

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

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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

Product Description

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.

Your advantages

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



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 062648
GTIN	4055626062648
Weight per Piece (excluding packing)	320.000 g
Custom tariff number	85044030
Country of origin	Germany

Technical data

Dimensions

Width	55 mm
Height	90 mm

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

Technical data

Dimensions

Depth	84 mm
-------	-------

Ambient conditions

Degree of protection	IP20
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 _N)	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 _{PP} (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
------------	--------

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

Technical data

General

Efficiency	> 90 %
Insulation voltage input/output	8 kV DC (type test)
	3 kV DC (routine test)
Protection class	II
Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	> 1160000 h (40 °C)
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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	8 mm
Screw thread	M3

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	EN 61000-6-2:2005
Standards/regulations	EN 61000-4-2
Contact discharge	4 kV (Test Level 3)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m

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

Technical data

Standards and Regulations

Frequency range	1.4 GHz ... 2 GHz
Test field strength	3 V/m
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-6-3
	EN 61000-4-6
Frequency range	10 kHz ... 80 MHz
Voltage	10 V (Test Level 3)
Standards/regulations	EN 61000-4-11
Low Voltage Directive	Conformance with LV directive 2006/95/EC
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
UL approvals	UL 1741
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Vibration (operation)	< 15 Hz, amplitude ± 2.5 mm (according to IEC 60068-2-6)
	15 Hz ... 150 Hz, 2.3g, 90 min.
Approval - requirement of the semiconductor industry with regard to mains voltage dips	EN 61000-4-11
Certificate	CB Scheme
Overvoltage category (IEC 62109-1)	II

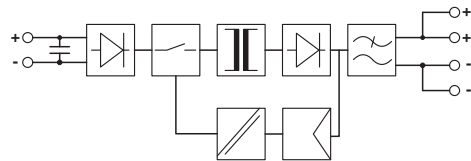
Environmental Product Compliance

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"

Drawings

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

Block diagram



Classifications

eCl@ss

eCl@ss 5.1	27210900
eCl@ss 6.0	27210900
eCl@ss 7.0	27210901
eCl@ss 8.0	27210901
eCl@ss 9.0	27210901

ETIM

ETIM 5.0	EC002540
ETIM 6.0	EC002046
ETIM 7.0	EC002046

UNSPSC

UNSPSC 13.2	39121004
-------------	----------

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / IECCEB Scheme / EAC / UL Recognized / IECCEB Scheme / cUL Recognized / EAC

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 476951
---------------	---	---	---------------

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

Approvals

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 476951
IECEE CB Scheme		http://www.iecee.org/	US-27376-M1-UL
EAC			RU C- DE.A*30.B.01082
UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 476951
IECEE CB Scheme		http://www.iecee.org/	US-27376-M1-UL
cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 476951
EAC			RU C- DE.A*30.B.01082

Accessories

Accessories

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.

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

Accessories

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 mm²- 25 mm², 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

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.