



SOCCORRITORI IN CORRENTE CONTINUA



The DC power station SE series are the result of a long experience in the field of UPS as well as in this specific. The DC Power Station SE series is an electronic device that transforms the AC power into direct current with a sinusoidal wave at 12Vdc, 24Vdc, 48Vdc and 110Vdc. Typical applications are telephone systems, auxiliary cabin power supply, substations, LV / MV switchboards and emergency lighting. The DC power station ensures continuity of power even in the event of a power failure, thanks to the batteries connected to the station. The switching operation with input PFC minimizes the distortion of the current absorbed by the mains and allows to obtain high efficiency, therefore low dissipation and energy saving. The products fully meet the requirements of the CEI 103-1 / 11 standards for telephone systems too.

PRINCIPLES OF WORKING

The SE dc power station series has been designed to supply direct current loads "without interruption" (no transfer time) either in the presence or in the absence of the electrical mains. In the presence of main, the dc power station converts the input voltage to DC voltage and provides galvanic isolation between input and output. The use of a microprocessor allows the control of the output voltage, of the current absorbed by the load, of the batteries, and the disconnection of the same in case of excessive discharge.

The microprocessor, with which the dc power station is equipped, with the support of analog and digital sensors, controls all the electrical parameters such as voltages, currents that will be displayed on the synoptic panel. When the microprocessor detects an anomaly, it displays it on the display, stores it in the power history, and activates the corresponding alarm relay.

All of these system parameters and the associated alarm messages can be transmitted either through a dry contact interface or via an accessory SNMP card.

FEAUTES

- Input voltage: 230V single-phase, 50Hz (400V 3Ph+ N on request).
- Electronic stabilization, output voltage and frequency independent by the input.
- Continuous operation.
- Transfer time zero in mains failure situation
- Isolation transformer.
- Switching technology.
- LCD display for output measurements.
- Insulation controller as option.
- Automatic and manual battery test.
- Operation in parallel with other units.
- Available in cabinet or rack configuration.
- Back up time or higher powers on request.
- Dry contacts for remote alarms.
- Optional SNMP interface.

CONTROL PANEL

The SE dc power station has provided with the following operating and alarm signals:

- Mains presence
- Battery in discharge
- System Failure
- Battery control button
- Voltage / current button
- Battery Exclusion buttons
- Power switch
- Ethernet connector for LAN interface if required.



PRODUCT RANGES

The SE dc power stations are available with the following output voltages:

- SE 12Vdc: powers available from 5A to 40A
- SE 24Vdc: powers available from 5A to 600A
- SE 48Vdc: powers available from 5A to 600A
- SE 110Vdc: powers available from 5A to 200A
- SE 220Vdc: powers available from 5A to 200A

Back up time: from 10 minutes to 4 hours.
All devices are equipped with VRLA batteries, 10 years lifetime design.
By using the assemblies used in standard equipment, and therefore with proven functionality, custom realization are available.

INTERFACES

The SE dc power station is provided with the following communication ports:

Dry contact interface

To remote alarms as mains, low battery and general alarm.

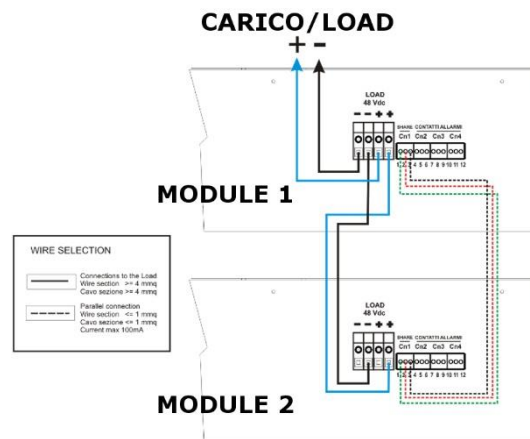
SNMP

Interface for the optional LAN network connection, which controls all the operating parameters and manages the tele-diagnosis service. The Lan network uses the TCP / IP protocol to control the power station using the Ethernet network from either a local or WAN network. The system may also manages a gateway (router) to be able to access remotely

via the Internet. Access to the network is done by using a browser or other programs such as Telnet and typing the IP address set or in the local Windows environment the default NETBIOS name of the machine.

N+X POWER SCALABLE PARALLEL REDUNDANCY

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



INPUT AND OUTPUT

The input and output terminal board is located on the back of the device.

On the back panel there are:

- Load output connector: no.2 negative terminals + no.2 positive terminals in parallel.
- Internal battery protection fuses and load.
- CN1 green terminal for parallel connection with other devices.
- Green terminals from CN2 to CN4 for remote alarm signaling.
- Mains input protection fuses.
- 230Vac input socket.



