DESCRIPTIONS

30W, AC/DC Converter

RoHS 3 Years Warranty

CE Report UKCA Report

EN62368-1 BS EN62368-1

FEATURES

- Universal 80-264VAC or 100-370VDC input voltage
- Operating ambient temperature range: -30℃ to +85℃
- High I/O isolation voltage up to 4000VAC
- Meets 5000m altitude requirements
- Extremely low leakage current < 75uA
- Stand-by power consumption < 0.25W
- Output short circuit, over-current, over-voltage protection
- Efficiency up to 90%
- Meets 2 x MOPP safety class
- Suitable for BF application
- OVC III (EN61558-1 standards)
- Safety according to IEC/EN/ES60601, UL/IEC62368

APPLICATIONS

- Industrial control
- LED
- street light control
- Electricity
- Security
- Telecommunications
- Smart home
- Medical
- Etc

Selection Guide

Certification	Part No.	Output Power (W)	Nominal Output Voltage and Current (Vo/Io)	Output Voltage Adjustable Range ADJ (V)	Efficiency at 230VAC (%) Typ.	Capacitive Load (μF) Max.
EN/BS EN	AOMU30-2B-03	19.8	3.3V/6.00A	2.97-3.63	82	20000
	AOMU30-2B-05	30	5V/6.00A	4.50-5.50	85	20000
	AOMU30-2B-12		12V/2.50A	10.20-13.80	88	8000
	AOMU30-2B-15		15V/2.00A	13.50-18.00	89	7000
	AOMU30-2B-19		19V/1.58A	17.10-20.90	88	2500
	AOMU30-2B-24		24V/1.25A	21.60-28.50	89	1500
	AOMU30-2B-36		36V/0.833A	32.40-39.60	90	1000
	AOMU30-2B-48		48V/0.625A	43.20-52.80	90	470

Specifications

Product Specifications	Item		Operating Conditions		Min.	Typ.	Max.	Unit
Input Specifications	Input Voltage Range		AC input		80	--	264	VAC
			DC input		100	--	370	VDC
	Input Frequency				47	--	63	Hz
	Input Current		115VAC		--	--	1.0	A
			230VAC		--	--	0.5	
	Inrush Current		115VAC		--	--	30	
			230VAC		--	--	60	
	Leakage Current		240VAC		75uA Max.			
	Hot Plug				Unavailable			
Output Specifications	Output Voltage Accuracy		0% - 100% load	Other output	--	--	±2.0	%
				24V/36V/48V	--	--	±1.0	
	Line Regulation		Rated load		--	--	±0.5	
	Load Regulation		230VAC		--	--	±1.0	
	Ripple & Noise*		20MHz bandwidth (peak-to-peak value)	3.3V/5V output	--	--	80	mV
				Other output	--	--	100	
	Stand-by Power Consumption		3.3V/5V/12V/15V output		--	0.10	0.15	W
			19V/24V/36V/48V output		--	0.20	0.25	
	Temperature Coefficient				--	--	±0.03	%/℃
	Short Circuit Protection				Hiccup, continuous, self-recover			
	Over-current Protection				≥115%Io, self-recover			
	Over-voltage Protection		3.3VDC output		≤5.25V	Output voltage hiccup		
			5VDC output		≤7V			
			12VDC output		≤16V			
			15VDC output		≤22V			
			19VDC output		≤28V			
			24VDC output		≤32.4V			
			36VDC output		≤42.4V			
			48VDC output		≤60V			
	Minim Load				0	--	--	%
	Hold-up Time		115VAC input		--	16	--	ms
			230VAC input		--	30	--	
General Specifications	Isolation	Input - output	Electric Strength Test for 1min., leakage current <5mA		4000	--	--	VAC
	Insulation Resistance	Input - output	500VDC		100	--	--	MΩ
	Operating Temperature				-30	--	+85	℃
	Storage Temperature				-40	--	+85	

	Storage Humidity			--	--	95	%RH
General Specifications	Altitude*			--	--	5000	m
	Power Derating	+50℃ to +70℃	Other output	2.50	--	--	%/℃
		+50℃ to +70℃	24V/36V/48V	1.00	--	--	
		+70℃ to +85℃	Other output	1.35	--	--	
		+70℃ to +85℃	24V/36V/48V	3.33	--	--	
		80VAC - 100VAC		1.00	--	--	%/VAC
	Safety Distance	Clearance		7.4	--	--	mm
		Creepage		8.0	--	--	
	Safety Class			CLASS I I			
	MTBF			MIL-HDBK-217F@25℃ > 300,000 h			
Mechanical Specifications	Dimension	76.20 x 50.80 x 24.00 mm (Substrate + Plug-in height, see the external dimension drawing for details)					
	Weight	80g (Typ.)					
	Cooling method	Free air convection					

