DATASHEET - T5-4-90/Z

Changeoverswitches, T5, 100 A, rear mounting, 4 contact unit(s), Contacts: 8, 90 °, maintained, Without 0 (Off) position, 1-2, Design number 90

Part no. **T5-4-90/Z**
095678

Product name	Eaton Moeller® series T5 Changeover switch
Part no.	T5-4-90/Z
EAN	4015080956785
Product Length/Depth	182 millimetre
Product height	88 millimetre
Product width	88 millimetre
Product weight	0.778 kilogram
Certifications	VDE 0660 IEC/EN 60947-3 IEC/EN 60204 IEC/EN 60947
Product Tradename	T5
Product Type	Changeover switch
Product Sub Type	None
Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second
Enclosure material	Plastic
Fitted with:	Black thumb grip and front plate
Inscription	1-2
Number of poles	4
Degree of protection	IP65 NEMA 1
Degree of protection (front side)	IP65 NEMA 12
Lifespan, mechanical	500,000 Operations
Model	Reverser
Mounting method	Rear mounting
Mounting position	As required
Number of contact units	4
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 Intermediate mounting
Switching angle	90 °
Type	Changeover 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 operational current (Ie)	95.3 A at AC-3, 400 V star-delta 29.4 A at AC-3, 690 V star-delta 100 A at AC-3, 230 V star-delta 76.2 A at AC-3, 500 V star-delta
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 power at AC-3, 380/400 V, 50 Hz	30 kW
Rated operational power at AC-3, 415 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 operational voltage (Ue) at AC - max	600 V
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)	65 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 auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Number of contacts	8
Actuator function	Maintained

			Without 0 (Off) position
Actuator type			Short thumb-grip
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) / Off-load switch (EC001105)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Changeover switch (ecl@ss10.0.1-27-37-14-05 [AKF062013])

Model			Reverser
Number of poles			4
With zero (off) position			No
With retraction in 0-position			No
Rated permanent current Iu		A	100
Rated operation current Ie at AC-3, 400 V		A	55
Rated operation power at AC-3, 400 V		kW	30
Degree of protection (IP), front side			IP65
Degree of protection (NEMA), front side			12
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
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
Material housing			Plastic
Type of control element			Short thumb-grip

Type of electrical connection of main circuit	Screw connection

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