



■ Main Features

- ⌋ “All-in-one” economic solution for general purpose
- ⌋ Input: 120...240Vac
- ⌋ Output: 12 or 24Vdc – model dependent
- ⌋ To be used with lead acid and lithium batteries (compatible with lead acid batteries)
- ⌋ Instantaneous LOAD switch BACKUP mode



120W Basic DIN Rail Power Supply Battery Charger and DC UPS Module

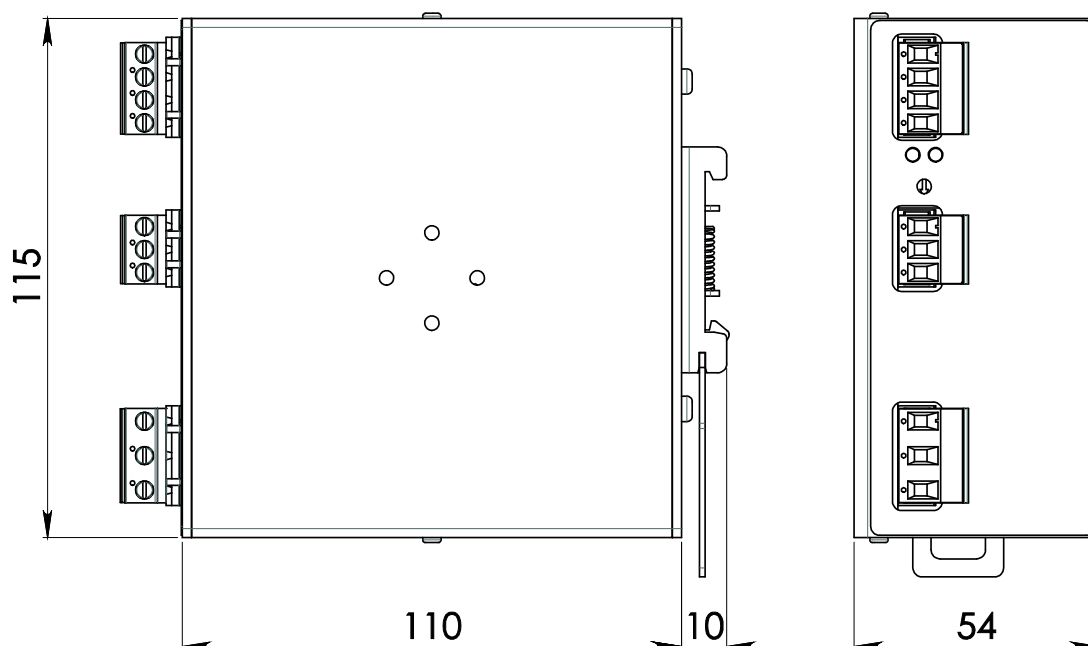
TECHNICAL DATA

| Model type | VPU120-12 | VPU120-24 |
|--|--|---|
| OUTPUT DATA | | |
| Rated voltage | 12Vdc | 24Vdc |
| Adj. output voltage range | 12.5...15.5Vdc (to be set at 14Vdc for correct battery charging) | 23...27.5Vdc (to be set at 27Vdc for correct battery charging) |
| Continuous current | 7.0A | 5.0A |
| Overload limit | 11.5A | 6.5A |
| Short circuit peak current | > 20A for 40ms | > 16A for 80ms |
| Load regulation | ≤ 1% | |
| Ripple & Noise ¹ | ≤ 100mVpp | |
| Hold up time | | |
| Vin = 120Vac | ≥ 10ms | ≥ 10ms |
| Vin = 240Vac | ≥ 80ms | ≥ 55ms |
| Protections | <ul style="list-style-type: none">Overload/short circuit: Hiccup modeThermal protectionOutput overvoltage | |
| Output overvoltage protection (active) | ≥ 18Vdc | ≥ 33Vdc |
| Battery protections | <ul style="list-style-type: none">Against short-circuit with resettable fuse (9A)Against reverse polarity connectionAgainst deep discharge | |
| Deep discharge cut-off voltage | 9Vdc ± 0.5V | 18Vdc ± 0.5V |
| Status Signals | <ul style="list-style-type: none">LOAD ON PSU - green LEDLOAD ON BATTERY - amber LEDDry contact (SPDT, 24Vdc / 1A) | |
| Parallel connection | Not recommended | |
| BATTERY INFO | | |
| Rated voltage | 12...14.4Vdc | 24...28.8Vdc |
| Charging current | 0.8A max. | |
| INPUT DATA | | |
| Input AC rated voltage | Nominal: 120...240Vac | |
| Frequency | Range: 100...264Vac 47...63Hz | |
| Input DC rated voltage | 140...345Vdc | |
| Input AC rated current | | |
| Vin = 120Vac | 2.0A | |
| Vin = 240Vac | 1.1A | |
| Input DC rated current | | |
| Vin = 140Vdc | 1.0A | |
| Vin = 345Vdc | 0.5A | |
| Inrush peak current | ≤ 40A | |
| Touch (leakage) current | ≤ 0.6mA | |
| Internal protection fuse | Fuse 3.15AT (not user replaceable) | |
| Recommended external protection | Fuse 4AT or MCB 4A C curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations. | |
