Ultra HV Series

ShorPOWER®

FREQUENCY CONVERTERS

Atlas Marine Systems is the world leader in the design of marine electrical power systems. Atlas provides electrical engineering services to define the vessel electrical distribution system and the appropriate application of its TecPOWER® series switchboards, load management and power management systems. Additionally, the Atlas ShorPOWER® product line, using either a single or dual transformer isolation approach, provides the widest selection of onboard frequency converters available to the yachting community.

APPLICATION:

The ShorPOWER® *ULTRA HV* is a single transformer isolation system utilizing state-of-the-art IGBT technology and a pulse width modulated (PWM) control system. This system eliminates concerns over compliance to ever increasing marina regulations and compliance statements regarding the use of onboard generators while docked. Noise and air pollution caused by these generators, coupled by increased operational and maintenance costs, make the use of an *ULTRA* frequency converter a must. Additionally, the ShorPOWER® *ULTRA HV* can isolate, regulate and condition dockside power, and protect the onboard electrical system by eliminating voltage spikes, surges, voltage drops or sags, and harmonic distortions typical of dock power. The *ULTRA HV* is available in a high voltage configuration for yachts over 150 feet. The *ULTRA* converts any frequency and phase to the yacht's exact electrical requirements. For increased capacity, where marina power pedestals are limited, the dual cord option is available except for locations, such as Europe, where ground fault circuit interrupters (GFCI) are common. The *ULTRA* is surprisingly lightweight, and packaged with the space limitations of the yacht in mind. This system will convert three-phase voltage to the specific electrical configuration onboard the yacht. The *ULTRA HV* is available in sizes from 50 to 300 kVA.

STANDARD FEATURES:

- Power ratings from 50 kVA to 300 kVA
- Input auto-ranging from 350 to 500 volts, three-phase, 50 or 60 Hz
- Voltage transient and lightning protection (single transformer isolation)
- Three-phase outputs in all standard bus configurations
- Light weight design
- Analog display and control panel
- Precise output voltage and frequency regulation
- Pure sine wave output
- Fully integrated input / output electronic protection package
- State-of-the-art IGBT and PWM technology
- Input emergency power off (EPO)
- Automatic restart select
- Built-in self-diagnostics system
- No periodic calibration required
- Remote control and monitoring interface
- Stud type power connections

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ATLAS MARINE SYSTEMS - ShorPOWER® Ultra HV

OPTIONS AVAILABLE:

- Remote communications data link: RS 232, RS 485, Modem or Ethernet (specify one only)
- Integrated dual shore cord system – not GFCI compatible
- Extended voltage and lightning protection module (additional transformer isolation)
- Fully integrated ShorPOWER® to generator, seamless power transfer system
- Non-integrated generator to generator, seamless power transfer module
- Modular configuration
- Output load disconnect
- Local touch-screen display and control panel
- Remote touch-screen display and control panel
- Input safety disconnect
- Remote start / stop / reset switch control box
- TecPOWER® switchboard data link interface

GENERAL SPECIFICATIONS

INPUT:

Voltage Range:	350 to 500 volts
Phase (specify):	Single or three-phase
Phase Rotation:	Any
Frequency:	40 to 70 Hz
Power Factor:	≥ 0.95
Inrush Current:	< 50% of full load current
Protection:	Over/ under voltage, loss of phase & over current

ENVIRONMENTAL:

Temperature Range:	-25°C to +55°C
Humidity:	0% to 95%, non-condensing

MECHANICAL:
Mechanical specifications vary depending on configuration selected. Contact Atlas Marine Systems to obtain more information.

OUTPUT:

Power Ratings (specify):
- At three-phases: 50, 60, 75, 100, 125, 150, 200, 250, 300 kVA at 0.85 power factor

Overload:
600% peak (motor starting), 200% for 20 seconds, 150% for 60 seconds, 110% for 2 hours, or 100% continuous

Voltage (specify):
- Three-phase, 3-wire: 220, 230, 240, 380, 400, 415, 440, 460, 480 volts
- Three-phase, 4-wire: 115/200, 120/208, 220/380, 230/400, 240/415, 265/460,277/480 volts

Voltage Regulation:	± 1%
Phase Imbalance:	No Restriction
Frequency (specify):	50 Hz or 60 Hz ± 0.1 Hz
Harmonic Distortion:	2% maximum, 1% typical (linear loads)
Efficiency:	94% typical at rated load
Protection:	Over/under voltage, over load, short circuit, & over temperature

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