



■ Main Features

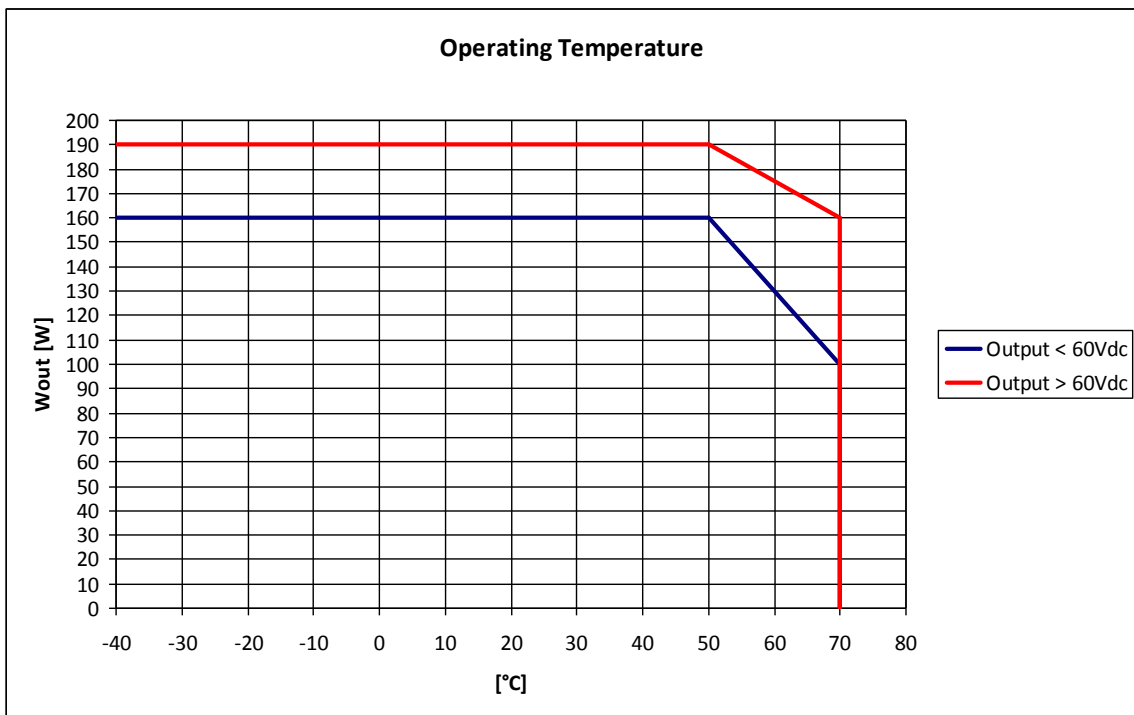
-] High efficiency and compact size
-] Active PFC
-] Digital Power regulation
-] Wide input voltage range 170...550Vac
-] Wide output voltage range 24...120Vdc, user settable
-] User settable current limitation threshold
-] Remote ON/OFF or other remote control functions
-] Modbus over RS-485 interface for control and monitoring
-] Multiple protections
-] 2 user programmable voltage steps with settable duration
-] Can be used as battery charger (lead acid, nickel, lithium)
-] Can be used for LED lighting
-] Can be paralleled for power or redundancy (with external ORing Module)
-] Up to 50°C operating temperature with no derating
-] Suitable for **POWERMASTER** software (available for Windows and Android OS)
-] Excellent versatility, allowing parts stock savings

