

CM 50-PS-120-230AC/24DC/2,5/F - Power supply



2939425

<https://www.phoenixcontact.com/us/products/2939425>

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Power supply unit, primary switched-mode, input 100 V-240 V AC/ 100 V-370 V DC, output 24 V DC/2.5 A, with filter

Commercial data

Item number	2939425
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	CM11
Product key	CMPL13
GTIN	4017918163198
Weight per piece (including packing)	575.7 g
Weight per piece (excluding packing)	500 g
Customs tariff number	85044094
Country of origin	DE

Technical data

Input data

Nominal input voltage range	110 V AC ... 240 V AC
Input voltage range	90 V AC ... 264 V AC 100 V DC ... 350 V DC
Input voltage range AC	90 V AC ... 264 V AC
Input voltage range DC	100 V DC ... 350 V DC
Inrush current	< 15 A (at 25 °C)
AC frequency range	47 Hz ... 63 Hz
Mains buffering time	20 ms (at 120 V AC) 80 ms (at 230 V AC)
Current consumption	0.9 A (at 120 V) 0.5 A (at 230 V)
Input fuse	4 A (slow-blow)

Output data

Efficiency	> 85 %
Number of outputs	1
Nominal output voltage	24 V DC \pm 1 %
Setting range of the output voltage (U_{Set})	22.5 V DC ... 28.5 V DC
Nominal output current (I_N)	2.5 A
Residual ripple	< 200 mV _{pp} (at no-load, typ. 20 mV _{pp}) < 200 mV _{pp} (at nominal load, typ. 20 mV _{pp})
Peak switching voltages idling	< 200 mV _{pp} (at nominal load, typ. 20 mV _{pp})
Peak switching voltages nominal load	< 200 mV _{pp} (at nominal load, typ. 20 mV _{pp})
Maximum no-load power dissipation	< 4 W
Power loss nominal load max.	< 10 W
Connection in parallel	yes, for assembling redundant systems and increasing efficiency

Connection data

Input

Connection method	Screw connection
Conductor cross-section, rigid min.	0.2 mm ²
Conductor cross-section, rigid 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	M2,5

Output

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Connection method	Screw connection
Conductor cross-section, rigid min.	0.2 mm ²
Conductor cross-section, rigid max.	4 mm ²
Conductor cross-section flexible min.	0.2 mm ²
Conductor cross-section flexible max.	4 mm ²
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	10
Stripping length	8 mm
Screw thread	M2,5

Signaling

Operating voltage display	LED
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Electrical properties

Insulation voltage input/output	3 kV (routine test)
	5 kV (type test)

Product properties

Product type	Power supply
MTBF (IEC 61709, SN 29500)	> 500000 h

Dimensions

Width	50 mm
Height	130 mm
Depth	102 mm

Mounting

Assembly note	alignable: vertical with spacing = 10 cm, horizontal with zero spacing
Mounting position	on horizontal DIN rail NS 35 in acc. with EN 60715

Material specifications

Type of housing	Polycarbonate PC, color: green
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	up to 100 % (at 25°C, device will still start up with condensation)

