

Powering Possibilities Worldwide

Shore Power Converters | Dock Boost Transformers | Dock Locker Systems

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About ASEA Power Systems

ASEA Power Systems stands at the forefront of the marine industry, renowned worldwide for its cutting-edge power conversion equipment tailored exclusively for marine applications. Our shore power conversion and boosting systems are meticulously designed to ensure reliability, durability, and versatility, catering to the unique requirements of every vessel. We have established certified partnerships in all major cruising destinations, guaranteeing seamless installation and service for ASEA products.

Our product lineup spans a power range of 8–1000+ kVA. This diverse range includes shore power converters, dock boost transformers, line voltage regulators, isolation transformers, generator management modules, clean grid converters, and even custom-engineered solutions. We take pride in the exceptional level of customization our products offer, boasting 12 enclosure styles, 3 cooling systems, and over 50 controls, alarms, and communication options.

Recognized for our excellence, ASEA Power Systems was honored with the prestigious 2019 International Boating Industry (IBI) Export Excellence Award at the renowned International Boatbuilders' Exhibition and Conference (IBEX). Our extensive distribution and support network, coupled with an in-depth understanding of distinct market segments across the globe, made ASEA stand out against the competition.

From tranquil island harbors of Southeast Asia to the bustling shipyards of Italy and beyond, ASEA is proud to serve diverse regions worldwide. Our core principles revolve around three pillars:



Global Support Network



Commitment to Safety



Unyielding Reliability

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Headquartered in Costa Mesa, California, Mission Critical Electronics (MCE) provides specialized products for critical systems in a wide variety of applications operating under the leading brands: American Battery Charging, ASEA Power Systems, DuraComm, Kussmaul Electronics, Magnus Marine, Newmar, Power Products Unlimited, 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.

Cover photo courtesy of Custom Line Yachts

ASEA Power Systems is proud of its Global Support Network

Asea Nautica Italy

Asea Nautica was born in the late '90s as a company that represented ASEA Power Systems and is now the largest provider of consulting, installation, and ongoing service of yacht electrical systems in Italy.



"We participate with ASEA products" at the onset of each new project. Over the last two decades, ASEA has custom-built many shore power converters for a variety of Italian yacht builders."

Alessandro Ciolfi Owner & CEO

E-Tech Yachting Spain & Portugal

E-Tech Yachting has been an Authorized Service Partner of ASEA Power System serving Spain and Portugal for close to two decades. E-Tech Yachting E-Tech Yachting is the largest marine electrical and electronics specialist in Spain and has worked with over 700 vessels.



"My partnership with ASEA Power Systems has a long history. I started out as a service engineer for ASEA then I represented them as a service engineer in Spain. Our partnership has spanned over two decades."

Svante Borgenas Former CEO

Meta Yat Ltd. Turkey

Meta Yat was founded in 2000 and has been providing service for ASEA products in Turkey since its inception. Meta Yat is an expert in design, project management and brokerage services globally.



"Over the years, ASEA has backed us up in every way and we back them up in after-sales service in Turkey. Whenever we need help, the technical experts at the ASEA headquarters are there for us!"

Riza Ozluer Owner

Shore Power Services France & the Middle Fast

The team at Shore Power Services has been providing yacht power management using ASEA products for over two decades. Shore Power Services delivers creative solutions for complex engineering projects in yachts across France and the Middle East.



Blake Holloway Owner, Middle East



Ben Underhill Owner, France

"If a customer buys a product and has an issue halfway around the world and can't get support for it, they'll feel let down. ASEA has set up a service network in all major marinas in the world [allowing] for a seamless support experience."

Connect with an authorized service provider near you

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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.



Safety is our #1 priority Why do you need an isolation transformer?

very ASEA shore power converter is **C** equipped with an isolation transformer for a crucial reason: safety. By isolating the ship's power system from the shore power, the risk of fault current flowing through the water and endangering swimming near the vessel is eliminated.

