Fire Protection	300	Instantaneously	100	SGM2025300
	32					100	SGM2032300
	40					100	SGM2040300
	63					100	SGM2063300
	80					100	SGM2080300
	100					100	SGM2100300
	125					100	SGM2125300
SGM-4	25	4	Life Protection	30	Instantaneously	50	SGM4025030
	32					50	SGM4032030
	40					50	SGM4040030
	63					50	SGM4063030
	80					50	SGM4080030
	100					50	SGM4100030
	125					50	SGM4125030
	25	4	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



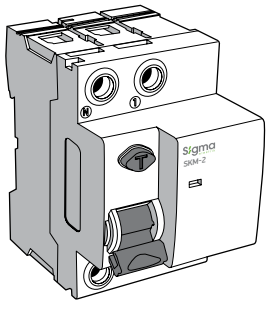


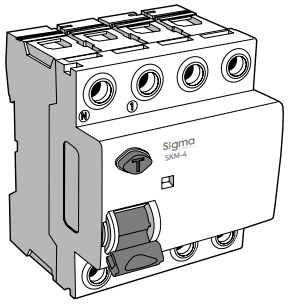
Type Code	Rated Current In (A)	No of Poles	Protection	Rated Residual Current IΔn (mA)	Tripping Time in Rated Residual Current (ms)	Pcs in a Box	Order Code
SFM-2	25	2	Life Protection (Protection for AC and DC puls residual current)	30 mA	Instantaneously	100	**SFM2025030**
	40					100	**SFM2040030**
	63					100	**SFM2063030**
	80					100	**SFM2080030**
	100					100	**SFM2100030**
	25	2	Fire Protection (Protection for AC and DC puls residual current)	300 mA	Instantaneously	100	**SFM2025300**
	40					100	**SFM2040300**
	63					100	**SFM2063300**
	80					100	**SFM2080300**
	100					100	**SFM2100300**
SFM-4	25	4	Life Protection (Protection for AC and DC puls residual current)	30 mA	Instantaneously	50	**SFM4025030**
	40					50	**SFM4040030**
	63					50	**SFM4063030**
	80					50	**SFM4080030**
	100					50	**SFM4100030**
	25	4	Fire Protection (Protection for AC and DC puls residual current)	300 mA	Instantaneously	50	**SFM4025300**
	40					50	**SFM4040300**
	63					50	**SFM4063300**
	80					50	**SFM4080300**
	100					50	**SFM4100300**

Note: A Type KAKS'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

NEW PRODUCT





Type Code	Rated Current In (A)	No of Poles	Protection	Rated Residual Current IΔn (mA)	Tripping Time in Rated Residual Current (ms)	Pcs in a Box	Order Code
SKM-2	25	2	"Life Protection (Protection for AC and DC puls residual current)."	30 mA	Instantaneously	100	**SKM2025030**
	40					100	**SKM2040030**
	63					100	**SKM2063030**
	25	2	"Fire Protection (Protection for AC and DC puls residual current)."	300 mA	Instantaneously	100	**SKM2025300**
	40					100	**SKM2040300**
	63					100	**SKM2063300**
SKM-4	25	4	"Life Protection (Protection for AC and DC puls residual current)."	30 mA	Instantaneously	50	**SKM4025030**
	40					50	**SKM4040030**
	63					50	**SKM4063030**
	25	4	"Fire Protection (Protection for AC and DC puls residual current)."	300 mA	Instantaneously	50	**SKM4025300**
	40					50	**SKM4040300**
	63					50	**SKM4063300**

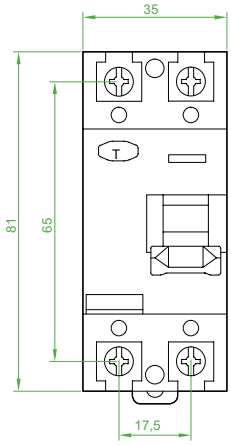
Note: A Type KAKS's are used to provide protection against residual currents of electronic devices including UPS, Power Supplies, Elevators, Thyristor and Diode

Residual Current Circuit Breakers Test Instrument

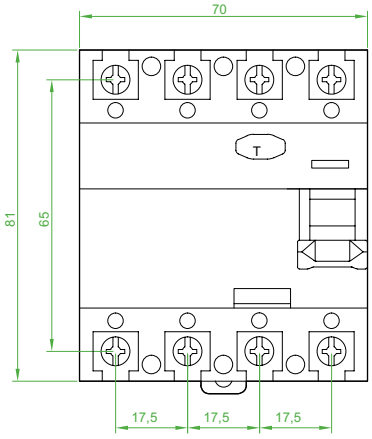
Residual Current Circuit Breakers Test Instrument Characteristics		Type Code
Residual current test levels	15 - 30 - 50-100 - 150 -300 mA - adjustable:	SCT-100
Trip time measurement	Trip time measurement on the basis of ms at 15 - 30 - 50-100 - 150 -300 mA	
Max. Signal application period for the test	1000ms	
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	230VAC	
Screen	2x8 LCD screen	
Battery life	Product may perform 1500 measurements with 9V charged battery	

Dimensions

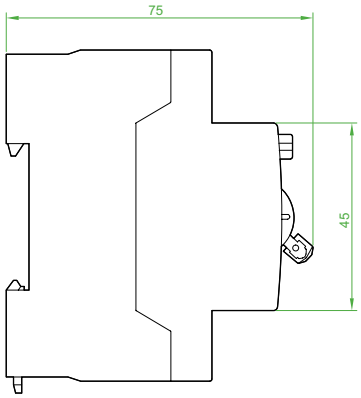
SGM-2 / SGM-4



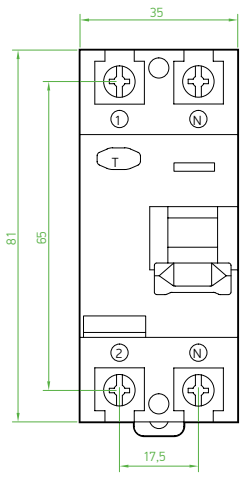
2P

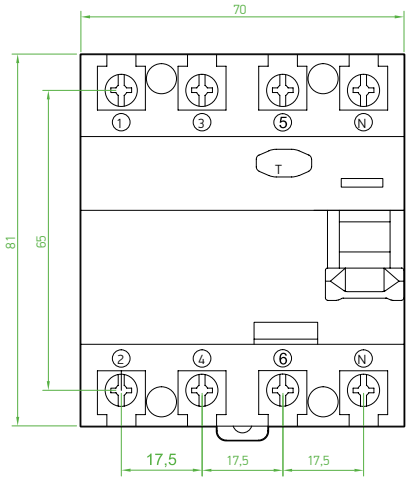


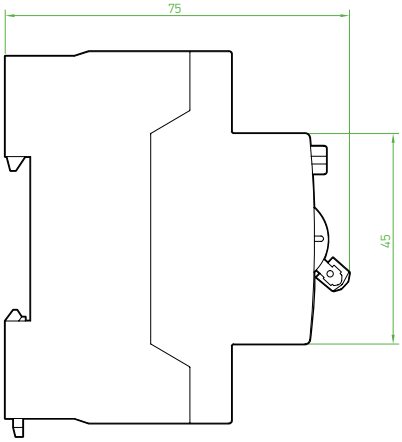
4P



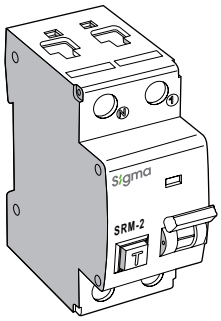
SFM-2 / SFM-4 / SHM-2 / SHM-4





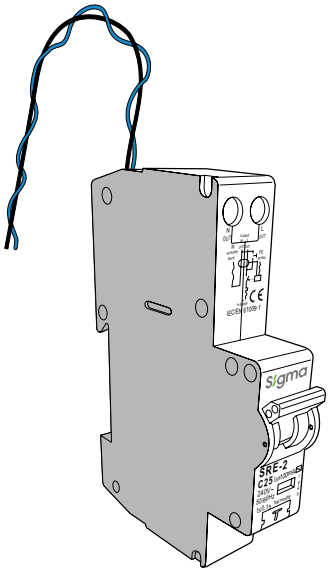


RCBO - Residual Current Circuit Breaker with Over Current Protection



Type Code	No of Pole	Rated Current In (A)	Residual Current IΔn (mA)	Kaçak Akım Açma Tipi	Breaking Capacity	Pcs in a Box	Order Code
SRM-2	2	6	30mA	AC	6 kA	100	SRM2006030
		10		AC	6 kA	100	SRM2010030
		16		AC	6 kA	100	SRM2016030
		20		AC	6 kA	100	SRM2020030
		25		AC	6 kA	100	SRM2025030
		32		AC	6 kA	100	SRM2032030
		40		AC	6 kA	100	SRM2040030
		6	300mA	AC	6 kA	100	SRM2006300
		10		AC	6 kA	100	SRM2010300
		16		AC	6 kA	100	SRM2016300
		20		AC	6 kA	100	SRM2020300
		25		AC	6 kA	100	SRM2025300
		32		AC	6 kA	100	SRM2032300
		40		AC	6 kA	100	SRM2040300

RCBO - Residual Current Circuit Breaker with Over Current Protection (Wired)

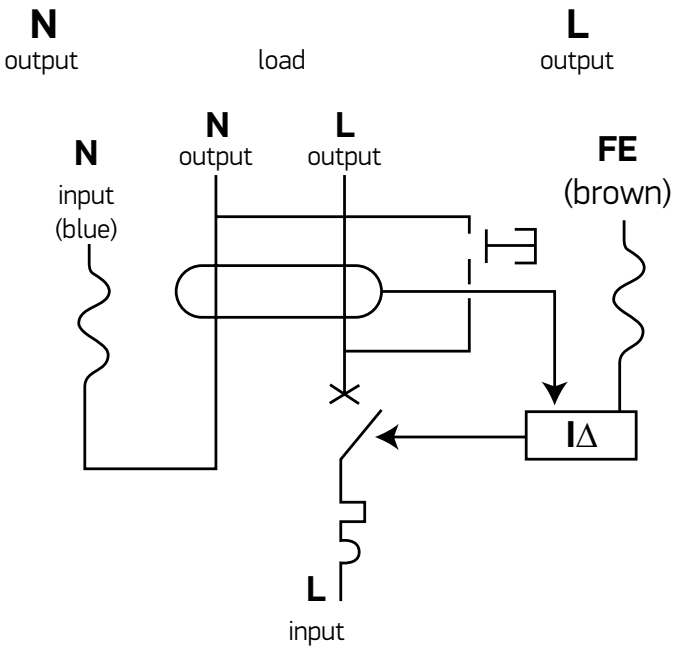


Type Code	No of Pole	Rated Current In (A)	Residual Current IΔn (mA)	Kaçak Akım Açma Tipi	Breaking Capacity	Pcs in a Box	Order Code
SRE-2	2	6	30mA	AC	6 kA	100	SRE2006030
		10		AC	6 kA	100	SRE2010030
		16		AC	6 kA	100	SRE2016030
		20		AC	6 kA	100	SRE2020030
		25		AC	6 kA	100	SRE2025030
		32		AC	6 kA	100	SRE2032030
		40		AC	6 kA	100	SRE2040030
		6	100mA	AC	6 kA	100	SRE2006100
		10		AC	6 kA	100	SRE2010100
		16		AC	6 kA	100	SRE2016100
		20		AC	6 kA	100	SRE2020100
		25		AC	6 kA	100	SRE2025100
		32		AC	6 kA	100	SRE2032100
		40		AC	6 kA	100	SRE2040100
		6	300mA	AC	6 kA	100	SRE2006300
		10		AC	6 kA	100	SRE2010300
		16		AC	6 kA	100	SRE2016300
		20		AC	6 kA	100	SRE2020300
		25		AC	6 kA	100	SRE2025300
		32		AC	6 kA	100	SRE2032300
		40		AC	6 kA	100	SRE2040300

Technical Specifications

		SRE-2	SRM-2
Instant trip 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, 50	6, 10, 16, 20, 32, 40, 50
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
IP Protection class		Behind finger and hand	Behind finger and hand
Electrical life		6.000	6.000
Mechanical life		20.000	20.000
Storage ambient temperature	°C	-40 to +75	-40 to +70
Operating ambient temperature	°C	-25 to +45	-25 to +45
CFC-silicone free		Yes	Yes

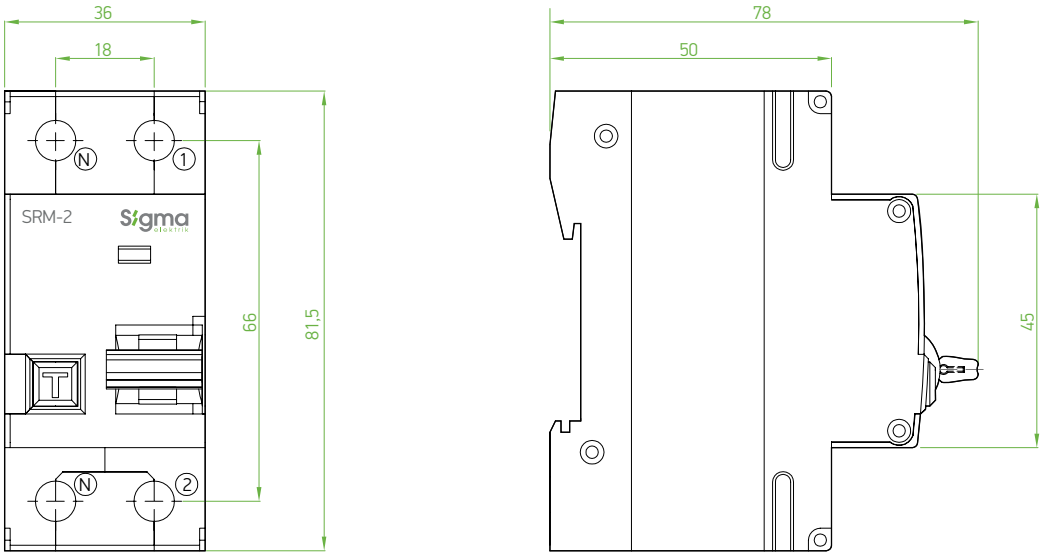
Circuit Diagram



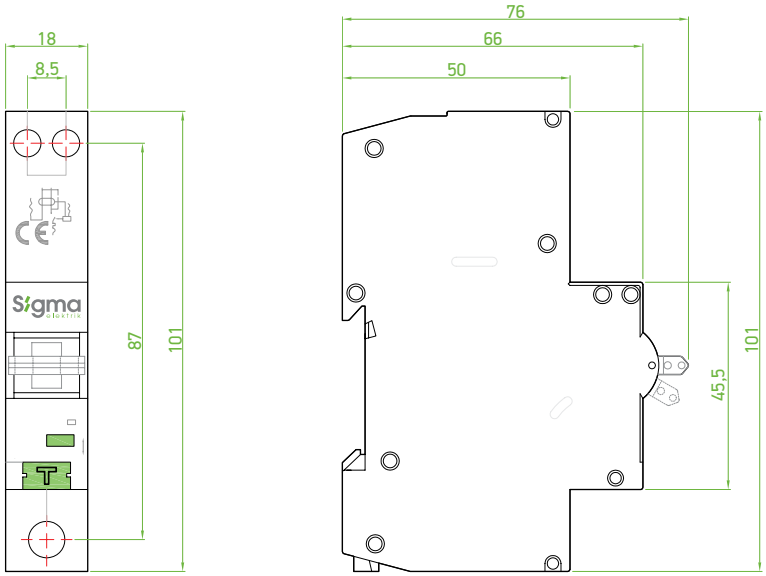
Compatible with TS EN 61009-1, TS EN 61009-2-1, TS EN 61543

Dimensions

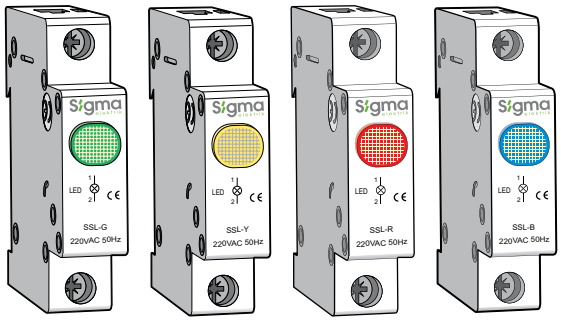
SRM-2



SRE-2



Din Rail Type Led Signal Indicators

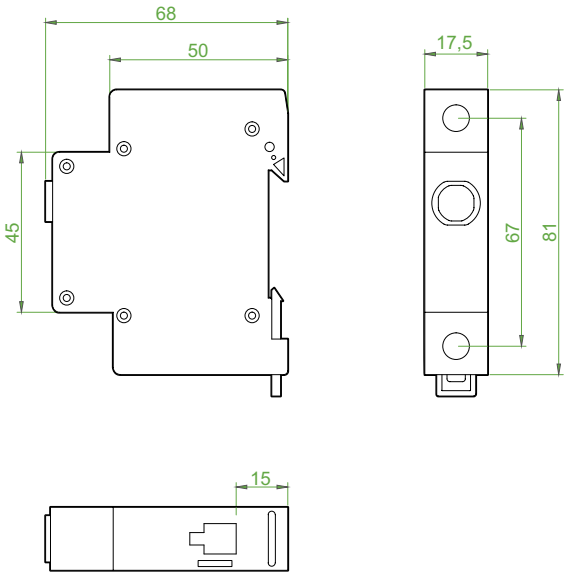


Colour	Rated Voltage (V)	Min. Order Quantity	Pcs in a Box	Order Code
Blue	220 V AC	12	120	SSL-B220A
	24 V AC	12	120	SSL-B024A
	24 V DC	12	120	SSL-B024D
Red	220 V AC	12	120	SSL-R220A
	24 V AC	12	120	SSL-R024A
	24 V DC	12	120	SSL-R024D
Green	220 V AC	12	120	SSL-G220A
	24 V AC	12	120	SSL-G024A
	24 V DC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

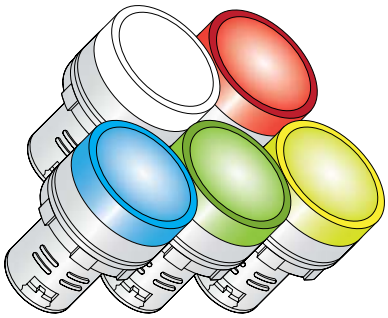
Technical Specifications

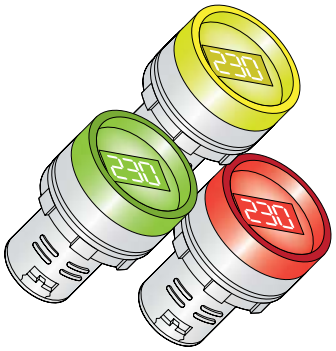
Type			SSL
Standard			EN 60947-5-1
Rated current AC12	In	A	20
Lamp type			LED
Colors			Green, Red, Blue, Yellow
Rated operating voltage	Ue	V	230 (AC), 24 (AC), 24 (DC)
Rated insulation voltage	Ui	V	500
Electrical life		saat	> 30.000
Degree of protection			IP 20
Max. operating ambient temperature		°C	-30 to +60
Max. storage ambient temperature		°C	-40 to +70
Color			RAL 7035
Mounting type (EN 60715)			35 mm DIN Rail
Connection section		mm^2	1-16
Max. clamping torque		Nm	3,5

Dimensions



Led Signal Indicators





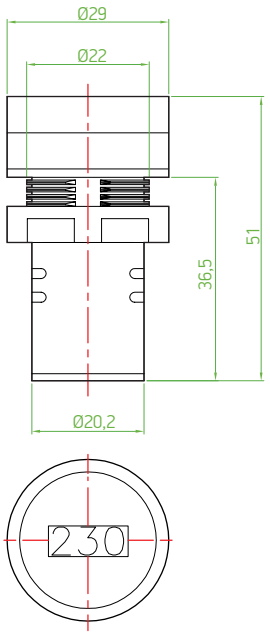
Type Code		Rated Voltage (V)	Dimensions (mm)	Colour	Pcs in a Box	Order Code
SL-22-22DS	Led Indicator	220 V AC	22	Red	240	SL22-220DSR
				Green	240	SL22-220DSG
				Yellow	240	SL22-220DSY
				Blue	240	SL22-220DSB
				White	240	SL22-220DSW
		24 V AC/DC		Red	240	SL22-024DSR
				Green	240	SL22-024DSG
				Yellow	240	SL22-024DSY
				Blue	240	SL22-024DSB
				White	240	SL22-024DSW
SL-22-22VM	Voltmeter	12-500 V AC	22	Red	240	SL22-22VMR
				White	240	SL22-22VMW
		5-60 V DC	22	Red	240	SL22-22VMRD
				White	240	SL22-22VMWD
SL-22-22AM	Ammeter	0-100 A	22	Red	240	SL22-22AMR
				White	240	SL22-22AMW
SL-22-22VAM	Voltmeter-Ammeter	12-500 V AC 0-100 A AC	22	Red	240	SL22-22VAMR
				White	240	SL22-22VAMW
SL-22-22HM	Frequency Meter	0-50 Hz	22	Red	240	SL22-22HMR
				White	240	SL22-22HMW
SL-22-22TM	Temperature Indicator	-20...+ 199 °C	22	Red	240	SL22-22TMR
				White	240	SL22-22TMW

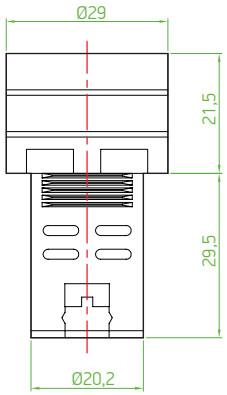
NEW PRODUCT

Technical Specifications

Type		Led Indicators	Led Indicators (V-A-VA-Hz- C)
Standard		IEC/EN60947-5-1	
Mounting diameter		22 mm	
Device mounting		Fixing hole: Ø 22,5 mm	
Source of light		Led	
Color		Red, Green, Yellow, Blue, White	Red, White
Rated operating voltage	V	220 VAC , 24 VACDC	12-500 VAC
Rated impulse voltage	kV	6 kV	
Electrical life	Hour	70000 hour at nominal voltage and 25 °C	
Degree of protection		IP20 (back side), IP40 (front side)	
Max. Operating ambient temperature	°C	-25...55 °C	
Max. Storage ambient temperature	°C	-40...70 °C	
Connection terminal		Screw clamp terminals : <= 2 x 1,5 mm² cable terminal	
Height	mm	29 mm	
Width	mm	29 mm	
Depth	mm	54 mm	
Weight	Kg	0.018 kg	
Overvoltage category		Class III	
Tightening torque	N.m.	0.8...1.2 N.m	

Dimensions

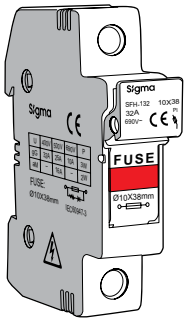




Cylindrical (cartridge) Fuses

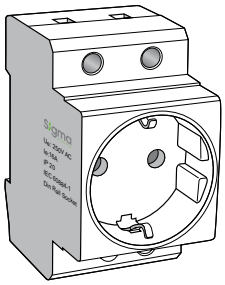
Type	Rated Current (A)	Cartridge Diameter (Øxmm)	Min. Order Quantity	Pcs in a Box	Order Code
gG Type cylindrical fuses (General protection of cables and electrical systems against overload and short circuit).	2	10x38	10	2000	SFLG02
	4	10x38	10	2000	SFLG04
	6	10x38	10	2000	SFLG06
	10	10x38	10	2000	SFLG10
	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
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
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



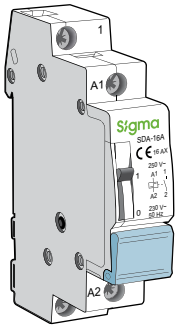
Type	Rated Current (A)	No of Poles	Cartridge Diameter (Øxmm)	Min. Order Quantity	Pcs in a Box	Order Code
SFH032	32	1	10x38	12	144	SFH132
	32	1P+N	10x38	6	72	SFH232
	32	3	10x38	4	48	SFH332
SFH050	50	1	14x51	1	50	SFH1050
	50	1P+N	14x51	1	50	SFH2050
	50	3	14x51	1	50	SFH3050
SFH100	100	1	22x58	1	60	SFH1100
	100	1P+N	22x58	1	60	SFH2100
	100	3	22x58	1	60	SFH3100

Din Rail Type Socket for Panel boards



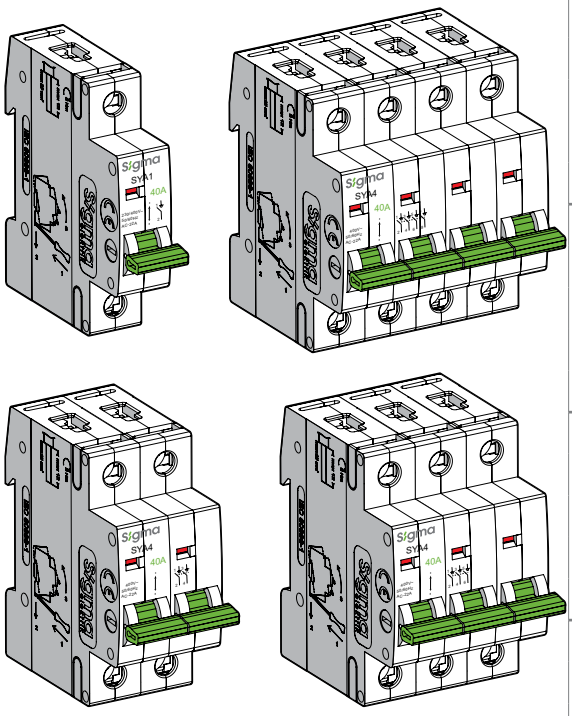
Specification	Min. Order Quantity	Pcs in a Box	Order Code
Socket 6 A 230 V	5	50	**SPP-16T**

Impulse Relay



Specification	Min. Order Quantity	Order Code
16 A 230 V 1NO	12	**SDA-16A**

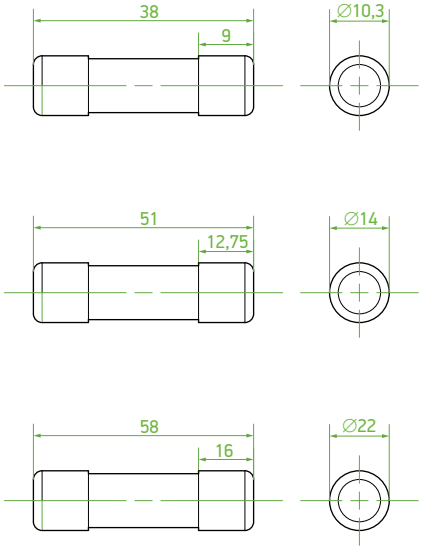
Isolator Switch (without Protection)



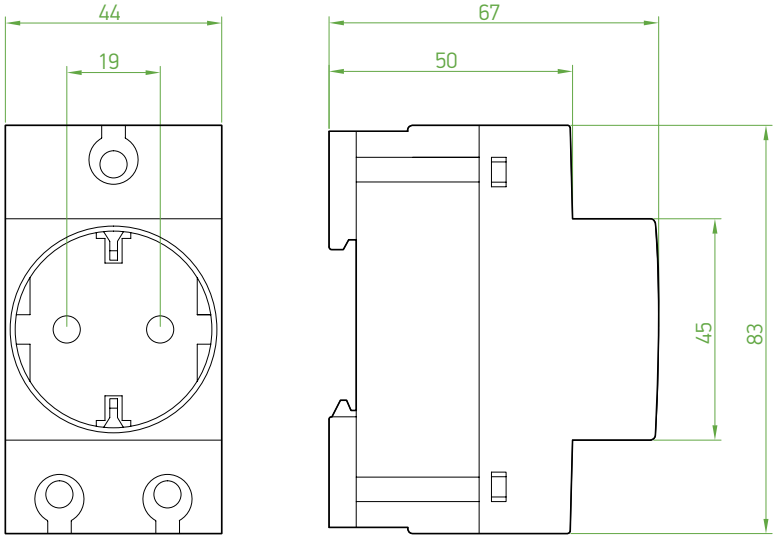
No of Poles	Rated Current In (A)	Min. Order Quantity	Pcs in a Box	Order Code
1P	40	12	240	**SYA1040**
	63	12	240	**SYA1063**
	80	12	240	**SYA1080**
	100	12	240	**SYA1100**
	125	12	240	**SYA1125**
2P	40	6	120	**SYA2040**
	63	6	120	**SYA2063**
	80	6	120	**SYA2080**
	100	6	120	**SYA2100**
	125	6	120	**SYA2125**
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**

Dimensions

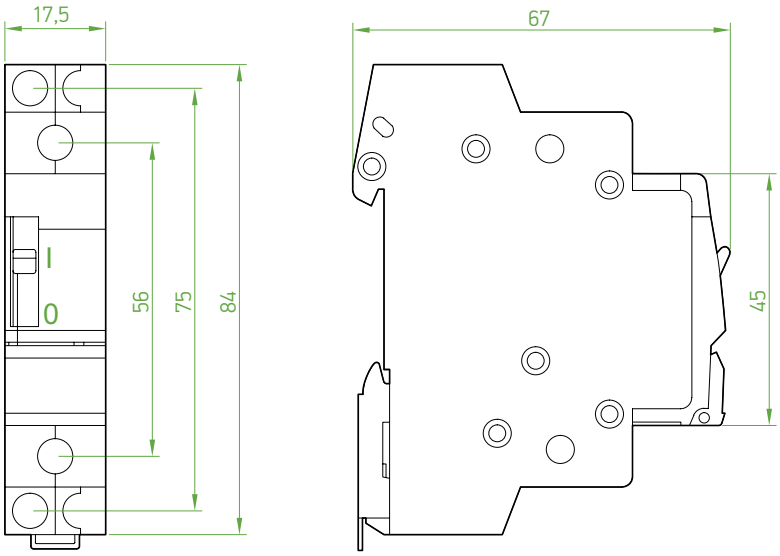
Cylindrical Fuses



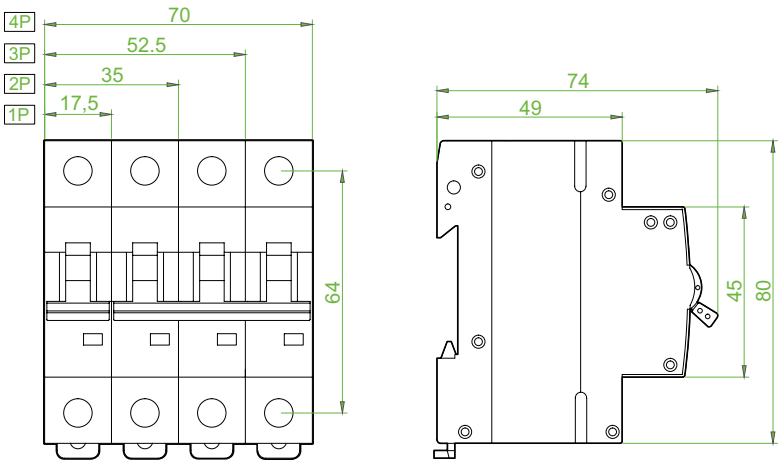
Din Rail Type Socket for Panel boards



Impulse Relay

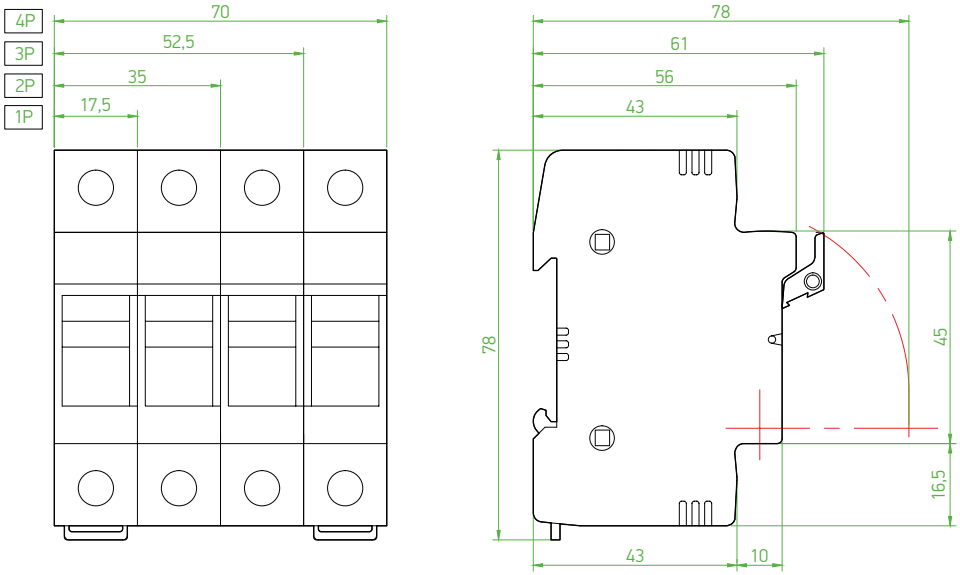


Isolator Switch

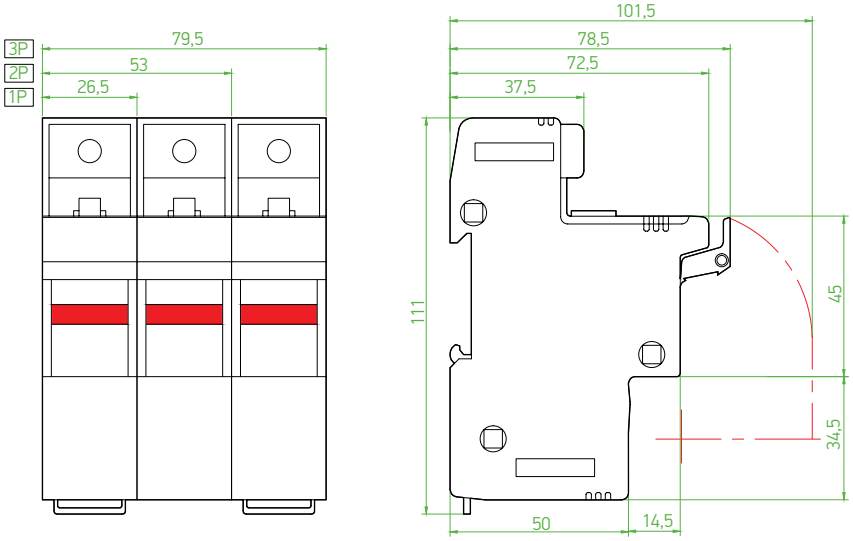


Cylindrical (cartridge) Fuse Holders

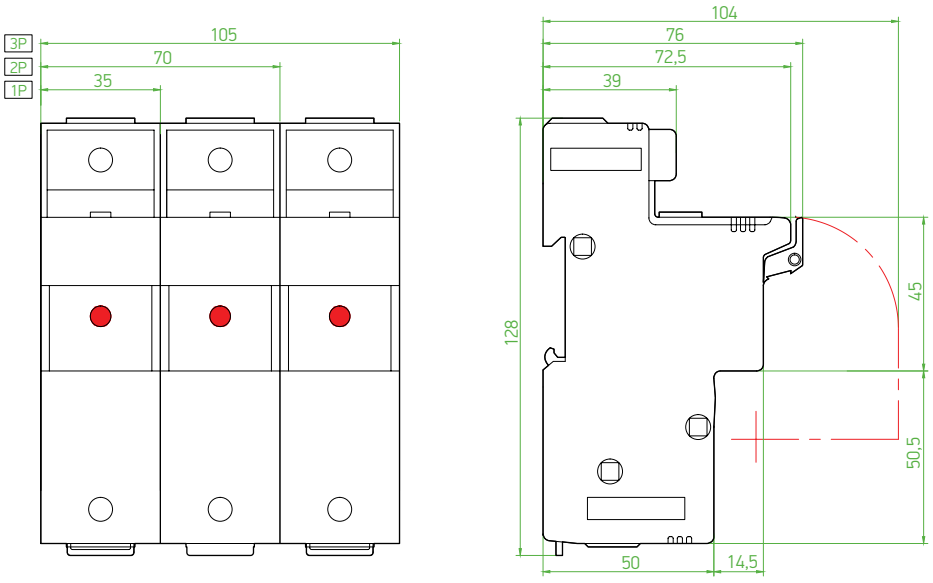
SFH032



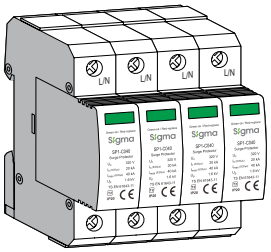
SFH050



SFH0100



LV Surge Protection Devices

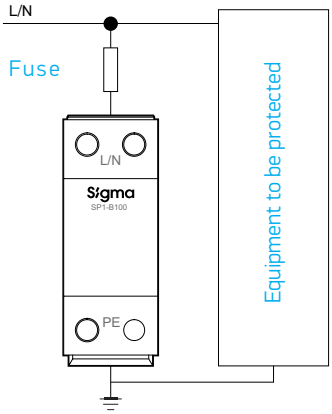


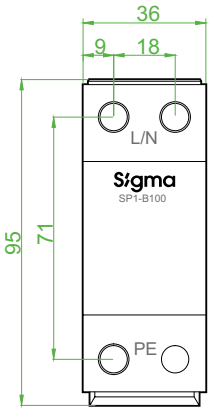
Type	Description	No of Poles	Uc (V) AC	Imax (kA)	In (kA)	Up (kV)	Order Code
SP1-B100	Type 1 B Class use before the counter	1	255	50 (10/350µs)	100	<2.5	**SP1-B100**
SP4-B100	Type 1 B Class use before the counter	4	255	50 (10/350µs)	100	<2.5	**SP4-B100**
SP4-BC100	Type 1+Type 2 B-C Class use before the counter	4	385	100 (8/20µs)	20	<1.6	**SP4-BC100**
SP1-C040	Type 2 C Class use after the counter	1	275	40 (8/20µs)	20	<1.4	**SP1-C040**
SP2-C040	Type 2 C Class use after the counter	2	275	40 (8/20µs)	20	<1.4	**SP2-C040**
SP3-C040	Type 2 C Class use after the counter	3	275	40 (8/20µs)	20	<1.4	**SP3-C040**
SP4-C040	Type 2 C Class use after the counter	4	275	40 (8/20µs)	20	<1.4	**SP4-C040**
SP1-D005	Type 3 D Class use after the counter	1	275	5 (8/20µs)	3	<1	**SP1-D005**
	Spare cartridge for C Class surge protection	1	275	40 (8/20µs)	20	<1.4	**SP1-C040K**

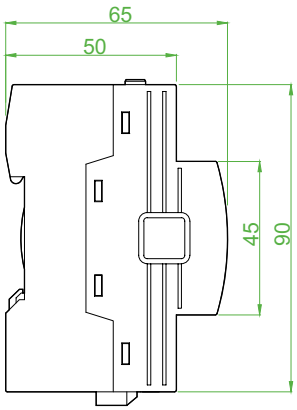
Note: The LV Surge Protection devices are offered with signal contact except B type.

