

ENCLOSED SWITCH-DISCONNECTORS IN DIE-CAST ALUMINIUM ENCLOSURE



REFERENCE STANDARDS

IEC EN 60947-3

EN 60529

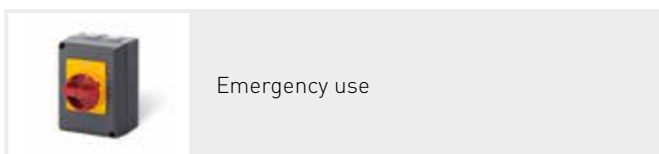
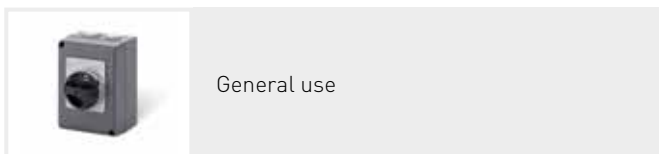
MARKINGS AND DIRECTIVES



QUALITY MARKS



VERSIONS



TECHNICAL CHARACTERISTICS

Rated current:	16A ¹⁾ -20A-25A ¹⁾ -32A-40A-63A 80A-100A-125A-160A
Polarity:	1P+SN, 2P, 3P, 3P+SN, 3P+N, 4P, 6P, 8P
Rated voltage:	690Vac - 600Vdc
Frequency:	50/60Hz, c.c.
Insulating voltage:	690Vac - 600Vdc
Protection degree:	16A÷100A IP66 - 125A÷160A IP65
Installation temperature:	-25°C +60°C
Material:	Die-cast aluminium
Finishing:	Painting with thermosetting powder based on saturated carboxylated polyester resins with high resistance to UV rays and atmospheric agents
Colour:	Grey RAL 7015
Self extinguishing degree (GWT):	960°C (switch)
Impact resistance:	20÷100A IK10 - 125÷160A IK08
Auxiliary contacts:	Max 2 auxiliary contacts
Handle lock (with padlock):	OFF (3 padlocks) ON (1 padlock) ²⁾
Max diameter of the padlock arch:	8mm

2P, 3P+N and 8P versions with early make late break neutral pole.
1P+SN and 3P+SN versions with unswitched neutral and solid neutral terminal block.
Terminal/threaded bar earth conductor connection.
Equipped with door locking with the switch in ON position.

¹⁾Only for 6 and 8 poles.

²⁾Only general use versions.

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	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ CABLE ENTRIES 1P+SN, 2P, 3P, 3P+SN, 3P+N, 4P

Rated current (A)	Nr of poles	Enclosure dimensions (mm)	Cable entries		
20-32-40	1P+SN, 2P, 3P, 3P+SN, 3P+N, 4P	105x150x82	Top/bottom	1xM20 + 1xM25	Threaded open entries
			Rear	-	Blank side
63-80-100	1P+SN, 2P, 3P, 3P+SN, 3P+N, 4P	160x220x107	Top/bottom	2xM32	Threaded open entries
			Rear	-	Blank side
125	3P, 3P+SN, 3P+N	264x315x122	Top/bottom	-	Blank side
			Rear	-	Blank side
160	3P, 3P+SN, 3P+N	315x410x153	Top/bottom	-	Blank side
			Rear	-	Blank side

Special drillings on request.
Threaded caps supplied.

■ CABLE ENTRIES 6P, 8P

Rated current (A)	Nr of poles	Enclosure dimensions (mm)	Cable entries		
16-25-32-40	6P, 8P	150x210x107	Top/bottom	2xM32	Blank side
			Rear	-	Blank side
63-80-100	6P, 8P	264x315x122	Top/Bottom	-	Blank side
			Rear	-	Blank side
63-80-100	6P, 8P	315x410x153	Top/bottom	-	Blank side
			Rear	-	Blank side

Special drillings on request.

■ CABLE ENTRIES 1P+SN, 2P, 3P, 3P+SN, 3P+N high wiring capacity

Rated current (A)	Nr of poles	Enclosure dimensions (mm)	Cable entries		
20-32-40	1P+SN, 2P, 3P, 3P+SN, 3P+N	150x210x107	Top/bottom	2xM32	Threaded open entries
			Rear	-	Blank side
63-80-100	3P, 3P+SN, 3P+N	264x315x122	Top/bottom	-	Blank side
			Rear	-	Blank side
100-125-160	3P, 3P+SN, 3P+N	315x410x153	Top/bottom	-	Blank side
			Rear	-	Blank side

Special drillings on request.

