



ZEUS POWER TECHNOLOGY SRL

MARINE POWER CONVERSION & CONSULTING

WHO WE ARE: AN ITALIAN BRAND

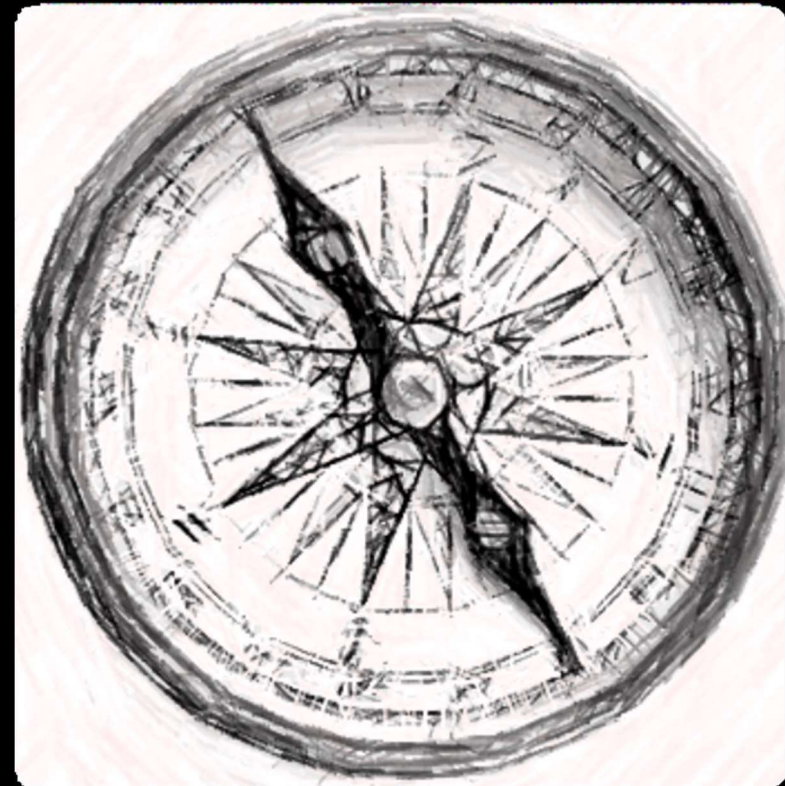
- Thanks to the entrepreneurial adventure in the United States of our administrator Willy Goggia since 2011, our company, with twenty years of experience in the production of uninterruptible power supplies, has invested its resources and know-how in the design of products related exclusively to the nautical sector.
- Our industrial, technical and commercial organization is able to offer a wide range of products suitable for any requirement.
- We constantly invest in research and development aimed at improving product quality, speed of response to market demands, competitiveness and services
- We offer industrialization engineering and customization of products under customer specifications, thanks to our highly qualified staff.
- Zeus Power Technology proposes itself as an ideal and reliable partner in the complete management of every project, from the study to the delivery of the finished product.





Mission

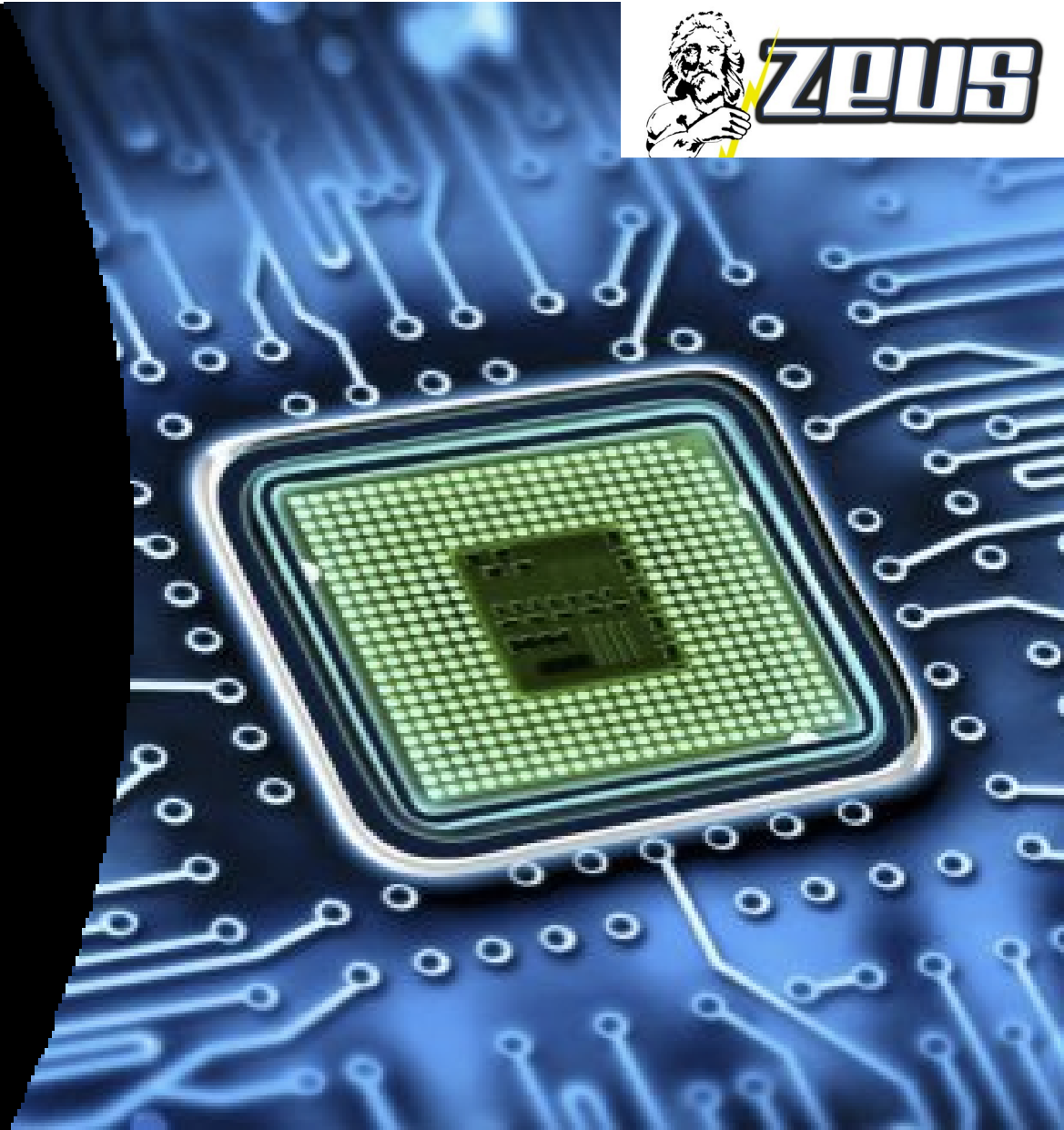
- Over the years the company has always set itself the goal of being a trusted partner of its customers, of supplying innovative materials and being able to solve the most varied problems of the operators in the sector. A continuous technological update of products, always at the cutting edge of technology and safety. To realize its mission Zeus Power Technology srl proposes itself as a flexible and constantly growing company.
- The market in which the company operates asks for quick answers to changes in the external environment. Technological progress is growing at a faster pace, competition is moving ever more rapidly, consumers are evolving their behaviors and demands, and have greater knowledge of the products they buy than in the past.
- Zeus Power Technology srl is constantly engaged in a technical growth with continuous updates in various fields together with a commercial growth achieved through partnerships with major companies in the various business sectors.





