

PRODUCT SHEET - POWER SUPPLY FROM MILLETEKNIK

PoE



Name, article number and e-number

Table 1. Name, article number and email number.

Name	Article number	E-number (SE)
PoE Managed 4p 24V 5A OUT S	PL02P30024P050P-UTS	51 731 57

Technical description

Power supply with backup power to power PoE devices such as surveillance cameras. 4G-5G router from Telenor A 24 V output to be able to power other alarm components or large PTZ cameras. Remote monitoring and control of PoE ports is possible. Batteries sit in heated, thermostatically controlled, insulated part

Power supply to power PoE devices such as surveillance cameras and other PoE powered devices.

Includes a 4-port managed Gbit PoE+ switch with 30.8W per port for a total of 150W including battery recharging. Can be managed over VPN¹ for control and status monitoring including power consumption per port. Equipped with buzzer and mains interrupt alarm and a 24 V output from the backup for operation of other equipment. Thermostatically controlled heating cable. Isolated compartment for batteries and temperature sensors for protection against overcharging. Works in temperatures from -15°C to +35°C, IP65 rated. Prepared for mounting on pole with mount for cameras or speakers/siren. Prepared for data collection logger function.

¹VPN requires externally connected hard and software (PC) connected to the PoE switch.

Table 2. Quick Facts

Quick Facts	
Supply voltage (V)	[sv] 230 V AC - 240 V AC, 47 Hz- 63 Hz
Voltage out (V)	[sv] 54,6 V DC, (48 V DC) Hjälpspänning 24 V DCGäller även i batteridrift.
Current output (A), max load current output.	[sv] 5 A på 24 V lastutgång
Batteries ^a	Batteries included.

^aRecommended. If batteries are included, it is indicated, otherwise batteries are ordered separately

Areas of application

Table 3. [sv] Användningsområden

Areas of application	Yes	No
IP camera, power supply.	✓	
Networked devices that can be powered by PoE.	✓	

Electronics

Table 4. [sv] Elektriska data

[sv] Elektriska data	
[sv] Matningsspänning	[sv] 230 V AC - 240 V AC, 47 Hz- 63 Hz
[sv] Laddström	[sv] Beroende på strömuttag. 1-5 A
[sv] Verkningsgrad ^a .	[sv]
[sv] Standbyförbrukning	[sv] 0,5 W
[sv] Spänning ut	[sv] 54,6 V DC, (48 V DC) Hjälpspänning 24 V DCGäller även i batteridrift.
[sv] Ström (A) ^b .	[sv] 5 A på 24 V lastutgång
[sv] Effekt (W)	[sv] 30,8W per port ^c .

^aVid nominell last.

^bStrömuttag/last anges som max, normalt strömuttag skall vara 80% av max.

^cFör laddning av batterier, drift av managed PoE-switch med fyra styrda portar samt drift av 3-5G router och 24 V hjälputgång.

Table 5. Electrical data

Electrical data	
Mains fuse	2.5 A.
Load fuses	
Battery fuse	16 A and 30 A.

Table 6. Printed circuit boards and Internal power consumption

Circuit Boards	Internal power consumption (during battery operation)	Other. info
PRO3	< 120 mA	All relays on external alarm board pulled in normal mode.

Load outputs

Table 7. Load outputs

Load outputs	
[sv] Antal lastutgångar	[sv] PoE-switch kan driva last. Lastutgång för att driva andra applikationer saknas.

Table 8. Total maximum load and recommended load.

Model	Recommended total load (80%) ^a
5A	4 A

^aTypically, 70-80% of the maximum load is recommended in continuous operation, depending on the thermal margins of the product.

Table 9. POE outputs

POE outputs	
Number of PoE ports (RJ-45)	4
[sv] PoE-budget	[sv] 336 W
POE Budget/Max Power Per Port	! 4 30.8 W.
Number of LAN ports	2
Network ports/interfaces, RJ-45	
Managed	

Alarm and protection

Table 10. Number of relay on which alarm can be given

Number of Relays	Alarm on switching relay? ^a
1	✓

^aRelay, alternating potential-free contacts.

