

HEXATECH	ENGINEERING SERVICES	Issue No.: 1	Document Effective Date: 01 Mar 2017	Page 1 of 1
	Calibration Measurement Accuracy Standards For Testers Table	Revision No.: 0		Document Ref.: ENG-REC-CMAS

**Instrument: Withstanding Voltage Tester / High Pressure Voltage Tester**

**1. AC Voltage Accuracy Test**

Range	Set Value (kV)	Required Accuracy (kV)	Remarks
		Operating Limits	
3 kV	0.50	Between 0.35 to 0.65	If the measured value is outside of the operating limits, adjustment has to be made to the required accuracy limits nearest to the 'Set Value'.
	1.00	Between 0.85 to 1.15	
	1.50	Between 1.35 to 1.65	
	2.00	Between 1.85 to 2.15	
	2.50	Between 2.35 to 2.65	
	3.00	Between 2.85 to 3.15	

**2. AC Cut-Off Current Accuracy Test**

Range	Setting Value (mA) 60 Hz	Applied Resistance	Required Accuracy (mA)	Remarks
			Operating Limits	
AC / 1000 V 0 - 10 mA	0.5	1 Mohm	Between 0.475 to 0.525	If the measured value is outside of the operating limits, adjustment has to be made to the required accuracy limits nearest to the 'Setting Value'.
	1	2 Mohm	Between 0.95 to 1.05	
	2	500 kohm	Between 1.90 to 2.10	
	5	200 kohm	Between 4.75 to 5.25	
	10	100 kohm	Between 9.50 to 10.50	

**Instrument: Insulation Resistance Tester / Megger Tester**

**1. Mohm Indications Accuracy Test**

Range	Indicated Value	Required Accuracy (Mohm)	Remarks
		Operating Limits for Applied Value	
0 Mohm to 1000 Mohm	0.5 Mohm	Between 0.45 to 0.55	If the measured 'Applied Value' is outside of the operating limits, adjustment has to be made to the required accuracy limits nearest to the 'Indicated Value'.
	1.0 Mohm	Between 0.95 to 1.05	
	2.0 Mohm	Between 1.90 to 2.10	
	5.0 Mohm	Between 4.75 to 5.25	
	10.0 Mohm	Between 9.5 to 10.5	
	20.0 Mohm	Between 19.0 to 21.0	
	50.0 Mohm	Between 47.5 to 52.2	
	100.0 Mohm	Between 95.0 to 105.0	
Range	Applied Value	Required Accuracy (Mohm)	Remarks
		Operating Limits for Indicated Value	
0 Mohm to 1000 Mohm	200 Mohm	Between 190 to 210	If the measured 'Indicated Value' is outside of the operating limits, adjustment has to be made to the required accuracy limits nearest to the 'Applied Value'.
	1000 Mohm	Between 900 to 1100	

**2. AC Voltage Accuracy Test**

Range	Indicated Value	Required Accuracy ( V )	Remarks
		Operating Limits	
0 V to 300 V	100 V	Between 70 to 130	If the measured value is outside of the operating limits, adjustment has to be made to the required accuracy limits nearest to the 'Indicated Value'.
	200 V	Between 170 to 230	
	300 V	Between 270 to 330	

**3. Test Voltage Check**

Range	Test Voltage	Required Accuracy ( V )	Remarks
		Operating Limit	
500 V	500 V	450-550V	If measured value differs from required operating limit value, corrections has to be annotated to the required 'Test Voltage'.