

**Calibration Charges: D 2.02, AC High Voltage & Current Metrology Section (w.e.f. 01.04.2023)**

**AC High Current, AC High Voltage, AC High Current Ratio, AC High Voltage Ratio, Voltage & Current Burden, Capacitance and Loss factor (Tan Delta), High Voltage Capacitor, HV Divider, kV Meter, etc.**

Sl. No.	Parameter	Item Type / Group	Item Name	Alias Name	Range	No. of Points for Calibration	Limitation / Condition	Calibration Charges per Item (Rs.)	Additional Charges (Rs.)	Description for Additional Charges	Remarks, if any
1	AC High Current Ratio	Current Transformer	Standard CT		Upto 1000 A	4	At 50 Hz	11400	8500	For each additional ratio & each additional burden	4 calibration points means 4 percentages of single ratio only i.e. Single ratio at 4 percentages i.e. at 5%, 20%, 100% and 120%. Tuning Charges extra @25%
2	AC High Current Ratio	Current Transformer	Standard CT		Above 1000 A upto 2500A	4	At 50 Hz	14100	11200	For each additional ratio & each additional burden	4 calibration points means 4 percentages of single ratio only i.e. Single ratio at 4 percentages i.e. at 5%, 20%, 100% and 120%. Tuning Charges extra @25%
3	AC High Current Ratio	Current Transformer	Standard CT		Above 2500A Upto 5000 A	4	At 50 Hz	22700	15100	For each additional ratio & each additional burden	4 calibration points means 4 percentages of single ratio only i.e. Single ratio at 4 percentages i.e. at 5%, 20%, 100% and 120%. Tuning Charges extra @25%
4	AC High Current Ratio	Current Transformer	Standard CT		Above 5000A Upto 10000 A	4	At 50 Hz	28300	19000	For each additional ratio & each additional burden	4 calibration points means 4 percentages of single ratio only i.e. Single ratio at 4 percentages i.e. at 5%, 20%, 100% and 120%. Tuning Charges extra @25%
5	AC High Current Ratio	C T Test Set, CT Bridge	CTTS (part of AITTS / ITTS), CT Bridge		5 A & 1 A	4	At 50 Hz	57000	31600	For each additional secondary Current	Upto 4 ratios for single secondary current.
6	AC High Voltage Ratio	Voltage Transformer	Standard PT/ Standard Capacitor with EPD		Upto 1 kV	3	At 50 Hz	13800	9100	For each additional ratio & each additional burden	3 calibration points means 3 percentages of single ratio only i.e. Single ratio calibration at 80%, 100% & 120%. Tuning Charges extra @25%
7	AC High Voltage Ratio	Voltage Transformer	Standard PT/ Standard Capacitor with EPD		Above 1 kV and upto 11 kV	3	At 50 Hz	19100	13300	For each additional ratio & each additional burden	3 calibration points means 3 percentages of single ratio only i.e. Single ratio calibration at 80%, 100% & 120%. Tuning Charges extra @25%
8	AC High Voltage Ratio	Voltage Transformer	Standard PT/ Standard Capacitor with EPD		Above 11 kV and upto 22 kV	3	At 50 Hz	28400	19100	For each additional ratio & each additional burden	3 calibration points means 3 percentages of single ratio only i.e. Single ratio calibration at 80%, 100% & 120%. Tuning Charges extra @25%
9	AC High Voltage Ratio	Voltage Transformer	Standard PT/ Standard Capacitor with EPD		Above 22kV and upto 33 kV	3	At 50 Hz	39200	29100	For each additional ratio & each additional burden	3 calibration points means 3 percentages of single ratio only i.e. Single ratio calibration at 80%, 100% & 120%. Tuning Charges extra @25%
10	AC High Voltage Ratio	Voltage Transformer	Standard PT/ Standard Capacitor with EPD		Above 33kV and upto 100 kV	3	At 50 Hz	97100	39300	For each additional ratio & each additional burden	3 calibration points means 3 percentages of single ratio only i.e. Single ratio calibration at 80%, 100% & 120%. Tuning Charges extra @25%