TECHNICAL DATA

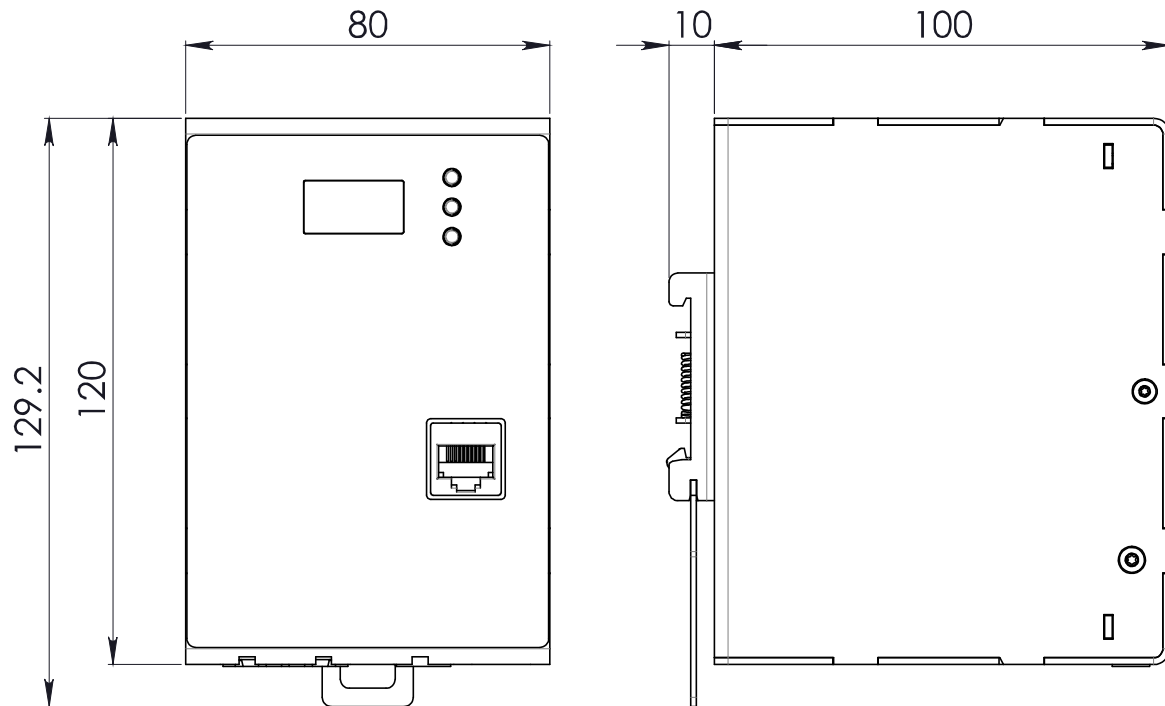
Model type	SBP200L	
OUTPUT DATA		
Rated voltage	24...120Vdc	
Adj. output voltage range	24...120Vdc (1V resolution programmable)	
Continuous current	4.0A @ 24Vdc, 3.0A @ 48Vdc, or $V_{out} \times I_{out} = 200W$ Max. for $V_{out} > 48Vdc$	
Overload limit	4.4A to 1.9A (depending on V_{out})	
Short circuit peak current	4.9A to 2.2A (depending on V_{out})	
Load regulation	$\leq 1\%$	
Ripple & Noise ¹	$\leq 200mVpp$	
Hold up time	$\geq 25ms$	
Battery charger function	C.C. / C.V. (setup via front panel or POWERMASTER application)	
Battery chemistries	<ul style="list-style-type: none"> ▪ Lead Acid ▪ Lithium 	
Protections	<ul style="list-style-type: none"> ▪ Overload and short circuit protection ▪ Thermal protection ▪ Input undervoltage lockout (UVLO) ▪ Input overvoltage protection (VDR) 	
Status Signals	<ul style="list-style-type: none"> ▪ 7 segment, 3 digits display ▪ 3 programming keys ▪ ENABLE - isolated remote ON/OFF input, active for 5...30Vdc ▪ DC OK - dry contact (NO, 24Vdc / 1A) ▪ Modbus over RS-485 interface 	
Parallel connection	Possible for power and redundancy (with external ORING module)	
INPUT DATA		
Input AC rated voltage	Nominal: 1/2 phases 200...500Vac	
Frequency	Range: 170...550Vac 47...63Hz	
Input DC rated voltage	250...725Vdc	
Input AC rated current	1.4A	
$V_{in} = 200Vac$	0.5A	
$V_{in} = 500Vac$		
Input DC rated current	1.0A	
$V_{in} = 250Vdc$	0.4A	
$V_{in} = 725Vdc$		
Standby power	< 4W	
Power Factor Correction	Active > 0.9	
Inrush peak current ² / I^2t	$\leq 40A / 0.69A^2s$	
Touch (leakage) current	$\leq 0.4mA$	
Internal Protection fuse	None, external fuse must be provided	
Recommended external protection	MCB 10A C curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations.	
GENERAL DATA		
Efficiency	> 82% ... > 90% (depending V_{out})	
Dissipated power	< 21W	
Operating temperature ³	- 40°C...+ 70°C	
Derating	Over 60Vdc: - 1.5W/°C over 50°C Under 60Vdc: - 3.0W/°C over 50°C See Fig.1	
Storage temperature	- 40°C...+ 80°C	
Humidity	5...95% r.H. non condensing	
Life time expectation	71'686h (8.1 years) at 25°C ambient full load	
MTBF	<ul style="list-style-type: none"> ▪ MIL-HDBK-217F > 500'000h at 25°C ambient full load 	
Overvoltage category	<ul style="list-style-type: none"> ▪ EN50178 III 	
Pollution degree	<ul style="list-style-type: none"> ▪ IEC60664-1 2 	
Input / output isolation	4.2kVdc	
Input / ground isolation	2.2kVdc	
Output / ground isolation	0.75kVdc	
Safety Standards	<ul style="list-style-type: none"> ▪ UL508 (reference) ▪ EN60950 (reference) ▪ EN50178 (reference) 	
EMC Emission	<ul style="list-style-type: none"> ▪ EN55011 (CISPR11) Class A ▪ EN55022 (CISPR22) Class A ▪ EN61000-3-2 Class A 	
EMC Immunity	<ul style="list-style-type: none"> ▪ EN61000-4-2 Level 3 ▪ EN61000-4-3 Level 3 ▪ EN61000-4-4 Level 3 ▪ EN61000-4-5 Level 4 ▪ EN61000-4-11 Level 2 	
Protection degree	<ul style="list-style-type: none"> ▪ EN60529 IP20 	
Vibration sinusoidal	<ul style="list-style-type: none"> ▪ IEC60068-2-6 (5-17.8Hz: $\pm 1.6mm$; 17.8-500Hz: 2g 2hours / axis (X,Y,Z) 	
Shock	<ul style="list-style-type: none"> ▪ IEC60068-2-27 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total) 	
IN/OUT Connection terminals	2.5mm ² , screw type pluggable (24...12AWG)	
Auxiliary connection terminals	Up to 0.5mm ² , Fast pluggable type (20AWG)	
Communication interface connector	RS-485 through RJ45 Female	

