Specifications

Basic electrical specifications are defined over the temperature range from 18°C to 28°C for a period of one year after calibration.

Accuracy is specified as \pm ([% of reading] + [number of units in least significant digit]).

Amps Measurements (True-rms)
(1 mV/A) Isolated Input
Input Range
1.00 mV (A) to 1000 mV rms (A) (ac + dc)
1.0 mV (A) to \pm 2000 mV (A) peak

Basic Accuracy
rms (ac+dc): \pm (0.5% + 3 digits) + probe specs peak, dc: \pm (2% + 4 digits) + probe specs

Input Impedance
1 M\Omega \pm 47 pF

Crest Factor
>3.0 below 600 mV, 2.0 @ 1000 mV

Watts Measurements (Volt-Amps)
(1 mV/A) Isolated Input
Range
0W (VA) to 600 kW (kVA) average
0W (VA) to 2000 kW (kVA) peak

Accuracy (ac + dc)
Active W (VA): \pm (1% + 4 digits) + probe specs

Harmonics Measurement Accuracy
(Cursor Data)
(Harmonic Level > 5% Using Smooth ~20)

Vols
Fundamental to 13th Harmonic:
\pm (2% + 2 digits)
13th to 31st Harmonic:
13th (\pm (2% + 2 digits))
\pm 31st (\pm (8% + 2 digits))

Amps\* or Watts
Fundamental to 13th Harmonic:
\pm (3% + 3 digits) + probe specs
13th to 31st Harmonic:
13th (\pm (3% + 3 digits) + probe specs)
\pm 31st (\pm (8% + 3 digits) + probe specs)

*<20A, add 3 digits

Phase
Fundamental:
(\pm 2 degrees) + probe specs
2nd to 31st Harmonic:
2nd (\pm 5 degrees) - 31st (\pm 20 degrees) + probe specs

Frequency Measurement Accuracy
(Fundamental, 5.0 Hz - 99.9 Hz)
6.0 Hz - 99.9 Hz: \pm 0.3 Hz

General Specifications
Size: 9.2 x 3.9 x 2.5 in (234 x 100 x 64 mm)
Weight: 2.0 lbs (1 kg)

Input Connectors
Voltage: 2 shrouded banana jacks (4 mm)
Current Probe: 1 shrouded BNC jack

Battery
Type: 4 Alkaline "C" Cells ANSI/NEDA-14A,
IEC-LR14 (supplied)
Operating Time: 48 hours, typical
(continuous, without backlight)

Alternate Battery
4 NiCad Cells, customer supplied and externally charged. The tester prevents battery reversal by turning itself off if battery voltage drops below 4.0V dc

Temperature
Operating: 0°C to 50°C (32°F to 122°F)
Storage: -20°C to 60°C (-4°F to 140°F)

Temperature Coefficient
0.1 x specified accuracy per °C
(0°C to 18°C, 28°C to 50°C)

Humidity (noncondensing)
Operating: 0°C to 30°C, 90%
30°C to 40°C, 75%
40°C to 50°C, 45%

Storage: 90%

Altitude
Operating: 10,000 feet (3 km)
Storage: 40,000 feet (12 km)

Shock & Vibration: Per MIL-T-28800,
class 3, sinusoidal, nonoperating

For a direct connection to a Fluke Distributor near you
CALL
1-800-79-FLUKE in the U.S.
(1-800-793-5853)
Or your nearest Fluke sales organization

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Other Measurement Specifications

<table>
<thead>
<tr>
<th>Measurement Function</th>
<th>Range/Resolution</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Bandwidth: -0.5 dB</td>
<td>DC 6 Hz to 2.1 kHz</td>
<td>±4%</td>
</tr>
<tr>
<td>Crest Factor (CF): (Using Smooth 20)</td>
<td>1.00 to 5.00</td>
<td>±0.02</td>
</tr>
<tr>
<td>Power Factor (PF)</td>
<td>0.00 to 1.00</td>
<td>±0.02</td>
</tr>
<tr>
<td>Displacement Power Factor (DPF)</td>
<td>0.00 to 0.29</td>
<td>Unspecified</td>
</tr>
<tr>
<td>Phase Measurement Range</td>
<td>-170 to 180°</td>
<td>±10%</td>
</tr>
<tr>
<td>K-Factor (KF)</td>
<td>1.0 to 30.0</td>
<td>±10%</td>
</tr>
<tr>
<td>Total Harmonic Distortion (THD)</td>
<td>0.0 to 99.9</td>
<td>±(0.03 Reading + 2.0%)</td>
</tr>
<tr>
<td>%THD-F:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>%THD-R:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recording Measurements

<table>
<thead>
<tr>
<th>AC Volts</th>
<th>AC Amps</th>
<th>Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>Resolution</td>
<td>Range</td>
</tr>
<tr>
<td>20V</td>
<td>0.1V</td>
<td>2A</td>
</tr>
<tr>
<td>50V</td>
<td>0.1V</td>
<td>5A</td>
</tr>
<tr>
<td>100V</td>
<td>0.1V</td>
<td>10A</td>
</tr>
<tr>
<td>200V</td>
<td>0.1V</td>
<td>20A</td>
</tr>
<tr>
<td>500V</td>
<td>1V</td>
<td>50A</td>
</tr>
<tr>
<td>1 kV</td>
<td>1V</td>
<td>100A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000A</td>
</tr>
</tbody>
</table>

|          |          | 100 kW | 1 kW       |
|          |          | 200 kW  | 1 kW       |
|          |          | 500 kW  | 1 kW       |
|          |          | 1 kW    | 1 kW       |
|          |          | 2 kW    | 1 kW       |

Electro-Magnetic Compatibility
- RF Susceptibility: EN 50082-1 Commercial Limits
- Drip Proof and Dust Proof Case: Per IEC 529, Section 3; IP 52
- Dust-Protected, Drip Proof

Display
- Type: Super Twisted Liquid Crystal
- Size: 3.0 inch diagonal (76 mm)
- Resolution: 160 W x 128 H pixels
- Contrast: User adjustable
- Backlight: Yellow-green LED

Safety
- Designed for 600V measurements on industrial power distribution circuits.

Overload Protection
- Voltage or Current Probe Input: 600V, maximum
- Surge Protection: 6 kV per IEC 1010-1
- Maximum Voltage Isolation to Earth: 600V from any terminal

Protection Levels
- IEC 1010-1, Pollution Degree 2, Installation Category III, Material Group II, 600V

Protection Class
- Protection Class II as described in IEC 1010-1, Annex H (Double or Reinforced Insulation)

Waveform Memory
- Eight nonvolatile memories store 2048 sampled points of waveform data for both Voltage and Current inputs for later recall or sending to a computer.

EIA-232-E (RS-232) Interface
- Optically-Isolated, 1.2, 9.6, or 19.2k baud rate
- Printer graphical output in either Epson or HP format. Text data is sent is ASCII format (SEND). Waveform, Data, and Picture formats may be remotely accessed. Remote Trigger function.