



The DT-6650 is a rugged multifunction installation tester with 3.5" TFT colour LCD display; provides insulation resistance, earth resistance, loop impedance, voltage, RCD, PFG and PSC testing.

It is designed with an in-built software system and ensures that the safety of electrical installations in domestic, commercial and industrial applications.

DT-6650 can ensure that fixed wiring is safe and correctly installed. It's fast sampling and dual display, clear symbols and exceptionally wide viewing angle provides easy and safe readings.

## DT-6650

### MULTIFUNCTION INSTALLATION TESTER

- | 3.5" TFT Colour display
- | Fast high current loop test
- | Variable RCD current mode for customized settings
- | PASS/FAIL indication for RCD tests
- | Select voltage measurement between L-N, L-PE and N-PE
- | Support SD memory and USB and Blue tooth interface
- | Internal Memory
- | Safe Earth Volt Touchpad detects raised earth voltages >50V indicating potentially dangerous situations



### General Specification

Power Source	12V DC (8 x 1.5V AA Size Alkaline batteries)
Battery Life	Average of 15hours
CAT Rating	CAT III 600V
Protection Classification	Double Insulation
Protection Rating	IP65
LCD Display	320x240 dot matrix
Operating Temp	0°C~ 45°C
Relative Humidity	95% (10°C~ 30°C) Non-condensing 75% (30°C~ 40°C) Non-condensing
Storing Temp	-10°C~ 60°C
Operating Altitude	2000m
Protective device	500mA Fast response BS 88 Fuse
Dimensions	10.5cm(L) x 22.5cm(W) x 13cm(H)
Weight	1.56kg

### Safety Information

This instrument has been tested according to the below regulations:

- \_ EN 61326: Electrical equipment for measurement, control and laboratory use.
- \_ EN 61010-1: Safety requirements for electrical equipment for measurement, control and laboratory use – Part 1: General requirements.
- \_ BS EN61557: Electrical safety in low voltage distribution systems up to 1000V AC and 1500V DC

### Technical Specifications

#### LOOP Resistance

##### L- PE (Hi-Amp)

Range (Ω)	Resolution(Ω)	Accuracy
0.23 – 9.99	0.01	±(4% of reading + 4 digits)
10.0 – 99.9	0.1	
100 – 999	1	

Measuring Current : 4.0 A  
Range of the Voltage Used : 195V AC – 260V AC (50,60Hz)

##### L- PE (No Trip)

Range (Ω)	Resolution(Ω)	Accuracy
0.23 – 9.99	0.01	±(5% of reading + 6 digits)
10.0 – 99.9	0.1	
100 – 999	1	

Measuring Current : < 15mA  
Range of the Voltage Used : 195V AC – 260V AC (50,60Hz)

#### LINE Resistance

##### L- N

Range (Ω)	Resolution(Ω)	Accuracy
0.23 – 9.99	0.01	±(4% of reading + 4 digits)
10.0 – 99.9	0.1	
100 – 999	1	

Measuring Current : 4.0 A  
Range of the Voltage Used : 195V AC – 260V AC (50,60Hz)

##### RCD (BSEN 61557-6)

Rcd Rating (I<sub>n</sub>) : 10mA, 30mA, 100mA, 300mA, 500mA and 1A.  
Test current : x1/2, x1, x2 and x5

Contact :

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### Technical Specifications

#### Accuracy at applied test current

Test current	Accuracy
x1/2	±(1% of reading+ 1 digits)
x1	±(1% of reading+ 1 digits)
x2	±(1% of reading+ 1 digits)
X5	±(1% of reading+ 1 digits)

Form of the Test Current	: Sine wave form (AC), Pulse wave form (DC)
RCD Form	: General (G - non-delayed), Selective (S - time-delayed)
Initial Polarity of the Test Current	: 0°, 180°
Voltage Range	: 195V AC - 260V AC (50Hz,60Hz)
Accuracy of the Timing of the RCD	: ± (10% of reading + 1 digits)
Resolution of the RCD Timing	: 0.1ms

#### Voltage and Frequency

Measurement Range (V) / AC-DC	Resolution (V)	Accuracy
80 – 500	1	±(2% of reading + 2digits)

  

Measurement Range (Hz)	Resolution (Hz)	Accuracy
45 – 65	1	±2Hz

#### Insulation Resistance

Terminal Voltage	Range	Resolution	Accuracy	Test Current	Short circuit current
125V(0%~+10%)	0.125~4.000 MΩ	0.001MΩ	±(2%+10)	1mA @load125kΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(4%+5)		
	400.1~1000 MΩ	1MΩ	±(5%+5)		
250V (0%~+10%)	0.250~4.000 MΩ	0.001MΩ	±(2%+10)	1mA @load250kΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(3%+2)		
	400.1~1000 MΩ	1MΩ	±(3%+2)		
500V(0%~+10%)	0.500~4.000 MΩ	0.001MΩ	±(2%+10)	1mA @load500kΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(3%+2)		
	400.1~1000 MΩ	1MΩ	±(4%+5)		
1000V (0%~+10%)	1.000~4.000 MΩ	0.001MΩ	±(3%+10)	1mA @load1MΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(3%+2)		
	400.1~1000 MΩ	1MΩ	±(4%+5)		

#### Low Ohm

Range	Resolution	Accuracy
0.00~99.99Ω	0.01Ω	+(2%+30d)
100.0~999.9Ω	0.1Ω	+(2%+6d)
1000~2000Ω	1Ω	

#### Earth resistance

Range	Resolution	Accuracy	Max. open Circuit Voltage	Overload Protection
0.000~2.000Ω	0.001Ω	+(1.5%+30)	5.0V	250Vrms
2.00~20.00Ω	0.01Ω	+(1.5%+3)		
20.0 ~200.0Ω	0.1Ω			
200 ~2000Ω	1Ω			

### Accessories

Carrying Case, Test Leads, Test Cut, Instruction Manual, Battery, Test Certificate.

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