Identify and locate insulation defects with the DFA300, a surveying tool that combines radio frequency interference (RFI) and acoustic emission (AE). It can detect and locate partial discharge (PD) in a few seconds. Designed for surveying live, high voltage apparatus, its versatility makes it the perfect, multi-purpose tool for condition-based maintenance programs.

FEATURES

- Combination tool uses both RFI and acoustic technology
- Registers RFI from apparatus with insulation problems including PD and arcing
- Locate and diagnose internal problems using the acoustic sensor on grounded surfaces
- Easy to use, handheld device with large display screen

BENEFITS

- Perform non-invasive surveys of critical assets
- Identify and locate insulation defects in gas insulated and open air substations, transformers, instrument transformers and cable terminations
- Convenient tool for daily use or routine substation surveys along with thermography
DFA300 TECHNICAL SPECIFICATIONS

**INPUT CHANNEL DESCRIPTION**
The DFA300 is a dual function instrument capable of analysing either acoustic or RF emissions. There is a single input connection which can accept either a RF or an acoustic sensor.

**ACOUSTIC EMISSION CHANNEL**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>1 channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>BNC</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>500 or 22kΩ, software switchable (low noise preamp: 22kΩ only)</td>
</tr>
<tr>
<td>AE Operating Frequency</td>
<td>10 kHz to 500 kHz at -3dB points</td>
</tr>
<tr>
<td>Phantom Power</td>
<td>28 VDC on BNC centre conductor (100mA current limited), software switchable</td>
</tr>
<tr>
<td>AE Sensor</td>
<td>R3α (standard), R6α, R6I, R15α R15I (optional)</td>
</tr>
</tbody>
</table>

**UHF CHANNEL**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>1 channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>BNC</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>50Ω</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>50-1000 MHz with 6 MHz RBW</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 100 kHz</td>
</tr>
<tr>
<td>Detection Types</td>
<td>Peak and average detector</td>
</tr>
<tr>
<td>Sweep Processing</td>
<td>Continuous, Average, Max Hold and differential</td>
</tr>
</tbody>
</table>

**POWER SUPPLY**
- **External** Supply: External DC adapter, 12V @ 2A
- **DC Adapter** 85-264 VAC (47-63 Hz) / 12 VDC
- **Internal Battery**: Li-ion, high capacity 7.2V, 6.6 Ah
- **Battery Life**: > 6 hours
- **Charging Time**: 3 hours

**MECHANICAL**
- **Instrument**: 225 x 310 x 70 mm (WxHxD)
- **Transport Case** 425 x 284 x 155 mm (WxHxD)
- **Weight** Instrument: 2.4 kg / 5.5 lbs
- **Weight** Transport Case: 3.4 kg / 7.5 lbs
- **Total Weight**: 6.0 kg / 13.2 lbs incl. instrument, transport case, manuals, CD and charger

**LCD SCREEN**
- **Display** TFT, 6.4" Transreflective
- **Size [W x H]** 132 x 100 mm
- **Resolution** 640 x 480 pixels, 256 colours
- **Backlight** LED

**DATA STORAGE AND TRANSFER**
- **Internal** NV Flash Memory (SD)
- **External** USB storage class compliant USB Flash Drive / Hard Disk Drive
- **Data Transfer** USB A/B to and from computer
- **File Format** XML for use with Doble PDViewer software
- **Real Time Clock** Battery backed

**CONNECTIVITY**
- **USB 1.1 Host and Client**

**ENVIRONMENTAL**
- **Enclosure** IP64
- **Transport Case** IP67
- **Electrostatic discharge according to EN 61000-4-2**
- **Humidity** 0-95% non-condensing
- **Temperature** Operating temperature: -10°C to + 50°C / 14°F to 122°F
- **Storage Temperature**: -20°C to + 70°C / -4°F to 158°F

**ORDERING INFORMATION**

**PRODUCT**
Doble DFA300
Complete with transport case, antennas, acoustic sensor, battery charger, neck strap and wireless synchronization adapter. Software is included.

**ACCESSORIES**
- **Transient Earth Voltage (TEV) capacitive probe**
- **Find PD in metal-clad switchgear [GIS]. To be connected directly on the antenna input of the DFA300**
- **HF CT**
- Scan for electrical pulses (<200 MHz) as evidence for partial discharge to earth. Can be clipped on an apparatus ground wire (incl. transformers and dead tank breakers) and connected to a DFA300. (IN to BNC cable required)
- **DA100 Directional Antenna**
- Provides more specific location of RFI sources for substation surveys. Including direction of the emissions.

Specifications are subject to change without notice.
Doble is ISO certified.
Doble is an ESCO Technologies Company.
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