

# ARCH AJC AC-DC Power Datasheet

<http://www.manuallib.com/arch/ajc-ac-dc-power-datasheet.html>

## KEY FEATURES

- Switching Power Modules for PCB Mounting
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- 40OC Starting
- Small Size as ASC 30Watt and 40Watt Higher Wattage
- Screw Terminal For Optional
- CE, CB and UL Approval
- 3-Years Product Warranty

ManualLib.com collects and classifies the global product instruction manuals to help users access anytime and anywhere, helping users make better use of products.

<http://www.manuallib.com>

**KEY FEATURES**

- Switching Power Modules for PCB Mounting
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- -40°C Starting
- Small Size as ASC 30Watt and 40Watt Higher Wattage
- Screw Terminal For Optional
- CE, CB and UL Approval
- 3-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	±3%	±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%
	Maximum Capacitive Load	60000 uF	40000 uF	7200 uF	8600 uF	6600 uF	1400 uF
	Efficiency (Typ)	76%	81%	83%	84%	83%	83%

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%	
	Maximum Capacitive Load	±12000 uF		±4400 uF		±1000 uF	
Efficiency (Typ)	81%		83%		83%		

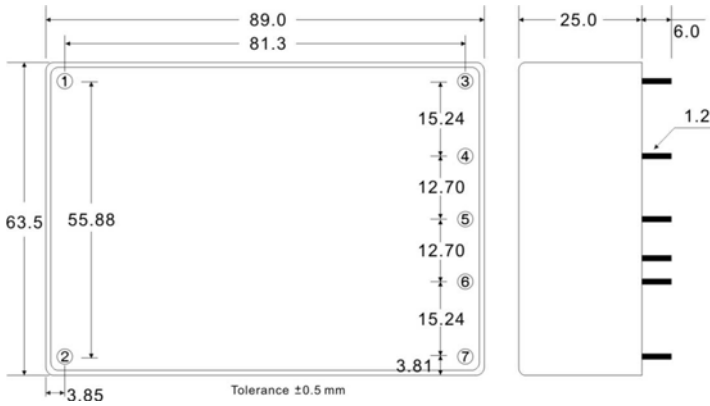
Model No. ( Dual Output )	AJC-5S12S		AJC-5S24S		
Max output wattage ( W )	40W		40W		
Output	Output 1	Output 2	Output 1	Output 2	
	Voltage (V.DC.)	5V	12V	5V	24V
	Current (mA) max	5000	1250	5000	625
	Voltage set accuracy	±3%	±5%	±3%	±5%
	Line regulation (Typ.)	0.5%	5%	0.5%	5%
	Load regulation (25-100%) (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%	
	Maximum Capacitive Load	10000 uF	470 uF	10000 uF	400 uF
Efficiency (Typ)	82%		82%		

**AJC SERIES**
**40 Watts**

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.)	+12	-12	5	+15	-15
	Current (mA) max	600	600	5000	500	500
	Voltage set accuracy	±5%		±3%	±5%	
	Line regulation (Typ.)	5%		0.5%	5%	
	Load regulation (25-100%) (Typ.) (symmetric load)	7%		3%	7%	
	Cross regulation (Typ.)	±7%		±3%	±7%	
	Minimum load	25%			25%	
	Maximum Capacitive Load	780 uF		10000 uF	900 uF	
	Efficiency (Typ)	82%			81%	

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	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	-40°C...+70°C (Case Temperature max. +95°C)	
	Storage temperature	-40°C...+85°C	
	Temperature coefficient	0.01%/°C	
	Humidity	95% RH	
	MTBF	200,000 h~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 & EMC	Agency Approvals	CE, UL/cUL, CB	
	EMI (Conducted & Radiated Emission)	EN 55022 class B	
	EMS (Noise Immunity)	EN 55024	