Table 11. [sv] Larm

[sv] Larm	[sv] Ja	[sv] Nej
[sv] Fördröjt nättavbrottslarm eller låg batterispänning, bortkopplade batterier, säkringsfel överladdning och åldring av batterier.	✓	

Table 12. Alarm and protection

Alarm and protection	Yes	No
Battery charge protection/controlled charging ^a	✓ Batteries are charged with a maximum of 0.5 A. ^b	
Deep discharge protection, see Battery [2] ^c	✓	
Overload Protection/Surge Protection	✓	
Over-temperature protection	✓	
Short circuit protection	✓	

^aControlled charging protects and extends battery life.

^bFactory setting. Adjustable in PowerWatch

^cWhen the deep discharge protection is activated, the device turns off and the LED goes out.

Communication and Indications

Table 13. Communication and Indications

Communication and Indications	Yes	No	Other. info.
Communication		x	
RJ-45	✓		Refer to manual for alarms that PoE switch can provide.
[sv] Portstyrning via ansluten dator	✓		
Indicators/LEDs	✓		

Table 14. [sv] Kommunikationsprotokoll

[sv] Protokoll	
[sv] RS-232 / TTL	[sv] Via tillvalsmodul
[sv] RS-485 / OSDP	[sv] Standard. ^a

[sv] Protokoll

[sv] TCP/IP	[sv] Via tillvalsmodul
[sv] I ² C	[sv] Kundunik / via tillvalsmodul.

^aFör andra varumärke gäller deras kommunikationsgränssnitt.

Table 15. Alarm over communication and on LED

Alarm over communication	RS-232 communication (P 5:1-9) - Applies only to devices with system support, (Bravida).	[sv] Nej	Indication diode on main board.
Mains outage	✓		✓
Fuse failure	✓		✓
Sabotage Breakers	✓		✓
Fan failure	✓		
Charger failure, overvoltage	✓		✓
Charger failure, undervoltage	✓		✓
Cell failure or not connected battery	✓		✓
Low system voltage, (system voltage below 24.0 V in mains operation).	✓		✓
Low battery voltage (<24.0 V DC) or power failure	✓		✓
Over-temperature	✓		
Sub-temperature	✓		
Short battery life remaining	✓		
Overcurrent 100%, minute average	✓		
Overcurrent 80%, daily average	✓		
Over current 175%, second average	✓		

Battery

Table 16. Technical data - Batteries

Battery	
Recommended Batteries ^a	Batteries included.
Battery type	Maintenance-free AGM (lead-acid) batteries.
Deep discharge protection	Activates when the system voltage drops below about 20 V DC.

^aIf batteries are included, it is indicated, otherwise batteries are ordered separately.

Enclosure and Mechanics

Table 17. Enclosure and Mechanics

Enclosure and Mechanics	
Enclosure	
IP class	
Material	Powder coated sheet metal.Sheet metalFiber-glass Reinforced Acrylic Plastic
Colour	

Enclosure and Mechanics	
Cable grommets	
Knockout hole	1 pc. on the back.
Lock	✓, 2 pcs. keys included.
Fan in enclosure	X

Assembly, installation and eligibility requirements

Table 18. Fitting

Fitting	[sv] Ja	[sv] Nej
19" rack.	✓	
Pole.	✓	

Table 19. Installation

Installation	Yes	No	Other. info
Fixed installation.	✓		

Dimensions, weight and packaging information

Table 20. Dimensions

Dimensions, (WxHxD).	Dimensions with packaging ^a .
300 x 250 x 141 mm	515 x 415 x 308 mm

^aDimensions (WxHxD) of product and packaging may differ, this is because the product may be oriented differently in the package.

Table 21. Weight

Net weight	Weight with packaging
11.45 kg	12.2 kg

Table 22. Packaging

Packaging	
Packaging	Cardboard and impact protection in cardboard.
Quantity in pack	1 pc.
Packaging Type (GS1 T0137)	BX box.
Conditions EUR pallet	EUR pallets may not be stacked during transport or storage. Stacking may result in damage to product and packaging
Transport environment	The product must be protected from condensation and direct precipitation during transportation.
Transport temperature (without battery)	-30 °C to +70 °C
Storage environment	Dry indoor environment, protected from condensation. Relative humidity: max 95%, non-condensing
Storage temperature without batteries	-20 °C to +60 °C

Contact

Table 23. Contact

Department	
Switchboard	031-340 02 30
Support and technical issues	support@milleteknik.se
Sales	sales@milleteknik.se
WWW	www.milleteknik.se
Address	Ögärdesvägen 8B, 433 30 Partille

About this information

All information is published subject to possible errors. Information is updated without prior notice.

