



EMPIRE PV MODULES

Key Features

15.90% - 16.95%
Module Efficiency

300W-320W
Power Output

5 Years
Warranty on Workmanship

25 Years
Linear performance guarantee
On Power Output



Flash test for 100% Modules With PASAN sun simulator, Switzerland.



EMPIRE modules are covered with both 5-year Product Warranty (materials & workmanship) and 25-year limited warranty on power output.



IEC Certified Products with RFID tags from world renowned laboratories VDE Institute & TÜV Rheinland Germany with certifications IEC-61215, IEC-61701, IEC-61730 (Part 1 & Part 2).



ROHS – 2 certification as per the recast of 'The European Parliament and of The Council Directive' 2011/65/EU.



Guaranteed positive tolerance -0/+1%



Independent international authentication certified.



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PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

		EPG - 300	EPG - 305	EPG - 310	EPG - 315	EPG - 320
Maximum Power	P _{max} (Wp)	300	305	310	315	320
Open Circuit Voltage	V _{oc} (V)	44	44	44	44	44
Maximum Power Point Voltage	V _{mpp} (V)	36.86	37.22	37.65	38.01	38.16
Short Circuit Current	I _{sc} (A)	8.62	8.68	8.73	8.78	8.82
Maximum Power Point Current	I _{mp} (A)	8.12	8.19	8.24	8.31	8.35
Module Efficiency	η _m	15.90%	16.15%	16.42%	16.68%	16.95%

*STC: 1000W/m², 25°C, AM 1.5

PERFORMANCE AT 800W/m², NOCT, AM1.5

		EPG - 300	EPG - 305	EPG - 310	EPG - 315	EPG - 320
Maximum Power	P _{max} (Wp)	219.5	223.16	226.82	230.48	234.14
Open Circuit Voltage	V _{oc} (V)	40.07	40.07	40.07	40.07	40.07
Maximum Power Point Voltage	V _{mpp} (V)	33.57	33.89	34.28	34.61	34.75
Short Circuit Current	I _{sc} (A)	7.85	7.91	7.95	7.99	8.04
Maximum Power Point Current	I _{mp} (A)	7.40	7.46	7.50	7.57	7.60

DIMENSIONS

Length	1956mm
Width	989mm
Height	40mm
Frame	Clear Anodised Aluminium
Weight	21 kgs

COMPONENT MATERIALS

Cells per module	72
Cell Type	Poly crystalline
Cell Dimensions	156 mm x 156 mm
Front	3.2 mm
	Solar Low Iron Tempered Glass

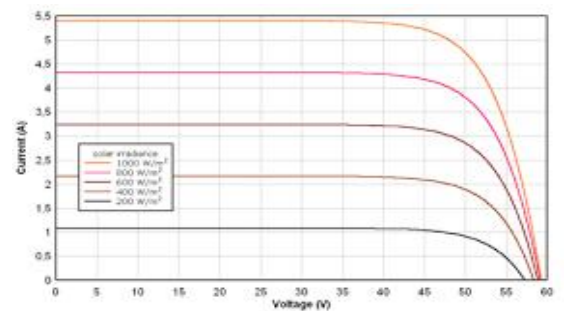
THERMAL CHARACTERISTICS

NOCT	48°C ± 2°C
TC I _{sc}	+0.07±0.02(°/°C)
TC V _{oc}	-0.34±0.01 (°/°C)
TC P _{mp}	-0.46±0.02 (°/°C)

ADDITIONAL DATA

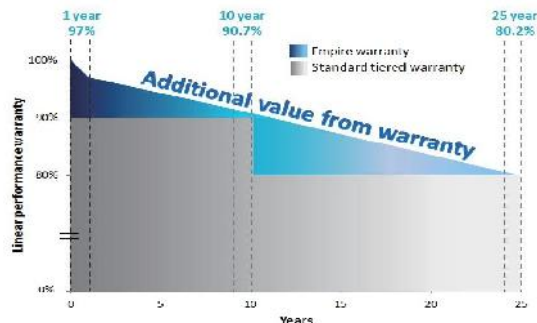
Power Sorting	±3%
J-Box	IP65, 3 Bypass diodes
Cable	4mm ² , 1000mm
Connector	MC4
Module fire performance	CLASS-C

IV CURVE



PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

Maximum System Voltage SC II/NEC	1000 V
Maximum Reverse Current	20 A
Operating Range	-40°C to +85°C



- Empire Solar guarantees a maximum performance degradation of 0.7% per year
- Atleast 97% of the nominal output
- Atleast 90.7% of the nominal output after 10 years
- Atleast 80.2% of the nominal output after 25 years

MECHANICAL DRAWING

