## DATASHEET - T3-2-8211/Z

Changeoverswitches, T3, 32 A, rear mounting, 2 contact unit(s), Contacts: 4, 60 °, maintained, With 0 (Off) position, 1-0-2, Design number 8211



Part no. T3-2-8211/Z 064210

General specifications	
Product name	Eaton Moeller® series T3 Changeover switch
Part no.	T3-2-8211/Z
EAN	4015080642107
Product Length/Depth	133 millimetre
Product height	54 millimetre
Product width	61 millimetre
Product weight	0.195 kilogram
Certifications	CSA UL Category Control No.: NLRV CSA-C22.2 No. 94 VDE 0660 CSA-C22.2 No. 60947-4-1-14 CE IEC/EN 60947 UL UL 60947-4-1 UL File No.: E36332 IEC/EN 6024 CSA Class No.: 3211-05 CSA File No.: 012528 IEC/EN 60947-3 UL CSA
Product Tradename	Т3
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	2
General information	
Degree of protection	IP65 NEMA 1 NEMA 12
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	2
Operating frequency	1200 Operations/h
Overvoltage category	III III III III III III III III III II
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	Intermediate mounting Branch circuits, suitable as motor disconnect, (UL/CSA) Ground mounting
Switching angle	60 °

Туре	
	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)	2 x (0.75 - 4) mm <sup>2</sup> , ferrules to DIN 46228 1 x (0.75 - 4) mm <sup>2</sup> , ferrules to DIN 46228
Terminal capacity (solid/flexible with ferrule AWG)	14 - 10
Terminal capacity (solid/stranded)	1 x (1 - 6) mm <sup>2</sup> 2 x (1 - 6) mm <sup>2</sup>
Screw size	M4, Terminal screw
Tightening torque	1.6 Nm, Screw terminals 17.7 lb-in, Screw terminals
Electrical rating	
Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)	260 A
Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	260 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)	240 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	170 A
Rated operational current (Ie)	25.5 A at AC-3, 690 V star-delta 32 A at AC-3, 230 V star-delta 32 A at AC-3, 400 V star-delta 32 A at AC-3, 500 V star-delta
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V	23.7 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	23.7 A
Rated operational current (Ie) at AC-3, 500 V	23.7 A
Rated operational current (Ie) at AC-3, 660 V, 690 V	14.7 A
Rated operational current (Ie) at AC-21, 440 V	32 A
Rated operational current (Ie) at AC-23A, 230 V	32 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	32 A
Rated operational current (Ie) at AC-23A, 500 V	26.4 A
Rated operational current (Ie) at AC-23A, 690 V	17 A
Rated operational current (Ie) at DC-1, load-break switches I/r = 1 ms	25 A
Rated operational current (Ie) at DC-13, control switches L/R = 50 ms	20 A
Rated operational current (Ie) at DC-21, 240 V	1 A
Rated operational current (Ie) at DC-23A, 24 V	25 A
Rated operational current (Ie) at DC-23A, 48 V	25 A
Rated operational current (Ie) at DC-23A, 60 V	25 A
Rated operational current (Ie) at DC-23A, 120 V	12 A
Rated operational current (Ie) at DC-23A, 240 V	5 A
Rated operational power at AC-3, 380/400 V, 50 Hz	12 kW
Rated operational power at AC-3, 415 V, 50 Hz	11 kW
Rated operational power at AC-3, 690 V, 50 Hz	11 kW
Rated operational power at AC-23A, 220/230 V, 50 Hz	7.5 kW
Rated operational power at AC-23A, 400 V, 50 Hz	15 kW
Rated operational power at AC-23A, 500 V, 50 Hz	15 kW
Rated operational power at AC-23A, 690 V, 50 Hz	15 kW
Rated operational power star-delta at 220/230 V, 50 Hz	7.5 kW
Rated operational power star-delta at 380/400 V, 50 Hz	15 kW
Rated operational power star-delta at 500 V, 50 Hz	18.5 kW
Rated operational power star-delta at 690 V, 50 Hz	22 kW
Rated operational voltage (Ue) at AC - max	690 V
Rated uninterrupted current (Iu)	32 A
Uninterrupted current	Rated uninterrupted current lu is specified for max. cross-section.

Short-circuit rating	
	1 kA
Rated conditional short-circuit current (Iq)	
Rated short-time withstand current (Icw)	650 A, Contacts, 1 second
Short-circuit current rating (basic rating)	5 kA, SCCR (UL/CSA) 40A, max. Fuse, SCCR (UL/CSA)
Short-circuit current rating (high fault)	10 kA, SCCR (UL/CSA) 40 A, Class J, max. Fuse, SCCR (UL/CSA)
Short-circuit protection rating	35 A gG/gL, Fuse, Contacts
Switching capacity	
Load rating	1.6 x  # (with intermittent operation class 12, 40 % duty factor) 2 x  # (with intermittent operation class 12, 25 % duty factor) 1.3 x  # (with intermittent operation class 12, 60 % duty factor)
Number of contacts in series at DC-21A, 240 V	1
Number of contacts in series at DC-23A, 24 V	1
Number of contacts in series at DC-23A, 48 V	2
Number of contacts in series at DC-23A, 60 V	3
Number of contacts in series at DC-23A, 120 V	3
Number of contacts in series at DC-23A, 240 V	5
Switching capacity (main contacts, general use)	25 A, Rated uninterrupted current max. (UL/CSA)
Switching capacity (auxiliary contacts, general use)	10A, IU, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)	A600 (UL/CSA) P600 (UL/CSA)
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	320 A
Voltage per contact pair in series	60 V
Motor rating	
Assigned motor power at 115/120 V, 60 Hz, 1-phase	1.5 HP
Assigned motor power at 200/208 V, 60 Hz, 1-phase	3 HP
Assigned motor power at 200/208 V, 60 Hz, 3-phase	3 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase	3 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase	3 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase	7.5 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase	10 HP
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	4
Actuator	
Actuator function	Maintained With 0 (Off) position
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	1.1 W
Rated operational current for specified heat dissipation (In)	32 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.
10.2.5 Lifting   10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated.

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		2
With zero (off) position		Yes
With retraction in 0-position		No
Rated permanent current lu	А	32
Rated operation current le at AC-3, 400 V	А	23.7
Rated operation power at AC-3, 400 V	kW	12
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
Housing material		Plastic
Type of control element		Short thumb-grip
Type of electrical connection of main circuit		Screw connection