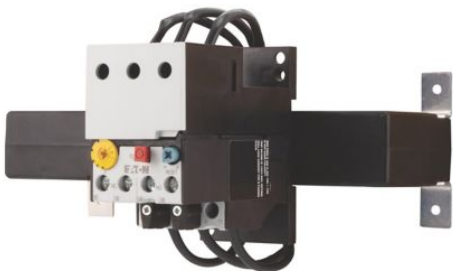


# Eaton 050075

Catalog Number: 050075

Eaton Moeller® series ZW7 Current transformer-operated overload relay, 420-630A, 1N/O+1N/C

General specifications



Product Name

Eaton Moeller® series ZW7 Current transformer-operated overload relay

Catalog Number

050075

EAN

4015080500759

Product Length/Depth

162.5 mm

Product Height

97 mm

Product Width

200.5 mm

Product Weight

0.64 kg

Certifications

IEC/EN 60947  
VDE 0660

Catalog Notes

Rated operational current: Switch-on and switch-off conditions based on DC-13, time constant as specified.

## Product specifications

### Features

Protection with heavy starting duty

Test/off button

Trip-free release

Reset pushbutton manual/auto

### 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.

## Resources

### Catalogs

Product Range Catalog Switching and protecting motors

[eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf](#)

### Characteristic curve

[eaton-tripping-devices-zw7-characteristic-curve-005.eps](#)

[eaton-tripping-devices-tripping-characteristic-zw7-characteristic-curve.eps](#)

### Declarations of conformity

[DA-DC-00004857.pdf](#)

[DA-DC-00004847.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

[DA-CE-ETN.ZW7-630](#)

### Installation instructions

[IL03407132Z](#)

[IL04210001Z](#)

### mCAD model

[DA-CS-zw7](#)

[DA-CD-zw7](#)

### Wiring diagrams

[eaton-tripping-devices-circuit-zw7-wiring-diagram.eps](#)

#### 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.

#### Pollution degree

3

#### Class

Other

#### Opening diameter

27 mm

#### Climatic proofing

Damp heat, constant, to IEC 60068-2-78

Damp heat, cyclic, to IEC 60068-2-30

#### Rated impulse withstand voltage (Uimp)

8000 V AC

4000 V (auxiliary and control circuits)

#### 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 (I<sub>e</sub>) at DC-13, 220 V, 230 V

0.2 A

Rated operational current (I<sub>e</sub>) at DC-13, 24 V

0.9 A

Rated operational current (I<sub>e</sub>) at DC-13, 60 V

0.75 A

Rated operational current for specified heat dissipation (I<sub>n</sub>)

630 A

Static heat dissipation, non-current-dependent P<sub>vs</sub>

0 W

Stripping length (control circuit cable)

8 mm

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)

Adjustable current range - max

630 A

Adjustable current range - min

420 A

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

Conventional thermal current I<sub>th</sub> of auxiliary contacts (1-pole,  
open)

6 A

Equipment heat dissipation, current-dependent P<sub>vid</sub>

8.1 W

Heat dissipation capacity P<sub>diss</sub>

0 W

Heat dissipation per pole, current-dependent P<sub>vid</sub>

2.7 W

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

Overload release current setting - max

630 A

Overload release current setting - min

420 A

Rated operational voltage (U<sub>e</sub>) - max

690 V

Rated operational current (I<sub>e</sub>) at AC-15, 120 V

1.5 A

Electrical connection type of main circuit

Screw connection

Reset function

Automatic

Push-button

Screwdriver size

2, Terminal screw, Pozidriv screwdriver

1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver

Mounting position

As required

Mounting method

Separate positioning

Separate mounting

Degree of protection

IP00

Overvoltage category

III

#### Safe isolation

440 V AC, Between auxiliary contacts and main contacts,

According to EN 61140

240 V AC, Between auxiliary contacts, According to EN 61140

440 V AC, Between main circuits, According to EN 61140

#### Screw size

M3.5, Terminal screw

#### Shock resistance

10 g, Mechanical, Sinusoidal, Shock duration 10 ms

#### Short-circuit protection

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

#### Switching capacity (auxiliary contacts, pilot duty)

B600 at opposite polarity, AC operated (UL/CSA)

R300, DC operated (UL/CSA)

B300 at opposite polarity, AC operated (UL/CSA)

#### Short-circuit protection rating

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

#### Suitable for

Branch circuits, (UL/CSA)

#### Temperature compensation

Continuous

#### Terminal capacity (flexible with ferrule)

2 x (0.75 - 2.5) mm<sup>2</sup>

1 x (0.75 - 2.5) mm<sup>2</sup>

#### Terminal capacity (solid)

2 x (0.75 - 4) mm<sup>2</sup>

1 x (0.75 - 4) mm<sup>2</sup>

#### Terminal capacity (solid/stranded AWG)

2 x (18 - 14)

#### Tightening torque

1.2 Nm, Screw terminals, Control circuit cables

#### Rated frequency - min

50 Hz

#### Rated frequency - max

60 Hz



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