Rectiverter Integration /Standalone System 220 VDC, 3 kVA 1ph

The Rectiverter integration/standalone system can be used in applications where a 230/115 VAC backup is needed in parallel with the 220 VDC backup. The system can be integrated into an Eltek DC system and connected to the same controller as the 220 VDC system

It can also be used as a standalone system connected to any available 220 VDC source.

The total output power for both AC and DC output is limited to max 4 kW. AC and DC output limits can be set according to the attached load, where the limitation for AC load is set to max 3 kVA.

Rectiverter Integration/Standalone System

Up to 3 kVA AC & up to 2,4 kW 220 VDC output

Doc CTOR0201220.DS3 – rev 1

MODULAR ARCHITECTURE

RECTIVERTER MODULE

The 3 port converter simultaneously provides power for AC and DC loads. During mains outage the Rectiverter 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

TELECOM-MOBILE/WIRELESS

- LTE/4G/WiMAX
- Distributed antenna system
- Broadband
- Radio base stations/cell sites

RAILWAY & METRO INFRASTRUCTURE

- Control & protection
- Signaling
- GSM-R
- Safety Systems

POWER UTILITIES

- Control & protection
- SCADA system

KEY FEATURES

- 230 VAC INPUT/OUTPUT
- SINGLE PHASE INPUT/OUTPUT
- 220 VDC INPUT/OUTPUT
- 4 KW TOTAL AC + DC OUTPUT
- MAX 3 KVA AC OUTPUT
- MAX 2,4 KW DC OUTPUT
- 2 POLE AC DISTRIBUTION
- 3*IEC SOCKETS ON FRONT
- BUILT IN TRANSFER TECHNOLOGY
- 150% OVERLOAD CAPABILITY, 15S
- 600% QUICK TRIP CURRENT, 20MS
- HOT PLUGGABLE
- CAN OPERATE IN PARALELL WITH FLATPACK2 RECTIFIERS
- CAN BE INTEGRATED INTO ELTEK DC SYSTEM CONNECTED TO THE SAME CONTROLLER
- GLOBAL COMPLIANCE
- PATENTED HE TECHNOLOGY

Rectiverter Integration/Standalone

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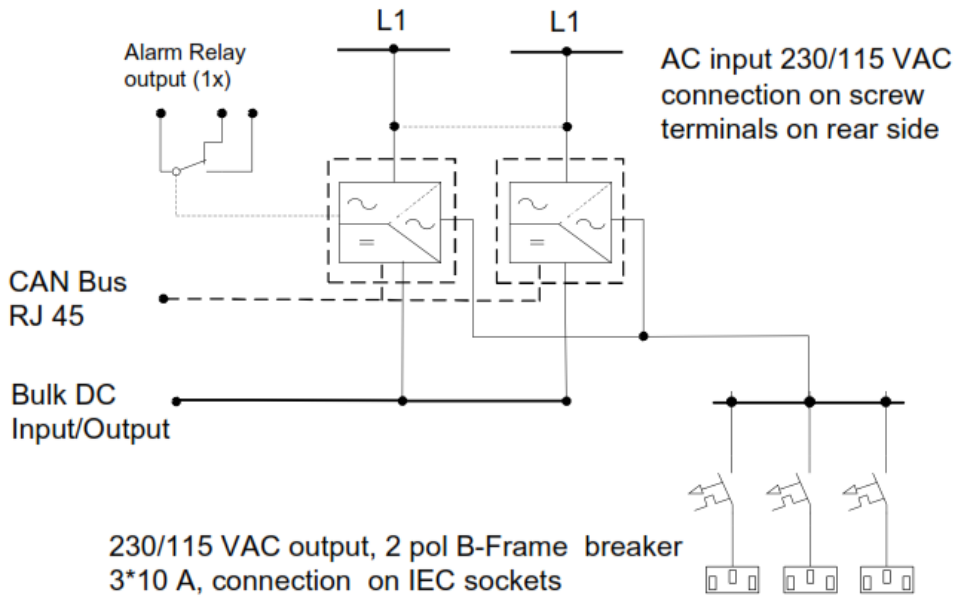
MODEL	4 KW / 2 KW
Product family	CTOR0201.00X
INPUT DATA	
Voltage range AC	185-275 / 95-140 V
Voltage range DC	180-290 V
Maximum current AC	14-24 A
Frequency	47-53 / 57-63 Hz
Power factor	> 0.99
OUTPUT DATA	
Adjustable range AC	200-240 / 100-127 V
Adjustable range DC	194-290 V
Max output power AC	3,0 / 1,5 kVA
Max output power DC	2,4 / 1,2 kW
Admissible load power factor	0 Ind. To 0 Cap.
Frequency	50Hz, 60 Hz
OTHER SPECIFICATIONS	
2 pole AC distribution	3*10 A
3*IEC sockets (IEC320-C13)	front connection

