



Helping you power the world.

Solar Quotation

[Name] Daniel Bedford

[Your Sales Advisor] Thomas



Why Choose Skylar

Choosing a company, you can trust with your home or business is extremely important. At Skylar Solar we use our expert knowledge to help you make the switch to a cleaner, greener future.

Our team has over 30 years' experience within the renewable energy industry. We invest heavily in training to ensure that all our advisors are able to advise you with up-to-date industry knowledge.

We are proud to be a multi-award-winning solar installer. Our satisfied clients include more than 5,000 home and business owners just like you. We also offer you the ability to discuss previous customers' experiences with Skylar Solar through our 'Happy Home Network'.

For every solar installation we complete, we donate 1% of profits to The Skylar Solar Project.



This certification is a sign of quality, giving consumers peace of mind and assurance and is required for anyone looking to access financial incentives for these technologies



EPVS is a certification standard that validates the processes used by installers to ensure energy-saving, generating calculations for home energy products are accurate and valid.



Which? recognises reputable traders who successfully pass an assessment process carried out by their trading standards professionals. Not just anyone can become endorsed.



Contractors registered by NICEIC are assessed on a regular basis to ensure that they are competent and capable of meeting the relevant technical and safety standards.



TrustMark is the Government Endorsed Quality Scheme that covers work a consumer chooses to have carried out in or around their home.



HIES is a consumer protection organisation covering the installation of renewable energy and home energy efficiency products.



Quotation Overview

Your quotation is based on the information you have provided to your sales advisor in your initial review.

Our quote below has been tailored to your requirements based on our recommendations. Please let your sales advisor know if you would like any amendments to the products used within your quotation.

Product	Quantity	Warranty
Hyundai 410w Black Mono Panel	19	25 Years
Growatt 6kw Hybrid Inverter	1	10 Years
Growatt 6.5kw Storage Battery	2	10 Years
Panel Mounting and Installation Kit for 19 Panels	1	
Solar PV Installation	1	
Instillation Includes		
• Site Surveys • System Design • Delivery of Goods • MCS Registration • HIES Registration • G99 Application • Online Monitoring • Smart Export Guarantee		
Warranty		
25 Years Workmanship Warranty		
10 Year HIES Insurance Backed Warranty		
Subtotal	£ 16,250	
VAT (0%)	£ 0	
Total	£ 16,250	



Your Financial Projections

Current Usage

Annual Consumption (Kw)	15,500
Current Price per Kw (£)	0.30

Quoted System Generation

System Size	7.79kw
Solar Panel Generation per annum (Kw)	7,284
Self-Consumption (Kw)	5,463
Export (Kw)	1,821

Savings

Export Tariff Earnings	£ 100.15	You can choose to sell exported solar electricity to your electricity supplier - this is based on 100% generation less the % of solar used by you. Assuming: 75% used
Fuel Bill Saving	£ 1,638.82	
Total Annual Earnings	£ 1,738.97	

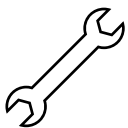
The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of solar radiation (sunlight) from location to location and from year to year. This estimate is based upon the standard MCS procedure and is given as guidance only. It should not be considered as a guarantee of performance.

Aftercare Service



24-hour System Monitoring

We are aware of any faults as they happen and work efficiently to ensure your system is up and running with minimal disruption. We will provide you with notifications, so you are aware of system performance.



48-hour Call Out

If any issues arise, we will attend to your property within 48 hours from initial contact. Our team are contactable between 09:00-17:00 weekdays and 09:00-13:00 on weekends.



Designated Sales Advisor

You have a direct contact throughout the life cycle of your system; from installation to any after care requirements. At Skylar Solar we believe in developing long lasting relationships based on trust and transparency.



Happy Home Network

We pride ourselves in the quality of our work which is why we encourage our customers to share their stories with others who are also considering making the switch to green energy through our Happy Home Network.



THE SKYLAR SOLAR PROJECT

At Skylar Solar we believe in giving back to our local community. The Skylar Solar Project was established to help more communities make the switch to green energy, as well as taking a step to futureproof the world for our younger generation.



Making green energy more accessible

With every Solar Pv system installed, we will donate 1% of our profits to help fund the installation of Solar Pv systems to local not-for-profit organisations such as schools and community centres.

