

Datasheet

PREMIUM BIFACIAL HJT SOLAR MODULE

72 CELLS PRODUCT FAMILY (390-405 W)



ABOUT ECOSOLIFER

Vertically integrated Swiss Company involved in Photovoltaic (PV) power generation, founded in 2007. Have the know-how of the entire PV technology value chain with the ultimate goal of producing electricity via the lowest achievable cost structure (LCOE) and carbon food print, based on heterojunction technology. R&D, planning and elaboration of application activities are covered entirely by EcoSolifer scientists and engineers. As PV developer of high performance solar technology EcoSolifer owns patents which underlines the future oriented company strategy. EcoSolifer's vision is an overall low carbon energy sector where PV is highly and efficiently utilized due to company's contribution.

Our motto is: 'something new under the sun' that we create throughout our day by day activity

KEY FEATURES

High efficiency: up to 20,5 % of module efficiency

Double glass frameless bifacial structure: up to +30% of energy production gain

Designed for high voltage systems up to 1500 VDC

Lowest Temperature Coefficient -0,25%/°C

High durability against harsh environment conditions

Higher lifetime power yield:

- Superior Warranty: 30 years performance

- 0.20% linear power degradation

Designed to be PID free

Module made with LID & LeTID free HJT cells

Static load: tested up to 5400Pa front and 2400Pa rear

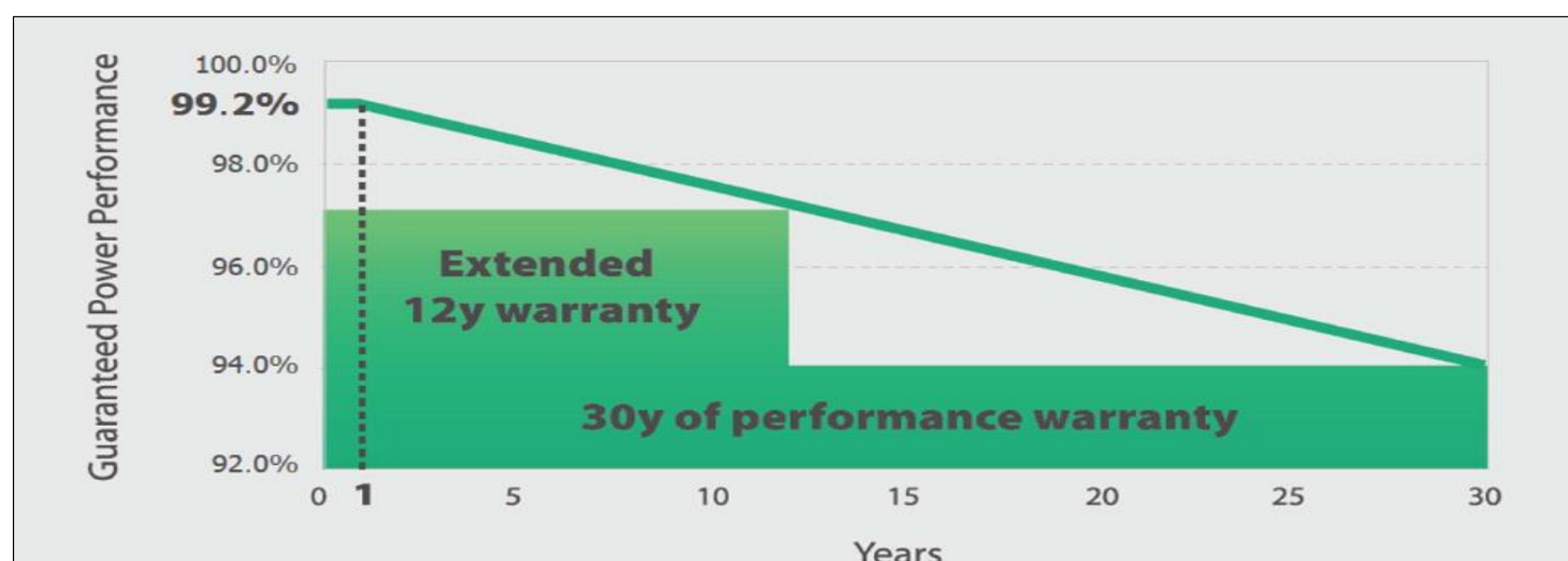


WARRANTY

Initial performance warranty 99.2%

Product warranty 12 years

Linear performance warranty 30 years

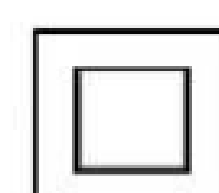


EcoSolifer AG

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Mechanical characteristics

Module structure	Glass / TPO / HST Bifacial Cells / TPO / Glass
Dimension (L x W x T)	1983 x 998 x 5.5 mm (31 with J-BOX)
Weight	28 kg
Cell size / type	156.75 mm x 156.75 mm
Number, type and arrangements of Cells	Mono-crystalline, n-type Si HJT, 72 pcs in series (6x12)
Front Glass, Type and Thickness	AR coated, High Transmission, Low Iron, Tempered, 3 mm
Back Glass, Type and Thickness	High Transmission, Low Iron, Tempered, 3 mm
Junction boxes	IP67, three diodes
Connection cables	4 mm ² (not supplied with module)
Connectors	MC4 compatible
Packing Configuration	26 pcs/carton
Quantity/Pallet	2 cartons/pallet
Modules/Container	572 pcs/40ft(H), 260 pcs/20Ft

