# **HSL 72 S**

## Superior yield, cost efficient

**NOMENCLATURE** HSL72P6-PC-1-xxx xxx = power class

HIGH YIELD AND OUTSTANDING PROTECTION AGAINST DEGRADATION TS ENABLE THE 72-( O OFFER RELIABLE RETURNS.

## **Superior yield**

High power output thanks to advanced four-busbar technology

Outstanding performance under real-life conditions

Double current sorting available

## **Long-Term durability**

Verified resistance against PID effects verified by TÜV SÜD\*

Withstands 5400 Pa snow and 4000 Pa wind loads\*\*

Certified protection in harsh environments (salt-mist, ammonia corrosion)

Guaranteed Quality: 12 Year Workmanship and 25 Years Linear Performance Warranty\*\*\*

### **Cost efficiency**

Efficient Logistics: Compact Design, Efficient Shipping, Easy Handling

- \* PID test according to IEC62804

  \*\* See the Hanwha Solar Installation Guide

  \*\*\* Please refer to Hanwha Solar Product Warranty for details









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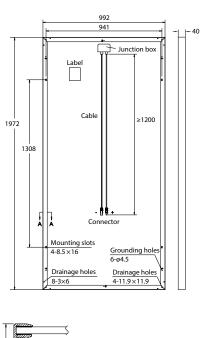
=	ECTRICAL CHARACT	ERISTICS							
POWER CLASS				295	300	305	310	315	320
МІ	NIMUM PERFORMANCE AT	STANDARD TEST CONDITION	NS, STC¹ (POV	VER TOLERAN	CE +5 W / -0 W)				
Minimum	Power at MPP <sup>2</sup>	$\mathbf{P}_{MPP}$	[ <b>W</b> ]	295	300	305	310	315	320
	Short Circuit Current*	I <sub>sc</sub>	[A]	8.60	8.70	8.81	8.91	9.02	9.10
	Open Circuit Voltage*	V <sub>oc</sub>	[V]	44.6	44.8	45.0	45.1	45.3	45.6
	Current at MPP*	I <sub>MPP</sub>	[A]	8.11	8.20	8.29	8.36	8.45	8.52
	Voltage at MPP*	V <sub>MPP</sub>	[V]	36.4	36.6	36.8	37.1	37.3	37.6
	Efficiency <sup>2</sup>	η	[%]	≥15.1	≥15.3	≥15.6	≥15.8	≥16.1	≥16.3
МІ	NIMUM PERFORMANCE AT	NORMAL OPERATING COND	ITIONS, NOC	3					
Minimum	Power at MPP <sup>2</sup>	P <sub>MPP</sub>	[W]	217	221	224	228	234	238
	Short Circuit Current*	I <sub>sc</sub>	[A]	6.95	7.03	7.12	7.20	7.29	7.35
	Open Circuit Voltage*	V <sub>oc</sub>	[V]	41.8	42.0	42.2	42.3	42.4	42.6
	Current at MPP*	I <sub>MPP</sub>	[A]	6.48	6.58	6.63	6.69	6.81	6.88
	Voltage at MPP*	V <sub>MPP</sub>	[ <b>V</b> ]	33.5	33.6	33.8	34.1	34.4	34.6
11000 W/m², 25 °C, spectrum AM 1.5 G <sup>2</sup> Measurer		<sup>2</sup> Measurement tolerances STC ± 3	nent tolerances STC ±3 %; NOC ±5 %		<sup>3</sup> 800 W/m <sup>2</sup> , NOCT, spectrum AM 1.5 G		*typical values, actual values may differ		

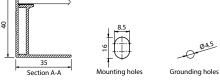
<sup>1</sup> 1000 W/m², 25 °C, spectrum AM 1.5 G	<sup>2</sup> Measurement tolerances STC ±3 %; NOC ±5 %	<sup>3</sup> 800 W/m <sup>2</sup> , NO0				
MECHANICAL CHARAC	TERISTICS					
Dimensions	1972 mm × 992 mm × 40 mm (including frame)					
Weight	23 ± 0.5 kg  3.2 mm tempered anti-reflection glass  Multi-layer composite sheet					
Front Cover						
Backsheet						
Frame	Anodised aluminium					
Cell configuration	$6 \times 12$ polycrystalline solar cells, $156  \text{mm} \times 156  \text{mm}$					
Cell technology	4 busbar					
Junction Box	Protection class IP67; 3 sets of diodes					
Output Cable	$4  \text{mm}^2  \text{Solar cable}; (+) \ge 1200  \text{mm}, (-) \ge 1200  \text{mm}$					
Connector	Intermateable connector with H4, MC4					
Packaging	25 pieces/pallet, 550 pieces/container (40 ft. HQ)					
SYSTEM DESIGN						
Static load wind / snow	4000Pa/5400Pa 25 mm at 23 m/s -40 °C to 85 °C					
Hail safety impact velocity						
Operation temperature						
NOCT	45±3°C					
Maximum system voltage	1000 V (IEC)					
Series fuse rating	15 A					
Maximum reverse current	Series fuse rating multipled by 1.35					
Fire safety classification	Class C					
Safety class	II					
PERFORMANCE AT LOV	VIRRADIANCE					

The typical efficiency at 200  $\text{W/m}^2$  in relation to 1000  $\text{W/m}^2$ , (25 °C, AM 1.5)

is at least 97 % of STC efficiency.

#### **TEMPERATURE CHARACTERISTICS** Temperature coefficients of P -0.41 %/°C Temperature coefficients of V -0.31%/°C Temperature coefficients of I +0.055%/°C





## **QUALIFICATIONS AND CERTIFICATES**

IEC 61215, IEC 61730, IEC 61701, IEC 62716, EN 13501, IEC62804, IEC60068-2-68, Reach compliance, Conformity to CE, SII approved, Application Class A



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