

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Primary-switched power supply unit UNO POWER, Push-in connection, DIN rail mounting, input: 1-phase, output: 24 V DC / 2.5 A, adjustable from 24 V DC ... 29 V DC

## Product description

UNO POWER – compact, high-efficiency power supply

The UNO POWER power supplies are the ideal solution for industrial applications where compact design and reliable performance are required. With a high power density and basic functionality, the AC/DC power supply units reliably supply loads with constant load behavior – and at powers ranging from 25 W to 960 W.

The new generation up to 90 W also impresses with Push-in connection technology and an extended input voltage range up to 277 V AC, which makes installation even easier and more flexible.

## Your advantages

- Save space in the control cabinet thanks to an extremely narrow overall width
- Save energy, thanks to a high degree of efficiency
- Outdoor installation possible, with a wide temperature range of -25°C ... +70°C

## Commercial data

Item number	1399933
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CMPV13
GTIN	4063151786519
Weight per piece (including packing)	208 g
Weight per piece (excluding packing)	201.5 g
Customs tariff number	85044095
Country of origin	VN

## Technical data

### Input data

#### AC operation

Supply system configuration	TN, TT, IT (PE)
Nominal input voltage range	100 V AC ... 277 V AC
Input voltage range	100 V AC ... 277 V AC -15 % ... +10 % 110 V AC ... 277 V AC ±10 % (UL)
Derating	< 100 V AC (1 %/V)
Typical national grid voltage	120 V AC 230 V AC
Voltage type of supply voltage	AC
Inrush current	typ. 35 A (at 25 °C)
Inrush current integral ( $I^2t$ )	< 0.7 A <sup>2</sup> s
Frequency range ( $f_N$ )	50 Hz ... 60 Hz ±10 %
Mains buffering time	typ. 19 ms (120 V AC) typ. 82 ms (230 V AC)
Current consumption	1.1 A (100 V AC) 0.6 A (277 V AC)
Protective circuit	Transient surge protection; Varistor
Switch-on time	typ. 1 s
Device mains fuse	4 A internal (device protection), slow-blow
Recommended breaker for input protection	6 A ... 16 A (Characteristic B, C, D, K or comparable)
Discharge current to PE	< 0.25 mA

#### DC operation

Input voltage range	110 V DC ... 250 V DC ±20 % 125 V DC ... 250 V DC ±10 % (UL)
Derating	< 110 V DC (1 %/V)
Voltage type of supply voltage	DC
Current consumption	0.6 A (110 V DC) 0.26 A (250 V DC)

### Output data

Efficiency	typ. 92 % (120 V AC) typ. 93 % (230 V AC)
Nominal output voltage	24 V DC
Setting range of the output voltage ( $U_{Set}$ )	24 V DC ... 29 V DC (> 24 V DC, constant capacity restricted)
Nominal output current ( $I_N$ )	2.5 A
Output current range	2.1 A ... 2.5 A
Short-circuit-proof	yes
Crest factor	typ. 3.44 (120 V AC) typ. 4.13 (230 V AC)

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

Output power ( $P_N$ )	60 W
Connection in parallel	yes, for increasing power and redundancy with diode
Connection in series	yes, for increased output voltage
Feedback voltage resistance	$\leq 35$ V DC
Protection against overvoltage at the output (OVP)	$\leq 35$ V DC
Residual ripple	typ. 40 mV <sub>PP</sub> (with nominal values)
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 3 % (change in load, dynamic 10 % ... 90 %)
	< 0.1 % (change in input voltage $\pm 10$ %)
Rise time	< 1 s ( $U_{Out} = 10$ % ... 90 %)
Minimum no-load power dissipation	< 0.21 W (120 V AC)
Maximum no-load power dissipation	< 0.21 W (230 V AC)
Minimum nominal load power dissipation	< 4.9 W (120 V AC)
Power loss nominal load max.	< 4.5 W (230 V AC)
Integrated fuse protection	no
Fuse protection (secondary side)	electronic

## Connection data

### Input

Position	1.x
Identification	1.1 (L), 1.2 (N)

### Conductor connection

Connection method	Push-in connection
rigid	0.75 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Push-in connection)
	1 mm <sup>2</sup>
flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
	1 mm <sup>2</sup>
flexible with ferrule without plastic sleeve	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	1 mm <sup>2</sup>
flexible with ferrule with plastic sleeve	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	1 mm <sup>2</sup>
AWG	24 ... 12
	17
Stripping length	10 mm

