

70 RT HP

Rotary isolator

70 RT HP is a new range of surface mounted rotary isolators available with plastic or metal boxes, in versions from 16A to 160A, for control (black knob) or emergency (red knob) applications. The range includes distribution board options for front-panel or DIN rail assembly, in 16 to 63A options, all of which can be equipped with auxiliary contacts. The isolators guarantee an innovative IP degree up to IP66/IP67/IP69 and they have been designed to reduce wiring time, simplifying installation, and offer maximum safety and durability.



Technical characteristics page 1056

70 RT HP - SURFACE MOUNTING ROTARY ISOLATOR IN ISOLATING BOX - IP66/IP67/69

CONTROL VERSIONS



GW 70 406 P

SURFACE-MOUNTING ISOLATOR - CONTROL VERSION WITH LOCKABLE BLACK KNOB - IP66/IP67/IP69

Code	No. of poles	Outer dim. LxHxD (mm)	Holes entry	Lid screws (no. and type)	Pack Carton
Rated current (A): 16					
GW 70 401 P	2P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 402 P	3P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 402 NP	3P+N	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 403 P	4P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
Rated current (A): 25					
GW 70 416 P	2P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 417 P	3P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 417 NP	3P+N	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 418 P	4P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
Rated current (A): 32					
GW 70 404 P	2P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 405 P	3P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 405 NP	3P+N	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 406 P	4P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
Rated current (A): 40					
GW 70 413 P	2P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 414 P	3P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 414 NP	3P+N	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
GW 70 415 P	4P	125x150x75,5	2 x M20/25 + 2 x M20/25	4 insul. a 1/4 turn	1/16
Rated current (A): 63					
GW 70 407 P	3P	156x200x95	2 x M25/32 + 2 x M25/32	4 insul. a 1/4 turn	1/6
GW 70 407 NP	3P+N	156x200x95	2 x M25/32 + 2 x M25/32	4 insul. a 1/4 turn	1/6
GW 70 408 P	4P	156x200x95	2 x M25/32 + 2 x M25/32	4 insul. a 1/4 turn	1/6
Rated current (A): 80					
GW 70 419 P	3P	156x200x95	2 x M25/32 + 2 x M25/32	4 insul. a 1/4 turn	1/6
GW 70 419 NP	3P+N	156x200x95	2 x M25/32 + 2 x M25/32	4 insul. a 1/4 turn	1/6
GW 70 420 P	4P	156x200x95	2 x M25/32 + 2 x M25/32	4 insul. a 1/4 turn	1/6
Rated current (A): 100					
GW 70 421 P	3P	236,5x316x178		4 insulation	1
GW 70 421 NP	3P+N	236,5x316x178		4 insulation	1
GW 70 422 P	4P	236,5x316x178		4 insulation	1
Rated current (A): 125					
GW 70 423 P	3P	236,5x316x178		4 insulation	1
GW 70 423 NP	3P+N	236,5x316x178		4 insulation	1
GW 70 424 P	4P	236,5x316x178		4 insulation	1
Rated current (A): 160					
GW 70 425 P	3P	236,5x316x178		4 insulation	1
GW 70 425 NP	3P+N	236,5x316x178		4 insulation	1
GW 70 426 P	4P	236,5x316x178		4 insulation	1

NOTE: can be padlocked in ON and OFF position with max. 3 locks with diameter max. 8 mm.

Versions 100-160A allow to install max. 2 x M63 cable glands.

All Lid screws are sealable.

CHARACTERISTICS: Version 3P+N with Neutral not isolated. Versions 100-125-160A 4P with Neutral anticipated.

70 RT HP



SWITCH DISCONNECTORS
IN PLASTIC BOX



The switch disconnectors in plastic boxes, which are available in control or emergency versions from 16 to 160A, are distinguished by the unique degree of protection that they offer: IP66/IP67/IP69, with plumbable plastic 1/4 turn screws, and plenty of space for wiring and cable winding.

SWITCH DISCONNECTORS
IN METAL BOX



Versions in metal boxes with IP66 degree of protection are made from painted aluminium alloy, an extremely durable solution which offers high levels of performance, even in heavy industry applications and particularly harsh conditions.

