

PSU Din Rail



Features:

- AC/DC Power Module
- Universal Input 85V AC to 264V AC
- High Efficiency Up To 86%
- Short Circuit Protection
- Internal Input Filter

Model List:

Part Number	Input Voltage	Output Wattage	Output Voltage	Output Current	Eff. (typ.)	Eff. (min.)
Single Output Models						
DRAN30-05	85 to 264V AC	30W	+ 5V DC	6,000mA	79%	77%
DRAN30-12			+ 12VDC	2,500mA	84%	82%
DRAN30-24			+ 24VDC	1,250mA	86%	83%

Specification:

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

Characteristics	Conditions	Min.	Typ.	Max.	Unit
Isolation voltage	Input / Output	3,000			V AC
Isolation resistance	Input / Output, @ 500VDC	100			MΩ
Ambient temperature	Operating at Vi nom	-10		+ 71	°C
Derating	Vi nom, from +61 C to +71 C			2.5	% / C
Storage temperature	Non operational	-25		+ 85	°C
Relative humidity	Vi nom, Io nom	20		90	% RH
Dimension	L90 × W40.5 × D115				mm
Cooling	Free air convection				
Case material	Plastic				

Input Specifications:

Characteristics	Conditions	Min.	Typ.	Max.	Unit
Rated input voltage	Io nom	100		240	V AC
Input voltage range	Ta min ... Ta max, Io nom	AC in		264	
		DC in		375	V DC
Line frequency	Vi nom, Io nom	47		63	Hz
Inrush current	Io nom	Vi : 115V AC		20	A
		Vi : 230V AC		40	



Specification:

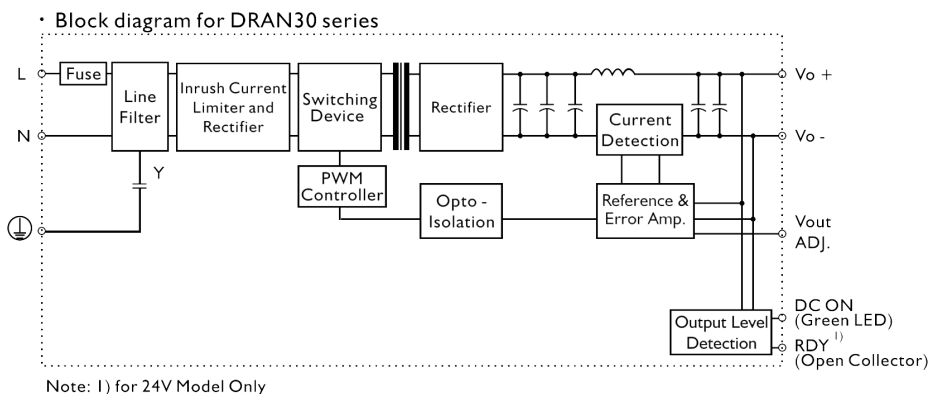
All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

Characteristics	Conditions	Min.	Typ.	Max.	Unit	
Output voltage accuracy	Vi nom, Io min ...Io nom			±1	%	
Minimum load	Vi nom	0				
Line regulation	Io nom, Vi min ...Vi max			0.5		
Load regulation	Vi nom, Io min ...Io nom					
Turn on time	After AC is applied to input at full resistive load			1,000	ms	
Voltage fall time	Io nom, Vo = 95% to 10% rated voltage			150		
Voltage rise time	At full resistive load					
Hold up time	Io nom	Vi : 115V AC 20 Vi : 230V AC 30				
Ripple & noise	Vi nom, Io nom, BW = 20MHz			50	mV	
Voltage trim range	Vi nom, Wo =30W max	5V model	5		5.5	V DC
		12V model	12		14	
		24V model	24		28	
DC ON indicator threshold at start up	Vi nom, Io nom	5V model	4			
		12V model	9.6			
		24V model	19.2			
Efficiency	Vi nom, Io nom, Po / Pi	Up to 86% , see model list				

