



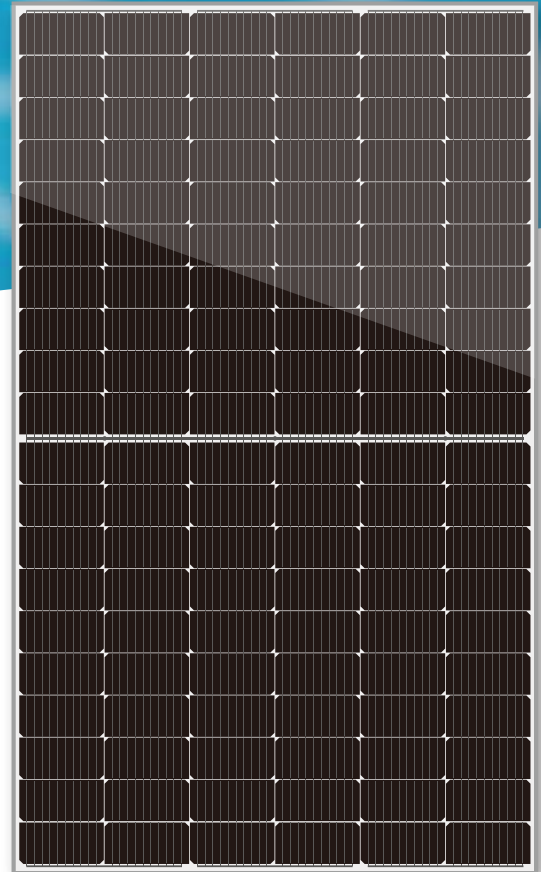
**SpolarPV**  
Easy Invest, More Returns

# SPHM6-60L

## 440-460 Watt

### MONO CRYSTALLINE MODULE

- SP440HM6-60L
- SP450HM6-60L
- SP460HM6-60L
- SP445HM6-60L
- SP455HM6-60L



**21.3%**  
Module efficiency

**12**  
years

Product warranty

**460 W**  
Highest power output

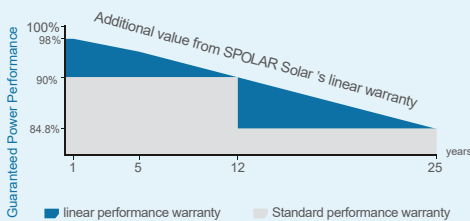
**25**  
years

Linear power warranty

**0 ~ +5W**  
Positive power tolerance

#### Key Features

#### Linear Performance Warranty



#### High Efficiency

Higher module conversion efficiency benefit from Passivated Emitter Rear Contact (PERC) technology.



#### PID Resistant

Excellent Anti-PID performance guarantee limited power degradation for mass production.



#### Low-light Performance

Advanced glass and cell surface texture design ensure excellent performance in low light environment.



#### Severe Weather Resilience

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



#### Durability against extreme environmental conditions

High salt mist and ammonia resistance.



ISO9001:2016 ISO14001:2016  
OHSAS18001:2011 certified factory.  
IEC61215 IEC61730 certified products.



[www.spolarpv.com](http://www.spolarpv.com)

## Electrical Characteristics at Standard Test Conditions (STC)

Module Type	SP440HM6-60L	SP445HM6-60L	SP450HM6-60L	SP455HM6-60L	SP460HM6-60L
Maximum Power -Pmax (W)	440	445	450	455	460
Maximum Power Voltage - Vmp (V)	34.62	34.87	35.13	35.38	35.60
Maximum Power Current - Imp (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit Voltage - Voc (V)	41.35	41.66	41.98	42.29	42.60
Short-circuit Current - Isc (A)	13.47	13.52	13.57	13.62	13.67
Module Efficiency STC (%)	20.3%	20.6%	20.8%	21.0%	21.3%

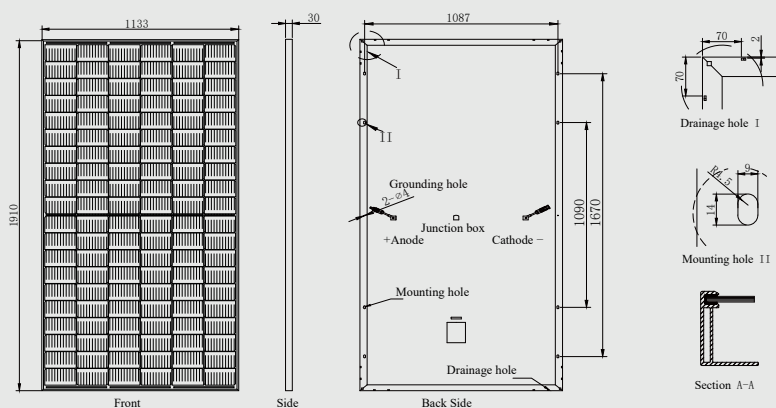
## Electrical Characteristics at Normal Operating Cell Temperature (NOCT)

Module Type	SP440HM6-60L	SP445HM6-60L	SP450HM6-60L	SP455HM6-60L	SP460HM6-60L
Maximum Power -Pmax (W)	331	335	338	342	345
Maximum Power Voltage - Vmp (V)	32.60	32.80	33.00	33.20	33.40
Maximum Power Current - Imp (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit Voltage - Voc (V)	38.80	39.00	39.20	39.40	39.60
Short-circuit Current - Isc (A)	10.78	10.82	10.86	10.90	10.94
Power tolerance	0~+5W		Operating Temperature(°C)		-40 C~+85 C
Temperature coefficients of Pmax	-0.350%/C		Maximum system voltage		1500 V
Temperature coefficients of Voc	-0.275%/C		Maximum series fuse rating		25A
Temperature coefficients of Isc	0.045%/C		Nominal operating cell temperature		45±2 C

## Mechanical Characteristics

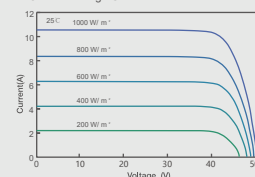
Cell Type	Mono-crystalline PERC 182×91mm
No.of cells	120 (6×20)
Dimensions	1910x1133x30mm
Weight	24.0 kg
Front Glass	3.2mm, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, MC4 Compatible, 3 Bypass Diodes
Output Cables	1×4.0mm <sup>2</sup> , Length:300mm or Customized Length
Packaging Configuration	72pcs/stack, 864pcs/40'HQContainer ( Two pallets=One stack )

## Dimensions



## IV-Curves

Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures

