



**ELECTRONICS TEST AND DEVELOPMENT CENTRE**  
(STQC Directorate, Ministry of Information Technology, Govt. of India)  
100 feet Road, Peenya Industrial Estate, Bangalore - 560 058.  
(Tel.: 080 - 2839 4252, 4647, and 5992. Fax. : 080-2839 1804)

TEST REPORT NUMBER T - 60513/1

PAGE 01 OF 02

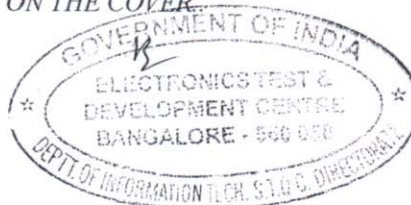
1. SCOPE.

1.	SERVICE REQUEST NUMBER	60513
2.	REQUESTED BY (NAME & ADDRESS OF THE ORGANIZATION)	M/s. WAAREE ENERGIES PVT. LTD., 231-236, SURAT SPECIAL ECONOMIC ZONE, DIAMOND PARK, SACHIN, SURAT-394230
3.	DESCRIPTION OF THE COMPONENTS:	
	a) NOMENCLATURE	PV MODULE
	b) MANUFACTURED BY	WAAREE
	c) MODEL / TYPE NO.	WE-5 / MULTI
	d) SERIAL NO.	WEAZY12091343
4.	DATE OF SUBMISSION OF SAMPLES	22 / 01 / 2010
5.	CONDITION OF ITEM ON RECEIPT	GOOD
6.	DATE OF COMPLETION OF TESTS	12 / 02 / 2010
7.	APPLICABLE TEST SPECIFICATION	AS PER IEC 60904-1
8.	TEST CATEGORY	PERFORMANCE TEST

2. MAJOR EQUIPMENTS USED :

SL. NO.	NOMENCLATURE	MAKE	MODEL	CAL. VALIDITY
1.	SUN SIMULATOR	SPIRE	240A	SEP 2010

THIS REPORT REFERS TO THE ITEM TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL..  
REFER TO INFORMATION CONTAINED ON THE COVER.





Test Details and Results.

I. MODULE DIMENSIONS

Cell Area : 18.72 Sq.cm  
Module area : 570 Sq.cm

II. GENERAL REQUIREMENTS

Item No.	Item	Requirement	Observation
1.	i. Terminal Box.	The terminal box on the module should have a provision for opening for replacing the cable, if required.	Provided.
	ii. Markings	A strip containing the following details should be laminated inside the module so as to be clearly visible from front side.  a. Name of the manufacturer.  b. Model or type no.  c. Serial no.	Provided.  WAAREE  WE-5 / MULTI  WEAZY12091343

III. PERFORMANCE TEST AT STC (Refer annexure A, for I-V CURVE details.)

**Pre-condition:** Light soaking under natural Sunlight for 7 days.

Voc in Volts	Isc In Amps	Pmax In Watts	Vmp In Volts	Imp In Amps	FF	Rs In Ohms	Rsh in Ohms	Vld In Volts	Ild In Amps	Pld In Watts	C.eff In %	M.eff In %
11.26	0.656	5.76	9.52	0.605	0.78	1.87	225.8	8.20	0.637	5.22	17.1	10.1

TESTED BY  
(B. JOBIN)  
DATE.....

