

# Rectiverter 6 kVA, Marine UPS 1ph MB

The Rectiverter power module combines both AC and DC feed into one common unit. Simultaneously it provides AC backup power for 230 V<sub>AC</sub> or 115 V<sub>AC</sub> loads, and 48 V<sub>DC</sub> power for battery charging.

AC and DC output limits can be set according to the attached load, where the limitation for AC load is set to max 6 kVA with possibility to set recharge values for battery banks up to max 0,6 kW



# Rectiverter 6 kVA, Marine UPS 1ph MB

Up to 6 kVA AC & up to 0,6 kW 48 VDC output for battery charging

Doc CIER0418.DS3 – rev1

## MODULAR ARCHITECTURE

### RECTIVERTER MODULE

The 3 port converter simultaneously provides power for AC loads and battery charging. During mains outage the Rectiverter 48/1200 HE feeds AC loads using energy stored in the battery.

The modular architecture, industry-leading efficiency, compact size, innovative design and comprehensive monitoring and control features provide significant benefits over the current industry standard.



Rectiverter Module

## APPLICATIONS

### MARINE

- Communication onboard ships
- Dynamic positioning
- Propulsion control
- Navigation
- Ship identification
- Drilling systems
- Computer room
- Public address and alarm

### OFFSHORE AND PROCESS INDUSTRY

- Safety and Automation Systems (SAS)

## KEY FEATURES

- 230 OR 115 VAC INPUT/OUTPUT
- DUAL A & B AC FEED
- SINGLE PHASE INPUT/OUTPUT
- MAX 6 KVA AC OUTPUT
- 2 POLE AC DISTRIBUTION
- GROUND FAULT ALARM (RCR)
- BUILT IN MANUAL BYPASS SWITCH
- BUILT IN TRANSFER TECHNOLOGY
- 150% OVERLOAD CAPABILITY, 15S
- 600% QUICK TRIP CURRENT, 20MS
- HOT PLUGGABLE
- SMARTPACK 2 CONTROLLER
- DNV & ABS APPROVAL
- GLOBAL COMPLIANCE
- PATENTED HE TECHNOLOGY

# Rectifier 6kVA Marine UPS

Doc CIER0418.DS3 – rev1

<b>MODEL</b>	6 KVA / 3 KVA
<b>Part number</b>	CIER0418.002/001
<b>INPUT DATA</b>	
Voltage range AC	185-275 / 95-140 V
Voltage range DC	40-58 V
Maximum current AC	29 A
Frequency	47-53 / 57-63 Hz
Power factor	> 0.99
<b>OUTPUT DATA</b>	
Adjustable range AC	200-240 / 100-127 V
Adjustable range DC	43-58 V
Max output power AC	6,0 / 3,0 kVA
Max output power DC	0,6 / 0,3 kW
Power factor	0,8
Frequency	50Hz, 60 Hz
<b>OTHER SPECIFICATIONS</b>	
Manual bypass switch	63 A
Dual single phase input	A and B feed
AC Distribution, 2 pole breaker	12pc 6A C char.
Battery breaker, 2 pole	125 A ( Remote trip)
Ground fault alarm	RCR

