

One-phase switching power supply
regulated, 60 W



Identification	Type	DRA 60-24
	Part-No.	728754

Input

Nominal voltage	AC 100–240 V
Operation voltage range	AC 85–264 V / DC 90–375 V
Line frequency	47 Hz – 63 Hz
Rated current	$U_i = AC 115 V: 690 mA$ / $U_i = AC 230 V: 360 mA$
Inrush current	$U_i = AC 115 V: 20 A$ / $U_i = AC 230 V: 40 A$
Internal fuse	T2 A / AC 250 V
External fuse	Mini-circuit breaker: B 6 A

Load Side

Rated voltage output	DC 24 V
Rated current output	2.5 A
Low power loss	8.8 W (AC 230 V)
Voltage trim range	24/28 V
Accuracy	±1 %
Line regulation	±0.5 %
Load regulation	±0.5 %
Rise time	1 s
Temperature coefficient	±0.03 % / °C
Ripple & Noise	50 mV

08.11.2013 – Subject to technical modification

Part-No. 728754

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Hold up time	$V_{in}= 115\text{ V}: 20\text{ ms} / V_{in}= 230\text{ V}: 30\text{ ms}$
Status indication DC ON LED green	$\geq 19.2\text{ V}$
Parallel/redundant operation	max. 2 devices / via external diodes
Efficiency	89 %
Rated over load protection	110–150 %
Over voltage protection	125–138 %
Short circuit characteristics	Hiccup-mode

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.	520000 h
Relative humidity	20–90% RH, non-condensing
Dimensions (w × h × d)	40.5 × 90.0 × 115.0 mm
Cooling	Natural air cooling, 25 mm distance on all sides
Installation position	vertical
Housing material	Plastic
Protection class	IP 20
Field installation	rail TS 35 (EN 50022)
Application height	2000 m
IP rating	II (SELV, PELV)
Overvoltage category	II
Pollution degree	2
Weight (kg/piece)	0.340
Termination	Spring terminal 0.2–2.0 mm ²
Approvals	UL: UL 508 listed; cUL: UL 60950-1, UL 1310 Class 2 (not 12 V) recognised; TÜV: EN 60950-1, EN 61558-1, EN 61558-2-17 CE: EN 61000-6-3 / EN 55022 Class B; EN 61000-3-2 EN 601000-3-3; EN 55024; EN 61000-6-2; EN 61000-4-2; EN 61000-4-3 EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-8; EN 61000-4-11

Monitoring

DC ON Control (Rdy)	Open Collector
Switching voltage	DC 24 V
Switching current	$\leq 35\text{ mA}$
Insulation voltage	none

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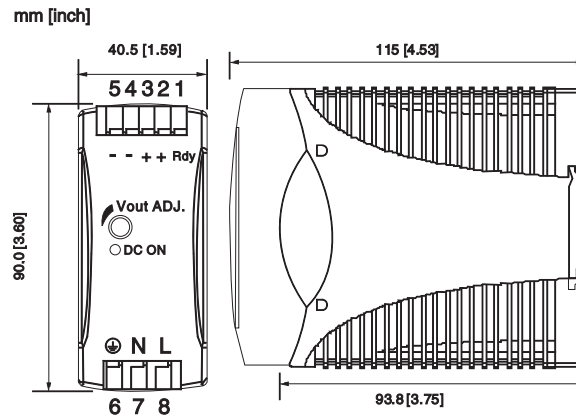
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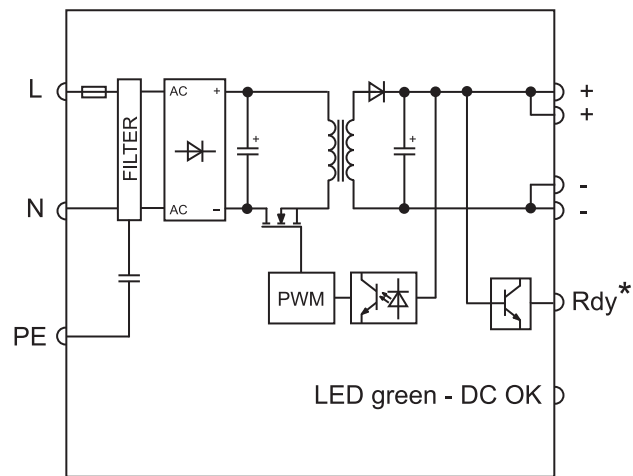
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Dimensions



PIN assignment



* for 24V version only

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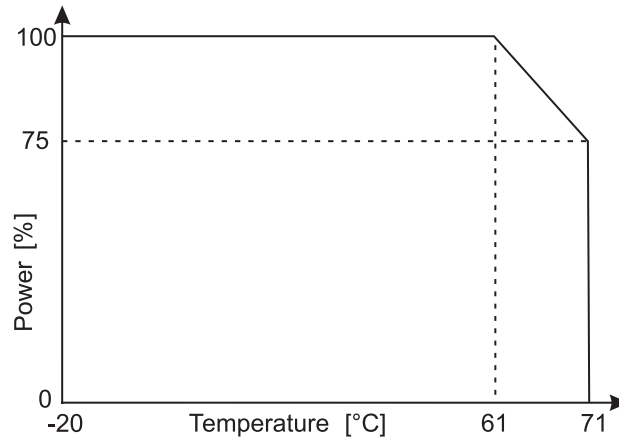
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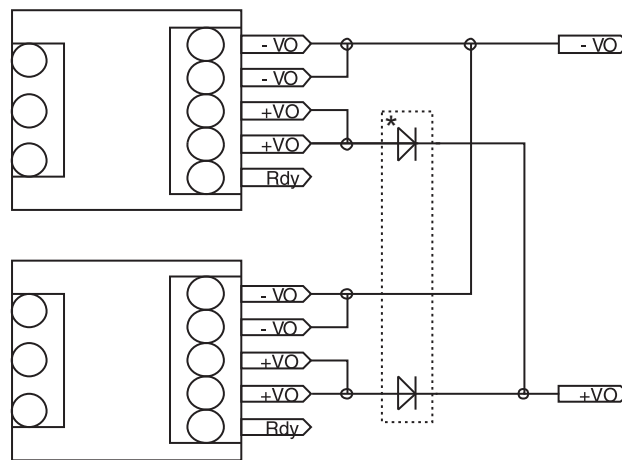


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Derating



Redundant operation



* Redundant Module 722987
Only use together with 24 V version!

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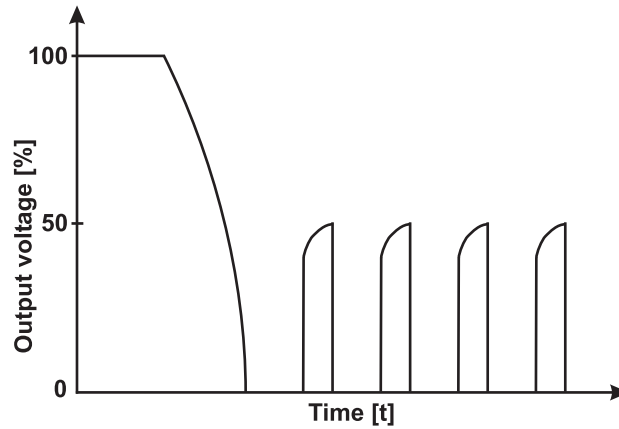
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Short circuit characteristics



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