DOBLE OFF-LINE TESTING & ASSESSMENT

M4100 4TH GEN

Technical Specifications

POWER SPECIFICATIONS	
Output Voltage	0 to 12 kV ac
Output Current	Continuous @ 100 mA at 10 kV 30 minutes @ 200 mA at 10 kV 4 minutes @ 300 mA at 10 kV
Operating time period based on 50°C operating temperature. Longer durations at high currents will be realized at lower operating temperatures.	
Output Power	3 kVA
Sinusoidal output signal internal generated independent of input supply, No loss in performance when used with portable generator.	
A.C. Input*	95-264 V AC 47 to 63 Hz 16 A max at 110 V 10 A max at 220 V

MEASUREMENT, ACCURACY AND RANGE TEST FREQUENCY	
TEST FREQUENCY	
Range	45 to 70 Hz independent of input signal
Resolution	0.1 Hz
Accuracy	± 1% of reading

* There are power restrictions for input voltages below 190 V AC.

TEST VOLTAGE	
Range	25 V to 12 kV
Resolution	1 V
Accuracy	± 1% of reading
TEST CURRENT	
Range	0 to 5.0 A
Resolution	0.1 µA
Accuracy	± 1% of reading, ±1 µA
CAPACITANCE	
Range	0 to 100 µF
Resolution	0.01 pF
Accuracy	± 0.5% of reading, ± 1 pF
INDUCTANCE	
Range	6 H to 10 MH
Resolution	0.01 H
Accuracy	± 0.5% of reading
WATTS	
Range	0 to 2 kW, actual
Resolution	0.5 mW
Accuracy	± 2% of reading at 10 kV ± 0.03% of VA, ±0.5 mW
POWERFACTOR/TAN-DELTA	
Range % PF PF % Tan d Tan d mW/Var	 0 to ± 100.00% 0 to ± 1.0000 0 to ± 999.99% 0 to ± 9.9999 0 to ± 9999.9
Resolution	0.01% / 0.0001
Guaranteed Accuracy	± 1% of Reading, ± 0.04% PF/Tan d (Entire Range)
Typical Accuracy	< ± 0.005% (Entire Range)

TEMPERATURE MEASUREMENT	
Range	-20°C to +50°C
Resolution	0.1°C
Accuracy	±4°C
	Requires optional temperature probe

ENVIRONMENTAL	
TEMPERATURE	
Instrument	-20°C to +50°C
Storage	-40°C to +70°C
Humidity	90% non-condensing

DIMENSIONS	
Instrument	10-1/4 in. H x 20 in. W x 25-1/4 in. D 26 cm H x 50.8 cm W x 64.1 cm D
High Voltage Cable	60 ft./18 m (other lengths available as options)
Weight	95 lbs/45.5 kg

MAXIMUM INTERFERENCE CONDITIONS AT LINE	
FREQUENCY	
Electrostatic	15 mA rms of interference current into any lead or cable with no loss of measurement accuracy. Applicable to a maximum ratio of interference current to specimen current of 20:1.
Electromagnetic	500 µT, at 50 Hz in any direction

STANDARDS
EMC Emissions
FCC 47 CFR Part 15 Class A Emissions requirements (USA)
EN 55011:1998/A1:1999/A2:2002 Group 1 Class A ISM Emissions requirements (EUROPE)
AS/NZS CISPR 11:2004 Class A ISM Emissions requirements (Australia)
EMC Immunity
EN 61326:1997/A1:1998/A2:2001/A3:2003
IEC 61000-4-2/3/4/5/6/11
IEC 801-2(1984) Electrostatic Discharge
ANSI/IEEE C37.90.1 Surge Withstand Capability
SAFETY
EN 61010-1 :2001 (2nd Edition)
ENVIROMENTAL
IEC 60068-2-2 Dry Heat
IEC 60068-2-1 Cold
IEC 60068-2-30 Damp Heat
MECHANICAL**
IEC 60068-2-27 Shock
IEC 60068-2-6 Vibration
IEC 60068-2-6 Drop test
ASTM D999.75 Transport Shock Test

** Note: M4100 meets mechanical standards outside of shipping case or container.

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