

SBP200L

AC/DC programmable din rail power supply 200W 24v to 120V



■ Main Features

- J High efficiency and compact size
- J Active PFC
- J Digital Power regulation
- J Wide input voltage range 170...550Vac
- J Wide output voltage range 24...120Vdc, user settable
- J User settable current limitation threshold
- J Remote ON/OFF or other remote control functions
- J Modbus over RS-485 interface for control and monitoring
- J Multiple protections
- J 2 user programmable voltage steps with settable duration
- J Can be used as battery charger (lead acid, nickel, lithium)
- J Can be used for LED lighting
- J Can be paralleled for power or redundancy (with external ORing Module)
- J Up to 50°C operating temperature with no derating
- J Suitable for **POWERMASTER** software (available for Windows and Android OS)
- J 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 Vout x Iout= 200W Max. for Vout > 48Vdc | |
| Overload limit | 4.4A to 1.9A (depending on Vout) | |
| Short circuit peak current | 4.9A to 2.2A (depending on Vout) | |
| Load regulation | ≤ 1% | |
| Ripple & Noise ¹ | ≤ 200mVpp | |
| Hold up time | ≥ 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 ▪ Nickel ▪ 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 | |
| Vin = 200Vac | 0.5A | |
| Vin = 500Vac | | |
| Input DC rated current | 1.0A | |
| Vin = 250Vdc | 0.4A | |
| Vin = 725Vdc | | |
| Standby power | < 4W | |
| Power Factor Correction | Active > 0.9 | |
| Inrush peak current | ≤ 50A | |
| Touch (leakage) current | ≤ 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 Vout) | |
| Dissipated power | < 21W | |
| Operating temperature ² | - 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 | |
| Overvoltage category | ▪ EN50178 | III |
| Pollution degree | ▪ 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 | ▪ EN60529 | IP20 |
| Vibration sinusoidal | ▪ IEC60068-2-6 | (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z) |
| Shock | ▪ 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 | |

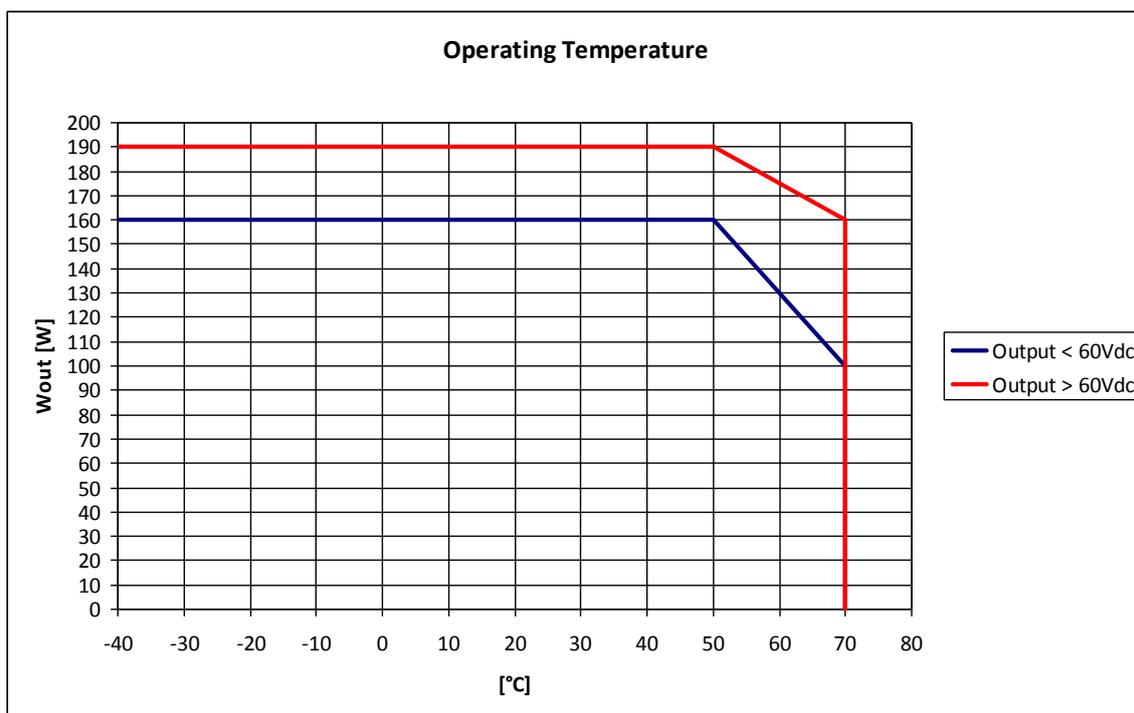
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| | |
|--|------------------------|
| Case material | Aluminum |
| Weight | 0.75kg |
| Size (W x H x D) | 80.0 x 120.0 x 100.0mm |
| 1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor. 2) Start-up type tested: - 40°C, possible at nominal voltage with load deration. | |
| 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.nextsys.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. | |

