



ISOLATORS Series

Switch and
Switch-disconnectors

 **SCAME**
electrical solutions

ISOLATORS Series

> SWITCH AND SWITCH-DISCONNECTORS



> VERSIONS



Flush mounting - Engineering plastic



Surface mounting - Engineering plastic



Surface mounting - Metal

> REFERENCE STANDARDS

EN 60947-3

Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors
and fuse-combination unit.

> QUALITY MARKS



> TECHNICAL CHARACTERISTICS

Polarity:	1P - 2P - 3P - 4P
Rated current:	20A - 32A - 40A - 63A - 80A 100A - 125A - 160A
Protection degree:	IP55 - IP65
Operating temperature according to the reference standard:	-5°C+40°C
Max. operating temperature:	60°C
Glow Wire test:	650°C (Engineering plastic)
Material:	Engineering plastic/Metal
IK degree at 20°C:	Engineering plastic versions: 20A-32A-40A: IK07 63A-80A-100A: IK08
Cable inlet:	METRIC
Colour:	Grey RAL 7035 (Engineering plastic) Grey RAL 7015 (Metal)

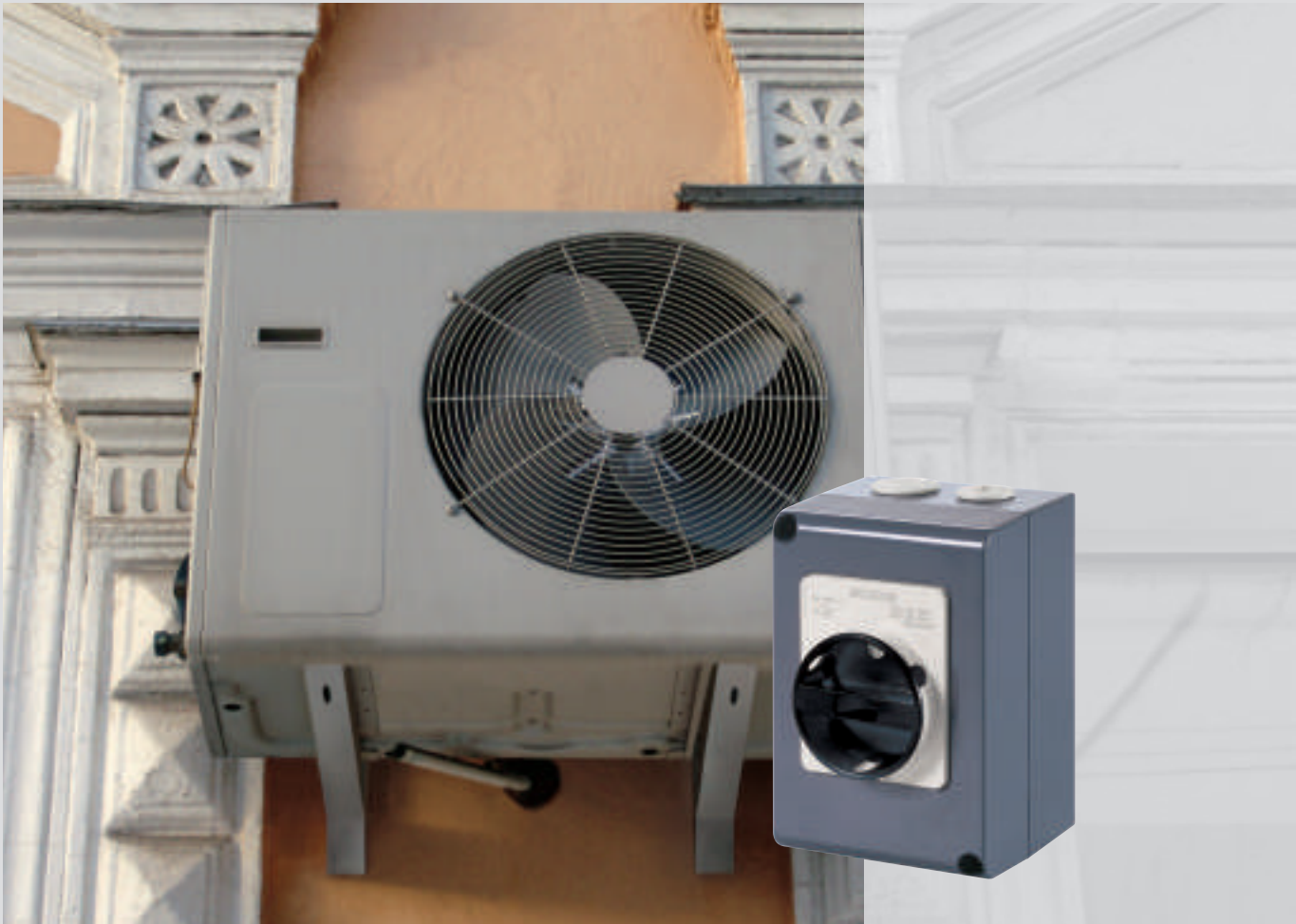
> BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited Resistance	Resistant	Resistant

For specific substances please contact our technical service.