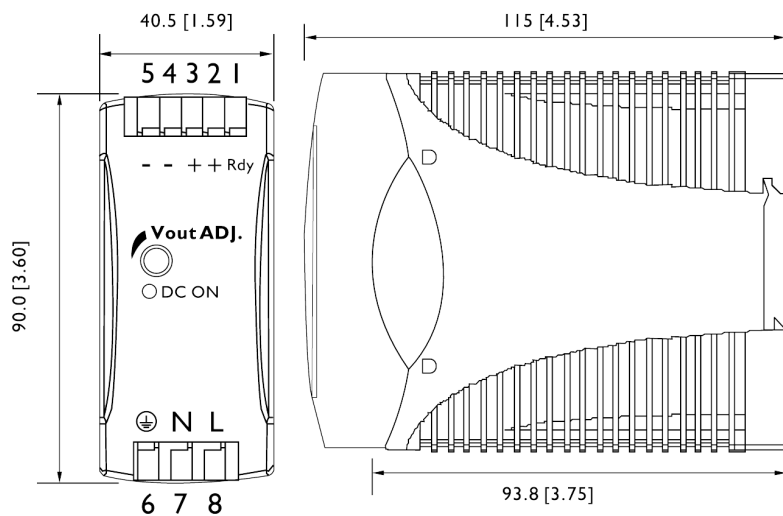
Control And Protection:

Characteristics	Conditions	Min.	Typ.	Max.	Unit	
Rated over load protection	Vi nom	110		140	%	
Over voltage protection	Vi nom, Io nom	12V model	6		6.8	V DC
		12V model	15		16.5	
		24V model	30		33	
Output short circuit	Vi nom, Io nom	Fold forward				

Circuit Schematic:



Mechanism & Pin Configuration:



CONSTRUCTION

Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail; no tools required even to remove

INSTALLATION

Ventilation / Cooling
Normal convection
All sides 25mm free space
For cooling recommended
Connector size range
Solid: 0.2-2.0mm² (AWG24-14)
(use copper conductors only)

Dimensions: Millimeters (Inches)

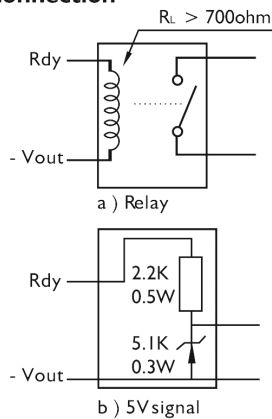
Physical Characteristics:

Case Size	90 × 40.5 × 115 mm 3.6 × 1.59 × 4.53"
Case Material	Plastic
Weight	290g

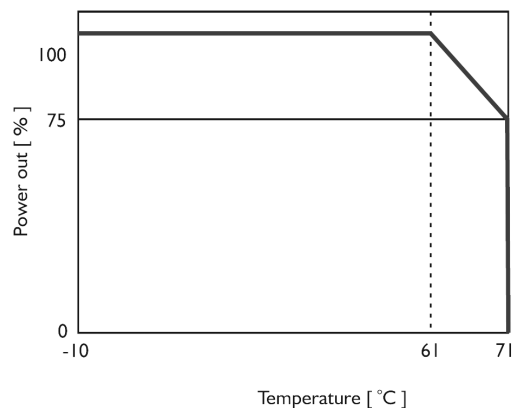
Pin Assignment

PIN NO.		Designation	Description
1	OUT	RDY	DC OK output for relay (not connect except 24V model)
2		+	Positive output terminal
3		+	Positive output terminal
4		-	Negative output terminal
5		-	Negative output terminal
6		⊥	Ground this terminal to minimize high-frequency emissions
7	IN	N	Input terminals (neutral conductor, no polarity at DC input)
8		L	Input terminals (phase conductor, no polarity at DC input)
	OTHER	Vout ADJ.	Trimmer-potentiometer for Vout adjustment
		DC ON	Operation indicator LED

Fig. 1 Rdy connection



DERATING



Part Number Table

Description	Part Number
PSU, Din Rail, 30W, 5V	DRAN30-05
PSU, Din Rail, 30W, 12V	DRAN30-12
PSU, Din Rail, 30W, 24V	DRAN30-24

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