Coupling device CD25000

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Product description

The CD25000 is intended for use with an NGRM… NGR monitor only. The CD25000 can be used in HRG systems with a system voltage up to U_{LL} = 25 kV (U_{NGR} = 14.5 kV).

The maximum operating altitude is 5000 m above mean sea level.

Application

- The coupling device is suitable for HRG applications up to AC 25 kV and/or DC 14.5 kV.

Function

The combination of an NGRM… and a coupling device extends the range of application of the neutral grounding resistor monitor up to a system voltage of 25 kV. The duty time is limited to 10 s (minute), the cool-down period is 120 minutes.

Device features

- Coupling device for NGRM
- Range of use up to AC 25 kV/DC 14.5 kV system voltage
- Application up to 5000 m

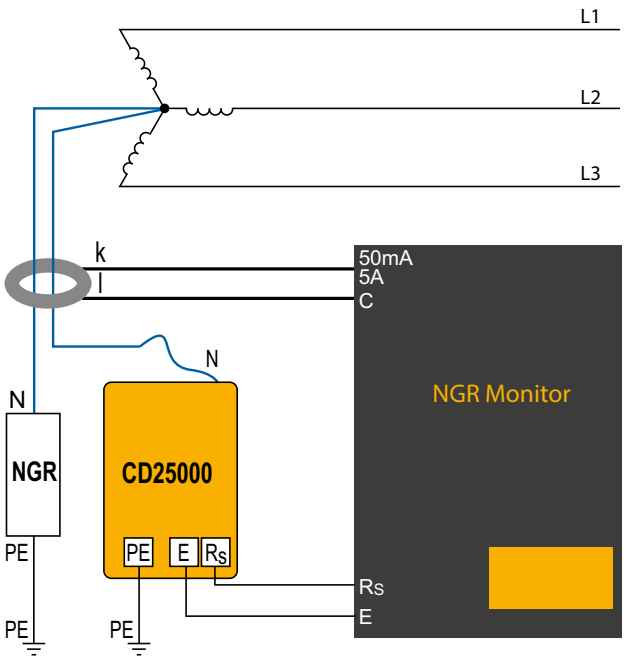
Certifications

Ordering details

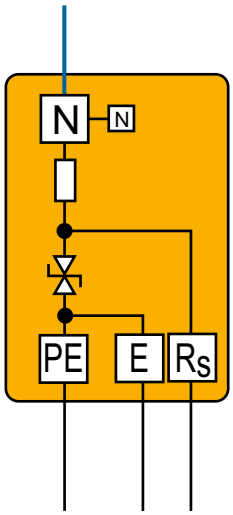
Nominal system voltage U_n	Type	Art. No.
Up to U_{LL} = 25 kV (U_{NGR} = 14.5 kV)	CD25000	B98039055

Wiring diagrams

Wiring diagram



Internal wiring diagram CD25000



Terminal	Use	Connecting cable	
		Metrical	Imperial
R_S	Connection to R_S of the NGRM…	1.5 mm²	AWG16
E	Connection to E of the NGRM… (internally connected to PE, see internal wiring diagram)		
N	Connection to the star point of the HRG system (cable lug M5 or M10)	≥ 1.5 mm²	AWG16 or greater
PE	Connection to the protective conductor (internally connected to E, cable lug M5)		

Technical data

Insulation coordination DIN EN 50178:1997

Definition	
Measuring circuit (IC1)	N
Output circuit (IC2)	R_S
Protective circuit (IC3)	E, PE
Rated voltage	14500 V
Overvoltage category	III
Pollution degree	2
Rated insulation voltage	
no galvanic separation between the circuits!	
IC1/(IC2 – IC3)	14500 V
IC2/IC3	50 V

Voltage range

U_n	DC / 50/60 Hz / 50…3200 Hz 14500 V
I_n	145 mA

Operating time

without ground fault (2800 V)	unlimited
with ground fault (14500 V)	10 seconds
Cool-down period	120 minutes
Overload capacity	1.15 x Un for < 10 seconds

Resistance

100 kΩ	±0.5 %
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

Stationary use (IEC 60721-3-3)	3K5 (except condensation and formation of ice)
Transport (IEC 60721-3-2)	2K3 (-40…+85 °C) (except condensation and formation of ice)
Long-term storage (IEC 60721-3-1)	1K4 (-40…+70 °C) (except condensation and formation of ice)

Classification of mechanical conditions acc. to IEC 60721 / IEC 60255-21 / DIN EN 60068-2-6

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

Connection

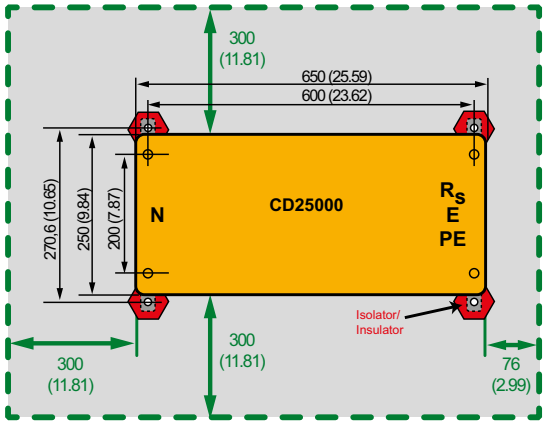
Connection R_S and E	
Tightening torque	0.5…0.6 Nm (4.4…5.3 lb-in)
Conductor sizes	AWG 24-12
Stripping length	7 mm
Conductor, rigid	0.2…4 mm²
Conductor, flexible	0.2…2.5 mm²
Multiple conductor, flexible with ferrule without plastic sleeve	0.25…1.5 mm²
Multiple conductor, flexible with ferrule with plastic sleeve	0.25…2.5 mm²
Multiple conductor, flexible with TWIN ferrule with plastic sleeve	0.5…1.5 mm²
Connection PE for cable lug	
Tightening torque cable lug M5	2.2 Nm (19.5 lb-in)
Connection N	
Connection via HV line with open end	cable lug provided by the customer

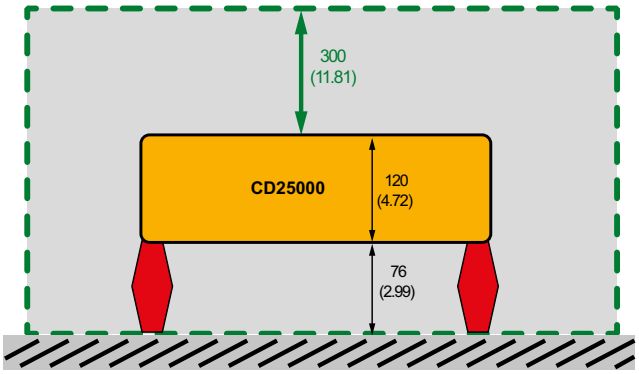
Other

Operating mode	in case of a ground fault maximum 10 s
Mounting	any position
Operating altitude (when mounted on insulators)	up to 5000 m AMSL
Degree of protection, internal components (DIN EN 60529)	IP54
Flammability class	UL 94V-0
Documentation number	D00347
Weight	< 11 kg
Tightening torque cover screws	2.5 Nm (22.1 lb-in)

Dimension diagram

Dimensions in mm (in)





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The Power in Electrical Safety©

Bender GmbH & Co. KG
P.O. Box 1161 • 35301 Grünberg • Germany
Londorfer Straße 65 • 35305 Grünberg • Germany
Tel.: +49 6401 807-0 • Fax: +49 6401 807-259
E-mail: info@bender.de • www.bender.de

BENDER Group