



# DRA18 SERIES



AC - DC DIN RAIL MOUNTABLE  
18W CLASS 2 POWER SUPPLY  
INDUSTRIAL CONTROL EQUIPMENT

## FEATURES

- UL / cUL / TUV / CE
- UNIVERSAL INPUT 90~265VAC
- HIGH EFFICIENCY UP TO 77%
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- 2 YEARS WARRANTY

## MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (typ.)	EFF. (min.)
<b>Single Output Models</b>						
DRA18-05A	90~265 VAC	15 WATTS	+ 5 VDC	3000 mA	75%	73%
DRA18-12A	90~265 VAC	18 WATTS	+ 12 VDC	1500 mA	77%	75%
DRA18-15A	90~265 VAC	18 WATTS	+ 15 VDC	1200 mA	77%	75%
DRA18-24A	90~265 VAC	18 WATTS	+ 24 VDC	750 mA	77%	75%

## SPECIFICATION

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

GENERAL						
Characteristics	Conditions	min.	typ.	max.	unit	
Switching frequency	Vi nom, Io nom	100			KHz	
Isolation voltage	Input / Output	3,000			VAC	
Isolation resistance	Input / Output, @ 500VDC	100			MΩ	
Ambient temperature	Operating at Vinom, Io 70%...100%	-10		+ 50	°C	
Derating	Vi nom, Io nom +5I to +71°C			2	% / °C	
Storage temperature	Non operational	-25		+ 85	°C	
M.T.B.F.	According to MIL-HDBK-217F, GF40		195,000		Hrs	
Relative humidity	Vi nom, Io nom	20		95	% RH	
Dimension	L90 x W22.5 x D115				mm	
Cooling	Free air convection					
Case material	Plastic					

INPUT SPECIFICATIONS						
Characteristics	Conditions	min.	typ.	max.	unit	
Rated input voltage	Io nom	100		240	VAC	
Input voltage range	Ta min ... Ta max, Io nom	AC in	90	265	VAC	
		DC in	120	370	VDC	
Line frequency	Vi nom, Io nom	47		63	Hz	
Inrush current	Io nom	Vi : 115VAC		10	A	
		Vi : 230VAC		18	A	



**SPECIFICATION**

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

**OUTPUT SPECIFICATIONS**

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			± 1	%
Load regulation	Vi nom, Io min ...Io nom			± 2	%
Transient recovery time	50% load step changed		300		µ S
Temperature coefficient	Vi nom, Io min			± 0.02	% / °C
Ripple & noise	Vi nom, Io nom, BW = 20MHz			50	mV
Hold up time	Io nom	Vi = 115VAC	20		ms
		Vi = 230VAC	75		ms
Voltage trim range	Vi nom, Io nom	5V ...15V models	- 10	+ 15	%
		24V model	- 10	+ 20	%
DC ON indicator threshold at start up	Vi nom, Io nom	5V model	4.5		VDC
		12V model	10.8		VDC
		15V model	13.5		VDC
		24V model	21.6		VDC
DC LOW indicator threshold after start up	Vi nom, Io nom	5V model	3.75	4.5	VDC
		12V model	9	10.8	VDC
		15V model	11.25	13.5	VDC
		24V model	18	21.6	VDC
Efficiency	Vi nom, Io nom, Po / Pi	Up to 77%, See model list			

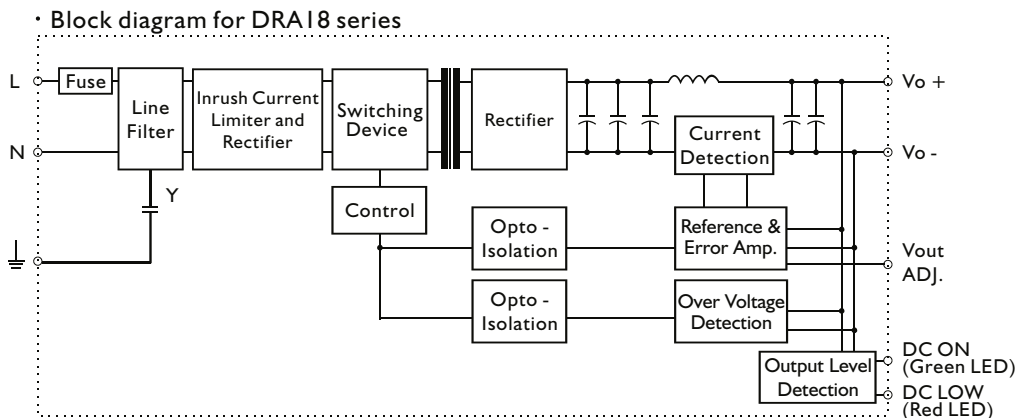
**CONTROL AND PROTECTION**

Characteristics	Conditions	min.	typ.	max.	unit
Input fuse		T2A / 250VAC internal			
Rated over load protection	Vi nom	110		135	%
Over voltage protection	Vi nom, Io nom	125		145	%
Output short circuit	Vi nom, Io nom	Hiccup mode			

**APPROVALS AND STANDARDS**

UL / cUL	UL508 / UL1310 Listed, Class 2 Power Supply
TUV	EN60950
CE	EN50081-1 / EN55022 for EMI EN50082-1 / EN55024 for EMS
FCC	Class B

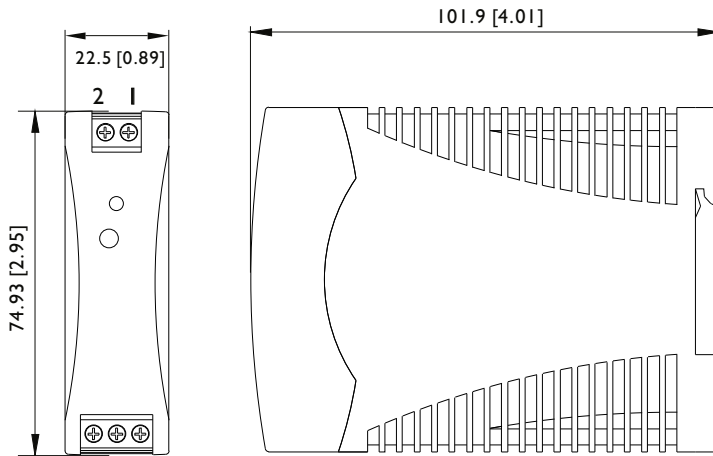
**CIRCUIT SCHEMATIC**





## 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; no tools required even to remove

### INSTALLATION

Ventilation / Cooling  
Normal convection  
Above/below 25m/m free space  
For cooling recommended  
Connector size range  
Solid:0.2-2.0mm<sup>2</sup>(AWG24-14)  
(use copper conductors only)

## PHYSICAL CHARACTERISTICS

CASE SIZE	90 x 22.5 x 115 mm 3.6 x 0.89 x 4.53 inches
CASE MATERIAL	Plastic
WEIGHT	150 g

## PIN ASSIGNMENT

PIN NO.		Designation	Description
1	OUT	V +	Positive output terminal
2		V -	Negative output terminal
3	IN	⊥	Ground this terminal to minimize high-frequency emissions
4		N	Input terminals (neutral conductor, no polarity at DC input)
5		L	Input terminals (phase conductor, no polarity at DC input)
	OTHER	ON	Operation indicator LED
		LO	DC LOW indicator LED
		Vout ADJ.	Trimmer-potentiometer for Vout adjustment

## DERATING

