FLUKE®

# Fluke 6200-2/6500-2
## Portable Appliance Testers

**Technical Data**


## Perform more tests each day

**The low weight, small size, one-touch solution.**

The Fluke 6200-2 and 6500-2 PAT testers are low weight, small size, one-touch solutions with redesigned auto-test capabilities to help you increase the number of portable appliance tests completed each day. The 6200-2 and 6500-2 are designed to enable you to work faster without compromising safety—yours or your customer's.

### Fluke simplifies portable appliance testing

- Dedicated key for each test for 'one-touch' testing
- Pre-set pass/fail levels to save time
- Large backlit display for easy reading
- Single mains socket for appliance connection
- Separate IEC socket for easy mains/extension lead testing
- Detachable test leads for quick field replacement
- Integral carrying handle
- USB port for printing

The Fluke 6500-2 delivers all of this capability, plus:

- Integral QWERTY keyboard for rapid data entry
- USB flash drive capability for storage and transfer to PC
- Large backlit graphic display
- Pre-set, auto-test sequences for user convenience
- Integral site, location and description codes for faster data processing
- Memory review facility for more on-site control

# Test specifications

The accuracy specification for the display range is defined as ±(%reading + digit counts) at 23 °C ±5 °C, ≤75 % RH. Between 0 °C and 18 °C and between 28 °C and 40 °C, accuracy specifications may degrade by 0.1 x (accuracy specification) per °C.
The measurement range meets the service operating errors specified in EN61557-1: 1997, EN61557-2: 1997, EN61557-4: 1997, EN61557-6: 1997, DIN VDE0404-2.

| | | |
|---|---|---|
| **Power-on test** | The test indicates reversed L-N, missing PE, and measures the mains voltage and frequency. | |
| | **Display range:** | 90 V to 264 V |
| | **Accuracy at 50 Hz:** | ± ( 2% + 3 counts) |
| | **Resolution:** | 0.1 V (1 V – model 6200) |
| | **Input impedance** | > 1 MΩ // 2.2 nF |
| | **Maximum input mains voltage:** | 264 V |
| **Earth bond test ($R_{pe}$)** | **Display range:** | 0 to 19.99 Ω |
| | **Accuracy (after Bond Test zeroing):** | ± (2.5 % + 4 counts) |
| | **Resolution:** | 0.01 Ω |
| | **Test current:** | 200 mA AC –0 % +40% into 1.99 Ω<br>25 A AC ± 20 % into 25 mΩ at 230 V |
| | **Open circuit voltage:** | > 4 V AC, < 24 V AC |
| | **Bond test zeroing:** | Can subtract up to 1.99 Ω |
| **Insulation test ($R_{iso}$)** | **Display range:** | 0 to 299 MΩ |
| | **Accuracy:** | ± (5 % + 2 counts) from 0.1 to 300 MΩ |
| | **Resolution:** | 0.01 MΩ (0 to 19.99 MΩ)<br>0.1 MΩ (20 to 199.9 MΩ)<br>1 MΩ (200 to 299 MΩ) |
| | **Test voltage:** | 500 V dc –0 % +25 % at 500 kΩ load or (6500-2 only)<br>250 V dc -0 % +25 % at 250 kΩ load |
| | **Test current:** | > 1 mA at 500 kΩ load, < 15 mA at 0 Ω |
| | **Auto discharge time:** | < 0.5 s for 1 µF |
| | **Max. capacitive load:** | Operational up to 1 µF |
| **Touch current test** | **Display range:** | 0 to 1.99 mA AC |
| | **Accuracy:** | ± (4 % + 2 counts) |
| | **Resolution:** | 0.01 mA |
| | **Internal resistance (via probe):** | 2 kΩ |
| | **Measuring method:** | Probe |
| | The appliance under test is energized at mains potential. | |
| **Substitute leakage current test** | **Display range:** | 0 to 19.99 mA AC |
| | **Accuracy:** | ± (2.5 % + 3 counts) |
| | **Resolution:** | 0.01 mA |
| | **Test voltage:** | 100 V AC ± 20 % |
| **Load/Leakage Test: Load current** | **UK** | |
| | **Display range:** | 0 to 13 A |
| | **Accuracy:** | ± (4 % + 2 counts) |
| | **Resolution:** | 0.1 A |
| | The appliance under test is energized at mains potential. | |
| | **AU** | |
| | **Display range:** | 0 A to 10 A |
| | **Accuracy:** | ± (4 % +2 counts) |
| | **Resolution:** | 0.1 A |
| | The appliance under test is energized at mains potential. | |
| **Load/Leakage test: Load power** | **Display range:** | 230 V mains |
| | **UK** | 0.0 VA to 3.2 kVA |
| | **AU** | 0.0 VA to 2.4 kVA |
| | **Accuracy:** | ±(5 % + 3 counts) |
| | **Resolution:** | 1 VA (0 to 999 VA), 0.1 kVA (>1.0 kVA) |
| | The appliance under test is energized at mains potential. | |
| **Load/Leakage test: Leakage current** | **Display range:** | 0 to 19.99 mA |
| | **Accuracy:** | ± (4 % + 4 counts) |
| | **Resolution:** | 0.01 mA |
| | The appliance under test is energized at mains potential. | |
| **PELV test** | **Accuracy at 50 Hz:** | ± (2 % + 3 counts) |
| | **Overload protection:** | 300 V rms |
| | **Warning threshold:** | 25 V rms |

