

AJC Series

40 W AC/DC Power Module

CoolPower
Solutions

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output
- Low Ripple and Noise
- High Efficiency
- CE, UL, cUL Approvals
- 2-Years Product Warranty



Electrical specifications

Model No. (Single Output)	AJC-3.3S	AJC-5S	AJC-9S	AJC-12S	AJC-15S	AJC-24S	
Max output wattage (W)	26.4W	40W	40W	40W	40W	40W	
Output	Voltage (V.DC.)	3.3V	5V	9V	12V	15V	24V
	Current (mA) max	8000	8000	4444	3333	2666	1667
	Voltage set accuracy	±2%	±2%	±2%	±2%	±2%	±2%
	Line regulation (Typ.)	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Load regulation (1-100%) (Typ.)	1%	1%	1%	1%	1%	1%
	Minimum load	1%	1%	1%	1%	1%	1%
	Efficiency (Typ)	76%	80%	82%	83%	83%	83%

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Model No. (Dual Output)	AJC-5D		AJC-12D		AJC-15D		
Max output wattage (W)	40W		40W		40W		
Output	Output 1	Output 2	Output 1	Output 2	Output 1	Output 2	
	Voltage (V.DC.)	+5V	-5V	+12V	-12V	+15V	-15V
	Current (mA) max	4000	4000	1666	1666	1333	1333
	Voltage set accuracy	±2%		±2%		±2%	
	Line regulation (Typ.)	0.5%		0.5%		0.5%	
	Load regulation (10-100%) (Typ.)	1% (symmetric load)		1% (symmetric load)		1% (symmetric load)	
	Cross regulation (15-100%) (Typ.)	±5%		±5%		±5%	
	Minimum load	10%		10%		10%	
	Efficiency (Typ)	80%		83%		83%	

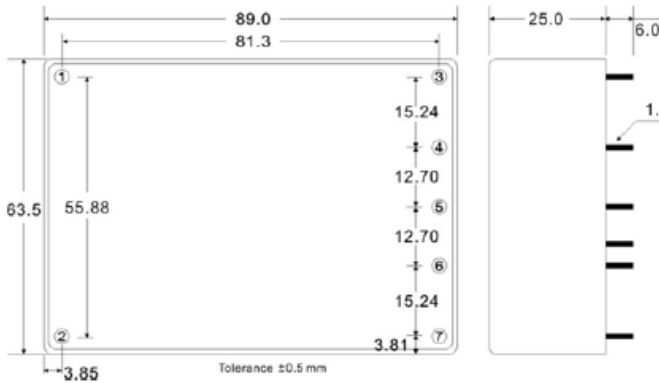
Model No. (Dual Output)	AJC-5S12S		AJC-5S24S		
Max output wattage (W)	40W		40W		
Output	Output 1	Output 2	Output 1	Output 2	
	Voltage (V.DC.)	5V	12V	5V	24V
	Current (mA) max	5000	1250	5000	625
	Voltage set accuracy	±3%	±5%	±3%	±5%
	Line regulation (Typ.)	0.5%	5%	0.5%	5%
	Load regulation (10-100%) (Typ.)	2% (symmetric load)	6% (symmetric load)	2% (symmetric load)	6% (symmetric load)
	Cross regulation(25-100%) (Typ.)	±1%	±7%	±1%	±7%
	Minimum load	25%		25%	
	Efficiency (Typ)	80%		80%	

Model No. (Triple Output)		AJC-5S12D			AJC-5S15D	
Max output wattage (W)		40W			40W	
Output		Output 2	Output 3	Output 1	Output 2	Output 3
	Voltage (V.DC.)	+12V	-12V	5V	+15V	-15V
	Current (mA) max	600	600	5000	500	500
	Voltage set accuracy	±5%	±5%	±3%	±5%	±5%
	Line regulation (Typ.)	5%	5%	0.5%	5%	5%
	Load regulation (10-100%) (Typ.) (symmetric load)	7%	7%	3%	7%	7%
	Cross regulation (Typ.)	±7%	±7%	±3%	±7%	±7%
	Minimum load	25%			25%	
Efficiency (Typ)	80%			80%		

