

## Data Sheet



### Echometer IRG 3000

The new fully computerized time domain Echometer IRG 3000 offers unique features for intelligent and automatic cable fault location.

#### Features:

- fully automatic measuring sequences
- fully automatic menu-guided operation
- fully automatic setting of measuring parameters
- fully automatic cursor settings
- zoom and scroll function for echometer
- 3 phase measurement and display
- voltage protected input for echometer
- memory for > 100000 echogramms
- output pulse 20 ... 160 V
- 200 MHz real time transient recorder or high resolution
- measuring ranges over 200 km
- operating system Windows <sup>TM</sup>
- large colour display
- keyboard and mouse with wireless remote – control
- Available 19" unit as plug-in unit or as stand alone instrument

**Measuring methods:**

- Pulse reflection method multicore
- Secondary impulse method SIM with SA 32
- Secondary impulse method SIM DC with SA 32
- Multiple Impulse Method Mim (advanced SIM) with SA 32
- Differential secondary impulse method with SA 32
- Impulse current method with SK 1D
- Decay method with CC 1
- Differential impulse current method with SK 3D
- Differential decay method with SK 3D

**Extensions:**

- MOhm meter, 3 phase selection via software integrated in IRG 3000
- Combination with VLF test system PHG
- Combination with VLF cable diagnostic system PHG TD and PHG TD / PD

**Technical data**

|   | IRG 3000   |
|---|--|
| output voltage of transmitting pulse                        | 20 V ... 160 V   |
| pulse width of transmitting pulse                           | 20 ns – 1.3 ms   |
| voltage withstand pulse echo mode                           | 400 V AC (50 Hz – 60 Hz)   |
| output impedance  | 12 Ω - 2000 Ω adjustable   |
| measuring ranges (at $v / 2 = 80 \text{ m} / \mu\text{s}$ ) | 10 m – 200 km  |
| real time sampling rate                                     | 200 MHz, (5 ns)  |
| accuracy  | 0,1 %  |
| resolution  | 0.1 m (at $v / 2 = 80 \text{ m} / \mu\text{s}$ )   |
| propagation velocity $v / 2$                                | 20 – 150 m / $\mu\text{s}$   |
| sensitivity of input divider                                | - 10 dB ... + 60 dB  |
| number of echogramme memories                               | > 100000   |
| colour display, 19 " version                                | TFT 15 " 6U  |
| power supply for mains operation                            | 110 V - 240 V<br>50 Hz - 60 Hz   |
| power consumption max. (without display)                    | 150 VA   |
| operating temperature                                       | 0 to + 50 °C   |
| storage temperature   | - 25 to + 60 °C  |
| dimensions of IRG 3000 as plug-in unit                      | 19 ", width: 483 mm, height: 365 mm, depth:<br>174 mm<br>Front part 1U, radius: 4U               |
| dimensions with 15" display and housing                     | 19" width 483 mm, height 318 mm, depth<br>Front part 8 U,  |
| weight IRG 3000   | appr. 7 kg   |
| weight display  | appr. 5 kg   |
| Languages   | German, French, English, Portuguese, Dutch,<br>Italian, Czech, Polish, more available on request |

## Echometer IRG 3000 19" version

### Delivery includes

- Echometer IRG 3000 without accessories
- Software MS Windows XP ML on CDR (6 pcs.)
- Software IRG 3000 on CDR
- Virusscan McAfee ML
- Mains connection cable
- Monitor TFT 15,1" 6 HE
- Connection cable for test van  
(cable 4 x 1 mm<sup>2</sup>; 3 m long, without termination)
- User Manuel

### Options:

- Ink-jet printer colour printing
- 19" housing / 8 U; 400 mm deep
- Test lead with 25 m length; Type: MS 25
- Test lead with 50 m length; Type: MS 50
- Ground line 6 mm<sup>2</sup>; 3 m long; with ground terminal 24 mm wide
- Test lead 3 phase design, with plug LP 3 – IRG 3000
- Test lead, fully insulated; 3 phase design, 3 m long, with terminals and fuse
- Ceramic fuse 1 A quick-blow; switch – off capacity 13.3 kA (4 pcs.)
- Capacitive coupler up to 70 kV; Type: CC 1-70
- Capacitive coupler up to 110 kV; Type: CC 1-110
- Capacitive coupler up to 160 kV; Type: CC 1-160
- Inductive coupler SK 1D 1 phase design
- Inductive coupler SK 3D 3 phase design
- Set of spare parts, economic package (for 2 years of operation) for IRG 3000
- Set of spare parts (for 5 years of operation) for IRG 3000