Dimensions

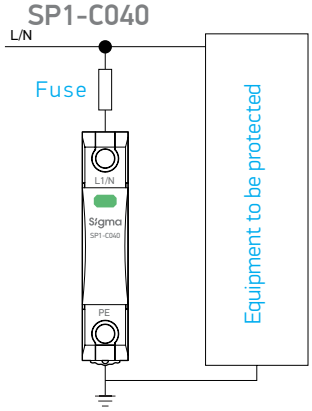
SP1-B100 / SP4-B100

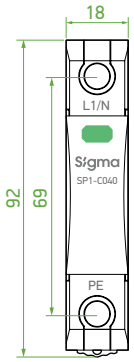


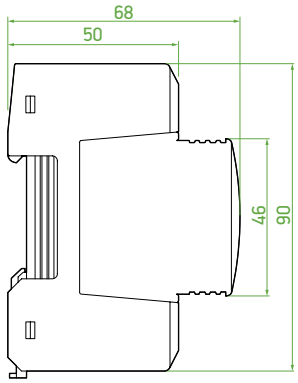




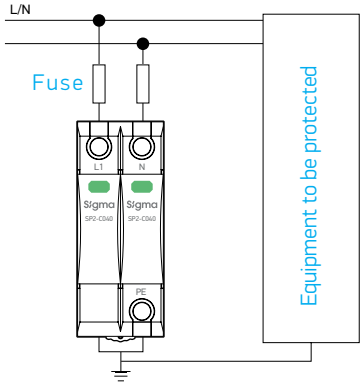
SP1-C040

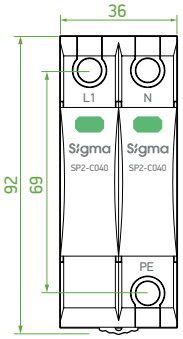


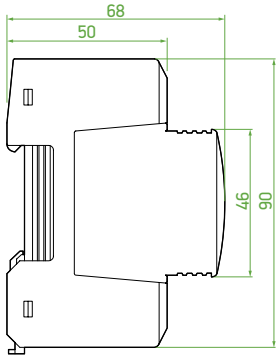




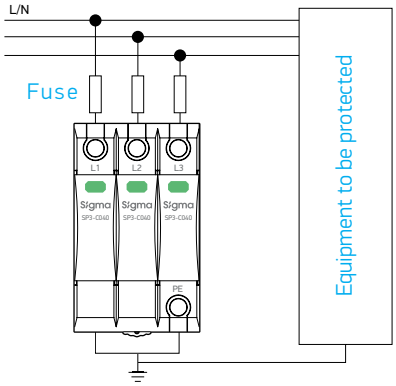
SP2-C040

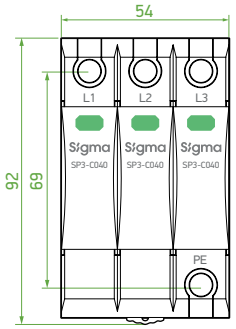


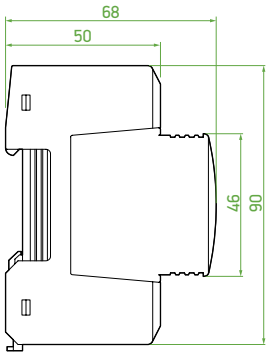




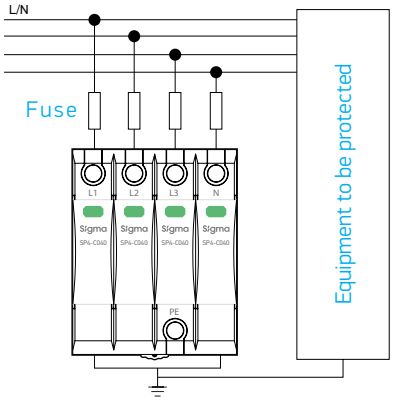
SP3-C040

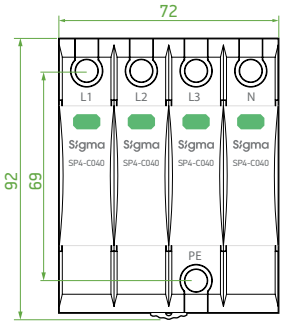


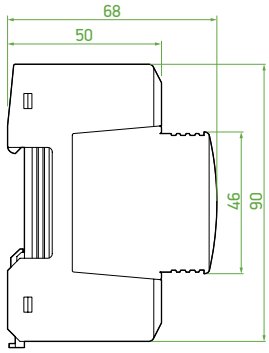




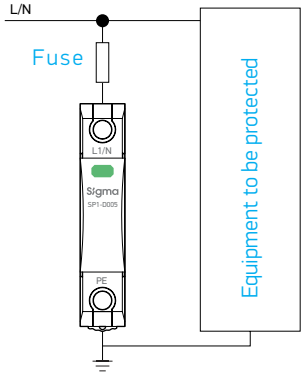
SP4-C040

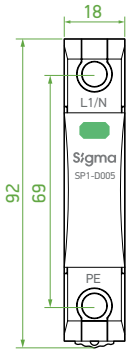


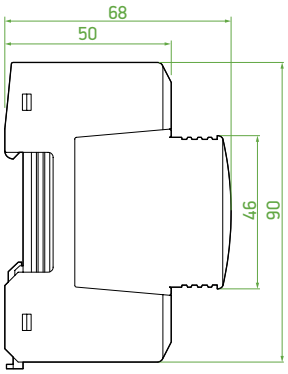




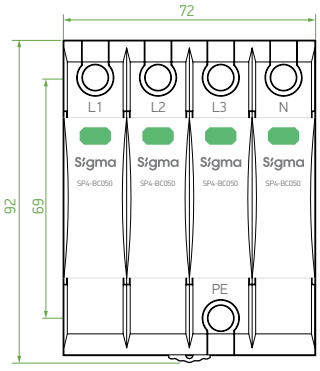
SP1-D005

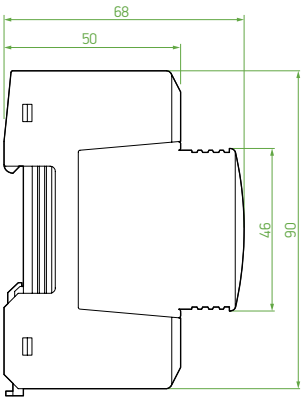






SP4-BC050





Power Contactor - Technical Specifications

Type		3 poles	AC coil	SCM-9	SCM-12	SCM-18	SCM-22	SCM-32	SCM-40
		4 poles	AC coil	SCF-9	SCF-12	SCF-18	SCF-22	SCF-32	SCF-40
		3 poles	DC coil	SDM-9	SDM-12	SDM-18	SDM-22	SDM-32	SDM-40
			AC/DC jointcoil						
Rated operational current for AC-3 (Ue : 400 V)		A		9	12	18	22	32	40
Rated thermal current (at 40°C)	Ith	A		20	25	30	32	45	50
Rated operational current for AC-1 (Ue: 400 V) (≤ 40°C)		A		25	25	40	40	50	60
Rated insulation voltage	Ui	V		1000					
Rated impulse voltage	Uimp	kV		8					
Max. Rating of slipring or squirrel-cage motors	AC-3	kW	500 V	4	7.5	7.5	15	18.5	22
			380-440 V	4	5.5	7.5	11	15	18.5
			220-240 V	2.5	3.5	4.5	5.5	17.5	11
Switching discharge lamps (mercury vapour lamps)	AC-5a	A		9	12	15	18	25	28
Electrical life (x1000)	AC-3	A		2000					1500
Number of switch on/off at 1 hour under load				1200			1000		
Mechanical life (x1000)				20000					
Auxiliary contact technical specifications									
Number of auxiliary contacts (standard)				1NO+1NC					
Number of auxiliary 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	220 V AC	16					
Control for ohmic and static loads	AC-12	A	220 V AC	8					
Control unit specifications									
Coil type			SYB 1	SYB 1					
Supply voltages		V	AC	24, 42, 48, 110, 220, 380, 415					
Supply voltages		V	DC**	24, 48, 110, 220					
Max. Operating temperature		°C		-25 to +40					
Max. Storage temperature		°C		-40 to +55					
Weight		kg		0,55	0,55	0,59	0,59	0,67	0,67

* Optional - Ask for offer.
** Request information for DC supply voltage.

SCM-50	SCM-65	SCM-75	SCM-85	SCM-100	SCM-125	SCM-150	SCM-180	SCM-250	SCM-330	SCM-400	SCM-630	SCM-800
SCF-50	SCF-65	SCF-75	SCF-85	SCF-100	SCF-125	SCF-150	SCF-180	SCF-250	SCF-330	SCF-400	SCF-630	SCF-800
				*	*	*	*	*				
50	65	75	85	100	120	150	180	250	330	400	630	800
70	85	90	100	160	160	210	230	260	400	500	1000	1600
85	100	110	135	160	160	210	230	260	400	500	1000	1600
1000												
8												
30	37	45	45	55	60	90	110	125	150	185	450	450
22	30	37	45	55	60	75	90	132	200	250	400	450
15	18.5	22	25	30	37	45	55	65	75	95	200	220
38	43	48	60	70	90	100	150	180	220	275	400	
1500		1000		500						300		
800		750				500			400		300	
15000				10000			5000			3000		

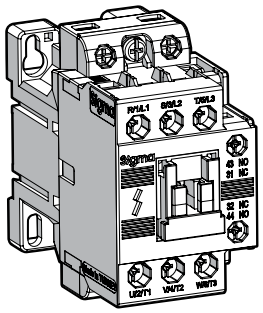
1NO+1NC	2NO+2NC	2NO+2NC	2NO+2NC	2NO+2NC	2NO+2NC	2NO+2NC	2NO+2NC	2NO+2NC	2NO+2NC
1NO+1NC, 2NO+2NC, 4NO, 4NC, 3NO+1NC, 1NO+3NC									4NO+4NC
16									
16									
8									

SYB2	SYB-3	SYB-4	SYB-4	SYB-6	SYB-6	SYB-7	SYB-8
24, 42, 48, 110, 220, 380, 415	220, 380						
-25 to +40							
-40 to +55							

1	1	1	1	2,9	2,9	3,4	6	5,8	9	8,8	17	

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

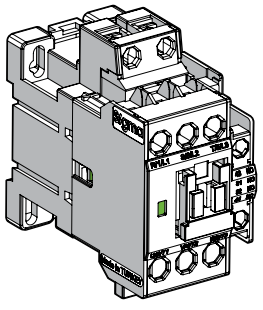
Type		3 poles	AC coil	SCG-9	SCG-12	SCG-18	SCG-25	SCG-32	SCG-40	SCG-50	SCG-65	SCG-80	SCG-95	SCG-100
Rated operational current for AC-3 (Ue: 400 V)		A		9	12	18	25	32	40	50	65	80	95	
Rated thermal current (at 40°C)	Ith	A		20	25	30	32	45	50	70	85	90	100	
Rated operational current for AC-1 (Ue: 400 V) (< 40°C)		A		25	25	40	40	50	60	80	100	110	135	
Rated insulation voltage	Ui	V		1000										
Rated impulse voltage	Uimp	kV		8										
Max. Rating of slipring or squirrel-cage motors	AC-3	kW	500 V	4	7.5	7.5	15	18.5	22	30	37	45	45	
			380-440 V	4	5.5	7.5	11	15	18.5	22	30	37	45	
			220-240 V	2.5	3.5	4.5	5.5	17.5	11	15	18.5	22	25	
Switching discharge lamps (Mercury vapour lamps)	AC-5a	A		9	12	15	18	25	28	38	43	48	60	
Auxiliary Contact Technical Specifications														
Number of auxiliary contacts (standard)				1NO+1NC										
Number of auxiliary options				1NO+1NC, 2NO+2NC, 4NO, 4NC, 3NO+1NC, 1NO+3NC										
Control Unit Specifications														
Coil type				SGB 1 - 230AC						SGB 1 - 230AC				
Supply voltages		V	AC	230										
Max. Operating temperature		°C		-25 to +40										
Max. Storage temperature		°C		-40 to +55										



Type Code	Rated Power at 400 V (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	25	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	150	1NO+1NC	1	10	**SCG100230**

NEW PRODUCT

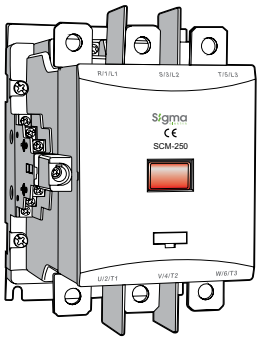
3 Poles Power Contactors - Coil Voltage: 230V AC



Type Code	Rated Power at 400 V (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-100	55	100	160	2NO+2NC	1	4	**SCM100230**
SCM-125	60	125	160	2NO+2NC	1	4	**SCM125230**
SCM-150	75	150	210	2NO+2NC	1	3	**SCM150230**
SCM-180	90	180	230	2NO+2NC	1	1	**SCM180230**
SCM-250	132	250	260	2NO+2NC	1	1	**SCM250230**
SCM-330	160	330	400	2NO+2NC	1	1	**SCM330230**
SCM-400	200	400	500	2NO+2NC	1	1	**SCM400230**
SCM-630	330	630	1000	2NO+2NC	1	1	**SCM630230**
SCM-800	400	800	1000	2NO+2NC	1	1	**SCM800230**

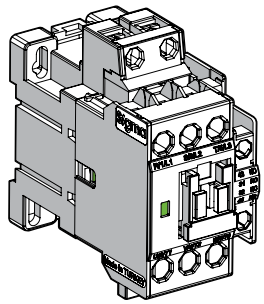
NEW PRODUCT

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



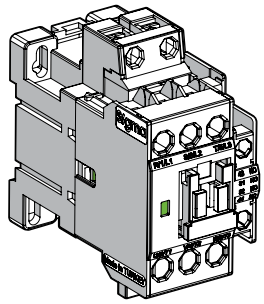
Type Code	Rated Power at 400 V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCM-100	55	100	160	2NO+2NC	1	4	**SCM100ADC**
SCM-125	60	120	160	2NO+2NC	1	4	**SCM125ADC**
SCM-150	75	150	210	2NO+2NC	1	3	**SCM150ADC**
SCM-180	90	180	230	2NO+2NC	1	1	**SCM180ADC**
SCM-250	132	250	260	2NO+2NC	1	1	**SCM250ADC**

3 Poles Power Contactors - Coil Voltage: 24V DC



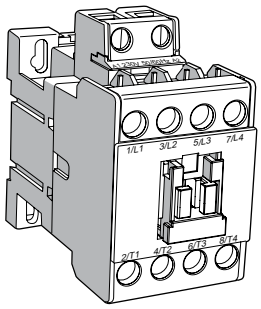
Type Code	Rated Power at 400 V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SDM-9	4	9	25	1NO+1NC	1	32	**SDM009024**
SDM-12	5,5	12	25	1NO+1NC	1	32	**SDM012024**
SDM-18	7,5	18	40	1NO+1NC	1	32	**SDM018024**
SDM-22	11	22	40	1NO+1NC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

3 Poles Power Contactors - Coil Voltage: 48V DC



Type Code	Rated Power at 400 V (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	25	1NO+1NC	1	32	**SDM009048**
SDM-12	5,5	12	25	1NO+1NC	1	32	**SDM012048**
SDM-18	7,5	18	40	1NO+1NC	1	32	**SDM018048**
SDM-22	11	22	40	1NO+1NC	1	32	**SDM022048**
SDM-32	15	32	50	1NO+1NC	1	16	**SDM032048**
SDM-40	18,5	40	60	1NO+1NC	1	16	**SDM040048**

4 Poles (4NO) Power Contactors - Coil Voltage: 230V AC

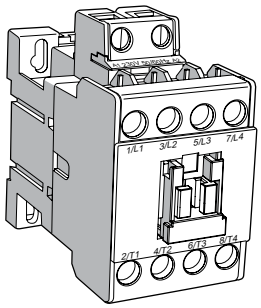


Type Code	Rated Power at 400 V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCF-9	4	9	25	1NO+1NC	1	42	**SCF009230**
SCF-12	5,5	12	25	1NO+1NC	1	42	**SCF012230**
SCF-18	7,5	18	40	1NO+1NC	1	42	**SCF018230**
SCF-22	11	22	40	1NO+1NC	1	42	**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	10	**SCF050230**
SCF-65	30	65	100	1NO+1NC	1	10	**SCF065230**
SCF-75	37	75	110	1NO+1NC	1	10	**SCF075230**
SCF-85	45	85	135	1NO+1NC	1	10	**SCF085230**
SCF-100	55	100	160	2NO+2NC	1	1	**SCF100230**
SCF-125	60	125	160	2NO+2NC	1	1	**SCF125230**
SCF-150	75	150	210	2NO+2NC	1	1	**SCF150230**
SCF-180	90	180	230	2NO+2NC	1	1	**SCF180230**
SCF-250	132	250	260	2NO+2NC	1	1	**SCF250230**
SCF-330	200	330	400	2NO+2NC	1	2	**SCF330230**
SCF-400	250	400	500	2NO+2NC	1	2	**SCF400230**
SCF-630	330	630	1000	2NO+2NC	1	2	**SCF630230**
SCF-800	400	800	1000	2NO+2NC	1	2	**SCF800230**

NEW PRODUCT

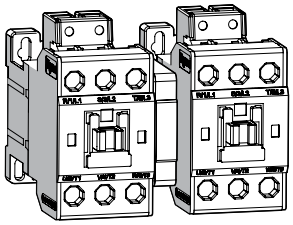
Note: Pls kindly ask delivery time for SCF-330 and above

4 Poles (2NO+2NC) Power Contactors - Coil Voltage: 230V AC



Type Code	Rated Power at 400 V (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCH-9	4	9	25	2NO+2NC	1	42	**SCH009230**
SCH-12	5,5	12	25	2NO+2NC	1	42	**SCH012230**
SCH-18	7,5	18	40	2NO+2NC	1	42	**SCH018230**
SCH-22	11	22	40	2NO+2NC	1	42	**SCH022230**
SCH-32	15	32	50	2NO+2NC	1	24	**SCH032230**
SCH-40	18,5	40	60	2NO+2NC	1	24	**SCH040230**
SCH-50	22	50	80	2NO+2NC	1	10	**SCH050230**
SCH-65	30	65	100	2NO+2NC	1	10	**SCH065230**
SCH-75	37	75	110	2NO+2NC	1	10	**SCH075230**
SCH-85	45	85	135	2NO+2NC	1	10	**SCH085230**

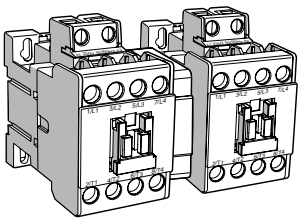
6 Poles Reversing Contactors - Coil Voltage: 230V AC



Type Code	Rated Power at 400 V (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**
SCR-125	60	125	160	1	1	**SCR125230**
SCR-150	75	150	210	1	1	**SCR150230**
SCR-180	90	180	230	1	1	**SCR180230**
SCR-250	132	250	260	1	1	**SCR250230**
SCR-330	160	330	400	1	1	**SCR330230**
SCR-400	200	400	500	1	1	**SCR400230**
SCR-630	330	630	1000	1	1	**SCR630230**
SCR-800	400	8000	1000	1	1	**SCR800230**

NEW PRODUCT

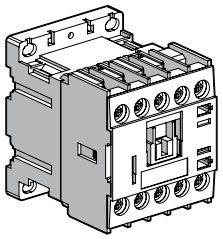
8 Poles Reversing Contactors - Coil Voltage: 230V AC



Type Code	Rated Power at 400 V (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-80	37	75	110	1	4	**SCT080230**
SCT-95	45	85	135	1	4	**SCT095230**
SCT-100	55	100	160	1	1	**SCT100230**
SCT-125	60	120	160	1	1	**SCT125230**
SCT-150	75	150	210	1	1	**SCT150230**
SCT-180	90	180	230	1	1	**SCT180230**
SCT-250	132	250	260	1	1	**SCT250230**
SCT-330	200	330	400	1	1	**SCT330230**
SCT-400	250	400	500	1	1	**SCT400230**
SCT-630	330	630	1000	1	1	**SCT630230**
SCT-800	400	800	1000	1	1	**SCT800230**

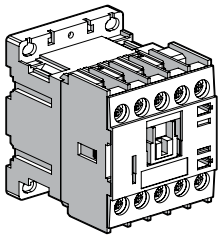
NEW PRODUCT

3 Poles Mini Contactors - Coil Voltage: 230V AC



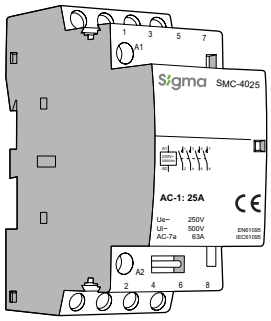
Type Code	Rated Power at (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SCM-6M	2.2	6	20	1NO	1	80	**SCM0610230**
	2.2	6	20	1NC	1	80	**SCM0601230**
SCM-9M	4	9	20	1NO	1	80	**SCM0910230**
	4	9	20	1NC	1	80	**SCM0901230**
SCM-12M	5.5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

3 Poles Mini Contactors - Coil Voltage: 24V DC



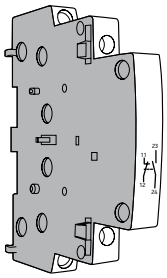
Type Code	Rated Power at (kW)	Rated Current AC-3 (A)	Rated Current AC-1 (A)	Auxiliary Contact on Body	Min. Order Quantity	Pcs in a Box	Order Code
SDM-6M	2.2	6	20	1NO	1	80	**SDM0610024**
	2.2	6	20	1NC	1	80	**SDM0601024**
SDM-9M	4	6	20	1NO	1	80	**SDM0910024**
	4	9	20	1NC	1	80	**SDM0901024**
SDM-12M	5.5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

Modular Contactors



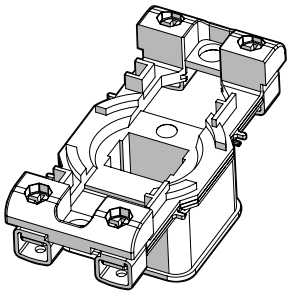
Type Code	Rated Current (A)	No of poles	Contact Structure	Coil Voltage (V)	Order Code
SMC-2025	25	2	2 NO	230	**SMC-2025-2NO**
SMC-2063	63	2	2 NO	230	**SMC-2063-2NO**
SMC-4025	25	4	4 NO	230	**SMC-4025-4NO**
SMC-4063	63	4	4 NO	230	**SMC-4063-4NO**
SMC-4100	100	4	4 NO	230	**SMC-4100-4NO**

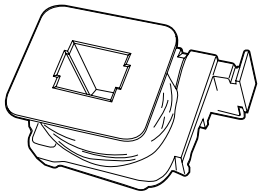
Auxiliary Contact for Modular Contactor



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

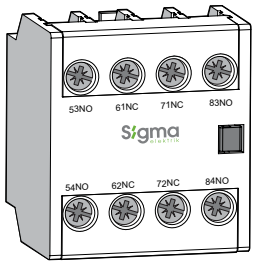
Spare Coils





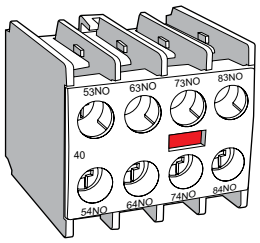
Type Code	Compatible with	Coil Voltage	Order Code
SGB-1	SCG-9....SCG-40	24 V AC 50/60 Hz.	**SGB1-024AC**
	SCG-9....SCG-40	42 V AC 50/60 Hz.	**SGB1-042AC**
	SCG-9....SCG-40	48 V AC 50/60 Hz.	**SGB1-048AC**
	SCG-9....SCG-40	110 V AC 50/60 Hz.	**SGB1-110AC**
	SCG-9....SCG-40	230 V AC 50/60 Hz.	**SGB1-230AC**
	SCG-9....SCG-40	400 V AC 50/60 Hz.	**SGB1-400AC**
	SCG-9....SCG-40	415 V AC 50/60 Hz.	**SGB1-415AC**
SGB-2	SCG-50....SCG-95	24 V AC 50/60 Hz.	**SGB2-024AC**
	SCG-50....SCG-95	42 V AC 50/60 Hz.	**SGB2-042AC**
	SCG-50....SCG-95	48 V AC 50/60 Hz.	**SGB2-048AC**
	SCG-50....SCG-95	110 V AC 50/60 Hz.	**SGB2-110AC**
	SCG-50....SCG-95	230 V AC 50/60 Hz.	**SGB2-230AC**
	SCG-50....SCG-95	400 V AC 50/60 Hz.	**SGB2-400AC**
	SCG-50....SCG-95	415 V AC 50/60 Hz.	**SGB2-415AC**
SYB-3 (full set coil)	SCM-100....SCM-150	230 V AC 50/60 Hz.	**SYB3-230AC**
	SCM-100....SCM-150	400 V AC 50/60 Hz.	**SYB3-400AC**
	SCM-100....SCM-150	100-240 V AC / 100-220 V DC	**SYB3-0ACDC**
SYB-4 (full set coil)	SCM180-SCM250	230 V AC 50/60 Hz.	**SYB4-230AC**
	SCM180-SCM250	400 V AC 50/60 Hz.	**SYB4-400AC**
	SCM180-SCM250	100-240 V AC / 100-220 V DC	**SYB4-0ACDC**
SYB-5	SCM330	400 V AC 50/60 Hz.	**SYB5-400AC**
SYB-6	SCM400	400 V AC 50/60 Hz.	**SYB6-400AC**
SYB-7	SCM630	400 V AC 50/60 Hz.	**SYB7-400AC**
SYD-1	SDM-9...SDM-40	24 V DC	**SYD1-024DC**
	SDM-9...SDM-40	48 V DC	**SYD1-048DC**
	SDM-9...SDM-40	60 V DC	**SYD1-060DC**
	SDM-9...SDM-40	110 V DC	**SYD1-110DC**
SYM-1	SCM-6M ... SCM-16M	24 V AC 50/60 Hz.	**SYM1-024AC**
	SCM-6M ... SCM-16M	42 V AC 50/60 Hz.	**SYM1-042AC**
	SCM-6M ... SCM-16M	48 V AC 50/60 Hz.	**SYM1-048AC**
	SCM-6M ... SCM-16M	110 V AC 50/60 Hz.	**SYM1-110AC**
	SCM-6M ... SCM-16M	230 V AC 50/60 Hz.	**SYM1-230AC**
SMD-1	SDM-6M ... SDM-16M	24 V DC	**SMD1-024DC**
	SDM-6M ... SDM-16M	48 V DC	**SMD1-048DC**
	SDM-6M ... SDM-16M	110 V DC	**SMD1-110DC**

Auxiliary Contact Blocks



Type Code	Compatible with	Auxiliary Contact on Body	Type of Assembly	Order Code
SAC-1	SCG-9....SCG-100	1NO+1NC	Side	**SAC-1S11**
SAC-100	SCM-100...SCM-250	1NO+1NC	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	SCM-330....SCM-630	2NO+2NC	Top	**SAC-5S22**

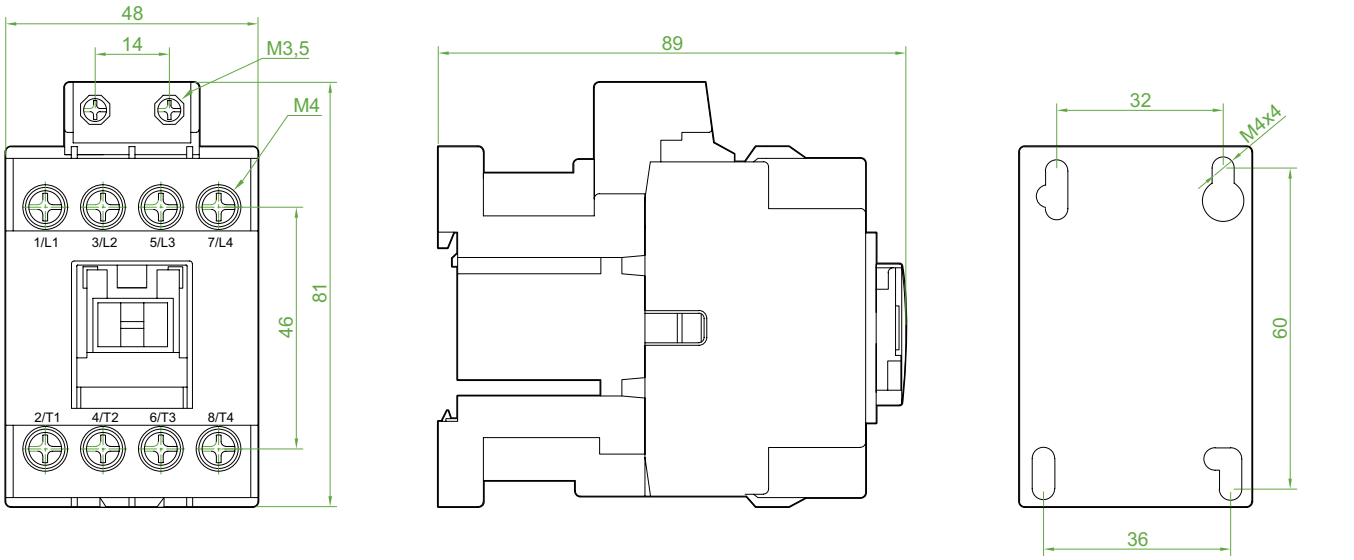
Auxiliary Contact Blocks for Mini Contactors



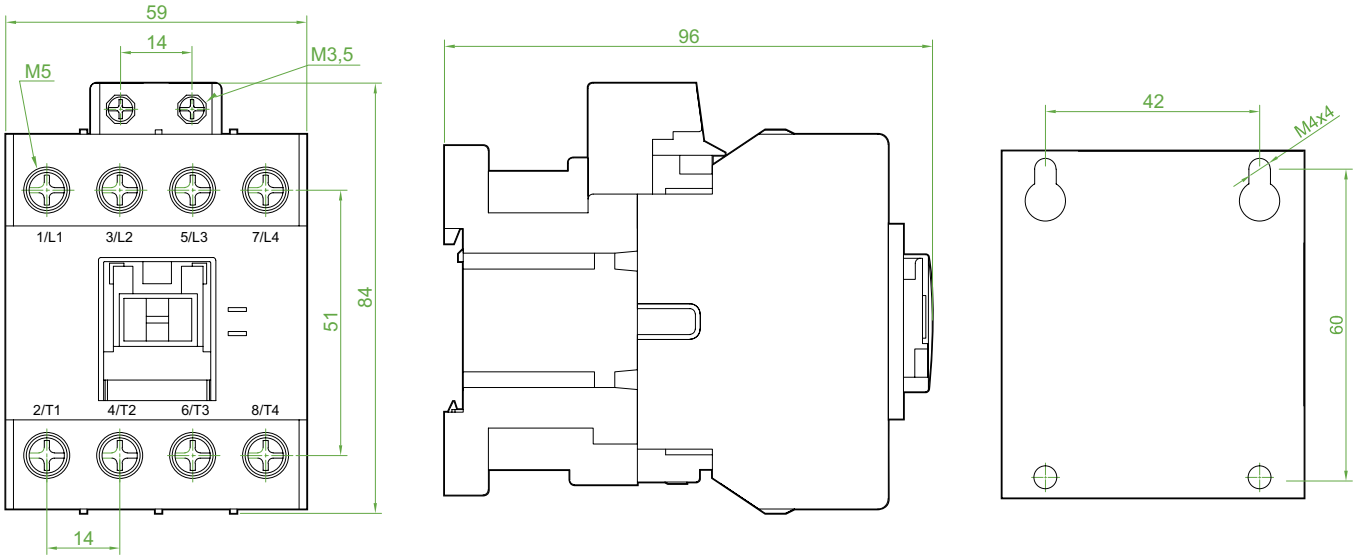
Type Code	Auxiliary Contact on Body	Type of Assembly	Order Code
SAC-4M	2NO+2NC	Top	**SAC-4M22**
	3NO+1NC	Top	**SAC-4M31**
	4NO	Top	**SAC-4M40**
	4NC	Top	**SAC-4M04**

