







## Test sample description

The sample consists of three polycrystalline photovoltaic modules and three monocrystalline photovoltaic modules.

## Test samples supplier

WIN SOLAR INC.  
 UL. Slavyanska,22, 1000 Sofia, Bulgaria  
 +359 877197867

## Testing period

The performed test started on 2014-05-19 and finished on 2014-07-08.

The tests have been performed at AT4 wireless.

## Environmental conditions

Date	Max. Temp. (°C)	Min. Temp. (°C)	Max. Hum. (% RH)	Min. Hum. (% RH)	Max. Pressure (mbar)	Min. Pressure (mbar)	Limit (% RH)
2014-05-30	23.04	23.04	48.49	48.49	---	---	< 70.00
2014-06-05	23.24	22.78	48.62	48.18	---	---	
2014-07-08	24.09	23.32	45.02	42.65	---	---	

## Summary

NOTE: The results presented in this Test Report apply only to the particular item under test established in page 1 of this document, as presented for test on the date(s) shown in section, “USAGE OF SAMPLES, TESTING PERIOD AND ENVIRONMENTAL CONDITIONS”.

## Modifications to the reference test report

It was introduced the following modifications in respect to the test report number 41988RER.007 related with the same samples, in the next clauses and sub-clauses:

Clauses / Sub-clauses	Modification	Justification
First page (Model and /or type reference)	Replace WNS-XXX, and WNS-XXX by WNS-xxxWp, and WNS-xxxWp	Erratum

This modification test report cancels and replaces the test report 41988RER.007.

## Remarks and comments

Smaller representative samples specially designed and manufactured have been testing. The representative tested samples are identical as full size ones according to the fabrication process.

All measurements of maximum power determination are performed with the flasher.

## Personnel

These test have been performed by:

Antonio Manuel Rodríguez Cuevas

## Instruments used

( )	0031	DIGITAL CALIBER	( )	3389	WOODEN SHEET
( )	0055	HIGH VOLTAGE PROBE	( )	3390	COTTON CLOTH
( )	0073	DC POWER SUPPLY	( )	3391	CONDUCTOR GLUE
( )	0170	DIELECTRIC STRENGTH METER	( )	3392	IMPACT STRUCTURE
(X)	0171	HIGH RESISTENCE METER	( )	3449	WHITE ABSORBENT PAPER
( )	0172	LOW RESISTANCE METER	(X)	3456	TEMPERATURE-HUMIDITY PROBE
( )	0174	HYDRA DATALOGGER	( )	3480	SOFTWARE TONC
(X)	0353	CLIMATIC CHAMBER HC 7055	( )	3492	POWER SUPPLY DC
(X)	0352	CLIMATIC CHAMBER HSA1000	( )	3493	ULTRAVIOLET PROBE
( )	0434	TEST FINGER	( )	3494	ULTRAVIOLET PROBE
( )	0503	N-HEXANE	( )	3495	DATALOGGER
( )	0505	ELECTRONIC SCALE	( )	3499	ELECTRONIC LOAD
( )	0515	TAPE MEASURE	( )	3531	POWER SUPPLY DC
( )	0938	CLIMATIC CHAMBER	( )	3532	POWER SUPPLY DC
( )	0939	CLIMATIC CHAMBER	( )	3533	POWER SUPPLY DC
(X)	1354	POWER SUPPLY DC	( )	3542	PYRANOMETER
( )	1370	HYDRA DATALOGGER	( )	3543	PYRHELIOMETER
( )	1378	MICROMETER	( )	3548	TEMPERATURE-HUMIDITY PROBE
( )	1424	HIGH VOLTAGE IMPULSE GENERATOR	( )	3549	BAND PASS FILTER
( )	1558	POWER SUPPLY DC	( )	3569	UV DOSEMETER
( )	1560	HYBRID REGISTER	( )	3570	ULTRAVIOLET CHAMBER
( )	1717	ELECTRIC SECURITY SISTEM	( )	3577	PRESSURE PROBE
( )	1754	DATALOGGER	( )	3578	PRESSURE PROBE
( )	1870	LOW RESISTANCE METER	( )	3627	PIPETTE
( )	1910	POWER SUPPLY DC	( )	3639	REFERENCE SOLAR CELL
( )	1998	CLIMATIC CHAMBER CTS C70/600	( )	3640	REFERENCE SOLAR CELL
( )	2159	CLIMATIC CHAMBER VC 060	( )	3653	POWER SUPPLY DC
(X)	2286	MULTIMETER DIGITAL	( )	3654	POWER SUPPLY DC
( )	2287	THERMOCOUPLE TYPE K FLUKE 87	( )	3655	POWER SUPPLY DC
( )	2316	POWER SUPPLY DC	( )	3656	POWER SUPPLY DC
( )	2376	THERMOGRAFIC CAMERA	( )	3660	SUN TRACKER
( )	2499	ANEMOMETER	( )	3748	POWER SUPPLY DC

