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Alpha PV 55/85W

- Encapsulated Design Resists Corrosion
- No Maintenance Required
- Quick and Easy Installation

Alpha silicon solar modules use breakthrough technology perfected by nearly 40 years of manufacturing technology. These modules use a textured cell surface and tempered glass to reduce reflection of sunlight. The anti-reflective coating provides a uniform blue color and increases the absorption of light in all weather conditions. These solar modules can be applied in many areas including building roofs, photovoltaic power plants, telecommunication, hubs, weather stations, broadcast towers, navigation marks, railways and road intersections.



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Alpha PV 55/85W

Specifications		
	PV 55W	PV 85W
Electrical Characteristics		
Maximum Power (Pmax)	55W	85W
Power Tolerance	±5 %	±5 %
Maximum Power Voltage (Vmp)	17.3V	17.5V
Maximum Power Current (Imp)	3.18A	4.86A
Open circuit Voltage (Voc)	21.7V	22.0V
Short circuit Current (Isc)	3.47A	5.36A
Maximum System Voltage	600V	600V
Module Efficiency	12.3 %	13.6%
Temp. coefficient Voc	+0.35±0.02 %/° C	+0.35±0.02 %/° C
Temp. coefficient Isc	+0.04±0.0015 %/° C	+0.04±0.0015 %/° C
Temp. coefficient Power	-0.5±0.05 %/° C	-0.5±0.05 %/° C
Nominal operating cell temperature	47° C±2° C	47° C±2° C
Cells:		
Cell Type	Single Crystal Cell	Single Crystal Cell

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Cell Size	103 x 103mm	125 x 125mm
Cell Shape	Quasi Square	Quasi Square
Number Cells	36 in series	36 in series
Encapsulated Solar Cells Efficiency	14.8 %	16%
Standard Test Conditions:		
AM	1.5	1.5
Irradiation	1000 W/m ²	1000 W/m ²
Tc	25° C	25° C
Mechanical Characteristics:		
Length (in/mm)	39.8/1011	46.30/1176
Width (in/mm)	17.5/445	20.83/529
Depth (in/mm)	1.26/32	1.41/36
Mounting Length (in/mm)	23.9/608	30.40/772
Mounting Width (in/mm)	16.1/409	19.33/491
Weight lbs (kg)	13.22/6.0	16.53/7.5
Front glass thickness	3.2mm	3.2mm
Encapsulant	EVA	EVA
Back side	TPT	TPT
Absolute Maximum Rating:		
Operating Temperature	-40 to +90° C	-40 to +90° C
Storage Temperature	-40 to +90° C	-40 to +90° C
Dielectric Isolation Voltage	1000 Vdc max	1000 Vdc max
Maximum Wind Resistance	60m/s (134 mph)	60m/s (134 mph)
Maximum Load capacity	200 Kg/m ² (41 psf)	
Maximum Hail diameter @ 80Km/h (in/mm)	1.0 / 25	1.0 / 25

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