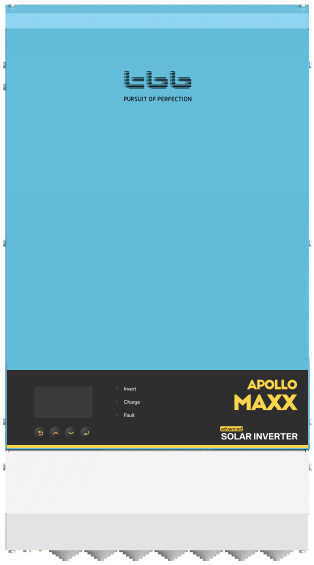
# APOLLO MAXX




## Advanced All in One Solar Inverter With parallel and three phase capability

Apollo Maxx 2KW-5KW

Apollo Maxx is a powerful all in one solar inverter that integrates with multiple functions, including a high-performance true sine wave inverter, a powerful battery charger, a MPPT charge controller, a high-speed automatic transfer switch and two outputs for load management.

Apollo Maxx all in one solar inverter can be used in multiple applications. With a simple setting, you can compose a DC coupling system, power backup system or solar hybrid system. Its distinguishing surge capability makes it capable to power most of demanding appliances, such as fridge, freezer, water pump and air-conditioner, etc.

With the function of power assist & power control, it can be used to work with a limited AC source such as generator or limited grid. Apollo Maxx can automatically adjust its charging current to protect the grid or the generator from overload. It can also work as the supplement source to the generator or grid once the temporary peak power appears.

- Transformer Based
- All in one, plug and play design for easy installation
- Applicable for DC coupling system, solar hybrid system and power backup system
- Parallel and three phase capability
- Typical 0ms UPS class transfer speed, max<2ms
- Power assist & power control enable small generator to handle big loads and meet the demand of the limited grid
- Extremely high inverter efficiency up to 96%
- Extremely high MPPT efficiency up to 98%
- Harmonic Distortion<2%
- Extremely low self-consumption power
- High performance designed for all kinds of inductive loads
- TBB premium II battery charging management
- Built in battery SOC estimation
- Equalization charging program available for flooded and OPZS battery
- Lithium Battery charging available
- Built in AGS function
- Fully programmable by APP
- Remote monitoring and control via Nova online portal

V1.0

| Model No. | Apollo Maxx 2.0M | Apollo Maxx 3.0M | Apollo Maxx 2.0S | Apollo Maxx 3.0S | Apollo Maxx 5.0S |
|---|---|---|---|---|---|
| Product Topology | Transformer based | | | | |
| Power Assist | Yes | | | | |
| Parallel & Three Phase | Yes | | | | |
| AC input voltage range (VAC) | 175~265 | | | | |
| AC input Frequency range (Hz) | 45~65 | | | | |
| AC input Current (transfer switch) (A) | 32 | | | | 50 |

## Inverter

| | | | | | |
|---|---|---|---|---|---|
| Nominal battery voltage (V) | 24 | | 48 | | |
| Input voltage range (V) | 21~34 | | 42~68 | | |
| AC output voltage (VAC) | 220/230/240 ± 2% | | | | |
| AC output Frequency (Hz) | 50/60 ± 0.1% | | | | |
| Harmonic distortion | < 2% | | | | |
| Load Power factor | 1.0 | | | | |
| Cont. output power at 25°C (VA) | 2000 | 3000 | 2000 | 3000 | 5000 |
| Max output power at 25°C (W) | 2000 | 3000 | 2000 | 3000 | 5000 |
| Peak power (5 sec) (W) | 6000 | 9000 | 6000 | 9000 | 15000 |
| Surge | 300% | | | | |
| Maximum efficiency | 94% | 94% | 95% | 95% | 96% |
| Zero load power (W) | 11 | 14 | 11 | 14 | 21 |

## Charger

| | | | | | |
|---|---|---|---|---|---|
| Charge voltage 'absorption' (V) | 28.8 | | 57.6 | | |
| Charge voltage 'float' (V) | 27.6 | | 55.2 | | |
| Battery types | AGM/GEL/OPZV/Lead-Carbon/Li-ion/Flooded/Traction/TBB SUPER-L | | | | |
| Max AC charge current (A) | 50 | 80 | 25 | 40 | 70 |
| Temperature compensation | Yes | | | | |

## Solar Charge Controller

| | | | | | |
|---|---|---|---|---|---|
| Max output current (A) | 60 | 60 | 60 | 60 | 90 |
| Maximum PV power (W) | 2000 | 2000 | 4000 | 4000 | 6000 |
| PV open circuit voltage (V) | 150 | | | | |
| MPPT voltage range (V) | 65~145 | | | | |
| Charge voltage 'absorption' (V) | 28.8 | | 57.6 | | |
| Charge voltage 'float' (V) | 27.6 | | 55.2 | | |
| MPPT charger maximum efficiency | 98% | | | | |
| MPPT efficiency | > 99.5% | | | | |
| Protection | a) output short circuit; b) overload; c) battery voltage too high<br>d) battery voltage too low; e) temperature too high; f) input voltage out of range | | | | |

## General Data

| | | | | | |
|---|---|---|---|---|---|
| Main Output (AC Out1) Current (A) | 32 | | | | 50 |
| Auxiliary Output (AC Out2) Current (A) | 32 | | | | |
| Transfer time | 0ms (<15ms in Weak AC source Mode) | | | | |
| Remote on-off | Yes | | | | |
| Programmable relay | 2x | | | | |
| Protection | a) output short circuit; b) overload; c) battery voltage too high; d) battery voltage too low;<br>e) temperature too high; f) input voltage out of range;g) input voltage ripple too high; h) Fan block | | | | |
| CAN Bus communication port | For three phase operation, remote monitoring and system integration | | | | |
| General purpose com. Port | RS485 (GPRS,WLAN optional with Kinergy) | | | | |
| Operating temperature range | -20°C~65°C | | | | |
| Relative humidity in operation | 95% without condensation | | | | |
| Altitude (m) | 2000 | | | | |

## Mechanical Data

| | | | | | |
|---|---|---|---|---|---|
| Dimension (mm) (max) | 499 x 272 x 144 | | | | 570 x 310 x 154 |
| Net weight (kg) | 17 | 20 | 17 | 20 | 32 |
| Cooling | Forced fan | | | | |
| Protection index | IP21 | | | | |

## Standards

| | |
|---|---|
| Safety | EN-IEC 62477-1, EN-IEC 62109-1, EN-IEC 62109-2 |
| EMC | EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-3-11, EN61000-3-12 |