



# Half Cell Mono PERC

## DAS-WH144P 390W ~ 410W



### High Efficiency

Module efficiency leading in industry, up to 20.4%



### High Reliability

Passed 3\*IEC standard test



### Low Hot-spot Risk

1/2 current, reducing the hot spot temperature



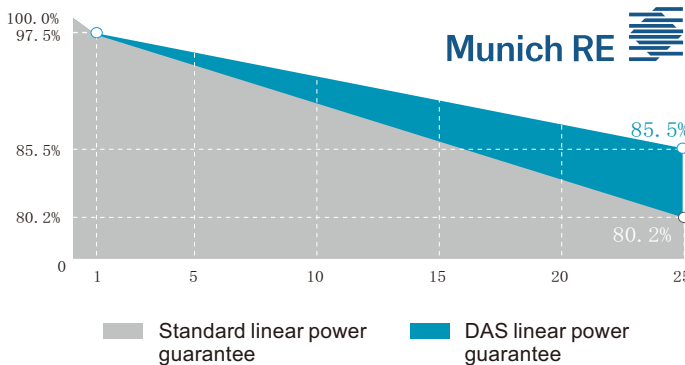
### Low NMOT

As low as 43°C , improving the power generation efficiency



### Half Cell, MBB Technology

Series-then-parallel cell connection design, more reliable soldering technology



## 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

**-0.50%**  
Annual degradation

**12 YEAR**  
Materials and workmanship warranty

**25 YEAR**  
Linear power warranty



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	WH144P-410	WH144P-405	WH144P-400	WH144P-395	WH144P-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(%)	20.4	20.1	19.9	19.6	19.4

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

## Electrical Parameters (NMOT\*)

Module Type	WH144P-410	WH144P-405	WH144P-400	WH144P-395	WH144P-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

## Mechanical Parameters

Cell size	Mono PERC 158.75mm*79.375mm
Module size	2008×1002×40mm ( L x W x H)
Glass Thickness	3.2mm
Module Weight	22.2Kg
Output Cable	4mm <sup>2</sup> , cable length 300mm (can be customized)
Connector	MC4 compatible
J-Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy

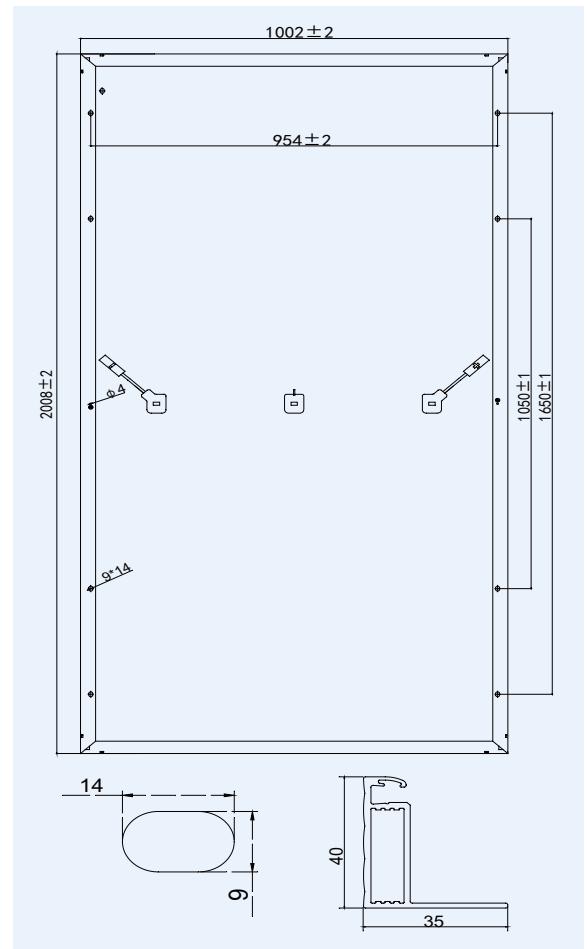
## Temperature Coefficients

Short Circuit Current(Isc)	+0.048%/°C
Open Circuit Voltage(Voc)	-0.31%/°C
Nominal Max. Power(Pmax)	-0.38%/°C
NMOT	43±2°C

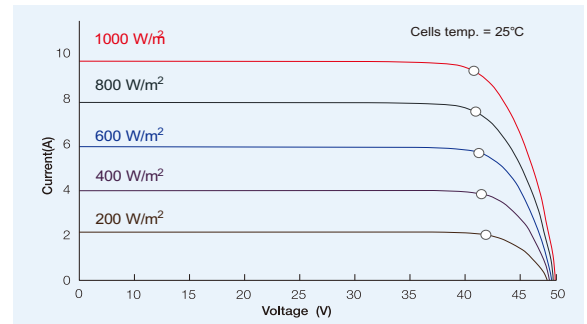
## Operating Parameters

Max. System Voltage	DC1000V/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	27 pcs/Pallet, 270 pcs/ 20'GP; 594 pcs/ 40'HQ;

## Dimension



## I-V curve



## I-V curve