11	AC High Voltage Ratio	P T Test Set, PT Bridge	PTTS (part of AITTS / ITTS), PT Bridge		110 V & 110 V/sqrt(3)	3	At 50 Hz	57000	31600	For each additional secondary Voltage	Upto 3 ratios for single secondary voltage.
12	AC High Voltage	TLMS	TLMS		Upto 50 kV		At 50 Hz	86300	55900	For each additional phase	Tuning Charges extra @50%
13	AC High Voltage	TLMS	TLMS		Upto 100 kV		At 50 Hz	172500	91400	For each additional phase	Tuning Charges extra @50%
14	AC High Voltage	TLMS	TLMS		Upto 200 kV		At 50 Hz	253000	146000	For each additional phase	Tuning Charges extra @50%
15	AC High Current	Current Probe, kA Meter, AC High Current Source	Current Probe, kA Meter, AC High Current Source	Clamp Meter, Tong Tester	Upto 1000 A		At 50 Hz	20200	8500	For each additional range	upto 10 calibration points
16	AC High Current	Current Probe, kA Meter, AC High Current Source	Current Probe, kA Meter, AC High Current Source	Clamp Meter, Tong Tester	Upto 2500 A		At 50 Hz	28500	11200	For each additional range	upto 10 calibration points
17	AC High Current	Current Probe, kA Meter, AC High Current Source	Current Probe, kA Meter, AC High Current Source	Clamp Meter, Tong Tester	Upto 5000 A		At 50 Hz	45600	15200	For each additional range	upto 10 calibration points
18	AC High Voltage	H V Break-down Test Set/ AC High Voltage source	H V Tester		Upto 10 kV		At 50 Hz	34700			Single range and upto 10 calibration points.
19	AC High Voltage	H V Break-down Test Set/ AC High Voltage source	H V Tester		Upto 50 kV		At 50 Hz	57000	31600	For each additional range	Single range and upto 10 calibration points.
20	AC High Voltage	H V Break-down Test Set/ AC High Voltage source	H V Tester		Upto 100 kV		At 50 Hz	97000	39300	For each additional range	Single range and upto 10 calibration points.
21	AC High Voltage	H V Break-down Test Set/ AC High Voltage source	H V Tester		Upto 150 kV		At 50 Hz	132000	58400	For each additional range	Single range and upto 12 calibration points.
22	AC High Voltage	H V Break-down Test Set/ AC High Voltage source	H V Tester		Upto 200 kV		At 50 Hz	166000	77400	For each additional range	Single range and upto 15 calibration points.
23	AC High Voltage	Electrostatic Voltmeter, Kilo Volt Meter	Electrostatic Voltmeter, Kilo Volt Meter, HV Divider	kV Meter	Upto 50 kV		At 50 Hz	57000	31600	For each additional range	Single range and upto 10 calibration points. Tuning Charges extra @25%
24	AC High Voltage	Electrostatic Voltmeter, Kilo Volt Meter	Electrostatic Voltmeter, Kilo Volt Meter, HV Divider	kV Meter	upto 100 kV		At 50 Hz	97000	39300	For each additional range	Single range and upto 10 calibration points. Tuning Charges extra @25%
25	AC High Voltage	Electrostatic Voltmeter, Kilo Volt Meter	Electrostatic Voltmeter, Kilo Volt Meter, HV Divider	kV Meter	upto 150 kV		At 50 Hz	132000	58400	For each additional range	Single range and upto 12 calibration points. Tuning Charges extra @25%
26	AC High Voltage	Electrostatic Voltmeter, Kilo Volt Meter	Electrostatic Voltmeter, Kilo Volt Meter, HV Divider	kV Meter	upto 200 kV		At 50 Hz	166000	77400	For each additional range	Single range and upto 15 calibration points. Tuning Charges extra @25%
27	AC High Voltage	H V Probe	H V Probe		0 to 30 kV RMS		At 50 Hz	37950			upto 10 calibration points
28	Voltage Burden	Burden Box, Burden Meter	PT/VT Burden Box, VT Burden Meter		Upto 225 VA @0.8 PF and upto 18.5VA @UPF for 110V or 110V/sqrt(3)		At 50 Hz	37100	21200	For each additional voltage (110V or 110V/sqrt(3))	upto 10 calibration points
29	Current Burden	Burden Box, Burden Meter	C T Burden Box, CT Burden Meter		Upto 82.5 VA @0.8 PF and upto 8.5 VA @UPF for 5A or 1A		At 50 Hz	37100	21200	For each additional Current (1A or 5A)	upto 10 calibration points

30	Capacitance and Loss factor (Tan Delta)	High Voltage Capacitors and Tan Delta Bridge	C & Tan Delta Bridge/ Schering Bridge/ Transformer Arm Ratio Bridge		C= 10pF - 100μF, Tan Delta = 0.00001 to 0.1 (Subject to current limitation)		At 50 Hz	116600			100pF and 1000pF standard capacitors are available with CSIR-NPL. For other values of capacitors, customer need to provide the same.
31	High Voltage Capacitance	High Voltage Capacitors	High Voltage Capacitors		10pF - 100μF and upto 10 kV (Subject to current limitation)		At 50 Hz	19600			upto 10 calibration points
32	High Voltage Capacitance	High Voltage Capacitors	High Voltage Capacitors		10pF - 100μF and upto 30kV (Subject to current limitation)		At 50 Hz	38500			upto 10 calibration points
33	High Voltage Capacitance	High Voltage Capacitors	High Voltage Capacitors		10pF - 100μF and upto 100kV (Subject to current limitation)		At 50 Hz	97000			upto 10 calibration points
34	High Voltage Capacitance	High Voltage Capacitors	High Voltage Capacitors		10pF - 100μF and upto 150kV (Subject to current limitation)		At 50 Hz	132000			upto 12 calibration points
35	High Voltage Capacitance	High Voltage Capacitors	High Voltage Capacitors		10pF - 100μF and upto 200kV (Subject to current limitation)		At 50 Hz	166000			upto 15 calibration points
36	Tan Delta	High Voltage Capacitors	Tan Delta		Tan Delta upto 50kV (Subject to current limitation)		At 50 Hz	19600			upto 5 calibration points
37	Tan Delta	High Voltage Capacitors	Tan Delta		Tan Delta upto 100kV (Subject to current limitation)		At 50 Hz	28500			upto 10 calibration points
38	Tan Delta	High Voltage Capacitors	Tan Delta		Tan Delta upto 150kV (Subject to current limitation)		At 50 Hz	39600			upto 12 calibration points
39	Tan Delta	High Voltage Capacitors	Tan Delta		Tan Delta upto 200kV (Subject to current limitation)		At 50 Hz	47800			upto 15 calibration points