

## HPS400-410

### Monocrystalline PERC Half-Cut Solar Module

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#### KEY FEATURES



##### MBB Half-Cut Solar Cell:

108 cells (6X9X2); 10 busbar solar cell.



##### Higher Module Conversion Efficiency:

Higher module output up to 410W with module efficiency up to 21%.



##### Low-light Performance:

Advanced glass and surface texturing allow for excellent performance in low-light environments.



##### Light-weight design

Light-weight design using transparent backsheet for easy installation and low BOS cost.



##### Higher Power Output

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



W ATTS  
POSITIVE  
TOLERANCE

12

YEARS  
PRODUCT  
W ARRANTY

25

YEARS LINEAR  
POWE R W ARRANTY

## MONOCRYSTALLINE, 54 – CELL HALF-CUT SERIES

### ELECTRICAL PERFORMANCE

Module type: ESPHSC	STC	NOCT / STC	NOCT / STC	NOCT / STC	NOCT	
Maximum Power (Wp)	400W	302.4W	405W	306.2W	410W	310W
Open circuit Voltage (Voc)	36.95V	34.36V	37.15V	34.55V	37.35V	34.73V
Short circuit Current (Isc)	13.78A	11.34A	13.85A	11.40A	13.92A	11.45A
Maximum Power Voltage (Vm)	31.05V	28.72V	31.25V	28.9V	31.45V	29.1V
Maximum Power Current (Im)	12.90A	10.54A	12.97A	10.6A	13.04A	10.65A
Module efficiency	20.5%	15.4%	20.7%	15.6%	21%	15.8%
Maximum Series Fuse						30A
Watts positive tolerance						0~+5%
Number of Diode						3
Standard Test Conditions						1000W/M <sup>2</sup> , 25° C, AM1.5
Maximum System Voltage						1500V/DC
Temperature-Coefficient Isc						+0.048%/° C
Temperature-Coefficient Voc						-0.270%/° C
Temperature-Coefficient Pmpp						-0.350%/° C
Normal Operating Cell Temperature						-40° C...+85° C
Load Capacity for the cover of the module (glass)						5400Pa (IEC61215) (snow)
Load Capacity for the front & back of the module						2400Pa (IEC61215) (wind)
Product Certificate						DEKRA (IEC 61215, IEC 61730), CE, ROHS, PID Resistant, INMETRO
Company Certificate						ISO9001, ISO14001, ISO18001

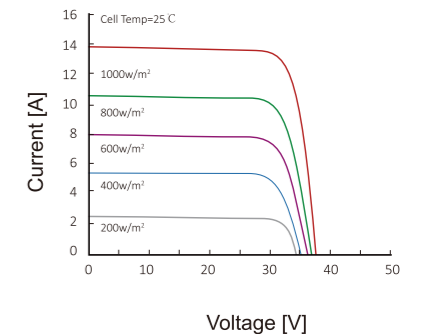
### MECHANICAL CHARACTERISTICS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Backsheet (color)	TPT in white
Cell (quantity / material / dimensions)	108 (6x9x2) / monocrystalline silicon, bifacial
Frame (material / color)	aluminum hollow-chamber frame on each side anodized aluminum alloy / silver
Junction box (protection degree)	≥ IP68
Cables & Plug connectors	4mm <sup>2</sup> , 300mm in length, length can be customized
Module Dimensions (L / W / H)	1722x 1134x30mm
Module Weight	22.5kg
Application class	Class A
Electrical protection class	Class II
Fire safety class	Class C

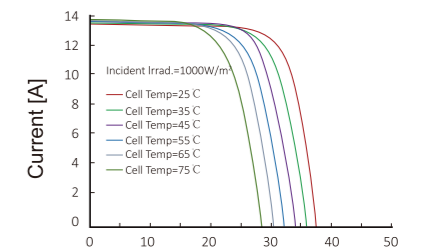
### PACKING

Container Size	Units/Pallet (PCS)	Weight/Pallet (KG)	Pallet Measurement (mm)	Units/Container (PCS)
40HQ	36	790	1770x 1130x1260	936

### CURRENT-VOLTAGE CURVES:



Module characteristics at constant module temperatures of 25°C and variable levels of irradiance



Module characteristics at variable module temperatures and constant module irradiance of 1.000 W/m<sup>2</sup>

### MODULE DIAGRAM:

