

Power Systems
A SEA

A MISSION CRITICAL ELECTRONICS BRAND

Custom Marine Power Solutions

WWW.ASEAPOWER.COM



Global Support Network



Internationally Recognized



Exceptional Quality



ABOUT

ASEA Power Systems is a world leader in the design and fabrication of power conversion equipment specially designed for the marine market. Our products range in power from 8 – 1000+ kVA and come in both air and liquid cooled variations. Product applications include shore power converters, line voltage regulators, isolation transformers, generator management modules, clean grid converters and custom engineered designs.

Our products are highly customizable – with **12** enclosure styles, **3** cooling systems, and over **50** controls, alarms, and communication options.

ISOLATION TRANSFORMERS

Safety Is Our #1 Priority

Every ASEA shore power converter contains an Isolation transformer. Why? The oldest and best reason in the book: Safety. By isolating your ship's power system from the shore power, fault current cannot travel through the water and electrocute swimmers. Isolation transformers also address the issues of polarization and galvanic corrosion.

GLOBAL NETWORK

We've Got You Covered

Our global support network covers 127 countries and counting. ASEA Power's broad network of trusted service providers are strategically located in main ports across the globe to provide the support you need when you need it. In addition, factory technical support is available by phone around the clock, ensuring you're never without access to an experienced support professional.

AWARDS AND TITLES

International Recognition

ASEA Power Systems was named winner of the 2019 International Boating Industry (IBI) Export Excellence Award at the International Boatbuilders' Exhibition and Conference (IBEX). An extensive distribution and support network coupled with a comprehensive understanding of individual market segments around the globe made ASEA stand out against the competition. ASEA is successfully serving diverse regions, from the island harbors of Southeast Asia to the bustling shipyards of Italy.

ASEA Power Systems is a brand of



under the Marine Power Division

Headquartered in Costa Mesa, California, MCE provides specialized products for critical systems in a wide variety of applications operating under the leading brands American Battery Charging, ASEA Power Systems, Kussmaul Electronics, Newmar Power, Power Products, Purkeys, Xantrex, and ZeroRPM. These brands have been built on the strength of their team and their ability to connect with customers. MCE takes great pride in translating their customers' needs into the highest quality products and solutions available in the markets it serves. MCE delivers those products and solutions with unmatched level of responsiveness.



WARRANTY

ASEA's warranty terms on shore power converters are eighteen (18) months after shipment or twelve (12) months after commissioning to the purchasing customer. Details on our warranty policy can be found at aseapower.com/warranty.

AUTHORIZED SERVICE PROVIDERS

REGION	LOCATION	AUTHORIZED PROVIDER	PHONE
Asia	Singapore	Tripower	+65 6861 1188
	Thailand	Electrical Marine	+66 76 510 782
Caribbean	Antigua	Marionics	+1 268 727 1463
	Dominican Republic	IBC Shipyard	+809 449 3324
	St Maarten	Electec	+1 721 544 2051
	St. Lucia	Marigothill Ltd.	+1 758 285 3266
Europe	Croatia	Capax	+385 22 215 219
	France	ACTECNA	+33 6 12 0737 10
	France	Shore Power Services FR	+33 67 603 4875
	Greece	Motocraft S.A.	+30 210 9888288
	Italy	ASEA Nautica	+39 0187 51 54 57
	Spain	E-Tech Yachting	+34 6 70 30 00 70
	Turkey	Meta Yacht	+90 532 2348500
	United Kingdom	Energy Solutions	+44 1634 290772
Mexico	Mazatlan	Oceanos	+52 669 985 0779
Middle East	Dubai	Shore Power Services ME	+971 507 146 561
South America	Brazil	Maritec Servicios Nauticos	+1 954 609 3004
South Pacific	Australia	Ocean Electrics	+61 7 5502 9333
	New Zealand	IMED	+64 21 30 3399
United States	California	Reliable Marine	+1 510 864 7141
	Florida	Island Marine Electric	+1 954 524 3177
	Florida	Ward's Marine Electric	+1 954 523 2815
	Rhode Island	Newport Shipyard	+1 401 808 4534
	Rhode Island	RC Marine Electric	+1 401 447 6827
	Virginia	Marlin Marine	+1 252 562 0600

Why Do You Need An Isolation Transformer Onboard?

Every ASEA shore power converter contains an Isolation transformer. Why? The oldest and best reason in the book: Safety. By isolating your ship's power system from the shore power, fault current cannot travel through the water and electrocute swimmers.



Without an isolation transformer, there is a direct connection between the earth ground of the dock and the ship's electrical system. A loose wire on the boat may cause fault current to flow through the ship's hull to the water, and back to the shore supply. That **current flowing through the water** is what makes swimming in the marina so dangerous!

With an isolation transformer, power is transmitted to the boat via the magnetic field in the core. There is NO direct connection. The shore power earth terminates on the shield of the transformer, and a new ground is created for the ship. The two grounds are not connected – so fault current will not flow between them.

Another potential hazard solved by an isolation transformer is **Polarization**. If the supply from the shore has the hot and cold wires swapped, your power on/off switch may not be disconnecting your appliance from power. Or it may cause the normally grounded case to be hot. Again, it's the magnetic field of the transformer core that protects you – swapped wires at the shore will not cause swapped polarity onboard.

A secondary benefit is that an isolation transformer also protects against **Galvanic Corrosion**. The same isolation properties that separate your ship's ground from the dock ground, prevent galvanic current from eating your zincs, or other expensive metal pieces of your boat. Even if the ship next to you is not isolated.

Protect against:



Galvanic Corrosion



Reverse Polarization



Leaky Fault Current

That's why **every ASEA shore power converter contains an isolation transformer**. And of course, the same protection extends to our Dock Boost Transformers and Dock Locker Systems. We wouldn't make a product that doesn't put your safety first.

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SHORE POWER CONVERTERS



AC Series

Bulkhead mounted shore power converter ranging in 8-18kVA.



Standard Series

Floor mounted shore power converter available in multiple configurations ranging in 24-100kVA.



Vertical Series

Vertical style shore power converter with convertible cooling ranging in 25-150kVA.



Q Series

ASEA's smallest and lightest converter with a modular configuration in 15-165kVA.



Liquid Cooled

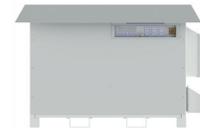
Internally oil-cooled shore power converter ranging in 55-125kVA.

DOCK BOOST TRANSFORMERS



Provide precision voltage regulation and protect against brownouts, spikes, sags, and low-line or high-line voltage.

DOCK LOCKER SYSTEMS



Provide all the benefits of a shore power converter with added mobility and capability to operate in outdoor environments. Used to support refit and other temporary projects.

AC Series (8-18 kVA)

The AC Series offers bulkhead mounted systems utilizing dual-conversion technology with power output of 8-18kVA. Being systems designed from the ground up specifically for the yachting industry, all efforts have been made to produce a system capable of sustaining the marine environment. All components are packaged in one drip-proof, dust-resistant aluminum and stainless steel enclosure.

In addition to the basic function of power conversion, these converters provide the user with a sophisticated power analysis and monitoring capability. Various displays are selected through a long-life, sealed membrane switch panel. All front panel information is available through the serial port for remote display, status and diagnostics.



Dual Conversion Technology

Precision regulation and minimal harmonic distortion



Stainless Steel Enclosure

Powder coated for ultimate durability and protection



Bulkhead Mounting

Flexibility and ease of installation

POWER RANGE

8 12 15 18 20 25 30 36 45 50 55 63 75 90 100 110 125 150 165 **kVA**

COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



GIGAYACHTS (66 to 90 meters)

MORE FEATURES

- Auto-Restart from shore brownout or blackout
- Conformal coated printed circuit boards
- Front panel display console
- Minimal harmonic distortion
- Reverse polarization prevention
- Galvanic corrosion protection
- Global support network
- Precision regulation

**refer to product manual for proper installation requirements*

Standard Series (24-100 kVA)

The Standard Series is customizable to fit virtually any space. Enclosure options two piece, wall hugger, and foot locker variations. Made from stainless steel, the unit is durable, reliable, and less susceptible to electromagnetic interference. Every unit is equipped with an isolation transformer to protect against galvanic corrosion, polarization, and fault current electrocution.

