

# MIN 2500~6000TL-XH

- Max. efficiency 98.4%
- Dual MPP trackers
- Type II SPD on DC side
- Battery ready, future proof
- 24h self-consumption monitoring



**Growatt**  
powering tomorrow

P O W E R  
- I N G  
T O M O -  
R R O W

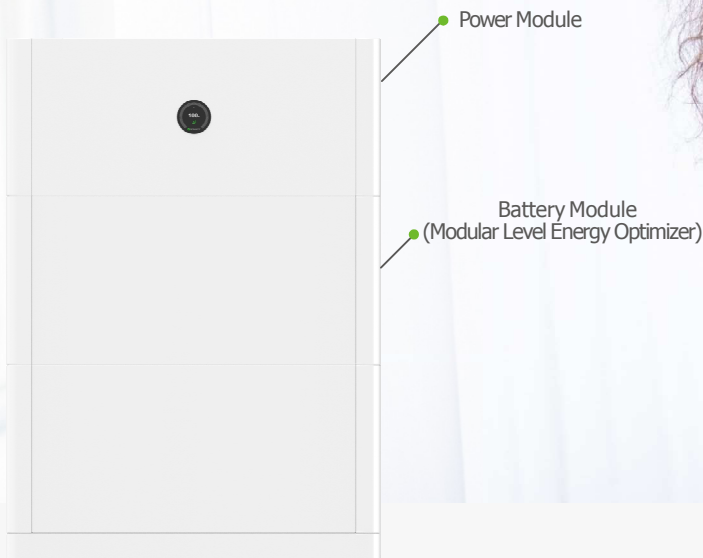
| Datasheet                                                                                                                  | MIN 2500TL-XH                                | MIN 3000TL-XH | MIN 3600TL-XH | MIN 4200TL-XH | MIN 4600TL-XH | MIN 5000TL-XH | MIN 6000TL-XH |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Input data (DC)                                                                                                            |                                              |               |               |               |               |               |               |
| Max. recommended PV power (for module STC)                                                                                 | 5000W                                        | 6000W         | 7200W         | 8400W         | 9200W         | 10000W        | 10000W        |
| Max. DC voltage                                                                                                            | 500V                                         | 500V          | 550V          | 550V          | 550V          | 550V          | 550V          |
| Start voltage                                                                                                              | 100V                                         |               |               |               |               |               |               |
| Nominal voltage                                                                                                            | 360V                                         |               |               |               |               |               |               |
| MPP voltage range                                                                                                          | 70V-500V                                     | 70V-500V      | 70V-550V      | 70V-550V      | 70V-550V      | 70V-550V      | 70V-550V      |
| No. of MPP trackers/strings per MPP tracker                                                                                | 2/1                                          |               |               |               |               |               |               |
| Max. input current per MPP tracker                                                                                         | 13.5A                                        |               |               |               |               |               |               |
| Max. short-circuit current per MPP trackers                                                                                | 16.9A                                        |               |               |               |               |               |               |
| Input data (DC battery)                                                                                                    |                                              |               |               |               |               |               |               |
| Compatible battery                                                                                                         | ARK XH Battery System (5.12kWh~17.9kWh)      |               |               |               |               |               |               |
| Operating voltage range                                                                                                    | 360-500V                                     |               | 360-550V      |               |               |               |               |
| Max.operating current                                                                                                      | 17A                                          |               |               |               |               |               |               |
| Max.charge power                                                                                                           | 6000W                                        |               |               |               |               |               |               |
| Max.discharge power                                                                                                        | 2500W                                        | 3000W         | 3600W         | 4200W         | 4600W         | 5000W         | 6000W         |
| Output data (AC)                                                                                                           |                                              |               |               |               |               |               |               |
| AC nominal power                                                                                                           | 2500W                                        | 3000W         | 3600W         | 4200W         | 4600W         | 5000W         | 6000W         |
| Max. AC apparent power                                                                                                     | 2500VA                                       | 3000VA        | 3600VA        | 4200VA        | 4600VA        | 5000VA        | 6000VA        |
| Nominal AC voltage(range*)                                                                                                 | 230V (180-280V)                              |               |               |               |               |               |               |
| AC grid frequency(range*)                                                                                                  | 50/60 Hz (45-55Hz/55-65 Hz)                  |               |               |               |               |               |               |
| Max. output current                                                                                                        | 11.3A                                        | 13.6A         | 16A           | 19A           | 20.9A         | 22.7A         | 27.2A         |
| Adjustable power factor                                                                                                    | 0.8leading...0.8lagging                      |               |               |               |               |               |               |
| THDI                                                                                                                       | <3%                                          |               |               |               |               |               |               |
| AC grid connection type                                                                                                    | Single phase                                 |               |               |               |               |               |               |
| Output data (Backup*)                                                                                                      |                                              |               |               |               |               |               |               |
| Max. apparent power                                                                                                        | 2500VA                                       | 3000VA        | 3600VA        | 4200VA        | 4600VA        | 5000VA        | 6000VA        |
| Nominal AC voltage                                                                                                         | 230V                                         |               |               |               |               |               |               |
| AC grid frequency                                                                                                          | 50/60Hz                                      |               |               |               |               |               |               |
