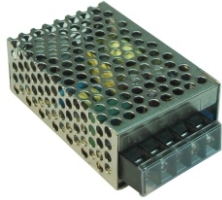


# EDA35 SERIES

AC-DC ENCLOSED SWITCHING POWER SUPPLY



## FEATURES

- UNIVERSAL INPUT 88~264VAC
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- 3 YEARS WARRANTY
- HIGH EFFICIENCY UP TO 87%
- HIGH AVERAGE EFFICIENCY MEET ErP
- LOW STANDBY POWER CONSUMPTION



## MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)	EFF. (typ.)	EFF. (avg.)
<b>Single Output Models</b>							
EDA35-05	88~264 VAC	30 WATTS	+ 5 VDC	6000 mA	80%	82%	82%
EDA35-12	88~264 VAC	36 WATTS	+ 12 VDC	3000 mA	84%	86%	85%
EDA35-15	88~264 VAC	36 WATTS	+ 15 VDC	2400 mA	85%	87%	85%
EDA35-24	88~264 VAC	36 WATTS	+ 24 VDC	1500 mA	85%	87%	85%

## 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		65		KHz	
Isolation voltage	Input-Output	3,000 / 4,242			VAC / VDC	
	Input-FG	1,500 / 2,121			VAC / VDC	
	Output-FG	500 / 710			VAC / VDC	
Isolation resistance	Input-Output, @ 500VDC	100			MΩ	
Ambient temperature	Operating at Vi nom	-40		+ 71	°C	
Derating (see derating curve)	Vi nom, from +56°C to +71°C			2.5	% / °C	
Storage temperature	Non operational	-40		+ 85	°C	
Relative humidity	Vi nom, Io nom	20		95	% RH	
Temperature coefficient	Vi nom, Io min			± 0.03	% / °C	
MTBF	Bellcore Issue 6 @40°C, GB	5V		693,000	Hours	
		12V		660,000	Hours	
		15V		692,000	Hours	
		24V		710,000	Hours	
Altitude during operation	IEC 60068-2-13			4,850	m	
Dimension	Body size	L78 x W51 x H28			mm	
Cooling	Free air convection					

## SPECIFICATION

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

### INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Rated input voltage	Io nom	100		240	VAC
Absolute input max. range	AC in	88		264	VAC
		DC in	120	375	VDC
Input current	Vi : 115 / 230 VAC, Io nom		620 / 400		mA
Rated input current	Vi : 88 VAC, Io nom			800	mA
Line frequency	Vi nom, Io nom	47		63	Hz
Inrush current	Vi : 115 / 230 VAC, Io nom			20 / 40	A
Power dissipation	Vi : 230 VAC, Io nom	5V	8		W
		12V	7		W
		15V	6.5		W
		24V	6.5		W
Leakage current	Input-Output			0.25	mA
	Input-FG			3.5	mA
Standby power consumption	Vi nom, Io=0A			0.3	W

### 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, Io min ...Io nom			± 1	%
Voltage trim range	Vi nom, 0.8 Io nom	5V	4.5	5.5	VDC
		12V	10.8	13.2	VDC
		15V	13.5	16.5	VDC
		24V	21.6	27.6	VDC
Rated continuous loading	Vi nom	5V	6 A @ 5Vdc / 5.4 A @ 5.5 Vdc		
		12V	3 A @ 12Vdc / 2.7 A @ 13.2 Vdc		
		15V	2.4 A @ 15Vdc / 2.1 A @ 16.5 Vdc		
		24V	1.5 A @ 24Vdc / 1.3 A @ 27.6 Vdc		
Hold up time	Vi : 115 / 230 VAC, Io nom	10 / 50			ms
Turn on time	Vi nom, Io nom			1,000	ms
	Vi nom, Io nom → with 3500 μF CAP			1,500	ms
Rise time	Vi nom, Io nom			150	ms
	Vi nom, Io nom → with 3500 μF CAP			500	ms
Fall time	Vi nom, Io nom			150	ms
Transient recovery time	Vi nom, I ~ 0.5 Io nom			2	ms
Ripple & noise	Vi nom, Io nom, BW = 20MHz			100	mV
Power back immunity	Vi nom, Io nom 1 second	5V	7.5		VDC
		12V	18		VDC
		15V	22		VDC
		24V	35		VDC
Capacitor load	Vi nom, Io nom			3,500	μF
Efficiency	Vi nom, Io nom, Po / Pi	Up to 87%, See model list and typ efficiency curve			

### CONTROL AND PROTECTION

Characteristics	Conditions	min.	typ.	max.	unit
Input fuse		T2A / 250VAC internal			
Internal surge voltage protection	IEC 61000-4-5	Varistor			
Rated over load protection	Vi nom (see typ current limited curve)	110		170	%

## SPECIFICATION

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### CONTROL AND PROTECTION

Characteristics	Conditions		min.	typ.	max.	unit
Over voltage protection	Vi nom, 0.8 Io nom (Auto Recovery)	5V	5.75		6.75	VDC
		12V	13.8		16.2	VDC
		15V	17.25		20.25	VDC
		24V	28.8		32.4	VDC
Output short circuit			Hiccup mode			

