



Coupling device CD5000



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Device features

- Coupling device for NGRM
- Range of use up to AC 4300 V/DC 2500 V system voltage
- Range of use up to 2000 m

Certifications



Product description

The CD5000 can be used with an NGR monitor in HRG systems with a system voltage U_{LL} up to 4300 V ($U_{NGR} \leq 2500$ V).

The maximum operating altitude is 2000 m above mean sea level.

Application

- The coupling device is suitable for HRG applications up to AC 4300 V and/or DC 2500 V.

Function

The duty time is unlimited. To provide the necessary cooling, the CD5000 must be mounted on a grounded metal plate of at least 600 x 300 mm.

Ordering details

| Nominal system voltage U_n | Type | Art. No. |
|---|--------|-----------|
| Up to $U_{LL} = 4300$ V ($U_{NGR} = 2500$ V) | CD5000 | B98039011 |

Technical data

Insulation coordination DIN EN 50178:1997

| | |
|--|-------|
| Definition | |
| Measuring circuit (IC1) | N |
| Output circuit (IC2) | G1 |
| Protective circuit (IC3) | G, PE |
| Rated voltage | 3 kV |
| Overtoltage category | III |
| Pollution degree | 2 |
| Rated insulation voltage | |
| no galvanic separation between the circuits! | |
| IC1/(IC2 – IC3) | 3 kV |
| IC2/IC3 | 50 V |

Voltage range

| | |
|-------------------|-------------------------------------|
| U_n | DC / 50/60 Hz / 50...3200 Hz 2500 V |
| I_n | 125 mA |
| Overload capacity | $1.15 \times U_n$ for < 5 minutes |

Resistance

| | |
|-------------------------|-----------|
| 20 k Ω | ± 1 % |
| Temperature coefficient | 20 ppm/K |

Environment

| | |
|-------------------------------|--------------|
| Ambient temperature | -40...+70 °C |
| Ambient temperature for U_L | -40...+60 °C |
| Humidity | ≤ 98 % |

Classification of climatic conditions acc. to IEC 60721

(except condensation and formation of ice)

| | |
|-----------------------------------|--------------------|
| Stationary use (IEC 60721-3-3) | 3K5 |
| Transport (IEC 60721-3-2) | 2K3 (-40...+85 °C) |
| Long-term storage (IEC 60721-3-1) | 1K4 (-40...+70 °C) |

Classification of mechanical conditions acc. to IEC 60721

| | |
|-------------------|-----|
| Stationary use | 3M7 |
| Transport | 2M2 |
| Long-term storage | 1M3 |

Connection

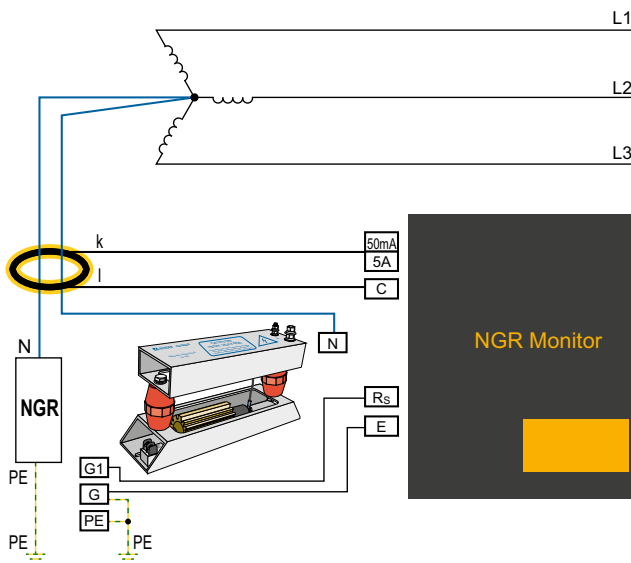
| | |
|---|----------------------------|
| Tightening torque G1 and G | 0.5...0.6 Nm (5...7 lb-in) |
| Conductor sizes | AWG 24-12 |
| Connection G1 and G | cable lug |
| Conductor | ≥ 1.5 mm ² |
| Connection PE | cable lug M6 |
| Conductor | ≥ 2.5 mm ² |
| Connection N (use minimum 110 °C conductor) | cable lug M6, M10 |