The project will aim to fund as many installations as possible a year, across various not-for-profit organisations around the UK. Skylar Solar will fund, install, and maintain the Solar Pv system, allowing non-profits to benefit from reduced energy bills whilst improving their carbon footprint.



- ❑ Reduce the Project's energy bills so they can focus their money where it really matters.
- ❑ Improve carbon footprint
- ❑ Help raise awareness of clean energy
- ❑ Educate the younger generation about climate change

If you are a not-for-profit organisation and would like to be considered for The Skylar Solar Project, please contact us directly.





BUILT TOUGH.
THE KNOWN SOLAR BRAND
AUSTRALIA TRUSTS.



25
YEAR PRODUCT
WARRANTY



**SHINGLED
MODULE**

84.8% GUARANTEED ELECTRICITY
PRODUCTION AT YEAR 25





No. **81** FORBES
2020 WORLD'S MOST
VALUABLE BRANDS



What is the value of a Brand?

Hyundai is one of the biggest consumer brand names in the world.

As a long established international brand, Hyundai Energy Solutions solar panels have been installed within Australia for over 10 years.

In 2019 we increased our product warranty to 25 years.

By purchasing panels from a trusted and well known consumer brand, you're making a safer investment for the long term.

Our History

1972

Hyundai Heavy Industries
start business

2004

Started solar
business

2007

Set up of Cell/Module
production line

2012

Set up of PV
R&D Centre

Hyundai Heavy
Industries
achieves 10th
World Record

2016

Established
*Hyundai Energy
Solutions*

2019

Increased Product
Warranty to **25 years**

1983

No.1 in the world
for ship orders and
construction

2009

Entered
Australian
Market

2011

Signed \$20M
supply contract
in Australia

2014

Produce high-
efficiency Mono
Cell/Module (PERC)

2018

Start of EPC
& ESS/Inverter
business

2020

Hyundai increase
sales target in
Australia

Introducing the next generation

SHINGLED MODULE



Outstanding
performance under
the hot Australian sun!

Enjoy the peace of mind of long-term performance and reliability from Hyundai's superior technology

- ① Low temperature coefficient and reduced risk of hot spots
- ② Electrically Conductive Adhesive for higher reliability
- ③ Improved shade resilience
- ④ Better space utilisation delivers higher efficiency
- ⑤ Improved mechanical load resilience



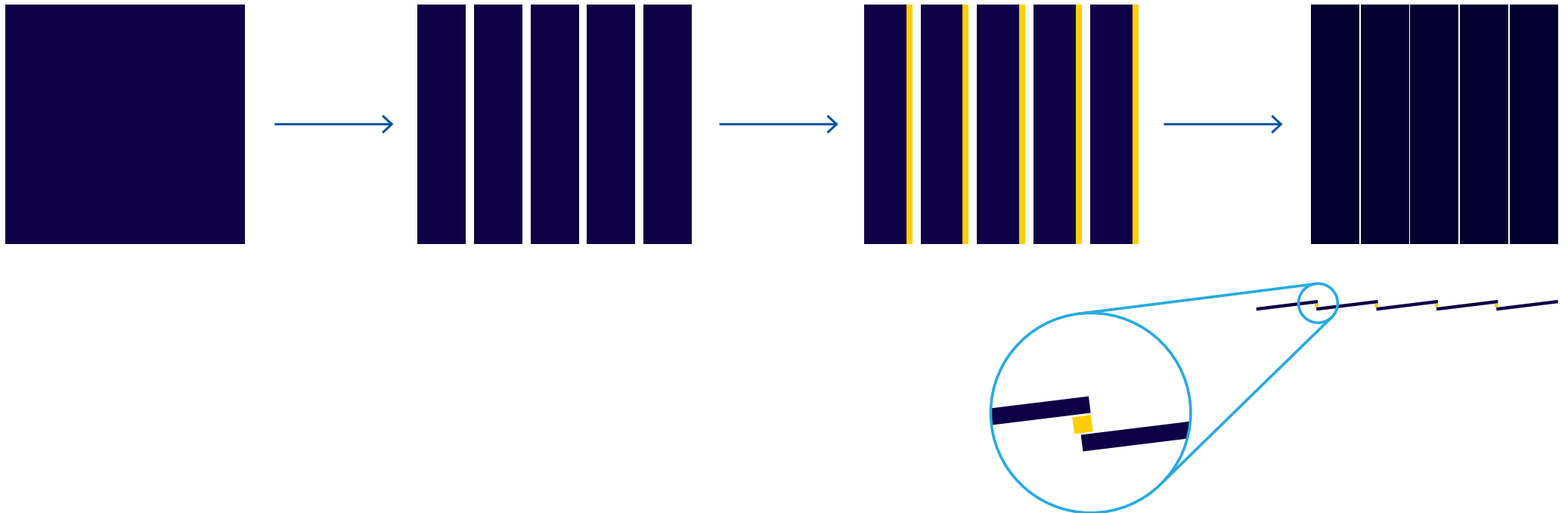
What is Shingled Cell Technology?

