

12V Solar Panels

High efficiency, multicrystalline PV modules



Features

- 25 year limited warranty
- Nominal 12VDC for standard output. 24VDC available on request
- High efficiency
- Outstanding low light performance
- Heavy-duty anodized frames

High Efficiency Multicrystalline PV Modules

Electrical Characteristics & Specifications* *

Model	AV-P005-12	AV-P010-12	AV-P020S-12	AV-P040-12	AV-P065-12	AV-P090S-12	AV-P140-12
Maximum power (Pmax)	5W	10W	20W	40W	65W	90W	140W
Voltage at Pmax (Vmp)	17.4V	17.0V	17.2V	17.2V	17.2V	17.4V	17.2V
Current at Pmax (Imp)	0.29A	0.58A	1.16A	2.32A	3.78A	5.17A	8.14A
Open-circuit voltage (Voc)	21.6V	21.6V	21.6V	21.6V	21.6V	21.5V	21.6V
Short-circuit current (Isc)	0.32A	0.68A	1.31A	2.57A	4.21A	5.48A	9.05A
Temperature coefficient of Voc	-(80±10)mV/°C						
Temperature coefficient of Isc	(0.065±0.015)%/°C						
Temperature coefficient of Power	-(0.5±0.05)%/°C						
NOCT (Air 20°C; Sun 0.8kW/m ² wind 1m/s)	47±2°C						
Operating temperature	-40°C to 85°C						
Maximum system voltage	600V DC				1000V DC		
Power tolerance	±10%	+10%/-5% +10%/-5%			±3%	+10%/-5%	
Cells	Monocrystalline silicon solar cell	Multicrystalline silicon solar cell	Monocrystalline silicon solar cell	Multicrystalline silicon solar cell		Monocrystalline silicon solar cell	Multicrystalline silicon solar cell
No. of cells and connections	36 (4 x 9)	36 (6 x 6)	36 (2 x 18)	36 (4 x 9)	36 (4 x 9)	36 (4 x 9)	72 (4 x 18)
Module dimension	216mm x 306mm x 18mm	310mm x 368mm x 18mm	656mm x 306mm x 18mm	537mm x 195mm x 30mm	774mm x 675mm x 35mm	1195mm x 541mm x 35mm	1482mm x 676mm x 35mm
Weight	0.8kg	2kg	2.38kg	4.5kg	6.7kg	8.4kg	12.25kg

* Specifications subject to change or variation without notice
 * Subject to standard terms and conditions
 # STC: Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C
 # NOCT: Nominal operating cell temperature (the data is only for reference)