Dimensions

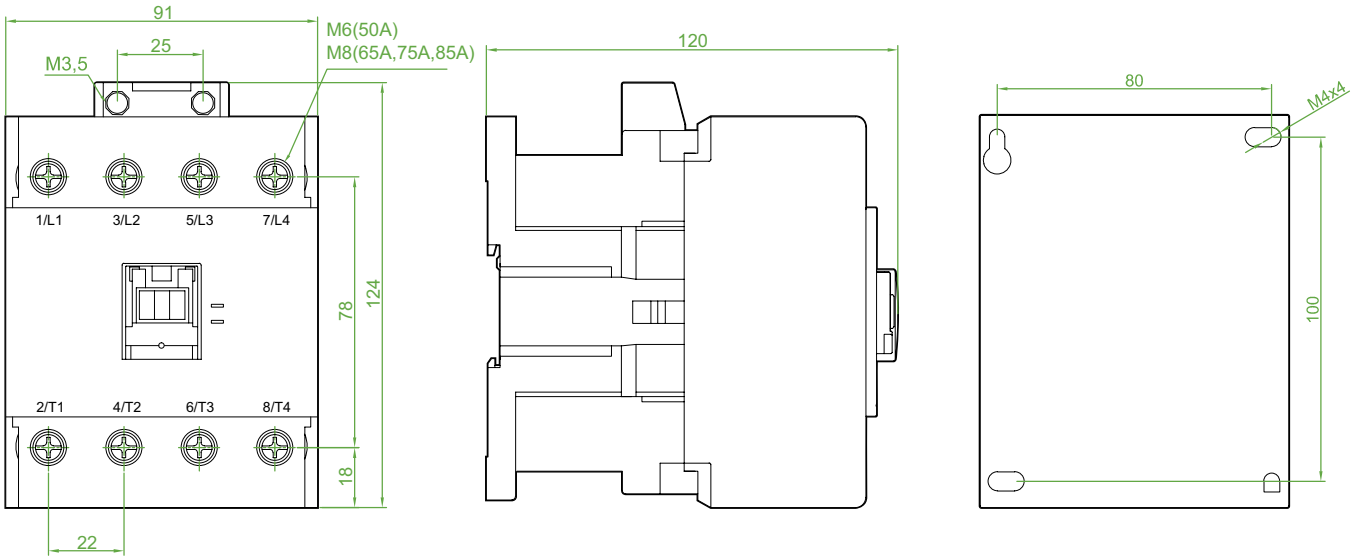
SCF 9-22



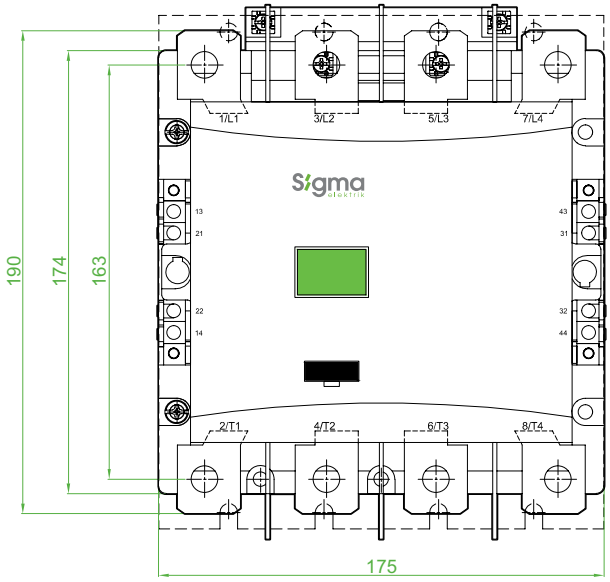
SCF 32-40

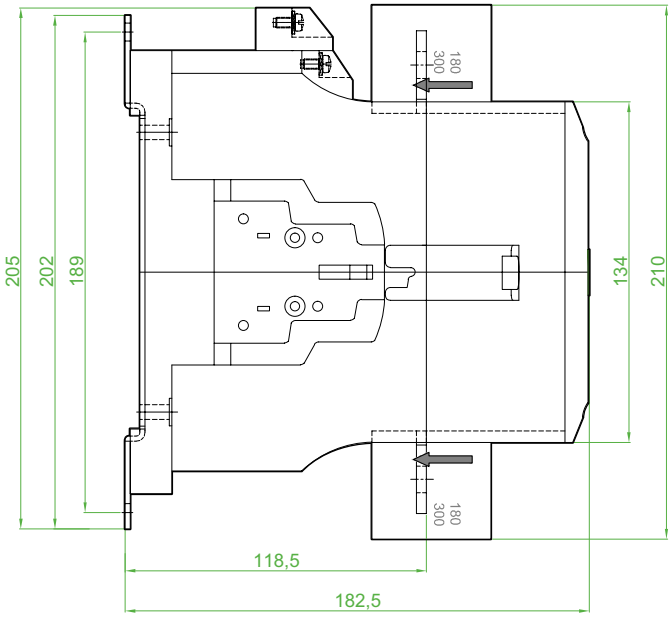


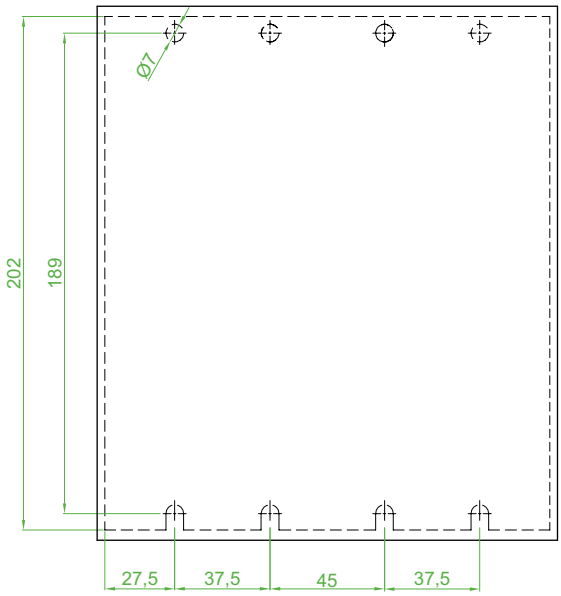
SCF 50-85



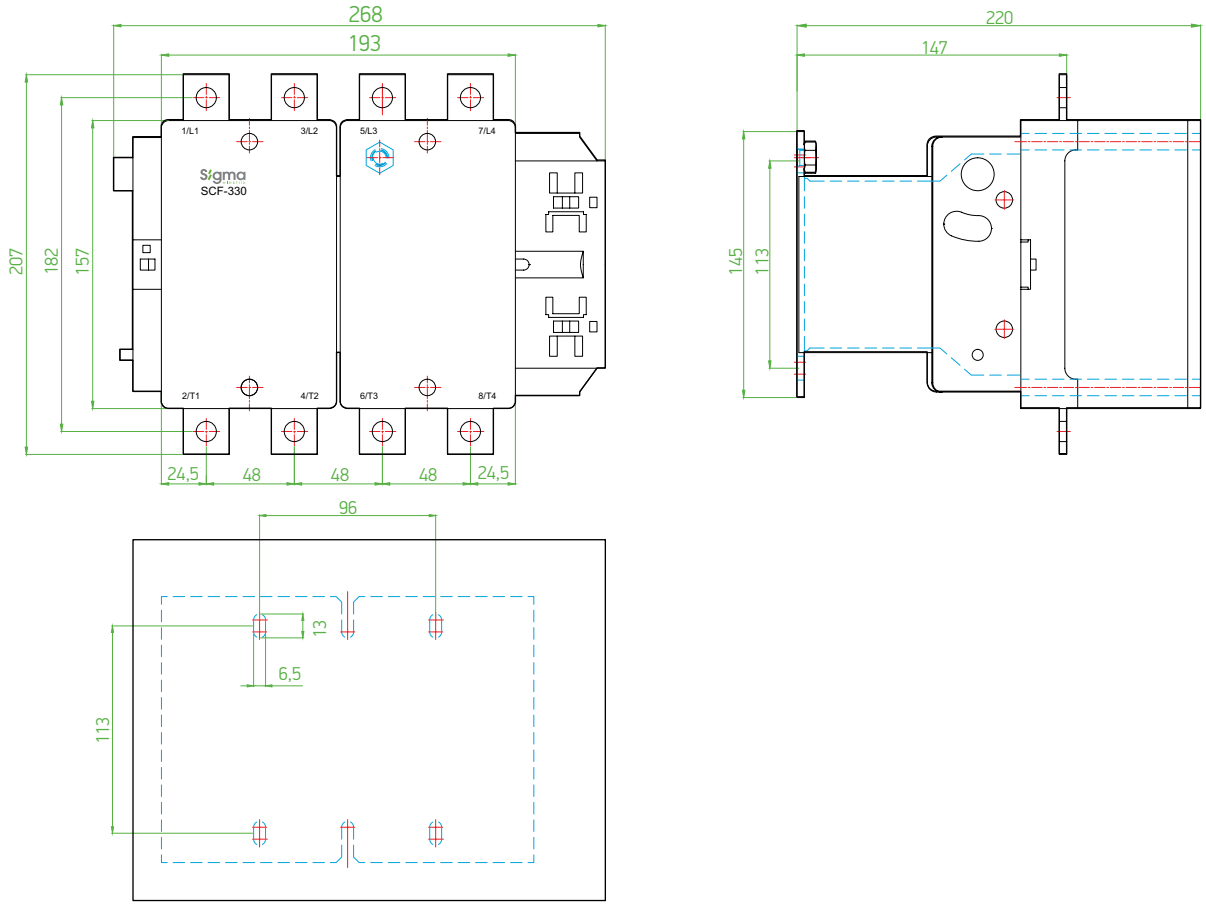
SCF 100-125-150-180-250



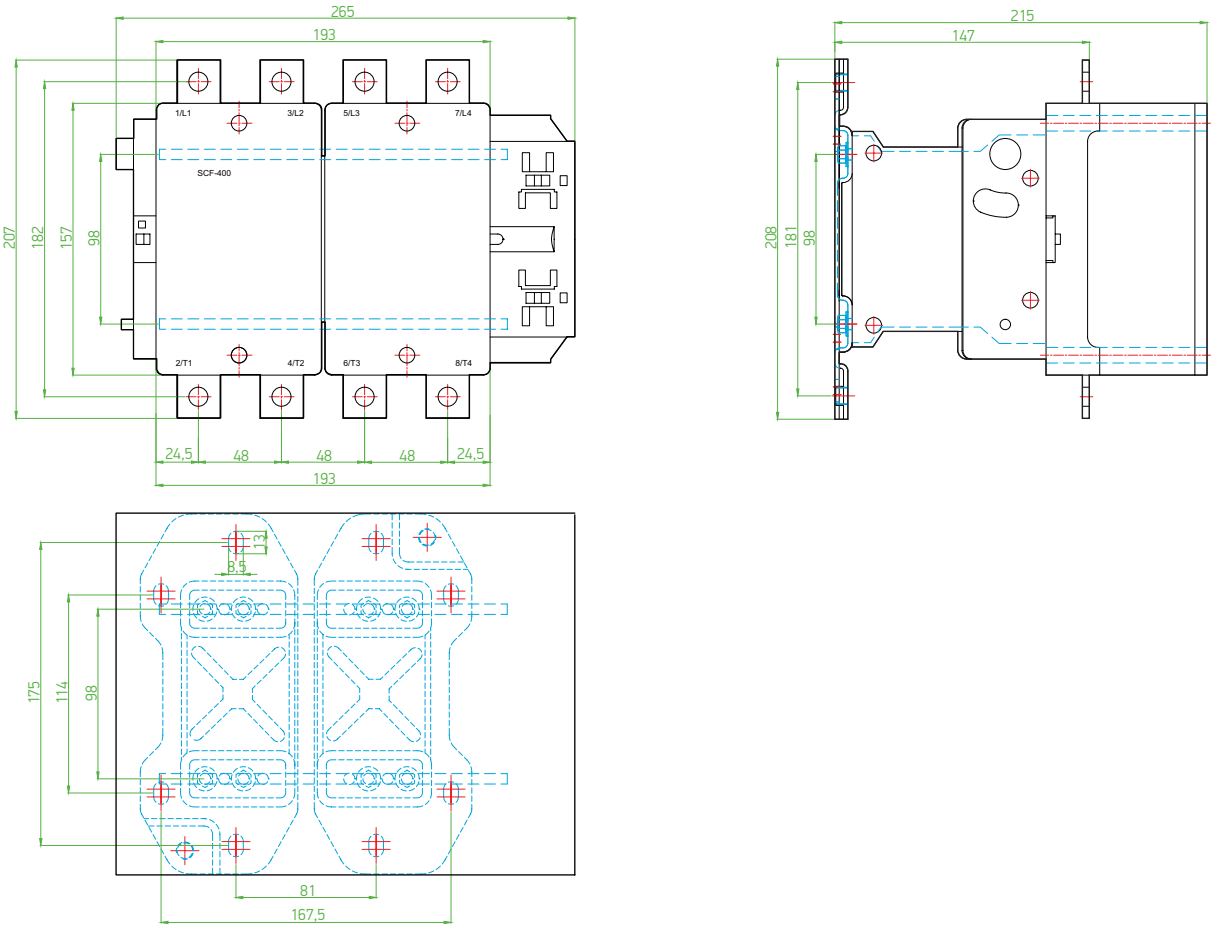




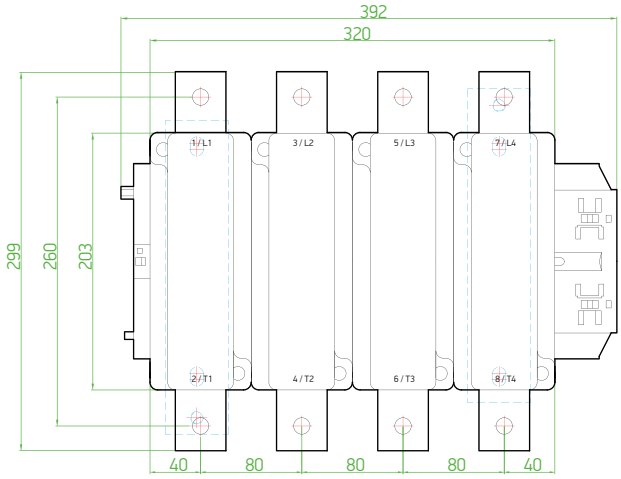
SCF 330

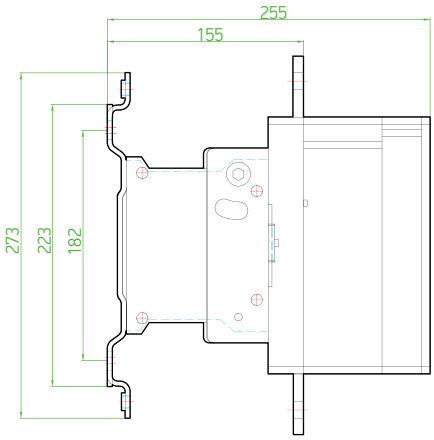


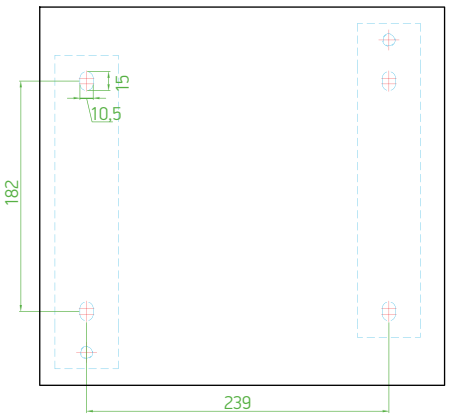
SCF 400



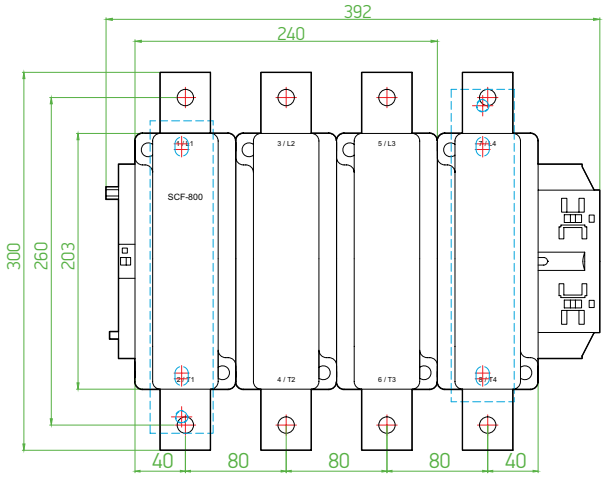
SCF 630

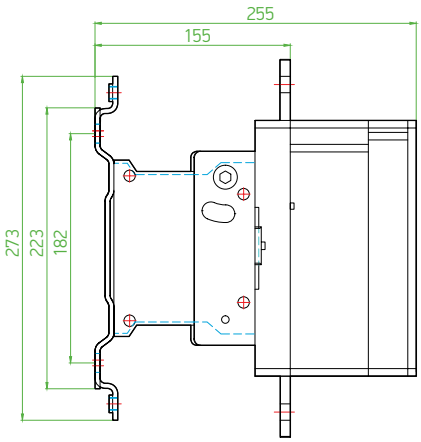


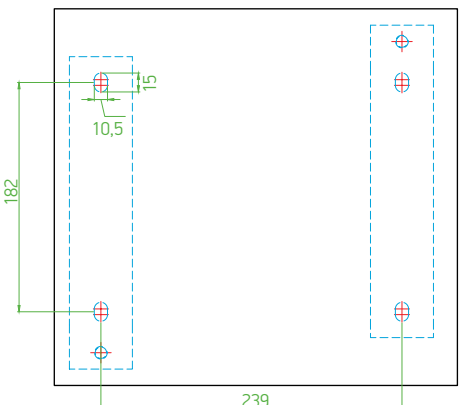




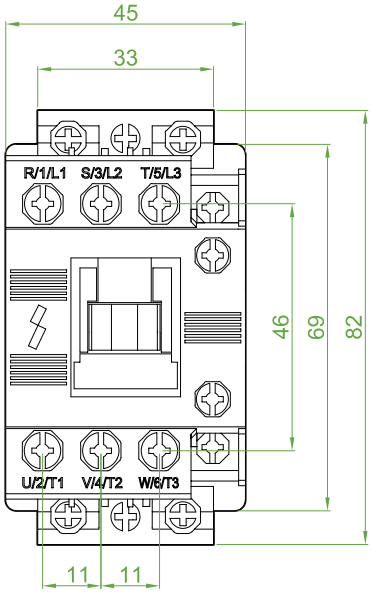
SCF 800

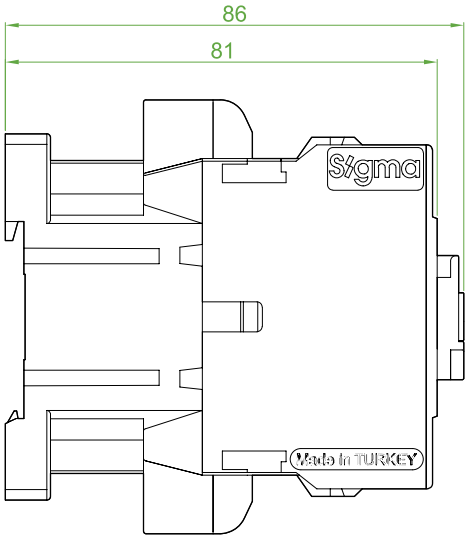


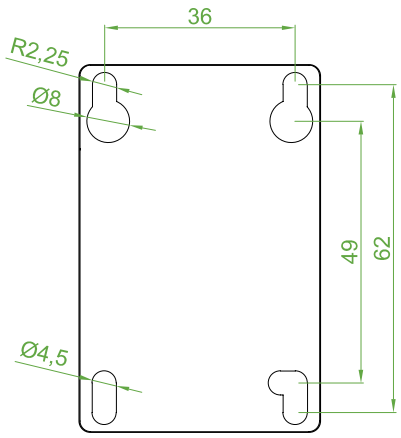




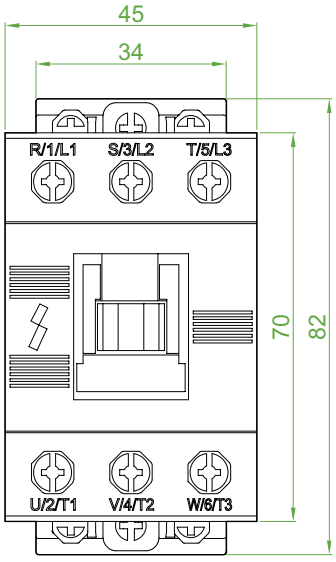
SCG 9-25

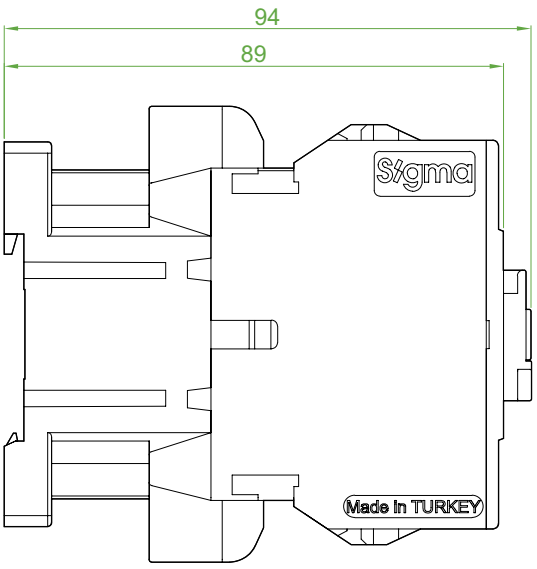


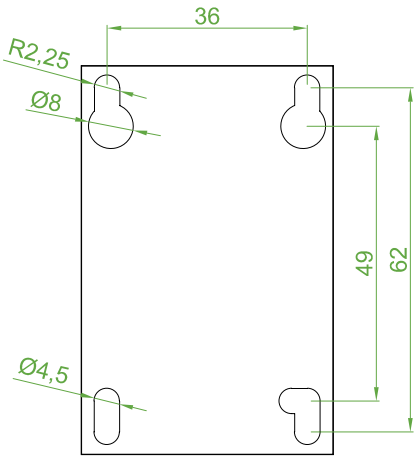




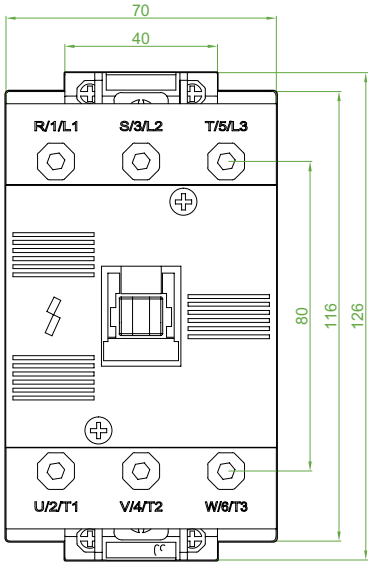
SCG 32-40

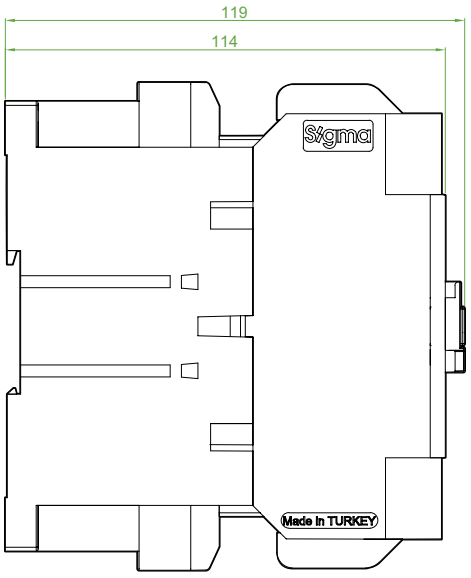


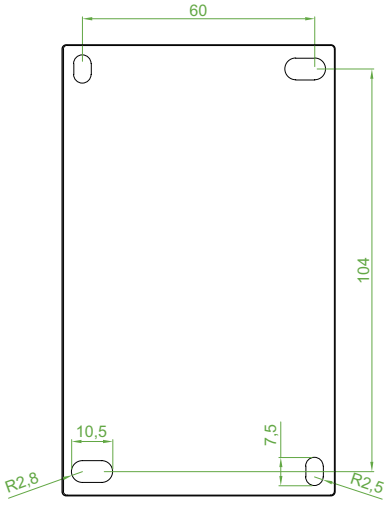




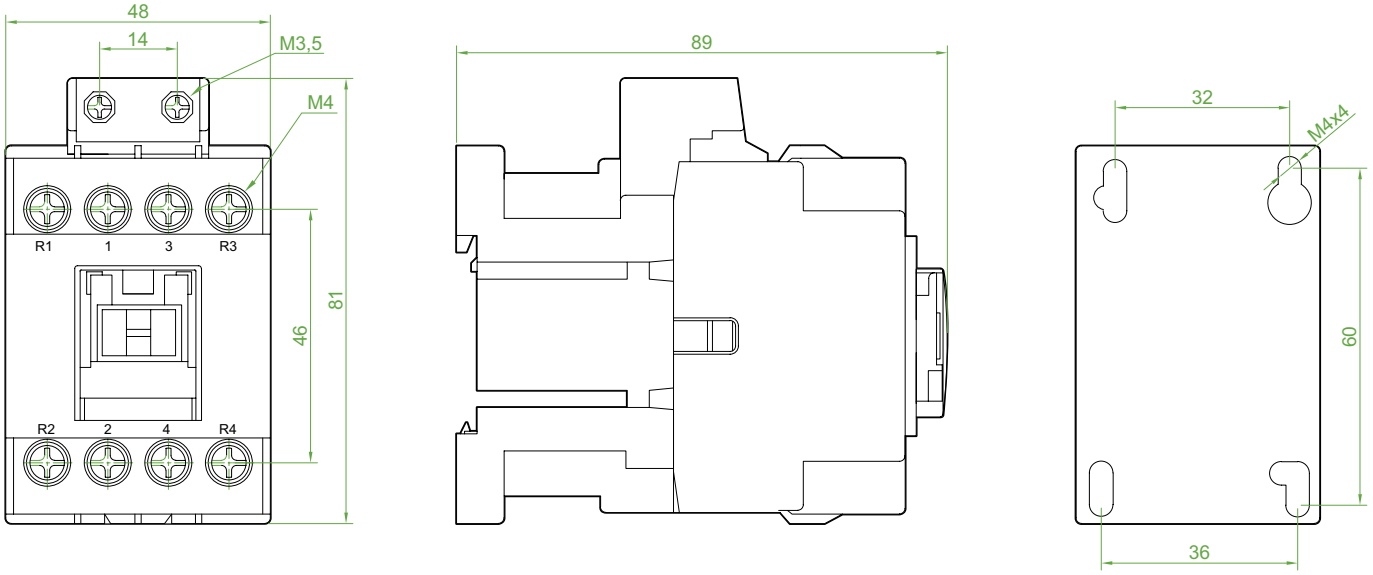
SCG 50-95-100



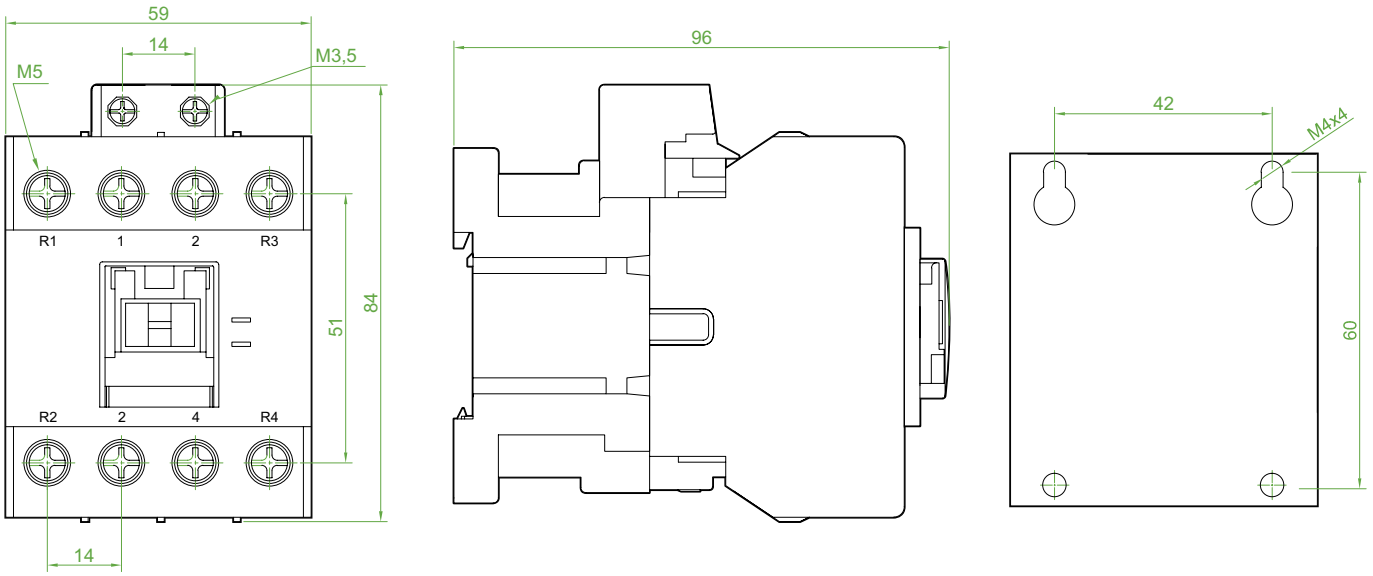




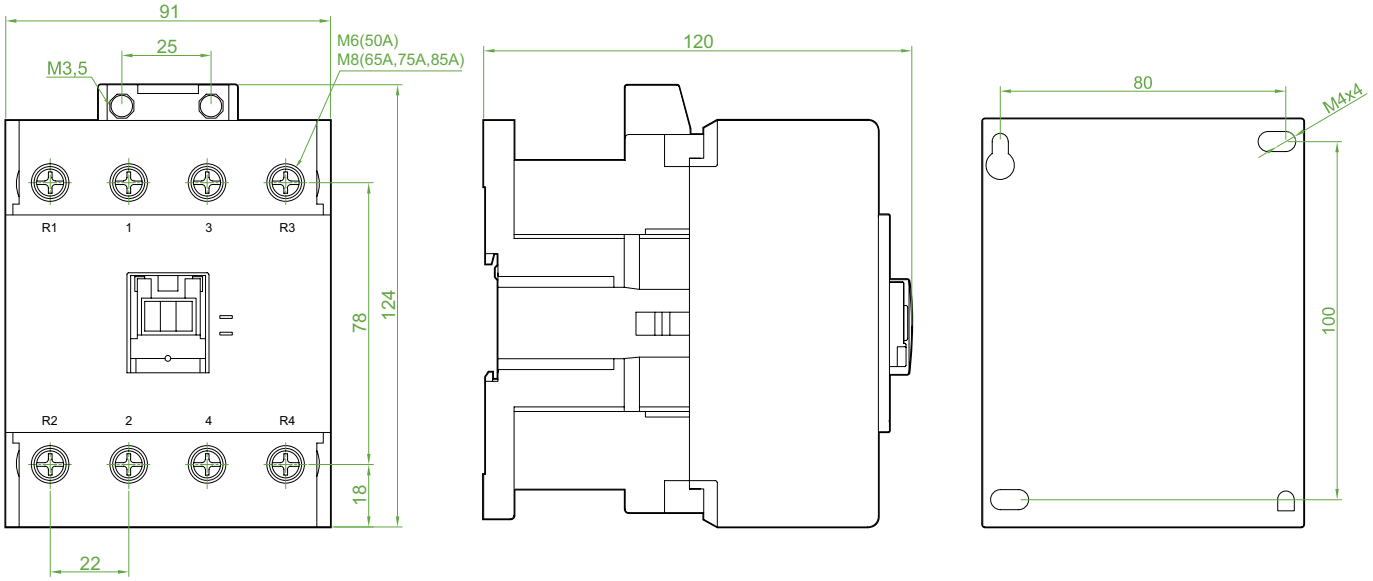
SCH 9-22



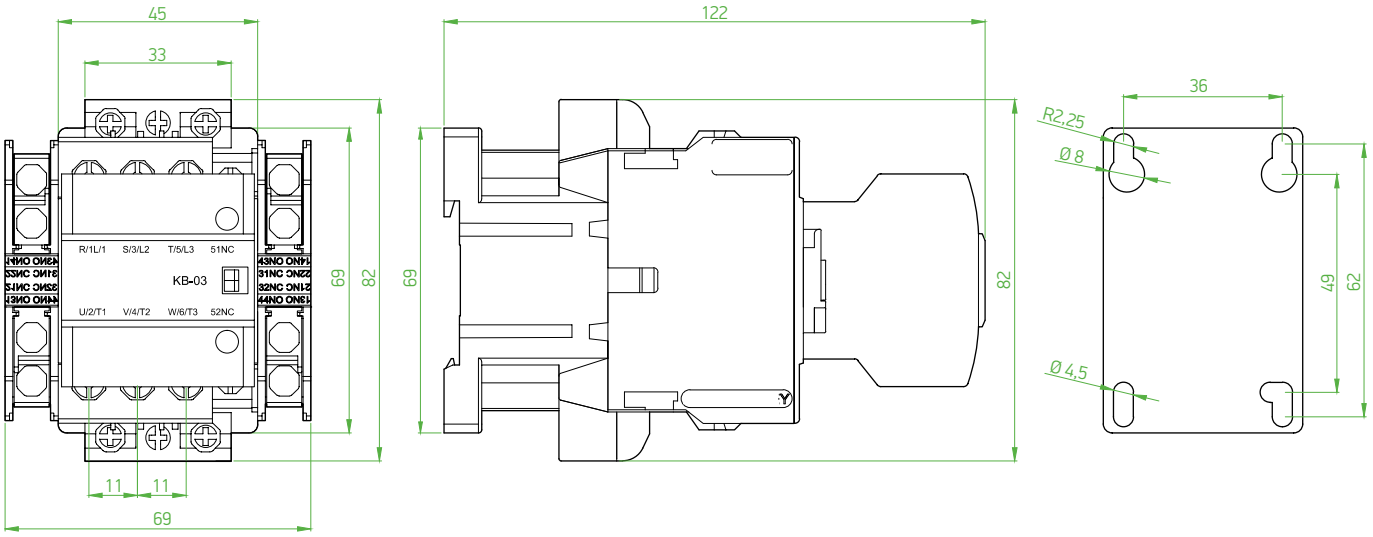
SCH 32-40



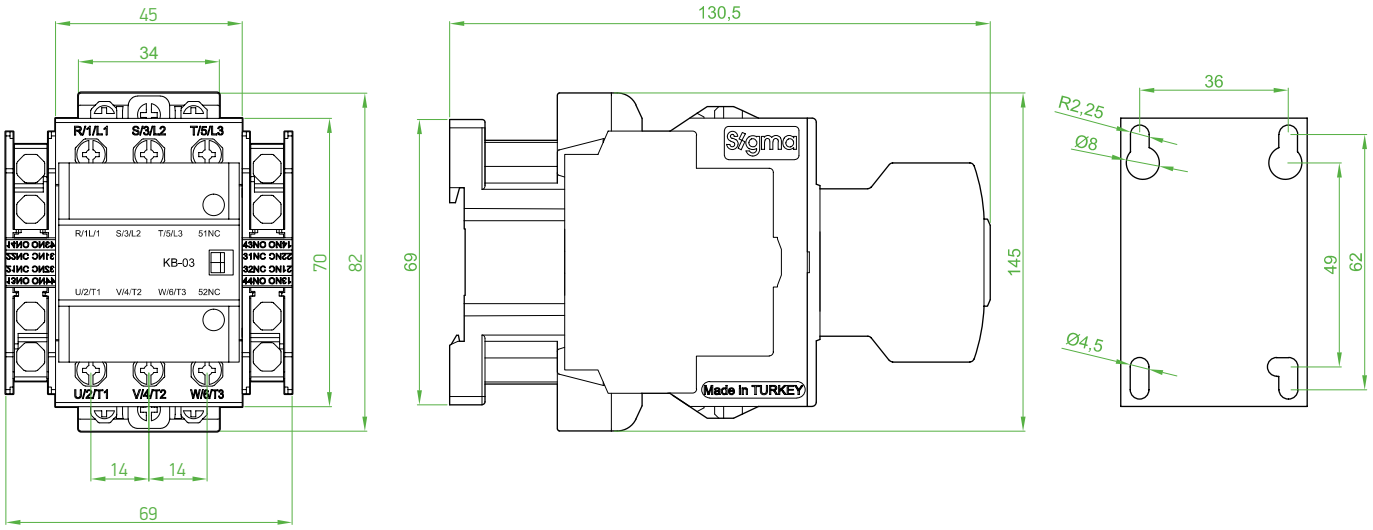
SCH 50-85



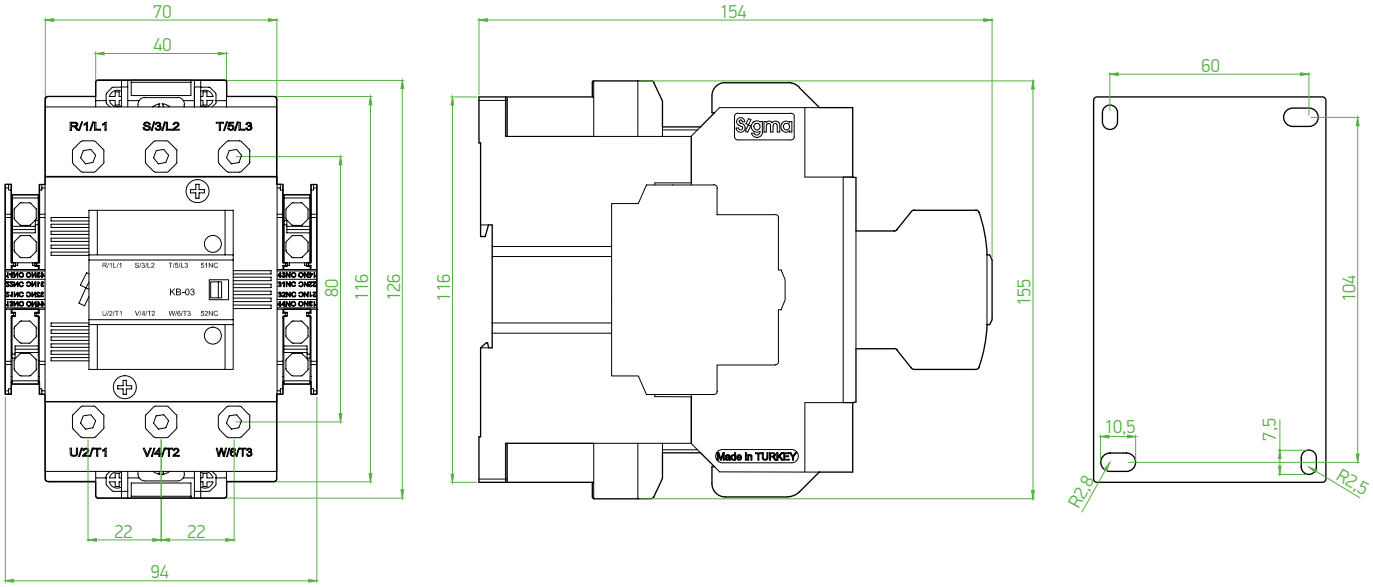
SCK 12-25



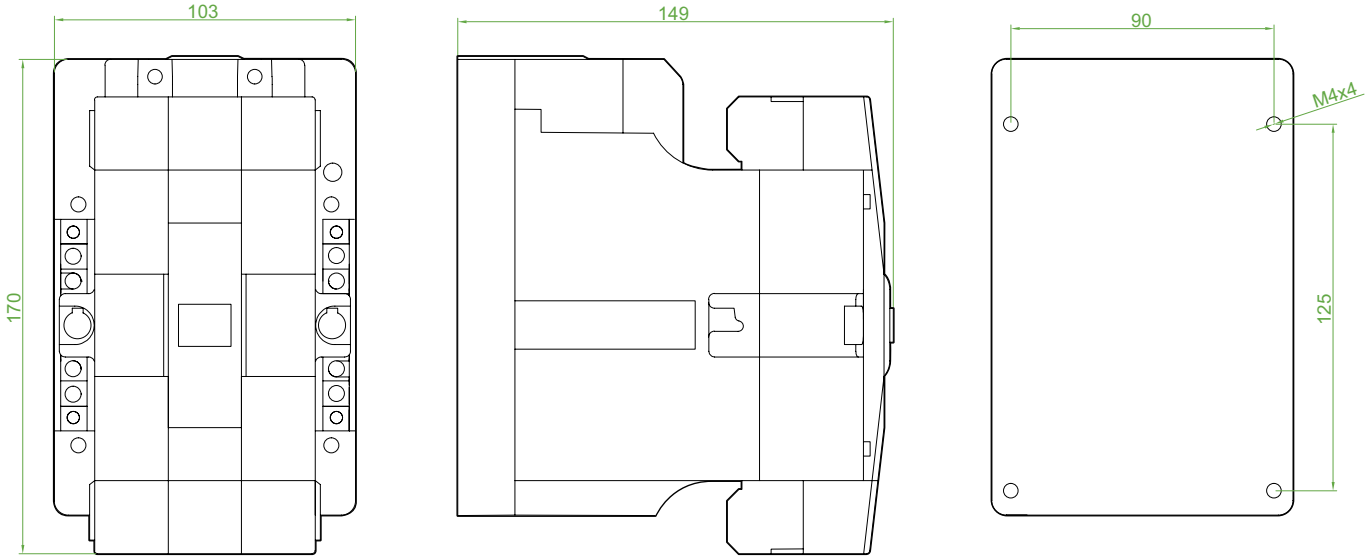
SCK 32-40



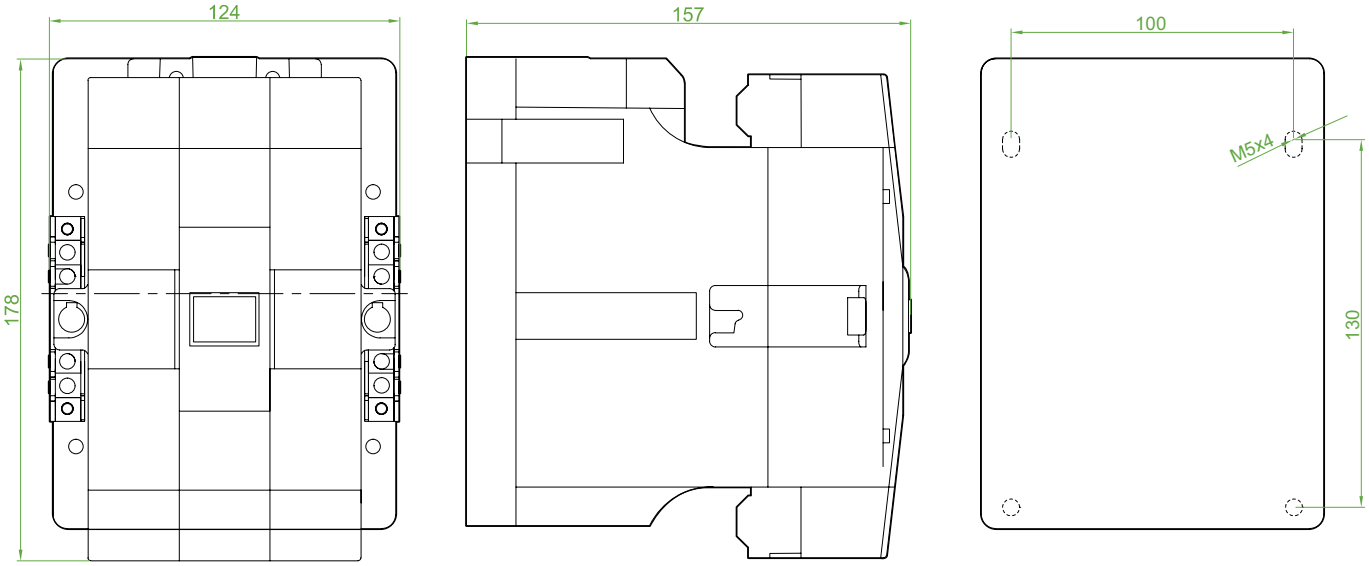
SCK 50-95



SCM 100-125



SCM 150



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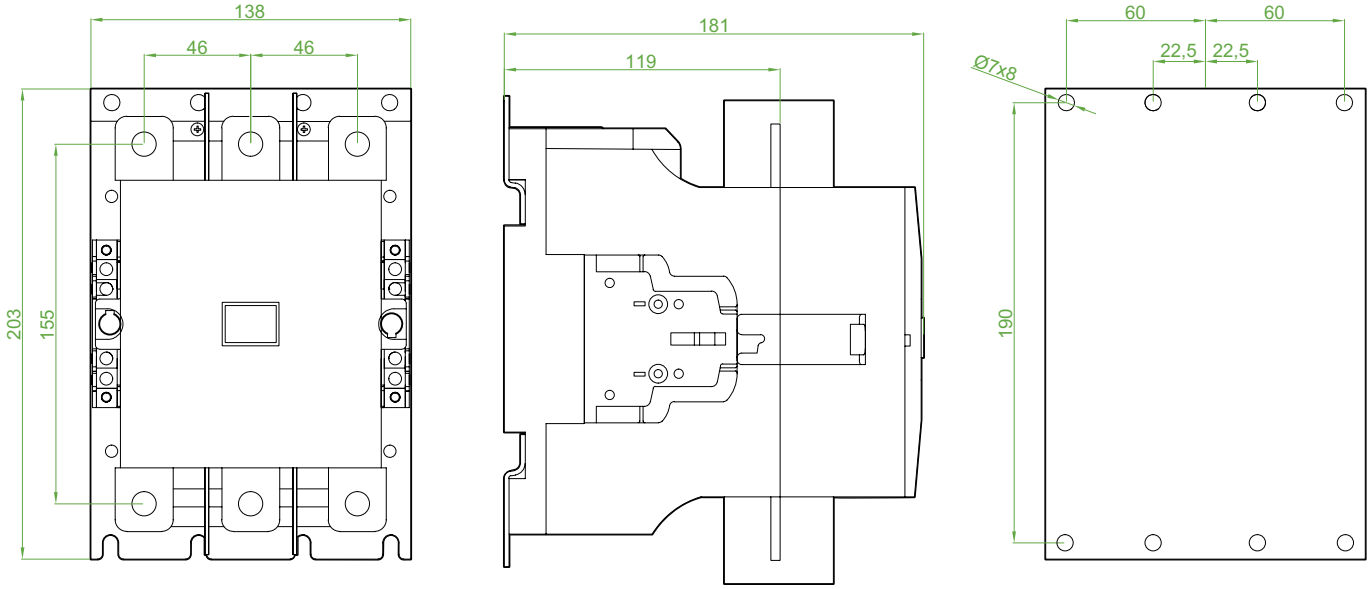