( )	2590	CURRENT CLAMP	( )	3749	POWER SUPPLY DC
( )	2619	CALIBER	( )	3750	PYRANOMETER
( )	2990	HAIL LAUNCHER CRHONOMETER	( )	3751	ANEMOMETER
( )	2991	HAIL LAUNCHER	(X)	3755	ELECTRIC SECURITY SISTEM
( )	2992	CURVE I-V TRACER	( )	3784	FILTER 200 W/M <sup>2</sup>
( )	2993	REFERENCE CELL	( )	3785	FILTER 30%
( )	3011	UV DOSEMETER	( )	3786	FILTER 40%
( )	3012	VISIBLE DOSEMETER	( )	3787	FILTER 50%
( )	3017	POWER SUPPLY DC	( )	3794	CRHONOMETER
( )	3019	REFERENCE PLATE	( )	3795	DIGITAL THERMOMETER
( )	3020	OPAQUE SHADOWER	( )	3801	THERMOCOUPLE TYPE T
( )	3024	ANEMOMETER	( )	3802	CURVE I-V TRACER
( )	3025	WEATHER VANE	( )	3803	REFERENCE SOLAR CELL
( )	3026	THERMOHIGROMETER	( )	3804	REFERENCE SOLAR CELL
( )	3027	DATALOGGER	( )	3805	DIGITAL THERMOMETER
( )	3028	PYRANOMETER	( )	3806	INMMERSION TEMPERATURE PROBE
( )	3029	WEATHER ESTATION	( )	3807	CLAMP AMMETER
( )	3031	BLACK SHEET	( )	3829	PYRHELIOMETER MONITOR
( )	3032	PYRANOMETER	( )	3834	SCALES 50 G CLASS F2
( )	3033	ULTRAVIOLET PROBE	( )	3845	THERMOCOUPLE TYPE K
( )	3034	ULTRAVIOLET PROBE	( )	3846	THERMOCOUPLE TYPE K
( )	3035	REFERENCE TOOL	( )	3850	CHRONOMETER
( )	3036	PRECONDITIONING TOOL	( )	3859	THERMOCOUPLE TYPE T
( )	3037	MECHANIC LOAD TOOL	(X)	3863	REFERENCE SOLAR CELL
( )	3038	BATHE	( )	3866	DIGITAL MULTIMETER
(X)	3039	TUNNEL	( )	3867	WATER SPRAY
( )	3055	CLIMATIC CHAMBER	( )	3872	TELESCOPIC METER
( )	3194	POWER SUPPLY DC	( )	3887	CURVE I-V TRACER JUNCTION BOX
( )	3203	ULTRAVIOLET CHAMBER	( )	3888	CURVE I-V TRACER SWITCH
(X)	3204	SUN SIMULADOR	( )	3891	MECHANIC LOAD
( )	3205	REFERENCE SOLAR CELL	( )	3893	DOSEMETER
( )	3206	REFERENCE SOLAR CELL	( )	3899	PIPES BENT DEVICE
( )	3207	CLIMATIC CHAMBER	( )	3908	WOODEN SHEET
( )	3208	CLIMATIC CHAMBER	( )	3909	PEEL TEST TOOL
( )	3209	WET SOLUTION	( )	3912	GLYCERIN GAUGE 0-1 BAR
( )	3212	RESISTANCES BANK	( )	3913	GLYCERIN GAUGE 0-1 BAR
( )	3213	POWER SUPPLY DC	( )	3914	GLYCERIN GAUGE 0-1 BAR
(X)	3214	POWER SUPPLY DC	( )	3915	GLYCERIN GAUGE 0-1 BAR
( )	3215	POWER SUPPLY DC	( )	3922	AIR MASS CALCULATOR
( )	3216	POWER SUPPLY DC	( )	3937	DOSEMETER
( )	3265	ELECTRONIC BALANCE	(X)	3938	REFERENCE SOLAR CELL
( )	3272	VISUAL INSPECTION TABLE	( )	3947	TOLUENE QP
( )	3295	POWER SUPPLY DC	( )	3948	ANTIOXIDANT BHT
( )	3297	POWER SUPPLY DC	( )	3950	SILICA GEL
(X)	3299	TEMPERATURE TUNEL CONTROLLER	( )	3951	DRYER
( )	3313	SEMIFLEXIBLE METALLIC METER	( )	3953	ERLENMEYER FLASK

