DESCRIPTIONS

75W, AC-DC Open Frame Power Supply



RoHS

CE Report EN62368-1

UKCA Report BS EN62368-1

FEATURES

- Universal 85-264VAC input voltage
- Operating ambient temperature range: -40 ℃ to +70 ℃ (-30℃ full load)
- High I/O isolation voltage up to 4000VAC
- Operating altitude up to 5000m
- Very low leakage current < 100uA
- 135% peak load for 500ms (5V output)
- 145% peak load for 500ms (other output)
- Load up to 100W with external fan
- Output short circuit, over-current, over-voltage protection
- Efficiency up to 90%
- Meets 2 x MOPP safety class
- Suitable for BF application
- Installing in system of Safety Class I/II is available
- Design refer to IEC/EN/ES60601, UL/EN/IEC62368

APPLICATIONS

- LED
- Industrial control
- Street light control
- Electricity
- Security
- Telecomnications
- Smart Home
- Medical

Selection Guide

Certification	Part No.	Output Power (W)	Nominal Output Voltage and Current (Vo/Io)	23.5CFM（MIN）Output Current（A）	Output Voltage Adjustable Range ADJ (V)	Efficiency at 230VAC (%) Typ.	Capacitive Load (μF) Max.
EN/BS EN	AOMU75-2B-05	50.0/60.0	5V/10.0A	12.0	4.5-5.5	84	10000
	AOMU75-2B-12	75.6/99.6	12V/6.3A	8.3	11.4-12.6	88	6000
	AOMU75-2B-15	75.0/100.5	15V/5.0A	6.7	14.3-15.8	88	5000
	AOMU75-2B-19	76.0/100.7	19V/4.0A	5.3	18.0-20.0	88	3000
	AOMU75-2B-24	76.8/100.8	24V/3.2A	4.2	22.8-25.2	89	1500
	AOMU75-2B-36	75.6/100.8	36V/2.1A	2.8	34.2-37.8	89	1000
	AOMU75-2B-48	76.8/100.8	48V/1.6A	2.1	45.6-50.4	90	470
	AOMU75-2B-55	75.9/100.1	55V/1.38A	1.82	52.0-56.5	90	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 maxim values.

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

Specifications

Product Specifications	Item	Operating Conditions		Min.	Typ.	Max.	Unit
Input Specifications	Input Voltage Range	AC input		85	--	264	VAC
	Input Frequency			47	--	63	Hz
	Input Current	115VAC		--	--	2.0	A
		230VAC		--	--	1.5	
	Inrush Current	115VAC		--	--	40	
		230VAC		--	--	70	
	Leakage Current	264VAC		100uA Max.			
	Hot Plug			Unavailable			
Output Specifications	Output Voltage Accuracy	0% - 100% load	5V output	--	--	±2.0	%
			Other output	--	--	±1.0	
	Line Regulation	Rated load		--	--	±0.5	
	Load Regulation	230VAC	5V output	--	--	±1.5	
			Other output	--	--	±1.0	
	Ripple & Noise*	20MHz bandwidth (peak-to-peak value)	5V output	--	--	100	mV
			12V/15V/19V/24V output	--	--	120	
			36V/48V/55V output	--	--	150	
	Stand-by Power Consumption (no fan)	5V/12V/15V/19V/24V output		--	0.15	0.3	W
		36V/48V/55V output		--	0.2	0.5	

	Short Circuit Protection			Hiccup, continuous, self-recover			
Output Specifications	Over-current Protection		5V output	≥130%Io, self-recover			
			Other output	≥140%Io, self-recover			
	Over-voltage Protection		5VDC output	≤8.5V	Output voltage hiccup or clamp		
			12VDC output	≤16.2V			
			15VDC output	≤20.3V			
			19VDC output	≤30.0V			
			24VDC output	≤32.4V			
			36VDC output	≤50.0V			
			48VDC output	≤60.0V			
			55VDC output	≤60.0V			
	Minim Load			0	--	--	%
	Hold-up Time		230VAC input	45	60	--	ms
General Specifications	Isolation	Input - output	Electric Strength Test for 1min., leakage current <5mA	4000	--	--	VAC
		Input - ⏚		2000	--	--	
		Output - ⏚		1500	--	--	
	Insulation Resistance	Input - output	500VDC	100	--	--	MΩ
	Operating Temperature			-40	--	+70	℃
	Storage Temperature			-40	--	+70	
	Altitude*			--	--	5000	m
	Power Derating	Natural air cooling 100% load	-40℃ to -30℃	7.0	--	--	%/℃
			+40℃ to +70℃ 5V output	1.67	--	--	
			+50℃ to +70℃ Other output	2.5	--	--	
		Forced cooling 120% load air flow 23.5CFM	-40℃ to -30℃ 5V output	7.0	--	--	
			-30℃ to -20℃	2.0	--	--	
			+60℃ to +70℃	7.0	--	--	
		Forced cooling 133% load air flow 23.5CFM	-40℃ to -30℃ Other output	7.0	--	--	
			-30℃ to -20℃	3.3	--	--	
			+60℃ to +70℃	8.3	--	--	
			85VAC - 100VAC	1.34	--	--	%/VAC
	Safety Distance		Clearance	7.0	--	--	mm
			Creepage	8.0	--	--	
	Safety Class			CLASS I (connected PE)/ CLASS II (without PE)			
	MTBF		MIL-HDBK-217F@25℃	> 300,000 h			

Mechanical Specifications	Dimension	101.60 x 50.80 x 32.00mm
	Weight	125g (Typ.)
	Cooling Method	Free air convection

