

Technical data sheet

Power supply · 120 W, 3-phase

Primary switchmode power supply, PFC, 3-phase

Input: AC 340–575 V, DC 480–820 V

Output: DC 24 V, 5 A



Identification

Type WRA120-24
Part No. [722803](#)

Product version

Datasheet version 00

Input

Number of phases	3
Rated voltage U_N	3 × AC 400–500 V
Operation voltage range	3 × AC 340–575 V / 3 × DC 480–820 V
Frequency range	47 Hz – 63 Hz
Rated current I_N	0.36 A @ AC 400 V / 0.3 A @ AC 500 V
Inrush current	10 A
Internal fuse	3 × T2, 0 A/AC 600 V
External protection	Mini-circuit breaker: 3 × B 6 A
Power factor correction P.F.C.	0.6

Output

Output voltage/current	DC 24 V/5 A
Rated voltage U_N	DC 24 V
Rated current I_N	5 A
Power Dissipation	16 W @ AC 380 V
Setting range $U_{out\ min.}/U_{out\ max.}$	22.5/28.5 V
Accuracy	1 %
Load regulation	±1 %

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Line regulation	±1 %
Rise time	1 s
Temperature coefficient	±0.03 % / °C
Ripple and noise	100 mV
Hold up time	Min. 20 ms
Parallel / redundant mode	Max. 2 devices / via external decoupling diodes e.g. 722987
Efficiency	89 %
Over voltage protection	125–137 %
Rated over load protection	115–135 % Temperature: Deactivation at 100–110°C and automatic activation after cooling off
Short circuit	Hiccup Mode

Status indication

Status indication DC ON LED green	≥17.6–19.4 V
Status indication DC LOW LED red	≤17.6–19.4 V

Monitoring

DC ON Control (Rdy)	N/O contact
Switching voltage	DC 60 V
Switching current	Max. 300 mA
Isolation voltage	DC 500 V

General

Switching frequency	Approx. 70 kHz
Insulation voltage input / output	DC 4.2 kV
Insulation voltage input / ground	DC 2.1 kV
Insulation voltage output / ground	DC 700 V
Insulation resistance at DC 500 V	100 MΩ
Derating	Capacity: -2.5 %/°C starting at +61 °C
Cooling	Air convection, 25 mm clearance all-round
Housing material	Metal
Mounting	DIN rail mountable TS35 (EN 60715)
Max. altitude operation	5000 m (EN 62368-1)
Installation position	Vertical
MTBF	572000 h
Degree of protection	IP20
Protection class	I
Weight/unit	0.8 kg
Connection type	Screw terminal 0.20 mm ² – 4.0 mm ² AWG 24 – AWG 10
Dimensions (w × h × d)	74.3 mm × 124.0 mm × 111.9 mm
PU (units)	1

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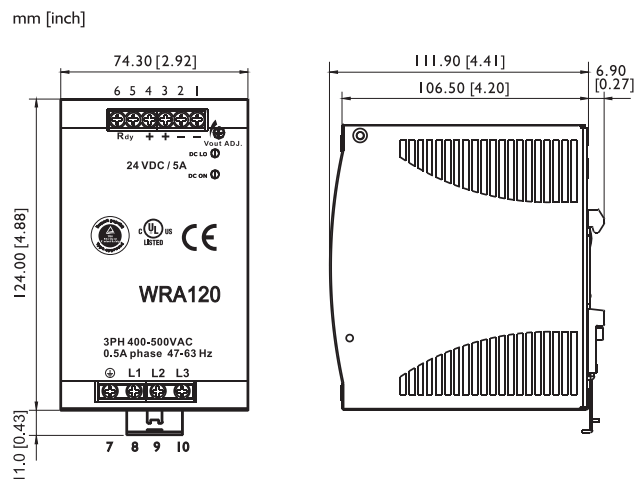
General ambient conditions

Operation temperature range	-40 °C ... +71 °C (Derating)
Storage temperature range	-40 °C ... +85 °C
Over voltage category	II
Degree of pollution	2
Relative air humidity	20 – 90 % RH, not condensing

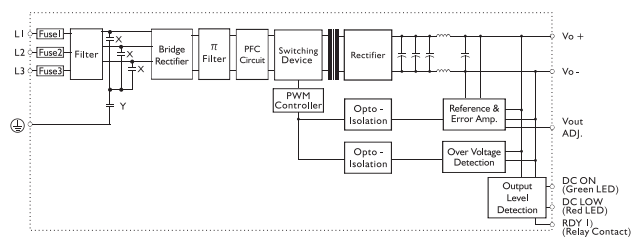
Certifications/Standards

Certifications	UL 508 Listed (E249179) UL 60950-1, (Class 1, Division 2, Groups A, B, C and D) (E350538) CE UKCA
Standards	IEC/EN 62368-1 EN 61558-1 EN 61558-2-16 EN 61000-6-3 EN 55032 Class B EN 61000-3-2 Class D EN 61000-3-3 EN 61000-6-2 EN 55024 EN 61000-4-2 Level 4 EN 61000-4-3 Level 3 EN 61000-4-4 Level 4 EN 61000-4-5 L-N Level 3 L/N-FG Level 4 EN 61000-4-6 Level 3 EN 61000-4-8 Level 4 EN 61000-4-11 ENV 50204 Level 2 EN 61204-3

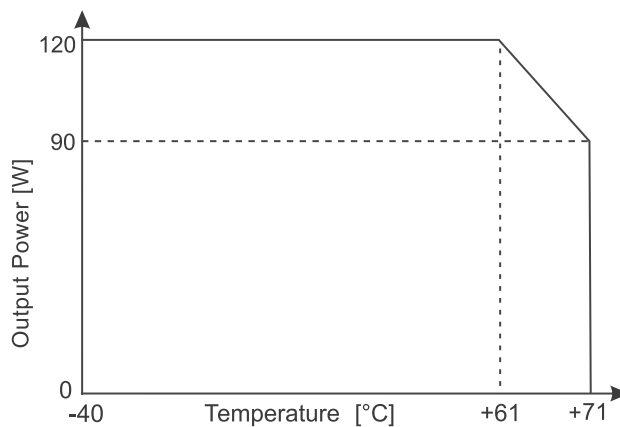
Dimensions



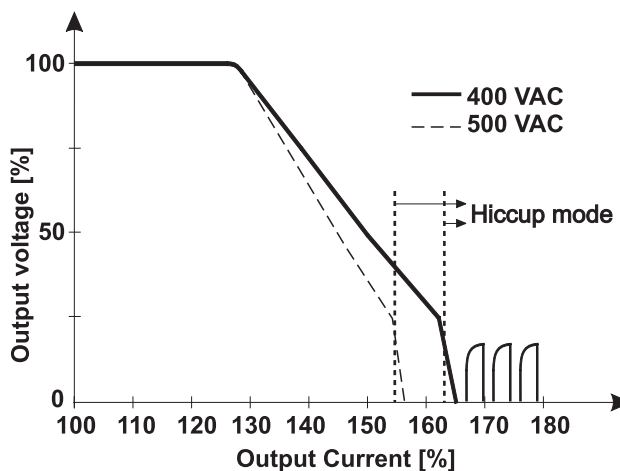
PIN assignment



Derating



Short circuit characteristics



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Efficiency

