

# 480 W AC/DC Din Rail Power Supply

- UL, cUL, TÜV, CE certified
- Universal input 90-264 VAC
- High efficiency up to 90%
- Short circuit protection
- Internal input filter
- 2 years warranty



## Input characteristics

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

Characteristics	Conditions	min.	typ.	max.	unit	
Rated input voltage	Io nom		115 / 230		V <sub>AC</sub>	
Input voltage range	Ta min - Ta max, Io nom	AC in	90	230	264	V <sub>AC</sub>
		DC in	120		370	V <sub>DC</sub>
Line frequency	Vi nom, Io nom	47		63	Hz	
Inrush current	Vi nom, Io nom	Vi: 115 V <sub>AC</sub>		25	A	
		Vi: 230 V <sub>AC</sub>		50	A	

## Model selection guide

Typ	Output power [W]	Output voltage [V <sub>DC</sub> ]	Output current [A]	Efficiency typ. [%]
DRA480-24x	480	24	20	86
DRA480-48x	480	48	10	87

## General characteristics

Characteristics	Conditions	min.	typ.	max.	unit
Switch in frequency	Vi nom, Io nom	60			kHz
Isolation voltage	Input / output	3000			V <sub>AC</sub>
Isolation resistance	Input / output, @ 500 V <sub>DC</sub>	100			Mohm
Ambient temperature	Operating at Vi nom	-25		+71	°C
Derating	Vi nom, Io nom +61° - +71°C			4	%/°C
Storage temperature	Non operational	-25		+85	°C
MTBF	Bellcore GB40 deg. C		480'000		Hours
Relative humidity	Vi nom, Io nom	20		95	% RH
Weight		1.920 Kg			
Case material		Metal			
Cooling		Free air convection			
UL / cUL TÜV CE		UL508 Listed, UL60950-1 Recongized EN60950-1 EN61000-6-3, EN55022 class B, EN61000-3-2, EN61000-3-3 EN61000-6-2, EN55024			

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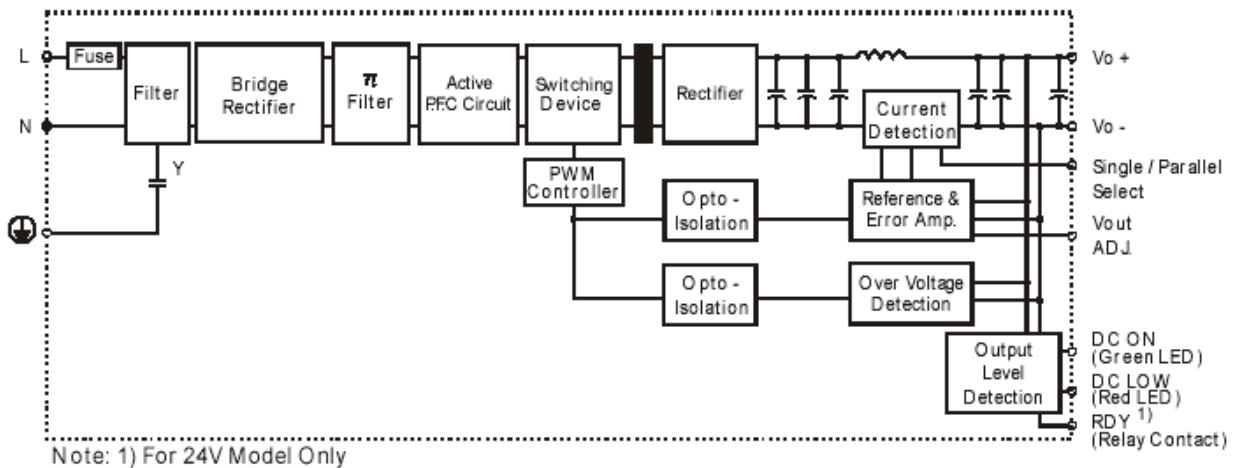
## Output Specifications

