

#### an EnerSys® company

## Cordex® 650W

#### 48VDC Modular Switched Mode Rectifier



- Available in 13.5A @ 48VDC (at nominal input voltage)
- Universal 120V/208 to 240V single phase AC input
- Power limiting and wide range AC input
- 91% efficiency and power factor correction
- Convection cooled
- Hot swappable, 2RU ultra compact design

# Cordex<sup>®</sup> 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.

The Cordex® 650W rectifier is available in a choice of 19" or 23" shelf configurations. Either power system option comes complete with distribution, controller, and rectifier slots. With a maximum of 2.6kW total output per shelf, it is an ideal solution to meet the needs of applications requiring lower power.

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® 650W 48VDC Modular Switched Mode Rectifier

Universal 120/240 model P/N: 010-570-20-041

Input Voltage (Universal 100 to 240VAC model):  Input Frequency:  45 to 70Hz  Power Factor:  >99%  THD:  45 to 58VDC  Output Voltage:  0 to 176VAC (3.5A max)  Static <±0.5%  Dynamic <±1% for 50 to 100% load step 2ms recovery time  Line Regulation:  Static <±0.1% Dynamic <±1% for any change within rated limits  Wide Band Noise:    Samvima
Power Factor: >99%  THD: <5%  Efficiency: >91%  Output Voltage: 42 to 58VDC  Output Current: 12A @ 54VDC (13.5A max)  Load Regulation: Static <±0.5%
THD: <5%  Efficiency: >91%  Output Voltage: 42 to 58VDC  Output Current: 12A @ 54VDC (13.5A max)  Load Regulation: Static <±0.5%
Efficiency: >91%  Output Voltage: 42 to 58VDC  Output Current: 12A @ 54VDC (13.5A max)  Load Regulation: Static <±0.5% Dynamic <±2% for 50 to 100% load step 2ms recovery time  Line Regulation: Static <±0.1% Dynamic <±1% for any change within rated limits  Wide Band Noise: <150mVp-p  Psophometric Noise: <1mV  Performance / Features  Indicators: AC mains OK — green LED Module alarm — red LED  Cooling: Natural convection  Adjustments (via CXCI HP controller): Float and equalize voltage
Output Voltage: 42 to 58VDC  Output Current: 12A @ 54VDC (13.5A max)  Load Regulation: 5tatic <±0.5% Dynamic <±2% for 50 to 100% load step 2ms recovery time  Line Regulation: 5tatic <±0.1% Dynamic <±1% for any change within rated limits  Wide Band Noise: <30mVrms <150mVp-p  Psophometric Noise: <1mV  Performance / Features  Indicators: AC mains OK — green LED Module alarm — red LED  Module alarm — red LED  Cooling: Natural convection  Adjustments (via CXCI HP controller): 6High and low voltage alarms  High and low voltage shutdown  Current limit
Output Current:  12A © 54VDC (13.5A max)  Static <±0.5% Dynamic <±2% for 50 to 100% load step 2ms recovery time  Line Regulation: Static <±0.1% Dynamic <±1% for any change within rated limits  Wide Band Noise: <30mVrms <150mVp-p  Psophometric Noise: <1mV  Performance / Features  Indicators: AC mains OK — green LED Module alarm — red LED  Cooling: Natural convection  • Float and equalize voltage • Battery test voltage • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit
Load Regulation:    Static <±0.5%   Dynamic <±2% for 50 to 100% load step 2ms recovery time
Line Regulation:  Dynamic <±2% for 50 to 100% load step 2ms recovery time  Static <±0.1% Dynamic <±1% for any change within rated limits  Vide Band Noise:  <30mVrms <150mVp-p  Psophometric Noise:  Indicators:  AC mains 0K — green LED Module alarm — red LED  Module alarm — red LED  Cooling:  Natural convection  • Float and equalize voltage • Battery test voltage • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit  Current limit
Line Regulation:  Dynamic <±1% for any change within rated limits <p>30mVrms &lt;150mVp-p</p> Psophometric Noise: <1mV Performance / Features Indicators: AC mains OK — green LED Module alarm — red LED Module alarm — red LED Cooling: Natural convection • Float and equalize voltage • Battery test voltage • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit
Wide Band Noise: <pre>&lt;150mVp-p  Psophometric Noise: <pre>&lt;1mV  Performance / Features  Indicators:  AC mains OK — green LED Module alarm — red LED  Cooling:  Natural convection  • Float and equalize voltage • Battery test voltage • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit</pre></pre>
Performance / Features  Indicators:  AC mains OK — green LED Module alarm — red LED  Cooling:  Natural convection  • Float and equalize voltage • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit
Indicators:  AC mains OK — green LED Module alarm — red LED  Cooling:  Natural convection  • Float and equalize voltage • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit
Adjustments (via CXCI HP controller):  Module alarm — red LED  Natural convection  Float and equalize voltage  Battery test voltage  High and low voltage alarms  High voltage shutdown  Current limit
Adjustments (via CXCI HP controller):  • Float and equalize voltage • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit
Adjustments (via CXCI HP controller):  • Battery test voltage • High and low voltage alarms • High voltage shutdown • Current limit
• Slope %
Current limit/short circuit Input/output fuses Output high voltage shutdown Output power limiting Thermal foldback/shutdown Input transient AC low line foldback/shutdown AC high voltage shutdown
Mechanical
Dimensions:         mm: 88.4H x 71.6W x 242D inches: 3.4H x 2.8W x 9.5D
Weight: 1.4kg (3lbs)

Environmental	
Temperature:	<b>Operation:</b> -40 to 50°C (-40 to 122°F) (power de-rated up to 65°C/149°F) <b>Storage:</b> -40 to 85°C (-40 to 185°F)
Humidity:	0 to 95% RH non-condensing
Elevation:	-500 to 3000m (-1640 to 9840ft)
Heat Dissipation:	<94 BTU per hour/28 Watts
Agency Compliance	
Safety:	CSA C22.2 No 60950-1-03     UL 60950-1 1st edition     CE marked     IEC/EN 60950-1
EMC:	ETSI 300 386  Emissions:  • CFR47 (FCC) Part 15 Class B  • ICES-03 Class B  • ICES-03 Class B  • ENS5022 (CISPR 22) Class B  • C-Tick (Australia)  • EN 61000-3-2  • EN 61000-3-3  Immunity:  • EN 61000-4-2  • EN 61000-4-3  • EN 61000-4-5  • EN 61000-4-6  • EN 61000-4-6  • EN 61000-4-11  • ANSI/IEEE C62.41 Cat B3