MINI-PS- 10- 42AC/15-60DC/3 - Feed-in module

2320199

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The AC feed module supplies the MINI DC/DC converter with a rectified and filtered supply voltage.

Product description

The AC power module converts the 10 V AC ... 42 V AC input voltage into a 15 V DC ... 60 V DC output voltage. The output voltage level depends on the AC input voltage. With an overall width of just 22.5 mm, the housing is particularly narrow.

Your advantages

- Enables the operation of the MINI DC/DC converters in an AC network.
- AC voltage of a transformer is rectified and filtered

Commercial data

Item number	2320199
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CMPM99
Product key	CMPM99
GTIN	4046356577731
Weight per piece (including packing)	211 g
Weight per piece (excluding packing)	160 g
Customs tariff number	85044095
Country of origin	CN

Technical data

Product properties

Product type	Feed-in module
MTBF (IEC 61709, SN 29500)	> 18175000 h (40 °C)

Insulation characteristics

Protection class	III
Degree of pollution	2

Electrical properties

Number of phases	1

Input data

DC operation

Input voltage	24 V AC
Nominal input voltage range	10 V AC ... 42 V AC
Input voltage range	10 V AC ... 42 V AC
Wide-range input	yes
Input voltage range AC	0 V AC ... 42 V AC
Voltage type of supply voltage	AC
Inrush current	< 45 A (typical)
Inrush current integral (I^2t)	8 A^2s
AC frequency range	45 Hz ... 65 Hz
Current consumption	6.5 A
Permissible backup fuse	C16 1 x circuit breaker
Recommended breaker for input protection	16 A (Characteristic C)

Output data

Efficiency	> 95.7 % (For 42 V AC and nominal values)
Nominal output voltage	28 V DC ±1 %
	60 V DC
Output voltage range	15 V DC ... 60 V DC
Nominal output current (I_N)	3 A (-25 °C ... 60 °C)
Derating	60 °C ... 70 °C (2.5 %/K)
Residual ripple	< 3.6 V_{PP}
Output power	72 W
Maximum no-load power dissipation	< 0.04 W
Power loss nominal load max.	< 6.9 W
Connection in series	no

Connection data

Input

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm²
Conductor cross-section, rigid max.	2.5 mm²
Conductor cross-section flexible min.	0.2 mm²
Conductor cross-section flexible max.	2.5 mm²
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	12
Stripping length	7 mm
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Output

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm²
Conductor cross-section, rigid max.	2.5 mm²
Conductor cross-section flexible min.	0.2 mm²
Conductor cross-section flexible max.	2.5 mm²
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	12
Stripping length	7 mm
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Dimensions

Width	22.5 mm
Height	99 mm
Depth	107 mm

Installation dimensions

Installation distance right/left	0 mm / 0 mm (≤ 70 °C)
Installation distance top/bottom	50 mm / 50 mm (≤ 70 °C)

Material specifications

Housing material	Plastic
Housing material	PA
Type of housing	Polyamide PA, color: green

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Climatic class	3K3 (in acc. with EN 60721)

Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
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

Approvals

UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1

Conformity/Approvals

SIL in accordance with IEC 61508	0

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Noise immunity	EN 61000-6-2:2005

Noise emission

Standards/regulations	EN 55011 (EN 55022)

Electrostatic discharge

Standards/regulations	EN 61000-4-2
Housing	> Level 3

Electrostatic discharge

Contact discharge	8 kV (Contact discharge)
Discharge in air	8 kV (Air discharge)
Comments	Criterion B

Electromagnetic HF field

Standards/regulations	EN 61000-4-3

Electromagnetic HF field

Frequency range	80 MHz ... 3 GHz
Test field strength	10 V/m
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4

Fast transients (burst)

Input	4 kV (level 4 - asymmetrical: conductor to ground)
Output	2 kV (level 3 - asymmetrical: conductor to ground)
Signal	1 kV (Level 2 - asymmetrical cable to ground)
Comments	Criterion B

Surge voltage load (surge)

Standards/regulations	EN 61000-4-5

Surge voltage load (surge)

Input	2 kV (Level 3)
	1 kV (Level 3)

Standards and regulations

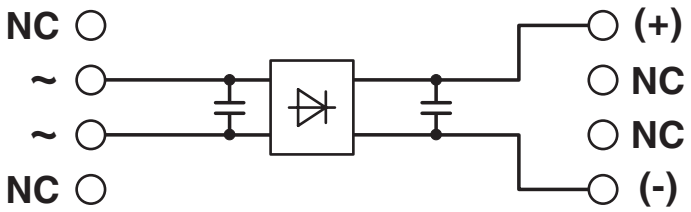
Rail applications	EN 50121-4
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)

Mounting

Assembly note	alignable: horizontally 0 mm, vertically 50 mm
Mounting position	horizontal DIN rail NS 35, EN 60715
With protective coating	no

Drawings

Block diagram



Classifications

UNSPSC

UNSPSC 21.0	39121000

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 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)

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PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk