



ANG POWER SYSTEMS

ABOUT ANG



We specialize in shore power converters, isolation boost transformers, automatic voltage regulators & stabilizers, transformers, high quality marine adapters, marine power cables, top of the market connectors, plugs, receptacles, inlets.

ANG Shore Power Converters are manufactured by a consolidated Italian group composed by historical brands operating in the electronic, military, naval, rail, electromechanical and automotive sectors.

We offer innovative and reliable solutions for the sectors for which it operates. European leader in the electronic market, it is able to carry analysis, production and supply of many power systems.

We are a company looking towards the future, supplying high quality products through a qualified staff, technological know-how, and productive and organizational skills.

Our technical staff is extremely qualified, being able to provide optimal solutions to satisfy our customers.

All A.N.G. products are developed by expert technicians and engineers to fulfill the highest accuracy and reliability standards. Our technical staff is always available for free consultation and free inspection to recommend the best solution.

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FROM 6 KW TO 500 KW

ANG SHORE POWER CONVERTERSTM allow your boat to plug in at any dock all over the world, regardless of the frequency, the voltage and the form provided by the Marina.



ANG SHORE POWER CONVERTERS™ accept any frequency from 40 Hz to 440 Hz, any voltage from 110V to 520V, any input Form Single and/or Three Phase (European and American standards) and they convert to the voltage, phase and frequency needed for your boat.

All our converters are universal, accept any input power and provide the selected output for the user. They are able to convert frequency, voltage and phase at the same time.

THE LIGHTEST & SMALLEST ON THE MARKET.

ANG Shore Power Converters carry over 30 years of experience in marine electrical conversion and are able to supply the correct power when connected to the most common dockside voltages: from 110V to 520V Auto-Ranging, Single and/or Three Phase.

ANG allows global sailors to be sure that their electrical voltage and frequency requirements will be fulfilled worldwide.

The dimensions and the technical specifications of the converters can also be customizable to the customer needs.

ALLOW YOUR BOAT TO PLUG-IN AT ANY DOCK IN THE WORLD









APPLICATIONS & MAIN FEATURES

ANG Shore Power Converters accept any frequency from 40 Hz to 440 Hz, any voltage from 110V to 520V, any input Form Single and/or Three Phase (European and American standards) and they convert to the voltage, phase and frequency needed for your boat.

ANG Shore Power Converters carry over 30 years of experience in marine electrical conversion and are able to supply the correct power when connected to the most common dockside voltages: from 110V to 520V Auto-Ranging, Single and/or Three Phase.

ANG Shore Power Converters have the Auto-Ranging Multi-Voltage Input System and the Single&Three-Phase Input Form System.

All the ANG Three-Phase Converters allow the boat to be connected to Single-Phase or Three-Phase thought the same shore power cord.

The power can be supplied even if the Form (Phase) requested for the boat is not available. This is a unique feature that only ANG converters are able to provide.

The power of the ANG Shore Power Converters is expressed in kW, not in kVA (Cos-Phi 0.8). For example: 10KW at Cos-Phi 0.8 equal 12KVA or 10KVA at Cos-Phi 0.8 equal 8.4 KW.

This feature ensures that the power declared is real.

ANG Shore Power Converters are provided with single or dual input, forced cooling System and weather sealed electronic system.

Moreover, all models are equipped with: isolation transformers, data display, input and output metering, aluminum construction (antirust), auto-restart, Tropicalization Circuits, over temperature, overload and over-voltage protections.

The output power of ANG Shore Power Converters has a superior quality than the shore voltage supply since they ensure a pure sinusoidal wave. All models operate at a nominal voltage with \pm 10% tolerance.

LOW OPERATIONAL TEMPERATURE

All of our converters have a forced cooling system keeping low operational temperature. You'll never need any additional cooling system.

All ANG Shore Power Converters are manufactured with very reliable technology and top quality components. They are designed to give our customers the most efficient and reliable Shore Power Converter.

ANG Power Converters Main Features

- AUTO-RANGING / MULTI-VOLTAGE INPUT SYSTEM
- ISOLATION TRANFORMER INTEGRATED
- SINGLE OR DUAL CORD
- NOISELESS
- LOW OPERATIONAL THEMPERATURE
- EASY AND LOW COST INSTALLATION
- REUSABLE & REINSTALLABLE
- AUTO-RESTART
- PROTECTION FROM OVERLOAD, OVER TEMPERATURE AND OVER VOLTAGE
- WEATHER SEALED ELECTRONIC SYSTEM
- ALUMINUM CONSTRUCTION | ANTIRUST
- DATA DISPLAY
- INPUT AND OUTPUT METERING

- SOLID AND SECURE
- RELIABLE & DURABLE
- THE LIGHTEST AND SMALLEST ON THE MARKET
- TOP QUALITY COMPONENTS
- LOW COST
- WIDE RANGE FREQUENCY AND VOLTAGE INPUT
- DEGREE OF PROTECTION: IP21
- COMPACT

OPTIONALS

- DIMENSIONS AND SIZE OF THE CONVERTER ADAPTABLE TO CUSTOMER NEED
- COMMUNICATION SYSTEM: RS 232 OR ETHERNET REMOTE TOUCH PANEL
- DEGREE OF PROTECTION IP54 FOR OUTDOOR INSTALLATION

