

MPI HYBRID SOLAR INVERTER SERIES Grid-tied + battery backup

MPI Hybrid Series

These hybrid solar inverters combine the features of both grid-tied and off grid operations, and allow users to operate in 3 main modes:

- Grid-Tied (Feedback)
- Off Grid
- Grid-Tied with Battery Backup

Available in 5KW, 5.5KW (single phase) and 10kw (3 phase), these hybrid systems offer an excellent all-in-one solution of off-grid inverter + grid-tie inverter + battery charger. Able to accept PV input voltage up to 900V (5K, 10K only) with MPPT functionality, the Hybrid family can support up to max PV array sizes of up to 14.85KW. This enables users great flexibility in running load as well as feeding extra solar power back to grid. When grid fails, these systems will switch to battery source like an off-grid inverter and keep load backed up. The bundled monitoring software, SolarPower, offers powerful features that allow users total control and access to a wide variety of operations to meet different application demand. Hybrid models are fully compliant to and certified in VDE (Germany) and CE standards (AS4777 available on 5.5K and 10K only).

**Optional accessories such as MODBUS card, MODBUS server, and Energy Meter are available upon request

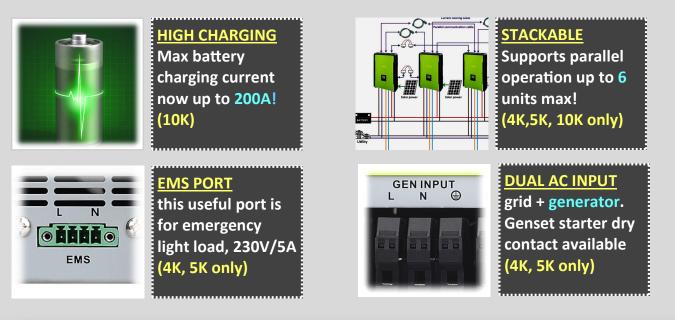


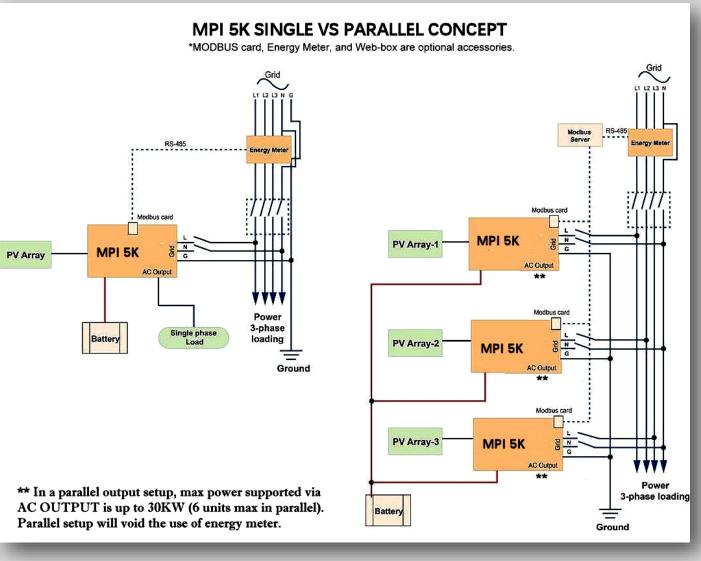






These new features are now available on selective Hybrid models:





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Operation Modes





In this operation mode, users can program unit to

- Feedback PV power to utility
- Provide PV power to load
- Charge battery by PV

Different priority settings are available in this mode. Charging source may be selected from PV and grid as default, PV only, or none (when charging not intended). All programming conditions can be done in the CD-bundled software.

In this operation mode, the inverter will only behave like a pure grid-tie inverter where it only feeds back electricity to grid from PV source.

There is no priority setting available when this mode is selected.

OFF-GRID ONLY

BATTERY

SOLAR



In this operation mode, grid feedback to utility is disabled. Users can only program unit to:

- Provide PV power to load
- Charge battery by PV

UTILITY

HOUSE LOAD

Different priority settings are also available, and grid relay may be connected to inverter to provide support when load > 3kw. Charging source may be selected from PV and grid, PV only, or none (charging not intended). All programming can be done in the CD-bundled software.