> CABLE INLETS

Engineering plastic versions	Metal versions
Enclosure 20A, 32A and 40A (82x120x69) - Upper surface: 1xM20 + 1xM25 - Lower surface: 1xM20 + 1xM25 - Back surface: 2xM20	Enclosure 20A, 32A and 40A (105x150x82) - Upper surface: 1xM20 + 1xM25 - Lower surface: 1xM20 + 1xM25
Enclosure 20A, 32A and 40A (136x125x84) - Upper surface: 1xM20 + 1xM25 - Lower surface: 1xM20 + 1xM25	Enclosure 63A, 80A and 100A (150x210x106) - Upper surface: 2xM32 - Lower surface: 2xM32
Enclosure 20A, 32A and 40A (105x150x82) - Upper surface: 1xM20 + 1xM25 - Lower surface: 1xM20 + 1xM25	Enclosure 125A (315x264x122), and 160A (410x315x150) - Blank side
Enclosure 63A, 80A and 100A (210x155x107) - Upper surface: 2xM25/M32 - Lower surface: 2xM25/M32	
Enclosure 125A (300x220x120), and 160A (380x300x120) - Blank side	

> APPLICATION EXAMPLES





Switch and Switch-disconnectors enclosed

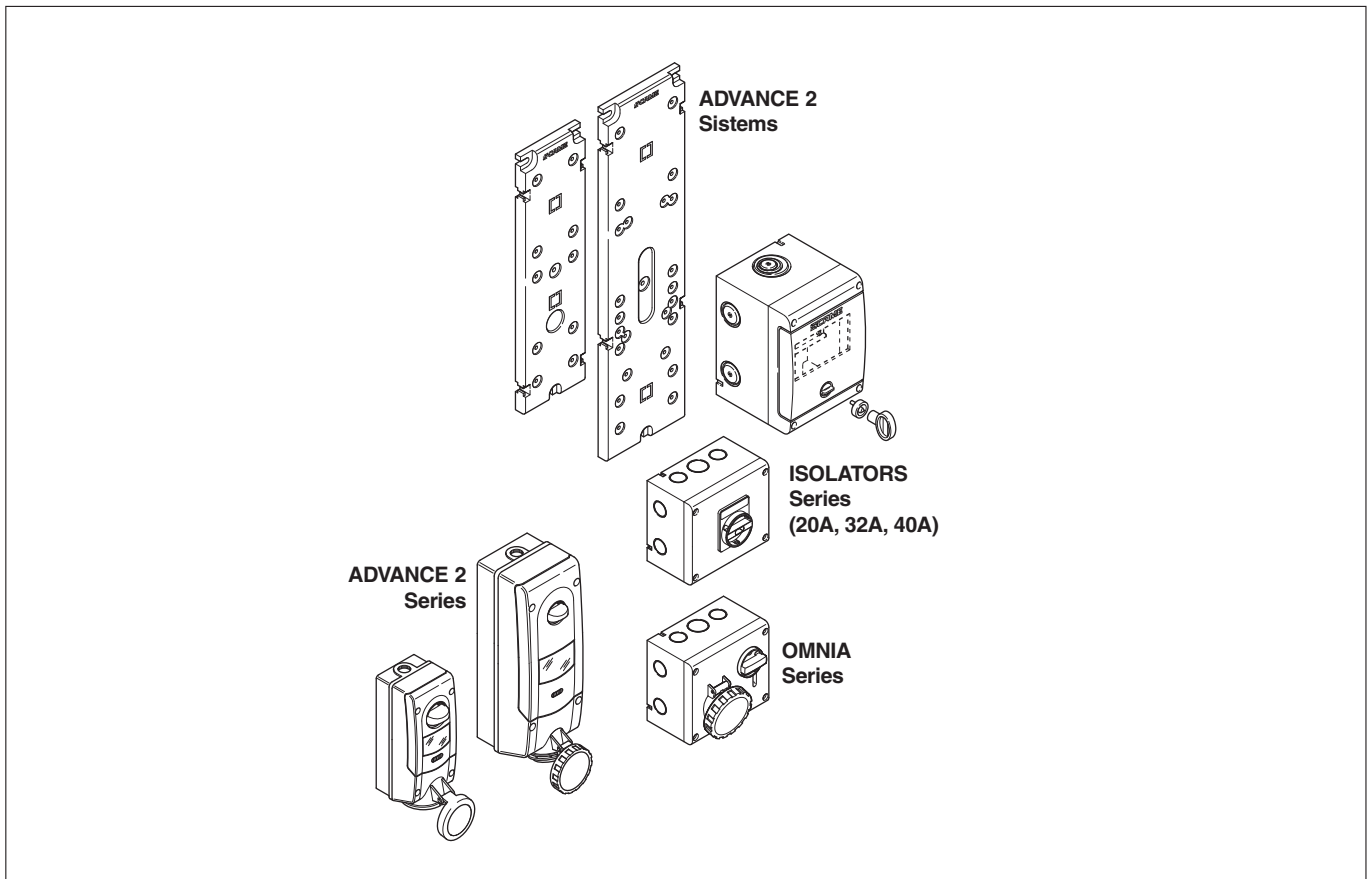
> SURFACE MOUNTING - ENGINEERING PLASTIC VERSION

Poles	Enclosure dimensions (mm)	Protection degree	☐	(▲)								
				General use		Emergency Switching		General use		Emergency Switching		
20A	1	82x120x69	IP65	1/12	590.GE2021							
	2	136x125x84 (*)	IP65	1/12	590.EM2002		590.GE2002					
	3				590.EM2003		590.GE2003					
	4				590.EM2004		590.GE2004					
	2						590.EM2012		590.GE2012			
	3	105x150x82	IP65	1/12			590.EM2013		590.GE2013			
	4				590.EM2014		590.GE2014					
	2				590.EM2012		590.GE2012					
	32A	1	82x120x69	IP65	1/12	590.GE3221						
		2	136x125x84 (*)	IP65	1/12	590.EM3202		590.GE3202				
		3				590.EM3203		590.GE3203				
		4				590.EM3204		590.GE3204				
2						590.EM3212		590.GE3212				
3		105x150x82	IP65	1/12			590.EM3213		590.GE3213			
4					590.EM3214		590.GE3214					
2					590.EM3212		590.GE3212					
40A	1	82x120x69	IP65	1/12	590.GE4021							
	2	136x125x84 (*)	IP65	1/12	590.EM4002		590.GE4002					
	3				590.EM4003		590.GE4003					
	4				590.EM4004		590.GE4004					
	2						590.EM4012		590.GE4012			
	3	105x150x82	IP65	1/12			590.EM4013		590.GE4013			
4					590.EM4014		590.GE4014					
2					590.EM4012		590.GE4012					

(▲) Single pole switch, not suitable to receive door-locking kit.

(*) OMNIA Series enclosure.







Poles	Enclosure dimensions (mm)	Protection degree	☐								
				Emergency Switching	General use	Emergency Switching	General use	Emergency Switching	General use		
63A	210x155x107	IP65	1/5	2	590.EM6302	590.GE6302					
				3	590.EM6303	590.GE6303					
				4	590.EM6304	590.GE6304					
80A	210x155x107	IP65	1/5	2	590.EM8002	590.GE8002					
				3	590.EM8003	590.GE8003					
				4	590.EM8004	590.GE8004					
100A	210x155x107	IP65	1/5	3	590.EM10003	590.GE10003					
				4	590.EM10004	590.GE10004					
125A	308x228x128	IP55	1/5			590.EM12503	590.GE12503				
						590.EM12504	590.GE12504				
160A	338x308x128	IP55	1/5					590.EM16003	590.GE16003		
								590.EM16004	590.GE16004		



The components shown above are modular with the engineering plastic version only.

