EPEVER
EPSOLAR TECHNOLOGY

# IPower Plus series
# Pure Sine Wave Inverter

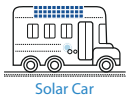
## Overview

IPower-Plus is a high-frequency pure sine wave inverter which adopts digital intelligent control technology. The inverter brings lower inrush current of input, faster dynamic response, better impact resistance from load, more reliable of operation, also supports lithium batteries. This product fits any situation of DC to AC, such as RVs, boats, residentials, and places where require high quality of electrical power.



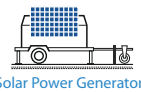
## Features

- Pure sine wave output
- Input to output electrical isolation
- Digital dual closed-loop control of voltage and current
- Input surge current suppression for lithium battery systems
- Output power factor up to 1
- Simple system wiring & 180 degrees rotating LCD
- Input Protection: Reverse polarity, Low-voltage, Over-voltage
- Output Protection: Overload, Short circuit, Overheating
- Phone and PC remote control through RS485 port
- Extra external switch port
- Safety (EN/IEC62109) & EMC approved by international standards


Solar Car


Solar Home


Solar Boat


Solar Power Generator

# Technical Specifications

| Parameters | IP500-11-Plus | IP500-21-Plus | IP1000-11-Plus | IP1000-21-Plus | IP1500-11-Plus | IP1500-21-Plus | IP1500-41-Plus |
|---|---|---|---|---|---|---|---|
| Continuous output power | 500W@35℃@Rated input voltage | 500W@35℃@Rated input voltage | 1000W@35℃ @Rated input voltage | 1000W@35℃@Rated input voltage | 1500W@35℃@Rated input voltage | 1500W@35℃@Rated input voltage | 1500W@35℃@Rated input voltage |
| Surge power | 1000W@5S | 1000W@5S | 2000W@5S | 2000W@5S | 3000W@5S | 3000W@5S | 3000W@5S |
| Surge current when power on | ＜50A | ＜50A | ＜100A | ＜100A | ＜100A | ＜100A | ＜50A |
| Output voltage | 110VAC(±3%); 120VAC(-7%~+3%) | | | 110VAC(±3%); 120VAC(-7%~+3%) | | | |
| Output frequency | 50/60Hz±0.2% | | | 50/60Hz±0.2% | | | |
| Output wave | Pure Sine Wave | | | Pure Sine Wave | | | |
| Output distortion THD | THD≤4%(Resistive load) | THD≤4%(Resistive load) | THD≤4%(Resistive load) | THD≤3%(Resistive load) | THD≤4%(Resistive load) | THD≤4%(Resistive load) | THD≤4%(Resistive load) |
| Load power factor | 0.2~1(VA≤continuous output power) | | | 0.2~1(VA≤continuous output power) | | | |
| Rated input voltage | 12VDC | 24VDC | 12VDC | 24VDC | 12VDC | 24VDC | 48VDC |
| Input voltage range | 10.8~16.0VDC | 21.6~32VDC | 10.8~16.0VDC | 21.6~32.0VDC | 10.8~16.0VDC | 21.6~32.0VDC | 43.2~64.0VDC |
| Rated output efficiency① | ＞87.5% | ＞90% | ＞87% | ＞90% | ＞88% | ＞88% | ＞90% |
| Max. output efficiency② | ＞90% (40% loads) | ＞91% (40% loads) | ＞92% (40% loads) | ＞92.5% (30% loads) | ＞93%(30% loads) | ＞92.5%(30% loads) | ＞92%(30% loads) |
| Idle current | ＜0.2A | ＜0.15A | ＜0.2A | ＜0.2A | ＜0.2A | ＜0.2A | ＜0.2A |
| No-load current | ＜0.8A | ＜0.5A | ＜0.8A | ＜0.6A | ＜1.0A | ＜0.9A | ＜0.5A |
| USB output | 5VDC/Max.1A | | | 5VDC/Max.1A | | | / |
| RS485 com. port | 5VDC/200mA | | | 5VDC/200mA | | | |
| Input terminal | M6 | | | M6 | | | |
| Dimension | 286×163.5×78mm | 286×163.5×78mm | 371×231.5×123mm | 371×231.5×123mm | 387×231.5×123mm | 387×231.5×123mm | 387×231.5×123mm |
| Mounting dimension | 262×75mm | 262×75mm | 345×145mm | 345×145mm | 361×145mm | 361×145mm | 361×145mm |
| Mounting Holes | Φ5mm | Φ5mm | Φ6mm | Φ6mm | Φ6mm | Φ6mm | Φ6mm |
| Net Weight | 2.2kg | 2.2kg | 5.8kg | 5kg | 6kg | 6kg | 6kg |
| Working temperature | ·-20℃~+60℃(Refer to the Reduced capacity curve) | | | ·-20℃~+60℃(Refer to the Reduced capacity curve) | | | |
| Relative humidity | < 95%(N.C.) | | | < 95%(N.C.) | | | |
| Enclosure | IP20 | | | IP20 | | | |