Specifications are subject to change without notice

FRONT VIEW WITH 2 POLE AC DISTRIBUTION

Rectiverter 3 kVA single phase power core

SINGLE LINE WITH 2 POLE AC DISTRIBUTION



Rectiverter Integration/Standalone

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Models / ordering information	4 kW, 230 V	2 kW, 115 V
Part number	CTOR0201.003	CTOR0201.006
AC OUTPUT DATA		
Voltage (default) / (adjustable range)[1]	230 V_{AC} / 200 - 240 V_{AC}	115 V_{AC} / 100 - 127 V_{AC}
Frequency (default inverter mode)	50 Hz (adaptive)	60 Hz (adaptive)
Frequency (set-able inverter mode)	50Hz, 60Hz or last synced 50/60Hz (adaptive)	
Power maximum (continuous / overload (<15s))	2400 W (3000 VA) / 4000 VA	1200 W (1500VA) / 2000 VA
Current maximum (continuous / overload (<15s))	13A_{RMS} / 17,4A_{RMS}	
Current (maximum) Quick trip (20ms)	64 A (6 x nominal)	
Hold up (Voltage dips) (before switching to battery)	5 ms	
THD	< 1.5 % at resistive load	
Output features	Fuse in L and N, Hot pluggable	
DC OUTPUT DATA		
Voltage (default) / (adjustable range)	245 V_{DC} / 194 - 290 V_{DC}	
Power (maximum @nominal input)	2400 W [2]	1200 W [2]
Current (maximum @nominal output V_{DC})	11,1 A [2]	5,5 A [2]
Hold up time, maximum output power	>10ms; V_{OUT} > 95 V_{DC}	
Output features	Short circuit proof, Over voltage Shutdown, Bulk DC output connection to M6 bolt	
INPUT DATA		
AC Mains Input Voltage (single phase)	185 - 275 V_{AC}	95 - 140 V_{AC}
AC Current (at nominal output voltage) (depending on module type)	14-24 A_{RMS} [4]	
Frequency (default: sync range)	47-53 & 57-63 Hz	57-63 & 47-53 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)[3]	204 - 290 V_{DC} / 180 - 204 V_{DC}	
DC Current (maximum)	13,3 A / 18 A during overload (15s)	6,4 A / 9 A during overload (15s)
Input features	Fuse in L and N, Hot pluggable, Varistor, Hot pluggable AC input individual screw terminals 6 mm2 for L, N & PE Bulk DC input connection to M6 bolt	
OTHER SPECIFICATION		
Support for connection to following controller (RJ45)	Smartpack2, Smartpack S & Compack controllers	
Efficiency	>96% (mains mode (AC/AC and AC/DC)), >94% (inverter mode (DC/AC))	
2 pole AC distribution (connection IEC 320-C13 sockets)	3pc, 10A, OP characteristics (optional 4-8 A breaker with CS characteristics available)	
Protection Class	IP 20	
Operating temperature	-40 to +55°C (+40 to +131°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	482 x 395 x 44mm (1U) (19 x 17 x 1,8") / 6kg (13 lbs)	
DESIGN STANDARDS		
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/-4/-5 EN62040-2 (Cat C1 emmisions, cat C2/C3 immunity)	
Environment	ETSI EN 300 019: 2-1 (Class 1.2) & 2-2 (Class 2.3) Normal operating conditions as per IEC/EN 62040-3:2011 clause 4.2. Other operating conditions as per IEC 62040-3:2011 clause 4.3, must be advised 2011/65/EU (RoHS) & 2012/19/EU (WEEE)	

1) Output voltage ranges configured in factory and have individual keying in top chassis
2) AC load has priority. Maximum **available** DC output power and current is dependent on instant AC load and AC input voltage; i.e maximum 1600W at full AC power and nominal input for 230V_{AC}.
3) Reduced performance - no power boost and increased voltage THD on AC output.
4) If DC voltage is pulled below 194 V the input current may increase above this level

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