Power supply unit - UNO2-PS/1AC/24DC/120W - 1110466

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Primary-switched power supply unit, UNO POWER, Screw connection, DIN rail mounting, input: 1-phase, output: 24 V DC / 5 A

Your advantages

- Save space in the control cabinet with an extremely narrow overall width of just 35 mm
- Save energy, thanks to a high degree of efficiency
- Outdoor installation possible, with a wide temperature range of -25°C… +70°C
- Simple output voltage monitoring, thanks to the floating DC OK relay contact

Key Commercial Data

Packing unit	1 pc
GTIN	4 063151 024659
GTIN	4063151024659
Weight per Piece (excluding packing)	310.000 g
Custom tariff number	85044030
Country of origin	Vietnam
Sales Key	CMPV13

Technical data

Dimensions

Width	35 mm
Height	130 mm
Depth	129 mm
	125 mm (Device depth (DIN rail mounting))
Installation distance right/left (active, passive)	0 mm / 0 mm (P_{Out} ≥50%)
Installation distance top/bottom (active, passive)	30 mm / 30 mm (P_{Out} ≥50%)

Ambient temperature (operation)	-25 °C ... 70 °C (> 55 °C Derating: 2.5 %/K)

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Ambient temperature (start-up type tested)	-40 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Maximum altitude	≤ 4000 m (> 2000 m, Derating: 10 %/1000 m)
Vibration (operation)	10 Hz ... 50 Hz, amplitude ±0.2 mm (in accordance with IEC 60068-2-6)
	50 Hz to 150 Hz, 2.3 g, 90 min.
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Degree of pollution	2
Climatic class	3K3 (in acc. with EN 60721)

Input data

Nominal input voltage range	100 V AC ... 240 V AC
Input voltage range	100 V AC ... 240 V AC -15 % ... +10 %
Derating	< 100 V AC (1 %/V)
Frequency range (f_N)	50 Hz ... 60 Hz 10 %
Typical national grid voltage	120 V AC
	230 V AC
Voltage type of supply voltage	AC
Current consumption	1.34 A (100 V AC)
	1.1 A (120 V AC)
	0.59 A (230 V AC)
	0.57 A (240 V AC)
Discharge current to PE	< 0.25 mA
Mains buffering time	typ. 25 ms (120 V AC)
	typ. 25 ms (230 V AC)
Switch-on time	typ. 1 s
Inrush current	typ. 35 A (at 25 °C)
Inrush current integral (I^2t)	< 0.7 A^2s
Type of protection	Transient protection
Protective circuit/component	Varistor
Device mains fuse	3.15 A internal (device protection), fast-blow
Recommended breaker for input protection	6 A ... 16 A (Characteristic B, C, D, K or comparable)

Output data

Nominal output voltage	24 V DC
Setting range of the output voltage (U_{Set})	24 V DC ... 28 V DC (> 24 V DC, constant capacity restricted)
Nominal output current (I_N)	5 A
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 3 % (change in load, dynamic 10 % ... 90 %)
	< 0.1 % (change in input voltage ±10 %)
Short-circuit-proof	yes
No-load proof	yes

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Output data

Residual ripple	typ. 70 mV_{PP} (with nominal values)
Connection in parallel	yes, for increasing power and redundancy with diode
Connection in series	yes, for increased efficiency
Feedback voltage resistance	≤ 35 V DC
Protection against overvoltage at the output (OVP)	≤ 35 V DC
Rise time	< 1 s (U_{Out} = 10 % ... 90 %)
Crest factor	typ. 1,93 (120 V AC)
	typ. 2,05 (230 V AC)
Output power	120 W
Minimum no-load power dissipation	< 0.4 W (120 V AC)
Maximum power dissipation in no-load condition	< 0.75 W (230 V AC)
Minimum nominal load power dissipation	< 9 W (120 V AC)
Power loss nominal load max.	< 7.5 W (230 V AC)

