

Power supply unit - EM-CPS-PS/3AC/24DC/5 - 1064922

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 power supply unit, TRIO POWER, Snap-on connection, Cross Power System - installation, input: 3-phase, output: 24 V DC / 5 A

Product Description

The TRIO CROSS POWER power supply for the CrossPowerSystem power distribution board is perfectly adapted for use in machine building. All of the functions and space-saving design are tailored to the high requirements in this area. The push-in connection enables quick and easy connection of a 24 V DC control voltage.

Your advantages

- ✓ Push-in connections for easy 24 V DC control voltage connection
- ✓ Fast startup: Tool-free mounting and automatic contacting in just one step (CrossPowerSystem)
- ✓ Reliable startup of high loads, thanks to the dynamic boost
- ✓ Electrically robust, thanks to high electric strength
- ✓ Maximum flexibility, thanks to the temperature range of -25°C ... +70°C and device startup at -40°C



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626725222
Weight per Piece (excluding packing)	707.000 g
Custom tariff number	85044030
Country of origin	China

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
-------------------------	---

Dimensions

Width	36 mm
Height	160 mm

Power supply unit - EM-CPS-PS/3AC/24DC/5 - 1064922

Technical data

Dimensions

Depth	159 mm
-------	--------

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
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Climatic class	3K3 (in acc. with EN 60721)
Degree of pollution	2
Installation height	≤ 4000 m (> 2000 m, Derating: 10 %/1000 m)

Input data

Nominal input voltage range	3x 400 V AC ... 500 V AC
	2x 400 V AC ... 500 V AC
Input voltage range	3x 400 V AC ... 500 V AC -20 % ... +15 %
	2x 400 V AC ... 500 V AC -10 % ... +15 %
AC frequency range	50 Hz ... 60 Hz
Discharge current to PE	< 0.25 mA
Current consumption	3x 0.4 A (400 V AC)
	3x 0.3 A (500 V AC)
	2x 0.6 A (400 V AC)
	2x 0.5 A (500 V AC)
Nominal power consumption	243.6 VA
Inrush current	≤ 22 A (typical)
Mains buffering time	typ. 20 ms (400 V AC)
	typ. 20 ms (500 V AC)
Input fuse	3.15 A (internal (device protection), slow-blow)
Choice of suitable circuit breakers	6 A ... 16 A (Characteristics B, C, D, K)
Power factor (cos phi)	0.55
Type of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	24 V DC ±1 %
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
Dynamic Boost ($I_{Dyn.Boost}$)	7.5 A (5 s)
Derating	> 60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	yes
Output overvoltage protection	≤ 30 V DC
Control deviation	< 1 % (change in load, static 10 % ... 90 %)

Power supply unit - EM-CPS-PS/3AC/24DC/5 - 1064922

Technical data

Output data

	< 3 % (Dynamic load change 10 % ... 90 %, 10 Hz)
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	≤ 20 mV _{PP}
Output power	120 W
Typical response time	< 1 s
Maximum power dissipation in no-load condition	< 1 W (400 V AC)
Power loss nominal load max.	< 12 W (480 V AC)

General

Net weight	0.7 kg
Efficiency	typ. 91 % (400 V AC)
Insulation voltage input/output	3 kV AC (type test)
	1.5 kV AC (routine test)
Protection class	II (in closed control cabinet)
Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	> 2300000 h (25 °C)
	> 1300000 h (40 °C)
	> 620000 h (60 °C)
Assembly instructions	Cross Power System

Connection data, input

Connection method	Snap-on connection
-------------------	--------------------

Connection data, output

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 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.	12
Stripping length	10 mm

Connection data for signaling

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

Power supply unit - EM-CPS-PS/3AC/24DC/5 - 1064922

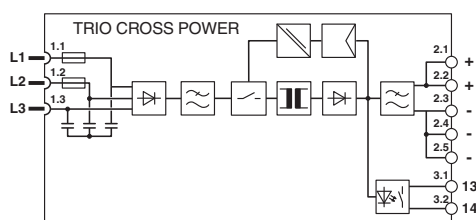
Technical data

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 55011 (EN 55022)
Noise immunity	Immunity according to EN 61000-6-2 (industrial)
Standards/regulations	EN 61000-4-2
Contact discharge	4 kV (Test Level 2)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	1.4 GHz ... 2 GHz
Test field strength	3 V/m (Test Level 2)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-6-4
	EN 61000-6-2
Conducted noise emission	EN 55016 EN 61000-6-4 (Class A)
Standards/regulations	EN 61000-4-11
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Standard - Safety of transformers	EN 61558-2-16 (air clearances and creepage distances only)
Standard - Electrical safety	IEC 61010-1 (SELV)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard – Safety extra-low voltage	IEC 61010 (SELV) / (PELV)
Standard - Safe isolation	DIN VDE 0100-410
Standard – Limitation of mains harmonic currents	EN 61000-3-2
UL approvals	UL Listed UL 61010-2-201
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Vibration (operation)	10 ... 150 Hz, amplitude ± 0.35 mm, 5g, 90 min. (in accordance with IEC 60068-2-6)
	2 Hz ... 15 Hz, amplitude ± 1 mm, > 15 Hz, 0.7g (in accordance with DNV GL Class A)
Overvoltage category (EN 61010-1)	II

Drawings

Block diagram



Power supply unit - EM-CPS-PS/3AC/24DC/5 - 1064922

Classifications

eCl@ss

eCl@ss 6.0	27049000
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002
eCl@ss 9.0	27040701

ETIM

ETIM 5.0	EC002540
ETIM 6.0	EC002540
ETIM 7.0	EC002540

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
-----------	--	---	---------------

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
------------	--	---	---------------

cULus Listed			
--------------	--	--	--

Accessories

Accessories

Assembly adapter

Power supply unit - EM-CPS-PS/3AC/24DC/5 - 1064922

Accessories

Power distribution board - EM-CPS-225 - 1002634



Modular power distribution board with CrossLink® interface, 125 A, 3-pos., touch-proof and protection against polarity reversal, width: 225 mm

Connection module - EM-CPS-TB3/63A - 1002633



Connection module with integrated spring-loaded terminals for cables from 1.5 to 16 mm², 3-pos., maximum 63 A

Power distribution board - EM-CPS-405 - 1002635



Modular power distribution board with CrossLink® interface, 125 A, 3-pos., touch-proof and protection against polarity reversal, width: 405 mm