

# E-ACS SERIES

## MODULAR SWITCHED MODE INDUSTRIAL CHARGING SYSTEM 110VDC/220VDC



### OVERVIEW

The advanced charger system provides excellent reliability and efficiency, and is able to meet the power requirements for many types of system applications.

The E-ACS Series is designed to charge all types of stationary batteries (flooded lead acid, VRLA, NiCad and other chemistries) for industrial, utility, petrochemical and fire/utility applications.

Complete communication, system monitoring and control package.

Reduced operating costs: unity power factor with efficiency > 92%

Wide operating voltage range with full performance, 187 to 312 VAC (L to N).

High power density with a small overall footprint.

Expandable to 200A/110VDC or 100A/220VDC.

Flexible design with options that allow for easy access during installation or when maintenance is required.

### PRODUCT NUMBER

E-ACS-110-22 2000006071

E-ACS-220-22 2000006072

### OPTIONS - Delivered separately

Cordex® CXRF 4.4kW - 125V rectifier 010-589-20-040

Cordex® CXRF 4.4kW - 220V rectifier 010-588-20-040

Blank for non-occupied rectifier position 612-912-11

IP21 roof 2000006077

Battery temperature sensors, for other lengths contact EnerSys

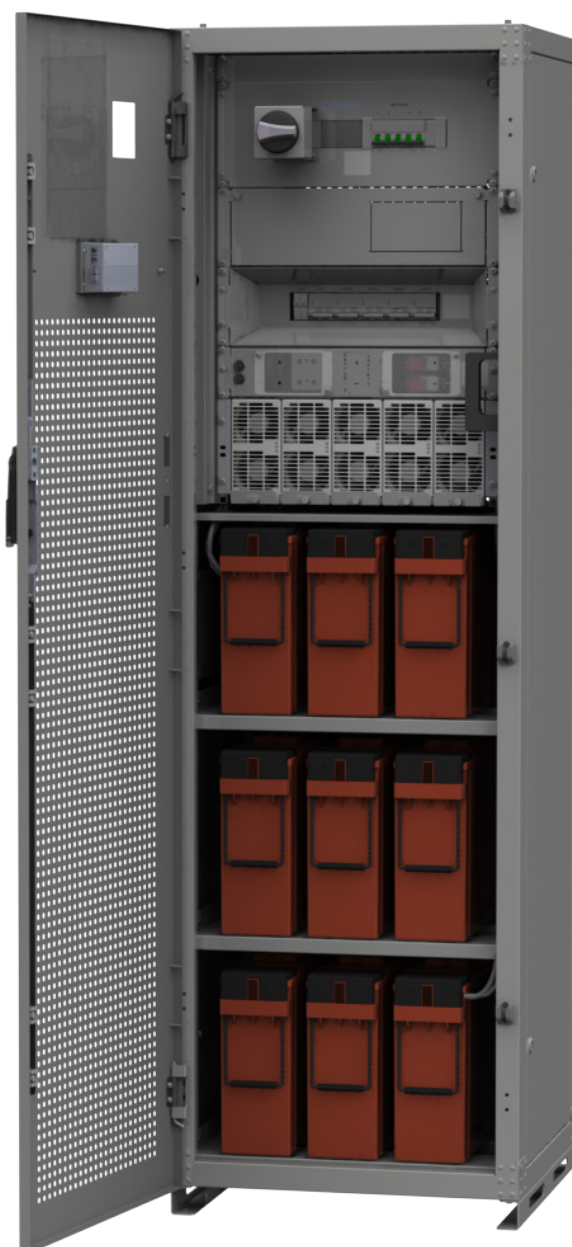
Temp Snr, 3/8"lug, 6ft Cable, Assy 747-082-20-071

Temp Snr, 3/8"lug, 12ft Cable, Assy 747-082-20-072


Customised configuration of system Contact EnerSys

### OPTIONS - Delivered assembled; contact EnerSys

- AC and DC interface in top or bottom
- Mains switch and controller inside or in front door
- Battery 110V inside the compartment
- Front door
- Front door L or R hand side hinge
- Side and back panels
- Adjustable feet
- Additional battery fuse
- Load breaker MCB
- 10-63A max 5 pcs
- AC and DC SPD
- Extension cabinet for battery 220V
- Ground fault detection
- Other options on request



E-ACS with optional non standard parts.