( ) 3320	ELECTROLUMINESCENCE CAMERA	( ) 3954	GLASS CLAMP
( ) 3334	CALIBER	( ) 3955	FILTER PAPER FOR DRYER
( ) 3355	TEMPERATURE-HUMIDITY PROBE	( ) 3956	250 ML GLASS
( ) 3364	HAIL DIAMETER TESTER	( ) 3957	WEIGHT FILTER
( ) 3367	REFERENCE SOLAR CELL	( ) 3958	FUNNEL
( ) 3368	REFERENCE SOLAR CELL	( ) 3998	MECHANIC LOAD CALIBRATION KIT
( ) 3386	COPPER SHEET	( ) 4008	TEMPERATURE REGISTER
( ) 3387	SCRATCH EQUIPMENT	( ) 4055	SOFTWARE SOLAR TESTER

## Details: Test object vs. test requirements

Sample.....	: 41988/37, /38 and /41	41988/32, /35 and /36
Connection type .....	: Polarized connector	Polarized connector
Dimensions(mm).....	: 505x505x38	505x505x38
Equipment weight (kg).....	: ---	---
Cells No .....	: 4	4
Cell technology .....	: Polycrystalline	Monocrystalline
Electrical characteristics – Pmax (W). .....	: Not provided	Not provided
Electrical characteristics – Imax (A). .....	: Not provided	Not provided
Electrical characteristics – Vmax (V). .....	: Not provided	Not provided
Electrical characteristics – Isc (A). .....	: Not provided	Not provided
Electrical characteristics – Voc (V). .....	: Not provided	Not provided
Current temperature coefficient $\alpha$ .....	: Not provided	Not provided
Voltage temperature coefficient $\beta$ .....	: Not provided	Not provided
Power temperature coefficient $\delta$ .....	: Not provided	Not provided
Maximum system voltage (V) .....	: 1000	1000
Serial/parallel configuration.....	: Serial	Serial
Bypass diode characteristics and number.....	: Diotec SBX 3040 /1	Diotec SBX 3040 /1
Reverse current protection (A).....	: Not provided	Not provided
Ingress protection .....	: IP65	IP65

Note: Data provided by the test supplier

## Testing verdicts

<b>Not applicable</b> .....	: N/A
<b>Pass</b> .....	: P
<b>Fail</b> .....	: F
<b>Not measured</b> .....	: N/M

## Material list

Material	Mark	Model	Approval	Approval number
Cell ( Sample 41988/32, /35, /36)	T-SEC	TSS63TN	Not provided	Not provided
Cell (Sample 41988/37, /38, /41)	Unitech	UT6M	Not provided	Not provided
Front Cover	Interfloat	SINA	Not provided	Not provided
Encapsulant	EVASA	FC300033E/A-PF	Not provided	Not provided
Rear Cover	COVEME	DYMATPYE	Not provided	Not provided
Internal wiring, Ribbon	Ulbrich	2 x 0.15 Sn62Pb36Ag2	Not provided	Not provided
Internal wiring, Busbar	Ulbrich	5 x 0.3 Sn62Pb36Ag2	Not provided	Not provided
Adhesive ( Frame )	Lohmann	Duplocoll 57005	Not provided	Not provided
Adhesive (Junction box )	Dow Corning	PV-804	Not provided	Not provided
Flux	Kester	952S	Not provided	Not provided
Tape	PPI	1040W	Not provided	Not provided
Connectors	MC	MC4	Not provided	Not provided
Cables	MC Flex-Sol	PVI-F 4mm2	Not provided	Not provided
Junction box	MC	PV-JB/WL-V	Not provided	Not provided
Diodes	Diotec	SBX3040	Not provided	Not provided
Frame	Marioli	MP9913	Not provided	Not provided