SINGLE PHASE CONVERTERS TECHNICAL SPECIFICATIONS

SPC Single Phase	SPC 6	SPC 10	SPC 12.5	SPC 15	SPC 18	SPC 20 modular	SPC 25 modular	SPC 30 modular
Power (Kw)	6 Kw	10 Kw	12.5 Kw	15 Kw	18 Kw	20 Kw	25 Kw	30 Kw
Power at Cos-Phi 0.8	7.2 Kva	12 Kva	15 Kva	18 Kva	21.6 Kva	24 Kva	30 Kva	36 Kva
Input Voltage (Vac)	90v - 270V	190v - 270V	190v - 270V	190v - 270V	190v - 270V	190v - 270V	190v - 270V	190v - 270V
Auto Ranging	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Input Connection (Single or Dual Cord)	1x50 Amp	1x50 Amp	1x50 Amp	1x50 or 1x100 Amp (3wires)	1x100 Amp (3wires)	1x100 Amp (3wires)	1x100 Amp (3wires)	2x50 or 1x100 Amp (3wires)
Output Connection	1x50 Amp	1x50 Amp	1x50 Amp	2x50 or 1x100Amp	2x50 or 1x100Amp	2x50 or 1x100Amp	2x50 or 1x100Amp	2x50 or 1x100Amp
Input Frequency (Hz)	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz
Output Voltage EU	216-236 V (+/- 10%)	216-236 V (+/- 10%)	216-236 V (+/- 10%)	216-236 V (+/- 10%)	216-236 V (+/- 10%)	216-236 V (+/- 10%)	216-236 V (+/- 10%)	216-236 V (+/- 10%)
Output Voltage US	120V or 120/240V+N+G	120/240V+N+G	120/240V+N+G	120/240V+N+G	120/240V+N+G	120/240V+N+G	120/240V+N+G	120/240V+N+G
Auto-Settings	YES	YES	YES	YES	YES	YES	YES	YES
Output Current (Amp)	52/26 Amp	43 Amp	54 Amp	63 Amp	78 Amp	87 Amp	108 Amp	130 Amp
Output Frequency (Hz)	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz
Efficiency at Full Load	92%	92%	92%	92%	92%	92%	92%	92%
Output power Guaranteed	100%	100%	100%	100%	100%	100%	100%	100%
Wave Form Sinusoidal (THD in linear load)	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%
Operation Temperature	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C
Humidity Not Condensed	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%
Noise Level (Dba)	45	45	45	45	45	45	45	50
Display Data and Alarms	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40
Isolation Transformer	YES	YES	YES	YES	YES	YES	YES	YES
Electronics Protection	YES	YES	YES	YES	YES	YES	YES	YES
Autorestart	YES	YES	YES	YES	YES	YES	YES	YES
Tropicalization Circuits	YES	YES	YES	YES	YES	YES	YES	YES
Cooling	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED
Communication	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet
Degree of Protection	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21
Approx. Weight (lbs/kg)	180 lbs/80 kg	187 lbs/85 kg	209 lbs/95kg	242 lbs/110 kg	275 lbs/125 kg	341 lbs/155 kg	407 lbs/185 kg	436 lbs/198 kg
Dimensions (cm) W x L x H	42 x 53 x 45	42 x 46 x 45	42 x 46 x 60	42 x 46 x 60	42 x 53 x 60	42 x 46 x 60 42 x 46 x 45	42 x 46 x 60 42 x 46 x 45	42 x 53 x 84 42 x 53 x 60
Dimensions (Inch) W x L x H	16.5 x 21 x 18	16.5 x 18 x 18	16.5 x 18 x 23.5	16.5 x 18 x 23.5	16.5 x 21 x 23.5	16.5 x 18 x 23.5 16.5 x 18 x 18	16.5 x 18 x 23.5 16.5 x 18 x 18	16.5 x 21 x 33 16.5 x 21 x 23.5
Weather Sealed Electronic Sys.	YES	YES	YES	YES	YES	YES	YES	YES



THREE PHASE CONVERTERS TECHNICAL SPECIFICATIONS

SPCT Three Phase	SPCT 30 modular	SPCT 37 modular	SPCT 40 modular	SPCT 45 modular	SPCT 50 modular	SPCT 60 modular	SPCT 75 modular	SPCT 80 modular	SPCT 90 modular	SPCT 100 modular
Power (Kw)	30 Kw	37 Kw	40 Kw	45 Kw	50 Kw	60 Kw	75 Kw	80 Kw	90 Kw	100 Kw
Power at Cos-Phi 0.8	36 Kva	44.4 Kva	48 Kva	54 Kva	60 Kva	72 Kva	90 Kva	96 Kva	108 Kva	120 Kva
Input Voltage (Vac)	190v - 520V	190v - 520V	190v - 520V	190v - 520V	190v - 520V	190v - 520V	190v - 520V	190v - 520V	190v - 520V	190v - 520V
Auto Ranging	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Input Connection	Single Cord	Single Cord	Single Cord	Single Cord	Single Cord	Single or Dual Cord	Single or Dual Cord	Single or Dual Cord	Single or Dual Cord	Single or Dual Cord
Input Frequency (Hz)	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz	45-440 Hz
Output Voltage (Vac)	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac	Single or Three Phase 190-520 Vac
Auto-Settings	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Output Current (Amp)	1x125 Amp single phase or 3x24A @380V or 3x84A @208V	1x150 Amp single phase or 3x52A @380V or 3x102A @208V	1x163 Amp single phase or 3x58A @380V or 3x116A @208V	1x185 Amp single phase or 3x65A @380V or 3x130A @208V	3x72A @380V or 3x140A @208V	3x86A @380V or 3x175A @208V	3x108A @380V or 3x210A @208V	3x115A @380V or 3x230A @208V	3x130A @380V or 3x250A @208V	3x144A @380V or 3x285A @208V
Output Frequency (Hz)	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz
Efficiency at Full Load	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%
Output power Guaranteed	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Wave Form Sinusoidal (THD in linear load)	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%
Operation Temperature	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C
Humidity Not Condensed	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%	0-95%
Noise Level (Dba)	45	45	50	50	50	55	55	55	55	55
Display Data and Alarms	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40	LED and LCD 4x40
Isolation Transformer	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Electronics Protection	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Autorestart	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Tropicalization Circuits	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cooling	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED	FORCED
Optional Communication	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet	RS 232 / Ethernet
Degree of Protection	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21
Approx. Total Weight (lbs/kg)	551 lbs/250 kg	601 lbs/273 kg	656 lbs/298 kg	705 lbs/320 kg	837 lbs/380 kg	1091 lbs/495 kg	1203 lbs/546 kg	1313 lbs/596 kg	1410 lbs/640 kg	1675 lbs/760 kg
Electronic Module Dimensions cm: W x L x H	42 × 53 × 84	42 × 53 × 84	42 × 53 × 84	42 x 53 x 105	42 x 53 x 105	Master 42 x 53 x 84 Slave 42 x 53 x 84	Master 42 x 53 x 84 Slave 42 x 53 x 84	Master 42 x 53 x 84 Slave 42 x 53 x 84	Master 42 x 53 x 105 Slave 42 x 53 x 105	Master 42 x 53 x 105 Slave 42 x 53 x 105
Electronic Module Dim . Inches: W x L x H	16.5 x 21 x 33	16.5 x 21 x 33	16.5 x 21 x 33	16.5 x 21 x 41.3	16.5 x 21 x 41.3	Master 16.5 x 21 x 33 Slave 16.5 x 21 x 33	Master 16.5 x 21 x 33 Slave 16.5 x 21 x 33	Master 16.5 x 21 x 33 Slave 16.5 x 21 x 33	Master 16.5 x 21 x 41.3 Slave 16.5 x 21 x 41.3	Master 16.5 x 21 x 41.3 Slave 16.5 x 21 x 41.3
Input Module Dimensions cm: W x L x H	42 x 53 x 60	42 x 53 x 60	42 x 53 x 60	42 x 53 x 60	42 x 60 x 66	2x input transformers modules 42 x 53 x 60	2x input transformers modules 42 x 53 x 60	2x input transformers modules 42 x 53 x 60	2x input transformers modules 42 x 53 x 60	2x input transformers modules 42 x 53 x 66
Input Module Dim. Inches: W x L x H	16.5 x 21 x 23.6	16.5 x 21 x 23.6	16.5 x 21 x 23.6	16.6 x 21 x 23.6	16.5 x 23.6 x 26	2x input transformers modules 16.5 x 21 x 23.6	2x input transformers modules 16.5 x 21 x 23.6	2x input transformers modules 16.5 x 21 x 23.6	2x input transformers modules 16.5 x 21 x 23.6	2x input transformers modules 16.5 x 23.6 x 26
Weather Sealed Electronic Sys.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

