

High Voltage Lithium-ion Battery



QS HV5-03

5

102.4V 5.3kWh
Stackable up to 5 modules

1C

1C charging/discharging

IP65

IP65(Outdoor)

4+2
LED

4 LED (SOC: 25%-SOC 100%
blue), 2 LED (working green,
alarming red)



Safety and long lifespan, high efficiency and high-power density.



Whole module non-toxic, pollution-free.



Support high discharge power, module level Auto-balancing.



Battery module auto networking, automatic IP addressing, easy maintenance, free stand design and saving installation space



Intelligent BMS, providing complete protection



Remotely monitoring and upgradable, support USB drive upgrade for the firmware.

MODEL	QS HV5-03-1	QS HV5-03-2	QS HV5-03-3	QS HV5-03-4	QS HV5-03-5
Schematic Drawing					
Total Energy [kWh]	5.3	10.6	15.9	21.2	26.5
Battery Module	102.4V 5.3kWh				
Number of Modules	1	2	3	4	5
Cell Type	LFP (LiFe PO ₄)				
Nominal Voltage [V]	102.4	204.8	307.2	409.6	512
Operating Voltage [V]	80 - 116.8	160 - 233.6	240 - 350.4	320 - 467.2	400 - 584
Max. Charge / Discharge Current [A]	50	50	50	50	50
Continue Discharge Output [kW]	5	10	15	20	25
Dimension [W*D*H]	740 * 366 * 400mm	740*366*620mm	740 * 366 *840mm	740 * 366*1060mm	740 * 366*1280mm
Approximate Weight [KG]	69	119	169	219	269

General Specifications

Recommend Depth of Discharge	90%
LED Indicator	4 LED (SOC: 25%-SOC: 100% blue), 2 LED (working green, alarming red)
IP Rating of Enclosure	IP65
Operating Temperature	Optional: Charge: 0 ° C - 45 ° C/Discharge: -20 ° C - 50 °C(without heating film); Charge: - 2 0 ° C - 45 ° C/Discharge: -20 ° C - 50 °C(with heating film)
Storage Temperature	0°C - 35°C
Humidity	≤ 95%
Altitude	≤2000m
Cycle Life	10 + years, ≥6000 cycles (70% EOL , 25℃)
Installation	Stack, Floor-mounted
Communication Port	CAN2.0
Certification	UN38.3, UL1973, UL9540a, UL9540, CEC Listing

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25 C. System usable energy may vary due to system configuration parameters.

[2] The current is affected by temperature and SOC.

Introduction

Queen Solar Residential Li-ion Battery System QSHV5-03 is a high voltage lithium battery with an integrated battery system that stores your energy for backup protection when the grid goes down. The compact, minimalist construction features versatile mounting options for indoor or outdoor spaces.

This series is especially suitable for application scene of high power, limited installation space, restricted load-bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.

Multiple battery modules can connect in series to expand capacity and power for larger capacity an longer power supporting duration requirements.

Modules

High Voltage Battery Control Unit (BCU)

Operating Voltage	70 - 600Vdc
Max Charge / Discharge Current	50A
Ingress Protection	IP65
Operating Temperature	Optional: Charge: 0°C-45° C/Discharge: -20°C-50 °C(without heating film); Charge: -20°C-45° C/Discharge: -20°C-50 °C(with heating film)
Storage Temperature	0°C - 35°C
Dimension (W*D*H)	740*366*120mm
Approximate Weight	12KG



Battery Module

Battery Type	LiFePO ₄ (LFP)
Nominal Voltage	102.4Vdc
Nominal Capacity	52Ah
Nominal Energy	5.3kWh
Max Charge / Discharge Current	50A
Operating Temperature	Optional: Charge: 0°C-45°C/Discharge: -20°C-50°C(without heating film); Charge: -20°C-45°C/Discharge: -20°C-50°C(with heating film)
Storage Temperature	0°C - 35°C
Ingress Protection	IP65
Dimension (W*D*H)	740*366*220mm
Approximate Weight	50KG



Base

Dimension (W*D*H)	740*366*60mm
Approximate Weight	7KG