INPUT				
Nominal Voltage	230V 1Ph+N or 400V 3Ph+N as option			
Voltage tolerance	± 20%			
Frequency	50Hz ± 5%			
Inrush current	Soft start			
OUTPUT				
Nominal voltage	12Vdc	24Vdc	48Vdc	110Vdc
Floating voltage	13.5Vdc	27.2Vdc	54Vdc	125Vdc
Static stability	± 1%			
Electronic protection	Overload, short-circuit and temperature			
Transfer time	0 ms.			
Ripple voltage	50 mVrms 100 mVpp			
BATTERY				
Type	Sealed Lead Acid maintenance free			
Life design	10 years			
Charging characteristic	IU (DIN 41773)			
Recharge time	8 hrs			
Battery protection	Fuses			
Battery test	Automatic and manual			
MISCELLANEOUS				
Efficiency	> 90%			
Working temperature	0 ÷ +45°C			
Storage temperature	-25 ÷ +60°C			
Humidity at 40°C	95% without condensing			
Noise level 1mt	35dBA			
LCD display output measurement	Voltage and current			
Status signaling	LED			
Configurations	Cabinet			
	Rack 19"			
	Open frame			
Dry contacts	Mains failure, battery discharged, fault			
STANDARDS				
Safety	EN 61204-7			
EMC	EN 61204-3			
Performance	EN 61204			

Product Code	Rated power W	Output voltage Vdc	Output Current A	Back up time min	Power station Dimensions WxDxH mm	Weight kgs
SE 12 10 060 C	120	12	10	60	315x210x430	16
SE 12 10 090 C	120	12	10	90	315x210x430	18
SE 12 10 120 C	120	12	10	120	315x210x430	21
SE 12 10 180 C	120	12	10	180	315x210x430	22
SE 12 10 360 C	120	12	10	360	315x210x430	32
SE 12 20 030 C	240	12	20	30	315x210x430	16
SE 12 20 060 C	240	12	20	60	315x210x430	21
SE 12 20 090 C	240	12	20	90	315x210x430	22
SE 12 20 180 C	240	12	20	180	315x210x430	32
SE 12 20 007 C RT	240	12	20	7	445x333x132	9
SE 12 20 020 C RT	240	12	20	20	445x333x132	12
SE 12 20 030 C RT	240	12	20	30	445x388x176	16
SE 12 20 060 C RT	240	12	20	60	445x333x132	16
SE 12 20 090 C RT	240	12	20	90	445x388x176	22
SE 12 20 180 C RT	240	12	20	180	445x388x176	34

Product Code	Rated power W	Output voltage Vdc	Output Current A	Back up time min	Power station Dimensions WxDxH mm	Weight kgs
SE 24 10 020 C	240	24	10	20	315x210x430	16
SE 24 10 060 C	240	24	10	60	315x210x430	21
SE 24 10 090 C	240	24	10	90	315x210x430	22
SE 24 10 180 C	240	24	10	180	315x210x430	32
SE 24 20 010 C	480	24	20	10	315x210x430	20
SE 24 20 020 C	480	24	20	20	315x210x430	25
SE 24 20 030 C	480	24	20	30	315x210x430	28
SE 24 20 090 C	480	24	20	90	315x210x430	35
SE 24 20 010 C RT	480	24	20	10	445x333x132	11
SE 24 20 020 C RT	480	24	20	20	445x333x132	16
SE 24 20 030 C RT	480	24	20	30	445x388x176	22
SE 24 20 090 C RT	480	24	20	90	445x388x176	34
SE 24 25 000 C RT	600	24	25	--	445x330x88	12
SE 24 25 030 C	600	24	25	30	410x350x710	45
SE 24 25 060 C	600	24	25	60	410x350x710	65
SE 24 25 120 C	600	24	25	120	410x350x710	80
SE 24 25 180 C	600	24	25	180	410x350x710	95
SE 24 25 300 C	600	24	25	300	410x350x710	125
SE 24 50 000 C RT	1200	24	50	--	445x330x88	14
SE 24 50 020 C	1200	24	50	20	410x350x710	68
SE 24 50 045 C	1200	24	50	45	410x350x710	85
SE 24 50 060 C	1200	24	50	60	410x350x710	97
SE 24 50 090 C	1200	24	50	90	430x367x776	100
SE 24 50 120 C	1200	24	50	120	410x350x710	130
SE 24 50 180 C	1200	24	50	180	430x367x776	160

Product Code	Rated power W	Output voltage Vdc	Output Current A	Back up time min	Power station Dimensions WxDxH mm	Weight kgs
SE 48 10 020 C	480	48	10	20	371x226x603	20
SE 48 10 090 C	480	48	10	90	315x320x190	35
SE 48 10 020 C RT	480	48	10	20	445x333x132	18
SE 48 10 090 C RT	480	48	10	90	445x388x176	34
SE 48 15 000 C RT	720	48	15	--	445x330x88	12
SE 48 15 060 C	720	48	15	60	410x350x710	68
SE 48 15 120 C	720	48	15	120	410x350x710	92
SE 48 15 180 C	720	48	15	180	410x350x710	122
SE 48 20 000 C RT	960	48	20	--	445x330x88	12
SE 48 20 030 C	960	48	20	15	410x350x710	68
SE 48 20 060 C	960	48	20	30	410x350x710	95
SE 48 20 120 C	960	48	20	60	410x350x710	125
SE 48 30 000 C RT	1440	48	30	--	445x330x88	16
SE 48 30 020 C	1440	48	30	20	410x350x710	73
SE 48 30 045 C	1440	48	30	45	410x350x710	97
SE 48 30 090 C	1440	48	30	90	410x350x710	128
SE 48 30 120 C	1440	48	30	120	410x350x710	160

Product Code	Rated power W	Output voltage Vdc	Output Current A	Back up time min	Power station Dimensions WxDxH mm	Weight kgs
SE 110 10 090 C	1100	110	10	90	410x350x710	87
SE 110 10 120 C	1100	110	10	120	410x350x710	115
SE 110 10 180 C	1100	110	10	180	2x(410x350x710)	166
SE 110 10 300 C	1100	110	10	300	2x(410x350x710)	240
SE 110 25 000 C RT	2750	110	25	--	445x330x88	16