Q.HOME+ ESS HYB-G2
THE MODULAR AND SCALABLE ENERGY STORAGE SOLUTION

SCALABLE SOLUTION FOR OPTIMISED CONSUMPTION
Scalable storage capacity from 4 kWh up to 12 kWh to suit the specific energy consumption.

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

REMOTE MAINTENANCE
Easy maintenance of the device due to early error detection function, web and mobile monitoring and a reliable service network.

SAFETY
Premium quality Samsung lithium-ion battery.

DURABILITY AND HIGH CYCLE STRENGTH
High durability with a 10-year product warranty and a performance to be maintained at least 80% of the initial battery capacity after 10 years. Very short recharge time and a high discharge depth.

CYCLE STRENGTH
High charging cycle strength, deep discharge and short charging times.

BACKUP POWER FUNCTION
Thanks to the integrated backup power function, even in the event of power failure 3 kW continuous operation at the second output (switchover time max. one minute).

THE IDEAL SOLUTION FOR:
Rooftop arrays on residential buildings

Engineered in Germany
### TECHNICAL SPECIFICATIONS

#### GENERAL PRODUCT INFORMATION

**Manufacturer**: Hanwha Q CELLS & Advanced Materials Corp.

- **Dimensions inverter module / Battery module (W × H × D)**: 468 × 722 × 213 [mm]
- **Weight inverter module / Battery module**: 31.3 / 52.3 [kg]
- **Operating temperature**: -10 ~ 40 [°C]
- **Relative humidity**: 4-100 [%]
- **Protection degree / Class**: IP65
- **Max. operating height without power loss**: 2000 [m]
- **Cooling method**: Natural cooling
- **Product warranty / Performance warranty**: 10 / 10 years
- **Noise emissions**: ≤ 40 dB (A) @ 1 m
- **AC over voltage category**: III
- **Front panel display**: 5” TFT Touch LCD
- **Communications**: LAN, RS485, CAN
- **Remote monitoring**: Web, mobile
- **Software update**: Internet update
- **Energy management system**: Integrated

#### PV DATA (DC)

- **Max. input power**: 6.6 (3.3 per MPPT) [kWp]
- **Max. input voltage [V_{dc}]**: 550 [V]
- **Start input voltage / MPPT operating range / Rated input voltage**: 150 / 125~500 / 400
- **Number of independent MPPTs**: 2
- **Number of DC input pairs per MPPT**: 1
- **Max. input current per MPPT / Max. short circuit current per MPPT**: 15 / 20  [A]
- **DC connection type**: Weidmüller

#### GRID DATA (AC)

- **Max. aparent power / Rated output power**: 4.6 / 4.6 [kVA / kW]
- **Nominal voltage / Range**: 230 / 184 ~ 264 [V]
- **Nominal grid frequency / Range**: 50 / 47.5 ~ 51.5 [Hz]
- **Feed-in phases / Connection phases**: 1 / 1
- **Nominal current / Max. current / Max. over-current protection**: 20 / 25 / 32 [A]
- **Power factor range**: 0.8 ~ 1 ~ 0.8
- **Total harmonic distorsion**: ≤ 5 [%]

#### BACKUP POWER OUTPUT (ALTERNATING CURRENT)

- **Connection phases**: 1
- **Rated apparent power / Rated power**: 3 / 3 (4.6kW max. 10 minutes) [kVA / kW]
- **Rated voltage**: 230  [V]
- **Rated frequency**: 50  [Hz]
- **Switchover time to backup power**: approx. 1 minute
- **Support by PV during backup power operation**: YES

#### EFFICIENCY (PV TO GRID)

- **Max. efficiency / European efficiency**: 96.2 / 95.5 [%]

#### BATTERY UNIT (DC)

- **Manufacturer**: Hanwha Q CELLS & Advanced Materials Corp. (battery from Samsung SDI)
- **Battery technology**: Lithium-ion
- **Battery capacity**: 4 / 8 / 12 (4 kWh per Battery module) [kWh]
- **Battery usable capacity**: 3.6 / 7.2 / 10.8 [kWh]
- **Max. charging capacity / max. discharge capacity**: 2 (one battery module), 3 (≥ two battery modules) / 3 [kWh]
- **Converter technology**: Non-isolated
- **Rated battery voltage / Battery voltage range**: 203.84 / 176.40 ~ 225.12 [Vdc]
- **Maximum charging / Discharging current**: 17 (9.8 with one battery module) / 17 [A]
- **Depth of discharge (DoD)**: 90 (5 ~ 95) [%]

#### COUNTRY AVAILABILITY / CERTIFICATES AND APPROVALS

- **Inverter model name**: Q.VOLT HYB-G2 4.6 kW 1.1
- **Battery model name**: Q.SAVE-G2 4 kWh B1.1.1
- **Certificates and approvals**: VDE-AR-N 4105:2018, CE, IEC62109-1, IEC62109-2, IEC 62619, IEC 62477-1, EN 61000-6-2, EN 61000-6-3

**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.