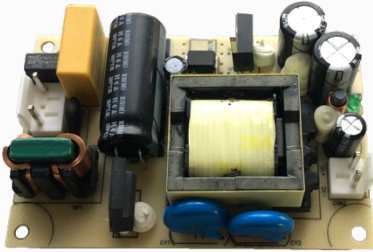


AMEOF30-JZ

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Open Frame

The AMEOF30-JZ series is a compact, open frame 30W AC/DC converter. It accepts a universal AC input of 85 - 264VAC and DC input voltage range of 100 - 370VDC. The AMEOF30-JZ features low no-load power consumption of 0.5W, high efficiency up to 88%, and reinforced isolation of 3000VAC.

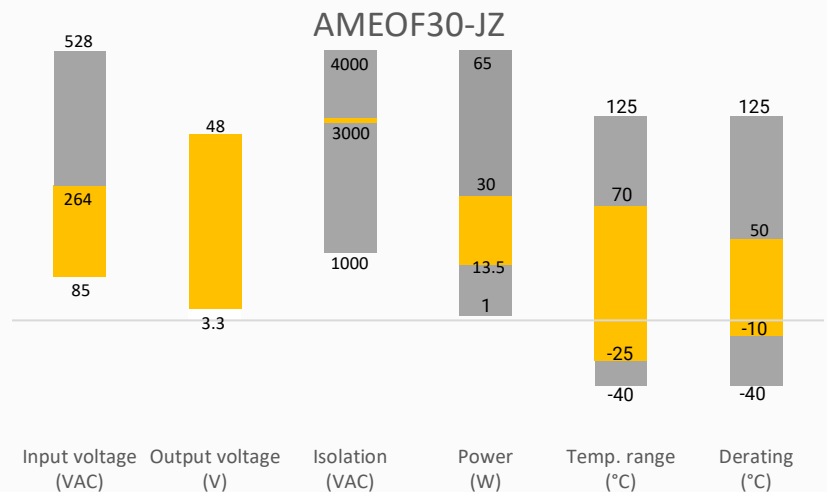
It offers agency approvals UL 62368-1 and an EMC compliance of CISPR32/EN55032 Class B and meets IEC/EN 62368-1 standards. The converters also include output short circuit, over-current & over-voltage protection.

These converters are widely used in industrial, office and civil applications such as modems, printers, and telecom devices.

Features

- Universal Input: 85 - 264VAC/100 - 370VDC
- Operating Temp: -25 °C to +70 °C
- High isolation voltage: 3000VAC
- Low ripple & noise, 100mV(p-p), max.
- Output short circuit, over-current, over-voltage protection
- Regulated Output
- Open frame

Summary



Training



Product Training Video
(click to open)



Press Release

Coming Soon!

Application Notes

Applications



Power Grid



Industrial



Telecom



Instrumentation

Models & Specifications

Single Output							
Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Maximum capacitive load (μF)	Efficiency @ 230VAC Typ. (%)
AMEOF30-3.3SJZ	85-264/47-60	100-370	13.5	3.3	4.1	24,000	73
AMEOF30-5SJZ	85-264/47-60	100-370	20.5	5	4.1	12,000	78
AMEOF30-9SJZ	85-264/47-60	100-370	30	9	3.333	5,600	82
AMEOF30-12SJZ	85-264/47-60	100-370	30	12	2.5	5,400	84
AMEOF30-15SJZ	85-264/47-60	100-370	30	15	2	2,400	86
AMEOF30-24SJZ	85-264/47-60	100-370	30	24	1.25	1,440	87
AMEOF30-48SJZ	85-264/47-60	100-370	30	48	0.625	600	88

Input Specifications				
Parameters	Conditions	Typical	Maximum	Units
Input current	115VAC		750	mA
	230VAC		450	mA
Inrush current	115VAC	20		A
	230VAC	40		A
Leakage	240VAC, 50Hz		0.25	mA

Output Specifications				
Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	3.3Vout	±3		%
	Others	±2		%
Line regulation	Full load	±0.5		%
Load regulation	0-100% load	±1		%
Ripple & Noise*	20MHz bandwidth	50	100	mV p-p
Hold up time	115VAC	10		ms
	230VAC	30		ms

* Ripple and Noise are measured at 20MHz bandwidth. Please refer to the application note for specific details.

