

One-phase switching power supply regulated, 93 W, Class 2 compliant



Identification	Type	DRAN 120-24AL
	Part-No.	722757

Input

Nominal voltage	AC 115 / 230 V (auto select)
Operation voltage range	AC 90–132 V; AC 186–264 V / DC 210–370 V
Line frequency	47 Hz – 63 Hz
Rated current	$U_i = AC 115 V: 1.1 A / U_i = AC 230 V: 0.55 A$
Inrush current	$U_i = AC 115 V: 24 A / U_i = AC 230 V 48 A$
Internal fuse	T3, 15 A / AC 250 V
External fuse	Mini-circuit breaker: B 6 A
Power Factor Correction P.F.C.	0.7

Load Side

Rated voltage output	DC 24 V
Rated current output	3.8 A
Low power loss	16 W (AC 230 V)
Voltage trim range	22.5–28.5 V
Accuracy	±1 %
Line regulation	±0.5 %
Load regulation	Single ±1 %, Parallel ±5 %
Rise time	1 s
Temperature coefficient	±0.03 % / °C

11.11.2014 – Subject to technical modification

Part-No. 722757

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Ripple & Noise	50 mV
Hold up time	$V_{in}= 115\text{ V}: 25\text{ ms} / V_{in}= 230\text{ V}: 30\text{ ms}$
Status indication DC ON LED green	$\geq 17.6\text{--}19.4\text{ V}$
Status indication DC LOW LED red	$\leq 17.6\text{--}19.4\text{ V}$
Parallel/redundant operation	max 2 devices with 90 % load current each / via external diodes
Efficiency	86 %
Rated over load protection	105–125 %
Over voltage protection	125–145 %
Short circuit characteristics	Current limit

General

Switching frequency	approx. 80 kHz
Insulation voltage input/output	3.0 kV _{eff}
Insulation voltage input / ground	AC 1.5 kV _{eff}
Insulation resistance at DC 500 V	100 M Ω
Operation temperature range	-25 °C – 70 °C (derating)
Derating	-2.5% / °C starting at 60 °C
Storage temperature range	-25 °C – 85 °C
M.T.B.F.	486000 h
Relative humidity	20–90% RH, non-condensing
Dimensions (w × h × d)	63.5 × 142.0 × 116.0 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	2000 m
IP rating	I (SELV, PELV)
Overvoltage category	II
Pollution degree	2
Weight (kg/piece)	0.920
Termination	Screw terminal: 0.2–2.5 mm ² , max. 0.56 Nm
Approvals	UL: UL 508 listed, cUL: UL 60950-1, TÜV: EN 60950, EN 55022 Class B, EN 55024 Class 2, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3 Class I, Division 2, Groups A, B, C and D

Monitoring

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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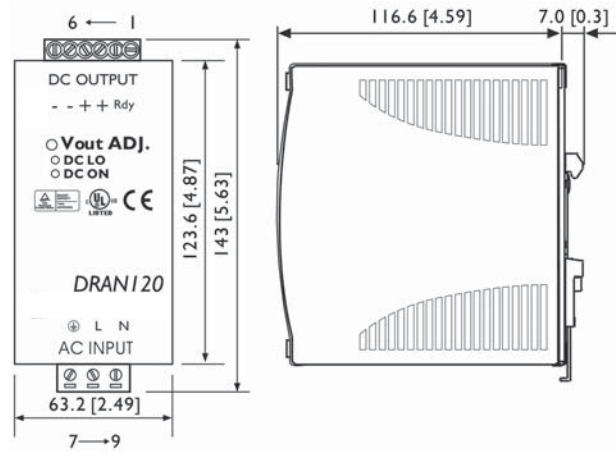
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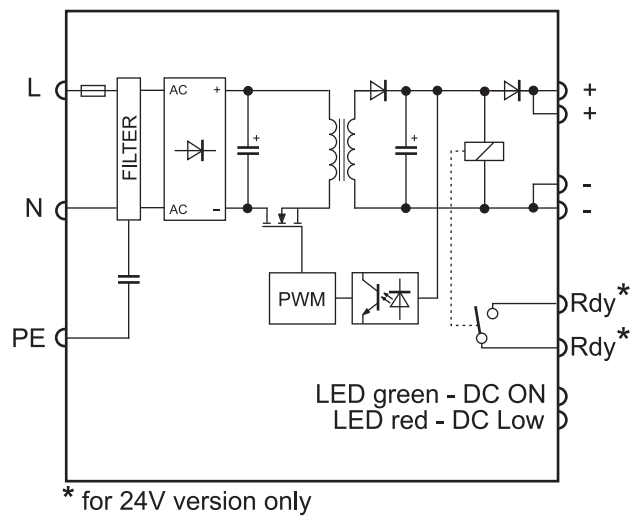
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Dimensions