Switch-disconnectors enclosed

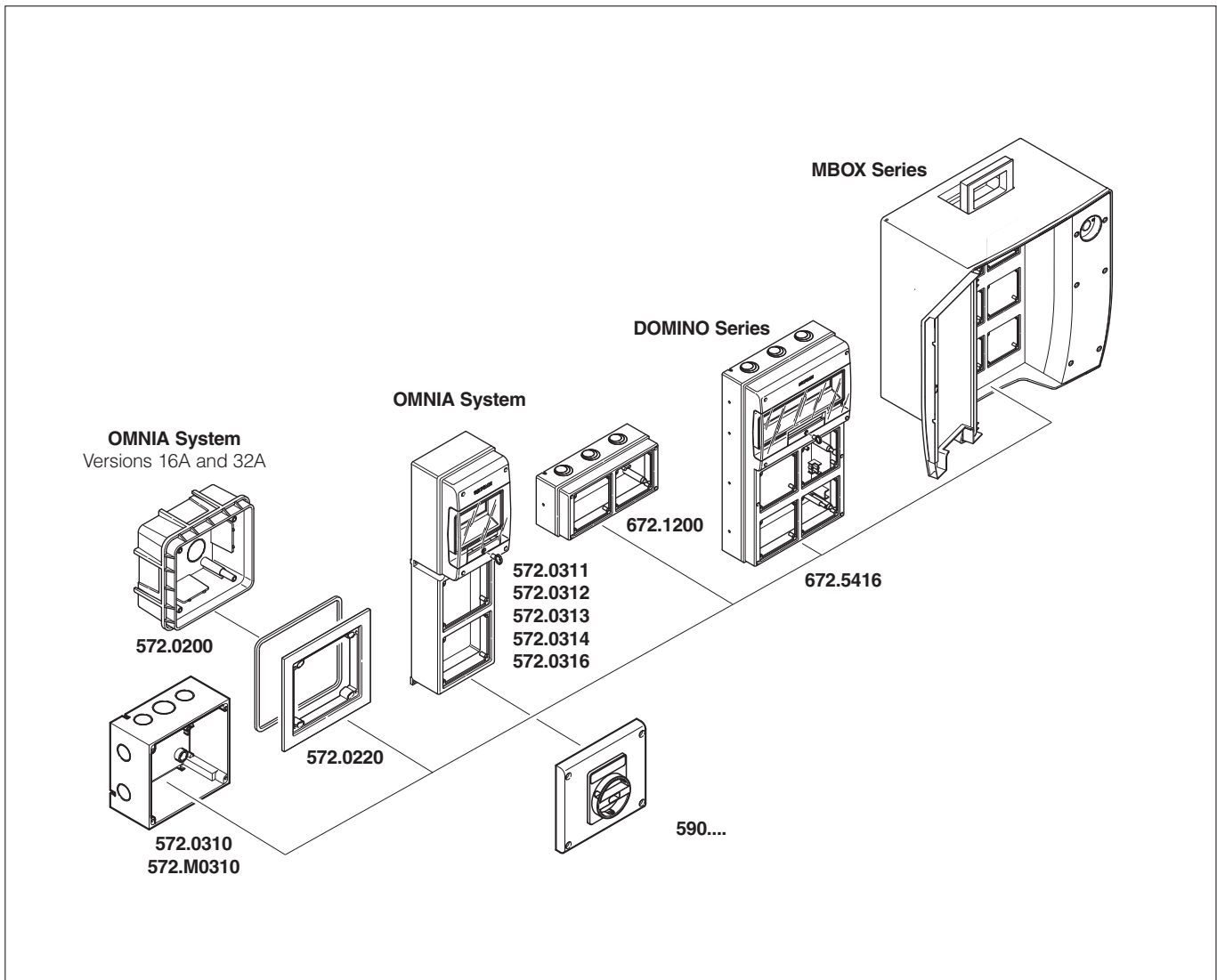
> SURFACE MOUNTING - METAL VERSION

	Poles	Enclosure dimensions (mm)	Protection degree					
					Emergency Switching 	General use 	Emergency Switching 	General use 
20A	2	105x150x82	IP65	1/12	590.HEM2002	590.HGE2002		
	3				590.HEM2003	590.HGE2003		
	4				590.HEM2004	590.HGE2004		
32A	2	105x150x82	IP65	1/12	590.HEM3202	590.HGE3202		
	3				590.HEM3203	590.HGE3203		
	4				590.HEM3204	590.HGE3204		
40A	2	105x150x82	IP65	1/12	590.HEM4002	590.HGE4002		
	3				590.HEM4003	590.HGE4003		
	4				590.HEM4004	590.HGE4004		
63A	2	150x210x106	IP65	1/5			590.HEM6302	590.HGE6302
	3						590.HEM6303	590.HGE6303
	4						590.HEM6304	590.HGE6304
80A	2	150x210x106	IP65	1/5			590.HEM8002	590.HGE8002
	3						590.HEM8003	590.HGE8003
	4						590.HEM8004	590.HGE8004
100A	3	150x210x106	IP65	1/5			590.HEM10003	590.HGE10003
	4						590.HEM10004	590.HGE10004