### Output

Position	2.x
Identification	2.1, 2.2 (+), 2.3, 2.4 (-)

### Conductor connection

Connection method	Push-in connection
rigid	0.75 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Push-in connection)
	1 mm <sup>2</sup>
flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

	1 mm <sup>2</sup>
flexible with ferrule without plastic sleeve	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	1 mm <sup>2</sup>
flexible with ferrule with plastic sleeve	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	1 mm <sup>2</sup>
rigid (AWG)	24 ... 12
	17
AWG	24 ... 12
	17
Stripping length	10 mm

## Conductor connection

Connection method	Push-in connection
rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
flexible with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
flexible with ferrule with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
AWG	24 ... 14 (Cu)
Stripping length	10 mm

## Signaling

### LED signaling

Types of signaling	LED DC OK - signal state operation ( $U_N = 24 \text{ V DC}$ , $I_{Out} = I_N$ )
Function	Visual operating state display
Color	green
LED off	Supply voltage input AC not present (Off)
LED on (green), DC OK	$U_{OUT} > 0,9 \times U_N$ (On (green), DC OK)

## Electrical properties

Number of phases	1
Insulation voltage input/output	4 kV AC (type test)
	3.75 kV AC (routine test)

## Product properties

Product family	UNO POWER
MTBF (IEC 61709, SN 29500)	> 2157000 h (25 °C)
	> 1217000 h (40 °C)
	> 625000 h (55 °C)

### Insulation characteristics

Protection class	II
Degree of pollution	2

### Life expectancy (electrolytic capacitors)

Current	1.25 A
---------	--------

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

Temperature	40 °C
Time	179000 h
Additional text	120 V AC

## Life expectancy (electrolytic capacitors)

Current	1.25 A
Temperature	40 °C
Time	190000 h
Additional text	230 V AC

## Life expectancy (electrolytic capacitors)

Current	1.875 A
Temperature	40 °C
Time	105000 h
Additional text	120 V AC

## Life expectancy (electrolytic capacitors)

Current	1.875 A
Temperature	40 °C
Time	133000 h
Additional text	230 V AC

## Life expectancy (electrolytic capacitors)

Current	2.5 A
Temperature	40 °C
Time	63000 h
Additional text	120 V AC

## Life expectancy (electrolytic capacitors)

Current	2.5 A
Temperature	40 °C
Time	93000 h
Additional text	230 V AC

## Life expectancy (electrolytic capacitors)

Current	2.5 A
Temperature	25 °C
Time	180000 h
Additional text	120 V AC

## Life expectancy (electrolytic capacitors)

Current	2.5 A
Temperature	25 °C
Time	264000 h
Additional text	230 V AC

## Dimensions

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## Item dimensions

Width	30 mm
Height	90 mm
Depth	90 mm
Depth (Device depth (DIN rail mounting))	84 mm (Device depth (DIN rail mounting))

## Installation dimensions

Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	30 mm / 30 mm

## Mounting

Mounting type	DIN rail mounting
Assembly note	alignable: horizontally: 0 mm, vertically: 30 mm
Mounting position	horizontal DIN rail NS 35, EN 60715
With protective coating	no

## Material specifications

Flammability rating according to UL 94	V0 (Housing, terminal blocks)
Housing material	Plastic
Housing material	PC
Type of housing	Polycarbonate
Foot latch material	PBT (polybutylene terephthalate)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 55°C, derating P <sub>OUT</sub> : 2.5%/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (start-up type tested)	-40 °C
Maximum altitude	≤ 5000 m
Maximum altitude (Output power derating)	> 2000 m (Derating P <sub>OUT</sub> : 10 %/1000 m)
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Shock (operation)	18 ms, 30g, per spatial direction (IEC 60068-2-27)
Vibration (operation)	10 Hz ... 56.9 Hz, amplitude ±0.35 mm (IEC 60068-2-6) 59.6 Hz ... 150 Hz, 5g, 20 cycles
Temp code	T4 (-25 ... +70 °C; > 55 °C, Derating P <sub>OUT</sub> : 2,5 %/K)

## Standards and regulations

### Overvoltage category

EN 61010-1	II (≤ 5000 m)
------------	---------------

### Overvoltage category

EN 62477-1	III (≤ 2000 m)
------------	----------------

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## Overvoltage category

EN 61558-2-16	III ( $\leq 1$ m, $U_{IN}$ : 100 V AC ... 250 V AC, 110 V DC ... 250 V DC)
	II ( $\leq 4000$ m)

## Safety of power supply units up to 1100 V (insulation distances)

Standard designation	Safety of power supply units up to 1100 V (insulation distances)
Standards/specifications	DIN EN 61558-2-16

## Electrical safety

Standard designation	Electrical safety
Standards/specifications	IEC 61010-2-201 (SELV)
Standard designation	Safety for equipment for measurement, control, and laboratory use
Standards/specifications	IEC 61010-1

## Protective extra-low voltage

Standard designation	Protective extra-low voltage
Standards/specifications	IEC 61010-1 (SELV)
	IEC 61010-2-201 (PELV)

## Safe isolation

Standard designation	Safe isolation
Standards/specifications	IEC 61558-2-16
	IEC 61010-2-201

## Limitation of harmonic line currents

Standard designation	Limitation of harmonic line currents
Standards/specifications	EN 61000-3-2

## Mains variation/undervoltage

Standard designation	Mains variation/undervoltage
Standards/specifications	SEMI F47 - 0706 (200 V AC)

## Approvals

### UL

Identification	UL 1310 Class 2 Power Units
----------------	-----------------------------

### UL

Identification	UL/C-UL Listed UL 61010-1
----------------	---------------------------

### UL

Identification	UL/C-UL Listed UL 61010-2-201
----------------	-------------------------------

### ANSI/UL 121201

Identification	PROCESS CONTROL EQUIPEMENT FOR HAZARDOUS LOCATIONS
----------------	--

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

	(EN) • This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D, Hazardous Locations, or non-hazardous locations only. (FR) • Cet appareil convient uniquement pour une utilisation en atmosphères explosibles de classe I, division 2, groupes A, B, C et D ou en atmosphères non explosibles.
	(EN) • WARNING: Explosion Hazard - Do not connect or disconnect equipment unless power has been switched off or the area is known to be non-hazardous. (FR) • AVERTISSEMENT : risque d'explosion - ne pas connecter ou déconnecter les équipements sauf si l'alimentation a été coupée ou si la zone est réputée non dangereuse.
	(EN) • If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired. (FR) • Si l'équipement est utilisé d'une manière non spécifiée par le fabricant, la protection fournie par cet équipement peut être altérée.
	(EN) • This equipment must be installed in a suitable, tool secured/key locked enclosure. (FR) • Cet équipement doit être installé dans un boîtier approprié, verrouillé par une clé ou dont l'ouverture nécessite l'utilisation d'un outil.

## SIQ

Identification	CB scheme (IEC 61010-1, IEC 61010-2-201)
----------------	--

## EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Interference emission	Interference emission in accordance with EN 61000-6-3 (residential and commercial) and EN 61000-6-4 (industrial)
EMC requirements for noise immunity	EN 61000-6-2

## Conducted noise emission

Standards/regulations	EN 55016
	EN 61000-6-3 (Class B)

## Noise emission

Standards/regulations	EN 55016
	EN 61000-6-3 (Class B)

## Harmonic currents

Standards/regulations	EN 61000-3-2
	EN 61000-3-2 (Class A)
Frequency range	0 kHz ... 2 kHz

## Flicker

Standards/regulations	EN 61000-3-3
Frequency range	0 kHz ... 2 kHz

## Electrostatic discharge

Standards/regulations	EN 61000-4-2
-----------------------	--------------

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## Electrostatic discharge

Contact discharge	6 kV (Test Level 3)
Discharge in air	8 kV (Test Level 3)
Comments	Criterion A

## Electromagnetic HF field

Standards/regulations	EN 61000-4-3
-----------------------	--------------

## Electromagnetic HF field

Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	1 GHz ... 6 GHz
Test field strength	10 V/m (Test Level 3)
Comments	Criterion A

## Fast transients (burst)

Standards/regulations	EN 61000-4-4
-----------------------	--------------

## Fast transients (burst)

Input	4 kV (Test Level 4 - asymmetrical)
Output	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion A

## Surge voltage load (surge)

Standards/regulations	EN 61000-4-5
-----------------------	--------------

## Surge voltage load (surge)

Input	2 kV (Test Level 4 - symmetrical)
	4 kV (Test Level 4 - asymmetrical)
Output	1 kV (Test Level 3 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion A

## Conducted interference

Standards/regulations	EN 61000-4-6
-----------------------	--------------

## Conducted interference

Input/Output	asymmetrical
Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V (Test Level 3)

## Voltage dips

Standards/regulations	EN 61000-4-11
Voltage	230 V AC
Frequency	50 Hz
Voltage dip	70 %

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

Number of periods	25 periods
Additional text	Class 3
Comments	Criterion A
Voltage dip	40 %
Number of periods	10 periods
Additional text	Class 3
Comments	Criterion A
Voltage dip	0 %
Number of periods	1 period
Additional text	Class 3
Comments	Criterion A

## Criteria

Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.
Criterion C	Temporary adverse effects on the operating behavior, which the device corrects automatically or which can be restored by actuating the operating elements.

