

## High Current Relay 200

- Normally closed contact
- Limiting continuous current 175A at 85°C

### Typical applications

Energy management, battery coupling, start/stop.



F230\_fw5b

### Contact Data

Contact arrangement	1 form B, 1 NC
Rated voltage	12VDC
Max. switching voltage	depends on load parameter set <sup>A)</sup>
Rated current, cable 50mm <sup>2</sup>	175A at 85°C
Limiting continuous current	
23°C, load cable 35mm <sup>2</sup>	245A
85°C, load cable 35mm <sup>2</sup>	165A
110°C, load cable 35mm <sup>2</sup>	120A
23°C, load cable 50mm <sup>2</sup>	255A
85°C, load cable 50mm <sup>2</sup>	175A
110°C, load cable 50mm <sup>2</sup>	130A
Limiting making current	200A at <5VDC
Limiting breaking current	200A at <5VDC
Limiting short-time current	depends on load parameter set <sup>A)</sup>
Contact material	AgSnO <sub>2</sub>
Contact style	single contact
Min. recommended contact load	1A at 5V
Initial voltage drop	100mV at 100A
Operate/release time typ. at nominal voltage	25/35ms <sup>1)</sup>
Bounce time max.	<sup>2)</sup>
Electrical endurance	
50A (on), 30A (cont.), 50A (off):	48000 cycles
80A (on), 30A (cont.), 120A (off):	1000 cycles
200A (on), 120A (cont.), 120A (off):	1000 cycles
repeated until 800000 cycles are reached <sup>3)</sup>	
Mechanical endurance	>10 <sup>7</sup> ops.

1) With diode in parallel.

2) Release and bounce time depend on component in parallel to the coil, please contact application engineering support.

3) Validated with a load voltage of 5VDC.

A) Please contact TE relay application engineering.

### Coil Data

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

1) With diode in parallel.

### Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power W
1001	12	7.2	1.2	37	3.9
2001	12	7.2	1.2	43	3.3

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

### Insulation Data

Initial dielectric strength	
between open contacts	500VDC
between contact and coil	500VDC
Load dump test	
ISO 7637-1 (12VDC), test pulse 5	no switching allowed during load dump
ISO 7637-2 (24VDC), test pulse 5	no switching allowed during load dump

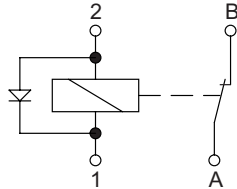
### Other Data

EU RoHS/ELV compliance	compliant
Ambient temperature	-40°C to +110°C
Climatic cycling with condensation, IEC 60068-2-38	240h (-10 to +65°C), 93% RH
Temperature cycling (shock), IEC 60068-2-14, Na	100 cycles (-40 to +110°C), dwell time 50min, transfer time <30s
Degree of protection	
splash water proof:	IP64 (IEC 60529), RT III (IEC 61810)
Corrosive gas	5 ±1%NaCl, 96h, 35°C
Vibration resistance (functional), IEC 60068-2-64 (random)	10 to 2000Hz, min. 5g effective
Shock resistance (functional), IEC 60068-2-27 (half sine)	11ms min. 30g
Drop test, free fall	1m onto concrete
Terminal type	connector, screw
Weight	approx. 230g (8.1oz)
Packaging unit	on request

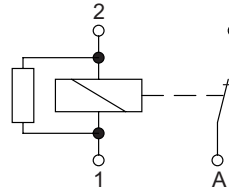
**High Current Relay 200** (Continued)

