



DIELECTRIC FAULT ANALYZER

Quick Surveys in Live 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.

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
- · 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
- Convenient tool for daily use or routine substation surveys along with thermography







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	R3 α (standard), R6 α , R6I, R15 α R15I (optional)
UHF Channel	
Inputs	1 channel
Connector	BNC
Input Impedance	50Ω
Bandwidth	50 MHz to 1000 MHz 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 adaptor, 12V @ 2A	
DC Adaptor	85-264 VAC (47-63 Hz) / 12 VDC	
Internal Battery	Li-lon, high capacity 7.2V, 91 Wh	
Battery Life	>4 hours	
Charging Time	4 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 x100 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 6100-4-2		
Humidity	0-95% non-condensing	
Temperature	Operating temperature : -10 to +50°C Storage temperature : -20 to +70°C	

Ordering Information	
Item	Doble DFA300
Description	Complete with carrying case, antennas, acoustic sensor, battery charger, neck strap and wireless synchronization adapter. Software is included.
Part Number	TN-33000



Doble Engineering Company Worldwide Headquarters 85 Walnut Street Watertown, MA 02472 USA tel +1 617 926 4900 fax +1 617 926 0528 www.doble.com

Specifications are subject to change without notice.

Doble is ISO Certified Doble is an ESCO Technologies Company MKT-SL-DFA300-02/13