General

Net weight	0.31 kg
Environmental protection directive	RoHS Directive 2011/65/EU
	WEEE
	Reach
Efficiency	typ. 93 % (120 V AC)
	typ. 94 % (230 V AC)
MTBF (IEC 61709, SN 29500)	> 1442000 h (25 °C)
	> 813000 h (40 °C)
	> 428000 h (55 °C)
Insulation voltage input/output	4 kV AC (type test)
	3 kV AC (routine test)
Degree of protection	IP20
Protection class	II
Housing material	Polycarbonate
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: 0 mm horizontally, 30 mm vertically

Input connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm² ... 2.5 mm²
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.25 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14 (Cu)
Torque	0.5 Nm ... 0.6 Nm

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Signal connection data

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Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm² ... 2.5 mm²
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LED signaling

Types of signaling	LED
	Floating signal contact
U_{Out}	> 0,9 x U_N (U_N = 24 V DC) (LED lights up green)
	<

Standards

EMC requirements for noise immunity	EN 61000-6-2
Standard designation	Safety of power supply units up to 1100 V (insulation distances)
Standards/regulations	DIN EN 61558-2-16
Standard designation	Electrical safety
Standards/regulations	IEC 61010-2-201 (SELV)
Standard designation	Equipping high voltage installations with electronic equipment
Standards/regulations	EN 50178/VDE 0160 (PELV)
Standard designation	Safety for equipment for measurement, control, and laboratory use
Standards/regulations	IEC 61010-1
Standard designation	Safety extra-low voltage
Standards/regulations	IEC 61010-1 (SELV)
	IEC 61010-2-201 (PELV)
Standard designation	Safe isolation
Standards/regulations	IEC 61558-2-16
	IEC 61010-2-201
Standard designation	Limitation of harmonic line currents

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Standards

Standards/regulations	EN 61000-3-2
Standard designation	Requirement of the semiconductor industry with regard to mains voltage dips
Standards/regulations	SEMI F47 - 0706 (185 V AC)
Overvoltage category EN 61010-1	II (≤ 4000 m)
Overvoltage category EN 62477-1	III (≤ 2000 m)

Conformance/approvals

Designation	UL
Identification	UL/C-UL Listed UL 61010-1
Designation	UL
Identification	UL/C-UL Listed UL 61010-2-201
Designation	UL
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
Conducted noise emission	EN 55016
	EN 61000-6-3 (Class B)
Noise emission	EN 55016
	EN 61000-6-3 (Class B)
Harmonic currents	EN 61000-3-2
	EN 61000-3-2 (Class A)
Electrostatic discharge	EN 61000-4-2
Contact discharge	6 kV (Test Level 3)
Discharge in air	8 kV (Test Level 3)
Electromagnetic HF field	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	1 GHz ... 2 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	2 GHz ... 3 GHz
Test field strength	10 V/m (Test Level 3)
Comments	Criterion A
Fast transients (burst)	EN 61000-4-4
Input	4 kV (Test Level 4 - asymmetrical)
Output	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion A
Surge voltage load (surge)	EN 61000-4-5
Input	2 kV (Test Level 3 - symmetrical)
	4 kV (Test Level 4 - asymmetrical)

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EMC data

Output	1 kV (Test Level 2 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion A
Conducted interference	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Comments	Criterion A
Voltage dips	EN 61000-4-11
Voltage	230 V AC
Frequency	50 Hz
Voltage dip	70 %
Number of periods	25 / 30 periods
Comments	Criterion A
Voltage dip	40 %
Number of periods	12 periods
Additional text	Test Level 2
Comments	Criterion A
Voltage dip	0 %
Number of periods	1 period
Additional text	Test Level 2
Comments	Criterion B
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