| Parameters | IP2000-11-Plus | IP2000-21-Plus | IP2000-41-Plus | IP3000-11-Plus | IP3000-21-Plus | IP3000-41-Plus | IP4000-41-Plus |
|---|---|---|---|---|---|---|---|
| Continuous output power | 2000W@35℃@ Rated input voltage | 2000W@35℃@Rated input voltage | 2000W@35℃ @Rated input voltage | 3000W@35℃@Rated input voltage | | | 4000W@35℃@Rated input voltage |
| Surge power | 4000W@5S | | | 4800W@1S | 6000W@5S | 6000W@5S | 8000W@5S |
| Surge current when power on | ＜100A | ＜100A | ＜50A | ＜100A | ＜100A | ＜65A | ＜65A |
| Output voltage | 110VAC(±3%); 120VAC(-7%~+3%) | | | 110VAC(±3%); 120VAC(-7%~+3%) | | | |
| Output frequency | 50/60Hz±0.2% | | | 50/60Hz±0.2% | | | |
| Output wave | Pure Sine Wave | | | Pure Sine Wave | | | |
| Output distortion THD | THD≤5%(Resistive load) | THD≤4%(Resistive load) | | THD≤4%(Resistive load) | THD≤5%(Resistive load) | THD≤4%(Resistive load) | THD≤4%(Resistive load) |
| Load power factor | 0.2~1(VA≤ output continuous power) | | | 0.2~1(VA≤output continuous power) | | | |
| Rated input voltage | 12VDC | 24VDC | 48VDC | 12VDC | 24VDC | 48VDC | 48VDC |
| Input voltage range | 10.8~16.0VDC | 21.6~32.0VDC | 43.2~64.0VDC | 10.8~16.0VDC | 21.6～32.0VDC | 43.2~64.0VDC | 43.2~64VDC |
| Rated output efficiency① | ＞85% | ＞88% | ＞88% | ＞85% | ＞87% | ＞89.5% | ＞88% |
| Max. output efficiency② | ＞92% (30% loads) | ＞92%(30% loads) | ＞93% (30% loads) | ＞93% (30% loads) | ＞91.5% (30% loads) | ＞93.5% (30% loads) | ＞93%(30% loads) |
| Idle current | ＜0.2A | | | ＜0.2A | | | |
| No-load current | ＜1.2A | ＜0.9A | ＜0.5A | ＜1.6A | ＜1A | ＜0.4A | ＜0.6A |
| USB output | 5VDC/Max.1A | | | 5VDC/Max.1A | | / | / |
| RS485 com. port | 5VDC/ 200mA | 5VDC/200mA | 5VDC/ 200mA | 5VDC/ 200mA | | | |
| Input terminal | M10 | M6 | M6 | M10 | M6 | M6 | M6 |
| Dimension | 420×231.5×123mm | 421×231.5×123mm | 421×231.5×123mm | 550×274×148mm | 521×274×148mm | 516x231.5x123mm | 521×274×148mm |
| Mounting dimension | 395×145mm | 395×145mm | 395×145mm | 525×145mm | 495×145mm | 490x145mm | 495×145mm |
| Mounting Holes | Φ6mm | | | Φ6mm | | | |
| Net Weight | 8kg | 6.5kg | 6.5kg | 13kg | 8kg | 8kg | 12kg |
| Working temperature | -20℃~+60℃(Refer to the Reduced capacity curve) | | | -20℃~+60℃(Refer to the Reduced capacity curve) | | | |
| Relative humidity | < 95%(N.C.) | | | < 95%(N.C.) | | | |
| Enclosure | IP20 | | | IP20 | | | |

