

# Automatic Capacitance and Power Factor Field Test Set 12 kV - 2.4 kVA Type FT-12



- Measurements and operation according to IEEE Standard 62
- Screened HV Supply with ground capacitance lower than 1 pF
- Measurement of Grounded and Ungrounded Specimens
- Built-in Standard Capacitor 100 pF, 12 kV
- Built-in Automatic Interference Suppression
- Tan Delta uncertainty  $1 \cdot 10^{-4}$
- Consists of two lightweight units (only 50 kg total)
- Automatic C and Tan Delta measurement
- Data Storage Feature : up to 10 files with up to 50 records each
- RS232 Interface for data download
- Options : Measurement of temperature and humidity;  
measurement of short circuit impedance of transformers;  
resonating inductor; oil test cell; adapter for ext. Standard capacitor;  
Tan Delta calibrator; Partial Discharge unit for Motors & Generators

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# Specifications

## Capacitance and Power Factor Field Test Set

### **Modular Capacitance and Power Factor Measuring Bridge**

**Type FT-12CT**

maximal current through test object	5 A
maximal current through standard capacitor	30 mA
capacitance measuring range	$0.1 \times C_N \dots 10'000 \times C_N$
dissipation factor range	$1 \times 10^{-4} \dots 10$ (1'000%)
voltage measurement	10 V ... 1 MV (peak/ $\sqrt{2}$ )
uncertainty of capacitance measurement	$\pm 0.1\%$
uncertainty of phase measurement	$\pm 0.1$ mrad $\pm 1\%$ of the displayed value
uncertainty of voltage measurement	$\pm 1\%$ of range $\pm 2$ digits
Display	Capacitance in pF, nF or $\mu$ F or inductance in Henry, mH, $\mu$ H tan $\delta$ , Power Factor or quality factor, direct or % Object current, absolute, real part, imaginary part Powers: active, reactive or apparent voltage value in kV and frequency in Hz
Noise suppression (automatic)	up to 10 mA
Measurement of frequency	45 ... 65 Hz
Data Storage Feature	up to 10 files with up to 50 records each

### **Incorporated Control Unit**

Input voltage	230 V (Optional 115V) / 50 or 60 Hz
Output voltage	0...230 V
Protection	Interlock and hand held safety switch, over current protection
Interface	RS 232
Weight	app. 22 kg, 48.5 LBS
Dimensions w x d x h	432 x 266 x 330 (in mm), 17 x 10.5 x 12.9 (in inch)

### **Screened HV Power Supply**

**Type FT-12HV**

Nominal output voltage	12 kV peak/ $\sqrt{2}$
Nominal output current	200 mA <sub>RMS</sub>
Rating	1 min on 2 min. off @ 200 mA
Input voltage	230 V, 50 or 60 Hz
Measuring modes	UST A, UST B, UST A+B, GST A+B, GSTg A, GSTg B, GSTg A+B
Earth capacitance of the high voltage	< 1 pF
Built-in standard capacitor	100 pF
Interface	RS 232
Weight	app. 28 kg, 62 LBS
Dimensions w x d x h	432 x 266 x 330 (in mm), 17 x 10.5 x 12.9 (in inch)

### **reference conditions**

minimal current through standard capacitor	35 $\mu$ A
temperature	23° C $\pm$ 2° C
humidity, non condensing	45 ... 75%
altitude (pressure)	101.3 kPa

### **rated range of use**

according IEC 359	
temperature	5° C ... 40° C
humidity, non condensing	20 ... 95%
altitude (pressure)	70 ... 106 kPa

specifications subject to changes without notice

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