

## Eaton 034096

Eaton Moeller® series T0 Turnaround stardelta switch, 20 A, flush mounting, 6 contact units, Contacts: 12, 60 °, maintained, 0 (Off) position, D-Y-0-Y-D, Design no. 15877

PRODUCT NAME	Eaton Moeller® series T0 Turnaround star-delta switch
CATALOG NUMBER	034096
PRODUCT LENGTH/DEPTH	124 mm
PRODUCT HEIGHT	48 mm
PRODUCT WIDTH	48 mm
PRODUCT WEIGHT	0.16 kg
CERTIFICATIONS	CSA-C22.2 No. 60947-4-1- 14 IEC/EN 60947-3 UL 60947-4-1 CSA File No.: 012528 IEC/EN 60204 IEC/EN 60947 CE CSA-C22.2 No. 94 VDE 0660 UL UL Category Control No.: NLRV CSA CSA Class No.: 3211-05 UL File No.: E36332
CATALOG NOTES	Rated Short-time Withstand Current (lcw) for a time of 1 second



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TYPE	Reversing star-delta switch
PRODUCT CATEGORY	Control switches
ACTUATOR FUNCTION	Maintained With 0 (Off) position
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.
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	Does not apply, since the entire switchgear needs to

DECLARATIONS OF CONFORMITY	eaton-step-switch- declaration-of-conformity- uk251327en.pdf	
00000	<u>IL03801020Z</u>	
000	eaton-rotary-switches-t0- wiring-diagram-002.eps	
	eaton-rotary-switches-t0- wiring-diagram.eps	
пп	eaton-rotary-switches- mounting-t0-step-switch- dimensions-029.eps	
	eaton-rotary-switches- front-plate-t0-symbol- 005.eps	

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ASSEMBLIES	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	ls the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	ls the panel builder's responsibility.
10.9.2 POWER- FREQUENCY ELECTRIC STRENGTH	ls the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	ls the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	ls the panel builder's responsibility.
FITTED WITH:	Black thumb grip and front plate 0 (off) position
OPERATING FREQUENCY	1200 Operations/h
POLLUTION DEGREE	3
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
ENCLOSURE MATERIAL	Plastic
RATED IMPULSE	
WITHSTAND VOLTAGE (UIMP)	6000 V AC
WITHSTAND VOLTAGE	6000 V AC Short thumb-grip
WITHSTAND VOLTAGE (UIMP)	
WITHSTAND VOLTAGE (UIMP)  ACTUATOR TYPE  AMBIENT OPERATING	Short thumb-grip
WITHSTAND VOLTAGE (UIMP)  ACTUATOR TYPE  AMBIENT OPERATING TEMPERATURE - MAX  AMBIENT OPERATING	Short thumb-grip 50 °C
WITHSTAND VOLTAGE (UIMP)  ACTUATOR TYPE  AMBIENT OPERATING TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  AMBIENT OPERATING TEMPERATURE	Short thumb-grip 50 °C -25 °C
WITHSTAND VOLTAGE (UIMP)  ACTUATOR TYPE  AMBIENT OPERATING TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX  AMBIENT OPERATING TEMPERATURE	Short thumb-grip 50 °C -25 °C 40 °C

HZ, 1-PHASE	
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	1.5 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	7.5 HP
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID	0.6 W
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 CONTACT UNITS	6
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	320 A, Contacts, 1 second
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
MOUNTING POSITION	As required
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	6 kA
MOUNTING METHOD	Flush mounting
OVERVOLTAGE CATEGORY	III
CONTROL CIRCUIT RELIABILITY	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)

NUMBER OF POLES	3		
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DEGREE OF PROTECTION	NEMA 1 IP65		
	NEMA 12		
NUMBER OF CONTACTS	12		
MODEL	Turnaround star-delta switch		
DEGREE OF PROTECTION (FRONT SIDE)	IP65 NEMA 12		
INSCRIPTION	D-Y-0-Y-D		
LIFESPAN, MECHANICAL	400,000 Operations		
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 61140		
RATED OPERATIONAL CURRENT (IE)	20 A at AC-3, 230 V stardelta 20 A at AC-3, 400 V stardelta 8.5 A at AC-3, 690 V stardelta 15.6 A at AC-3, 500 V stardelta		
SCREW SIZE	M3.5, Terminal screw		
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half- sinusoidal shock 20 ms		
LOAD RATING	$2 \times l_e$ (with intermittent operation class 12, 25 % duty factor) $1.3 \times l_e$ (with intermittent operation class 12, 60 % duty factor) $1.6 \times l_e$ (with intermittent operation class 12, 40 % duty factor)		
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10A, IU, (UL/CSA)		
TIGHTENING TORQUE	1 Nm, Screw terminals 8.8 lb-in, Screw terminals		
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600 (UL/CSA) P300 (UL/CSA)		
NUMBER OF CONTACTS IN SERIES AT DC-21A, 240 V	1		
NUMBER OF CONTACTS IN SERIES AT DC-23A, 120 V	3		
NUMBER OF CONTACTS IN SERIES AT DC-23A, 24 V	1		

