

Main switch, P3, 63 A, rear mounting, 3 pole, Emergency switching off function, red rotary handle and yellow locking ring, Lockable in the 0 (Off) position, With metal shaft for a control panel depth of 400 mm



Part no. P3-63/M4/SVB  
 Catalog No. 172784

EL-Nummer 1417130  
 (Norway)

### 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
<b>Notes</b>			Handle only for use with extension shaft P1/P3-400 (172844).
Information about equipment supplied			Auxiliary contact or neutral conductor fitted by user.
Notes			With metal shaft for a control panel depth of 400 mm
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			Front IP65
Design			rear mounting
<b>Motor rating AC-23A, 50 - 60 Hz</b>			
400 V	P	kW	30
Rated uninterrupted current	I <sub>u</sub>	A	63
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 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			
Open		°C	-25 - +50
Enclosed		°C	-25 - +40
Overvoltage 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	63
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		$x I_e$	2
AB 40 % DF		$x I_e$	1.6
AB 60 % DF		$x I_e$	1.3
Short-circuit rating			
Fuse		A gG/gL	80
Rated short-time withstand current (1 s current)	$I_{cw}$	$A_{rms}$	1260
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) 100 (Supply side)

### Switching capacity

$\cos \varphi$ rated making capacity as per IEC 60947-3		A	800
Rated breaking capacity $\cos \varphi$ to IEC 60947-3		A	
230 V		A	640
400/415 V		A	600
500 V		A	590
690 V		A	340
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at $I_e$		W	4.5
Lifespan, mechanical	Operations	$x 10^6$	> 0.1
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	15
400 V 415 V	P	kW	30
500 V	P	kW	30
690 V	P	kW	30
Rated operational current motor load switch			
230 V	$I_e$	A	51
400V 415 V	$I_e$	A	55
500 V	$I_e$	A	44
690 V	$I_e$	A	22.1
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	18.5
400 V 415 V	P	kW	30
500 V	P	kW	45
690 V	P	kW	55
Rated operational current motor load switch			
230 V	$I_e$	A	63
400 V 415 V	$I_e$	A	63
500 V	$I_e$	A	63
690 V	$I_e$	A	63
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	$I_e$	A	63
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		$\text{mm}^2$	1 x (2,5 - 35) 2 x (2,5 - 10)
Flexible with ferrules to DIN 46228		$\text{mm}^2$	1 x (1.5 - 25) 2 x (1.5 - 6)
Terminal screw			M5
Tightening torque for terminal screw		Nm	3

### Technical safety parameters:

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

<b>Contacts</b>			
Rated operational voltage	$U_e$	V AC	600
Rated uninterrupted current max.			
Main conducting paths			
General use		A	60
Auxiliary contacts			
General Use	$I_U$	A	10
Pilot Duty			A 600 P 600
<b>Switching capacity</b>			
Maximum motor rating			
Single-phase			
120 V AC		HP	3
200 V AC		HP	7.5
240 V AC		HP	10
Three-phase			
200 V AC		HP	15
240 V AC		HP	15
480 V AC		HP	40
600 V AC		HP	50
<b>Short Circuit Current Rating</b>			
Basic Rating			
		kA	10
max. Fuse			
		A	150
<b>Terminal capacity</b>			
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

<b>Technical data for design verification</b>			
Rated operational current for specified heat dissipation	$I_n$	A	63
Heat dissipation per pole, current-dependent	$P_{vid}$	W	4.5
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	50

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 disconnecter (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss10.0.1-27-37-14-03 [AKF060013])			
Version as main switch			Yes
Version as maintenance-/service switch			Yes
Version as safety switch			No
Version as emergency stop installation			Yes
Version as reversing switch			No
Number of switches			1
Max. rated operation voltage U <sub>e</sub> AC	V		690
Rated operating voltage	V		690 - 690
Rated permanent current I <sub>u</sub>	A		63
Rated permanent current at AC-23, 400 V	A		63
Rated permanent current at AC-21, 400 V	A		63
Rated operation power at AC-3, 400 V	kW		30
Rated short-time withstand current I <sub>cw</sub>	kA		1.26
Rated operation power at AC-23, 400 V	kW		30
Switching power at 400 V	kW		30
Conditioned rated short-circuit current I <sub>q</sub>	kA		100
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			Built-in device fixed built-in technique

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			Yes
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