# UNO2-PS/1AC/24DC/60W/PT - Power supply

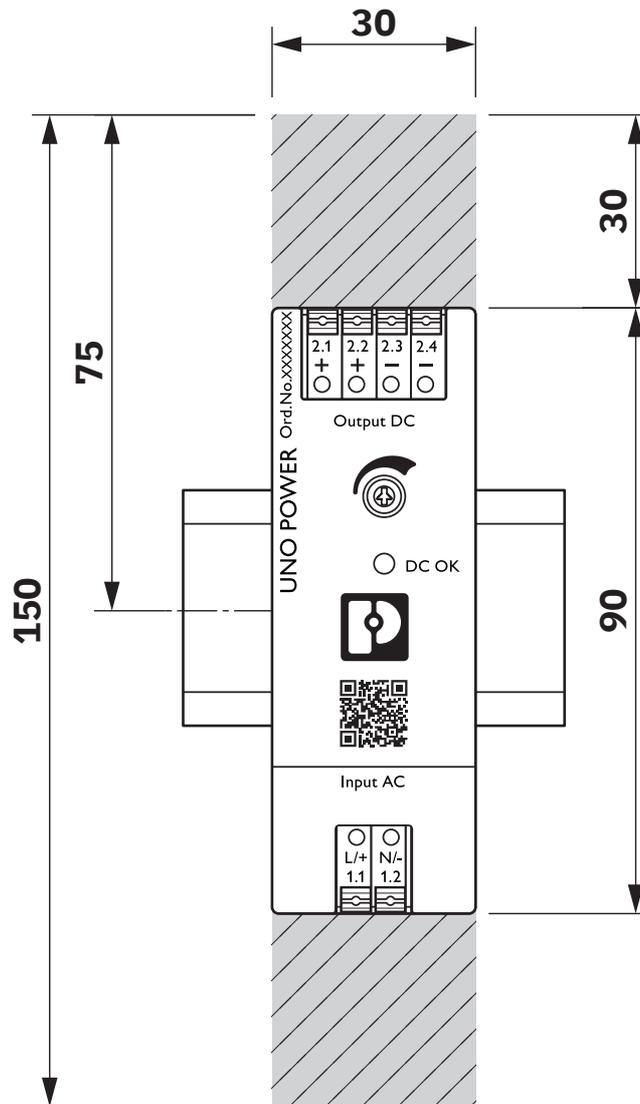
1399933

<https://www.phoenixcontact.com/pc/products/1399933>

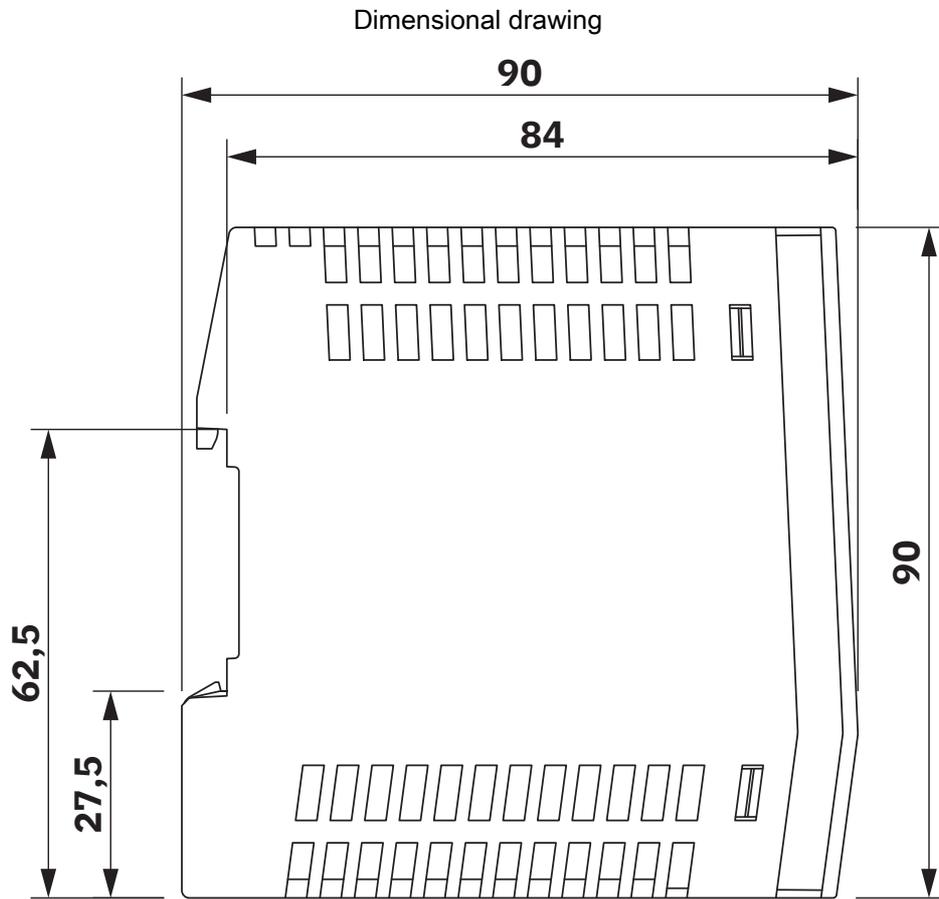


## Drawings

Dimensional drawing



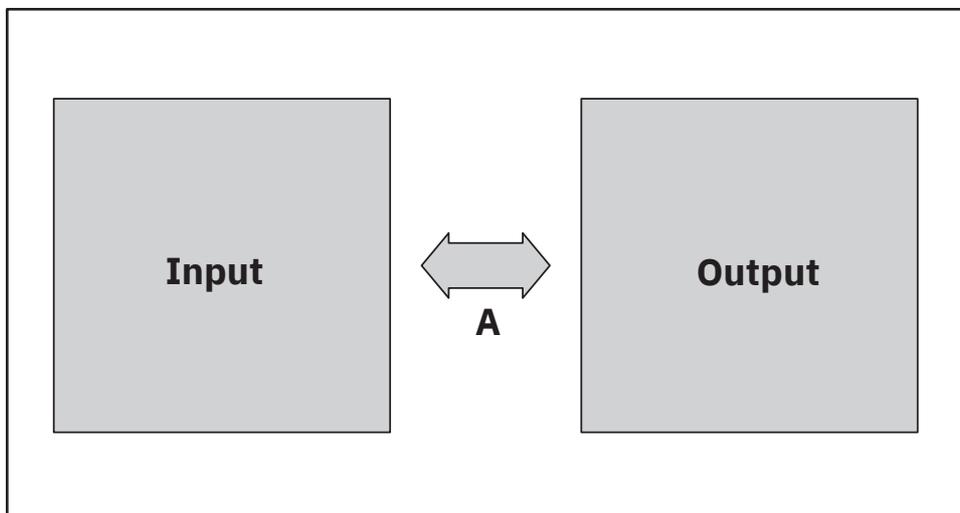
Device dimensions (dimensions in mm)

