



MTPL-BFCT-SERIES

520W To 560W - M10, MONO PERC Half Cut Solar PV Bifacial Module with Transparent Backsheet



High Savings, Reduced BOS costs, Shorter Payback Time



Superior Module Technology with **High Module Efficiency upto 21.70%**



Better Performance under all climatic conditions



Excellent Outdoor **Power Generation**



Suitable for rooftop, ground mount & distributed Projects



Split IP 68 Junction box

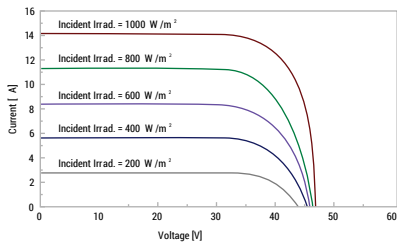


M10 Mono PERC cells

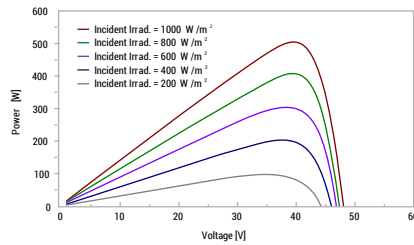


PID resistant with long term reliability

IV Curve



PV Curve

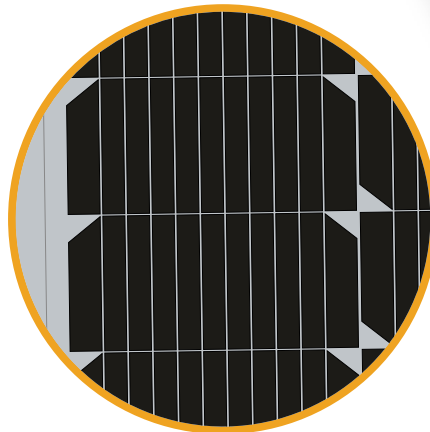


12 YEARS

12 YEARS Product Warranty

30 YEARS

30 YEARS Performance Warranty



Applications



Residential



Commercial



Utility



Off-grid

The Industry's Footprint

We, Maglare Technologies Pvt Ltd (MTPL), is providing reliable and cost effective energy solutions with focus on "know how" of emerging PV technologies of solar modules and implement them in methodical manner. This keeps us ahead in photovoltaic industry with the best quality products along with high poweroutput and long term reliability.

Product Certifications:



(Certifications are in progress)*

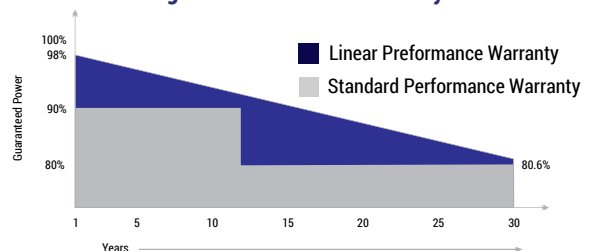
*We have applied for below certifications:

IEC 61215:2016, IEC 61730:2016, IS 14286:2010/IEC 61215:2005, IS/IEC 61730-1&2:2004
UL 61730-1&2, IEC 61701, IEC 62716, IEC 62804, IEC 60068-2-68, CEC

Management Certifications:

ISO 9001 : 2015 | ISO 14001 : 2015 | ISO 45001 : 2018

Maglare Performance Warranty:



Technical Data									
Model Name	MT-BFCT 520	MT-BFCT 525	MT-BFCT 530	MT-BFCT 535	MT-BFCT 540	MT-BFCT 545	MT-BFCT 550	MT-BFCT 555	MT-BFCT 560
Capacity rating - Pmax(Wp)	520	525	530	535	540	545	550	555	560
Rated voltage - Vmp(V)	40.69	40.87	41.06	41.19	41.40	41.56	41.70	41.87	42.03
Rated current - Imp(A)	12.78	12.85	12.92	12.99	13.06	13.12	13.2	13.26	13.34
Open circuit voltage - Voc(V)	48.55	48.73	48.91	49.12	49.29	49.48	49.67	49.86	50.05
Short circuit current - Isc(A)	13.38	13.44	13.53	13.60	13.68	13.76	13.82	13.90	13.99
Module efficiency (%)	20.15	20.34	20.53	20.73	20.92	21.12	21.31	21.50	21.70

