

BIMETAL OVERLOAD RELAYS

278453



Overview



Specifications



Resources

How to buy

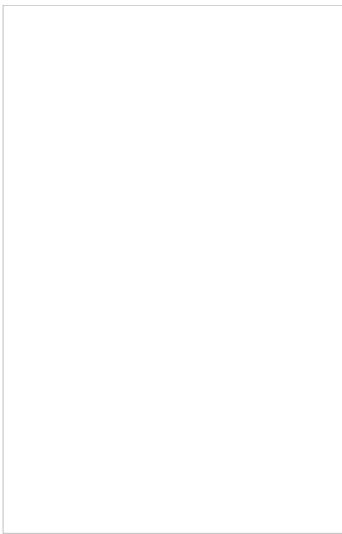


Photo is representative

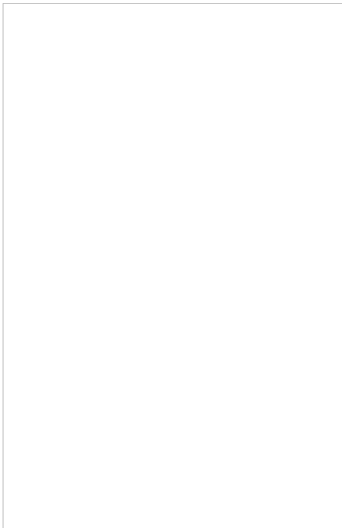


Photo is representative

278453

Eaton Moeller® series ZB Overload relay, ZB32, Ir-
Direct mounting, IP20

How to buy

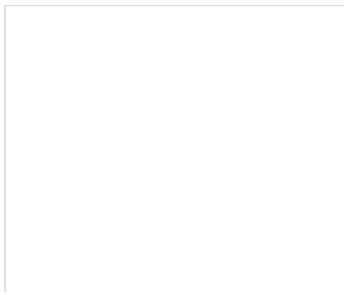


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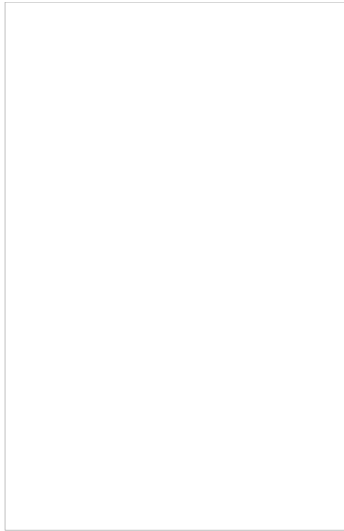


Photo is representative



Designed to work together

Discover other Eaton products and accessories built to enhance this product.

277196

Eaton Moeller® series DILM Contactor, 380 V 400 V 11 kW, 2 N/O, 1 NC, 230 V 50 Hz, 240 V 60 Hz, AC operation, Screw terminals

277370

Eaton Moeller® series DILM Contactor, 380 V 400 V 15 kW, 3 N/O, 2 NC, RDC 24: 24 - 27 V DC, DC operation, Screw terminals

106371

Eaton Moeller® series DILM Contactor, 380 V 400 V 7.5 kW, 2 N/O, 2 NC, RDC 24: 24 - 27 V DC, DC operation, Screw terminals

277289

Eaton Moeller® series DILM Contactor, 380 V 400 V 15 kW, 1 N/O, 1 NC, 120 V 60 Hz, AC operation, Screw terminals

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GENERAL SPECIFICATIONS

General specifications

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PRODUCT NAME	Eaton Moeller® series ZB Thermal overload relay
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CATALOG NUMBER	278453
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Product specifications

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MODEL CODE	ZB32-24
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UPC	782116358793
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EAN	4015082784539
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PRODUCT LENGTH/DEPTH	96 mm
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PRODUCT HEIGHT	67 mm
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PRODUCT WIDTH	45 mm
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PRODUCT WEIGHT	0.145 kg
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CERTIFICATIONS

IEC/EN 60947
UL 60947-4-1
UL File No.: E29184
CSA File No.: 012528
CE
UL Category Control No.: NKCR
UL
VDE 0660
CSA
CSA Class No.: 3211-03
CSA-C22.2 No. 60947-4-1-14
IEC/EN 60947-4-1

