



# Certificate of Compliance

**Certificate:** 80037317

**Master Contract:** 601310

**Project:** 80162150

**Date Issued:** 2023-03-10

**Issued To:** Hanwha Q CELLS America Inc.  
400 Spectrum Center Drive  
Suite#1400  
Irvine, California 92618

**Attention:** Dr. WaiLo



**Issued by:** Yujie (Jarvis) Shen  
*Jarvis Shen*

## PRODUCTS

CLASS - C3701 84 - ELECTRICAL ENERGY STORAGE SYSTEMS Certified to US Standard

Li-ion Battery Energy Storage System (Pre-Engineered of Matched Component type), models Q.HOME CORE series, consist of Q.VOLT H3.8SX , Q.VOLT H5.0SX , Q.VOLT H6.0SX , Q.VOLT H7.6SX or Q.VOLT A3.8SX , Q.VOLT A5.0SX , Q.VOLT A6.0SX , Q.VOLT A7.6SX inverter combined with BAT50 SYS-G2 series battery system, the detailed model combination and ratings for the energy storage system were indicated as below:



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Table 1 ESS combinations and the Input Ratings for ESS with hybrid inverter Q.VOLT H3.8SX , Q.VOLT H5.0SX , Q.VOLT H6.0SX , Q.VOLT H7.6SX:

Q.HOME CORE series Energy Storage System		ESS PV Input Ratings		
Inverter Model No.	Battery System Model No.	Max Current, A	Voltage Range, V	Input Power, W
Q.VOLT H7.6SX	Q.SAVE D10.0SX	16*3	235~500	11400
Q.VOLT H7.6SX	Q.SAVE D15.0SX	16*3	235~500	11400
Q.VOLT H7.6SX	Q.SAVE D20.0SX	16*3	235~500	11400
Q.VOLT H6.0SX	Q.SAVE D10.0SX	16*2	278~500	9000
Q.VOLT H6.0SX	Q.SAVE D15.0SX	16*2	278~500	9000
Q.VOLT H6.0SX	Q.SAVE D20.0SX	16*2	278~500	9000
Q.VOLT H5.0SX	Q.SAVE D10.0SX	16*2	232~500	7500
Q.VOLT H5.0SX	Q.SAVE D15.0SX	16*2	232~500	7500
Q.VOLT H5.0SX	Q.SAVE D20.0SX	16*2	232~500	7500
Q.VOLT H3.8SX	Q.SAVE D10.0SX	16*2	176~500	5700
Q.VOLT H3.8SX	Q.SAVE D15.0SX	16*2	176~500	5700
Q.VOLT H3.8SX	Q.SAVE D20.0SX	16*2	176~500	5700

Note: Q.HOME CORE Series ESS may be provided with or without Backup Interface(BI), model Q.HOME HUB 200SX, refer to construction part for the BI model ratings.



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Table 2 ESS Combinations and the Output Ratings for ESS with hybrid inverter Q.VOLT H3.8SX , Q.VOLT H5.0SX , Q.VOLT H6.0SX , Q.VOLT H7.6SX:

Q.HOME CORE series Energy Storage System		ESS AC Output Rating							Energy, kWh
Inverter Model No.	Battery System Model No.	Max Current, A	Voltage Range, Vac	Output Power, VA	Input Phase	Frequency, Hz	Duty Cycle	Max Short Circuit, A	
Q.VOLT H7.6SX	Q.SAVE D10.0SX	31.7	120/240	7608	Single phase	60	-	48	10
Q.VOLT H7.6SX	Q.SAVE D15.0SX	31.7	120/240	7608	Single phase	60	-	48	15
Q.VOLT H7.6SX	Q.SAVE D20.0SX	31.7	120/240	7608	Single phase	60	-	48	20
Q.VOLT H6.0SX	Q.SAVE D10.0SX	25	120/240	6000	Single phase	60	-	48	10
Q.VOLT H6.0SX	Q.SAVE D15.0SX	25	120/240	6000	Single phase	60	-	48	15
Q.VOLT H6.0SX	Q.SAVE D20.0SX	25	120/240	6000	Single phase	60	-	48	20
Q.VOLT H5.0SX	Q.SAVE D10.0SX	20.9	120/240	5016	Single phase	60	-	48	10
Q.VOLT H5.0SX	Q.SAVE D15.0SX	20.9	120/240	5016	Single phase	60	-	48	15
Q.VOLT H5.0SX	Q.SAVE D20.0SX	20.9	120/240	5016	Single phase	60	-	48	20
Q.VOLT H3.8SX	Q.SAVE D10.0SX	15.9	120/240	3816	Single phase	60	-	48	10
Q.VOLT H3.8SX	Q.SAVE D15.0SX	15.9	120/240	3816	Single phase	60	-	48	15
Q.VOLT H3.8SX	Q.SAVE D20.0SX	15.9	120/240	3816	Single phase	60	-	48	20

Note: Q.HOME CORE Series ESS may be provided with or without Backup Interface(BI), model Q.HOME HUB 200SX, refer to construction part for the BI model ratings.