In addition to the basic function of power conversion, these converters provide the user with a sophisticated power analysis and monitoring capability. Various displays are selected through a long-life, sealed membrane switch panel. All front panel information is available through the serial port for remote display, status and diagnostics.



Wall Hugger



Standard



Foot Locker



Multiple Enclosure Styles

Customizable to fit most available spaces



Dual Conversion Technology

Precision regulation and minimal harmonic distortion



Stainless Steel & Aluminum

Power coated for ultimate durability and protection

POWER RANGE



COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



GIGAYACHTS (66 to 90 meters)

MORE FEATURES

- Auto-Restart from shore brownout or blackout
- Conformal coated printed circuit boards
- Front panel display console
- Minimal harmonic distortion
- Reverse polarization prevention
- Galvanic corrosion protection
- Global support network
- Precision regulation

**refer to product manual for proper installation requirements*

Vertical Series (25-165 kVA)

The Vertical Series V and VII models feature a slim, narrow design and house the same reliable technology found in the Standard Series. The NV models feature ASEA's latest technology which allows for reduced capacity mode should one module become unavailable.



The Vertical Series is the only product line with a convertible cooling system. These converters come Standard with an Air cooled system, but can be ordered with or field modified to be cooled with a heat exchanger to utilize the vessel's chilled water system.



Convertible Cooling System

Utilize fans for Air cooling or a heat exchanger system



Slim & Compact Enclosure

Ideal for tight spaces with minimal horizontal space



Stainless Steel & Aluminum

Powder coated for ultimate durability and protection

POWER RANGE

8 12 15 18 20 25 30 36 45 50 55 63 75 90 100 110 125 150 165 kVA

COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



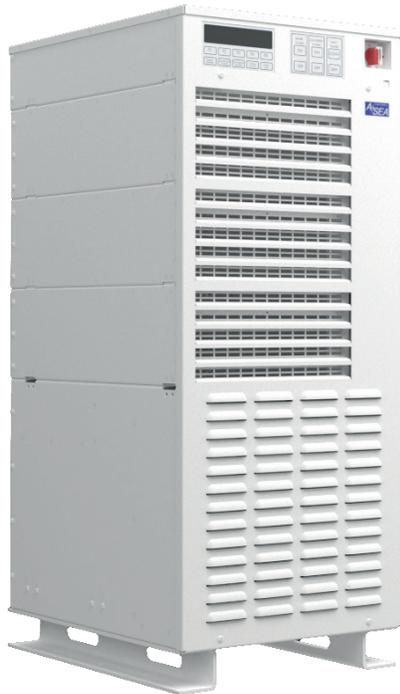
GIGAYACHTS (66 to 90 meters)

MORE FEATURES

- Auto-Restart from shore brownout or blackout
- Conformal coated printed circuit boards
- Front panel display console
- Minimal harmonic distortion
- Reverse polarization prevention
- Galvanic corrosion protection
- Global support network
- Precision regulation

Q Series (15-165 kVA)

The Q Series is ASEA's smallest and lightest shore power converter. The unit features a stackable, modular configuration ideal for refit installations and tight spaces. The 50 kVA and higher units utilize our latest technology, which allows for reduced capacity operation should a Single module be compromised. The system can also be ordered in a two-piece configuration (QTP).



The Q series offers the widest range of power levels. Q models between 112 kVA and 165 kVA are considered "Mega Qs" and are popular on larger projects for their high power density.



