

Detail of Testing Activity : Electrical Testing

Centre Name: NTSC Howrah

S.No.	Sample Description	Test Details	Applicable Test Std.	NABL Accreditation	Duration of Test (hrs)	Test Charges (₹)	Applicable GST (₹)	Total(₹)	Remarks
			IS/ BS, etc.	Yes/ No					
	Test of Isolators/Switches as per IS (for 1-Phase & 3phase), HV Power Frequency Test (dry & wet), Dry Impulse Test, Millivolt Drop Test, Temperature Rise Test & MechanicalEndurance Test:-								
1	11 KV, Upto 400A		IS 9920/9921	yes	3-4 Days	19600	3528	23128	
2	11 KV, above 400A upto 630A		do	yes	3-4 Days	20200	3636	23836	
3	11 KV, above 630A upto 1250A		do	yes	3-4 Days	21200	3816	25016	
4	11 KV, above 1250A upto 1600 A		do	yes	3-4 Days	22000	3960	25960	
5	11 KV, above 1600A upto 2000A		do	yes	3-4 Days	23400	4212	27612	
6	22 KV, upto 400 A		do	yes	3-4 Days	21800	3924	25724	
7	22 KV, above 400A upto 630 A		do	yes	3-4 Days	22400	4032	26432	
8	22 KV, above 630A upto 1250 A		do	yes	3-4 Days	23300	4194	27494	
9	22 KV, above 1250A upto 1600 A		do	yes	3-4 Days	24200	4356	28556	
10	22 KV, above 1600A upto 2000 A		do	yes	3-4 Days	25600	4608	30208	
11	33 KV, upto 400 A		do	yes	3-4 Days	23900	4302	28202	
12	33 KV, above 400A upto 630 A		do	yes	3-4 Days	24600	4428	29028	
13	33 KV, above 630A upto 1250 A		do	yes	3-4 Days	25500	4590	30090	
14	33 KV, above 1250A upto 1600 A		do	yes	3-4 Days	26400	4752	31152	
15	33 KV, above 1600A upto 2000 A		do	yes	3-4 Days	27700	4986	32686	
16	11 KV, Upto 400A		do	yes	3-4 Days	48000	8640	56640	
17	11 KV, above 400A upto 630A		do	yes	3-4 Days	49300	8874	58174	
18	11 KV, above 630A upto 1250A		do	yes	3-4 Days	51100	9198	60298	
19	11 KV, above 1250A upto 1600 A		do	yes	3-4 Days	52900	9522	62422	
20	11 KV, above 1600A upto 2000A		do	yes	3-4 Days	55600	10008	65608	
21	22 KV, upto 400 A		do	yes	3-4 Days	53100	9558	62658	
22	22 KV, above 400A upto 630 A		do	yes	3-4 Days	54300	9774	64074	
23	22 KV, above 630A upto 1250 A		do	yes	3-4 Days	56100	10098	66198	
24	22 KV, above 1250A upto 1600 A		do	yes	3-4 Days	57900	10422	68322	
25	22 KV, above 1600A upto 2000 A		do	yes	3-4 Days	60600	10908	71508	
26	33 KV, upto 400 A			yes	3-4 Days	57400	10332	67732	
27	33 KV, above 400A upto 630 A			yes	3-4 Days	58600	10548	69148	
28	33 KV, above 630A upto 1250 A			yes	3-4 Days	60400	10872	71272	
29	33 KV, above 1250A upto 1600 A			yes	3-4 Days	62200	11196	73396	
30	33 KV, above 1600A upto 2000 A			yes	3-4 Days	64900	11682	76582	
	Test of Drop out Fuse/Horn Gap Fuse as per IS, (power Frequency Test-Dry & wet, Dry impulse Test, Temperature Rise Test, Temperature Rise Test - upto 630 A)								
1	11 KV upto 400 A		IS 9385	yes	2-3 Days	15600	2808	18408	
2	11 KV, above 400 A upto 630 A		do	yes	2-3 Days	16200	2916	19116	

