

# MEP585-T144-GG

## N-Type TOPCon-144cell-M10 Dual Glass

0~+5W

Positive Power Tolerance

22.6%

Maximum Efficiency

560-585W

### 10-30% Additional Power Generation

30 years lifespan brings 10-30% additional power generation

### Zero LID

N-type solar cell has no LID naturally which can increase power generation

### Lower LCOE

Up to 25% more power generation in bifacial type (depending on Albedo)

### Better Weak Light Performance

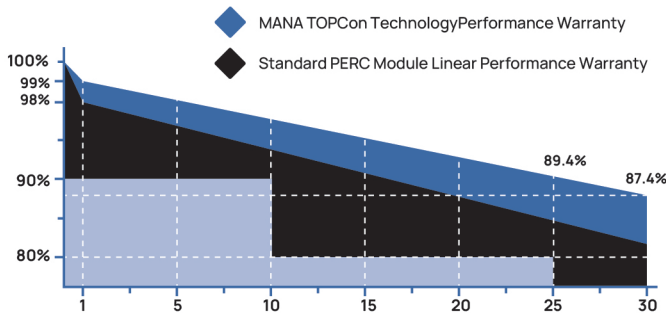
Higher power output even under low-light environment like on cloudy or foggy days

### Lower Temperature Coefficient

Better performance of the solar panel in higher temperature environment or hot days

### More Weather Resistance

Resistant to harsh environment such as salt, ammonia, sand, high temperature and high humidity area



### Mana Energy's Certificates

TUV Certificate IEC 61215: 2021  
 TUV Certificate IEC 61730: 2016  
 TUV Certificate IEC 61730: 2023  
 CE Certification (EN 61730:2018)  
 UKCA Certification (EN 61730:2018)  
 UKCA Certification (EN 61730:2023)  
 CEBC Certification (IEC 61215: 2021 / IEC 61730: 2023)  
 ISO 9001:2015: Quality management system  
 ISO 14001:2015: Environmental management system  
 ISO 45001:2018: Occupational health and safety management system



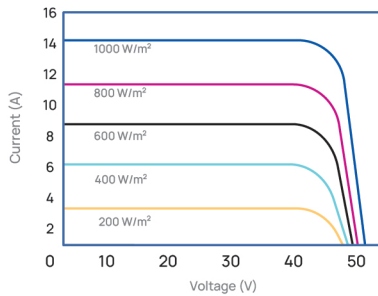
30 YEARS

Performance Warranty

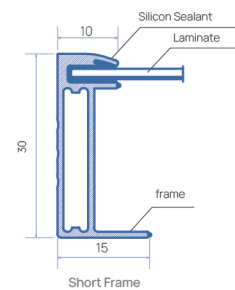
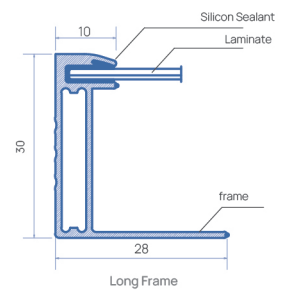
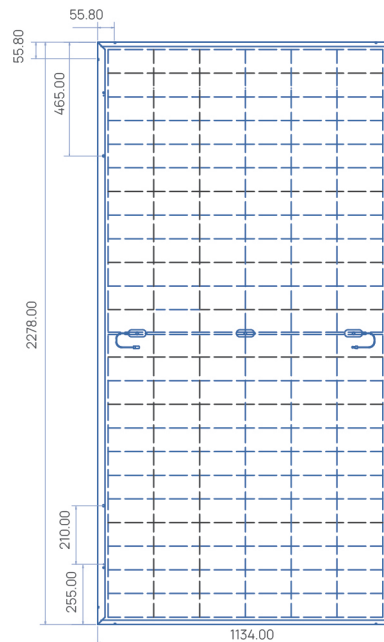
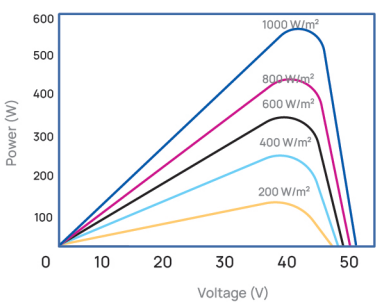
12 YEARS

Product Warranty

Current-Voltage Curve 585W



Power-Voltage Curve 585W



### Caution

To operate, install and manage Mana Energy Modules, read the installation manual and use carefully.

### Observation

This datasheet is subject to change without notice due to continuous improvement of our products. You can find all records of the updates on our website [www.manaenergypak.com](http://www.manaenergypak.com) or by contacting one of our sales staff. Allrights reserved @Mana Energy.



