DESCRIPTIONS

15W, AC-DC Open Frame Power Supply



RoHS

3 Years Warranty

CE Report EN62368-1

UKCA Report BS EN62368-1

FEATURES

- Universal 85-264VAC or 100-370VDC input voltage
- Input withstand 305VAC/5s
- Accepts AC or DC input (dual-use of same terminal)
- Operating ambient temperature range: -40℃ to +85℃ (-30℃ full load)
- High I/O isolation voltage up to 4000VAC
- Output voltage adjustable
- Output short circuit, over-current, over-voltage protection
- Surge immunity meets Level 4
- Installing in system of Safety Class I is available
- Design refer to UL/IEC62368, EN60335

APPLICATIONS

- Industry
- Handle official business
- Civil

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	AO15-2B-05M	15	5V/3A	4.5-5.5	81	10000
	AO15-2B-12M	15	12V/1.25A	10.8-13.5	82	2000
	AO15-2B-15M	15	15V/1A	13.5-16.5	83	1500
	AO15-2B-24M	15	24V/0.625A	21.6-27	83	500
	AO15-2B-36M	15.12	36V/0.42A	32.4-39.6	85	300
	AO15-2B-48M	15.02	48V/0.313A	43.2-52.8	85	300

Note: 1. *The actual adjustment range may extend outside the values stated, care should be exercised to ensure that the output voltage and power levels remain within the published maximum values.

2. The product picture is for reference only. For details, please refer to the actual product.

Specifications

Product characteristics	Item	Operating Conditions		Min.	Typ.	Max.	Unit
Input Specifications	Input Voltage Range	AC input		85	--	264	VAC
		DC input		100	--	370	VDC
	Input Voltage Frequency			47	--	63	Hz
	Input Current	115VAC		--	--	0.4	A
		230VAC		--	--	0.2	
	Inrush Current	230VAC	Cold start	--	45	--	
	Input Temporary Over-voltage	Rated load output, 305VAC input		5s/time, interval 10s, product without damaging			
	Hot Plug			Unavailable			
Output Specifications	Output Voltage Accuracy	Full load range	5V	--	±2	--	%
			Other output	--	±1	--	
	Line Regulation	Rated load		--	±0.5	--	
	Load Regulation	230VAC	5V	--	±1	--	
			Other output	--	±0.5	--	
	Ripple & Noise*	20MHz bandwidth (peak-to-peak value)	5V	--	50	80	mV
			12V/15V	--	80	100	
			24V	--	100	150	
			36V/48V	--	150	200	
	Stand-by Power Consumption	Room temperature, 230VAC input		--	0.3	0.5	W
	Temperature Coefficient	0℃ to +50℃		--	±0.03	--	%/℃
	Short Circuit Protection			Hiccup, continuous, self-recovery			
	Over-current Protection			115% - 300% Io, self-recover			
	Over-voltage Protection	5V		≤7V	Output voltage hiccup		
		12V		≤16V			
		15V		≤22V			
		24V		≤33V			
		36V		≤46.8V			
		48V		≤63V			
	Minimum Load			0	--	--	%
	Hold-up Time	115VAC input		--	20	--	ms
		230VAC input		--	100	--	
General Specifications	Isolation	Input - output	Electric Strength Test for 1min., leakage current <5mA	4000	--	--	VAC
		Input - ⏚		2000	--	--	
		Output - ⏚		500	--	--	
	Insulation Resistance	Input - output	Test voltage: 500VDC	100	--	--	MΩ
		Input - ⏚					
		Output - ⏚					
	Operating Temperature			-40	--	+85	℃
	Storage Temperature			-40	--	+85	
General	Storage Humidity	Non-condensing		--	--	95	%RH

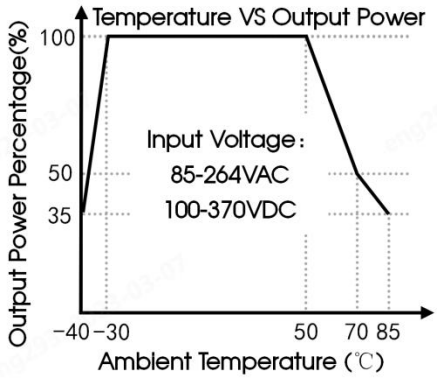
Specifications	Operating Humidity			--	--	90	
	Altitude**			--	--	4000	m
	Output Power Derating	Operating temperature derating	-40℃ to -30℃	6.5	--	--	%/℃
			+50℃ to +70℃	2.5	--	--	
			+70℃ to +85℃	1	--	--	
		Input voltage derating	85VAC - 100VAC	0.67	--	--	
	Leakage Current	240VAC		<0.5mA RMS			
	Safety Class			CLASS I			
	MTBF	MIL-HDBK-217F@25℃		≥300,000 h			
Mechanical Specifications	Dimension	63.50 x 45.70 x 22.00mm					
	Weight	40g (Typ.)					
	Cooling Method	Air cooling					

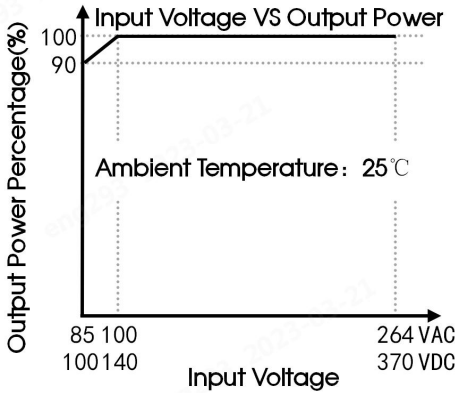
Note:1. *The "Tip and barrel method" is used for ripple and noise test: by using a 12 twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor;
2.**For operation of altitude between 2000-4000m.