Under Standard Test Conditions (STC) of irradiance 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C. Except Pmax, all other parameters have a tolerance of ±3%

Electrical Parameter at NOCT									
Model Name	MT-BFCT 520	MT-BFCT 525	MT-BFCT 530	MT-BFCT 535	MT-BFCT 540	MT-BFCT 545	MT-BFCT 550	MT-BFCT 555	MT-BFCT 560
Capacity rating - Pmax(Wp)	384.1	389	392.4	396.2	399.75	403.4	407.2	410.9	414.6
Rated voltage - Vmp(V)	37.96	38.14	38.29	38.43	38.61	38.75	38.90	39.06	39.19
Rated current - Imp(A)	10.12	10.20	10.25	10.31	10.36	10.41	10.47	10.52	10.58
Open circuit voltage - Voc(V)	45.38	45.56	45.74	45.92	46.09	46.27	46.45	46.63	46.80
Short circuit current - Isc(A)	10.75	10.81	10.88	10.94	11.01	11.07	11.14	11.20	11.26

Irradiance 800 W/m², ambient temperature 20°C, Module temperature 45°C, wind speed 1 m/sec

Bifacial : Pmax with Rearside Power Gain									
Model Name	MT-BFCT 520	MT-BFCT 525	MT-BFCT 530	MT-BFCT 535	MT-BFCT 540	MT-BFCT 545	MT-BFCT 550	MT-BFCT 555	MT-BFCT 560
5% Gain	546.00	551.00	557.00	562.00	567.00	572.00	578.00	583.00	588.00
10% Gain	572.00	578.00	583.00	589.00	594.00	600.00	605.00	611.00	616.00
15% Gain	598.00	604.00	610.00	615.00	621.00	627.00	633.00	638.00	644.00
20% Gain	624.00	630.00	636.00	642.00	648.00	654.00	660.00	666.00	672.00
25% Gain	650.00	656.00	663.00	669.00	675.00	681.00	688.00	694.00	700.00
30% Gain	676.00	683.00	689.00	696.00	702.00	709.00	715.00	722.00	728.00

Additional power gain from rear side compared to power of front side at STC depends on mounting structure (height, tilt angle etc.) & reflectivity of ground - Bi-Faciality Factor : 70 ± 5 %

Mechanical Parameters	
Length x Width x Thickness (L x W x T)	2279 mm (L) x 1133 mm (W) x 35 mm (T)
Weight	~28 kgs
Solar Cells per Module (Units) / Arrangement	144 cells Mono PERC Bifacial / (12x6 12x6)
Solar Cell Type & Size	Mono PERC Bifacial cell, 91 x 182 mm
Solar Glass	3.2 mm, High Transmission, AR Coated Tempered Glass
Encapsulate	Ultra - clear PID free EVA Encapsulant, UV & Weather stable
Backside	UV protected reflective, Transparent backsheet
Junction Box	IP68, 3 diodes, Split Junction Box
Cables and Connectors	400 mm Length, 4mm ²
Frame	Anodized Aluminium Alloy

Mechanical Loading	
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hail resistance	25mm Hailstone at the speed of 23m/s

Temperature Ratings (STC)	
Temperature Coefficient of Isc, α (%/°C)	0.048
Temperature Coefficient of Voc, β (%/°C)	-0.285
Temperature Coefficient of Pmax, γ (%/°C)	-0.34

- Quantity of modules/container may get changed without prior notice. Confirm with our sales representative before placing order.
- The electrical data given here is for reference purpose only.
- Before placing order confirm your requirement with our sales representative.
- Refer installation Manual instructions & Maglare warranty statement for terms & conditions.
- Due to constant product modifications, Maglare reserves the right to amend the above specifications without prior notice.
- Dispose of a product as e-waste after the end of its working life.
- Images in the datasheet are for representation purpose only.

Operating Parameters	
Operational Temperature	-40°C to +85 °C
Power Output Tolerance	0-2 (%)
Maximum System Voltage	1500 VDC
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature (NOCT)	45±2°C
Electrical Safety	Class II
Fire Safety	Class C (Type 1)
Application Class	Class A

Mechanical Dimensions

