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Data Sheet 5.85-31/1

Turns Ratio Meter

Application

The turns ratio meter allows to measure voltage ratio, turns ratio and phase displacement of a test object with high accuracy.

Description

All turns ratio meters can perform single-phase measurements. Turns ratio meters that are specified for three phases are also able to execute a full three-phase test sequence and an automatic phase vector detection.

Turns ratio meter measurements are controlled by a micro processor with a user-friendly interface. Measurement results are available on both screen and interface port. All measured data can be stored or printed.

A tap changer can be controlled by the device by means of an appropriate interface.

Advantages

The handling of the turns ratio meter is user-friendly: once the test object is connected to the device most measurements can be executed by just one simple interaction with the measuring equipment.

Table 1:Technical Data

Technical Data	**unit**	Type **TR-Mark III R**	Type **TR-Mark III**
Output Ratio Meter / Phase Angle			
Voltage	V	1 to 100	1 to 100
Test Current	A	0 to 1A	0 to 1A
Performance Ratio Meter			
Measurement Range	Ratio	0.8 to 16000	0.8 to 16000
Accuracy	% Rdg.	±0.3 ±1 LSD (@10V/100V, ratio <2000)	±0.3 ±1 LSD (@10V/100V, ratio <2000)
Resolution	digits	5	5
Performance Phase Angle			
Measurement Range	deg(°)	-90 to +90	-90 to +90
Accuracy	deg(°)	±0.6 ±1 LSD (@10V, ratio <2000)	±0.6 ±1 LSD (@10V, ratio <2000)
Resolution	deg(°)	0.01	0.01
Features			
Intended Use		Laboratory	Mobile
Display		Color LCD, Touch screen	Color LCD, Touch screen
Memory		>10000 results	>10000 results
Interface		RS232, USB	RS232, USB
Three Phases		Yes	Yes
Tap Changer Interface		Yes	Yes
Automatic phase vector detection		Yes	Yes
Protection circuitry		Yes	Yes
Internal printer		No	Yes
Rugged case		No	Yes
Dimension and weights			
Length	mm	490	470
Width	mm	436	371
Height	mm	177	190
Weight	kg	8	10
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	500	500

Technical Data	**unit**	Type **TR-Mark III R**	Type **TR-Mark III**
Environmental conditions			
Temperature	°C	-10 to 60	-10 to 60
Humidity	%r.H.	10 to 90, non condensing	10 to 90, non condensing
Altitude	m	<2000	<2000
Accessories			
Set of Test leads (5m)		1	1
Power Cord		1	1
Optional Accessories			
Test leads Extension cable			
Length	m	10	10
Number of channels		4 (3PH+N)	4 (3PH+N)