

M4100 4th Gen



Technical Specifications

TOGETHER WE POWER THE WORLD®

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, ±1 V

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 0 to ± 100.00%

PF 0 to ± 1.0000

% Tan δ 0 to ± 999.99%

Tan δ 0 to ± 9.9999

mW/Var 0 to ± 9999.9

Resolution: 0.01% / 0.0001

Guaranteed Accuracy:

± 1% of Reading, ± 0.04%
PF/Tan δ (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:

Operating: -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)

ENVIRONMENTAL

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.*