ANG OUTLETS POWER CONVERTERS

SECONDARY CONVERTERS FOR ONBOARD WALL OUTLETS

Specifically designed for satisfy the power conversion needs of the boat interior wall outlets. They are available in a wide range of power and in single and three phase versions.







FROM 3 TO 10KW

FROM 3 TO 10KW

7.2 & 12.5KW

INPUT 240V 60HZ 1PH

OUTPUT 230V 50HZ 1PH

INPUT 230V 50HZ 1PH

OUTPUT 2120V 60HZ 1PH

INPUT 380V 50HZ 3PH

OUTPUT 120V 60HZ 1PH







ANG OUTLETS SHORE POWER CONVERTERS

SINGLE PHASE OUTLET CONVERTERS TECHNICAL SPECIFICATIONS

OSPC Single Phase	OSPC 3	OSPC 5	OSPC 7.5	OSPC 8.5	OSPC 10
Power (Kw)	3 Kw	5 Kw	7.5 Kw	8.5 Kw	10 Kw
Power at Cos-Phi 0.8	3.6 Kva	6 Kva	9 Kva	10.2 Kva	12 Kva
Input Voltage (Vac)	230v - 240V	230v - 240V	230v - 240V	230v - 240V	230v - 240V
Auto Ranging	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Input Connection	Single cord	Single cord	Single cord	Single cord	Single cord
Output Connection	Single cord	Single cord	Single cord	Single cord	Single cord
Input Frequency (Hz)	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Output Voltage EU	230V	230V	230V	230V	230V
Output Voltage US	120 or 240V	120 or 240V	120 or 240V	120 or 240V	120 or 240V
Auto-Settings	YES	YES	YES	YES	YES
Output Current (Amp)	13/26 Amp	22/44 Amp	34/68 Amp	37.5/75 Amp	44/88 Amp
Output Frequency (Hz)	50 or 60 Hz	50 or 60 Hz	50 or 60 Hz	50 or 60 Hz	50 or 60 Hz
Efficiency at Full Load	92%	92%	92%	92%	92%
Output power Guaranteed	100%	100%	100%	100%	100%
Wave Form Sinusoidal (THD in linear load)	< 1%	< 1%	< 1%	< 1%	< 1%
Operation Temperature	0-50°	0-50°	0-50°	0-50°	0-50°
Humidity Not Condensed	0-95%	0-95%	0-95%	0-95%	0-95%
Noise Level (Dba)	20	20	20	20	20
Display Data and Alarms	LED	LED	LED	LED	LED
Auto Transformer	YES	YES	YES	YES	YES
Electronics Protection	YES	YES	YES	YES	YES
Autorestart	YES	YES	YES	YES	YES
Tropicalization Circuits	YES	YES	YES	YES	YES
Cooling	FORCED	FORCED	FORCED	FORCED	FORCED
Degree of Protection	IP 21	IP 21	IP 21	IP 21	IP 21
Approx. Weight (lbs/kg)	41.8 lbs/19 kg	52 lbs/24 kg	79 lbs/36 kg	90 lbs/41 kg	108 lbs/49 kg
Modules (Electronic and Transformer)	Single module	Single module	Single module	Single module	Single module
Dimensions (mm) L x h x W	530 x 18 x 440	530 x 22 x 440	530 x 260 x 440	530 x 260 x 440	530 x 260 x 440
Dimensions (Inch) L x h x W	21 x 7 x 17.3	21 x 8.6 x 17.3	21 x 10.2 x 17.3	21 x 10.2 x 17.3	21 x 10.2 x 17.3

ANG OUTDOOR SHORE POWER CONVERTERS

25kW 100A SINGLE PHASE with Fiberglass enclosure IP56

The Outdoor Shore Power Converter 25 kw can be installed at the dock to supply power to yachts that are not compatible with the local dockside power.

It can supply one boat with 100A or two boats with 50A each at the same time.

It is equipped with wheels to be easily moved from dock to dock and can be loaded with a fork lift or a crane. Silent, compact and light weight, it is suitable for various installations for boat owners, marina, boat builders and yards to have an easy and full power conversion for any single phase boat.