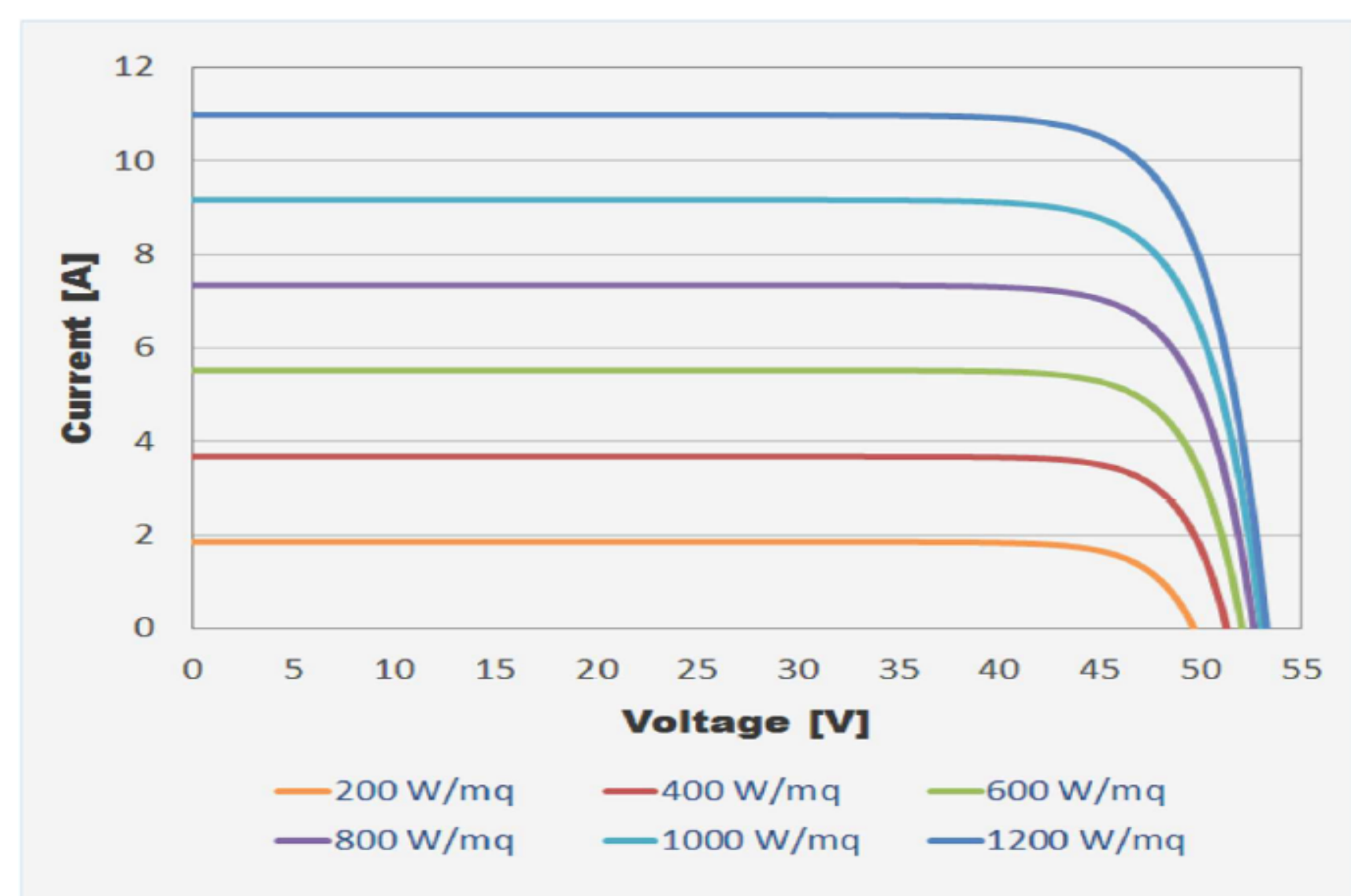
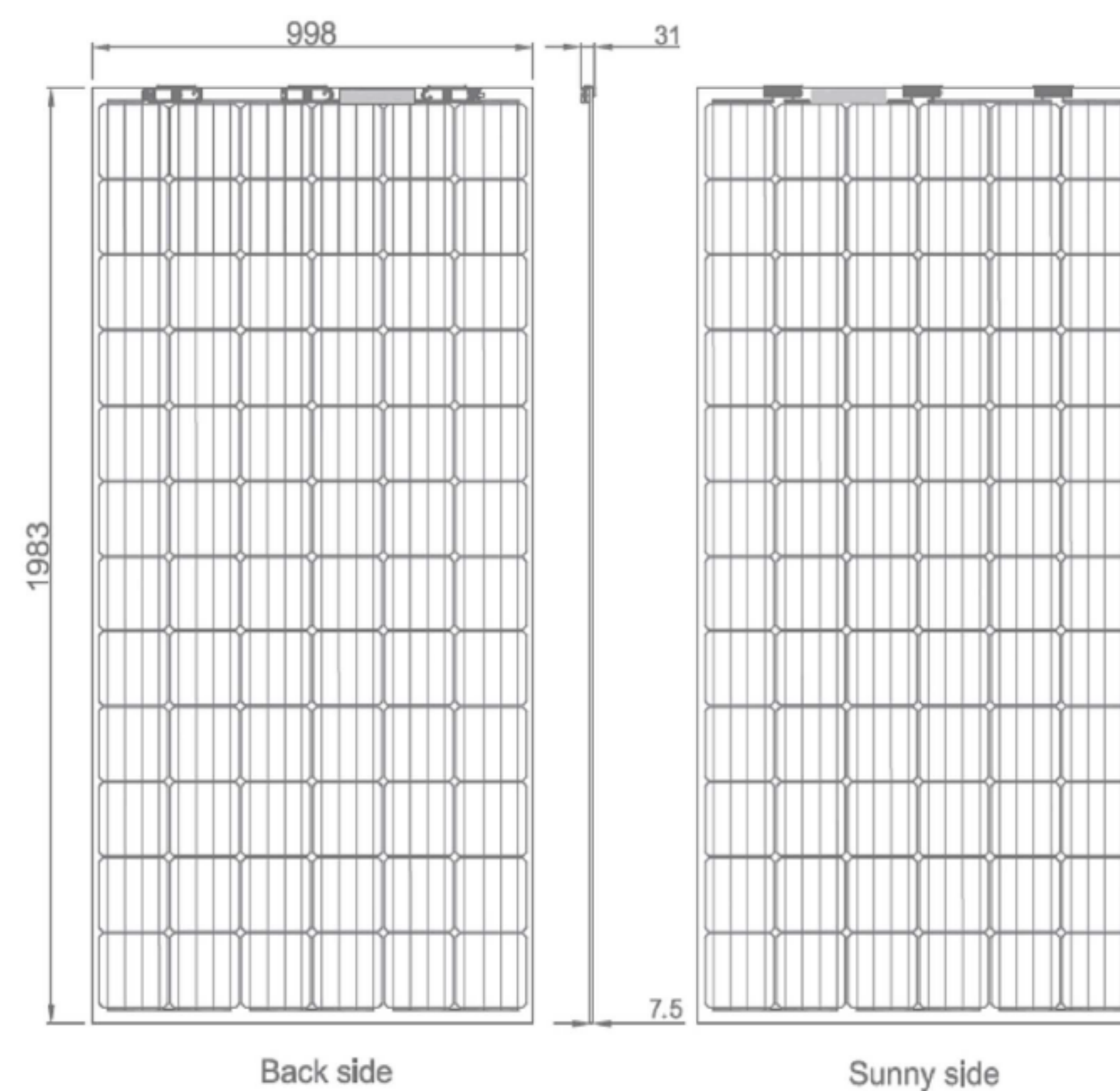
GENERAL CHARACTERISTICS