Start with a high performance Mono PERC cell

Laser cut the cell into five strips

Apply Electrically Conductive Adhesive to each strip

Overlap the cells in a shingled arrangement in the module



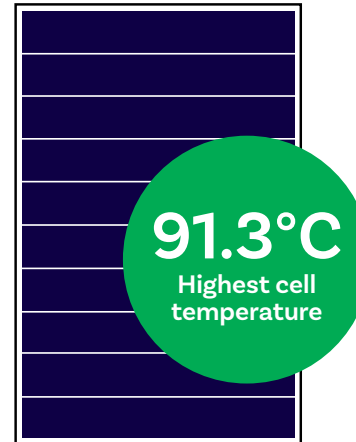
Hyundai shingled cells carry just 1/5 the electrical current of the original full cell, meaning that every circuit **operates at a lower current** and hence a **lower temperature**.

There are two **critical outcomes** of this lower temperature operation,

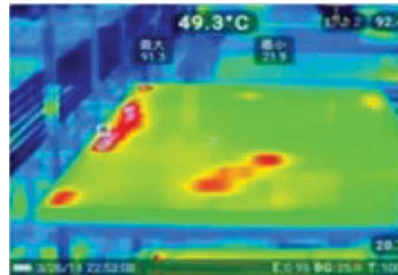
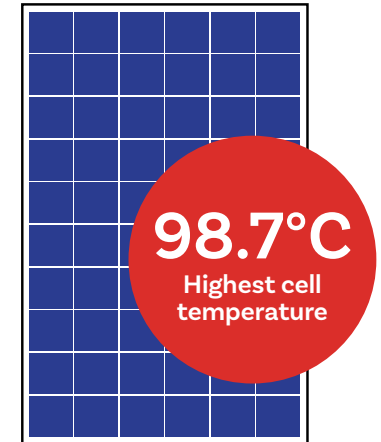
- a) **outstanding performance in high temperatures**, and
- b) **reduces the risk of hot spots**.

1 Lower Hot Spot Risk

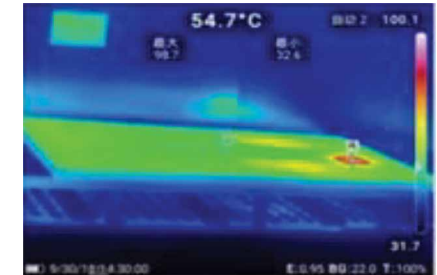
Shingled Module



Standard Module



IR Image



Lower current per cell means **lower hot spot risk...**

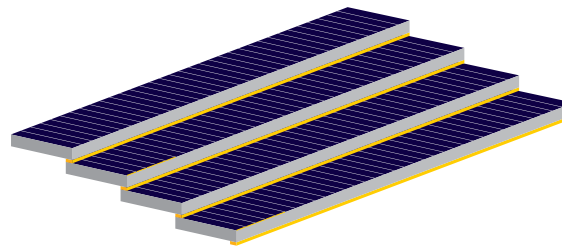
and a **low temperature coefficient** of power of $-0.34\% / ^\circ\text{C}$

Shingled modules use **Electrically Conductive Adhesive** instead of solder ribbon to electrically connect the cells. This **reduces stress on the cells** during manufacturing.

