HYUNDAI SOLAR MODULE



Dual Black Max

HiS-S385YH(BK) HiS-S390YH(BK) HiS-S400YH(BK) HiS-S405YH(BK)

More Power

Generation

In Low Light

HiS-S395YH(BK) HiS-S410YH(BK)



IEC 1,500V Saves BOS Costs

All black Module For Sleek Design (Black Meshed T-Back sheet)



Bifacial Cells

132

Maximized Power Generation

Increased total power output through capturing light from both the front and back of Bifacial solar modules. Back side power gain up to 25% of the front output depending on PV system design.



Mechanical Strength

Tempered glass and reinforced frame design withstand rigorous weather conditions such as heavy snow(5,400Pa) and strong wind(4,000Pa).

Hyundai's Warranty Provisions



 25-Year Product Warranty Materials and workmanship



 25-Year Performance Warranty Initial year : 98.0%

· Linear warranty after second year: with 0.54%p annual degradation, 85.0% is guaranteed up to 25 years

Certification



UL61730 certified by UL, Type 1(for Fire Class A)



Half-Cut & **Multi-Wire Technology**

Improved current flow with half-cut technology and 9 thin wiring technology allows high module efficiency of up to 20.5%. It also reduces power generation loss due to micro-cracks.



Hyundai's R&D center is an accredited test laboratory of both UL and VDE.



Both LID(Light Induced Degradation) and PID(Potential Induced Degradation) are significantly reduced to ensure higher actual yield during lifetime.



Global brand with powerful financial strength provide reliable 25-year warranty.

About Hyundai Energy Solutions

Established in 1972, Hyundai Heavy Industries Group is one of the most trusted names in the heavy industries sector and is a Fortune 500 company. As a global leader and innovator, Hyundai Heavy Industries is committed to building a future growth engine by developing and investing heavily in the field of renewable energy.

As a core energy business entity of HHI, Hyundai Energy Solutions has strong pride in providing high-quality PV products to more than 3,000 customers worldwide.





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		N	ono-Crystalline Typ	oe(HiS-SYH(BK))		
	385	390	395	400	405	410
W	385	390	395	400	405	410
V	44.5	44.8	45.0	45.3	45.6	45.9
А	11.04	11.11	11.18	11.25	11.33	11.40
V	37.1	37.3	37.5	37.7	37.9	38.1
А	10.40	10.47	10.54	10.61	10.69	10.76
%	19.3	19.5	19.8	20.0	20.3	20.5
-			Mono crystal	line, 9busbar		
V			1,5	00		
%/K			-0.3	347		
%/K			-0.2	268		
%/K			+0.	032		
	V A V A - V %/K %/K	W 385 V 44.5 A 11.04 V 37.1 A 10.40 % 19.3 -	385 390 W 385 390 V 44.5 44.8 A 11.04 11.11 V 37.1 37.3 A 10.40 10.47 % 19.3 19.5 - - - V %/K	385 390 395 W 385 390 395 V 44.5 44.8 45.0 A 11.04 11.11 11.18 V 37.1 37.3 37.5 A 10.40 10.47 10.54 % 19.3 19.5 19.8 - Mono crystal 1.5 V/K -0.3 -0.3	385 390 395 400 W 385 390 395 400 V 44.5 44.8 45.0 45.3 A 11.04 11.11 11.18 11.25 V 37.1 37.3 37.5 37.7 A 10.40 10.47 10.54 10.61 % 19.3 19.5 19.8 20.0 - Mono crystalline, 9busbar 1,500 1,500 %/K -0.347 -0.268 -0.268	W 385 390 395 400 405 V 44.5 44.8 45.0 45.3 45.6 A 11.04 11.11 11.18 11.25 11.33 V 37.1 37.3 37.5 37.7 37.9 A 10.40 10.47 10.54 10.61 10.69 % 19.3 19.5 19.8 20.0 20.3 - Mono crystalline, 9busbar V 1,500 %/K - 0.347 %/K - 0.268

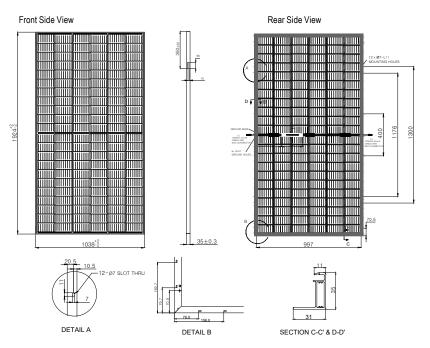
*All data at STC (Measurement tolerances Pmpp \pm 3%; Isc ; Voc \pm 3%). Above data may be changed without prior notice.

Additional Power Gain from rear side		385	390	395	400	405	410
5%	W	399	404	410	415	425	431
15%	W	437	443	449	454	466	472
25%	W	475	482	488	494	506	513

Mechanical Characteristics

Dimensions	1,038 mm (W) x 1,924 mm (L) x 35 mm(H)
Weight	Approx. 21.1 kg
Solar Cells	132 half cut bifacial cells (2 parallel x 66 half cells in series)
Output Cables	Cable : 1,200mm / 4mm² Connector : MC4 genuine connector
Junction Box	IP68, weatherproof, IEC certified (UL listed)
Bypass Diodes	3 bypass diodes to prevent power decrease by partial shade
Construction	Front : 3.2mm, High Transmission, AR Coated Tempered Glass Encapsulant : EVA I Back Sheet : Black Meshed Transparent Backsheet
Frame	Anodized aluminum alloy type 6063

Module Diagram (unit : mm)



Installation Safety Guide

- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage. • Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

Nominal Operating Cell Temperature	45.5°C ± 2
Operating Temperature	-40°C ~ +85°C
Maximum System Voltage	DC 1,500V
Maximum Reverse Current	20A
Maximum Test Load	Front 5,400 Pa (113psf) Rear 4,000 Pa (84psf)

I-V Curves

