

## High Current Relay 150

- Limiting continuous current 130A at 85°C
- Current switching ability up to 300A
- Suitable for voltage levels up to 24VDC
- Heat, moisture and vibration resistant
- Minimal contact resistance
- Dustproof and sealed versions

### Typical applications

Engine control, glow plug, heated front screen, preheating systems (e.g. for diesel engines, catalytic converters), switches for loading ramps, start/stop.



F132\_fw2b

### Contact Data

|                                                                         |                                                                         |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Contact arrangement                                                     | 1 form A, 1 NO<br>1 form B, 1 NC<br>1 form C, 1 CO<br>1 form X, 1 NO DM |
| Rated voltage                                                           | 12VDC/24VDC                                                             |
| Max. switching voltage                                                  | depends on load parameters <sup>A)</sup>                                |
| Rated current, cable 25mm <sup>2</sup>                                  | 130A at 85°C                                                            |
| Limiting continuous current                                             |                                                                         |
| 23°C, load cable 16mm <sup>2</sup>                                      | 130A                                                                    |
| 85°C, load cable 16mm <sup>2</sup>                                      | 120A                                                                    |
| 125°C, load cable 16mm <sup>2</sup>                                     | 60A                                                                     |
| 23°C, load cable 25mm <sup>2</sup>                                      | 180A                                                                    |
| 85°C, load cable 25mm <sup>2</sup>                                      | 130A                                                                    |
| 125°C, load cable 25mm <sup>2</sup>                                     | 70A                                                                     |
| Limiting making current, load current max. 3s on, make/break ratio 1:10 | 300A                                                                    |
| Limiting breaking current                                               | 300A                                                                    |
| Contact material                                                        | AgSnO <sub>2</sub>                                                      |
| Min. recommended contact load <sup>4)</sup>                             | 1A at 5VDC                                                              |
| Initial voltage drop, typ. at 100A                                      | 70mV                                                                    |
| Frequency of operation, with/without load                               | 6 ops./min                                                              |
| Operate/release time typ. at nominal voltage                            | 25/8ms                                                                  |
| Electrical endurance                                                    |                                                                         |
| form A contact (NO), resistive load, cyclic temperature: +23°C          | >5x10 <sup>4</sup> cycles at 300A, 13.5VDC                              |
| Mechanical endurance                                                    | >10 <sup>7</sup> ops.                                                   |

A) Please contact TE relay application engineer.

### Coil Data

|                       |                    |
|-----------------------|--------------------|
| Rated coil voltage    | 12/24VDC           |
| Rated coil power      | 3.3W <sup>1)</sup> |
| Max. coil temperature | 155°C              |

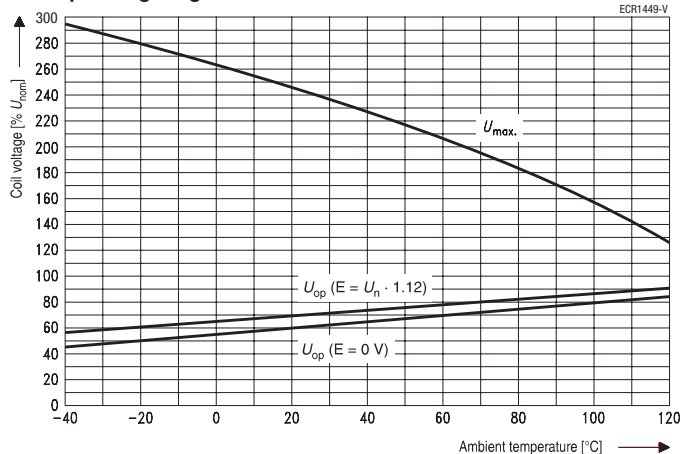
### Coil versions, DC coil<sup>1)</sup>

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power W |
|-----------|-------------------|---------------------|---------------------|-----------------------|--------------------|
| 001       | 12                | 7.2                 | 1.2                 | 37                    | 3.9                |
| 002       | 24                | 14.4                | 2.4                 | 141                   | 4.1                |

1) With resistor.

All figures are given for coil without preenergization, at ambient temperature +23°C.

