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LAB N° 0951

# TEST REPORT

No. AR 12 TEST 141

12/1057

Cat. 0

**Standard IEC 61215: 2005**

Crystalline silicon terrestrial photovoltaic (PV) modules design qualification and type approval

**Standard IEC 61730-2: 2004 + A1: 2011**

Photovoltaic (PV) modules safety qualification-Part 2: Requirements for testing

**DSH 0647A (Retest Guidelines for IEC 61215 and 61646)**

**DSH 770 (Retest Guidelines for IEC 61730-1/-2)**

Issued to:

**Premier Solar Systems Private Ltd**

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Secunderabad – 500015, AP, India

Sample/s description:

**Tested PV module type: PSS 305**

**Included Extended Types**

- see Annex 3 -

Test result: **Pass**

Annexes: 4

The test results indicated in this paper are exclusively referred to the described sample/s and in the specified conditions of measure. Any other extension of the results to other sample/s or other conditions of measure are to be considered outside to the scope of this document.

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**Annex 2: Statement of the estimated uncertainty of the test results**

The measurement uncertainties stated in this document have been determined according to EA-4/02. they were estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level about 95%. Normally, this factor k is 2.

10.6 Performance at STC = 1.52%

10.2 Maximum power determination = 3.0%

10.3 Insulation test / 10.15 Wet leakage current test: Resistance = 18.0%

Temperature = 0.66%

Humidity = 3.44%

Mass = 0.76%, Length = 0.58%

**Annex 3: The photovoltaic modules with the models**

Tested type	Cell number	Cell size [mm ±10mm]	Module size [mm]	Cell technology	Rated power [W]
PSS 305	72	156 x 156	1955x990x45	Monocrystalline	305

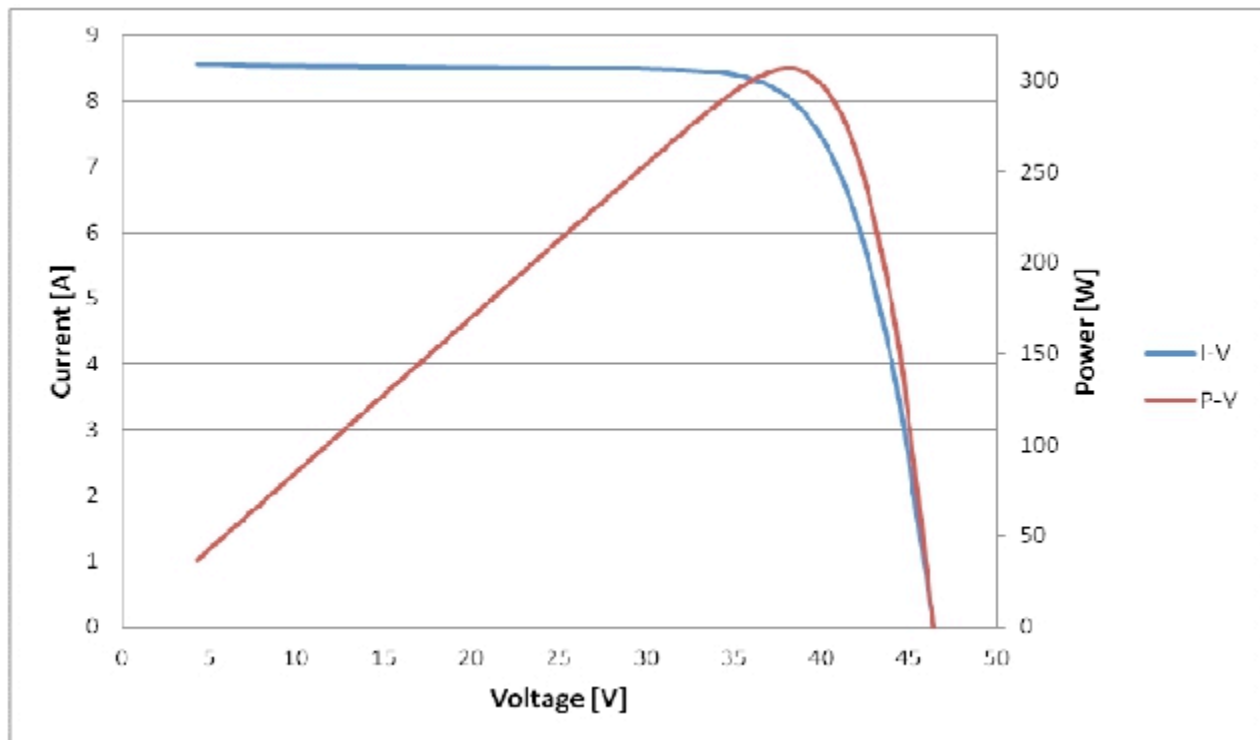
**\* Extended PV module type without need of re-testing:**

