



VARIMETER IMD

DOLD 

Insulation monitor RN 5897/300 - Safety for mobile generators

The **insulation monitor RN 5897/300** from the **VARIMETER IMD** series by DOLD was developed especially for use with mobile generators. In mobile applications, such as in emergency vehicles or on construction sites, electrical energy must be used to reliably prevent injuries and property damage. Furthermore, mobile generators need to guarantee immediate operational readiness, without requiring time-consuming procedures to set up safeguards (such as installing and calibrating grounding systems, testing RCD, etc.). That's why the safeguard "electrical separation with insulation monitoring and shutdown" is available. It triggers an automated shutdown within < 1 s if the insulation resistance sinks below $100 \Omega / V$, even at extreme temperatures. The RN 5897/300 meets these demands, and fulfills the requirements of DIN VDE 0100-551 for mobile generators.

The insulation monitor is suitable for system leakage capacitance of up to $30 \mu F$, and is designed for universal use in ungrounded AC, DC and AC/DC networks up to 300 V rated voltage. Besides an adjustable alarm threshold, the insulation monitor also has an adjustable pre-alarm threshold. A multicolored LED status light keeps users informed continuously on the current operating status. The device guarantees reliable monitoring, even in a network without current.

Advantages and customer benefit

- ▶ Increased protection for operators and devices
- ▶ No limitation of cord length or number of connected devices
- ▶ Ready for immediate use
- ▶ No requirement for an electrician to calibrate protective safeguards
- ▶ Wide temperature range from $-40 \dots +70 \text{ }^\circ\text{C}$
- ▶ Multi-color LED device status light to display operational status
- ▶ Easy to adjust parameters with a rotary dial
- ▶ Early recognition of insulation faults

Our experience. Your safety.

Insulation monitor RN 5897/300

Technical features

- ▶ In accordance with DIN VDE 0100-551 for mobile generators
- ▶ Operational temperature range: - 40 ... + 70 °C
- ▶ Trips within < 1 s, if the insulation resistance drops below 100 Ω / V
- ▶ Insulation monitoring in accordance with IEC/EN 61557-8
- ▶ 2 response thresholds which can be set independently (e.g. available for pre-alarm and alarm)
- ▶ Adjustment range 1. Response value (pre-alarm): 20 kΩ ... 1 MΩ
- ▶ Adjustment range 2. Response value (alarm): 10 kΩ ... 250 kΩ
- ▶ 1 changeover each for insulation fault pre-alarm and insulation fault alarm
- ▶ Load or closed current principle adjustable for signaling relay
- ▶ With multi-color LED device status lights to display operational status
- ▶ Automated and manual device self test
- ▶ Selectable alarm memory
- ▶ Manipulation protection through sealed transparent cover
- ▶ External control input for combined Test / Reset button
- ▶ 3 wide voltage ranges for the auxiliary voltage
- ▶ Installation width 52.5 mm



Insulation monitor
RN 5897/300

Accessories



Buzzer
RK 8832

Order information

Standard type: RN 5897.12/300 DC 12 ... 24 V
Item number: 0067252

Standard type: RN 5897.12/300 AC/DC 24 ... 60 V
Item number: 0066942

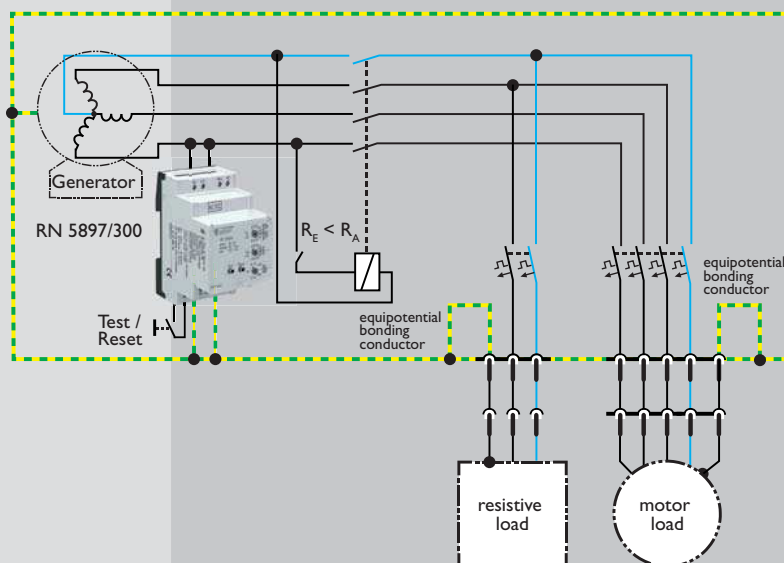
Standard type: RN 5897.12/300 AC/DC 85 ... 230 V
Item number: 0066943

Examples of application

Monitoring mobile generators with the protective feature “electrical separation with insulation monitoring and shutdown” in accordance with DIN VDE 0100-551. If the insulation resistance falls below the minimum response level (standards require max. 100 Ω / V), the insulation monitor will trip within < 1 s and interrupt the electricity supply through a main switch.

Areas of application

- ▶ Mobile generators
- ▶ UPS systems / battery networks
- ▶ Networks with frequency converters
- ▶ Hybrid and battery-powered vehicles



Further information

RN 5897/300

Start

www.dold.com

If you have high system leakage capacitances up to 3000 μF, you need a second additional measuring circuit or analog outputs?

LK 5896



DOLD

E. DOLD & SÖHNE KG
P.O. Box 1251 • 78114 Furtwangen • Germany
Tel. +49 7723 6540 • Fax +49 7723 654356
dold-relays@dold.com • www.dold.com