

MPS1600C

16 kW compact power system
designed specifically for the Telecom
and Datacom industries

Systems rated up to 300 A at 48 Vdc

RSR1600-2 equipped with 2 x SM1600
3200W in only 1U !



MPS1600C-7.5 and 1 RSR1600 equipped with 5 x SM1600
8 kW in only 4U !



System comprises:

MPS1600C sub-systems is a family of self contained compact systems providing important space savings due to the exceptional power density of the SM1600 rectifier and a compact Key features system design.

The power performances of the MPS1600C and SM1600 rectifiers provides an ideal solution for indoor or outdoor systems even under the most stringent environment conditions (high temperature,unstable mains etc.).

The user friendly and powerful ACM1D/Win1D package provides the most advanced features for system management and communication.

MPS1600C sub-systems can be integrated directly into Telecom equipment or in the extensive range

of standard cabinets or outdoor enclosures from Saft Power Systems.

A complete range of DC distribution modules, DC/DC converters, inverters and battery racks allow to provide you with optimum solutions customised to your specific needs.

Key Features:

- Space saving due to its exceptional power density and format (up to 16 kW in 7U)
- Robust due to its very wide operating input voltage range (80 to 300 Vrms)
- Wide operating temperature range - 10°C to + 70 °C with full thermal management



>> MPS 1600C

- Sine wave input (PFC) and high efficiency (91%) to reduce operation costs
- Powerful local/remote control and monitoring capabilities via ACM1D digital controller
- Complete system measurements
- Complete system status and alarms management (29 configurable system status and alarms)
- Advanced battery management, including 4 charging modes, battery discharge control and automatic constant current battery test, for extended battery life
- Easy to operate: compact, light, hot pluggable, clear indications by LED, and local LCD display and keypad
- User friendly interface thanks to Win1D PC software
- Advanced communication capabilities including 6 configurable alarm relays, local RS232, GSM or PSTN modem options, TCP/IP web-server option
- Designed for easy maintenance of all system key elements
- Fan monitoring with alarm report for easy maintenance
- Redundancy due to N+1 configuration
- Automatic rectifiers parallel operation with active output current sharing
- Hot-plug capability
- Standard 19" distribution and low voltage disconnect module available
- CE marked, UL under registration

For use with controllers and communication:

ACM1D, NCS webserver, Modem options, Win1D and Winsite software

For use with rectifier:

SM1600

SPECIFICATION

16 kW compact power system designed specifically for the Telecom and Datacom industries

MPS1600C

Product reference	MPS 1600C-8	MPS 1600C-16
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INPUT

Nominal AC supply	208, 220, 230, 240Vac single phase	
(link selectable)	380, 400Vac three phase + neutral	
Nominal current per rectifier	7.3A at 230Vac	
Nominal frequency	50/60Hz	

OUTPUT

Number and type of rectifier	Up to 5 x SM1600	Up to 10 x SM1600
Nominal voltage	48Vcc	
Output voltage control range	42-58Vcc	
Output power range	8kW, 150A	16 kW, 300A
Efficiency	91%	

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DISTRIBUTION	
DC Distribution	Optional 5U 19" distribution module equipped with: 16 x fuses with non essential load disconnect option 24 x MCBs with Low battery voltage distribution partial disconnect option

SUPERVISION AND COMMUNICATION	
Controller	ACM1D digital module for full battery management and system alarm management
Man machine interface	3 LEDs, LCD display and keypad - Win1D PC software option
Communications	Direct through RS232, or remotely via PSTN or GSM modem connection or NCS webserver option for TCP/IP/SNMP and web based JAVA viewer
Alarms	configurable alarms, provided via 4 volt-free relay contacts (Urgent, Non-urgent, Mains failure, Fan Fail)

BATTERY MANAGEMENT	
Battery protection	Battery charge current limiting - Automatic control of the LVD contactor - 2 alarmed battery fuses
Low volts disconnect	(LVD) 125A
Battery fuses	2x125A
Charging modes	Floating (fixed charge rate) - floating plus boost charge - floating with temperature compensation - floating with temperature compensation plus boost charge – (float temperature compensation curve, FTC, is configurable)
Battery test	Automatic programmable, or manually triggered battery test – (test undertaken at constant discharge current) – battery history log

MECHANICAL SPECIFICATION	
Dimensions	
MPS (19' or ETSI sub-rack)	H: 3U (133mm), D: 418mm
RSR (19' or ETSI sub-rack)	H: 1U (44,45mm), D: 418mm
Weight	5kg without rectifiers
Ingress protection	IP20
Cable entry	Connections via terminal block connectors

ENVIRONMENTAL	
Cooling	Forced air cooling with electronic speed control
Operating temperature	- 10°C to + 70°C inlet ambient with automatic power de-rating
Storage temperature	- 40°C to + 85°C
Humidity	10-95% RH non-condensing
Rectifier acoustic noise	<55dB(A)

STANDARDS	
Safety	EN60950-1
EMC	Emission: EN55022 Class B – EN61000-3.2/3.3 – EN61000-6.3/6.4
Immunity:	EN61000-6.1/6.2 – ANSI C62.41
Telecom networks	EN300386 – EN300132-2
Environment	EN300019 (transportation, storage and operation)
Acoustic noise	ETS 300753
Approvals	CE, UL under registration

AVAILABLE CONFIGURATIONS	
Product reference	MPS1600C-8 RSR1600-2
	MPS1600C-16 RSR1600-2



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