

PRIME Series Hybrid Solar Inverter

POWERTEK

www.powertekinverters.com

120V Single Phase
Parallel Up to 6 units
(Single phase, Split Phase and Three Phase)
3.6kW / 6.5kW



- **Self-consumption**
- **Hybrid Solar solution**
- **Integrated WI-FI Monitoring (Option)**
- **PV Input 300V**
- **Lithium BMS Supports**
- **Colorful LCD panel**
- **User-adjustable charging current and voltage**
- **Programmable supply priority for PV, Battery or Grid**
- **Programmable multiple operation modes: Self-consumption, off-grid and grid-tie with backup**
- **80A Max Charging Current for 3600W, 150A MaX Charging Current for 6500W.**



Extended Lithium BMS Support

Prime models offer built-in BMS com port for **Pylontech** / **PACE** / **Gotion** / **DAQ** / **Oliter** / **Sunwoda** Lithium BMS systems; BMS allows inverters to communicate accurately with battery and settings will automatically be programmed.

Built-in Wi-Fi Monitoring



| Technical Data PrimeSeries | PRIME 3648 | PRIME 6548 |
|---|---|--------------------------------|
| Model Name | FHI3648M80/FHI3648M80P | FHI6548M150/FHI6548M150P |
| Permitted parallel number | No/1~6 | |
| AC Mode | | |
| Rated Input Voltage | 120Vac±5% | |
| Input voltage range | (90Vac - 140Vac) ± 2% | |
| Frequency | 50Hz/60Hz (Auto Sensing) | |
| Frequency Range | 47±0.3Hz ~ 55Hz ±0.3Hz (50Hz) 57±0.3Hz ~ 65Hz ±0.3Hz (60Hz) | |
| Overload/short circuit protection | Circuit breaker | |
| Efficiency | > 95% | |
| Transfer time (bypass and inverter) | 10ms (typical) | |
| AC reverse protection | Yes | |
| Maximum bypass overload current | 40A | 60A |
| Inverter Mode | | |
| Output voltage waveform | Pure sine wave | |
| Rated output power (VA) | 3600 | 6500 |
| Rated output power (W) | 3600 | 6500 |
| Power factor | 1 | |
| Rated output voltage (Vac) | 120Vac | |
| Output voltage error | ±5% | |
| Output frequency range | 50Hz ±0.3Hz/60Hz±0.3Hz | |
| Maximum Efficiency | >91% | |
| Overload Protection | (102% < load < 110%) ±10%: report error and turn off the output after 5 minutes; (110% < load < 125%) ±10%: report error and turn off the output after 10 seconds; Load > 125% ±10%: report error and turn off the output after 5 seconds | |
| Peak power | 7200VA | 12000VA |
| Loaded motor capability | 2HP | 5HP |
| Output short circuit protection | Circuit breaker | Circuit Breaker |
| Bypass circuit breaker specification | 40A | 63A |
| Rated battery input voltage | 48V (Minimum starting voltage 44V) | |
| Battery voltage range | 40.0Vdc ~60.0Vdc ±0.6Vdc (Under voltage alarm/shutdown voltage/over voltage alarm/ over voltage recovery ...stable on LCD screen) | |
| Power saving mode self-consumption | Load ≤ 50W | |
| AC charging | | |
| Battery type | Lead acid or Lithium Battery | |
| Maximum charge current (can be set) | 40A | 120A |
| Charge current error | ±5A _{dc} | ±5A _{dc} |
| Charge voltage range | 40-60V _{dc} | 40-60V _{dc} |
| Short circuit protection | Circuit breaker and blown fuse | Circuit breaker and blown fuse |
| Circuit breaker specifications | 40A | 63A |
| PV charging | | |
| Maximum PV open circuit voltage | 300V _{dc} | 300V _{dc} |
| PV operating voltage range | 120-300V _{dc} | 120-300V _{dc} |
| MPPT voltage range | 90-260V _{dc} | 90-260V _{dc} |
| Maximum PV input power | 4500W | 4500W+4500W |
| Maximum PV input current | 27A | 22A + 22A |
| PV charging current range (can be set) | 0-80A | 0-150A |
| Charging short circuit protection | Blown fuse | Blown fuse |
| Wiring protection | Reverse polarity protection | Reverse polarity protection |
| Hybrid charging Max charger current specifications (AC charger + PV charger) | | |
| Max charger current (settable) | 0-80A | 0-150A |
| Certificated specification | | |
| Certification | UL1741 | UL1741 |
| EMC | FCC 15 class B | |
| Humidity | 5 to 95% (No condensing) | 5 to 95% (No condensing) |
| Operating Temperature | -10°C to 55°C | -10°C to 55°C |
| Storage temperature range | -25°C to 60°C | -25°C to 60°C |
| Noise | ≤ 60dB | ≤ 60dB |
| Heat dissipation | Forced air cooling, variable speed of fan | |
| Communication interface | USB/RS485/WIFI/Dry node control | |
| Size(L*W*D) | 428*280*110mm | 540*350*120mm |
| Weight (kg) | 6.8kg | 18.5kg |
| Package Size(L*W*D) | 484*357*177mm | 648*449*223mm |
| Package Weight (kg) | 7.8kg | 21kg |