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			IS/ BS, etc.	Yes/ No					
3		22KV, upto 400 A	do	yes	2-3 Days	16800	3024	19824	
4		22 KV, above 400A upto 630 A	do	yes	2-3 Days	17500	3150	20650	
5		33 KV, upto 400 A	do	yes	2-3 Days	18100	3258	21358	
6		33 KV, above 400A upto 630 A	do	yes	2-3 Days	18700	3366	22066	
7		11 KV upto 400 A	do	yes	2-3 Days	43300	7794	51094	
8		11 KV, above 400 A upto 630 A	do	yes	2-3 Days	44600	8028	52628	
9		22KV, upto 400 A	do	yes	2-3 Days	47400	8532	55932	
10		22 KV, above 400A upto 630 A	do	yes	2-3 Days	48700	8766	57466	
11		33 KV, upto 400 A	do	yes	2-3 Days	50900	9162	60062	
12		33 KV, above 400A upto 630 A	do	yes	2-3 Days	52100	9378	61478	
	Electrical Clamps/ Connector/Fitting/Switch/Isolator/Fuse/Breaker etc. As per IS/IEC/equiv:-								
		Temperature Rise Test							
1	for 1-ph	upto 400 A	IS 5561	yes	1 Day	2800	504	3304	
2		Above 400 A upto 630 A	do	yes		3500	630	4130	
3		Above 630 A upto 1250	do	yes		4500	810	5310	
4		Above 1250 A upto 1600	do	yes		5500	990	6490	
5		Above 1600 A upto 2000	do	yes		7000	1260	8260	
6		Above 2000 A upto 2500	do	yes		9000	1620	10620	
7		Above 2500 A upto 3200	do	yes		11000	1980	12980	
8	for 3 -ph	upto 400 A	IS 5561	yes	1 Day	5600	1008	6608	
9		Above 400 A upto 630 A	do	yes		7000	1260	8260	
10		Above 630 A upto 1250	do	yes		9000	1620	10620	
11		Above 1250 A upto 1600	do	yes		11000	1980	12980	
12		Above 1600 A upto 2000	do	yes		14000	2520	16520	
13		Above 2000 A upto 2500	do	yes		18000	3240	21240	
14		Above 2500 A upto 3200	do	yes		22000	3960	25960	
	Heat cycle test for Electrical Fitting and Connectots of Conductors (AAAc, ACSR etc.) consisting of two dead end clamps, midspan joint & Repair sleeve: (per extra fitting 25% extra charge will be applicable)- 250 cycles.								
1	i. Upto 630 A (ex. Upto panther or equ)			yes	18-25 Days	25000	4500	29500	
2	ii. Above 630 A upto 1000 A (ex upto or equ)		IS 2486-1	yes		30000	5400	35400	

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			IS/ BS, etc.	Yes/ No					
3	iii. Above 1000 A upto 1600 A			yes		35000	6300	41300	
4	11 KV post/pin/disc insulator	without F/O	IS 731/2544/5300	yes	3-4 Days	26700	4806	31506	
5	22 KV Post / Pin Insulator			yes		28500	5130	33630	
6	33 KV Post / Pin Insulator			yes		31200	5616	36816	
7	Shackle / equiv insulator			yes		12200	2196	14396	
8	Guy Insulator			yes		10300	1854	12154	
9	11 KV post/pin/disc insulator	with F/O	IS 731/2544/5300	yes	3-4 Days	40400	7272	47672	
10	22 KV Post / Pin Insulator			yes		44000	7920	51920	
11	33 KV Post / Pin Insulator			yes		47700	8586	56286	
12	Shackle / equiv insulator			yes		18500	3330	21830	
13	Guy Insulator			yes		16600	2988	19588	
14	11 kv GRADE (for single sample)	DRY POWER FREQUENCY TEST OF COMPOSITE INSULATOR	iec 62217/61109	yes	1 Day	22400	4032	26432	
15	22 kv GRADE (for single sample)			yes		26600	4788	31388	
16	33 kv GRADE (for single sample)			yes		32200	5796	37996	
17	11 KV 3-Phase circuit breaker	(Impulse test)	iec 62271-1/100/2	yes	1 Day	26000	4680	30680	
18	22 KV 3-Phase circuit breaker	(Impulse test)		yes		30000	5400	35400	
19	33 KV 3-Phase circuit breaker	(Impulse test)		yes		35000	6300	41300	
20	11 KV 3-Phase circuit breaker	(Dry PF test)		yes	1 Day	14000	2520	16520	
21	22 KV 3-Phase circuit breaker	(Dry PF test)		yes		16000	2880	18880	
22	33 KV 3-Phase circuit breaker	(Dry PF test)		yes		16000	2880	18880	
23	11 KV 3-Phase circuit breaker	(Wet PF test)		yes	1 Day	15000	2700	17700	
24	22 KV 3-Phase circuit breaker	(Wet PF test)		yes		18000	3240	21240	
25	33 KV 3-Phase circuit breaker	(Wet PF test)		yes		18000	3240	21240	
26	11 KV 3-Phase circuit breaker	Temperature rise test							
27		Upto 400 Amps	yes	15000	2700	17700			
28		Above 400 Amps upto 630 Amps	yes	17000	3060	20060			
28	Above 630 Amps upto 1250 Amps	yes	19000	3420	22420				

