

SPECIFICATION OF ANALOG / DIGITAL INSULATION TESTER

Insulation tester is required to analyze the insulation characteristics of large electrical machines coil's of varied voltage grade ie L T and HT machines. The instrument should be suitable for heavy duty, mains/ battery operation matching the following specification.

1.0 Test Voltage	: 500, 1000, 2500 and 5000V selectable through either by selectable buttons or keying input.
2.0 Test Voltage accuracy	: $\pm 5\%$ for 10 Mega ohms load & above.
3.0 Measurement Range	: 10 K Ω to 500 G Ω @ 500V : 10 K Ω to 1 T Ω @ 1000V : 10 K Ω to 2.5 T Ω @ 2500V : 10 K Ω to 5.0 T Ω @ 5000V
4.0 Measurement accuracy	: Resistance : $\pm 5\%$ reading : DC test voltage : $\pm 2\% \pm 1V$: Current : $\pm 5\% \pm 0.2nA$: Capacitance : $\pm 5\% \pm 0.01\mu F$
5.0 Test Current Limit	: 2 mA or 5 mA selectable
6.0 Display	: Charge Time : Max 5 Seconds per μF
7.0 Temperature Range	: Backlit dotmatrix LCD (256 x 128 pixels) :-20 to 50° C (Operating) and 25° C to 60° C (Storage)
8.0 Max Altitude	: 2000 meter
9.0 Humidity range	: 90 RH non condensing at 40 C
10.0 Interference Rejection	: 4 mA at 50/ 50 Hz
11.0 Capacitance discharge	: Max. 20.0 μF .
12.0 Test Time	: 15 Seconds to 90 minutes.
13.0 Battery Status	: Indication by bar graph or red coloured LED.
14.0 Battery Life	: At least 7 hours from fully charged condition.
15.0 Battery rating	: 12 Volt, 7 Ah
16.0 safety	: Conform to IEC IEC 1010-1 (1995) Voltmeter rated for use on 300V phase to earth system, category III.
17.0 Weight	: should be less than 10 Kg.
18.0 Dimension	: 14 x14 x10 inches max.
19.0 Protection (Environ)	: IP 54 with all covers closed.
20.0 Operating supply	: 230 $\pm 10\%$ Volts / 50 or 60 Hz
21.0 Result Storage	: At least 70 test data.
22.0 General	: The equipment should have robust design suitable for filed use. Isolated RS 232 output is essential and should be supplied with all connection accessories, user's manuals, warranty etc.
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Prepared by

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