

### ■ Main Features

- ┘ Low cost DC-UPS with charging function of a 12 or 24Vdc battery
- ┘ Suitable for power supplies with adjustable output
- ┘ Allows to feed the load and to charge the battery simultaneously
- ┘ Built-in battery overcurrent protection fuse
- ┘ Battery deep discharge protection
- ┘ To be used with lead acid and lithium batteries (compatible with lead acid batteries)
- ┘ Instantaneous LOAD switch to BACKUP mode

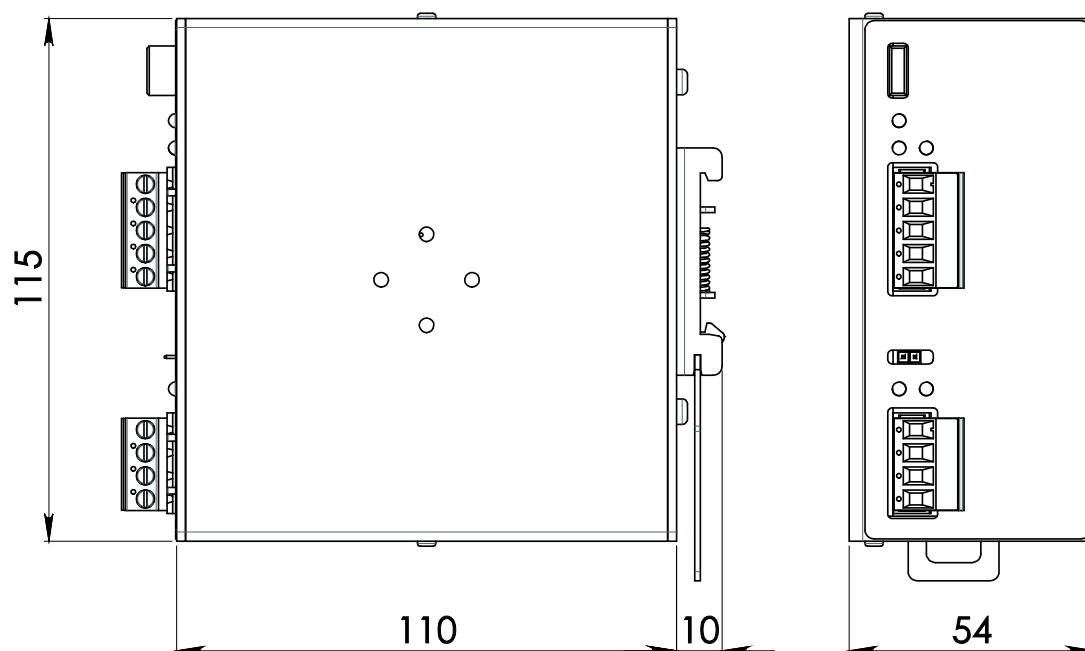


# TECHNICAL DATA

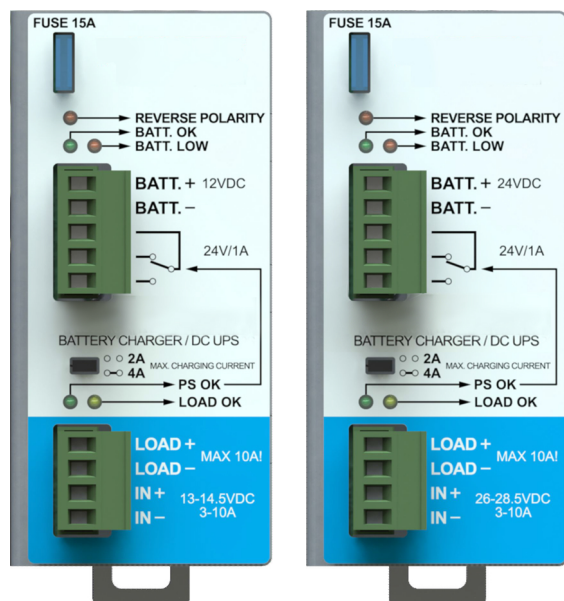
TECHNICAL DATA	VPUPS12	VPUPS24
Model type		
OUTPUT DATA		
Load rated voltage	12Vdc	24Vdc
Charging current Limit (Settable)	2.0A or 4.0A	
Load maximal current	10A	
Battery fuse	15A / 32V - Mini blade type, user replaceable	
Battery float voltage	[Vin - 0.4V] 11Vdc min.	[Vin - 0.4V] 26Vdc min.
Deep discharge cut-off voltage	9.2Vdc ± 0.5V	18Vdc ± 0.5V
Chargeable capacity of the battery vs power supply voltage	75% @ 13Vdc 85% @ 13.5Vdc 100% @ 14Vdc	75% @ 26Vdc 85% @ 27Vdc 100% @ 28Vdc
“Batt. OK” LED	ON for U Batt. > 11.6Vdc ± 0.2V	ON for U Batt. > 23.5Vdc ± 0.2V
“Batt. LOW” LED	ON for U Batt. < 11.6Vdc ± 0.2V	ON for U Batt. < 23.5Vdc ± 0.2V
Protections	<ul style="list-style-type: none"><li>▪ Battery reverse connection</li><li>▪ Battery short-circuit/overload</li><li>▪ Battery deep discharge</li></ul>	
Status Signals	<ul style="list-style-type: none"><li>▪ PS OK - green LED</li><li>▪ LOAD OK - amber LED</li><li>▪ BATT. OK - green LED</li><li>▪ BATT. LOW - red LED</li><li>▪ REVERSE POLARITY - red LED</li><li>▪ Dry contact (SPDT, 24Vdc / 1A)</li></ul>	
INPUT DATA		
Input DC rated voltage from power supply	13...14.5Vdc (UL certified)	26...28.5Vdc (UL certified)
Input DC rated current	3...10A	
GENERAL DATA		
Operating temperature <sup>1</sup>	- 40°C...+ 70°C UL certified up to 60°C	