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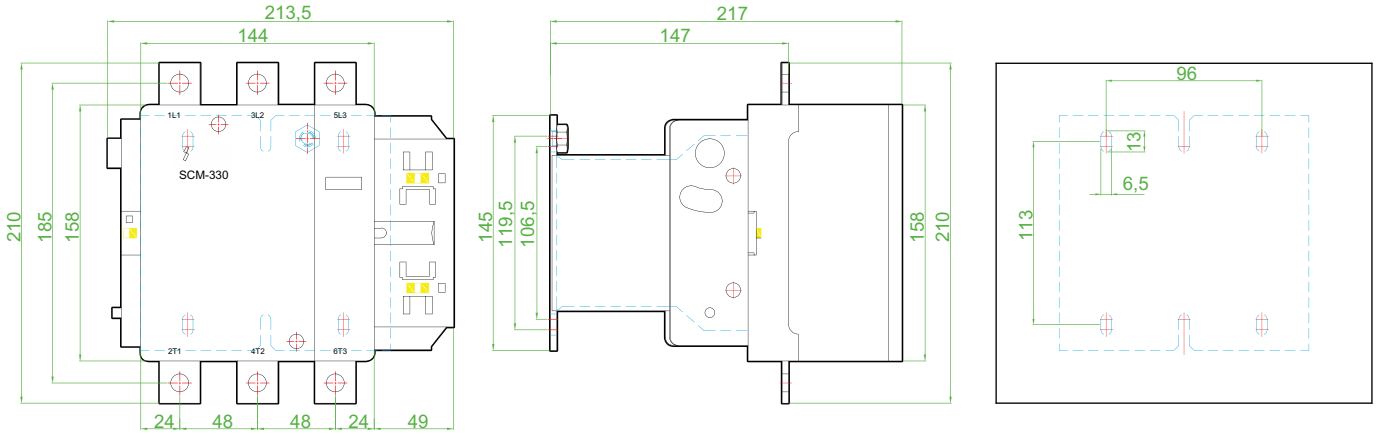

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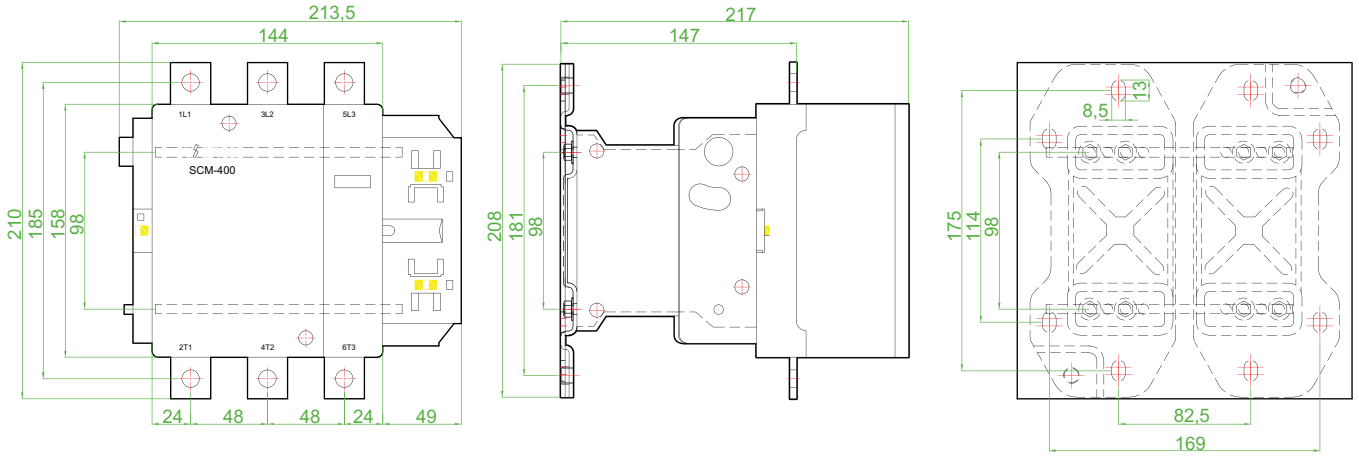

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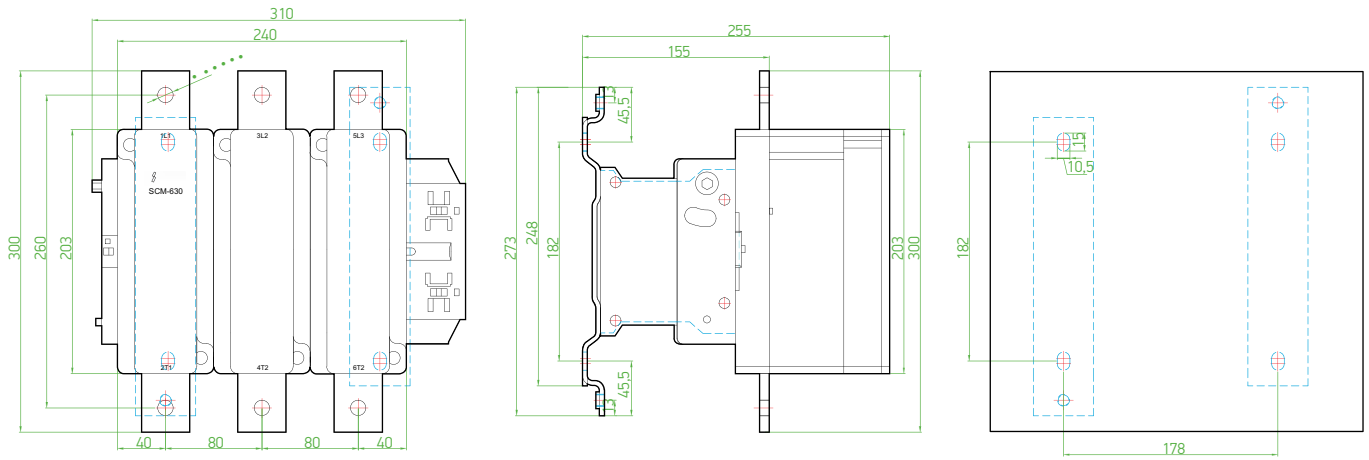

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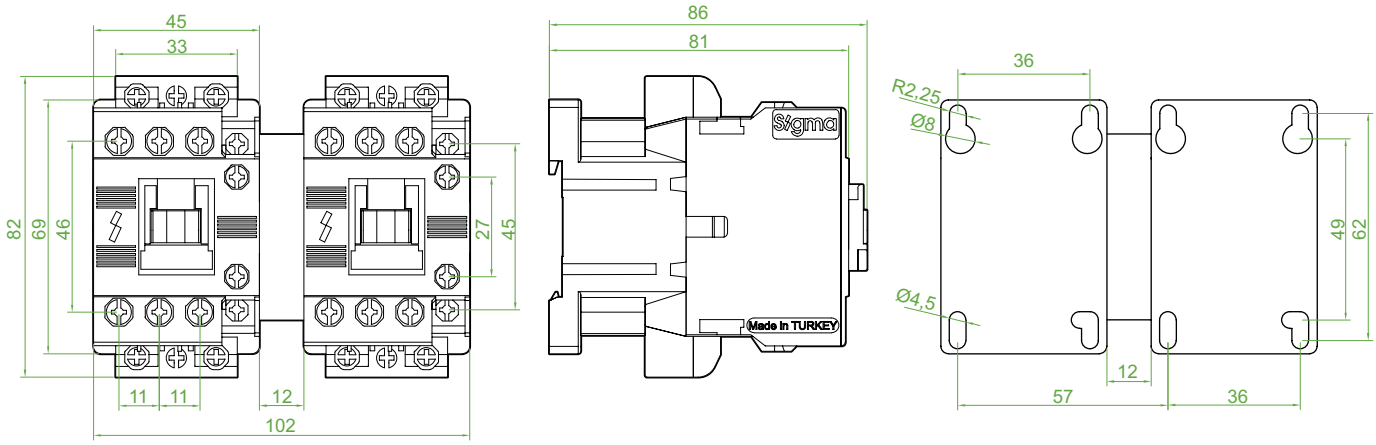
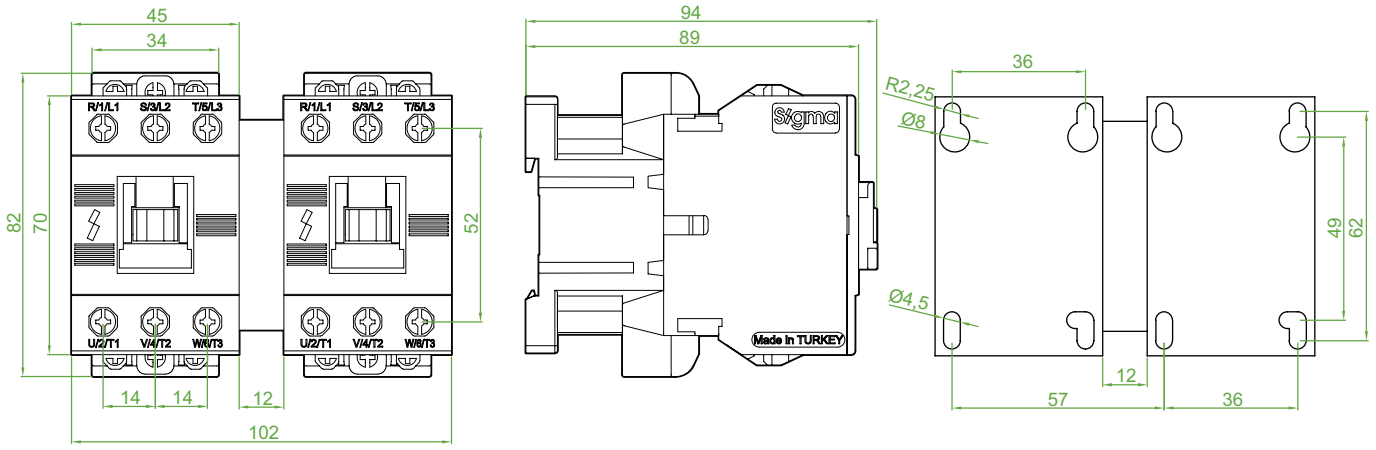


SCR 32-40



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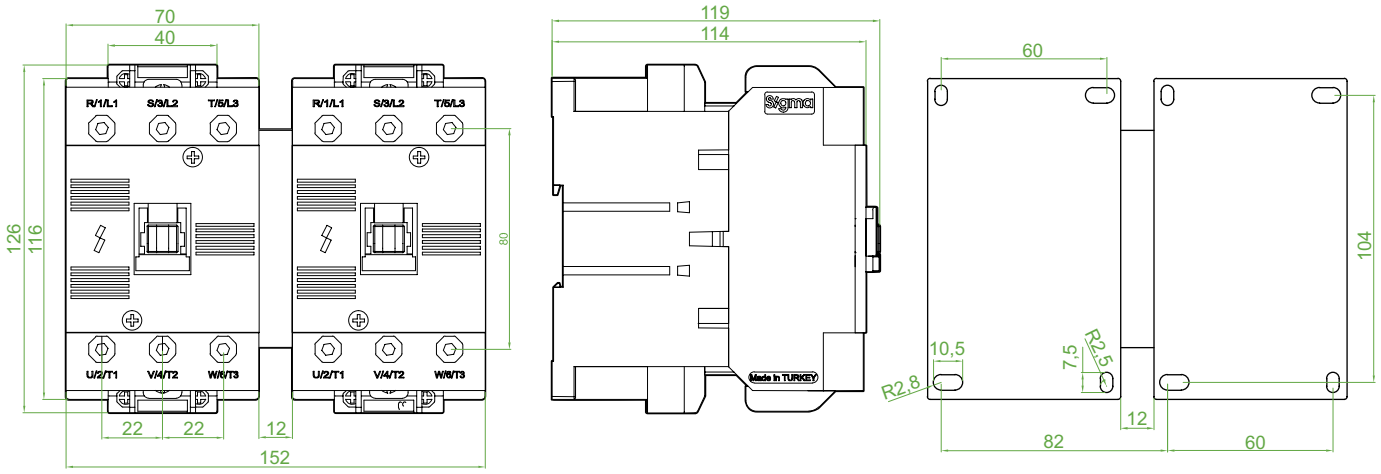

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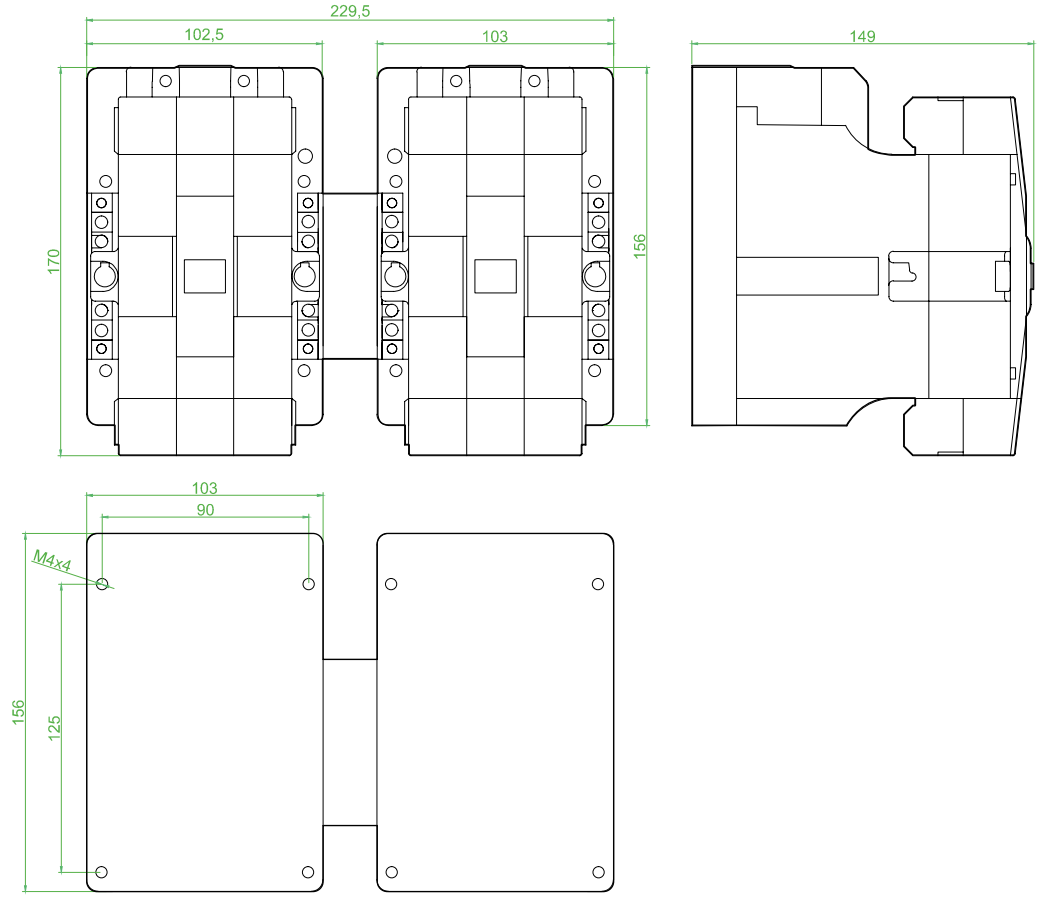

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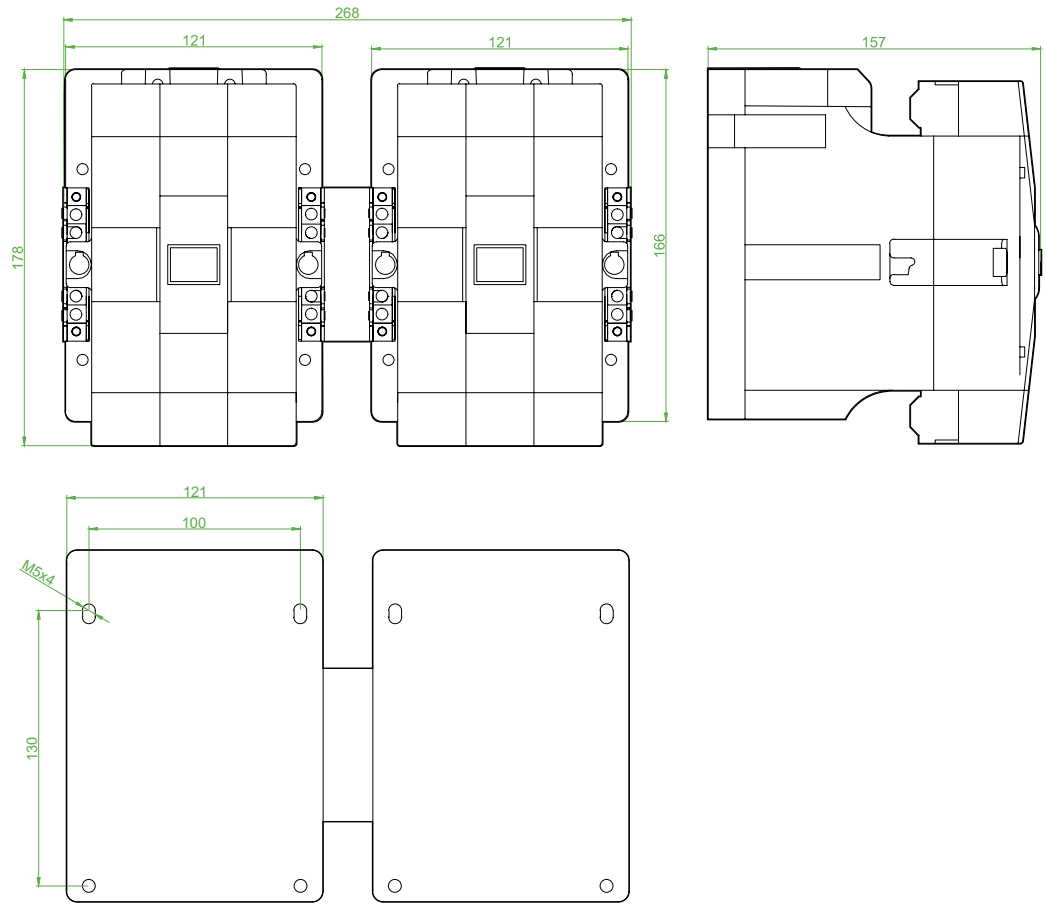

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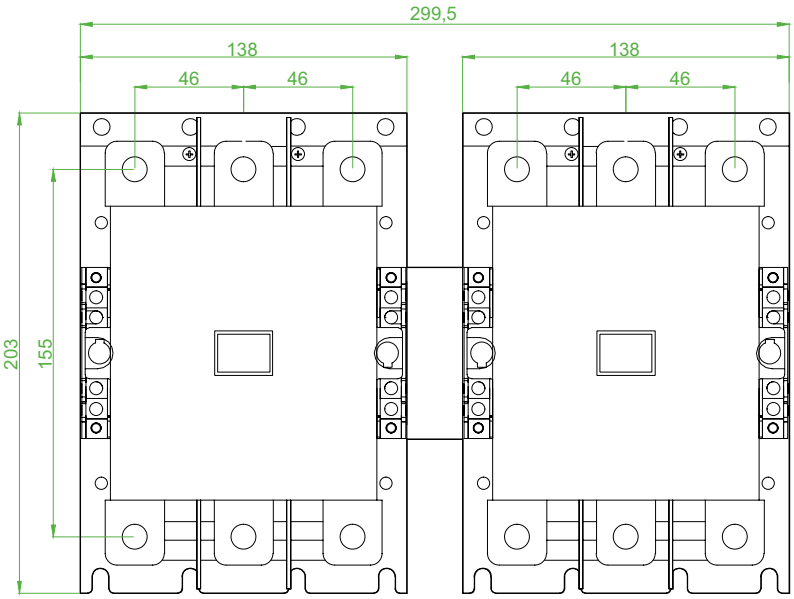

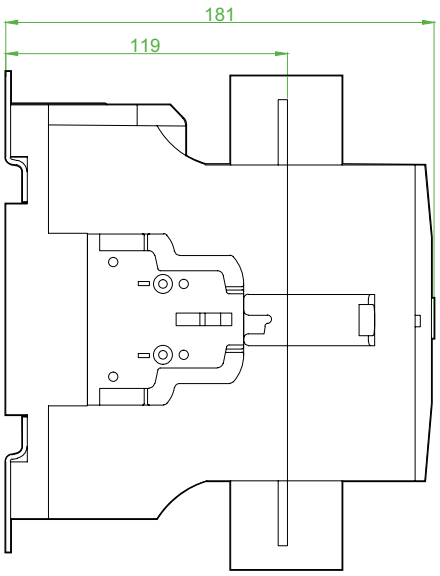

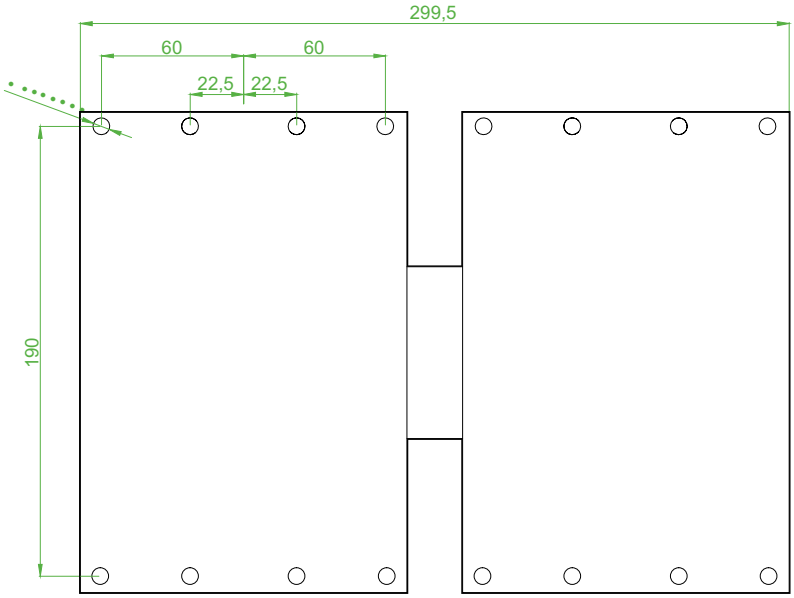

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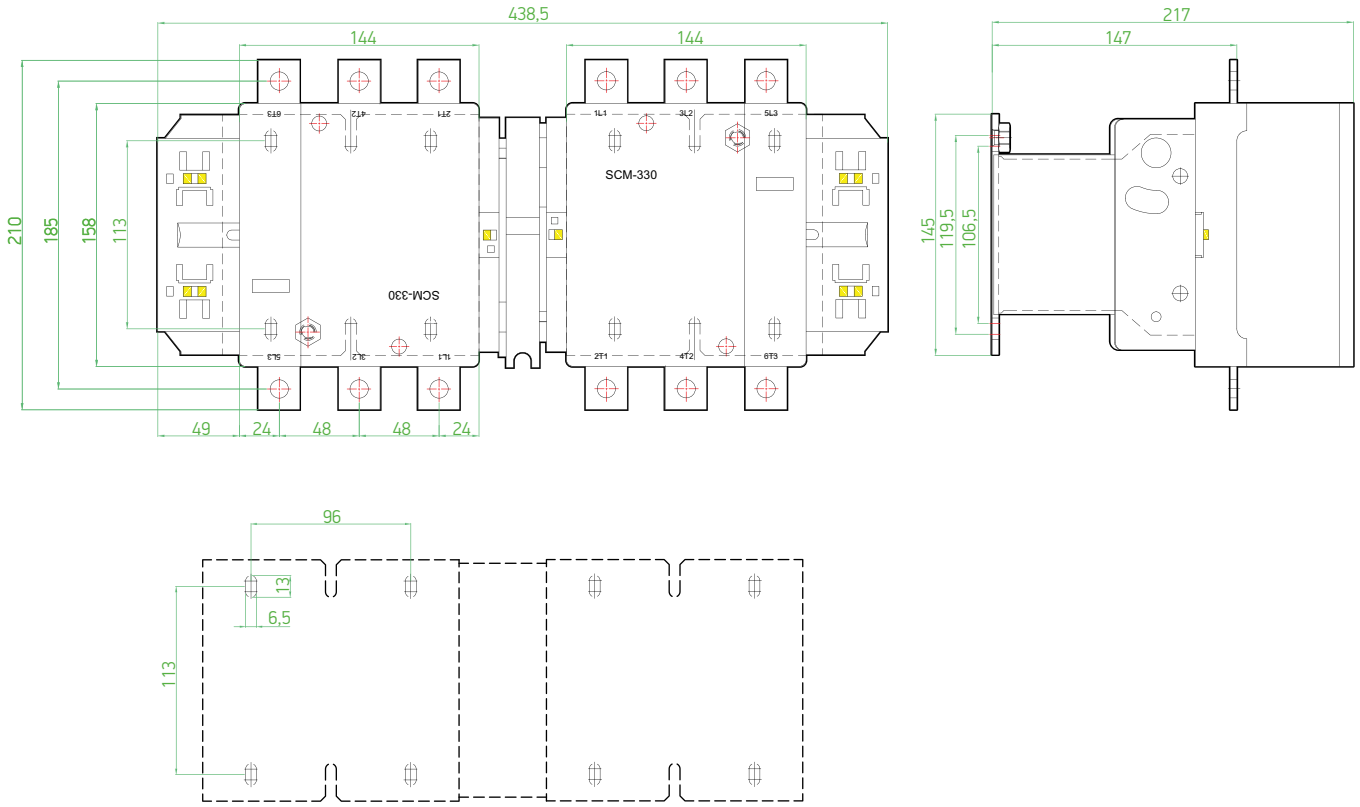

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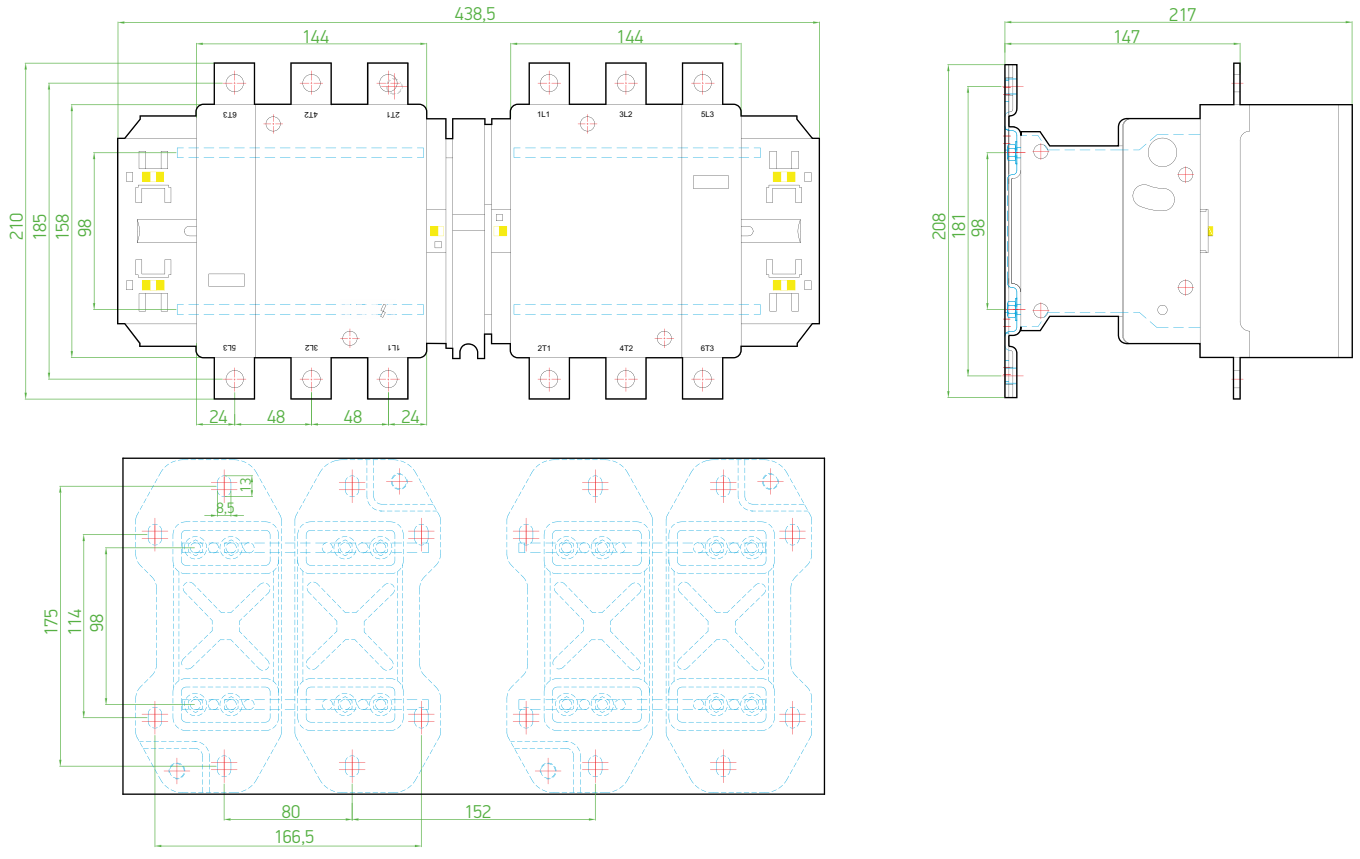

