



DT-6650 is a rugged multifunction installation tester with 3.5" TFT color LCD display, provides insulation resistance, earth resistance, loop impedance, voltage, RCD, PFG and PSC testing. It is designed with software system and ensures that the safety of the electrical installations in domestic, commercial and industrial applications. DT-6650 can ensure the 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 Color 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



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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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