

**On-Off switch, P5, 315 A, flush mounting, 3 pole, with black thumb grip and front plate**

**Part no.**                    **P5-315/E**  
**280949**

<b>General specifications</b>		
Product name		Eaton Moeller® series P5 On-Off switch
Part no.		P5-315/E
EAN		4015082809492
Product Length/Depth		150 millimetre
Product height		150 millimetre
Product width		130 millimetre
Product weight		1.8 kilogram
Compliances		CE Marked
Certifications		UL 508 EN 60947-3 IEC 60947 CSA Std. C22.2 No. 14-05 VDE CSA File No.: 223805 CSA-C22.2 No. 94 UL File No.: E36332 UL IEC/EN 60204 CSA IEC/EN 60947-3 CSA-C22.2 No. 14-05 UL Category Control No.: NLRV VDE 0660 CSA Class No.: 3211-05 CE IEC/EN 60947
Product Tradename		P5
Product Type		On-Off switch
Product Sub Type		None
Catalog Notes		Rated Short-time Withstand Current (Icw) for a time of 1 second
<b>Features &amp; Functions</b>		
Fitted with:		Black thumb grip and front plate
Number of poles		3
<b>General information</b>		
Accessories		Auxiliary contact or neutral conductor fitted by user.
Degree of protection		NEMA 12
Degree of protection (front side)		IP65
Lifespan, mechanical		80,000 Operations
Mounting method		Flush 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		Front mounting 4-hole Branch circuits, suitable as motor disconnect, (UL/CSA)
<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 300 MCM (AWG), flexible 1 x 120 mm <sup>2</sup> , flexible with ferrules to DIN 46228 2 x 70 mm <sup>2</sup> , solid or stranded 2 x 20 x 3 mm Number of segments x width x thickness, copper strip 1 x 185 mm <sup>2</sup> , solid or stranded 1 x 20 x 5 mm Number of segments x width x thickness, copper strip 2 x 50 mm <sup>2</sup> , flexible with ferrules to DIN 46228
Screw size		6 mm AF, Hexagon socket-head spanner, Terminal screw
Tightening torque		140 lb-in, Screw terminals 16 Nm, Screw terminals
<b>Electrical rating</b>		
Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)		1800 A
Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)		1650 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)		1550 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		147 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V		138 A
Rated operational current (Ie) at AC-3, 500 V		135 A
Rated operational current (Ie) at AC-3, 660 V, 690 V		50 A
Rated operational current (Ie) at AC-21, 440 V		315 A
Rated operational current (Ie) at AC-23A, 230 V		182 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V		205 A
Rated operational current (Ie) at AC-23A, 500 V		184 A
Rated operational current (Ie) at AC-23A, 690 V		50 A
Rated operational current (Ie) at DC-1, load-break switches l/r = 1 ms		315 A
Rated operational current (Ie) at DC-23A, 24 V		315 A
Rated operational current (Ie) at DC-23A, 48 V		315 A
Rated operational current (Ie) at DC-23A, 60 V		315 A
Rated operational current (Ie) at DC-23A, 120 V		100 A
Rated operational power at AC-3, 380/400 V, 50 Hz		75 kW
Rated operational power at AC-3, 415 V, 50 Hz		75 kW
Rated operational power at AC-3, 500 V, 50 Hz		90 kW
Rated operational power at AC-3, 690 V, 50 Hz		45 kW
Rated operational power at AC-23A, 220/230 V, 50 Hz		55 kW
Rated operational power at AC-23A, 400 V, 50 Hz		110 kW
Rated operational power at AC-23A, 500 V, 50 Hz		132 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)		315 A
Uninterrupted current		Rated uninterrupted current Iu is specified for max. cross-section.
<b>Short-circuit rating</b>		
Rated conditional short-circuit current (Iq)		15 kA
Rated short-time withstand current (Icw)		5,8 kA, Contacts, 1 second 5.8 kA
Short-circuit current rating (basic rating)		10 kA, SCCR (UL/CSA) 800A Class RK1, max. Fuse, SCCR (UL/CSA)
Short-circuit current rating (high fault)		65 kA, SCCR (UL/CSA) 400 A, Class J, max. Fuse, SCCR (UL/CSA)
Short-circuit protection rating		315 A gG/gL, Fuse, Contacts
<b>Switching capacity</b>		
Load rating		1.6 x I# (with intermittent operation class 12, 40 % duty factor) 1.3 x I# (with intermittent operation class 12, 60 % duty factor) 2 x I# (with intermittent operation class 12, 25 % 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)	300 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)	2050 A
Voltage per contact pair in series	42 V
<b>Motor rating</b>	
Assigned motor power at 115/120 V, 60 Hz, 1-phase	20 HP
Assigned motor power at 115/120 V, 60 Hz, 3-phase	40 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase	35 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase	75 HP
Assigned motor power at 277 V, 60 Hz, 1-phase	35 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase	100 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase	100 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	Black
Actuator type	Short thumb-grip
<b>Design verification</b>	
Equipment heat dissipation, current-dependent Pvid	12.7 W
Heat dissipation capacity Pdis	0 W
Heat dissipation per pole, current-dependent Pvid	12.7 W
Rated operational current for specified heat dissipation (In)	315 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.
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)

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	690
Rated operating voltage		V	690 - 690
Rated permanent current Iu		A	315
Rated permanent current at AC-23, 400 V		A	315
Rated permanent current at AC-21, 400 V		A	315
Rated operation power at AC-3, 400 V		kW	75
Rated short-time withstand current Icw		kA	5.8
Rated operation power at AC-23, 400 V		kW	110
Switching power at 400 V		kW	110
Conditioned rated short-circuit current Iq		kA	15
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			No
Suitable for front mounting 4-hole			Yes
Suitable for front mounting centre			No
Suitable for distribution board installation			No
Suitable for intermediate mounting			No
Colour control element			Black
Type of control element			Short thumb-grip
Interlockable			No
Type of electrical connection of main circuit			Frame clamp
Degree of protection (IP), front side			IP65
Degree of protection (NEMA)			12