3 Phase Modules

Reduced capacity operation mode



Modular Configuration

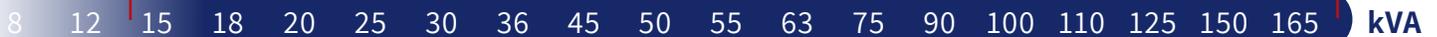
Sectioned for easy installation and reassembly



Lightweight Aluminum

Powder coated aluminum chassis and covers

POWER RANGE



COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



GIGAYACHTS (66 to 90 meters)

MORE FEATURES

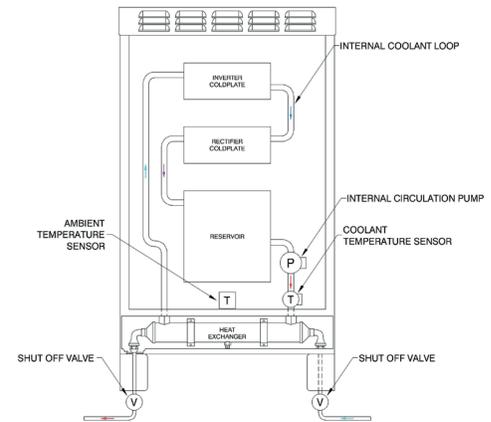
- Auto-Restart from shore brownout or blackout
- Conformal coated printed circuit boards
- Front panel display console
- Minimal harmonic distortion
- Reverse polarization prevention
- Galvanic corrosion protection
- Global support network
- Precision regulation

**refer to product manual for proper installation requirements*

Liquid Cooled Series (15-165 kVA)

The Liquid Cooled (LC) Series shore power converters are internally oil-cooled, where a customer-managed water cooling loop carries away heat energy from the cooling oil via a base-mounted heat exchanger. The main oil reservoir is sealed and splash-proof.

The LC models utilize dual-conversion technology where the shore power service is isolated by the transformer and then converted to DC power by the DC power supply module.



Sealed Internal Cooling

Oil cooling allows for installation in warm environments



High Power Density

Compact design allows for high power in a small package



Stainless Steel & Aluminum

Power coated for ultimate durability and protection

POWER RANGE

8 12 15 18 20 25 30 36 45 50 55 63 75 90 100 110 125 150 165 kVA

COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



GIGAYACHTS (66 to 90 meters)

MORE FEATURES

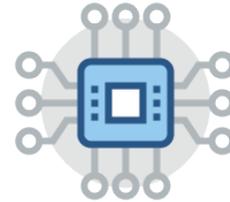
- Auto-Restart from shore brownout or blackout
- Conformal coated printed circuit boards
- Front panel display console
- Minimal harmonic distortion
- Reverse polarization prevention
- Galvanic corrosion protection
- Global support network
- Precision regulation

Custom Options



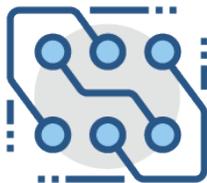
Seamless Transfer

STO has the ability to transfer up to four generators seamlessly, eliminating interruptions in power whether the direction is to the shore or the generator.



Remote Touch Panel

Monitor and control an ASEA Power shore power converter from a distance of up to 1,000 feet with a remote touch panel that uses modbus RS-485 communication technology.



Converter Output Circuit Breaker

This custom ASEA Power option controls the external shore circuit breaker to isolate the converter from bus when not in use.



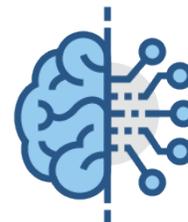
K2A/K4A Auxiliary

With online and standby dry contact confirmation signals, these auxiliaries are capable of controlling another device or sending a status-indicating signal.



Dual Master Control

Take advantage of the capability to run two power distribution buses at the same time or separately – ASEA Power’s dual master controls run in parallel or independent of one another.



Programmable Logic Control

Conveniently control your ASEA Power shore power converter remotely using a 24V input.

Remote Touch Panel

The Remote Touch Panel (RTP) provides a simple, integrated, high visibility graphical user interface. The RTP displays information in three frames, one for each converter and one for the vessel's switchgear.

The Switchgear frame includes an active mimic panel which graphically displays the vessel's power bus in real-time as well as controls to pop-up a Meter and Splash About panel.

The RTP can also be used to initiate seamless transfer between the converters and the generators.