The Outdoor Shore Power Converter 25 kw accepts any voltage from 190V to 260V 50-60Hz and will always supply the power selected for the boat: 50Hz or 60Hz.

Fully automatic, ready to plug in without any additional wiring.

It comes in a fiberglass enclosure for outdoor IP56 with display panel, one 100A inlet, one 100A and two 50A outlets.

All outlets are IP67 UL CE and have protection breakers.

ANG OUTDOOR SHORE POWER CONVERTER has protections from short circuit, under voltage, over voltage, over current, over temperature, and auto-restart.







Tech	nnical Sheet
Power	25 Kw
Power at Cos-phi 0.8	30 Kva
Auto Setting	YES
Input Frequency	45/440Hz
Output Frequency	50-60Hz
Input voltage	190V /260V
Input Form	Single Phase
Input Connection	inlet 100A 125/250V IP67 UL/CE
Current	100A
Output Voltage	US 120/240 +N EU: 230 V
Output form	Single Phase
Output Connections	Outlet 100A 125/250V or 2 outlet 50A 125/250V (IP 67 UL CE)
Output Current	100A or two 50A
Input breaker	YES
SLP Surge protection	YES
Fully protected	YES
Isolation transformer	YES
Output Breakers	YES
Protection	Overload, over voltage, over temperature
Auto-restart	YES
Cooling	Forced
Cooling fans cover	YES
Wheels	YES
Display Data and Alarms	Led and LCD 4 x 40
Degree of protection	IP 56
Enclosure	Fiberglass
Color	off white or custom made
Efficiency at full load	92%
Output Power Guarantee	100%
Wave Form Sinusoidal	<2%
Operation Temperature	0-50°C
Humidity not condensed	0-95%
Noise Level (dba)	50
Weather sealed electronic system	YES
Dimensions	31.4x17.7x31.4 in. 80x45x80 cm
Approx weight	397 lbs 180 Kg

ANG OUTDOOR SHORE POWER CONVERTERS

Technico	al Sheet
Power	25Kw 30Kw 37Kw45Kw and 50Kw
Auto Setting	YES
Input Frequency	45/440Hz
Output Frequency	50-60Hz
Input voltage	190V /520V auto ranging
Input Form	Single & Three Phase
Output Voltage	190/520V
Output form	Single or Three Phase
Input Connections	Inlet (IP 67 UL CE)
Output Connections	Outlet (IP 67 UL CE)
Input breaker	YES
Output breaker	YES
SLP Surge protection	YES
Isolation transformer	YES
Protection	Overload, over voltage, over temperature
Auto-restart	YES
Cooling	Forced
Cooling fans cover	YES
Wheels	YES
Display Data and Alarms	Led and LCD 4 x 40
Degree of protection	IP 56
Enclosure	Fiberglass
Color	off white or custom made
Efficiency at full load	92%
Output Power Guarantee	100%
Wave Form Sinusoidal	<2%
Operation Temperature	0-50°C
Humidity not condensed	0-95%
Noise Level (dba)	50
Weather sealed electronic system	YES

THREE PHASE model with Fiberglass enclosure IP56

- Outdoor IP56 Fiberglass Enclosure
- Available in 25Kw 30Kw 37Kw 45Kw and 50Kw



The perfect replacement for your old "Charles Marine" Isolation Boosting Transformer





ANG ISO-BOOST™ has the static system with Seamless technology, the soft start, auto-restart and by-pass systems as standard features, while for the Charles Iso-Boost these were all optional.

Moreover, **ANG ISO-BOOST™** transformer is lighter than the Charles Iso-Boost and is available in seven (7) models, all equipped with Toroidal Transformer, the new generation and the best quality transformer on the market.

In addition, **ANG ISO-BOOST**TM has three steps (two steps up 15% and 7.5%) while Charles Iso-Boost only had two steps (one step up 15%); the **ANG ISO-BOOST**TM steps are adjustable, a feature not available for Charles isolation transformer.

It combines an Isolation Transformer with a Boost Voltage Increase Circuit in order to provide the automatic rise of line voltage and the complete safety to your boat.

Our Marine Isolation Boost Transformers (IsoBoost) provide the correct voltage to the onboard equipment as well as preventing turning off in the event of a sudden voltage drop or damage in case of excessive increase (within a given range).

Our Marine Iso-Boost Transformers ensure the protection of all the marine electrical equipment.

The output voltage is boosted if the supplied voltage is too low.

COMPETITORS COMPARISON CHART

FEATURES	ANG ISO.BOOST™	ANG ISO.BOOST™ CHARLES ISO-BOOST	
Frequency Range	50Hz and 60Hz	60Hz	60Hz
Boosting Steps	Three (3) Steps	Two (2) Steps	Two (2) Steps
Transformer	Toroidal	Traditional	Traditional
Transformer Efficiency	100% at any step	100% only at 240V	100% only at 240V
Soft Start	YES (Integrated)	Optional	Optional
Auto restart	YES (Integrated)	Optional	No after High voltage
By-Pass	YES (Integrated)	Optional	No
Electronic Switching	Seamless System (no blackout during the switching)	Mechanical Contactors	Mechanical Contactors (15 sec blackout during switching)
High Voltage Protection	Protection engage at 258V		Protection engage at 270V
Weight	Lighter	Heavier	Lighter
Models Available	Models Available 7		2

MAIN FEATURES

ANG ISO-BOOST™ is FULLY AUTOMATIC.

ANG ISO-BOOST™ is CE and ISO 9001 certified, it is manufactured with UL CERTIFIED components and complies with ABYC E-11 Standards.

SEAMLESS SYSTEM: **ANG ISO-BOOSTTM** is provided with SEAMLESS transfer system in order to avoid power interruption during the switching. The system automatically chooses the optimal point of switching without loss of power.

OVERLOAD ENDURANCE: **ANG ISO-BOOST™** is designed to withstand 30% overload for at least one hour.

