

**Main switch, P5, 250 A, rear mounting, 3 pole + N, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position**



**Part no. P5-250/V/SVB/N**  
**280944**  
**EL Number 1417186**  
**(Norway)**

General specifications		
Product name		Eaton Moeller® series P5 Main switch
Part no.		P5-250/V/SVB/N
EAN		4015082809447
Product Length/Depth		200 millimetre
Product height		150 millimetre
Product width		130 millimetre
Product weight		2.674 kilogram
Compliances		CE Marked
Certifications		CSA Std. C22.2 No. 14-05 EN 60947-3 IEC 60947 UL 508 VDE UL Category Control No.: NLRV, NLRV7 VDE 0660 CSA File No.: 223805 CSA Class No.: 3211-05 UL File No.: E36332 CE CSA-C22.2 No. 14-05 UL IEC/EN 60947-3 IEC/EN 60947 CSA-C22.2 No. 94 CSA IEC/EN 60204
Product Tradename		P5
Product Type		Main switch
Product Sub Type		None
Catalog Notes		Rated Short-time Withstand Current (Icw) for a time of 1 second
Features & Functions		
Features		Version as emergency stop installation Version as main switch Version as maintenance-/service switch
Fitted with:		Red rotary handle and yellow locking ring
Functions		Emergency switching off function Interlockable
Locking facility		Lockable in the 0 (Off) position
Number of poles		4
General information		
Accessories		Auxiliary contact fitted by user.
Degree of protection		NEMA 12
Degree of protection (front side)		IP65
Lifespan, mechanical		80,000 Operations
Mounting method		Rear mounting
Mounting position		As required
Operating frequency		50 Operations/h
Overvoltage category		III
Pollution degree		3
Rated impulse withstand voltage (Uimp)		8000 V AC
Safe isolation		440 V AC, Between the contacts, According to EN 61140
Safety parameter (EN ISO 13849-1)		B10d values as per EN ISO 13849-1, table C.1
Suitable for		Branch circuits, suitable as motor disconnect, (UL/CSA) Intermediate mounting

<b>Climatic environmental conditions</b>	
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	50 °C
Ambient operating temperature (enclosed) - min	-25 °C
Ambient operating temperature (enclosed) - max	40 °C
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>Terminal capacities</b>	
Terminal capacity	350 MCM (AWG), solid or flexible conductor with ferrule 2 x 50 mm <sup>2</sup> , flexible with ferrules to DIN 46228 2 x 70 mm <sup>2</sup> , solid or stranded 1 x 185 mm <sup>2</sup> , solid or stranded 2 x 20 x 3 mm Number of segments x width x thickness, copper strip 1 x 120 mm <sup>2</sup> , flexible with ferrules to DIN 46228 1 x 20 x 5 mm Number of segments x width x thickness, copper strip 300 MCM (AWG), flexible
Screw size	6 mm AF, Hexagon socket-head spanner, Terminal screw
Tightening torque	16 Nm, Screw terminals 140 lb-in, Screw terminals
<b>Electrical rating</b>	
Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)	1600 A
Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	1380 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)	1250 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	400 A
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V	126 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	105 A
Rated operational current (Ie) at AC-3, 500 V	118 A
Rated operational current (Ie) at AC-3, 660 V, 690 V	45 A
Rated operational current (Ie) at AC-21, 440 V	250 A
Rated operational current (Ie) at AC-23A, 230 V	126 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	170 A
Rated operational current (Ie) at AC-23A, 500 V	156 A
Rated operational current (Ie) at AC-23A, 690 V	50 A
Rated operational current (Ie) at DC-1, load-break switches I/r = 1 ms	250 A
Rated operational current (Ie) at DC-23A, 24 V	250 A
Rated operational current (Ie) at DC-23A, 48 V	250 A
Rated operational current (Ie) at DC-23A, 60 V	250 A
Rated operational current (Ie) at DC-23A, 120 V	80 A
Rated operational power at AC-3, 380/400 V, 50 Hz	55 kW
Rated operational power at AC-3, 415 V, 50 Hz	55 kW
Rated operational power at AC-3, 500 V, 50 Hz	75 kW
Rated operational power at AC-3, 690 V, 50 Hz	40 kW
Rated operational power at AC-23A, 220/230 V, 50 Hz	37 kW
Rated operational power at AC-23A, 400 V, 50 Hz	90 kW
Rated operational power at AC-23A, 500 V, 50 Hz	110 kW
Rated operational power at AC-23A, 690 V, 50 Hz	45 kW
Rated operational voltage (Ue) at AC - max	690 V
Rated uninterrupted current (Iu)	250 A
Uninterrupted current	Rated uninterrupted current Iu is specified for max. cross-section.
<b>Short-circuit rating</b>	
Rated conditional short-circuit current (Iq)	30 kA
Rated short-time withstand current (Icw)	4.6 kA 4,6 kA, Contacts, 1 second
Short-circuit current rating (basic rating)	10 kA, SCCR (UL/CSA) 600A Class RK1, max. Fuse, SCCR (UL/CSA)
Short-circuit current rating (high fault)	400 A, Class J, max. Fuse, SCCR (UL/CSA) 65 kA, SCCR (UL/CSA)
Short-circuit protection rating	250 A gG/gL, Fuse, Contacts
<b>Switching capacity</b>	
Load rating	2 x I# (with intermittent operation class 12, 25 % duty factor)

		1.3 x I# (with intermittent operation class 12, 60 % duty factor) 1.6 x I# (with intermittent operation class 12, 40 % duty factor)
Number of contacts in series at DC-23A, 24 V		3
Number of contacts in series at DC-23A, 48 V		3
Number of contacts in series at DC-23A, 60 V		3
Number of contacts in series at DC-23A, 120 V		3
Switching capacity (main contacts, general use)		250 A, Rated uninterrupted current max. (UL/CSA)
Switching capacity (auxiliary contacts, general use)		10A, IU, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)		A600 (UL/CSA)
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)		1700 A
Voltage per contact pair in series		42 V
<b>Motor rating</b>		
Assigned motor power at 115/120 V, 60 Hz, 1-phase		15 HP
Assigned motor power at 115/120 V, 60 Hz, 3-phase		30 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase		30 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase		60 HP
Assigned motor power at 277 V, 60 Hz, 1-phase		30 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase		75 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase		75 HP
<b>Contacts</b>		
Control circuit reliability		1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
Number of auxiliary contacts (change-over contacts)		0
Number of auxiliary contacts (normally closed contacts)		0
Number of auxiliary contacts (normally open contacts)		0
<b>Actuator</b>		
Actuator color		Red
Actuator type		Door coupling rotary drive
<b>Design verification</b>		
Equipment heat dissipation, current-dependent Pvid		8 W
Heat dissipation capacity Pdiss		0 W
Heat dissipation per pole, current-dependent Pvid		8 W
Rated operational current for specified heat dissipation (In)		250 A
Static heat dissipation, non-current-dependent Pvs		0 W
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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.

## 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 (ecI@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 Ue AC		V	690
Rated operating voltage		V	690 - 690
Rated permanent current Iu		A	250
Rated permanent current at AC-23, 400 V		A	250
Rated permanent current at AC-21, 400 V		A	250
Rated operation power at AC-3, 400 V		kW	55
Rated short-time withstand current Icw		kA	4.6
Rated operation power at AC-23, 400 V		kW	90
Switching power at 400 V		kW	90
Conditioned rated short-circuit current Iq		kA	30
Number of poles			4
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			No
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			Frame clamp
Degree of protection (IP), front side			IP65
Degree of protection (NEMA)			12