



an EnerSys company

# Cordex<sup>®</sup> 1.1kW

## Modular Switched Mode Rectifier



- Switch mode rectifier provides 8.8A output @ 125Vdc or 5A @ 220Vdc
- Power limiting and wide range AC input
- 93% peak efficiency with power factor correction
- Convection cooled
- Hot swappable, 4RU ultra compact design

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**Cordex rectifiers bring advanced technology to the DC power industry. Innovative engineering combines the best in efficiency and reliability meeting the power requirements for a variety of system applications.**

This rectifier is specifically designed to recharge all types of stationary batteries for large utility, petrochemical and industrial uses.

The Cordex 1.1kW is a compact 4RU allowing six rectifiers per 19" shelf. In addition to a range of standard features, the convection cooling will maintain ideal operating temperatures in the often dusty environments of utility applications.

Local and remote setup, adjustment and control is a simple, single-step process with the Cordex CXC System Controller. By utilizing TCP/IP technology, complete configuration and monitoring of power equipment is possible through a network web browser.

# Cordex® 1.1kW Modular Switched Mode Rectifier

07/2020

125V P/N: 010-579-20-041

220V P/N: 010-569-20-041

| Electrical                               |                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Input Voltage:</b>                    | <b>Nominal:</b> 208 to 240Vac<br><b>Operating:</b> 85 to 320Vac<br><b>Extended:</b> 150 to 176Vac (de-rated to 75%)                                                                                                                                                                                                                       |
| <b>Input Frequency:</b>                  | 45 to 70Hz                                                                                                                                                                                                                                                                                                                                |
| <b>Power Output:</b>                     | 1100W continuous/module                                                                                                                                                                                                                                                                                                                   |
| <b>Power Factor:</b>                     | >0.99 (input current)                                                                                                                                                                                                                                                                                                                     |
| <b>THD:</b>                              | <5%                                                                                                                                                                                                                                                                                                                                       |
| <b>Efficiency:</b>                       | >93% peak nominal conditions                                                                                                                                                                                                                                                                                                              |
| <b>Output Voltage:</b>                   | 125V: 90 to 160Vdc<br>220V: 180 to 320Vdc                                                                                                                                                                                                                                                                                                 |
| <b>Output Current:</b>                   | 125V: 8.8A @ 125Vdc (11A max)<br>220V: 5A @ 220Vdc (5.5A max)                                                                                                                                                                                                                                                                             |
| <b>Load Regulation:</b>                  | Static <±0.7%                                                                                                                                                                                                                                                                                                                             |
| <b>Line Regulation:</b>                  | Static <±0.1%                                                                                                                                                                                                                                                                                                                             |
| <b>Transient Response:</b>               | <±2% for 40 to 90% load step, 20ms recovery time                                                                                                                                                                                                                                                                                          |
| <b>Wide Band Noise:</b>                  | <ul style="list-style-type: none"> <li>&lt;30mVrms</li> <li>&lt;150mVp-p</li> </ul>                                                                                                                                                                                                                                                       |
| <b>Insulation:</b>                       | <ul style="list-style-type: none"> <li>2.5kVac input-earth</li> <li>3kVac input-output</li> <li>2kVac output-earth</li> <li>0.5kVac signals-earth</li> </ul>                                                                                                                                                                              |
| Performance / Features                   |                                                                                                                                                                                                                                                                                                                                           |
| <b>Indicators:</b>                       | AC mains OK — green LED<br>Module OK — green LED<br>Module alarm — red LED                                                                                                                                                                                                                                                                |
| <b>Cooling:</b>                          | Natural convection                                                                                                                                                                                                                                                                                                                        |
| <b>Adjustments (via CXC controller):</b> | <ul style="list-style-type: none"> <li>Float and equalize voltage</li> <li>Battery test voltage</li> <li>High and low voltage alarms</li> <li>Current limit</li> <li>Start delay time</li> </ul>                                                                                                                                          |
| <b>Protection:</b>                       | <ul style="list-style-type: none"> <li>Current limit/short circuit</li> <li>Input fuses</li> <li>Output high voltage shutdown</li> <li>Output power limiting</li> <li>Thermal foldback/shutdown</li> <li>Input transient</li> <li>AC low line foldback/shutdown</li> <li>AC high voltage shutdown</li> <li>Earth leakage alarm</li> </ul> |