In the absence of an isolation transformer. there exists a direct connection between the earth ground of the dock and the ship's electrical system. This means that



a loose wire on the boat could potentially allow fault current to flow through the ship's hull and into the water, posing a significant threat to anyone in the vicinity. The dangerous current flowing through the water can make swimming in the marina extremely hazardous.

transformer, power is transmitted to the boat through the magnetic field in the core, ensuring that there is no direct connection. The shore power earth terminates on the shield of the transformer, establishing a separate ground for the ship. As a result, the two grounds are not interconnected, preventing the flow of fault current between them.

An isolation transformer also addresses That is precisely why each ASEA shore another potential hazard known as Polarization. If the hot and cold wires of the shore power supply are accidentally swapped, it could lead to your power switch failing to disconnect the appliance from power. Furthermore, it may cause

the typically grounded case to become energized. In such situations, the magnetic field generated by the transformer core serves as your safeguard, ensuring that swapped wires at the shore do not result in swapped polarity onboard.

An isolation transformer provides the However, with the presence of an isolation added benefit of protection against galvanic corrosion. Its isolation properties effectively separate the ship's ground from the dock ground, preventing galvanic current from corroding vital components such as sacrificial anodes (or "zincs") and other expensive metal parts of the boat. This protection remains in place even if the neighboring ship is not equipped with an isolation transformer.

> power converter is equipped with an isolation transformer. Naturally, this level of protection is also applied to our Dock Boost Transformers and Dock Locker Systems. We prioritize your safety and ensure that every product we create upholds this principle.

Isolation transformer protects against:



GALVANIC CORROSION



REVERSE POLARIZATION



LEAKY FAULT CURRENT

Reliable Power at Every Dock

Reliability is at the heart of ASEA Power Systems. We pride ourselves on delivering unparalleled reliability, ensuring that our customers have a seamless and secure connection to shore power no matter where their journey takes them. Our products are trusted by yacht owners, marinas, and shipyards worldwide.

We have meticulously designed our products to provide consistent and unwavering performance. Our products incorporate high-quality components and materials, guaranteeing their longevity and durability.

Our commitment to reliability is evident in every aspect of our products' construction. We understand the importance of simplicity and ease of use. Our engineers have worked diligently to create intuitive interfaces with enhanced features such as digital display and remote connectivity.

ASEA's commitment to reliability extends beyond product design, with a global network of certified service partners available to provide technical support and maintenance. From the design and construction of our products to our unwavering customer support, we strive to ensure that our customers can depend on us for a power solution that exceeds their expectations.



Trusted by our many yacht builders



GB GRAND BANKS











The Italian Sea Group











SHORE POWER CONVERTERS

Our state-of-the-art Shore Power Converters revolutionize the way vessels connect to shore power, delivering unparalleled reliability, efficiency, and adaptability. With exceptional quality and customizable designs, our converters are backed by a global support network for seamless installation and service.

Features

- Convert dock voltage and frequency
- Suppress fast transient events
- Isolate from voltage variations
- Protect against galvanic corrosion
- Complete shore power solution
- Advanced digital displays for convenient monitoring

Benefits

Cost Efficiency

The use of shore power reduces onboard maintenance and energy costs, resulting in significant savings for vessel operators.

Reduced Reliance on Generator

When the yacht is connected to shore power, ASEA Shore Power Converters help to reduce noise in the electrical room creating a less noisy environment.

Galvanic Corrosion Protection

Built-in isolation transformer provides safety and protects against galvanic corrosion.

Improved Environmental Impact

Eliminate emissions and harbor pollution, significantly reducing your vessel's carbon footprint.



Scan to estimate the potential cost savings of using a shore power converter in place of running onboard generators while docked.



AC Series

(8-18 kVA)

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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

The AC Series offers bulkhead mounted systems utilizing dual-conversion technology with a power output of 8-18 kVA. 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 such as status and diagnostics are available through the serial port for remote display.

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



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)

Standard Series

(24–54 kVA)

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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

he Standard Series is customizable to fit virtually any space. Enclosure options include 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.

