



# Half Cell Bifacial Module PERC

## DAS-DH144P 390W ~ 410W



### High Efficiency

Module efficiency leading in industry, up to 20.2%



### High Reliability

Passed 3\*IEC standard test, 15 years materials warranty, 30 years power warranty



### Dual Sides Power Generation

Bifaciality is up to 70%, up to 25% more energy yield than conventional modules



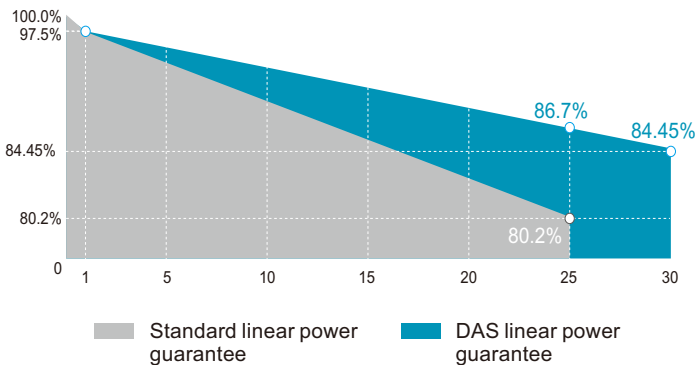
### Excellent Appearance and Performance

Both side black cell, symmetrical design, low risk of micro-crack



### Extensive Application Scenes

More extensive application scenes, such as BIPV, snow field, vertical installation, high humidity, strong wind and desert region



## Product And Quality Certifications

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality Management System
- IEC 62716, IEC 61701: Ammonia, Salt mist corrosion test
- IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules. Guideline for increased confidence in PV module design qualification and type approval

**-2.50%**  
First year power degradation

**-0.45%**  
Annual degradation

**15 YEAR**  
Materials and workmanship warranty

**30 YEAR**  
Linear power warranty



**DASOLAR**<sup>®</sup>  
Das Solar Co., Ltd.



DAS solar has been founded in 2018, the total designed production capacity is 5GW high efficiency Mono cell and 3GW high efficiency Mono module. It will be 1.2GW high efficiency Mono PERC cell and 900 MW high efficiency Mono PERC module production capacity from 2019.

### Electrical Parameters (STC\*)

| Module Type                  | DH144P-410 | DH144P-405 | DH144P-400 | DH144P-395 | DH144P-390 |
|------------------------------|------------|------------|------------|------------|------------|
| Nominal Max. Power(Pmax/W)   | 410        | 405        | 400        | 395        | 390        |
| Open Circuit Voltage(Voc/V)  | 49.46      | 49.24      | 49.19      | 48.99      | 48.74      |
| Short Circuit Current(Isc/A) | 10.52      | 10.45      | 10.34      | 10.26      | 10.19      |
| Operating Voltage(Vmp/V)     | 40.95      | 40.74      | 40.65      | 40.47      | 40.24      |
| Operating Current(Imp/A)     | 10.01      | 9.94       | 9.84       | 9.76       | 9.69       |
| Module Efficiency(%)         | 20.2       | 20.0       | 19.7       | 19.5       | 19.2       |

STC\*(Standard Test Condition): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM1.5

### Electrical Parameters (NMOT\*)

| Module Type                  | DH144P-410 | DH144P-405 | DH144P-400 | DH144P-395 | DH144P-390 |
|------------------------------|------------|------------|------------|------------|------------|
| Nominal Max. Power(Pmax/W)   | 301        | 298        | 294        | 290        | 287        |
| Open Circuit Voltage(Voc/V)  | 45.75      | 45.55      | 45.50      | 45.32      | 45.08      |
| Short Circuit Current(Isc/A) | 8.48       | 8.42       | 8.33       | 8.27       | 8.21       |
| Operating Voltage(Vmp/V)     | 37.58      | 37.48      | 37.36      | 37.13      | 37.03      |
| Operating Current(Imp/A)     | 8.01       | 7.95       | 7.87       | 7.81       | 7.75       |

NMOT\* (Nominal Module Operating Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s

