

NOVA 28V 5A UT L - POWER SUPPLY WITH BATTERY BACKUP



Name, article number and email number

Name	Item number	Email number	Certified according to
NOVA 28V 5A OUT L	SA43P30024P050-UT01	-	The product is not certified.

About NOVA 28V 5A OUT L

NOVA 28V 5A UT L is a power supply with battery backup for outdoor use.

- Controlled charging function
- Built to withstand Nordic conditions - summer and winter.

The product differs from indoor battery backups from Milleteknik and some functions have been added and others have been dropped.

Difference NOVA battery backup and NOVA 28V 5A UT L

Function	NOVA (with PRO3)	NOVA 28V 5A OUT L (with PRO3)	Comment
Indication on cabinet door?	Yes	No	Indication of NOVA 28V 5A UT L is visible on the circuit board.
Alarm over communication?	Yes	No	NOVA 28V 5A UT L is not prepared to communicate with superior systems.
Expandable for longer reserve operating time?	Yes	No	NOVA 28V 5A UT L cannot be extended with battery boxes.
Is it intended for installation and operation indoors?	Yes	No	NOVA can only be used indoors, class 1.
Is it intended for installation and operation outdoors?	No	Yes	NOVA 28V 5A UT L has insulation and heating cable and housing for outdoor use.

Area of use

Power supply and backup power for surveillance, camera surveillance, access control systems and other outdoor applications.

REGULATIONS AND CERTIFICATIONS

Requirements that the product meets

The product meets the following requirements.

EMC:	EMC Directive 2014 / 30EU
CE:	CE directive according to: 765/2008
Emission:	EN61000-6-: 2001 EN55022: 1998: -A1: 2000, A2: 2003 Klass B, EN61000-3-2: 2001



CIRCUIT BOARDS - TECHNICAL DATA

Technical data, motherboard: PRO 3

Info	Explanation
Short name:	PRO 3
Product description	Motherboard in battery backup with advanced functions and communication to parent system.
Own consumption, with relay card	Less than 100 mA. All relays retracted on external alarm card in normal mode.
Switching time from mains voltage to battery operation	When batteries are idle: <5 microseconds. When batteries are in charge cycle: 0 (none). Batteries rest for 20-day cycles, after which a charging cycle picks up and charges the batteries for 72 hours. If there is a power failure when batteries are in the charge cycle, there is no switching time.
Incoming electricity network	230 V AC -240 V AC, 47-63 Hz.
Fuse on mains	See table: Fuses.
Indication	Indicator diode on circuit board / cabinet door

ALARM

Alarm displayed on indicator LED on the front of the cabinet.

- Cell fault in battery or unconnected battery.
- Charger fault, undervoltage.
- Charger fault, overvoltage.
- Low system voltage, system voltage below 24.0 V in mains operation.
- Low battery voltage, below 24.0 V DC in case of mains failure.
- Power failure alarm.
- Sabotage switch.
- Fuse fault.
- Aged battery

Expanding alarm functions are available via communication or with alarm cards.

Fuses

Fuses	Type
5 A	T5A
Mains fuse for 24 V units up to 15 A	T2.5AH250V. Ceramic.

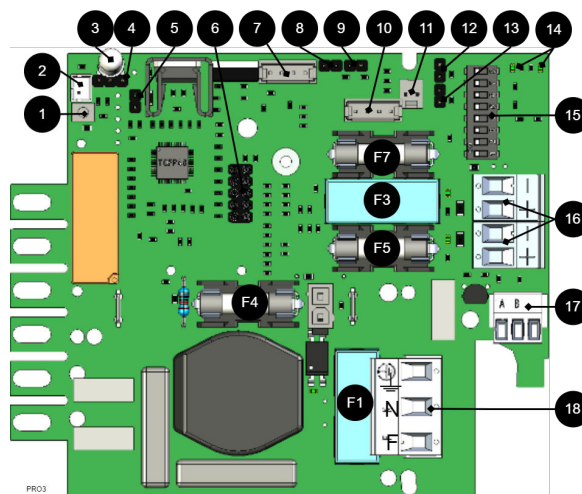
Protection

Info	Explanation
Deep discharge protection (Yes / No)	Yes. 12 V units protection at 10V, +/- 0.5 V. 24 V units protection at 20, +/- 0.5 V.
Surge protection (Yes / No)	Yes

Info	Explanation
Overtemperature protection (Yes / No)	Yes
Short circuit protected = (Yes / No)	Yes

MOTHERBOARD - DESCRIPTION

PRO3



The motherboard controls the device and distributes power. See technical data for more information.

Circuit board overview, explanation

No .	On circuit board	Explanation
1	J24	Power supply control.
2	J5	1=not prioritized 2=external alarm.
3	D9	LED.
4	JU1	For external LED in door.
5	J11	Reset jumper, used when changing batteries.
6	JU6	Connection for relay card or communication card or for updating firmware. Only one card or contact at a time can fit.
7	J29	Connection to fan.
8	J101	Connection to tamper contact.
9	J17	Connection to tamper switch from battery box.
10	J35	Not used.
11	J14	Alarm input from external battery fuse, from battery box.
12 and 13	J10 and J100	Alarm from external option card.
14	D18, D19	LEDs show the status of communication (RS-485).
15	S3	Dip switch
16	P2:1-4	Load outputs
17	P3:1-3	Connection to communication.
18	P1:1-3	Connection to the mains.

