

For a Free Quote:

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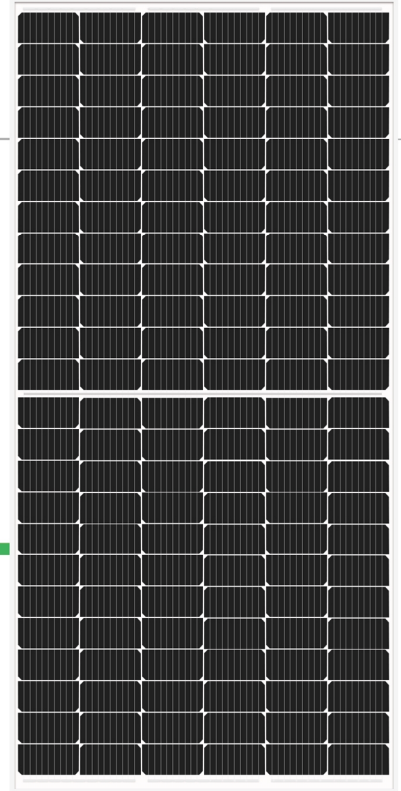
EnergyPal

Solar Panel Guide Specification Data Sheet

**Powitt Solar Co., Ltd.
Half Cell 9BB Mono 430-450W
PHC-430MBB**

Also available on the web at
EnergyPal.com/powitt-solar-co-ltd-solar-panels/phc-430mbb

MONO



9BB HALF CELL MONO 430W-450W

144 CELL
9-BUSBAR MONO PERC

430W-450W
POWER OUTPUT RANGE

20.2%
MAXIMUM EFFICIENCY

0 to +5W
POSITIVE POWER TOLERANCE

CERTIFICATION



Higher Output of Power

Effectively reduce the unit cost of PV solar system by watt



Optimize the temperature coefficient

Improve the performance under the condition of shadow and low temperature coefficient



Reduce the shadow loss on the power output

Effectively reduce the risk of heat spot on high efficiency



Stronger the physical property

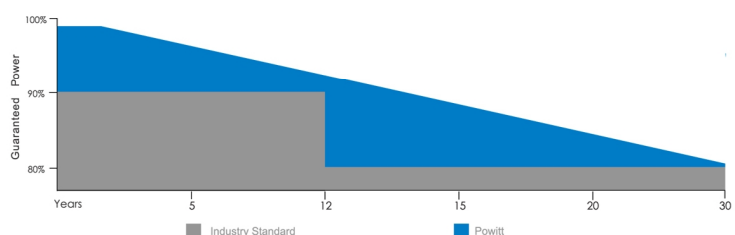
Optimize the property of power generating and reliability of the system



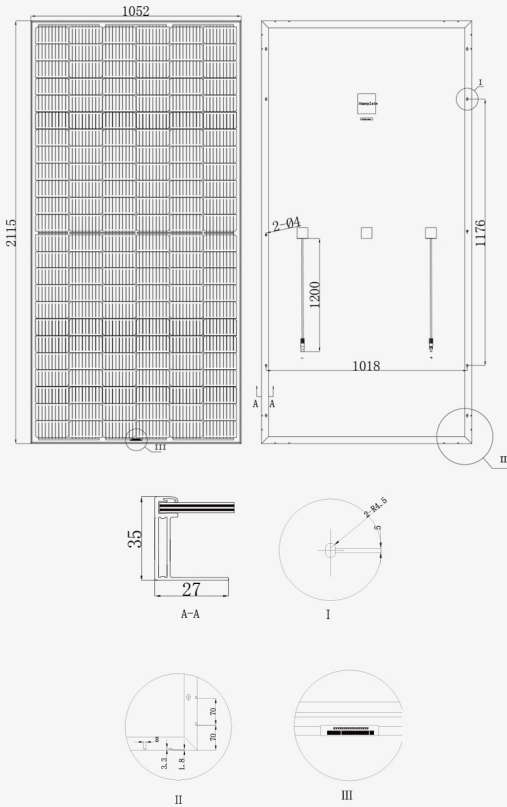
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LINEAR PERFORMANCE WARRANTY

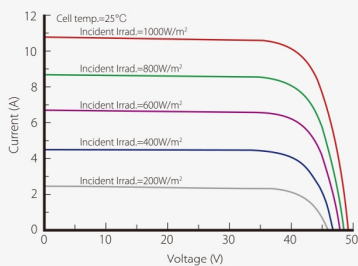
12 Year Product Warranty · 30 Year Linear Power Warranty



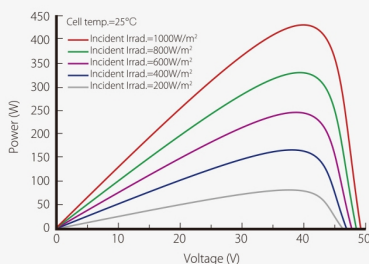
DIMENSIONS OF PV MODULE



I-V CURVES OF PV MODULE



P-V CURVES OF PV MODULE



ELECTRICAL DATA @STC

	PHC-430MBB	PHC-435MBB	PHC-440MBB	PHC-445MBB	PHC-450MBB
Peak Power Watts-P _{MAX} (Wp)	430	435	440	445	450
Power Output Tolerance-P _{MAX} (W)	0+5	0+5	0+5	0+5	0+5
Maximum Power Voltage-V _{MPP} (V)	40.59	40.79	40.99	41.19	41.39
Maximum Power Current-I _{MPP}	10.6	10.67	10.74	10.81	10.88
Open Circuit Voltage-V _{OC} (V)	49.22	49.42	49.62	49.86	50.1
Short Circuit Current-I _{SC} (A)	11.21	11.28	11.35	11.41	11.48
Module Efficiency η _m (%)	19.3	19.6	19.8	20.0	20.2

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.
 Average efficiency reduction of 4.5% at 200 W/m² according to EN 60904-1.

ELECTRICAL DATA @ NOCT

	PHC-430MBB	PHC-435MBB	PHC-440MBB	PHC-445MBB	PHC-450MBB
Maximum Power-P _{MAX} (Wp)	318.3	322	325.8	329.8	333.2
Maximum Power Voltage-V _{MPP} (V)	37.48	37.68	37.88	38.07	38.26
Maximum Power Current-I _{MPP} (A)	8.48	8.54	8.59	8.64	8.7
Open Circuit Voltage-V _{OC} (V)	45.88	46.08	46.28	46.52	46.76
Short Circuit Current-I _{SC} (A)	9	9.06	9.11	9.16	9.22

NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar Cells	9BB Mono PERC 166 x83mm
Cell Orientation	144 cells(6 x 24)
Module Dimensions	2115 x 1052 x 35 mm
Weight	23.5 kg
Glass	High Transparency, Anti-Reflective, AR Coated and Heat Tempered Solar Glass - 3.2mm
Backsheet	White
Frame	Silver Anodized Aluminium Alloy (Black Available)
J-Box	IP 68 rated
Cables	Photovoltaic Technology cable 4.0mm ² , 1200mm
Connector	MC4 Compatible

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of P _{MAX}	-0.36%/°C
Temperature Coefficient of V _{OC}	-0.28%/°C
Temperature Coefficient of I _{SC}	+0.048%/°C

MAXIMUM RATINGS

Operational Temperature	-40 to +85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	20A
Mechanical Load	5400pa
Wind Load	2400pa

PACKING CONFIGURATION

Modules per box: 30 pieces
Modules per 40' container: 660 pieces

WARRANTY

12 year workmanship warranty
30 year linear performance warranty

(Please refer to product warranty for details)

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