



Saft power systems

# MP60 series & MPS2000C series

16 kW Modular Power systems designed specifically  
for the Telecom and Datacom industries

Systems rated up to 320 A at 48 Vdc



## System comprises:

MP60 series is a family of self contained compact systems providing important space savings due to the high power density of the SM2000 rectifier and a compact system design.

The performance of the MP60-Series & MPS2000C-Series, with SM2000 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 ACM1000/Win1000 package provides the most

advanced features for system management and associated communication options, including Winsite.

MPS2000C integrating 19" adaptors can be also 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 provides optimum solutions customized to your specific needs.



## >> MP60 series & MPS2000C series

### Key Features

- Space saving due to its high power density and format (up to 16 kW in 9U);
- Robust due to its very wide operating input voltage range (80 to 280 Vrms);
- Wide operating temperature range - 10 °C to + 70 °C with full thermal management;
- High input power factor, low current harmonics (PFC), and high efficiency (>90 %) to reduce operating costs (OPEX);
- Powerful local/remote control and monitoring capabilities via ACM1000 digital controller;
- Complete system measurements;
- Complete system status and alarms management (44 configurable system status and alarms);
- Advanced battery management, including 4 charging modes for extended battery life;
- Easy to operate: compact, light, hot pluggable, clear indications by LED, and local backlight LCD display and keypad;
- User friendly interface thanks to Win1000 PC software;
- Advanced communication capabilities including 4 configurable alarm relays, local RS232,GSM or PSTN modem options ,TCP/IP web-server option;
- Designed for easy maintenance of all system key elements;
- Battery tests and measurements;
- Fan monitoring with alarm report for easy maintenance;
- Redundancy due to N+1 configuration;
- Automatic parallel operation of rectifiers, with active output current sharing;

- Hot-plug capability;
- SPD option, AC over voltage protection option, LVLD option,
- 19 " mechanical adaptors available ( MPS2000C range)
- CE

### For use with controller & communications:

ACM1000, NCS1000 , Modem options, WIN1000e, Win1000 and Winsite PC softwares

### For use with rectifier:

SM2000, ( SM1600 compatible )



# SPECIFICATION

## 16 kW Modular Power Subrack designed specifically for the Telecom and Datacom industries

INPUT			
Dimensions	MP60/MPS2000C-6	MP100/MPS2000C-10	MP160/MPS2000C-16
Nominal AC supply (link selectable)	208, 220, 230, 240 Vac single phase 380, 400, 415 Vac three phase + neutral		
Nominal current per rectifier	9.5 A at 230 Vac		
Nominal frequency	50/60 Hz		

OUTPUT			
Number and type of rectifier	Up to 3xSM2000	Up to 5xSM2000	Up to 8xSM2000
Nominal voltage	48 Vdc		
Output voltage control range	42-58 Vdc		
Output power range (Load & Battery charging)	6 kW, 120 A	10 kW, 200 A	16 kW, 320 A
Efficiency	>90%		

DISTRIBUTION			
DC Distribution Available in different options and configurations:	Up to 10MCBs (< 63A)	Up to 20 MCBs (< 63A)	Up to 23 MCBs (< 63A)

SUPERVISION AND COMMUNICATION	
Controller	ACM1000 digital alarm and system control module
Man machine interface	2 LEDs, back light LCD display and keypad - Win1000 PC software option
Communications	Local through RS232, Options: Remote via PSTN or GSM modem connection Remote using NCS1000 for TCP/IP/SNMP
Alarms	Configurable alarms, provided via 4 volt-free relay contacts (Urgent, Non-urgent, Mains failure, Spare)

BATTERY MANAGEMENT			
Battery protection	Battery charge current limiting - Automatic control of the LVD contactor - 2 alarmed battery fuses		
Low volts disconnect	(LVD) 80 A	(LVD) 125 A	(LVD) 250 A
Battery fuses	2 x 80 A	2 x 125 A	2 x 250 A
Charging modes	Power supply mode (no battery management)-floating mode with temperature compensation and current limited-Exceptional boost mode-Automatic high rate mode		
Battery test	Automatic, programmable, or manually triggered battery test-(test undertaken at constant discharge current)-battery history log (up to 512 events)		
Battery capacity	A battery capacity meter, integrated in ACM1000, calculates with algorithms, the battery charge state (expressed in % of nominal capacity)		

MECHANICAL SPECIFICATION			
Dimensions	MP60/MPS2000C-6	MP100/MPS2000C-10	MP160/MPS2000C-16
MP60 series & MPS2000C	H: 4U (177,8mm), D: 418mm	H: 6U (266,7mm), D: 418mm	H: 9U (400mm), D: 418mm
Weight (with rectifiers)	20 kg	28 kg	40 kg
Ingress protection	IP 20		
Cable entry	Rear (Through gland plates)		
Access	Front and Top access		

ENVIRONMENTAL	
Cooling	Forced air cooling with electronic speed control
Operating temperature	- 10 °C to + 70 °C, inlet ambient as normal conditions (automatic power de-rating from +45°C to +70°C )
Storage temperature	- 40 °C to + 85 °C
Humidity Shipping & Storage:	10-95 % RH non-condensing-Operating : 20-90% RH non-condensing
Acoustic noise	< 65 dBA, system fitted 5 x SM2000 at full power

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## STANDARDS

Safety	EN60950-1
EMC	EN300386-2 Emission: EN55022 Class B-EN61000-3.2/3.3-EN61000-6.3/6.4 Immunity : EN61000-6.1/6.2-EN61000-4.2/4.6-EN61000-4.11
Telecom networks	EN130132-2
Environment	EN300019 (transportation/class2.2, storage/class1.2 and operation/class 3.1E)
Acoustic noise	ETS 300753
Approvals	CE

## AVAILABLE CONFIGURATIONS

Product reference	MP60 series: MP60/MP100/MP160 MPS2000C series: MPS2000C-6kW / MPS2000C-10kW / MPS2000C-16kW
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**Power Systems**  
Whenever wherever watever

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