High Current Relay 200

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

Typical applications
Energy management, battery coupling, start/stop.

F230_fcw5b

Contact Data

Contact arrangement	1 form B, 1 NC
Rated voltage	12VDC
Max. switching voltage	depends on load parameter set A)
Rated current, cable 50mm²	175A at 85°C
Limiting continuous current	
23°C, load cable 35mm²	245A
85°C, load cable 35mm²	165A
110°C, load cable 35mm²	120A
23°C, load cable 50mm²	255A
85°C, load cable 50mm²	175A
110°C, load cable 50mm²	130A
Limiting making current	200A at <5VDC
Limiting breaking current	200A at <5VDC
Limiting short-time current	depends on load parameter set A)
Contact material	$AgSnO_2$
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 1)
Bounce time max.	2)
Electrical endurance	
50A (on), 30A (cont.), 50A (off):	48000 cycles
80A (on), 30A (cont.), 120A (off):	1000 cycles
200A (on), 120A (cont.), 120A (off): repeated until 800000 cycles are reached 3)	1000 cycles
Mechanical endurance	$>10^7$ 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 1)
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

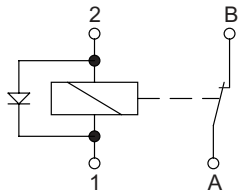
Other Data

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

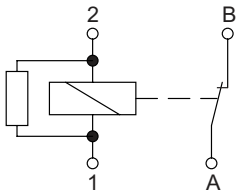
High Current Relay 200 (Continued)

Terminal Assignment

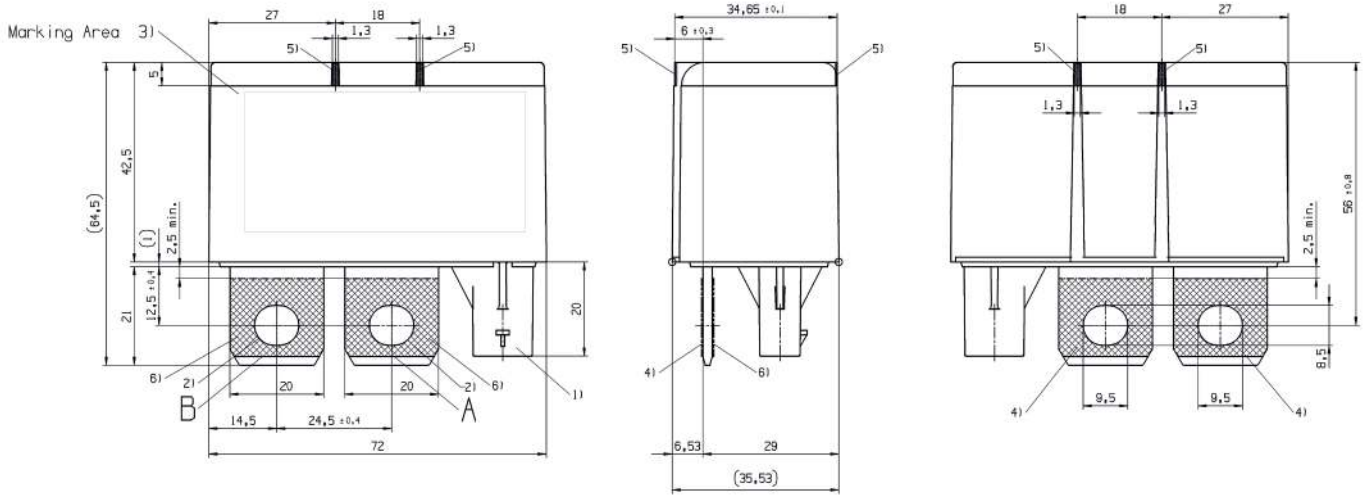
NCD
1 form B, NC with diode



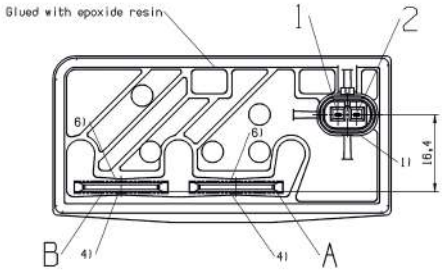
NCR
1 form B, NC with resistor



Dimensions



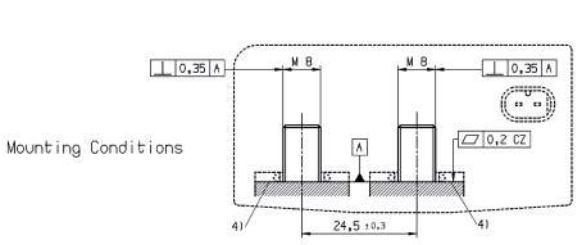
View of the terminals (bottom view)

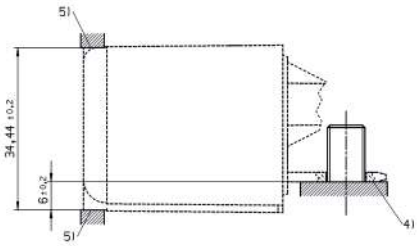


1) Connector AMP MCPI.2, 2pos. keying B, appropriate for TE part no. 2-1670916-1
2) Permitted torque: 16.5 Nm max.
3) Labelling with following information:
   - TE logo and part number
   - Nominal voltage
   - Date code (Day-Month-Year)
   - Circuit diagram
4) Seating area on leadframe
5) Seating area in fusebox
6) Contact area for cable lugs.
   Recommended cable lug: 50mm²

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

Mounting





230_DD3

High Current Relay 200 (Continued)

Product code structure

Typical product code: **V23230 -D 1 001 -B 2 00**

Type
V23230 High Current Relay 200

Contact arrangement
D 1 form B, 1 NC

Coil Suppression
1 Resistor
2 Diode

Coil
001 12VDC

Protection class
B IP64

Contact material
2 $AgSnO_2$

Standard version
00 Standard

Product code	Arrangement	Coil suppr.	Circuit[1)]	Coil	Enclosure	Cont material	Terminals	Part number
V23230-D2001-B200	1 form B, 1 NC	Diode	NCD	12VDC	IP64	$AgSnO_2$	Screw	1-1414995-0
V23230-D1001-B200		Resistor	NCR					5-1415009-7

1) See Terminal assignment diagrams.