

**ON-OFF switches, TM, 10 A, flush mounting, 1 contact unit(s), Contacts: 1, 90 °, maintained, With 0 (Off) position, 0-1, Design number 8290**



Powering Business Worldwide™

**Part no. TM-1-8290/E  
070131**

<b>General specifications</b>		
Product name		Eaton Moeller® series TM On-Off switch
Part no.		TM-1-8290/E
EAN		4015080701316
Product Length/Depth		62 millimetre
Product height		30 millimetre
Product width		30 millimetre
Product weight		0.029 kilogram
Certifications		IEC/EN 60947 VDE 0660 UL Category Control No.: NLRV UL File No.: E36332 CSA-C22.2 No. 14-05 Certified by UL for use in Canada CE UL report applies to both US and Canada UL IEC/EN 60947-5-1 UL 508 IEC/EN 60947-3 CSA-C22.2 No. 94 CSA UL CSA
Product Tradename		TM
Product Type		On-Off switch
Product Sub Type		None
<b>Features &amp; Functions</b>		
Fitted with:		Black thumb grip and front plate
Inscription		0-1
Number of poles		1
<b>General information</b>		
Degree of protection		NEMA 12
Degree of protection (front side)		IP65
Lifespan, mechanical		1,000,000 Operations
Mounting method		Flush mounting
Mounting position		As required
Number of contact units		1
Operating frequency		1200 Operations/h
Overvoltage category		III
Pollution degree		3
Rated impulse withstand voltage (Uimp)		4000 V AC
Suitable for		Front mounting 4-hole
Switching angle		90 °
Type		ON-OFF switch
<b>Climatic environmental conditions</b>		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		50 °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		14 AWG, solid or flexible with ferrule 2 x 1.0 mm <sup>2</sup> , flexible with ferrules to DIN 46228 2 x 1.5 mm <sup>2</sup> , solid or stranded 1 x 1.5 mm <sup>2</sup> , flexible 1 x 1.0 mm <sup>2</sup> , flexible with ferrules to DIN 46228

		2 x 1.5 mm <sup>2</sup> , flexible 1 x 1.5 mm <sup>2</sup> , solid or stranded
Screw size		M2.5, Terminal screw
Tightening torque		0.4 Nm, Screw terminals 3.5 lb-in, Screw terminals
<b>Electrical rating</b>		
Rated operational current (Ie) at AC-21, 440 V		10 A
Rated operational power at AC-3, 380/400 V, 50 Hz		0 kW
Rated operational power at AC-23A, 400 V, 50 Hz		3 kW
Rated uninterrupted current (Iu)		10 A
Uninterrupted current		Rated uninterrupted current Iu is specified for max. cross-section.
<b>Short-circuit rating</b>		
Rated conditional short-circuit current (Iq)		0 kA
Rated short-time withstand current (Icw)		0 kA
Short-circuit protection rating		10 A gG/gL, Fuse, Contacts
<b>Switching capacity</b>		
Switching capacity (main contacts, general use)		10 A, Rated uninterrupted current max. (UL/CSA)
Switching capacity (auxiliary contacts, general use)		10A, IU, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)		A300 (UL/CSA)
<b>Motor rating</b>		
Assigned motor power at 115/120 V, 60 Hz, 1-phase		0.33 HP
Assigned motor power at 115/120 V, 60 Hz, 3-phase		0.75 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase		0.75 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase		1 HP
Assigned motor power at 277 V, 60 Hz, 1-phase		0.75 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		Black
Actuator function		With 0 (Off) position Maintained
Actuator type		Short thumb-grip
<b>Design verification</b>		
Equipment heat dissipation, current-dependent Pvid		0 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		0.15 W
Rated operational current for specified heat dissipation (In)		10 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 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 (ecl@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	10
Rated permanent current at AC-23, 400 V	A	
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 Icw	kA	0
Rated operation power at AC-23, 400 V	kW	3
Switching power at 400 V	kW	0
Conditioned rated short-circuit current Iq	kA	0
Number of poles		1
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		Screw connection
With pre-assembled cabling		No
Degree of protection (IP), front side		IP65
Degree of protection (NEMA)		12
Width	mm	30
Height	mm	30
Depth	mm	62
Width in number of modular spacings		