ELECTRICAL PROTECTION: **ANG ISO-BOOST™** is provided with a protective shield. The shore grounding conductor is connected to a shield between primary (shore) and secondary (boat) transformer windings. This shield assures isolation on the boat for electrical protection.

BY-PASS SYSTEM: **ANG ISO-BOOSTTM** is provided with manual By-Pass system that allow to manually disconnect the Boost mode in case of breakdown and supply power from the shore. The by-pass system guarantees the isolation protection on the boat.

SOFT START SYSTEM: **ANG ISO-BOOSTTM** is provided with Soft Start System that assures the minimal current in-rush during the power up of the system.

FULL OUTPUT POWER GUARANTEED: **ANG ISO-BOOST™** ensures full output power even in boost mode. The output voltage is always stable.

AUTOMATIC THERMAL PROTECTION: **ANG ISO-BOOSTTM** is provided with a thermal protection that automatically shuts down the system until the temperature returns to a normal level. The unit will automatically restart when the temperature returns to a safe operating level.

AUTO-RESTART: **ANG ISO-BOOST™** automatically restart after high voltage, low voltage, blackout, and overload. **ANG ISO-BOOST™** is equipped with very low peak transformers.

The **ANG ISO-BOOST™** is provided with cooling fan system.

STATIC SYSTEM: the static switch doesn't need any maintenance, the only required maintenance is the filter cleaning.

ANG ISO-BOOST™ increases the output voltage in three steps up: 15% (1st step) and 7.5% (2nd step), and +6Vac (3rd step, non boost mode).

1st Step: from 178V to 209V + 15% 2nd Step: from 210V to 227V + 7.5%

3rd Step: from 228V to 255V + 6Vac, non-Boost Mode (Shore Supply)

We can customize the 3 steps based on the clients needs, by contacting our dedicated support.

ANG ISO-BOOST™ EUROPEAN VERSION

9 Kva and 18 Kva these ANG Iso-Boost has the same features of the US version, but suitable for European boats.

Aluminum Construction, Antirust.



ANG ISO-BOOST 2x25kW installed on a Sanlorenzo Yachts SX88

FUNCTIONING

ANG ISO-BOOST™ covers a wide voltage range gradually increasing the output voltage.

ANG ISO-BOOST™ is designed to power the boat from a nominal voltage of 120/240 V with three operating thresholds:

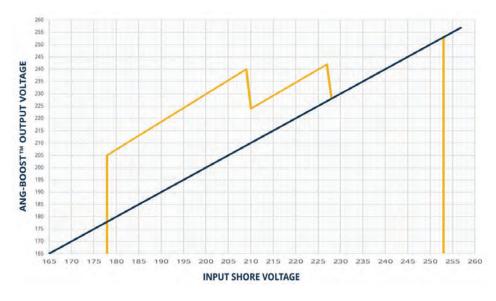
Shore Voltage from 178 to 209 V (+/- 3V): output voltage from 210 to 240 V (+/- 3V)

Shore Voltage from 210 to 227 V (+/- 3V): output voltage from 224 to 242 V (+/- 3V)

Shore Voltage from 228 to 253 V (+/- 3V): output voltage from 228 to 253 V (+/- 3V)

If the input voltage is less than 178V or higher than 253V, the output is deactivated.

ANG ISO-BOOST™ guarantees the maximum output current even in boost mode.



This chart shows the output voltage curve secured by ANG-BOOST $^{\text{TM}}$ compared to the Shore Voltage.

DISPLAY/LED INDICATOR PANEL

ANG ISO-BOOST™ provides the LED/Display Control Panel that indicates the operating status of the equipment.

The LED lights indicate the operating status of the ANG ISO-BOOST™



OVER TEMPERATURE: **RED LED LIGHT** - Thermal protection automatically shuts down the system until the temperature returns to a safe operating level.

LOW VOLTAGE: SOLID RED LED LIGHT Shore input Voltage below 178VAC, the system shuts down to protect the boat's electrical system.

HIGH VOLTAGE: FLASHING RED LED LIGHT - Shore Input Voltage over 253VAC, the system shuts down to protect the boat's electrical system.

BY-PASS: RED LED LIGHT - Manual By-Pass ON, NON-Boost Mode, Boat Voltage equals Shore Voltage, Isolation Transformer ON.

POWER: GREEN LED LIGHT — Non-Boost mode, Boat Voltage equals Shore Voltage.

BOOST 7.5%: YELLOW LED LIGHT — Boost Mode ON.

BOOST 15%: YELLOW LED LIGHT - Boost Mode ON.

The display panel shows a rotation of a series of information every 5 seconds:

1st screen V LINE (Input Voltage) & POWER = KW

2nd screen CURRENT (Input AMP) & FREQUENCY (Input/output frequency)

3rd screen OUTPUT (output Voltage Rms)