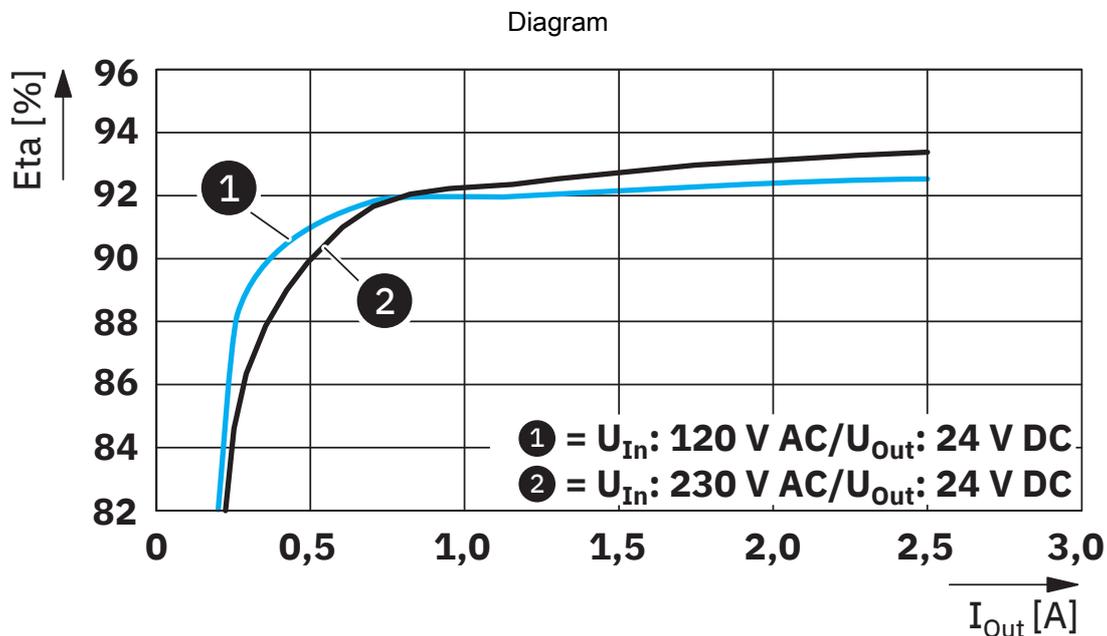


Device dimensions (dimensions in mm)