### Coil operating range



Does not take into account the temperature rise due to the contact current  
E = pre-energization

### Insulation Data

|                                  |                        |
|----------------------------------|------------------------|
| Initial dielectric strength      |                        |
| between contact and coil         | 1000VAC <sub>rms</sub> |
| Load dump test                   |                        |
| ISO 7637-1 (12VDC), test pulse 5 | Vs=+86.5VDC            |
| ISO 7637-2 (24VDC), test pulse 5 | Vs=+200VDC             |

## High Current Relay 150 (Continued)

### Other Data

|                                            |                                      |
|--------------------------------------------|--------------------------------------|
| EU RoHS/ELV compliance                     | compliant                            |
| Ambient temperature                        | -40°C to +125°C                      |
| Dry heat, IEC 60068-2-2                    | 500h at 100°C                        |
| Damp heat constant, IEC 60068-2-3 (78), Ca | 500h, 40°C, 93% RH                   |
| Degree of protection                       |                                      |
| dustproof:                                 | IP54 (IEC 60529), RT I (IEC 61810)   |
| sealed:                                    | sealing in accordance with IEC 68    |
| immersion cleanable:                       | IP67 (IEC 60529), RT III (IEC 61810) |
| Corrosive gas                              |                                      |
| IEC 60068-2-42                             | 10 days                              |
| IEC 60068-2-43                             | 10 days                              |
| Vibration resistance (functional)          |                                      |
| IEC 60068-2-6 (sine sweep)                 | 10 to 200Hz >5g <sup>2</sup>         |
| Shock resistance (functional)              |                                      |
| IEC 60068-2-27 (half sine)                 | 6ms >20g <sup>2</sup>                |
| Drop test, free fall                       |                                      |
| IEC 60068-2-32                             | 1m onto concrete                     |

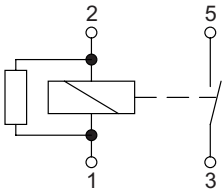
### Other Data (continued)

|                       |                      |
|-----------------------|----------------------|
| Terminal type         | screw                |
| Cover retention       |                      |
| pull force            | 500N                 |
| push force            | 500N                 |
| Terminal retention    |                      |
| pull force            | 150N                 |
| push force            | 150N                 |
| resistance to bending | 20N                  |
| force applied to side | 20N                  |
| torque                | 5Nm                  |
| Weight                | approx. 220g (7.8oz) |
| Packaging unit        | 50 pcs.              |

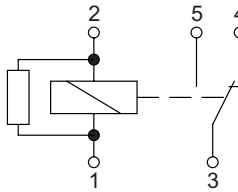
2) No change in the switching state >10µs.