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Specifications

MPI HYBRID SERIES	5K	5.5K	10K
MAIN SPECS			
Continuous Output	5,000W	5,500W	10,000W
Parallel-Ready	Yes, up to 6 units	No	Yes, up to 6 units
PV INPUT RATING (GRID-TIED)			
Max PV Input Power	10,000W	6,500W	14,850W
Max PV Input Voltage	900Vdc	500Vdc	900Vdc
Start-up / Initial Feeding Voltage	250 / 300 Vdc	116 / 150Vdc	320 / 350 Vdc
PV MPPT Range	250 - 850 Vdc	120 - 450Vdc	350 - 850 Vdc
Max PV Input Current	10A x 2	13A x 2	18A x 2
MPPT Tracker	2	2	2
Max DC/AC Conversion Efficiency		>96%	
AC INPUT SPECS			
Start-up / Auto Restart Voltage		120 - 140Vac / 180V	ac (per phase)
Input Voltage Range	170 - 280Vac (per phase)		
Nominal Frequency	50 / 60 Hz		
Max AC Input Current	40A	40A	40A
AC OUTPUT SPECS			
Nominal AC Output Voltage	208/220/230/240Vac, Single Phase 400Vac, 3-Phase		
Output Voltage Range	184 - 26	55Vac	184 - 265Vac (P-N) / 318 - 460Vac (P-P)
Output Frequency (GRID-TIE)		47.5 - 51.5Hz / 59	.3 - 60.5 Hz
Output Frequency (GRID-TIE) Output Frequency (OFF-GRID)		47.5 - 51.5Hz / 59 50 / 60Hz, auto	
			o-sensing
Output Frequency (OFF-GRID)	7,000W	50 / 60Hz, auto	o-sensing
Output Frequency (OFF-GRID) Output Waveform	7,000W 5,000W	50 / 60Hz, auto Pure Sine V	o-sensing Vave
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay)		50 / 60Hz, auto Pure Sine V 6,500W 5,500W	o-sensing Vave 16,000W
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery)	5,000W	50 / 60Hz, auto Pure Sine V 6,500W 5,500W	o-sensing Vave 16,000W 10,000W
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery) Max Efficiency	5,000W	50 / 60Hz, auto Pure Sine V 6,500W 5,500W	o-sensing Wave 16,000W 10,000W >91%
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery) Max Efficiency BATTERY CHARGER	5,000W	50 / 60Hz, auto Pure Sine V 6,500W 5,500W %	o-sensing Wave 16,000W 10,000W >91%
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery) Max Efficiency BATTERY CHARGER Nominal DC Voltage	5,000W >93	50 / 60Hz, auto Pure Sine V 6,500W 5,500W % 48Vdo	o-sensing Wave 16,000W 10,000W >91%
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery) Max Efficiency BATTERY CHARGER Nominal DC Voltage Max Charging Current	5,000W >93	50 / 60Hz, auto Pure Sine V 6,500W 5,500W % 48Vdo	o-sensing Wave 16,000W 10,000W >91%
Output Frequency (OFF-GRID)Output WaveformMax Output Power (via grid relay)Max Output Power (battery)Max EfficiencyBATTERY CHARGERNominal DC VoltageMax Charging CurrentENVIRONMENTAL / COMMUNICATION	5,000W >93 100A	50 / 60Hz, auto Pure Sine V 6,500W 5,500W % 48Vdo 60A	o-sensing Wave 16,000W 10,000W >91% 200A 200A eent Slot (card) / CE, VDE4105, VDE0126-1-1,
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery) Max Efficiency BATTERY CHARGER Nominal DC Voltage Max Charging Current ENVIRONMENTAL / COMMUNICATION Communication Port	5,000W >93 100A	50 / 60Hz, auto Pure Sine V 6,500W 5,500W % 48Vdo 60A RS232 / USB, Intellig EN62109-2, EN62040-1	o-sensing Wave 16,000W 10,000W >91% 200A 200A eent Slot (card) / CE, VDE4105, VDE0126-1-1,
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery) Max Efficiency BATTERY CHARGER Nominal DC Voltage Max Charging Current ENVIRONMENTAL / COMMUNICATION Communication Port Certifications	5,000W >93 100A EN62109-1,	50 / 60Hz, auto Pure Sine V 6,500W 5,500W % 48Vdd 60A RS232 / USB, Intellig EN62109-2, EN62040-1 AS4777/3100 (5.5	D-sensing Wave 16,000W 10,000W >91% 200A ent Slot (card) / CE, VDE4105, VDE0126-1-1, K, 10K only) -10 - 50°C
Output Frequency (OFF-GRID) Output Waveform Max Output Power (via grid relay) Max Output Power (battery) Max Efficiency BATTERY CHARGER Nominal DC Voltage Max Charging Current ENVIRONMENTAL / COMMUNICATION Communication Port Certifications Operating Temp.	5,000W >93 100A EN62109-1,	50 / 60Hz, auto Pure Sine V 6,500W 5,500W % 48Vdd 60A RS232 / USB, Intellig EN62109-2, EN62040-1 AS4777/3100 (5.5 0 - 40°C	o-sensing Wave 16,000W 10,000W >91% 200A ent Slot (card) / CE, VDE4105, VDE0126-1-1, K, 10K only) -10 - 50°C

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