TECHNICAL SPECIFICATIONS

ANG Boost	12.5 kVa	15 kVa	18 kVa	20 kVa	25 kVa	30 kVa
Input Current (A)	52	62.5	74.8	83.2	104	125
Input Voltage (Vac)	from 178V to 255V	from 178V to 255V	from 178V to 255V			
Boost Voltage Correction	+15%,+7.5% + 6V	+15%,+7.5% + 6V	+15%,+7.5% +6V	+ 15%,+7.5%, +6V	+15%, +7.5%, +6V	+15%, +7.5%, +6V
Operating Frequency (Hz)	50-60	50-60	50-60	50-60	50-60	50-60
Output Voltage nominal (Vac)	120 240	120 240	120 240	120 240	120 240	120 240
Output Current Boost Mode (A) 15%	44	53	64	71	89	106
Output Current No Boost (A)	50.5	60.6	73	82	100	121
Input Connection (Terminal Block)	L1A+L2A+SH (GND)	L1A+L2A+SH (GND)	L1A+L2A+SH (GND)	L1A+L2A+SH (GND)	L1A+L2A+SH (GND)	L1A+L2A+SH (GND)
Output Connection (Terminal Block)	L1B+L2B+N+GND	L1B+L2B+N+GND	L1B+L2B+N+GND	L1B+L2B+N+GND	L1B+L2B+N+GND	L1B+L2B+N+GND
kVA Continuous	12.1	14.5	17.5	19.3	24	29
Automatic Thermal Protection	110 °C	110 °C	110 °C	110 °C	110 °C	110 °C
Operation Temperature (°C)	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C
Noise Level (Dba)	40	40	40	40	45	45
Degree of Protection	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21
Seamless Technology	YES	YES	YES	YES	YES	YES
Soft Start	YES	YES	YES	YES	YES	YES
Manual by-pass	YES	YES	YES	YES	YES	YES
Alarms: Over Temperature Over Voltage/Low Voltage	YES	YES	YES	YES	YES	YES
Display Data and Alarm 6 x 16	YES	YES	YES	YES	YES	YES
Aluminium enclosure/Antirust	YES	YES	YES	YES	YES	YES
Cooling	Forced	Forced	Forced	Forced	Forced	Forced
Approximate Weight (lbs/kg)	160 lbs 72 kg	187 lbs 85 kg	209 lbs 95 kg	242.5 lbs 110 kg	322 lbs 146 kg	353 lbs 160 kg
Length (inches/cm)	18 in 46 cm	18 in 46 cm	18 in 46 cm			
Width (inches/cm)	14 in 36 cm	16.5 in 42 cm	16.5 in 42 cm	16.5 in 42 cm	16.5 in 42 cm	16.5 in 42 cm
Height (inches/cm)	14 in 36 cm	17.5 in 45 cm	17.5 in 45 cm	17.5 in 45 cm	23.6 in 60 cm	23.6 in 60 cm
Auto Restart	YES	YES	YES	YES	YES	YES
Isolation Transformer	YES	YES	YES	YES	YES	YES
Isolation Transformer Class	Н	Н	Н	Н	Н	Н
Low Peak Transformer	YES	YES	YES	YES	YES	YES
Low Peak Transformer	YES	YES	YES	YES	YES	YES
Paralleling	Optional	Optional	Optional	Optional	Optional	Optional

ANG-DOCK VOLTAGE REGULATOR & STABILIZER

OUTDOOR VERSION IP56 PROVIDES VOLTAGE REGULATION AND ELECTRICAL ISOLATION FROM THE SHORE







The ANG Voltage Regulator & Stabilizer is designed to ensure a stable onboard power supply while protecting the boat from any fluctuating voltage coming from the dock pedestal.

• It is fully automatic and protects the vessel by regulating the voltage onboard. It is able to connect to low voltage, high voltage and always provides stable output power to the vessel.

The ANG Voltage Regulator & Stabilizer can be installed at the dock to prevent any fluctuation in voltage that can cause

- serious damages to the onboard equipment. It protects the boat from very high voltage, low voltage, short circuit.

 It monitors the voltage and automatically regulates the output voltage to the boat. The onboard voltage is always stable (+/- 2V) and in case of a large drop in voltage the system automatically shuts down to protect the boat and it will automatically restart when the power is back in range.
- ANG Voltage Regulator & Stabilizer has protection from short circuit, under voltage, over voltage, overload, over current and over temperature.
- It is equipped with galvanic isolation transformer, plugs, connectors and output breakers.
 Fiber glass enclosure for outdoor IP56 with status indicators (input and output voltage meters).
- Adjustable steel feets;
- Customizable: single phase up to 50 KW & three phase up to 3500 KW.

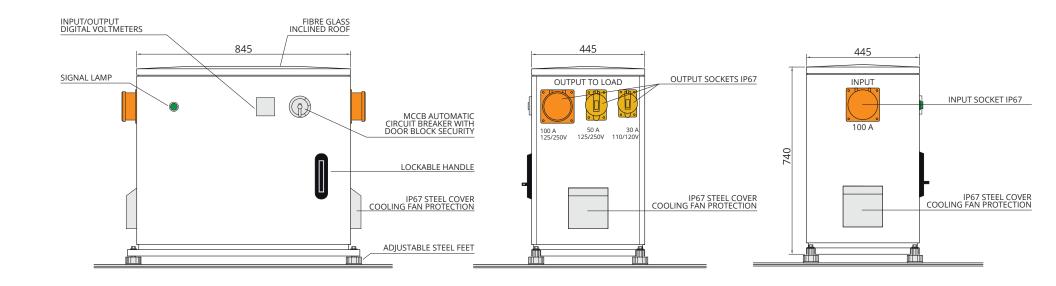




ANG-DOCK VOLTAGE REGULATOR & STABILIZER

TECHNICAL SPECIFICATIONS

Servo-Mechanical Voltage Stabilizer with Static Control						
Admitted Load Variation	300% for 2 min 150% for 10 min					
Correction Speed	70 V/sec.					
Effect of Load power factor	None					
Waveform distortion	None added					
Full load efficiency	Approx. 98%					
Ambient temperature	-noc / +50°C					
Storage temperature	-noc / +50°C					
Relative humidity	95% non-condensing					



ANG VOLTAGE REGULATOR & STABILIZERS

ON-BOARD VERSION - WITH ISOLATION TRANSFORMER



ANG Voltage Regulator & Stabilizer is a voltage regulator combined with an isolation transformer. It protects the boat by regulating the voltage from the dock and preventing voltage fluctuation that may damage the electrical system of the vessel. The unit is fully automatic and always supply stable 240V output to the boat.

ANG Voltage Regulator & Stabilizer protects the boat from high/ low voltage, short circuit. It monitors the voltage and automatically regulates the output voltage to the boat.

The onboard voltage is always stable (+/- 2V) and, in case of a large drop in voltage or surge, the system will automatically shut down to protect the boat and it will automatically restart when the power is back in range.

ANG Voltage Regulator & Stabilizer has protection from short circuit, under voltage, over voltage, overload, over current and over temperature.

