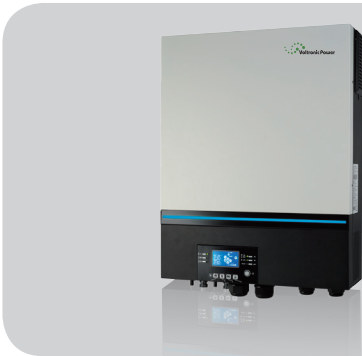


# Axpert MAX Off-Grid Inverter



- Customizable status LED bar with RGB lights
- Built-in wifi for mobile monitoring (Android/iOS Apps are available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Replaceable fan design for ease of maintenance
- Battery independent design
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Optional DC output for DC fan, LED bulb, router and so on
- Parallel operation up to 6 units only available for 7.2kVA



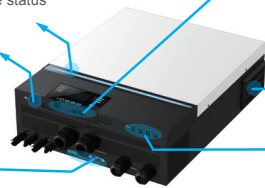
**RGB light:**  
Different color to present output source from PV, Grid or battery and battery charge/discharge status



**Communication for Remote panel**



**Parallel connectors:**  
Maximum 6 units in parallel (only for MAX-7200)



**Diverse communications:**  
USB On-the-Go function, Dry contact and BMS communication



**Anti-dust filter:**  
Increase product reliability in harsh environment



**DC output connectors:**  
Connect to DC fan, LED bulb or router



## Axpert MAX Off-Grid Inverter Selection Guide

MODEL	Axpert MAX 3600-24-230	Axpert MAX 7200-48-230
Rated Power	3600VA/3600W	7200VA/7200W*
PARALLEL CAPABILITY	NO	Yes, up to 6 units
<b>INPUT</b>		
Voltage	230 VAC	230 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)
Frequency Range	50 Hz/60 Hz (Auto sensing)	
<b>OUTPUT</b>		
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%	230VAC ± 5%
Surge Power	7500VA	15000VA
Efficiency (Peak)	90% ~ 93%	
Transfer Time	15 ms (For Personal Computers) ; 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
No Load Power Consumption	< 45W	< 70W
<b>BATTERY</b>		
Battery Voltage	24 VDC	48 VDC
Floating Charge Voltage	27 VDC	54 VDC
Overcharge Protection	33 VDC	66 VDC
<b>SOLAR CHARGER &amp; AC CHARGER</b>		
Solar Charger Type	MPPT	
Maximum PV Array Power	4000 W	8000W (4000W x 2)
MPPT Range @ Operating Voltage	120 ~ 450 VDC	90 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC
Maximum Solar Charge Current	80 A	
Maximum AC Charge Current	80 A	
Maximum Charge Current	80 A	
<b>PHYSICAL</b>		
Dimension, D x W x H (mm)	147.4 x 432.5 x 553.6	
Net Weight (kgs)	14.1	18.4
Communication Interface	USB/RS232/RS485/Wifi/Dry-contact	
<b>OPERATING ENVIRONMENT</b>		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	
<b>STANDARD</b>		
Compliance Safety	CE	CE

Product specifications are subject to change without further notice.

# HYUNDAI SOLAR MODULE

## HG SERIES

### G12 PERC Shingled

HiE-S420HG HiE-S425HG HiE-S430HG  
HiE-S435HG HiE-S440HG HiE-S445HG



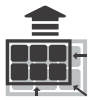
Shingled  
Technology



For Both Residential  
& Commercial  
Applications



More Power  
Generation  
In Low Light



### G12 PERC Shingled

G12 PERC Shingled Technology provides ultra-high efficiency with better performance in low irradiation. Maximizes 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.



### Reliable Warranty

Global Brand with powerful financial strength provide reliable 25-year warranty. (Australia and Europe Only)



### Corrosion Resistant

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



### UL / VDE Test Labs

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

### Hyundai's Warranty Provisions



• **25-Year Product Warranty**  
• On material and workmanship  
**Australia and Europe Only**



• **25-Year Performance Warranty**  
• Initial year: 98.0%  
• Linear warranty after second year:  
with 0.55%p annual degradation,  
84.80% is guaranteed up to 25 years

### 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.

### Certification



## Electrical Characteristics

		Mono-Crystalline Module (HiE-S__HG)					
		445	440	435	430	425	420
Nominal Output (Pmpp)	W	445	440	435	430	425	420
Open Circuit Voltage(Voc)	V	43.8	43.7	43.6	43.5	43.4	43.3
Short Circuit Voltage (Isc)	A	13.01	12.90	12.79	12.68	12.56	12.46
Voltage at Pmax (Vmpp)	V	36.4	36.3	36.2	36.1	36.0	35.9
Current at Pmax (Impp)	A	12.23	12.13	12.02	11.92	11.81	11.71
Module Efficiency	%	21.4	21.1	20.9	20.7	20.4	20.2
Cell Type	-	PERC Mono-Crystalline Silicon Shingled					
Maximum System Voltage	V	1,500					
Temperature Coefficient of Pmax	%/°C	-0.34					
Temperature Coefficient of Voc	%/°C	-0.27					
Temperature Coefficient of Isc	%/°C	0.04					

\*All data at STC(Standard Test Conditions). Above data may be changed without prior notice.

\*Tolerance of Pmax:0~+5W.

\* Performance deviation of Voc [V], Isc [A], Vm[V] and Im[A]: ±3%.