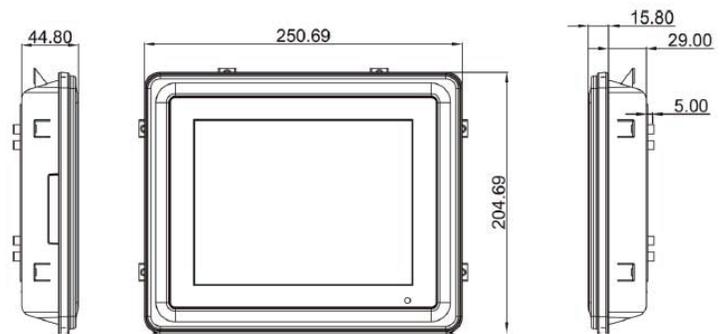


CONVERTERS FRAME

- Nominal Voltage - *shown as True R.M.S. volts.*
- Frequency - *indicated in Hertz (cycles-per-second).*
- Converter Status - *will indicate any failure or out-of-limit condition.*
- Auto-Restart - *press when converter output is on to turn on the feature.*
- Percent of Rated - *indicates worst-case loading as a percentage of capacity.*
- Total Power - *the total power presently being supplied by the converter in kilo-Watts.*

SWITCHGEAR FRAME

- Shore Power Converter Input State
- Generator 1 engine State and Circuit Breaker State
- Generator 2 engine State and Circuit Breaker State
- Tie-Breaker Circuit Breaker State
- System Status Indicator
- Clear All Alarms command
- Emergency Power Off command



MECHANICAL INFORMATION

- Panel measures 9.9" W x 8.1" H cm x 1.8" D
- 8.4" SVGA TFT LCD display with LED backlight
- Supports panel mount/wall mount/VESA arm
- Ultra slim and super light design
- Plastic and IP65-rated front bezel

ORDERING INFORMATION

Part number: 604905

Compatible with most converters



Costa Mesa, CA, USA
 sales@aseapower.com
 +1 (714) 896-9695
 www.aseapower.com

**refer to product manual for proper installation requirements*

Dock Boost Transformer (12-24 kVA)

The Dock Boost Transformer (DBT) provides precision voltage regulation to the vessel, delivering complete protection from the most common shore power problems, including: brownouts, spikes, sags, and low-line or high-line voltage conditions from the dock power pedestal. The DBT also provides Three levels of boost to keep your ship powered even when input voltages sag by 35%.

The DBT features a compact and lightweight footprint. By providing an industry recognized mounting pattern, it will fit as the perfect replacement for retrofit applications or new construction.

The DBT12/15 accepts any input voltage ranging from 167 V-270 V (47-70 Hz) and provides a Split phase 120/240V or 115/230 V output nominal. The DBT24 accepts nominal voltages of 230, 400V and 480V - each with the same wide range - to provide a 115/230V Split phase output.



Compact and Lightweight

Industry recognized mounting pattern



Durable Design

Conformal printed circuit boards and steel housing



Wide Voltage Acceptance

Accepts 167 V-270 V, 400 V, and 480 V

POWER RANGE



COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



GIGAYACHTS (66 to 90 meters)

MORE FEATURES

- Auto-Restart from shore brownout, blackout and overload
- Fault shield for bonded, galvanic bridged/isolated ground
- Modbus (RS-485) remote diagnostics
- Advanced power monitoring (input/output parameters)
- kWh meter
- Microprocessor based over and under voltage/ current protection

Dock Boost Transformer (12-24 kVA)

The perfect replacement for the Charles Iso-Boost™

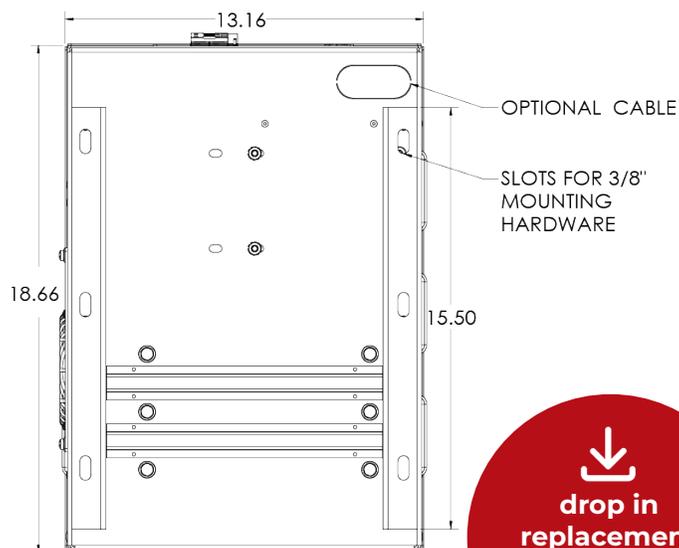
The Charles Iso-Boost™ was arguably the most popular boosting transformer in the marine industry. In late 2016, Charles refocused on telecommunications and enclosures and discontinued the Iso-Boost™. As distributors' supplies of the legacy product dwindled, few alternatives matched or surpassed the isolation transformer boat builders and end users alike had grown to know and love.

