

Switch-disconnector, DC current, 20A

Part no. P-SOL20
120934
EL Number 4300323
(Norway)

General specifications		
Product name		Eaton Moeller® series P-SOL Switch-disconnector
Part no.		P-SOL20
EAN		4015081187645
Product Length/Depth		93 millimetre
Product height		76 millimetre
Product width		58 millimetre
Product weight		0.286 kilogram
Certifications		UL File No.: E338590 TÜV-certified CSA Class No.: 3211-05 IEC/EN 60947-3 IEC60439-1 CSA UL Category Control No.: NRNT2 UL Recognized UL 508 CSA File No.: 165628 CSA-C22.2 No. 14-10 CE CSA
Product Tradename		P-SOL
Product Type		Switch-disconnector
Product Sub Type		None
Features & Functions		
Actuator color		Black
Actuator type		Turn button
Design		Open
Features		Isolating characteristics
Fitted with:		Voltage release optional
Number of poles		Two-pole
General information		
Degree of protection		NEMA Other
Degree of protection (front side)		IP20
Lifespan, electrical		1,500 Operations
Lifespan, mechanical		100,000 Operations
Mounting method		Top-hat rail fixing (according to IEC/EN 60715, 35 mm)
Mounting position		As required
Operating frequency		120 Operations/h
Protection class		2
Suitable for		SCCR: 10 kA (600 V DC, 70 A max. fuse), (UL/CSA) Ground mounting Distribution board installation
Climatic environmental conditions		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		60 °C
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Terminal capacities		
Terminal capacity		18 - 14 AWG, solid or stranded 1 x (1 - 6) mm ² , flexible with ferrule to DIN 46228 2 x (1 - 6) mm ² , flexible with ferrule to DIN 46228
Electrical rating		
Rated operational current (Ie) at DC-21A		20 A

Rated operational power at AC-23A, 400 V, 50 Hz		0 kW
Rated operational power at AC-3, 380/400 V, 50 Hz		0 kW
Rated uninterrupted current (Iu)		20 A
Resistance		6 mΩ (internal)
Short-circuit rating		
Rated conditional short-circuit current (Iq)		0 kA
Rated short-circuit making capacity (Icm)		0.32 kA (up to 440 V, 50/60 Hz)
Rated short-time withstand current (Icw)		0.36 kA
Contacts		
Number of auxiliary contacts (change-over contacts)		0
Number of auxiliary contacts (normally closed contacts)		0
Number of auxiliary contacts (normally open contacts)		0
Design verification		
Equipment heat dissipation, current-dependent Pvid		0.8 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		0 W
Rated operational current for specified heat dissipation (In)		20 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		Meets the product standard's requirements.
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.
10.13 Mechanical function		The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Switch disconnecter (low voltage) (EC000216)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ec1@ss13-27-37-14-03 [AKF060018])		
Version as main switch		No
Version as maintenance-/service switch		No
Version as safety switch		No
Version as emergency stop installation		No
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	20

Rated permanent current at AC-23, 400 V	A	0
Rated permanent current at AC-21, 400 V	A	0
Rated operation power at AC-3, 400 V	kW	0
Rated short-time withstand current I _{cw}	kA	0.36
Rated operation power at AC-23, 400 V	kW	0
Switching power at 400 V	kW	20
Conditioned rated short-circuit current I _q	kA	0
Number of poles		2
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		Yes
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		Yes
Suitable for intermediate mounting		No
Colour control element		Black
Type of control element		Turn button
Interlockable		No
Type of electrical connection of main circuit		Clamp bracket
With pre-assembled cabling		No
Degree of protection (IP), front side		IP20
Degree of protection (NEMA)		Other
Width	mm	58
Height	mm	76
Depth	mm	93
Width in number of modular spacings		