Insulation tan delta and capacity meter

IPI-10

Description

IPI-10 is designed to measure the dielectric loss tangent $tg\delta$ and the capacity of high voltage insulation C when maintaining, repairing, setting-up, testing various power facilities both in the place of their installation and in laboratories, as well as to measure the dielectric loss tangent and the capacity of various insulating materials.

IPI-10 is a dual-band insulation parameters meter. IPI-10 provides the measurement of the dielectric loss tangent and the capacity.



Technical specification

Parameter	First band "INPUT-1"	Second band "INPUT-2"
Measurement range of tan delta 1)	from 5·10 ⁻⁴ to 0.3;	from 1·10 ⁻³ to 0.3;
Limit of permissible absolute basic error when measuring tan delta, for the full range of capacity measurement at a test voltage frequency of:		
50 Hz	$+(5\cdot10^{-4}+0.05\ \text{tg}\delta)$	$+(1\cdot10^{-3}+0.1 \text{ tg}\delta)$
54 Hz	$+(1\cdot10^{-3}+0.13\ \text{tg}\delta)$	Not standardized
Range of capacity measurement at a test voltage of:		
10 kV	from 25 pF to 30.000 pF;	from 30 000 pF to 1,5 106 pF;
5 kV	from 50 pF to 60 000 pF;	from 60 000 pF to 3 106 pF;
Limit of permissible basic error when measuring the capacity at a frequency of:		
50 Hz	+ (0,5 pF+0,03 Cx);	+ (2 pF+0,05 Cx);
54 Hz	+ (0.5 pF+0,04 Cx);	Not standardized
Range of operating voltage	from 1 to 10 kV	from 1 to 10 kV
Limit of permissible relative error when measuring the RMS voltage value at a frequency of:		
50 Hz	+3%	+3%
54 Hz	+3%	+3%
Current strength through the measurement object, A ²⁾	from 0 to 0,150	up to 5

^{1) —} the meter recalculates the dielectric loss tangent measured at a frequency of 54 Hz to a frequency of 50 Hz;



²⁾ – for reference only.