ATEX SWITCH DISCONNECTORS
IN METAL BOX



Versions in metal boxes feature ATEX surface-mounting rotary switch disconnectors from 16 to 100A; these are fully compliant with Directive 94/9/EC, which defines and regulates electrical systems for use in potentially explosive atmospheres.

70 RT HP - ROTARY ISOLATOR SWITCHES

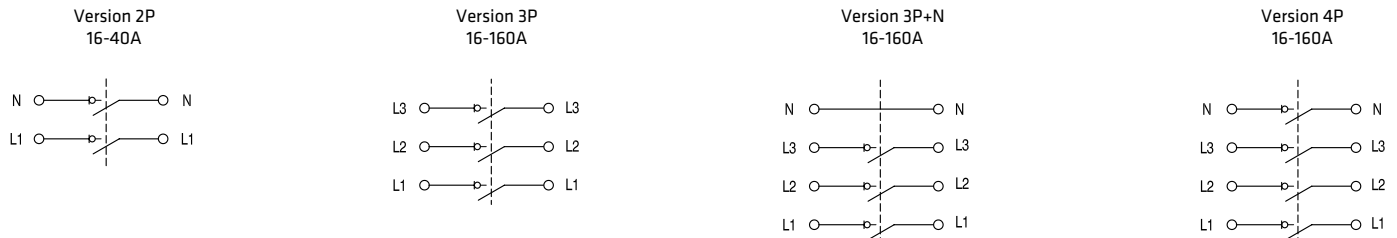
Isolator switches for continuous operation, in version for emergency or for control, assembled in boards and in watertight boxes. Complying with standard EN 60947-3.

Electrical data

Rated current			16A	25A	32A	40A	63A	80A	100	125	160	
Rated insulation voltage U_i		VAC	690	690	690	690	690	690	1000	1000	1000	
Rated impulse withstand voltage U_{imp}		kV	4	4	4	4	4	4	8	8	8	
Thermal current I_{th}/I_{the}		A	16	25	32	40	63	80	100	125	160	
Rated operational current I_C	AC21A Resistive loads, including moderate overloads	415V	A	16	25	32	40	63	80	100	125	160
		500V	A	16	25	32	40	63	80	100	125	160
	AC22A Mixed resistive and inductive loads, including moderate overloads	415V	A	16	25	32	40	63	80	100	125	160
		500V	A	16	25	32	40	63	80	100	125	160
	AC23A Switching of motor loads or other highly inductive loads (3 phases/3 poles)	415V	A	16	25	32	40	63	80	100	125	125
		500V	A	16	25	32	40	63	80	80	100	100
AC3 Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	415V	A	16	25	32	32	63	63	100	125	125	
	500V	A	16	25	25	25	50	50	80	100	100	
Rated short time withstand current I_{cw} (1s)		A	160	250	320	400	630	800	2500	2500	2500	
Conditional short circuit current	415V	FA _{eff}	10	10	10	10	6	6	10	10	10	
	500V		6	6	6	6	6	6	6	6	6	
Associate fuse size for conditional short circuit current - Type gG		A	16	25	32	40	63	80	100	125	160	
WIRING*												
Tightening torque		Nm	1				3		6			
Max. flexible wire		mm ²	1 ÷ 10				2,5 ÷ 25		4 ÷ 70			
Max. rigid wire		mm ²	1 ÷ 10				2,5 ÷ 25		4 ÷ 70			

* The surface of the wiring terminals is knurled to improve the grip of the stripped cable inserted into the terminal and to facilitate wiring operations.



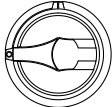
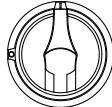
Wiring diagram



BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS



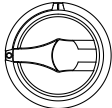
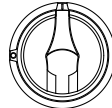
Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Not resistant	Limited resistance	Limited resistance	Not resistant	Not resistant	Resistenza limitata	Resistant	Resistant

