POWER
STATION 247™

# TECHNICAL SPECIFICATIONS

With the **POWER**STATION 247, clean solar energy can be stored and used day and night, and during power outages thus improving grid stability, compensating power peaks and maximizing return on renewable energy investments. It is a fully integrated scalable system 5 kW, 10 kW, 15 kW. The free standing cabinet is easy to install and easy to use. The system integrates up to 3 hybrid inverters, solar MPP-trackers, charge controller and lithium - iron batteries, as well as all necessary field wiring terminals and disconnect switches. It is truly and uniquely 'plug and play'.

| **Device name:** | **POWER**MODULE 5 kW | **POWER**STATION 247 SYSTEM ENCLOSURE |
|---|---|---|
| **AC grid-tie output** | | |
| Grid scheme | 120V/60Hz, single-phase, three-wire system (L1, L2, Neutral) | |
| Nominal output voltage | 120/240 VAC | |
| Nominal output frequency | 50 Hz or 60 Hz | |
| Grid feed-in power range | 0 – 5000 W | 0 -15 kW |
| Output power (cont.) at 35°C /95°F | 5000 W; 2500 W per phase | 15 kW ; 7.5 kW per phase |
| Grid feed-in current range | 0 – 20.83 A per phase | 0 -62.5 A per phase |
| Max. continuous output current | 20.83 A per phase | 62.5 A per phase |
| Grid feed-in voltage range L1-N | 105.6 to 132 V | 105.6 to 132 V |
| Grid feed-in voltage range L2-N | 105.6 to 132 V | 105.6 to 132 V |
| Anti-islanding default values | 105.6 to 132 V | |
| Grid feed-in frequency | 59.3 to 60.5 Hz | |
| Anti-islanding default values | 59.3 to 60.5 Hz | |
| Grid feed-in power factor | >0.99 for Pout >1000 W | |
| AC output circuit breaker | 2-pole, 2x 25 A MCB in system enclosure<br>external 63 A branch fuses or circuit breakers | |
| AC grid disconnect switch | 2-pole, 2x 63 A disconnect switch in system enclosure | |
| **AC stand-alone output** | | |
| Grid scheme | 120V/60Hz, two-phase, three-wire system (L1, L2, Neutral) | |
| Nominal output voltage | 120/240 VAC | |
| Nominal output frequency | 50 Hz or 60 Hz | |
| Output power (cont.) at 35°C / 95°F | 5000 W; 2500 W per phase | 15 kW ; 7.5 kW per phase |
| Max. continuous output current | 20.83 A per phase | 62.5 A per phase |
| Maximum output current 5 sec.(rms) | 41 A (120 V), electronically limited | |
| Output power factor range | 0.5 cap. – 1 – 0.5 ind. | |
| Output frequency | 60 Hz +/- 0.1% | |
| Output voltage | L1-N / L2-N: 120 V +/- 3%; L1-L2: 240 V +/- 3% | |
| Total harmonic distortion (THD) | < 5% at rated power | |
| No-load power consumption | < 30W | |
| Input DC voltage range | 90 to 108 V (96 V Nominal) | |
| Maximum input DC current | 60 A | 180 A max. |
| **PV inputs** | | |
| Number of PV string connections | 2 | 6 |
| Number of MPP tracking units | 2 | 6 |
| PV-string disconnect switches | integrated in system enclosure; two switches for 6 PV-strings | |
| Maximum input voltage | 500 VDC | 500 VDC |
| Input voltage range (functional) | 180 – 500 VDC | |
| Input MPP tracking range | 240 – 400 VDC | |
| Input current per PV input | 12.5 ADC max | |
| Maximum PV short circuit | 14 ADC for a single MPPT | |
| Input power per PV input | 3000 W max. | |
| Backfeed current to PV-Input | none | |

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|---|---|---|
| **Battery DC input / output** | | |
| DC circuit breaker | 63 A, branch rated, 125 VDC | 3 x 63A, branch rated, 125 VDC |
| Maximum charge current | 25 A | 75 A max. |
| Maximum discharge current | 60 A | 180 A max. |
| Output voltage range | 93 - 105 V (96 V Nominal) | |
| Charge control | Voltage control with electronic current limitation | |
| **Recommended battery type** | Lithium-iron (LiFeYPO4), 96 V, 180 Ah | |
| Efficiency | | |
| PV-input to inverter output | | 94 % |
| Battery to inverter output | | 94 % |
| Battery charge / discharge (LiFeYPO4) | | 96.5 % |
| **General specifications** | | |
| Product / shipping weight | 16.4 kg (36.0 lb) | 90 kg (198 lb) |
| Product dimensions (H x W x D) | 258 x 224 x 410 mm | 886 x 813 x 508 mm |
| | 10.16 x 8.82 x 16.14 in | 34.9 x 32.0 x 20 in |
| Degree of protection | | NEMA Type 1 indoor |
| Operating air temperature range | 0°C to 50°C (32°F to 122°F); linear power deration from 35°C to 50°C (95°F to 122°F) 50% | |
| **Warranty** | 10 Years | 10 Years |
| **Certifications** | | |
| Safety | UL1741 | |
| Interconnect | IEEE 1547, IEEE 1547.1 | |
| Battery | UL 1642 | |

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Complete system dimensions ( H x W x D )
70 inches x 32 inches x 20 inches



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