| Parameters | IP500-12-Plus | IP500-22-Plus | IP1000-12-Plus | IP1000-22-Plus | IP1500-12-Plus | IP1500-22-Plus | IP1500-42-Plus |
|---|---|---|---|---|---|---|---|
| Continuous output power | 500W@35℃@Rated input voltage | | 1000W@35℃ @Rated input voltage | 1000W@35℃@Rated input voltage | 1500W@35℃@Rated input voltage | | |
| Surge power | 1000W@5S | 1000W@5S | 2000W@5S | 2000W@5S | 3000W@5S | 3000W@5S | 3000W@5S |
| Surge current when power on | ＜50A | ＜50A | ＜100A | ＜100A | ＜100A | ＜100A | ＜50A |
| Output voltage | 220VAC(±3%); 230VAC(-7%~+3%) | | | 220VAC(±3%); 230VAC(-7%~+3%) | | | |
| Output frequency | 50/60Hz±0.2% | | | 50/60Hz±0.2% | | | |
| Output wave | Pure Sine Wave | | | Pure Sine Wave | | | |
| Output distortion THD | THD≤3%(Resistive load) | | | THD≤3%(Resistive load) | | | |
| Load power factor | 0.2~1(VA≤continuous output power) | | | 0.2~1(VA≤continuous output power) | | | |
| Rated input voltage | 12VDC | 24VDC | 12VDC | 24VDC | 12VDC | 24VDC | 48VDC |
| Input voltage range | 10.8~16.0VDC | 21.6~32VDC | 10.8~16.0VDC | 21.6~32.0VDC | 10.8~16.0VDC | 21.6~32.0VDC | 43.2~64.0VDC |
| Rated output efficiency① | ＞89.5% | ＞91.5% | ＞89% | ＞90% | ＞89% | ＞90% | ＞92.5% |
| Max. output efficiency② | ＞90% (40% loads) | ＞92% (40% loads) | ＞93% (40% loads) | ＞93% (30% loads) | ＞93%(30% loads) | ＞93.5%(30% loads) | ＞94%(30% loads) |
| Idle current | ＜0.2A | ＜0.15A | ＜0.2A | ＜0.2A | ＜0.2A | ＜0.2A | ＜0.2A |
| No-load current | ＜0.9A | ＜0.6A | ＜1.1A | ＜0.9A | ＜1.2A | ＜0.9A | ＜0.5A |
| USB output | 5VDC/Max.1A | | | 5VDC/Max.1A | | | / |
| RS485 com. port | 5VDC/200mA | | | 5VDC/200mA | | | |
| Input terminal | M6 | | | M6 | | | |
| Dimension | 286×163.5×78mm | 286×163.5×78mm | 371×231.5×123mm | 371×231.5×123mm | 387×231.5×123mm | 387×231.5×123mm | 387×231.5×123mm |
| Mounting dimension | 262×75mm | 262×75mm | 345×145mm | 345×145mm | 361×145mm | 361×145mm | 361×145mm |
| Mounting Holes | Φ5mm | Φ5mm | Φ6mm | Φ6mm | | | |
| Net Weight | 2.2kg | 2.2kg | 5.8kg | 5kg | 6kg | 6kg | 6kg |
| Working temperature | -20℃~+60℃(Refer to the Reduced capacity curve) | | | -20℃~+60℃(Refer to the Reduced capacity curve) | | | |
| Relative humidity | < 95%(N.C.) | | | < 95%(N.C.) | | | |
| Enclosure | IP20 | | | IP20 | | | |