- Auto-Restart from shore brownout or blackout .
- Conformal coated printed circuit boards
- Front panel display console .
- Minimal harmonic distortion ٠
- . Reverse polarization prevention
- Galvanic corrosion protection
- Global support network
- Precision regulation





The Vertical Series V and V2 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.

- 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





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 125 kVA and 165 kVA are considered "Mega Qs" and are popular on larger projects for their high power density.

- 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





The Liquid Cooled LCZ Series shore power converters are integrated with the ship's cool water system. It is rated IP44 to meet IEC 60092/507 for yachts over 24 m and has inverter redundancy for increased durability. Specifically designed in a modular fashion and compact size, the Liquid-Cooled LCZ is made to fit through standard engine room door widths (up to 75kVA cabinet size).

For multi-cabinet configurations, contact our team via the ASEA website.

MORE FEATURES

- Water-cooled to run at higher ambient air temperatures
- Modular design to fit through engine room hatches (up to 75kVA)
- IP44 water-resistant enclosure
- Inverter redundancy to work at reduced load if there is a power module issue
- Isolation transformer for galvanic protection
- Slide-out module access tray
- Global support network
- Same footprint to replace current LC systems with hose connections at the same location.
- Designed with front access for all servicing needs, eliminating the need for top or side access and removing concerns about service clearances.



COMMONLY INSTALLED ON











GIGAYACHTS (66 to 90 meters)

CRUISERS (10 to 16 meters)

YACHTS (17 to 23 meter

SUPERYACHTS (24 to 45 meters)

MEGAYACHTS (46-65 meters)

Custom Shore Power Converter Options



SEAMLESS TRANSFER OPTION

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 the ship's bus when not in use.



AUXILIARY OUTPUT

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



REMOTE INTERFACE (RS232, RS485)

Remotely interface with the converters through your existing power management system for monitoring and control.



PROGRAMMABLE LOGIC CONTROL

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



Remote Control 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 realtime 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





Unit: mm(in)

187(7.36)

MECHANICAL INFORMATION

- Panel measures 7.36" W x 4.88" H x 0.95" 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



DOCK BOOST TRANSFORMERS

Choose ASEA Dock Boost Transformers for enhanced power quality, equipment protection, and a reliable electrical system.

Features

- DBT12 is the perfect fit for Charles Iso-Boost 50 A replacement
- Effective power filtering
- Surge suppression
- Advanced overload protection
- Compact and durable
- Voltage boostingBuilt-in isolation transformer

Benefits

Improved Power Quality Optimize performance of sensitive electronics with stable, clean power.

Equipment Protection Safeguard critical onboard equipment from power-related damage.

Enhanced Safety

Ensure electrical safety and minimize risks with comprehensive protection.

Extended Equipment Lifespan

Reduce the need for frequent repairs or replacements.

Peace of Mind

Trust in reliable power quality and advanced protection for a worry-free electrical system.



Dock Boost Transformer (12–24 kVA)

Compact and Lightweight

ightarrow

Industry recognized mounting pattern

Durable Design Conformal printed circuit boards and steel housing

Wide Voltage Acceptance Accepts 167–270 V, 400 V, and 480 V

he 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 highline 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 167–270 V (DBT12: 57-70 Hz, DBT15: 47-70 Hz) and provides a split phase 240 V or 230 V output nominal. The DBT24 accepts nominal voltages of 160-270 V plus 400 V and 480 V-each with the same wide range, to provide a 230 V split phase output.

- 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)
- Microprocessor based over and under voltage/current protection
- kWh meter included





The ASEA Trident system allows two shore cords to be combined into a single output. The pair of DBTs provides 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.

In Trident 24, if only one shore cord is available, both outputs receive a 50 A source. When the second cord is connected, the sources combine to create a single 100 A output. Similarly, Trident 48 delivers a 100 A source to both outputs, and when the second cord is added, it combines to generate a single 200 A output. In case of cord failure, the system automatically reverts to a single-source solution. The source-combining method ensures power sharing between shore cords without the risk of tripping GFI-equipped pedestals^{*}.