125A	3	315x264x122	IP65	1/5	590.HEM12503	590.HGE12503		
	4				590.HEM12504	590.HGE12504		
160A	3	410x315x150	IP65	1			590.HEM16003	590.HGE16003
	4						590.HEM16004	590.HGE16004

> FLUSH MOUNTING - ENGINEERING PLASTIC VERSION

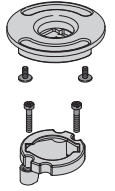


	Poles	Dimension (mm)	Protection degree		Emergency switching	General use
20A	2	136x125	IP65	1/12	590.ER2002	590.GR2002
	3				590.ER2003	590.GR2003
	4				590.ER2004	590.GR2004
32A	2	136x125	IP65	1/12	590.ER3202	590.GR3202
	3				590.ER3203	590.GR3203
	4				590.ER3204	590.GR3204

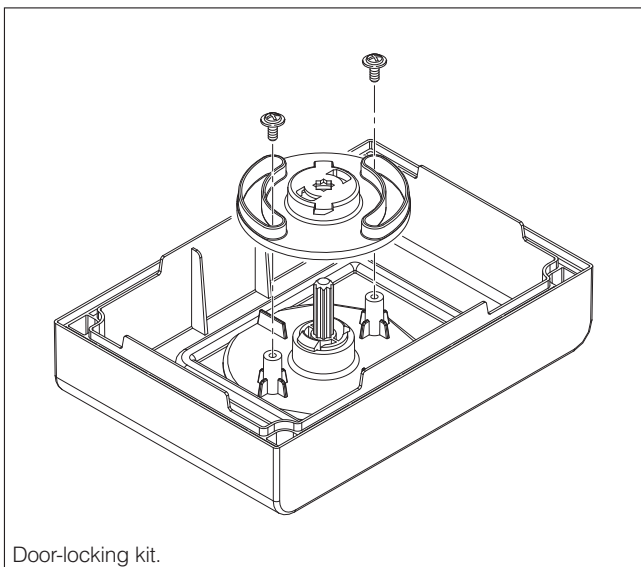


Accessories

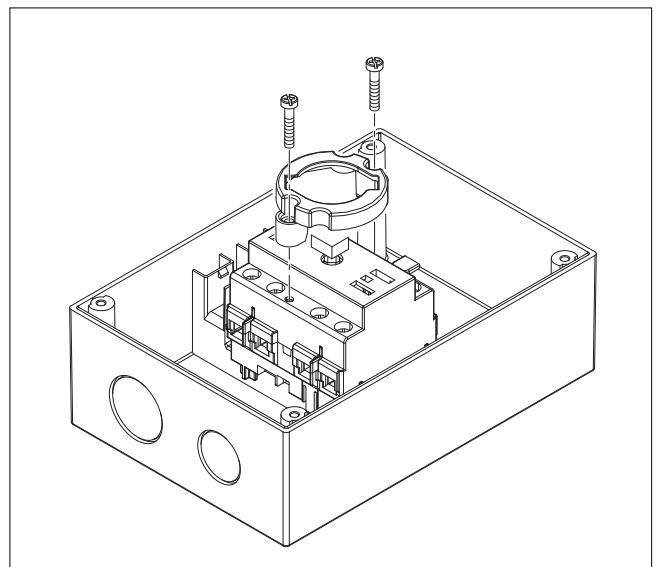
> DOOR-LOCKING KIT



Description	Rotary switches		
Suitable for engineering plastic enclosure	20A, 32A, 40A	1/12	590.BK040
	63A, 80A	1/5	590.BK080
Suitable for metal enclosure	20A, 32A, 40A	1/12	590.BK040H
	63A, 80A	1/5	590.BK080H



Door-locking kit.

