

144

Cells

MONO PERC Half-Cut PV Module

525Wp - 550Wp

Monofacial

M10 Cells

DCR & Non-DCR



Max. 21.31%

Module Efficiency

Upto ~+5Wp

Power Tolerance

2400 Pa & 5400 Pa

Wind & Snow Load Capacity

IP68 split

Junction Box

**Low Light Performance**

Excellent low-light performance ensures consistent energy generation even on cloudy days.

**MBB Cell Technology**

Lower conversion loss, better partial shade performance, improved light absorption and reduced cell stress.

**High Profitability**

Reduced BOS Cost resulting in More Savings, Lower LCOE & shorter payback period.

**Lower Thermal Co-efficients**

Better Temperature Co-efficients resulting in higher power generation in high ambient temperatures.

**PID Resistance**

Excellent PID resistance to guarantee limited power degradation

**0% Microcracks & Hotspots**

PRE & POST Electroluminescence checks to ensure defect free Modules.

**ARC Glass**

Highly Reliable AR Coated, Anti-Reflective Module surface for more light absorption.



Linear Output Performance



Product & Workmanship

Certifications

IEC 61215/IS14286, IEC 61730-1, IEC 61730-2, IEC 62804 (PID),
IEC 61701 (Salt Mist), IEC 62716 (Ammonia Corrossion), IEC
61853 (Performance, PAN & IAM), IEC 60068-2 (Sand Dust),
IEC 62782 (DMLT), LID, LeTID, BIS Approved, ALMM Enlisted

ApplicationsUtility
ProjectsC & I
ProjectsHome &
ResidentialWater
Pumps**Scan me**

Module Series	BBS24MC525	BBS24MC530	BBS24MC535	BBS24MC540	BBS24MC545	BBS24MC550
Electrical Characteristics at STC						
Maximum Power P _{max} (Wp)	525	530	535	540	545	550
Maximum Voltage V _{mpp} (V)	41.35	41.48	41.65	41.78	41.93	41.90
Maximum Current I _{mpp} (A)	12.70	12.78	12.85	12.93	13.00	13.13
Open Circuit Voltage V _{oc} (V)	49.20	49.35	49.50	49.65	49.80	49.70
Short Circuit Current I _{sc} (A)	13.47	13.53	13.60	13.68	13.76	13.83
Module Efficiency (%)	20.34	20.53	20.73	20.92	21.12	21.31
Fill factor (%)	79.24	79.39	79.50	79.54	79.55	80.04

STC:1000W/m² irradiance, 25°C cell temperature, AM1.5G spectrum according to EN 60904-3Average relative efficiency reduction of ~5% for every 200W/m² reduction in Irradiance, according to EN 60904-1

Electrical Characteristics at NOCT						
Maximum Power P _{max} (Wp)	392.70	396.44	400.30	404.00	408.30	412.20
Maximum Voltage V _{mpp} (V)	38.44	38.56	38.64	38.74	38.84	38.94
Maximum Current I _{mpp} (A)	10.22	10.28	10.36	10.43	10.51	10.59
Open Circuit Voltage V _{oc} (V)	46.00	46.14	46.37	46.55	46.70	46.83
Short Circuit Current I _{sc} (A)	10.85	10.90	10.97	11.03	11.09	11.15

NOCT:800W/m² irradiance, 20°C ambient temperature, Wind Speed 1m/sec

Mechanical Data	
Dimension (LxWxH)	2278mm x 1133mm x 35mm
Weight	28 Kg ± 2%
Solar Cells (PID Free)	144 (12 x 6 x 2) Mono PERC Cut Cells, 10BB, (182x91mm)
Superstrate	3.2mm AR Coated, high transmission low iron tempered glass
EVA / Encapsulant	PID & UV resistant with gel content > 75%
Backsheet	Composite Film - White (Black optional)
Frame	Silver anodized aluminum frame with twin wall profile
Junction Box	IP68, Split Junction Box with 3 individual bypass diodes
Cables & Connectors	4 sq.mm cables, 400 mm (+Ve) and 400 mm (-Ve) cables length, MC4 Compatible or MC4 Connectors
Application Class	Class A (Safety class II)
Mechanical Load Test	Sustain heavy static load (2400 Pa & 5400 Pa)
Packaging	Standard 30 Modules per Pallet

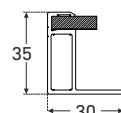
**Refer to Bluebird Solar's warranty documents for terms and conditions.

