

# Power

## ACS HP™ Series

Alpha Modular Switched Mode 125Vdc/250Vdc Charging System



As shown: ACS125 Vdc, 3 phase, 70A

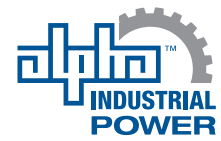


As shown: ACS XL 125Vdc, 1 phase, 26A

- Complete communication, system monitoring and control package
- Reduced operating costs: unity power factor with efficiency > 93%
- Wide input range: 187-312Vac single phase; 208-480Vac 3 phase
- High power density with a small overall footprint
- Limited spare parts requirement
- Expandable to 175A output capacity; power options to 800A available
- N+1/N+N redundancy capability; hot swappable design
- Battery management and data logging are standard system features

The Alpha Charging System High Performance Series provides excellent reliability and ultimate efficiency in meeting the power requirements for many types of system applications. The ACS HP 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 4RU shelf accommodates up to five, hot swappable, fan cooled Cordex™ 4.4kW rectifiers. The 4.4kW Cordex rectifiers possess extremely high density, providing the most power in the least amount of space.

Whether used in a local or remote setup, system adjustment and control is a simple single-step process via the Cordex CXC touch screen system controller or via an ethernet connection and an Internet browser. Battery management and data logging are standard system features.



## ACS HP Modular Switched Mode Battery Charger Series

Specifications		
<b>Electrical</b>		
<b>Input:</b>		
<b>Voltage:</b>		
<b>Nominal:</b>	208 to 250Vac	
<b>Operating:</b>	187 to 312Vac	
<b>Extended:</b>	187 to 90Vac (derated)	
<b>Phase:</b>	1 or 3	
<b>Frequency:</b>	45 to 70Hz	
<b>Current:</b>	23A/module-nom. (130A Max@ 175ADC output)	
<b>Power:</b>	4400W continuous/module	
<b>Power Factor:</b>	>0.99 (50 to 100% load)	
<b>THD:</b>	<5%	
<b>Efficiency:</b>	>93%	
<b>Output:</b>		
<b>Voltage:</b>	90 to 160Vdc	
<b>Current:</b>	35A/module-nom. (200A Max @ 110VDC)	
<b>Load Regulation:</b>	Static <±0.5%	
<b>Line Regulation:</b>	Static <±0.1%	
<b>Transient Response:</b>	<±5% for 40 to 90% load step, 30ms recovery time	
<b>Ripple:</b>	±30mVrms Battery Eliminator	
<b>Mechanical</b>		
<b>Dimensions:</b>		
	<b>Standard</b>	<b>XL</b>
<b>mm:</b>	1049 H x 622 W x 597 D	1806 H x 700 W x 622 D
<b>in:</b>	41.25 H x 24.5 W x 23.5 D	71.1 H x 27.55 W x 24.5 D
<b>Weight:</b>	100 kg (220 lbs) for 105A system	115 kg (253 lbs) for 105A system
<b>Cabinet:</b>	NEMA 1 (black finish)	NEMA 1 (black finish)
<b>Environmental</b>		
<b>Temperature</b>		
<b>Standard:</b>	-40° to 50°C (-40° to 122°F)	
<b>Extended:</b>	-40° to 75°C (-40° to 167°F)	
<b>Storage:</b>	-40° to 85°C (-40° to 185°F)	
<b>Humidity:</b>	0 to 95% RH non-condensing	
<b>Elevation:</b>	-500 to 2,800m (-1,640 to 9,186ft); to 4,000m (13,124ft) derated to 40°C (104°F)	
<b>Audible Noise:</b>	<55dBa @ 1m (3ft)	
<b>Ventilation:</b>	Forced Air/Convection	
<b>MTBF:</b>	>350,000 hours	

Standard Features	
Full graphic touch screen LCD 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 and DC 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	

Standard Features (continued)	
Positive/Negative ground fault alarm	
DC output failure alarm	
Battery Temperature Compensation Probe (12ft); optional lengths available for purchase	
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	
Low voltage disconnect	
DC Output Panel	
Up to 10 x 2 Pole, 5-60A breakers (10kA IC) with alarm monitoring	
DNP3 Level 2	

Standards, 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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