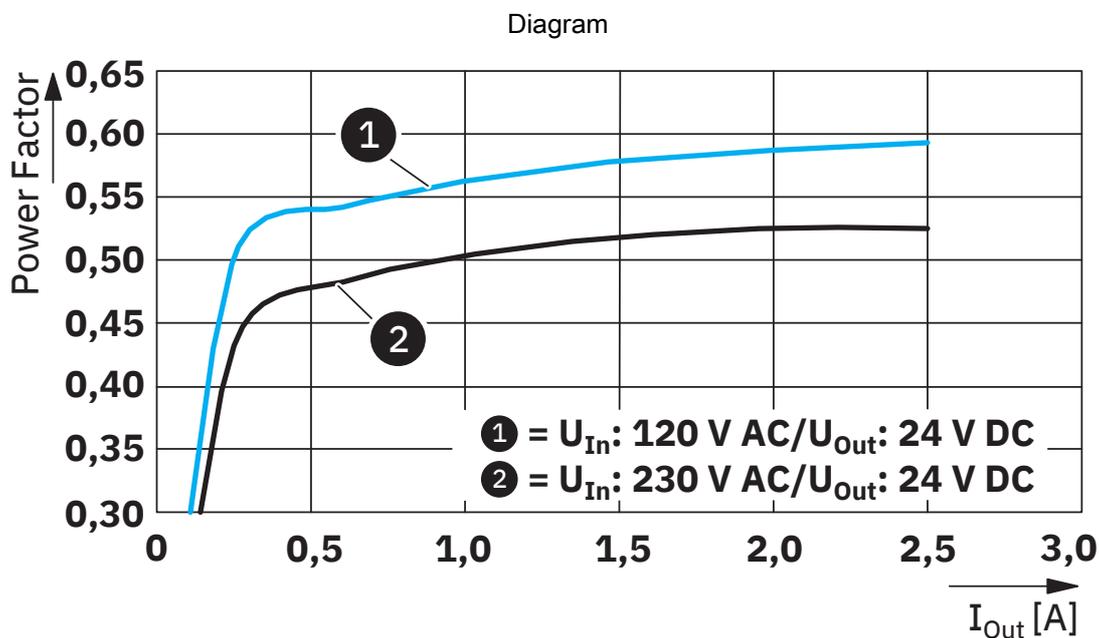
Schematic diagram

## Housing



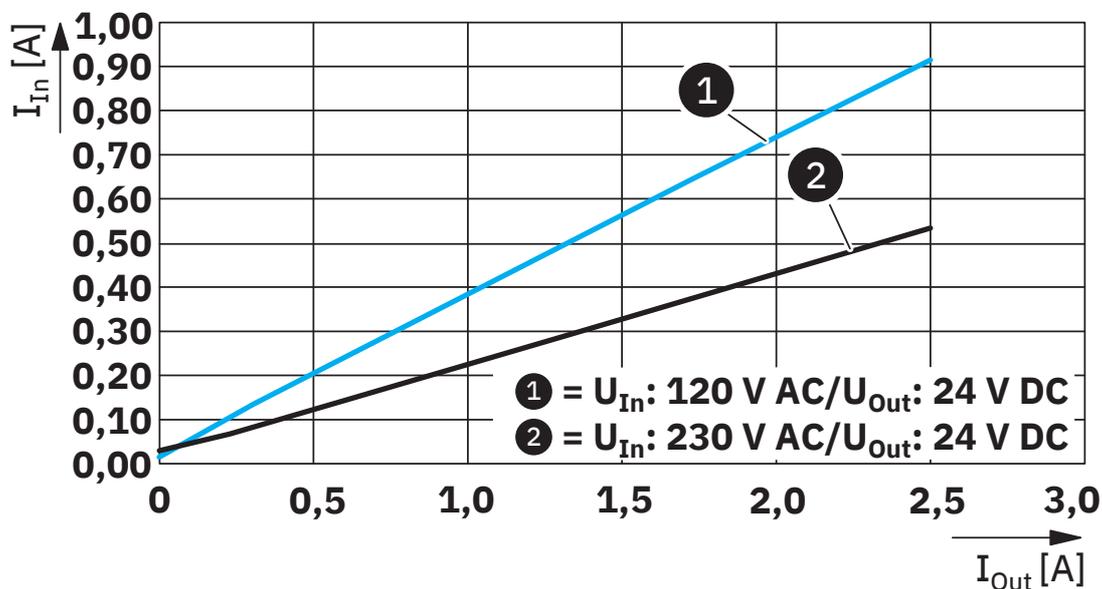


Efficiency



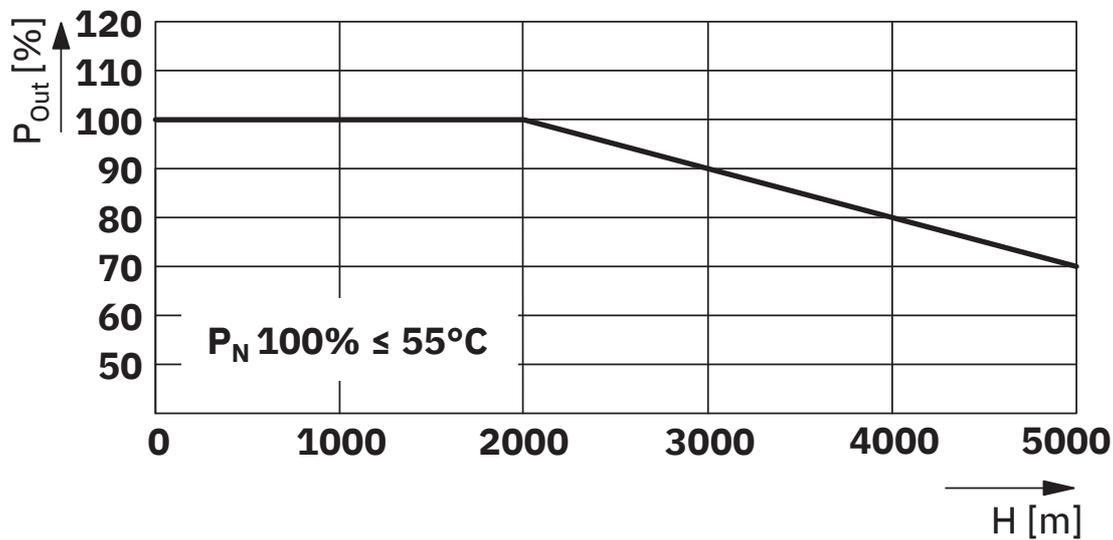
Power factor