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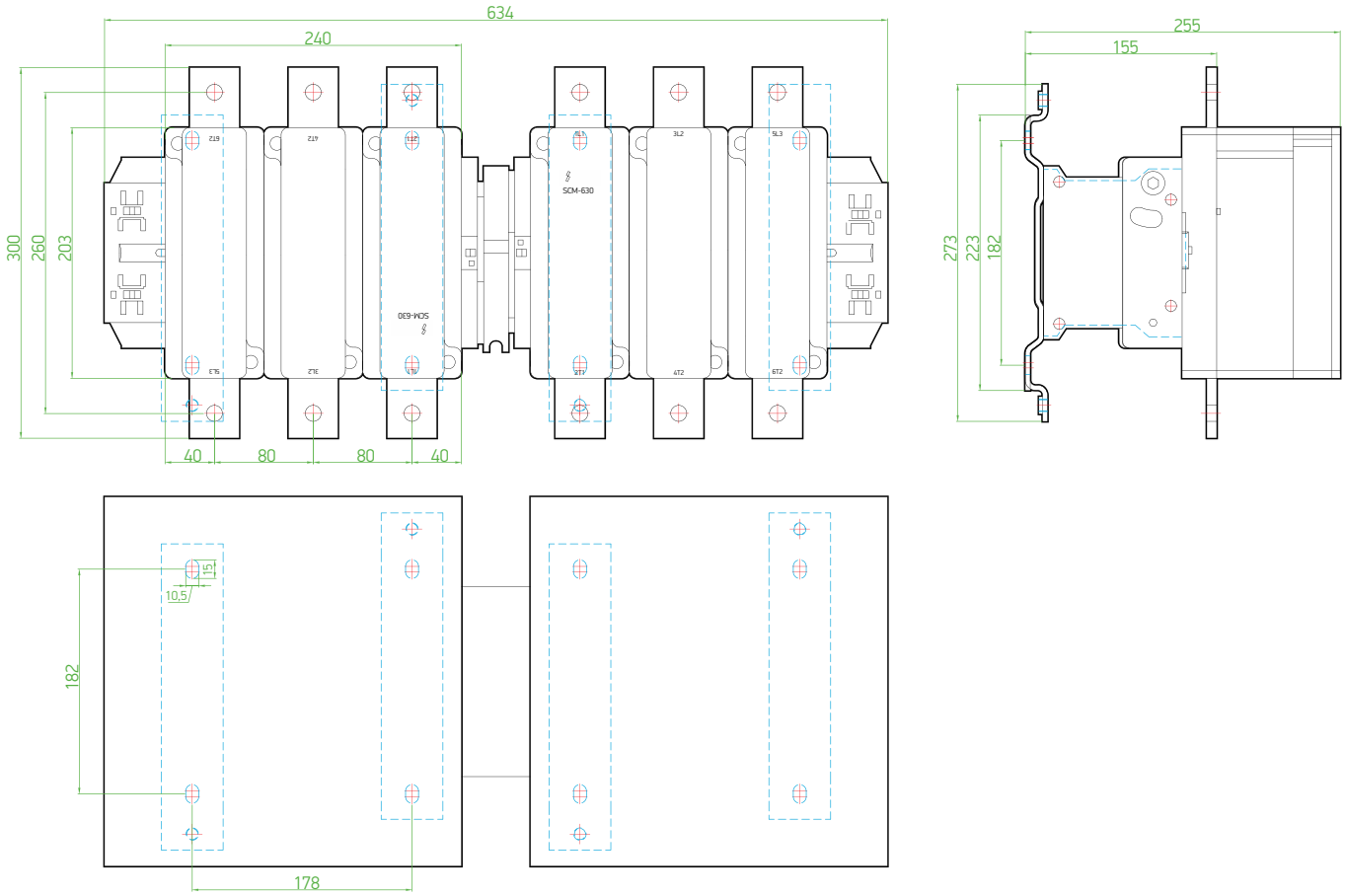
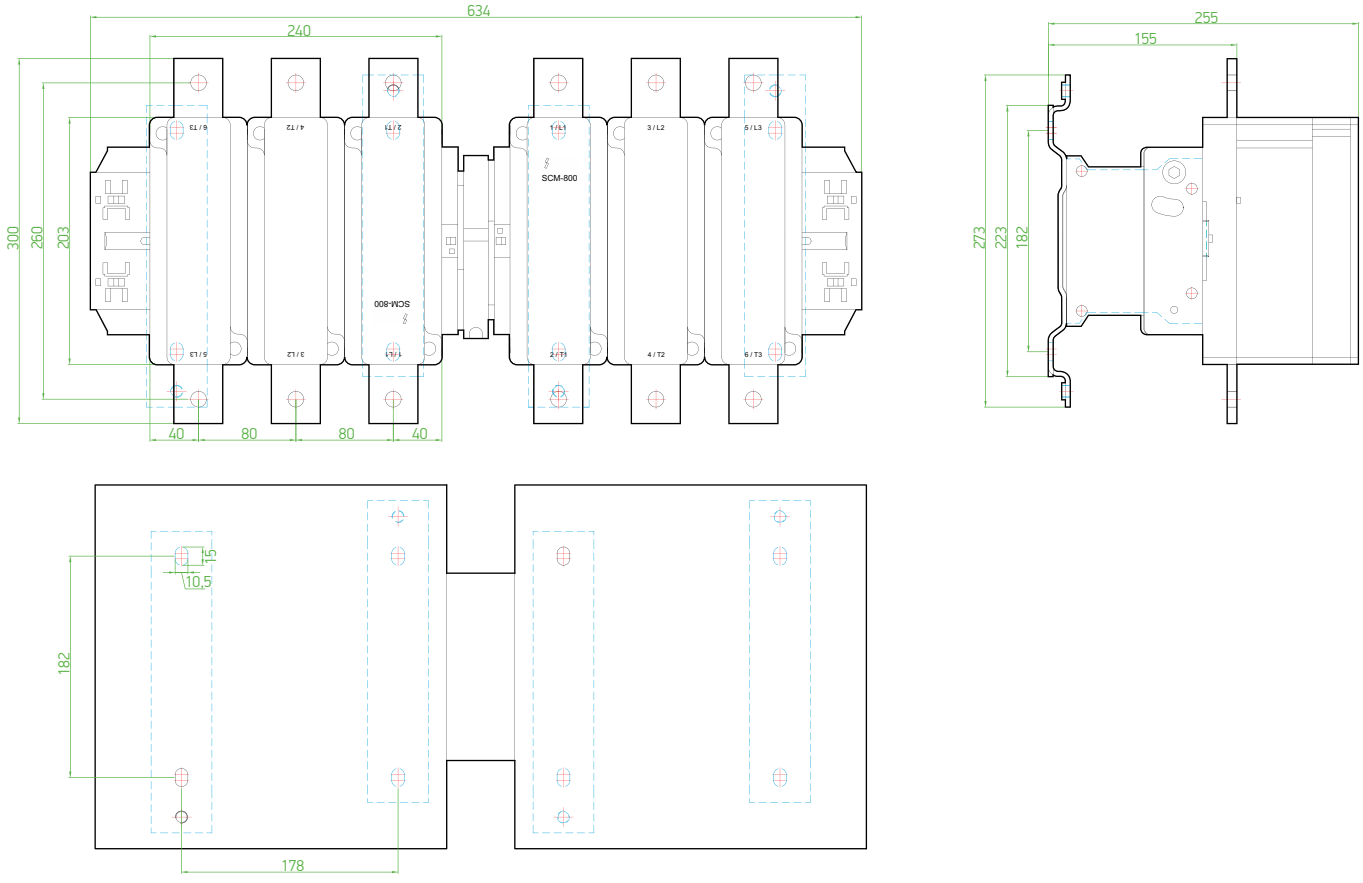
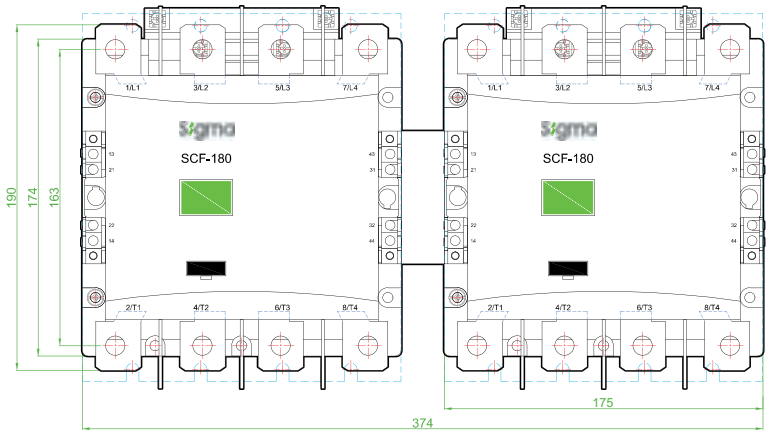
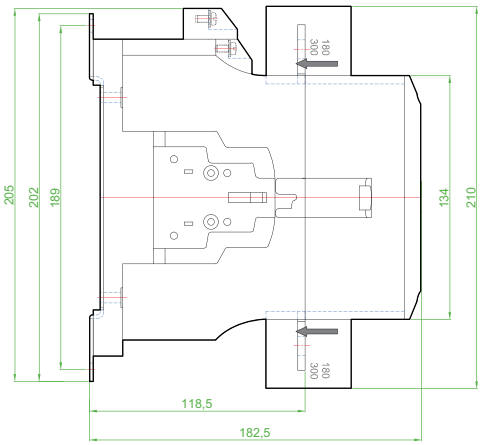


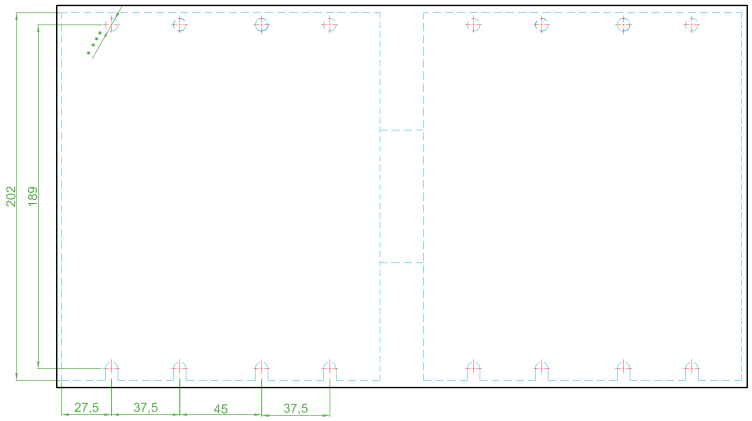
SCR 800



SCT 100-125-150-180-250







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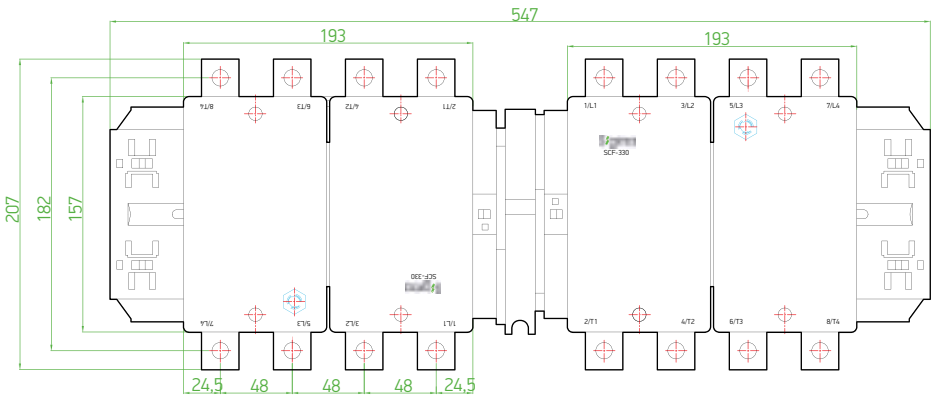

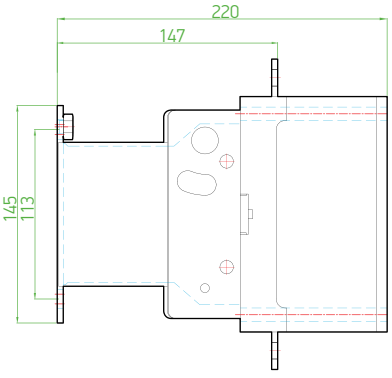

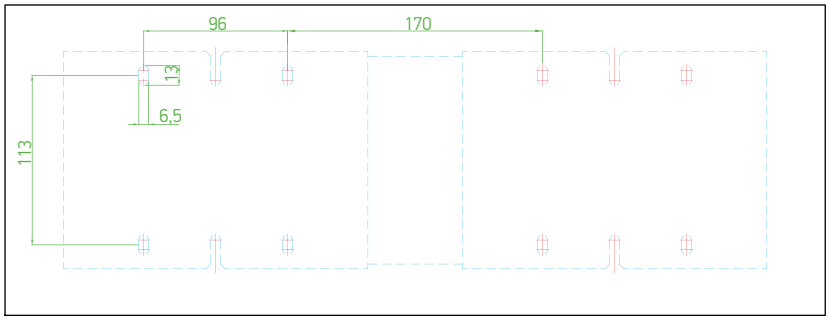

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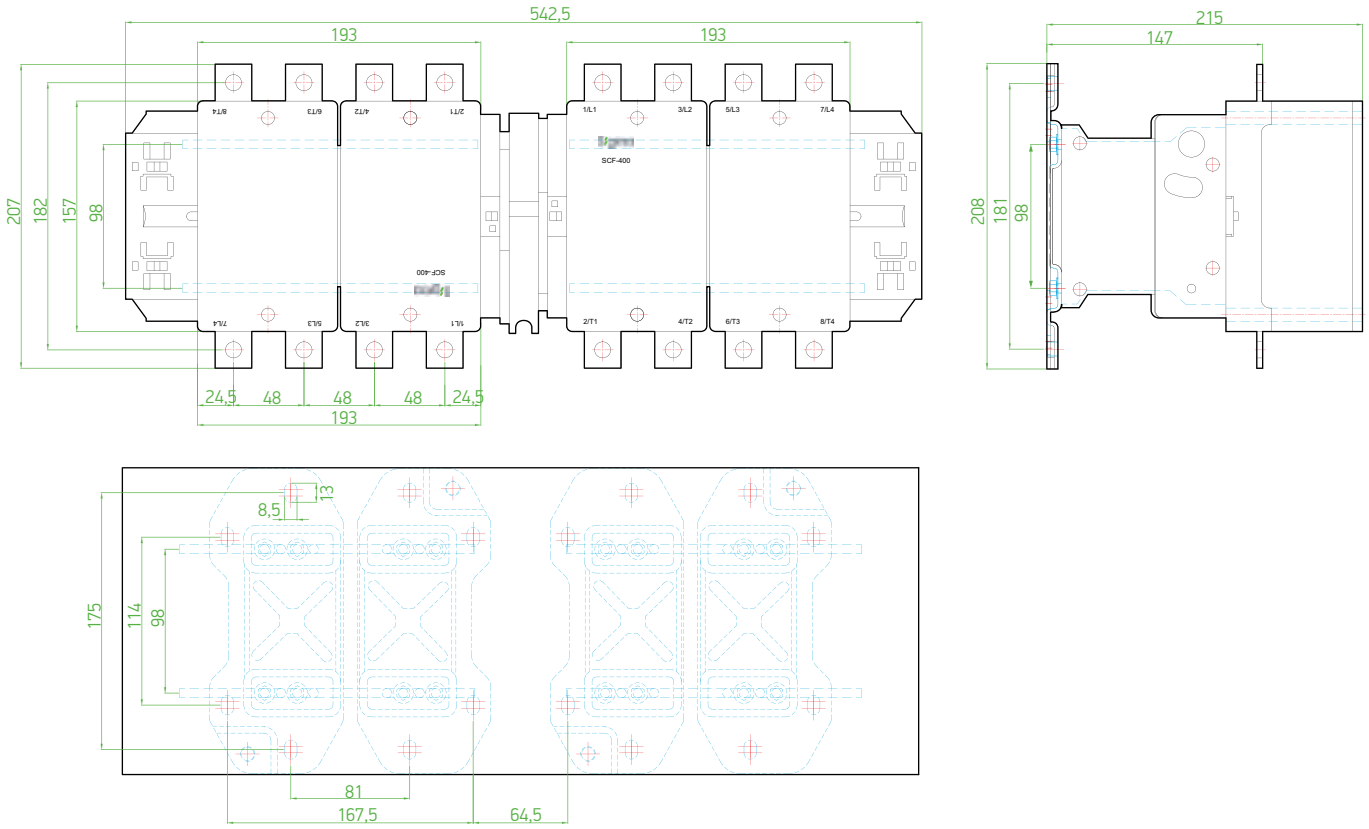

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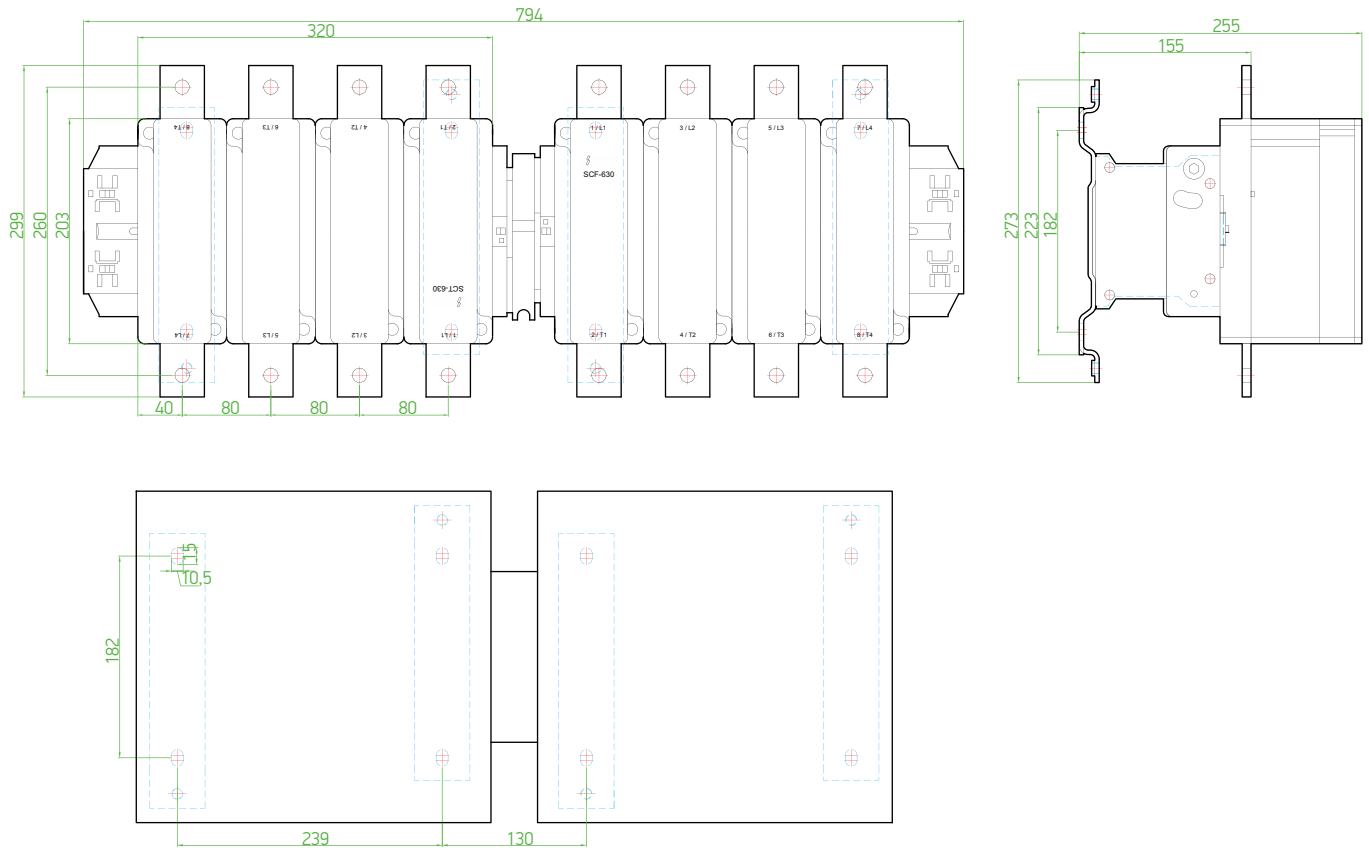

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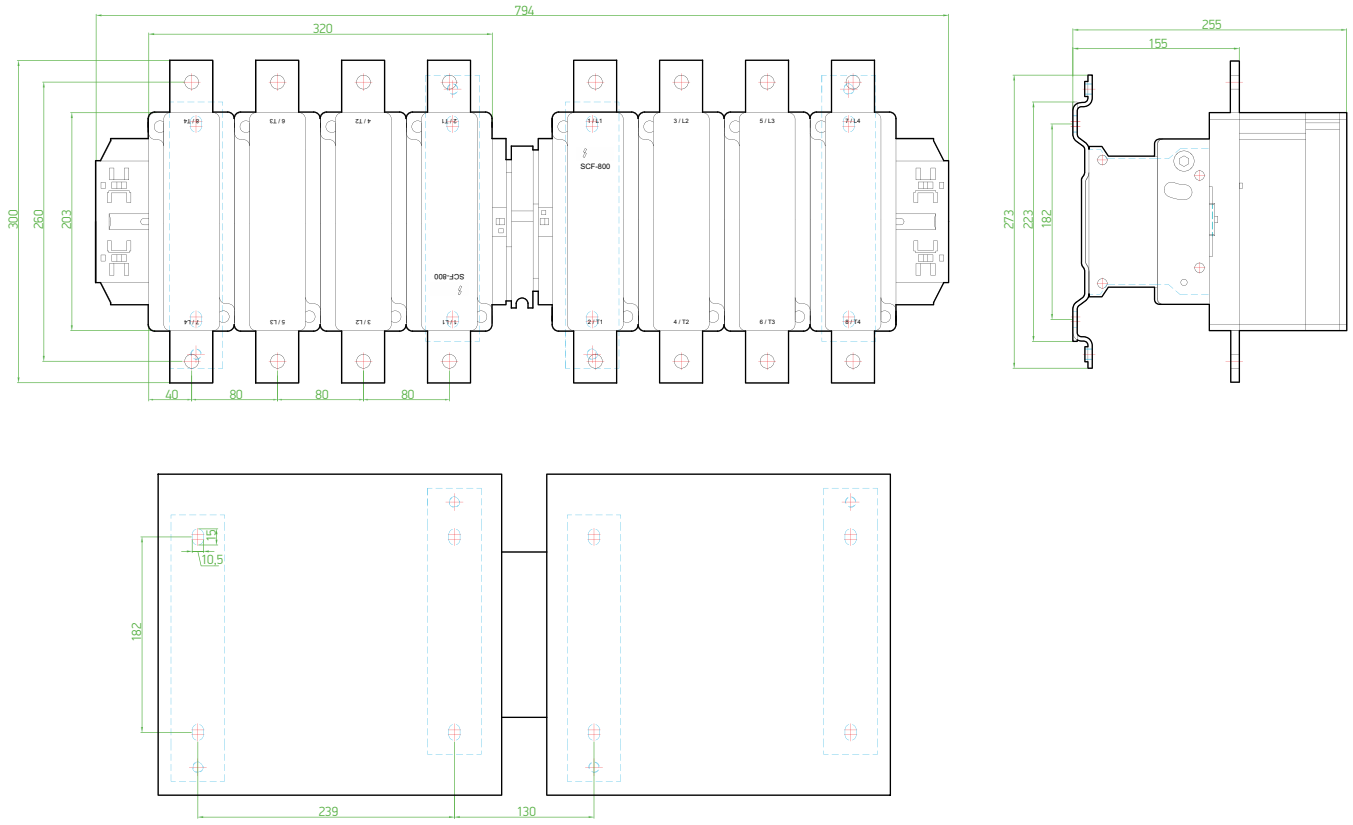

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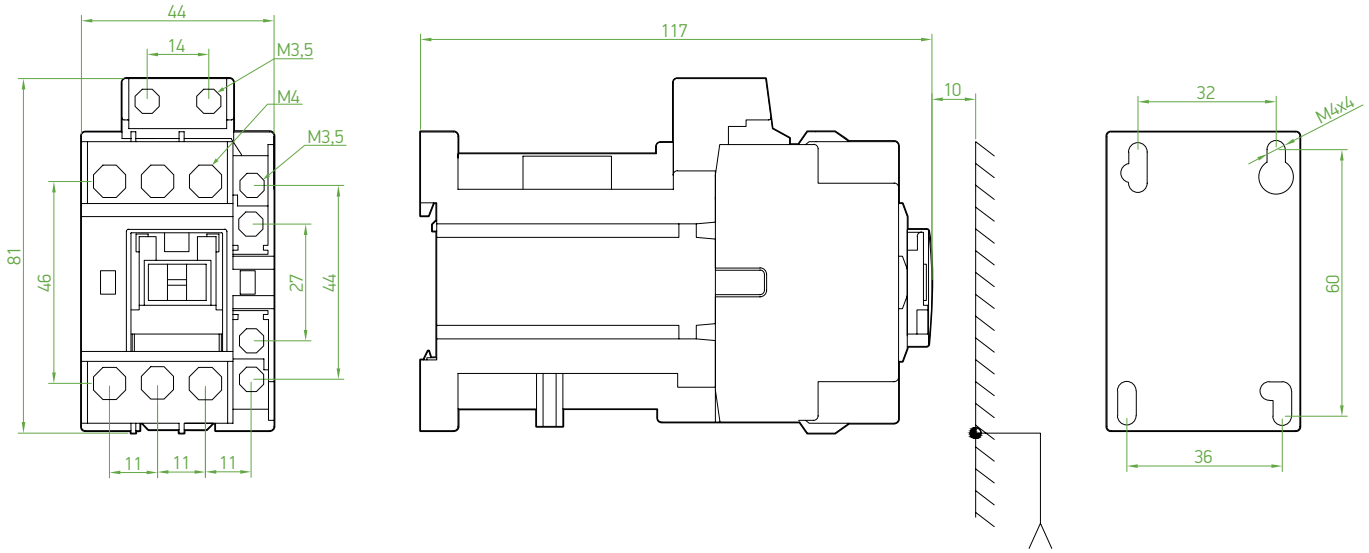

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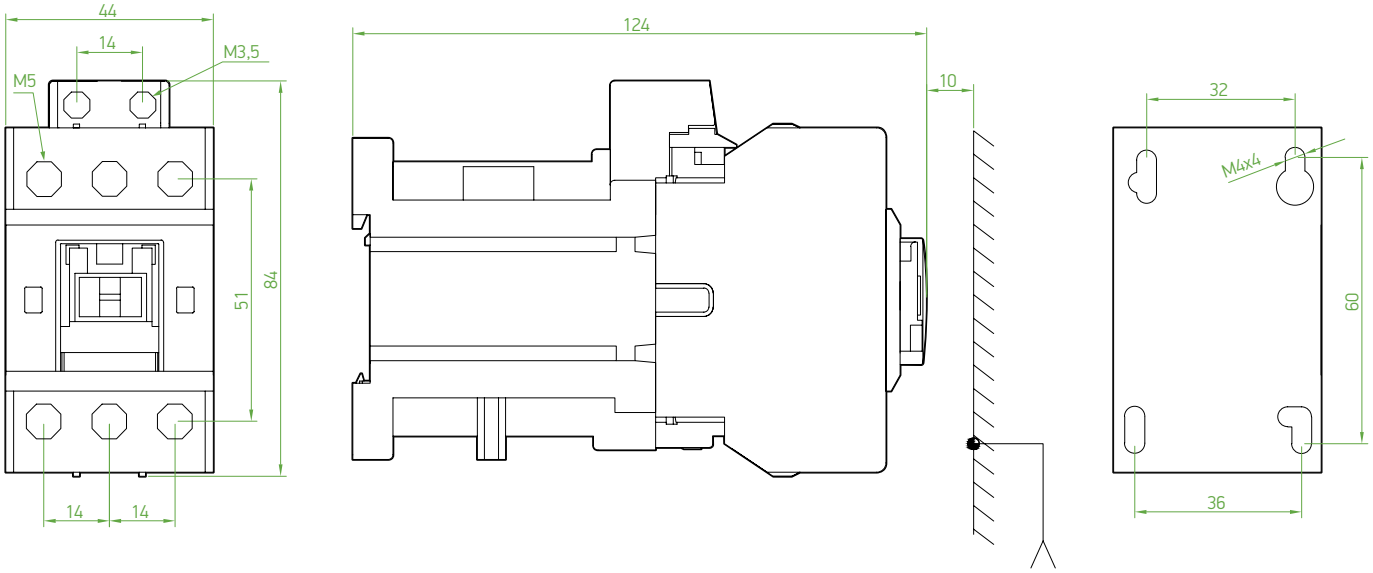
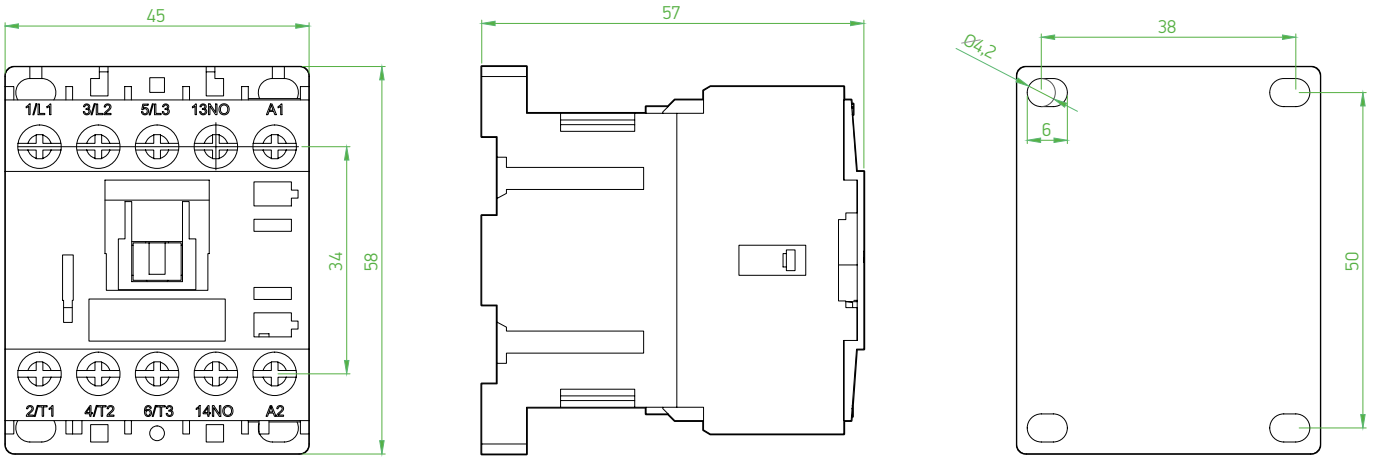
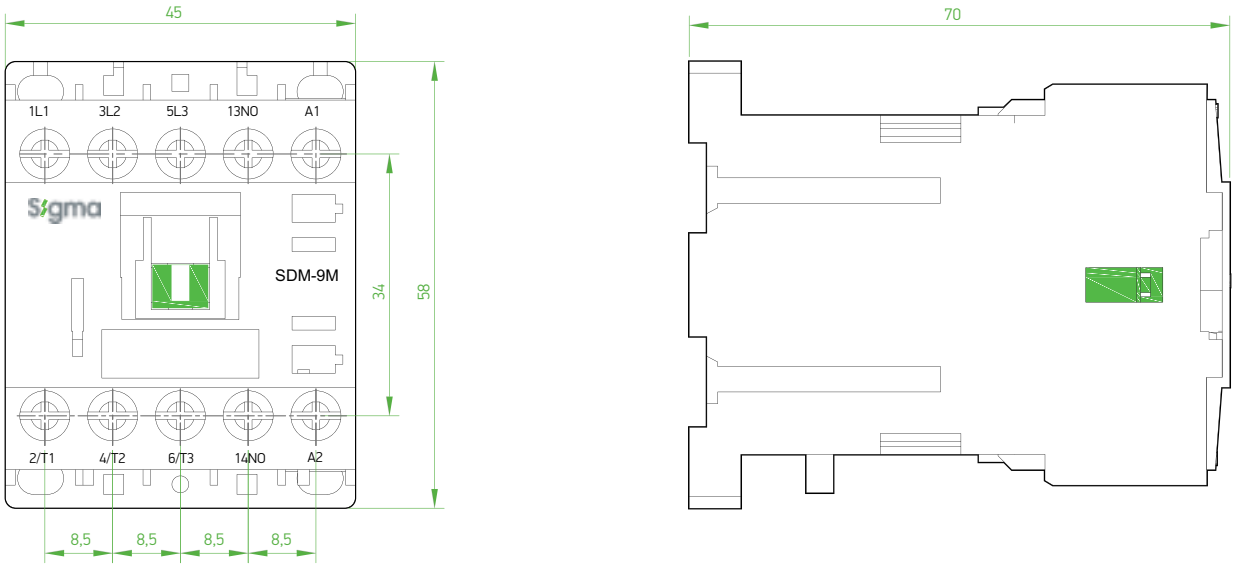


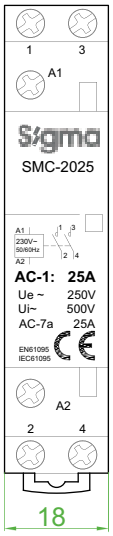
SCM 16M

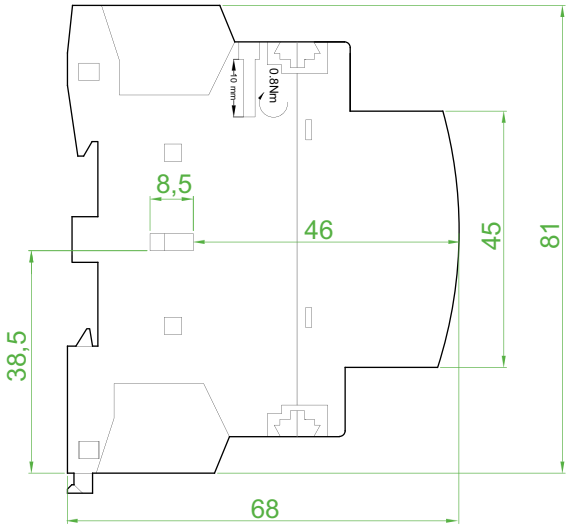


SDM 16M



SMC-2025





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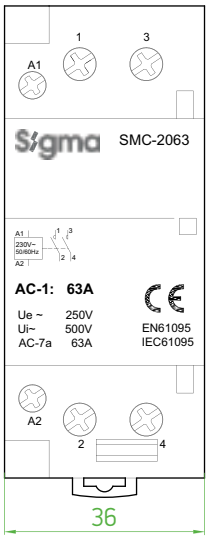

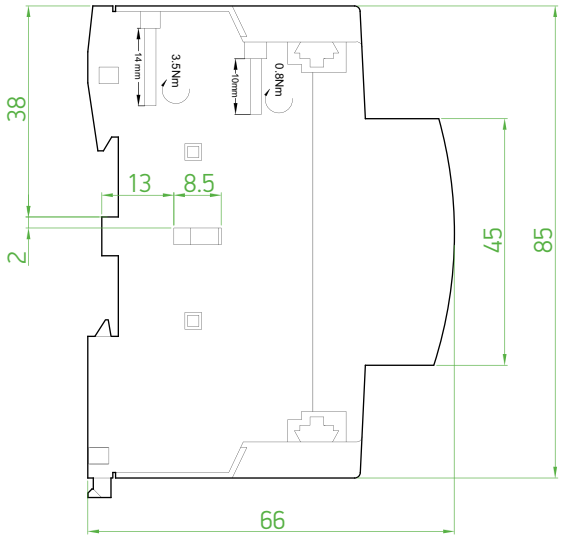

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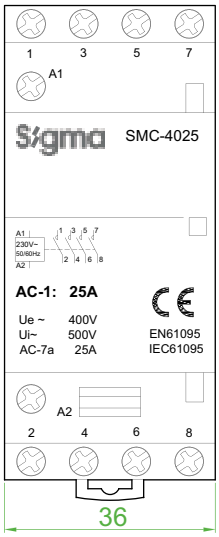
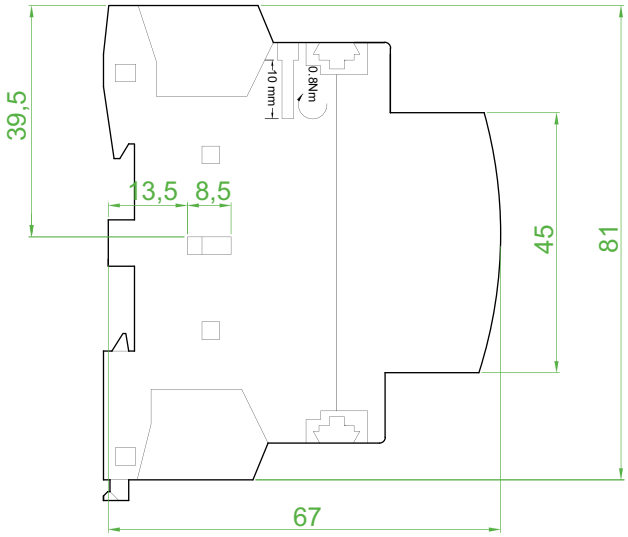
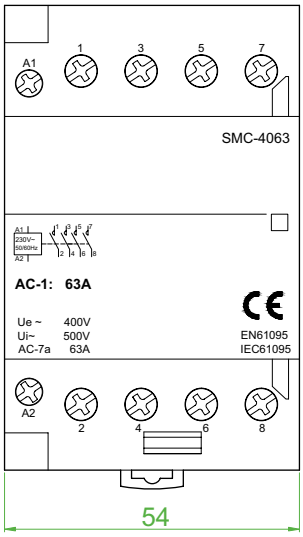
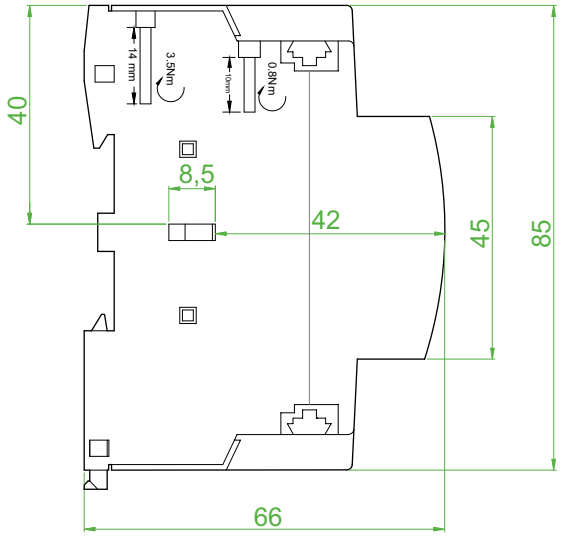


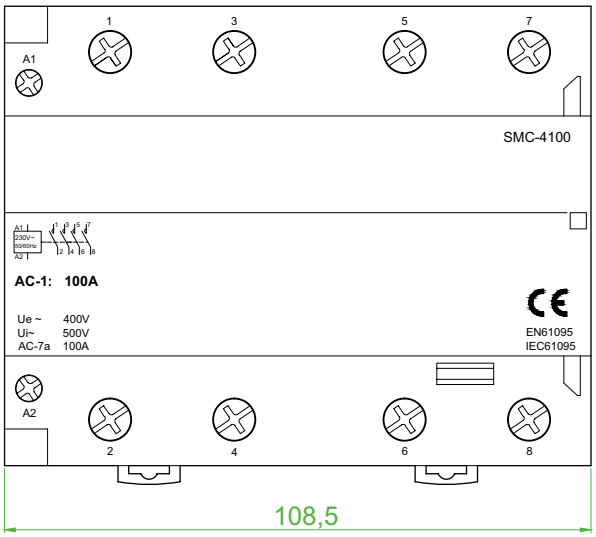


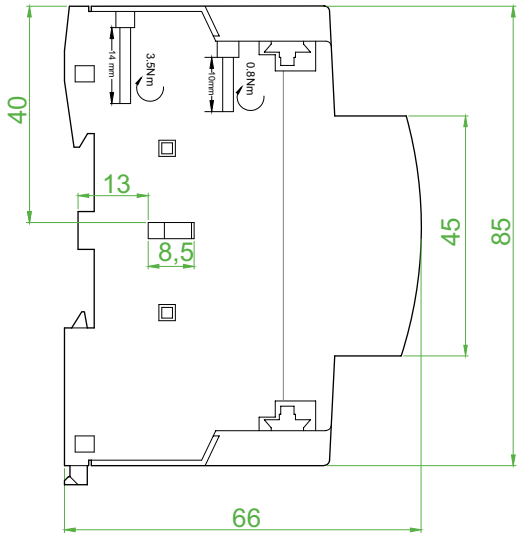
SMC-4063



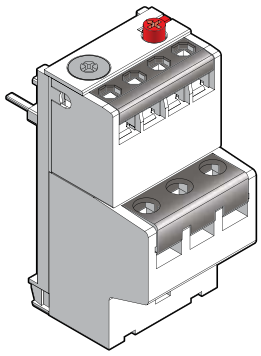


SMC-4100



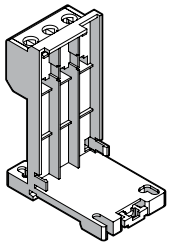


Thermal Overload Relays



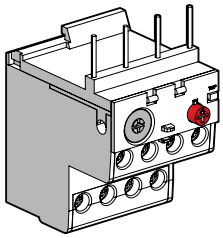
Type Code	Rated Current In (A)	Thermal Setting (A)	Type of Contactors	Min. Order Quantity	Pcs in a Box	Order Code
STRP-22	0.16	0.1-0.16	SCG-9...SCG-25	1	54	**STRP22-016**
	0.25	0.16-0.25	SCG-9...SCG-25	1	54	**STRP22-025**
	0.40	0.25-0.40	SCG-9...SCG-25	1	54	**STRP22-040**
	0.63	0.40-0.63	SCG-9...SCG-25	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-9...SCG-25	1	54	**STRP22-10**
	13	9-13	SCG-9...SCG-25	1	54	**STRP22-13**
	18	12-18	SCG-9...SCG-25	1	54	**STRP22-18**
	22	16-22	SCG-9...SCG-25	1	54	**STRP22-22**
STRP-40	26	18-26	SCG-32, SCG-40	1	36	**STRP40-26**
	36	24-36	SCG-32, SCG-40	1	36	**STRP40-36**
	40	28-40	SCG-32, SCG-40	1	36	**STRP40-40**
STRP-85	50	34-50	SCG-50...SCG-85	1	24	**STRP85-50**
	65	45-65	SCG-50...SCG-85	1	24	**STRP85-65**
	75	54-75	SCG-50...SCG-85	1	24	**STRP85-75**
	85	63-85	SCG-50...SCG-85	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-251	1	2	**STRP220-240**