| | | |
|---|---|---|
| **RCD Test: Trip Current (6500-2 only)** | Operational error<br>Nominal<br>Accuracy | ±10 %<br>30 mA<br>±5 % |
| **RCD Test: Trip Time (6500-2 only)** | Standard requirement<br><br>Operational error<br>RCD type<br>Display range<br>Resolution<br>Accuracy<br>Trip time limit at 100 % (30 mA)<br>Trip time limit at 500 % (150 mA) | 61557 Part 6; tolerance of rated test current<br>0 % to +10 %<br>±10 %<br>AC General-Purpose 30 mA<br>310 ms<br>0.1 ms<br>3 ms<br>300 ms<br>40 ms |

| **Environmental specifications** | |
|---|---|
| **Operating temperature** | 0 to 40 °C |
| **Relative humidity** | Non condensing < 10 °C<br>95 % from 10 to 30 °C<br>75 % from 30 to 40 °C |

| **Safety specifications** | |
|---|---|
| **Safety rating** | Complies with EN61010-1 3rd edition<br>CAT II, 300 V, pol 2<br>German version only:<br>DIN VDE0404-1 and DIN VDE0404-2<br>IEC/EN 61557, part 1, 2, 4, 6, 10<br>CAT II, 300 V, pol 2 |

| **Mechanical and general specifications** | |
|---|---|
| **Size (LxWxH)** | 200 mm x 275 mm x 114 mm |
| **Weight** | 3.13 kg |
| **Power supply** | 230 V +10 % -15 %, 50 Hz ±2 Hz or<br>(6500-2 only: 110V +10 % -15 %, 50 Hz ±2 Hz) |
| **Power consumption (Tester)** | 13 W typical (idle)<br>60 W max. during 25A Bond Test |
| **Storage** | Temperature: -10 °C to 60 °C<br>Corrosion: 70 °C @ 95 % RH for 5 days max. |
| **Operating altitude** | 0 up to 2000 m |
| **Sealing** | IP-40 (enclosure), IP-20 (connectors) |
| **EMC** | Complies with EN61326-1, Portable |
| **EMI immunity** | 3 V/m |


Kit configuration and contents vary by region.

## Ordering information

The Fluke 6200-2 comes with the following:
- 6200-2 PAT
- User's manual on CD
- Quick reference guide
- Hard Carrying Case
- Test Lead
- Test Probe
- Crocodile Clip
- Mains Cord

The Fluke 6500-2 comes with the following:
- 6500-2 PAT
- User's manual on CD
- Quick reference guide
- Hard Carrying Case
- Test Lead
- Test Probe
- Crocodile Clip
- Mains Cord
- USB Stick
- USB Cable

**Fluke.** *The Most Trusted Tools in the World.*

**Fluke Europe B.V.**
P.O. Box 1186
5602 BD Eindhoven
The Netherlands
Web: www.fluke.co.uk

**For more information call:**
In Europe/M-East/Africa
+31 (0) 40 2 675 200 or
Fax +31 (0) 40 2 675 222

**Fluke (UK) Ltd.**
52 Hurricane Way
Norwich, Norfolk
NR6 6JB
United Kingdom
Tel.: +44 (0) 20 7942 0700
Fax: +44 (0) 20 7942 0701
E-mail: industrial@uk.fluke.nl
Web: www.fluke.co.uk


Printed in U.S.A. 11/2013 6000093A_EN
Pub_ID: 12135-eng
Rev. 03