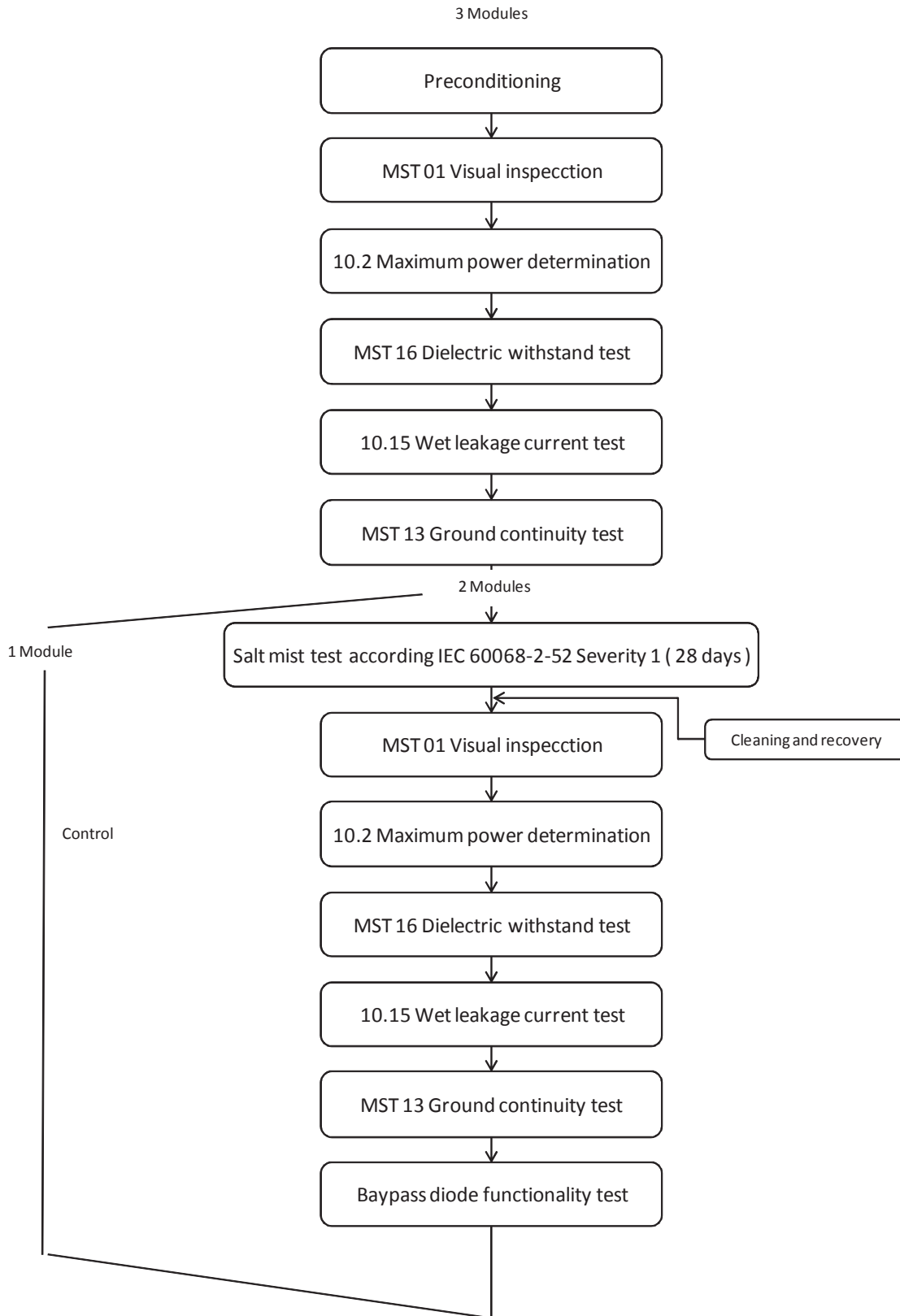




## Appendix A – Test result

IEC 61701			
Chapter	Requirement – Test	Results – Comment	Verdict
4.2	BYPASS DIODE FUNCTIONALITY TEST	See table 4.2	P
5	PRECONDITIONING	See table 5	P
6	INITIAL MEASUREMENTS		P
	Test	See table 6	P
7	SALT MIST TEST PROCEDURE		P
	Test	See table 7	P
8	CLEANING AND RECOVERY		P
9	FINAL MEASUREMENTS		P
	Test	See table 9	P
10	REQUIREMENTS	See table 10	P

**QUALIFICATION TEST SEQUENCE**



5.	TEST. Preconditioning			P
Module identification	Exposure Real/simulated	Received dose (kWh m <sup>-2</sup> )	Comments	
41988/32	Real	5.34	From 2014-05-19 to 2014-05-20	
41988/35	Real	5.34	From 2014-05-19 to 2014-05-20	
41988/36	Real	5.34	From 2014-05-19 to 2014-05-20	
41988/37	Real	5.34	From 2014-05-19 to 2014-05-20	
41988/38	Real	5.34	From 2014-05-19 to 2014-05-20	
41988/41	Real	5.34	From 2014-05-19 to 2014-05-20	
Additional information				
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6.	VISUAL INSPECTION MST 01					N/M
Module identification	Requirement a) Section 7	Requirement b) Section 7	Requirement c) Section 7	Requirement d) Section 7	Requirement e) Section 7	
41988/32	P	P	P	P	P	
41988/35	P	P	P	P	P	
41988/36	P	P	P	P	P	
41988/37	P	P	P	P	P	
41988/38	P	P	P	P	P	
41988/41	P	P	P	P	P	
Additional information						
Marking and warning label has not been supplied by the manufacturer.						

