

**Thermistor overload relay for machine protection, 230V50/60Hz, without lock**



**Part no.** EMT6(230V)  
**Catalog No.** 066400  
**Eaton Catalog No.** EMT6-230V

## Delivery program

|   |          |   |  |  |
|---|----------|---|--|--|
| Product range   |          |   |  | EMT6 thermistor overload relay for machine protection              |
| Function  |          |   |  | Without manual reset<br>Mains and fault LED display<br>Test button |
| <b>Rated operational current</b>                      |          |   |  |  |
| AC-15   |          |   |  |  |
| 240 V   | $I_e$    | A |  | 3  |
| AC--14  |          |   |  |  |
| 300 V   | $I_e$    | A |  | 3  |
| 400 V   | $I_e$    | A |  | 3  |
|   |          |   |  | Value applies starting with release 001.                           |
| conventional thermal current                          | $I_{th}$ | A |  | 6  |
| Rated control voltage                                 | $U_s$    | V |  | 230 V 50/60 Hz   |
| <b>Notes</b>  |          |   |  |  |
| Observe manual MN03407006Z-DE/EN.                     |          |   |  |  |
| Can be snap fitted on a top-hat rail to IEC/EN 60715. |          |   |  |  |

## Technical data

|   |           |                 |  |  |
|---|-----------|-----------------|--|--|
| <b>General</b>  |           |                 |  |  |
| Standards   |           |                 |  | IEC/EN 60947, VDE 0660, EN 55011   |
| Climatic proofing   |           |                 |  | Damp heat, constant, to IEC 60068-2-78; Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature   |           |                 |  |  |
| Open  |           | °C              |  | -25 - +60  |
| Enclosed  |           | °C              |  | - 25 - 45  |
| Storage   |           | °C              |  | - 45 - 85  |
| Mounting position   |           |                 |  | As required  |
| Weight  |           | kg              |  | 0.15   |
| Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27 |           | g               |  | 10   |
| Degree of Protection  |           |                 |  | IP20   |
| Protection against direct contact when actuated from front (EN 50274)     |           |                 |  | Finger and back-of-hand proof  |
| Safe isolation to EN 61140  |           |                 |  |  |
| between the contacts  |           | V AC            |  | 250  |
| between contacts and power supply   |           | V AC            |  | 250  |
| <b>Auxiliary and control circuits</b>                                     |           |                 |  |  |
| Rated impulse withstand voltage   | $U_{imp}$ | V AC            |  | 4000   |
| Rated impulse withstand voltage   | $U_{imp}$ | V AC            |  | 6000   |
|   |           |                 |  | Value applies starting with release 001.                                     |
| Overvoltage category/pollution degree                                     |           |                 |  | III/3  |
| Terminal capacities Auxiliary and control circuits                        |           |                 |  |  |
| Solid   |           | mm <sup>2</sup> |  | 1 x (0.5 - 2.5)<br>2 x (0.5 - 1.5)   |
| Flexible with ferrule   |           | mm <sup>2</sup> |  | 1 x (0.5 - 2.5)<br>2 x (0.5 - 1.5)   |
| Solid or stranded   |           | AWG             |  | 20 - 14  |
| Terminal screw  |           |                 |  | M3.5   |
| Tightening torque   |           | Nm              |  | 1.2  |
| Tools   |           |                 |  |  |

|                      |  |      |       |
|----------------------|--|------|-------|
| Pozidriv screwdriver |  | Size | 2     |
| Standard screwdriver |  | mm   | 1 x 6 |

### Auxiliary power circuit

|                                      |       |   |  |
|--------------------------------------|-------|---|--|
| Rated insulation voltage             | $U_i$ | V | 300                                      |
| Rated insulation voltage             | $U_i$ | V | 400                                      |
|                                      |       |   | Value applies starting with release 001. |
| Rated operational current            | $I_e$ | A |  |
| AC-14                                |       |   |  |
| Make contact                         |       |   |  |
| 300 V                                | $I_e$ | A | 3  |
| 380 V 400 V 415 V                    | $I_e$ | A | 3  |
|                                      |       |   | Value applies starting with release 001. |
| Break contact                        |       |   |  |
| 300 V                                | $I_e$ | A | 3  |
| 380 V 400 V 415 V                    | $I_e$ | A | 3  |
|                                      |       |   | Value applies starting with release 001. |
| AC-15                                |       |   |  |
| Make contact                         |       |   |  |
| 220 V 230 V 240 V                    | $I_e$ | A | 3  |
| 300 V                                | $I_e$ | A | 1  |
| 380 V 400 V 415 V                    | $I_e$ | A | 1  |
|                                      |       |   | Value applies starting with release 001. |
| Break contact                        |       |   |  |
| 220 V 230 V 240 V                    | $I_e$ | A | 3  |
| 300 V                                | $I_e$ | A | 1  |
| 380 V 400 V 415 V                    | $I_e$ | A | 1  |
|                                      |       |   | Value applies starting with release 001. |
| Max. short-circuit protective device |       |   |  |
| Fuse                                 | gG/gL | A | 6  |

