Main Features

- Input: 120…240Vac
- Output: 12 or 24Vdc model dependent
- To be used with Lead Acid batteries or LiFePO4 batteries (only models compatible with Lead Acid batteries, e.g. VISION V-LFP series, see www.vision-batt.com)
- Efficiency up to 86%
- Economic solution for general purpose applications

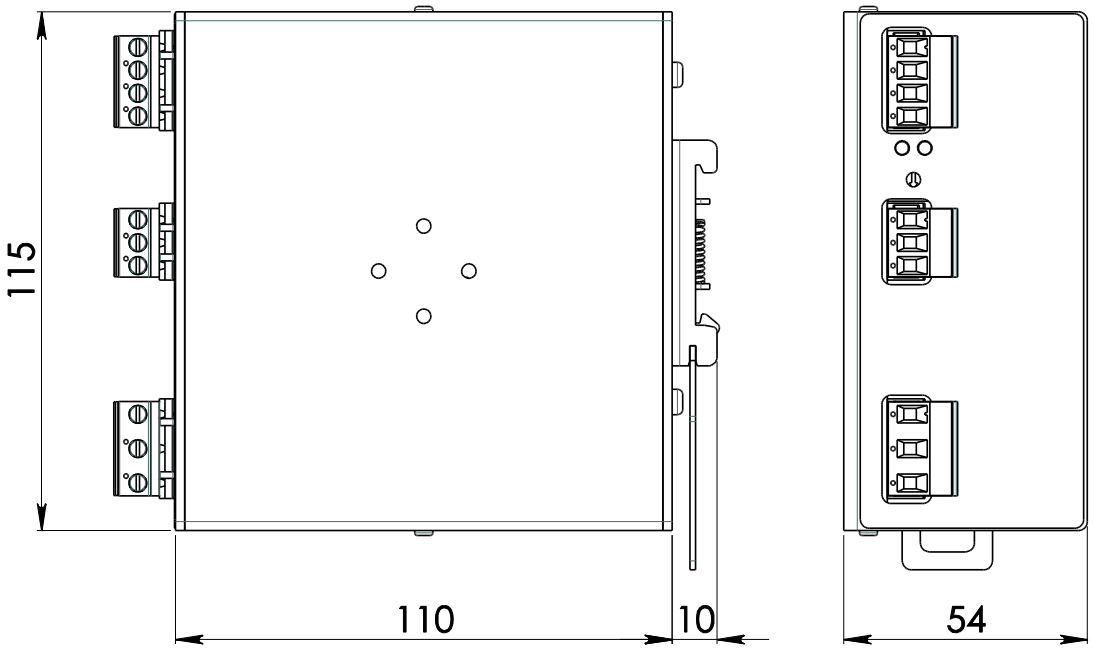
TECHNICAL DATA

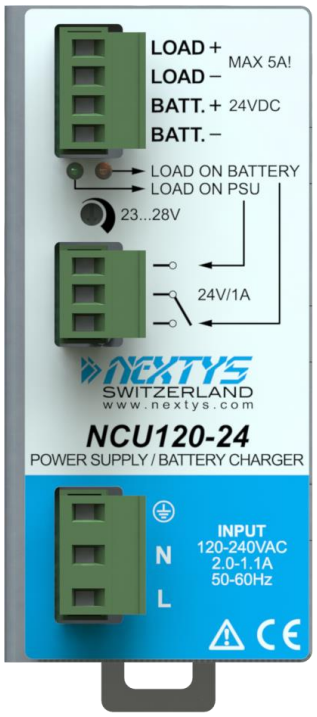
Model type	NCU120-12	NCU120-24
OUTPUT DATA		
Rated voltage	12Vdc	24Vdc
Adj. output voltage range	**12.5…15.5Vdc** (to be set at 14 Vdc for battery charging)	**23.0…28.0Vdc** (to be set at 27Vdc for battery charging)
Continuous current	7A	5A
Overload limit	11.5A	6.5A
Short circuit peak current	> 20A / 40ms	> 16A / 80ms
Load regulation	≤1%	
Ripple and Noise	< 100mVpp	
Hold up time Uin = 120Vac Uin = 240Vac	 > 10ms > 60ms	 > 10ms > 55ms
Status Signals	▪ LOAD ON BATTERY: red LED and dry contact (1A / 30V) ▪ LOAD ON PSU: green LED and dry contact (1A / 30V)	
Output Protections	▪ Hiccup at the overload limit with auto reset ▪ Overtemperature ▪ Overvoltage	
Battery Protection	▪ Against short-circuit with resettable fuse (9A) ▪ Against reverse polarity connection ▪ Against deep discharge	
Output overvoltage protection	Active > 18Vdc	Active > 33Vdc
Deep discharge cut-off voltage	9Vdc ± 0.5V	18Vdc ± 0.5V
Parallel connection	Not recommended	
BATTERY INFO		
Rated Voltage	12…14.4Vdc	24…28.8Vdc
Max Charging current	0.8A	
INPUT DATA		
Input AC rated voltage Frequency	Nominal: 120…240Vac Range: 100…264Vac 47…63Hz	
Input DC rated voltage	140...345Vdc	
Input rated current Uin = 120Vac Uin = 240Vac	 2.0A 1.1A	
Input DC current Uin = 140Vdc Uin = 345Vdc	 1.0A 0.5A	
Inrush peak current	< 40A	
Internal protection fuse	Fuse AT 3.15A / 250Vac (not user replaceable)	