DIN RAIL Mounting Part for Thermal Overload Relays



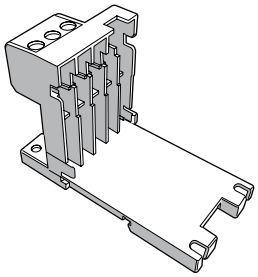
Type Code	Compatible with	Order Code
SDR-22	STRP-22	**SDR-22**
SDR-40	STRP-40	**SDR-40**
SDR-85	STRP-85	**SDR-85**

Thermal Overload Relays for Mini Contactors



Type Code	Rated Current In (A)	Thermal Setting (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**

DIN RAIL Mounting Part for Mini-Thermal Overload Relay



Type Code	Compatible Mini Thermal Relay	Order Code
SDR-16	STRM-16	**SDR-16**

Corresponding Sigma Contactors with other brands (AC-3 Class)

3 Phase Motor (380 V)		Sigma Elektrik	Federal Elektrik	Siemens	Telemecanique	ABB	Legrand	LG	General Electric	K. Moeller
kW	Hp									
4	5	SCM-9/SCG-9	FC-09D	3TF-40	LC1-D910	A9	CTX1 9A	GMC-9	CL00	DILM9
5.5	7.5	SCG-12	FC-12D	3TF-41	LC1-DI210	A12	CTX1 12A	GMC-12	CL01	DILM12
7.5	10	SCG-18	FC-18D	3TF-42	LC1-D1810	A16	CTX1 16A	GMC-18	CL02	DILM15
11	15	SCG-25	FC-25D	3TF-43	LC1-D2510	A26	CTX1 25A	GMC-22	CL025	DILM25
15	20	SCG-32	FC-32D	3TF-44	LC1-D3210	A30	CTX1 32A	GMC-32	CL04	DILM32
18.5	25	SCG-40	FC-40D	3TF-45	LC1-D4011	A40	CTX1 40A	GMC-40	CL45	DILM40
22	30	SCG-50	FC-50D	3TF-46	LC1-D5011	A50	CTX1 50A	GMC-50	CL06	DILM50
30	40	SCG-65	FC-65D	3TF-47	LC1-D6511	A63	CTX1 65A	GMC-65	CL07	DILM65
37	50	SCG-80	FC-80D	3TF-48	LC1-D8011	A75	CTX1 80A	GMC-75	CL08	DILM80
45	60	SCG/95	FC-95D	3TF-49	LC1-D9511	A95	CTX1 95A	GMC-85	CL09	DILM95
55	80	SCM-100	FC-115D	3TF-50	LC1-F115	A110	CTX1 110A	GMC-100	CL10	DILM115
75	100	SCM-150	FC-150D	3TF-51	LC1-F150	EH145	CTX2 150A	GMC-150	CK75	DILM150

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<100 A Cosθ=0.35 for Ie>100 A	Compressors, pomps, fans, valves, elevators, conveyors, air conditioner.	6xIe	8xIe
AC-4	Driving Squirrel Cage asynchronous motors, reversing operation	Cosθ=0.45 for Ie<100 A Cosθ=0.35 for Ie>100 A	Printing press machines, wire drawing machines, stepping operation looms	6xIe	8xIe

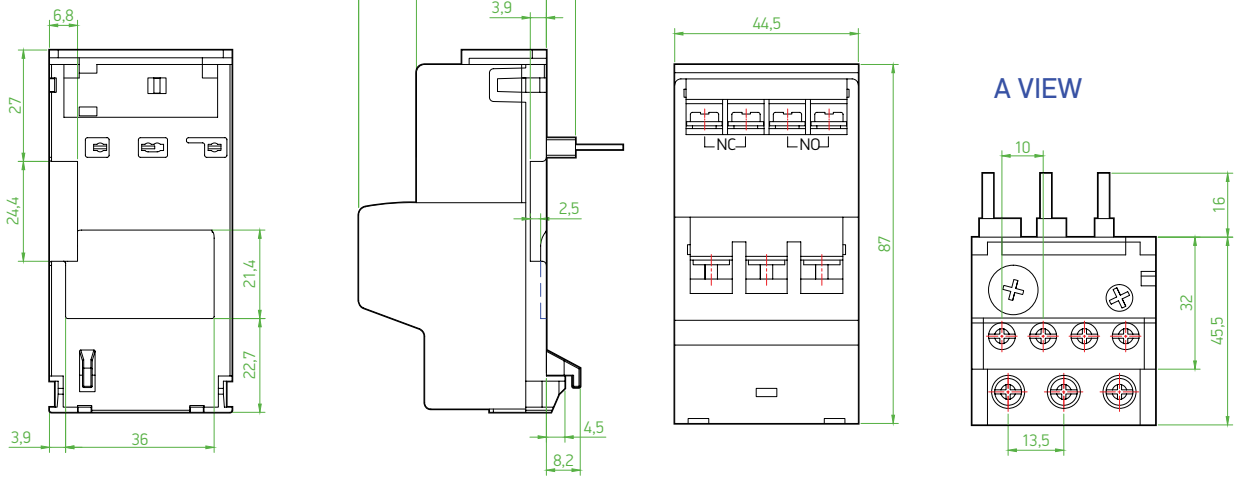
Contactor Selection According to Utilization Categories

Type Code	Rated Power at 400-415 V AC-3 (kW)	Rated Current AC-3 (A) θ≤55°C	Rated Current AC-1 (A) θ≤40°C	Rated Current AC-1 (A) θ≤55°C	Rated Current AC-1 (A) (3 phases serie)	Rated Current AC-5a (A)	Mechanical Life (ope.)	Electrical Life (ope) AC-3 Ue≤440 V
SCG-9	4	9	25	21	45	9	20.000.000	2.000.000
SCG-12	5,5	12	25	21	45	12	20.000.000	2.000.000
SCG-18	7,5	18	40	34	75	15	20.000.000	2.000.000
SCG-25	11	22	40	34	75	18	20.000.000	2.000.000
SCG-32	15	32	50	42	90	25	20.000.000	2.000.000
SCG-40	18,5	40	60	50	100	28	20.000.000	1.500.000
SCG-50	22	50	80	70	150	38	15.000.000	1.500.000
SCG-65	30	65	100	85	190	43	15.000.000	1.500.000
SCG-80	37	75	110	95	210	48	15.000.000	1.000.000
SCG-95	45	85	135	115	250	60	15.000.000	1.000.000
SCM-100	55	100	160	135	300	70	10.000.000	500.000
SCM-125	60	120	160	135	300	90	10.000.000	500.000
SCM-150	75	150	210	180	400	100	10.000.000	500.000
SCM-180	90	180	230	230	500		5.000.000	500.000
SCM-250	132	250	260	260	550		5.000.000	500.000
SCM-330	200	330	400	400	900		5.000.000	500.000
SCM-400	250	400	500	500	1100		3.000.000	300.000
SCM-630	400	630	1000	1000	2200		3.000.000	300.000

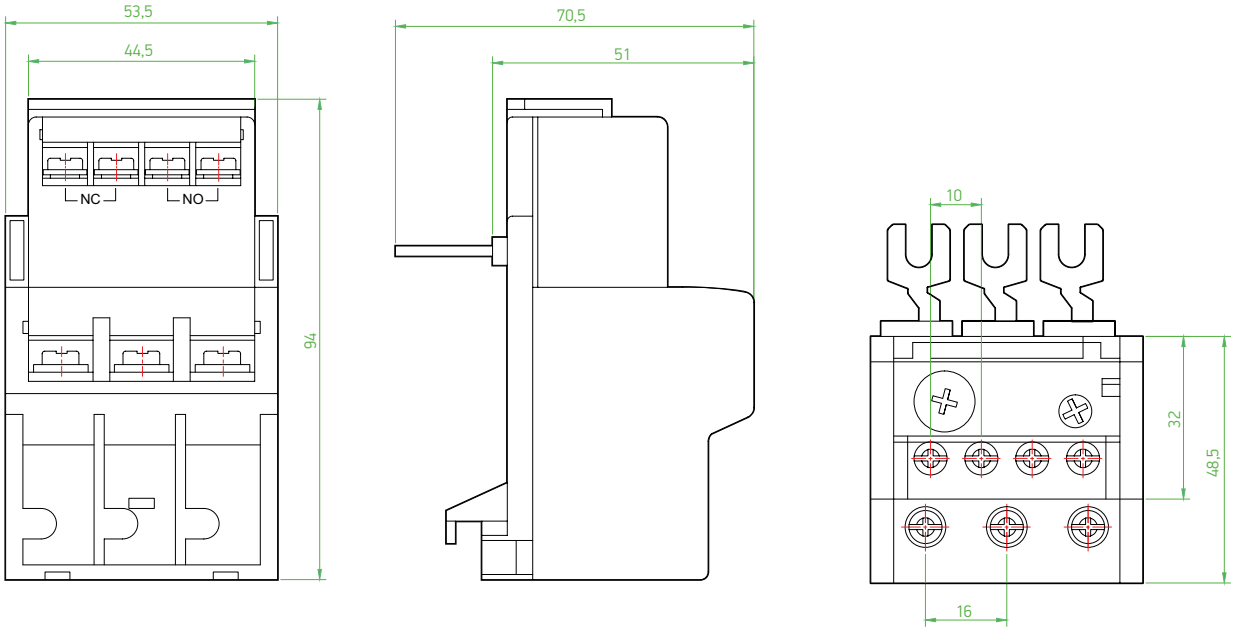
Utilization Categories According to IEC/EN 60947-4-1

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

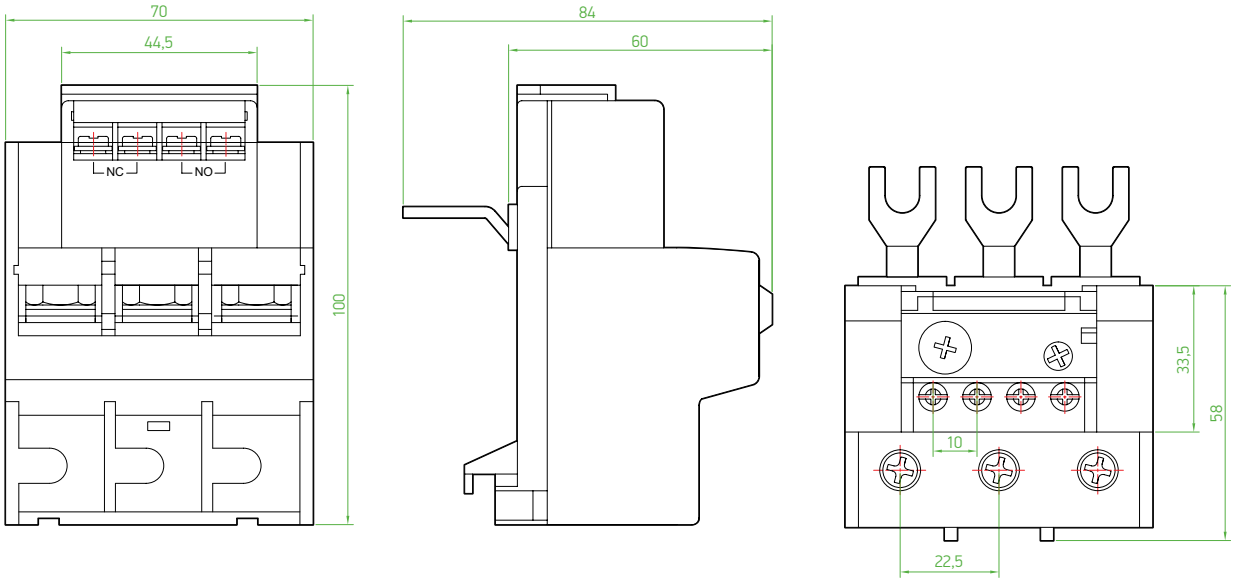
STRP 22



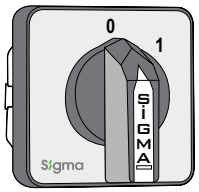
STRP 40



STRP 85

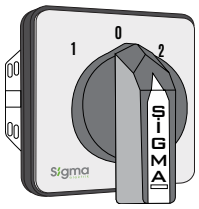


0 -1 On - Off Cam Switches

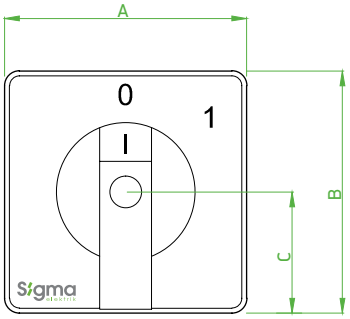


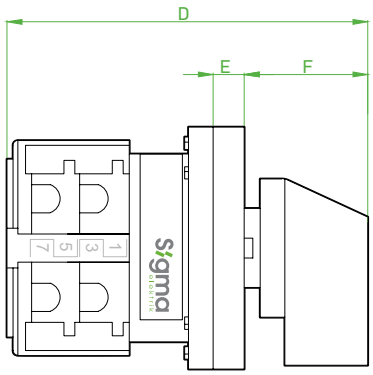
Type Code	No of Poles	Continuous Operating Current (Ith) A	Order Code
SPA1	1	10	SPA1-10
	1	16	SPA1-16
	1	20	SPA1-20
	1	25	SPA1-25
	1	32	SPA1-32
	1	63	SPA1-63
SPA3	3	10	SPA3-10
	3	16	SPA3-16
	3	20	SPA3-20
	3	25	SPA3-25
	3	32	SPA3-32
	3	63	SPA3-63

Change Over Switches (3 phase)



Type Code	No of Poles	Continuous Operating Current (Ith) A	Order Code
SPN1	1	16	SPN1-16
	1	25	SPN1-25
	1	32	SPN1-32
	1	63	SPN1-63
SPN3	3	16	SPN3-16
	3	25	SPN3-25
	3	32	SPN3-32
	3	63	SPN3-63

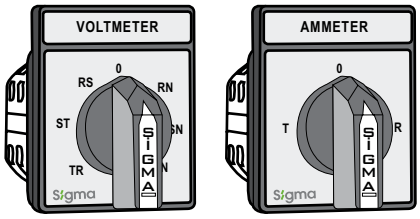




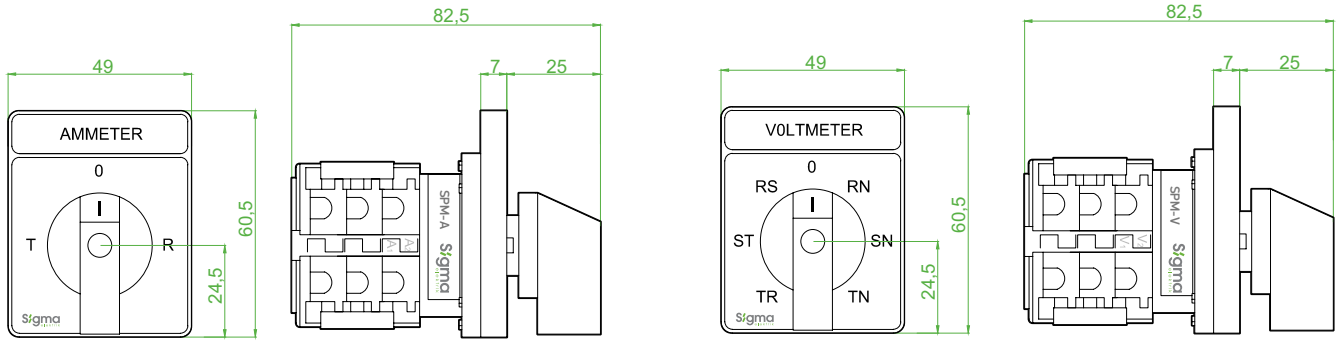
	A	B	C	D	E	F
SPA1-10 / 16 / 20	49	49	24,5	63	6,3	25
SPA1-25	49	49	24,5	66	6,3	25
SPA1-32	65	65	32,5	81	8	30
SPA1-63	65	65	32,5	90	8	30
SPN1-16	49	49	24,5	63	6,3	25
SPN1-25	49	49	24,5	66	6,3	25
SPN1-32	65	65	32,5	81	8	30
SPN1-63	65	65	32,5	90	8	30

	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
SPN3-40	65	65	32,5	107	8	30

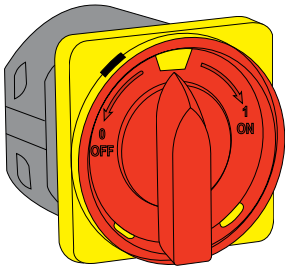
Instrument Selector Switches



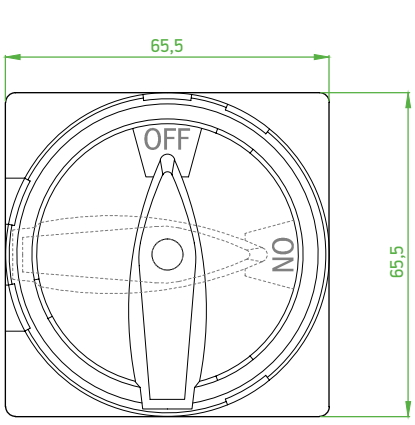
Type Code	Stages	Continuous Operating Current (Ith) A	Order Code
SPM-A	4 Stages	20	**SPM-A**
SPM-V	7 Stages	20	**SPM-V**

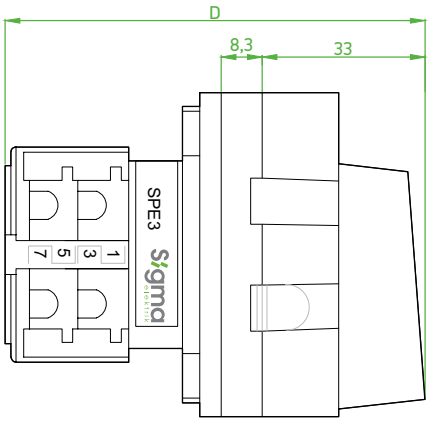


Locking Safety Switches (Red - Yellow)



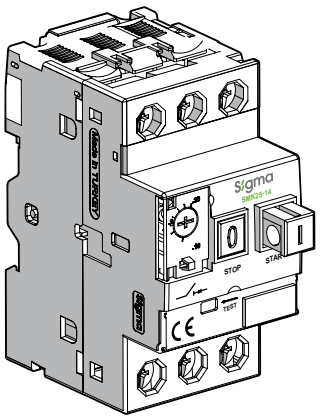
Type Code	No of Poles	Continuous Operating Current (Ith) A	Order Code
SPE3	3	20	**SPE3-16**
	3	32	**SPE3-25**
	3	63	**SPE3-32**





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

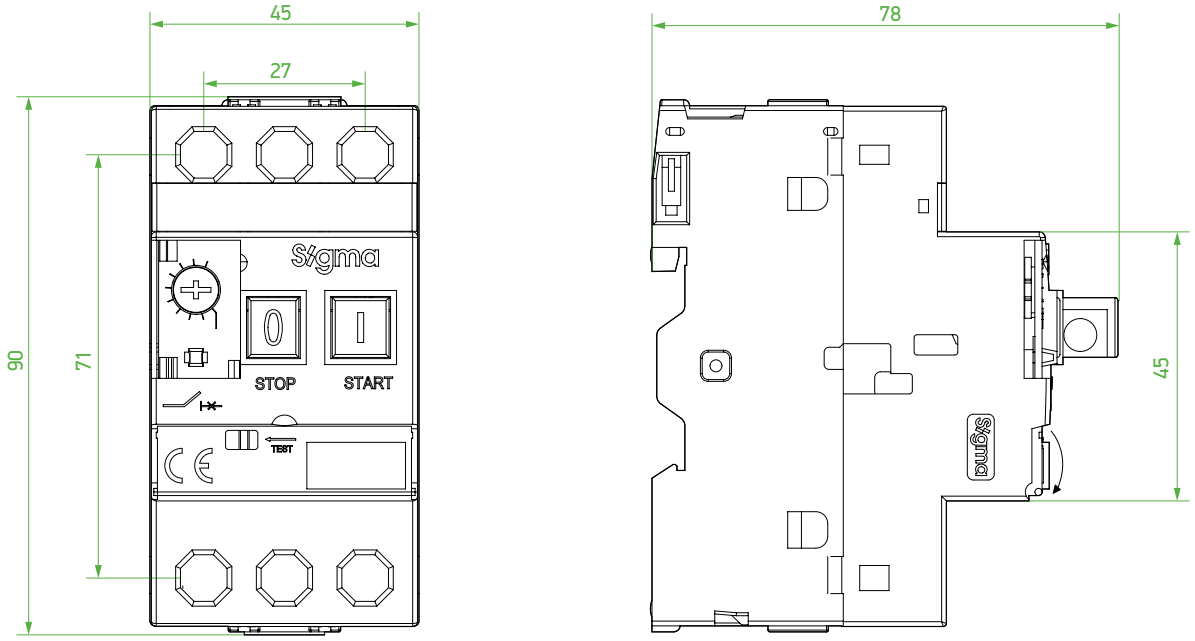
Motor Protection Switches



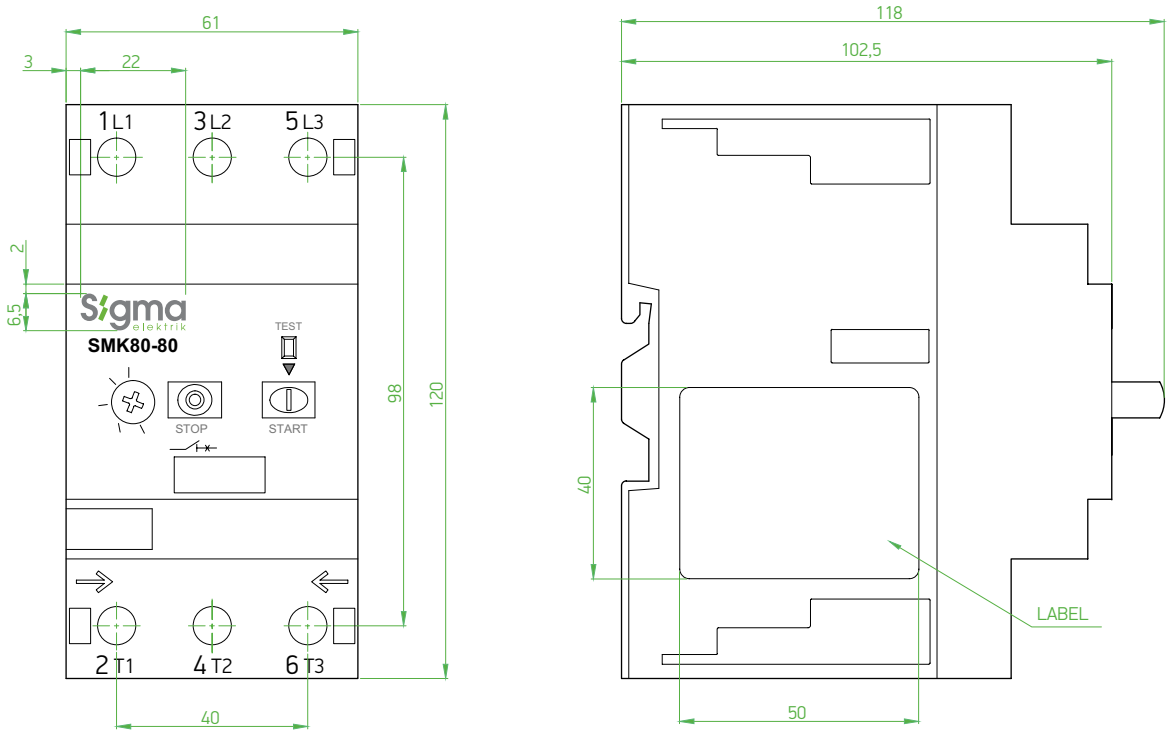
Type		SMK-25	SMK-80
No of poles		3	3
Rated insulation voltage	Ui (V)	690	690
Rated impact strength voltage	Uimp(kV)	6	6
Electrical life	Op.	100.000	80.000
Mechanical life	Op.	100.000	100.000
Compatibility		AC-3	AC-3
Rated operating voltage	Ue (V)	690	690
Rated operating frequency	Hz	50/60	50/60
Utilization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

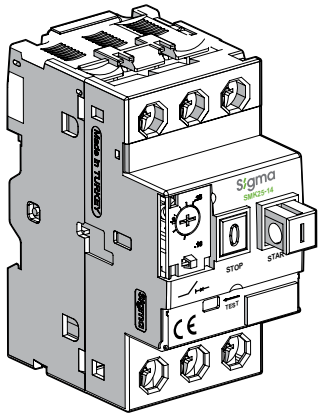
Dimensions

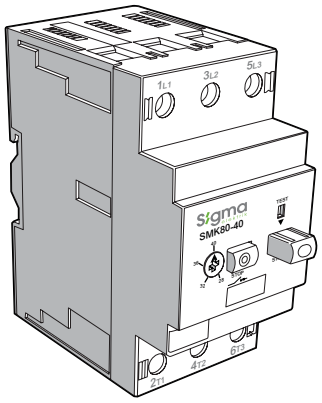
SMK-25



SMK-80

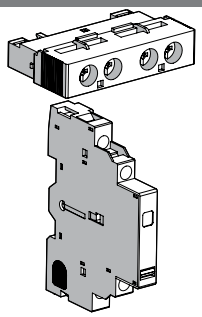




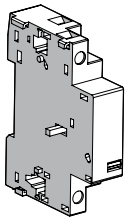


Type Code	Rated Power at 400V AC3 (kW)	Thermal Adjusting Range (A)	Rated Short Circuit Breaking Capacity at 400V Icu (kA)	Min. Order Quantity	Pcs in a Box	Order Code
SMK-25	0,02	0.1-0.16	100	1	48	**SMK25-0.16**
	0,06	0.16-0.25	100	1	48	**SMK25-0.25**
	0,09	0.25-0.4	100	1	48	**SMK25-0.4**
	0,12	0.4-0.63	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	15	1	48	**SMK25-32**
SMK-80	18,5	25-40	15	1	24	**SMK80-40**
	22	36-50	15	1	24	**SMK80-50**
	30	40-63	15	1	24	**SMK80-63**
	40	56-80	15	1	24	**SMK80-80**

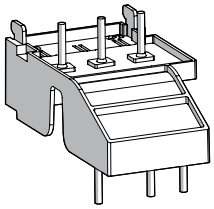
Accessories for Motor Protection Switches



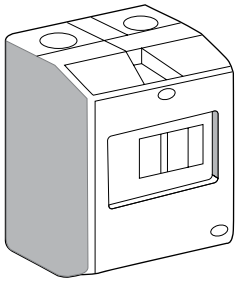
Type Code	Accessories	Order Code
SMK25-F11	Auxiliary Contact 1NO+1NC (Front Mounting)	**SMK25-F11**
SMK25-F20	Auxiliary Contact 2NO (Front Mounting)	**SMK25-F20**
SMK25-L20	Auxiliary Contact 2NO (Front Mounting)	**SMK25-L11**
SMK25-L11	Auxiliary Contact 1NO+1NC (Side Mounting)	**SMK25-L20**



Type Code	Accessories	Order Code
SMK25-DG	Under Voltage Release 380 V	**SMK25-DG**
SMK25-AB	Shunt Trip Release 230 V	**SMK25-AB**



Type Code	Accessories	Order Code
SMK25-A	Combination Block for Contactor (SCM9-40)	**SMK25-A**



Type Code	Accessories	Order Code
SMK25-K	Widthclosure for Motor Protection Switch	**SMK25-K**

Motor Starters with Widthclosure (DOL)

Type Code	Rated Motor Power (kW) 380 V	Setting Range (A)	Coil Voltage (V) AC	Pcs in a Box	Order Code
SMS009230	0.37	1-1.6	230	1	**SMS090037**
	0.75	1.6-2.5	230	1	**SMS090075**
	1.5	2.5-4	230	1	**SMS090115**
	2.2	4-6	230	1	**SMS090220**
	3	5-8	230	1	**SMS090300**
	4	7-10	230	1	**SMS090400**
SMS012230	5.5	9-13	230	1	**SMS0120550**
SMS018230	7.5	12-18	230	1	**SMS0180750**
SMS022230	11	16-22	230	1	**SMS0221110**
SMS032230	15	24-36	230	1	**SMS0321150**
SMS040230	18.5	28-40	230	1	**SMS0401185**
SMS050230	22	34-50	230	1	**SMS0501220**
SMS065230	30	45-65	230	1	**SMS0651300**
SMS075230	37	54-75	230	1	**SMS0751370**
SMS085230	45	63-85	230	1	**SMS0851450**

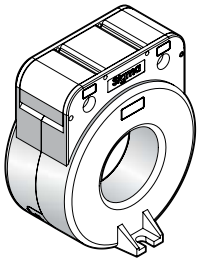
Technical Specifications

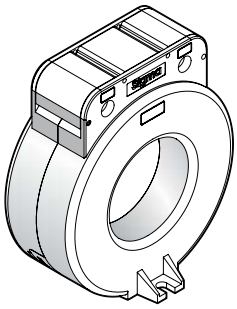
Standard	IEC 60044-1/ 61869-2
Rated operational voltage (Un)	720V
Rated frequency	50/60Hz (on demand 400 Hz)
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Operating humidity	up to 95% relative humidity
Rated thermal continuous current	1.2xIn
Rated short time thermal current (Ith)	60xIn / 1 sec. - 100xIn / 1 sec.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sec.
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 5 A

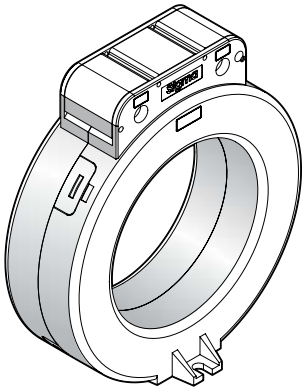
Main Dimensions

Type	Cable Diameter (mm)	Window (mm)	Busbar (mm)	Cable Section (mm²)	Outer Dimensions (mm) wxhxd
S25BN	____	____	____	2,5.....50	80x100x40
S20	20	21x11	20x10	16.....95	80x100x(40-60)
S20M	20	21x11	20x10	25.....95	62x80x(30-45)
S30	24	31x11	30x10	35.....300	80x100x(40-60)
S30M	24	31x11	30x10	50.....300	62x80x(30-45)
S40	31	41x11	40x10	185.....400	80x100x(40-60)
S50	38	51x11	50x10	____	80x100x(40-60)
S60	46	62x31	60x10	____	107x132x45
S60D	30	61x31	60x10	____	82x134x60
S60A	30	61x31	60x10	____	102x145x40
S80	67	81x31	2x(80x10)	____	145x165x55
S100	62	102x11	100x10	____	145x165x55
S100D	70	101x72	4x(100x10)	____	128x193x61
S125	126	131x11	130x10 3x(125x10)	____	190x220x55

Round Type Current Transformers

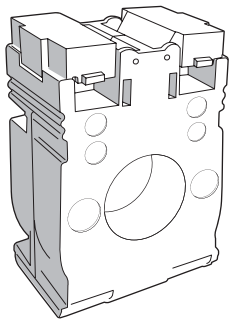






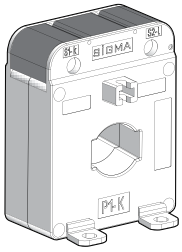
Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SMT30	50	1,5	3	30	3	51	SMT0300050301
	60	2,5	3	30	3	51	SMT0300060302
	75	2,5	3	30	3	51	SMT0300075302
	100	2,5	3	30	3	51	SMT0300100302
	125	2,5	3	30	3	51	SMT0300125302
	150	2,5	3	30	3	51	SMT0300150302
	200	5	1	30	3	51	SMT0300200105
	250	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	1	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

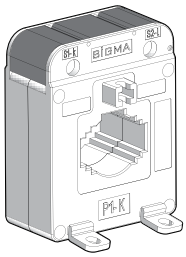
Micro Type Current Transformers



Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S20MC	60	1	1	20x10	3	51	S20MC00601000
	75	1	1	20x10	3	51	S20MC00751000
	80	1	1	20x10	3	51	S20MC00801000
	100	1.5	1	20x10	3	51	S20MC01001001
	125	1.5	1	20x10	3	51	S20MC01251001
	150	1.5	1	20x10	3	51	S20MC01501001
	200	2.5	1	20x10	3	51	S20MC02001002
	250	2.5	1	20x10	3	51	S20MC02501002
	300	3.75	1	20x10	3	51	S20MC03001003

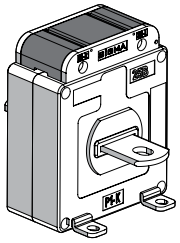
Mini Type Current Transformers (Assembly to 35mm Din Rail)

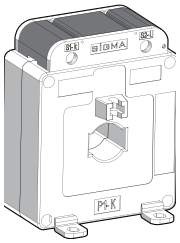


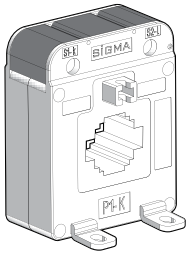


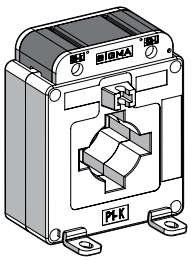
Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S20M	50	1,5	3	20x10	3	51	**SM2000503001**
	60	2,5	3	20x10	3	51	**SM2000503002**
	75	2,5	1	20x10	3	51	**SM2000751002**
	100	2,5	1	20x10	3	51	**SM2001001002**
	125	2,5	1	20x10	3	51	**SM2001251002**
	150	2,5	0,5	20x10	3	51	**SM2001500502**
	200	5	0,5	20x10	3	51	**SM2002000503**
	150	5	1	20x10	3	51	**SM2001501005**
	200	5	1	20x10	3	51	**SM2002001005**
S30ML	150	2,5	0,5	30x10	3	51	**SM3001500502**
	200	2,5	0,5	30x10	3	51	**SM3002000502**
	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**
S30M	150	5	1	30x10	3	51	**SM3001501005**
	200	5	1	30x10	3	51	**SM3002001005**
	250	5	1	30x10	3	51	**SM3002501005**
	300	5	1	30x10	3	51	**SM3003001005**
	400	5	1	30x10	3	51	**SM3004001005**
	500	5	1	30x10	3	51	**SM3005001005**
	600	5	1	30x10	3	51	**SM3006001005**

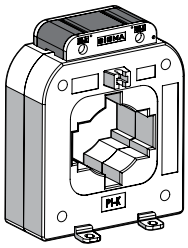
Current Transformers cl: 0.5

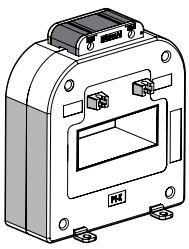




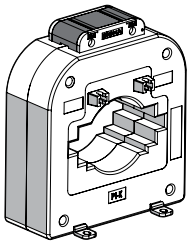


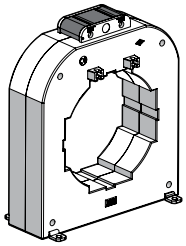


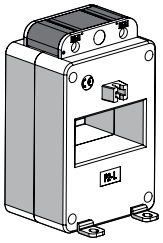


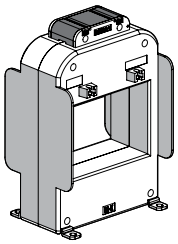


Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S25B	20	10	0,5	with bus bar	3	24	SS2500200510
	25	10	0,5	with bus bar	3	24	SS2500250510
	30	10	0,5	with bus bar	3	24	SS2500300510
	40	10	0,5	with bus bar	3	24	SS2500400510
	50	10	0,5	with bus bar	3	24	SS2500500510
	60	10	0,5	with bus bar	3	24	SS2500600510
	75	10	0,5	with bus bar	3	24	SS2500750510
	100	10	0,5	with bus bar	3	24	SS2501000510
	125	10	0,5	with bus bar	3	24	SS2501250510
	150	10	0,5	with bus bar	3	24	SS2501500510
S20	100	5	0,5	20x10	3	30	SS2001000505
	125	5	0,5	20x10	3	30	SS2001250505
	150	10	0,5	20x10	3	30	SS2001500510
S30	150	5	0,5	30x10	3	42	SS3001500505
	150	10	0,5	30x10	3	30	SS3001500510
	200	10	0,5	30x10	3	30	SS3002000510
	250	10	0,5	30x10	3	42	SS3002500510
	300	10	0,5	30x10	3	42	SS3003000510
	400	10	0,5	30x10	3	42	SS3004000510
S40	300	10	0,5	40x10	3	42	SS4003000510
	400	10	0,5	40x10	3	42	SS4004000510
	500	10	0,5	40x10	3	42	SS4005000510
	600	10	0,5	40x10	3	42	SS4006000510
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	60x10	3	36	SS6007500515
	800	15	0,5	60x10	3	36	SS6008000515
	1000	15	0,5	60x10	3	36	SS6001000515
S80	750	10	0,5	80x10	3	18	SS8007500510
	800	10	0,5	80x10	3	18	SS8008000510
	1000	15	0,5	80x10	3	18	SS8010000515
	1200	15	0,5	80x10	3	18	SS8012000515
	1250	15	0,5	80x10	3	18	SS8012500515
	1500	15	0,5	80x10	3	18	SS8015000515