[SV] COMPLIANCE OCH REGELEFTERLEVNAD

Delivery time, warranty and terms

Table 24. Delivery time, warranty and terms

Delivery time, warranty and terms	
Warranty period ^a	[sv] Produkten har två (2) års garanti mot tillverkningsfel. Utöver den ordinarie garantitiden kan tre (3) års extra garanti köpas till.
Special warranty conditions	Batteries and wear parts are not covered by warranty. Components manufactured by manufacturers other than Milleteknik are not covered by Milleteknik's warranty. See also general terms and conditions.
General Terms and Conditions	ALEM09 with exceptions, see: www.milleteknik.se/conditions/
Support	Telephone support and email support during the warranty period are free of charge. For spare parts that are not covered by warranty, there is a charge
Delivery and stock	
Delivery time ^b	Or as per agreement. Delivery from factory, transportation time is added.

^aIf the device is purchased through a wholesaler or other supplier, other warranty conditions may apply

^bIn the case of larger orders, delivery time increases, acc. to agreement.

Operation and maintenance

Table 25. Operation

Operation	Data	Other. info
Environment	Outdoor Class 3.	
Operating temperature (permissible) ^a	-25°C to +50°C	Class 3 according to EN 50131-6/ EN 60839-11
Load, power supply	80%	Average load shall not exceed 80% of the rated capacity of the power supply.
Ventilation, free distance around the enclosure.	100 mm	Ventilation openings must not be blocked or covered.

^aSpecifies the permissible ambient temperature range in which the product can operate without damage. See also table on battery life.

Table 26. Maintenance

Yes	No	Interval	Other. info
✓		Annually	Battery terminal voltage must be measured. Ensure that the average load does not exceed 80% of the rated capacity of the power supply.

Certifications and approvals

Table 27. Approved according to

Complies with	Directives
PoE	IEEE 802.3af, IEEE 802.3at/30.8 W up to type2, class 4.
Emissions	
Immunity	EN61000-6-2:2005, EN61000-4-2, -3, 4, -5, -6, -11 SS-EN 50130-4:2011 Edition 2, EN50131-6
C.E.	CE marking according to (EC) 765/2008

Complies with	Directives
EMC	EMC Directive 2014/30EU
Electric (LVD)	Low Voltage Directive: 2014/35/EU

Environmental data

Table 28. Environmental data

Environmental data	J/ N	Informație	Other. info.
Building Product Declaration (BPD)	✓	Yes, see iBvd at www.milleteknik.se .	-
REACH Information Obligation (EC) No 1907/2006	✓	Yes, see the DoC at www.milleteknik.se . The product complies with REACH Regulation (EC) No 1907/2006.	If empty, the product is not covered.
SVHC substances, CAS/EC	✓	Yes, lead, 7439-92-1/231-100-4	For text, see iBvd at www.milleteknik.se . If blank, substance is missing.
Subject to the RoHS Directive, (EU) 2015/863	✓	Yes, see the DoC at www.milleteknik.se	
WEEE 2012/19/EU	✓	The product contains electrical components or wiring and is covered by the WEEE Directive (2012/19/EU).	If empty, the product is not covered. End-of-life products must be returned to a recycling centre
Battery Regulation (EU) 2023/1542	X		
SCIP No 2008/98/EC	✓	Yes, registered under the EU Waste Directive where applicable, (2008/98/EC).	If empty, no SCIP number is needed.
Conflict minerals (EU) 2017/821	X/ X/ X/ ✓	No=Gold, Tungsten, Tantalum, Cobalt. Yes=Tin	Tin in solders in printed circuit boards purchased through a Swedish supplier.

