DATASHEET - T5-4-8213/E

Changeoverswitches, T5, 100 A, flush mounting, 4 contact unit(s), Contacts: 8, 60 °, maintained, With 0 (Off) position, 1-0-2, Design number 8213

Powering Business Worldwide

Part no. T5-4-8213/E
096014

General specifications

Product name	Eaton Moeller® series T5 Changeover switch
Part no.	T5-4-8213/E
EAN	4015080960140
Product Length/Depth	141 millimetre
Product height	88 millimetre
Product width	88 millimetre
Product weight	0.725 kilogram
Certifications	VDE 0660 IEC/EN 60204 IEC/EN 60947-3 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

Features & Functions

Enclosure material	Plastic
Fitted with:	Black thumb grip and front plate 0 (off) position
Inscription	1-0-2
Number of poles	4

General information

Degree of protection (front side)	IP65 NEMA 12
Lifespan, mechanical	500,000 Operations
Model	Reverser
Mounting method	Flush 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	Front mounting
Switching angle	60 °
Type	Changeover switch

Climatic environmental conditions

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 capacities

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 35.4 lb-in, Screw terminals

Electrical rating

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)	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 95.3 A at AC-3, 400 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.

Short-circuit rating

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

Switching capacity

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

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)	0
Number of contacts	8

Actuator

Actuator function		With 0 (Off) position Maintained
Actuator type		Short thumb-grip

Design verification

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 9.0

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 / Load-break switch (ecl@ss13-27-37-14-05 [AKF062018])

Model		Reverser
Number of poles		4
With zero (off) position		Yes
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		No
Suitable for front mounting		Yes
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Complete device in housing		No
Housing material		Plastic

Type of control element			Short thumb-grip
Type of electrical connection of main circuit			Screw connection