

ASI PS 100-240 AC/4.8 EFD

This product has been replaced by a newer version.

Order No.: 2741260



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AS-i primary switched-mode power supply, input voltage 100 - 240 V AC or 130 - 370 V DC, nominal output voltage 30 V DC 3%, nominal output current 4.8 A with integrated harmonic filter and automatic earth fault detection

Commercial data

EAN	4017918190408
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	1.543 KG
Catalog page information	Page 208 (AX-2004)

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Product description

Power supply unit for AS-Interface systems

Special power supply units with an output voltage range of 29.5 V - 31.6 V DC are used to supply the AS-Interface systems. The AS-i system also requires a data decoupling network in the power supply unit in order to be able to transmit communication signals along the power line. The ASI PS 100-240 AC/4.8 EFD power supply unit can supply an AS-i system with up to 4.8 A.

Safety through automatic earth fault detection

If two earth faults occur in an AS-i system, this can cause the machines to inadvertently start up or not to be able to stop operation. The power supply unit has an integrated earth fault detection function. An earth fault is signaled via LED and a signal output.

Worldwide use

The wide-range input of the power supply unit can be operated with all conventional AC and DC networks without having to make any settings.. The devices can thus be used worldwide.

Harmonic current wave filter integrated

The EN 61000-3-2 came into force on 1.1.2001. All primary switched power supplies that are directly connected to the public low-voltage network must be accordingly equipped with a harmonic current wave filter.

For this purpose, the power supply unit has a PFC filter (Power Factor Correction). As well as the filter function, this circuit guarantees mains buffering of over 40 ms.

Varnished PCB

The power supply unit can also be used in a damp environment. The varnished PCB means that the power supply is insensitive to high humidity and condensation in the inside of the device.

Technical data

Input data

Nominal input voltage	100 V AC ... 240 V AC
AC input voltage range	85 V AC ... 264 V AC
DC input voltage range	90 V DC ... 350 V DC
AC frequency range	47 Hz ... 63 Hz
DC frequency range	0 Hz
Current consumption	Approx. 1.8 A (at 120 V AC (nominal load)) Approx. 1 A (at 230 V AC (nominal load))
Inrush surge current	< 15 A (typical)
Power failure bypass	> 20 ms (for 120 V AC) > 80 ms (for 230 V AC)
Input fuse	5 A (slow-blow, internal)
Power factor (cos phi)	Approx. 0.95
Name of protection	Surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	30 V $\pm$ 1,5 %
Output current	4.8 A (up to 60°C) 6 A (with POWER BOOST)
Connection in parallel	Yes, for assembling redundant systems and increasing efficiency
Residual ripple	< 100 mVPP (0 kHz ... 10 kHz) < 50 mVPP (10 kHz ... 500 kHz)
Peak switching voltages idling	< 100 mVPP (0 kHz ... 10 kHz)

Peak switching voltages nominal load	< 50 mVPP (10 kHz ... 500 kHz)
Maximum power dissipation idling	4 W
Power loss nominal load max.	16 W
Name of protection	Protection against internal surge voltages

General data

Width	70 mm
Height	130 mm
Depth	125 mm
Weight	1 kg
Operating voltage display	LED green
Efficiency	Approx. 88 %
Insulation voltage input/output	2 kV (routine test) 4 kV (type test)
Degree of protection	IP20
Class of protection	I, with PE connection
MTBF	>500000 h
Ambient temperature (operation)	-25 °C ... 60 °C (> 60 °C derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	95 % (at 25 °C, no condensation)
Mounting position	On horizontal DIN rail NS 35 in acc. with EN 60715
Assembly instructions	Can be aligned: vertical with spacing = 5 cm
Electromagnetic compatibility	Conformance with EMC directive 89/336/EEC
Emitted interference	EN 50081-2
Immunity to interference	EN 61000-6-2:2005
Standard - Electrical safety	EN 60950/VDE 0805 DIN EN 50178/VDE 0160:1998-04 UL 508C CSA C22.2-14 UL 1950 CSA C22.2-950
Standard - Safe isolation	DIN VDE 0100-410 DIN VDE 0106-101

Connection data, input

Type of connection	Spring-cage conn.
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Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	9 mm

Connection data, output

Type of connection	Spring-cage conn.
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	9 mm

Certificates / Approvals



CUL

Comments	Input
Nominal voltage U _N	100 V
Nominal current I _N	2.3 A
Comments	Input
Nominal voltage U _N	240 V
Nominal current I _N	1 A
Comments	Output
Nominal voltage U _N	30 V
Nominal current I _N	4.8 A

UL

Comments	Input
Nominal voltage U _N	100 V

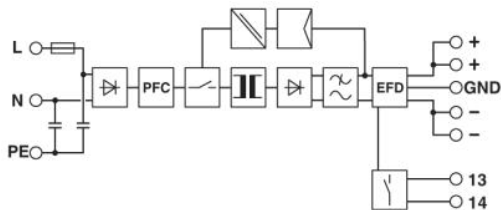
Nominal current I_N	2.3 A
Comments	Input
Nominal voltage U_N	240 V
Nominal current I_N	1 A
Comments	Output
Nominal voltage U_N	30 V
Nominal current I_N	4.8 A

Accessories

Item	Designation	Description
General		
1873061	FKC 2,5/ 3-ST-5,08	Plug component, Nominal current: 12 A, Nom. voltage: 250 V, Pitch: 5.08 mm, Number of positions: 3, Connection type: Spring-cage conn., Color: green
1873087	FKC 2,5/ 5-ST-5,08	Plug component, Nominal current: 12 A, Nom. voltage: 250 V, Pitch: 5.08 mm, Number of positions: 5, Connection type: Spring-cage conn., Color: green
1853023	TMSTBP 2,5/ 3-ST-5,08	Plug component, Nominal current: 12 A, Nom. voltage: 250 V, Pitch: 5.08 mm, Number of positions: 3, Connection type: Screw connection, Color: green
1853049	TMSTBP 2,5/ 5-ST-5,08	Plug component, Nominal current: 12 A, Nom. voltage: 250 V, Pitch: 5.08 mm, Number of positions: 5, Connection type: Screw connection, Color: green

Drawings

Block diagram



Address

PHOENIX CONTACT Inc., USA
586 Fulling Mill Road
Middletown, PA 17057, USA
Phone (800) 888-7388
Fax (717) 944-1625
<http://www.phoenixcon.com>



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