

AC - DC DIN RAIL MOUNTABLE  
100W  
INDUSTRIAL CONTROL EQUIPMENT



**FEATURES**

- AC/DC POWER MODULE
- UNIVERSAL INPUT 90~264VAC
- HIGH EFFICIENCY UP TO 89%
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- LOW PROFILE FOR BUILDING AUTOMATION
- CLASS 2 OUTPUT (24LS MODEL)

**MODEL LIST**

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)	EFF. (typ.)
<b>Single Output Models</b>						
FDIN5-05	90~264 VAC	60 WATTS	+ 5 VDC	12000 mA	78%	80%
FDIN5-12	90~264 VAC	72 WATTS	+ 12 VDC	6000 mA	83%	86%
FDIN5-15	90~264 VAC	75 WATTS	+ 15 VDC	5000 mA	83%	86%
FDIN5-24	90~264 VAC	100.8 WATTS	+ 24 VDC	4200 mA	86%	89%
FDIN5-24LS	90~264 VAC	91.2 WATTS	+ 24 VDC	3800 mA	86%	89%

**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 Vi nom	-25		+ 71	°C
Derating	Vi nom, from +56°C to +71 °C			2.5	% / °C
Storage temperature	Non operational	-25		+ 85	°C
Relative humidity	Vi nom, Io nom			90	% RH
Dimension	L91 x W89.9 x D57				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	264	VAC
		DC in	120	370	VDC
Line frequency	Vi nom, Io nom	47		63	Hz
Inrush current	Io nom	Vi : 115VAC	20	25	A
		Vi : 230VAC	40	50	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, lo min ...lo nom			± 1	%
Minimum load	Vi nom	0			%
Line regulation	lo nom, Vi min ...Vi max			± 1	%
Load regulation	Vi nom, lo min ...lo nom			± 1	%
Transient recovery time	50% load step changed		1		mS
Temperature coefficient	Vi nom, lo min			± 0.02	% / °C
Ripple & noise	Vi nom, lo nom, BW = 20MHz			50	mV
Hold up time	Vi = 115VAC, lo nom	5V & 12V model	16		ms
		15V & 24V model	10		ms
	Vi = 230VAC, lo nom	60		ms	
Voltage trim range	Vi nom, lo nom	5 model	5	5.5	VDC
		12 model	12	14	VDC
		15 model	13.5	16.5	VDC
		24 model	24	28	VDC
		24LS model	20	24.2	VDC
DC ON indicator threshold at start up	Vi nom, lo nom	5 model	3		VDC
		12 model	9		VDC
		15 model	13.5		VDC
		24 & 24LS model	18		VDC
DC LOW indicator threshold after start up	Vi nom, lo nom	5 model	3.2	3.7	VDC
		12 model	8.8	9.3	VDC
		15 model	12	12.5	VDC
		24 & 24LS model	18	19	VDC
Efficiency	Vi nom, lo nom, Po / Pi	Up to 89%. See model list			

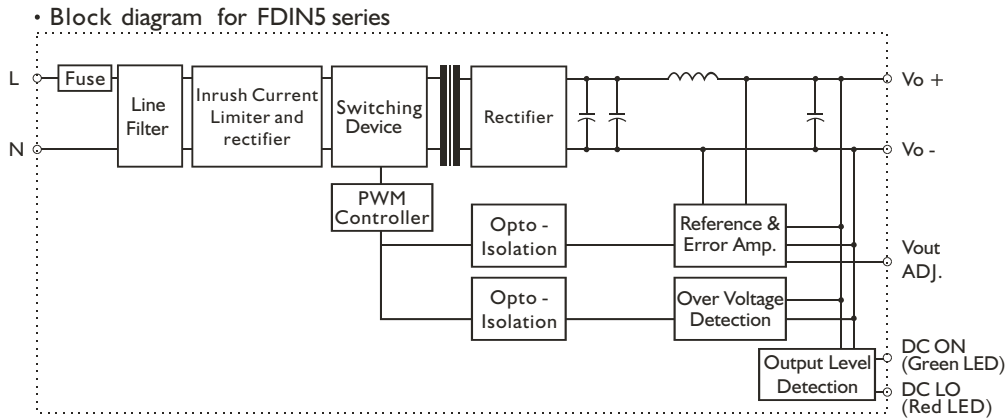
### CONTROL AND PROTECTION

Characteristics	Conditions	min.	typ.	max.	unit
Input fuse		T3.15A / 250VAC internal			
Rated over load protection	Vi nom	5, 12, 15 & 24 model	110	150	%
		24LS model	102	108	%
Output short circuit	Vi nom	Fold forward			

### APPROVALS AND STANDARDS

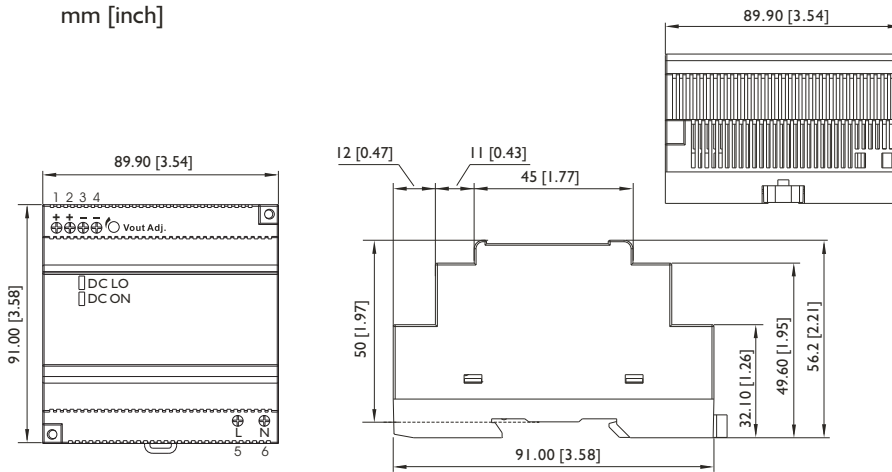
UL / cUL	UL508 Listed UL1310 Class 2 power supply (24LS model), UL60950-1 Recognized
TUV	EN60950-1
CE	EN61000-6-3, EN55022 Class B EN61000-3-2, EN61000-3-3 EN61000-6-2, EN55024, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11 EN61204-3

### 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

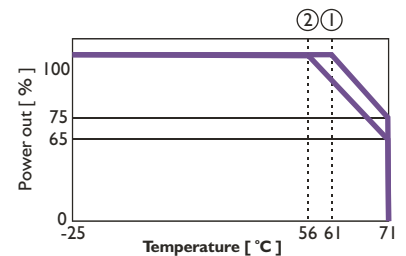
#### INSTALLATION

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

### PIN ASSIGNMENT

PIN NO.	Designation	Description	
1	OUT	+	Positive output terminal
2		+	Positive output terminal
3		-	Negative output terminal
4		-	Negative output terminal
5	IN	L	Input terminals (phase conductor, no polarity at DC input)
6		N	Input terminals (neutral conductor, no polarity at DC input)
	OTHER	Vout Adj.	Trimmer-potentiometer for Vout adjustment
		DC ON	Operation indicator LED
		DC LO	DC Low indicator LED

### DERATING



① For AMR5M12/15/24/24LS

② For AMR5M05

### PHYSICAL CHARACTERISTICS

CASE SIZE	91 x 89.9 x 57 mm (3.58 x 3.54 x 2.24 inches)
CASE MATERIAL	Plastic
WEIGHT	320g