Other

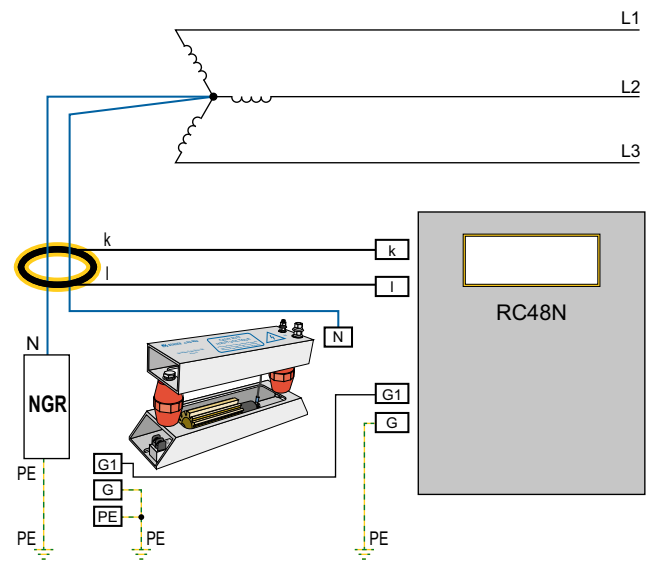
| | |
|--|----------------------|
| Operating mode | continuous operation |
| Mounting | any position |
| Operating altitude | up to 2000 m AMSL |
| Degree of protection, internal components (DIN EN 60529) | IPO |
| Flammability class | UL 94V-0 |
| Documentation number | D00398 |
| Weight | < 3800 g |

Wiring diagrams

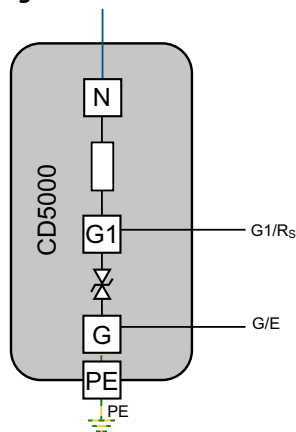
NGR monitor



RC48N



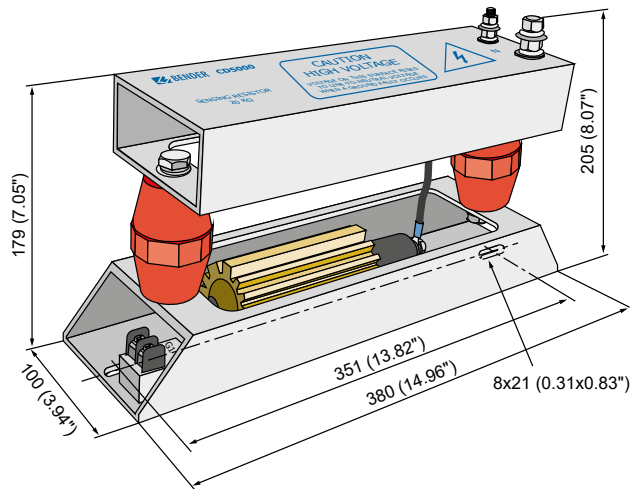
Internal wiring diagram CD5000



| Terminal | Use | Connecting cable | |
|-----------------|---|-------------------------|------------------|
| | | Metrical | Imperial |
| N | Connection to the star point of the HRG system | via cable lug M6 or M10 | |
| G1 | Connection to R_s of the NGRM... | 1.5 mm ² | AWG16 |
| G | Connection to E of the NGRM... (internally connected to PE, see internal wiring diagram) | | |
| PE to enclosure | Connection to the protective conductor (internally connected to E, see internal wiring diagram) | ≥ 1.5 mm ² | AWG16 or greater |

Dimension diagram

Dimensions in mm (inches)



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