Q.HOME CORE H4 / A4

Energy Storage Solution

H4 : DC-coupled (Hybrid)
A4 : AC-coupled

MODEL Q.VOLT H4.6S / A4.6S | Q.SAVE B6.8S | Q.OMMAND

Easy installation

Equipment design emphasizing improved simplicity of installation

High efficiency

Competitive round-trip efficiency all-around system

Scalable battery

Scalable battery from 6.8 kWh, 13.7 kWh and 20.5 kWh to suit specific energy consumption

ATS-free Seamless Control

Seamless operation mode conversion for continuous and stable backup without external ATS on both circumstances, grid fault and restoration

Extended Warranty*

Fully wrapped 15-year product and performance warranty

Enhanced reliability

Excellent system reliability with Samsung SDI battery cells
*Please refer the warranty document

The ideal solution for:

Residential
PV system

* For details about warranty, refer to the warranty document.

Technical Specification

GENERAL PRODUCT INFORMATION		Q.HOME CORE H4	Q.HOME CORE A4
Dimensions Inverter Module / Battery Module (W × H × D)	[mm]	460 × 700 × 221, 238 (From Wall)	
Weight Inverter Module / Battery Module	[kg]	37.5 / 61.1	33.9 / 61.1
Operating Temperature Range	[°C]	Q.VOLT: −20 to 60 (de-rating Start temp. 45), Q.SAVE: −10 to 45	
Relative Humidity	[%]	4 to 100 (Condensing)	
Protection Degree / Class		IP65	
Mounting		Wall-Mounted or Floor-Mounted Options	
Max. Operation Altitude	[m]	2,000	
Cooling Method		Natural air cooling	
Product Warranty / Performance Warranty		15 / 15 years	
Noise Emissions		≤ 40 dB (A) @ 1 m	
Over Voltage Category (Internal)		OVC II (DC) / OVC III (AC)	
Communications		LAN, RS485, CAN, Wi-Fi (optional), LTE (optional)	
Remote Monitoring		Web, Mobile & App	
Software Update		Online update	
Energy Management System		Integrated	
Country of Manufacturer		Republic of Korea	

PV DATA (DC)			
Max. Input power (Max. Input per MPPT)	[kWp]	8.0 (4.0 per MPPT)	N/A
Max. Input Voltage	[V_{DC}]	600	N/A
Start Input Voltage / MPP Voltage Range	[V]	120 / 90 to 550	N/A
Number of Independent MPPTs		2	N/A
Number of DC Input Pairs per MPPT		1	N/A
Max. Input Current per MPPT / Max. Short Circuit Current per MPPT	[A]	15 / 20	N/A
DC Connection Type		MC4	N/A

GRID DATA (AC)		
Max. Apparent Power / Rated Output Power	[kVA / kW]	5 (4.6 for DE, 3.68 for G98) / 5 (4.6 for DE, 3.68 for G98)
Nominal Voltage / Range	[V]	230 / 184 to 264 (230 / 184 to 262 for G98)
Nominal Grid Frequency / Range	[Hz]	50, 60 / −5 Hz to +5 Hz
Feed-in Phase / Connection Phase		Single / Single
Nominal Current / Max. Current / Max. Over-Current Protection	[A]	21.7 / 25 / 30 (20 / 25 / 30 for DE, 16 / 20 / 30 for G98)
Power Factor Range		0.95 lagging to 0.95 leading
Total Harmonic Distortion	[%]	≤ 5

BACKUP POWER OUTPUT (ALTERNATING CURRENT)		
Connection Phase		Single
Rated Apparent Power / Rated Power (only Battery)	[kVA / kW]	3.3 to 4.5 / 3.3 to 4.5 @ 1 Battery Pack (3.3 to 3.68 / 3.3 to 3.68 @ 1 Battery Pack for G98) 5 (4.6 for DE, 3.68 for G98) / 5 (4.6 for DE, 3.68 for G98) @ 2, 3 Battery Pack
Rated Apparent Power / Rated Power (with PV)	[kVA / kW]	5 (4.6 for DE, 3.68 for G98) / 5 (4.6 for DE, 3.68 for G98) (max)
Rated Voltage	[V]	230
Rated Frequency	[Hz]	50, 60
Overload support		30 sec for 3.68 - 4.05 kVA, 20 sec for 4.05 - 4.41 kVA, 10 sec for 4.41 - 4.78 kVA @ 2, 3 Battery Pack and Off-grid

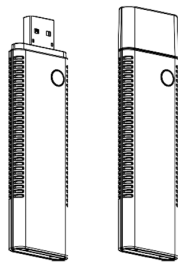
EFFICIENCY			
MPPT Efficiency	[%]	99.9	N/A
Max. Efficiency (PV to Grid)	[%]	97	N/A
Max. Efficiency (PV to Battery)	[%]	97.8	N/A
Max. Efficiency (Battery to Grid)	[%]	96.3	