Features & Technical Specifications	12.5KW/52AMP & 25KW 104AMP
Input Form	Single Phase
Aluminum Enclosure	YES
Frequency	50-60 Hz
Input Voltage	120/240V +/- 20% (192-288V) EU: 230V +/- 20% (184-276V)
Output Voltage	120/240V + N +/- 1% - EU 230V +/-1%
Input Connection	Terminal Block: 50 Amp (2 Wires+GND)
Output Connection	Terminal Block 50 Amp & 100 Amp 3 Wires+GND
Output Current	50/100Amp - EU 125Amp
Input Automatic Circuit Breaker MCCB	YES
SLP Surge Protection CI.II© IEC61643-1	YES
Fully Protected	YES
Isolation Transformer	YES
Output Breackers	YES
Monitoring relay under/over voltage	YES
Over current protection	YES
Overload Protection	YES
nput sectionalizing switch with door block security	YES
Digital Multimeter IP67 EMM	YES
Signal Lamp	IP56
Cooling	Forced
Tropicalized System	YES
Auto-restart	YES
Stainless Steel adjustable feet	YES
Steel cover for cooling fans (input/output)	YES
Degree of Protection	IP21
Approximate Weight	50/100 Amp: 95/145 kg / 209/319 lbs
Dimensions	50/100Amp: 60x40x60h cm 23.6x15.7x23.6 inch
	•

ANG TRANSFORMERS

Technica	l Sheet
Power	from 25 to 500 Kw
Auto Setting	YES
Input Frequency	60Hz
Output Frequency	60Hz
Auto Ranging Input voltage	120V/208V 127V/220V 255V/440V 277V/480V
Input Form	Three Phase
Output Voltage	120V/208V 127V/220V 255V/440V 277V/480V
Output form	Three Phase
Input Connections	Terminal Block
Output Connections	Terminal Block
SLP Surge protection	YES
Isolation transformer	YES
Protection	Overload, over voltage, over temperature
Auto-restart	YES
Cooling	Forced
Display Data and Alarms	Led and LCD
Degree of protection	IP 23
Enclosure	Aluminum
Efficiency at full load	99%
Output Power Guarantee	100%
Operation Temperature	0-50°C
Humidity not condensed	0-95%
Noise Level (dba)	45db
Weather sealed electronic system	YES

AUTO RANGING THREE PHASE MARINE TRANSFORMERS

50-60Hz

Expressly created for shipowners not needing to change the frequency, but wanting to plug in to any three phase dock, we manufactured a new line of professional auto ranging transformers.

ANG-TRANSFORMERSTM are also available in Single Phase

This system is able to automatically connect at any existing three phase voltage and automatically supply your boat with the needed voltage.

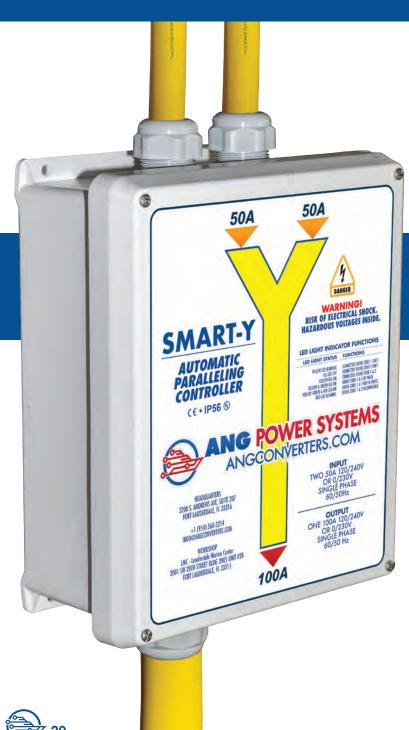
For instance: if your boat is 120/208V three phase, with our auto ranging transformers, you will be able to connect at any marine dockage supply.

Custom size up to 500kW available upon request.





ANG SMART-Y



AUTOMATIC PARALLELING CONTROLLER IP56

ANG-SMART-Y

in fiberglass enclosure IP56 allow to safe connect your 100Amp 120/240V single phase to two 50Amp 120/240V receptacles.

It will automatically check the phase of the two 50A and correct it when necessary to make a safe parallel connection.

INPUT

TWO 50A 120/240V OR 0/230V SINGLE PHASE 60/50Hz

OUTPUT

ONE 100A 120/240V OR 0/230V SINGLE PHASE 60/50 Hz

LED LIGHT INDICATOR FUNCTIONS

LED LIGHT STATUS FUNCTIONS

YELLOW LED BLINKING CONNECTED SHORE CORD 1 ONLY ALL LED OFF CONNECTED SHORE CORD 2 ONLY YELLOW LED ON CONNECTED SHORE CORD 1 & 2 YELLOW & GREEN LED ON SHORE CORD 1 & 2 IN PHASE YELLOW, GREEN & RED LED ON SHORE CORD 1 & 2 NOT IN PHASE RED LED BLINKING SHORE CORD 1 & 2 INCOMPATIBLE

ANG SPLITTER

DOCKSIDE MARINE POWER SPLITTER

ANG-SPLITTER

in fiberglass enclosure IP56 allow to split a 100A connected input cable in two 50A output cables.

INPUT ONE 100A 120/240V OR 0/230V SINGLE PHASE 60/50 Hz

OUTPUT TWO 50A 120/240V OR 0/230V SINGLE PHASE 60/50Hz



Both the ANG Smart-Y and the ANG Splitter are provided with all the necessary Cables, Connectors, and Plugs.