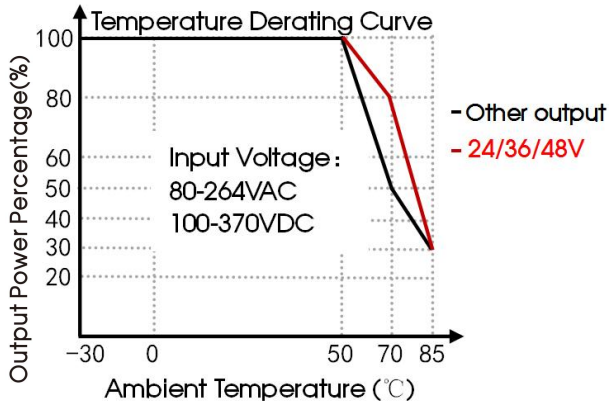
Note: *The "Tip and barrel method" is used for ripple and noise test: Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

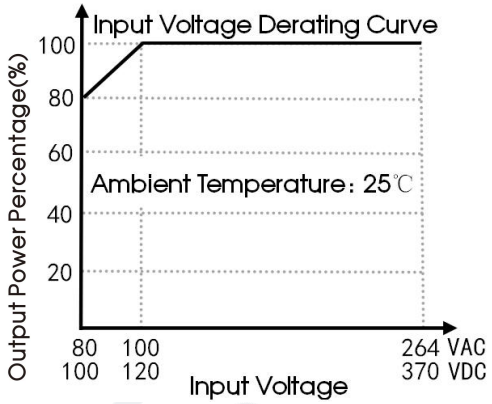
**For operation of altitude between 2000-5000m.

Electromagnetic Compatibility (EMC)

Electromagnetic Compatibility (EMC)	Emissions	CE	CISPR32/EN55032/EN55011 CLASS B	
		RE	CISPR32/EN55032/EN55011 CLASS B	
		Harmonic current	IEC/EN61000-3-2 CLASS A	
	Imnity	ESD	IEC/EN61000-4-2 Contact ±8KV/Air ±15KV	Perf. Criteria A
		RS	IEC/EN61000-4-3 10V/m	Perf. Criteria A
		EFT	IEC/EN61000-4-4 ±2KV	Perf. Criteria A
		Surge	IEC/EN61000-4-5 line to line ±2KV	Perf. Criteria A
		CS	IEC/EN61000-4-6 10Vr.m.s	Perf. Criteria A
		Voltage dips, short interruption and voltage variations	IEC/EN61000-4-11 100% dip 1 periods, 30% dip 25 periods,100% interruptions 250 periods	Perf. Criteria B