Standards and regulations

Standard - Electrical safety	EN 60950/VDE 0805-1
	DIN EN 50178/VDE 0160
	UL 508C

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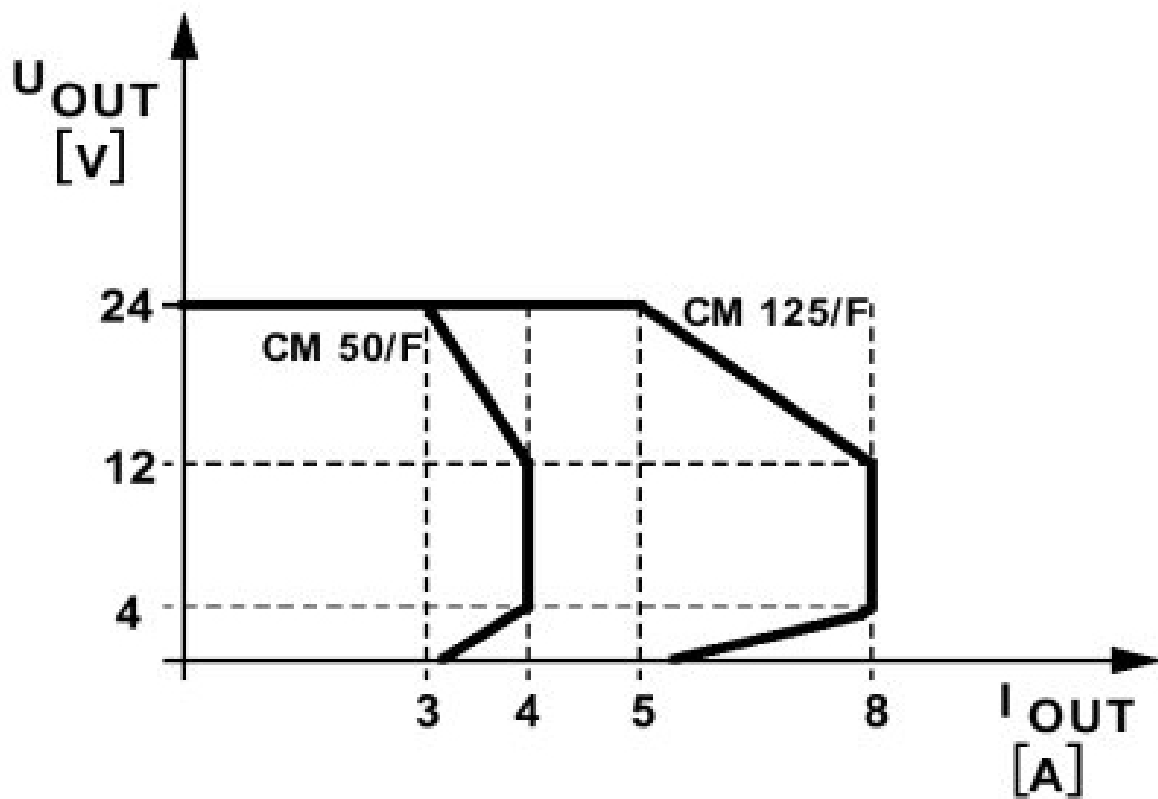
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	CSA C22.2-14
	UL 1950
	CSA C22.2-950
	DIN VDE 0100-410
	DIN VDE 0106-101

Drawings

Diagram



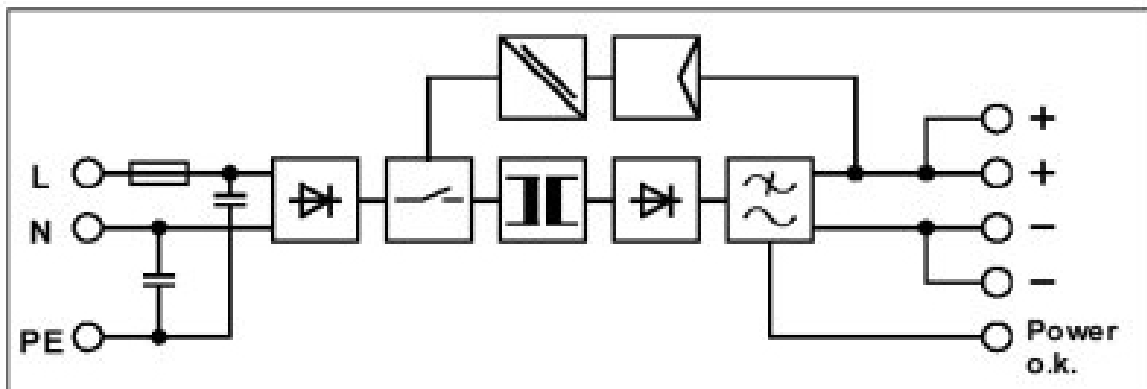
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Circuit diagram



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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	
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	No substance above 0.1 wt%
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