Mechanical data - Surface mounting isolator in plastic boxes

In (A)		16	25	32	40	63	80	100	125	160	
Poles	2P	x	x	x	x						
	3P	x	x	x	x	x	x	x	x	x	
	3P+N	x	x	x	x	x	x	x	x	x	
	4P	x	x	x	x	x	x	x	x	x	
Degree of protection		IP66/IP67/IP69									
Impact resistance		IK08									
Protection against indirect contact		double insulation <input type="checkbox"/>									
Thermo-pressure with ball (°C)		125 (device); 80 (box)									
Glow Wire Test (°C)		960 (device); 650 (box)									
Range of temperature (°C)		-25; +60									
Housable auxiliary contacts		Max. 2 (1 per sides)					Max. 4* (2 per sides)				
Holes entry	Upper sides	2 x M20/M25			2 x M25/M32			-			
	Lower sides	2 x M20/M25			2 x M25/M32			-			
Knob position	Open - OFF position		Close - ON position				Open - OFF position		Close - ON position		
											

(*) For version 160A 4P the max number of auxiliary contact that can be housable is 1.

Mechanical data - Surface mounting isolator in metal boxes

In (A)		16	25	32	40	63	80	100	125	160	
Poles	2P	x	x	x	x						
	3P	x	x	x	x	x	x	x	x	x	
	3P+N	x	x	x	x	x	x	x	x	x	
	4P	x	x	x	x	x	x	x	x	x	
Degree of protection		IP66									
Impact resistance		IK10 (box); IK08 (knob)									
Thermo-pressure with ball (°C)		80 (knob)									
Glow Wire Test (°C)		650 (knob)									
Range of temperature (°C)		-25; +60									
Housable auxiliary contacts		Max. 2 (1 per sides)					Max. 4* (2 per sides)				
Holes entry	Upper sides	2 x M20	2 x M20			2 x M32			-		
	Lower sides	2 x M20	2 x M25			2 x M32			-		
Knob position	Open - OFF position		Close - ON position				Open - OFF position		Close - ON position		
											

(*) For version 160A 4P the max number of auxiliary contact that can be housable is 1.

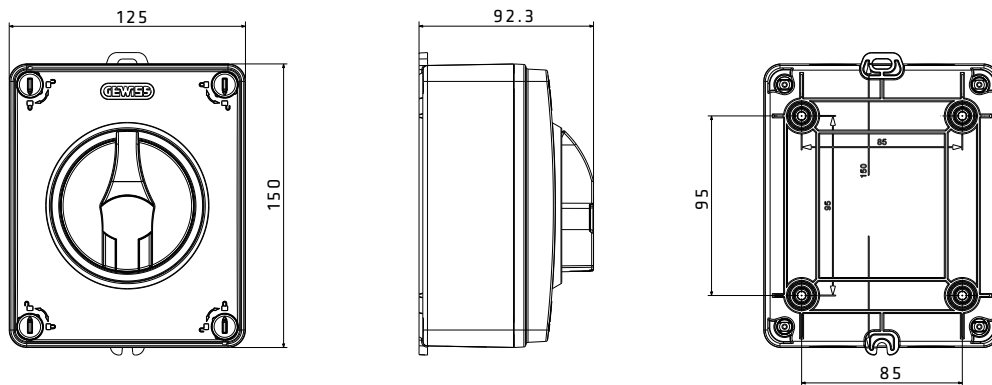
Auxiliary Contacts

TECHNICAL DATA	
Type: Auxiliary contacts NO or NC	Thermal curren in Air (Ith): 16A
IP Degree: IP20	Thermal curren in Boxes (Ithe): 10A
Range of temperature (°C): -25; +60	Rated insulation voltage (Ui): 400 V
Pollution Degree: 2	Rated impulse withstand voltage (Uimp): 4 kV
Thermo-pressure with ball (°C): 125	Category of uses AC15: 6A (230V)
Glow Wire Test (°C): 960	3A (380V)
Tightening torque: 0,8 Nm	Conditional short circuit current (Icc - 400 V): 1 kA
Range of wiring: 2 x 2,5 mm2 (MAX.) / 1 x 0,75 mm2 (MIN.)	Associate fuse size for conditional short circuit current - Type gG: 6A

