SOCCORRITORI IN CORRENTE ALTERNATA

The CPS SPH KING series has been designed in compliance with the EN50171 standard for independent centralized power supply systems of safety equipment, ideal for safety lighting in case of power supply failure, they can be applied to power other safety equipment, such as electrical circuits for automatic fire-fighting systems, paging systems and safety signaling systems, smoke extraction systems, carbon monoxide signaling systems and specific safety systems in high-risk areas. The CPS SPH KING series is available in powers from 6kVA to 15kVA.

PRINCIPLES OF WORKING

The loads can be divided into two types:

1) Users always powered (SA). the users are always fed both in the presence and absence of the mains.

2) Users powered emergency service only (SE) as option. The users are fed only in the absence of the mains.

- Operation as UPS (ON LINE). with the mains, the SA users are fed from the inverter (voltage stabilized and filtered), in mains failure condition, the inverter feeds both SA and SE (as option) users.

- Operation as an Emergency Device (OFF LINE). To reduce power consumption, an alternative mode is the following way: in the presence of the mains the load is supplied by the mains (filtered), in mains failure condition, the inverter feeds both SA and SE (as option) users.

In both previous cases, it is possible to control the power to the SE load with an external contact.

FEATURES

- Output power factor 0.9.
- Efficiency up to 99% offline.
- Transfer time zero (ONLINE mode).
- Parallelable up to 8 units (optional).
- Sinusoidal stabilized and filtered output voltage.
- Wide input voltage and frequency range, minimizing the battery usage.
- Overload capacity 120% continuous
- Battery monitoring and temperature. dependent charging function as option
- LCD display for measurements, system parameters and event log.
- Full discharge battery protection.
- ONLINE / OFFLINE operation mode.
- Insulation transformer (optional).
- Accessory slot, 2nd RS 232, dry contact, RS485 and SNPM.
- Compliance with the European standard EN50171
- Battery life design 10 years.

CONTROL PANEL

The control panel consists of a graphic display, 6 LEDs of visual signal and 4 function keys. 5.1" LCD Display with 16 lines and up to 40 characters each. The resolution is 240x128 pixels in black and white.

Messages are available in the following languages: Italian, English, French, German, Spanish, Polish, Chinese, and Russian. A large graphic display is located at the center of the control panel, enabling you to always have a detailed overview of UPS status in the foreground and in real time. Directly from the control panel, the user can turn on / off the UPS, check the electrical measurements of the network, output, battery, etc., and perform the main machine settings.

INTERFACES

The front panel (behind the door) allows access to the following communication ports:

- Serial port, available with RS232 connector and USB connector.
- EPO
- No. 2 Expansion Slots for additional interface cards.

Dry contact card

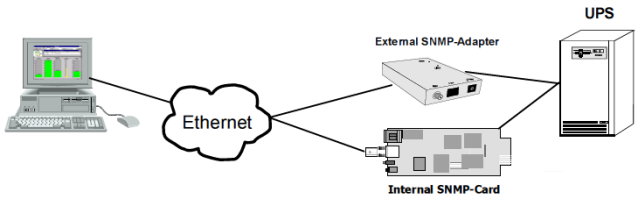
There are two accessory types of dry contact cards, with 4 and 8-way programmable.

Emergency Power Off – EPO

The isolated contact is used to turn off the UPS in an emergency. The Emergency Power Off facility must use a Normally Closed contact, which opens to operate the emergency stop sequence. The EPO circuit is self-powered with SELV circuits. No external power supply is required.

SNMP

The SNMP network adapter manages UPS through the LAN by using one of the main TCP/IP, HTTP, HTTPS, and SNMP v1 and SNMP v3 network communication protocols. The software allows UPS to be integrated into medium and large networks and to provide reliable communication between the UPS and the management system used.



RS485

Modbus / Jbus protocol converter via RS485 output for UPS monitoring in BMS (Build Management System).

Profibus DP

External accessory that allows the UPS to be integrated into a Profibus DP network. With this device UPS management and monitoring can be integrated into a control system based on one of the most widely used bus buses in the industrial field for communication between control / automation systems and distributed I/O.