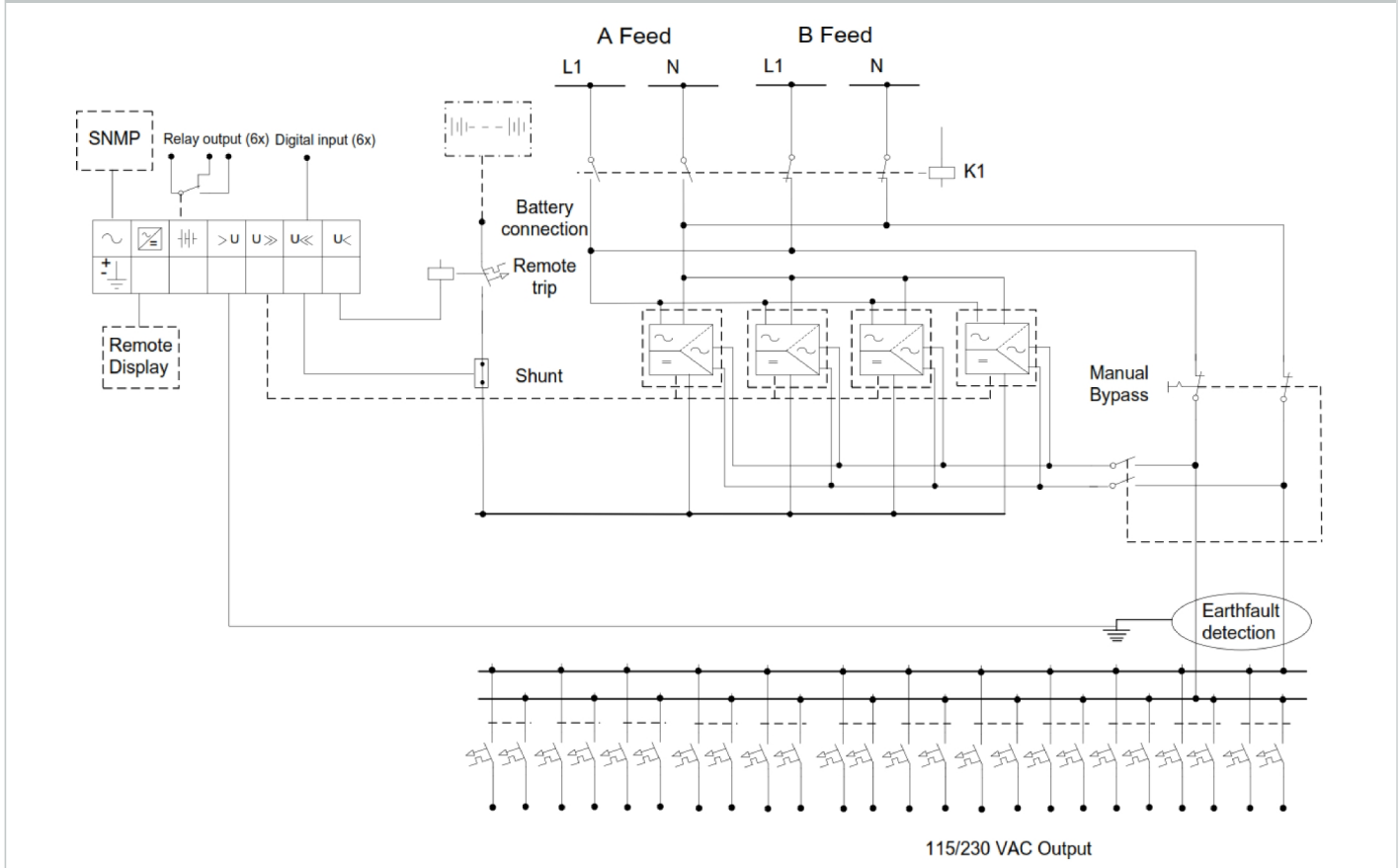
## FRONT VIEW WITHOUT DOOR



Rectifier 6 kVA single phase marine UPS without door

Specifications are subject to change without notice

## SINGLE LINE



# Rectifierter 6kVA Marine UPS

Doc CIER0418.DS3 – rev1

Models / ordering information	6 KVA, 230 V	3KVA, 115 V
Part number	CIER0418.002	CIER0418.001
<b>AC OUTPUT DATA</b>		
Voltage (default) / (adjustable range) <sup>1)</sup>	230 V <sub>AC</sub> / 200 - 240 V <sub>AC</sub>	115 V <sub>AC</sub> / 100 - 127 V <sub>AC</sub>
Frequency (default inverter mode)	50Hz, 60Hz or last synced 50/60Hz (adaptive)	
Frequency (set-able inverter mode)	50Hz, 60Hz or last synced 50/60Hz (adaptive)	
Power maximum (continuous / overload (<15s) )	4800 W (6000 VA) / 8000 VA	2400 W (3000VA) / 4000 VA
Current maximum (continuous / overload (<15s) )	26A <sub>RMS</sub> / 34,8A <sub>RMS</sub>	
Current (maximum) Quick trip (20ms)	120A (6 x nominal)	
Hold up (Voltage dips) (before switching to battery)	> 5 ms @ 4800W load	> 5 ms @ 2400W load
THD	< 1.5 % at resistive load	
Output features	Fuse in L and N, Hot pluggable AC Distribution: 12x6 A, C characteristics 2 pole breaker Ground fault alarm relay on AC output (Residual Current Relay)	
<b>DC OUTPUT FOR BATTERY CHARGING</b>		
Voltage (default) / (adjustable range)	53.5 V <sub>DC</sub> / 43 - 58 V <sub>DC</sub>	
Power (maximum @nominal input)	600 W	300 W
Current (maximum @V <sub>OUT</sub> ≤ 48 V <sub>DC</sub> )	12,5 A	6,25 A
Hold up time, maximum output power	>10ms; V <sub>OUT</sub> > 41 V <sub>DC</sub>	
Output features	Short circuit proof, Over voltage Shutdown 1x 125 A, C characteristics 2 pole battery breaker with 24V external ESD trip	
Extended battery kit PN: 350055	Additional 1*125 A, 2 pole battery breaker with battery looms	
<b>INPUT DATA</b>		
AC Mains Input Voltage (single phase)	185 - 275 V <sub>AC</sub>	95 - 140 V <sub>AC</sub>