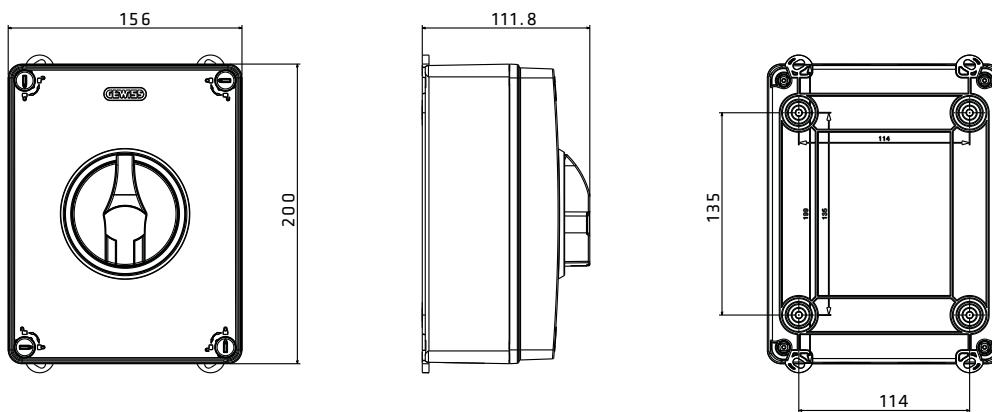
Dimension tables

SURFACE-MOUNTING ISOLATOR IN PLASTIC BOXES

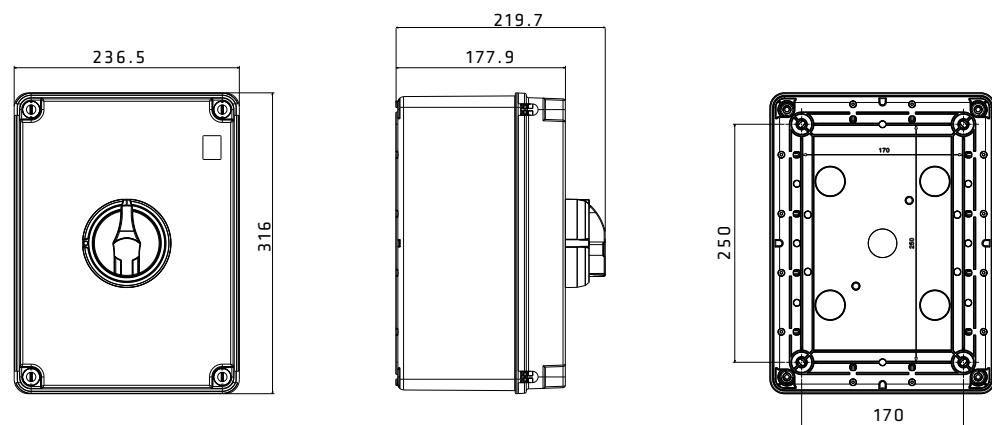
ISOLATOR 16 - 25 - 32 - 40A



ISOLATOR 63 - 80A

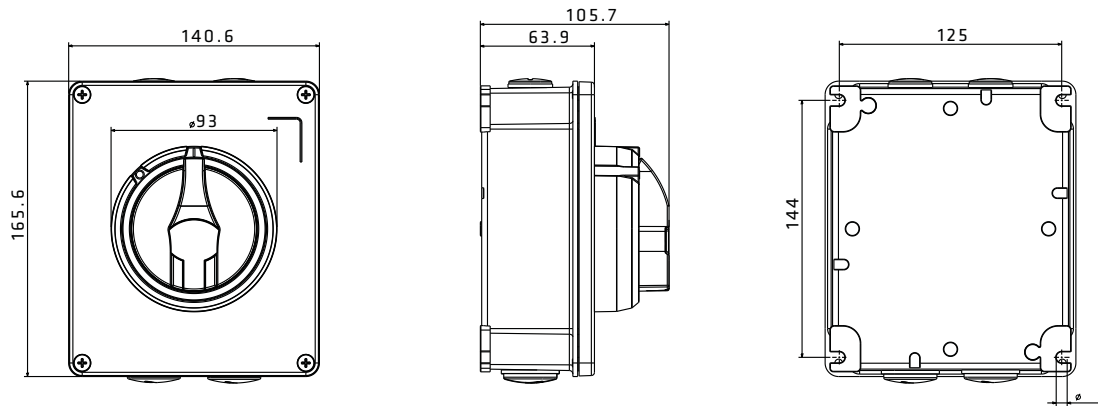


ISOLATOR 100 - 125 - 160A

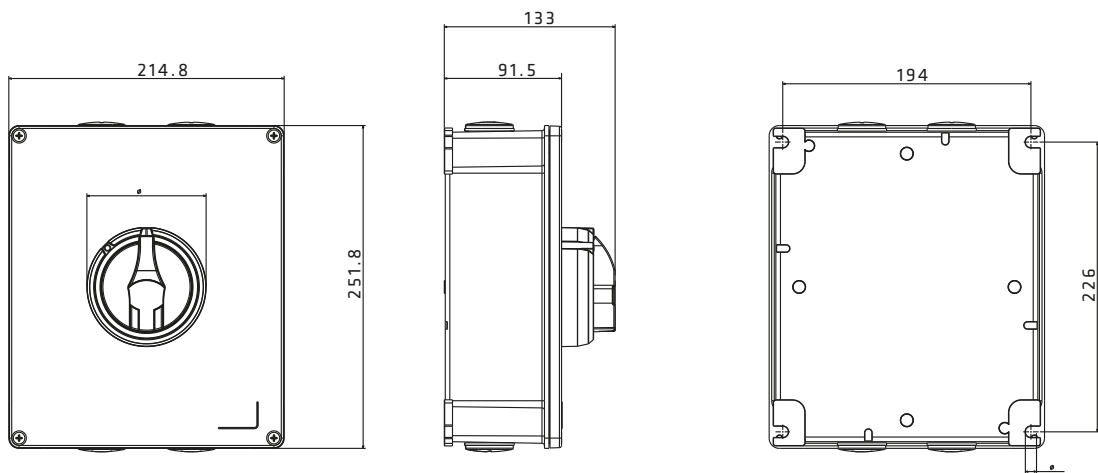


SURFACE-MOUNTING ISOLATOR IN METALLIC BOXES

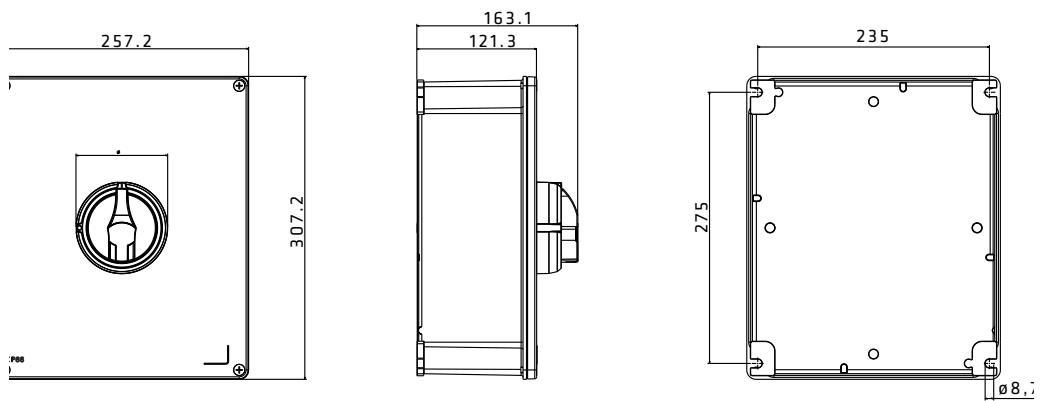
ISOLATOR 16 - 25 - 32 - 40A



ISOLATOR 63 - 80A

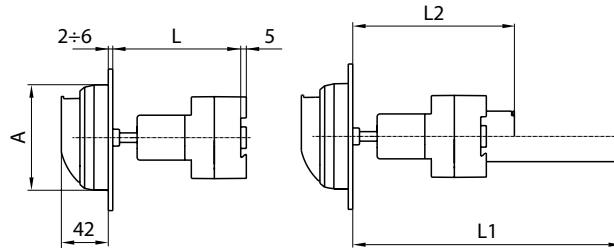


ISOLATOR 100 - 125 - 160A



Dimension tables

BOARD-MOUNTING ISOLATOR: DOOR-LOCKING VERSION

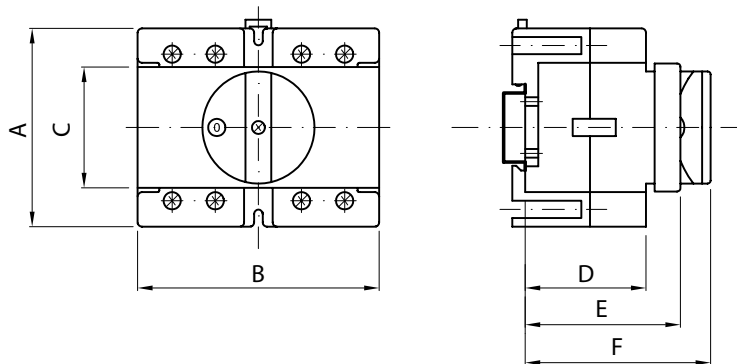


One-way switch	WITHOUT BRACKETS		WITH BRACKETS		A
	Supplied with L	Adjustable up to L*	L1 max length obtainable	L2 min length obtainable**	
16 - 32 A	145	87	(145+160) 305	(87+30) 117	ø 94
63 A	177	114	(117+160) 337	(114+30) 144	ø 94