6.	TEST. Maximum power determination.					P
Module identification	Isc(A)	Voc(V)	Vmax(V)	Imax(A)	Maximum power (W)	
41988/32	8.42	2.47	1.78	7.73	13.74	
41988/35	8.85	2.46	1.73	8.08	14.02	
41988/36	8.73	2.44	1.73	7.97	13.78	
41988/37	8.75	2.46	1.75	8.05	14.07	
41988/38	8.79	2.46	1.74	8.00	13.95	
41988/41	8.65	2.47	1.77	7.78	13.80	
Additional information						
The power uncertainty is $\pm 4.30$ W.						

6.		TABLE: Dielectric strength test MST 16		P
Module identification	Test voltage between:	Test voltage (V dc)	Breakdown Yes/No	
41988/32	Output terminals and metallic part	6000	No	
41988/32	Output terminals and back part	6000	No	
41988/32	Output terminals and front part	6000	No	
41988/35	Output terminals and metallic part	6000	No	
41988/35	Output terminals and back part	6000	No	
41988/35	Output terminals and front part	6000	No	
41988/36	Output terminals and metallic part	6000	No	
41988/36	Output terminals and back part	6000	No	
41988/36	Output terminals and front part	6000	No	
41988/37	Output terminals and metallic part	6000	No	
41988/37	Output terminals and back part	6000	No	
41988/37	Output terminals and front part	6000	No	
41988/38	Output terminals and metallic part	6000	No	
41988/38	Output terminals and back part	6000	No	
41988/38	Output terminals and front part	6000	No	
41988/41	Output terminals and metallic part	6000	No	
41988/41	Output terminals and back part	6000	No	
41988/41	Output terminals and front part	6000	No	
Relative humidity (%).....		49 % < 75 %		
Additional information				
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6.		TABLE: Insulation resistance test MST 16			P
Module identification	Insulation	Module area (m <sup>2</sup> )	Minimum value (MΩ)	Measured value (GΩ)	
41988/32	Output terminals and metallic part	0.25	156.85	12.74	
41988/32	Output terminals and back part	0.25	156.85	12.74	
41988/32	Output terminals and front part	0.25	156.85	12.74	
41988/35	Output terminals and metallic part	0.25	156.85	21.00	
41988/35	Output terminals and back part	0.25	156.85	21.00	
41988/35	Output terminals and front part	0.25	156.85	21.00	
41988/36	Output terminals and metallic part	0.25	156.85	13.72	
41988/36	Output terminals and back part	0.25	156.85	13.72	
41988/36	Output terminals and front part	0.25	156.85	13.72	
41988/37	Output terminals and metallic part	0.25	156.85	23.72	
41988/37	Output terminals and back part	0.25	156.85	23.72	
41988/37	Output terminals and front part	0.25	156.85	23.72	

41988/38	Output terminals and metallic part	0.25	156.85	31.37
41988/38	Output terminals and back part	0.25	156.85	31.37
41988/38	Output terminals and front part	0.25	156.85	31.37
41988/41	Output terminals and metallic part	0.25	156.85	10.38
41988/41	Output terminals and back part	0.25	156.85	10.38
41988/41	Output terminals and front part	0.25	156.85	10.38
Relative humidity (%).....		49 % < 75 %		
Additional information				
The maximum resistance uncertainty is ± 1.05%.				

6.	TABLE: Dielectric strength test–Wet module			P
Module identification	Test voltage between:	Test voltage(V dc)	Breakdown Yes/No	
41988/32	Output terminals and wetting agent solution	1000	No	
41988/35	Output terminals and wetting agent solution	1000	No	
41988/36	Output terminals and wetting agent solution	1000	No	
41988/37	Output terminals and wetting agent solution	1000	No	
41988/38	Output terminals and wetting agent solution	1000	No	
41988/41	Output terminals and wetting agent solution	1000	No	
Additional information				
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6.	TABLE: Insulation resistance test –Wet module			P
Module identification	Insulation	Module area(m <sup>2</sup> )	Minimum value (MΩ)	Measured value (GΩ)
41988/32	Output terminals and wetting agent solution	0.25	156.85	9.31
41988/35	Output terminals and wetting agent solution	0.25	156.85	4.36
41988/36	Output terminals and wetting agent solution	0.25	156.85	3.60
41988/37	Output terminals and wetting agent solution	0.25	156.85	10.00
41988/38	Output terminals and wetting agent solution	0.25	156.85	11.02
41988/41	Output terminals and wetting agent solution	0.25	156.85	4.12
Additional information				
The maximum resistance uncertainty is ± 1.13%.				

