

regulated, 960 W, 3-phase



<b>Identification</b>	Type	WRA 960-24
	Part-No.	722806
<b>Input</b>		
Nominal voltage	3× AC 400–500 V	
Operation voltage range	3× AC 340–575 V; 3× DC 480–820 V	
Line frequency	47 Hz–63 Hz	
Rated current	U <sub>i</sub> = AC 400 V: 2.4 A / U <sub>i</sub> = AC 480 V: 1.6 A	
Inrush current	30 A	
Internal fuse	T6, 3 A / per phase	
External fuse	Mini-circuit breaker: 3× B 16 A, C 10 A	
Power Factor Correction P.F.C.	0.7	
<b>Load Side</b>		
Rated voltage output	DC 24 V	
Rated current output	40 A	
Voltage trim range	22.5–28.5 V	
Accuracy	1 %	
Line regulation	±1 %	
Load regulation	Single ±1 %, Parallel ±5 %	
Rise time	1 s	
Temperature coefficient	±0.03 % / °C	
Ripple & Noise	80 mV	

22.08.2011 – Subject to technical modification

Part-No. 722806

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

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park  
 Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU  
 Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2  
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Hold up time	15 ms
Status indication DC ON LED green	≥17.6–19.4 V
Status indication DC LOW LED red	≤17.6–19.4 V
Parallel/redundant operation	max 2 devices with 92 % load current each, connection P and G for distributed current
Efficiency	92 %
Rated over load protection	Rated over load protection: 110 % –130 %
Over voltage protection	125–137 %
Short circuit characteristics	Hiccup-mode

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### General

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Switching frequency	approx. 52 kHz
Insulation voltage input/output	3.0 kV <sub>eff</sub>
Insulation voltage input / ground	AC 1.5 kV <sub>eff</sub>
Insulation resistance at DC 500 V	100 MΩ
Operation temperature range	-25 °C – 71 °C (derating)
Derating	-3.5% / °C starting at 61°C
Storage temperature range	-25 °C–85 °C
M.T.B.F.	352000 h
Relative humidity	20–90% RH, non-condensing
Dimensions (w × h × d)	276.0×125.0×118.0 mm
Cooling	Natural air cooling, 25 mm distance on all sides
Installation position	vertical
Housing material	metal
Protection class	IP 20
Field installation	rail TS 35 (EN 50022)
Application height	3000 m
IP rating	I (SELV, PELV)
Overvoltage category	II
Pollution degree	2
Weight (kg/piece)	3.200
Termination	Screw terminal: 0.5–10.0 mm <sup>2</sup> , max. 0.62 Nm
Approvals	UL: UL 508 listed; cUL: UL 60950-1 accepted; TÜV: EN 60950-1, CE: EN 61000-6-3 / EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 55024
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### Monitoring

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DC ON Control (Rdy)	Normally open
Switching voltage	DC 60 V
Switching current	max. 300 mA
Insulation voltage	DC 500 V

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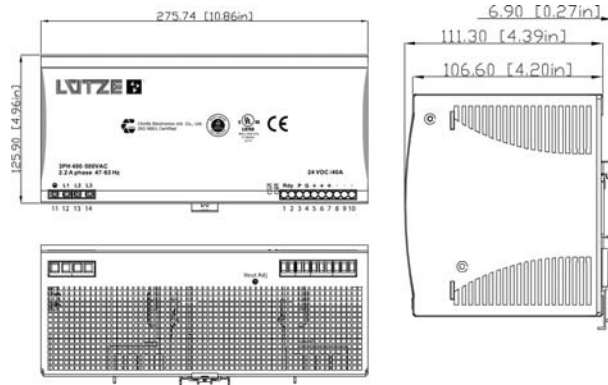
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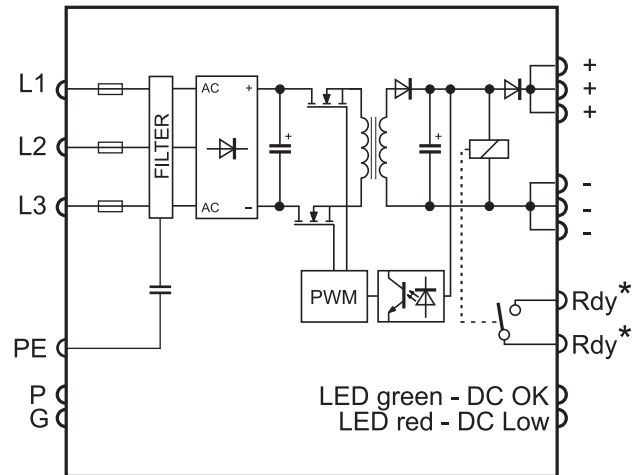
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## Dimensions