AC Current (at nominal output voltage)	29 A <sub>RMS</sub> <sup>3)</sup>	
Frequency (default: sync range)	47-53 & 57-63 Hz	
Frequency (set-able: sync range)	47-53 Hz, 57-63 Hz or both (adaptive)	
Power Factor / THD	> 0.99 at 50% load or more / < 3.5%	
DC Voltage nominal / extended range (no overload) <sup>2)</sup>	45 - 58 V <sub>DC</sub> / 40 - 45 V <sub>DC</sub>	
DC Current (maximum)	128 A / 180A during overload (15s)	64 A / 90A during overload (15s)
Input features	Fuse in L and N, Hot pluggable, Varistor, Hot pluggable Dual single phase input; A and B feed (changeover device controlled by feed A)	
<b>OTHER SPECIFICATION</b>		
Efficiency	>96% (mains mode (AC/AC and AC/DC)), >94% (inverter mode (DC/AC))	
Manual bypass switch	63 A (make before break)	
Colour	RAL 7035	
Protection Class	IP 33	
Battery backup time (at maximum AC power)	30-60 min	
Operating temperature	-10 to +45°C (+14 to +113°F), humidity 5 - 95% RH non-condensing	
Storage temperature	-40 to +85°C (-40 to +185°F), humidity 0 - 99% RH non-condensing	
Dimensions[WxDxH] / Weight	600 x 600 x 900mm (23,7 x 23,7 x 35,5") / 70 kg (155 lbs)	
<b>DESIGN STANDARDS</b>		
Electrical safety	EN 60950-1, EN 62040-1	
EMC	ETSI EN 300 386 V.1.6.1, FCC CFR 47 Part 15 EN 61000-6-1/-2/-3/-4	
Environment	ETSI EN 300 019: 2-1 (Class 1.2), 2-2 (Class 2.3) & 2-3 (Class 3.2) RoHS (2011/65/EU) and WEEE (2002/96/EC) compliant	
Approvals	DNV-OS-D202, Ch.2 Sec. 4 (DNV 2.4) o Temperature Cl. B o Humidity Cl. B o Vibration Cl. A EMC Class A (pending approvals in next version EMC Class B & ABS)	

1) Output voltage ranges configured in factory and have individual keying in top chassis

3) If DC voltage is pulled below 43V the input current may increase above this level

2) 40 - 45 V<sub>DC</sub>: reduced performance - no power boost and increased voltage THD on AC output.

Specifications are subject to change without notice