

Laboratory Sri Daakshyaani Energy Solutions, D.No. 36-12-14A, 5A Classic Circle, Mogalrajpuram, Vijayawada, Andhra Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5506 (in lieu of T-4382)

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Validity 13.01.2017 to 12.01.2019

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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ELECTRICAL TESTING

<u>AT LABORATORY</u>				
I.	TRANSMISSION LINE EQUIPMENT AND ACCESSORIES			
1.	Current Transformers	Terminal marking	IS16227 (Part 2) IEC 61869-2 (Clause 6.13.201)	5A-2000A Primary, 1A & 5A Secondary
		Accuracy	IS16227 (Part 2) IEC 61869-2 (Clause 7.2.6.201)	5A-2000A Primary, 1A & 5A Secondary
2.	Voltage Transformers (Single Phase & Three Phase)	Terminal Markings	IS16227 (Part 3) IEC 61869-3 (Clause 6.13.301)	11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary
		Test for Accuracy	IS16227 (Part 3) IEC 61869-3 (Clause 7.2.6.301)	11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary
3.	Combined Transformer	Terminal Markings	IS16227 (Part 4) : 2015 & IEC 61869-4 : 2013, (Clause 6.13.401)	5A-2000A Primary, 1A & 5A Secondary 11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary

Mandeep Kumar
Convenor

N. Venkateswaran
Program Director

Laboratory

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Test for Accuracy	IS16227 (Part 4) : 2015 & IEC 61869-4 : 2013, (Clause 7.2.6.401) (Clause 7.2.6.402)	5A-2000A Primary, 1A & 5A Secondary 11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary
II.	MEASURING INSTRUMENTS - ELECTRICAL AND ELECTRONIC (STATIC) ENERGY METERS			
1.	A.C. Static Watt hour Meters & A.C. Static Transformer Operated Watt hour & Var-Hour Meters	Insulation Resistance	IS-13779(Clause 12.7.6.4) IS-14697(Clause 12.7.6.4) CBIP publication no.325 (Clause 5.4.6.4)	0.01M Ω to 1000M Ω 500V \pm 50V DC
		Initial start-up	IS-13779(Clause 11.4.1) IS-14697(Clause 11.4.1) CBIP publication no.325 (Clause 4.6.6.1)	40V - 300V
		No-load Condition	IS-13779 (Clause 12.13) IS-14697 (Clause 12.12) CBIP publication no.325 (Clause 5.6.4)	40V - 300V
		Starting Condition	IS-13779(Clause 11.5) IS-14697(Clause 11.5) CBIP publication no.325 (Clause 5.6.5)	40V - 300V 1mA -120 Amp., P.F. -1 to +1
		Power Consumption	IS-13779 (Clause 9.1) IS-14697(Clause 9.1) CBIP publication no.325 (Clause 4.4.1)	40V - 300V 5mA -120 Amp., P.F. -1 to +1 40 – 60 Hz

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		Limits of Error Due to Variation of the Current	IS-13779 (Clause 11.1) IS-14697 (Clause 11.1) CBIP publication no.325 (Clause 4.6.2)	40V - 300V 5mA -120 Amp., P.F. -1 to +1 40 – 60 Hz
		Limits of Error Due to Other Influence Quantities -Voltage variation -Frequency Variation	IS-13779 (Clause 11.2) IS-14697(Clause 11.2) CBIP publication no.325 (Clause 4.6.3)	40V - 300V 5mA -120 Amp. P.F. -1 to +1 40 – 60 Hz
		Test of Meter Constant/ Registration	IS-13779 (Clause 12.15) IS-14697(Claue 12.14) CBIP publication no.325 (Clause 5.6.6)	40V - 300V 5mA -120 Amp., P.F. -1 to +1 40 – 60 Hz
		Repeatability of Error	IS-13779 (Clause 12.17) IS-14697 (Clause 12.16) CBIP publication no.325 (Clause 4.6.1)	40V - 300V 5mA -120 Amp., P.F. -1 to +1 40 – 60 Hz

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ELECTRICAL TESTING

<u>AT SITE</u>				
I.	TRANSMISSION LINE EQUIPMENT AND ACCESSORIES			
1.	Current Transformer	Terminal Markings	IS16227 (Part 2) IEC 61869-2 (Clause 6.13.201)	5A-2000A Primary, 1A & 5A Secondary
		Test for Accuracy	IS16227 (Part 2) IEC 61869-2 (Clause 7.2.6.201)	5A-2000A Primary, 1A & 5A Secondary
2.	Voltage Transformer (Single Phase & Three Phase)	Terminal Marking	IS16227 (Part 3) IEC 61869-3 (Clause 6.13.301)	11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary
		Accuracy	IS16227 (Part 3) IEC 61869-3 (Clause 7.2.6.301)	11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary
3.	Combined Transformer	Terminal Marking	IS16227 (Part 4) IEC 61869-4 (Clause 6.13.401)	5A-2000A Primary, 1A & 5A Secondary 11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary

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		Accuracy	IS16227 (Part 4) IEC 61869-4 (Clause 7.2.6.401) (Clause 7.2.6.402)	5A-2000A Primary, 1A & 5A Secondary 11kV-11kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary 33kV-33kV/ $\sqrt{3}$ Primary 110V-110V/ $\sqrt{3}$ Secondary

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