

# D100

## Insulation Diagnostic System

**D100** measures the capacitance and dissipation/power factor, excitation current, transformer turns ratio with the test voltage up to 12 kV.

For a more detailed analysis, the device makes it possible to obtain the dependence dissipation/power factor on frequency (frequency sweep) and voltage (tip-up).



### FEATURES AND BENEFITS

- ▲ Dissipation/power factor and capacitance testing
- ▲ Test voltage up to 12 kV
- ▲ Output Power – 2400 V·A
- ▲ Frequency 15...400 Hz
- ▲ High accuracy of field measurements with high-interference environments
- ▲ Temperature correction of dissipation/power factor
- ▲ Fast measurements with adaptive filtering of the interference currents
- ▲ Safe operation with safety switch, emergency stop, grounding control
- ▲ Small size and low weight (27 kg)

### APPLICATIONS

Dissipation/power factor and capacitance testing of:

- ▲ Power transformers
- ▲ Reactors
- ▲ Instrument transformers
- ▲ Bushings
- ▲ Switches
- ▲ Surge arresters
- ▲ Capacitors

**TECHNICAL SPECIFICATIONS**

Value	Range	Resolution	Accuracy
Dissipation Factor	0...10 000 %	0,001 %	$\pm (0,5 \% \text{ rdg} + 0,01 \%)^*$
Power Factor	0...100 %	0,001 %	$\pm (0,5 \% \text{ rdg} + 0,01 \%)^*$
Capacitance	5 pF...6 $\mu$ F	0,01 pF	$\pm (0,1 \% \text{ rdg} + 0,1 \text{ pF})$
Inductance	2 H...2 MH	0,1 mH	$\pm (0,5 \% \text{ rdg} + 1 \text{ mH})$
Test Voltage	100...12000 V	1 V	$\pm (0,3 \% \text{ rdg} + 1 \text{ V})$
Test Current	20 $\mu$ A...200 mA	0,1 $\mu$ A	$\pm (0,3 \% \text{ rdg} + 1 \text{ } \mu\text{A})$
Real Power	0...400 W	0,1 mW	$\pm (0,8 \% \text{ rdg} + 1 \text{ mW})$
Test Frequency	15...400 Hz	0,01 Hz	$\pm (0,1 \% \text{ rdg} + 0,1 \text{ Hz})$

\* Tolerances are determined for 45...70 Hz frequency range of the test voltage

**Output**

Power	2400 VA
Voltage	100...12000 V (45...70 Hz) 100...4000 V (15...400 Hz)
Current	<100 mA (continuously) <200 mA (2 min ON, 8 min OFF)

**Power mains**

Rated Voltage	110...240 V
Rated Frequency	50/60 Hz

Operating Temperature -20...50 °C

Relative Humidity up to 95 % non-condensing

Size (Main Unit) 546 × 347 × 247 mm

Weight (Main Unit) 27 kg

**Standards**

Safety	EN 61010-1:2010
EMC	EN 61326-1:2013


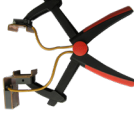





Calibration Interval 2 years recommended

### ORDERING INFORMATION

#### Scope of supply

The following items are supplied with the standard D100 modification:

No	Item Name	Part no.	
1	D100 Main Unit	411722.019	
2	HV Cable, 20 m	685651.062-01	
3	Measuring Cable (blue), 20 m	685612.129	
4	Measuring Cable (yellow), 20 m	685612.130	
5	Grounding Cable, 10 m	685615.012	
6	Safety Switch, 10 m	418131.005	
7	Mains Cable 10 A EU (CEE 7/XVII - C13)	—	
8	HV Cable Hook	301531.012	
9	HV Cable Clamp	301531.013	
10	Measuring Cable Clamp (range up to 32 mm) (2 pcs.)	685614.136	
11	Measuring Cable Clamp (range up to 9,5 mm) (2 pcs.)	685614.137	
12	Measuring Cable Bushing Tap Adapter	685614.138	

No	Item Name	Part no.	
13	HV Cable Bushing Tap Adapter	685614.139	
14	Extension Clamp (range up to 120 mm) (2 pcs.)	685614.090	
15	USB Flash Drive	408111.003	
16	Bag for cables and accessories	323382.047	
17	Operating manual	411213.014 OM	
18	Passport	411213.014 P	
19	Applications Guide	411213.014 AG	
<b>Additional order</b>			
20	Safety Strobe Light (cable length 10 m)	425132.004	
21	Reference Capacitor 12 kV	411634.056	
22	TTR Test Capacitor	411634.057	

**OLTEST LLC**

Development and production  
of measurement devices

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