

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 \pm (%reading + digit counts) at 23 °C \pm 5 °C, \leq 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 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 _{ps}) 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 25 A AC ± 20 % into 25 mΩ at 230 V Open circuit voltage: 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) 0.1 MΩ (20 to 199.9 MΩ) 1 MΩ (20 to 199.9 MΩ) 1 MΩ (20 to 299 MΩ) 1 MΩ (20 to 299 MΩ) Test voltage: 500 V dc -0 % +25 % at 500 kΩ load on 250 V dc -0 % +25 % at 250 kΩ load Test voltage: > 1 mA at 500 KΩ load, < 15 mA at 0 Ω Auto discharge time: > 1 mA at 500 kΩ load, < 15 mA at 0 Ω <th>trequency.</th>	trequency.		
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$ \begin{array}{ c c c c c c } & 25 & A & C \pm 20 & 0 & into & 25 & m\Omega & at & 230 & V \\ \hline \textbf{Open circuit voltage:} & 24 & V & AC, & < 24 & V & AC \\ \hline \textbf{Bond test zeroing:} & Can & subtract up to & 1.99 & \Omega \\ \hline \textbf{Insulation test (R}_{iso}) & \textbf{Display range:} & 0 & to & 299 & M\Omega \\ \hline \textbf{Accuracy:} & \pm & (5 & \% + 2 & counts) & from & 0.1 & to & 300 & M\Omega \\ \hline \textbf{Resolution:} & 0.01 & M\Omega & (0 & to & 19.99 & M\Omega) \\ \hline \textbf{O.1 } & M\Omega & (20 & to & 199.9 & M\Omega) \\ \hline \textbf{1} & M\Omega & (200 & to & 299 & M\Omega) \\ \hline \textbf{Test voltage:} & 500 & V & dc & -0 & \% + 25 & \% & at & 500 & k\Omega & load & or \\ \hline \textbf{250} & V & dc & -0 & \% + 25 & \% & at & 250 & k\Omega & load \\ \hline \textbf{Test current:} & > 1 & mA & at & 500 & k\Omega & load, < 15 & mA & at & 0 & \Omega \\ \hline \textbf{Auto discharge time:} & < 0.5 & s & for & 1 & \mu F \\ \hline \end{array} $			
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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	(6500-2 onlv)		
Test current:> 1 mA at 500 k Ω load, < 15 mA at 0 Ω Auto discharge time:< 0.5 s for 1 μ F	,		
Auto discharge time: < 0.5 s for 1 μ F			
Max. capacitive load: Operational up to 1 µF			
Touch current testDisplay range:0 to 1.99 mA AC			
Accuracy: $\pm (4 \% + 2 \text{ counts})$			
Resolution: 0.01 mA			
Internal resistance (via probe): 2 kΩ			
Measuring method: Probe			
The appliance under test is energized at mains potential.			
Substitute leakage Display range: 0 to 19.99 mA AC			
current testAccuracy: \pm (2.5 % + 3 counts)			
Resolution: 0.01 mA			
Test voltage: 100 V AC ± 20 %			
Load/Leakage Test: UK			
Load current Display range: 0 to 13 A			
Accuracy: $\pm (4 \% + 2 \text{ counts})$			
Resolution: 0.1 A			
The appliance under test is energized at mains potential.			
Display range: 0 A to 10 A			
Accuracy: $\pm (4\% + 2 \text{ counts})$			
Resolution: 0.1 A			
The appliance under test is energized at mains potential.			
Load/Leakage test: Display range: 230 V mains			
Load power UK 0.0 VA to 3.2 kVA			
AU 0.0 VA to 2.4 kVA			
Accuracy: $\pm (5 \% + 3 \text{ counts})$			
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: Display range: 0 to 19.99 mA			
Leakage current Accuracy: $\pm (4 \% + 4 \text{ counts})$			
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 Nominal Accuracy	±10 % 30 mA ±5 %	
RCD Test: Trip Time (6500-2 only)	Standard requirement Operational error RCD type Display range Resolution Accuracy Trip time limit at 100 % (30 mA) Trip time limit at 500 % (150 mA)	61557 Part 6; tolerance of rated test current 0 % to +10 % $\pm 10 \%$ AC General-Purpose 30 mA 310 ms 0.1 ms 3 ms 300 ms 40 ms	
Environmental specificati	ons		
Operating temperature	0 to 40 °C		
Relative humidity	Non condensing < 10 °C 95 % from 10 to 30 °C 75 % from 30 to 40 °C		
Safety specifications			
Safety rating	Complies with EN61010-1 3rd edition CAT II, 300 V, pol 2 German version only: DIN VDE0404-1 and DIN VDE0404-2 IEC/EN 61557, part 1, 2, 4, 6, 10 CAT II, 300 V, pol 2		
Mechanical and general s	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 (6500-2 only: 110V +10 % -15 %, 50 Hz ±2 Hz)		
Power consumption (Tester)	13 W typical (idle) 60 W max. during 25A Bond Test		
Storage	Temperature: -10 °C to 60 °C 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		





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

Kit configuration and contents vary by region.

Fluke. The Most Trusted Tools in the World.

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