Technology and Production

- Zeus Power Technology designs and manufactures its Shore Power Converters in Italy, to have a direct control on quality and reliability supervising closely following the whole cycle of design, production, sales and after-sales services. This strategy allows us to maintain a continuous improvement process.



Products – Shore Power Converter



- Frequency converters that also work as voltage regulators, designed specifically for motor and sailing yachts. They can be installed both on the boat and on the quay and convert electrical energy from **50Hz to 60Hz** or vice versa. They supply the correct voltage value when connected to the most varied and unstable quay's voltages eg: **110V, 208V, 240V, 380V, 400V, 416V, 480V, single or three-phase**. The frequency converters are **stabilized and galvanically isolated** with sizes ranging from **8 KVA up to about 500 KVA**. They are **lighter, have galvanic isolation** transformers and toroidal inductors and feature a **higher efficiency** than our competitors' equivalent. They are **modular** both in height and in depth and are on average **smaller than the standard**. They have the output voltage **devoid of harmonic distortions**, the **frequency stable** at the third decimal place, have a **sinusoidal absorption** of the input dock current thus responding to the regulations relating to harmonic pollution.
- The output voltage is **stabilized even in the presence of strongly unbalanced loads or current surges**. Our converters guarantee the delivery of full rated output power **even under uneven quay voltage** conditions or heavy load unbalance on the output.
- Thanks to the experience gained in the field in all these years, our converters include a series of technical features that make them robust and **immune to unpredictable events** that may occur during their life, such as **overvoltages, atmospheric discharges, short circuits, prolonged overloads**.
- **The Seamless transfer** functionality offered as an optional allows the continuous passage of the boat power supply from the generators to the shore socket and vice versa, avoiding the temporary blackout.
- The used components , **coming from military and industrial use**, guarantee a robust, reliable and maintenance-free fail-safe system

Models – Shore Power Converters



MODEL	OUTPUT POWER	INPUT CORDS per cabinet	PARALLELABLE One input cord each cabinet	INPUT VOLTAGE (40 --70 Hz)	OUTPUT VOLTAGE @ 50 or 60 Hz	COOLING OPTIONS	DIMENSIONS (mm) (H,W,D)	
ZC08SS1L-1U	8 kVA	# 1	16 kVA	Single phase 85 -265 Vac	Single Phase 2 wires 220 -230 -240 Vac Single phase 3 wires 120 - 0 - 120 Vac	Air	Single Cabinet 650x250x625 Dual Cabinet 237x250x625 & 487x250x625	
ZC12SS1L-1U	12 kVA	# 1	24 kVA					
ZC15SS1L-1U	15 kVA	# 1	30 kVA					
ZC24SS2E-1U	24 kVA	# 2	48 kVA	Single phase 170 -520 Vac			Single phase 3 wires 120 - 0 - 120 Vac	Single Cabinet 800x350x625 Dual Cabinet 387x350x625 & 487x350x625
ZC30SS2E-1U	30 kVA	# 2	60 kVA					
ZC36SS2E-1U	36 kVA	# 2	72 kVA					
ZC25MM1E-1U	25 kVA	# 1	50 kVA	Three phase & Single phase 170 -520 Vac	Three Phase 4 wires 208-220-380 Vac 400-416-440 Vac Single Phase 2 wires 220 -230 -240 Vac Single phase 3 wires 120 - 0 - 120 Vac	Single Cabinet 1000x362x700 Dual Cabinet 537x360x700 & 537x360x700		
ZC30MM1E-1U	30 kVA	# 1	60 kVA					
ZC36MM1E-1U	36 kVA	# 1	72 kVA					
ZC40MM1E-1U	40 kVA	# 1	80 kVA			Air /Liquid	Single Cabinet 1100x500x650 Dual Cabinet 550x500x650 & 550x500x650	
ZC45MM1E-1U	45 kVA	# 1	90 kVA					
ZC50MM1E-1U	50 kVA	# 1	100 kVA					
ZC54MM1E-1U	54 kVA	# 1	108 kVA					
ZC55TT1E-1U	55 kVA	# 1	110 kVA	Three phase 170 -520 Vac	Three Phase 4 wires 208-220-380 Vac 400-416-440-480 Vac	Single Cabinet 1100x600x650 Dual Cabinet 550x600x650 & 550x600x650		
ZC63TT1E-1U	63 kVA	# 1	125 kVA					
ZC75TT1E-1U	75 kVA	# 1	150 kVA					
ZC90TT1E-1U	90 kVA	# 1	180 - 270 kVA	Three phase 330 -520 Vac	Three Phase 4 wires 380-400-416-440-480 Vac	1200x550x750		
ZC100TT1E-1U	100 kVA	# 1	200 –300 -400 kVA					
ZC110TT1H-1U	110 kVA	# 1	220 -330 -440 kVA					
ZC125TT1H-1U	125 kVA	# 1	250 –375 -500 kVA				1400x600x750	
ZC18TS1M-1W	18 kVA	# 1		Three phase 180 -460 Vac	Single Phase 2 wires 120 or 230 Vac For appliances socket ring	Air	550x700x300	



Products: Isolation transformers

- Essential piece of equipment for electrical power distribution in the maritime sector. They prevent electrolytic corrosion and above all they serve as devices to guarantee a safe electrical system. Available in multitap configuration to adapt to different dock voltages. Ground shield provided between primary and secondary sides.

Products : Toroidal isolation transformers

- The toroidal configuration guarantees a very high electrical efficiency with extremely low weights and dimensions, low heating and no need for forced ventilation. The toroidal executions are extremely flexible with reduced heights and larger diameters or ,vice versa, smaller diameters and increased heights, in order to optimize the housing inside each boat. Available in multitap configuration to adapt to different dock voltages. Ground shield provided between primary and secondary sides.



Products: Isolation Boosting Transformer

Isolation Boosting Transformer.

Isolation transformer with electronic system for automatic voltage regulation.

It performs control and stabilization of the ship's voltage at its nominal value with the dock voltage floating in a range from 180Vac to 265Vac.

Some Zeus Installations



POWER	SHIPYARD	YEAR	COUNTRY
300 KVA	ATOLLVIC SHIPYARD	2020	SPAIN
45 KVA	OVER MARINE	2016	USA
30 KVA	ABSOLUTE	2018	USA
75 KVA	TECNOMAR YACHT	2017	USA
30 KVA	GARI MARINE	2018	ITALY
25 KVA	SAN LORENZO	2017	ITALY
60 KVA	AZIMUT	2018	ITALY
6 KVA	CANTIERE NAVALE CERRI E BAGLIETTO	2017	ITALY
140 KVA	CRN	2018	ITALY
140 KVA	RIVA	2018	ITALY
50 KVA	WIDER YACHTS	2017	ITALY
50 KVA	CAMPER & NICHOLSON 43 M YACHT	2018	ITALY
12 KVA	CUSTOM LINE	2019	ITALY

Our Partners



- Engine Room Engineering LLC. American company based in FortLauderdale. Thanks to the forty years of experience in the nautical sector of its founder Daniel Herrera the Engine Room Engineering has become our exclusive partner in the service and installation division of North and South America.

- Gws USA LLC. American company of the Zeus group sales division.

- Tri County Marine Service.

