DATASHEET - T5-2-148/E

Step switches, T5, 100 A, flush 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/E
097036

Product name	Eaton Moeller® series T5 Step switch
Part no.	T5-2-148/E
EAN	4015080970361
Product Length/Depth	108 millimetre
Product height	88 millimetre
Product width	88 millimetre
Product weight	0.457 kilogram
Certifications	IEC/EN 60204 VDE 0660 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	Flush 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	Front 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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
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	1.6 x I# (with intermittent operation class 12, 40 % duty factor) 2 x I# (with intermittent operation class 12, 25 % 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	Maintained Without 0 (Off) position
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		No
Suitable for front mounting		Yes
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
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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