

DOBLE IN-SERVICE TESTING & ASSESSMENT

DFA300

Radio Frequency Interference and Acoustic Signal Surveyor

CHECK FOR
INSULATION OR
MECHANICAL
PROBLEMS IN
GAS INSULATED
SWITCHGEAR
OR IN-SERVICE
SUBSTATIONS

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



DFA 300 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

Inputs	1 channel
Connector	BNC
Input Impedance	50Ω or 22kΩ, software switchable (low noise preamp: 22kΩ only)
AE Operating Freq	10 kHz to 500 kHz at -3dB points
Phantom Power	28 VDC on BNC centre conductor (100mA current limited), software switchable
AE Sensor	R3a (standard), R6a, R6l, R15a R15l (optional)

UHF CHANNEL

Inputs	1 channel
Connector	BNC
Input Impedance	50Ω
Bandwidth	50-1000 MHz with 6 MHz RBW
Accuracy	± 100 kHz
Detection Types	Peak and average detector
Sweep Processing	Continuous, Average, Max Hold and differential

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, 91 Wh
Battery Life	>4 hours
Charging Time	1.5 hours

MECHANICAL

Instrument	225 x 310 x 70 mm (WxHxD) Weight 2.4 kg
Transport Case	425 x 284 x 155 mm (WxHxD) Weight 3.4 kg IP67
Total Weight	6.0 kg 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

Internal	NV Flash memory (SD)
External	USB storage class compliant USB Flash Drive/Hard Disk Drive
Data Transfer	Measurements can be downloaded to a PC
Real Time Clock	Battery backed

ENVIRONMENTAL

Enclosure	IP64 – top covers closed IP51 – top covers open
Electrostatic discharge according to EN 61000-4-2	
Humidity	0-95% non-condensing
Temperature	Operating temperature: -10 to +50°C Storage temperature: -20 to +70°C

ORDERING INFORMATION

PART #	PRODUCT
TN-33000	Doble DFA300 <i>Complete with transport case, antennas, acoustic sensor, battery charger, neck strap and wireless synchronization adapter. Software is included.</i>



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