- F.Ili Canalicchio SPA, world leader in the production of stainless steel parts that include handrails, hinges and closures, door stops, inserts for fixing on fiberglass, scuppers, bollards, fenders, fender housings, steel elements for swimming pools, sliding doors, elevators, furniture tops, benches, bar furniture.

Also leader in the design and production of moving retractile balconies for yachts and any other servomechanism for big moving parts on ships like transom doors etc.....





Reference List

- S/Y PATH YACHTING LTD
- VYRON SRL
- FURLANETTO INTERNATIONAL SRL
- SOLAR TIME srl VIA
- ELETTROSERVICE SNC
- 1 OCEAN YACHTS
- SHIP CONTROL SRL
- C.R.N SPA
- ROBERTSON AND CAINE LTD
- AZIMUT BENETTI GROUP SPA
- CANTIERE NAUTICO CRANCHI SPA
- DOMETIC ITALIA GROUP SPA
- TRI COUNTY MARINE SERVICES
- PLATINUM MARINE





Reference List

- ARTURO FORESTI IMPIANTI ELETTRICI
- CORSAIR MARINE INTERNATIONAL
- CERRI CANTIERE NAVALE SPA
- SAN LORENZO SPA
- AZIMUT YACHTS
- ALTUS OIL & GAS SERVICE VIETNAM CO. LTD
- NAUTICA ANNIBALINI
- SOLARIS YACHT SRL
- FERRETTI GROUP SPA
- MASTERVOLT ITALIA
- WIDER SRL
- THE YACHT GROUP 2
- ENGINE ROOM ENGINEERING LLC
- RIO YACHTS SRL



Our offices

➤ Italy



- Headquarters : Via Nazionale 111, 23823 Colico (LC)
- Business office: Via Decio Raggi 411/C, 47121 Forlì (FC)
- Sales: +39 335 7071851 – Tech: +39 342 9545282

➤ USA



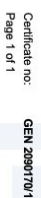
- Business office : 2967 Ravenswood Road #3 #4 33312 Fort Lauderdale Florida
- Tel.: +1 (754) 214-0202 Daniel
- www.zeuspowerconverter.com
- info@zeuspowerconverter.com





SHORE POWER CONVERTER SERIES ZC FOR THE MARINE MARKET



Client: **Zeus PowerTechnology**

Client's OrderNumber: **ZC150TT1H-1U**

Inspection Dates
First: **07 February 2020**

Office: **Genoa**Date: **12 February 2020**

Final: 07 February 2020

This certificate is issued to Messrs. Zeus Power Technology

to certify that the undersigned Surveyor to this Society did at their request attend at Zeus Power Technology at Forli (FC) on the above date for the purpose of inspecting the following items:

02 off – SHORE POWER CONVERTERS

Serial Numbers: 190226 and 190227

Rated Power: 150 kVA

Input Voltage Range: 330-520 Vac – Three phases

Input Frequency Range: 40-70Hz

Output Frequency: 50 Hz

The following scope of inspection has been carried out with satisfactory results:

- Visual examination
- Witness of insulation resistance
- Witness of high Voltage tests:
- Power circuit: 2.0 kV x 60 sec.

Note:

- Installation location of Shore Power Converters are to be verified to the satisfaction of the LR Surveyor attending the installation on board.

To complete the survey, the above equipment remains to be installed on board and re-tested to the Surveyor's satisfaction. For identification purposes the label attached to each equipment was additionally marked as follows: "LR GEN2090170"

END

Walter Floris
5th Floor, Lloyd's Register EMEA
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Form 1123 (2017.07)



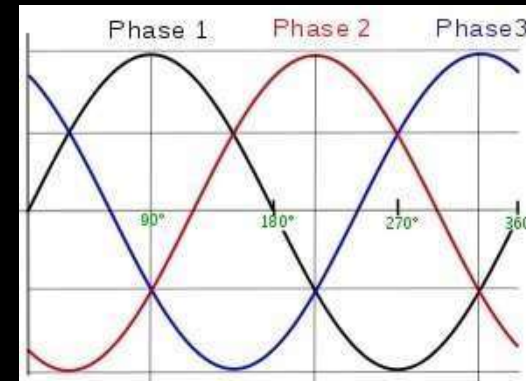
- Accepts any kind of voltage and frequency worldwide
- The highest power in the smallest cabinet
- Fully configurable for any type of electrical system
- Prevents Harmonics generation in electrical networks
- Easy installation and maintenance
- Seamless Transfer Technology on board
- Fully designed and manufactured in Italy





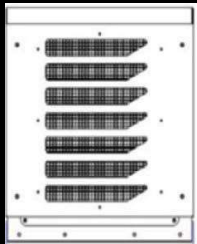
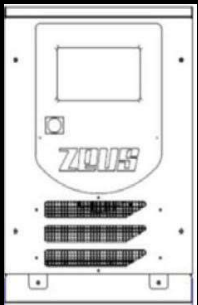
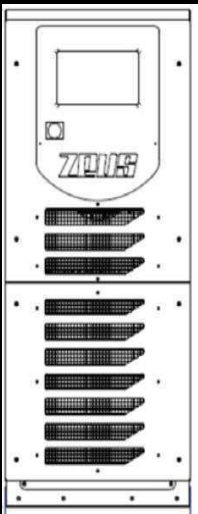
TOP ELECTRICAL PERFORMANCES

- Galvanic isolation between shore and ship
- **Three and single phase operation capability**
- Pure sinusoidal output voltage
- **Pure sinusoidal current absorption from the dock**
- Parallelable for the highest power needs
- **No Harmonics generations**
- Up to 200 % overload capability
- **Up to 500 % instantaneous current surge capability**
- Self protecting from accidental short circuits
- **Nominal power delivered with heavy unbalanced loads**
- Nominal power delivered with weak dock voltage sources
- **Compatible with all kind of shore protection breakers**





WHERE SPACE IS AN ISSUE.....

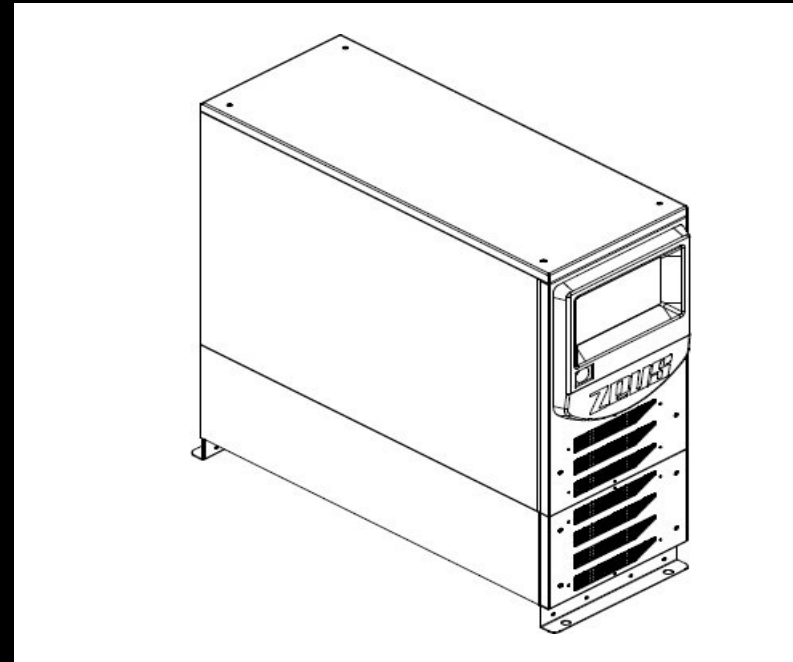


- Smaller and lighter than competitor's equivalents
- Splittable in two units for easy installation and handling
- Easy front access for full maintenance
- Minimum clearances necessary



