

Specifications

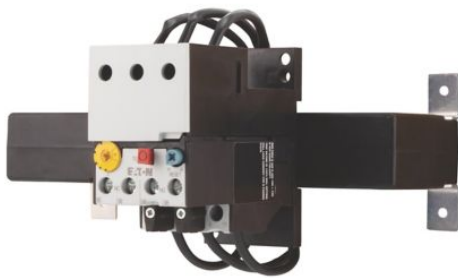
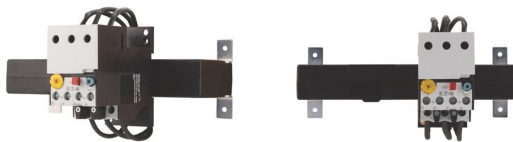


Photo is representative



Eaton 052448

Eaton Moeller® series ZW7 Current transformer-operated overload relay, 190-290A, 1N/O+1N/C

General specifications

PRODUCT NAME	Eaton Moeller® series ZW7 Current transformer-operated overload relay
CATALOG NUMBER	052448
MODEL CODE	ZW7-290
EAN	4015080524489
PRODUCT LENGTH/DEPTH	162.5 mm
PRODUCT HEIGHT	97 mm
PRODUCT WIDTH	200.5 mm
PRODUCT WEIGHT	0.622 kg
CERTIFICATIONS	CE CSA CSA File No.: 012528 CSA-C22.2 No. 14 UL File No.: E29184 UL Category Control No.: NKCR CSA Class No.: 3211-03 IEC/EN 60947-4-1 UL UL 508 IEC/EN 60947 VDE 0660
CATALOG NOTES	Rated operational current: Switch-on and switch-off conditions based on DC-13, time constant as specified.

Contacts

**NUMBER OF AUXILIARY
CONTACTS (CHANGE-
OVER CONTACTS)** 0

**NUMBER OF AUXILIARY
CONTACTS (NORMALLY
CLOSED CONTACTS)** 1

**NUMBER OF AUXILIARY
CONTACTS (NORMALLY
OPEN CONTACTS)** 1

**NUMBER OF CONTACTS
(NORMALLY CLOSED
CONTACTS)** 1

**NUMBER OF CONTACTS
(NORMALLY OPEN
CONTACTS)** 1

Design verification

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

Meets the product standard's requirements.

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

Does not apply, since the

AGAINST ELECTRIC SHOCK	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.
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	7.2 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	2.4 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	290 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W

Electrical rating

**CONVENTIONAL
THERMAL CURRENT ITH
OF AUXILIARY CONTACTS
(1-POLE, OPEN)** 6 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-15,
120 V** 1.5 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-15,
220 V, 230 V, 240 V** 1.5 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-15,
380 V, 400 V, 415 V** 0.9 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
110 V** 0.4 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
220 V, 230 V** 0.2 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
24 V** 0.9 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-13,
60 V** 0.75 A

**RATED OPERATIONAL
VOLTAGE (UE) - MAX** 690 V

SAFE ISOLATION 240 V AC, Between
auxiliary contacts,
According to EN 61140
440 V AC, Between main
circuits, According to EN
61140
440 V AC, Between
auxiliary contacts and
main contacts, According
to EN 61140

**SWITCHING CAPACITY
(AUXILIARY CONTACTS,
PILOT DUTY)** B300 at opposite polarity,
AC operated (UL/CSA)
R300, DC operated
(UL/CSA)
B600 at opposite polarity,
AC operated (UL/CSA)

VOLTAGE RATING - MAX 600 VAC

Features & functions

FEATURES

Test/off button
Reset pushbutton
manual/auto
Protection with heavy
starting duty
Trip-free release

General information

AMBIENT OPERATING TEMPERATURE - MAX	50 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
CLASS	Other
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
DEGREE OF PROTECTION	IP00
MOUNTING METHOD	Separate positioning Separate mounting
MOUNTING POSITION	As required
OPENING DIAMETER	27 mm
OVERLOAD RELEASE CURRENT SETTING - MAX	290 A
OVERLOAD RELEASE CURRENT SETTING - MIN	190 A
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	ZW7 current transformer-operated overload relays
PROTECTION	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V AC 4000 V (auxiliary and control circuits)
SHOCK RESISTANCE	10 g, Mechanical, Sinusoidal, Shock duration 10 ms
SUITABLE FOR	Branch circuits, (UL/CSA)
TEMPERATURE COMPENSATION	Continuous

Short-circuit rating

SHORT-CIRCUIT PROTECTION

With overload relay in conjunction with a transformer as required for the contactor, Max. Fuse, Main conducting paths

SHORT-CIRCUIT PROTECTION RATING

Max. 6 A gG/gL, Fuse, Auxiliary contacts

Terminal capacities

SCREW SIZE	M3.5, Terminal screw
SCREWDRIVER SIZE	1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	8 mm
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 2.5) mm ² 1 x (0.75 - 2.5) mm ²
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 4) mm ² 1 x (0.75 - 4) mm ²
TERMINAL CAPACITY (SOLID/STRANDED AWG)	2 x (18 - 14)
TIGHTENING TORQUE	1.2 Nm, Screw terminals, Control circuit cables

Resources

CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-tripping-devices-zw7-characteristic-curve-002.eps eaton-tripping-devices-tripping-characteristic-zw7-characteristic-curve.eps
DECLARATIONS OF CONFORMITY	eaton-current-transformer-operated-overload-relay-declaration-of-conformity-eu250789en.pdf eaton-current-transformer-operated-overload-relay-declaration-of-conformity-uk251272en.pdf
DRAWINGS	eaton-tripping-devices-current-zw7-dimensions.eps eaton-tripping-devices-current-zw7-dimensions-002.eps eaton-tripping-devices-current-zw7-3d-drawing.eps
ECAD MODEL	ETN.ZW7-290
INSTALLATION INSTRUCTIONS	IL03407129Z2017_08 IL04210001Z DA-CS-zw7
MCAD MODEL	eaton-thermal-overload-relays-mcad-drawings-zw7.dwg
WIRING DIAGRAMS	eaton-tripping-devices-circuit-zw7-wiring-diagram.eps

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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