Case material	Aluminum
Weight	0.75kg
Size (W x H x D)	80.0 x 120.0 x 100.0mm
<p>1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor. 2) Peak current measured after 0.2ms from main connection; 400Vac/50Hz; Ambient temperature at 25°C; Cold Start. 3) Start-up type tested: - 40°C, possible at nominal voltage with load deration.</p> <p>Notes: - For more details, performance and descriptions regarding all parameters not indicated in the above table, please refer to the user manual downloadable from www.nextys.com - Technical parameters are typical, measured in laboratory environment at 25°C and 400Vac / 50Hz, at nominal values, after minimum 5 minutes of operation. - Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details. - Data may change without prior notice in order to improve the product.</p>	

Fig.1



DIMENSIONS



CONNECTION



Input Connection:

- Single phase:
- L1 = Line
 - N = Neutral
 - | = Earth ground
- 2 phases:
- L1 = Phase 1
 - L2 = Phase 2
 - | = Earth ground
- DC:
- L1 = + Positive DC
 - L2 = - Negative DC
 - | = Earth ground

ENABLE: (5...30Vdc)

- + = Positive DC
- - = Negative DC

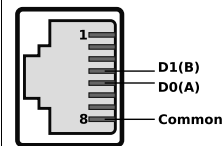
Output Connection:

- + = Positive DC
- - = Negative DC

Signaling:

- DC OK:** dry contact
- + = NO
 - - = COM

RS-485



- PIN4 = TX/RX D1
- PIN5 = TX/RX D0
- PIN8 = GND