

Preliminary

DRA300 SERIES



AC - DC DIN RAIL MOUNTABLE
300W
INDUSTRIAL CONTROL EQUIPMENT

FEATURES

- COMPACT DESIGN
- HIGH EFFICIENCY UP TO 90%
- P.F.C. FUNCTION AVAILABLE
- PARALLEL FUNCTION AVAILABLE (SWITCH)
- INPUT VOLTAGE 115/230VAC AUTO SELECT

SELECTION CHART

DRA 300 - 24 x

Wattage

A : SCREW TERMINALS
B : DETACHABLE CONNECTOR

24 : 24VOUT
48 : 48VOUT

MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)	EFF. (typ.)
Single Output Models						
DRA300-24x	115 / 230 VAC	300 WATTS	+ 24 VDC	12.5A	87%	89%
DRA300-48x	115 / 230 VAC	300 WATTS	+ 48 VDC	6.25A	88%	90%

SPECIFICATION

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

GENERAL						
Characteristics	Conditions	min.	typ.	max.	unit	
Isolation voltage	Input / Output	3,000			VAC	
Isolation resistance	Input / Output, @ 500VDC	100			MΩ	
Ambient temperature	Operating at Vinom	-25		+ 71	°C	
Derating	Vi nom, from +56 to +71°C			2.5	% / °C	
Storage temperature	Non operational	-25		+ 85	°C	
Relative humidity	Vi nom, Io nom	20		95	% RH	
Dimension	Screw terminal type	L123.6 x W83 x D123.6			mm	
	Detachable connector type	L142 x W83 x D123.6			mm	
Cooling	Free air convection				mm	
Case material	Metal					



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INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Rated input voltage	Io nom	115 / 230(auto select)			VAC
Input voltage range	Ta min ... Ta max, AC in 115V selected	93		132	VAC
	Io nom AC in 230V selected	186		264	VAC
	DC in	210		370	VDC
Rated input current	Io nom		6.0 / 3.0		A
Line frequency	Vi nom, Io nom	47		63	Hz
Inrush current	Vi nom, Io nom	Vi : 115VAC		35	A
		Vi : 230VAC		65	A
P. F. C.	Vi : 230VAC, Io nom		0.7		

OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy (Adjusted before shipment)	Vi nom, Io max	-0		+ 1	%
Minimum load	Vi nom	0			%
Line regulation	Io nom, Vi min ... Vi max			± 0.5	%
Load regulation	Vi nom, single mode			± 1	%
	Io min ... Io nom parallel mode			± 5	%
Temperature coefficient	Vi nom, Io min			± 0.02	% / °C
Ripple & noise	Vi nom, Io nom, BW = 20MHz			100	mV
Hold up time	Vi nom, Io nom	Vi = 115VAC	25		ms
		Vi = 230VAC	30		ms
Voltage trim range	Vi nom, Io nom	24V models	22.5	28.5	VDC
		48V models	47	56	VDC
DC ON indicator threshold at start up	Vi nom, Io nom	24V models	17.6	19.4	VDC
		48V models	37	43	VDC
DC LOW indicator threshold after start up	Vi nom, Io nom	24V models	17.6	19.4	VDC
		48V models	37	43	VDC
Parallel operation	0.9 Io max			3	unit
Efficiency	Vi nom, Io nom, Po / Pi	Up to 90%, See model list			

CONTROL AND PROTECTION

Characteristics	Conditions	min.	typ.	max.	unit
Input fuse		T8A / 250VAC internal			
Rated over load protection	Vi nom	120		145	%
Power Rdy (for 24V model only)	Threshold voltage of contact closed(at start up)	17.6		19.4	VDC
	Electrical isolation	500			VDC
	Contact rating at 60VDC			0.3	A
Over voltage protection	Vi nom, Io nom	120		145	%
Output short circuit	Vi nom, Io nom	Current limited			