### Control circuit

|                             |       |          |            |
|-----------------------------|-------|----------|------------|
| Rated insulation voltage    | $U_i$ | V        | 240        |
| Rated operational voltage   | $U_e$ | V        | 230        |
| Pick-up and drop-out values |       | $x U_e$  | 0.85 - 1.1 |
| Power consumption           |       |          |            |
| AC                          |       | VA       | 3.5        |
| DC                          |       | W        | 2          |
| Trip at approx.             |       | $\Omega$ | 3600       |
| Recovery at approx.         |       | $\Omega$ | 1600       |

### Electromagnetic compatibility (EMC)

|   |  |     |  |
|---|--|-----|--|
| Electrostatic discharge (ESD)                                 |  |     |  |
| applied standard  |  |     | IEC/EN 61000-4-2   |
| Air discharge   |  | kV  | 8  |
| Contact discharge   |  | kV  | 6  |
| Electromagnetic fields (RFI)                                  |  |     |  |
| applied standard  |  |     | IEC/EN 61000-4-3   |
|   |  | V/m | 80 - 1000 MHz: 10<br>1.4 - 2 GHz: 3<br>2.0 - 2.7 GHz: 1                    |
| Radio interference suppression                                |  |     | EN 55011<br>Class B  |
| Burst   |  | kV  | Supply cables: 2<br>Signal cables: 1<br>according to IEC/EN 61000-4-4      |
| power pulses (Surge)  |  |     | 2 kV (symmetrical)<br>4 kV (asymmetrical)<br>according to IEC/EN 61000-4-5 |
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) |  | V   | 10   |

## Design verification as per IEC/EN 61439

|  |    |     |
|--|----|-----|
| Technical data for design verification |    |     |
| Operating ambient temperature min.     | °C | -25 |
| Operating ambient temperature max.     | °C | 60  |