PIN assignment



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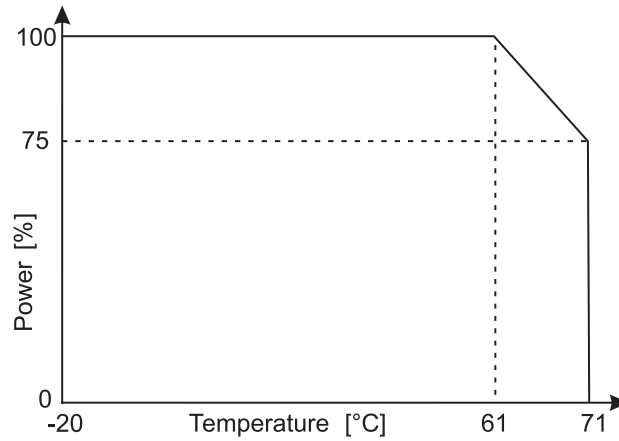
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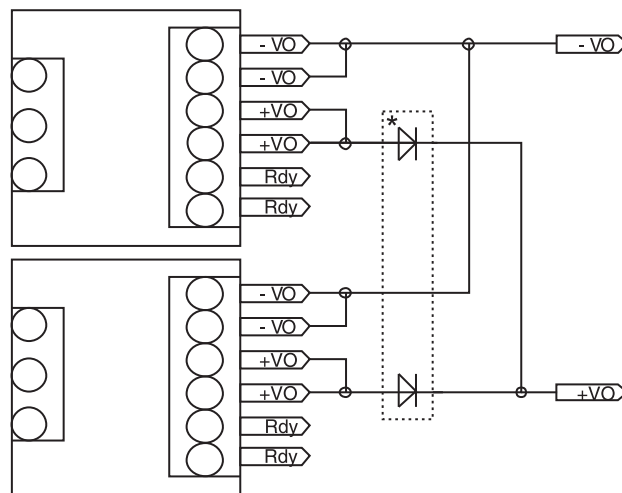


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Derating



Redundant operation



* Redundant Module 722987

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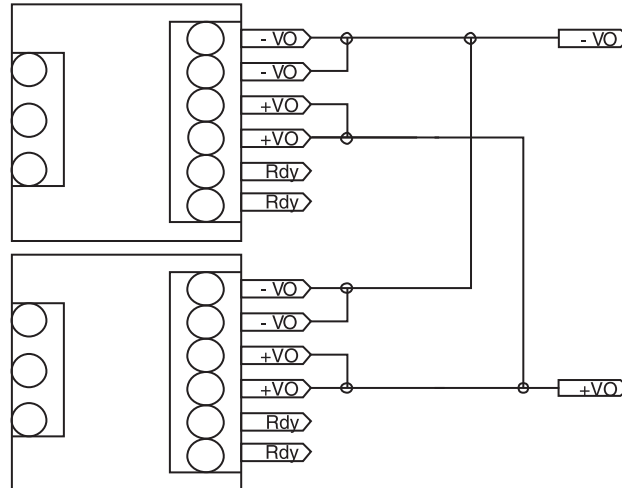
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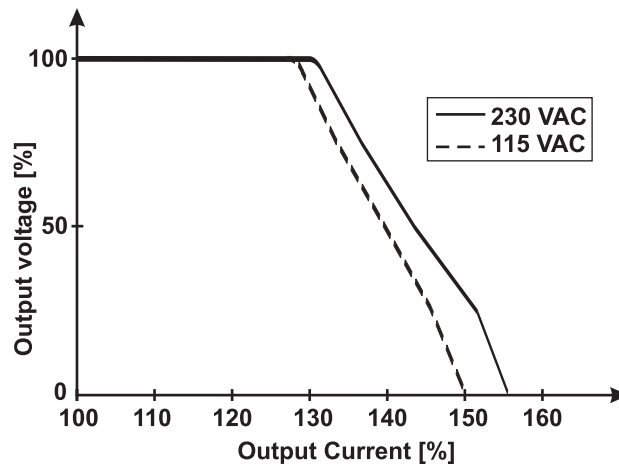


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Parallel mode



Short circuit characteristics



Symbols



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