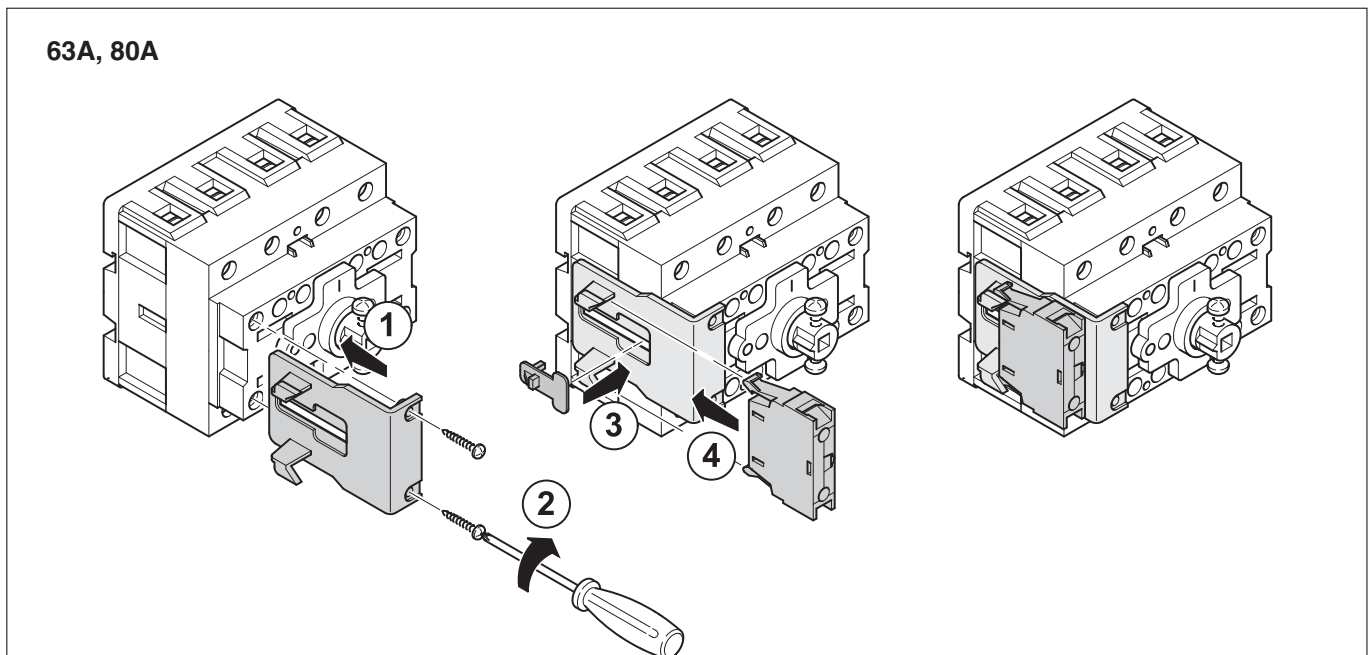
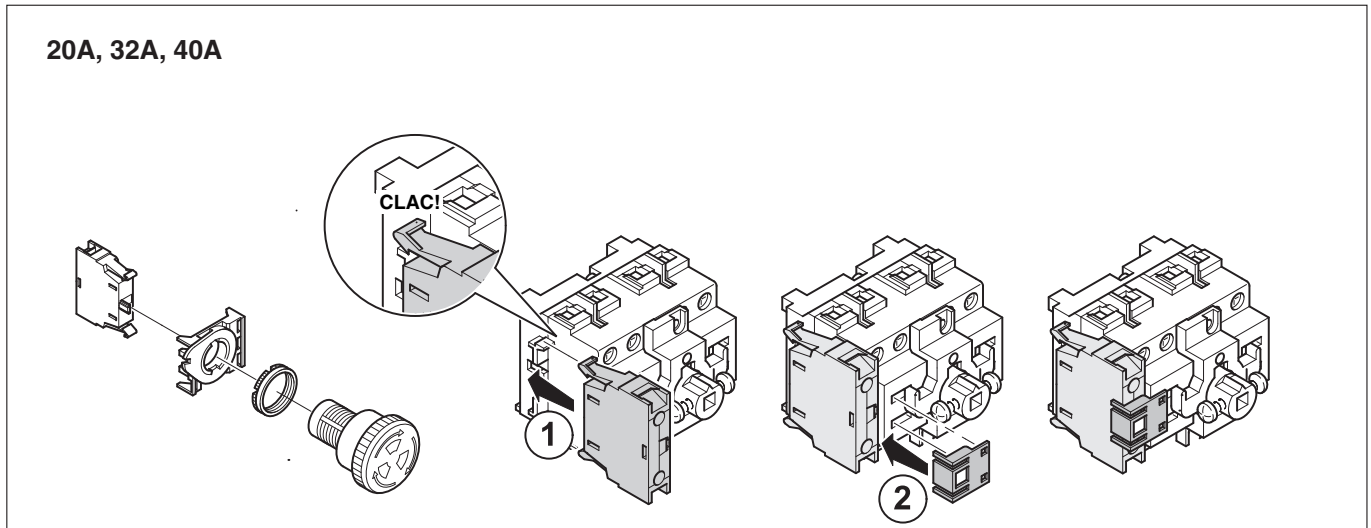


> AUXILIARY CONTACT



Description	Switch disconnectors	□	
NC contact	20A, 32A, 40A	10	590.PL004001
	63A, 80A	10	590.PL004003
NO contact	20A, 32A, 40A	10	590.PL004002
	63A, 80A	10	590.PL004004

NO= normally open.
NC= normally closed.