| Efficiency                                                                                                                 |                                              |               |               |               |               |               |               |
| Max.efficiency                                                                                                             | 98.2%                                        | 98.2%         | 98.2%         | 98.4%         | 98.4%         | 98.4%         | 98.4%         |
| European efficiency                                                                                                        | 97.1%                                        | 97.1%         | 97.2%         | 97.2%         | 97.5%         | 97.5%         | 97.5%         |
| MPPT efficiency                                                                                                            | 99.9%                                        |               |               |               |               |               |               |
| Protection devices                                                                                                         |                                              |               |               |               |               |               |               |
| DC reverse polarity protection                                                                                             | Yes                                          |               |               |               |               |               |               |
| DC switch                                                                                                                  | Yes                                          |               |               |               |               |               |               |
| DC/AC surge protection                                                                                                     | Type II/Type III                             |               |               |               |               |               |               |
| Insulation resistance monitoring                                                                                           | Yes                                          |               |               |               |               |               |               |
| AC short-circuit protection                                                                                                | Yes                                          |               |               |               |               |               |               |
| Ground fault monitoring                                                                                                    | Yes                                          |               |               |               |               |               |               |
| Grid monitoring                                                                                                            | Yes                                          |               |               |               |               |               |               |
| Anti-islanding protection                                                                                                  | Yes                                          |               |               |               |               |               |               |
| Residual-current monitoring unit                                                                                           | Yes                                          |               |               |               |               |               |               |
| AFCI protection                                                                                                            | Optional                                     |               |               |               |               |               |               |
| General data                                                                                                               |                                              |               |               |               |               |               |               |
| Dimensions (W / H / D)                                                                                                     | 375/350/160mm                                |               |               |               |               |               |               |
| Weight                                                                                                                     | 10.8kg                                       |               |               |               |               |               |               |
| Operating temperature range                                                                                                | -25°C ... +60°C                              |               |               |               |               |               |               |
| Altitude                                                                                                                   | 4000m                                        |               |               |               |               |               |               |
| Self-Consumption night                                                                                                     | < 10W                                        |               |               |               |               |               |               |
| Topology                                                                                                                   | Transformerless                              |               |               |               |               |               |               |
| Cooling                                                                                                                    | Natural convection                           |               |               |               |               |               |               |
| Protection degree                                                                                                          | IP65                                         |               |               |               |               |               |               |
| Relative humidity                                                                                                          | 0%~100%                                      |               |               |               |               |               |               |
| DC connection                                                                                                              | H4/MC4(Optional)                             |               |               |               |               |               |               |
| AC connection                                                                                                              | Connector                                    |               |               |               |               |               |               |
| Display                                                                                                                    | OLED+LED/WIFI+APP                            |               |               |               |               |               |               |
| Interfaces: RS485 / USB/Wi-Fi/ GPRS/ RF/LAN                                                                                | Yes/Yes/Optional/Optional/Optional /Optional |               |               |               |               |               |               |
| Warranty: 5 years / 10 years                                                                                               | Yes /Optional                                |               |               |               |               |               |               |
| CE, IEC62109, AS/NZS 4777.2, CEI 0-21, VDE-AR-N 4105, VDE 0126-1-1, UTE C 15-712-1,EN 50549, IEC 62116, IEC 61727, G98/G99 |                                              |               |               |               |               |               |               |