Pm Temperature Coefficient	-0.250 %/°C
Isc Temperature Coefficient	0.035 %/°C
Voc Temperature Coefficient	0.180 %/°C
NMOT (Nominal Module Operating)	39 ± 2 °C
Test Condition	STC: AM=1.5, 1000W/m ² , Cells Temperature 25 °C
Operating Temperature	-40~+85 °C
Storage Temperature	-20~+50 °C

BIFACIAL PERFORMANCE

Power @STC (W)	390	395	400	405
Power @BSTC (W)*	478	484	490	496

*: BSTC = Bifacial Standard Test Condition according with 2Pfg 2645



TYPICAL PERFORMANCE AT STC

Module type	Test Conditions	3SHB390D		3SHB395D		3SHB400D		3SHB405D	
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Max-Power	Pm (W)	390	301	395	305	400	309	405	313
Power Tolerance	%	±3%							
Max-Power Voltage	Vm(V)	44.3	44.1	44.5	44.3	44.6	44.4	44.8	44.6
Max-Power Current	Im(A)	8.81	6.83	8.88	6.90	8.96	6.97	9.04	7.03
Open-Circuit Voltage**	Voc(V)	53.8	53.5	54.0	53.7	54.2	53.9	54.4	54.1
Short-Circuit Current**	Isc(A)	9.33	7.28	9.41	7.34	9.49	7.40	9.57	7.46
Max-System Voltage	Vdc(V)	1500 (IEC / UL)							
Module Efficiency	%	19.71	/	19.96	/	20.21	/	20.46	/
Bifaciality factor	%	>93%							

** : Tolerance ±10%

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