### APPROVALS AND STANDARDS

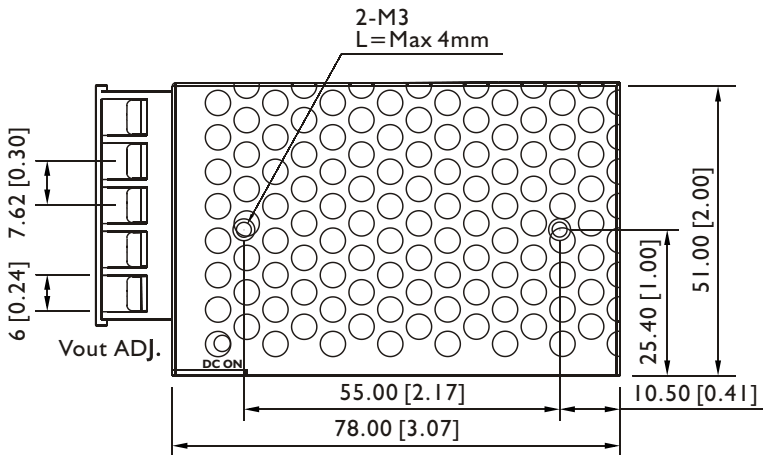
UL / cUL	UL 60950-1 Recognized
TUV	EN 60950-1
CE	EN 61000-6-3, EN 55032 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 55024 EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8 EN 61000-4-11, ENV 50204, EN 61204-3
Vibration resistance	meet IEC 60068-2-6 (10-500 Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)
Shock resistance	meet IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 Faces, 3 times for each Face)

### PHYSICAL CHARACTERISTICS

Case size	78 x 51 x 28 mm (3.07 x 2 x 1.1 inches) (body size)
Case material	Metal
Weight	180 g
Packing	0.2kg ; 72pcs / 15kg / 0.76CUFT

### MECHANISM & PIN CONFIGURATION

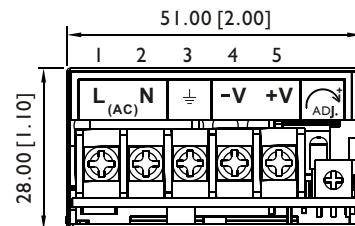
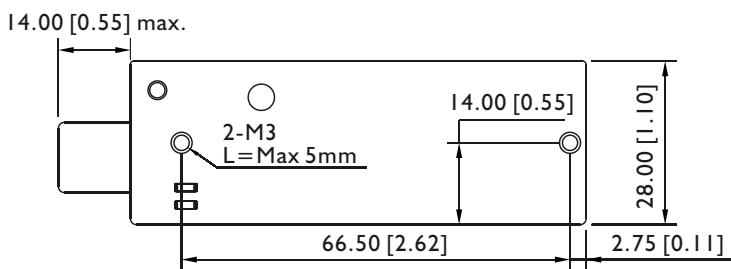
mm [inch]



#### INSTALLATION

Ventilation / Cooling  
Normal convection  
Connector size range  
AWG22-12 (0.2~2.5mm<sup>2</sup>) flexible / solid cable,  
connector can withstand torque at maximum  
8 pound-inches.

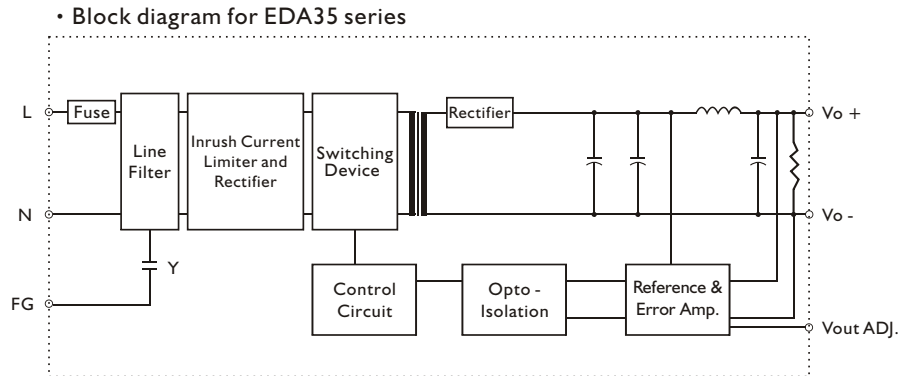
GENERAL TOLERANCE	
0.00[0.00] - 30.00[1.18]	±0.30[0.01]
30.00[1.18] - 120.00[4.72]	±0.50[0.02]



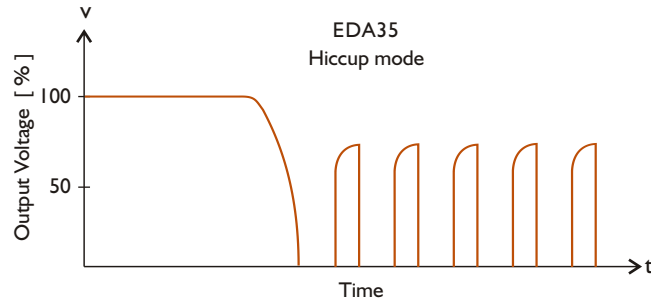
## PIN ASSIGNMENT

PIN NO.	Designation	Description
1	IN	L
2		N
3		⊕
4	OTHER OUT	-
5		+
		Vout ADJ.
		DC ON

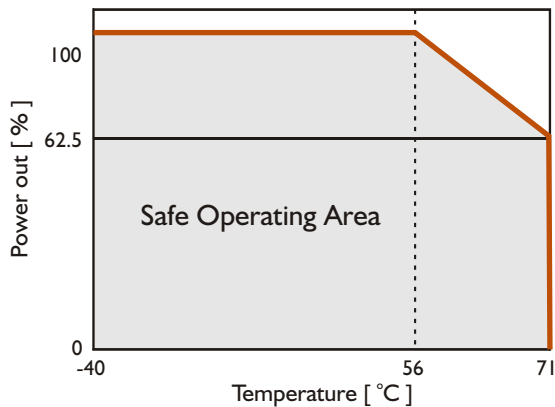
## CIRCUIT SCHEMATIC



## TYP. CURRENT LIMITED CURVE



## DERATING CURVE



## TYP. EFFICIENCY CURVE