Fig.1

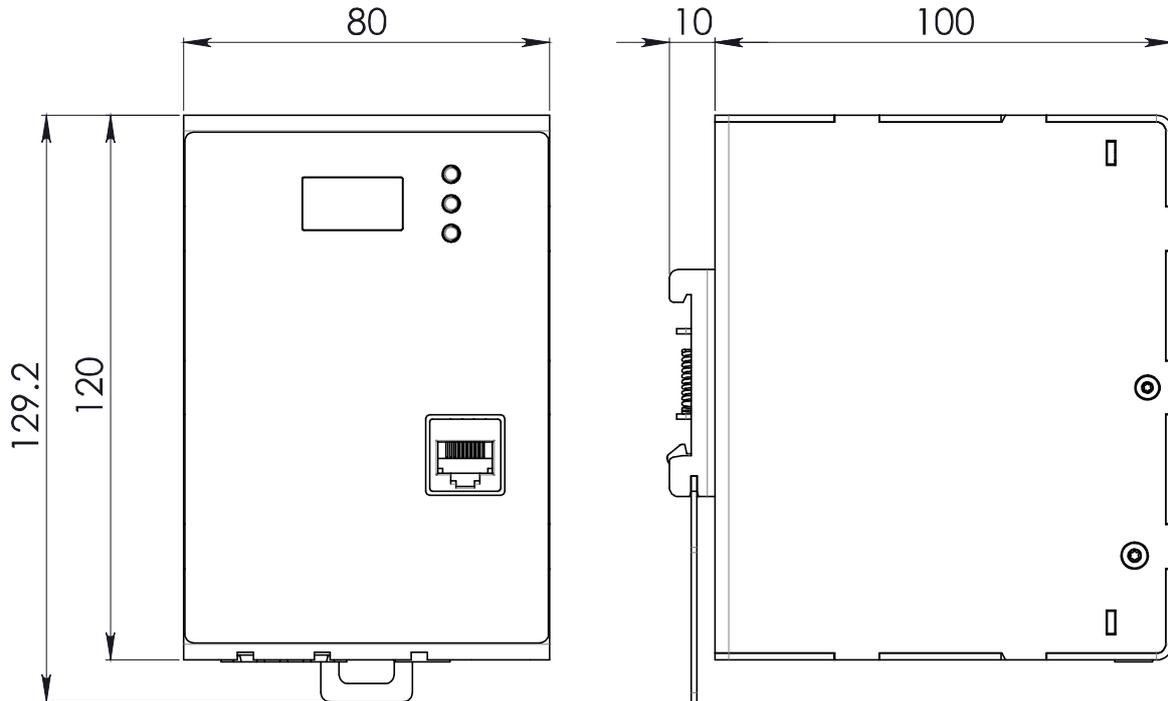


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DIMENSIONS



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

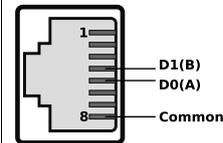
Output Connection:

- + = Positive DC
- - = Negative DC

Signaling:

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

RS-485



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