


# Tan Delta test attachment

## Integral cable diagnosis system



- Automatic result interpretation acc. to IEEE 400.2
- Leakage current correction for precise measurements
- Unaffected by multiple earthings
- Easy to operate **easyGO** 

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### DESCRIPTION

The tan delta test attachment allows the operator to precisely determine a cable's condition. Integral aging effects, such as the degree of humidity and "water treeing" can be simply recognised and quantified, making the tan delta test attachment the ideal instrument for monitoring cable conditions.

The tan delta test attachment can be used as a standalone system with portable VLF sine systems or in combination with the integrated VLF sine test systems in test vehicles.

The system returns very accurate measurements because it measures high voltage potential and the measuring head can be placed very close to the test object.

During the measurement, the voltage current and the loss factor  $\delta$  are displayed graphically in real time, which means critical cables can be detected at an early stage and the voltage load on the test object can be kept to a minimum.

At the end of the measurement a recommendation will be given based on the IEEE 400.2 standard and a type of insulation selected.



## TECHNICAL DATA\*

### Tan $\delta$ measuring range

|                            |  |
|----------------------------|--|
| Measuring range            | 1 x 10 <sup>-4</sup> ... 1 x 10 <sup>0</sup> |
| Measuring accuracy         | 1 x 10 <sup>-4</sup>                         |
| Resolution                 | 1 x 10 <sup>-5</sup>                         |
| Frequency                  | 0.01 Hz ... 10 Hz                            |
| Testable cable capacitance | 2 nF ... 3 $\mu$ F                           |

### Measuring range current

|                    |                     |
|--------------------|---------------------|
| Test unit (MDU)    | 1 $\mu$ A ... 25 mA |
| Diverter box (TCU) | 1 $\mu$ A ... 1 mA  |

### Measuring range insulation resistance

|                 |                                |
|-----------------|--------------------------------|
| Measuring range | 1 M $\Omega$ ... 10 T $\Omega$ |
|-----------------|--------------------------------|

### Power supply

|                          |  |
|--------------------------|--|
| Test unit / diverter box | battery operated   |
| Charger                  | 90 V ... 240 V, 50/60 Hz AC (via power cable) or 12 V DC |

### Operating time

|                       |   |
|-----------------------|---|
| Test unit (MDU)       | 16 hours (with TCU)<br>32 hours (without TCU) |
| Diverter box (TCU)    | 24 hours                                      |
| Charging time         | 3.5 hours                                     |
| Operating temperature | -25 °C ... +55 °C                             |
| Storage temperature   | -40 °C ... +70 °C                             |

### Weight

|  |          |
|--|----------|
| System (MDU + TCU) with case, tripod, accessories and cables | 12.25 kg |
|--|----------|

### Dimensions

|             |                    |
|-------------|--------------------|
| System case | 400 x 170 x 330 mm |
|-------------|--------------------|

## ALL THE BENEFITS AT A GLANCE

- Very accurate measurement
- Automatic result interpretation
- Optional leakage current correction
- EasyGo operating software 
- High wireless range
- Measurement at high voltage potential
- Light and portable

## SCOPE OF DELIVERY

- Charging case with test unit MDU and data reception unit DRU
- Tripod
- Set of cables tan delta
- HV connection cable 1 m and 3 m

## ORDERING INFORMATION

| Product                               | Order no.             |
|---------------------------------------|-----------------------|
| Tan Delta test attachment stand alone | 820020283             |
| Tan Delta test attachment test van    | 820021031             |
| <b>Options:</b>                       |                       |
| Leakage current correction            | 820020879             |
| Diagnostic connection set             | 890017909             |
| <b>Suitable power sources:</b>        |                       |
| VLF sinus 34 kV                       | 890026134-S           |
| VLF sinus 45 kV                       | 128300045-S           |
| VLF sinus 54 kV Centrix 1/3           | 890027200 / 890027100 |

\* We reserve the right to make technical changes.

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