

Advanced All in One Solar Inverter

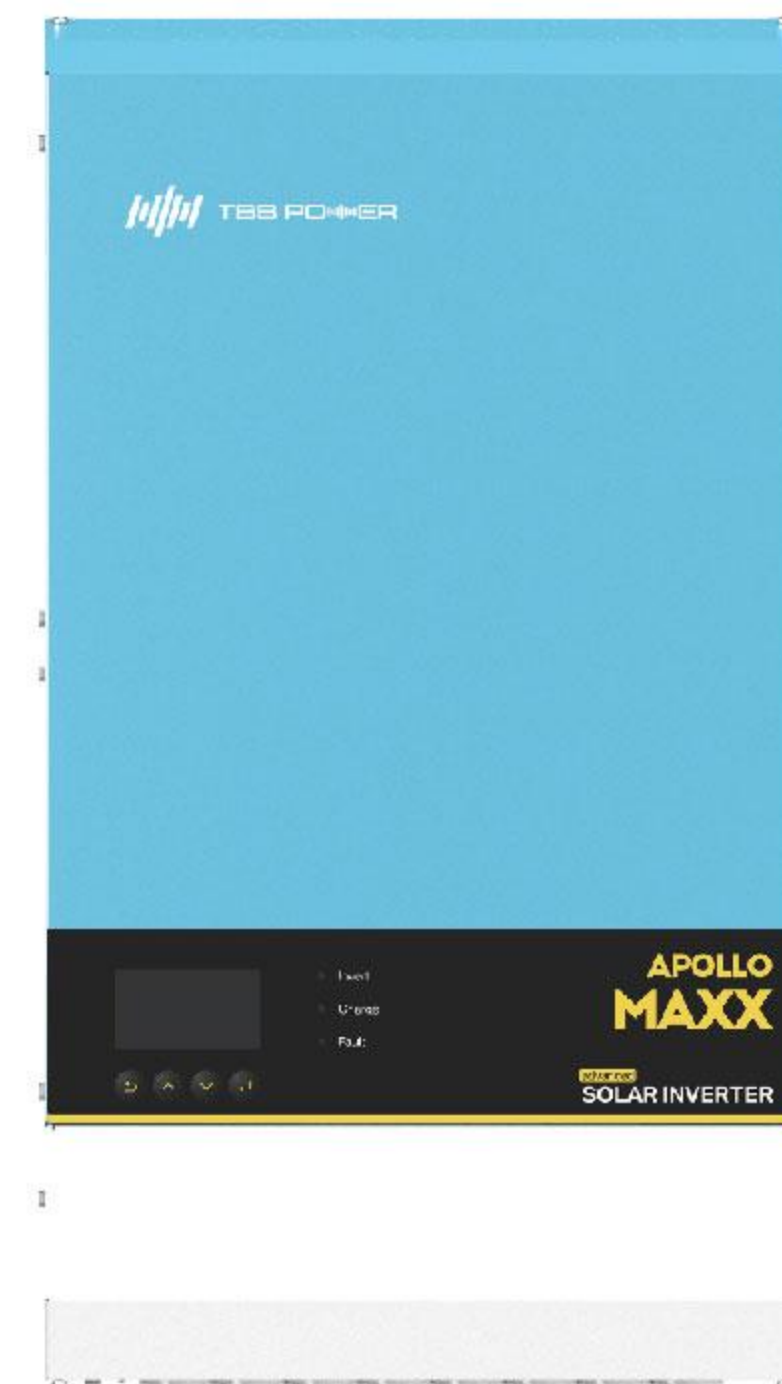
APOLLO MAXX

2KW-5KW

With parallel and three phase capability

Apollo Maxx is a powerful all-in-one solar inverter combining a high-performance inverter, battery charger, an MPPT solar charge controller and a high-speed automatic transfer switch in a compact casing, designed with zero transfer time perfect for critical devices such as servers and ATMs, to ensure uninterrupted power supply all the time. So it is mainly for backup power and off-grid applications. The transformer-based design makes it worry-free to start up motor loads, such as fridges, freezers, water pumps and air-conditioners, etc.

It's capable to expand system capacity up to 30KW with 6 units in parallel and three-phase operation. Thanks to its power assist and power control function, it works well with limited AC sources such as generators or limited grid. Apollo Maxx can automatically adjust its charging current by taking loads into account to protect the AC source from overload. Once the temporary peak power appears, it can also discharge the battery to supply power to compensate the insufficient part of the limited AC source.



- Transformer-based design and high surge capacity for all kinds of heavy loads
- All in one, plug and play design for easy installation
- Applicable for DC Coupled PV system, solar hybrid system and power backup system
- Support parallel and three-phase operation up to 30KW with 6 units
- Typical 0~2ms UPS class transfer time
- Power assist function enables limited AC to power heavy loads
- Support automatically start or stop the generator (AGS Function) according to load power, battery voltage/SOC, time period
- Compatible with mainstream lithium battery brands
- TBB premium II battery charging management
- Built-in battery SOC estimation
- Equalization charging program available for flooded and OPZS battery
- Extremely high inverter efficiency up to 96%, MPPT efficiency up to 98%
- Extremely low self-consumption power
- Remote monitoring and control via Nova Web & App
- Fully programmable by APP



| 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 range | 175~265VAC (45~65Hz) | | | | |
| AC input Current (transfer switch) (A) | 32 | | | 50 | |

Inverter

| | | | | | |
|--|---------------------------------|------|--------------|------|-------|
| Nominal battery voltage / Input voltage | 24V / 21~34V | | 48V / 42~68V | | |
| AC output voltage (VAC) / Frequency (Hz) | 220/230/240 ± 2% / 50/60 ± 0.1% | | | | |
| Harmonic distortion | < 2% | | | | |
| Load Power factor | 1.0 | | | | |
| Cont. output power at 25°C (VA) | 2000 | 3000 | 2000 | 3000 | 5000 |
| Peak power (30min) (W) | 2000 | 3000 | 2000 | 3000 | 5000 |
| Cont. Output power at 25°C (W) | 1600 | 2500 | 1600 | 2500 | 4000 |
| 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 | 18 |

Charger

| | | | | | |
|---|--|----|-------------|----|----|
| Charge voltage 'absorption' (V) / 'float' (V) | 28.8 / 27.6 | | 57.6 / 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 /MPPT voltage | 150V / 65~145V | | | | |
| Max.PV short circuit current (A) | 18 | 18 | 35 | 35 | 54 |
| Charge voltage 'absorption' (V) / 'float' (V) | 28.8 / 27.6 | | 57.6 / 55.2 | | |
| MPPT charger maximum efficiency | 98% | | | | |
| MPPT efficiency | > 99.5% | | | | |
| Protection | a) output short circuit; b) overload; c) battery voltage too high 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; 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 Kinerary) | | | | |
| Operating temperature range | -20°C~65°C | | | | |
| Relative humidity in operation | 95% without condensation | | | | |
| Altitude (m) | 2000 | | | | |

Mechanical Data

| | | | | | |
|----------------------|-------------|----|----|-------------|----|
| Dimension (mm) (max) | 499x272x144 | | | 570x310x154 | |
| 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 | | | | |