Environmental data	J/ N	Information	Other info.
Contains nanomaterials: EC 1272/2008	X	The product does not contain nanomaterials.	-
Ecodesign 2009/125/EC	Milleteknik's products are intended for professional use and are therefore not directly covered by the Ecodesign Regulation (EU 2019/1782). As some components may be covered, we nevertheless disclose relevant information ^a , where applicable, to provide our customers with confidence in their choice.		
Machine Directive 2006/42/EC	The product is part of electrical systems, is subject to the relevant electrical and safety directives and is not a machine according to the Machinery Directive (2006/42/EC). Will be replaced by Machinery Regulation (EU) 2023/1230, which will apply in 2027.		
The product is designed and constructed for a long service life, which reduces the environmental impact. The life of the product (except wearing parts) depends on, among other things, environmental factors, mainly ambient temperature, unforeseen load on components such as lightning strikes, external impact, handling errors, etc. Products are recycled, simply because they are modular, by being left at the nearest recycling station or sent back to the manufacturer. ^b Contact your distributor for more information.			

^aStandby consumption and power.

^bCosts incurred in connection with recycling are not reimbursed.



Manufacturer and country of origin

Table 29. Manufacturer and country of origin

Manufacturer and origin	
Manufacturer ^a	Milleteknik AB
Customs State. Nos.	85043180
Country of origin	Sweden

^aManufacturer is the trademark indicated on the product, regardless of what is stated in this product sheet.

[SV] BILAGA

Backup operating time on batteries

The reserve operating time in battery operation depends on how large a load is connected to the power supply. If the load varies, as with frequent opening of door locks, the time that batteries can continue to power the security system decreases. To get an estimate of reserve operating times see: www.milleteknik.se/Manualer/FaQ/Reservdrifftider/

[sv] Behörighetskrav, installation

[sv] Krav på behörighet varierar mellan länder. Tabellen sammanfattar nationella krav för fast installation respektive anslutning av utrustning med stickkontakt.

Table 30. Eligibility requirements by country. Applies only to the installation of this product in a fixed network connection

Permission Requirements for Installation	Fixed installation (230 V)	Plug	Other. info
Sweden	✓	x	Fixed installation may be performed by technicians but shall be under the responsibility of a qualified installer. (Electrical Safety Act, SS 436 40 00) Plug may be connected without authorization.
Norway	✓	✓	Requirements for qualified electricians also for equipment with a plug socket in fixed installations. (NEK 400, DSB)
Finland	✓	x	Plug may be connected without authorization. (Tukes, SFS 6000)
Denmark	✓	x	Plug may be connected without authorization. (Safety Board)
Germany	✓	x	All fixed installations require a qualified electrician according to VDE 0100. Plug sockets may be connected without authorization, but only by person with basic electrical knowledge ("Elektrotechnisch unterwiesene Person")

Miscellaneous

The difference between PoE, PoE+ and PoE++.

Table 31. Max power PoE.

-	PoE	Poe+	PoE++
Compatible ^a	-	PoE	PoE, PoE+

-	PoE	Poe+	PoE++
Official name	IEEE 802.3af	IEEE 802.3at	IEEE 802.3bt
Maximum power	13 W	25 W	71 W

^aThe power supply follows "up", but not "down". A PoE can never power a PoE+/PoE++ device that requires more than 13 W.

[sv] Referenstabell: miljöklasser enligt EN 50130-5 (som hänvisas till i EN 50131-6)

Table 32. Reference table: environmental classes according to EN 50130-5 (referred to in EN 50131-6)

Class	Type	Temperature range
Environmental Class 1	Heated indoors (type of office/residence).	+5°C to +40°C
Environmental Class 2	Generally indoors (type warehouses/stairwells, not temperature controlled).	-10°C to +40°C
Environmental class 3	Protected outdoors.	-25°C to +50°C
Environmental class 4	Generally outdoors.	-25°C to +60°C

[sv] Referenstabell: tillverkares angivna livslängd och rekommenderat batteribyte

Table 33. Reference table: manufacturer's stated service life and recommended battery replacement

Battery Type (Design Life) ^a	Battery replacement time in normal operation, +20°C.	Replacement during hot operation, +30°C	Replacement during hot operation, +40°C
3 - 5 years	2 - 3 years	1 - 1.5 years	0.5 - 0.75 years
6 - 9 years	5 - 6 years	2.5 - 3 years	1.2 - 1.5 years
10 - 12 years	6 - 7 years	3 - 3.5 years	1.5 - 1.75 years
15 + years	10 - 12 years	5 - 6 years	2.5 - 3 years

^aValid in case of completely unused battery stored under optimal conditions.

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