



सत्यमेव जयते

TEST / CALIBRATION REPORT

TYPE TEST FOR
3 ½ DIGIT POWER PANEL METER



ELECTRONICS REGIONAL TEST LABORATORY (WEST)
MINISTRY OF COMMUNICATIONS & INFORMATION TECHNOLOGY, (STQC Dte.)

Government of India

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1. SCOPE

1.1 Service Request No : ERTL (W)/20042011 Dated: 6th Oct 04

1.1.1 Service Request finalised on : DT. 6th Oct 2004

1.2 Requested by
(Name and address of organisation) MECO INSTRUMENTS PVT. LTD.
301,BHARAT INDUSTRIAL ESTATE,
T.J.ROAD,SEWREE,
MUMBIA 400 015

<u>Description</u>	<u>Qty</u>	<u>Manufacturer</u>	<u>Type No.</u>	<u>Serial Nos.</u>
3 ½ DIGIT PANELMETER (POWER)	01	MECO INSTRUMENTS PVT. LTD	DWM9634	042401

1.4 Test specifications TYPE TESTING AS PER IS 13875

1.5 Lab Ambient Temperature: $(25 \pm 2)^\circ \text{C}$
RH : $(55 \pm 5) \%$

1.6 Test Equipment used :

1. POWER ENERGY CALIBRATOR	E&S/126
2.TEMP-HUMIDITY CHAMBER	ENV/42
3.VIBRATION MACHINE	ENV/62
4. SHOCK TEST MACHINE	ENV/11

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2.0 TEST RESULTS

Sr.No.	Test/Parameter	Test Condition	Requirement	Observation		Remark
				Std. value(kW)	Measured value(kW)	
2.1	Intrinsic Error Test	As per Cl. No. 4.2 at 1)230V,1A,PF=1 2)230V,5A,PF=1 3)230V,1A,PF=0.5 4)230V,5A,PF=0.5 (LEAD) 5)230V,5A,PF=0.5 (LAG)	Error shall be within ±0.5% of Full scale	1)34.502	34.4	Complied
				2)172.53	172.5	
				3)17.177	17.7	
				4)86.204	86.8	
				5)86.374	86.1	
2.2	Influence error Test	As per Cl. No. 4.3				
2.2.1	Error due to Change in Ambient Temperature	Temperature varied from a)0 deg. C. to b)50 deg. C. while other conditions at reference value	Deviation shall be 100% of error for a change of ± 10 deg.c	Std Value (kW)		Complied
				BR	BX	
2.2.2	Error due to Change in Relative Humidity	Relative Humidity varied from a)25%. to b) 80%RH while other conditions at reference value	Deviation shall be 100% of error	172.51	171.9	Complied
				at 230V,5A,PF=1		
2.2.3	Error due to Change in Position	The UUT is tilted till it get topple while other conditions at reference value	Deviation shall be 50% of error.	17.252	17.5	Complied
				at 230V,1A,PF=0.5		
2.2.3	Error due to Change in Position	The UUT is tilted till it get topple while other conditions at reference value	Deviation shall be 50% of error.	172.53	171.9	Complied
				at 230V,5A,PF=1		
2.2.3	Error due to Change in Position	The UUT is tilted till it get topple while other conditions at reference value	Deviation shall be 50% of error.	17.255	17.4	Complied
				at 230V,1A,PF=0.5		
2.2.3	Error due to Change in Position	The UUT is tilted till it get topple while other conditions at reference value	Deviation shall be 50% of error.	172.53	171.8	Complied
				at 230V,5A,PF=1		
2.2.3	Error due to Change in Position	The UUT is tilted till it get topple while other conditions at reference value	Deviation shall be 50% of error.	17.25	17.4	Complied
				at 230V,1A,PF=0.5		



BR= Reference Value BX=Influential value UUT=UNIT UNDER TEST

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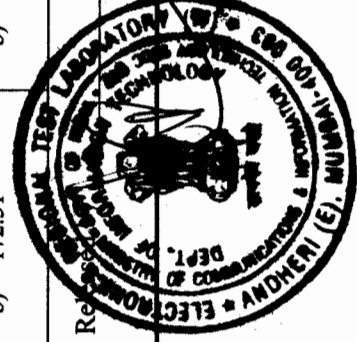
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2.0 TEST RESULTS (CONTINUED)

Sr.No.	Test/Parameter	Test Condition	Requirement	Observation	Remark
2.5	Mechanical Load	As per cl. No. 4.9			
2.5.1	Shock test	As per IS 9000 (part 7/sec.1) Pulse shape=Half sine wave Pulse duration=11 ms Peak acceleration= 147m/S ² No of shocks=18	No visual damage shall occur.	Conditioned	Complied
2.5.2	Intrinsic Error Test	a)230V AC,5 A,PF=1 b)230V AC,1A,PF=0.5	Error shall be within±0.5% of full scale	Std. Value (kW) a) 17.98 b) 180.01 Measured value(kW) a) 18.4 b) 180.2	Complied
2.6.1	Vibration test	As per IS 9000 (part 8) Amplitude=± 0.15 mm Frequency=10-55-10 Hz Rate=1 oct/min No of scan cycles 2 in each direction	No visual damage shall occur.	Conditioned	Complied
2.6.2	Intrinsic Error Test	a)230V AC,5 A,PF=1 b)230V AC,1A,PF=0.5	Error shall be within±0.5% of full scale	Std. Value (kW) a) 17.206 b) 172.51 Measured value(kW) a) 17.6 b) 172.6	Complied

BR= Reference Value BX=Influential value

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3.0 General Remarks :

- 3.1 The accuracy requirement as specified by customer.
- 3.2 Supply voltage and frequency variation tests are not applicable as UUT was self powered type.

REPORT APPROVED BY

REPORT RELEASED BY


HEAD (E&S)