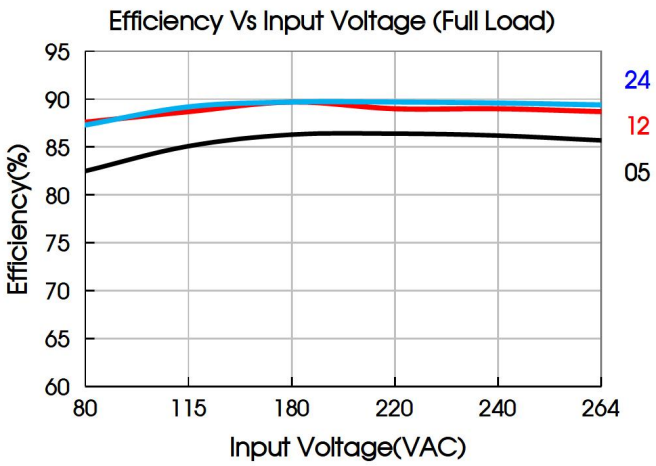
Product Characteristic Curve

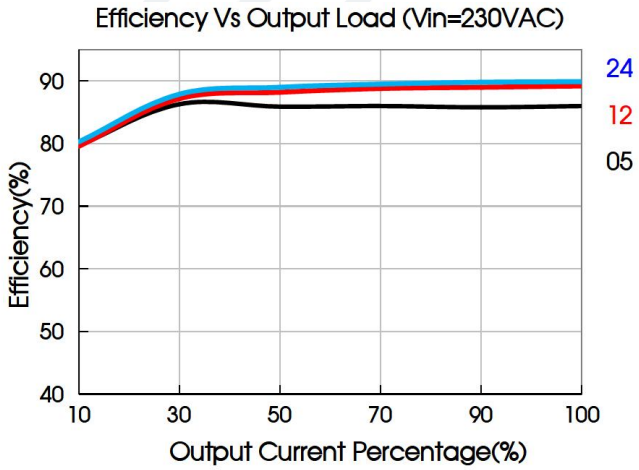




Note: ① With an AC input between 80-100VAC and a DC input between 100-120VDC, the output power st be derated as per temperature derating curves;

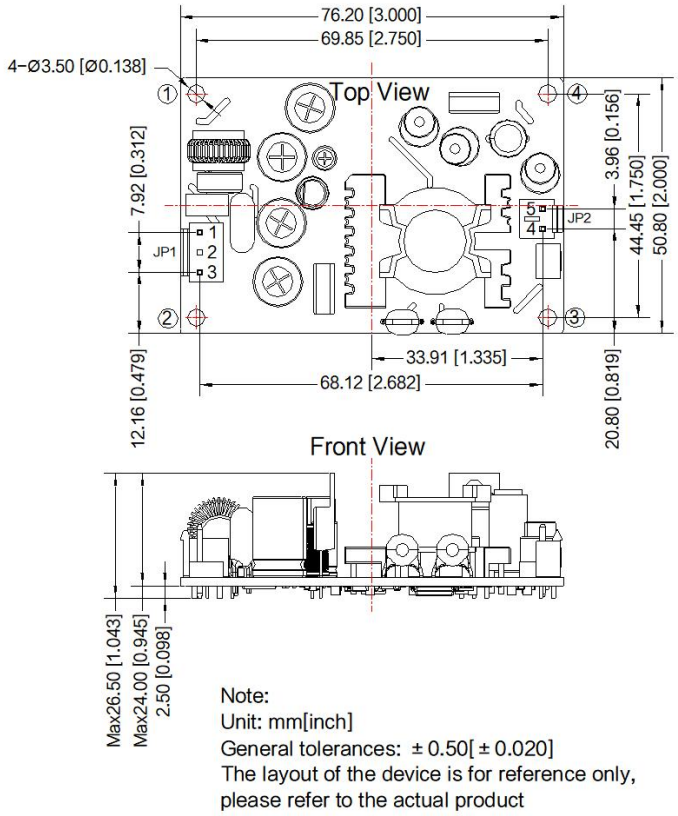
② This product is suitable for applications using natural air cooling;





Dimensions and Recommended Layout

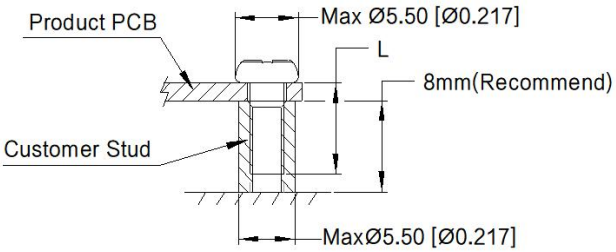
THIRD ANGLE PROJECTION



Note:
Unit: mm[inch]
General tolerances: ± 0.50[± 0.020]
The layout of the device is for reference only, please refer to the actual product

Pin-Out			
Connectors	Pin	Mark	Client Connectors
CON1	1	AC(L)	Housing: JST VHR Contact: JSTSVH-21T-P1.1 or equivalent
	2	No Pin	
	3	AC(N)	
CON2	4	+Vo	Housing: JST VHR Contact: JSTSVH-21T-P1.1 or equivalent
	5	-Vo	

Position	Screw Spec.	L(Recommend)	Torque(max)
① - ④	M3	6mm	0.4N · m



Note:

1. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25℃, humidity<75% with nominal input voltage and rated output load;
2. All index testing methods in this datasheet are based on our company corporate standards;
3. We can provide product customization service, please contact our technicians directly for specific information;
4. Products are related to laws and regulations: see "Features" and "EMC";
5. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.