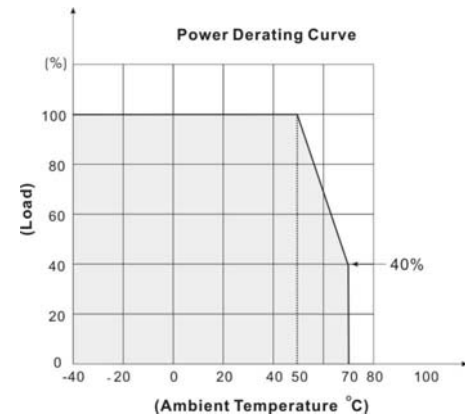
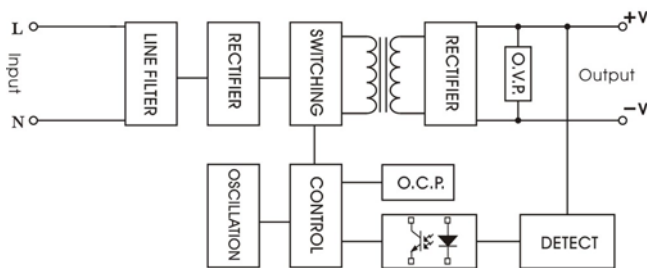
- 1.All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.
- 2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1UF & 47UF parallel capacitor.

**MECHANICAL DIMENSION ( Top View )**


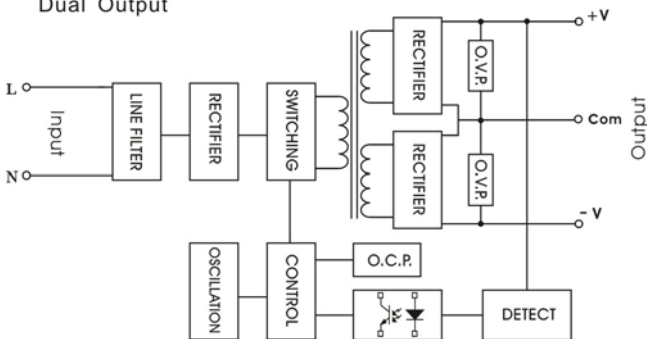
PIN#	SINGLE	Dual	5S/12S 5S/24S	Triple
1	AC IN (L)	AC IN (L)	AC IN (L)	AC IN (L)
2	AC IN (N)	AC IN (N)	AC IN (N)	AC IN (N)
3	+DC OUT	+DC OUT	+OUT2	+DC OUT
4	NO PIN	NO PIN	+OUT1	+5V
5	-DC OUT	COMMON	+OUT2 RTN	COMMON
6	NO PIN	NO PIN	+OUT1 RTN	+5 RTN
7	NOCONNECT	-DC OUT	NO PIN	-DC OUT

