

Battery backup EN54 FLX M Series



The **EN54 series** is mainly used in fire alarm systems where an EN54-4 or SBF110:8 approved battery backup is required or where the requirements are higher concerning; more features and alarm functions.

INTELLIGENT CHARGING

The **EN54 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.

BATTERY CHANGE INDICATION

The system is also equipped with internal power resistors for qualified battery capacity test, which announces when the batteries need to be replaced before the batteries are aged.

FLEXIBLE & EXPENDABLE

The **EN54 FLX M series** shall be mounted on the wall or in 19" rack (reversible angles included). The system can be supplemented with a battery box if needed. The battery box slides in to the bottom of the battery backup and connects through a pluggable connector. The battery box have space for 2x 45Ah batteries per each battery box.

MORE THAN JUST A POWERSUPPLY

If the EN54 series is connected to RS485 (needs communication with superior system) it is able to send information about;

- System load (max, average, minimum)
- System voltage (max, average, minimum)
- System temperature (max, average, minimum)
- Possible operating time in case of power failure

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):

@ Currency

System Voltage	Batteries			2A	4A	8A	10A	14A	18A
24V	2x	20Ah		9h	3,5h	1,5h	1h	30min	20min
24V	2x	45Ah	(with 1x battery box)	21h	12h	4h	3h	2h	1,5h
24V	4x	45Ah (90Ah)	(with 2x battery box)	42h	20h	12h	8h	5h	3,5h
24V	6x	45Ah (135Ah)	(with 3x battery box)	64h	30h	15h	12h	9h	6h
24V	8x	45Ah (180Ah)	(with 4x battery box)	82h	42h	20h	16h	12h	10h

Technical data

EN54 24V 5A FLX M

EN54 24V 10A FLX M

EN54 24V 15A FLX M

EN54 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 (reversible angles included)			
Dimension (HxWxD):	224x437x212mm (5U)			
Net weight:	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:	27,3VDC			
Load current I _{max a} :	4,5A	10A	14A	25A
Load current I _{max b} :	5A	10A	15A	27A
Rated power:	120W	240W	336W	648W
Overload:	105-150% rated output power		105-135% rated output power	
Ripple at normal operation:	200mVp-p	200mVp-p	150mVp-p	150mVp-p
Efficiency:	84%	89%	87%	88%
Heat generation at 50% / 80% of rated power:	8,4W / 13,5W	17W / 27W	31W / 49W	50W / 80W
Input current:	1,7A	2A	1,8A	3,6A
Number of fused outputs:	2pcs			
Type of fuse output:	2xF5A (glass)	2xF10A (glass)	2xC16A	2xC25A
Deep-discharge protection occurs at:	21V			
Possible to connect in parallel:	YES			
Protection against:	Overload, Overvoltage, Overtemperature, Short circuit and Deep discharge			
Alarm functions (4 outputs):	Power failure (output 1), low battery voltage (output 2), over/undervoltage, aged batteries, disconnected batteries, battery short circuit failure, battery capacity to low, charging error, low system voltage, load fuse failure (output 3). <i>Optional: Tamper alarm (output 4).</i>			
Alarm through:	Alternating relay or RS485 (need to have communication with parent system for RS485 communication)			

Article information:

Article name:	EN54 24V 5A FLX M	EN54 24V 10A FLX M	EN54 24V 15A FLX M	EN54 24V 25A FLX M
Article number:	FM01P20024P050-EN54	FM01P20024P100-EN54	FM01P20024P150-EN54	FM01P20024P250-EN54
E-number:	5213551	5213552	5213553	5213554
Certificate name:	NOVA 27 50-FLX_PRO2	NOVA 27 100-FLX_PRO2	NOVA 27 150-FLX_PRO2	NOVA 27 250-FLX_PRO2
The product meets and are certified according to:	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. EN 54-4:1997, EN 54-4:1997/AC:1999, EN 54-4:1997/A1:2002 and EN 54-4:1997/A2:2006, SBF 110:8.			
Certification no:	18-243			
Warranty period / Rules for warranty:	5 years. / 1. Ambient temperature shall not exceed 32° Celsius. 2. Medium current shall not exceed 80% of rated current. 3. The system must be used with UPLUS 10+ Design Life batteries. 4. The fan shall be cleaned annually and changed if needed.			
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			
Possible battery types:	2x 20Ah (2x 45Ah in batterybox)			
System tested and certified with:	UPLUS 10+ Design Life 20Ah and 45Ah batteries (up to 8x 45Ah batteries; 180Ah)			
Article number 20Ah batteries:	MT113-12V20-01			

Approved average load according to EN54-4 / SBF110:8:

Article name:	EN54 24V 5A FLX M	EN54 24V 10A FLX M	EN54 24V 15A FLX M	EN54 24V 25A FLX M
excl. battery box (2x 20Ah batteries):	3,5A	8,5A	12,6A	24A
incl. 1x battery box (2x 45Ah batteries):	2A	7A	11A	24A
incl. 2x battery box (4x 45Ah batteries):		4,2A	8,2A	21,2A
incl. 3x battery box (6x 45Ah batteries):		1,4A	5,4A	18,3A
incl. 4x battery box (8x 45Ah batteries):			2,5A	15,5A

Version: TEQ-COM Pro2