

OVC III AC-DC power module

AJCV100 Series

- 100W OVC III Encapsulated Power Module
- Isolation 4300VAC
- Remote ON/OFF Control
- Adjustable Output Voltage
- 5000M Altitude Application
- Over-Voltage Category OVC III EN 61558 (New Edition)
- Class II (Double Isolation) Configuration with universal AC Input Voltage Range
- High Efficiency up to 93.5%
- No Load Power Consumption < 0.15W
- Extreme Low Temperature Cold Start at -40°C, Highest up to +85°C
- Safety Approval to UL / IEC / EN 62368-1, EN 60335-1, EN 61558-2-16



KEY FEATURES

- Universal Input Range 90-264VAC or 127-370 VDC, 47-63 Hz
- Remote ON/OFF Control
- Adjustable Output Voltage
- I/O Isolation 4300VAC
- Operating Ambient Temperature Range -40°C to +85°C
- No Load Power Consumption < 0.15W
- 5000m Altitude Application
- Over-Voltage Category OVC III (New Edition)
- High Efficiency up to 93.5%
- Isolation Class II
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1
- Design meet IEC / EN 61558-1, IEC / EN 61558-2-16, IEC / EN 60335-1
- 3-Year Product Warranty

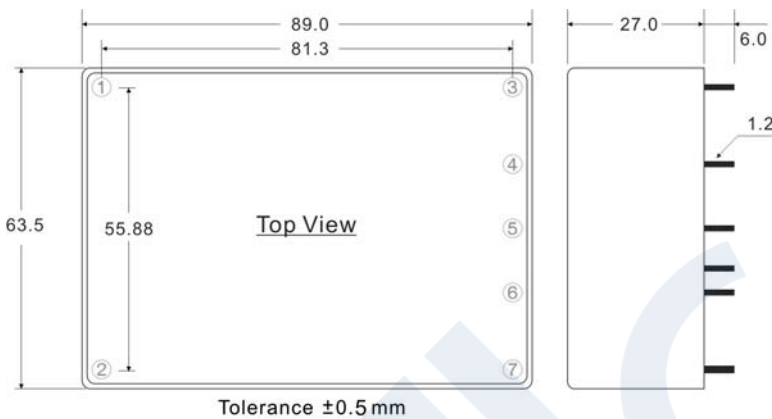

ELECTRICAL SPECIFICATIONS

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

Model No.	AJCV100-12S	AJCV100-24S	AJCV100-48S	
Max Output Wattage (W)	100W			
Input	Voltage	90-264 VAC or 127-370 VDC (L Connect +Vin ; N Connect -Vin)		
	Frequency (Hz)	47-63 Hz		
	Current (Full load)	2 A max. (115 VAC) / 1 A max. (230 VAC)		
	Inrush Current (<2ms)	45 A max. (115 VAC) / 90 A max. (230 VAC)		
	Power Factor	PF>0.9 at Full Load		
	No Load Power Consumption	< 0.15W (115/230 VAC)		
Output	Voltage (V.DC.)	12V	24V	48V
	Voltage Accuracy	±2%		
	Current (mA) max	8333	4166	2083
	Line Regulation (LL-HL) (typ.)	±0.5%		
	Load Regulation (0-100%) (typ.)	±1%		
	Minimum Load	0%		
	Maximum Capacitive Load	4000 uF	2000 uF	1000 uF
	Ripple & Noise (Full Load)	120mV	200mV	240mV
	Efficiency (at 230 VAC)	93%	93.5%	93%
Protection	Hold-up Time (typ.)	20 ms		
	Over Current Protection	Auto recovery		
	Over Voltage Protection	Auto recovery		
Isolation	Short Circuit Protection	Hiccup mode / Auto recovery		
	Input-Output (V.AC)	4300V		
Environment	Operating Temperature	-40°C...+85°C (with derating)		
	Storage Temperature	-40°C...+85°C		
	Temperature Coefficient	±0.05%/°C		
	Altitude During Operation	OVC II : 5000m / OVC III : 2000m		
	Humidity	95% RH		
	MTBF	>250,000 h @ 25°C (MIL-HDBK-217F)		
	Over Voltage Category	III: Compliance to EN 61558; altitude up to 2000 meters.		
	Vibration	IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)		
Physical	Shock	IEC60068-2-27		
	Dimensions (L x W x H)	3.5 x 2.5 x 1.06 Inches (89.0 x 63.5 x 27.0 mm) Tolerance ±0.5 mm		
	Case Material	Plastic resin (flammability to UL 94V-0)		
	Weight	300 g		
Safety	Cooling Method	Free air convection		
	Approval	UL / IEC / EN 62368-1 (In Progress)		
	Meet	IEC / EN 61558-1, IEC / EN 61558-2-16, IEC / EN 60335-1		
EMC	Conducted EMI	EN55032 Class B (In Progress)		
	Radiated EMI	EN55032 Class B (In Progress)		
	EMS (Noise Immunity)	EN 55035 (In Progress)		

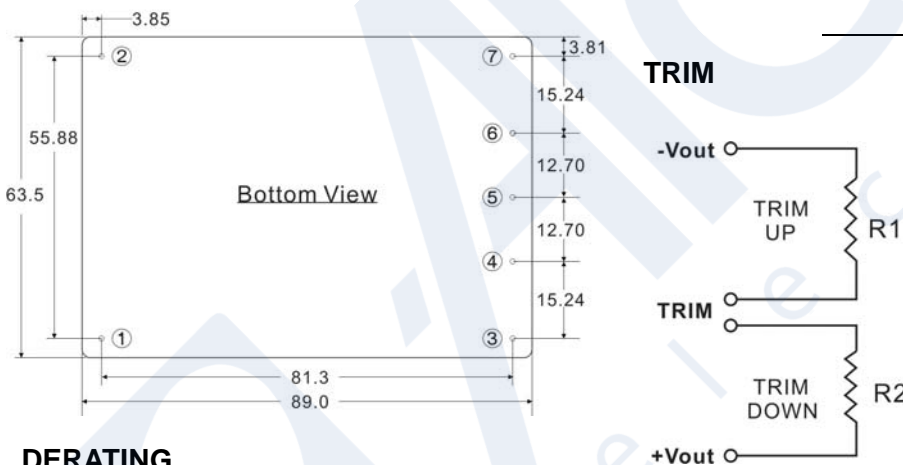
NOTE

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's recommended to add Varistor 14S471K at L / N input side in parallel.
3. **CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.**
(ATTENTION : 2 poles avec fusible sur le neutre. Deconnecter le secteur avant intervention.)
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

MECHANICAL DIMENSIONS (Top View)


PIN#	Φ	Single
1	1.2 \pm 0.1%mm	AC IN (N)
2	1.2 \pm 0.1%mm	AC IN (L)
3	1.2 \pm 0.1%mm	+DC OUT
4	1.2 \pm 0.1%mm	TRIM
5	1.2 \pm 0.1%mm	-DC OUT
6	1.2 \pm 0.1%mm	NO PIN
7	1.2 \pm 0.1%mm	ON / OFF

(Provide +5Vdc Controlled)



	R1		R2	
12S	+5%	1%	-5%	-1%
	0	~ 150K	75K	~ 680K
24S	+5%	1%	-5%	-1%
	0	~ 680K	820K	~ 6.8M
48S	+5%	1%	-5%	-1%
	0	~ 330K	1M	~ 7.5M

DERATING