Derating	- 0.25A/°C over 60°C	
Storage temperature	- 40°C...+ 80°C	
Humidity	5...95% r.H. non condensing	
Life time expectation	64'000h (7.3 years) at 25°C ambient full load	
MTBF	<ul style="list-style-type: none"><li>▪ MIL-HDBK-217F &gt; 500'000h at 25°C ambient full load</li></ul>	
Overvoltage category	<ul style="list-style-type: none"><li>▪ EN50178 I</li></ul>	
Pollution degree	<ul style="list-style-type: none"><li>▪ IEC60664-1 2</li></ul>	
Isolation against enclosure	0.75kVdc	
Safety Standards	<ul style="list-style-type: none"><li>▪ UL508 (certified E356563)</li><li>▪ EN60950 (reference)</li><li>▪ EN50178 (reference)</li></ul>	
EMC Emission	<ul style="list-style-type: none"><li>▪ EN55011 (CISPR11) Class A</li><li>▪ EN55022 (CISPR22) Class A</li></ul>	
EMC Immunity	<ul style="list-style-type: none"><li>▪ EN61000-4-2 Level 3</li><li>▪ EN61000-4-3 Level 3</li><li>▪ EN61000-4-4 Level 3</li><li>▪ EN61000-4-5 Level 1</li><li>▪ EN61000-4-11 Level 2</li></ul>	
Protection degree	<ul style="list-style-type: none"><li>▪ EN60529 IP20</li></ul>	
Vibration sinuosoidal	<ul style="list-style-type: none"><li>▪ IEC 60068-2-6 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z)</li></ul>	
Shock	<ul style="list-style-type: none"><li>▪ IEC 60068-2-27 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)</li></ul>	
Connection terminals	2.5mm², screw type pluggable (24...12AWG)	
Case material	Aluminum	
Weight	0.30kg	
Size (W x H x D)	54.0 x 115.0 x 110.0mm	
1) 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 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 / Output Connection:

- IN + = Positive DC (Power Supply)
  - IN - = Negative DC (Power Supply)
  - LOAD + = Positive DC
  - LOAD - = Negative DC
  - BATT.+ = Positive DC (Battery)
  - BATT.- = Negative DC (Battery)
- Signaling: dry contact (SPDT)
- NO
  - NC
  - COM