Diagram



Input current/output current

Diagram



Output power/installation altitude

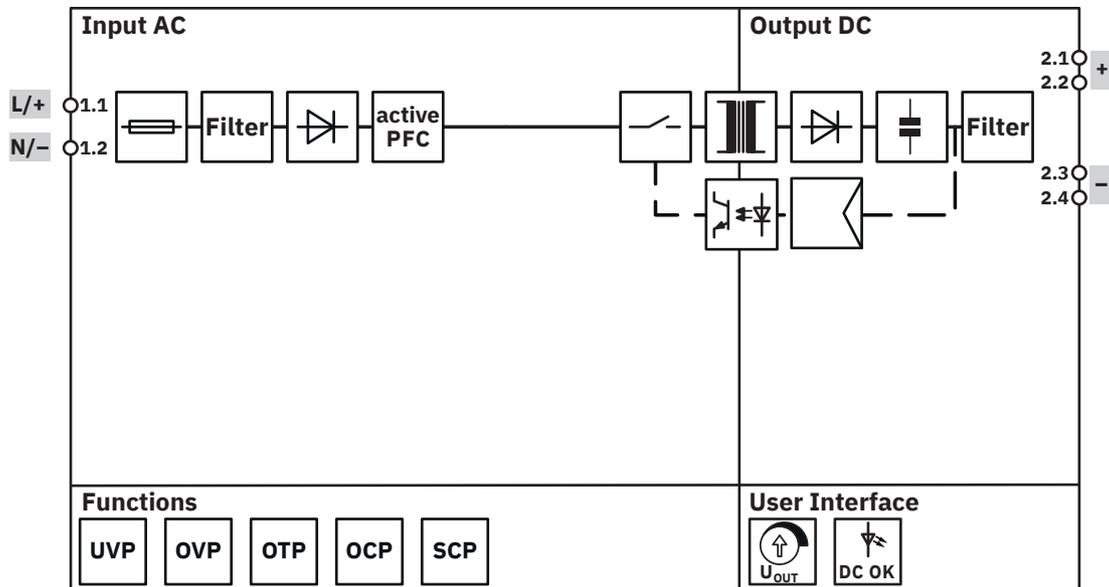
# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

