HSL72 | Poly UL

Hanwha Solar



Key Features

1. Guaranteed quality: 10 year product warranty, 25 year linear performance warranty *
2. Predictable output: Positive power sorting of 0 to + 5 W
3. Robust design: Module certified to withstand high snow loads, up to 5400Pa**
4. Superior Low-Light Performance: High performance during mornings and evenings

* Please refer to Hanwha Solar Product Warranty for details.
** Please refer to Hanwha Solar module Installation Guide.

ecodirect

Quality and Environmental Certificates

- ISO 9001 quality standards
- KOTRA Green seal of excellence
- UL1703 certification

About Hanwha Solar

Hanwha Solar is a vertically integrated manufacturer of photovoltaic modules designed to meet the needs of the global energy consumer.

- High reliability, guaranteed quality, and excellent cost-efficiency due to vertically integrated production and control of the supply chain;
- Optimization of product performance and manufacturing processes through a strong commitment to research and development;
- Global presence throughout Europe, North America, and Asia, offering regional technical and sales support.

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Electrical Characteristics

Electrical Characteristics at Standard Test Conditions (STC)

Power Class	280 W	285 W	290 W	295 W
Maximum Power (P_{max})	280 W	285 W	290 W	295 W
Open Circuit Voltage (V_{oc})	44.3V	44.5V	44.7V	45.0V
Short Circuit Current (I_{sc})	8.45A	8.56A	8.58A	8.67A
Voltage at Maximum Power (V_{mpp})	35.8V	35.9V	36.2V	36.3V
Current at Maximum Power (I_{mpp})	7.84A	7.95A	8.02A	8.14A
Module Efficiency (%)	14.11%	14.37 %	14.62%	14.87%
Cell Efficiency (%)	16.47%	16.77 %	17.06%	17.36%

P_{max}, V_{oc}, I_{sc}, V_{mpp}, and I_{mpp} tested at STC defined as irradiance of 1000 W/m² at AM 1.5 solar spectrum and temperature 25 ± 2 °C.
Electrical Characteristics: measurement tolerance of ± 3 %.

Electrical Characteristics at Normal Operating Cell Temperature (NOCT)

Power Class	280W	285W	290W	295W
Maximum Power (P_{max})	204W	207W	211W	214W
Open Circuit Voltage (V_{oc})	40.7V	40.9V	41.1V	41.3V
Short Circuit Current (I_{sc})	6.83A	6.92A	6.94A	7.01A
Voltage at Maximum Power (V_{mpp})	32.4V	32.5V	32.8V	32.8V
Current at Maximum Power (I_{mpp})	6.29A	6.38A	6.43A	6.53A
Module Efficiency (%)	10.27%	10.45%	10.63%	10.82%

P_{max}, V_{oc}, I_{sc}, V_{mpp}, and I_{mpp} tested at NOCT defined as irradiance of 800 W/m²; wind speed 1 m/s.
Electrical Characteristics: measurement tolerance of ± 3 %.

Temperature Characteristics

Temperature Coefficients of P	– 0.43 % / °C
Temperature Coefficients of V	– 0.31 % / °C
Temperature Coefficients of I	+ 0.056 % / °C

Maximum Ratings

Maximum System Voltage	600 V (UL & CUL)
Series Fuse Rating	15 A
Maximum Reverse Current	1.35×Fuse rating

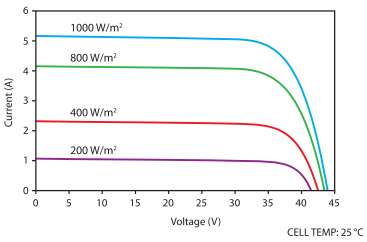
Nomenclature

Full product name:
HSL72P-PA-0-*xxx*K(UL)
xxx represents the power class

Performance at Low Irradiance:

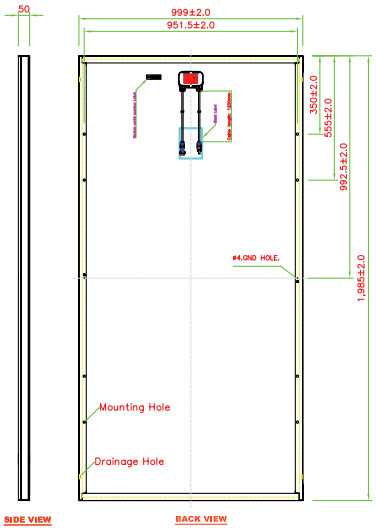
The typical relative change in module efficiency at an irradiance of 200 W/m² in relation to 1000 W/m² (both at 25 °C and AM 1.5G spectrum) is less than 5 %.

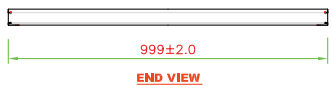
Various Irradiance Levels

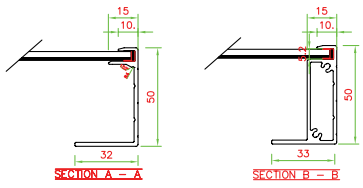


Mechanical Characteristics

Dimensions	1985mm × 999mm × 50 mm
Weight	23kg
Frame	Anodized aluminum frame
Front	3.2mm low iron tempered glass
Encapsulant	EVA
Back Cover	White back sheet
Cell Technology	Poly-Si
Cell Size	156mm × 156 mm
Number of Cells (Pieces)	72 (6 × 12)
Junction Box	Protection class IP65, with bypass-diode
Output Cables	Solar cable: 4 mm²; length: 1000 mm
Connector	MC4 compatible







System Design

Operating Temperature	– 40 °C to 85 °C
Hail Safety Impact Velocity	Hailstone (25mm) at 23m/s
Fire Safety Classification (IEC 61730)	Class C
Static Load Wind / Snow	2400 Pa / 5400 Pa

Packaging and Storage

Storage Temperature	– 40 °C to 85 °C
Packaging Method	Sleeve packing

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