

# Power

## Cordex™ 3.3kW System

125V High Voltage Integrated System



Cordex 125V-3.3kW system

- 26.4A system capacity
- Cordex 125V – 1.1kW modular rectifiers
- AC input 208 to 240VAC
- DC output 90 to 160VDC
- Front accessible for rack or wall mounting
- Ethernet and SNMP communications
- Designed for industrial and utility applications

The Cordex 3.3kW high voltage integrated power system provides the best in efficiency and reliability meeting the power requirements for a variety of system applications. This system is specifically designed to recharge all types of stationary batteries for large utility, petrochemical and industrial uses.

The Cordex 3.3kW is a compact 7RU integrated system, with up to three Cordex 1.1kW rectifiers in a 19" shelf available for rack or wall mounting. Local and remote setup, adjustment and control is a simple single-step process via the Cordex CXC touch screen system controller or via ethernet on standard Windows Internet Explorer. Battery management and data logging are standard system features.

## Cordex 3.3kW 125V High Voltage Integrated System

### Integrated System

#### Electrical

Input voltage:	208 to 277VAC
Phase:	1 or 3
Frequency:	45 to 66Hz
Current:	System 26.4A @ 125VD (max. 33A)
Power Factor:	>0.99 (input current)
Efficiency:	>93% (50 to 100% load)
Output Voltage:	90 to 160VDC
Current:	8.8A per module @ 125VDC, up to 3 modules per shelf
Load Regulation:	Static <+0.5%
Line Regulation:	Static <+0.1%
Transient response:	<+2% for 10 to 100% load step. 10ms recovery time.
Wide band noise:	<10mVrms <80mVp-p
Insulation:	2.5kVAC Input-Earth 3kVAC Input-Output 2kVAC Output-Earth 0.5kVAC Signals-Earth

#### Mechanical

Charger Enclosure:	Wall or Rack Mount
Dimensions	
inches:	12.2H x 17.1W x 11.9D
mm:	309H x 434W x 302D
Weight:	12.59kg (27.76lb)*
Enclosure:	NEMA 1 (charcoal finish)

### Features

#### User Interface

GUI:	Use Internet Explorer browser to access embedded GUI through Ethernet port or RS-232 craft port
Display:	Full graphic LCD, 160 x 160 pixels, with backlight and contrast adjustment
Controls:	LCD touch screen with virtual alpha numeric and numeric keyboards
LED indicators:	System OK—Green Minor alarm—Yellow Major alarm—Red
Audio:	Built in speaker for alarms and popup messages
Language:	Multi language support including Chinese characters

#### Communication Ports

RS-232 (DB-9):	Craft port on front panel for local PC connection
CAN OUT (RJ-12 offset):	CAN communication BUSS to optional smart peripheral modules
RS-485 (RJ-12 offset):	For future service options
Ethernet (RJ-45):	10/100 Base T with half/full duplex

#### Alarms

Output:	6 potential free form C contacts
Input:	4 digital inputs
GFD:	Ground fault detect
SNMP:	SNMP agent provides real time system status to the network management software

#### Data Logging

Daily statistics:	Minimum, maximum and average on input channels, with date and time stamp Battery current, rectifier current, and AC mains voltage for last 90 days
Event log:	On all events such as alarms, power on, any change of state of the digital inputs, or other miscellaneous events
Battery log:	Battery health history on last 20 discharges, time of discharge, and battery capacity

#### Control Functions:

Automatic, scheduled (periodic) or manual equalize  
Automatically terminated equalize charge  
Battery current terminate equalize  
Dynamic charge current control  
Battery capacity and runtime prediction  
Auto or manual battery test

#### DC Output Panel

2 x 2 Pole, 32A breakers (10KAIC) with alarm monitoring

#### AC Input (not a service entrance):

Single phase:	1 x 2-pole 10KAIC (30KAIC Option)
Three phase:	1 x 3-pole delta connection 10KAIC 1 x 3-pole wye connection 10KAIC

### Environmental

#### Temperature Range

Operating:	-40 to 50°C (-40 to 122°F)
Extended:	Rectifier derated to 600W @ 65°C (149°F)
Humidity:	0 to 95%
Cooling:	Natural convection
Heat dissipation:	<900 BTU per hour/system

### Standards

Safety:	UL 60950 3rd editions, CSA C22.2 No. 60950-00 3rd edition EN 60950 CE
EMC:	ICES-003 Class A FCC Part 15, Class A, FCC Part 68 EN 55022 Class AA (CISPR 22) EN 61000-4-2 ESD EN 61000-4-3 Radiated Immunity EN 61000-4-4 EFRT/Burst EN 61000-4-6 Conducted Immunity

#### Performance Technology Solutions

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\*Rectifier module not included system weight