FEATURES

- Output voltage of 24 V DC
- Output current of 2.5 A
- Power rating of 60 W
- Input voltage of 88 → 264 V AC
- Chassis mounting type
- 98 mm (length) x 82 mm (width) x 35 mm (depth)
- Efficiency rating of 89%
- Operating temperature of -40°C to +71°C

RS PRO, 60W Embedded Switch Mode Power Supply SMPS, 24V dc, Enclosed

RS Stock No.: 711-2636

RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

Part of our tried-and-tested RS PRO range, this 60 W embedded switch-mode power supply (SMPS) is an electronic circuit that uses a continuous switching regulator to convert alternating current (AC) into direct current (DC). AC is what we usually find in power mains and wall outlets. Other equipment, like battery-powered devices and some electronics, uses DC. SMPSs transfer power from an AC to a DC source. Their compact and lightweight design sets them apart from traditional units.

General Specifications

Mounting Type	Chassis Mount
Package Type	Enclosed
MTBF	615000 h
Applications	Industrial control system, Mechanical and electrical equipment

Electrical Specifications

Input Specification	
Voltage Range	88Vac to 264Vac
Frequency	47Hz to 63Hz
Power Dissipation	7W @12Vdc output
AC Current Rating	1100mA/115Vac, 600mA/230Vac
Inrush Current	60A/230Vac
Leakage Current (max.)	3.5mA
Input Protection	T2A / 250V ac internal fuse in line

Output Specification		
Output Number	1	
DC Voltage	24Vdc	
Ripple & Noise (max.)	100mVp-p	
Rated Current	2.5A	
Rated Power	60W	
Voltage Tolerance	±1%	
Line Regulation	±0.5%	
Load Regulation	±1%	

Voltage Adj. Rang	21.6V to 27.6V	
Rise Time	150ms/230V ac	
Fall Time	150ms/230V ac	
Hold Up Time	80ms/230V ac, 10ms / 115V ac at full load	
Transient Recovery Time	2ms/230V ac	
No Load Power Consumption	0.5W	
Capacitor Load	3500µF	
Overload Protection	110% to 150%	
Over Voltage Protection	28.8Vdc to 32.4Vdc	
Short Circuit Protection	Yes	
Switching Frequency	100KHz	
Isolation Resistance	100MΩ@500Vdc	
Voltage Isolation	Input-Output	3000V ac
	Input-Ground	1500V ac

Mechanical Specifications

Housing Material	Metal
Overall Dimensions	98mm x 82mm x 35mm
Overall Length	98mm
Overall Depth	82mm
Overall Width	35mm
Weight	310g

Operation Environment Specifications

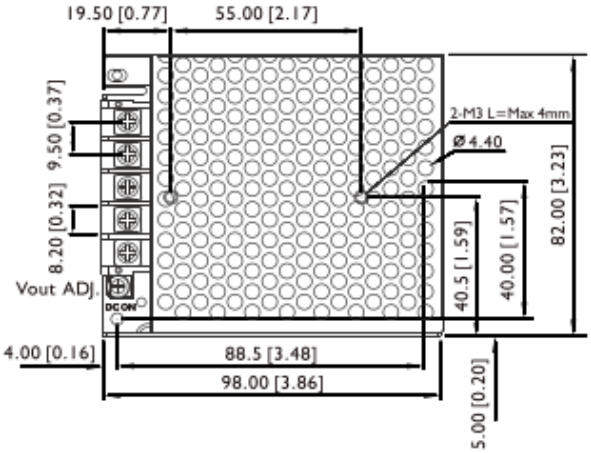
Operating Humidity	20% to 90% RH non-condensing
Cooling	Natural convection
Operating Temperature Range	-40°C to 71°C
Storage Temperature Range	-40°C to 85°C
Temperature Coefficient	± 0.03% / C
Altitude During Operation	4850m
Vibration Resistance	10-500Hz, 2G, along X, Y,Z each Axis, 60 min for each Axis
Shock Resistance	15G, 11ms, 3 Axis, 6 Faces, 3 times for each Face

