

# Battery backup NEO FLX M Series



The **NEO Series** is normally used in security facilities where the requirements are higher concerning; more features and alarm functions, longer spare times or when the power supply need to handle higher loads.

## INTELLIGENT CHARGING

The **NEO series** offers **INTELLIGENT CHARGING** which means that when the batteries are fully charged they will be disconnected electronically for standby mode for up to 20 days. By charging the batteries every 20 days (instead of not being used), the system extends the battery life by up to 50%. The batteries automatically reconnects in less than 50 microseconds when needed. The NEO Series can be used both with AGM batteries and Lithium LiFePO4 batteries.

## FLEXIBLE & EXPENDABLE

The **NEO Series FLX M Series** can be supplemented with up to 4 battery boxes or 19" rack battery shelves if needed (only 24V). The battery boxes and shelves are connected through a pluggable connector. The battery box have space for up to 2x 45Ah batteries per each battery box. Our 19" rack battery shelves have space for 2x 45Ah batteries (Medium) and up to 2x 150Ah batteries (Large) per each 19" rack battery shelf.

## MORE THAN JUST A POWERSUPPLY

If the NEO series is connected to RS485 (needs communication with superior system) it is able to send information about;

- System voltage (max, average, minimum)
- System temperature (max, average, minimum)

The system also presents all alarm functions through RS485 communication.

The above features are also possible to read through a PC software which is available to download free of charge. In addition to the PC software, you also need a USB-TTL adapter.

Expected backup operating time at below conditions (new batteries):

@ Current

System Voltage	Batteries		2A	4A	8A	10A	14A	18A
12V	2x 20Ah (40Ah)		18h	7h	3h	-	-	-
24V	2x 20Ah		9h	3,5h	1,5h	1h	30min	20min
24V	2x 28Ah	(with 1x FLX M battery box, or 1x medium shelf)	12h	5h	2h	1,5h	50min	30min
24V	2x 45Ah	(with 1x FLX M battery box, or 1x medium shelf)	21h	12h	4h	3h	2h	1,5h
24V	4x 28Ah (56Ah)	(with 2x FLX M battery box, or 2x medium shelf)	25h	12h	5h	4h	2,5h	1,5h
24V	4x 45Ah (90Ah)	(with 2x FLX M battery box, or 2x medium shelf)	42h	20h	12h	8h	5h	3,5h
24V	6x 28Ah (84Ah)	(with 3x FLX M battery box, or 3x medium shelf)	38h	18h	9h	7h	4,5h	3h
24V	6x 45Ah (135Ah)	(with 3x FLX M battery box, or 3x medium shelf)	64h	30h	15h	12h	9h	6h
24V	8x 28Ah (112Ah)	(with 4x FLX M battery box, or 4x medium shelf)	50h	25h	12h	10h	6,5h	4,5h
24V	8x 45Ah (180Ah)	(with 4x FLX M battery box, or 4x medium shelf)	82h	42h	20h	16h	12h	10h
24V	2x 75Ah	(with 1x battery shelf Large)	33h	17h	8,5h	6h	4h	2,5h
24V	2x 100Ah	(with 1x battery shelf Large)	44h	22h	13h	9,5h	6h	4h
24V	2x 150Ah	(with 1x battery shelf Large)	68h	35h	18h	12h	9h	8h
24V	4x 100Ah (200Ah)	(with 2x battery shelf Large)	88h	45h	22h	18h	12h	10h
24V	4x 150Ah (300Ah)	(with 2x battery shelf Large)	136h	68h	35h	30h	20h	16h

# Technical data

NEO 12V 10A FLX M

NEO 24V 5A FLX M

NEO 24V 10A FLX M

NEO 24V 15A FLX M

NEO 24V 25A FLX M

## Recommended environment and the product's enclosure:

Recommended environment:	Environment Class 1, Inhouse, 20% ~ 90% relative humidity				
Ambient temperature:	+5 °C - 40 °C (For optimal battery life +15 °C - +25 °C)				
Protection class:	IP32				
Recommended mounting:	Wall or Rack (angles included)				
Dimension (HxWxD):	224x437x212mm (5U)				
Net weight:	8kg	8kg	8,5kg	9,5kg	10,5kg
Number of cable penetrations:	4 pcs baffle inlets/knockouts				
The color of the enclosure:	Black				
Built in fan for cooling:	Yes				

## Electrical information:

Input voltage:	110V-264VAC/47-63Hz				
Output voltage:	13,6VDC		27,3VDC		
Max current:	10A	5A	10A	15A	25A
Charge current:	1A	1A	1A	3A	3A
Rated power:	150W	156W	240W	336W	648W
Overload:	105-150% rated output power		105-135% rated output power		
Ripple at normal operation:	150mVp-p	200mVp-p	200mVp-p	150mVp-p	150mVp-p
Efficiency:	87,5%	89%	89%	87%	88%
Heat generation at 50% / 80% of rated power:	10W / 16W	8,4W / 13,5W	17W / 27W	31W / 49W	50W / 80W
Input current:	1,7A	1,7A	2A	1,8A	3,6A
Number of fused outputs:	2 pcs				
Type of fuse output:	2xF10A (glass)	2xF5A (glass)	2xF10A (glass)	2xC16A	2xC25A
Deep-discharge protection occurs at:	10,5V		21V		
Possible to connect in parallel:	YES				
Protection against:	Overload, Overvoltage, Overtemperature, Short circuit and Deep discharge				
Alarm functions (3 outputs):	Delayed power failure (10 sec) (output 1), low battery voltage in battery mode (24V), over/undervoltage, disconnected batteries (10 sec), load fuse failure (output 2), tamper alarm (output 3).				
Alarm through:	Alternating relay or RS485 (need to have communication with parent system for RS485 communication)				

## Article information:

Article name:	NEO 12V 10A FLX M	NEO 24V 5A FLX M	NEO 24V 10A FLX M	NEO 24V 15A FLX M	NEO 24V 25A FLX M
Article number:	FM01N10112P100	FM01N10124P050	FM01N10124P100	FM01P10024P150	FM01P10024P250
E-number:	5213536	5213537	5213538	5213539	5213540
The product meets:	EMC Directive 2014/30/EU, Low Voltage directive: 2014/35/EU CE directive according to 765/2008, Emission: EN61000-6-2:2001, EN55022:1998--A1:2000, A2:2003 Class B, EN61000-3-2:2001. Immunity: EN61000-6-2:2005, EN61000-4-2, -3, 4, -5, -6, -11.				
Warranty period:	2 years				
Designed and produced by:	Milleteknik AB				
Country of origin:	Sweden				

## Information and choice of battery / batteries:

Designated battery type:	12V Maintenance-free batteries, type AGM or Lithium LiFePO4				
Possible battery types:	2x 20Ah (2x 45Ah in battery box)				
Recommended batteries:	UPLUS 10+ Design Life 20Ah (UPLUS 10+ Design Life 45Ah in battery box)				
Article number 20Ah batteries:	MT113-12V20-01				

Version: NEO3 & Pro1