■ CABLE ENTRIES 6P, 8P high wiring capacity

Rated current (A)	Nr of poles	Enclosure dimensions (mm)	Cable entries		
20-32-40	6P, 8P	264x315x122	Top/bottom	-	Blank side
			Rear	-	Blank side
63-80-100-125-160	6P, 8P	315x410x153	Top/bottom	-	Blank side
			Rear	-	Blank side

Special drillings on request.



■ TECHNICAL CHARACTERISTICS 20A÷40A 1P+SN

Switch size				Y01			
Rated current In				20A	32A	40A	
Rated insulation voltage	Ui	VAC		250	250	250	
Rated impulse withstand voltage	Uimp	kV		4	4	4	
Theraml current	Ithe	A		20	32	40	
Rated operational current Ie	AC22A	Mixed resistive and inductive loads, including moderate overloads	250V	A	20	32	40
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	250V	A	20	22	25
Short circuit withstand current	Icw	A		480	480	480	
Conditional short circuit current		kAeff		10	10	10	
Associate fuse size for conditional short circuit current - type gG		A		20	32	40	
Flexible wires		mm ²		1.5 - 6	1.5 - 6	1.5 - 6	
Rigid wires		mm ²		1.5 - 6	1.5 - 6	1.5 - 6	

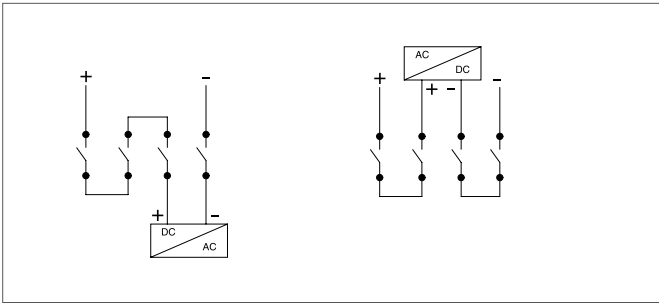
■ TECHNICAL CHARACTERISTICS 20A÷160A 1P+SN 2P, 3P, 3P+N, 4P

Switch size				Y1			Y2		Y4	Y5		
Rated current In				20A	32A	40A	63A	80A	100A	125A	160A	
Rated insulation voltage	Ui	VAC		690	690	690	690	690	800	800	800	
Rated impulse withstand voltage	Uimp	kV		4	4	4	4	4	8	8	8	
Thermal current	Ithe	A		20	32	40	63	80	100	125	160	
Rated operational current Ie	AC21A	Resistive loads, including moderate overloads	415V	A	20	32	40	63	80	100	125	160
			500V	A	20	32	32	63	80	100	125	160
			690V	A	20	32	32	63	80	100	125	160
	AC22A	Mixed resistive and inductive loads, including moderate overloads	415V	A	20	32	40	63	80	100	125	160
			500V	A	20	32	32	63	80	100	125	160
			690V	A	20	32	32	63	80	100	125	160
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	415V	A	20	32	35	63	67	100	125	160
			500V	A	20	25	25	40	67	-	125	125
			690V	A	20	25	25	30	38	-	100	100
	AC23A¹⁾	Rated operational power	415V	Kw	9	15	18.5	33	37	46	55	69
	AC3	Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	415V	A	18	25	28.5	40	55	-	-	-
			690V	A	12	18	20	25	32	-	-	-
	DC22A²⁾	Mixed resistive and inductive loads, including moderate overloads	250V	A	25	32	32	63	-	-	-	-
			600V	A	10	10	10	-	-	-	-	-
Short circuit withstand current	Icw (1s)	A		400	400	400	1500	1500	1500	3000	3000	
Conditional short circuit current		kAeff		10	10	10	10	10	30	50	50	
Associate fuse size for conditional short circuit current - type gG		A		20	32	40	63	80	100	125	125	
Flexible wires		mm ²		1.5-10	1.5-10	1.5-10	10-35	10-35	10-50	10-70	10-70	
Rigid wires		mm ²		1.5-16	1.5-16	1.5-16	10-35	10-35	10-50	10-70	10-70	

¹⁾ This value is provided as an indication considering the most critical inductive load condition and may vary according to the specifications provided by the motor manufacturer.