Isolation Specifications				
Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec, leakage current < 5mA		3000	VAC

General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Protection class	Class II			
Over current protection	Auto recovery	≥ 110		% of Iout

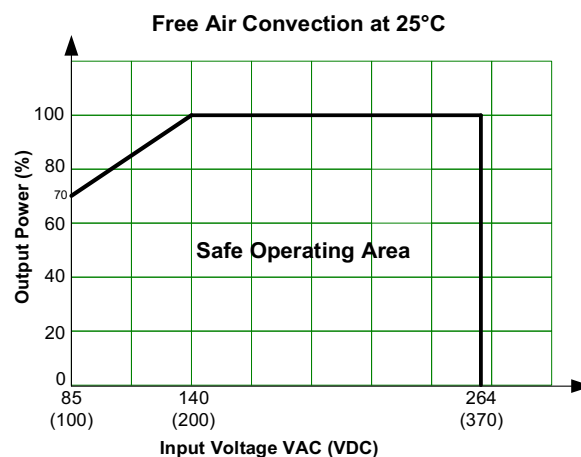
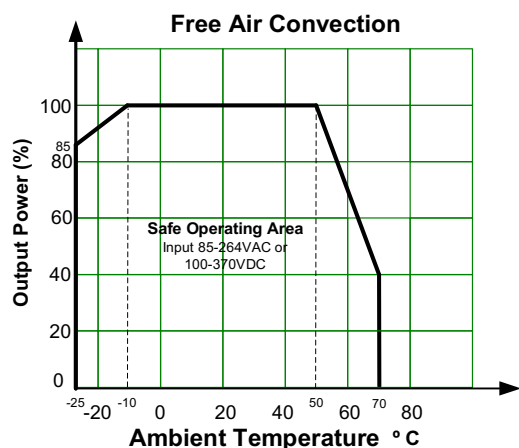
Over voltage protection	3.3, 5Vout, voltage clamp, hiccup		7.5	VDC
	9Vout, voltage clamp, hiccup		15	VDC
	12, 15Vout, voltage clamp, hiccup		20	VDC
	24Vout, voltage clamp, hiccup		30	VDC
	48Vout, voltage clamp, hiccup		60	VDC
Short circuit protection	Hiccup, Continuous, Auto recovery			
Switching Frequency		60		KHz
Operating altitude			2000	m
Operating temperature	See derating graph	-25 to +70		°C
Storage temperature		-25 to +85		°C
No-load power consumption			0.5	W
Power Derating	-25 °C to -10 °C	1		%/°C
	+50 °C to +70 °C	3		%/°C
	85VAC to 140VAC	0.55		%/VAC
Temperature coefficient		±0.02		%/°C
Cooling	Free air convection			
Humidity	Non-condensing		90	% RH
Weight		62		g
Dimensions (L x W x H)	PCB mountable models	3.00 x 2.00 x 1.06 inches (76.20 x 50.80 x 27.00mm)		
MTBF	> 300 000 hrs (MIL-HDBK -217F, t=+25°C)/Full Load			
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.				

