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

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

TÜVRheinland CERTIFIED
Power Controlled
www.tuv.com ID 0000043095

TÜVRheinland CERTIFIED
Qualified Shipping Unit
Regular Production Surveillance
www.tuv.com ID 0000040853

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 60 S POLY

Electrical characteristics at standard test conditions (STC)

Module type	HSL60P6-PC-1-xxx (xxx = power class)				
Power class	**250 W**	**255 W**	**260 W**	**265 W**	**270 W**
Maximum power (P_{max})	250 W	255 W	260 W	265 W	270 W
Open circuit voltage (V_{oc})	37.6 V	37.8 V	38.1 V	38.3 V	38.5 V
Short circuit current (I_{sc})	8.72 A	8.86 A	8.98 A	9.12 A	9.22 A
Voltage at maximum power (V_{mpp})	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
Module efficiency (%)	15.0%	15.3%	15.6%	15.9%	16.2%

STC: Irradiance at 1000 W/m² – Air mass 1.5 – Cell temperature at 25±2° C. Measurement tolerance P_{max}: ±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 nominal operating cell temperature (NOCT)

Power class	250 W	255 W	260 W	265 W	270 W
Maximum power (P_{max})	183 W	187 W	191 W	196 W	199 W
Open circuit voltage (V_{oc})	35.1 V	35.4 V	35.7 V	35.9 V	36.1 V
Short circuit current (I_{sc})	7.05 A	7.16 A	7.26 A	7.37 A	7.45 A
Voltage at maximum power (V_{mpp})	28.0 V	28.2 V	28.4 V	28.6 V	28.7 V
Current at maximum power (I_{mpp})	6.54 A	6.64 A	6.73 A	6.84 A	6.92 A

NOCT: Irradiance at 800 W/m² – Ambient temperature of 20° C – Wind speed at 1 m/s. Measurement tolerance P_{max}: ± 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.

Mechanical characteristics/packaging

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. HQ)

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***

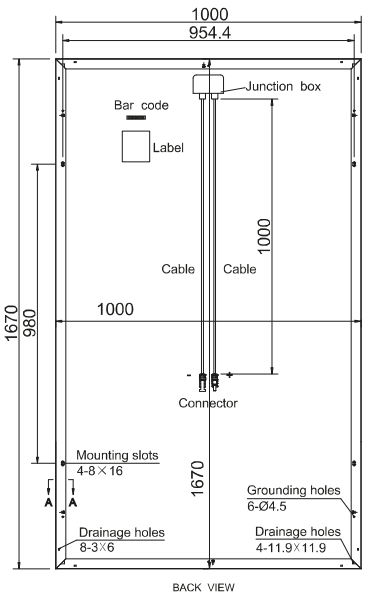
* See the Hanwha Solar Installation Guide
** Test conditions: module negatively charged with 1000 V at 25° C for 168 hours with al-foil coverage
*** See warranty terms

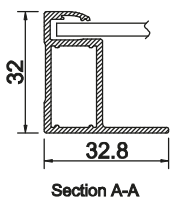
PROVEN QUALITY

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.

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