

*Single Phase, 2 MPPTs,
High Voltage Hybrid Inverter*

PRODUCT MODEL

- QS 3000 HVS
- QS 3680 HVS
- QS 5000 HVS
- QS 6000 HVS



150% DC input oversizing



Up to 6000W charging / discharging rate



Charging / discharging efficiency > 97%



Remote firmware upgrade & work mode setting



Support VPP / FFR function



EU standard certified by TÜV Rheinland

| MODEL | QS 3000 HVS | QS 3680 HVS | QS 5000 HVS | QS 6000 HVS |
|---|--|-------------|---------------------|-------------|
| PV INPUT DATA | | | | |
| Recommended Max. PV Power [Wp] | 4500 | 5500 | 7500 | 9000 |
| Max. PV Input Voltage [V] | 600 | | | |
| MPPT Voltage Range [V] | 120 - 550 | | | |
| Rated PV Input Voltage [V] | 360 | | | |
| Start-up Voltage [V] | 150 | | | |
| No. of MPP Trackers | 2 | | | |
| No. of Input Strings per Tracker | 1 | | | |
| Max. Input Current per MPPT [A] | 27 (13.5 / 13.5) | | | |
| Max. Short-circuit Current per MPPT [A] | 34 (17 / 17) | | | |
| DC Switch | Integrated | | | |
| AC INPUT / OUTPUT DATA (ON-GRID) | | | | |
| Maximum Apparent Power [VA] | 3000 | 3680 | 5000 ^[1] | 6000 |
| Rated AC Power [W] | 3000 | 3680 | 5000 ^[1] | 6000 |
| Rated AC Current [A] | 13 | 16 | 21.7 ^[1] | 26.1 |
| Rated AC Voltage / Range [V] | 220 / 230; 160 - 290 | | | |
| Grid Frequency / Range [Hz] | 50 / 60; ± 5 | | | |
| Adjustable Power Factor [cosφ] | 0.8 leading - 0.8 lagging | | | |
| Output THDi (@Rated Output) | < 2% | | | |
| BATTERY DATA | | | | |
| Battery Type | Lithium | | | |
| Battery Voltage Range [V] | 80 - 450 | | | |
| Max. Charging / Discharging Current [A] | 25 | | | |
| Max. Charging / Discharging Power [W] | 4500 / 3000 | 5500 / 3680 | 6000 / 5000 | 6000 / 6000 |
| Communication Interface | CAN | | | |
| EPS OUTPUT DATA (WITH BATTERY) | | | | |
| EPS Rated Power [W] | 3000 | 3680 | 5000 | 6000 |
| EPS Rated Voltage [V] | 220 / 230 | | | |
| EPS Rated Frequency [Hz] | 50 / 60 | | | |
| EPS Rated Current [A] | 13 | 16 | 21.7 | 26.1 |
| Output THDi (@Rated Output) | < 3% | | | |
| Automatic Switch Time [s] | < 0.5 | | | |
| Peak Apparent Power, Duration [VA,s] | 3600, 600 | 4416, 600 | 6000, 600 | 7200, 600 |
| EFFICIENCY | | | | |
| Max. Efficiency | 97.42% | 97.45% | 97.50% | 97.50% |
| Euro Efficiency | 97.15% | 97.17% | 97.20% | 97.20% |
| Battery Charge / Discharge Efficiency | 97.15% | 97.17% | 97.20% | 97.20% |
| PROTECTION | | | | |
| DC Insulation Monitoring | Integrated | | | |
| Input Reverse Polarity Protection | Integrated | | | |
| Anti-island Protection | Integrated | | | |
| Residual Current Monitoring | Integrated | | | |
| Over-heat Protection | Integrated | | | |
| AC Overcurrent Protection | Integrated | | | |
| AC Short-circuit Protection | Integrated | | | |
| AC Overvoltage Protection | Integrated | | | |
| DC Surge Protection | Integrated | | | |
| AC Surge Protection | Integrated | | | |
| GENERAL DATA | | | | |
| Dimensions (W *H*D) [mm] | 506*386*170mm | | | |
| Weight [kg] | 20 | | | |
| User Interface | LED + OLED | | | |
| Communication | RS485 and USB / Wifi / 4G (Optional) | | | |
| Ambient Temperature Range [°C] | -30 - +60 | | | |
| Relative Humidity | 0 - 100% | | | |
| Operating Altitude [m] | ≤2000 | | | |
| Standby Self Consumption [W] | < 15 | | | |
| Topology | Transformerless | | | |
| Cooling | Natural | | | |
| Enclosure | IP65 | | | |
| Noise [dB] | < 35 | | | |
| Warranty [years] | 5/7/10 | | | |
| CERTIFICATIONS & STANDARDS | | | | |
| Grid Regulation | AS 4777, EN 50549-1, EN 50549-PL, EN 50549-GR, IEC 61727, CEI 0-21, IEC 62116, C10/C11, VDE0126, ORDINANCE 140 | | | |
| Safety Regulation | IEC 62109-1, IEC 62109-2 | | | |
| EMC | EN/IEC 61000-6-1, EN/IEC 61000-6-3 | | | |

[1]: The AC output power for VDE-AR-N 4105, VDE0126 and NRS097-2-1 is limited to 4600VA & 20A, for AS/NZS 4777.2 is limited to 4999VA & 21.7A.