ZC SERIES : 8 – 15 kVA Single Phase

- **STANDARD FEATURES :**
- ➤ **Wide input voltage range 85-265 Vac**
- ➤ **Sinusoidal input current absorption**
- ➤ **Low input current distortion (<5%)**
- ➤ **Power factor > 0,99**
- ➤ **Galvanic isolation between input and output.**
- ➤ **Single-Split phase configurable output voltage**
- ➤ **Sine wave output - Low Harmonics distortion**
- ➤ **Precise output voltage-frequency regulation**
- ➤ **Overload and short circuit capability**
- ➤ **Load unbalance management capability**
- ➤ **Chassis divisible in two units**
- ➤ **Built-in remote diagnostics system**
- ➤ **7" multilanguage Touch panel operator interface**
- ➤ **Auto-Restart function selectable**
- ➤ **Tropicalized electronics boards and parts**



OPTIONS: RS232 , RS485 MODBUS, USB Communications



GENERAL SPECIFICATIONS

MODEL	ZC08SS1L-1U	ZC12SS1L-1U	ZC15SS1L-1U
POWER RATING	8kVA	12kVA	15kVA
INPUT			
PHASE	Single Phase		
VOLTAGE	85-135 Vac & 170-265 Vac Auto-ranging		
FREQUENCY	40-70 Hz		
POWER FACTOR	> 0,99 at rated load		
PHASE SEQUENCE	Any		
SHORE CORD INPUT	Single / each unit		
INRUSH CURRENT	< 20A		
INPUT CURRENT DISTORTION	<= 5% - Sinusoidal current absorption from dock pedestal.		
ISOLATION TRANSFORMER	Yes. Isolation > 5kV		
PROTECTIONS	Overvoltage, Undervoltage, Voltage transients, Overcurrent, Short circuits Overtemperature		



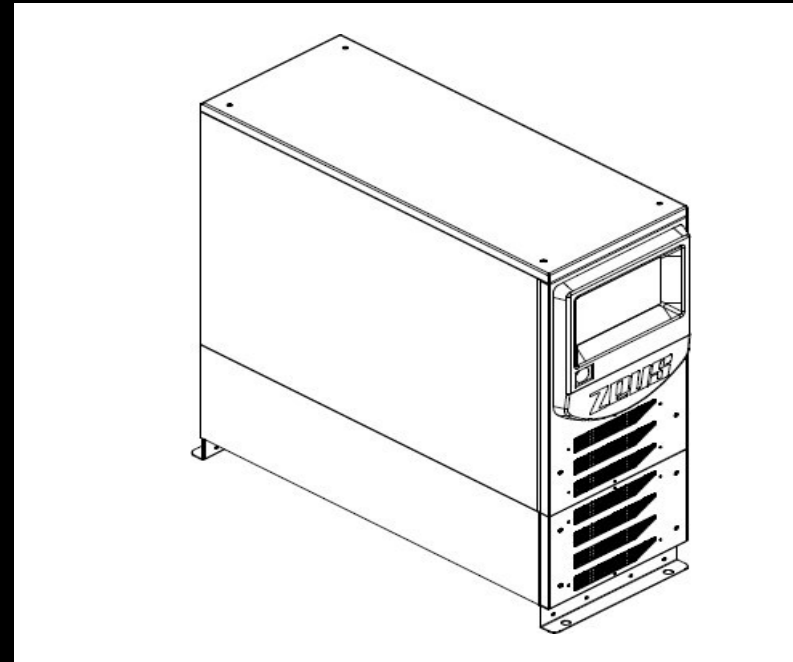
MODEL	ZC08SS1L-1U	ZC12SS1L-1U	ZC15SS1L-1U
POWER RATING	8kVA	12kVA	15kVA
OUTPUT			
PHASE	Single Phase		
POWER RATING	8kVA @ 0,9PF (7,2kW)	12kVA @ 0,9PF (10,8kW)	15kVA @ 0,9PF (13,5kW)
POWER FORM	Single Phase 3 Wires 110/220V , 115/230V, 120/240V Single Phase 2 Wires 220V, 230V, 240V		
FREQUENCY	50 Hz or 60 Hz		
CURRENT	33A @ 240V 1Ph	50A @ 240V 1Ph	63A @ 240V 1Ph
LOAD POWER FACTOR	Any		
LOAD REGULATION	< 1%		
VOLTAGE REGULATION	±1% at balanced load		
HARMONICS DISTORTION	3% THD maximum (linear load)		
PROTECTIONS	Overvoltage, Undervoltage, Underfrequency, Overload, DC offset, Short circuits Overtemperature, Reverse Power		
EFFICIENCY AT FULL LOAD	> 89%	> 89%	> 89%
ENVIROMENTAL			
TEMPERATURE RANGE	0-45 °C		
ACUSTICAL NOISE	<65 db at 2 mt.		
RELATIVE HUMIDITY	0-95 % not condensing		
COOLING SYSTEM	Forced ventilation		
MECHANICAL			
SINGLE CABINET VERSION	H=650 ,W= 250 , D=625		
DOUBLE CABINET VERSION	CAB#1 : H=237 ,W= 250 , D=626 - CAB#2 : H=487 ,W= 250 , D=626		
USER INTERFACE			
INTERFACE TO USER	Touch panel 7" colour - Multilanguage		
COMMUNICATION INTERFACE	(OPT) RS232, RS485-MODBUS, USB, ETHERNET		
REMOTE DIAGNOSTIC SYSTEM	(OPT) YES , Through ship's Ethernet network		



ZC SERIES : 25 – 36 kVA (2x) 50–75 kVA **(3x) 75–110 kVA** Single-Three phase

- STANDARD FEATURES :
- ➤ **Extended input voltage range 170-520 Vac**
- ➤ **Single-Three phase input voltage accepted**
- ➤ **Low input current distortion (<5%)**
- ➤ **Power factor > 0,99**
- ➤ **Galvanic isolation between input and output.**
- ➤ **Single-Three phase configurable output voltage**
- ➤ **Sine wave output - Low Harmonics distortion**
- ➤ **Precise output voltage-frequency regulation**
- ➤ **Overload and short circuit capability**
- ➤ **Load unbalance management capability**
- ➤ **Chassis divisible in two units**
- ➤ **7" multilanguage Touch panel operator interface**

With a Zeus technician's help, the converters can be remotely monitored.