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.

Temperature coefficient (Tc) and permissible operating conditions

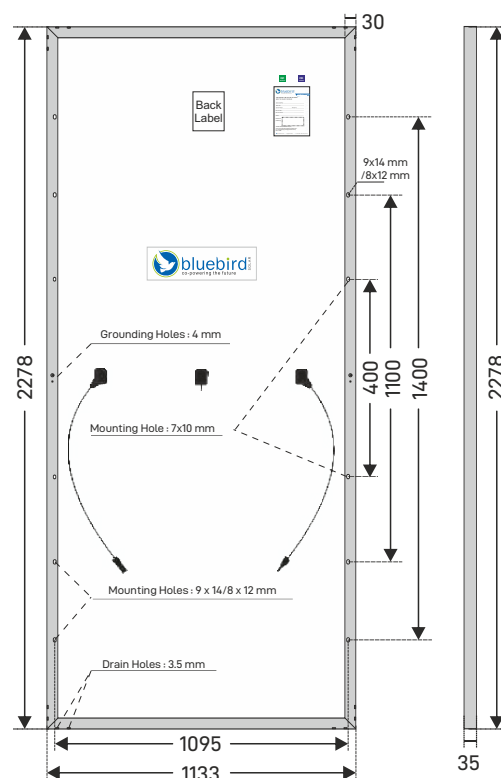
Tc of Open Circuit Voltage	-0.27%/°C
Tc of Short Circuit Current	0.050%/°C
Tc of Power	-0.35%/°C
NTC	45 ± 2°C
Maximum series fuse ratings	25A
Temperature Range	-40°C to +85°C
Maximum System Voltage	1500V DC

Sectional View of AL profile



Back view

Side view

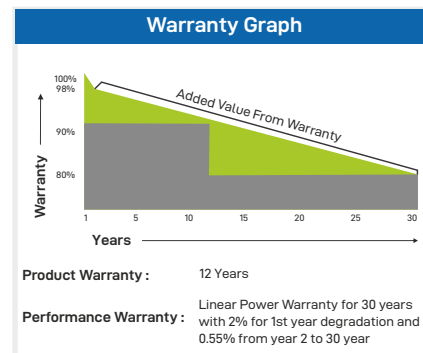
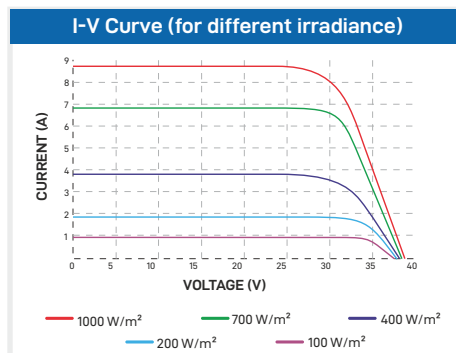


All dimensions are in mm with ± 2mm tolerance

Approvals and Certifications	
Products:*	IEC 61215/IS14286, IEC 61730-1, IEC 61730-2, IEC 62804 (PID), IEC 61701 (Salt Mist), IEC 62716 (Ammonia Corrosion), IEC 61853 (Performance, PAN & IAM), IEC 60068-2 (Sand Dust), IEC 62782 (DMLT), LID, LeTID, BIS Approved, ALMM Enlisted
Manufacturing:	ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018

*some certifications are under process

Packaging Information			
Truck Type	Pallet/Truck	Modules/Truck	KW/Truck(Approx)
19 ft.	10	300	162
22 ft.	12	360	194.4
32 ft.	18	540	291.6
40 ft.	22	660	356.4
Container Type	Pallet/Truck	Module/Truck	KW/Truck(Approx)
40 HQ	22	660	356.4

Above quantities are subject to variation depending on miscellaneous Factors
Trucks under consideration are all open body trucks. | Customized packaging available.

BLUEBIRD SOLAR PVT. LTD.

Head Office: Plot No. 70, First Floor, Rajasthani Udyog Nagar, GT Karnal Rd, Jahangirpuri Industrial Area, Delhi - 110033

Works: Plot No. 5, Ecotech - II, Udyog Vihar, Gautam Buddha Nagar, Greater Noida, Uttar Pradesh - 201306