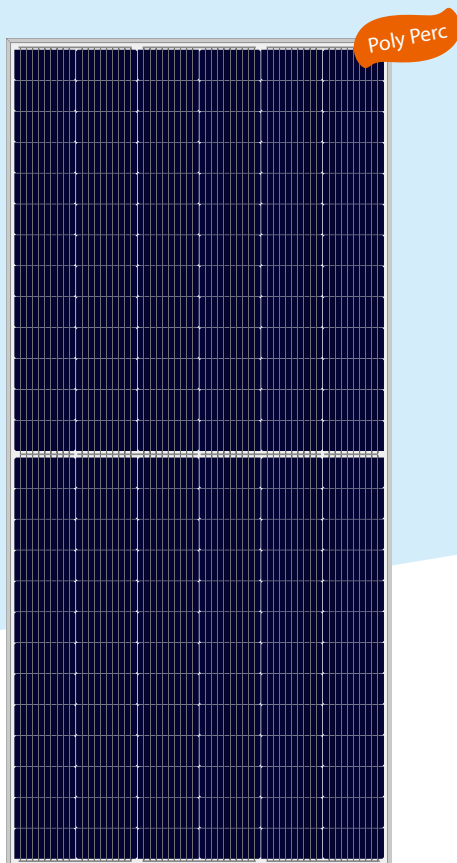


HCP78X9

400~415W

Half-Cell High Efficiency PV Module



Comprehensive Products and System Certificates

IEC 61215 / IEC 61730 / CE / JPEA / FIDE / INMETRO

ISO 9001: 2015 / Quality management system

ISO 14001: 2015 / Standards for environmental management system

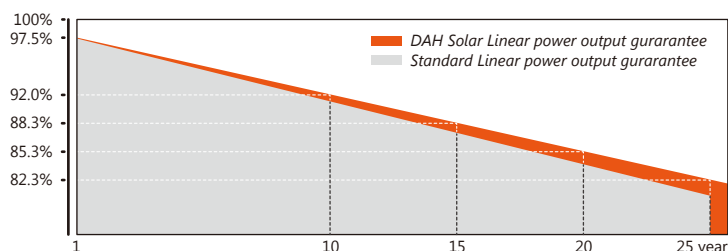
OHSAS 18001: 2007 / International standards for occupational health & safety



Quality Guarantee

12-year Material & technology warranty

25-year Linear power output warranty



Max Module Efficiency

19.07%



Half-cell & High eff.

9BB Half-cell technology,
Higher output power



Less Shading Effect

Unique circuit design,
Minimize shading effect



Lower Temperature

Lower temperature coefficient,
Lower hot spot temperature



Weather Resistance

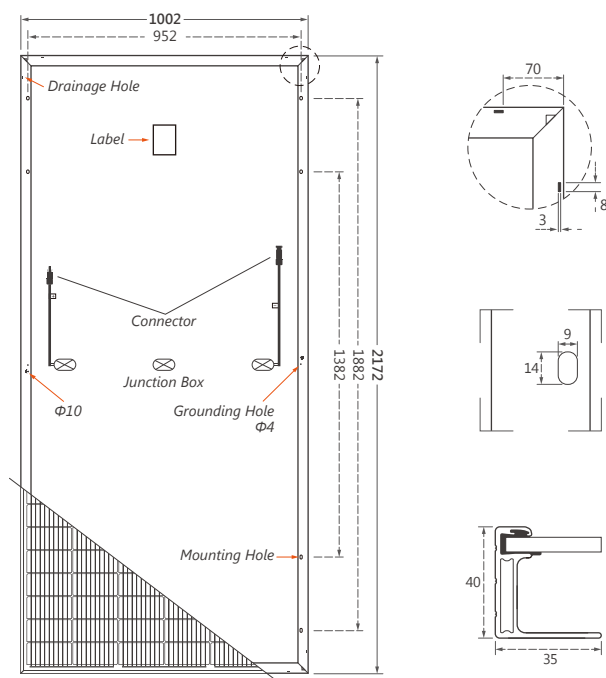
Pass Anti PID test. 100%
double EL test, Minimizes
micro-cracks



T6 Frame

T6 frame, better mechanical
load, safer and more
stable

Design



Mechanical Specification

Cells Type	Poly 158.75×79.375mm
Weight	24.3kg
Dimension (L×W×T)	2172×1002×40mm
Cable	4.0mm ² , Portrait: 300mm(+)/400mm(-) Landscape: 1300mm(+)/1300mm(-)
No. of Cells	156(6×26)
Packing	27pcs/pallet, 270pcs/20GP, 580pcs/40HQ
Glass	3.2 mm High Transmission, Antireflection Coating
Junction box	IP68, 3 Bypass Diodes
Connector	QC4 or MC4 Compatible

Operating Parameters

Maximum system voltage	1000V/1500V DC
Operating Temperature	-40 ~ +85°C
Maximum series fuse rating	20A
Snow load, frontside	5400Pa
Wind load, backside	2400Pa
Nominal operating cell temperature	45°C±2°C
Application level	Class A

Electrical Characteristics(STC)

Module Type	HCP78X9-400W	HCP78X9-405W	HCP78X9-410W	HCP78X9-415W
Maximum Power (P _{max})	400W	405W	410W	415W
Open-circuit Voltage (V _{oc})	51.4V	51.5V	51.6V	51.8V
Maximum Power Voltage (V _{mp})	42.8V	43.0V	43.2V	43.4V
Short-circuit Current (I _{sc})	9.87A	9.93A	9.97A	10.04A
Maximum Power Current (I _{mp})	9.35A	9.42A	9.50A	9.57A
Module Efficiency (%)	18.38%	18.61%	18.84%	19.07%

Power Tolerance	0 ~ +5W
Temperature Coefficient of I _{sc}	0.05%/°C
Temperature Coefficient of V _{oc}	-0.31%/°C
Temperature Coefficient of P _{max}	-0.38%/°C
Standard Test Environment	Irradiance 1000W/m ² , Cell temperature 25°C, Spectrum AM1.5

Electrical Characteristics(NOCT)

Module Type	HCP78X9-400W	HCP78X9-405W	HCP78X9-410W	HCP78X9-415W
Maximum Power (P _{max})	302W	306W	309W	313W
Open-circuit Voltage (V _{oc})	48.5V	48.7V	48.9V	49.1V
Maximum Power Voltage (V _{mp})	39.7V	39.9V	40.1V	40.3V
Short-circuit Current (I _{sc})	8.06A	8.12A	8.18A	8.24A
Maximum Power Current (I _{mp})	7.61A	7.66A	7.72A	7.77A
Standard Test Environment	Irradiance 800W/m ² , Cell temperature 20°C, Spectrum AM1.5, Wind speed 1m/s			

Fortaleza, 16 de setembro de 2020

Declaro, para os devidos fins, que a Sou Energy Distribuidora, amparada pela fabricante Hoymiles, endossa a garantia de 12 anos contra defeitos de fabricação para o modelo MI-1200 que porventura operar com módulos fotovoltaicos de até 405 W de potência, podendo esta garantia, inclusive, ser estendida para 25 anos, caso o usuário opte por adquirir a referida extensão de cobertura.

A handwritten signature in black ink, appearing to read "Mário Viana", is written over the printed name and company information.

Mário Viana
Gerência Comercial Distribuição
OK EMPREENDIMENTOS ENERGY, IMPORTAÇÃO E EXPORTAÇÃO LTDA
CNPJ - 27.558.657/0001-06