OPTIONS:

- **Automatic seamless transfer to generators**
- **PLC I/O interface**
- **Remote switchboard control interface**
- **Parallelable with twin units for increased power**
- **Hot swapping in case of fault when parallel**
- **RS232 , RS485 MODBUS, USB Communications**



GENERAL SPECIFICATIONS

MODEL	ZC25MM1E-1U	ZC30MM1E-1U	ZC36MM1E-1U
POWER RATING	25kVA	30kVA	36kVA
INPUT			
PHASE	Single or Three Phase		
VOLTAGE	170-520 Vac Auto-ranging		
FREQUENCY	40-70 Hz		
POWER FACTOR	> 0,99 at rated load		
PHASE SEQUENCE	Any		
SHORE CORD INPUT	Single		
INRUSH CURRENT	< 30A		
INPUT CURRENT DISTORTION	<= 5%		
PROTECTIONS	Overvoltage, Undervoltage, Voltage transients, Overcurrent, Short circuits Overtemperature, Phase loss		



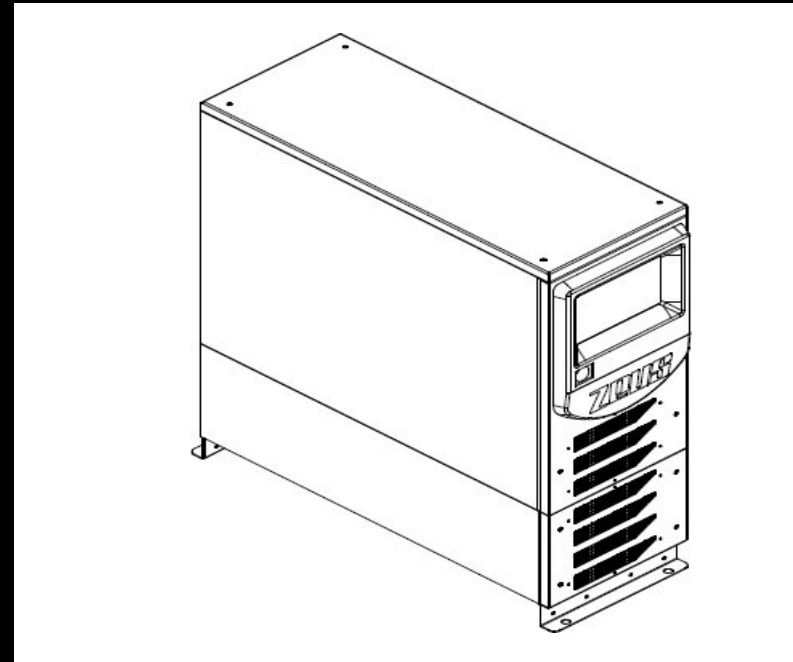
MODEL	ZC25MM1E-1U	ZC30MM1E-1U	ZC36MM1E-1U
POWER RATING	25kVA	30kVA	36kVA
OUTPUT			
PHASE	Single or Three Phase		
POWER RATING	25kVA @ 0,9PF (22kW)	30kVA @ 0,9PF (27kW)	36kVA @ 0,9PF (32kW)
POWER FORM	Three Phase 3/4 Wires 120/208V, 127/220V, 220/380V, 230/400V, 240/416V, 254/440V Single Phase 3 Wires 110/220V , 115/230V, 120/240V Single Phase 2 Wires 220V, 230V, 240V		
FREQUENCY	50 Hz or 60 Hz		
CURRENT	104A @ 240V 1Ph 69A @ 208V 3Ph. 36A @ 400V 3Ph.	124A @ 240V 1Ph 83A @ 208V 3Ph. 43A @ 400V 3Ph.	149A @ 240V 1Ph 100A @ 208V 3Ph. 52A @ 400V 3Ph.
LOAD POWER FACTOR	Any		
LOAD REGULATION	< 1%		
VOLTAGE REGULATION	±1% at balanced load		
HARMONICS DISTORTION	3% THD maximum (linear load)		
PROTECTIONS	Overvoltage, Undervoltage, Underfrequency, Overload, DC offset, Short circuits		
EFFICIENCY AT FULL LOAD	Overtemperature, Reverse Power		
PARALLELABLE – 2 UNITS	> 90%	> 90%	> 91%
PARALLELABLE – 3 UNITS	50kVA (45kW) – up to 2 Cords	60kVA (54kW) – up to 2 Cords	75kVA (67 kW) – up to 2 Cords
	75kVA (67kW) – up to 3 Cords	90kVA (81kW) –up to 3 Cords	110kVA (99kW) – up to 3 Cords
ENVIRONMENTAL			
TEMPERATURE RANGE	0-50 °C		
ACUSTICAL NOISE	<65 db at 2 mt.		
RELATIVE HUMIDITY	0-95 % not condensing		
COOLING SYSTEM	Forced ventilation		
MECHANICAL			
SINGLE CABINET VERSION	H=1000 ,W= 362 , D=700		
DOUBLE CABINET VERSION	CAB#1 : H=537 ,W= 360 , D=700 - CAB#2 : H=537 ,W= 360 , D=700		
USER INTERFACE			
INTERFACE TO USER	Touch panel 7" colour - Multilanguage		
COMMUNICATION INTERFACE	(OPT) RS232, RS485-MODBUS, USB, ETHERNET		
REMOTE DIAGNOSTIC SYSTEM	(OPT) YES , Through ship's Ethernet network		



ZC SERIES : 45 – 54 kVA (2x) 90 – 108 kVA Single-Three phase

- STANDARD FEATURES :
 - Extended input voltage range 170-520 Vac
 - Single-Three phase input voltage accepted
 - Low input current distortion (<5%)
 - Power factor > 0,99
 - Galvanic isolation between input and output.
 - Single-Three phase configurable output voltage
 - Sine wave output - Low Harmonics distortion
 - Precise output voltage-frequency regulation
 - Overload and short circuit capability
 - Load unbalance management capability
 - Chassis divisible in two units
 - 7" multilanguage Touch panel operator interface
 - RS232 Comm. Interface.

With a Zeus technician's help, the converters can be remotely monitored.



OPTIONS:

- Automatic seamless transfer to generators
- PLC I/O interface
- Remote switchboard control interface
- Parallelable with twin units for increased power
- Hot swapping in case of fault when paralleled
- Load management system
- RS485 MODBUS Communication



GENERAL SPECIFICATIONS

MODEL	ZC45MM1E-1U	ZC50MM1E-1U	ZC54MM1E-1U
POWER RATING	45kVA	50kVA	54kVA
INPUT			
PHASE	Single or Three Phase		
VOLTAGE	170-520 Vac Auto-ranging		
FREQUENCY	40-70 Hz		
POWER FACTOR	> 0,99 at rated load		
PHASE SEQUENCE	Any		
SHORE CORD INPUT	Single		
INRUSH CURRENT	< 30A		
INPUT CURRENT DISTORTION	<= 5%		
*****	Overvoltage, Undervoltage, Voltage transients, Overcurrent, Short circuits Overtemperature, Phase loss		
PROTECTIONS			