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy (Adjusted before shipment)	Vi nom, Io max	-0		+1	%
Turn on time	After AC is applied to input at full resistive load			1000	ms
Voltage fall time	Io nom, Vo=95%~10% rated voltage			150	ms
Voltage rise time	At full resistive load			150	ms
Minimum load	Vi nom	0			%
Line regulation	Io nom, Vi min - Vi max			+0.5	%
Load regulation	Vi nom, Io min - Io nom	single mode		+0.5	%
		parallel mode		+5	%
Transient recovery time	50% load step changed		1		ms
Temperature coefficient	Vi nom, Io min			+0.02	% / °C
Ripple and noise	Vi nom, Io nom, BW = 20 Mhz			100	mV
Hold up time	Io nom, Io nom	30			ms
Voltage trim range	Vi nom, Io nom	24V models	22.5	28.5	V <sub>DC</sub>
		48V models	47	56	V <sub>DC</sub>
DC On indicator threshold at start up	Vi nom, Io nom	24V models	17.6	19.4	V <sub>DC</sub>
		48V models	37	40	V <sub>DC</sub>
DC LOW indicator threshold after start up	Vi nom, Io nom	24V models	17.6	19.4	V <sub>DC</sub>
		48V models	37	40	V <sub>DC</sub>
Parallel operation	0.9 Io max			3	unit
DC on indicator	Vi nom, Io nom	Green LED			

## Control and Protection

Characteristics	Conditions	min.	typ.	max.	unit
Input fuse		T10A / 250 V <sub>AC</sub> internal			
Rated over load protection	Vi nom	120		140	%
Power Rdy (24V model only)	Threshold	17.6		19.4	V <sub>DC</sub>
	Electrical isolation	500			V <sub>DC</sub>
	Contact rating at 60 VDC			03	A
Over voltage protection	Vi nom, Io nom	24V models	30	33	V
		48V models	57	63	V
Output short circuit	Vi nom	Continuous current limited			

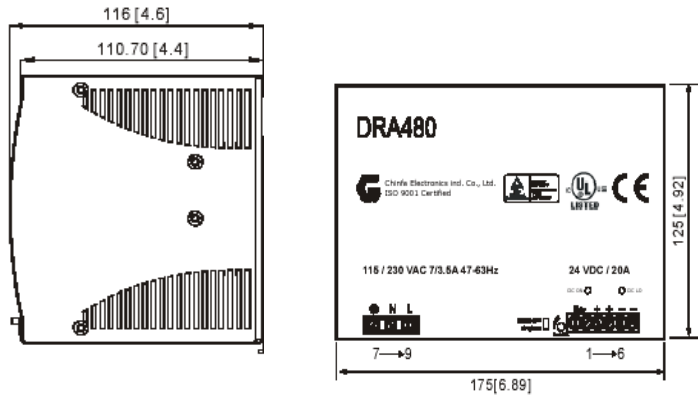
## Block diagram for DRA480 series



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## Dimensions & Pin Configuration

mm [inch]



## 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

Above/below 25m/m free space

For cooling recommended

Connector size range

Screw terminal:

10-24 AWG flexible / solid cable

8 m/m stripping at cable end recommends

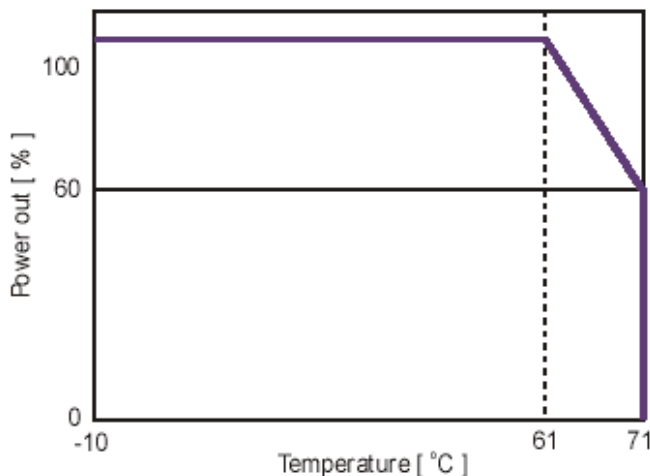
Detachable connector:

14-24 AWG flexible / solid cable

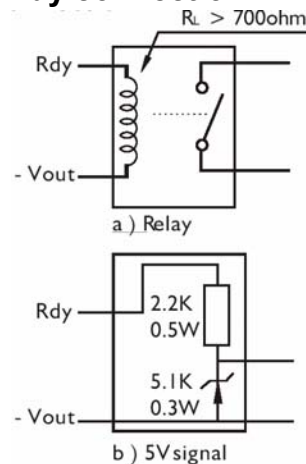
7 m/m stripping at cable end recommends

Pin no.	Designation	Description
1	Out	RDY
2		A normal open relay contact for DC ON level control (Only for 24 V model)
3		+
4		+
6		-
5	-	Negative output terminal
7	In	PE, earth
8		N
9		L
	Other	DC On
		DC Lo
		Vout Adj.
		S / P

## Derating



## Rdy connection



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