

# DFA500



## GAS INSULATED SUBSTATION ANALYZER

### Portable instrument for Insulation Analysis

The DFA500 is based on 2 decades of Doble experience on acoustic analysis of gas insulated substations. The method allows the user to find issues that may be a problem for continuous power supply. Now introducing detection of radio frequency interference in the UHF band as an additional feature to the four acoustic channels, the ease of discovering even the minor signs of insulation breaches and managing risks has never been easier.

- **In-service analyzer for Gas Insulated Substations**
- **Finding faults without outages**
- **Pinpoint the failure location**
  - **Determine type of failure based on acoustic characteristics**
  - **Manage risks**
  - **Monitor changes in insulation conditions**
  - **Log, or monitor one critical part**



TOGETHER WE POWER THE WORLD®

# DFA500

## In the tool box for each GIS owner

The portable unit DFA500 will provide real time measurement on four acoustic channels and one UHF channel simultaneously. The wired or wireless synchronization to the power cycle of the utility provides real time phase resolved plots for thorough analysis and diagnosis.

## User-friendly

The large 8.4" colour screen and easy menu keys and soft keys makes it easy to navigate through the comprehensive variety of measuring modes and settings to capture the smallest signature for analysis and documentation

## Technology

The DFA500 is state-of-the-art technology for GIS application, combining the radio frequency interference from partial discharges and their acoustic signature in one powerful analysis toolbox. The software which follows the unit, DFViewer, makes the after-work and reporting easy with the unique possibility for uploads to DTA-Web.

#	Item	P/N	No.
1	R6I acoustic sensor	TN-35100	4
2	Sensor cable 5m	TN-90181	5
3	Wireless AC Synch box 85-265Vac	TN-35102	1
4	Power cord Wireless AC Synch box	TN-30350	1
5	DC power adaptor 85-265Vac/5A @ 12V	TN-80302	1
6	UHF spacer sensor	TN-35105	1
7	Magnetic hold down for R6I	TN-35106	4
8	Sensor hold down strap 3m	TN-90221	4
9	Silicon grease (water free) for acoustic coupling	TN-90240	2
10	USB A+B cable	TN-90180	1

## Order information

<b>Item</b>	DFA500
<b>Description</b>	GIS Analyzer (AE & UHF) complete with accessories
<b>Order no.</b>	TN-35000

## Technical Specifications

### Power supply:

External supply	External DC adaptor, 12 V @ 5 A
DC adaptor	90 - 264 V AC (47 - 63 Hz)/ 12 V DC
Internal battery:	2 x Li-Ion, 7.2 V, 6.6 Ah
	Battery life > 4 hours

### Detection:

UHF Input:	1 ch BNC connector @50Ω
Acoustic:	4 ch BNC connector @50Ω

### Sensors:

UHF sensor	1 pc UHF spacer antennaΩ
Acoustic sensors	4 pcs R6I AE sensors with integral preamplifiers

### Frequency:

Measurement range	UHF 100 - 1000 MHz
	Acoustic 10 - 500 kHz

### Amplitude:

Display units	Linear (mV)
---------------	-------------

### Synchronization:

Line connector:	Neutrik L/N/Gnd
Wireless	Antenna through RF Sync

### Data storage/ transfer:

Internal	SD card (2GB)
External	USB storage class compliant USB Flash Drive/ USB Hard Disk Drive
Data Transfer	Measurements can be downloaded from a PC
USB Host	Full size type-A
USB Client	Full size type-B

### LCD screen:

Type	TFT, colour, transreflective
Size (W x H)	171 x 128 mm / 5.20 x 3.94 in
Resolution	800 x 600 pixels, 256 colors
Backlight	LED

### Mechanical:

Size (WxHxD)	470 x 357 x 176 mm / 18.5 x 14.0 x 6.9 in
Weight	9.0 kg / 19.8 lbs

### Environment:

IP classification	IP67 with lid closed IP51 with lid open
Humidity	0 - 95% non-condensing
Operating temperature	-10°C to -50°C / 14°F to 122°F
Storage temperature	-20°C to -70°C / -4°F to 158°F

*Specifications are subject to change without notice.*

For more information, contact

[PDinfo@doble.com](mailto:PDinfo@doble.com)

or visit

[www.doble.com](http://www.doble.com)

**Doble is ISO certified**  
**Doble is an ESCO Technologies Company**

MKT-SL-DFA500-09/11