Table 3 ESS Combinations and the Input Ratings for ESS with energy storage inverter Q.VOLT A3.8SX , Q.VOLT A5.0SX , Q.VOLT A6.0SX , Q.VOLT A7.6SX:

Q.HOME CORE series Energy Storage System		ESS Grid Input Ratings				
Inverter Model No.	Battery System Model No.	Max Current, A	Voltage Range, V	Input Power, VA	Input Phase	Frequency, Hz



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**Project:** 80162150

**Master Contract:** 601310  
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Q.VOLT A7.6SX	Q.SAVE D10.0SX	31.7	120/240	7608	Split Phase	60
Q.VOLT A7.6SX	Q.SAVE D15.0SX	31.7	120/240	7608	Split Phase	60
Q.VOLT A7.6SX	Q.SAVE D20.0SX	31.7	120/240	7608	Split Phase	60
Q.VOLT A6.0SX	Q.SAVE D10.0SX	25	120/240	6000	Split Phase	60
Q.VOLT A6.0SX	Q.SAVE D15.0SX	25	120/240	6000	Split Phase	60
Q.VOLT A6.0SX	Q.SAVE D20.0SX	25	120/240	6000	Split Phase	60
Q.VOLT A5.0SX	Q.SAVE D10.0SX	20.9	120/240	5016	Split Phase	60
Q.VOLT A5.0SX	Q.SAVE D15.0SX	20.9	120/240	5016	Split Phase	60
Q.VOLT A5.0SX	Q.SAVE D20.0SX	20.9	120/240	5016	Split Phase	60
Q.VOLT A3.8SX	Q.SAVE D10.0SX	15.9	120/240	3816	Split Phase	60
Q.VOLT A3.8SX	Q.SAVE D15.0SX	15.9	120/240	3816	Split Phase	60
Q.VOLT A3.8SX	Q.SAVE D20.0SX	15.9	120/240	3816	Split Phase	60
Note: Q.HOME CORE Series ESS may be provided with or without Backup Interface(BI), model Q.HOME HUB 200SX, refer to construction part for the BI model ratings.						



**Certificate:** 80037317  
**Project:** 80162150

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Table 4 ESS Combinations and the Output Ratings for ESS with energy storage inverter Q.VOLT A3.8SX , Q.VOLT A5.0SX , Q.VOLT A6.0SX , Q.VOLT A7.6SX:

Q.HOME CORE series Energy Storage System		ESS AC Output Ratings							Energy, kWh
Inverter Series: A1-AC-G2	Battery System Model No.	Max Current, A	Voltage Range, Vac	Output Power, VA	Output Phase	Frequency, Hz	Duty Cycle	Max Short Circuit, A	
Q.VOLT A7.6SX	Q.SAVE D10.0SX	31.7	120/240	7608	Split phase	60	-	48	10
Q.VOLT A7.6SX	Q.SAVE D15.0SX	31.7	120/240	7608	Split phase	60	-	48	15
Q.VOLT A7.6SX	Q.SAVE D20.0SX	31.7	120/240	7608	Split phase	60	-	48	20
Q.VOLT A6.0SX	Q.SAVE D10.0SX	25	120/240	6000	Split phase	60	-	48	10
Q.VOLT A6.0SX	Q.SAVE D15.0SX	25	120/240	6000	Split phase	60	-	48	15
Q.VOLT A6.0SX	Q.SAVE D20.0SX	25	120/240	6000	Split phase	60	-	48	20
Q.VOLT A5.0SX	Q.SAVE D10.0SX	20.9	120/240	5016	Split phase	60	-	48	10
Q.VOLT A5.0SX	Q.SAVE D15.0SX	20.9	120/240	5016	Split phase	60	-	48	15
Q.VOLT A5.0SX	Q.SAVE D20.0SX	20.9	120/240	5016	Split phase	60	-	48	20
Q.VOLT A3.8SX	Q.SAVE D10.0SX	15.9	120/240	3816	Split phase	60	-	48	10
Q.VOLT A3.8SX	Q.SAVE D15.0SX	15.9	120/240	3816	Split phase	60	-	48	15
Q.VOLT A3.8SX	Q.SAVE D20.0SX	15.9	120/240	3816	Split phase	60	-	48	20

Note: Q.HOME CORE Series ESS may be provided with or without Backup Interface(BI), model Q.HOME HUB 200SX, refer to construction part for the BI model ratings



**Certificate:** 80037317  
**Project:** 80162150

**Master Contract:** 601310  
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Table 5: General Ratings for Q.HOME CORE Series:

Q.HOME CORE series Energy Storage System	
Operating Temperature, °C	Inverter: -20~60; Battery System: 0~53(Charge); -10~53(Discharge)
Auxiliary Rating,	-
Seismic Rating	-
Enclosure Rating	Inverter: Type 4X; Battery System: IP65
Weight, Kg	Inverter: 34
	Battery System 14.5+54*n(where n can be 2, 3 or 4)
Suppression System	-
Technology	Li-ion

Table 6: Q.HOME CORE series Energy Storage System:

Model Number	Inverter Model Number	Battery System Model No.
Q.HOME CORE H7S 7.6/10.0X	Q.VOLT H7.6SX	Q.SAVE D10.0SX
Q.HOME CORE H7S 7.6/15.0X	Q.VOLT H7.6SX	Q.SAVE D15.0SX
Q.HOME CORE H7S 7.6/20.0X	Q.VOLT H7.6SX	Q.SAVE D20.0SX
Q.HOME CORE H6S 6.0/10.0X	Q.VOLT H6.0SX	Q.SAVE D10.0SX
Q.HOME CORE H6S 6.0/15.0X	Q.VOLT H6.0SX	Q.SAVE D15.0SX
Q.HOME CORE H6S 6.0/20.0X	Q.VOLT H6.0SX	Q.SAVE D20.0SX
Q.HOME CORE H5S 5.0/10.0X	Q.VOLT H5.0SX	Q.SAVE D10.0SX
Q.HOME CORE H5S 5.0/15.0X	Q.VOLT H5.0SX	Q.SAVE D15.0SX
Q.HOME CORE H5S 5.0/20.0X	Q.VOLT H5.0SX	Q.SAVE D20.0SX
Q.HOME CORE H3S 3.8/10.0X	Q.VOLT H3.8SX	Q.SAVE D10.0SX
Q.HOME CORE H3S 3.8/15.0X	Q.VOLT H3.8SX	Q.SAVE D15.0SX
Q.HOME CORE H3S 3.8/20.0X	Q.VOLT H3.8SX	Q.SAVE D20.0SX
Q.HOME CORE A7S 7.6/10.0X	Q.VOLT A7.6SX	Q.SAVE D10.0SX
Q.HOME CORE A7S 7.6/15.0X	Q.VOLT A7.6SX	Q.SAVE D15.0SX
Q.HOME CORE A7S 7.6/20.0X	Q.VOLT A7.6SX	Q.SAVE D20.0SX
Q.HOME CORE A6S 6.0/10.0X	Q.VOLT A6.0SX	Q.SAVE D10.0SX
Q.HOME CORE A6S 6.0/15.0X	Q.VOLT A6.0SX	Q.SAVE D15.0SX
Q.HOME CORE A6S 6.0/20.0X	Q.VOLT A6.0SX	Q.SAVE D20.0SX
Q.HOME CORE A5S 5.0/10.0X	Q.VOLT A5.0SX	Q.SAVE D10.0SX
Q.HOME CORE A5S 5.0/15.0X	Q.VOLT A5.0SX	Q.SAVE D15.0SX



**Certificate:** 80037317  
**Project:** 80162150

**Master Contract:** 601310  
**Date Issued:** 2023-03-10

Model Number	Inverter Model Number	Battery System Model No.
Q.HOME CORE A5S 5.0/20.0X	Q.VOLT A5.0SX	Q.SAVE D20.0SX
Q.HOME CORE A3S 3.8/10.0X	Q.VOLT A3.8SX	Q.SAVE D10.0SX
Q.HOME CORE A3S 3.8/15.0X	Q.VOLT A3.8SX	Q.SAVE D15.0SX
Q.HOME CORE A3S 3.8/20.0X	Q.VOLT A3.8SX	Q.SAVE D20.0SX

**Note:**

1. Inverter models Q.VOLT A7.6SX, Q.VOLT A6.0SX, Q.VOLT A5.0SX and Q.VOLT A3.8SX are pure energy storage inverters, and have the same ratings with Q.VOLT H7.6SX, Q.VOLT H6.0SX, Q.VOLT H5.0SX and Q.VOLT H3.8SX except for PV input.
2. The operating parameter such as voltage, current, temperature, environmental condition, etc of ESS are not determined during this investigation. Battery System and PCS integrate into a ESS need to use within the operating parameter of individual component rating. Installation of ESS shall evaluate all component used within the operating parameter used during certification of PCS and Battery system.
3. The acceptability of grid support utility interactive inverters shall be determined by the local electric utility.
4. The ESS installation was not evaluated. Installation shall be implemented following the subassembly manufacturers' installation manual, national and local codes.
5. The system was intended for residential use without arc flash risk considered, and is not designed for used in seismic or outdoor coastal regions.
6. The AC circuit breaker connected in the grid port will be considered by the end product user when installation.

