

Technical data sheet - Power supply

regulated, 120 W



Identification

Type
Part-No.

DRAN120-24B
722758

Description

Primary switchmode power supply, PFC, Single-phase
Input: wide-range input AC 90–132 V, AC 186–264 V, DC 210–370 V
Output: DC 24 V, adjustable

10.12.2019 – Subject to technical modification

Part-No. 722758

USA: LUTZE INC.

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Input

Number of phases	1
Rated voltage U_N	AC 115 / 230 V (auto select)
Operation voltage range	AC 90–132 V / AC 186–264 V / DC 210–370 V
Line frequency	47 – 63 Hz
Rated current I_N	1.25 A @ AC 115 V / 0.63 A @ AC 230 V
Inrush current	24 A @ AC 115 V / 48 A @ AC 230 V
Internal fuse	T3, 15 A/AC 250 V
External fuse	Mini-circuit breaker: B 6 A
Power factor correction P.F.C.	0.7

Output

Rated voltage U_N	DC 24 V
Rated current I_N	5 A
Heat dissipation	20 A @ AC 230 V
Setting range $U_{out\ min.}/U_{out\ max.}$	22.5/28.5 V
Accuracy	±1 %
Load regulation	Single ±1 %, Parallel ±5 %
Line regulation	±0.5 %
Rise time	1 s
Temperature coefficient	±0.03 % / °C
Ripple and Noise	50 mV
Hold up time	25 ms @ 115 V / 30 ms @ 230 V
Status indication DC ON LED green	≥17.6–19.4 V
Status indication DC LOW LED red	≤17.6–19.4 V
Parallel / redundant mode	max. 3 units at 90% load current, manual switch S/P
Efficiency	86 %
Over voltage protection	125–145 %
Rated over load protection	105–125 %
Short circuit	Current limit

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. 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

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Insulation resistance at DC 500 V	100 M Ω
Derating	Capacity: -2.5 %/°C starting at 60 °C
Operation temperature range	-25 °C ... +70 °C (Derating)
Storage temperature range	-25 °C ... +85 °C
Relative air humidity	20 – 90 % RH, not condensing
Cooling	Air convection, 25 mm clearance all-round
Housing material	Metal
Mounting	DIN rail mountable TS35 (EN 60715)
Application height	2000 m
Installation position	vertical
Protection class	IP20
Protection class	I
Over voltage category	II
Degree of pollution	2
Weight	0.920 kg/piece
Connection type	Screw terminal 0.20 mm ² – 2.5 mm ² plug-in max. 0.56 Nm
Dimensions (w × h × d)	63.5 × 142.0 × 116.0 mm
Certifications	UL 508 listed UL 60950-1 EN 60950-1 EN 61000-6-3 EN 55022 Class B EN 61000-3-2 EN 61000-3-3 EN 61000-6-2 EN 61000-6-3 Class I EN 55024 Class I Division 2, Groups A, B, C, D
MTBF	450000 h
PU	1 piece

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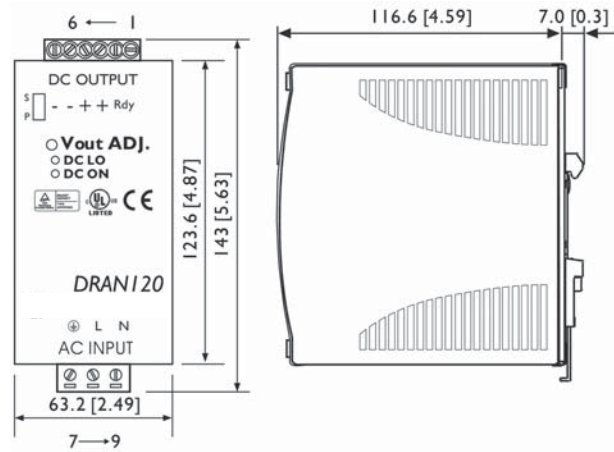
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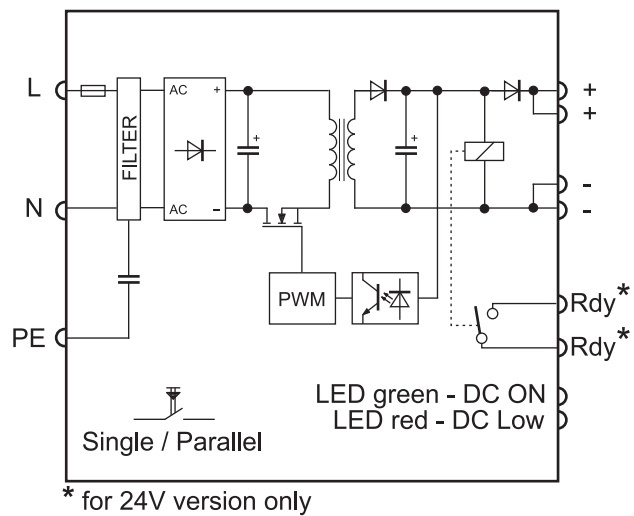
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Dimensions