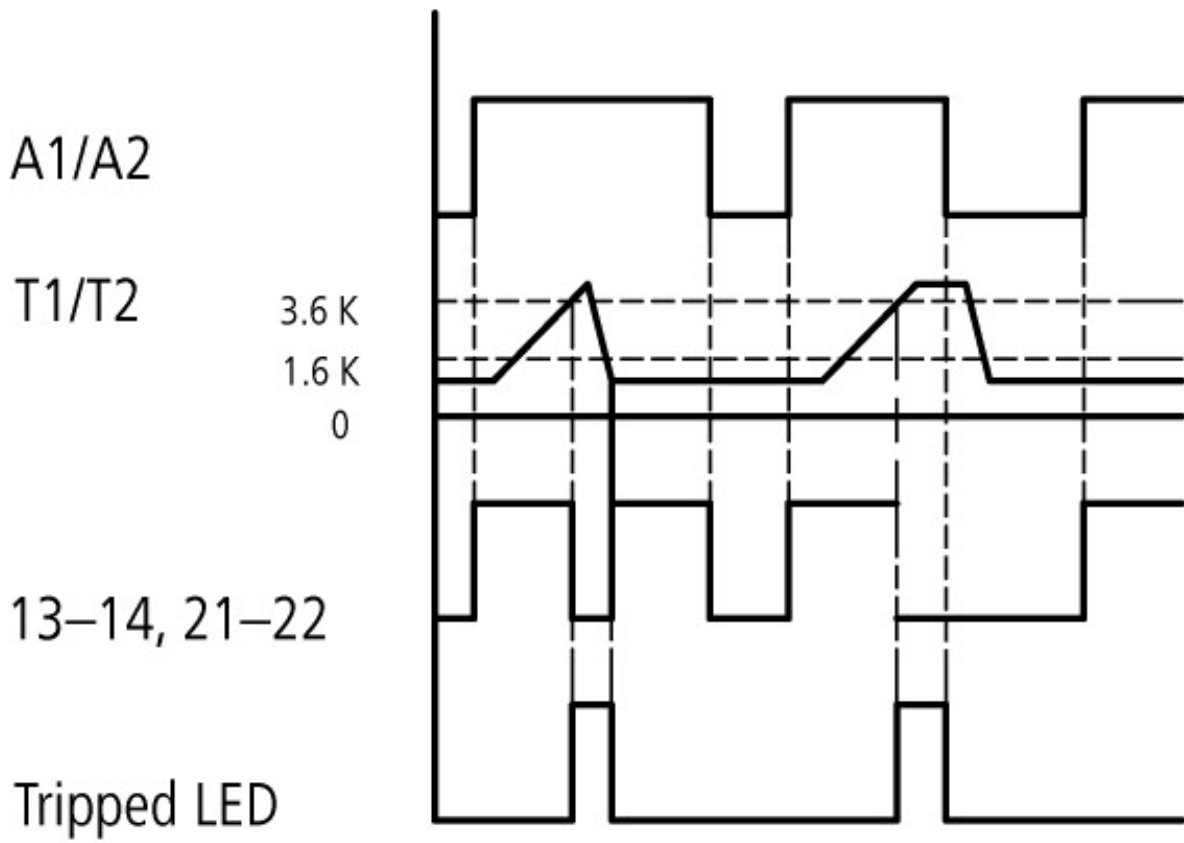
## Technical data ETIM 6.0

|   |    |                  |
|---|----|------------------|
| Relays (EG000019) / Temperature monitoring relay (EC001446)   |    |                  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Temperature monitoring equipment (ec1@ss8.1-27-37-18-10 [AKF104011]) |    |                  |
| Type of electric connection   |    | Screw connection |
| Rated control supply voltage Us at AC 50HZ  | V  | 230 - 230        |
| Rated control supply voltage Us at AC 60HZ  | V  | 230 - 230        |
| Rated control supply voltage Us at DC   | V  | 0 - 0            |
| Voltage type for actuating  |    | AC               |
| With detachable clamps  |    | No               |
| Number of measuring circuits  |    | 1                |
| Error registration possible   |    | No               |
| External reset possible   |    | No               |
| Number of contacts as normally closed contact   |    | 1                |
| Number of contacts as normally open contact   |    | 1                |
| Number of contacts as change-over contact   |    | 0                |
| Width   | mm | 23               |
| Height  | mm | 84               |
| Depth   | mm | 104              |

