

HSL 60S POLY

Hanwha Solar is a brand of Hanwha Q CELLS - the world's largest solar cell producer and a manufacturer with an unmatched passion for research. Hanwha Q CELLS is backed by the strength and resources of Korea's Hanwha Group a 'FORTUNE® Global 500 Company' with a diversified business portfolio, founded in 1952.





SUPERIOR YIELD



HIGH POWER

OUTPUT

thanks to advanced four-busbar technology.

LONG TERM DURABILITY



CERTIFIED

WIND RATING

withstands 4000 Pa wind loads.



OUTSTANDING

PERFORMANCE

in real world conditions such as in low light and high temperatures.



CERTIFIED

RESISTANCE

against PID effects.



ANTI REFLECTIVE

GLASS

with hydrophobic surface encourages sunlight absorption & self-cleaning.



CERTIFIED



in harsh environments (salt mist, ammonia corrosion).



HSL 60S POLY

Electrical Characteristics at Standard Test Conditions (STC)				
Module type HSL 60 Poly: HSL60P6-PC-1-xxx (xxx = power class)				
Power Class	260 W	265 W	270 W	
Maximum Power (P _{max})	260 W	265 W	270 W	
Open Circuit Voltage (Voc)	38.1 V	38.3 V	38.5 V	
Short Circuit Current (I _{sc})	8.98 A	9.12 A	9.22 A	
Voltage at Maximum Power (V_{mpp})	30.9 V	31.1 V	31.2 V	
Current at Maximum Power (I _{mpp})	8.42 A	8.53 A	8.66 A	
Module Efficiency (%)	15.6 %	15.9 %	16.2 %	

STC: Irradiance at 1000 W/m2 – Air mass 1.5 – Cell temperature at 25 \pm 2° C. Measurement tolerance Pmax: \pm 3%.Positive power sorting of module power class: 0 to + 5 W. Efficiency at 200 W/m2 in relation to 1000 W/m2 is at least 97% of STC efficiency.

Electrical Characteristics at NOCT			
NOCT = Nominal Operating Cell Temperature			
Power Class	260 W	265 W	270 W
Maximum Power (P _{max})	191 W	196 W	199 W
Open Circuit Voltage (V _{oc})	35.7 V	35.9 V	36.1 V
Short Circuit Current (Isc)	7.26 A	7.37 A	7.45 A
Voltage at Maximum Power (V_{mpp})	28.4 V	28.6 V	28.7 V
Current at Maximum Power (I _{mpp})	6.73 A	6.84 A	6.92 A
Module Efficiency (%)	14.3 %	14.7 %	14.9 %

NOCT: Irradiance at 800 W/m2 – Ambient temperature of 20° C – Wind speed at 1 m/s. Measurement tolerance Pmax: \pm 3%.

Temperature Characteristics		Maximum Ratings		
Normal Operating Cell	45°C+/-3°C	Maximum System Voltage	1000 V (IEC)	
Temperature (NOCT)	45 C+/-5 C	Series Fuse Rating	15 A	
Temperature Coefficients of Pmax	- 0.41 % / °C		Series fuse rating multiplied by 1.35	
Temperature Coefficients of Voc	-0.31 % / °C	Maximum Reverse Current		
Temperature Coefficients of Isc	+0.055%/°C			

Mechanical Characteristics	
Dimensions	1670mm ×1000mm ×32 mm
Weight	18.5±0.5kg
Frame	Aluminum-alloy
Front	3.2mm tempered glass with anti reflective coating
Encapsulant	EVA
Back Cover	Composite sheet
Cell Technology	4 busbar Polycrystalline
Cell Size	156 mm × 156 mm (6 in ×6 in)
Number of Cells (Pieces)	60 (6 × 10)
Junction Box	Protection class IP 67
Output Cables	Solar cable: 4 mm ² ; length: 1000 mm
Connector	H4

System Design		Packaging and Storage	
Operating Temperature	– 40 °C to 85 °C	Storage Temperature	– 40 °C to 85 °C
Hail Safety Impact Velocity	25 mm at 23 m/s	Packaging Configuration	32 pieces per pallet
Fire Safety Classification (IEC 61730)	Class C	Loading Capacity	832 pieces
Static Load Wind / Snow	4000/5400Pa	(40 ft. HQ Container)	

STAYING POWER

- Withstands 5400 Pa (550 kg/m2) snow and 4000 Pa (210 km/h) wind loads*
- PID-resistance verified by TÜV Rheinland[§]
- 12-year product warranty, 25-year linear performance warranty***

* See the Hanwha Solar Installation Guide

** Test conditions: module negatively charged with

1000 V at 25° C for 168 hours with al-foil coverage

*** See warranty tarms

PROVEN QUALITY

Hanwha Solar products comply with international standards; certificates include:

- IEC 61215 (Design approval)
- IEC 61730 (Safety approval)
- IEC 61701 (Salt-mist resistance)
- IEC 62716 (Ammonia resistance)
- EN 13501 (Fire classification)
- Conformity to CE
- MCS, SII approved
- ISO 9001 quality standards and ISO 14001 environmental standards
- OHSAS 18001 occupational health and safety standards

Please contact Hanwha Solar for a full list of certifications

Various Irradiance Levels







