# HSL 72 S POLY



High yield and outstanding protection against degradation effects enable the 72-cell poly module to offer developers and investors a reliable return.

HSL S – STAYING POWER Higher output, extended longevity



## **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







## **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.

# HSL 72 S POLY

#### Electrical characteristics at standard test conditions (STC)

Module type		HSL72P6-P	C-1-xxx (xxx =	power class)	
Power class	295 W	300 W	305 W	310 W	315 W
Maximum power (P <sub>max</sub> )	295 W	300 W	305 W	310 W	315 W
Open circuit voltage (V <sub>OC</sub> )	44.6 V	44.8 V	45.0 V	45.1 V	45.3 V
Short circuit current (I <sub>SC</sub> )	8.60 A	8.70 A	8.81 A	8.91 A	9.02 A
Voltage at maximum power (V <sub>mpp</sub> )	36.4 V	36.6 V	36.8 V	37.1 V	37.3 V
Current at maximum power (I <sub>mpp</sub> )	8.11 A	8.20 A	8.29 A	8.36 A	8.45 A
Module efficiency (%)	15.1%	15.3%	15.6%	15.8%	16.1%

STC: Irradiance at 1000 W/m<sup>2</sup> – Air mass 1.5 – Cell temperature at 25±2° C. Measurement tolerance P<sub>max</sub>: ±3%.

Positive power sorting of module power class: 0 to + 5 W. Efficiency at 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> is at least 97% of STC efficiency.

Electrical characteristics at nominal operating cell temperature (NOCT)					
Power class	295 W	300 W	305 W	310 W	315 W
Maximum power (P <sub>max</sub> )	217 W	221 W	224 W	228 W	234 W
Open circuit voltage (V <sub>OC</sub> )	41.8 V	42.0 V	42.2 V	42.3 V	42.4 V
Short circuit current (I <sub>SC</sub> )	6.95 A	7.03 A	7.12 A	7.20 A	7.29 A
Voltage at maximum power (V <sub>mpp</sub> )	33.5 V	33.6 V	33.8 V	34.1 V	34.4 V
Current at maximum power (Impp)	6.48 A	6.58 A	6.63 A	6.69 A	6.81 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>max</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

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.

Mechanical characteristics/packaging	
Cell technology	4 busbar polycrystalline
Cell configuration	72 cells (6 x 12), 156 mm x 156 mm (6 in x 6 in)
Dimensions	1972 mm x 992 mm x 40 mm
Weight	23±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 mm <sup>2</sup> ; length 1200 mm
Connector	Amphenol H4
Packaging configuration	25 pieces per pallet, 550 pieces/container (40 ft. HQ)

### **STAYING POWER**

- Withstands 5400 Pa (550 kg/m<sup>2</sup>) 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 terms

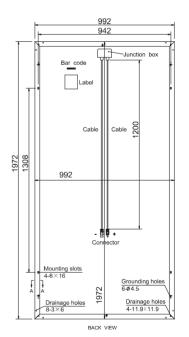
### **PROVEN QUALITY**

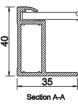
Hanwha Solar products comply with international standards; certificates include:

- 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



#### Please contact Hanwha Solar for a full list of certifications.







This product is available in Europe, Africa and South America. Please visit our website for a complete overview of the Hanwha Solar portfolio. CONTACT: info@hanwha-solar.com hanwha-solar.com