With a sizeable market hungry for a proper replacement, ASEA Power Systems set to work engineering a smart isolation transformer; their efforts resulted in the original Dock Boost Transformer (DBT12). In early 2018, ASEA launched the product to be measured up against its beloved predecessor.

The first generation DBT surpassed the Charles Iso-Boost™ with flying colors; a wider input voltage range, smaller footprint, tighter voltage regulation and 46% weight decrease has made the unit not only the perfect replacement, but an undeniable upgrade. The product has been installed in retrofits and new builds across the Americas yielding an overwhelmingly positive response.

ASEA collected and reviewed voice of customer feedback to develop an expansion plan for the Dock Boost Transformer family. The extended line includes DBTs with paralleling capability, increased power levels, and compatibility with international power standards.

Along with paralleling capability, new features include a CPU board with enhanced capabilities for communications and monitoring, auto-restart after latching, data capture of shutdown events to aid troubleshooting, and an increased programmed trip limit to allow for the start of heavy duty loads such as AC units.



SPECS	DOCK BOOST TRANSFORMER		ISO-BOOST
Input Current	50 amps continuous	✓	50 amps continuous
Input Voltage	167-264 VAC	wider	167-255 VAC
Output Voltage	207-264 VAC	✓	192-255 VAC
Power Level	12 kVA	✓	12 kVA
Boosting Levels	3 taps	smarter	1 tap
Frequency	50/60 Hz	✓	50/60 Hz
Dimensions	30 x 33 x 47 cm / 12 x 13 x 19 in	smaller	30 x 38 x 45 cm / 12 x 15 x 18 in
Weight	58 kg / 127 lbs	lighter	107 kg / 235 lbs

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Trident (24 kVA)

The ASEA Trident system allows two 50A shore cords to be combined to a Single 100A output. The pair of DBT12s provide three levels of boost to keep your ship powered even when input voltages sag by 30%. The paralleling box ensures that current is shared equally between the shore cords, allowing you to maximize the amount of power you can draw from even the worst shore cord conditions. The three piece system is a direct replacement for the popular and discontinued Charles PM3.

If only one shore cord is available, the 50A source will be delivered to both outputs. When the second cord is attached, the sources will combine to form a Single 100A output. If one cord fails, the unit will automatically fall back to a Single source solution. The method used to combine sources allows for sharing power between shore cords WITHOUT the danger of tripping commonly-used GFI equipped pedestals.



Direct Replacement

Drop in replacement for the Charles PM3



Intelligent Paralleling

Automatic source selection based on cord availability



GFI Compliant

Won't trip commonly-used GFI pedestals

POWER RANGE



COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



GIGAYACHTS (66 to 90 meters)

MORE FEATURES

- Combining of shore cord inputs to create a Single output
- Auto-Restart from shore brownout, blackout, or overload
- Shore cord leveling keeps both cords at the same current to prevent imbalance and tripping
- Fault shield for bonded, galvanic bridged/ isolated ground
- Modbus (RS-485) remote diagnostics
- Reverse Phase detection and correction
- Advanced power monitoring
- Microprocessor based over and under voltage/ current protection

**refer to product manual for proper installation requirements*

Trident (48 kVA)

The ASEA Trident system allows two 100A shore cords to be combined to a 200A output. The pair of DBT24s provide three levels of boost to keep your ship powered even when input voltages sag by 35%, and the paralleling box ensures that current is shared equally between the shore cords, which allows you to maximize the amount of power you can draw from even the worst shore cord conditions. In scenarios where the shore power is 285–530 VAC, the Trident 48 can also buck the power to the appropriate voltage. The three piece system is a direct replacement for the popular and discontinued Charles PM3 TM.