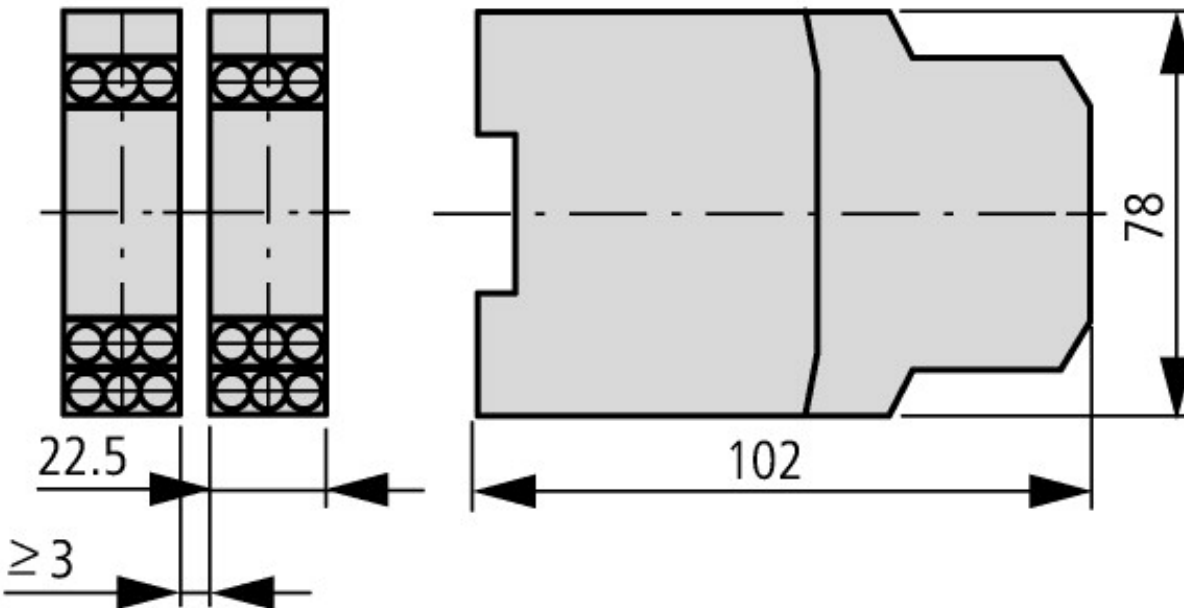
## Approvals

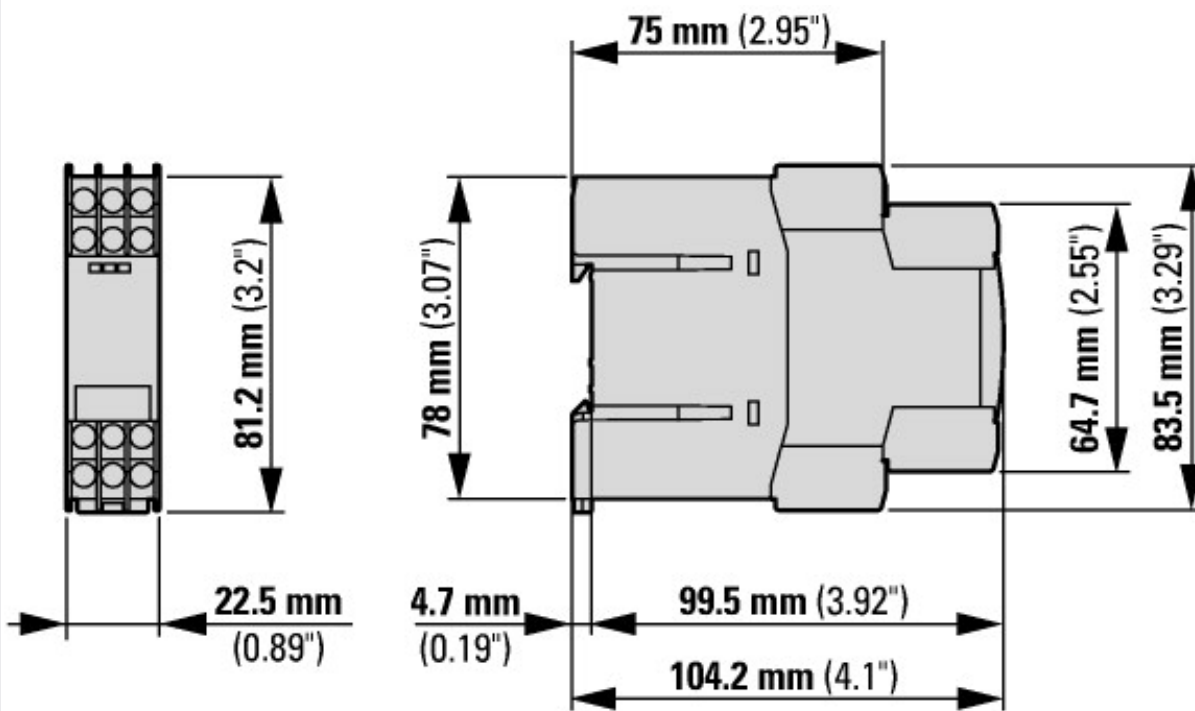
|                                      |  |  |
|--------------------------------------|--|--|
| Product Standards                    |  | UL 508; CSA-C22.2 No. 14; IEC/EN 60947-8; CE marking |
| UL File No.                          |  | E29184   |
| UL Category Control No.              |  | NKCR   |
| CSA File No.                         |  | 12528  |
| CSA Class No.                        |  | 3211-03  |
| North America Certification          |  | UL listed, CSA certified                             |
| Specially designed for North America |  | No   |
| Max. Voltage Rating                  |  | 600 V AC   |
| Degree of Protection                 |  | IEC: IP20, UL/CSA Type: -                            |

## Characteristics



## Dimensions





Applies to release 001 and higher

### Additional product information (links)

#### IL03407100Z (AWA2327-1454) thermistor overload relay for machine protection

IL03407100Z (AWA2327-1454) thermistor overload relay for machine protection

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407100Z2016\\_05.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407100Z2016_05.pdf)

terminal markings and sensor circuit

<http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=6.21>