



# MTPL-BFCG-SERIES

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



**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**



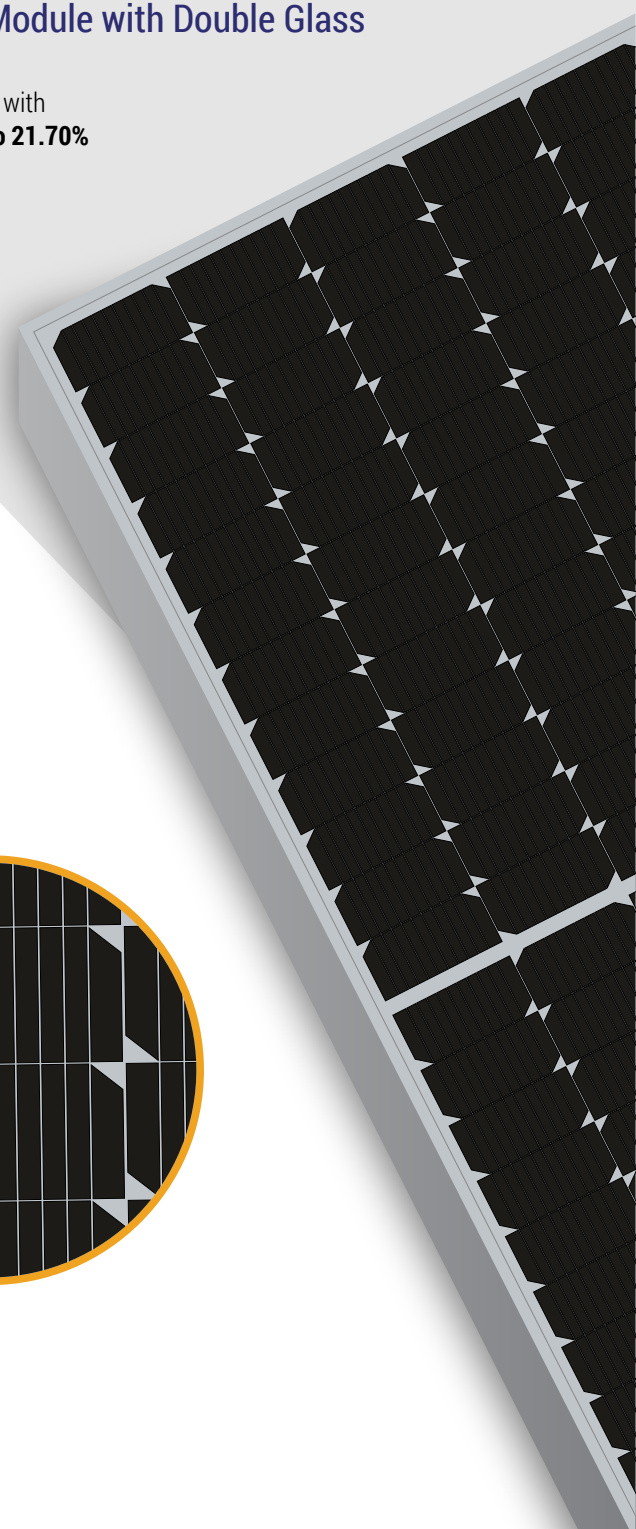
**Split IP 68** Junction box



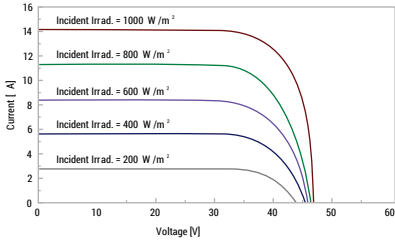
**M10 Mono PERC** cells



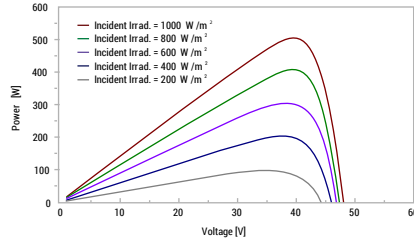
**PID resistant** with long term reliability



**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)\*

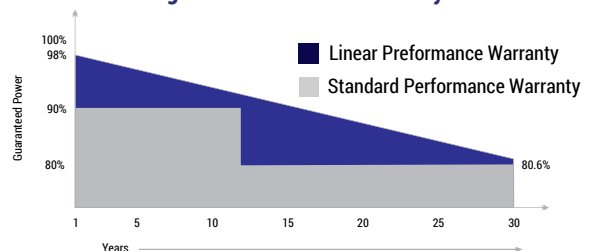
\*We have applied for below certifications:

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-BFCG 520 | MT-BFCG 525 | MT-BFCG 530 | MT-BFCG 535 | MT-BFCG 540 | MT-BFCG 545 | MT-BFCG 550 | MT-BFCG 555 | MT-BFCG 560 |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Capacity rating - Pmax(Wp)     | 520         | 525         | 530         | 535         | 540         | 545         | 550         | 555         | 555         |
| Rated voltage - Vmp(V)         | 40.50       | 40.68       | 40.88       | 41.05       | 41.27       | 41.45       | 41.63       | 41.81       | 41.81       |
| Rated current - Imp(A)         | 12.85       | 12.91       | 12.97       | 13.04       | 13.1        | 13.16       | 13.22       | 13.28       | 13.28       |
| Open circuit voltage - Voc(V)  | 48.40       | 49.05       | 49.21       | 49.39       | 49.56       | 49.73       | 49.9        | 50.07       | 50.07       |
| Short circuit current - Isc(A) | 13.36       | 13.42       | 13.49       | 13.56       | 13.63       | 13.7        | 13.77       | 13.84       | 13.84       |
| Module efficiency (%)          | 20.15       | 20.34       | 20.53       | 20.73       | 20.92       | 21.12       | 21.31       | 21.50       | 21.50       |

Under Standard Test Conditions (STC) of irradiance 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C. Except Pmax, all other parameters have a tolerance of ±3%

### Operating Parameters

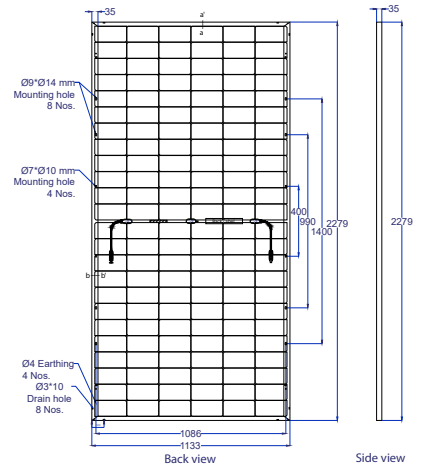
|   |                  |
|---|------------------|
| Operational Temperature                   | -40°C to +85°C   |
| Power Output Tolerance                    | 0-2 (%)          |
| Maximum System Voltage                    | 1500 VDC         |
| Maximum Series Fuse Rating                | 25A      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

### Electrical Parameter at NOCT

| Model Name                     | MT-BFCG 520 | MT-BFCG 525 | MT-BFCG 530 | MT-BFCG 535 | MT-BFCG 540 | MT-BFCG 545 | MT-BFCG 550 | MT-BFCG 555 | MT-BFCG 560 |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Capacity rating - Pmax(Wp)     | 384.1       | 388.64      | 392.35      | 396.05      | 399.75      | 403.45      | 407.15      | 410.85      | 414.55      |
| Rated voltage - Vmp(V)         | 37.72       | 37.94       | 38.14       | 38.27       | 38.48       | 38.66       | 38.82       | 38.98       | 39.18       |
| Rated current - Imp(A)         | 10.19       | 10.25       | 10.29       | 10.33       | 10.39       | 10.44       | 10.49       | 10.54       | 10.58       |
| Open circuit voltage - Voc(V)  | 45.72       | 45.87       | 46.02       | 46.19       | 46.35       | 46.50       | 46.66       | 46.82       | 46.98       |
| Short circuit current - Isc(A) | 10.75       | 10.81       | 10.86       | 10.92       | 10.98       | 11.03       | 11.09       | 11.14       | 11.20       |

Irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, Module temperature 45°C, wind speed 1 m/sec

### Mechanical Dimensions



### Bifacial : Pmax with Rearside Power Gain

| Model Name | MT-BFCG 520 | MT-BFCG 525 | MT-BFCG 530 | MT-BFCG 535 | MT-BFCG 540 | MT-BFCG 545 | MT-BFCG 550 | MT-BFCG 555 | MT-BFCG 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                                       | ~32 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                                  | 2.0 mm, High Transmission, AR Coated HS Glass         |
| Encapsulate                                  | POE Polyolefin based Encapsulant, UV & Weather stable |
| Junction Box                                 | IP68, 3 diodes, Split Junction Box                    |
| Cables and Connectors                        | 400 mm Length, 4mm <sup>2</sup>                       |
| 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.