NavSemi Energy
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Technical Data Sheet

HyMax PCU 1KVA24 (Power Conditioning Unit)

HyMax 1KVA PCU (Power Conditioning Unit) is a pure sine-wave inverter, MPPT solar charge controller, and battery charger integrated in a single, compact and sturdy enclosure. The PCU's innovative, proprietary design includes a mains (grid) charging turn-off feature, enabling users to reduce their electricity consumption when conditions permit.

Designed for effective operation even with low sunlight and in an electrically-noisy operating environment, NavSemi's PCU has the option of remote monitoring for a fully-flexible system solution.

Product Highlights

- Pure Sine Wave Output.
- Digital MPPT Solar Battery Charging.
- Fold Back Support to Drive Heavy Load.
- Output Galvanic Isolation.
- Intelligent Switching from Solar to Mains on Low Battery Situation.
- Flexible options for Solar Charging.
- Battery Low & High Protections.
- Integrated LCD Display.

Protections

- Battery Low Voltage.
- Over Load.
- Battery reversal.
- Short Circuit.
- Fuse Blown/ MCB Trip.
- Over Temperature.

Technical Specifications

HyMax 1KVA24	
Rating	1KVA
Output Waveform	Pure Sine Wave Inverter
Output Voltage (AC)	230V ± 1%
Output Frequency	50Hz ± 1%
Nominal Input Voltage (DC)	24V
Efficiency (100% load)	>85%
Surge Capacity	200% Load (Fold Back)
Total Harmonic Distortion	<3% on Linear Load
Low Battery Indication	21.6 ± 0.4V DC*
CHARGE CONTROLLER PARAMETERS**	
Type	Maximum Power Point Tracking
Max I/P Solar Voltage(Voc)	100V
Voltage Range of PV Array(Vmpp)	36-80V
Solar Array	1KW
Max. Charging Current	42A ± 1A
Over Voltage Cut-off (Battery)	29.4 VDC*
MAINS MODE	
Input Voltage Range	170V to 280V
Change Over Time(Mains to Inverter)	<20ms
Change Over Time(Inverter to Mains)	<10ms
Low Side Change Over Voltage (Inverter to Mains)	23.8 ± 0.4 V*
High Side Change Over Voltage (Mains to Inverter)	28V ± 0.4V DC*
Grid Charging Current(Max)	15A
OPERATIONAL PARAMETERS	
Operating Temperature	Upto +55°C
Acoustic Noise at 1 Meter	<60 dB
Thermal Management	Fan Cooled
MECHANICAL DETAILS	
Dimensions (H X W X D)	335 X 230 X 525(mm)
Weight	28 Kg
Mounting	Floor/Rack Mount

* Use of appropriate cable gauge is recommended.

** Accessory product SCOM-USB required for voltage settings.

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