# MEP585-T144-GG

| Electrical Specificatuin (STC) - Front Side |     |     | STC: AM1.5 1000W/m <sup>2</sup> 25°C [Test Uncertainty: ±3%] |                     |                     |                     |                     |                     |
|---|-----|-----|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| Model                                       |     |     | MEP 585-T144-GG 560  | MEP 585-T144-GG 565 | MEP 585-T144-GG 570 | MEP 585-T144-GG 575 | MEP 585-T144-GG 580 | MEP 585-T144-GG 585 |
| Max Power                                   | Pmp | [W] | 560  | 565                 | 570                 | 575                 | 580                 | 585                 |
| Max Power Voltage                           | Vmp | [V] | 41.95  | 42.14               | 42.29               | 42.44               | 42.58               | 42.75               |
| Max Power Current                           | Imp | [A] | 13.35  | 13.41               | 13.48               | 13.55               | 13.63               | 13.70               |
| Open Circuit Voltage                        | Voc | [V] | 50.67  | 50.87               | 51.07               | 51.27               | 51.47               | 51.67               |
| Short Circuit Current                       | Isc | [A] | 14.13  | 14.19               | 14.25               | 14.31               | 14.37               | 14.43               |
| Efficiency                                  |     | [%] | 21.68  | 21.87               | 22.07               | 22.26               | 22.45               | 22.65               |

| Electrical Specificatuin (NMOT) - Front Side |     |     | NMOT: 800W/m <sup>2</sup> 20°C 1m/s [Test Uncertainty: ±3%] |       |       |       |       |       |
|--|-----|-----|---|-------|-------|-------|-------|-------|
| Max Power                                    | Pmp | [W] | 421   | 425   | 429   | 432   | 436   | 440   |
| Max Power Voltage                            | Vmp | [V] | 39.39   | 39.52 | 39.65 | 39.78 | 39.91 | 40.04 |
| Max Power Current                            | Imp | [A] | 10.69   | 10.75 | 10.81 | 10.87 | 10.93 | 10.99 |
| Open Circuit Voltage                         | Voc | [V] | 48.13   | 48.32 | 48.51 | 48.70 | 48.89 | 49.08 |
| Short Circuit Current                        | Isc | [A] | 11.41   | 11.46 | 11.50 | 11.55 | 11.60 | 11.66 |

| Bifaciality Power Generation Gain (Regarding 575W as an example) |     |     |       |       |       |       |       |       |
|--|-----|-----|-------|-------|-------|-------|-------|-------|
| Power Gain   |     | [%] | 0     | 5     | 10    | 15    | 20    | 25    |
| Max Power  | Pmp | [W] | 575   | 604   | 633   | 661   | 690   | 719   |
| Max Power Voltage  | Vmp | [V] | 42.44 | 42.47 | 42.50 | 42.53 | 42.56 | 42.59 |
| Max Power Current  | Imp | [A] | 13.55 | 14.22 | 14.88 | 15.55 | 16.21 | 16.88 |
| Open Circuit Voltage   | Voc | [V] | 51.27 | 51.31 | 51.35 | 51.39 | 51.43 | 51.47 |
| Short Circuit Current  | Isc | [A] | 14.31 | 14.97 | 15.72 | 16.43 | 17.11 | 17.83 |

| Mechanical Data  |                                     |
|------------------|-------------------------------------|
| Solar Cell       | N-Type 182mm × 91mm - [12 × 12]     |
| Module Dimension | 2278×1134×30 mm                     |
| Weight           | 32.5kg                              |
| Front Cover      | Glass - 2mm Semi Tempered AR coated |
| Back Cover       | Glass - 2mm Semi Tempered           |
| Frame            | Silver - Anodized Aluminium Alloy   |
| Junction Box     | IP68 Rated - 3 Bypass Diodes        |
| Cable            | 4.0m <sup>2</sup> -300mm            |

| Temperature Ratings                  |      |   |        |        |
|--------------------------------------|------|---|--------|--------|
| Temperature Coefficient              | Isc  | α | [%/°C] | +0.046 |
| Temperature Coefficient              | Voc  | β | [%/°C] | -0.25  |
| Temperature Coefficient              | Pmax | γ | [%/°C] | -0.30  |
| Nominal Module Operating Temperature | NMOT |   | [°C]   | 43±2   |

| Operating Properties                 |               |
|--------------------------------------|---------------|
| Max System Voltage                   | 1500V         |
| Max System Fuse Rating               | 30 A          |
| Operational Temperature              | -40 to +85 °C |
| BifacialityTolerance                 | ±5%           |
| Bifaciality=Pmaxrear/Pmaxfront (STC) | 80%           |

| Packaging Information         |      |
|-------------------------------|------|
| # Module Per Pallet           | 35   |
| # Pallet per 45' HC Container | 22   |
| # Pallet per 40' HC Container | 20   |
| # PCs per Container 40' HC    | 700  |
| Pallet Weight (kg)            | 1145 |