Input	Voltage	90-264 VAC or 100-375 VDC
	Frequency (Hz)	47-440 Hz
	Current (Full load)	860 mA max. (115 VAC) / 460 mA max. (230 VAC)
	Inrush current (<2ms)	30 A max. (115 VAC) / 50 A max. (230 VAC)
	Leakage Current	0.75 mA max.
Output	Maximum capacitive load	470-23,000µF depending on model
	Ripple & Noise	3.3V 50mV of Vout
		5V~24V 1% of Vout
	Hold-up time (typ.)	10 ms min.
	Switching frequency	132 kHz
Protection	Over current protection	Above 105% rated output power
	Over voltage protection	Zener diode clamp
	Short circuit protection	Hiccup mode, indefinite (automatic recovery)
	OTP	100°C
Isolation	Input-Output (V.AC)	3000V
Environment	Operating temperature	-25°C...+70°C (Case Temperature max. +95°C)
	Storage temperature	-40°C...+100°C
	Temperature coefficient	0.01%/°C
	Humidity	95% RH
	MTBF	200 000 - 400 000 h @ 25°C
Physical	Dimension (L x W x H)	3.5 x 2.5 x 0.98 Inches (89.0 x 63.5 x 25.0 mm) Tolerance ±0.5 mm
	Case Material	Plastic resin + Fiberglass (flammability to UL 94V-0)
	Weight	280 g
	Cooling method	Free air convection
Safety	Agency Approvals	UL / cUL, CE
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B
	EMS (Noise Immunity)	EN 55024

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

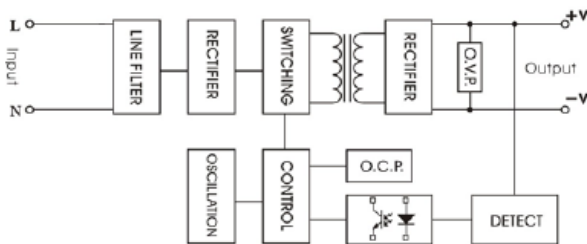
Mechanical Specifications (top view)



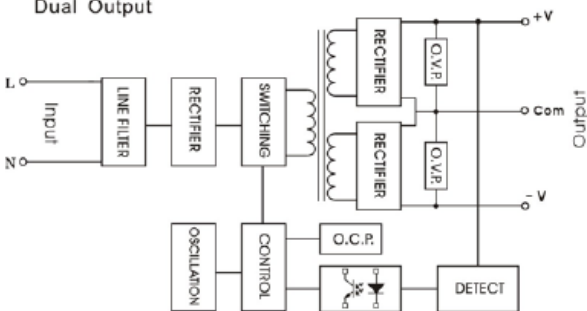
Pin no:	Single	Dual	5S/12S 5S/24S	Triple
1	AC IN (L)	AC IN (L)	AC IN (L)	AC IN (L)
2	AC IN (N)	AC IN (N)	AC IN (N)	AC IN (N)
3	+DC OUT	+DC OUT	+OUT 2	+DC OUT
4	NO PIN	NO PIN	+OUT 1	+5V
5	-DC OUT	COMMON	+OUT2 RTN	COMMON
6	NO PIN	NO PIN	+OUT1 RTN	+5 RTN
7	NO CONN	-DC OUT	NO PIN	-DC OUT

BLOCK DIAGRAM

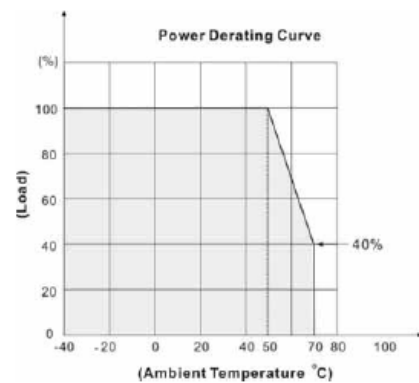
Single Output



Dual Output



DERATING



Triple Output

