Extract from the online catalog

TRIO-PS/ 3AC/24DC/20

Order No.: 2866394



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DIN rail power supply unit, primary-switched mode, single-phase, output: 24 V DC / 20 A

Commercial data	
GTIN (EAN)	4046356046671
sales group	H001
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	2.177 KG
Catalog page information	Page 573 (IF-2009)

Product notes

WEEE/RoHS-compliant since: 10/02/2006

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Product description

TRIO POWER is the DIN-rail-mountable power supply unit with basic functions. With an output voltage of 12 V DC, 24 V DC and 48 V DC and 1- and 3-phase versions with 60 W or 960 W, it is particularly suited for use in series production in mechanical engineering. The wide-range input and international certification package allows worldwide implementation.

The high MTBF of 500,000 h stands for high supply reliability. The devices can be connected in parallel to increase the capacity and redundancy.

The clear LED signaling and the device connection with double terminal block for plus and minus for fast potential distribution are further advantages of this device series. A third terminal block simplifies the grounding on the secondary side. All power supply units are idle proof and short-circuit proof and provide a regulated and adjustable output voltage.

Technical data

Input data

Nominal input voltage	3x 400 V AC ... 500 V AC
AC input voltage range	3 x 320 V AC ... 575 V AC
AC frequency range	45 Hz ... 65 Hz
Current consumption	Approx. 3x 1.1 A (400 V AC)
	3x 0.8 A (480 V AC)
Inrush surge current	< 15 A
Power failure bypass	> 17 ms (400 V AC)
	> 20 ms (480 V AC)
Permissible backup fuse	B6
	B10
	B16
Required backup fuse (device and line protection)	(externally via 3 circuit breakers 6 A, 10 A or 16 A, characteristic B)
Power factor (cos phi)	0.67
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	22.5 V DC ... 29.5 V DC (> 24 V constant capacity)
Output current	20 A (-25°C ... 55°C)
Derating	+55°C to +70°C: 2.5% per Kelvin
	55 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Max. capacitive load	Unlimited
Current limitation	Approx. 25 A
Control deviation	< 1 % (change in load, static 10% ... 90%)
	< 2 % (change in load, dynamic 10% ... 90%)
	< 0.1 % (change in input voltage ±10%)
Residual ripple	< 10 mV_{PP}

Peak switching voltages nominal load	< 30 mV_{PP}
Maximum power dissipation idling	< 6 W
Power loss nominal load max.	< 48 W

General data

Width	115 mm
Height	130 mm
Depth	152.5 mm
Net weight	2 kg
Operating voltage display	LED green
Efficiency	> 91 % (at 400 V AC and nominal values)
Insulation voltage input/output	4 kV AC (type test)
	2 kV AC (routine test)
Degree of protection	IP20
Class of protection	I, with PE connection
MTBF	> 500 000 h in acc. with IEC 61709 (SN 29500)
Ambient temperature (operation)	-25 °C ... 70 °C (> 55° C derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	95 % (at 25 °C, no condensation)
Mounting position	Horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: Horizontal 0 cm, vertical 5 cm
Electromagnetic compatibility	Conformance with EMC directive 2004/108/EC
Noise immunity	EN 61000-6-2:2005
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Standard – Electrical equipment of machines	EN 60204
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950/VDE 0805 (SELV)
	EN 61558-2-17
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	EN 60950 (SELV)
	EN 60204 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
	DIN VDE 0106-1010
Standard – Protection against electric shock	DIN 57100-410

Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	DIN VDE 0106-101
Standard – Limitation of mains harmonic currents	EN 61000-3-2
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
Surge voltage category	III

Connection data, input

Type of connection	Screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Stripping length	9 mm
Screw thread	M2,5

Connection data, output

Type of connection	Screw connection
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	6 mm²
Conductor cross section stranded min.	0.5 mm²
Conductor cross section stranded max.	4 mm²
Conductor cross section AWG/kcmil min.	12
Conductor cross section AWG/kcmil max	10
Stripping length	14 mm

Signaling

Status display	"DC OK" LED green
Note on status display	U_{OUT} > 21.5 V: LED lights up

Certificates / Approvals

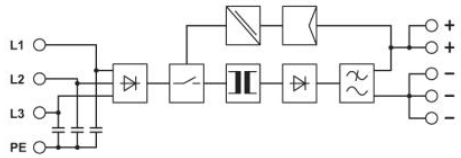
Certification	CUL, CUL Listed, UL, UL Listed

Accessories

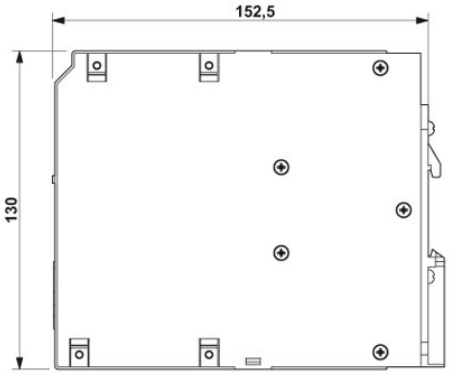
Item	Designation	Description
General		
2938235	UWA 182/52	Universal wall adapter

Diagrams/Drawings

Block diagram



Dimensioned drawing



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