Block diagram



Block diagram

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1399933>



**IECEE CB Scheme**

Approval ID: SI-11741



**cULus Listed**

Approval ID: E123528-20241209

**CoC / Compliance Statement**

Approval ID: C223-0001/25

**CoC / Compliance Statement**

Approval ID: C211-0001/25



**cULus Listed**

Approval ID: E199827-20241122

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## Classifications

### ECLASS

ECLASS-13.0	27040701
ECLASS-15.0	27040701

### ETIM

ETIM 10.0	EC002540
-----------	----------

### UNSPSC

UNSPSC 21.0	39121000
-------------	----------

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	92250883-5007-4d02-a9d1-50bef477a6a4

### EF3.1 Climate Change

CO2e kg	6.184 kg CO2e
---------	---------------

# UNO2-PS/1AC/24DC/60W/PT - Power supply

1399933

<https://www.phoenixcontact.com/pc/products/1399933>



## Accessories

### UNO-DIODE/5-24DC/2X10/1X20 - Redundancy module

2905489

<https://www.phoenixcontact.com/pc/products/2905489>

Redundancy module, 5 V - 24 V DC, 2 x 10 A, 1 x 20 A.



---

### PLT-SEC-T3-230-FM-UT - Type 3 surge protection device

2907919

<https://www.phoenixcontact.com/pc/products/2907919>

Type 2/3 surge protection, consisting of protective plug and base element with screw connection. For single-phase power supply network with integrated status indicator and remote signaling. Nominal voltage: 230 V AC/DC



# UNO2-PS/1AC/24DC/60W/PT - Power supply

1399933

<https://www.phoenixcontact.com/pc/products/1399933>



## PLT-SEC-T3-230-FM-PT - Type 3 surge protection device

2907928

<https://www.phoenixcontact.com/pc/products/2907928>



Type 2/3 surge protection, consisting of protective plug and base element with Push-in connection. For single-phase power supply network with integrated status indicator and remote signaling. Nominal voltage: 230 V AC/DC

---

## CBMC E4 24DC/1-4A+ IOL - Electronic circuit breaker

2910410

<https://www.phoenixcontact.com/pc/products/2910410>



Multi-channel electronic circuit breaker with IO-Link interface for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## CBMC E4 24DC/1-4A NO - Electronic circuit breaker

2906031

<https://www.phoenixcontact.com/pc/products/2906031>



Multi-channel electronic circuit breaker for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

---

## PTCB E1 24DC/0.1-0.63A NO - Electronic circuit breaker

1441495

<https://www.phoenixcontact.com/pc/products/1441495>



Single-channel, electronic device protection for 12-24 V DC loads. Nominal current adjustable from 0.1-0.63 A. With remote signaling and active current limitation. Can be combined with CLIPLINE terminal blocks. For installation on DIN rails.

# UNO2-PS/1AC/24DC/60W/PT - Power supply



1399933

<https://www.phoenixcontact.com/pc/products/1399933>

## PTCB E1 24DC/0.1-0.63A SI-R - Electronic circuit breaker

1441496

<https://www.phoenixcontact.com/pc/products/1441496>



Single-channel, electronic device protection for 12-24 V DC loads. Nominal current adjustable from 0.1-0.63 A. With remote signaling, remote reset, and active current limitation. Can be combined with CLIPLINE terminal blocks. For installation on DIN rails.

---

## POTI SEALING PLUG - Sealing plug

1175957

<https://www.phoenixcontact.com/pc/products/1175957>



Sealing plug for protection against manipulation (adjustment of the DC output voltage) by sealing off the potentiometer opening

---

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstraße 8  
D-32825 Blomberg  
+49 (0) 5235-3 00  
[info@phoenixcontact.com](mailto:info@phoenixcontact.com)