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			IS/ BS, etc.	Yes/ No					
29	11 KV 3 Phase circuit breaker	Above 1250 Amps upto 1600 Amps	IS 62271-1/100/2	yes	1 Day	21000	3780	24780	
30		Above 1600 Amps upto 2000 Amps		yes		23000	4140	27140	
31		Above 2000 Amps upto 2500 Amps		yes		26000	4680	30680	
32		Above 3200 Amps upto 4000 Amps		yes		29000	5220	34220	
33	12 KV Isolator/Switch	MECHANICAL ENDURANCE TEST	IS 9920/9921		1 Day	3000	540	3540	
34	24 KV Isolator/Switch			yes		4000	720	4720	
35	36 KV Isolator/Switch			yes		5000	900	5900	
36	72 KV Isolator/Switch			yes		6000	1080	7080	
37	145 KV Isolator			yes		6000	1080	7080	
38	245 KV Isolator			yes		7000	1260	8260	
39	420 KV Isolator			yes		7000	1260	8260	
40	Eart Switch			yes		2000	360	2360	
41	current Transformer	Temperature Rise of CT	IEC 61869-1/2		1 Day				
		Upto 630 Amps		yes		8000	1440	9440	
42		Above 630 Amps upto 1250 Amps		yes		9000	1620	10620	
43		Above 1250 Amps upto 1600 Amps		yes		10000	1800	11800	
44		Above 1600 Amps upto 20000 Amps		yes		12000	2160	14160	
45		Above 2000 Amps upto 2500 Amps		yes		15000	2700	17700	
46	Above 2500 Amps upto 3200 Amps	yes	18000	3240	21240				
	potential Transformer								
47	11 KV grade	(test voltage upto 15 KV)	IEC 61869-1/3	yes	1 Day	12500	2250	14750	
48	11 KV grade	(test voltage upto 22 KV)		yes		15000	2700	17700	
49	22 KV grade	(test voltage upto 30 KV)		yes		15000	2700	17700	
50	22 KV grade	(test voltage upto 45 KV)		yes		20000	3600	23600	
51	33 KV grade	(test voltage upto 45 KV)		yes		17500	3150	20650	
52	33 KV grade	(test voltage upto 65 KV)		yes		25000	4500	29500	
			NF C 33 041 : 98						

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			IS/ BS, etc.	Yes/ No					
53	IPC Connectors	Voltage test	NF C 33 004 : 98	yes	1 Day	1300	234	1534	
54		Connectivity test	NF C 33 020 : 98	yes	10-15 min	350	63	413	
55		Aging test (200 cycles w/o o/c pulse)	EN 50483-5 : 11	yes	35-40 days	50000	9000	59000	
56		Water tightness test	NF C 33 020 : 98	yes	1 Day	1000	180	1180	
57	Tests for Composite Insulator	Assembled core load time test	IEC 61109/62217	yes	5 days	16000	2880	18880	
58		Damage limit proof test		yes	5 days	16000	2880	18880	
59		Dry penetration test		yes	2-3 hrs	2000	360	2360	
60		Brittle fracture test		yes	5 days	12000	2160	14160	
Detail of Testing Activity : Mechanical Testing.					Centre Name: NTSC Howrah.				
S.No.	Sample Description	Test Details	Applicable Test Std.	NABL Accreditation	Duration of Test (hrs)	Test Charges (Rs.)	Applicable GST (Rs)	Total(Rs.)	Remarks
			IS/ BS, etc.	Yes/ No					
1	TMT Bar/Round Bar/Angle/Channel/Plate/Sheet/Pipe/Rivet	Freedom from Defects	IS:2062	Yes	--	550	99	649	
		Dimension Verifivation	IS:1786	Yes	--	500	90	590	
		Visual Examination	IS:1608	Yes	--	350	63	413	
		U T S of Test piece	IS:1755	Yes	30 min	500	90	590	
		U T S of TMT Bars/G.I. Wire/ P.A. Rod etc.	IS:1608	Yes	30 min	500	90	590	
		Yeild Stress	IS:23	Yes	30 min	350	63	413	
		Elongation / 1 % Extension Load	IS:1599	Yes	30 min	350	63	413	
		Bend Test / Re bend Test	IS:1500	Yes	30 min	500	90	590	
		Flattening Test		No	30 min	500	90	590	
		Shear Strength Test		No	30 min	500	90	590	
		Weight / Mass per meter.		Yes	30 min	350	63	413	
		Torque Test.		Yes	30 min	350	63	413	
		Drum Test		No	30 min	250	45	295	
		Torsion Test		Yes	30 min	350	63	413	
		2	Ferrous Sample	Hardness Test (Brinell / Rockwell)	IS:1586	No	30 min	500	90

