DATASHEET - T0-2-8900/SE1

T0, 20 A, surface mounting, 2 contact unit(s), 90 °, maintained, 0-1, in steel enclosure, Design number 8900

Powering Business Worldwide™

Part no. T0-2-8900/SE1
197420

General specifications

Product name	Eaton Moeller® series T0 On-Off switch
Part no.	T0-2-8900/SE1
EAN	4015080895572
Product Length/Depth	200 millimetre
Product height	127 millimetre
Product width	150 millimetre
Product weight	1.545 kilogram
Certifications	IEC/EN 60204 IEC/EN 60947-3 VDE 0660 IEC/EN 60947
Product Tradename	T0
Product Type	On-Off switch
Product Sub Type	None
Catalog Notes	in steel enclosure Rated Short-time Withstand Current (Icw) for a time of 1 second

Features & Functions

Fitted with:	Black thumb grip and front plate
Inscription	0-1
Number of poles	Three-pole

General information

Degree of protection	NEMA 12
Degree of protection (front side)	IP65
Lifespan, mechanical	400,000 Operations
Mounting method	Surface mounting
Mounting position	As required
Number of contact units	2
Operating frequency	1200 Operations/h
Overvoltage category	III
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6000 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
Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
Suitable for	Ground mounting
Switching angle	90 °

Climatic environmental conditions

Ambient operating temperature (enclosed) - min	-25 °C
Ambient operating temperature (enclosed) - max	40 °C

Terminal capacities

Terminal capacity	1 x (0.75 - 2.5) mm^2, flexible with ferrules to DIN 46228 1 x (1 - 2.5) mm^2, solid or stranded 2 x (0.75 - 2.5) mm^2, flexible with ferrules to DIN 46228 2 x (1 - 2.5) mm^2, solid or stranded
Screw size	M3.5, Terminal screw
Tightening torque	8.8 lb-in, Screw terminals 1 Nm, Screw terminals

Electrical rating

Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)	100 A

Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	110 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)	80 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	60 A
Rated operational current (Ie) at AC-21, 440 V	20 A
Rated operational current (Ie) at AC-23A, 230 V	13.3 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	13.3 A
Rated operational current (Ie) at AC-23A, 500 V	13.3 A
Rated operational current (Ie) at AC-23A, 690 V	7.6 A
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V	11.5 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	11.5 A
Rated operational current (Ie) at AC-3, 500 V	9 A
Rated operational current (Ie) at AC-3, 660 V, 690 V	4.9 A
Rated operational current (Ie) at DC-1, load-break switches l/r = 1 ms	10 A
Rated operational current (Ie) at DC-13, control switches L/R = 50 ms	10 A
Rated operational current (Ie) at DC-21, 240 V	1 A
Number of contacts in series at DC-21A, 240 V	1
Rated operational current (Ie) at DC-23A, 24 V	10 A
Number of contacts in series at DC-23A, 24 V	1
Rated operational current (Ie) at DC-23A, 48 V	10 A
Number of contacts in series at DC-23A, 48 V	2
Rated operational current (Ie) at DC-23A, 60 V	10 A
Number of contacts in series at DC-23A, 60 V	3
Rated operational current (Ie) at DC-23A, 120 V	5 A
Number of contacts in series at DC-23A, 120 V	3
Rated operational current (Ie) at DC-23A, 240 V	5 A
Number of contacts in series at DC-23A, 240 V	5
Rated operational current (Ie) star-delta at AC-3, 220/230 V	20 A
Rated operational current (Ie) star-delta at AC-3, 380/400 V	20 A
Rated operational current (Ie) star-delta at AC-3, 500 V	15.6 A
Rated operational current (Ie) star-delta at AC-3, 690 V	8.5 A
Rated operational power at AC-23A, 220/230 V, 50 Hz	3 kW
Rated operational power at AC-23A, 400 V, 50 Hz	5.5 kW
Rated operational power at AC-23A, 500 V, 50 Hz	7.5 kW
Rated operational power at AC-23A, 690 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 415 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 690 V, 50 Hz	4 kW
Rated operational power star-delta at 220/230 V, 50 Hz	5.5 kW
Rated operational power star-delta at 380/400 V, 50 Hz	7.5 kW
Rated operational power star-delta at 500 V, 50 Hz	7.5 kW
Rated operational power star-delta at 690 V, 50 Hz	5.5 kW
Rated operational voltage (Ue) at AC - max	690 V
Rated uninterrupted current (Iu)	20 A
Uninterrupted current	Rated uninterrupted current Iu is specified for max. cross-section.
Voltage per contact pair in series	60 V

Short-circuit rating

Rated conditional short-circuit current (Iq)	6 kA
Rated short-time withstand current (Icw)	0.32 kA 320 A, Contacts, 1 second
Short-circuit protection rating	20 A gG/gL, Fuse, Contacts

Switching capacity

Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	130 A
Load rating	1.3 x I# (with intermittent operation class 12, 60 % duty factor) 2 x I# (with intermittent operation class 12, 25 % duty factor) 1.6 x I# (with intermittent operation class 12, 40 % duty factor)

Contacts

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)		1

Actuator

Actuator color		Black
Actuator function		Maintained
Actuator type		Short thumb-grip

Design verification

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.
10.2.5 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 disconnector (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])

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	20
Rated permanent current at AC-23, 400 V	A	13.3
Rated permanent current at AC-21, 400 V	A	20
Rated operation power at AC-3, 400 V	kW	5.5
Rated short-time withstand current Icw	kA	0.32
Rated operation power at AC-23, 400 V	kW	5.5
Switching power at 400 V	kW	5.5
Conditioned rated short-circuit current Iq	kA	6
Number of poles		3
Number of auxiliary contacts as normally closed contact		0

Number of auxiliary contacts as normally open contact	1
Number of auxiliary contacts as change-over contact	0
Motor drive optional	No
Motor drive integrated	No
Voltage release optional	No
Device construction	Complete device in housing
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	No
Colour control element	Black
Type of control element	Short thumb-grip
Interlockable	No
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP65
Degree of protection (NEMA)	12