Safety Specifications

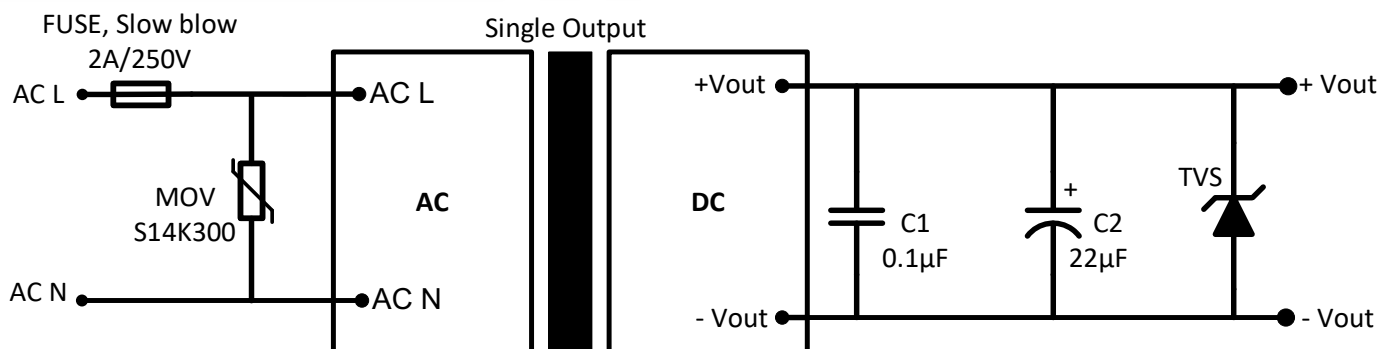
Parameters

Agency approvals	UL 62368-1	
Standards	Information technology Equipment	Design to meet IEC/EN 62368-1, EN/UL60335
	EMC - Conducted and radiated emission	CISPR32 / EN55032, class B
	Electrostatic Discharge Immunity	IEC 61000-4-2 Contact ±6KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4 ±2KV, Criteria B
	Surge Immunity	IEC 61000-4-5 L-L ±1KV, Criteria B
	RF, Conducted Disturbance Immunity	IEC 61000-4-6 10Vr.m.s, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11 0%, 70%, Criteria B

Derating



Typical Application Circuit



Model	TVS
3.3, 5Vout	7V
9Vout	12V
12, 15Vout	20V
24Vout	30V
48Vout	64V

For Filtering Components:

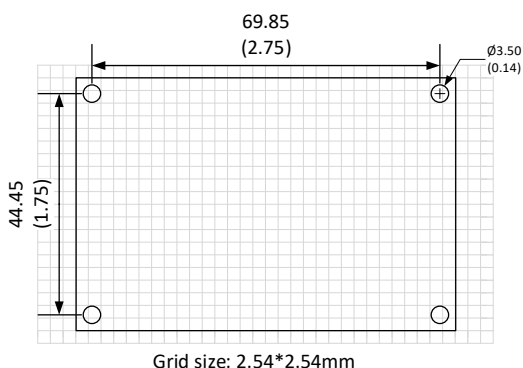
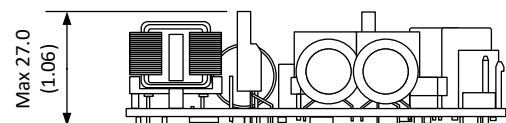
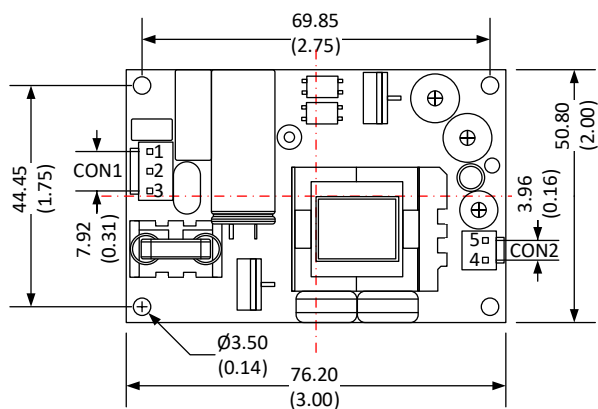
The input fuse is recommended to use slow blow type. Choose capacitors with at least 20% voltage margin. The C2 capacitor is recommended to use electrolytic type with high frequency and low ESR rating. The C1 capacitor is recommended to use ceramic type for filtering high-frequency noise.

Dimensions

Pin	Connector	Terminal
1	VH-3A	VH-3Y
2		

Pin Output Specifications	
Pin	Function
1	AC Input (L)
2	No Pin
3	AC Input (N)
4	-V Output
5	+V Output

3		
4	VH-2A	VH-2Y
5		



Note:

Unit: mm(inch)

General tolerance: ± 0.5 (± 0.02)

Tightening torque: 0.4N·m max.

Connector type for CON1 and CON2: VH-3.96mm

NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. **2.** Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. **3.** Mechanical

drawings and specifications are for reference only. **4.** All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. **5.** Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. **6.** This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet. **7.** Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.