ACS-WM-125

125VDC 1.1-6.6kW Charging System

HELIOS POWER SOLUTIONS

- ACS performance, reliability and efficiency in a wall-mount unit
- Compact 10RU enclosure
- Accommodates up to six hot-swappable Cordex 1.1kW rectifiers
- Unity power factor with > 93% efficiency
- Expandable to 52A output capacity

High Performance Series provides excellent reliability and ultimate efficiency in meeting the power requirements for many types of system applications.

The ACS-WM Series is designed to charge all types of stationary batteries (Flooded lead-acid, VRLA, and NiCd) for industrial, utility, petrochemical and fire/utility applications. A compact 10RU enclosure accommodates up to six, hot swappable, convection cooled, Cordex™ 1.1kW rectifiers. The 1.1kW Cordex rectifiers possess high power density, providing the most power in the least amount of wall space.

Whether used in a local or remote setup, system adjustment and control is a simple single-step process via the Cordex CXC touchscreen system controller or via an Ethernet connection and an Internet browser. TCP/IP, MODBUS, SNMP standard, with option for DNP3+. Battery management and data logging are standard system features.

Specifications

Electrical Input	
Nominal Voltage:	208 to 240VAC (single-phase)
Operating Voltage:	177 to 264VAC
Extended Voltage:	176 to 150VAC (derated to 75%), 265 to 320VAC (derated PF)
Phase:	Single
Frequency:	45 to 70Hz
Current:	5.8 to 5A/module-nominal (6.9A Max @ 176VAC)
Power:	1100W continuous/module
Power Factor:	>0.99 (50 to 100% load)
THD:	<5% at 100% load
Efficiency:	>93% (50 to 100% load)

Electrical Output	
Voltage:	90 to 160VDC
Current - Module:	8.8A.module-nominal (11A Max @ 100VDC)
Current - System:	52.8A w/6 modules (66A Max @ 100VDC)
Load Regulation:	Static <±0.5%
Line Regulation:	Static <±0.1%
Transient Response:	<±5% for 40 to 90% load step, 30ms recovery time
Ripple:	<20m Vrms battery eliminator

Dimensions	Empty	Rectifier Module
mm (H x W x D)**:**	1049 x 622 x 597	177 x 71W x 250D
in (H x W x D)**:**	20.4 x 20.0 x 14.2	6.9 x 2.8 x 9.8
Weight (kg/lbs)**:**	36 / 80	3.2 / 7.1
Cabinet:	NEMA 1 (black finish)	NEMA 1 (black finish)

Environment	
Standard Temperature:	-40°C to 50°C (-40°F to 122°F)
Extended Temperature:	600W/module @ 65°C (149°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Humidity:	0 to 95% non-condensing
Elevation:	-500 to 4,000m (-1,640 to 13,124ft); Derate @ -4°C/1000m above sea level (-7.2°F/3281ft)
Audible Noise:	<55dBa @ 1m (3ft)
Ventilation:	Convection
MTBF:	>400,000 hours

Standard Features

- Full graphic LCD touch screen with virtual alphanumeric and numeric keyboards
- Modbus Protocol
- Access GUI user interface via Internet browser through Ethernet port or RS-232 craft port on CXC Controller
- High interrupting current input and output breakers (10kA IC)
- Reverse polarity protection
- AC surge suppression
- Current limit protection
- Soft start protection
- Common Form C alarm relay contacts
- High voltage shutdown
- AC failure alarm
- High/low voltage alarm
- Charger failure alarm
- Positive/Negative ground fault alarm
- DC output failure alarm
- Battery Temperature Compensation Probe (24ft-3/8" lug)

Standard Functions	
Control Functions:	• Automatic, scheduled or manual float charging (adjustable) • Automatic, scheduled or manual equalize charging (adjustable) • High/low voltage alarm setting (adjustable) • Charge current limit (adjustable) • Automatic or manual battery testing • Battery capacity and runtime prediction • Temperature compensation
Daily Statistics:	• Minimum, maximum and average on input channels with date and time stamp • Battery current, rectifier current and AC mains voltage for prior 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

Options

DNP3+

Standards and Certifications	
Safety:	• EN 60950 • UL 60950-1 (pending) • CSAC22.2 No. 60950-1-03 • CE EN 60950, CB Scheme • Telcordia (Bellcore) GR-1089-CORE
EMC:	• EN 55022 (CISPR 22) • EN 61000-3-2 EN 61000-3-3 • EN 61000-4-2 EN 61000-4-3 • EN 61000-4-4 EN 61000-4-5 • EN 61000-4-6 EN 61000-4-11 • ETS 300 019-1-1 ETS 300 019-1-2 • ETS 300 753 IEC60950 • ICES-003 Class B FCC Part 15 Class B • FCC Part 68

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