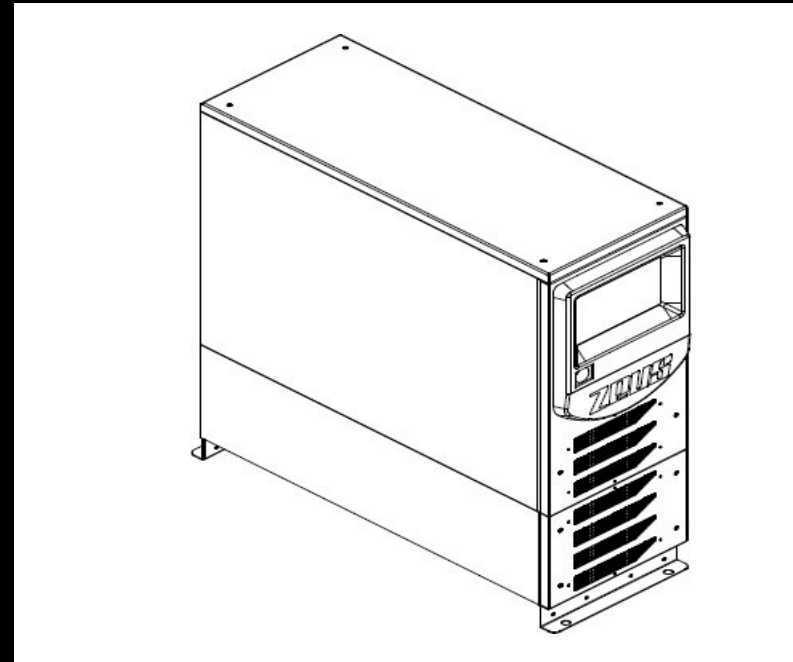
MODEL	ZC45MM1E-1U	ZC50MM1E-1U	ZC54MM1E-1U
POWER RATING	45kVA	50kVA	54kVA
OUTPUT			
PHASE	Single or Three Phase		
POWER RATING	45kVA @ 0,9PF	50kVA @ 0,9PF	54kVA @ 0,9PF
POWER FORM	Three Phase 4 Wires 120/208V, 127/220V, 220/380V, 230/400V, 240/416V, 254/440V Single Phase 3 Wires 110/220V , 115/230V, 120/240V Single Phase 2 Wires 220V, 230V, 240V		
FREQUENCY	50 Hz or 60 Hz		
CURRENT	187A @ 240V 1Ph 125A @ 208V 3Ph. 65A @ 400V 3Ph.	208A @ 240V 1Ph 139A @ 208V 3Ph. 72A @ 400V 3Ph.	225A @ 240V 1Ph 153A @ 208V 3Ph. 79A @ 400V 3Ph.
LOAD POWER FACTOR	Any		
LOAD REGULATION	< 1%		
VOLTAGE REGULATION	±1% at balanced load		
HARMONICS DISTORTION	3% THD maximum (linear load)		
PROTECTIONS	Overvoltage, Undervoltage, Underfrequency, Overload, DC offset, Short circuits Overtemperature, Reverse Power		
EFFICIENCY AT FULL LOAD	> 93%	> 93%	> 93%
PARALLELEABLE – 2 UNITS	90kVA – 2 Cords	100kVA – 2 Cords	108kVA – 2 Cords
ENVIROMENTAL			
TEMPERATURE RANGE	0-50 °C		
ACUSTICAL NOISE	<65 db at 2 mt.		
RELATIVE HUMIDITY	0-95 % not condensing		
COOLING SYSTEM	Forced ventilation / Liquid Cooling option		
MECHANICAL			
SINGLE CABINET VERSION	H=1200, W= 500, D=700 Weight= 370Kg		
DOUBLE CABINET VERSION	CAB#1 : H=635 ,W= 500 , D=700 - CAB#2 : H=635 ,W= 500 , D=700		
USER INTERFACE			
INTERFACE TO USER	Touch panel 7" colour - Multilanguage		
COMMUNICATION INTERFACE	RS232, (OPT) RS485-MODBUS, ETHERNET		
REMOTE DIAGNOSTIC SYSTEM	YES , Through ship's Ethernet network		



ZC SERIES : 55 – 75 kVA (2x) 110 – 150 kVA Three phase

- STANDARD FEATURES :
 - **Extended input voltage range 170-520 Vac**
 - Three phase input voltage accepted
 - Low input current distortion (<5%)
 - **Power factor > 0,99**
 - **Galvanic isolation between input and output.**
 - Three phase configurable output voltage
 - **Sine wave output - Low Harmonics distortion**
 - **Precise output voltage-frequency regulation**
 - Overload and short circuit capability
 - **Load unbalance management capability**
 - **Chassis divisible in two units**
 - 7" multilanguage Touch panel operator interface
 - **RS232 Comm. Interface**

With a Zeus technician's help, the converters can be remotely monitored.



- **OPTIONS:**
 - **Automatic seamless transfer to generators**
 - PLC I/O interface
 - **Remote switchboard control interface**
 - **Parallelable with twin units for increased power**
 - **RS485 MODBUS Communication**



GENERAL SPECIFICATIONS

MODEL	ZC55TT1E-1U	ZC63TT1E-1U	ZC75TT1E-1U
POWER RATING	55kVA	63kVA	75kVA
INPUT			
PHASE	Three Phase		
VOLTAGE	170-520 Vac Auto-ranging		
FREQUENCY	40-70 Hz		
POWER FACTOR	> 0,99 at rated load		
PHASE SEQUENCE	Any		
SHORE CORD INPUT	Single		
INRUSH CURRENT	< 30A		
INPUT CURRENT DISTORTION	<= 5%		
PROTECTIONS	Overvoltage, Undervoltage, Voltage transients, Overcurrent, Short circuits Overtemperature, Phase loss		



MODEL	ZC55TT1E-1U	ZC63TT1E-1U	ZC75TT1E-1U
POWER RATING	55kVA	63kVA	75kVA

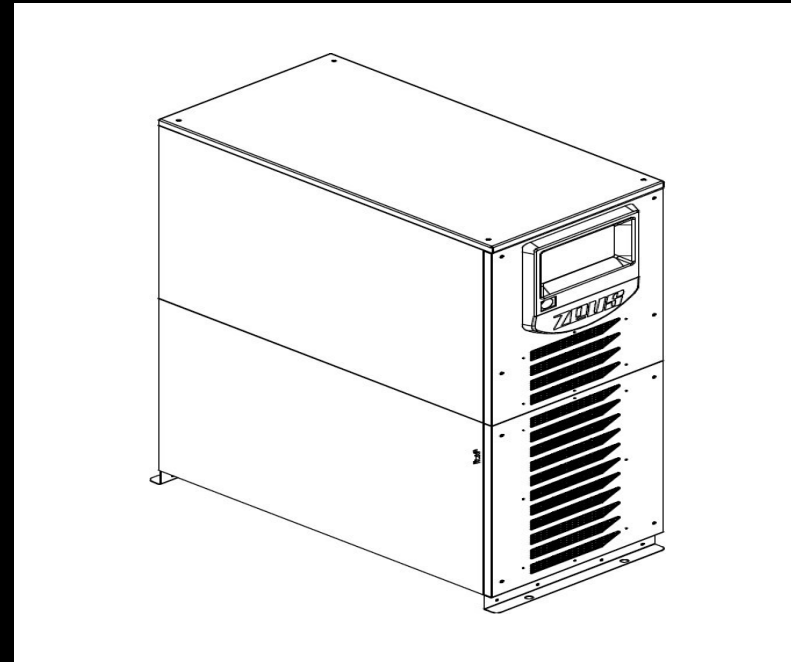
OUTPUT			
PHASE		Three Phase	
POWER RATING	55kVA @ 0,9PF	63kVA @ 0,9PF	75kVA @ 0,9PF
POWER FORM	Three Phase 4 Wires 120/208V, 127/220V, 220/380V, 230/400V, 240/416V, 254/440V, 277/480V		
FREQUENCY		50 Hz or 60 Hz	
CURRENT	153A @ 208V 3Ph. 79A @ 400V 3Ph.	175A @ 208V 3Ph. 91A @ 400V 3Ph.	208A @ 208V 3Ph. 108A @ 400V 3Ph.
LOAD POWER FACTOR	Any		
LOAD REGULATION	< 1%		
VOLTAGE REGULATION	±1% at balanced load		
HARMONICS DISTORTION	3% THD maximum (linear load)		
PROTECTIONS	Overvoltage, Undervoltage, Underfrequency, Overload, DC offset, Short circuits Overtemperature, Reverse Power		
EFFICIENCY AT FULL LOAD	> 93%	> 93%	> 93%
PARALLELABLE – 2 UNITS	110kVA – 2 Cords	125kVA – 2 Cords	150kVA – 2 Cords
ENVIROMENTAL			
TEMPERATURE RANGE	0-50 °C		
ACUSTICAL NOISE	<65 db at 2 mt.		
RFI ATIVE HUMIDITY	0-95 % not condensing		
COOLING SYSTEM	Forced ventilation / Liquid Cooling option		
MECHANICAL			
SINGLE CABINET VERSION	H=1200 ,W= 500 , D=700 Weight= 420Kg		
DOUBLE CABINET VERSION	CAB#1 : H=635 ,W= 500 , D=700 - CAB#2 : H=635 ,W= 500 , D=700		
USER INTERFACE			
INTERFACE TO USER	Touch panel 7" colour - Multilanguage		
COMMUNICATION INTERFACE	RS232, (OPT) RS485-MODBUS, ETHERNET		
REMOTE DIAGNOSTIC SYSTEM	YES , Through ship's Ethernet network		