The contacts may also be used as auxiliary equipments for SCAME interlocked socket ADVANCE 2 Series and OMNIA Series, switch-disconnectors COMMAND Series and control equipment TOP22 Series.

ISOLATORS Series

> TECHNICAL DATA SWITCHES (1 POLE)

			20A	32A	40A
Rated insulation voltage Ui		Vac	250	250	250
Rated impulse withstand voltage Uimp		kV	4	4	4
Thermal current Ith		A	20	32	40
Thermal current Ithe		A	20	32	40
Nominal current rating Ie	AC22A Mixed resistive and inductive loads, including moderate overloads	250V A	20	32	40
	AC23A Switching off motor loads or other highly inductive loads (3 phase/3 pole)	250V A	16	20	25
Rated short-time withstand current Icw (s)			480	480	480
Short-circuit protection:	Conditional short-circuit current	kA	10	10	10
	Associate fuse size for conditional short-circuit current - Type gG	500 V kA	20	32	40
	Rated short-circuit making capacity Icm	kA	1500	1500	1500
Permissible wire guage:	Flexible wire	mm ²	6	6	6
	Rigid wire	mm ²	6	6	6

> TECHNICAL DATA SWITCH-DISCONNECTOR (2, 3, 4 POLES)

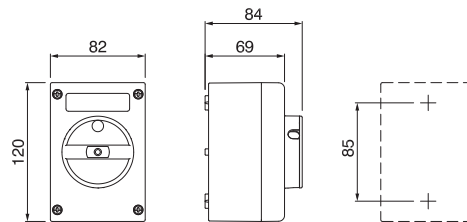
			20A	32A	40A	63A	80A	100A	125A	160A	
Rated insulation voltage U_i	V_{AC}		690	690	690	690	690	690	750	750	
	V_{DC}		400	400	400	-	-	-	750	750	
Rated impulse withstand voltage U_{imp}		kV	4	4	4	8	8	8	8	12	
Thermal current I_{th}		A	30	40	40	63	86	100	125	200	
Thermal current I_{the}		A	30	40	40	63	86	86	125	160	
Iec rating	AC21A Resistive loads, including moderate overloads	400V	-	-	40	-	-	-	-	-	
		500V	A	-	-	-	-	-	-	-	
		690V		30	32	-	63	80	100	125	160
	AC22A Mixed resistive and inductive loads, including moderate overloads	400V		-	-	40	-	-	-	-	-
		500V	A	-	-	-	-	-	-	-	-
		690V		20	32	-	63	80	86	125	160
	AC23A Switching off motor loads or other highly inductive loads (3 phase / 3 pole)	400V		20	32	35	63	67	67	90	135
		500V	A	-	-	-	40	67	67	70	125
		690V		16	25	25	30	38	38	50	80
	AC3 Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V	A	-	28.5	28.5	40	55	55	-	-
690V		A	12	20	20	25	32	32	-	-	
DC21A Resistive loads, including moderate overloads	300V	A	20	32	32	-	-	-	125 (220V)	160 (220V)	
DC22A Mixed resistive and inductive loads, including moderate overloads	250V	A	25	32	32	-	-	-	80 (220V)	160 (220V)	
	600V	A	10(1)	10(1)	10(1)	-	-	-			
Rated short-time withstand current I_{cw} (1s)		A	400	400	400	1500	1500	1500	2500	4000	
Short-circuit protection:	Conditional short-circuit current	kAeff	10	10	10	10	10	10	12	25	
	Associate fuse size for conditional short-circuit current - Type gG	A	16	32	40	63	80	-	100	200	
	Rated short-circuit making capacity I_{cm}	A	1500	1500	1500	2850	2850	2100	3600	12000	
UL rating	General use single phase and three phase	600V	A	32	40	-	63	80	100	-	-
	AC motor starting break all line single phase	120V	Hp	1.5	2	-	3	3	3	-	-
		240V	Hp	3	5	-	7.5	7.5	10	-	-
	AC motor B, C, D, starting break all lines three phase	240V	Hp	7.5	10	-	10	10	10	-	-
		480V	Hp	10	15	-	20	25	25	-	-
	600V	Hp	15	20	-	25	30	30	-	-	
Permissible wire gauge:	Flexible wire	mm ²	1,5 - 10	1,5 - 10	1,5 - 10	10-35	10-35	10-35	10-70	10-70	
		AWG	16 - 8	16 - 8	16 - 8	10-2	10-2	10-2	-	-	
	Flexible wire	mm ²	1,5 - 16	1,5 - 16	1,5 - 16	10-35	10-35	10-35	-	-	
		AWG	16-8	16-8	16-8	10-2	10-2	10-2	-	-	

(1) 2+2 poles in series. UL approve values. IMQ approved values.