²⁾ 4P versions with poles in series.


■ 4P VERSIONS POLES CONNECTION IN SERIES FOR USE IN DC



■ TECHNICAL CHARACTERISTICS 16A÷160A 6P, 8P

Switch size			Y3				Y4			Y5			
Rated current In			16A	25A	32A	40A	63A	80A	100A	125A	160A		
Rated insulation voltage	Ui	VAC	800	800	800	800	800	800	800	800	800		
Rated impulse withstand voltage	Uimp	kV	8	8	8	8	8	8	8	8	8		
Thermal current	Ithe	A	16	25	32	40	63	80	100	125	160		
Rated operational current Ie	AC21A	Resistive loads, including moderate overloads	415V	A	16	25	32	40	63	80	100	125	160
			500V	A	16	25	32	40	63	160	80	125	160
			690V	A	16	25	32	40	63	160	80	125	160
	AC22A	Mixed resistive and inductive loads, including moderate overloads	415V	A	16	25	32	40	63	160	80	125	160
			500V	A	16	25	32	40	63	160	80	125	160
			690V	A	16	25	32	40	40	40	40	125	160
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	415V	A	16	25	32	40	63	80	100	125	160
			500V	A	16	25	32	40	63	63	63	125	125
			690V	A	16	25	25	25	32	32	32	100	100
	AC23A¹⁾	Rated operational power	415V	Kw	7,5	11	15	18,5	35	37	46	55	69
	Short circuit withstand current	Icw (1s)	A	1100	1100	1100	1100	1500	1500	1500	3000	3000	
	Conditional short circuit current		kAeff	50	50	50	50	50	50	30	50	50	
Associate fuse size for conditional short circuit current - type gG		A	16	25	32	40	63	80	100	125	125		
Flexible wires		mm ²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70	10-70		
Rigid wires		mm ²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70	10-70		

¹⁾ This value is provided as an indication considering the most critical inductive load condition and may vary according to the specifications provided by the motor manufacturer.

■ TECHNICAL CHARACTERISTICS 100A-125A-160A 3P, 3P+SN, 3P+N, 6P, 8P – HIGH WIRING CAPACITY

Switch size			K1		K2
Rated current In			100A	125A	160A
Rated insulation voltage	Ui	(V)	1000	1000	1000
Rated impulse withstand voltage	Uimp	(kV)	8	8	12
Thermal current	Ithe	(A)	100	125	160
Rated operational current Ie	AC21A/B Resistive loads, including moderate overloads	415V (A)	100	125	160
		500V (A)	100	125	160
		690V (A)	100	125	160
	AC22A/B Mixed resistive and inductive loads, including moderate overloads	415V (A)	100	125	160
		500V (A)	100	125	160
		690V (A)	100	125	160
	AC23A/B Switching of motor loads or other highly inductive loads (3 phase/3 pole)	415V (A)	100	125	160
		500V (A)	80	100	125
		690V (A)	63	80	100
	AC23A ¹⁾ Rated operational power	415V kW	52	65	85
Short circuit withstand current 1sec		(kA)	5	5	8
Conditional short circuit current		(kA)	50	50	50
Associate fuse size for conditional short circuit current		(A)	100	125	160
Terminal bolt size		mm	M6	M6	M8
Palm width		mm	15	15	21

¹⁾ This value is provided as an indication considering the most critical inductive load condition and may vary according to the specifications provided by the motor manufacturer.

■ AUXILIARY CONTACTS

Code	590.PL004001 590.PL004002	590.PL004005	590.PL004003 590.PL004004	590.PL004006	590.PL005	590.PL006011 590.PL0060021
Switch type	Y1		Y2		Y3-Y4-Y5	K1-K2
Contact type	NC NA	NO/NC	NC NA	NO/NC	NO/NC	NO/NC
Break activation	Simultaneous	Break before main contacts	Simultaneous	Break before main contacts	Break before main contacts	Break before main contacts
Rated thermal current	400V	16A	10A	16A	10A	10A
	250V	16A	16A	16A	16A	16A
Rated operational current AC15	400V	4.5A		4.5A	-	
	250V	6A		6A	-	