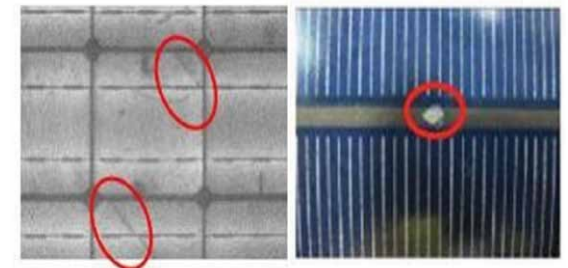
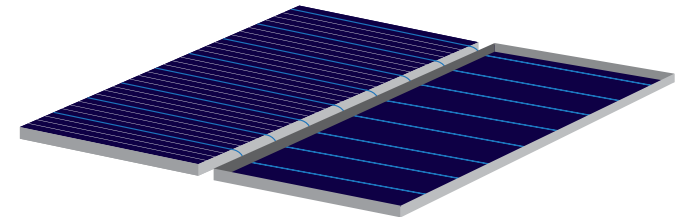
As panels **get hot in the day and cold at night**, traditional solder ribbon expands and contracts but the silicon cells don't causing more stress.

② ECA for higher reliability

Hyundai Conductive
Adhesive Method



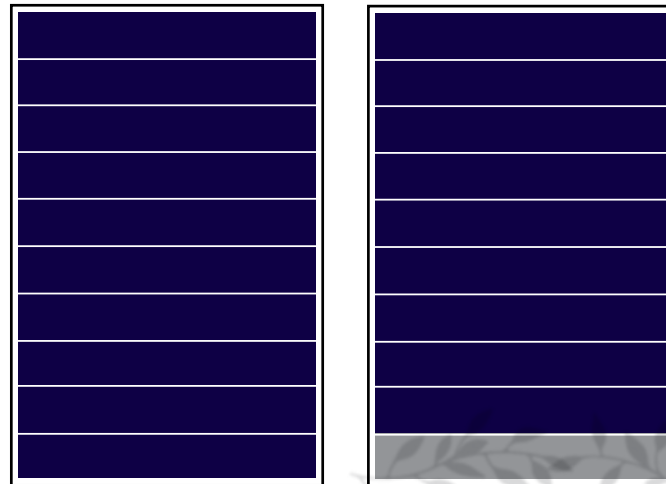
Conventional Welding
Method



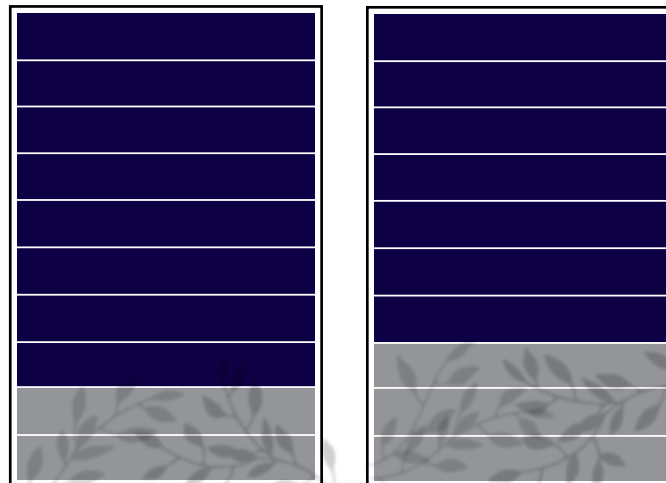
Hyundai shingled solar modules are made in parallel with a brickwork layout circuits design.

The optimal layout results in **lower impacts from shade** as compared to common full cell modules.

3 Better Shade Resilience



Parallel
circuits...