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			IS/ BS, etc.	Yes/ No					
3	Ferrous Sample	Weight of Zinc Coating	IS:6745	Yes	30 min	250	45	295	
		Uniformity of Zinc Coating	IS:2633	Yes	30 min	250	45	295	
		Adhesion Test	IS:2629	Yes	30 min	250	45	295	
		Thickness of Zinc Coating	IS:6745	Yes	30 min	250	45	295	
4	Insulator	Single String Insulator disc	IS:731	Yes	30 min	3000	540	3540	
		Double String Insulator disc		Yes	1 Day	4000	720	4720	
		Single Insulator disc		Yes	1 Day	1200	216	1416	
		Tetra Insulator disc		Yes	15 min	4500	810	5310	
5	Stay wire/Earthwire/Hardware fittings/Insulator Pin/H.T.S. Wire	G.I stay Wire/Earth Wire/Hardware fitting for break Load/UTS/Slip Strength Test.	IS:12776	Yes	15 min	2500	450	2950	
		Hardware fittings for breaking Load upto 7	IS:2486	Yes	15 min	1200	216	1416	
		Hardware fittings for breaking Load above	IS:2486	Yes	15 min	1500	270	1770	
		Break Load of H.T.S. Wire etc	IS:2486	No	15 min	1000	180	1180	
		Mechanical Strength Test (24 Hours) for Ins	IS:731	Yes	1 Day	3000	540	3540	
		Mechanical Strength Test (Tensile Torsion	IS:2486	Yes	1 Day	3500	630	4130	
		Deflection Test for Insulator Pin	IS:2121	Yes	30 min	1500	270	1770	
		Stay Set (Rod) UTS	IS:2141	Yes	30 min	1500	270	1770	
		Resilience Test with Slip Strength Test (500 + 2	IS:2121	Yes	30 min	2500	450	2950	
		Slip Strength/Mechanical Load- Hardware	IS:2486	Yes	30 min	1000	180	1180	
6	Wire Rope/Chain Coupler	Proof Load (in SWL/PL depends on Shape &	IS:2266	No	15 min	75	13.5	88.5	
		Load Test for Coupler	IS:2750	Yes	30 min	1200	216	1416	
	Hook	Upto 1 Ton	IS:15560	Yes	15 min	50	9	59	
		Above 10 Ton & upto 25 Ton	IS:15560	Yes	15 min	50	9	59	
		Above 25 Ton & upto 50 Ton	IS:15560	Yes	15 min	50	9	59	
	Chain Pulley Block	Upto 5 Ton	IS:3238	Yes	15 min	250	45	295	
		Above 5 Ton & upto 7 Ton	IS:3238	Yes	15 min	300	54	354	
		Above 7 Ton & upto 9 Ton	IS:3238	Yes	15 min	350	63	413	
Above 9 Ton & upto 10 ton		IS:3238	Yes	15 min	450	81	531		
	Anchor	Proof Load upto 5 Ton	IS : 3270	No	15 min	100	18	118	

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			IS/ BS, etc.	Yes/ No					
7	Anchor	Proof Load above 5 Ton	IS : 3270	No	15 min	200	36	236	
Chemical Composition Test									
8	Ferrous & Non Ferrous	Ferrous & Non Ferrous (any single element)	IS:8811	Yes	30 min	150	27	177	
		Compl. Chemical Analysis & Purity Test	IS:11035	Yes	30 min	500	90	590	
		Compl. Chemical Analysis & Purity (Non-F	IS:11035	Yes	30 min	800	144	944	
9	AAC/ACSR/AAAC	Surface Condition	IS:398(Pt.-1)	Yes	30 min	1200	216	1416	
		U.T.S on complete conductor	IS:398(Pt.-2)	Yes	30 min	2500	450	2950	
		Stress - Strain Test on complete conductor	IS:398(Pt.-4)	Yes	1 Day	16000	2880	18880	
		Stress-Strain Test on steel core	IS:398(Pt.-5)	Yes	1 Day	8000	1440	9440	
		Measurement Dia of Individual AL & steel		Yes	15 min	500	90	590	
		Breaking Load of Individual Al & Steel Wire		Yes	30 min	2500	450	2950	
		Lay Ratio/Lay Length		Yes	15 min	750	135	885	
		Ductility Test		Yes	15 min	2500	450	2950	
		Wrapping Test		Yes	15 min	500	90	590	
		D.C. Resistance Test		Yes	15 min	5250	945	6195	
		Galvanizing Test		Yes	30 min	1000	180	1180	