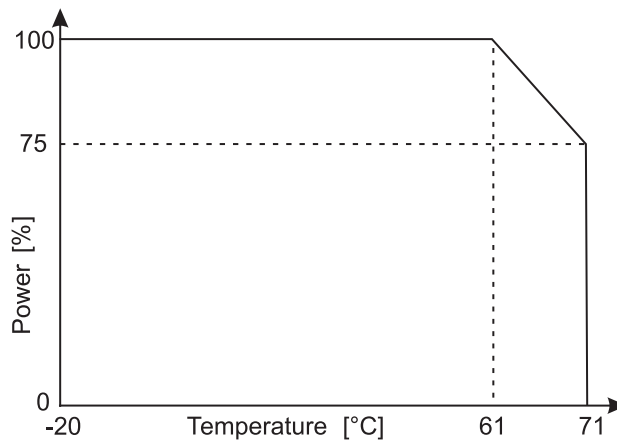


## PIN assignment



\* for 24V version only

## Derating



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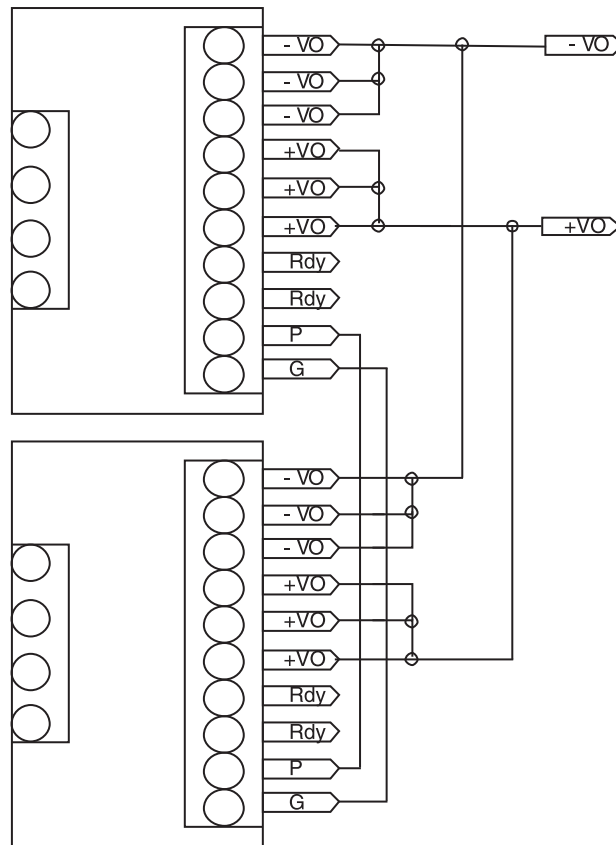
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Redundant operation



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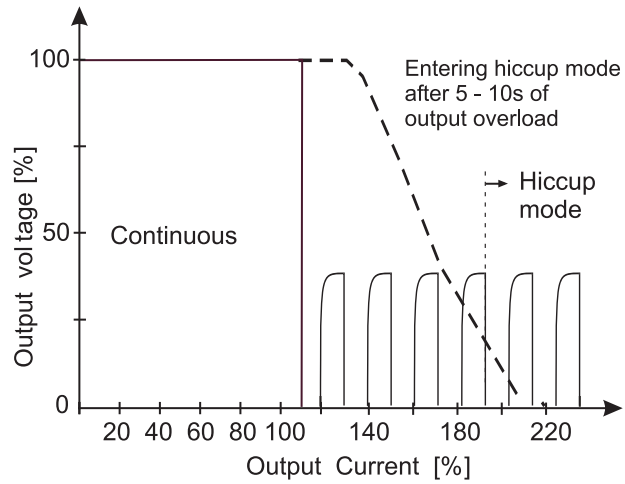
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Short circuit characteristics



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