*[Signature]*  
12/02/10

*[Signature]*

AUTHORISED SIGNATORY  
DATE...15.7.11

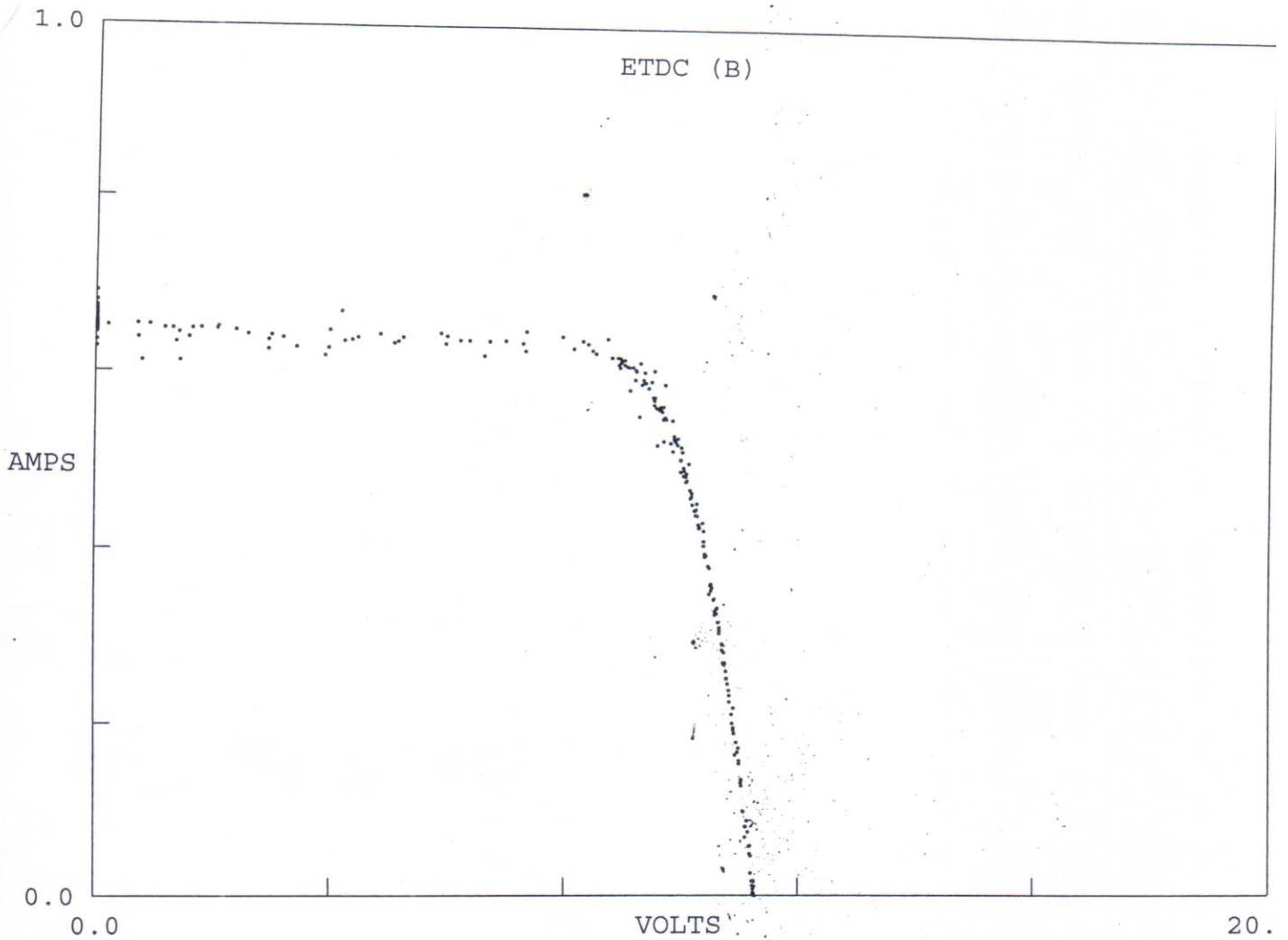
**B. SATHISH RAO**  
Director

ELECTRONICS TEST & DEVELOPMENT CENTRE  
Govt. Of India, STQC Directorate,  
Department of Information Technology  
BANGALORE - 560 058.

*[Signature]*  
16/2/10  
ISSUED BY  
DATE...

CO-ORDINATOR  
TESTING SERVICES,  
E.T.D.C., BANGALORE





(no filename)  
 ID # :12091343  
 11-02-2010, 18:12:19

Sun (mW/cm2) 100  
 Temp (degC) 25 , 25  
 Voc (Volts) 11.26  
 Isc (Amps) .656  
 Pmax (Watts) 5.76  
 Vmp (Volts) 9.52  
 Imp (Amps) .605  
 Fill Factor .78  
 Rs (Ohms) 1.87  
 Rsh (Ohms) 225.8  
 Cell Eff (%) 17.1  
 Vld (Volts) 8.20  
 Ild (Amps) .637  
 Pld (Watts) 5.22  
 Mod Eff (%) 10.1

12/02/10

GOVERNMENT OF INDIA  
 ELECTRONICS TEST &  
 DEVELOPMENT CENTRE  
 BANGALORE - 560 06  
 INFORMATION TECH. S.T.C. OFFICE