| Parameters | IP2000-12-Plus | IP2000-22-Plus | IP2000-42-Plus | IP3000-12-Plus | IP3000-22-Plus | IP3000-42-Plus | IP4000-42-Plus | IP5000-42-Plus |
|---|---|---|---|---|---|---|---|---|
| Continuous output power | 2000W@35℃@ Rated input voltage | | | 3000W@35℃ @Rated input voltage | 3000W@35℃@Rated input voltage | | 4000W@35℃@Rated input voltage | 5000W@35℃@Rated input voltage |
| Surge power | 4000W@5S | | | 6000W@5S | 6000W@5S | 6000W@5S | 8000W@5S | 8000W@5S |
| Surge current when power on | ＜100A | ＜100A | ＜50A | ＜100A | ＜100A | ＜65A | ＜65A | ＜65A |
| Output voltage | 220VAC(±3%); 230VAC(-7%~+3%) | | | | 220VAC(±3%)；230VAC(-7%~+3%) | | | |
| Output frequency | 50/60Hz±0.2% | | | | 50/60Hz±0.2% | | | |
| Output wave | Pure Sine Wave | | | | Pure Sine Wave | | | |
| Output distortion THD | THD≤3%(Resistive load) | | | | THD≤3%(Resistive load) | | | |
| Load power factor | 0.2~1(VA≤ output continuous power) | | | | 0.2~1(VA≤output continuous pow er) | | | |
| Rated input voltage | 12VDC | 24VDC | 48VDC | 12VDC | 24VDC | 48VDC | 48VDC | 48VDC |
| Input voltage range | 10.8~16.0VDC | 21.6~32.0VDC | 43.2~64.0VDC | 10.8~16.0VDC | 21.6～32.0VDC | 43.2~64.0VDC | 43.2~64VDC | 43.2~64.0VDC |
| Rated output efficiency① | ＞88% | ＞91% | ＞92.5% | ＞87% | ＞90% | ＞92.5% | ＞91% | ＞91% |
| Max. output efficiency② | ＞94%(30% loads) | ＞93%(30% loads) | ＞94.5% (30% loads) | ＞94% (30% loads) | ＞94% (30% loads) | ＞94.5% (30% loads) | ＞94%(30% loads) | ＞94%(30% loads) |
| Idle current | ＜0.2A | | | | ＜0.2A | | | |
| No-load current | ＜1.2A | ＜1.0A | ＜0.5A | ＜1.6A | ＜1A | ＜0.5A | ＜0.6A | ＜0.8A |
| USB output | 5VDC/Max.1A | 5VDC/ Max.1A | / | 5VDC/Max.1A | 5VDC/Max.1A | / | / | / |
| RS485 com. port | 5VDC/ 200mA | | | | 5VDC/ 200mA | | | |
| Input terminal | M10 | M6 | M6 | M10 | M6 | | | |
| Dimension | 420×231.5×123mm | 421×231.5×123mm | 421×231.5×123mm | 557×231.5×123mm | 521×274×148mm | 491×231.5×123mm | 516×231.5×123mm | 531×231.5×123mm |
| Mounting dimension | 395×145mm | 395×145mm | 395×145mm | 532×145mm | 495×145mm | 465×145mm | 490×145mm | 505×145mm |
| Mounting Holes | Φ6mm | | | | Φ6mm | | | |
| Net Weight | 8kg | 6.5kg | 6.5kg | 10.5kg | 8kg | 7kg | 8kg | 9kg |
| Working temperature | -20℃~+60℃(Refer to the Reduced capacity curve) | | | | -20℃~+60℃(Refer to the Reduced capacity curve) | | | |
| Relative humidity | < 95%(N.C.) | | | | < 95%(N.C.) | | | |
| Enclosure | IP20 | | | | IP20 | | | |