means **lower
loss of power**
in rising shade

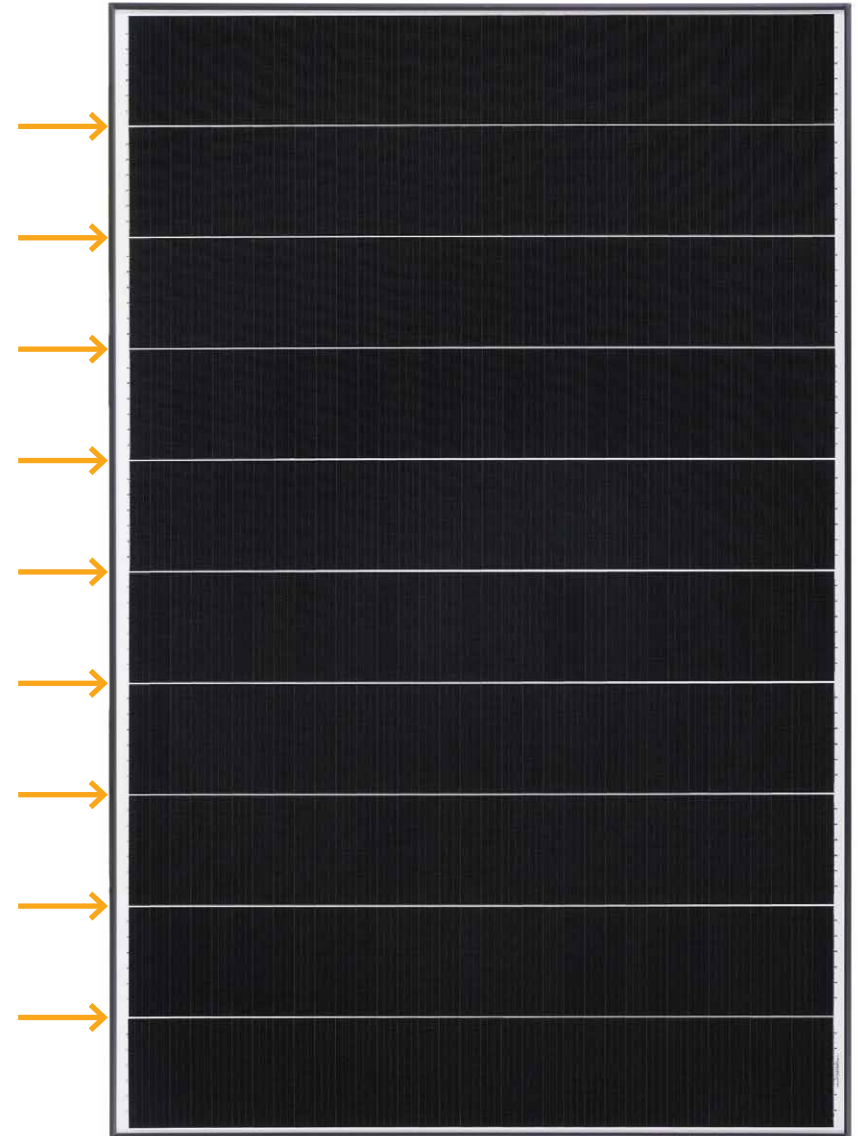
Nearly 100% of the module is covered with solar cells to deliver **higher power** and **outstanding efficiency**.

Higher efficiency means that **less total solar panel area** is required to deliver a given power output, **leading to savings** on balance of systems components and labour.

④ Better space utilisation

Less space
between the
cells...