 ELECTRICAL				Per module in system		Per full system 5 rectifer	
Input	Voltage	Nominal range		208 to 277VAC			
		Operating range		187 to 312VAC			
		Extended low voltage range		90 to 187VAC (de-rated to 40%)			
	Frequency		45 to 70Hz				
	Power factor		>0.99 (50 to 100% load)				
	Efficiency		>92% Peak				
Output	Voltage	Nominal		125/220VDC			
		Operating range		125V Module: 90 to 160VDC 220V Module: 180 to 320VDC			
	Power	Nominal range		4400W		22 000W	
		Extended low voltage range	@90VAC	1760W		8800W	
			<80VAC	0W			
	Current	@ 125/ 220VDC		40A/20A		200/100A	
CONNECTIONS							
Input	AC	3W+N+PE (TN system)		Maximum 25mm <sup>2</sup> (stranded)/ 35mm <sup>2</sup> (solid)			
Output	Load	+/- (floating)		5 pcs, maximum 25mm <sup>2</sup> (stranded) / 35mm <sup>2</sup> (solid)		2-pol/ 10-63A 2xC10, 2xC32, 1x63A	
	Battery	+/-		1pc, maximum 16-50mm <sup>2</sup> (stranded) / 16-70mm <sup>2</sup> (solid)		2-pol/ 100A NH type	
	1-2 battery temperature sensors						
RJ45	Ethernet port (TCP/IP, MODBUS and SNMP secured by user)						
USB	Backup, restore or upgrade configuration in controller						
I/O	AI: 0x Current (25 to 200mVDC), 1x Voltage (+/- 300VDC), 2x DCCT Current (+/- 10VDC signal), 1x temperature (+/- 5VDC) DI: 0x Voltage (5VDC max) DO: 5x Form C, 220VDC, max 50W						

PERFORMANCE			
Indicators	Controller: System OK - green LED Minor Alarm - yellow LED Major/Critical Alarm / Controller Fail - red LED		Rectifier: AC mains OK — green LED DC output OK — green LED Module alarm — red LED
Adjustments (Controller)	Float and equalize voltage High and low voltage alarms Current limit Slope %		Battery test voltage High voltage shutdown Start delay timers
Protection	Current limit/short circuit Input/output fuses Output power limiting Input transient AC high voltage shutdown Start delay		Output high voltage shutdown Thermal foldback/shutdown AC low line foldback/shutdown Battery low voltage disconnect Ground Fault Detection Battery breakers alarms

MECHANICAL	
Dimensions (H x W x D)	2000x600x600mm
Weight	120kg
Mounting	Floor, bolt size 4xM10 or optionally adjustable feet direct on floor
Ingress protection	IP20 with door. IP21 on request
Finish	RAL 7035

ENVIRONMENT		STANDARDS AND CERTIFICATION	
Temperature	Operation: -10 to +45°C (+45 to +70°C de-rated)	<ul style="list-style-type: none"><li>• The product is CE marked</li><li>• Product safety acc. to EN 61439-1, EN 61439-2 and EN 50178</li><li>• Electromagnetic compatibility acc. to ETSI EN 300</li><li>• Environmental protection IP21 acc. to EN 60529</li><li>• The product is RoHS compliant acc. to EU directive 2011/65/EU</li><li>• The product is WEEE compliant acc. to EU directive 2012/19/EU</li><li>• Communication protocols acc. to IEC 61850 (optional)</li></ul>	
	Storage: -40 to +85°C		
Humidity	0 to 95% RH non-condensing		
Elevation	-500 to 2000m		
Cooling	Fan cooled (front to rear)		