**APPLICABLE REQUIREMENTS**

ANSI/CAN/UL-9540:2016 - Energy Storage Systems and Equipment, 1st Edition.

**MARKINGS**

Each unit shall bear all the required markings identified in the applicable certification report(s)

**Notes:**

Products certified under Class C370184 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)





## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

<b>Project</b>	<b>Date</b>	<b>Description</b>																														
80162150	Mar 10, 2023	Multiple Listing Energy Storage System, Q.HOME CORE series Energy Storage System components added.																														
80128914	June 29, 2022	Multiple Listing for Hanwha Q CELLS America Inc.																														
		<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><b>Base Model No.</b></th> <th style="text-align: left;"><b>Listee No.</b></th> </tr> </thead> <tbody> <tr><td>A1-HYB-3.8K-G2</td><td>Q.VOLT H3.8SX</td></tr> <tr><td>A1-HYB-5K-G2</td><td>Q.VOLT H5.0SX</td></tr> <tr><td>A1-HYB-6K-G2</td><td>Q.VOLT H6.0SX</td></tr> <tr><td>A1-HYB-7.6K-G2</td><td>Q.VOLT H7.6SX</td></tr> <tr><td>A1-AC-3.8K-G2</td><td>Q.VOLT A3.8SX</td></tr> <tr><td>A1-AC-5K-G2</td><td>Q.VOLT A5.0SX</td></tr> <tr><td>A1-AC-6K-G2</td><td>Q.VOLT A6.0SX</td></tr> <tr><td>A1-AC-7.6K-G2</td><td>Q.VOLT A7.6SX</td></tr> <tr><td>T-BAT H 10.0</td><td>Q.SAVE D10.0SX</td></tr> <tr><td>T-BAT H 15.0</td><td>Q.SAVE D15.0SX</td></tr> <tr><td>T-BAT H 20.0</td><td>Q.SAVE D20.0SX</td></tr> <tr><td>T-BAT-SYS-HV-5.0</td><td>BAT50 SYS-G2</td></tr> <tr><td>A1-BI-200-G2</td><td>Q.HOME HUB 200SX</td></tr> <tr><td>A1-ESS-G2</td><td>Q.HOME CORE</td></tr> </tbody> </table>	<b>Base Model No.</b>	<b>Listee No.</b>	A1-HYB-3.8K-G2	Q.VOLT H3.8SX	A1-HYB-5K-G2	Q.VOLT H5.0SX	A1-HYB-6K-G2	Q.VOLT H6.0SX	A1-HYB-7.6K-G2	Q.VOLT H7.6SX	A1-AC-3.8K-G2	Q.VOLT A3.8SX	A1-AC-5K-G2	Q.VOLT A5.0SX	A1-AC-6K-G2	Q.VOLT A6.0SX	A1-AC-7.6K-G2	Q.VOLT A7.6SX	T-BAT H 10.0	Q.SAVE D10.0SX	T-BAT H 15.0	Q.SAVE D15.0SX	T-BAT H 20.0	Q.SAVE D20.0SX	T-BAT-SYS-HV-5.0	BAT50 SYS-G2	A1-BI-200-G2	Q.HOME HUB 200SX	A1-ESS-G2	Q.HOME CORE
<b>Base Model No.</b>	<b>Listee No.</b>																															
A1-HYB-3.8K-G2	Q.VOLT H3.8SX																															
A1-HYB-5K-G2	Q.VOLT H5.0SX																															
A1-HYB-6K-G2	Q.VOLT H6.0SX																															
A1-HYB-7.6K-G2	Q.VOLT H7.6SX																															
A1-AC-3.8K-G2	Q.VOLT A3.8SX																															
A1-AC-5K-G2	Q.VOLT A5.0SX																															
A1-AC-6K-G2	Q.VOLT A6.0SX																															
A1-AC-7.6K-G2	Q.VOLT A7.6SX																															
T-BAT H 10.0	Q.SAVE D10.0SX																															
T-BAT H 15.0	Q.SAVE D15.0SX																															
T-BAT H 20.0	Q.SAVE D20.0SX																															
T-BAT-SYS-HV-5.0	BAT50 SYS-G2																															
A1-BI-200-G2	Q.HOME HUB 200SX																															
A1-ESS-G2	Q.HOME CORE																															
80059435	October 26, 2020	Multiple Listing for Energy Storage System, Q.HOME+ ESS HYB-G1 and Q.HOME+ ESS AC-G1 to add certified battery system model Q.HOME+BAT-G1-5.8 Q.HOME+BAT-G1-11.5 and Q.HOME+BAT-G1-17.3																														
80037317	March 11, 2020	Multiple Listing Energy Storage System, Models Q.HOME+ ESS HYB-G1 and Q.HOME+ ESS AC-G1.																														