6.		TABLE: Ground continuity test MST 13			P
Module identification	Resistance between	Applied current (A)	Test voltage (V)	Resistance (mΩ)	
41988/32	Protective earth and point 1	30	0.5	16	
41988/32	Protective earth and point 2	30	0.7	20	
41988/35	Protective earth and point 1	30	0.4	15	
41988/35	Protective earth and point 2	30	0.4	16	
41988/36	Protective earth and point 1	30	0.5	15	
41988/36	Protective earth and point 2	30	0.5	17	
41988/37	Protective earth and point 1	30	0.6	18	
41988/37	Protective earth and point 2	30	0.5	18	
41988/38	Protective earth and point 1	30	0.5	16	
41988/38	Protective earth and point 2	30	0.5	15	
41988/41	Protective earth and point 1	30	0.5	15	
41988/41	Protective earth and point 2	30	0.5	16	
Relative humidity (%). .....		49 % < 75 %			
Additional information					
Point 1: Test point opposite to protective earth terminal					
Point 2: Test point farthest from protective earth terminal.					

7.		TEST PROCEDURE			P
Module identification	Number of cycles	Severity	Sample inclination		
41988/35	4	1	15°		
41988/36	4	1	15°		
41988/38	4	1	15°		
41988/41	4	1	15°		
Additional information					
The sample 41988/32 an 41988/37 is used as control module, according to qualification test sequence.					



9.	VISUAL INSPECTION MST 01					N/M
Module identification	Requirement a) Section 7	Requirement b) Section 7	Requirement c) Section 7	Requirement d) Section 7	Requirement e) Section 7	
41988/35	P	P	P	P	P	
41988/36	P	P	P	P	P	
41988/38	P	P	P	P	P	
41988/41	P	P	P	P	P	
Additional information						
Marking and warning label has not been supplied by the manufacturer.						

9.	TEST. Maximum power determination.					P
Module identification	Isc(A)	Voc(V)	Vmax(V)	Imax(A)	Maximum power (W)	
41988/35	8.87	2.47	1.72	8.04	13.82	
41988/36	8.62	2.44	1.70	7.88	13.39	
41988/38	8.87	2.47	1.72	8.07	13.91	
41988/41	8.74	2.47	1.76	7.83	13.81	
Additional information						
The power uncertainty is $\pm 4.30$ W.						

9.	TABLE: Dielectric strength test MST 16			P
Module identification	Test voltage between:	Test voltage (V dc)	Breakdown Yes/No	
41988/35	Output terminals and metallic part	6000	No	
41988/35	Output terminals and back part	6000	No	
41988/35	Output terminals and front part	6000	No	
41988/36	Output terminals and metallic part	6000	No	
41988/36	Output terminals and back part	6000	No	
41988/36	Output terminals and front part	6000	No	
41988/38	Output terminals and metallic part	6000	No	
41988/38	Output terminals and back part	6000	No	
41988/38	Output terminals and front part	6000	No	
41988/41	Output terminals and metallic part	6000	No	
41988/41	Output terminals and back part	6000	No	
41988/41	Output terminals and front part	6000	No	
Relative humidity (%).....		46 % < 75 %		
Additional information				
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9. TABLE: Insulation resistance test MST 16				P
Module identification	Insulation	Module area (m <sup>2</sup> )	Minimum value (MΩ)	Measured value (GΩ)
41988/35	Output terminals and metallic part	0.25	156.85	9.84
41988/35	Output terminals and back part	0.25	156.85	9.84
41988/35	Output terminals and front part	0.25	156.85	9.84
41988/36	Output terminals and metallic part	0.25	156.85	8.38
41988/36	Output terminals and back part	0.25	156.85	8.38
41988/36	Output terminals and front part	0.25	156.85	8.38
41988/38	Output terminals and metallic part	0.25	156.85	10.23
41988/38	Output terminals and back part	0.25	156.85	10.23
41988/38	Output terminals and front part	0.25	156.85	10.23
41988/41	Output terminals and metallic part	0.25	156.85	15.77
41988/41	Output terminals and back part	0.25	156.85	15.77
41988/41	Output terminals and front part	0.25	156.85	15.77
Relative humidity (%).....		49 % < 75 %		
Additional information				
The maximum resistance uncertainty is ± 1.06%.				

