DATASHEET - T5-2-148/Z

Step switches, T5, 100 A, rear mounting, 2 contact unit(s), Contacts: 3, 45 °, maintained, Without 0 (Off) position, 1-3, Design number 148

Powering Business Worldwide

Part no. T5-2-148/Z
097034

Product name	Eaton Moeller® series T5 Step switch
Part no.	T5-2-148/Z
EAN	4015080970347
Product Length/Depth	149 millimetre
Product height	88 millimetre
Product width	88 millimetre
Product weight	0.488 kilogram
Certifications	VDE 0660 IEC/EN 60204 IEC/EN 60947-3 IEC/EN 60947
Product Tradename	T5
Product Type	Step switch
Product Sub Type	None
Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second
Fitted with:	Black thumb grip and front plate
Inscription	1-3
Number of poles	Single-pole
Degree of protection (front side)	IP65 NEMA 12
Lifespan, mechanical	500,000 Operations
Mounting method	Rear mounting
Mounting position	As required
Number of contact units	2
Operating frequency	1200 Operations/h
Overvoltage category	III
Pollution degree	3
Product category	Control switches
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 Intermediate mounting
Switching angle	45 °
Type	Step switch
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, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
Terminal capacity (flexible with ferrule)	1 x (1 - 25) mm^2, ferrules to DIN 46228 2 x (1.5 - 10) mm^2, ferrule to DIN 46228
Terminal capacity (solid/stranded)	1 x (2.5 - 35) mm^2 2 x (2.5 - 16) mm^2

Screw size	M6, Terminal screw
Tightening torque	4 Nm, Screw terminals
Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)	760 A
Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	740 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)	590 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	420 A
Rated operating voltage (Ue) at AC - max	600 V
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V	71 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	55 A
Rated operational current (Ie) at AC-3, 500 V	44 A
Rated operational current (Ie) at AC-3, 660 V, 690 V	17 A
Rated operational current (Ie) at AC-21, 440 V	100 A
Rated operational current (Ie) at AC-23A, 230 V	100 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	100 A
Rated operational current (Ie) at AC-23A, 500 V	55 A
Rated operational current (Ie) at AC-23A, 690 V	32 A
Rated operational current (Ie) at DC-1, load-break switches l/r = 1 ms	80 A
Rated operational current (Ie) star-delta at AC-3, 230 V	100 A
Rated operational current (Ie) star-delta at AC-3, 400 V	95.3 A
Rated operational current (Ie) star-delta at AC-3, 500 V	76.2 A
Rated operational current (Ie) star-delta at AC-3, 690 V	29.4 A
Rated operational power at AC-3, 415 V, 50 Hz	30 kW
Rated operational power at AC-3, 500 V, 50 Hz	30 kW
Rated operational power at AC-3, 690 V, 50 Hz	15 kW
Rated operational power at AC-23A, 220/230 V, 50 Hz	30 kW
Rated operational power at AC-23A, 400 V, 50 Hz	55 kW
Rated operational power at AC-23A, 500 V, 50 Hz	37 kW
Rated operational power at AC-23A, 690 V, 50 Hz	30 kW
Rated operational power star-delta at 220/230 V, 50 Hz	30 kW
Rated operational power star-delta at 380/400 V, 50 Hz	45 kW
Rated operational power star-delta at 500 V, 50 Hz	45 kW
Rated operational power star-delta at 690 V, 50 Hz	22 kW
Rated uninterrupted current (Iu)	100 A
Uninterrupted current	Rated uninterrupted current Iu is specified for max. cross-section.
Rated conditional short-circuit current (Iq)	2 kA
Rated short-time withstand current (Icw)	1,7 kA, Contacts, 1 second
Short-circuit protection rating	100 A gG/gL, Fuse, Contacts
Load rating	2 x I# (with intermittent operation class 12, 25 % duty factor) 1.6 x I# (with intermittent operation class 12, 40 % duty factor) 1.3 x I# (with intermittent operation class 12, 60 % duty factor)
Switching capacity (main contacts, general use)	63 A, Rated uninterrupted current max. (UL/CSA)
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	950 A
Voltage per contact pair in series	60 V
Control circuit reliability	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
Number of contacts	3
Actuator function	Without 0 (Off) position Maintained
Actuator type	Toggle
Number of switch positions	3
Equipment heat dissipation, current-dependent Pvid	0 W

Heat dissipation capacity Pdiss			0 W
Heat dissipation per pole, current-dependent Pvid			7.5 W
Rated operational current for specified heat dissipation (In)			100 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) / Control switch (EC002611)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss10.0.1-27-37-14-14 [ACN998011])

Type of switch			Level switch
Number of poles			1
Max. rated operation voltage Ue AC		V	600
Rated permanent current Iu		A	100
Number of switch positions			3
With zero (off) position			No
With retraction in 0-position			No
Device construction			Built-in device
Width in number of modular spacings			0
Suitable for floor mounting			Yes
Suitable for front mounting			No
Suitable for distribution board installation			No
Suitable for intermediate mounting			Yes
Complete device in housing			No
Type of control element			Toggle
Front shield size			88x88 mm
Degree of protection (IP), front side			IP65
Degree of protection (NEMA), front side			12

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