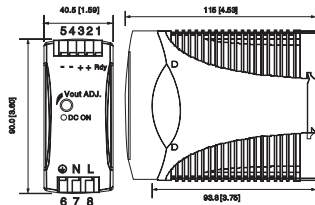


# Power supply · regulated, 60 W

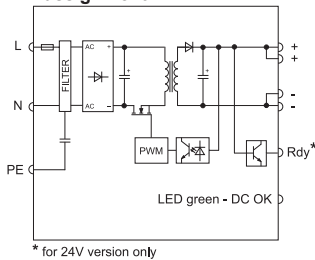
**Switchmode power supply, Single-phase, Class 2**  
**Input: wide-range input AC 85–264 V, DC 90–375 V**  
**Output: 12 V / 24 V / 48 V, adjustable**



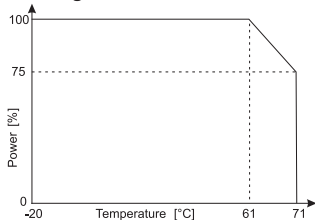
## Dimensions



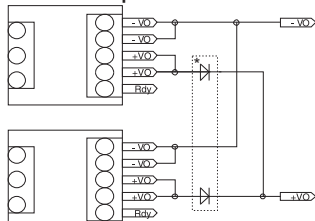
## PIN assignment



## Derating



## Redundant operation



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

Description	Part-No.	Type	PU	
<b>Spring terminal</b>				
Output voltage/current	DC 12 V / 5 A	728769	DRA60-12	1
	DC 24 V / 2.5 A	728754	DRA60-24	1
	DC 48 V / 1.25 A	728776	DRA60-48	1
<b>Input</b>				
	<b>DRA60-12</b>	<b>DRA60-24</b>	<b>DRA60-48</b>	
Nominal voltage	AC 100–240 V			
Operation voltage range	AC 85–264 V / DC 90–375 V			
Line frequency	47 – 63 Hz			
Rated current	U <sub>i</sub> = AC 115 V: 690 mA / U <sub>i</sub> = AC 230 V: 360 mA			
Inrush current	U <sub>i</sub> = AC 115 V: 20 A / U <sub>i</sub> = AC 230 V: 40 A			
Internal fuse	T2 A / AC 250 V			
External fuse	Mini-circuit breaker: B 6 A			
Power Factor Correction P.F.C.	–			
<b>Output</b>				
Rated voltage output	DC 12 V	DC 24 V	DC 48 V	
Rated current output	5 A	2.5 A	1.25 A	
Max. output current	–			
Short-circuit current	–			
Voltage trim range	12/14 V	24/28 V	48/55 V	
Accuracy	±1 %			
Line regulation	±0.5 %			
Load regulation	±0.5 %			
Rise time	1 s			
Temperature coefficient	±0.03 % / °C			
Ripple & Noise	50 mV			
Hold up time	V <sub>in</sub> = 115 V: 20 ms / V <sub>in</sub> = 230 V: 30 ms			
Status indication DC ON LED green	≥9.6 V	≥19.2 V	≥37 V	
Status indication DC LOW LED red	–			
Parallel/redundant operation	max. 2 devices / via external diodes			
Efficiency	86 %	89 %	89 %	
Low power loss	9.0 W (AC 230 V)	8.8 W (AC 230 V)	7.8 W (AC 230 V)	
Rated over load protection	110–150 %			
Over voltage protection	125–138 %			
Short circuit characteristics	Hiccup-mode			
<b>General</b>				
Switching frequency	approx. 80 kHz			
Insulation voltage input/output	AC 3.0 kV <sub>eff</sub>			
Insulation voltage input / ground	AC 1.5 kV <sub>eff</sub>			
Insulation voltage output / ground	–			
Insulation resistance at DC 500 V	100 MΩ			
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.	504000 h	520000 h	531000 h	
Relative humidity	20–90% RH, non-condensing			
Dimensions (w × h × d) in mm	40.5 × 90.0 × 115.0			
Cooling	Natural air cooling, 25 mm distance on all sides			
Housing material	Plastic			
Shock resistance	–			
Vibration resistance	–			
Field installation	rail TS 35 (EN 50022)			
Application height	2000 m			
Installation position	vertical			
Protection class	IP 20			
IP rating	II (SELV, PELV)			
Overvoltage category	II			
Pollution degree	2			
Weight (kg/piece)	0.340			
Termination	Spring terminal 0.2–2.0 mm <sup>2</sup>			
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 61000-3-3; 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			
<b>Monitoring</b>				
DC ON Control (Rdy)	–	Open Collector	–	
Switching voltage	–	DC 24 V	–	
Switching current	–	≤ 35 mA	–	
Switching capacity	–			
Insulation voltage	–	none	–	