9. TABLE: Dielectric strength test–Wet module				P
Module identification	Test voltage between:	Test voltage(V dc)	Breakdown Yes/No	
41988/35	Output terminals and wetting agent solution	1000	No	
41988/36	Output terminals and wetting agent solution	1000	No	
41988/38	Output terminals and wetting agent solution	1000	No	
41988/41	Output terminals and wetting agent solution	1000	No	
Additional information				
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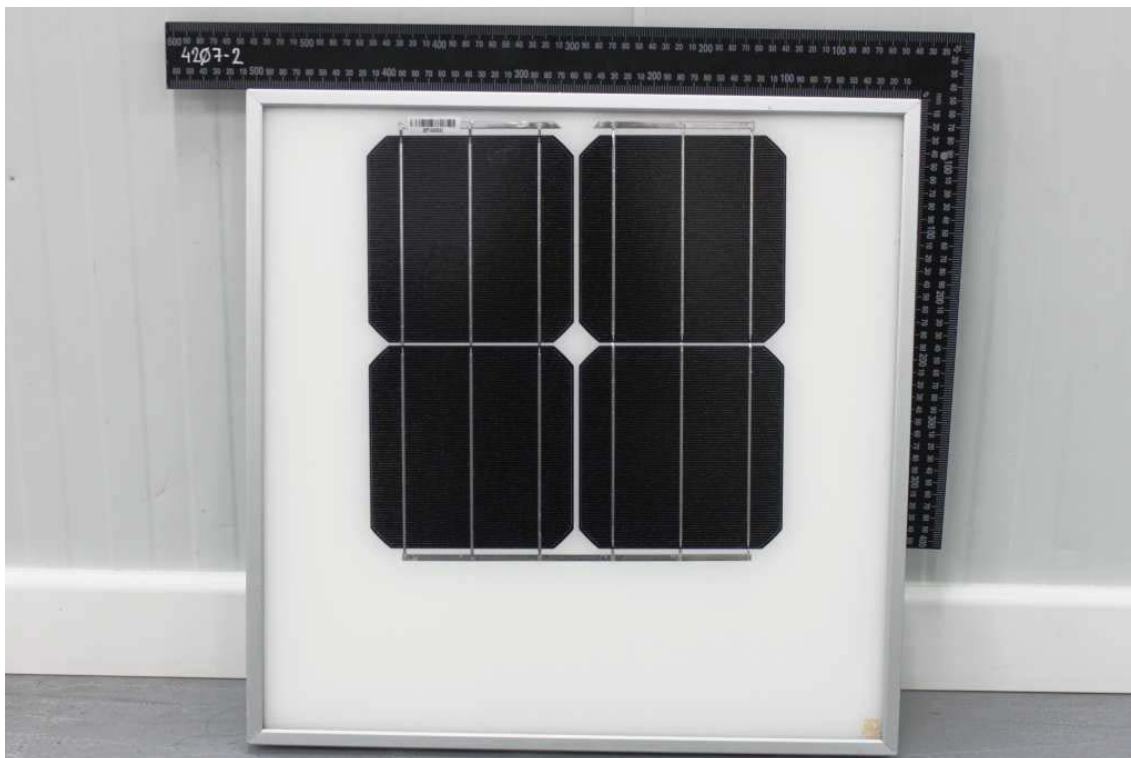
9. TABLE: Insulation resistance test –Wet module				P
Module identification	Insulation	Module area(m <sup>2</sup> )	Minimum value (MΩ)	Measured value (GΩ)
41988/35	Output terminals and wetting agent solution	0.25	156.85	1.02
41988/36	Output terminals and wetting agent solution	0.25	156.85	5.86
41988/38	Output terminals and wetting agent solution	0.25	156.85	1.07
41988/41	Output terminals and wetting agent solution	0.25	156.85	4.68
Additional information				
The maximum resistance uncertainty is ± 1.47%.				

9.	TABLE: Ground continuity test MST 13				P
Module identification	Resistance between	Applied current (A)	Test voltage (V)	Resistance (mΩ)	
41988/35	Protective earth and point 1	30	0.6	19	
41988/35	Protective earth and point 2	30	0.5	15	
41988/36	Protective earth and point 1	30	0.4	12	
41988/36	Protective earth and point 2	30	0.4	14	
41988/38	Protective earth and point 1	30	0.6	19	
41988/38	Protective earth and point 2	30	0.5	16	
41988/41	Protective earth and point 1	30	0.5	16	
41988/41	Protective earth and point 2	30	0.6	19	
Relative humidity (%).....		46 % < 75 %			
Additional information					
Point 1: Test point opposite to protective earth terminal					
Point 2: Test point farthest from protective earth terminal.					