| GENERAL DATA | | |
| Efficiency | > 83.5% | > 86% |
| Dissipated power | < 21W | < 20W |
| Operating temperature ² | - 40°C...+ 70°C | |
| Derating | - 0.6W/°C over 45°C | - 0.96W/°C over 45°C |
| Storage temperature | - 40°C...+ 80°C | |
| Humidity | 5...95% r.H. non condensing | |
| Life time expectation | 167'953h (19.1 years) 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 |
| Protection Class | <ul style="list-style-type: none">Class | I |
| Input / output isolation | 4.2kVdc | |
| Input / ground isolation | 2.2kVdc | |
| Output / ground isolation | 0.75kVdc | |
| Safety Standards | <ul style="list-style-type: none">UL508EN60950EN50178 | (reference) (reference) (reference) |
| EMC Emission | <ul style="list-style-type: none">EN55011 (CISPR11)EN55022 (CISPR22) | Class A Class A |
| EMC Immunity | <ul style="list-style-type: none">EN61000-4-2EN61000-4-3EN61000-4-4EN61000-4-5EN61000-4-11 | Level 3 Level 2 Level 2 Level 3 Level 2 |
| Protection degree | <ul style="list-style-type: none">EN60529 | IP20 |
| Vibration sinusoidal | <ul style="list-style-type: none">IEC 60068-2-6 | (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z) |
| Shock | <ul style="list-style-type: none">IEC 60068-2-27 | (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total) |
| Connection terminals | 2.5mm ² , screw type pluggable (24...12AWG) | |

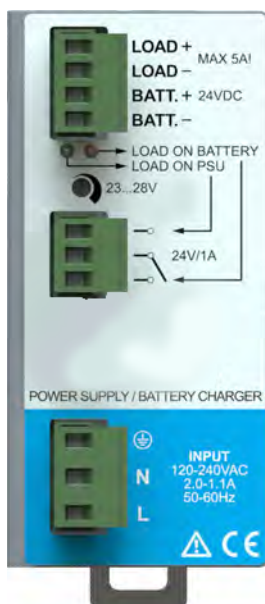
120W Basic DIN Rail Power Supply Battery Charger and DC UPS Module

| | | |
|--|---|------------------------|
| Case material | - | Aluminum |
| Weight | | 0.50kg |
| Size (W x H x D) | | 54.0 x 115.0 x 110.0mm |
| 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: - Technical parameters are typical, measured in laboratory environment at 25°C and 240Vac / 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. | | |

DIMENSIONS



CONNECTION



Input Connection:

Single phase:

- L = Line
- N = Neutral
- I = Earth ground

DC:

- L = + Positive DC
- N = - Negative DC
- I = Earth ground

Output Connection:

- LOAD + = Positive DC
- LOAD - = Negative DC
- BATT + = Positive DC Battery
- BATT - = Negative DC Battery

Signalling:

- SPDT dry contact
- NO
- NC
- COM