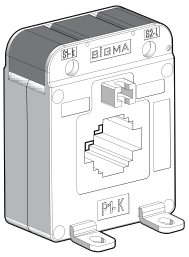






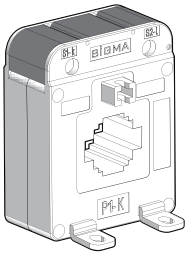
Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S100	1200	15	0,5	100x10	3	18	**SS1001200515**
	1250	15	0,5	100x10	3	18	**SS1001250515**
	1500	15	0,5	100x10	3	18	**SS1001500515**
	1600	15	0,5	100x10	3	18	**SS1001600515**
	2000	15	0,5	100x10	3	18	**SS1002000515**
	2000	30	0,5	100x10	3	18	**SS1002000530**
	2500	15	0,5	100x10	3	18	**SS1002500515**
	2500	30	0,5	100x10	3	18	**SS1002500530**
	3000	30	0,5	100x10	3	18	**SS1003000530**
S125	2000	15	0,5	3x (125x10)	3	12	**SS1252000515**
	2500	15	0,5	3x (125x10)	3	12	**SS1252500515**
	3000	30	0,5	3x (125x10)	3	12	**SS1253000530**
	4000	30	0,5	3x (125x10)	3	12	**SS1254000530**
	5000	30	0,5	3x (125x10)	3	12	**SS1255000530**
S60D (Narrow Type)	600	5	0,5	60x10	3	18	**SD6006000505**
	750	7,5	0,5	60x10	3	18	**SD6007500507**
	1000	10	0,5	60x10	3	18	**SD6010000510**
	1200	15	0,5	60x10	3	18	**SD6012000515**
	1250	15	0,5	60x10	3	18	**SD6012500515**
	1600	15	0,5	60x10	3	18	**SD6016000515**
S100D (Narrow Type)	600	5	0,5	4x(100x10)	3	12	**SD1006000505**
	800	7,5	0,5	4x(100x10)	3	12	**SD1008000507**
	1000	10	0,5	4x(100x10)	3	12	**SD1001000510**
	1200	15	0,5	4x(100x10)	3	12	**SD1001200515**
	1250	15	0,5	4x(100x10)	3	12	**SD1001250515**
	1600	15	0,5	4x(100x10)	3	12	**SD1001600515**
	2000	15	0,5	4x(100x10)	3	12	**SD1002000515**
	2500	15	0,5	4x(100x10)	3	12	**SD1002500515**
	3000	30	0,5	4x(100x10)	3	12	**SD1003000530**
	4000	30	0,5	4x(100x10)	3	12	**SD1004000530**

cl: 1



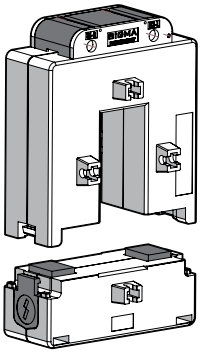
Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S30	100	5	1	30x10	3	42	SS3001001005
	150	5	1	30x10	3	42	SS3001501005
	200	5	1	30x10	3	42	SS3002001005
	250	5	1	30x10	3	42	SS3002501005
	300	5	1	30x10	3	42	SS3003001005
	400	5	1	30x10	3	42	SS3004001005
S40	400	5	1	40x10	3	42	SS4004001005
	500	5	1	40x10	3	42	SS4005001005
	600	5	1	40x10	3	42	SS4006001005

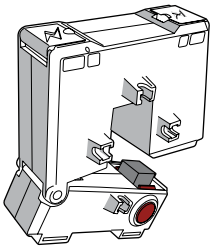
cl: 3



Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimensions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S30	50	2,5	3	30x10	3	42	SS300503002
	60	2,5	3	30x10	3	42	SS300603002
	75	2,5	3	30x10	3	42	SS300753002

Split-Core Type Current Transformers





Type Code	Primary Current (A)	Rated Power (VA)	Class (cl)	Bus Bar Dimen-sions (mm)	Min. Order Quantity	Pcs in a Box	Order Code
S30A	200	1.5	1	30x10	3	18	SA3002001001
	250	2.5	1	30x10	3	18	SA3002501002
	300	2.5	1	30x10	3	18	SA3003001002
	400	3.75	1	30x10	3	18	SA3004001003
S60A	400	3,75	1	60x30	3	18	SA6004001003
	500	5	1	60x30	3	18	SA6005000505
	600	5	0,5	60x30	3	18	SA6006000505
	800	7,5	0,5	60x30	3	18	SA6008000507
	1000	10	0,5	60x30	3	18	SA6010000510
S120A	1200	10	0.5	30x10	3	18	SA12012000510
	1600	10	0.5	30x10	3	18	SA12016000510
	2000	15	0.5	30x10	3	18	SA12020000515
	2500	15	0.5	30x10	3	18	SA12025000515
	3000	15	0.5	30x10	3	18	SA12030000515
	4000	15	0.5	30x10	3	18	SA12040000515

Main Dimensions

Type Code	Cable Diameter (mm)	Window (mm)	Bus Bar Dimensions (mm)	Cable Section (mm^2)	Primer Current (A)	Rated Power (VA)	Outer Dimensions WxHxD (mm)
S25B	____	____	____	____	20...150	2.5...30	80x100x40
S20	20	21x11	20x10	4...95	60...200	2.5.....15	80x100x(40-50-60)
S20M	20	21x11	20x10	4...95	75...200	1.....10	62x80x(30-45)
S30	24	31x11	30x10	4...150	100...600	1.....30	80x100x(40-50-60)
S30M	24	31x11	30x10	4...150	150...600	1.....15	62x80x(30-45)
S40	31	41x11	40x10	4...240	300...600	2.5.....30	80x100x(40-50-60)
S50	38	51x11	50x10	4...300	500...1000	2.5.....30	80x100x(40-50-60)
S60	46	62x31	60x10	4...300	500...1000	5.....30	107x132x45
S60D	____	60x72	60x10		600...1600	5.....15	82x134x60
S80	67	81x31	2x (80x10)	4...300	500...1500	5.....30	145x165x55
S100	____	102x11	100x10		500...2500	5.....30	145x165x55
S100D	____	101x72	4x (100x10)		600...5000	10.....30	128x193x61
S125	126	126x11	3x (125x10)	4...300	2000...5000	15.....60	190x220x55

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 0.5 VA)

$P_K = (Isn2x2L) / S \times 56$

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)			
	2.5 mm^2	4 mm^2	6 mm^2	10 mm^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 (P_A)

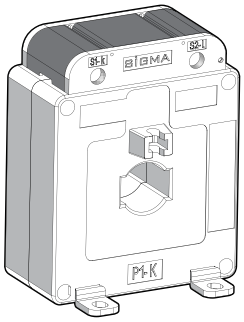
Device	Power (VA)
Ammeter	0,7 1,5
Wattmeter	0,2 5,0
CosØmeter	2,0 6,0
Counters (active and reactives)	0,4 1,0
Reactive power control relays	0,5 1,0
Over current relays	0,2 6,0
Reverse current relays	1,0 2,0
Secondary Thermal Relays	7,2 9,0

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.

S20-S20L Series Current Transformer



Product Identification

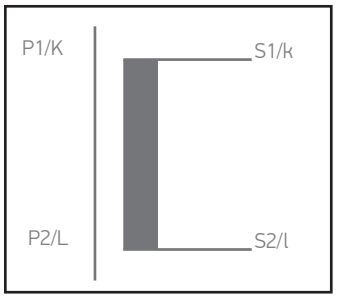
Compact type current transformers are suitable for primary current from 50A to 250A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn/1sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 15 VA
Rated primary current	From 50 A to 250 A
Rated secondary current	5 A

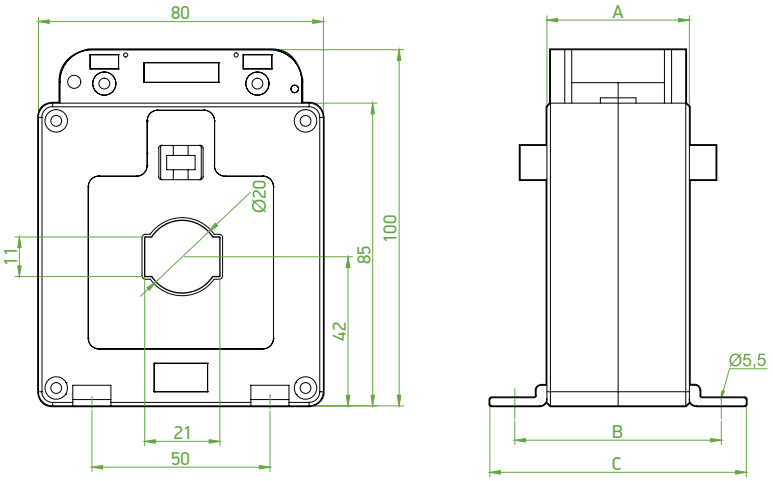
Note: Additional information is provided upon request.

Approvals

Feasibility Table

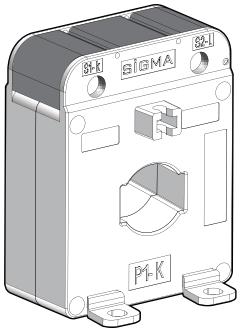
S20	Max. burden against class index (at 5A)				
Bus Bar (mm)	20x10				
Cable Ø (mm)	20				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip (A)	VA				
50	--	--	--	1,5	2,5
60	--	--	--	2,5	3,75
75	--	--	2,5	3,75	7,5
100	--	--	5	7,5	10
125	--	--	5	7,5	10
150	--	--	10	10	15
200	2,5	2,5	10	10	15
250	3,75	3,75	10	10	15

Dimensions



	A	B	C
S20	40	60	72
S20L	60	80	92

S20M-S20ML Series Current Transformer



Product Identification

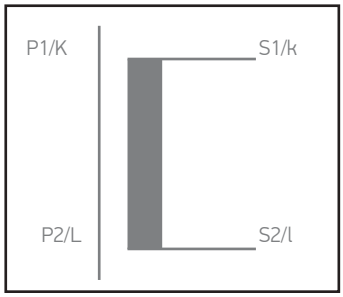
Compact type current transformers are suitable for primary current from 50A to 400A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 15 VA
Rated primary current	From 50 A to 400 A
Rated secondary current	5 A

Note: Additional information is provided upon request.

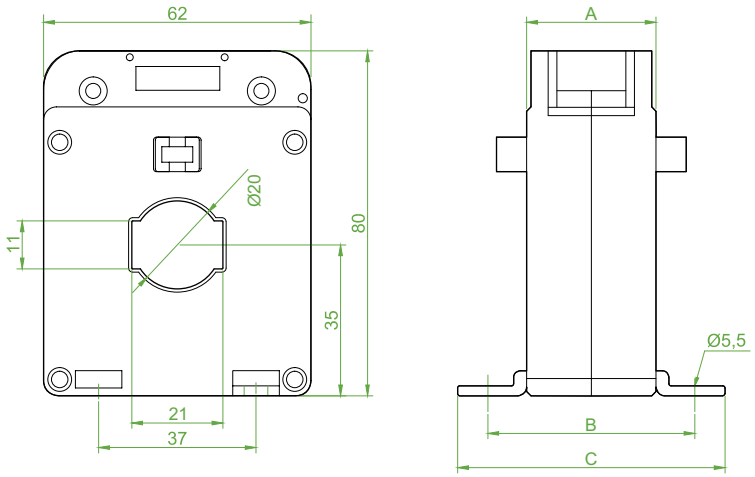
Approvals

CE OHSAS 18001 ISO 14001 ISO 9001:2008 RoHS 2002/95/EC

Feasibility Table

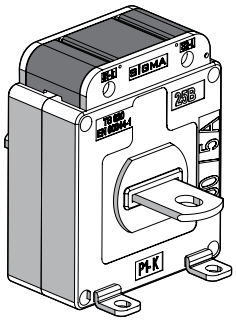
S20M	Max. burden against class index (at 5A)				
Bus Bar (mm)	20x10				
Cable Ø (mm)	20				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
50	---	---	---	---	1,25
60	---	---	---	---	2,5
75	---	---		2,5	2,5
100	---	---	2,5	2,5	5
125	---	---	2,5	5	5
150	---	---	2,5	5	5
200	---	---	5	5	7,5
250	---	---	10	10	10
300	---	---	10	10	15
400	---	---	10	10	15

Dimensions



	A	B	C
S20M	30	50	62
S20ML	45	65	77

S25B Series Bar Type Current Transformer



Product Identification

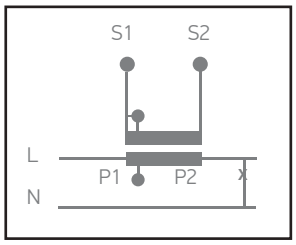
Compact type current transformers are suitable for primary current from 20A to 150A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 15 VA
Rated primary current	From 20 A to 150 A
Rated secondary current	5 A

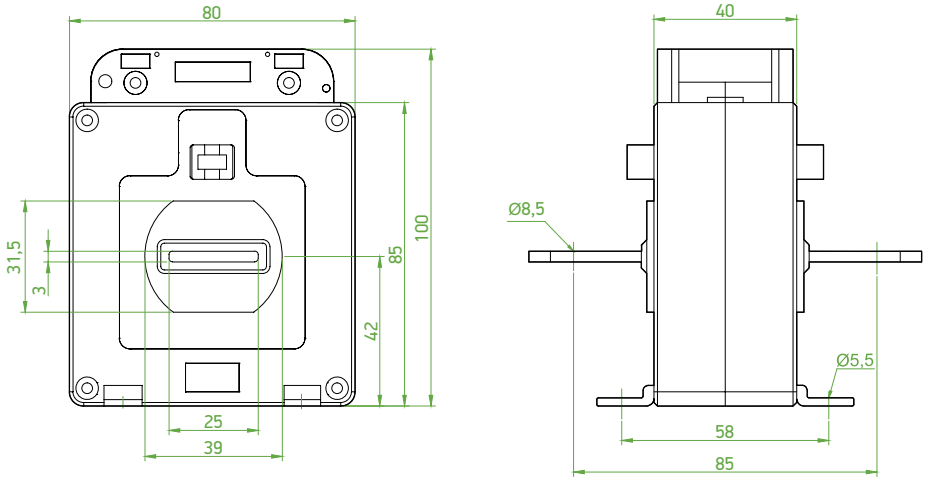
Note: Additional information is provided upon request.

Approvals

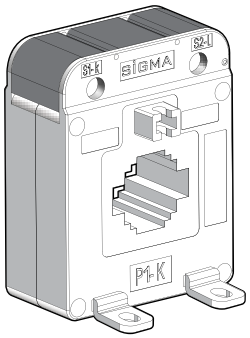
Feasibility Table

S25B	Max. burden against class index (at 5A)				
Bus Bar (mm)	-				
Cable Ø (mm)	-				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
20	3,75	3,75	10	15	20
25	3,75	3,75	10	15	20
30	3,75	3,75	10	15	20
40	3,75	3,75	10	15	20
50	3,75	3,75	10	15	20
60	3,75	3,75	10	15	20
75	3,75	3,75	10	15	20
100	3,75	3,75	10	15	20
125	3,75	3,75	10	15	20
150	3,75	3,75	10	15	20

Dimensions



S30-S30L Series Current Transformer



Product Identification

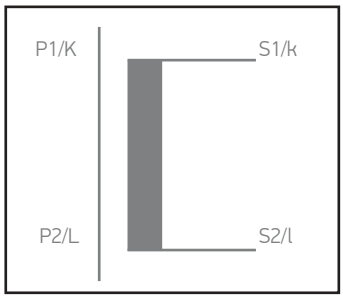
Compact type current transformers are suitable for primary current from 40A to 600A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 20 VA
Rated primary current	From 40 A to 600 A
Rated secondary current	5 A

Note: Additional information is provided upon request.

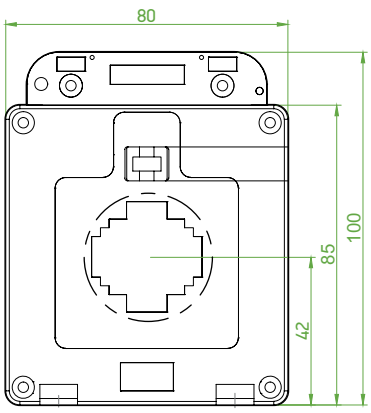
Approvals

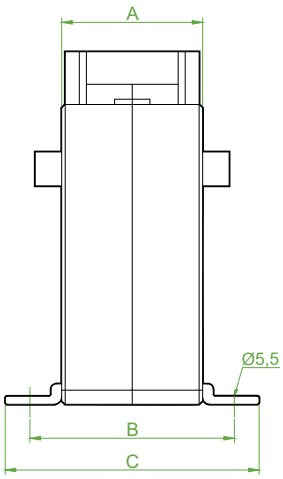
CE TSE OHSAS 18001 ISO 14001 ISO 9001:2008 RoHS 2002/95/EC ASTA

Feasibility Table

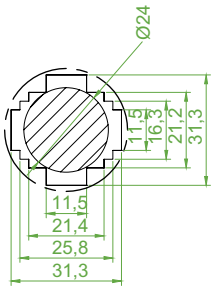
S30-S30L	Max. burden against class index (at 5A)				
Bus Bar (mm)	20x10/30x10				
Cable Ø (mm)	24				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
40	---	---	---	---	1,5
50	---	---	---	---	2,5
60	---	---	---	2,5	3,75
75	---	---	1,5	3,75	7,5
100	---	---	5	7,5	10
125	---	---	5	7,5	10
150	---	---	10	10	15
200	2,5	2,5	10	10	15
250	3,75	3,75	10	10	15
300	5	5	10	10	15
400	5	5	10	10	15
500	7,5	7,5	10	15	20
600	10	10	10	15	20

Dimensions

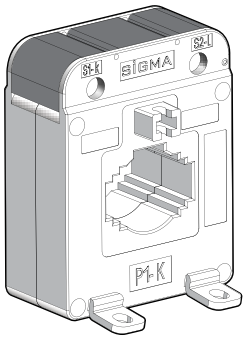




	A	B	C
S30	40	60	72
S30L	60	80	92



S30M-S30ML Series Current Transformer



Product Identification

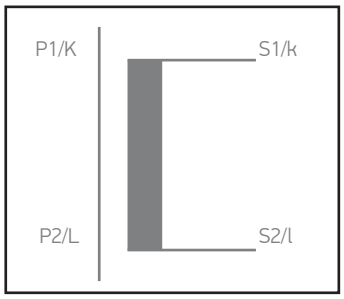
Compact type current transformers are suitable for primary current from 60A to 600A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 10 VA
Rated primary current	From 600 A to 600 A
Rated secondary current	5 A

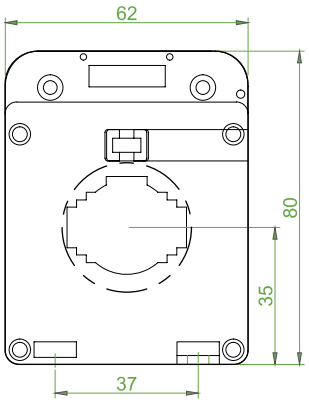
Note: Additional information is provided upon request.

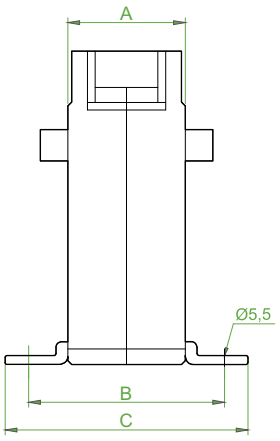
Approvals

Feasibility Table

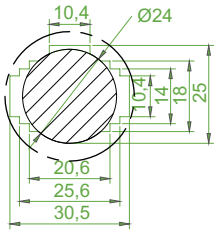
S30M-S30ML	Max. burden against class index (at 5A)				
Bus Bar (mm)	20x10/30x10				
Cable Ø (mm)	24				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
60	---	---	---	---	1,25
75	---	---		2,5	2,5
100	---	---	2,5	2,5	2,5
125	---	---	2,5	2,5	3,75
150	---	---	2,5	5	7,5
200	---	---	5	5	7,5
250	---	---	10	10	10
300	---	---	10	10	10
400	---	---	10	10	15
500	---	---	10	10	15
600	---	---	10	10	15

Dimensions

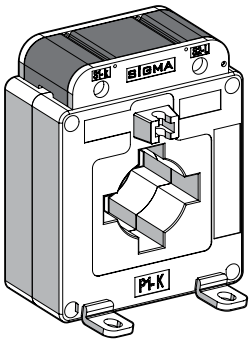




	A	B	C
S30M	30	50	62
S30ML	45	65	77



S40 Series Current Transformer



Product Identification

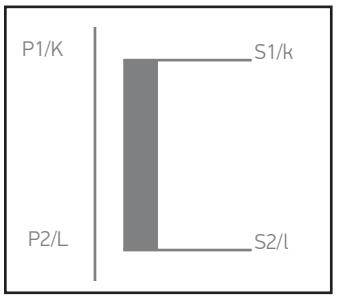
Compact type current transformers are suitable for primary current from 150A to 600A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 15 VA
Rated primary current	From 150 A to 600 A
Rated secondary current	5 A

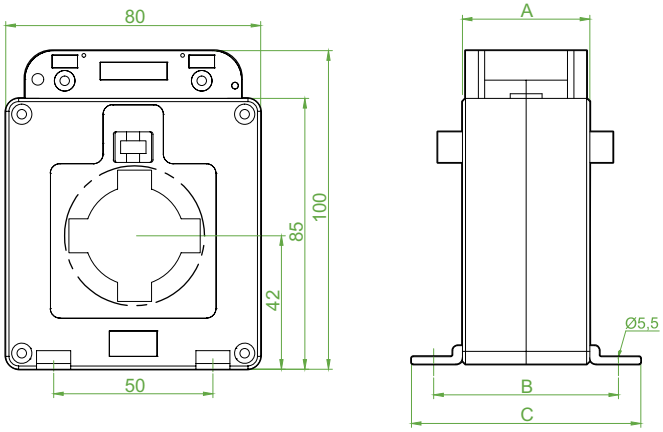
Note: Additional information is provided upon request.

Approvals

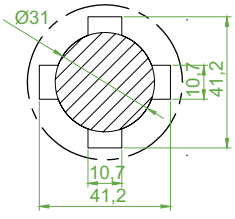
Feasibility Table

S40	Max. burden against class index (at 5A)				
Bus Bar (mm)	40x10				
Cable Ø (mm)	31				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
150	--	--	2,5	3,75	5
200	--	--	3,75	5	7,5
250	--	--	7,5	10	15
300	2,5	2,5	10	10	15
400	3,75	3,75	10	15	20
500	5	5	10	15	30
600	7,5	7,5	10	15	30

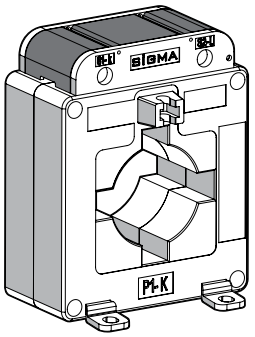
Dimensions



	A	B	C
S40	40	60	72
S40L	60	80	92



S50 Series Current Transformer



Product Identification

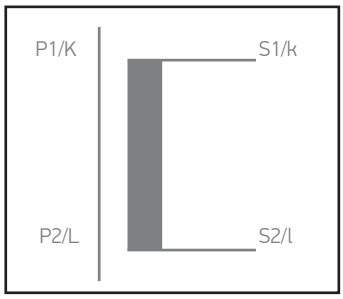
A range of compact low cost moulded case current transformers suitable for primary currents from 250A to 1000A with built in sealable terminal covers.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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	3.75 - 15 VA
Rated primary current	From 250 A to 1000 A
Rated secondary current	5 A

Note: Additional information is provided upon request.

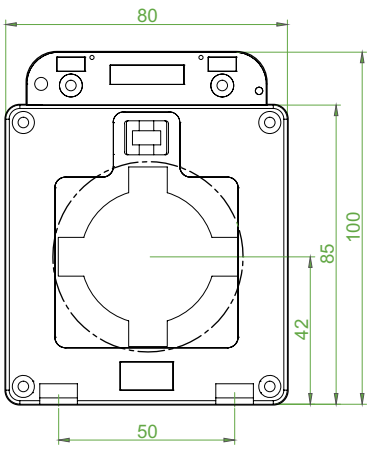
Approvals

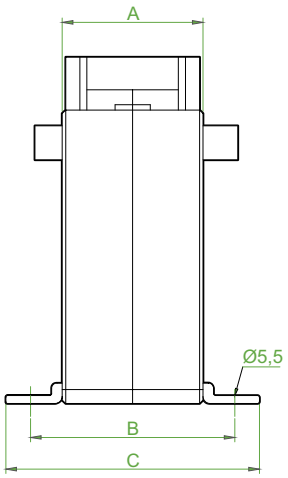
CE OHSAS 18001 ISO 14001 ISO 9001:2008 RoHS 2002/95/EC

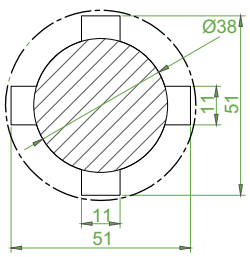
Feasibility Table

S50	Max. burden against class index (at 5A)				
Bus Bar (mm)	50x10				
Cable Ø (mm)	38				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
250	---	---		3,75	5
300	---	---	2,5	5	7,5
400	---	---	5	7,5	15
500	---	---	10	10	15
600	3,75	5	10	15	20
800	5	7,5	10	15	20
1000	10	10	10	15	30

Dimensions

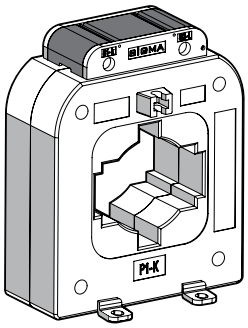






	A	B	C
S50	40	60	72
S50L	60	80	92

S60 Series Current Transformer



Product Identification

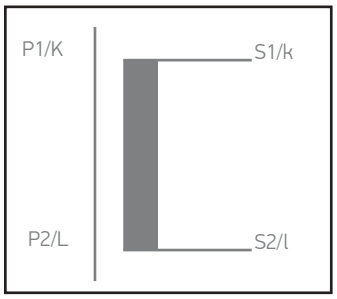
Compact type current transformers are suitable for primary current from 300A to 1600 A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 30 VA
Rated primary current	From 300A to 1600A
Rated secondary current	5 A

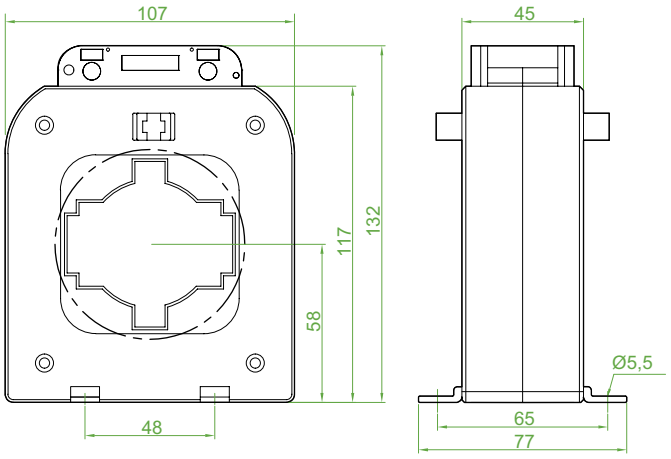
Note: Additional information is provided upon request.

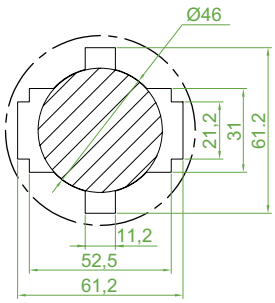
Approvals

Feasibility Table

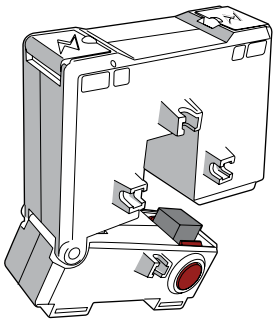
S60	Max. burden against class index (at 5A)				
Bus Bar (mm)	60x10				
Cable Ø (mm)	46				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
300	--	--	3,75	5	12,5
400	--	--	5	7,5	15
500	--	--	7,5	10	15
600	3,75	3,75	10	15	20
800	5	5	15	15	20
1000	7,5	7,5	15	15	30
1200	7,5	7,5	15	15	30
1250	7,5	7,5	15	15	30
1500	10	10	15	15	30
1600	15	15	15	15	30

Dimensions





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



Product Identification

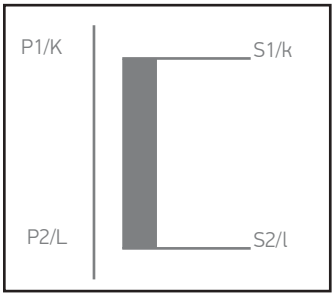
Compact type current transformers are suitable for primary current from 200A to 400A and they have sealable terminal cover

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 3.75 VA
Rated primary current	From 200 A to 400 A
Rated secondary current	5 A

Note: Additional information is provided upon request.

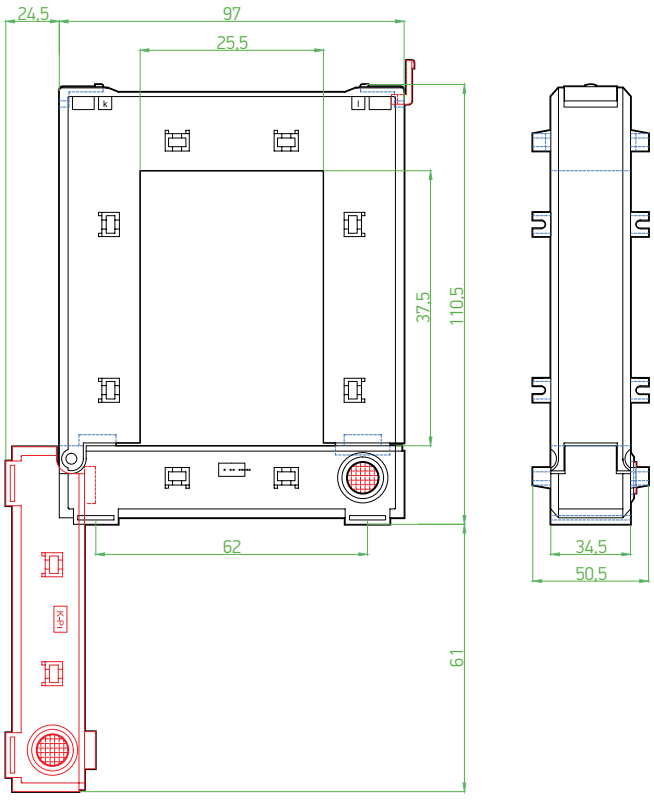
Approvals

CE OHSAS 18001 ISO 14001 ISO 9001:2008

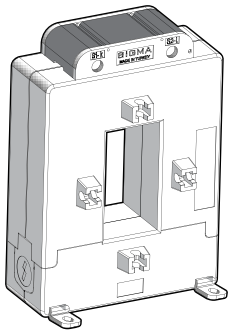
Feasibility Table

S30A	Max. burden against class index (at 5A)				
Bus Bar (mm)	30x10				
Cable Ø (mm)					
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
200	---	---	---	1,5	---
250	---	---	---	2,5	---
300	---	---	---	2,5	---
400	---	---	---	3,75	---

Dimensions



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



Product Identification

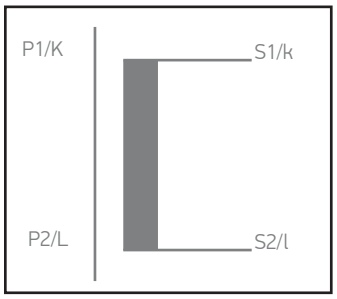
Compact type current transformers are suitable for primary current from 400A to 1000A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 15 VA
Rated primary current	From 400 A to 1000 A
Rated secondary current	5 A

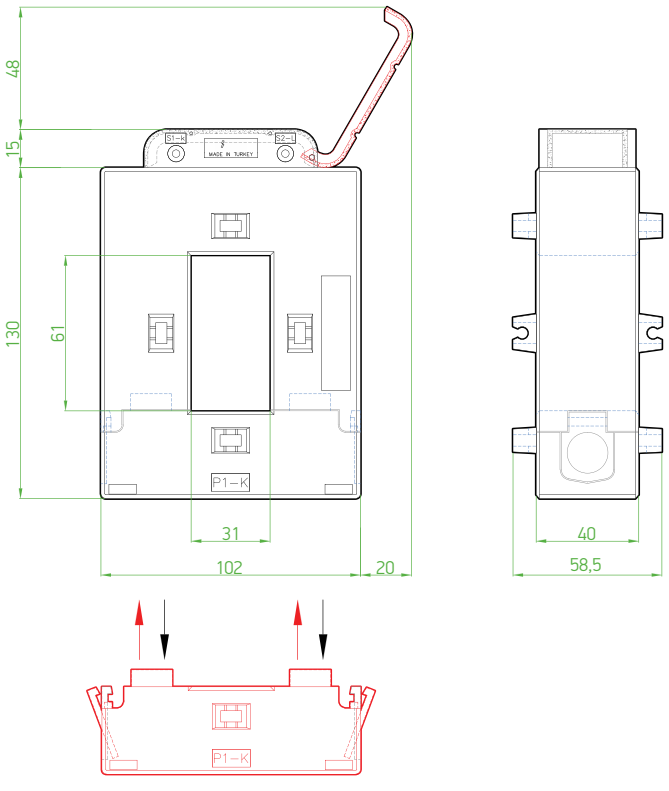
Note: Additional information is provided upon request.

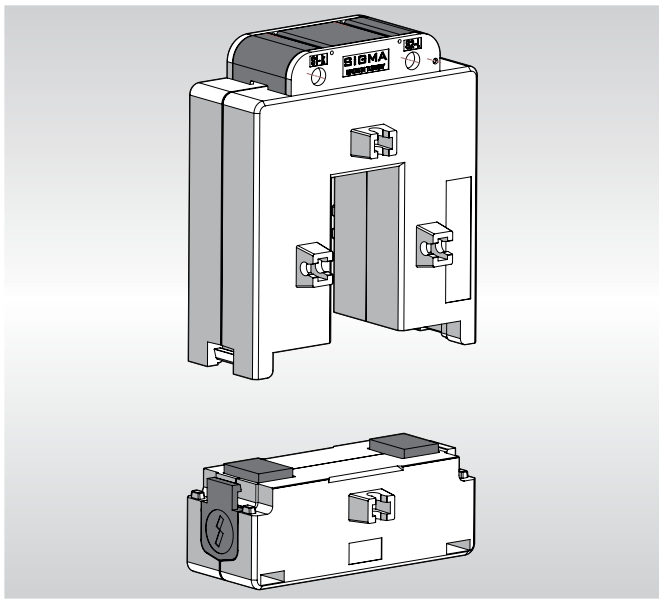
Approvals

Feasibility Table

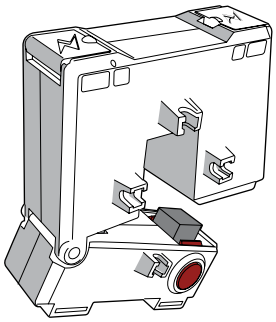
S60A	Max. burden against class index (at 5A)				
Bus Bar (mm)	60x10				
Cable Ø (mm)	31				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
400	---	---	---	3,75	5
500	---	---	---	5	7,5
600	---	---	5	7,5	10
800	---	---	7,5	10	12,5
1000	---	---	10	15	15

Dimensions





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



Product Identification

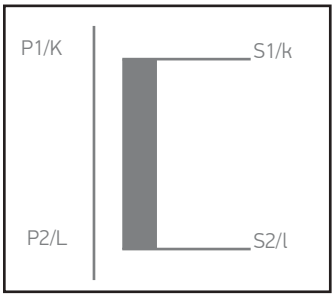
Compact type current transformers are suitable for primary current from 1200A to 4000A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60 kA 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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	10 - 15 VA
Rated primary current	From 1200 A to 4000 A
Rated secondary current	5 A

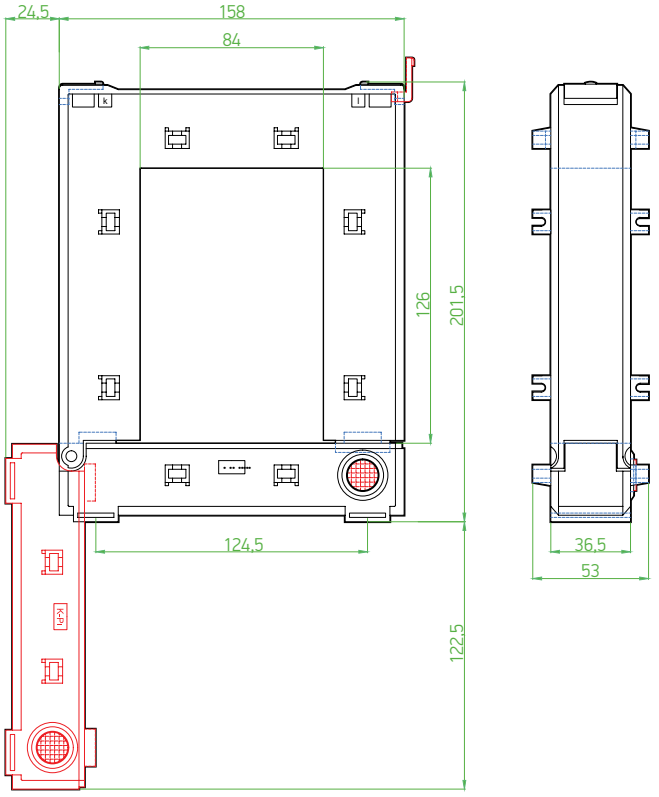
Note: Additional information is provided upon request.