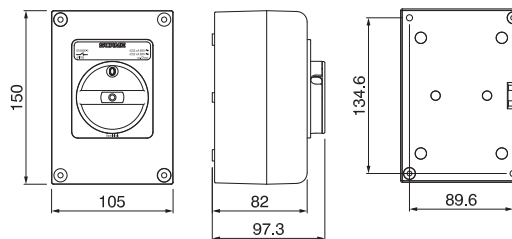
ISOLATORS Series

> DIMENSIONS - ENGINEERING PLASTIC VERSIONS

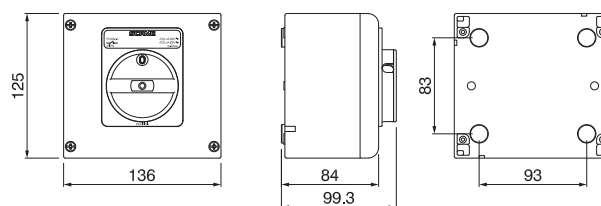
ENCLOSURE 20A - 32A - 40A (82x120x69)



ENCLOSURE 20A - 32A - 40A (105x150x82)

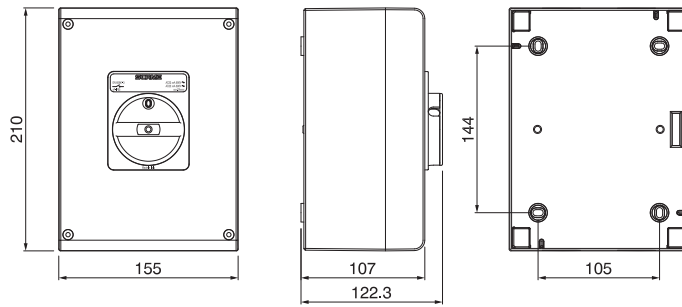


ENCLOSURE 20A - 32A - 40A (136x125x84)

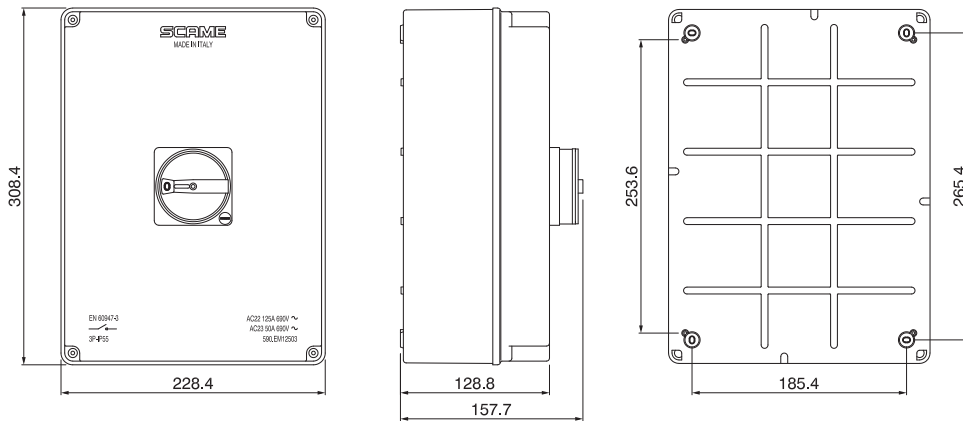


(Dimensions in mm)

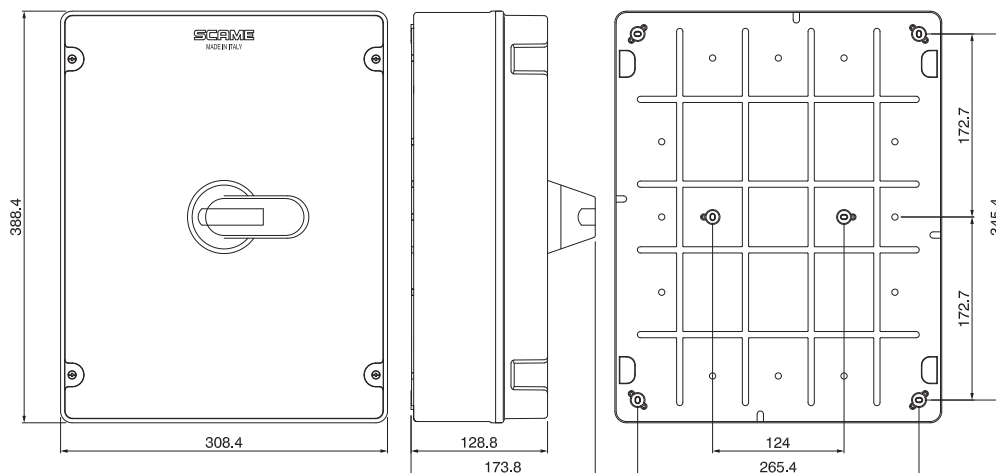
ENCLOSURE 63A - 80A - 100A (210x155x107)



ENCLOSURE 125A (300x220x120)



ENCLOSURE 160A (380x300x120)

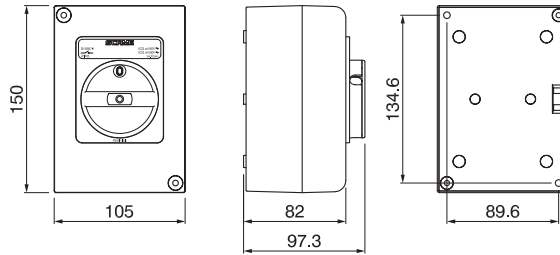


(Dimensions in mm)