ANG PIGTAIL ADAPTERS

PIGTAIL ADAPTERS

CUSTOM MADE PIGTAIL ADAPTER AVAILABLE UPON REQUEST, FROM 16A TO 125A SINGLE & 3 PHASE

COMMON ADAPTERS

AMERICAN 100A IP67 UL CE						
PLUG - 100A 120/208V - 3 PHASE	CONNECTOR – 100A 125/250V – SINGLE PHASE					
PLUG - 100A 120/208V - 3 PHASE	CONNECTOR - 100A 277/480V - 3 PHASE					
PLUG - 100A 277/480V - 3 PHASE	CONNECTOR - 100A 120/208V - 3 PHASE					
PLUG - 100A 277/480V - 3 PHASE	CONNECTOR – 100A 125/250V – SINGLE PHASE					
PLUG – 100A 125/250V – SINGLE PHASE	CONNECTOR - 100A 120/208V - 3 PHASE					
PLUG – 100A 125/250V – SINGLE PHASE	CONNECTOR - 100A 277/480V - 3 PHASE					

EUROPE IP67 UL CE					
PLUG – 125A 380/415V – 3 PHASE	CONNECTOR - 100A 277/480V - 3 PHASE				
PLUG - 125A 380/415V - 3 PHASE	CONNECTOR - 100A 120/208V - 3 PHASE				
PLUG - 125A 380/415V - 3 PHASE	CONNECTOR - 2x100A 120/208V - 3 PHASE				
PLUG - 125A 380/415V - 3 PHASE	CONNECTOR – 2x63A 120/208V – SINGLE PHASE				
PLUG - 63A 380/415V - 3 PHASE	CONNECTOR - 100A 120/208V - 3 PHASE				
PLUG - 63A 380/415V - 3 PHASE	CONNECTOR - 100A 277/480V - 3 PHASE				





ANG-MARINE SHORE CORD

HIGH QUALITY 100AMP 4 WIRES CABLES & 50A 3 WIRES



- CONVENIENCE & QUALITY
- PRODUCED FOLLOWING OUR MOST STRICT SPECIFICATIONS
- EXCEPTIONALLY MADE IN ITALY ON USA SPECIFICATIONS

ANG-CONNECTORS & PLUGS

ANG EUREKA-HD SERIES

NORTH AMERICA RATINGS 100A









WATERTIGHT - IP67									
Poles & Wires	Configuration			Voltage/					
	Receptacle/ Connector	Plug/Inlet	Clock position	Colour Coding	Plug	Connector	Receptacle	Inlet	
2P 3W		\odot	4h	125	SCM3100P4W	SCM3100C4W	SCM3100R4W	SCM3100B4W	
2P 3W		\odot	6h	250	SCM3100P6W	SCM3100C6W	SCM3100R6W	SCM3100B6W	
2P 3W		③	5h	277	SCM3100P5W	SCM3100C5W	SCM3100R5W	SCM3100B5W	
2P 3W		③	7h	480	SCM3100P7W	SCM3100C7W	SCM3100R7W	SCM3100B7W	
3P 4W		③	12h	125/250	SCM4100P12W	SCM4100C12W	SCM4100R12W	SCM4100B12W	
3P 4W		③	9h	3ø250	SCM4100P9W	SCM4100C9W	SCM4100R9W	SCM4100B9W	
3P 4W		③	6h	380-415	SCM4100P6W	SCM4100C6W	SCM4100R6W	SCM4100B6W	
3P 4W		③	7h	3ø480	SCM4100P7W	SCM4100C7W	SCM4100R7W	SCM4100B7W	
3P 4W		\odot	5h	3ø600	SCM4100P5W	SCM4100C5W	SCM4100R5W	SCM4100B5W	
4P 5W		③	9h	3øY120/208	SCM5100P9W	SCM5100C9W	SCM5100R9W	SCM5100B9W	
4P 5W		③	6h	220/380 240/415	SCM5100P6W	SCM5100C6W	SCM5100R6W	SCM5100B6W	
4P 5W		③	7h	3øY277/480	SCM5100P7W	SCM5100C7W	SCM5100R7W	SCM5100B7W	
4P 5W		③	5h	3øY347/600	SCM5100P5W	SCM5100C5W	SCM5100R5W	SCM5100B5W	

ANG • SERVICE & SUPPORT

SUPPORT & WARRANTY

Our technical staff is always available for a free consultation and a free inspection of your boat, to recommend the ideal Converter size and suggest the easiest, safest, and less expensive installation

SUPPORT, ASSISTANCE & CONSULTING

ANG Marine Products are manufactured to be durable and they allow the replacement of any part in the simplest way.

All spare parts are always available at our headquarters in the US and Europe and can be shipped express worldwide.

Our Staff of engineers and technicians is available for technical support.

The required maintenance is minimal. Our technical staff is always available for a free consultation and a free inspection in your boat in order to recommend the ideal Converter size and suggest the easiest, safest and less expensive installation.

OUR SERVICES	WARRANTY	1 YEAR	
1 • CONSULTING 2 • PROJECTING	SUPPORT CONTACTS		
3 • MAINTENANCE & SUPPORT 4 • TECHNICAL SUPPORT	USA ITALY	+1 (954) 368-3214 +39 335 675 6169	
	info@angcon	onverters.com	

PRODUCT CATALOG DISCLAIMER

The information provided has been gathered and assembled with every effort made to validate accuracy and consistency of the content. However, A.N.G. USA INC does not make any warranty or guarantee as to this information.

If you have any questions about the specifications of any products, please verify with A.N.G. USA INC technicians and or specialists before ordering.

Due to our continuous research and innovation, products design and all specifications are subject to change without notice.



Sales Terms & Conditions are available online on our website: https://angconverters.com

Declaration of Conformity:

All A.N.G. USA Inc. products are in conformity with UNI CEI EN ISO/IEC 17050-1:2005 and UNI CEI EN ISO/IEC 17050-2:2005 standards.

We, A.N.G. USA Inc. 3200 S. Andrews Ave, suite 207 Fort Lauderdale, FL 33316, hereby declare that the product below conforms to the relevant requirements of the appropriate EU directive.

All components are UL CERTIFIED.

Applicable UE Directives:

2006/95/CE (EU Directive on Electrical equipment designed for use within certain voltage limits). 2004/108/CE (EU Directive on Electromagnetic Compatibility).

Harmonized Standards:

CEI EN 55022:2006 Information technology equipment. Radio disturbance characteristics. Limits and methods of measurement.

CEI EN 61000-4-2/A2:2001 Electromagnetic compatibility (EMC). Part 4: Testing and measurement techniques. Section 2: Electrostatic discharge immunity test.

CEI EN 62040-1-1:2003 Uninterruptible power systems (UPS). Part 1-1: General and safety requirements.

CEI EN 62040-1-2:2003 Uninterruptible power systems (UPS). Part 1-2: General and safety requirements.



HEADQUARTERS

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