PIN assignment



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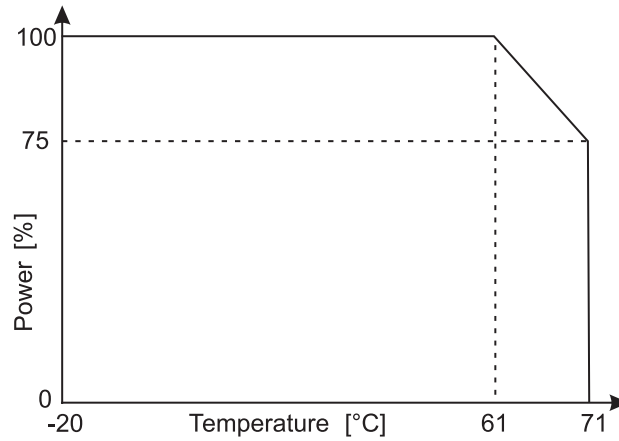
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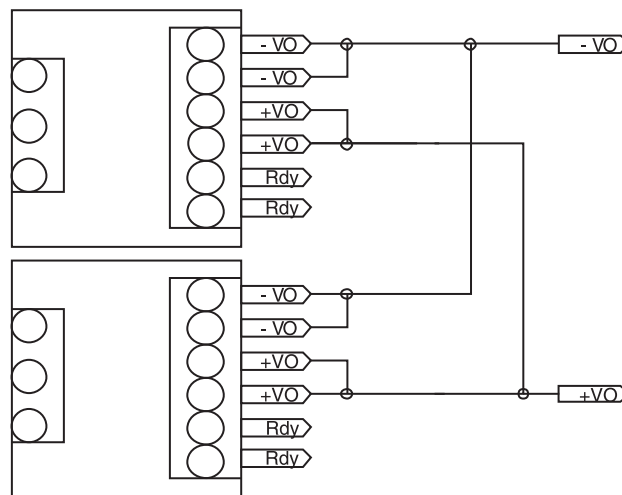
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Derating



Parallel/redundant mode



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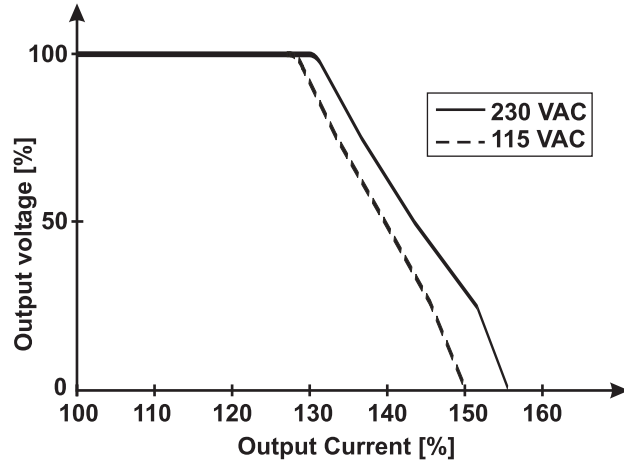
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Short circuit characteristics



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