

# Cordex PSU

Web Enabled, DIN Rail/Wall Mount  
Power Supply 24V/400W or 48V/650W

HELIOS  
POWER SOLUTIONS

- > Clean and reliable DC power supply for critical loads available in two options: 24V/400W or 48V/650W
- > Internet ready and remotely accessible for complete and cost effective system and site monitoring
- > Advanced battery charging, monitoring and testing to ensure sufficient reserve power availability and prolonged battery life
- > Configurable platform with I/O's for site monitoring, user-definable alarms, data logging and control
- > Extended temperature range for installation in harsh outdoor environments
- > Wide AC input operating range for world wide installation requirements



Alpha's Cordex PSU is an integrated, fully-featured DC power system in a compact form factor. It is designed to provide power to critical loads while enabling remote site monitoring and delivering critical information on demand. The PSU supplies reliable and low output ripple current along with short circuit, over voltage, over temperature and over load protection. It also features advanced battery charging, monitoring and testing functionality. Two temperature, two digital and one analog inputs can be used for monitoring system alarms such as intrusion detection or equipment malfunction.

The integrated CXCI+ controller offers comprehensive local and remote control and monitoring, including a web server, providing easy set up using a standard Windows Internet Explorer browser. SMTP features 'enable alarm' condition settings and multiple automatic notification options by e-mail to a computer, server or smartphone. Sites without internet access can use the integrated CXCI+ controller as an advanced standalone data logging system, allowing the capture of data from multiple inputs such as AC/DC voltages, load/battery current, and cell voltage/temperature. The CXCI+ captures and retains 90 days' statistical data and 500 alarm events, ready for download to a laptop for site history file and analysis of system performance, power system details, thermal performance of outdoor enclosures and failure conditions.

## Cordex Power Supply Unit, Web Enabled, DIN Rail/Wall Mount Power Supply

24V-400W model P/N: 0100011-002, 48V-650W model P/N: 0100012-002

### ELECTRICAL

	>48V/650W	>24V/400W
Input voltage:		
Operating: .....	176 to 320Vac	90 to 320Vac
Extended: .....	90 to 176Vac (de-rated power)	
Input frequency: .....	45 to 70Hz	45 to 70Hz
Current: .....	5.0A max	4.9A max
Power: .....	650W	400W
Power factor: .....	>0.99%	>0.99%
THD: .....	<5%	<5%
Efficiency: .....	>91%	>88%
Output voltage: .....	42 to 58Vdc	20 to 29Vdc
Output current: .....	13.5A max	14A max
Load regulation: .....	Static $\leq \pm 0.5\%$ Dynamic $\leq \pm 2\%$ for 50 to 100% load step 2ms recovery time	Static $\leq \pm 0.5\%$ Dynamic $\leq \pm 5\%$ for 50 to 100% load step 2ms recovery time
Line regulation: .....	Static $\leq \pm 0.1\%$ Dynamic $\pm 1\%$ for any change within rated	Static $\leq \pm 0.1\%$ Dynamic $\pm 1\%$ for any change within rated
Noise:		
Voice band: .....	<32dBnC	<32dBnC
Wide band: .....	<10mV RMS (to 10MHz) <100mV pk to pk (to 100MHz)	<10mV RMS (to 10MHz) <100mV pk to pk (to 100MHz)
Psophometric: .....	<1mV RMS	<1mV RMS

### MECHANICAL

Dimensions:	
mm: .....	117H x 281W x 101D
inches: .....	4.6H x 11.1W x 3.98D
Weight: .....	3kg (6.6lbs)
Mounting: .....	Panel DIN rail (standard TS-35/7.5 or 15 Mounting Rail)
Connections:	
AC, Load & Battery: .....	Screw terminal 4mm <sup>2</sup> (#12AWG)
Alarms & I/O's: .....	Screw terminals 2.5mm <sup>2</sup> to (#14AWG)

### ENVIRONMENTAL

Temperature:	
Operation: .....	-40 to 50°C (-40 to 122°F)
Extended: .....	-40 to 70°C (-40 to 158°F), derated power
Storage: .....	-40 to 85°C (-40 to 185°F)
Humidity: .....	0 to 95% RH non-condensing
Altitude: .....	-500 to 3000m (-1640 to 9840ft)
Heat Dissipation: .....	<110 BTU per hour

### PERFORMANCE/FEATURES

User Interface:	
GUI: .....	Embedded web based GUI accessed via Ethernet using internet browser
LED Indicators: .....	AC mains OK — green Minor alarm — Yellow Major alarm — Red

System Features: .....	User configurable alarms User configurable signals Downloadable software & firmware upgrades Lithium battery backup for real time clock
Log Files:	
Daily statistics: .....	Min., max. and average on analog input channels with date and time stamp Battery current, rectifier current and AC mains voltage for last 90 days
Event log: .....	All events such as alarms, power on, change of state on digital inputs or other events
Battery log: .....	Battery health history on last 20 discharges with time of discharge and battery capacity
Data logging: .....	Up to 16 user configurable logs of all system signals including Smart Peripherals
Battery Features: .....	Temperature compensation Manual, auto & periodic equalize Dynamic charge current control Battery runtime & capacity indication Battery low capacity warning Auto or manual battery test mode
Adjustments: .....	Float and equalize voltage 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 10A Battery Shunt 20A Low Voltage Disconnect LVBD (may be disabled with jumpers) Natural Convection
Distribution: .....	
Cooling: .....	
Communication Ports:	
CAN: .....	Smart Peripherals
Ethernet: .....	10/100 Base-T for TCIP/SNMP/Email features
System I/O:	
Alarm relays: .....	3
Temperature inputs: .....	2
Digital inputs: .....	2
Voltage input: .....	1

### AGENCY COMPLIANCE

Safety: .....	CSA C22.2 No 60950-1-03 CE Marked
EMC: .....	ETSI 300 386-2
Emissions: .....	CFR47 (FCC) Part 15 Class A 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 CatB3