



420 Watt MONOCRYSTALLINE PERC SOLAR MODULE

Features



High module conversion efficiency

Module efficiency up to 21.49% achieved through advanced cell technology and manufacturing capabilities



Excellent performance under low light environment

Excellent performance under low light conditions (morning, evening and cloudy days)



Guaranteed positive tolerance

Positive tolerance of up to 5^{Watt} delivers higher outputs reliability



Strict quality control, meeting the highest international standard

ISO 9001



Extended wind and snow load tests

Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal)



Guarantee

10 years product guarantee, 25 years linear performance warranty

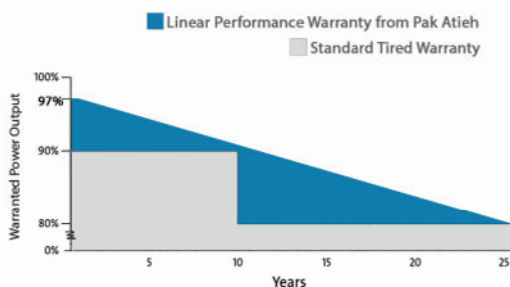
Certifications and standards:
IEC 61215, IEC 61730, conformity to CE



Pak Atieh Energy Production Industries

We are one of the biggest manufacturer of crystalline silicone modules in the region. Our products range cover all panels from residential to utility-scale projects. Pak Atieh is committed to supply the best quality products & technology to its customers. The company implemented strictly ISO9001 quality management system. Our solar modules can meet the IEC61215 and IEC61730 standards.

Industry-leading Warranty based on nominal power



• %97 in the first year, thereafter, for years two (2) through twenty-five %0.7 maximum decrease from MODULE's nominal power output per year, ending with the %80.2 in the 25th year after the defined WARRANTY STARTING DATE.

IP67

IP67 Rated Junction Box

Supports installations in multiple orientations. High reliable performance, low resistance connectors ensure maximum output for the highest energy production.

Factory: No.7, 8th Talash, Fariman Industrial Estate, 45th Km Mashhad-Fariman Rd, Mashhad, Iran.

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Model: PAK-420LM

Electrical Characteristics

STC	
Maximum Power at STC (Pmax)	420 W
Optimum Operating Voltage (Vmp)	42.48V
Optimum Operating Current (Imp)	9.89 A
Open Circuit Voltage (Voc)	50.05V
Short Circuit Current (Isc)	10.51A
Module Efficiency	21.49%
Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1000/1500 V DC (IEC)
Maximum Series Fuse Rating	20A
Power Tolerance	0/+5 W

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- %3

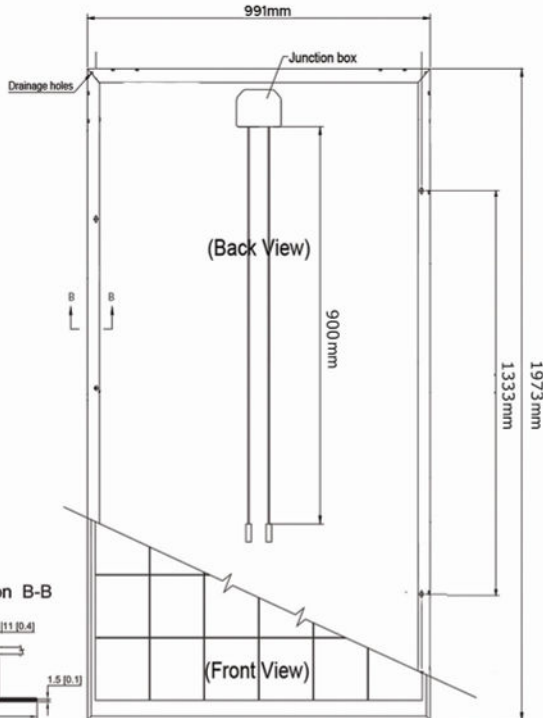
NOCT	
Maximum Power (Pmax)	310.8 W
Optimum Operating Voltage (Vmp)	39.29 V
Optimum Operating Current (Imp)	7.91 A
Open Circuit Voltage (Voc)	45.55 V
Short Circuit Current (Isc)	8.51 A

Temperature Characteristics

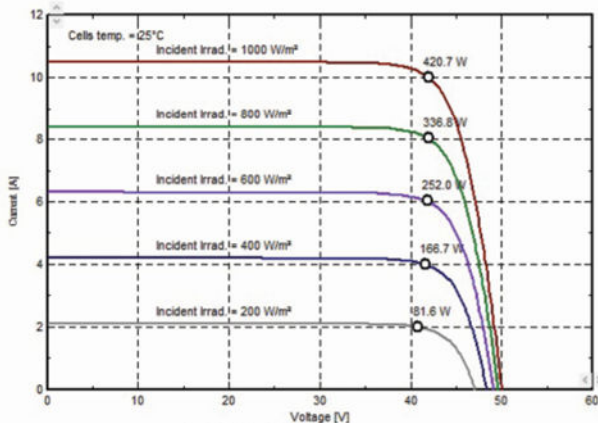
Temperature Coefficient of Pmax	- 0.36 %/°C
Temperature Coefficient of Voc	- 0.29 %/°C
Temperature Coefficient of Isc	+ 0.05 %/°C

Mechanical Characteristics

No. of Cells	72
Dimensions	1973*991*35 mm
Weight	23 Kgs
Solar Cell	Monocrystalline PERC (158.75*158.75 mm)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP67 rated (3 bypass diodes)
Output Cables	TUV (2Pfg 1169:2007) 4.0 mm ² Symmetrical lengths (-) 900 mm and (+) 900 mm
Connectors	MC4 connectors



IV Curve



PV Curve