\* The AC voltage and frequency range may vary depending on specific country grid standard.  
All specifications are subject to change without notice.

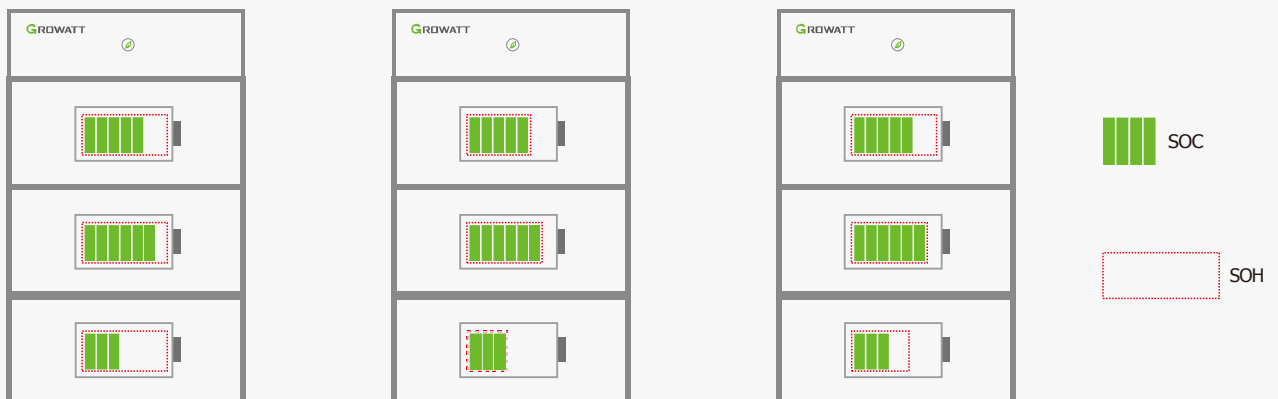
\* Backup power function need a Backup Box accessory.

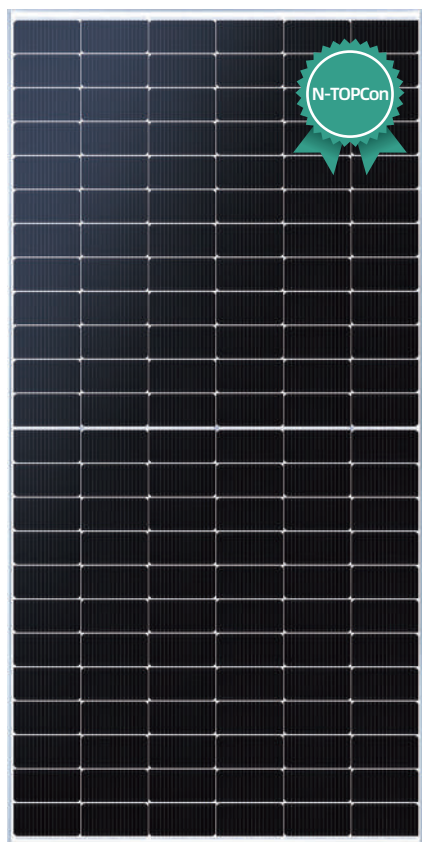
# Battery

- Flexible capacity options, 5kWh to 30kWh
- Module level energy optimization
- Support to mix new and old battery modules in one system
- Easy installation with modular and stacked design
- Long lifespan, 10 years warranty



- Different SOC and SOH of the battery modules can be mixed in one system.





# 565-585w

## Draco Module Series

N-TOPCON HIGH EFFICIENCY MONO BM6-16B-G

**Bloomberg**  
NEW ENERGY FINANCE

**Tier1**



### Extraordinary Product Performance

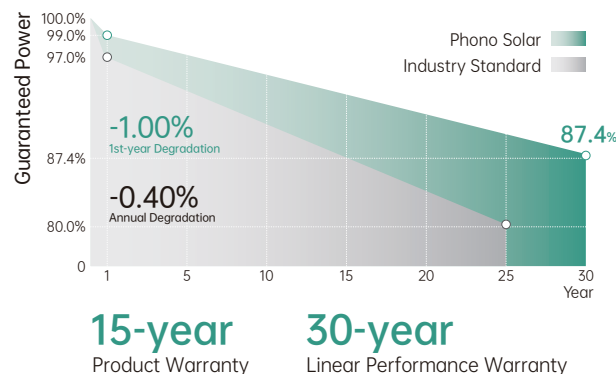
- Up to 30% additional power yield benefited from bifacial technology and over 80% cell bifaciality
- Competitive high-temperature performance with ameliorated temperature coefficient
- Better weak illumination response, higher power generation with N-TOPCon technology

### Higher Quality Reliability

- Zero Light Induced Degradation(LID), can increase power generation
- Industry-leading cell processing technology and dual glass contributes to excellent anti-PID characteristic
- First-year degradation is less than 1.0%, with linear degradation of 0.4% per year for 30 years

### Wider Application Conditions

- BIPV, vertical installation, snowfield, high-humid area, windy and dusty area
- Safer and easier handling during transportation and installation