If only one shore cord is available, the 100A source will be delivered to both outputs. When the second cord is attached, the sources will combine to form a single 200A output. If one cord fails, the unit will automatically falls back to a single source solution. The method used to combine sources allows for sharing power between shore cords WITHOUT the danger of tripping commonly-used GFI equipped pedestals.



Direct Replacement

Direct replacement for the Charles PM3



Intelligent Paralleling

Automatic source selection based on cord availability



GFI Compliant

Won't trip commonly-used GFI pedestals

POWER RANGE



COMMONLY INSTALLED ON



CRUISERS (10 to 16 meters)



YACHTS (17 to 23 meters)



SUPERYACHTS (24 to 45 meters)



MEGAYACHTS (46-65 meters)



GIGAYACHTS (66 to 90 meters)

MORE FEATURES

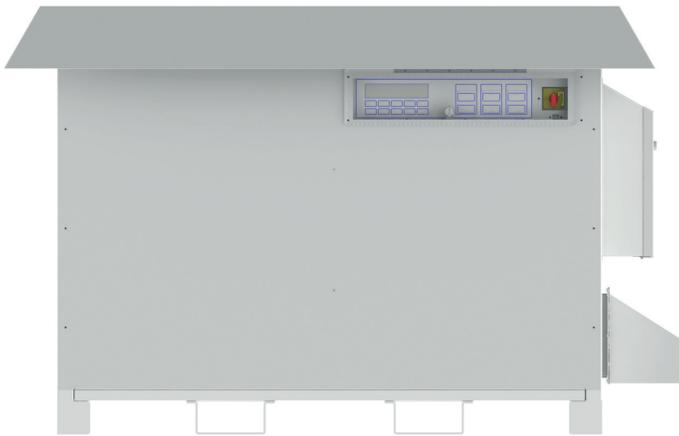
- Combining of shore cord inputs to create a Single output
- Auto-Restart from shore brownout, blackout, or overload
- Shore cord leveling keeps both cords at the same current to prevent imbalance and tripping
- Fault shield for bonded, galvanic bridged/ isolated ground
- Modbus (RS-485) remote diagnostics
- Reverse Phase detection and correction
- Advanced power monitoring
- Microprocessor based over and under voltage/ current protection

**refer to product manual for proper installation requirements*

Dock Locker System (63-75kVA)

The Dock Locker provides all the benefits of a shore power converter with added mobility and capability to operate in outdoor environments. The durable enclosure has withstood a hurricane with winds up to 73 mph and sustained zero damage.

These models often support refits and other temporary projects. Additionally, the option for power conversion is an attractive value add for marinas and yards. The Dock Locker also has the potential to be rented out to those vessels without shore power conversion on board.



Mobile

Easily moved for optimum flexibility



Durable Design

Conformal printed circuit boards and steel housing



3 Phase Modules

Reduced capacity operation mode

POWER RANGE



COMMONLY INSTALLED ON



MARINA DOCKS

Power for temporary stays or emergencies



SHIPYARDS

Power during construction of new builds and refit projects

MORE FEATURES

- Auto-Restart from shore brownout or blackout
- Conformal coated printed circuit boards
- Front panel display console
- Minimal harmonic distortion
- Reverse polarization prevention
- Galvanic corrosion protection
- Global support network
- Precision regulation



A MISSION CRITICAL ELECTRONICS BRAND

SHORE POWER CONVERTERS

Stabilize operating frequency, suppress fast transient events, isolate from voltage variations, and protect against galvanic corrosion with a complete shore power solution.

DOCK BOOST TRANSFORMERS

Provide isolation and voltage normalization while delivering complete protection from the most common shore power problems including brownouts, spikes, sags, and low-line or high-line voltage.

DOCK LOCKER SYSTEMS

Provide all the benefits of a shore power converter with added mobility and capability to operate in outdoor environments. Used to support refit and other temporary projects.



(714) 896-9695

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