## Mechanical Characteristics

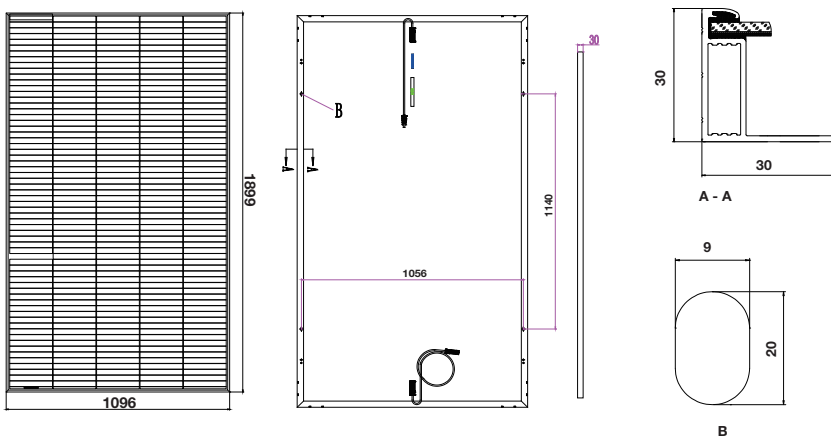
Dimensions	1,899 × 1,096 × 30 mm (L × W × H)		
Weight	21.8kg		
Solar Cells	320 Cells, PERC Mono-crystalline Shingled (210 × 210mm)		
Output Cables	4mm <sup>2</sup> , +500mm/-1100mm(Vertical), +220mm/-180mm(Horizontal)	Connector	Stäubli : MC4-Evo2
Junction Box	IP68, TUV&UL, two diodes		
Construction	Front Glass: Tempered glass, 3.2mm Encapsulation: EVA (Ethylene-Vinyl-Acetate)		
Frame	Anodized Aluminum		

## Installation Safety Guide

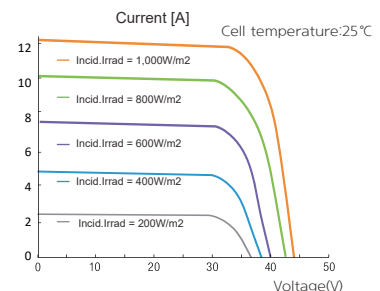
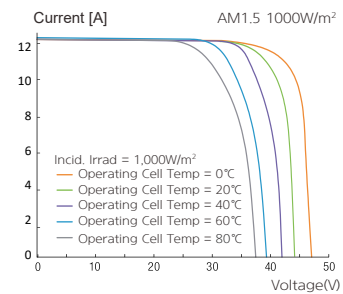
- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

Nominal Operating Cell Temperature	42.3°C ( ± 2°C )
Operating Temperature	-40 ~ 85 °C
Maximum System Voltage	DC 1,500 / 1,000 (IEC)
Series Fuse Rating [A]	25
Maximum Surface Load Capacity	Front 5,400 Pa Rear 2,400 Pa

## Module Diagram (Unit: mm)



## I-V Curves



Manufactured in China

**HYUNDAI**  
ENERGY SOLUTIONS



Sales & Marketing  
sales@hyundai-es.co.kr

Printed Date : 06/2022

## US5000

### Batteria al litio in bassa tensione

#### US5000 - Moduli da 4,8 kWh

La batteria al litio US5000 di Pylontech può essere utilizzata per supportare un'elevata potenza per vari tipi di apparecchiature e sistemi.

La batteria US5000 dispone di un BMS integrato che ha funzioni di protezione tra cui sottoscarica, sovraccarica, sovracorrente e controllo della temperatura delle celle.

#### Specifiche tecniche:

- Funzione **Soft-Start** in grado di ridurre la corrente di picco quando l'inverter si accende con la sola batteria;
- La **struttura molecolare** interna delle batterie LiFePO4 è **più stabile** e **più sicura**;
- **Profondità di scarica** (DOD) del 95%, disponibile per gli inverter allineati all'ultimo protocollo Pylontech;
- **Doppia protezione attiva a livello BMS**;
- Possibilità di collegare in parallelo più moduli batteria per espandere la capacità e la potenza;
- Possibilità di operare in diverse condizioni di temperatura;
- **Garanzia 10 anni.**

#### Dimensioni:

Larghezza: 442 mm

Altezza: 161 mm

Profondità: 420 mm

Peso: 39,7 kg



## Dati tecnici

### Batteria al Litio

Modello	US5000
<b>DATI ELETTRICI</b>	
Tecnologia cella	Li-ion (LFP)
Tensione nominale [V]	48
Capacità nominale [kWh/Ah]	4,8 / 100
Profondità di scarica DoD [%]	95
Capacità utilizzabile [kWh/Ah]	4,56 / 95
Corrente nominale raccomandata [A]	80*
Configurazione [max. moduli in un gruppo batteria]	16 pz
Tensione di carica [V]	52,5 ~ 53,5
Tensione di scarica [V]	43,5 ~ 53,5
<b>BUS</b>	
Bus di comunicazione	RS485, CAN
<b>DIMENSIONI E PESI</b>	
Larghezza [mm]	442
Altezza [mm]	161
Profondità [mm]	420
Peso [kg]	39,7
<b>VARIE</b>	
Temperatura di esercizio in carica [°C]	0 ~ 50
Temperatura di esercizio in scarica [°C]	-10 ~ 50
Temperatura di stoccaggio [°C]	-20 ~ 45
Classe di protezione	IP20
Vita operativa a 25 °C	15+ anni
Cicli di funzionamento	>6000 25°C
Certificati trasporto merce pericolosa	TÜV / CE / UN38.3 / UL / UN 3480
Normativa EMC	IEC62619, IEC63056, UL1973, UL9540A, IEC61000-6-2, IEC61000-6-3, UN38.3, GR-1089, UN 3480, GB/T 2423

\*: La corrente massima di lavoro raccomandata è riferita alla temperatura della cella della batteria compresa tra 10 ~ 40°C. Se al di fuori di questa temperatura può causare una diminuzione della corrente di funzionamento.