



SPM Series **ShorPOWER-Mini®** FREQUENCY CONVERTERS

Atlas Marine Systems is the world leader in the design of marine electrical power equipment. The Atlas *Classic*, *Ultra* and *SPA* ShorPOWER® product lines represent to the marine community the widest selection of onboard frequency converters, which are used to achieve dockside power compatibility for yachts anywhere in the world.

Now, the ShorPOWER-Mini® Model SPM-27D takes the next step by assuring power compatibility with those loads onboard that require power other than what is available from the vessel's standard distribution system. This state-of-the-art system is the world's smallest and lightest in its class.



**SPM-27D
POWER SYSTEM**

APPLICATION:

Since its beginning, Atlas has focused on the design and development of reliable solid-state power units. The Model SPM-27D is a shipboard version of a sixth generation design in a family of frequency converters which has seen extensive commercial use. The product and its accessories are intended for shipboard applications where AC electrical power needs exist other than those that can be provided by the onboard distribution system. Depending upon external transformer selected (contact sales representative), the Model SPM-27D operates directly from any low voltage, 1Ø or 3Ø, 60 Hz AC shipboard distribution; or any high voltage, 1Ø or 3Ø, 50 Hz shipboard distribution, and provides any low voltage, 50 or 60 Hz output power such as alternate stateroom convenience outlets or specialized power needs.



STANDARD FEATURES:

- Input circuit breaker/disconnect
- Low Input Current Distortion
- High Input Power Factor
- StopLite BITE™ Self Diagnostic System
- Remote Control
- High Reliability
- Light Weight
- 50 msec. ride through

OPTIONS:

- Paralleling Accessories for Power Grid Expansion and N+1 Redundancy
- Expanded 100 msec. ride through
- ATR rack mount

MECHANICAL:

Size:

Weight:

Mounting:

Cooling:

FREQUENCY CONVERTER

6" height, 9" width, 18" depth
16 cm height, 23 cm width, 46 cm depth

30 lbs. (13.6 kgs.) dependent on options

Hard mount

Self-contained fan

TRANSFORMER MODULE (50 Hz input only)

7" height, 12" width, 14" depth
18 cm height, 31 cm width, 36 cm depth

47 lbs. (22 kgs.) approximately

Hard mount (floor/bulkhead)

Convection

ATLAS MARINE SYSTEMS - ShorPOWER-Mini® SPM Series

<u>GENERAL SPECIFICATIONS</u>	
INPUT:	
Power Factor:	≥ 0.99
Input Current Distortion:	≤ 5% at nominal input voltage and at full rated load
Protection:	Over/ under voltage, loss of phase, and over current
Phase Rotation:	Any
ENVIRONMENTAL:	
Temperature Range:	-25°C to +55°C operating; -40°C to +71°C storage
Humidity:	95% RH max at 30°C

OUTPUT:	
Power Rating*:	See detail specifications
Overload:	125% for 5 min. 175% for 10 sec.
Voltage Regulation:	± 1.0 %
Frequency Regulation:	± 0.1 %
Harmonic Distortion:	2% THD Maximum
Power Factor Range:	0.8 lagging to 0.8 leading (not damaged by any power factor load).
Efficiency:	89% typical at rated load
Protection:	Over/under voltage, over load, short circuit
<i>* Paralleling accessories available for power grid expansion.</i>	

DETAILED SPECIFICATIONS (PROGRAMMABLE PLUG / TRANSFORMER SELECTION / POWER RATING)

INPUT	TRANSFORMER	OUTPUT	KVA RATING	PLUG NUMBER
115 volts, 1Ø, 60 Hz or 115/200 volts, 3Ø, 60 Hz	NONE	230 volts, 1Ø, 50 Hz	3.0	PP-050-C
		115 volts, 1Ø, 60 Hz	3.5	PP-060-S
230 volts, 1Ø, 50 Hz or 230/400 volts, 3Ø, 50 HZ	Input, Step Down Provided (select 1Ø or 3Ø)	115/230 volts, 1Ø, 60 Hz	3.0	PP-060-C
		115/200 volts, 3Ø, 60 Hz	3.5	PP-060-T

SYSTEM NOTES:

1. Programming plug (PP Series) or programming parallel cable (PPC Series) required to determine output frequency and phase configuration.
2. For power grid expansion an additional transformer per unit is required for 50 Hz input sources. Two paralleled units require one programming parallel cable (PPC Series) only. Three or more paralleled units require a programming parallel box (PB Series) in addition to one programming parallel cable (PPC Series) for each unit. Paralleling for grid expansion up to 17.5 kVA only.
3. For (N + 1) redundancy an additional transformer per unit is required for 50 Hz input sources. Two or more paralleled units require a paralleling control box (PCB Series) in addition to one paralleling box cable (PBC Series) and one interconnect power cable (IPC Series) for each unit. Paralleling for common output buss grid expansion (up to 17.5 kVA) or for N+1 redundancy/hot swap system configuration.