

# Q.HOME<sup>+</sup> ESS HYB-G1

MODULAR ENERGY STORAGE SOLUTION  
FOR NORTH AMERICA



**HYBRID  
INVERTER**



**BATTERY  
CHARGER**



**LITHIUM-ION  
BATTERY**



**10 YEAR PRODUCT  
WARRANTY**



## SCALABLE SOLUTION FOR OPTIMIZED CONSUMPTION

Scalable storage capacity from 4.5kWh up to 18.9kWh to suit all consumption cases.



## SMART DESIGN

Modular design for easy and fast installation, remote control operated hybrid system with PV inverter, lithium-ion battery, and battery charger.



## REMOTE MONITORING

Easy maintenance due to its early error detection function, web and mobile monitoring, and a reliable service network.



## SAFETY AND RELIABILITY

Premium quality lithium-ion.



## DURABILITY

High durability with 10 year product warranty and 90% depth of discharge (DoD).



## 100% BACKUP POWER FUNCTION

Thanks to the integrated backup power function, even in the event of power failure 100% of the rated inverter output will support critical loads.

## THE IDEAL SOLUTION FOR:



Rooftop arrays on  
residential buildings

## TECHNICAL SPECIFICATIONS

GENERAL PRODUCT INFORMATION		Q.HOME® ESS HYB-G1			
		6.0kW	7.0kW	7.6kW	8.6kW
Dimensions inverter / storage (L × W × D)	[in]	36 × 22 × 10.9 (91.3 × 56.0 × 27.6mm) / 18.3 × 7.6 × 23.1in (464 × 193 × 588mm)			
Weight inverter / storage (4.5kWh) / storage (6.3kWh)	[lbs]	130 (58.9kg) / 124.8 (56.6kg) / 148.4 (67.5kg)			
Operating temperature inverter / storage	[°F]	32~113 (0~45 °C) / 32~113 (0~45 °C)			
Relative humidity	[%]	0-100			
Enclosure rating		Type 4X			
Mounting		Wall mounted			
Max. operating height without power loss	[m]	2000			
Cooling method		Natural			
Noise emissions	[dB]	≤35			
AC over voltage category		I/IV			
Front panel display		LCD			
Communications		RS485 / LAN / CAN 2.0 / WiFi / 4G (optional) / RF (optional)			
Remote monitoring		Web, mobile			
Software update		Local USB / Remote Web			
Energy management system		Integrated			
<b>PV DATA (DC)</b>					
Max. input power	[kWp]	7.2	8.4	9.12	10.32
Max. input voltage [V <sub>DC</sub> ]	[V]	600			
Start input voltage / MPPT operating range / Rated input voltage	[V]	150/105-500/360			
Shutdown voltage	[V]	80			
Number of independent MPPTs		2	3	3	4
Maximum DC power per MPPT	[kWp]	3.6			
Max. input current per MPPT / Max. short circuit current per MPPT	[A]	10/12.5			
<b>GRID DATA (AC)</b>					
Max. output power / Rated output power	[kW]	6.6/6	7.7/7	8.36/7.6	9.46/8.6
Nominal voltage / Range	[V]	120/240 split phase (105.5/211~132/264)			
Nominal grid frequency / Range	[Hz]	60/59.3~60.5			
Nominal current	[A]	25	29	32	36
Power factor		>99 (adj. ±0.8)			
Total harmonic distortion	[%]	≤3			
<b>BACKUP POWER OUTPUT (AC)</b>					
Max. output power / Rated output power	[kW]	6.6/6	7.7/7	8.36/7.5	8.36/7.5
Max. continuous output current	[A]	25	29	32	32
Rated voltage / Range (L-N)	[V]	120/240 split phase (117/234 ~ 123/246)			
Rated frequency / Range	[Hz]	60			
Switchover time to backup power		<200ms			
Support by PV during backup power operation		YES			
<b>EFFICIENCY</b>					
Max. efficiency (PV-AC) / CEC efficiency	[%]	96.7 / 95.67			
Max. efficiency (PV-Battery) / (Battery-AC)	[%]	98.24 / 96.46			
<b>BATTERY DATA (DC)</b>					
Battery technology		Lithium-ion (NMC)			
Battery usable capacity per module	[kWh]	4.5/6.3			
Scalability		Up to three battery modules			
Max. battery usable capacity	[kWh]	13.5/18.9			
Rated power / Max. power (per module)	[kW]	2.5/3.0			
Max. battery power	[kW]	7.5			
Rated battery voltage / Battery voltage range (per module)	[Vdc]	100.8/85~118			
Battery Management System voltage range	[Vdc]	84 - 432			
Discharging current	[A]	25			
Depth of discharge (DoD)	[%]	90			
<b>COUNTRY AVAILABILITY / CERTIFICATES AND WARRANTY</b>					
Inverter certificates		UL 1741, UL 1741.SA, UL 9540, IEEE 1547, IEEE 1547.1, CSA – C 22.2N.1071-01, UL 1998, UL 1699B, FCC part 15 Class B			
Battery certificates		UL 1642, UL 1973, CE, RCM, TUV (IEC 62619), UN 3480, Class 9, UN 38.3			
Product warranty / Performance warranty		10 years			

**NOTE:** Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

**Hanwha Q CELLS America Inc.**

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