### MANAGEMENT SYSTEM CERTIFICATES

IEC 61215, IEC 61730

ISO 9001  
2015 / Quality management system

ISO 14001  
2015 / Standards for environmental management system

ISO 45001  
2018 / International standards for occupational health & safety



## Electrical Typical Values

| Model                       | 1000V | PS565M8GF-24/TNH  |       | PS570M8GF-24/TNH  |       | PS575M8GF-24/TNH  |       | PS580M8GF-24/TNH  |       | PS585M8GF-24/TNH  |       |
|-----------------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
|                             | 1500V | PS565M8GFH-24/TNH |       | PS570M8GFH-24/TNH |       | PS575M8GFH-24/TNH |       | PS580M8GFH-24/TNH |       | PS585M8GFH-24/TNH |       |
| Testing Condition           |       | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  |
| Rated Power (Pmpp)          |       | 565               | 433   | 570               | 436   | 575               | 440   | 580               | 444   | 585               | 448   |
| Rated Current (Imp)         |       | 13.24             | 10.66 | 13.30             | 10.71 | 13.36             | 10.76 | 13.42             | 10.81 | 13.48             | 10.86 |
| Rated Voltage (Vmp)         |       | 42.68             | 40.57 | 42.86             | 40.74 | 43.04             | 40.92 | 43.22             | 41.09 | 43.40             | 41.26 |
| Short Circuit Current (Isc) |       | 13.89             | 11.19 | 13.95             | 11.24 | 14.04             | 11.31 | 14.11             | 11.36 | 14.18             | 11.42 |
| Open Circuit Voltage (Voc)  |       | 51.49             | 49.30 | 51.73             | 49.53 | 51.97             | 49.98 | 52.20             | 50.21 | 52.44             | 50.44 |
| Module Efficiency (%)       |       | 21.87             |       | 22.07             |       | 22.26             |       | 22.45             |       | 22.65             |       |

STC(Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, AM 1.5, Cell Temperature 25°C

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

## BSTC

|                                 |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax)            | 620   | 625   | 630   | 635   | 640   |
| Optimum Operating Current (Imp) | 14.53 | 14.58 | 14.64 | 14.69 | 14.75 |
| Optimum Operating Voltage (Vmp) | 42.68 | 42.86 | 43.04 | 43.22 | 43.40 |
| Short Circuit Current (Isc)     | 15.24 | 15.29 | 15.28 | 15.33 | 15.38 |
| Open Circuit Voltage (Voc)      | 51.49 | 51.73 | 52.20 | 52.44 | 52.68 |

BSTC:Front Side Irradiation 1000W/m<sup>2</sup>, Back Side Reflection Irradiation 135W/m<sup>2</sup>, AM 1.5, Ambient Temperature 25°C

## Mechanical Characteristics

|                             |                                                                                       |
|-----------------------------|---------------------------------------------------------------------------------------|
| Cell Type                   | N Type Monocrystalline                                                                |
| Dimension (L × W × H)       | Length: 2278mm (89.69 inch)<br>Width: 1134mm (44.65 inch)<br>Height: 30mm (1.18 inch) |
| Weight                      | 32.0kg (70.55 lbs)                                                                    |
| Glass                       | 2.0mm/2.0mm toughened glass                                                           |
| Frame                       | Anodized Aluminium Alloy                                                              |
| Cable (Including Connector) | 4mm <sup>2</sup> (IEC),<br>(+): 450mm,(-): 250mm or Customized Length                 |
| Junction Box                | IP 68 Rated                                                                           |

## Temperature Ratings

|                                 |           |
|---------------------------------|-----------|
| Voltage Temperature Coefficient | -0.25%/°C |
| Current Temperature Coefficient | +0.04%/°C |
| Power Temperature Coefficient   | -0.29%/°C |
| Power Tolerance                 | 0~+3%     |
| NOCT                            | 42±2°C    |
| Bifaciality                     | 80±5%     |

## Absolute Maximum Rating

|                                   |                    |
|-----------------------------------|--------------------|
| Operating Temperature             | From -40 to + 85°C |
| Hail Diameter @ 80km/h            | Up to 25mm         |
| Front Side Maximum Static Loading | 5400Pa             |
| Rear Side Maximum Static Loading  | 2400Pa             |
| Maximum Series Fuse Rating        | 30A                |
| PV Module Classification          | II                 |
| Fire Rating (IEC61730)            | C                  |
| Maximum System Voltage            | DC 1000V/1500V     |

## Packing Configuration

|                   |        |        |
|-------------------|--------|--------|
| Container         | 20' GP | 40' HQ |
| Pieces/Container  | 180    | 720    |
| Pcs/Pallet        | 36     | 36     |
| Pallets/Container | 5      | 20     |

## Electrical Characteristics

