

### ■ 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

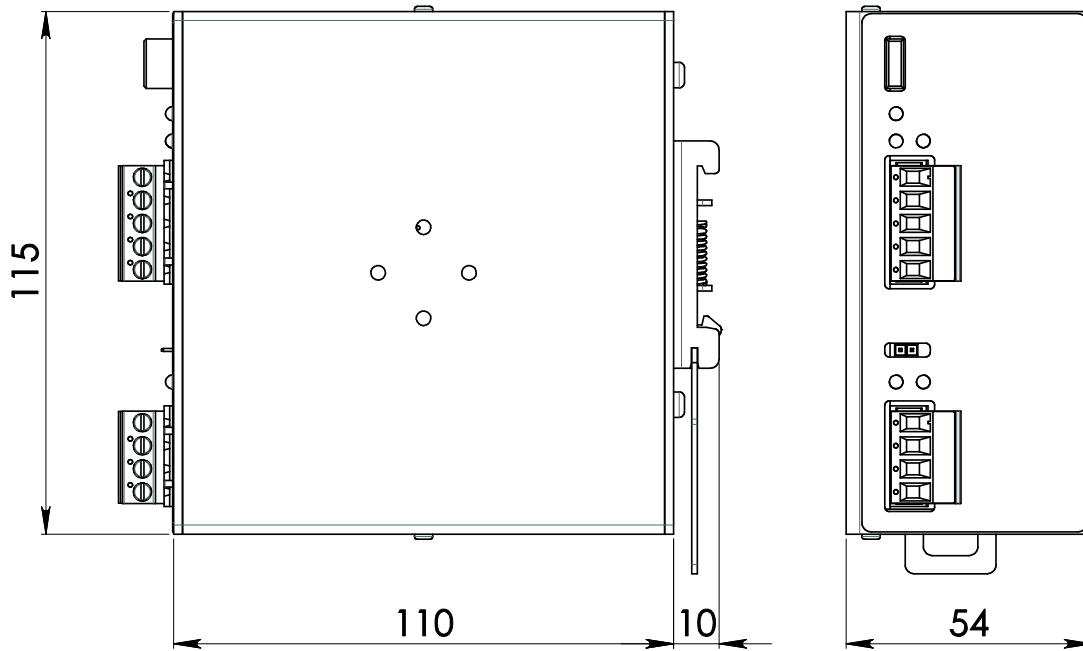
Model type	NUPS12	NUPS24
<b>OUTPUT DATA</b>		
Load rated voltage	12Vdc	24Vdc
Charging current Limit (Settable)	2.0A or 4.0A	
Load maximal current	10A	
Battery fuse	15A / 32V - Mini blade type, user replaceable	
Battery float voltage	[Vin - 0.4V] 11Vdc min.	[Vin - 0.4V] 26Vdc min.
Deep discharge cut-off 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>	
<b>INPUT DATA</b>		
Input DC rated voltage from power supply	13...14.5Vdc (UL certified)	26...28.5Vdc (UL certified)
Input DC rated current	3...10A	
<b>GENERAL DATA</b>		
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	EN50178	1
Pollution degree	IEC60664-1	2
Isolation against enclosure	0.75kVdc	
Safety Standards	<ul style="list-style-type: none"> <li>▪ UL508 (certified E356563)</li> <li>▪ IEC/EN61010-1</li> <li>▪ IEC/EN61010-2-201</li> <li>▪ IEC/EN60950</li> </ul>	
EMC Emission	EN55011 (CISPR11)	Class A
	EN55022 (CISPR22)	Class A
EMC Immunity	EN61000-4-2	Level 3
	EN61000-4-3	Level 3
	EN61000-4-4	Level 3
	EN61000-4-5	Level 1
	EN61000-4-11	Level 2
Protection degree	EN60529	IP20
Vibration sinusoidal	<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	2.5mm <sup>2</sup> , 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.

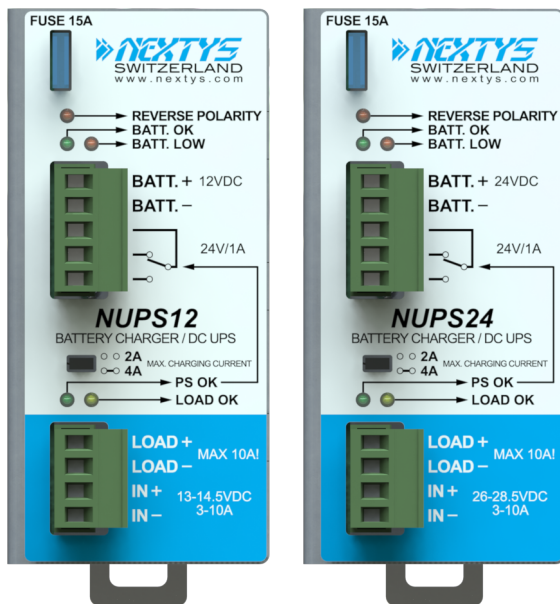
**Notes:**

- 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