# **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							
РО	WER 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 ²Measurement tolerances STC ±3 %; NOC ±5 %		<sup>3</sup> 800 W/m <sup>2</sup> , NOCT, spectrum AM 1.5 G		*typic	*typical values, actual values may differ				

'1000 W/m², 25 °C, spectrum AM 1.5 G	<sup>2</sup> Measurement tolerances STC ±3 %; NOC ±5 % <sup>3</sup> 800 W/m², NOC						
MECHANICAL CHARAC	TERISTICS						
Dimensions	1972 mm × 992 mm × 40 mm (including frame) 23 ± 0.5 kg 3.2 mm tempered anti-reflection glass						
Weight							
Front Cover							
Backsheet	Multi-layer composite sheet  Anodised aluminium  6×12 polycrystalline solar cells, 156 mm × 156 mm  4 busbar  Protection class IP67; 3 sets of diodes  4 mm² Solar cable; (+) ≥ 1200 mm, (-) ≥ 1200 mm  Intermateable connector with H4, MC4						
Frame							
Cell configuration							
Cell technology							
Junction Box							
Output Cable							
Connector							
Packaging	25 pieces/pallet, 550 pieces/container (40 ft. HQ)						
SYSTEM DESIGN							
Static load wind/snow	4000 Pa / 5400 Pa						
Hail safety impact velocity	25 mm at 23 m/s -40 °C to 85 °C 45 ± 3 °C 1000 V (IEC) 15 A Series fuse rating multipled by 1.35 Class C						
Operation temperature							
NOCT							
Maximum system voltage							
Series fuse rating							
Maximum reverse current							
Fire safety classification							
Safety class							
PERFORMANCE AT LOV	V IRRADIANCE						
	2						

# Label Cable ≥1200 1972 Grounding hole 6-ø4.5 Drainage holes Drainage holes 4-11.9×11.9

# Section A-A





The typical efficiency at 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup>, (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 +0.055%/°C Temperature coefficients of I

#### **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





#### Sold in India by: **Loop Solar**

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Specifications subject to technical changes @ Hanwha Q CELLS Co., Ltd. HSL-72S\_2016-01\_Rev02\_EN