| Mechanical                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dimensions:</b>                                          | <b>mm:</b> 177H x 71W x 250D<br><b>inches:</b> 6.9H x 2.8W x 9.8D                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Weight:</b>                                              | 125V: 3.2kg (7.1lbs)<br>220V: 2.9kg (6.4lbs)                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Environmental                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Temperature:</b><br>(Based on 3 modules installed)       | <b>125V</b><br><b>Operation:</b> -40 to 42°C (-40 to 107.6°F)<br><b>Extended:</b> 65°C/149°F 600W<br><b>Storage:</b> -50 to 85°C (-58 to 185°F)                                                                                                                                                                                                                                                                                                                                      |
|                                                             | <b>220V</b><br><b>Operation:</b> -40 to 48°C (-40 to 118.4°F)<br><b>Extended:</b> 65°C/149°F 600W<br><b>Storage:</b> -50 to 85°C (-58 to 185°F)                                                                                                                                                                                                                                                                                                                                      |
| <b>Humidity:</b>                                            | 0 to 95% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Elevation:</b>                                           | -500 to 4000m (-1640 to 13120ft)                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Heat dissipation:</b>                                    | 125V: <400 BTU per hour (max)/117 Watts<br>220V: <282 BTU per hour (max)/83 Watts                                                                                                                                                                                                                                                                                                                                                                                                    |
| Shelves                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>P/N: 030-740-20</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>19" shelf (6 module)</b>                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Dimensions:</b>                                          | <b>mm:</b> 177H x 444W x 303D<br><b>inches:</b> 6.9H x 17.5W x 11.9D                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Weight:</b>                                              | 7.3kg (16lbs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Mounting:</b>                                            | <ul style="list-style-type: none"> <li>Fits 19" rack flush mount</li> <li>Fits 19" or 23" center mount</li> </ul>                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Connections:</b>                                         | <b>Input:</b> Terminal blocks for 3 feeds 4 – 6mm <sup>2</sup> (12 – 10AWG)<br><b>Output:</b> ¼" studs on ½" centers<br><b>Chassis Ground:</b> ¼" stud<br><b>CAN Communication:</b> RJ 12 offset                                                                                                                                                                                                                                                                                     |
| Agency Compliance                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>The Cordex™ 1.1kW is designed to meet the following:</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Safety:</b>                                              | <ul style="list-style-type: none"> <li>CSA C22.2 No 60950-1-03</li> <li>UL 60950-1 1st edition</li> <li>CE marked</li> <li>IEC/EN 60950-1</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
| <b>EMC:</b>                                                 | ETSI 300 386<br><b>Emissions:</b> <ul style="list-style-type: none"> <li>CFR47 (FCC) Part 15 Class A</li> <li>ICES-03 Class A</li> <li>EN55022 (CISPR 22) Class A</li> <li>C-Tick (Australia)</li> <li>EN 61000-3-2</li> <li>EN 61000-3-3</li> </ul> <b>Immunity:</b> <ul style="list-style-type: none"> <li>EN 61000-4-2</li> <li>EN 61000-4-3</li> <li>EN 61000-4-4</li> <li>EN 61000-4-5</li> <li>EN 61000-4-6</li> <li>EN 61000-4-11</li> <li>ANSI/IEEE C62.41 Cat B3</li> </ul> |



## Worldwide Corporate Offices

### Headquarter Germany

Hansastraße 8  
D-91126 Schwabach  
Tel: +49 9122 79889 0  
Fax: +49 9122 79889 21  
Mail: info@alpha-outback-energy.com

### Eastern Europe

ee@alpha-outback-energy.com

### Middle East

me@alpha-outback-energy.com

### France and Benelux

fbnl@alpha-outback-energy.com

### Spain

spain@alpha-outback-energy.com

### Russia

russia@alpha-outback-energy.com

### Africa

africa@alpha-outback-energy.com

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