4.2	Bypass diode functionality test				P
Module identification	Bypass diodes	Isc(A)	I <sub>test</sub>	Diode continue operating after test	
41988/35	Diotec SBX3040	8.6	10.75	Yes	
41988/36	Diotec SBX3040	8.6	10.75	Yes	
41988/38	Diotec SBX3040	8.6	10.75	Yes	
41988/41	Diotec SBX3040	8.6	10.75	Yes	
Additional information					
---					

10.	Requirements.				P
Module identification	Mechanical or corrosion degradation	Power degradation	Insulation requirements	Bypass diode functionality	
41988/35	Not degradation	1.44 % < 5 %	P	P	
41988/36	Not degradation	2.82 % < 5 %	P	P	
41988/38	Not degradation	0.26 % < 5 %	P	P	
41988/41	Not degradation	+ 0.09 % < 5 %	P	P	
Additional information					
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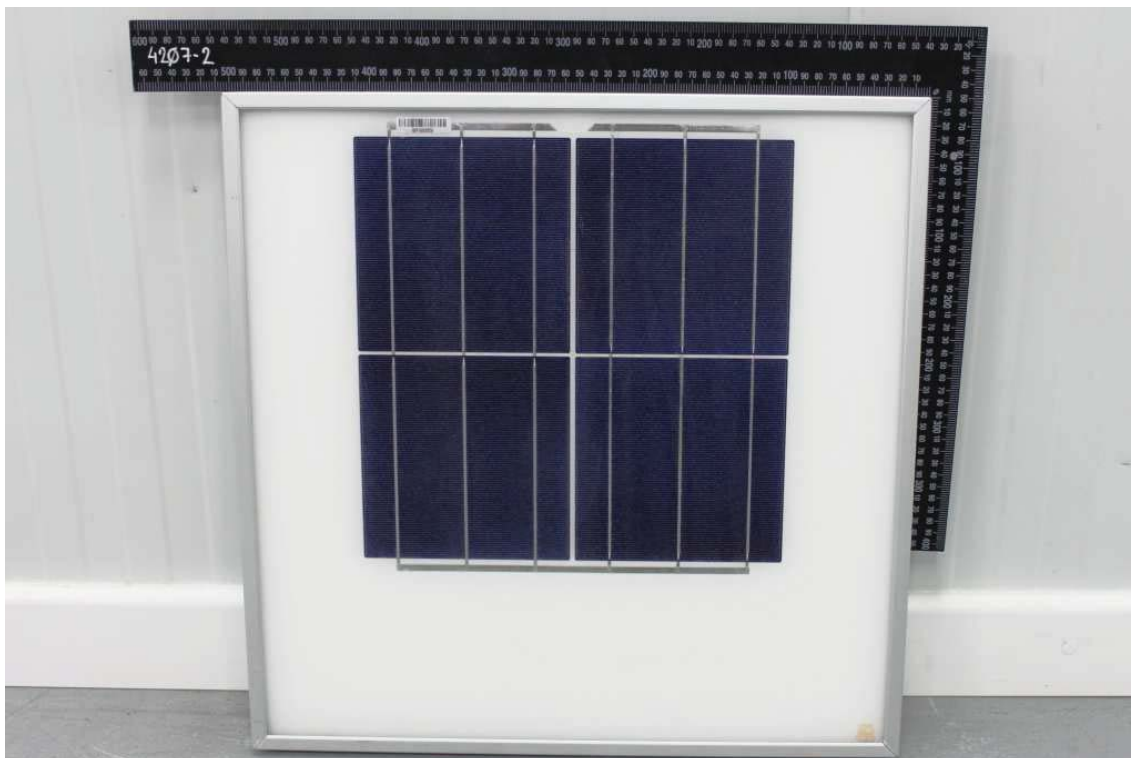
## Appendix B - Photographs



**EXAMPLE OF THE FRONT VIEW OF THE SAMPLE 41988/36.**



**EXAMPLE OF THE REAR VIEW OF THE SAMPLE 41988/36.**



**EXAMPLE OF THE FRONT VIEW OF THE SAMPLE 41988/38.**



**EXAMPLE OF THE REAR VIEW OF THE SAMPLE 41988/38.**



**EXAMPLE OF THE JUNCTION BOX OPEN OF THE SAMPLE 41988/38.**



**EXAMPLE OF THE JUNCTION BOX CLOSED AND CONNECTORS OF THE SAMPLE 41988/38.**



**POSITIONING OF THE SAMPLES IN SALT SPRAY CHAMBER.**