External protection on AC line	Fuse AT 4A or MCB 4A C curve It is strongly recommended to provide external surge arrester (SPD) according to local regulations	
GENERAL DATA		
Efficiency	> 83.5%	> 86%
Dissipated power	< 21W	< 20W
Operating temperature	-40°C…+70°C / overtemperature protection Start-up type tested: - 40°C[1]	
Storage temperature	- 40°C...+ 80°C	
Derating	-0.6W/°C over 45°C	-0.96W/°C over 45°C
Overvoltage category Pollution degree	III 2 (IEC 664-1)	
Input / output isolation	4.2kVdc	
Input / ground isolation	2.2kVdc	
Output / ground isolation	0.75kVdc	
Safety Standards	▪ UL508 (reference) ▪ EN60950 (reference)	
EMC Emission	▪ EN55022:2010 (CISPR22) Class A ▪ EN55011:2009 /A1:2010 Class A	
EMC Immunity	▪ EN61000-4-2:2008 Level 3 ▪ EN61000-4-3:2006 /A2:2010 Level 2 ▪ EN61000-4-4:2012 Level 2 ▪ EN61000-4-5:2014 Level 3 ▪ EN61000-4-11:2004 /A1:2010 Level 2	
Protection degree	▪ EN60529:1989 /A:2013 IP20	
Vibration sinuosoidal	▪ IEC 60068-2-6:2007 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2Hours / axis (X,Y,Z)	
Shock	▪ IEC 60068-2-27:2008 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)	
Connection terminals	2.5mm², screw type (24...12AWG)	
Case material	Aluminium	
Approx. weight	0.500kg	
Size (W x H x D)	54.0 x 115.0 x 110.0mm	
Mounting Rail	IEC 60715/H15/TH35-7.5(-15)	

1) Possible at nominal voltage with load deration.

Notes:
- Technical parameters are typical, measured in laboratory environment at 25°C and 240Vac / 50Hz.
- 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





(model just for reference)

Input Connection:

Single phase:
- L = Line
- N = Neutral
- ⏚ = earth ground

DC:
- L = + Positive DC
- N = - Negative DC
- ⏚ = earth ground

Output Connection:

- LOAD (+/-) = connect to DC (+/-) Load
- BATTERY (+/-) = connect to Battery (+/-)
- PS ON PSU = dry contact NC
- LOAD ON BATTERY = dry contact NO