BATTERY UNIT (DC)		
Battery Technology		Lithium-ion NCA (Samsung SDI)
Battery Energy	[kWh]	6.8 / 13.7 / 20.5 (6.86 kWh / pack)
Battery Usable Energy	[kWh]	6.5 / 13.0 / 19.5 (6.51 kWh / pack)
Max. Charge Power / Max. Discharge Power	[kW]	3.8 / 4.5 (3.8 / 4.5 for DE, 3.8 / 3.68 for G98) @ 1 Battery Pack 5.0 / 5.0 (5.0 / 4.6 for DE, 5.0 / 3.68 for G98) @ 2, 3 Battery Pack
Converter Technology		Non-isolated
Rated Battery Voltage / Battery Voltage Range	[V_{DC}]	202.8 / 168.0 to 228.2
Maximum Charge / Discharge Current	[A]	16.9 / 20 (for each Q.SAVE unit)
Depth of Discharge (DoD)	[%]	95

CERTIFICATES AND APPROVALS		
Inverter Model Name	Q.VOLT H4.6S	Q.VOLT A4.6S
Battery Model Name	Q.SAVE B6.8S	
Certificates and Approvals	VDE-AR-N 4105:2018, CE, IEC 62109-1, IEC 62109-2, IEC 62040-1, IEC 62619, IEC 62477-1, EN50549-1, EN 61000-6-2, EN 61000-6-3, IEC 60068-2-52, IEC 60730-1 ANNEX.H, G98, G99, G100, VDE V 0126-1-1/08.13, XP C15-712-3:2019, VFR 2019, SEI REF 04 Version 7	

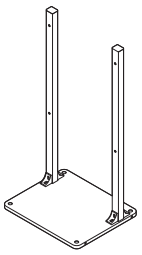
Accessories Specification

SBED-00022 — WI-FI DONGLE (WITH COVER)



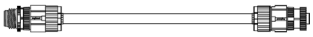
Features	USB Dongle for Wi-Fi 5 wireless LAN. Based on Realtek RTL8822CU solution. ▪ IEEE 802.11 a/b/g/n/ac 2T2R Dual Band MIMO ▪ Two stream spatial multiplexing 802.11n/802.11ac ▪ Use on-chip OTP (One-Time Programmable) ▪ Host Interface : USB2.0 ▪ Security : WAPI, WPA, WPA2 ▪ WPS function by button
Electrical Characteristics	RF Characteristics for IEEE802.11b, g, a, gn, an, ac
Weight	16.3 ± 0.5 g
Dimension	27.0 (W) × 8.0 (D) × 97.4 (H) mm

SBBD-00001 — Q.HOME CORE FLOOR MOUNT



Dimension	463 (W) × 385 (D) × 937 (H) mm

SBBD-00002 — Q.HOME CORE BMS EXTENSION CABLE 1 M



Cable length	1,050 ± 10 mm
Connectors	M12A-12BMMA-SL7001, M12A-12BFFA-SL7001
Cable area	24 AWG (0.205 mm²)

SBED-00033 — Q.HOME CORE BATTERY POWER CABLE 1,6 M

Cable length	1,700 ± 10 mm
Connectors	PWL-03BFMA-TL7001, PWL-03BFMA-TL7001
Cable area	10 AWG (5.26 mm²)

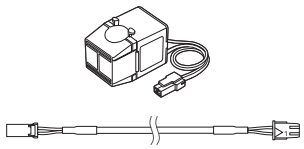
SBED-00034 — Q.HOME CORE POWER EXTENSION CABLE 2,6 M

Cable length	2,700 ± 10 mm
Connectors	PWL-03BFMA-TL7001, PWL-03BFMA-TL7001
Cable area	10 AWG (5.26 mm²)

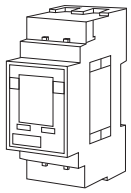
SBED-00036 — Q.HOME CORE CT SENSOR EXTENSION CABLE 20 M

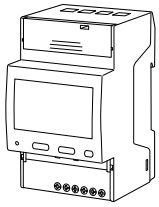
Cable length	20,000 ± 50 mm
Connectors	SLR-02VF, SMH250-02
Cable area	20AWG (0.518 mm²)

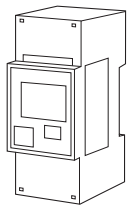
SBBD-00003 — Q.HOME CORE CT WITH CABLE 3 M

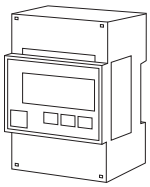


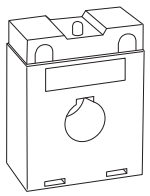
Cable length	3,010 ± 10 mm
Connectors	SLR-02VF, SMH250-02
Cable area	20 AWG (0.518 mm²)
CT ratio	100 A / 33.3 mA

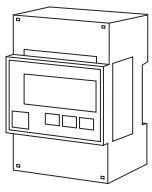
SBER-00025	ENERGY METER (EM112)
	
Phase	Single
Type	Direct
Voltage	230 V
Current	5 (100) A

	ENERGY METER (EM540)
	
Phase	Three
Type	Direct
Voltage	3×230 V / 400 V
Current	0.25 (65) A

SBER-00028	ENERGY METER (DDSU666-CT)
	
Phase	Single
Type	CT (1 Unit)
Voltage	220 V / 230 V
Current	1.5 (6) A

SBER-00029	ENERGY METER (DTSU666-CT)
	
Phase	Three
Type	CT (3 Unit)
Voltage	3×230 V / 400 V
Current	1.5 (6) A

SBER-00030	CT FOR ENERGY METER
	
CT ratio	200 A / 5 A
Type	Through hole

SBER-00101	ENERGY METER (DTSU666)
	
Phase	Three
Type	Direct
Voltage	3×230 V / 400 V
Current	5 (80) A

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.
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