Electromagnetic Compatibility (EMC)

Electromagnetic Compatibility (EMC)	Emissions	CE	CISPR32/EN55032 CLASS B	
		RE	CISPR32/EN55032 CLASS B	
		Harmonic current	IEC/EN61000-3-2 CLASS A	
	Immunity	ESD	IEC/EN61000-4-2 Contact ±4KV/Air ±8KV	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/line to PE ±4KV	Perf. Criteria A
		CS	IEC/EN61000-4-6 10Vr.m.s	Perf. Criteria A
		PFMF	IEC/EN61000-4-8 30A/m	Perf. Criteria A
		Voltage dips, short interruption and voltage variations	IEC/EN61000-4-11 100% dip 1 periods, 30% dip 25 periods (50Hz), 30 periods (60Hz)	Perf. Criteria B

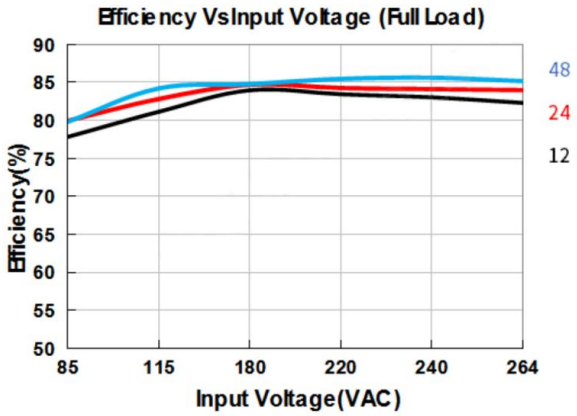
Characteristic Curve

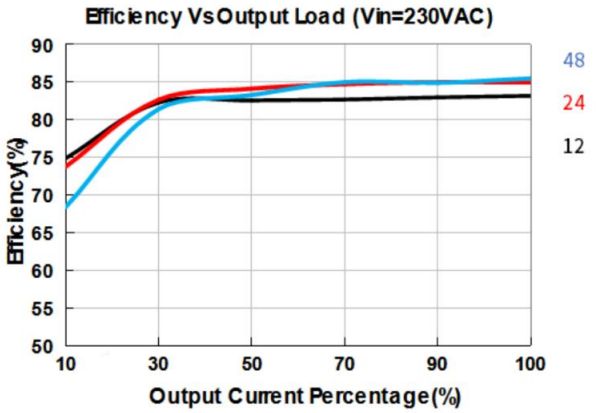




Note: 1.With an AC input voltage between 85-100VAC and a DC input between 100-140VDC the output power must be derated as per the temperature derating curves;

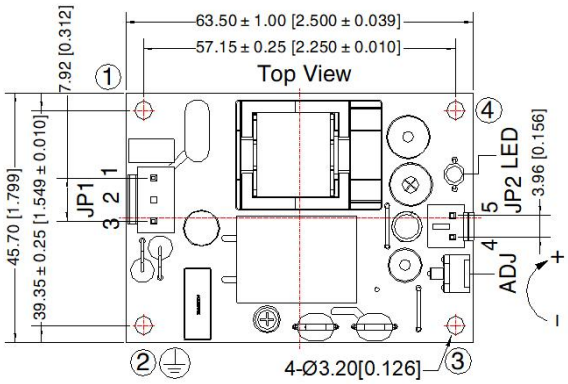
2.This product is suitable for applications using natural air cooling;





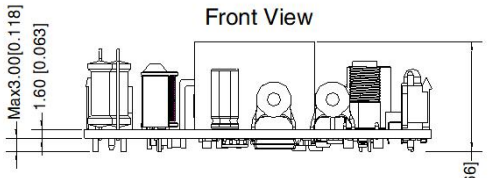
Dimensions and Recommended Layout

THIRD ANGLE PROJECTION



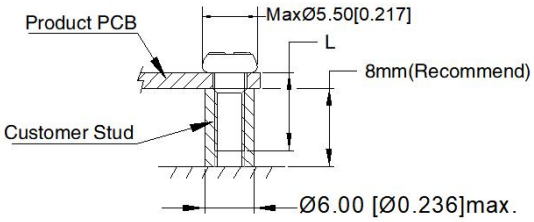
Pin–Out			
Connectors	Pin	Mark	Client Connectors
JP1	1	AC(L)	Housing：JST VHR–3N Contact：JST SVH–21T–P1.1 or equivalent
	2	No Pin	
	3	AC(N)	
JP2	4	–Vo	Housing：JST VHR–2N Contact：JST SVH–21T–P1.1 or equivalent
	5	+Vo	

②must be connected to the earth(⏚)



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

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% RH with nominal input voltage and rated output load;
2. The room temperature derating of 3.5℃/1000m is needed for operating altitude greater than 2000m;
3. All index testing methods in this datasheet are based on our company corporate standards;
4. In order to improve the efficiency at high input voltage, there will be audible noise generated, but it does not affect product performance and reliability;
5. We can provide product customization service, please contact our technicians directly for specific information;
6. Products are related to laws and regulations: see "Features" and "EMC";
7. The output voltage can be adjusted by the ADJ, clockwise to increase;
8. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units;
9. The power supply is considered a component which will be installed into a terminal equipment. All EMC tests should be confirmed with the final equipment. Please consult our FAE for EMC test operation instructions.
10. The image certification marks are for reference only; please refer to the selection table for actual specifications. Certification is based on the physical mark or packaging label.