Approvals

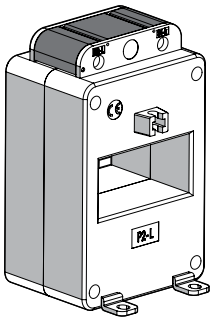
Feasibility Table

S120A	Max. burden against class index (at 5A)				
Bus Bar (mm)	160x80				
Cable Ø (mm)					
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
1200	---	---	10	---	---
1600	---	---	10	---	---
2000	---	---	15	---	---
2500	---	---	15	---	---
3000	---	---	15	---	---
4000	---	---	15	---	---

Dimensions



S60D Series Current Transformer



Product Identification

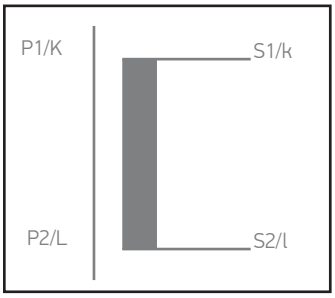
Compact type current transformers are suitable for primary current from 600A to 1600A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 30 VA
Rated primary current	From 600 A to 1600 A
Rated secondary current	5 A

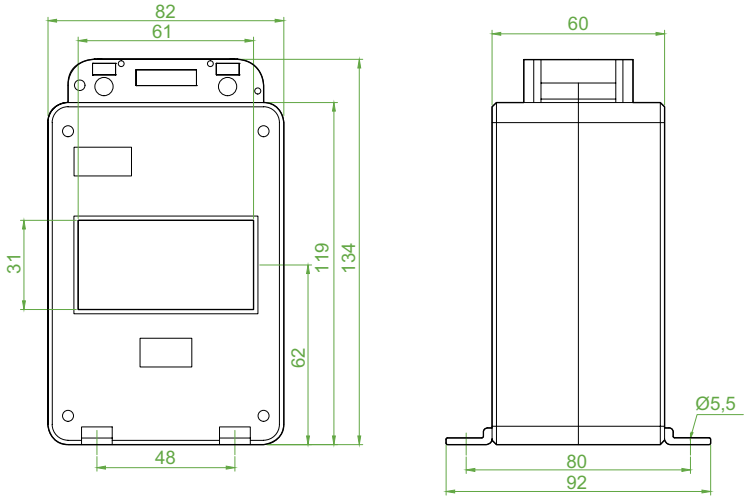
Note: Additional information is provided upon request.

Approvals

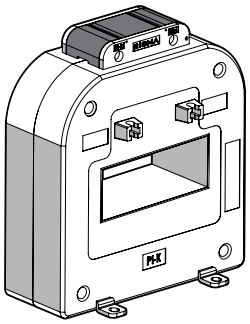
Feasibility Table

S60D	Max. burden against class index (at 5A)				
Bus Bar (mm)	60x10				
Cable Ø (mm)	31				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
600	---	---	5	7,5	10
750	---	---	7,5	10	15
1000	---	---	10	15	15
1200	---	---	15	15	15
1250	---	---	15	15	15
1500	---	---	15	15	30
1600	---	---	15	15	30

Dimensions



S80 Series Current Transformer



Product Identification

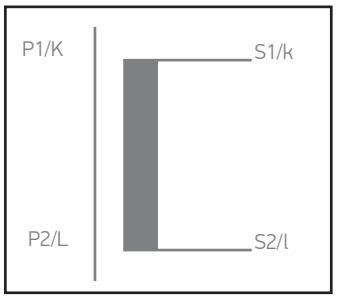
Compact type current transformers are suitable for primary current from 750A to 2000A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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	7.5 - 30 VA
Rated primary current	From 750 A to 2000 A
Rated secondary current	5 A

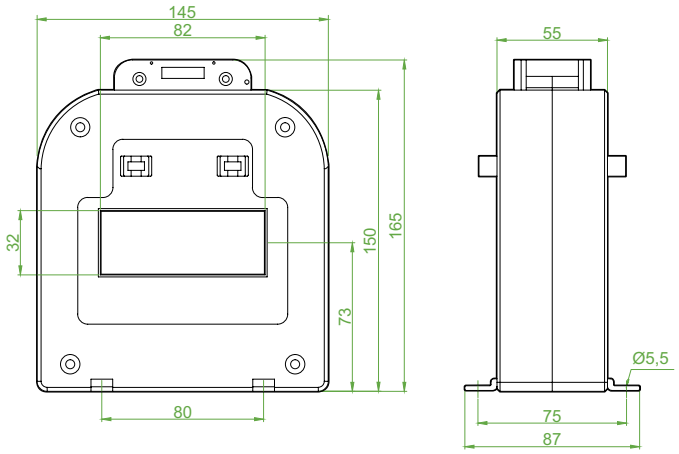
Note: Additional information is provided upon request.

Approvals

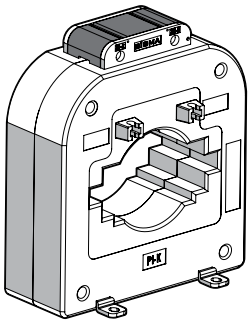
Feasibility Table

S80	Max. burden against class index (at 5A)				
Bus Bar (mm)	2(80x10)				
Cable Ø (mm)	31				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
750	2,5	2,5	10	15	20
800	3,75	3,75	10	15	20
1000	5	5	15	20	30
1200	5	5	15	20	30
1250	5	5	15	20	30
1500	7,5	7,5	15	20	30
1600	10	10	15	20	30
2000	15	15	15	20	30

Dimensions



S100 Series Current Transformer



Product Identification

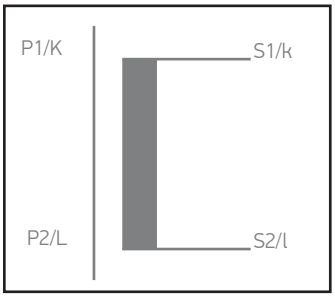
Compact type current transformers are applicable for primary current from 750A to 3000A and sealable terminal cover is available.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	100kA 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 30 VA
Rated primary current	From 750 A to 3000 A
Rated secondary current	5 A

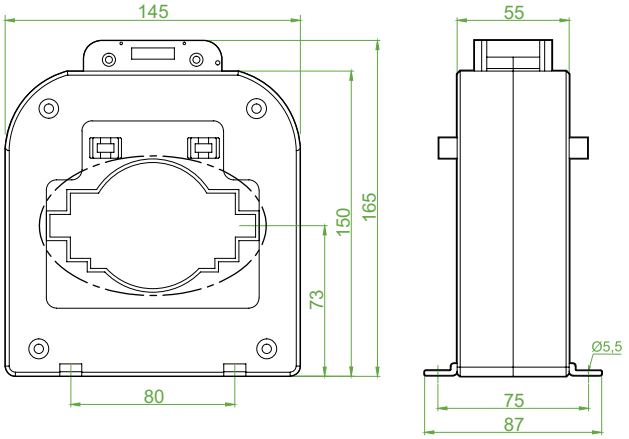
Note: Additional information is provided upon request.

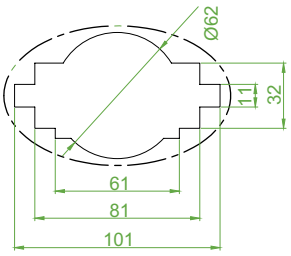
Approvals

Feasibility Table

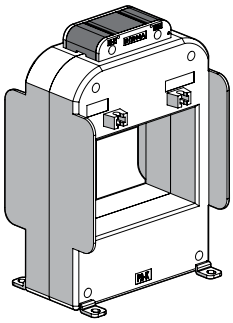
S100	Max. burden against class index (at 5A)				
Bus Bar (mm)	100x10				
Cable Ø (mm)	62				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
750	2,5	2,5	10	15	15
800	3,75	3,75	15	20	20
1000	5	5	15	20	30
1200	5	5	15	20	30
1250	5	5	15	20	30
1500	7,5	7,5	15	20	30
1600	10	10	15	20	30
2000	15	15	15	20	30
2500	15	15	15	20	30
3000	15	15	30	30	45

Dimensions





S100D Series Current Transformer



Product Identification

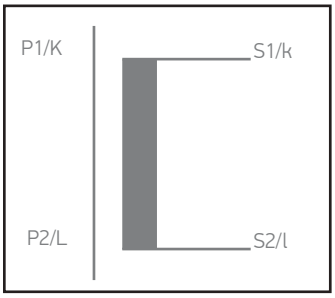
Compact type current transformers are suitable for primary current from 800A to 4000A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°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 sc.
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	7.5 - 30 VA
Rated primary current	From 800 A to 4000 A
Rated secondary current	5 A

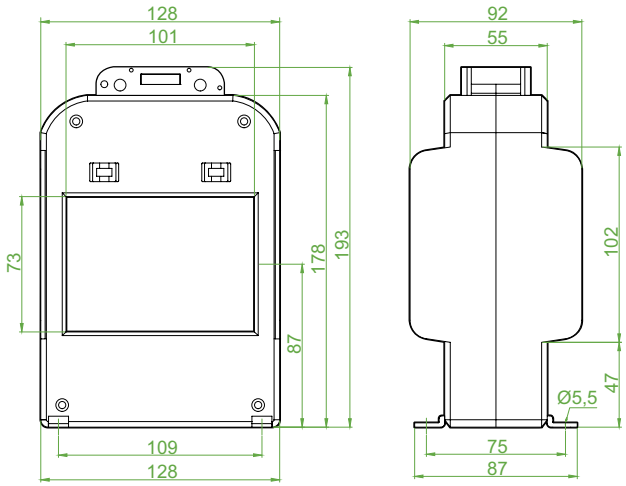
Note: Additional information is provided upon request.

Approvals

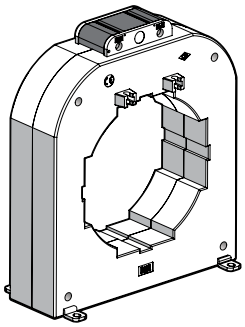
Feasibility Table

S100D	Max. burden against class index (at 5A)				
Bus Bar (mm)	4 (100x10)				
Cable Ø (mm)	70				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
800	---	---	7,5	10	20
1000	---	---	10	15	20
1200	---	---	15	15	30
1250	---	---	15	15	30
1500	---	---	15	20	30
1600	---	---	15	20	30
2000	---	---	15	20	30
2500	---	---	15	20	30
3000	---	---	15	20	30
4000	---	---	15	20	30

Dimensions



S125 Series Current Transformer



Product Identification

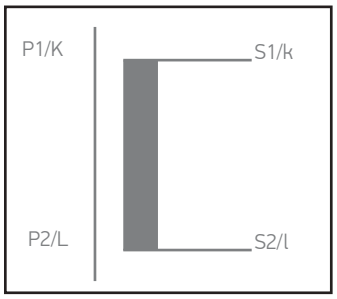
Compact type current transformers are suitable for primary current from 1250A to 5000A and they have sealable terminal cover.

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
Ambient temperature	-20/75°C
Storage temperature	-50/80°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 sc.
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 - 45 VA
Rated primary current	From 1250 A to 5000 A
Rated secondary current	5 A

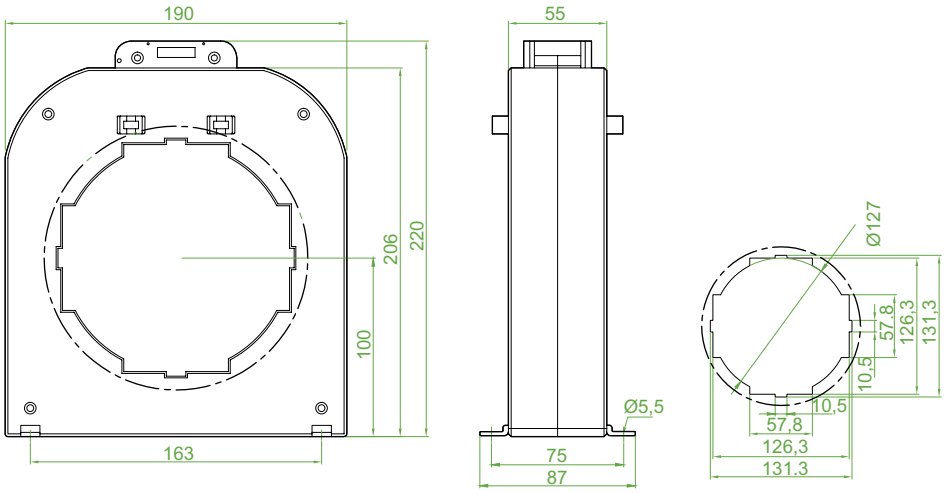
Note: Additional information is provided upon request.

Approvals

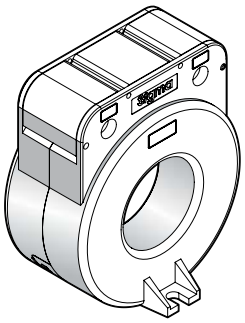
Feasibility Table

S125	Max. burden against class index (at 5A)				
Bus Bar (mm)	3 (125x10)				
Cable Ø (mm)	126				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
1250	---	---	10	15	20
1500	---	---	15	20	30
1600	3,75	3,75	15	20	30
2000	5	5	15	20	30
2500	5	5	15	20	45
3000	10	10	30	30	45
4000	15	15	30	30	45
5000	15	15	30	30	45

Dimensions



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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 5 VA
Rated primary current	From 50 A to 300 A
Rated secondary current	5 A

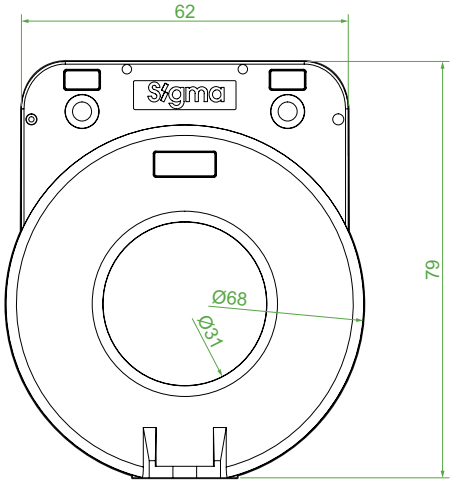
Note: Additional information is provided upon request.

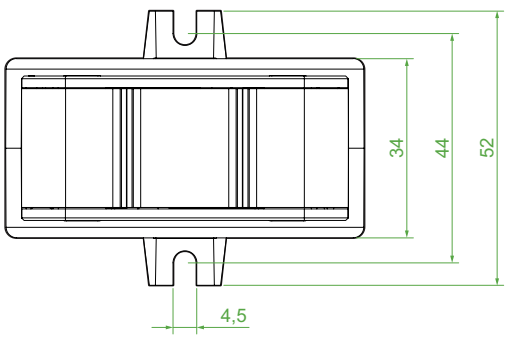
Approvals

Feasibility Table

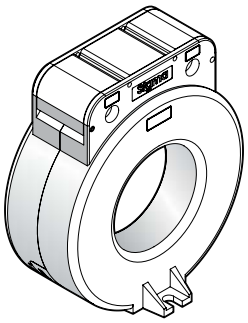
SMT30	Max. burden against class index (at 5A)				
Bus Bar (mm)	30				
Cable Ø (mm)					
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
50	---	---	---	---	1,5
60	---	---	---	---	2,5
75	---	---	---	---	2,5
100	---	---	---	---	2,5
125	---	---	---	---	2,5
150	---	---	---	---	2,5
200	---	---	---	5	---
250	---	---	---	5	---
300	---	---	5	---	---

Dimensions





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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	60xIn / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 5 VA
Rated primary current	From 100 A to 600 A
Rated secondary current	5 A

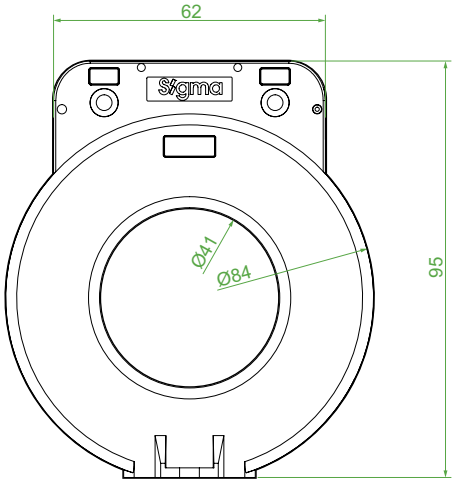
Note: Additional information is provided upon request.

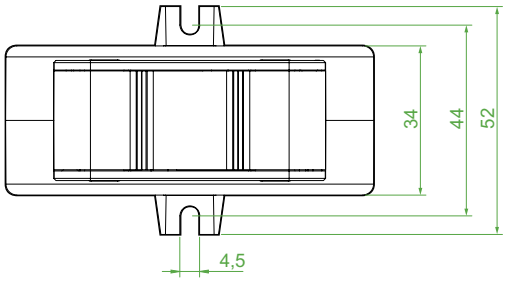
Approvals

Feasibility Table

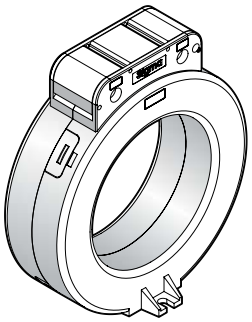
SMT40	Max. burden against class index (at 5A)				
Bus Bar (mm)	40				
Cable Ø (mm)	70				
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
100	---	---	---	---	2,5
150	---	---	---	---	2,5
200	---	---	---	2,5	---
400	---	---	5	---	---
500	---	---	5	---	---
600	---	---	5	---	---

Dimensions





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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	40 kA / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 10 VA
Rated primary current	From 800 A to 1500 A
Rated secondary current	5 A

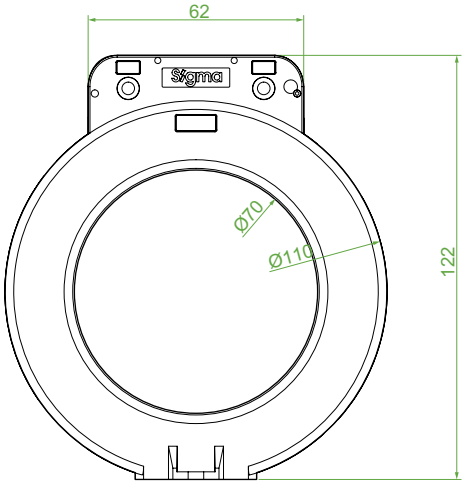
Note: Additional information is provided upon request.

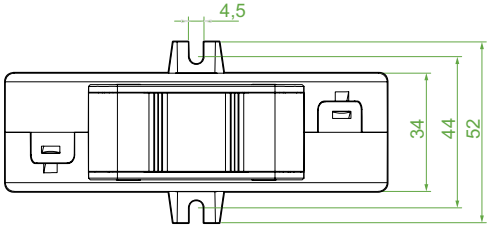
Approvals

Feasibility Table

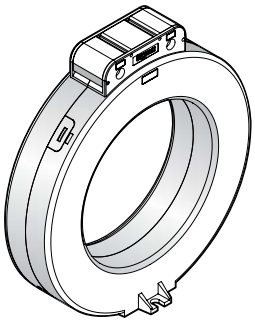
SMT70	Max. burden against class index (at 5A)				
Bus Bar (mm)	70				
Cable Ø (mm)					
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
800	---	---	5	---	---
1000	---	---	10	---	---
1200	---	---	10	---	---
1250	---	---	10	---	---
1500	---	---	10	---	---

Dimensions





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
Ambient temperature	-20/75°C
Storage temperature	-50/80°C
Maximum relative humidity	Up to 95%
Rated thermal continuous current	1.2xIn
Rated short-time thermal current (Ith)	40 kA / 1 sc.
Rated dynamic current (Idyn)	2.5 x Ith / 1 sc.
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 - 15 VA
Rated primary current	From 800 A to 2500 A
Rated secondary current	5 A

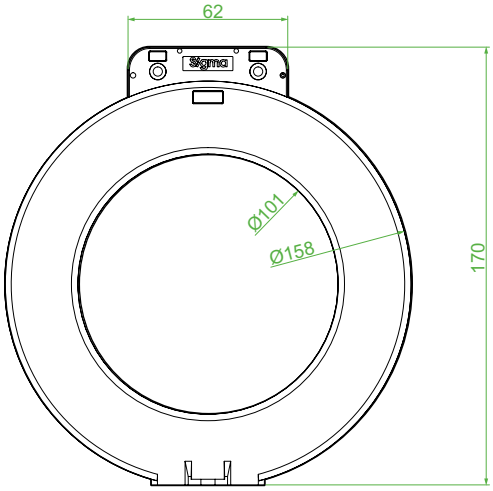
Note: Additional information is provided upon request.

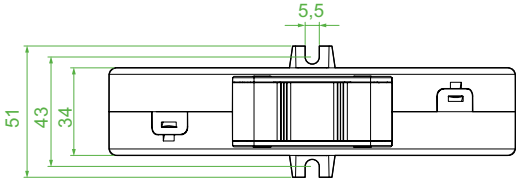
Approvals

Feasibility Table

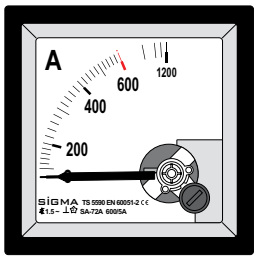
SMT100	Max. burden against class index (at 5A)				
Bus Bar (mm)	100				
Cable Ø (mm)					
Accuracy (cl)	0.2s	0,2	0,5	1	3
Ip(A)	VA				
800	---	---	5	---	---
1000	---	---	5	---	---
1250	---	---	10	---	---
1600	---	---	15	---	---
2000	---	---	15	---	---
2500	---	---	15	---	---

Dimensions



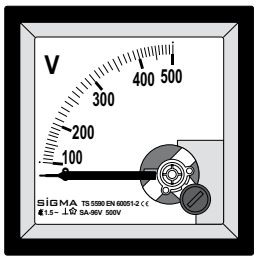


Analogue Ammeters



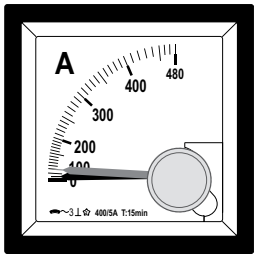
Type Code	Description	Diameter (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SA 72A	Analogue Ammeter 30A, Direct Connection	72x72	1	48	SA72A-D030
	Analogue Ammeter 50A, Direct Connection	72x72	1	48	SA72A-D050
	Analogue Ammeter 100A, Direct Connection	72x72	1	48	SA72A-D100
	Ammeter for X/5 A Current Transformer	72x72	1	48	SA72A-X
SA 96A	Analogue Ammeter 30A, Direct Connection	96x96	1	27	SA96A-D030
	Analogue Ammeter 50A, Direct Connection	96x96	1	27	SA96A-D050
	Analogue Ammeter 100A, Direct Connection	96x96	1	27	SA96A-D100
	Ammeter for X/5 A Current Transformer	96x96	1	27	SA96A-X

Analogue Voltmeters



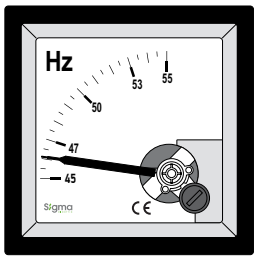
Type Code	Description	Diameter (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SA 72V	Analogue Voltmeter 0-250 V AC	72x72	1	48	SA72V-0250
	Analogue Voltmeter 0-500 V AC	72x72	1	48	SA72V-0500
SA 96V	Analogue Voltmeter 0-250 V AC	96x96	1	27	SA96V-0250
	Analogue Voltmeter 0-500 V AC	96x96	1	27	SA96V-0500

Analogue Ammeters with Demandmeter



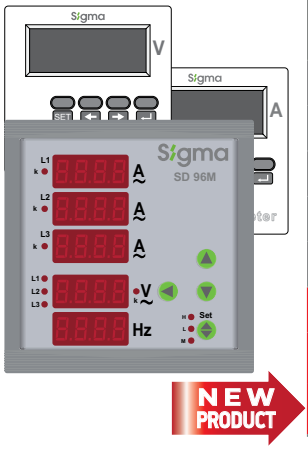
Type Code	Description	Diameter (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SA 72D	Ammeter with Demand meter 250/5 A (15 min)	72x72	1	48	SA72D-0250
	Ammeter with Demand meter 400/5 A (15 min)	72x72	1	48	SA72D-0400
	Ammeter with Demand meter 600/5 A (15 min)	72x72	1	48	SA72D-0600
	Ammeter with Demand meter 1000/5 A (15 min)	72x72	1	48	SA72D-1000
SA 96D	Ammeter with Demand meter 250/5 A (15 min)	96x96	1	27	SA96D-0250
	Ammeter with Demand meter 400/5 A (15 min)	96x96	1	27	SA96D-0400
	Ammeter with Demand meter 600/5 A (15 min)	96x96	1	27	SA96D-0600
	Ammeter with Demand meter 1000/5 A (15 min)	96x96	1	27	SA96D-1000

Analogue Frequencymeter



Type Code	Description	Diameter (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SA 72F	45-55 Hz	72x72	1	75	**SA72F-4555**
SA 96F	45-55 Hz	96x96	1	60	**SA96F-4555**

Digital Measurement Devices

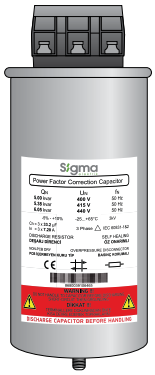


Type Code	Description	Diameter (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SD 72A	Ammeter with Current Transformer 1-5000/5A	72x72	1	72	**SD72A-5000**
SD 96A	Ammeter with Current Transformer 1-5000/5A	96x96	1	72	**SD96A-5000**
SD 72V	Voltmeter 0-600 V AC	72x72	1	72	**SD72V-0600**
SD 96V	Voltmeter 0-600 V AC	96x96	1	72	**SD96V-0600**
SD 96M	I-V-Hz Multimeter	96x96	1	27	**SD96M-0600**
SD 96MP	Multifunctional Powermeter	96x96	1	27	**SD96MP-01**
SD 96MAC	Multifunctional Network Analyser (including Harmonic measurement)	96x96	1	27	**SD96MAC**
SD8MAC	DIN Rail Type Multifunctional Network Analyser (including Harmonic measurement)	DIN type	1	27	**SD8MAC**

230V One-Pole (Monophase) Cylindrical Type Capacitor

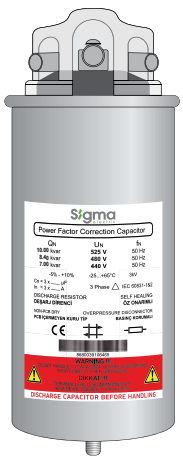
Type Code	kVAr@ 230 V, 50 Hz	kVAr@ 415 V, 50 Hz	kVAr@ 440 V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
1SK230	0,25	0,81	0,91	63,5x75	3	10	1SK230-0.25
	0,5	1,63	1,83	63,5x75	3	10	1SK230-0.5
	1,0	3,26	3,66	63,5x87	3	7	1SK230-1
	1,5	4,88	5,49	63,5x145	3	7	1SK230-1.5
	2,5	8,14	9,15	63,5x145	3	7	1SK230-2.5
	5	16,28	18,30	75x205	3	7	1SK230-5

400V / 415V / 440V Three-Pole (Triphase) Cylindrical Type Capacitor



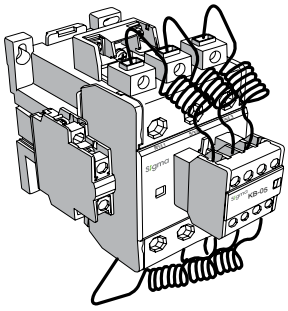
Type Code	kVAr@ 400 V, 50 Hz	kVAr@ 415 V, 50 Hz	kVAr@ 440 V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
3SK400	0,5	0,54	0,61	63,5x87	3	10	3SK400-0.5
	1,0	1,08	1,21	63,5x87	3	10	3SK400-1
	1,5	1,61	1,81	63,5x95	3	10	3SK400-1.5
	2,5	2,69	3,03	63,5x95	3	10	3SK400-2.5
	5,0	5,38	6,05	75x145	3	7	3SK400-5
	7,5	8,07	9,08	75x145	3	7	3SK400-7.5
	10,0	10,76	12,10	75x205	3	7	3SK400-10
	12,5	13,46	15,13	85x205	3	5	3SK400-12.5
	15,0	16,15	18,15	85x205	3	4	3SK400-15
	20,0	21,53	24,20	95x210	3	3	3SK400-20
	25,0	26,91	30,25	116x247	3	3	3SK400-25
	30,0	32,29	36,30	116x247	3	3	3SK400-30
	40,0	43,06	48,40	116x247	3	2	3SK400-40
	50,0	53,83	60,50	136x247	3	2	3SK400-50

525V High Density Capacitor



Type Code	kVAr@ 525 V, 50 Hz	kVAr@ 480 V, 50 Hz	kVAr@ 440 V, 50 Hz	Diameter Dxh (mm)	Min. Order Quantity	Pcs in a Box	Order Code
3SK525	10,0	8,4	7,0	85x210	3	7	3SK525-10
	15,0	12,5	10,6	95x210	3	4	3SK525-15
	20,0	16,8	14,0	95x247	3	3	3SK525-20
	25,0	20,9	17,6	116x247	3	3	3SK525-25
	30,0	25,0	21,0	116x247	3	3	3SK525-30

Contactors for Capacitor Bank - Coil Voltage: 230V AC



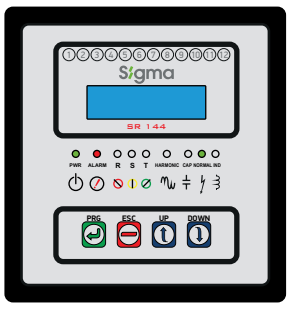
Type Code	Ac-6b (A)	Rated Capacitor Power at 220/240V (kVAr) Θ≤55°C	Rated Capacitor Power at 380/440V (kVAr) Θ≤55°C	Oparation /hour	Electrical Life (Cycle)	Auxiliary Contact	Min. Order Quantity	Pcs in a Box	Order Code
SCK-12	4	1,5	2,5	200 op/h	200.000	1NO	1	20	**SCK012**
SCK-18	8	3	5	200 op/h	200.000	1NO	1	20	**SCK018**
SCK-25	14	6	10	200 op/h	200.000	1NO	1	20	**SCK025**
SCK-32	22	8	15	200 op/h	200.000	1NO	1	14	**SCK032**
SCK-40	26	12	20	200 op/h	200.000	1NO	1	14	**SCK040**
SCK-50	36	15	25	100 op/h	100.000	1NO	1	8	**SCK050**
SCK-65	48	20	33,3	100 op/h	100.000	1NO	1	8	**SCK065**
SCK-80	66	22	40	100 op/h	100.000	1NO	1	8	**SCK080**
SCK-95	78	33,3	50	100 op/h	100.000	1NO	1	8	**SCK095**
SCK-100	86	45	60	100 op/h	100.000	1NO	1	8	**SCK100**

NEW PRODUCT

LV Capacitor Bank Component Selection

400 V AC 3 Phases Capacitor			Cable	LV Circuit Breaker		MCB	Contactor for Capacitor Bank	Power Contactor
Type Code	Rated Power (kVAr)	Rated Current (A)	Section (mm^2)	Type	Rated Current (A)	Rated Current (A)	Type	Type
3SK400-1	1,0	1,4	2.5			C6	SCK-12	SCG-18
3SK400-1.5	1,5	2,16	2.5			C10	SCK-12	SCG-18
3SK400-2.5	2,5	3,6	2.5			C10	SCK-12	SCG-18
3SK400-5	5,0	7,2	2.5	C160, K160	20	C16	SCK-18	SCG-25
3SK400-7.5	7,5	10,80	2.5	C160, K160	20	C20	SCK-25	SCG-32
3SK400-10	10,00	14,40	4	C160, K160	32	C25	SCK-25	SCG-40
3SK400-12.5	12,5	18,00	6	C160, K160	40	C32	SCK-32	SCG-50
3SK400-15	15,0	21,60	6	C160, K160	40	C40	SCK-32	SCG-65
3SK400-20	20,0	28,80	10	C160, K160	50	C50	SCK-40	SCG-80
3SK400-25	25,0	36,00	16	C160, K160	63	C63	SCK-50	SCG-95
3SK400-30	30,0	43,20	25	C160, K160	80	C80	SCK-65	SCM-100
3SK400-40	40	57,6	35	C160, K160	100	C100	SCK-80	SCM-125
3SK400-50	50	72	35	C160, K160	125	C125	SCK-95	SCM-150

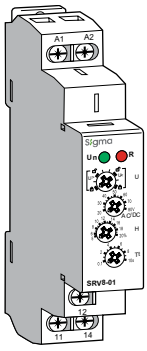
Reactive Power Control Relay

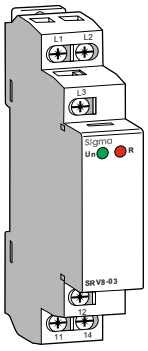


Type Code	Description	Diameter (mm)	Min. Order Quantity	Pcs in a Box	Order Code
SR144	Reactive Power Controller, 12 Steps, Digital, controlling monophase capacitors, Led Display showing each single phase	144x144	1	6	**SR144-012**

Relays

Type	Description	Explanation	Supply Voltage	Order Code
SRV8-01	Monitoring Voltage Relay	Over/High Voltage in Windows Mode	230 V AC	**SRV801230**
SRV8-03	Monitoring Voltage Relay	Phase sequence and Phase Failure Protection	220-460 V	**SRV803460**
SRV8-05	Monitoring Voltage Relay	Over Voltage Under Voltage Asymmetry Time Delay Phase Sequence Phase Failure	220-460 vV	**SRV805460**
SRT8-A30S	Single - Function Time Relay	0.1-30 Second Delay ON	230 V AC	**SRT8A30S**
SRT8-A60S	Single - Function Time Relay	0.1-60 Second Delay ON	230 V AC	**SRT8A60S**
SRT8-A10D	Multi-Function Time Relay	1×SPDT	230 V AC	**SRT8A10D**
SRT8-M1	Multi-Function Time Relay	2×SPDT	AC/DC 12V~240V	**SRT8M1**
SRT8-M2	Multi-Function Time Relay	0.1 s - 10 days, ON, OFF	AC/DC 12V~240V	**SRT8M2**
SRT8-STD	Delay On Star/Delta Relay	Range of time delay t1:0.1s -10min, Switch time t2:0.1s-1s	AC/DC 12V~240V	**SRT8ST240**
SRT8-STA	Delay On Star/Delta Relay	Range of time delay t1:0.1s -10min, Switch time t2:0.1s-1s	230 V AC	**SRT8STA**
SRT8-S1	Asymmetric Cycler Relay	0.1 s - 10 days	AC/DC 12V~240V	**SRTSS1240**
SRL8-01	Level Control Relay	2 level control mode	AC/DC 12V~240V	**SRL801240**
SRL8-LS	Staircase Switch	Delay off reacting to contact switching	230 V AC	**SRT8LS230**
NEW PRODUCT STS8-01	Analogue Time Switch	24H / 2 Position / 100 hours reserve time / 1NO 16 A NO	230 V AC	**STS801230**


SRV8-01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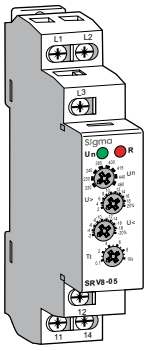
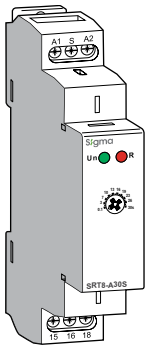
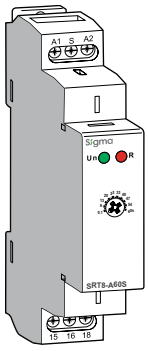

SRV8-05


SRT8-A30S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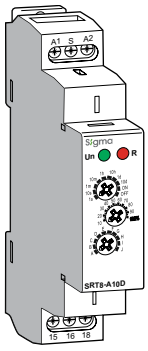
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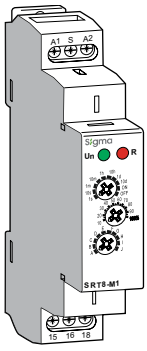
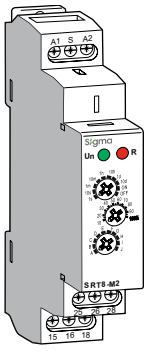

SRT8-M1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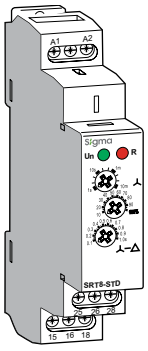
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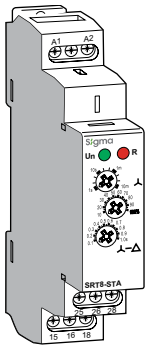
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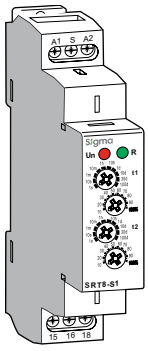
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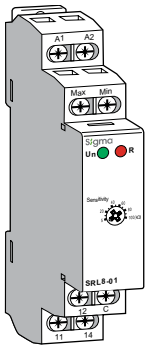
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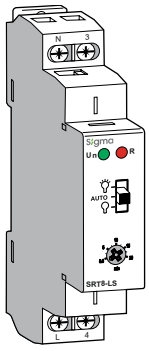
SRL8-LS

Quality Certificates

OHSAS 18001

ISO 9001

ISO 14001

RoHS Certificates

ASTA Certificates

TÜV Certificates

TSE Certificates

CE Certificate of Conformity
















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