**Terminal Assignment**

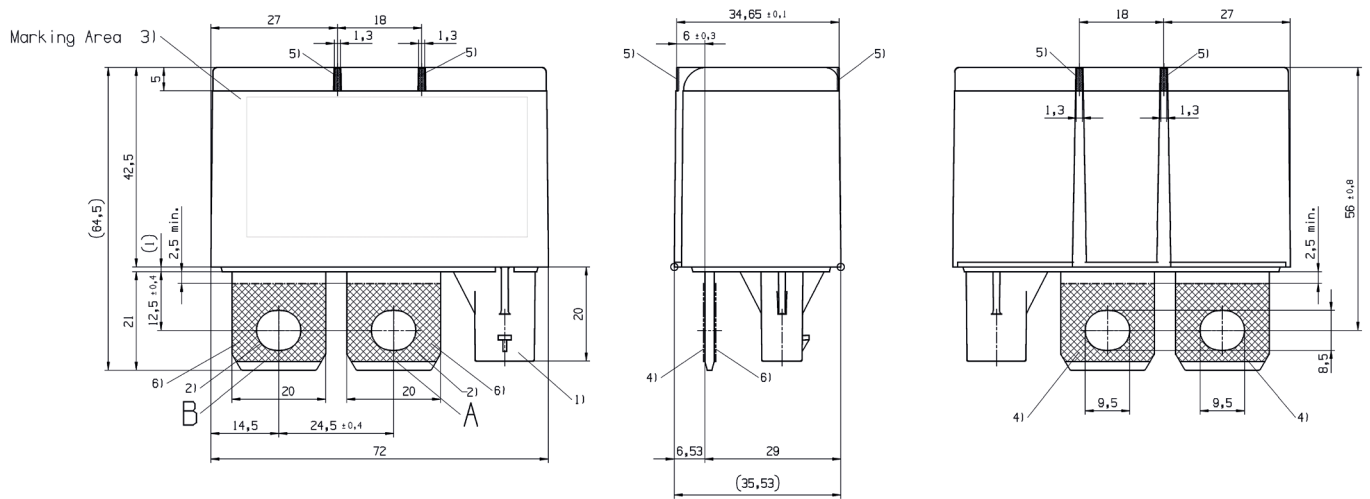
NCD  
1 form B, NC with diode



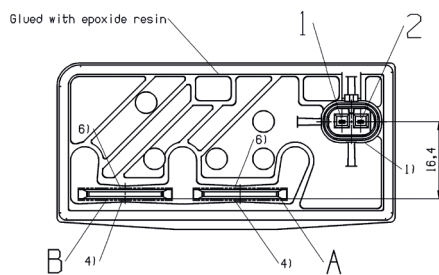
NCR  
1 form B, NC with resistor



**Dimensions**



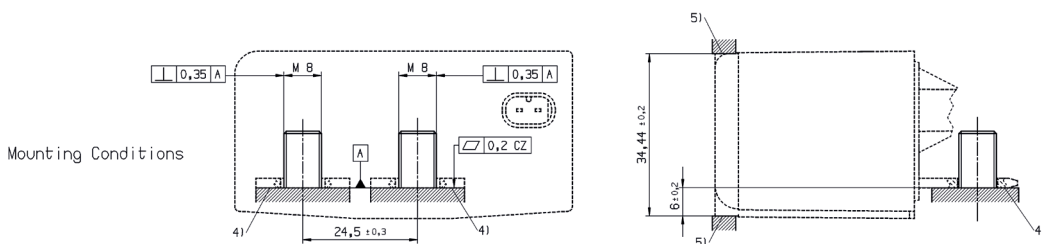
**View of the terminals (bottom view)**



- 1) Connector AMP MCPI.2, 2pos. keying B, appropriate for TE part no. 2-1670916-1
- 2) Permitted torque: 16.5 Nm max.
- 3) Labelling with following information:
  - TE logo and part number
  - Nominal voltage
  - Date code (Day-Month-Year)
  - Circuit diagram
- 4) Seating area on leadframe
- 5) Seating area in fusebox
- 6) Contact area for cable lugs.  
Recommended cable lug: 50mm<sup>2</sup>

Tolerances unless otherwise specified:  
ISO 8015, ISO 2768-VL

**Mounting**



230\_DD3

**High Current Relay 200** (Continued)

<b>Product code structure</b>	Typical product code	<b>V23230</b>	<b>-D</b>	<b>1</b>	<b>001</b>	<b>-B</b>	<b>2</b>	<b>00</b>
<b>Type</b>	<b>V23230</b> High Current Relay 200							
<b>Contact arrangement</b>	<b>D</b> 1 form B, 1 NC							
<b>Coil Suppression</b>	<b>1</b> Resistor <b>2</b> Diode							
<b>Coil</b>	<b>001</b> 12VDC							
<b>Protection class</b>	<b>B</b> IP64							
<b>Contact material</b>	<b>2</b> AgSnO <sub>2</sub>							
<b>Standard version</b>	<b>00</b> Standard							

Product code	Arrangement	Coil suppr.	Circuit <sup>1)</sup>	Coil	Enclosure	Cont material	Terminals	Part number
V23230-D2001-B200	1 form B, 1 NC	Diode	NCD	12VDC	IP64	AgSnO <sub>2</sub>	Screw	1-1414995-0
V23230-D1001-B200		Resistor	NCR					5-1415009-7

1) See Terminal assignment diagrams.

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