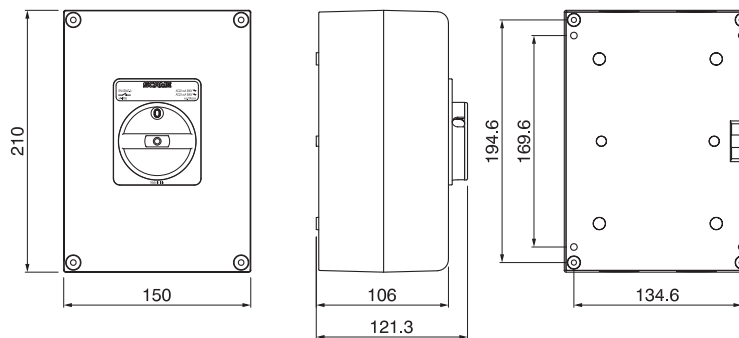
ISOLATORS Series

> DIMENSIONS - METAL VERSIONS

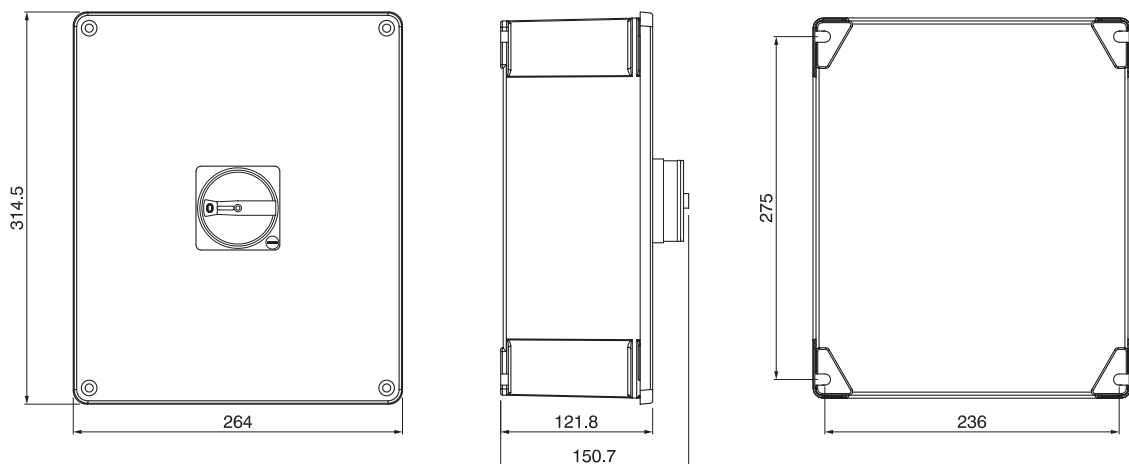
ENCLOSURE 20A - 32A - 40A (105x150x82)



ENCLOSURE 63A - 80A - 100A (150x210x106)

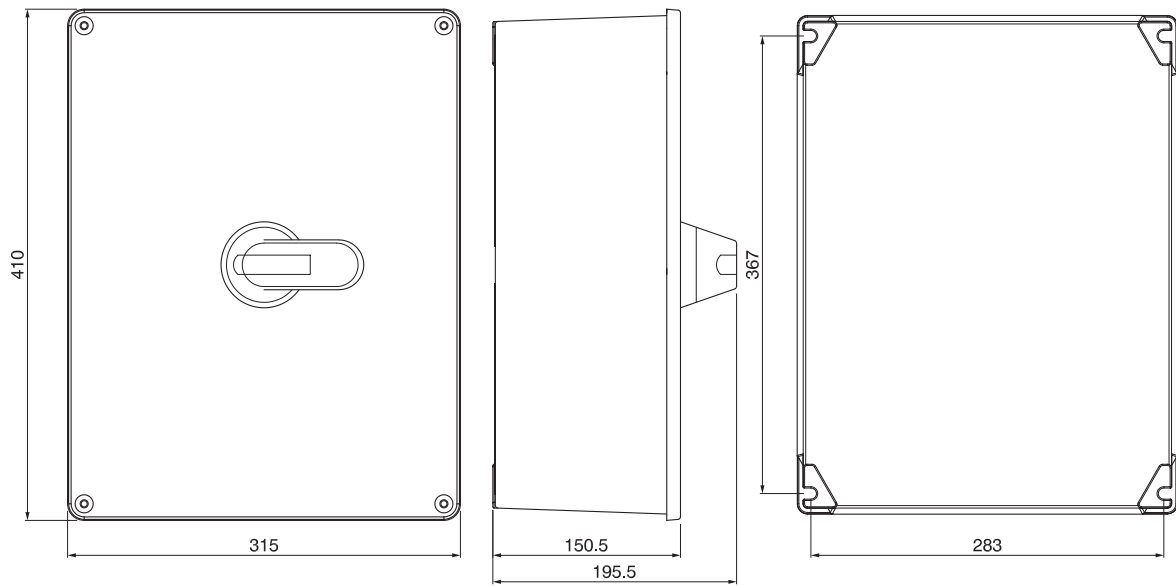


ENCLOSURE 125A (315x260x110)

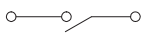


(Dimensions in mm)

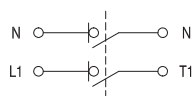
ENCLOSURE 160A (410x315x150)



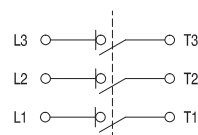
1P SWITCH



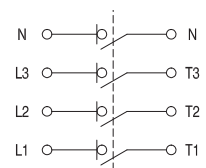
2P SWITCH-DISCONNECTOR



3P SWITCH-DISCONNECTOR



4P SWITCH-DISCONNECTOR



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