

Government of India
Ministry of Communications and Information Technology
Department of Information Technology, Standardisation Testing & Quality Certification Directorate
ELECTRONICS REGIONAL TEST LABORATORY (EAST)

TEST REPORT ON SOLAR PANEL

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1.0 SCOPE

1.1 Service Request No. : TE/0049/08-11
1.2 Test Report No. : ERTL(E)/TES/M277/0056/08-11
Date : 06/09/2011

1.3 Requested by : **MODERN SOLAR PRIVATE LIMITED**
(Name & Address of the organisation)
FALTA SEZ, PLOT NO. 47
SECTOR II
24 PARGONAS(S) NIL
WEST BENGAL

1.4 Description , Identification of the item to be tested

Item	:	SOLAR PANEL
Make	:	MODERN SOLAR PVT. LTD
Model	:	ENERGIA 75
Sl.No.	:	E075120511G003
Qty.	:	1

1.4.1 Applicable Spec.of the item(s) tested:

75 Wp

1.4.2 Characterisation and condition of the item

Characterisation	:	Not applicable /
Condition	:	Satisfactory /

1.5 Date of item receipt of item : 18/08/2011

1.6 Date of completion of testing : 05/09/2011

1.7 Location where testing performed : In house

1.8 Ambient condition during measurement : 25 +/- 1.5°C
70% RH. Max.

1.9 Spec. used for testing : MNRE SPECIFICATION

1.9.1 Details of non-standard method followed (if any) : NIL



Certificate No. : T0002

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TEST REPORT NO.	: ERTL (E) / TES / M 277 / 0056 / 08 - 11		
TEST REPORT ON	: SOLAR PHOTOVOLTAIC MODULE		
MAKE	: MODERN SOLAR PVT. LTD.	TEST ENGR.	DATE
MODEL / TYPE	: ENERGIA 75		
SERIAL NO.	: E075120511G003	<i>A. Biswas</i>	5-Sep-11
JOB NO.	: 0056 / TE / 08 - 11		

TEST RESULTS :

TEST NO.	TEST OR ENVIRONMENT	CLAUSE NO.	QUANTITY		SPECIFICATION LIMIT *	TEST RESULT	REMARKS
			TESTED	FAILED			
1	Power output (Wp) under Standard Test Condition (STC)		1	-	83.7 W (typ.)	88.698 W	
2	Open circuit voltage (Voc)		1	-	21.49 V (typ.)	21.961 V	
3	Peak voltage (V pk)		1	-	16.94 V (typ.)	17.519 V	
4	Short circuit current (Isc)		1	-	5.636 A (typ.)	5.711 A	
5	Peak current (I pk)		1	-	4.940 A (typ.)	5.063 A	
6	Fill Factor		1	-	Not Specified	70.7%	

Note: Specification as mentioned on the label at the back of the panel

A. Sin Biswas

Tested by :
(Test. Engr.)

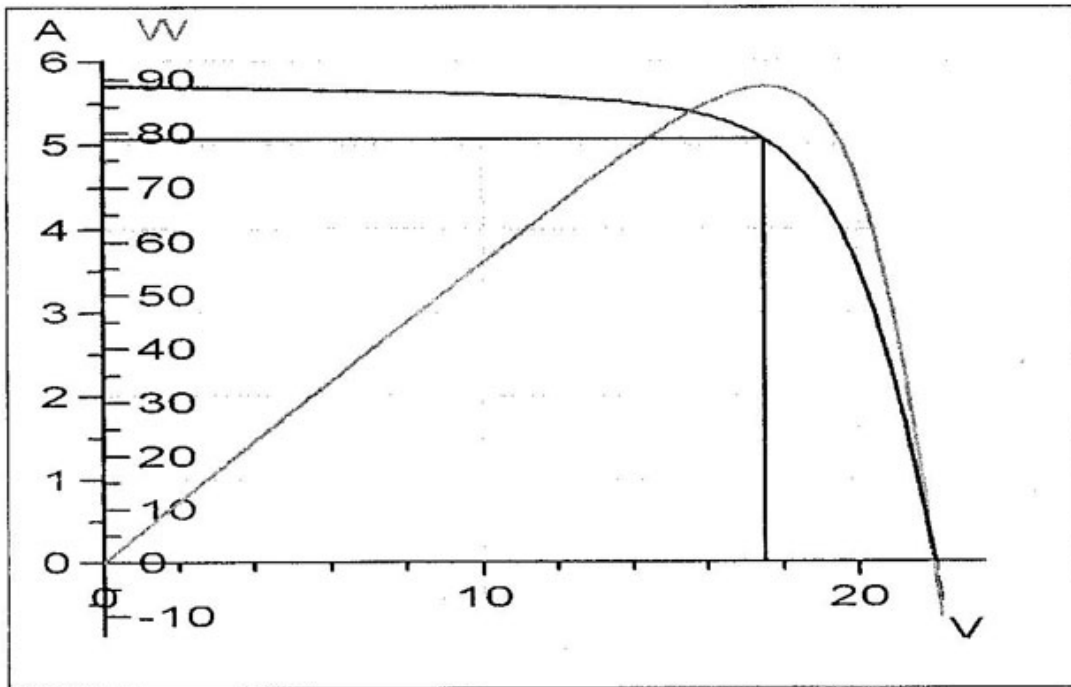
Amg
Checked By
K B Chowdhury
Scientist 'E'
(OIC Lab.)

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TE/0049/08-11

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Panel :	MODERN SOLAR
Type :	ENERGIA 75
Panel no :	1
Serial no :	E075120511G003
Date :	26-08-11
Mon. cell :	Poly+Th+filter - 10-0656-01
Sensitivity :	0.000077 mV
Act. Temp. :	25.0 °C
Result :	16

Temp. =	25.0 °C
Irrad. =	1.0 kW/m ²
Isc =	5.711 A
Voc =	21.961 V
Eff. =	15.3 %
FF =	70.7 %
MPP =	88.698 W
V@MPP =	17.519 V
I@MPP =	5.063 A
Rser. =	0.5 Ohm
Rsht =	110.1 Ohm
Ref Voltage	16.4 V
I Ref Voltage	5.298 A
P Ref Voltage	86.879 W

A. Sin Biswas

By

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 Date : 06/09/2011

3.0 Major Equipment used

EQPT_NO	NAME	MAKE	MODEL	CAL. VALID UPTO
1482	SUN SIMULATOR	PASAN	3C	23/11/2011

4.0 Remarks (if any)

NIL

RELEASED BY
 (signature & date)

Sonali
 20.9.11
SONALI JANA
 Scientist 'C'
 Electronics Regional Test Laboratory (East)
 STQC Directorate, Deptt of Info Technology
 Ministry of Comm. & Info Technology
 Kolkata-700 091