ZC SERIES : 90 – 100 kVA (2x) 180 – 200 kVA (3x) 270 – 300 kVA Three phase

- STANDARD FEATURES :
- ➤ Extended input voltage range 170-520 Vac
- ➤ Three phase input voltage accepted
- ➤ Low input current distortion (<5%)
- ➤ Power factor > 0,99
- ➤ Galvanic isolation between input and output.
- ➤ Three phase configurable output voltage
- ➤ Sine wave output - Low Harmonics distortion
- ➤ Precise output voltage-frequency regulation
- ➤ Overload and short circuit capability
- ➤ Load unbalance management capability
- ➤ 7" multilanguage Touch panel operator interface
- ➤ Auto-restart function selectable
- ➤ Tropicalized electronics boards and parts

With a Zeus technician's help, the converters can be remotely monitored.



- OPTIONS:
- ➤ Automatic seamless transfer to generators
- ➤ PLC I/O interface
- ➤ Remote switchboard control interface
- ➤ **Parallelable with twin units for increased power**
- ➤ **RS485 MODBUS Communication**



GENERAL SPECIFICATIONS

MODEL	ZC90TT1E-1U	ZC100TT1E-1U
POWER RATING	90kVA	100kVA
INPUT		
PHASE	Three Phase	
VOLTAGE	170-520 Vac Auto-ranging	
FREQUENCY	40-70 Hz	
POWER FACTOR	> 0,99 at rated load	
PHASE SEQUENCE	Any	
SHORE CORD INPUT	Single	
INRUSH CURRENT	< 40A	
INPUT CURRENT DISTORTION	<= 5%	
PROTECTIONS	Overvoltage, Undervoltage, Voltage transients, Overcurrent, Short circuits Overtemperature, Phase loss	



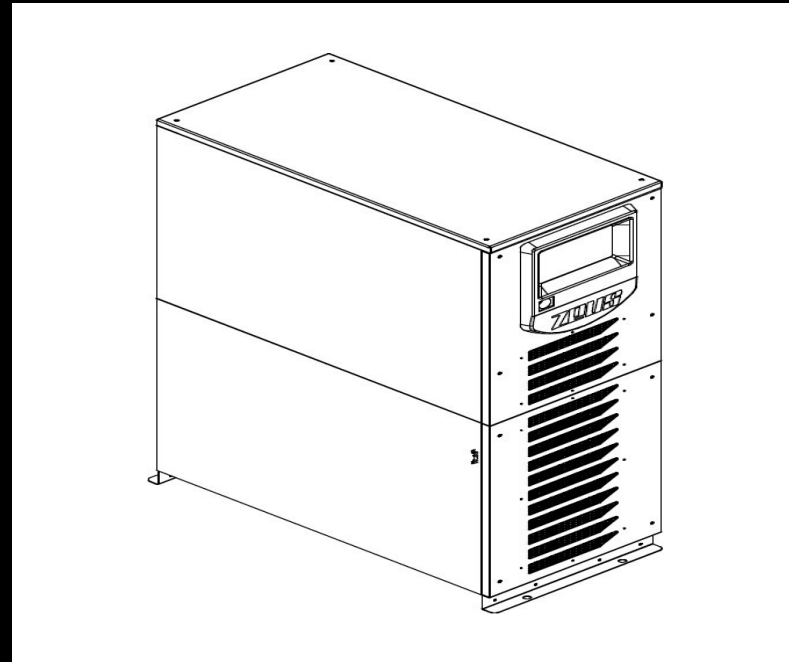
MODEL	ZC90TT1E-1U	ZC100TT1E-1U
POWER RATING	90kVA	100kVA
OUTPUT		
PHASE	Three Phase	
POWER RATING	90kVA / 75kW @ 0,85PF	100kVA / 85kW @ 0,85PF
POWER FORM	Three Phase 4 Wires 120/208V, 127/220V, 220/380 Vac 230/400V, 240/416V, 254/440V,277/480 Vac	
FREQUENCY	50 Hz or 60 Hz	
CURRENT	250A @ 208V 3Ph. 130A @ 400V 3Ph.	278A @ 208V 3Ph. 144A @ 400V 3Ph.
LOAD POWER FACTOR	Any	
LOAD REGULATION	< 1%	
VOLTAGE REGULATION	±1% at balanced load	
HARMONICS DISTORTION	3% THD maximum (linear load)	
PROTECTIONS	Overvoltage, Undervoltage, Underfrequency, Overload, DC offset, Short circuits Overtemperature, Reverse Power	
EFFICIENCY AT FULL LOAD	> 92%	> 92%
PARALLELEABLE – 2 UNITS	180kVA – 2 Cords	200kVA – 2 Cords
PARALLELEABLE – 3 UNITS	270kVA – 3 Cords	300kVA – 3 Cords
ENVIROMENTAL		
TEMPERATURE RANGE	0-50 °C	
ACUSTICAL NOISE	<65 db at 2 mt.	
RELATIVE HUMIDITY	0-95 % not condensing	
COOLING SYSTEM	Forced ventilation / Liquid cooling option	
MECHANICAL		
SINGLE CABINET	H=1400 ,W= 600 , D=750	
USER INTERFACE		
INTERFACE TO USER	Touch panel 7" colour - Multilanguage	
COMMUNICATION INTERFACE	RS232, RS485-MODBUS, USB, ETHERNET	
REMOTE DIAGNOSTIC SYSTEM	YES , Through ship's Ethernet network	



ZC SERIES : 125 – 150 kVA (2x) 250 – 300 kVA (3x) 375 – 450 kVA Three phase

- STANDARD FEATURES :
- ➤ Extended input voltage range 330-520 Vac
- ➤ Three phase input voltage accepted
- ➤ Low input current distortion (<5%)
- ➤ Power factor > 0,99
- ➤ Galvanic isolation between input and output.
- ➤ Three phase configurable output voltage
- ➤ Sine wave output - Low Harmonics distortion
- ➤ Precise output voltage-frequency regulation
- ➤ Overload and short circuit capability
- ➤ Load unbalance management capability
- ➤ 7" multilanguage Touch panel operator interface
- ➤ Auto-restart function selectable
- ➤ Tropicalized electronics boards and parts

With a Zeus technician's help, the converters can be remotely monitored.