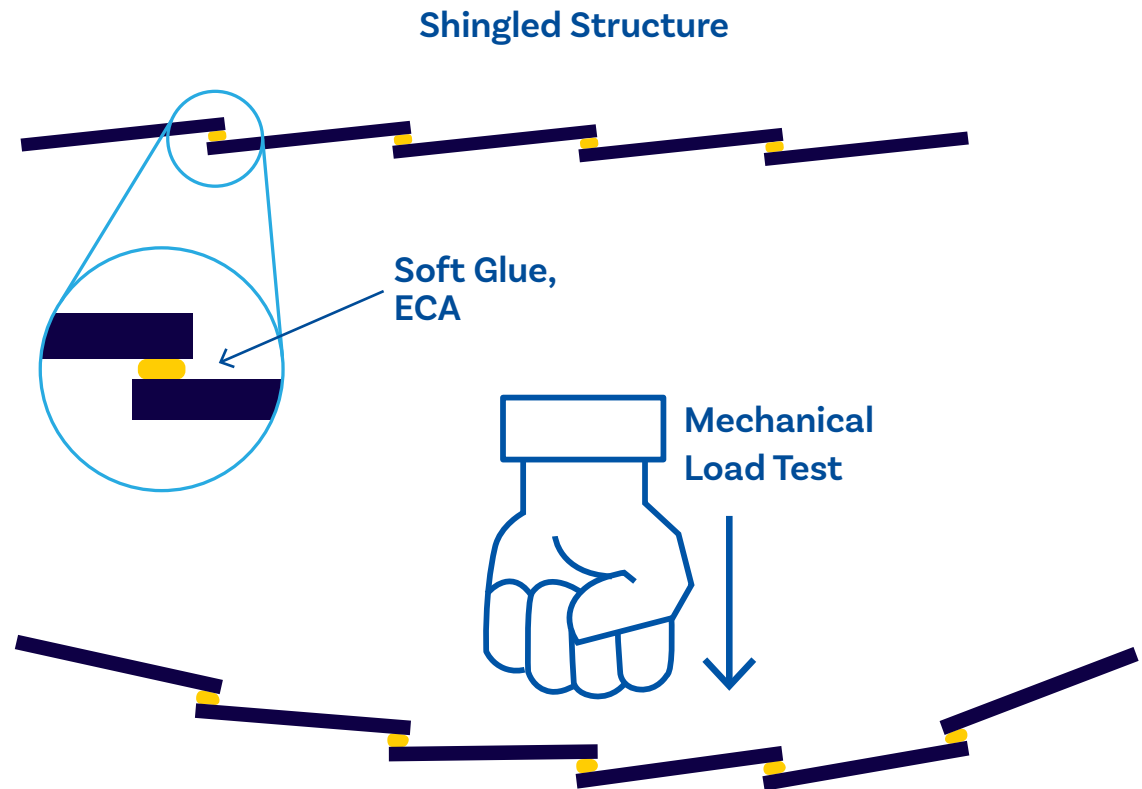
means
**more power
per panel**



Hyundai shingled module cell joints have **superior flexibility** compared to standard solder ribbon with the Electrically Conductive Adhesive absorbing bending energy.

During periods of high wind or under mechanical loads such as snow, Hyundai modules are **less likely to develop cell cracks** that hamper long term reliability.

5 Improved Load Resilience



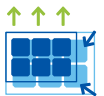
Less cell
cracking under
pressure...

means **better
long term
reliability**

There has been no noticeable drop in electricity production in 8 years!

K. BENN (2019)
60KW Ground Mount installed 2011
St George, QLD Australia

Why choose Hyundai shingled solar panels?



PERC SHINGLED TECHNOLOGY

PERC Shingled Technology provides ultra-high efficiency with better performance in low irradiation. Maximises installation capacity in limited space.



ANTI-LID / PID

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



MECHANICAL STRENGTH

Tempered glass and reinforced frame design withstand rigorous weather conditions such as heavy snow and strong wind.



25 YEAR PRODUCT WARRANTY

Hyundai Energy Solutions have a market leading product warranty for all our solar panels.



CORROSION RESISTANT

Various tests under harsh environmental conditions such as ammonia and salt-mist passed.



UL / VDE TEST LABS

Hyundai's Research and Development Centre is an accredited test laboratory of both UL and VDE global safety certifications.



SUPERIOR TEMPERATURE COEFFICIENT

Lower internal cell current results in superior performance in hot climates.



TIMBER YARD, 40KW

- Located in Falls Creek, Australia
- 40kW Hyundai Solar Panels installed
- Reducing power bills for a machinery-heavy business



SOLAR PARK, 18 MW

- Located in Albacete, Spain
- 7MW Hyundai Solar Panels installed
- Financed by Deutsche Bank



SOLAR PARK, 100 MW

- Located in Crimea, Ukraine
- 20MW Hyundai Solar Panels installed
- Constructed by Activ Solar



ASAN MEDICAL CENTRE 150KW

- Located in Seoul, Korea
- Turnkey installation by Hyundai
- Glass-to-glass Module installed

HYUNDAI AQUAMAX™ - THE WORLDS NO 1. TECHNOLOGY IN GLOBAL SHIP BUILDING, OFF SHORE AND ENGINEERING



HYUNDAI AQUAMAX™

- Located in Goheung-gun, Korea
- 2MW Hyundai Panels installed
- Operating from: October 2018



HYUNDAI AQUAMAX™

- Located in Jindo-gun, Korea
- 1MW Hyundai Panels installed
- Operating from: September 2018

A safer, more efficient
solar system built for
Australia

**You deserve Hyundai
Energy Solutions**

Rural Solar Pumping Site, Australia



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OFFICE**

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Sydney NSW 2000 AUSTRALIA
Phone: 02 9238 2283
www.hyundaisolar.com.au

**SOUTH KOREAN
HEADQUARTERS**

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Bundang-gu, Seongnam-si, Gyeonggo-do 13591, KOREA
www.hyundai-es.co.kr

