

# Premium Quality Solar PV Modules



**36**  
Cells

Polycrystalline Solar PV Modules 40-125 W



Increased module power output.



Maximum system voltage of 600/1000 V DC.



Reduced BOS cost.



High area efficiency.



Easy installation & handling for various application.

## Why Bluebird ?

- ◆ Backed by a 40 year old reputed brand name.
- ◆ Use of Tier-1 raw material.
- ◆ Intensive R&D, and stringent QC.
- ◆ Highest standards of product performance.
- ◆ Robust supply chain & logistics.

### More Reliable Products

- ▮ PID Resistant 5BB cells and encapsulants.
- ▮ Salt mist & ammonia resistant.
- ▮ AR Coated tempered PV grade glass.
- ▮ Only positive power tolerance.
- ▮ Excellent low light performance.
- ▮ Certified to withstand harsh environmental conditions.
- ▮ 100% EL Inspected to ensure micro crack free modules.

 **5 MW +**  
Installations

 **3 MW +**  
Under Execution

 **25 MW +**  
Proposal & Design  
Consultancy Delivered

 **30 MW +**  
PV Module Sales

## Applications



On-grid Large  
scale utility  
projects



On-grid rooftop  
Industrial &  
commercial system



Off-grid rooftop  
systems for  
residential buildings



Solar water  
pumping systems



Off-grid systems  
for Filling Stations



Electric Vehicles  
charging station



Street lighting  
applications



Module Series	POLYCRYSTALLINE				
	BBS P 40	BBS P 50	BBS P 80	BBS P 100	BBS P 125
<b>Electrical Characteristics at STC:</b>					
Maximum Power Pmax (Wp)	40.00	50.00	80.00	100.00	125.00
Maximum Voltage Vmpp (V)	18.50	18.50	18.50	18.50	18.50
Maximum Current Impp (A)	2.16	2.70	4.32	5.41	6.76
Open Circuit Voltage Voc (V)	22.00	22.00	22.00	22.00	22.00
Short Circuit Current Isc (A)	2.56	3.15	4.80	5.93	7.31
Module Efficiency (%)	13.00	14.00	14.50	14.70	15.25

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5G spectrum according to EN 60904-3  
Average relative efficiency reduction of <5% for every 200W/m<sup>2</sup> reduction in Irradiance, according to EN 60904-1

<b>Electrical Characteristics at NOCT:</b>					
Maximum Power Pmax (Wp)	28.70	35.80	55.20	72.00	90.90
Maximum Voltage Vmpp (V)	16.41	16.41	16.44	16.41	16.41
Maximum Current Impp (A)	1.75	2.18	3.29	4.39	5.54
Open Circuit Voltage Voc (V)	19.93	19.93	19.93	19.93	19.93
Short Circuit Current Isc (A)	1.98	2.39	3.55	4.81	6.02

NOCT: 800W/m<sup>2</sup> irradiance, 20°C ambient temperature, Wind Speed 1 m/sec

### Temperature coefficient (Tc) and permissible operating conditions

Tc of Open Circuit Voltage (β)	-0.310%/°K
Tc of Short Circuit Current (α)	0.050%/°K
Tc of Power (γ)	-0.410%/°K
NOCT	46 ± 2°C
Maximum series fuse ratings	6A(BBSP40, BBSP50), 10A (BBSP80, BBSP100, BBSP125)
Temperature Range	-40°C to +85°C
Maximum System Voltage	600/1000 V DC

### Mechanical Data

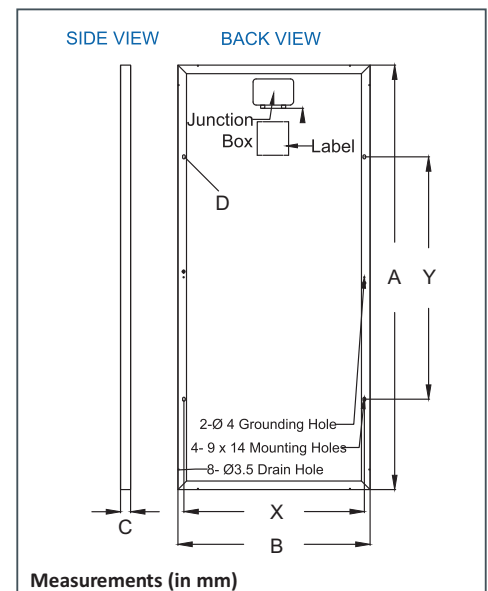
Solar Cells	36 Polycrystalline Solar cells, 5BB
Junction Box	IP 67 rated with 2 bypass diodes
Superstrate	3.2 mm high transmission low iron tempered glass (AR coated)
Cell Encapsulant	PID Free EVA (Ethylene Vinyl Acetate) - FC/UFC
Backsheet	Composite Film - White (Black & Transparent optional)**
Frame	Silver Anodized Aluminum frame with twin wall profile
Application Class	Class A (safety class II)
Mechanical Load Test	Sustain heavy static load (2400 Pa & 5400 Pa or 550 kg/m <sup>2</sup> )

\*\*Refer to Bluebird Solar's warranty documents for terms and conditions

\*\*Black and transparent backsheet without ICE certification

Specification and electrical data included in this datasheet are subject to change without notice. Please confirm your requirements with the company representative while placing your order.

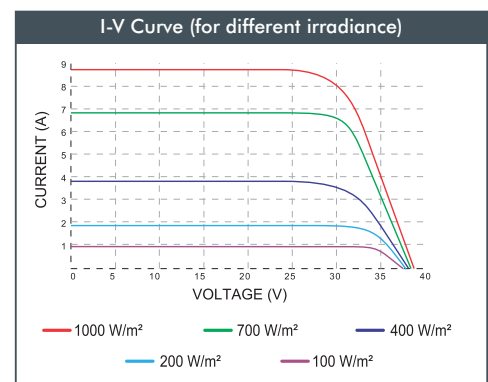
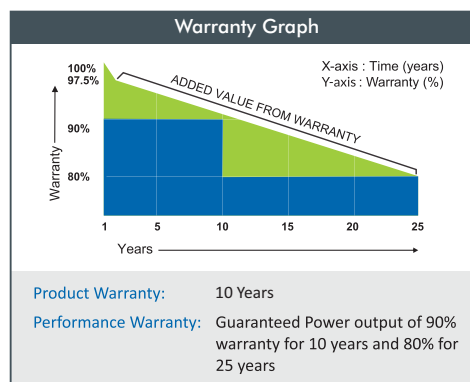
Note: It is mandatory to make negative grounding of modules in all installation to avoid PID Issue.



Measurements (in mm)

	40 W	50 W	80 W	100 W	125 W
Length (A)	475	550	780	1015	1245
Width (B)	670	670	670	670	670
Height (C)	22	22	35	35	35
Mounting Hole (D)	8*12/9*14				
Y-Pitch	290	365	400	700	845
X-Pitch	640	640	640	640	640
Weight	4.5 Kg	5.5 Kg	6.8 Kg	8.5 Kg	12 Kg

Approvals and certifications	
Products:	IEC 61215 Ed 2, ROHS, IEC 61730, IEC 61701, CE, UL 1703, CEC, CE
Manufacturing:	ISO 9001:2015, ISO 14001: 2015 ISO 45001:2018



### CORPORATE OFFICE

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### WORKS

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