

## Technical data sheet

Power supply · 480 W, 3-phase

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Switchmode power supply, PFC, 3-phase

Input: AC 340–575 V, DC 480–820 V

Output: DC 24 V, 20 A



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### Identification

Type	WRA480-24
Part No.	<a href="#">722805</a>

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### Product version

Datasheet version	00
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### 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 $I_N$	1.1 A @ AC 400 V / 0.93 A @ AC 500 V
Inrush current	20 A
Internal fuse	T3, 15 A/per Phase
External protection	Mini-circuit breaker: 3 × B 10 A, C 6 A
Power factor correction P.F.C.	0.7

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### Output

Output voltage/current	DC 24 V/20 A
Rated voltage $U_N$	DC 24 V
Rated current $I_N$	20 A
Power Dissipation	58 W @ AC 380 V
Setting range $U_{out\ min.}/U_{out\ max.}$	22.5/28.5 V
Accuracy	1 %
Load regulation	Single ±1 %, Parallel ±5 %
Line regulation	±1 %
Temperature coefficient	±0.03 % / °C
Ripple and noise	100 mV
Hold up time	Min. 20 ms

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#### USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA  
Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223  
www.lutze.com • info@lutze.com

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Part No. [722805](#) • Datasheet version: 00

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SYSTEMATIC TECHNOLOGY

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Parallel / redundant mode	Max. 3 units at 90% load current, manual switch S/P
Efficiency	90 %
Over voltage protection	125–137 %
Rated over load protection	115–135 %
Short circuit	Current limit (C) / Hiccup Mode (D), switching with switch C/D Hiccup Mode: deactivation within 3 s and restart after 30 s

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#### Status indication

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

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#### Monitoring

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

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#### General

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Switching frequency	Approx. 80 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	3000 m
Installation position	Vertical
MTBF	412000 h
Degree of protection	IP20
Protection class	I
Weight/unit	1.75 kg
Connection type	Screw terminal 0.20 mm <sup>2</sup> – 4.0 mm <sup>2</sup> AWG 24 – AWG 10
Dimensions (w × h × d)	150.0 mm × 124.0 mm × 118.8 mm
PU (units)	1

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#### General ambient conditions

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Operation temperature range	-40 °C ... +71 °C (Derating)
Storage temperature range	-40 °C ... +85 °C
Over voltage category	II
Degree of pollution	2

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# Technical data sheet

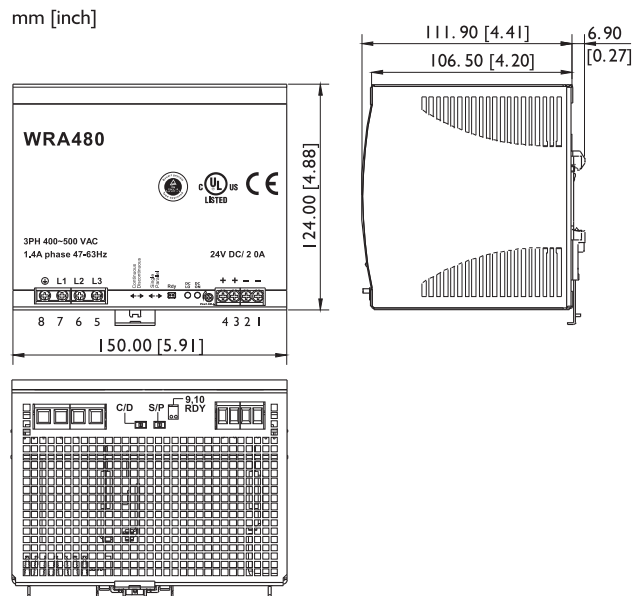
## Power supply · 480 W, 3-phase

Relative air humidity 20 – 90 % RH, not condensing

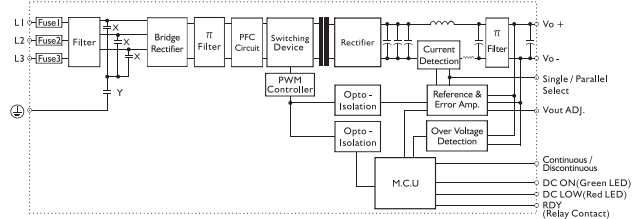
### Approvals/Standards

Approvals	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



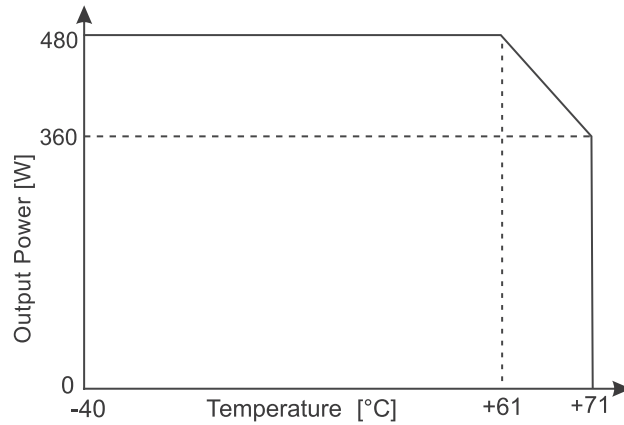
### PIN assignment



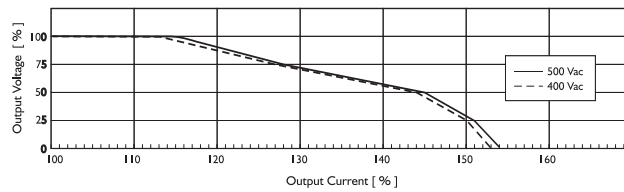
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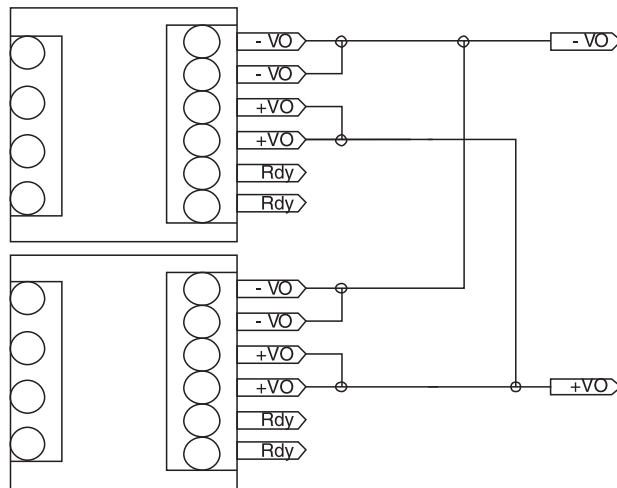
## Derating



## Short circuit characteristics



## Parallel/redundant mode



## Efficiency