- 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 and current protection





DOCK LOCKER SYSTEMS

When onboard shore power converters are unavailable, rely on ASEA's Dock Locker Systems to enhance safety, efficiency, and protection for onboard electronics.

Features

- Perfect for boats with no
 onboard converters
- Excellent mobility
- Sturdy build
- Weather-resistant design
- Hassle-free installation
- Secure storage
- Tailored configurations
- Meets your shore power conversion needs at the dock

Benefits

Enhanced Safety

By providing a dedicated storage solution, the Dock Locker Systems help prevent trip hazards and accidents caused by loose cables or equipment clutter.

Increased Efficiency

The organized storage of dockside equipment improves efficiency during power connections, reducing setup time and minimizing the risk of cable damage or tangles.

Protection and Longevity

The Dock Locker System protect valuable equipment from damage caused by environmental factors, prolonging their lifespan and reducing replacement costs.

Convenience and Accessibility

With everything stored in one place, dockside equipment is easily accessible when needed, streamlining maintenance, and troubleshooting processes.

Value-Added Feature

Dock Locker Systems' power conversion technology is an attractive addition for marinas and yards, offering enhanced services to customers.

<image><section-header>

The Dock Locker System 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 System also has the potential to be rented out to those vessels without shore power conversion on board. Contact us for custom design needs.

MORE FEATURES

- Designed for outdoors
- 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



COMMONLY INSTALLED ON



MARINE DOCKS Power for temporary stays or emergencies



SHIPYARDS Power during construction of new builds and refit projects



Isolation Transformer

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50

Ignition Protected

ABYC compliant, safe for gasoline-powered vessels

Galvanic Corrosion Protection Protects the boat by isolating AC shore power from the boat's AC power system

Charles IsoG2 Replacement Designed as a direct drop-in and improved replacement

This Isolation Transformer is designed to completely isolate a vessel's electrical system from shore power, reducing corrosion and improving the performance of on-board equipment. It is installed in-line between the shore power inlet and the boat's AC panel. The Isolation Transformer serves as a protective layer blocking stray currents from transferring between the shore and your vessel and preventing dockside ELCI tripping. It is commonly installed on center consoles and other gas-powered boats.

FEATURES

- Ignition protected, safe for gasoline-powered vessels
- Ensures clean and stable AC power for on-board equipments
- Maintains a safer marine environment
- Meets latest NEC 555.35 marina code that ensures GFPE limits are not exceeded
- Reduces galvanic corrosion

CERTIFICATIONS

- ABYC E-11 Compliant
- ABYC C-1500 (for ignition protection)
- UL 1500 (for ignition protection)
- UL 1561

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 (30 to 60 ft) CENTER CONSOLES (20 to 67 ft) SPORTFISHERS (40 to 100 ft) YACHTS (50 to 70 ft) SAILBOATS (up to 60 ft)



MCE MARINE POWER

NEWMAR xantrex

ABOUT MISSION CRITICAL ELECTRONICS

ISEA

Mission Critical Electronics (MCE) is the parent of industry leading brands such as American Battery Charging, ASEA Power Systems, DuraComm, Kussmaul Electronics, Magnus Marine, Newmar, Power Products, Purkeys, Xantrex and ZeroRPM. Headquartered in Costa Mesa, California, MCE is a leader in the development of innovative solutions for power conversion, energy storage, power generation and shore power connectivity for a wide variety of applications in vehicle, marine, industrial and network markets. MCE takes great pride in translating its customers' needs into the highest quality products and solutions available in the markets it serves. MCE delivers its products and solutions with an unmatched level of responsiveness.

MCE serves its customers in North America through nine offices and a third-party warehousing facility. MCE also maintains manufacturing facilities in the US and employs over 300 people. MCE continues to invest in advanced and innovative technologies for electrification of power systems in vehicles and boats.



THE POWER OF ONE



Shore Power Solutions with access to ASEA's Global Support Network

Connect with us

Access our global support network www.aseapower.com/global-support-network/

Get in touch with our sales team sales@aseapower.com

Learn more about our products www.aseapower.com

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MCE MARINE POWER

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