SPECIFICATION

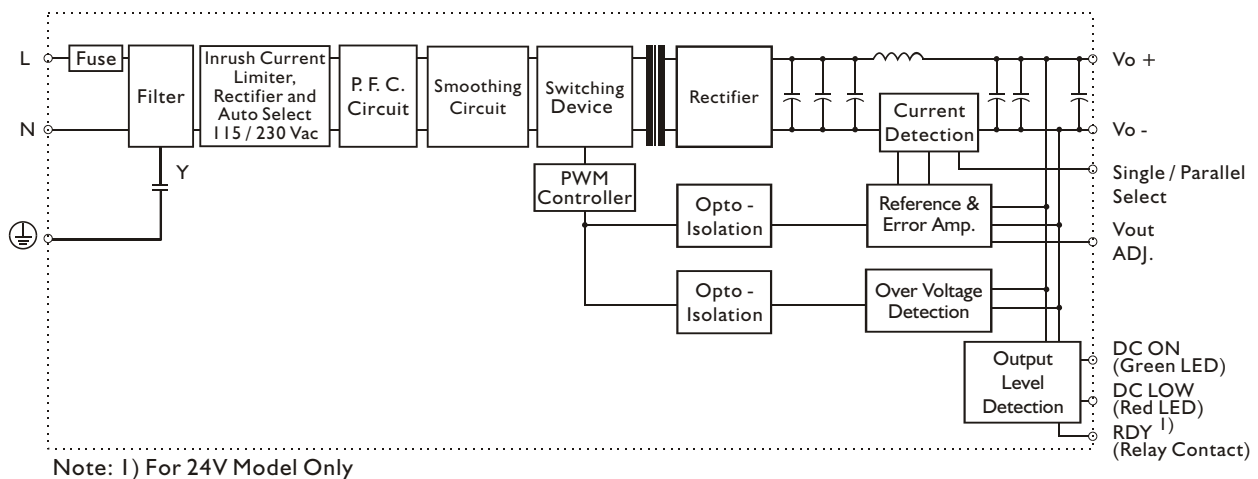
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APPROVALS AND STANDARDS

UL / cUL	UL508 Listed, UL60950-I Recognized
TUV	EN60950-I
CE	EN61000-6-3, EN55022 class B EN61000-3-2, EN61000-3-3 EN61000-6-2, EN55024 EN61204-3

CIRCUIT SCHEMATIC

• Block diagram for DRA300 series



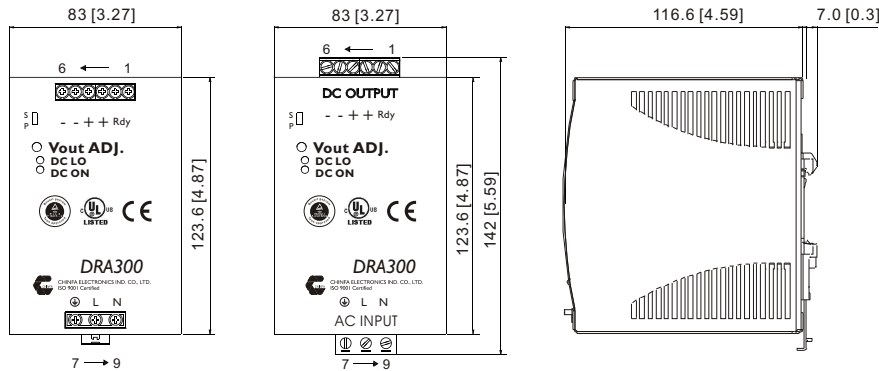
PHYSICAL CHARACTERISTICS

CASE SIZE

SCREW TERMINAL TYPE	123.6 x 83 x 123.6 mm (4.87 x 3.27 x 4.87 inches)
DETACHABLE CONNECTOR TYPE	142 x 83 x 123.6 mm (5.59 x 3.27 x 4.87 inches)
WEIGHT	1100g

MECHANISM & 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.

INSTALLATION

Ventilation / Cooling
Normal convection
All sides 25mm free space
For cooling recommended
Connector size range
Screw terminal:
10-24AWG flexible / solid cable,
8 m/m stripping at cable end recommends
Detachable connector:
14-24AWG flexible / solid cable,
7 m/m stripping at cable end recommends

PIN ASSIGNMENT

PIN NO.	Designation		Description
1	OUT	RDY	A normal open relay contact for DC ON level control (Never connect except 24V model)
2			
3		V +	Positive output terminal
4		V +	Positive output terminal
5		V -	Negative output terminal
6	IN	V -	Negative output terminal
7		⊕	Ground this terminal to minimize high-frequency emissions
8		L	Input terminals (phase conductor, no polarity at DC input)
9	OTHER	N	Input terminals (neutral conductor, no polarity at DC input)
		DC ON	Operation indicator LED
		DC LO	DC LOW voltage indicator LED
		Vout ADJ.	Trimmer-potentiometer for Vout adjustment
		S / P	Single / Parallel select switch

DERATING

