Premium Quality

Mono Half-Cut Solar PV Modules

144 Cells

540W-550W

bluebird SOLAR
co-powering the future

MBB Cell Technology

M10 144 Half Cut Cells

Split JB with Improved Heat Dissipation

- Superior module efficiency & better field reliability.
- Multi-busbar technology based half-cut Mono PERC cells.
- Reduced internal cell resistance & increased power output.
- Excellent PID Resistance.
- Better performance in partial shading & low light conditions.
- Increased tolerance to microcracks and hotspots.
- M10 sized solar cell for lower LCOE & Better ROI.

Why Bluebird ?

- Backed by a 40+ years 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 M10 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.

15MW+ Installations

5MW+ Under Execution

25MW+ Proposal & Design Consultancy Delivered

60MW+ PV Module Sales

IEC IECEE cULus LISTED CE ISO 9001:2015 ISO 14001:2015 ISO 45001:2018 RoHS MSME एन एस आई सी NSIC ISO 9001 : 2008 MAKE IN INDIA

011-47052209 www.bluebirdsolar.com info@bluebirdsolar.in

TECHNICAL DATA

Module Series	Mono Half-cut		
	BBS24MC540	BBS24MC545	BBS24MC550
Electrical Characteristics at STC:			
Maximum Power Pmax (Wp)	540.00	545.00	550.00
Maximum Voltage Vmpp (V)	41.78	41.93	42.08
Maximum Current Impp (A)	12.92	13.00	13.07
Open Circuit Voltage Voc (V)	49.65	49.80	49.95
Short Circuit Current Isc (A)	13.68	13.76	13.83
Module Efficiency (%)	20.92	21.12	21.31

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

Electrical Characteristics at NOCT:			
Maximum Power Pmax (Wp)	404.00	408.30	412.20
Maximum Voltage Vmpp (V)	38.74	38.84	38.94
Maximum Current Impp (A)	10.43	10.51	10.59
Open Circuit Voltage Voc (V)	46.55	46.70	46.83
Short Circuit Current Isc (A)	11.03	11.09	11.15

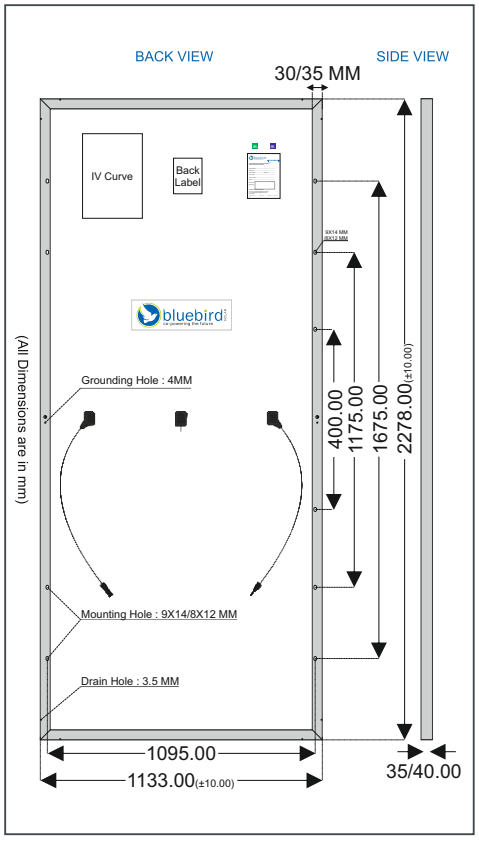
NOCT:800W/m2 irradiance, 20°C ambient temperature, Wind Speed 1m/sec

Temperature coefficient (Tc) and permissible operating conditions

Tc of Open Circuit Voltage (β)	-0.27%/°C
Tc of Short Circuit Current (α)	0.050%/°C
Tc of Power (γ)	-0.35%/°C
NOCT	45 ± 2°C
Maximum series fuse ratings	25A
Temperature Range	-40°C to +85°C
Maximum System Voltage	1500 / 1000 V DC

Mechanical Data

Dimension (LxWxH)	2278mm x 1133mm x 35/40mm
Weight	28 Kg
Solar Cells (PID Free)	144(24x6) Mono Cut Cells, 10BB, (91x182mm)
Junction Box	IP68, Split Junction Box with individual bypass diodes
Cables & Connectors	400 mm (+ve) and 400 mm (-ve) lenght cables, MC4 Connectors
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)
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.

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

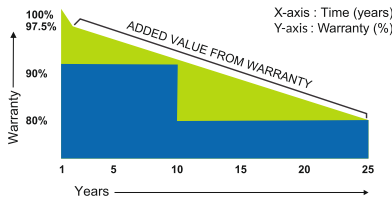
*some certifications are under process

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

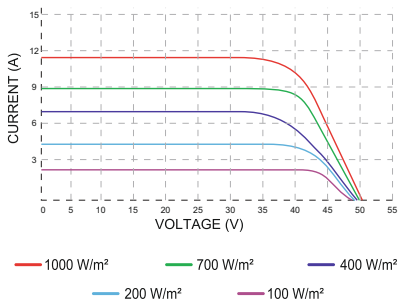
Above quantities are subject to variation depending on miscellaneous Factors
Trucks under consideration are all open body trucks.
Customized packaging available.

Warranty Graph



Product Warranty: 12 Years
Performance Warranty: Guaranteed Power output of 90% warranty for 10 years and 80% for 25 years

I-V Curve (for different irradiance)



CORPORATE OFFICE
70, Rajasthani Udyog Nagar Industrial Area, G.T. Karnal Road,
(Oppsite Jahangirpuri Metro Station) Delhi-110033

WORKS
Plot No.5, Ecotech, Udyog Vihar, Greater Noida,
Uttar Pradesh-201306