PRODUCT SPECIFICATIONS

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	24 A
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TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 2.5) mm ² , Control circuit cables 2 x (1 - 4) mm ² , Main cables 1 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (1 - 4) mm ² , Main cables
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10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications must be observed.
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STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	8 mm
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AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	25 °C
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10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
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10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifications must be observed.
MOUNTING METHOD	Direct mounting Direct attachment
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to
STRIPPING LENGTH (MAIN CABLE)	10 mm
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
RESET FUNCTION	Push-button Automatic
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	100 kA, Fuse, SCCR (UL/CSA) 45 A, Class J, max. Fuse, SCCR (UL/CSA)
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
SCREW SIZE	M3.5, Terminal screw, Control circuit cables M4, Terminal screw
ADJUSTABLE CURRENT RANGE - MIN	16 A
PROTECTION	Finger and back-of-hand proof, Protection against dirt actuated from front (EN 50274)
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
FEATURES	Phase-failure sensitivity (according to IEC/EN 60947-1:2011, 102) Reset pushbutton manual/auto Test/off button Trip-free release
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
VOLTAGE RATING - MAX	600 VAC
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to
SAFE ISOLATION	240 V AC, Between auxiliary contacts, According to IEC 61140 440 V, Between auxiliary contacts and main contact 61140 440 V AC, Between main circuits, According to EN 61140

RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V	1.5 A
CLASS	CLASS 10 A
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the instruction leaflet (IL) is observed.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to
RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V, 400 V, 415 V	0.9 A
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	2 W
PRODUCT CATEGORY	<ul style="list-style-type: none"> • Accessories • Overload relay ZB up to 150 A
OVERLOAD RELEASE CURRENT SETTING - MIN	16 A
RATED OPERATIONAL CURRENT (IE) AT DC-13, 60 V	0.75 A
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	6 W
HEAT DISSIPATION CAPACITY PDISS	0 W
SUITABLE FOR	Branch circuits, (UL/CSA)
TEMPERATURE COMPENSATION	Continuous $\leq 0.25\%/K$, residual error for $T > 40^\circ$
TERMINAL CAPACITY (SOLID)	1 x (0.75 - 4) mm ² , Control circuit cables 1 x (1 - 6) mm ² , Main cables 2 x (1 - 6) mm ² , Main cables 2 x (0.75 - 4) mm ² , Control circuit cables
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	1
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.
RATED OPERATIONAL CURRENT (IE) AT DC-13, 220 V, 230 V	0.2 A
CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN)	6 A
OVERLOAD RELEASE CURRENT SETTING - MAX	24 A
TERMINAL CAPACITY (SOLID/STRANDED AWG)	2 x (18 - 14), Control circuit cables

	18 - 8, Main cables
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
DEGREE OF PROTECTION	IP20
OVERVOLTAGE CATEGORY	III
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
POLLUTION DEGREE	3
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC 4000 V (auxiliary and control circuits)
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the device
TIGHTENING TORQUE	1.2 Nm, Screw terminals, Control circuit cables 1.8 Nm, Screw terminals, Main cables
ADJUSTABLE CURRENT RANGE - MAX	24 A
FRAME SIZE	ZB32
SCREWDRIVER SIZE	1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
RATED OPERATIONAL CURRENT (IE) AT AC-15, 120 V	1.5 A
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	1
SHORT-CIRCUIT PROTECTION RATING	Max. 6 A gG/gL, fuse, Without welding, Auxiliary 50 A gG/gL, Fuse, Type "2" coordination 125 A gG/gL, Fuse, Type "1" coordination
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	1
RATED OPERATIONAL CURRENT (IE) AT DC-13, 110 V	0.4 A
RATED OPERATIONAL VOLTAGE (UE) - MAX	690 V
SHOCK RESISTANCE	10 g, Mechanical, Sinusoidal, Shock duration 10 ms
RATED OPERATIONAL CURRENT (IE) AT DC-13, 24 V	0.9 A
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	R300, DC operated (UL/CSA) B300 at opposite polarity, AC operated (UL/CSA) B600 at opposite polarity, AC operated (UL/CSA)

Catalogs

Characteristic curve

Declarations of conformity

Drawings

eCAD model

Installation instructions

Manuals and user guides

mCAD model

Wiring diagrams

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