

## DC/DC converters - UNO-PS/350-900DC/24DC/60W - 2906300

Rețineți că datele furnizate aici sunt luate din catalogul online. Pentru informații și date complete, consultați documentația de utilizare. În cazul descărcărilor de pe internet se aplică Termenii și condițiile de utilizare generale. (<http://download.phoenixcontact.de>)



Primary-switched UNO DC/DC converter with wide range input, for DIN rail mounting, input: 350 ... 900 V DC, output: 24 V DC/60 W

### Descriere articol

UNO DC/DC converters with basic functionality

With the DC/DC converters from the UNO POWER range, the control cabinet is supplied directly from the photovoltaic system. This saves installation costs and increases the efficiency of the system.

### Caracteristici articol

- Wide input voltage range
- Direct field installation
- UL 1741-certified DC/DC converter
- Minimal space required in the control box
- Simplified startup



### Date comerciale

Unitate de ambalare	1 buc
GTIN	 4 055626 062648
GTIN	4055626062648

### Date tehnice

#### Dimensions

Width	55 mm
Height	90 mm
Depth	84 mm
Installation distance right/left	0 mm / 0 mm ( $\leq 70$ °C)
Installation distance top/bottom	30 mm / 30 mm ( $\leq 70$ °C)

#### Ambient conditions

Degree of protection	IP20
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### Ambient conditions

Inflammability class in acc. with UL 94 (housing / terminal blocks)	V0
Ambient temperature (operation)	-25 °C ... 70 °C (> 55° C derating : 2.5%/K)
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)
Climatic class	3K3 (in acc. with EN 60721)
Degree of pollution	2

### Input data

Nominal input voltage range	350 V DC ... 900 V DC
Input voltage range	300 V DC ... 1000 V DC
Dielectric strength maximum	≤ 1050 V DC
Current consumption	0.19 A (350 V DC)
	0.07 A (1000 V DC)
Inrush current	< 1 A (typical)
Recommended breaker for input protection	1 A (Characteristic gPV or comparable)

### Output data

Nominal output voltage	24 V DC ±1 %
Nominal output current (I <sub>N</sub> )	2.5 A (-25 °C ... 55 °C)
Derating	55 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	No
Feedback voltage resistance	< 35 V DC
Protection against overvoltage at the output (OVP)	< 35 V DC
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 3 % (Dynamic load change 10 % ... 90 %, 10 Hz)
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 20 mV <sub>PP</sub> (with nominal values)
Output power	60 W
Typical response time	< 1 s
Maximum power dissipation in no-load condition	< 0.5 W
Power loss nominal load max.	< 6.5 W

### General

Net weight	0.3 kg
Efficiency	> 90 %
MTBF (IEC 61709, SN 29500)	> 1160000 h (40 °C)
Insulation voltage input/output	8 kV DC (type test)
	3 kV DC (routine test)
Degree of protection	IP20
Protection class	II

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#### General

Inflammability class in acc. with UL 94 (housing / terminal blocks)	V0
Housing material	Polycarbonate
Foot latch material	POM (Polyoxymethylen)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: 0 mm horizontally, 30 mm vertically

#### Connection data, input

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	8 mm
Screw thread	M3

#### Connection data, output

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	8 mm
Screw thread	M3

#### Standards

EMC requirements for noise immunity	EN 61000-6-1
	EN 61000-6-2
EMC requirements for noise emission	EN 61000-6-3
	EN 61000-6-4
Standard - Safety of power converters for use in photovoltaic power systems	IEC 62109-1
Standard - Electrical safety	IEC 62109-1
Standard – Safety extra-low voltage	IEC 60950-1 (SELV) and EN 60204-1 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Mains variation/undervoltage	EN 61000-4-11

#### Conformance/approvals

UL approvals	UL 1741
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### EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
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
Frequency range	1 GHz ... 2 GHz
Test field strength	10 V/m
Frequency range	2 GHz ... 3 GHz
Test field strength	10 V/m
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 B
Surge voltage load (surge)	EN 61000-4-5
Input	2 kV (Test Level 3 - symmetrical)
	4 kV (Test Level 4 - asymmetrical)
Output	1 kV (Test Level 2 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion B
Conducted interference	EN 61000-4-6
Frequency range	10 kHz ... 80 MHz
Voltage	10 V (Test Level 3)
Comments	Criterion A
Voltage dips	EN 61000-4-11
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

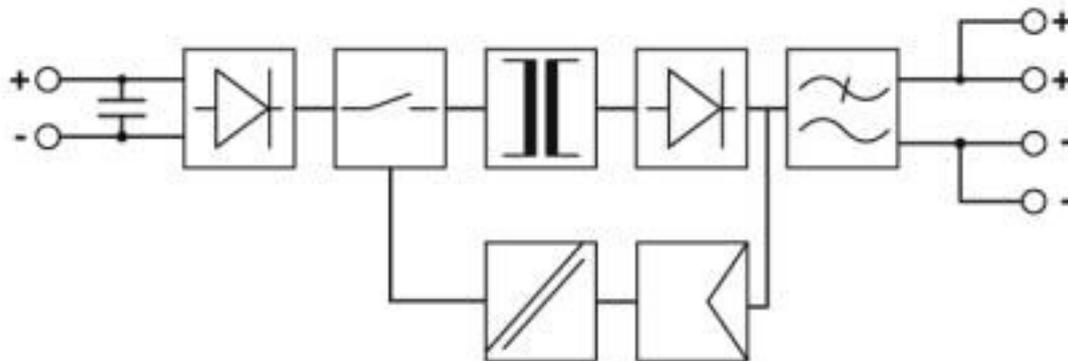
### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Desene

# DC/DC converters - UNO-PS/350-900DC/24DC/60W - 2906300

Block diagram



## Aprobări

Aprobări

Aprobări

UL Recognized / cUL Recognized / IECEE CB Scheme / EAC / cULus Recognized

Aprobări EX

## Detalii de aprobare

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 476951
cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 476951
IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	US-27376-M1-UL
EAC			RU*DE*08.B.01873/19
cULus Recognized			

## DC/DC converters - UNO-PS/350-900DC/24DC/60W - 2906300

### Accesorii

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#### Device protection

Type 3 surge protection device - PLT-SEC-T3-24-FM-UT - 2907916



Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage 24 V AC/DC.

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#### Fuse terminal block

Fuse modular terminal block - UK 10,3-HESI 1000V - 3211236



Fuse modular terminal block, fuse type: Glass / ceramics / ..., connection method: Screw connection, cross section: 1.5 mm<sup>2</sup>- 25 mm<sup>2</sup>, AWG: 16 - 3, nominal current: 30 A, nom. voltage: 1000 V, width: 18 mm, fuse type: 10:3 x 38 mm, mounting type: NS 35/7,5, NS 35/15, color: black

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#### Redundancy module

Redundancy module - UNO-DIODE/5-24DC/2X10/1X20 - 2905489



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

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