HELIOS
POWER SOLUTIONS

1.1kW

220Vdc Modular Switched Mode Rectifier

The Sol Series 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 Sol Series 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 Sol Series Cordex CXC System Controller. By utilizing TCP/IP technology, complete configuration and monitoring of power equipment is possible through a network web browser.

+ Switch mode rectifier provides 5A output @ 220Vdc
+ Power limiting and wide range AC input
+ Compliant with the stringent EMI immunity requirements for power station and substation environments
+ 93% efficiency with power factor correction
+ Convection cooled
+ Hot swappable, 4RU ultra compact design

THE SOL SERIES

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220Vdc Modular Switched Mode Rectifier

Electrical

Input voltage:
- Nominal: ..... 208 to 277Vac

Operating: ..... 176 to 320Vac
Extended: ..... 176 to 150Vac (de-rated to 75%)
Input frequency: ..... 45 to 66Hz
Power output: ..... 1100W continuous/module
Power factor: ..... >0.99 (input current)
THD: ..... <5%
Efficiency: ..... >93%
Output voltage: ..... 180 to 320Vdc
Output current: ..... 5A @ 220Vdc (5.5A max)
Load regulation: ..... Static <±0.5%
Line regulation: ..... Static <±0.1%
Transient response: .... <±2% for 50 to 100% load step, 10ms recovery time
Wide band noise: ..... <30mVrms
<150mVp-p
Insulation: ..... 2.5kVac input-earth
3kVac input-output
2kVac output-earth
0.5kVac signals-earth

Mechanical

Dimensions:
- mm: ..... 177H x 71W x 250D
- inches: ..... 6.9H x 2.8W x 9.8D

Weight: 2.9kg (6.4lbs)

Agency Compliance

The Cordex™ 1.1kW is designed to meet the following:

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 A
ICES-03 Class A
EN55022 (CISPR 22) Class A
C-Tick (Australia)
EN 61000-3-2, 3-3
Immunity: ..... EN 61000-4-2, 4-3, 4-4, 4-5, 4-6, 4-11
ANSI/IEEE C62.41 Cat B3
IEC TS 61000-6-5 Immunity for power station and substation environments

Environmental

Temperature:
- Operation: ..... -40 to 50°C (-40 to 122°F)
(up to 70°C/158°F power de-rated)
- Storage: ..... -50 to 85°C (-58 to 185°F)

Humidity: ..... 0 to 95% RH non-condensing
Elevation: ..... -500 to 4000m (-1640 to 13120ft)
Heat dissipation: ..... <282 BTU per hour (max)

Performance/Features

Indicators: ..... AC mains OK — green LED
Module OK — green LED
Module alarm — red LED
Cooling: ..... Natural convection
Adjustments: ..... Float and equalize voltage
(via CXCI controller) .... Battery test voltage
High and low voltage alarms
High voltage shutdown
Current limit
Start delay time
Slope %
Protection: ..... 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
Earth leakage alarm

Shelves

P/N: 030-718-20
>19" shelf (6 modules)

Dimensions:
- mm: ..... 177H x 444W x 303D
- inches: ..... 6.9H x 17.5W x 11.9D

Weight: 7.3kg (16lbs)
Mounting: ..... Fits 19" rack flush mount
Fits 19" or 23" center mount

Connections:
Input: ..... Terminal blocks for 3 feeds
4 – 6mm² (12 – 10AWG)
Output: ..... 1/4" studs on 5/8" centers
Chassis ground: ..... 1/4" stud
CAN communication: .... RJ 12 offset

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