Type *	Cell number	Cell size [mm ±10mm]	Module size [mm]	Cell technology	Rated power [W]
PSS-0603	18	19X52	n/a	MONO	3
PSS-1205	36	19X52	n/a	MONO	5
PSS-1208	36	26X52	n/a	MONO	8
PSS-1210	36	31.2X52	n/a	MONO	10
PSS-1212	36	31.2X52	n/a	MONO	12
PSS-1215	36	52X52	n/a	MONO	15
PSS-1218	36	78X52	n/a	MONO	18
PSS-1220	36	78X52	n/a	MONO	20
PSS-1224	36	78X52	n/a	MONO	24
PSS-1225	36	78X52	n/a	MONO	25
PSS-1230	36	31.2X156	n/a	MONO	30
PSS-1235	36	39X156	n/a	MONO	35
PSS-1237	36	39X156	n/a	MONO	37
PSS-1240	36	46X156	n/a	MONO	40
PSS-1245	36	52X156	n/a	MONO	45
PSS-1250	36	52X156	n/a	MONO	50
PSS-1255	36	60x156	n/a	MONO	55
PSS-1260	36	63X156	n/a	MONO	60
PSS-1265	36	71X156	n/a	MONO	65
PSS-1270	36	78X156	n/a	MONO	70
PSS-1274	36	78X156	n/a	MONO	74
PSS-1275	36	78X156	n/a	MONO	75
PSS-1280	36	87X156	n/a	MONO	80
PSS-1285	36	94X156	n/a	MONO	85
PSS-1290	36	94X156	n/a	MONO	90
PSS-12100	36	110X156	n/a	MONO	100
PSS-12110	36	120X156	n/a	MONO	110
PSS-12120	36	130X156	n/a	MONO	120
PSS-12125	36	130X156	n/a	MONO	125
PSS-12130	36	142X156	n/a	MONO	130
PSS-12135	36	142X156	n/a	MONO	135
PSS-12140	36	156X156	n/a	MONO	140
PSS-12150	36	156X156	n/a	MONO	150
PSS-24140	72	78X156	n/a	MONO	140

Type *	Cell number	Cell size [mm ±10mm]	Module size [mm]	Cell technology	Rated power [W]
PSS-24150	72	78X156	n/a	MONO	150
PSS-24160	72	87X156	n/a	MONO	160
PSS-24165	72	90X156	n/a	MONO	165
PSS-24170	72	92X156	n/a	MONO	170
PSS-24175	72	92X156	n/a	MONO	175
PSS-24180	72	94X156	n/a	MONO	180
PSS-24185	72	100X156	n/a	MONO	185
PSS-24190	72	103X156	n/a	MONO	190
PSS-24200	72	108X156	n/a	MONO	200
PSS-24210	72	115X156	n/a	MONO	210
PSS-24215	72	117X156	n/a	MONO	215
PSS-24225	72	122X156	n/a	MONO	225
PSS-200	48	156X156	n/a	MONO	200
PSS-205	48	156X156	n/a	MONO	205
PSS-210	48	156X156	n/a	MONO	210
PSS-215	48	156X156	n/a	MONO	215
PSS-220	48	156X156	n/a	MONO	220
PSS-225	60	156X156	n/a	MONO	225
PSS-230	60	156X156	n/a	MONO	230
PSS-235	60	156X156	n/a	MONO	235
PSS-240	60	156X156	n/a	MONO	240
PSS-245	60	156X156	n/a	MONO	245
PSS-250	60	156X156	n/a	MONO	250
PSS-255	60	156X156	n/a	MONO	255
PSS-260	60	156X156	n/a	MONO	260
PSS-265	60	156X156	n/a	MONO	265
PSS-270	60	156X156	n/a	MONO	270
PSS-275	60	156X156	n/a	MONO	275
PSS-24250	72	128X156	n/a	MONO	250
PSS-24260	72	132X156	n/a	MONO	260
PSS-24265	72	132X156	n/a	MONO	265
PSS-24270	72	156X156	n/a	MONO	270
PSS-24275	72	156X156	n/a	MONO	275
PSS-24280	72	156X156	n/a	MONO	280
PSS-24285	72	156X156	n/a	MONO	285
PSS-24290	72	156X156	n/a	MONO	290
PSS-24295	72	156X156	n/a	MONO	295
PSS-24300	72	156X156	n/a	MONO	300
PSS-24305	72	156X156	n/a	MONO	305
PSS-24310	72	156X156	n/a	MONO	310
PSS-24315	72	156X156	n/a	MONO	315
PSS-24320	72	156X156	n/a	MONO	320
PSS-24325	72	156X156	n/a	MONO	325
PSS-24330	72	156X156	n/a	MONO	330
PSS-24335	72	156X156	n/a	MONO	335



## Annex 4: I-V and P-V charts at different irradiance levels and temperature

Figure 11: sample # 2012363. Irradiance = 974 W/m<sup>2</sup>, Module temperature = 19.5°C.