## **HSL 60 S POLY**



Robust yet light, the high-yield 60-cell module is a popular choice for rooftop installations.

### HSL S – STAYING POWER

Higher output, extended longevity

# Hanwha Solar

### **SUPERIOR YIELD**

- High power output thanks to advanced four-busbar technology
- Outstanding performance under real-life conditions
- Double current sorting, "Power Controlled" certified

### LONG-TERM DURABILITY

- Withstands high wind and snow loads
- Verified resistance against PID effects
- Certified protection in harsh environments (salt-mist, ammonia corrosion)

### **PROVEN QUALITY**

- Korean quality management
- Shipped in certified protective packaging
- Industry-leading warranty terms



Power Controlled

www.tuv.com ID 0000043095



**ABOUT HANWHA SOLAR** 

Hanwha Solar is a leading supplier of photovoltaic modules and is backed by the strength and resources of Korea's Hanwha Group, a Fortune Global 500 corporation.

 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 terms

**STAYING POWER** 

### **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

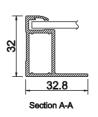






lease contact Hanwha Solar for a full list of certifications

# 1000 954.4 Bar code Label Cable Cable Cable Connector Mounting slots 4-8×16 Orainage holes 8-3×6 BACK VIEW BACK VIEW



### Electrical characteristics at standard test conditions (STC) HSL60P6-PC-1-xxx (xxx = power class) Module type 250 W 255 W 260 W 270 W **Power class** 250 W 270 W Maximum power (Pmax) 255 W 260 W 265 W 37.8 V 38.1 V 38.3 V 38.5 V Open circuit voltage (Voc) 37.6 V Short circuit current (I<sub>SC</sub>) 8.72 A 8.86 A 8 98 A 9.12 A 9.22 A Voltage at maximum power (V<sub>mpp</sub>) 30.5 V 30.7 V 30.9 V 31.1 V 31.2 V Current at maximum power $(I_{mpp})$ 8.20 A 8.31 A 8.42 A 8.53 A 8.66 A

15.3%

15.6%

15.9%

16.2%

STC: Irradiance at  $1000 \text{ W/m}^2$  – Air mass 1.5 – Cell temperature at  $25\pm2^\circ$  C. Measurement tolerance  $P_{max}$ :  $\pm3\%$ 

15.0%

**HSL 60 S POLY** 

Module efficiency (%)

Positive power sorting of module power class: 0 to + 5 W. Efficiency at  $200 \text{ W/m}^2$  in relation to  $1000 \text{ W/m}^2$  is at least 97% of STC efficiency.

Electrical characteristics at nominal operating cell temperature (NOCT)					
Power class	250 W	255 W	260 W	265 W	270 W
Maximum power (P <sub>max</sub> )	183 W	187 W	191 W	196 W	199 W
Open circuit voltage (V <sub>OC</sub> )	35.1 V	35.4 V	35.7 V	35.9 V	36.1 V
Short circuit current (I <sub>SC</sub> )	7.05 A	7.16 A	7.26 A	7.37 A	7.45 A
Voltage at maximum power (V <sub>mpp</sub> )	28.0 V	28.2 V	28.4 V	28.6 V	28.7 V
Current at maximum power (I <sub>mpp</sub> )	6.54 A	6.64 A	6.73 A	6.84 A	6.92 A

NOCT: Irradiance at 800 W/m<sup>2</sup> – Ambient temperature of 20° C – Wind speed at 1 m/s. Measurement tolerance P<sub>mys</sub>: ± 3%.

Temperature characteristics	
Temperature coefficients of P	-0.41%/° C
Temperature coefficients of V	-0.31%/° C
Temperature coefficients of I	+0.055%/° C

System design		
Static load wind/snow	4000 Pa/5400 Pa	
Hail safety impact velocity	25 mm at 23 m/s	
Operating and storage temperature	-40° C to 85° C	
Normal operating cell temperature (NOCT)	45±3°C	
Maximum system voltage	1000 V (IEC)	
Series fuse rating	15 A	
Maximum reverse current	Series fuse rating multiplied by 1.35	
Fire safety classification (IEC 61730)	Class C	
Safety class	II	

Caution: Please read the Installation Guide before using the product.

Cell technology	4 busbar polycrystalline
Cell configuration	60 cells (6 x 10), 156 mm x 156 mm (6 in x 6 in)
Dimensions	1670 mm x 1000 mm x 32 mm
Weight	18.5±0.5 kg
Frame	Aluminum-alloy, anodized
Front	3 mm tempered anti-reflection glass
Backsheet	Multi-layer composite sheet
Junction box	Protection class IP 67; 3 sets of diodes
Output cables	Solar cable: 4 mm²; length 1000 mm
Connector	Amphenol H4
Packaging configuration	32 pieces per pallet, 832 pieces/container (40 ft. HC