### Terminal Assignment

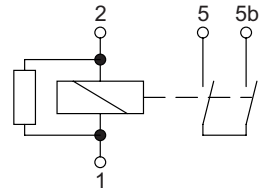
NOR  
1 form A, 1 NO with resistor



COR  
1 form C, 1 CO with resistor

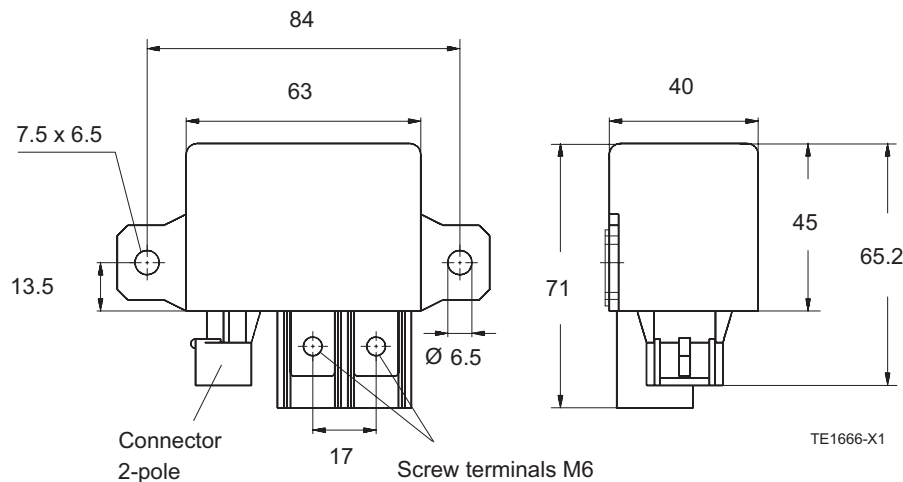


NOBRR  
1 form X, 1 NO DM with resistor



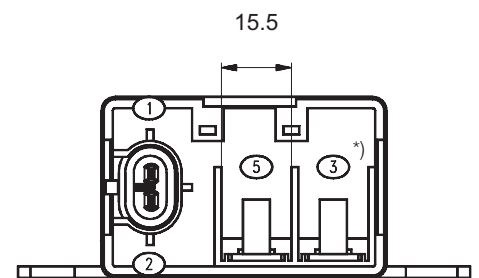
### Dimensions

NO and NO DM version



### View of the terminals

Bottom view



TE1667-61

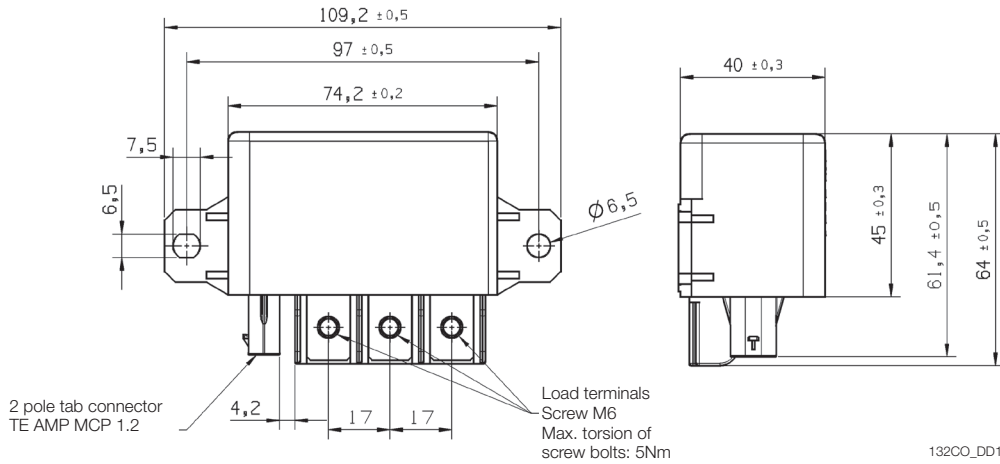
\*) Alternatively 5b for form X, 1 NO DM with resistor.

Connector Information  
AMP SUPERSEAL 1.5 SERIES  
Coil side  
- Receptacle connector 282080-1  
- Single wire seal 281934-2  
- Contact 282110-1  
Load side  
Cable lug M6, maximum cable section 25 mm<sup>2</sup>

## High Current Relay 150 (Continued)

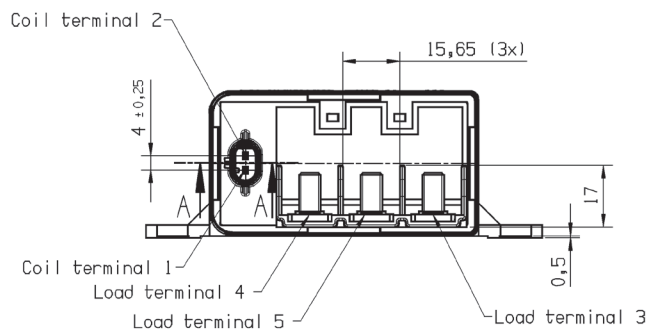
### Dimensions

CO version



### View of the terminals

Bottom view



### Product code structure

Typical product code **V23132 -A2 001 -A 2 00**

#### Type

**V23132** High Current Relay 150

#### Contact arrangement

**A2** 1 form A, 1 NO

**B2** 1 form X, 1 NO DM

**D2** 1 form B, 1 NC

**E2** 1 form C, 1 CO

#### Coil

**001** 12VDC

**002** 24VDC

#### Protection class

**A** IP54

**B** IP67

#### Contact material

**2** AgSnO<sub>2</sub>

#### Standard version

**00** Standard

| Product code                | Arrangement       | Coil  | Circuit | Coil suppr. | Protect. | Contact mat.       | Terminals | Part number   |
|-----------------------------|-------------------|-------|---------|-------------|----------|--------------------|-----------|---------------|
| V23132-A2001-A200           | 1 form A, 1 NO    | 12VDC | NOR     | Resistor    | IP54     | AgSnO <sub>2</sub> | Screw     | 1393315-2     |
| V23132-A2001-A200-EV-USBX*) |                   |       |         |             |          |                    |           | 7-1414968-8*) |
| V23132-A2001-B200           |                   |       |         |             | IP67     |                    |           | 1416010-1     |
| V23132-A2001-B200-EV-USBX*) |                   |       |         |             |          |                    |           | 2-1414939-2*) |
| V23132-B2002-A200           | 1 form X, 1 NO DM | 24VDC | NOBRR   |             | IP54     |                    |           | 1393315-9     |
| V23132-B2002-B200           |                   |       |         |             | IP67     |                    |           | 1-1393315-1   |
| V23132-B2002-B200-EV-USBX*) |                   |       |         |             |          |                    |           | 5-1414968-1*) |
| V23132-D2001-B200           | 1 form B, 1 NC    | 12VDC | NCR     |             |          |                    |           | on request    |
| V23132-E2001-A200           | 1 form C, 1 CO    | 12VDC | COR     |             | IP54     |                    |           | 9-1415001-5   |

Other types on request.

This list represents the most common types and does not show all variants covered by this datasheet.

\*) Americas market only.