### Back Power Gain (For 390W)

| Power Gain                   | 10%   | 15%   | 20%   | 25%   | 30%   |
|------------------------------|-------|-------|-------|-------|-------|
| Nominal Max. Power(Pmax/W)   | 415   | 425   | 440   | 450   | 465   |
| Open Circuit Voltage(Voc/V)  | 48.74 | 48.74 | 48.75 | 48.75 | 48.75 |
| Short Circuit Current(Isc/A) | 10.84 | 11.10 | 11.48 | 11.73 | 12.11 |
| Operating Voltage(Vmp/V)     | 40.24 | 40.24 | 40.25 | 40.25 | 40.25 |
| Operating Current(Imp/A)     | 10.31 | 10.56 | 10.93 | 11.18 | 11.55 |

### Mechanical Parameters

|                 |   |
|-----------------|---|
| Cell size       | Mono PERC 158.75×79.375mm                                 |
| Module size     | 2024×1002×6mm(L×W×H)                                      |
| Glass Thickness | 2.5mm   |
| Module Weight   | 28.9Kg  |
| Output Cable    | 4mm <sup>2</sup> , cable length 300mm (can be customized) |
| Connector       | MC4 compatible  |
| J-Box           | IP68, 3 bypass diodes                                     |
| Frame           | Frameless   |

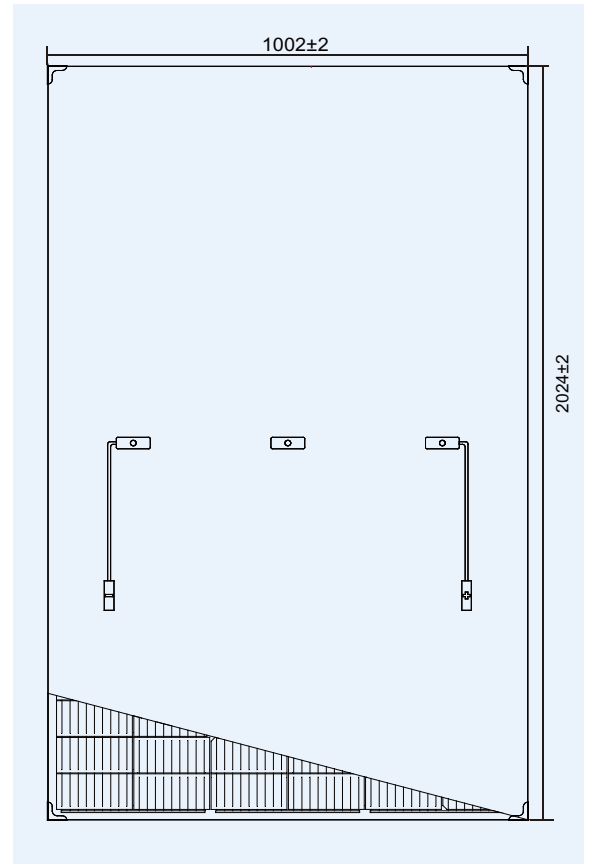
### Temperature Coefficients

|                            |            |
|----------------------------|------------|
| Short Circuit Current(Isc) | +0.048%/°C |
| Open Circuit Voltage(Voc)  | -0.31%/°C  |
| Nominal Max. Power(Pmax)   | -0.38%/°C  |
| NMOT                       | 42±2°C     |

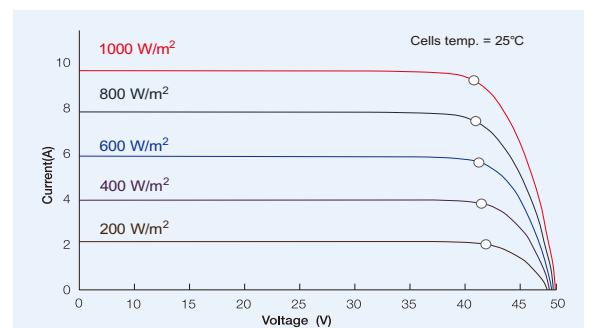
### Operating Parameters

|                            |  |
|----------------------------|--|
| Max. System Voltage        | DC1500V  |
| Power Tolerance            | 0 ~ +5 W                                       |
| Operating Temperature      | -40°C ~ +85°C                                  |
| Max. Fuse Rated Current    | 20A  |
| Front Static Load          | Snow load 5400Pa, Wind load 2400Pa             |
| Application Classification | Class A  |
| Packing Specification      | 30 pcs/Pallet, 150 pcs/ 20'HQ; 660 pcs/ 40'HQ; |

### Dimension



### I-V curve



### I-V curve