NUMBER OF CONTACTS IN SERIES AT DC-23A, 240 V  NUMBER OF CONTACTS IN SERIES AT DC-23A, 48 V  RATED BREAKING CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY DP TO 690 V (COS PHI TO IEC 60947-3)  RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-3, 21.5 A 220 V, 230 V, 240 V		
IN SERIES AT DC-23A, 48 V  NUMBER OF CONTACTS IN SERIES AT DC-23A, 60 V  RATED BREAKING CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 13.3 A  7.6 A 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 11.5 A	IN SERIES AT DC-23A, 240	5
IN SERIES AT DC-23A, 60 V  RATED BREAKING CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 13.3 A		2
CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V		3
CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-3, 11.5 A	CAPACITY AT 220/230 V	100 A
CAPACITY AT 500 V (COS PHI TO IEC 60947-3)  RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 691 T.5 A	CAPACITY AT 400/415 V	110 A
CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)  RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-3A, 691 TILS A	CAPACITY AT 500 V (COS	80 A
CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)  RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-3, 11.5 A	<b>CAPACITY AT 660/690 V</b>	60 A
CURRENT (IE) AT AC-21, 440 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-3, 11.5 A	CAPACITY UP TO 690 V (COS PHI TO IEC/EN	130 A
CURRENT (IE) AT AC-23A, 230 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 7.6 A 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 11.5 A	CURRENT (IE) AT AC-21,	20 A
CURRENT (IE) AT AC-23A, 400 V, 415 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 7.6 A 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-3, 11.5 A	CURRENT (IE) AT AC-23A,	13.3 A
CURRENT (IE) AT AC-23A, 13.3 A 500 V  RATED OPERATIONAL CURRENT (IE) AT AC-23A, 7.6 A 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-3, 11.5 A	CURRENT (IE) AT AC-23A,	13.3 A
CURRENT (IE) AT AC-23A, 7.6 A 690 V  RATED OPERATIONAL CURRENT (IE) AT AC-3, 11.5 A	CURRENT (IE) AT AC-23A,	13.3 A
CURRENT (IE) AT AC-3, 11.5 A	CURRENT (IE) AT AC-23A,	7.6 A
	CURRENT (IE) AT AC-3,	11.5 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 11.5 A 380 V, 400 V, 415 V	CURRENT (IE) AT AC-3,	11.5 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 9 A 500 V	CURRENT (IE) AT AC-3,	9 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 4.9 A 660 V, 690 V	CURRENT (IE) AT AC-3,	4.9 A
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)  16 A, Rated uninterrupted current max. (UL/CSA)	(MAIN CONTACTS,	·

SAFETY PARAMETER (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
SHORT-CIRCUIT PROTECTION RATING	20 A gG/gL, Fuse, Contacts
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm², ferrules to DIN 46228 2 x (0.75 - 2.5) mm², ferrules to DIN 46228
SUITABLE FOR	Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-13, CONTROL SWITCHES L/R = 50 MS	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-21, 240 V	1 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V	5 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 24 V	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 240 V	5 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 48 V	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 60 V	10 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	20 A
RATED OPERATIONAL POWER AT AC-23A, 220/230 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT AC-23A, 400 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ	5.5 kW

RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	4 kW
RATED OPERATIONAL POWER STAR-DELTA AT 220/230 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER STAR-DELTA AT 380/400 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER STAR-DELTA AT 500 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER STAR-DELTA AT 690 V, 50 HZ	5.5 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RATED UNINTERRUPTED CURRENT (IU)	20 A
STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS	0 W
SWITCHING ANGLE	60 °
VOLTAGE PER CONTACT PAIR IN SERIES	60 V
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT)	10 kA, SCCR (UL/CSA) 20 A, Class J, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	50A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA)
TERMINAL CAPACITY (SOLID/FLEXIBLE WITH FERRULE AWG)	18 - 14
TERMINAL CAPACITY (SOLID/STRANDED)	2 x (1 - 2.5) mm <sup>2</sup> 1 x (1 - 2.5) mm <sup>2</sup>
UNINTERRUPTED CURRENT	Rated uninterrupted current lu is specified for max. cross-section.
DESIGN	15877

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