

**AMG ELM-10F****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

Similar to illustration

Efficient machine and facility operation calls for fail-safe and maintenance-friendly control voltage distribution that can be installed in a time and space-saving manner.

With the new maxGUARD system, the terminal blocks (previously installed separately) for distributing potential to the outputs of the electronic load monitors become an integral part of a 24 V DC control voltage distribution system.

The innovative combination of load monitoring and potential distribution saves time during installation, increases safety against failure and reduces the amount of space required on the terminal rail by 50%.

**General ordering data**

|            |                                           |
|------------|-------------------------------------------|
| Version    | Electronic load monitoring, 10 A, 24 V DC |
| Order No.  | <a href="#">2080650000</a>                |
| Type       | AMG ELM-10F                               |
| GTIN (EAN) | 4050118419320                             |
| Qty.       | 1 pc(s).                                  |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 96.5 mm | Depth (inches)  | 3.799 inch |
| Height     | 125 mm  | Height (inches) | 4.921 inch |
| Width      | 12.2 mm | Width (inches)  | 0.48 inch  |
| Net weight | 57 g    |                 |            |

## Temperatures

|                     |                |                       |                |
|---------------------|----------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C | Operating temperature | -25 °C...70 °C |
|---------------------|----------------|-----------------------|----------------|

## Environmental Product Compliance

|            |                |      |                                      |
|------------|----------------|------|--------------------------------------|
| REACH SVHC | Lead 7439-92-1 | SCIP | a7fff16c-85aa-4fb0-a206-7be03f41b0b7 |
|------------|----------------|------|--------------------------------------|

## Input

|                                              |                           |                            |                  |
|----------------------------------------------|---------------------------|----------------------------|------------------|
| Current consumption (full load)              | $I_{OUT} + 30 \text{ mA}$ | Current consumption (idle) | 25 mA            |
| DC input voltage range                       | 18...30 V DC              | Input fuse (internal)      | Yes              |
| Rated input voltage                          | 24 V DC                   | Surge protection           | Suppressor diode |
| max. admissible residual ripple at the input | 100 mVpp                  |                            |                  |

## Output

|                          |                      |                           |                          |
|--------------------------|----------------------|---------------------------|--------------------------|
| Capacitive load          | 20,000 $\mu\text{F}$ | Connection system         | PUSH IN                  |
| Rated current            | 10 A                 | Surge protection          | Suppressor diode         |
| Switch-on delay          | 1 s                  | Triggering characteristic | see characteristic curve |
| adjustable rated current | No                   |                           |                          |

## General data

|                              |                                 |          |  |
|------------------------------|---------------------------------|----------|--|
| Conformal coating            | No                              |          |  |
| Function key                 | Activation time < 3s, Reset, ON |          |  |
| MTTF                         | According to Standard           | SN 29500 |  |
|                              | Operating time (hours), min.    | 2.844 Mh |  |
|                              | Ambient temperature             | 40 °C    |  |
|                              | Input voltage                   | 24 V     |  |
|                              | Output power                    | 240 W    |  |
|                              | Duty cycle                      | 100 %    |  |
| Operating temperature        | -25 °C...70 °C                  |          |  |
| Power loss, idling           | 408 mW                          |          |  |
| Power loss, nominal load     | 1,708 mW                        |          |  |
| Protection degree            | IP20                            |          |  |
| Relay to activate the output | No                              |          |  |
| Surge voltage category       | III                             |          |  |

## Insulation coordination

|                        |     |
|------------------------|-----|
| Surge voltage category | III |
|------------------------|-----|

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## Connection data (output)

|                                           |                     |                                           |                      |
|-------------------------------------------|---------------------|-------------------------------------------|----------------------|
| Conductor cross-section, AWG/kcmil , max. | 12                  | Conductor cross-section, AWG/kcmil , min. | 26                   |
| Conductor cross-section, flexible , max.  | 2.5 mm <sup>2</sup> | Conductor cross-section, flexible , min.  | 0.14 mm <sup>2</sup> |
| Conductor cross-section, rigid , max.     | 2.5 mm <sup>2</sup> | Conductor cross-section, rigid , min.     | 0.14 mm <sup>2</sup> |
| Connection system                         | PUSH IN             | Number of terminals                       | 4 (++) / -)          |

## Signalling

|                          |         |                                                                                                             |
|--------------------------|---------|-------------------------------------------------------------------------------------------------------------|
| LED green                | Red LED | Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing) |
| Operation (failure-free) |         |                                                                                                             |

## Approbations

|                         |         |                   |       |
|-------------------------|---------|-------------------|-------|
| Certificate no. (cULus) | E258476 | Institute (cULus) | CULUS |
|-------------------------|---------|-------------------|-------|

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002057    | ETIM 7.0    | EC002057    |
| ETIM 8.0    | EC002057    | ECLASS 9.0  | 27-37-10-16 |
| ECLASS 9.1  | 27-37-10-16 | ECLASS 10.0 | 27-37-10-16 |
| ECLASS 11.0 | 27-37-10-16 | ECLASS 12.0 | 27-37-10-16 |

## Approvals

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate no. (cULus) | E258476    |

## Downloads

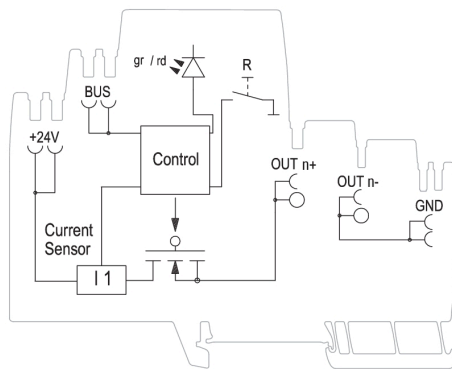
|                                             |                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of Conformity</a>                                 |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                           |
| Engineering Data                            | <a href="#">EPLAN, WSCAD, Zuken E3.S</a>                                  |
| Product Change Notification                 | <a href="#">Release-Notes</a>                                             |
| User Documentation                          | <a href="#">Manual maxGUARD</a><br><a href="#">Operating instructions</a> |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                  |

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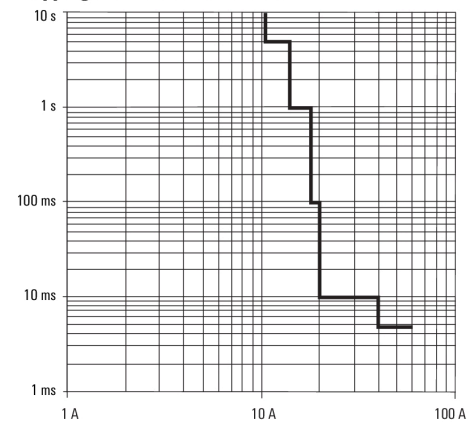
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## Drawings



Schematic circuit diagram

Tripping characteristic normal



Tripping characteristic