- OPTIONS:
- ➤ Automatic seamless transfer to generators
- ➤ PLC I/O interface
- ➤ Remote switchboard control interface
- ➤ Parallelable with twin units for increased power
- ➤ RS485 MODBUS Communication



GENERAL SPECIFICATIONS

MODEL	ZC125TT1H-1U	ZC150TT1H-1U
POWER RATING	125kVA	150kVA
INPUT		
PHASE	Three Phase	
VOLTAGE	330-520 Vac Auto-ranging	
FREQUENCY	40-70 Hz	
POWER FACTOR	> 0,99 at rated load	
PHASE SEQUENCE	Any	
SHORE CORD INPUT	Single	
INRUSH CURRENT	< 40A	
INPUT CURRENT DISTORTION	<= 5%	
PROTECTIONS	Overvoltage, Undervoltage, Voltage transients, Overcurrent, Short circuits Overtemperature, Phase loss	



MODEL	ZC125TT1H-1U	ZC150TT1H-1U
POWER RATING	125kVA	150kVA
OUTPUT		
PHASE	Three Phase	
POWER RATING	125kVA / 110kW @ 0,85PF	150kVA / 130kW @ 0,85PF
POWER FORM	Three Phase 4 Wires 220/380 Vac, 230/400V, 240/416V, 254/440V, 277/480 Vac	
FREQUENCY	50 Hz or 60 Hz	
CURRENT	190A @ 380V 3Ph. 150A @ 480V 3Ph.	228A @ 380V 3Ph. 180A @ 400V 3Ph.
LOAD POWER FACTOR	Any	
LOAD REGULATION	< 1%	
VOLTAGE REGULATION	±1% at balanced load	
HARMONICS DISTORTION	3% THD maximum (linear load)	
PROTECTIONS	Overvoltage, Undervoltage, Underfrequency, Overload, DC offset, Short circuits Overtemperature, Reverse Power	
EFFICIENCY AT FULL LOAD	> 92%	> 92%
PARALLELEABLE – 2 UNITS	250kVA – 2 Cords	300kVA – 2 Cords
PARALLELEABLE – 3 UNITS	375kVA – 3 Cords	450kVA – 3 Cords
ENVIROMENTAL		
TEMPERATURE RANGE	0-50 °C	
ACUSTICAL NOISE	<65 db at 2 mt.	
RELATIVE HUMIDITY	0-95 % not condensing	
COOLING SYSTEM	Forced ventilation / Liquid cooling option	
MECHANICAL		
SINGLE CABINET	H=1443 ,W= 800 , D=900	
USER INTERFACE		
INTERFACE TO USER	Touch panel 7" colour - Multilanguage	
COMMUNICATION INTERFACE	RS232, RS485-MODBUS, USB, ETHERNET	
REMOTE DIAGNOSTIC SYSTEM	YES , Through ship's Ethernet network	



DOCK BOOST TRANSFORMER FOR THE MARINE MARKET

- **ZB SERIES : 12.5kVA - 25kVA**
- **Single phase in - Single/Split phase out**





ZB SERIES : 12.5kVA - 25kVA Single phase in - Single/Split phase out

- ❖ Provides the right voltage to the ship when the shore voltage is lower or higher than the nominal.
- ❖ Protects the ship from voltage surges from the dock
- ❖ Isolate the ship electrical system from dock through isolation transformer.
- ❖ User settable for ship electrical systems 230Vac-50Hz or 240Vac-60Hz
- ❖ Features the finest voltage regulation thanks to the multi-level seamless switching technology
- ❖ The lightest in his category.
- **STANDARD FEATURES :**
 - Input voltage range 170-265 Vac
 - Input frequency range 50 -60 Hz
 - Galvanic isolation between input and output > 5kV
 - Single-Split phase configurable output voltage
 - Seamless switching technology avoiding any power interruption,
 - Overload capability
 - Short circuit and Overtemperature protected
 - Very low inrush current at power on thanks to integrated Soft start circuit.
 - Integrated Bypass System in case of failure of electronics control board.
 - Auto-restart in case of black out
 - Radio, USB Communications
 - Tropicalized electronics boards and parts
 - Bottom and Side cable entrance

With a Zeus technician's help, the converters can be remotely monitored.



GENERAL SPECIFICATIONS

MODEL	ZB12SS1L-1U	ZB25SS1L-1U
POWER RATING	12.5kVA	25kVA
INPUT		
PHASE	Single Phase	
VOLTAGE	170-265 Vac Auto-ranging	
FREQUENCY	50-60 Hz	
PHASE SEQUENCE	Any	
SHORE CORD INPUT	Single	
INRUSH CURRENT	< 10A	
PROTECTIONS	Overvoltage, Undervoltage, Voltage transients, Overcurrent, Short circuits.	



MODEL	ZB12SS1L-1U	ZB25SS1L-1U
POWER RATING	12.5kVA	25kVA
OUTPUT		
PHASE	Single Phase	
POWER RATING	12.5kVA @ 1 PF	25kVA @ 1 PF
POWER FORM	Single Phase 3 Wires (Split Phase)	
	120/240V or 115/230	
	Single Phase 2 Wires	
	240Vac or 230Vac	
FREQUENCY	50 Hz or 60 Hz (Same frequency as input)	
CURRENT	52A @ 240Vac or 230 Vac - 1Ph	104A @ 240Vac or 230Vac - 1Ph
LOAD POWER FACTOR	Any	
LOAD REGULATION	< 1%	
VOLTAGE REGULATION	<u>Seamless switching on 5 steps</u>	
	<u>Automatic regulation of both Higher and Lower Voltage than the nominal.</u>	
	Max Voltage Deviation : -5% +5 % in the range 180-265 Vac	
	Automatic switch Off in case of not controllable Under-Over Voltages	
BYPASS SYSTEM	Manual switch for bypassing electronic control in case of fault.	
HARMONICS DISTORTION	No Distortion	
PROTECTIONS	Overvoltage, Undervoltage, Underfrequency, Overload, Short circuit.	
EFFICIENCY AT FULL LOAD	Overttemperature	
	> 96 %	
ENVIROMENTAL		
TEMPERATURE RANGE	0-50 °C	
RELATIVE HUMIDITY	0-95 % not condensing	
IP GRADE	IP 22	
COOLING SYSTEM	Forced ventilation	
MECHANICAL		
DIMENSIONS (mm)	H=440 ,W= 350 , D=400	H=470 ,W= 430 , D=430
WEIGHT (Kg)	60Kg	90Kg
USER INTERFACE		
INTERFACE TO USER	Status LEDs	
	Status OK, Bypass, Over temp, Overload, Under/Over Voltage ,Boosting step,	
	Fault Power Unit, Fault Control Board.	
AVAILABLE READINGS	Optional Remote programmable Display Board with Electrical parameter reading	
COMMUNICATION INTERFACE	Modbus 485 Wired , 2 x Dry Contacts for remote alarms , (OPT) Bluetooth	
DIAGNOSTIC SYSTEM	YES , Accessible through Radio Communication	
AUTO-RESTART	YES in case of dock black out.	



WE ARE READY TO WELCOME YOU

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Thank you for your kind attention