Remote Panel

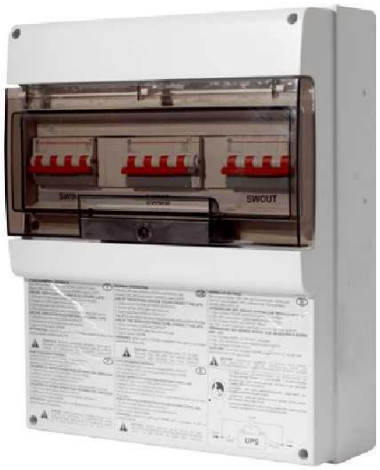
Remote Panel that allows remote UPS monitoring and real-time detailed overview of operating conditions; it can display on the display the values of the UPS specifying input and output, and battery measurements. The graphic display has a high definition and manages 7 languages: English, Italian, German, French, Spanish, Russian and Chinese.

External battery temperature sensor

The UPS has a dedicated input to detect the temperature inside a Remote Battery Box and display the temperature on the UPS display.

External maintenance bypass

You can install a remote maintenance bypass on a peripheral electrical board, for example to allow UPS to be replaced without interrupting power supply.



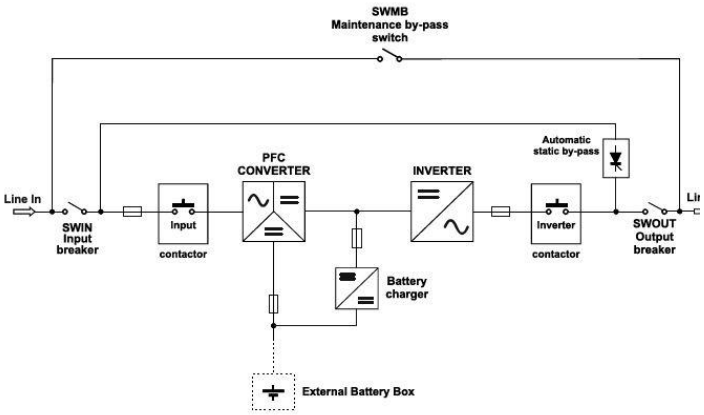
INPUT AND OUTPUT

In/outlet terminals are placed in the front bottom under the switch isolators of the apparatus. On request is possible to provide the apparatus with input/output and battery terminals from the top.

N+X POWER SCALABLE PARALLEL REDUNDANCY

The CPS SPH KING may be paralleled for power capacity or for redundancy up to 8 units to increase the power capacity or configuring a parallel redundant UPS system. The standard version is not provided with this feature which is optional and field upgradable.

BLOCK DIAGRAM



Model	CPS SPH KING 6	CPS SPH KING 10	CPS SPH KING 15
Rated power kVA/kW	6/5.4	10/9	15/13.5
INPUT			
Nominal voltage	380-400-415 Vac 3PH+N		
Voltage tolerance	320÷480Vac @ 100% load - 240÷480Vac @ 50% load		
Power factor	0.99 at full load		
Frequency tolerance	40 ÷ 72Hz		
Current distortion THDI	3%		
Inrush current	Absent		
OUTPUT			
Voltage	220-230-240Vca 1Ph+N		
Voltage tolerance	±1% static stability; ±3% dynamic stability		
Voltage distortion	<1% with linear load, <3% with non-linear load		
Frequency	50Hz or 60Hz		
Frequency stability during battery operation	0.01%		
Waveform	Sinusoidal		
Transfer time	0 ms.		
Power factor	3:1		
Overload	120% continuos, 130% 10 min, 160% 1 min, 200% 4 sec		
BATTERY			
Type	Sealed Lead Acid maintenance free – NiCd – Li-ion		
Battery charger	6A (10A optional)		
Nominal voltage	±240Vdc		
EFFICIENCY			
ON LINE mode	93.5%	93.5%	94%
OFF LINE mode	Up to 99%		
MISCELLANEOUS			
Relative humidity	90% without condensing		
Operating temperature	from 0°C to + 40°C		
Noise level 1mt	≤48dBA	≤48dBA	≤52dBA
Interfaces	RS232 & EPO standard, dry contact, SNMP, RS485 as option		
Colour	Dark grey RAL7016		
Dimensions w/o battery	440x850x1320mm		
Net weight w/o battery	105kgs	110kgs	120kgs
Protection degree	IP20		
STANDARDS			
Safety	EN 62040-1		
EMC	EN 62040-2		
Performance	EN 62040-3		
Central Power Supply	EN 50171		

ELIT Srl reserves his right to do modifications to his products without notice.