**BLOCK DIAGRAM**
**DERATING**

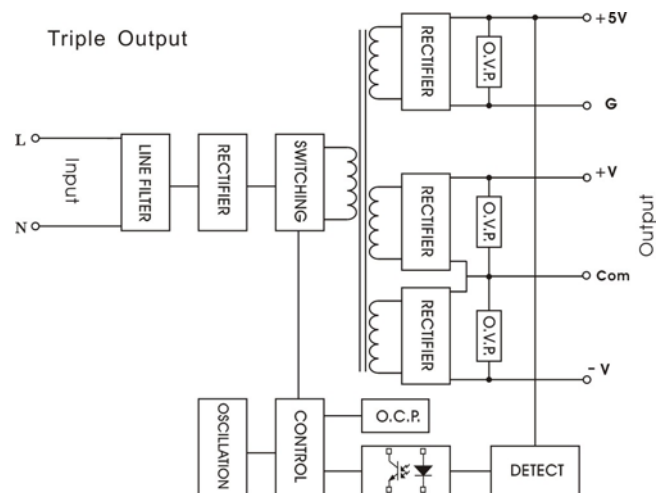
Single Output



Dual Output

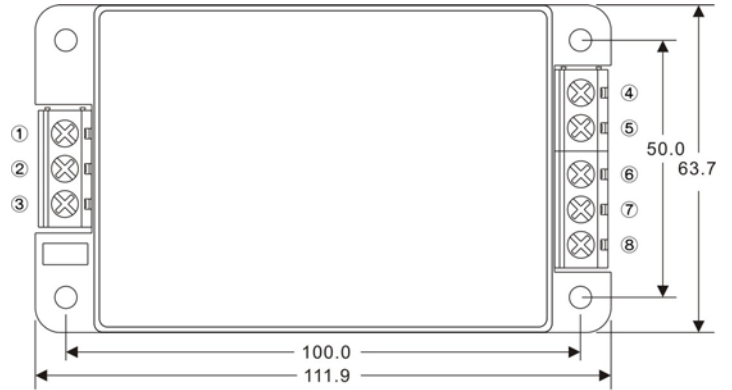


Triple Output

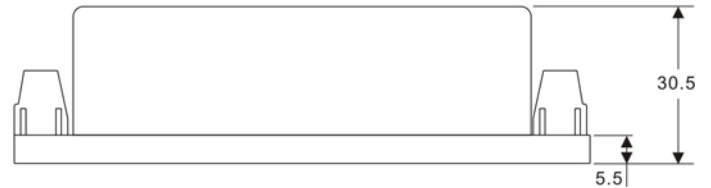


## SCREW TERMINAL

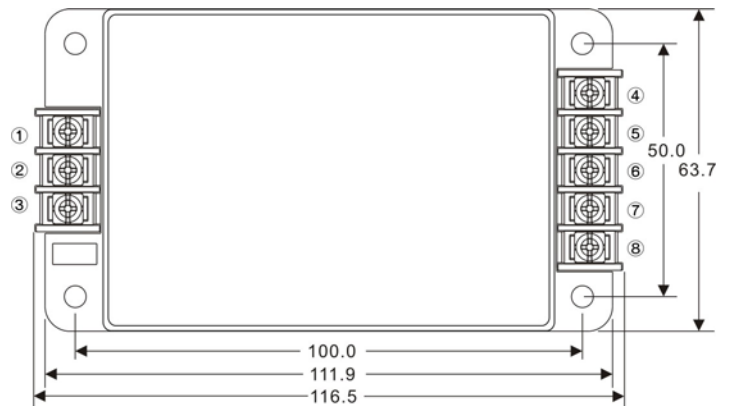
## AJC-A2



PIN#	Single	Dual	5S/12S 5S/24S	Triple
1	NOCONNECT	NOCONNECT	NOCONNECT	NOCONNECT
2	AC IN (L)	AC IN (L)	AC IN (L)	AC IN (L)
3	AC IN (N)	AC IN (N)	AC IN (N)	AC IN (N)
4	+DC OUT	+DC OUT	+OUT2	+DC OUT
5	NOCONNECT	NOCONNECT	+OUT1	+5V OUT
6	-DC OUT	COMMON	+OUT2 RTN	COMMON
7	NOCONNECT	NOCONNECT	+OUT1 RTN	+5V RTN
8	NOCONNECT	-DC OUT	NOCONNECT	-DC OUT



## AJC-A5



PIN#	Single	Dual	5S/12S 5S/24S	Triple
1	NOCONNECT	NOCONNECT	NOCONNECT	NOCONNECT
2	AC IN (L)	AC IN (L)	AC IN (L)	AC IN (L)
3	AC IN (N)	AC IN (N)	AC IN (N)	AC IN (N)
4	+DC OUT	+DC OUT	+OUT2	+DC OUT
5	NOCONNECT	NOCONNECT	+OUT1	+5V OUT
6	-DC OUT	COMMON	+OUT2 RTN	COMMON
7	NOCONNECT	NOCONNECT	+OUT1 RTN	+5V RTN
8	NOCONNECT	-DC OUT	NOCONNECT	-DC OUT

