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Data Sheet 5.85-22/1

Insulation Resistance Meter, Types MIT525 and MIT1025

Application

The insulation resistance meters are used to determine the effectiveness of a product's electrical insulation. Typical applications are cables, transformers, motors/ generators, circuit breakers and bushings. An insulation resistance test is ideal for measuring and recording long-term stability of insulation over time.

Description

Preconfigured diagnostic tests include Polarisation Index (PI), Dielectric Absorption Ratio (DAR), Dielectric Discharge (DD), Stepped Voltage (SV) and Ramp Test. Simplicity of operation is achieved with two rotary switches. The large backlight display enables multiple results to be displayed simultaneously. Advanced memory storage includes time/date stamping of results, logging of data and recall of results to screen.

The rugged case provides ultimate protection for a portable instrument and a clip-on lead pouch ensures that leads remain with the instrument at all times. The case lid is removable for improved terminal access.

A fully isolated USB device interface is used for safe transfer of data to PC software.

Advantages

Insulation resistance tests are temperature dependent and require adjustment to a reference temperature. For that reason the insulation resistance meters offer a temperature recording option.

An important productivity feature is the ability to take measurements when connected to the mains in case of an empty battery. Intelligent battery charging ensures the optimum charge rate as a function of battery level, resulting in minimum charge times.

Table 1: Technical Data

Technical Data	unit	Type MIT525	Type MIT1025
Output			
Test voltages	V	250, 500, 1000, 2500, 5000	500, 1000, 2500, 5000, 10000
User defined test voltages	V V	100 to 1000 in 10 V steps 1000 to 5000 in 25V steps	100 to 1000 in 10 V steps 1000 to 10000 in 25V steps
Short circuit current	mA	3	3
Performance			
Measurement Range	Ω	10k to 10T	10k to 20T
Accuracy (@23°C)	%	5 (R < 1T Ω)	5 (R < 2T Ω)
Features			
Intended Use		Mobile	Mobile
Real Time Clock		Yes	Yes
Timer		Yes	Yes
Preconfigured tests			
Insulation Resistance (IR)		Yes	Yes
Insulation Resistance (IR(t))		Yes	Yes
Dielectric Absorption Ratio (DAR)		Yes	Yes
Polarization Index (PI)		Yes	Yes
Stepped Voltage (SV)		Yes	Yes
Dielectric Discharge (DD)		Yes	Yes
Ramp Test		Yes	Yes
Temperature channel		Yes	Yes
Display		backlight LCD	backlight LCD
Memory		350 IR tests	350 IR tests
Interface		USB (isol.)	USB (isol.)
Internal printer		No	No
Rugged case		Yes	Yes
Battery		11.1V/5.2Ah	11.1V/5.2Ah
Dimension and weights			
Length	mm	315	315
Width	mm	285	285
Height	mm	181	181
Weight	kg	4.5	4.5
Normal operating conditions			
Rated power supply voltage	V(AC)	100 to 240	100 to 240
Power supply frequency	Hz	50 to 60	50 to 60
Maximum required input power	W	60	60
Environmental conditions			
Temperature	°C	-20 to 50	-20 to 50
Humidity	%r.H.	< 90, non condensing	< 90, non condensing
Altitude	m	<3000	<3000
Ingress protection		IP40 (lid open)	IP40 (lid open)

Technical Data	unit	Type MIT525	Type MIT1025
Accessories			
Test lead set			
Length	m	3	3
Number of leads		3	3
Insulated Clips		medium	large
Power cord		Yes	Yes
User guide CD		Yes	Yes
USB cable		Yes	Yes
Software			
PowerDB lite		Yes	Yes
Optional Accessories			
Test lead set			
Length	m	15	3
Number of leads		3	3
Insulated Clips		medium	large
5kV Calibration Box CB101		Yes	Yes
CB101 Calibration Certificate		Yes	Yes