**SALES &
WARRANTY**

Sales: sales@hyundaisolar.com.au
Warranty: www.hyundaisolar.com.au/warranty



Proudly distributed by



Growatt SPH3000~6000

- 2 MPPTs
- IP65 & Natural cooling
- Workmodes programmable
- Supports export limitation
- Online Smart Service



P O W E R
- I N G
T O M O R R O W

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powering tomorrow

www.ginverter.com

Datasheet	SPH3000	SPH3600	SPH4000	SPH4600	SPH5000	SPH6000
Input data(PV)						
Max. recommended PV power (for module STC)	6600W	6600W	6600W	8000W	8000W	8000W
Max. DC voltage	550V					
Start voltage	150V					
MPP voltage range	150V-550V /360V					
No. of MPP trackers	2					
No. of PV strings per MPP tracker	1					
Max. input current per MPP tracker	12A					
Max. short-circuit current per MPP tracker	15A					
Output data(AC)						
AC nominal power	3000W	3680W	4000W	4600W	4999W	6000W
Max. AC apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Nominal AC voltage (range*)	230V					
AC grid frequency (range*)	50Hz/60Hz (45Hz-55Hz/55Hz-65Hz)					
Max. output current	16A	16A	22A	22A	22A	27A
Adjustable power factor	0.8leading...0.8lagging					
THDi	<3%					
AC grid connection type	Single phase					
Battery data (DC)						
Battery voltage range	42~59V					
Max charging and discharging current	66A					
Continuous charging and discharging power	3000W					
Type of battery	Lithium /Lead-acid					
Backup power(AC)						
Max. AC output power	3000W					
Max. AC apparent power	3000VA					
Max. output current	16A					
Nominal AC output voltage	230Vac					
Nominal AC output frequency	50/60HZ					
THDv	<3%					
Switch time	0.5S					
Efficiency						
MAX. efficiency	97.5%	97.5%	97.5%	97.6%	97.6%	97.7%
European efficiency	97.0%	97.0%	97.0%	97.1%	97.1%	97.1%
Protection devices						
DC switch	yes					
DC reverse polarity protection	yes					
AC/DC surge protection	yes					
Battery reverse protection	yes					
AC short-circuit protection	yes					
Ground fault monitoring	yes					
Grid monitoring	yes					
Anti-islanding protection	yes					
Residual-current monitoring unit	yes					
Insulation resistance monitoring	yes					
General data						
Dimensions (W / H / D)	450/560/180mm					
Weight	27kg					
Operating temperature range	-25°C ... +60°C					
Noise emission (typical)	≤ 25 dB(A)					
Nighttime power consumption	< 12 W					
Topology	transformerless					
Cooling	Natural					
Protection degree	IP65					
Relative humidity	0~100%					
Altitude	2000m					
DC connection	MC4/H4(opt)					
AC connection	Connector					
Display	LCD+LED					
Interfaces: RS232/RS485/CAN/USB	yes					
Monitor : RF/WIFI/GPRS	opt					
Warranty: 5 years / 10 years	yes / opt					
CE, IEC62109, G98/G99, VDE0126-1-1, AS4777, AS/NZS 3100, CEI 0-21, VDE-AR-N4105, UTE C 15-712EN50438, EN50549, IEC 61727, IEC 62116, C10/11, UNE217007, UNE 206007, PO12.2						

Growatt GBLI6532 Lithium battery

- Flexible capacity from 6.5kWh to 13kWh
- Compact size and easy installation
- High energy density and efficiency
- Excellent safety of LiFePO4 battery
- Remote firmware upgrade
- Long lifespan, 10 years warranty



P O W E R
- I N G O
T O M O -
R R O W O

Growatt
powering tomorrow

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Battery Data

Nominal Voltage	51.2V
Normal Capacity	6.5kWh
Usable Capacity	6kWh
Operating voltage	48 ~ 57.6V
Charging/Discharging Current	104.2A
MAX discharging power	5kW

General Data

Dimension (W/H/D)	475/745/149mm
Weight	58Kg
IP Protection	IP55
Working temperature	-10°C ~ +50°C
Storage Temperature	-20°C ~ +45°C

Features

Cycle Life	> 6000
System Connection	Max. 2 pcs in parallel
Communication Port	CAN2.0 / RS485
Warranty	10 Years

IEC62619/CE/RCM/UL1973/CEC/UN38.3+PI965

* When the temperature is below 5 °C or above 45°C, the performance will be limited.