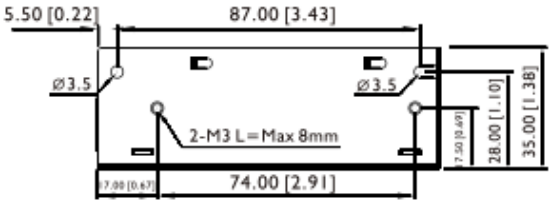
Approvals

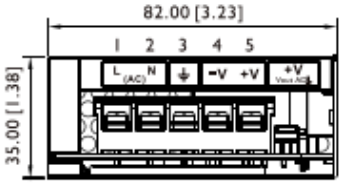
Safety Standard	EN 60950-1 and UL 60950-1approved
EMC Emission	Compliance to EN55022 Class B, EN55024, EN61000-6-3, EN61000-3-2

MECHANISM & PIN CONFIGURATION

mm [inch]







INSTALLATION

Ventilation / Cooling
Normal convection
Connector size range
AWG22-14 (0.2~2mm^2) flexible / solid cable, connector can withstand torque at maximum 12 pound-inches.

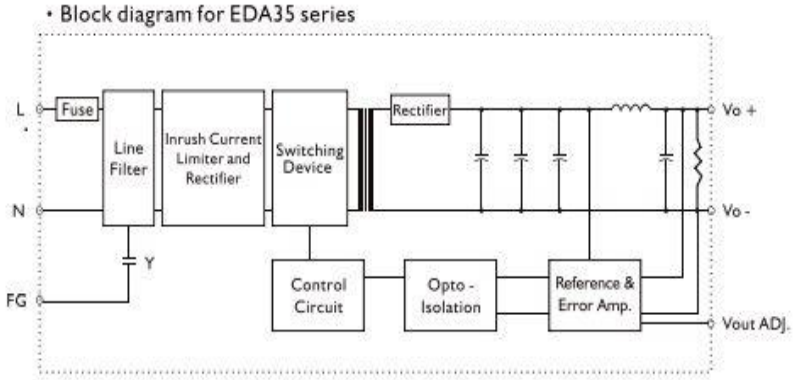
GENERAL TOLERANCE	
0.00[0.00] - 30.00[1.18]	±0.30[0.01]
30.00[1.18] - 120.00[4.72]	±0.50[0.02]

PIN ASSIGNMENT

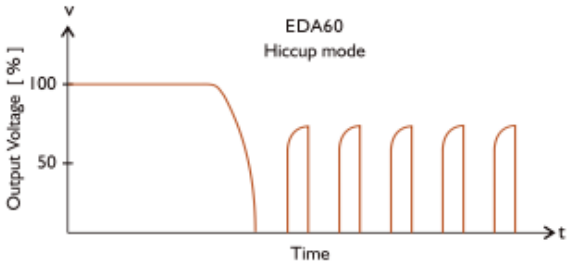
PIN NO.	Designation		Description
1	IN	L	Input terminals (phase conductor, no polarity at DC input)
2		N	Input terminals (neutral conductor, no polarity at DC input)
3		⏚	Ground this terminal to minimize high-frequency emissions
4	OUT	−	Negative output terminal
5		+	Positive output terminal
	OTHER	Vout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

CIRCUIT SCHEMATIC

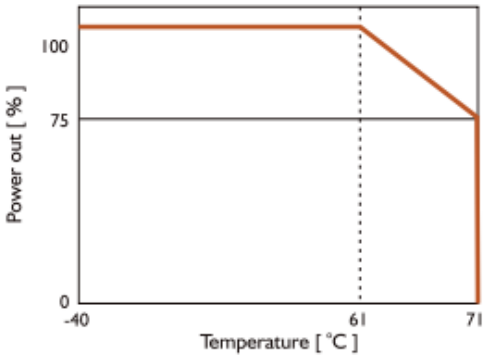
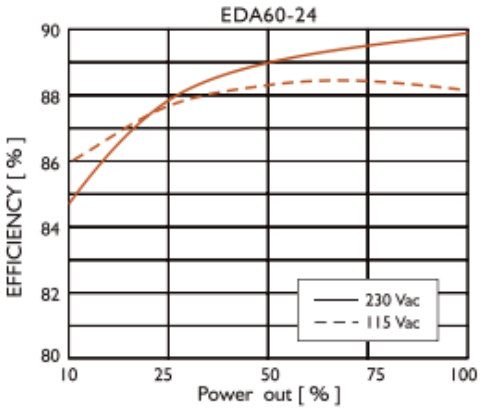
• Block diagram for EDA35 series



TYP. CURRENT LIMITED CURVE



DERATING CURVE



TYP. EFFICIENCY CURVE