

**Main switch, P3, 100 A, surface mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position**

**Part no.** P3-100/I5/SVB  
**Catalog No.** 207373

**EL-Nummer  
(Norway)** 1457891

## Delivery program

Product range		Main switch maintenance switch
Part group reference		P3
Stop Function		Emergency switching off function With red rotary handle and yellow locking ring
Information about equipment supplied		Auxiliary contact or neutral conductor fitted by user.
Number of poles		3 pole
<b>Auxiliary contacts</b>		
	N/O	0
	N/C	0
Locking facility		Lockable in the 0 (Off) position
Degree of Protection		IP65
Design		surface mounting
Switching angle	°	90
<b>Motor rating AC-23A, 50 - 60 Hz</b>		
400 V	P	kW 55
Rated uninterrupted current	I <sub>u</sub>	A 100
Note on rated uninterrupted current I <sub>u</sub>		Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section.

## Technical data

General			
Standards		IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3	
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30	
Ambient temperature			
Enclosed	°C	-25 - +40	
Oversupply category/pollution degree		III/3	
Rated impulse withstand voltage	U <sub>imp</sub>	V AC 6000	
Mechanical shock resistance	g	15	
Mounting position		As required	

## Contacts

Mechanical variables			
Number of poles		3 pole	
Auxiliary contacts			
	N/O	0	
	N/C	0	
Electrical characteristics			
Rated operational voltage	U <sub>e</sub>	V AC 690	
Rated uninterrupted current	I <sub>u</sub>	A 100	
Note on rated uninterrupted current I <sub>u</sub>		Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section.	
Load rating with intermittent operation, class 12			
AB 25 % DF	x I <sub>e</sub>	2	

AB 40 % DF		$\times I_e$	1.6
AB 60 % DF		$\times I_e$	1.3
Short-circuit rating			
Fuse		A gG/gL	100
Rated short-time withstand current (1 s current)	$I_{cw}$	$A_{rms}$	2000
Note on rated short-time withstand current $I_{cw}$			Current for a time of 1 second
Rated conditional short-circuit current	$I_q$	kA	4 (Load side) 80 (Supply side)
<b>Switching capacity</b>			
cos $\varphi$ rated making capacity as per IEC 60947-3		A	950
Rated breaking capacity cos $\varphi$ to IEC 60947-3		A	
230 V		A	760
400/415 V		A	740
500 V		A	880
690 V		A	520
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at $I_e$		W	7.5
Lifespan, mechanical	Operations	$\times 10^6$	> 0.1
Maximum operating frequency		Operations/h	1200
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	22
400 V 415 V	P	kW	37
500 V	P	kW	45
690 V	P	kW	37
Rated operational current motor load switch			
230 V	$I_e$	A	71
400V 415 V	$I_e$	A	71
500 V	$I_e$	A	65
690 V	$I_e$	A	23.8
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	30
400 V 415 V	P	kW	55
500 V	P	kW	55
690 V	P	kW	55
Rated operational current motor load switch			
230 V	$I_e$	A	100
400 V 415 V	$I_e$	A	100
500 V	$I_e$	A	96
690 V	$I_e$	A	68
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	$I_e$	A	100
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	$I_e$	A	50
Contacts		Quantity	1
48 V			
Rated operational current	$I_e$	A	50
Contacts		Quantity	2

60 V			
Rated operational current	$I_e$	A	50
Contacts		Quantity	2
120 V			
Rated operational current	$I_e$	A	25
Contacts		Quantity	3
Control circuit reliability at 24 V DC, 10 mA	Fault probability	$H_F$	$< 10^{-5}$ , < 1 failure in 100,000 switching operations

### Terminal capacities

Solid or stranded		mm <sup>2</sup>	1 x (2,5 - 35) 2 x (2,5 - 10)
Flexible with ferrules to DIN 46228		mm <sup>2</sup>	1 x (1,5 - 25) 2 x (1,5 - 6)
Terminal screw			M5
Tightening torque for terminal screw		Nm	3

### Technical safety parameters:

Notes		B10 <sub>d</sub> values as per EN ISO 13849-1, table C1
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### Rating data for approved types

Contacts			
Rated operational voltage	$U_e$	V AC	600
Rated uninterrupted current max.			
Main conducting paths		A	100
General use			
Notes			If used with neutral conductor: $I_U = \text{max. } 90 \text{ A}$
Auxiliary contacts			
General Use	$I_U$	A	10
Pilot Duty			A 600 P 600
Switching capacity			
Maximum motor rating			
Single-phase			
120 V AC		HP	5
200 V AC		HP	10
240 V AC		HP	15
Three-phase			
200 V AC		HP	20
240 V AC		HP	25
480 V AC		HP	60
600 V AC		HP	75
Short Circuit Current Rating		SCCR	
Basic Rating		kA	10
max. Fuse		A	150
Terminal capacity			
Solid or flexible conductor with ferrule		AWG	14 - 2
Terminal screw			M5
Tightening torque		lb-in	26.5

### Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	100
Heat dissipation per pole, current-dependent	$P_{vid}$	W	7.5
Equipment heat dissipation, current-dependent	$P_{vid}$	W	0
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	$P_{diss}$	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
IEC/EN 61439 design verification			

10.2 Strength of materials and parts	
10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	UV resistance only in connection with protective shield.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## Technical data ETIM 8.0

Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)	
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKFO60013])	
Version as main switch	Yes
Version as maintenance-/service switch	Yes
Version as safety switch	Yes
Version as emergency stop installation	Yes
Version as reversing switch	No
Number of switches	1
Max. rated operation voltage Ue AC	V 690
Rated operating voltage	V 690 - 690
Rated permanent current Iu	A 100
Rated permanent current at AC-23, 400 V	A 100
Rated permanent current at AC-21, 400 V	A 100
Rated operation power at AC-3, 400 V	kW 37
Rated short-time withstand current Icw	kA 2
Rated operation power at AC-23, 400 V	kW 55
Switching power at 400 V	kW 55
Conditioned rated short-circuit current Iq	kA 80
Number of poles	3
Number of auxiliary contacts as normally closed contact	0
Number of auxiliary contacts as normally open contact	0
Number of auxiliary contacts as change-over contact	0
Motor drive optional	No
Motor drive integrated	No
Voltage release optional	No
Device construction	Complete device in housing
Suitable for floor mounting	Yes

Suitable for front mounting 4-hole		No
Suitable for front mounting centre		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Colour control element		Red
Type of control element		Door coupling rotary drive
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP65
Degree of protection (NEMA)		12