Fuses

Fuses on PRO3 / NEO3

Fuse	Type	Explanation
F1	T2.5A	Mains fuse
F3	T16A	Load fuse 1 - (for P2:2)
F4	T16A	Battery fuse
F5	T3A-T10A*	Load fuse 1+ (for P2: 1)
F7	T3A-T10A*	Load fuse 2 + (for P2:3)



WARNING FOR REPLACING FUSES (CURRENT STRENGTH, A)

There is a risk of damage if the fuse is changed to a larger one than what the unit is delivered with. The function of the fuse is to protect the connected load and cables against damage and fire. It is not possible to change the fuse to a larger one to increase the power output.



NOTE ON START-UP WITH SHORT-CIRCUITED BATTERIES

Peak current at start-up with short-circuited batteries: Up to 30 A p-p for 200 ms. Always follow the start-up procedure.

POWER SUPPLY

Power supply - Technical Data LRS-150-24

In:	
NOVA TERRA 24V 5A UT01	
Info	Explanation
Output voltage	27.3 V
Output current:	0 A - 6.5 A
Output voltage, ripple	200 mVp-p
Overvoltage	28.8 V - 33.6 V
Voltage recharge, ripple / current limitation	Less than 0.6 Vp-p
Efficiency	89%
Current limitation	110% - 140%
Constant voltage	+/- 0.5%
Regulatory accuracy	+ / - 1.0%
Input current (230 V)	1,7 A
Mains voltage frequency	47 Hz- 63 Hz
Mains voltage	230 V AC - 240 V AC
Brand effect	156 W
Temperature range	-30°C - +70°C
Humidity range	20% - 90% RH non-condensed
<p>The power supply is adapted and calibrated with the battery / hardware of the battery backup. Only power and calibrated power supplies may be used. Contact support when changing power supplies. Use of power supplies coming from another source may cause damage not covered by the warranty. Warranty is canceled if power supplies (from a source other than support / designated by support) that are not correctly calibrated are used.</p>	

TECHNICAL DATA ENCLOSURES

Enclosure

Technical data	
Product description	AX Compact device cabinet, BHD: 380x380x210 mm, stainless steel plate, with mounting plate, with a door, a swivel lock.
Article number:	AX 1380,000
Material	Cabinet: Stainless steel plate. Door: Stainless steel sheet. Ambient foamed PU seal.
Color	Stainless steel
Enclosure class NEMA	NEMA 1, 3R, 4, 12
Enclosure class IP according to EN 60 529	IP 66

Technical data	
Type classification corresponding to UL 50E	Type 1, 3R, 4, 12
IK code	IK10
Dimension	Width: 380 mm, height: 380 mm, depth: 210 mm.
Lock	Version for lock: Swivel lock: 1. Lock insert: 3 mm double lock.
Weight / pack	9.48 kg

More technical data for enclosure can be downloaded from the manufacturer's website

www.rittal.com

Compact cabinet AX 380x380x210

E-number: 25 039 11

WARRANTY, SUPPORT, COUNTRY OF MANUFACTURE AND COUNTRY OF ORIGIN

Warranty

The product has a two-year warranty, from the date of purchase (unless otherwise agreed). Support during the warranty period can be reached at support@milleteknik.se or telephone, +46 31-34 00 230. Compensation for travel and / or working hours in connection with locating faults, installing repaired or replaced goods is not included in the warranty. Contact Milleteknik for more information. Milleteknik provides support during the product's lifetime, however, no later than 10 years after the date of purchase. Switching to an equivalent product may occur if Milleteknik deems that repair is not possible. Support costs may (at Milleteknik's discretion) occur after the warranty period has expired.

Manufacturer support

Manufacturers provide support for the life of the product, however, for a maximum of 10 years after the date of purchase. Switching to an equivalent product may occur if the manufacturer deems that repair is not possible. Support costs will be added after the warranty period has expired.

Support

Do you need help with installation or connection?

You will find answers to many questions at: www.milleteknik.se/support

Phone: +46 31-340 02 30

Support is open: Monday-Thursday 08:00-16:00, Fridays 08:00-15:00. Closed 11:30-13:15.

SPARE PARTS

Contacted support for questions about spare parts.

SUPPORT AFTER THE WARRANTY PERIOD

Milleteknik provides support during the life of the product, but no longer than 10 years after the date of purchase. Replacement for an equivalent product may occur if the manufacturer deems that repair is not possible. Costs for support and replacement are added after the warranty period has expired.

QUESTIONS ABOUT PRODUCT PERFORMANCE?

Contact sales: 46 31-340 02 30, e-mail: sales@milleteknik.se

Contact us

Milleteknik AB

Ögärdesvägen 8 B

S-433 30 Partille

Sweden

+46 31-34 00 230

www.milleteknik.se

Country of manufacture

Country of manufacture / country of origin is Sweden. For more information, contact your seller.

Designed and produced by: Milleteknik AB

Designed and produced by Milleteknik AB

PRODUCT LIFE CYCLE, ENVIRONMENTAL IMPACT AND RECYCLING

The product is designed and constructed for a long service life, which reduces the environmental impact. The product's service life depends on, among other things, environmental factors, mainly ambient temperature, unforeseen load on components such as lightning strikes, external damage, handling errors, and more. Products are recycled by being handed over to the nearest recycling station or sent back to the manufacturer. Contact your distributor for more information. Costs that arise in connection with recycling are not reimbursed.



BATTERIES - RECOMMENDED, NOT INCLUDED

45 Ah, 12 V AGM battery

Fits in	Number of batteries	
Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	45 Ah

10+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT113-12V45-01	5230546	UPLUS 12V 45Ah 10+ Design Life battery	M5 Bult	197x165x170 mm	14.5 kg	UPLUS

*Design life is the shelf life in years for an unused battery. Environmental factors such as heat and load affect the service life. Batteries that have a durability (+10 Design Life) of 10+ years usually need to be replaced after 5-6 years.