* Position obtainable by cutting the shaft supplied.

** Position obtainable by cutting both the shaft supplied, and the brackets, in the points shown.

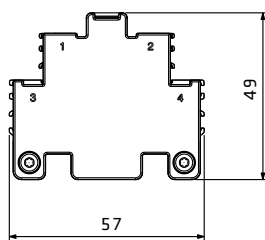
BOARD-MOUNTING ROTARY SWITCH: VERSION FOR ASSEMBLY ON DIN RAIL EN 50022



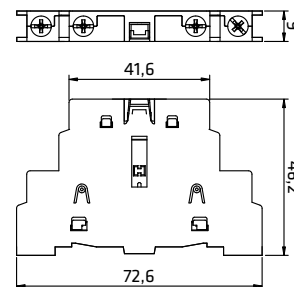
Tipo	A	B	C	D	E	F
16 - 32A	55	71 ●	45	37	53	68
63 A	73	89 ▲	45	44	56	68

● Occupies 4 modules (17,5mm). ▲ Occupies 5 modules (17,5mm).

AUXILIARY CONTACT



For isolator 16 - 25 - 32 - 40 - 63 - 80A



For isolator 100 - 125 - 160A

70 RT ATEX DISCONNECTORS - METAL BOX

Switch disconnectors for command and emergency in aluminium box painted in Grey Ral 7037, suitable for use in **ZONE 22(D)** with rated current of 16-32-63-100A. Standard: EN 60947-3 (CEI 17-11) , EN 60079-0 (CEI 31-70), EN 60079-31 (CEI 31-89).

TECHNICAL DATA					16A	32A	63A	100A
Vn insulation	Ui (IEC947-3)		V	800				
Vn of impulse withstand	Uimp (IEC947-3)		kV	8				
In thermal	In air	Ith (IEC947-3)	A	25	40	63	100	
	In box	Ithe (IEC947-3)	A	16	32	63	95	
In use	AC21A	Ie (IEC947-3)	400V	A	16	32	63	95
	AC22A		400V	A	16	32	63	95
Max power with three-phase motors	AC23A	IEC947-3	400V	kW	7	14	28	42
In short lifespan		Icw		A	400	800	1500	1500
In cond. of short-circuiting		IEC947-3		kAeff	10	10	15	15
CONNECTABLE SECTIONS								
Rigid cables		min-max	mm ²	1,5-16	1,5-16	2,5-35	10-70	
			AWG	16-6	16-6	14-3	8-00	
Flexible cables		min-max	mm ²	1,5-16	1,5-16	2,5-35	10-70	
			AWG	16-6	16-6	14-3	8-00	
CONDITIONS OF USE								
Ambient temperature	of storage		°C	-30; +70				
	of operation		°C	-25; +55				

Note: for the behaviour with chemical and atmospheric agents, contact SAT Customer Service (+ 39 035/946111).

Dimension tables

SWITCH DISCONNECTORS FOR COMMAND AND EMERGENCY