Block diagram

Diagram

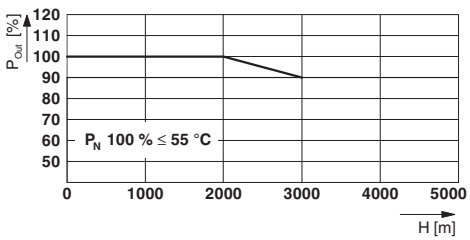

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Diagram

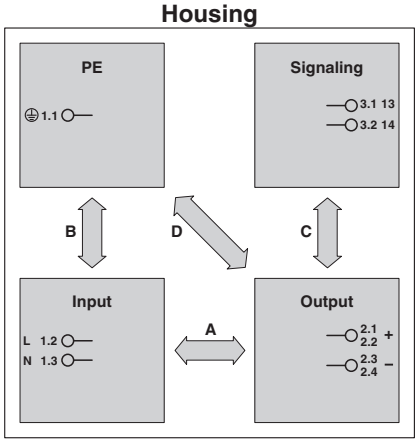
Diagram

Diagram

Dimensional drawing

Dimensional drawing

Schematic diagram



Classifications

eCl@ss

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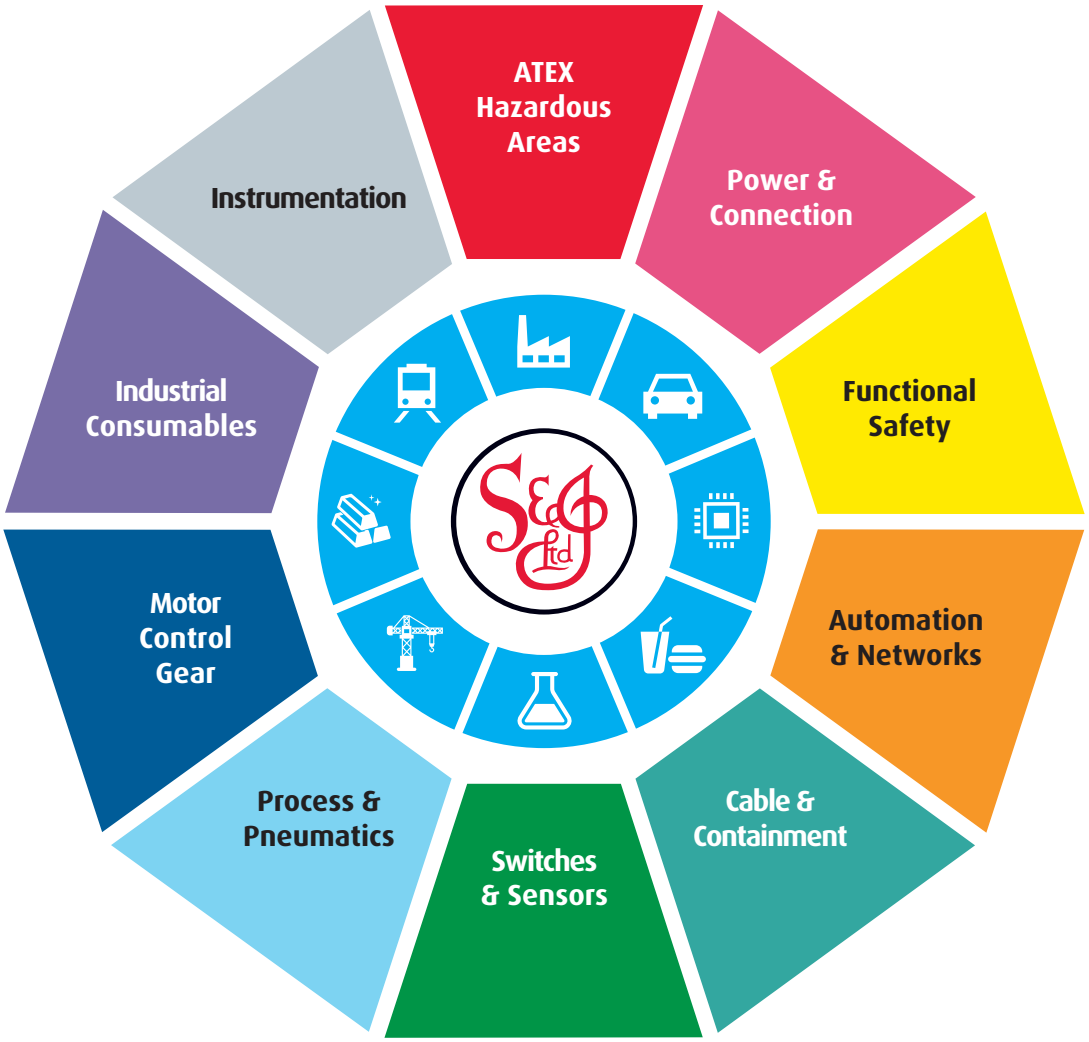

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