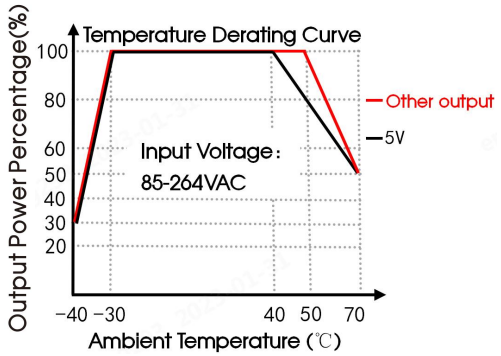
Note: 1.*The "Tip and barrel method" is used for ripple and noise test, with a 0.1uf & 47uf parallel capacitor, please refer to AC-DC Converter Application Notes for specific information.

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

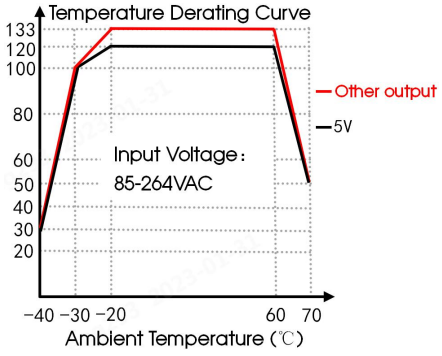
Electromagnetic Compatibility (EMC)

Electromagnetic Compatibility (EMC)	Emissions	CE	CISPR32/EN55032 CLASS B	
		RE	CISPR32/EN55032 CLASS B	
		Harmonic current	IEC/EN61000-3-2 CLASS A	
	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/line to PE ±4KV	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

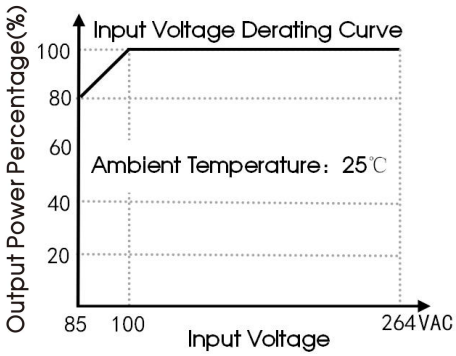
Product Characteristic Curve



Natural air cooling

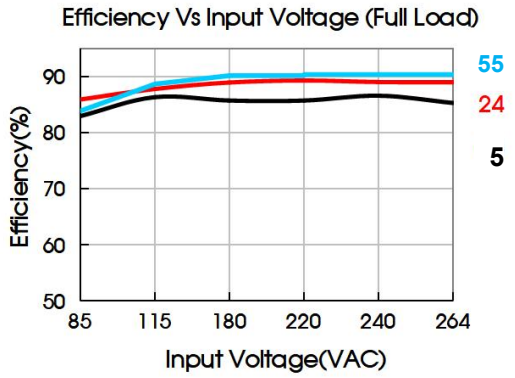


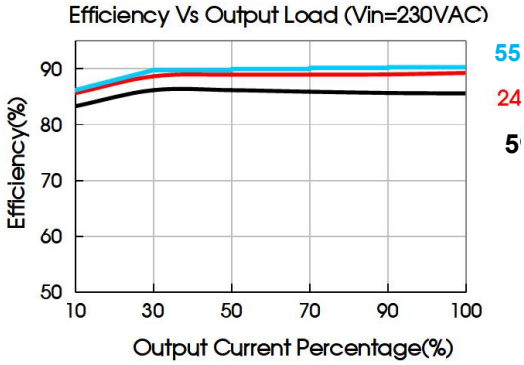
Forced cooling (23.5CFM)



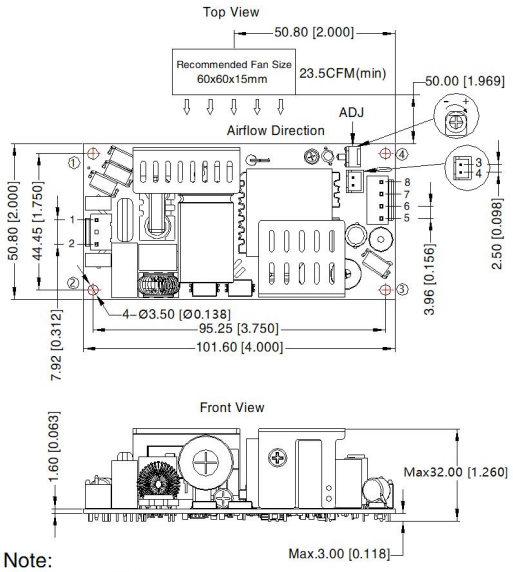
Note: ① With an AC input between 85-100VAC, the output power st be derated as per temperature derating curves;

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





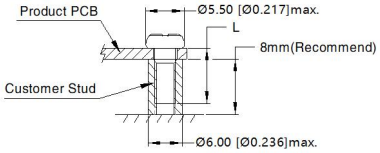
Dimensions and Recommended Layout



THIRD ANGLE PROJECTION

Pin-Out		
Pin	Mark	Customer Connector
1	AC(N)	Housing: JST VHR Terminal: JST SVH-21T-P1.1 or equivalent
2	AC(L)	
3	Fan-	Housing: PJA-006 Terminal: PJA-007 or equivalent
4	Fan+	
5、6	-Vo	Housing: JST VHR Terminal: JST SVH-21T-P1.1 or equivalent
7、8	+Vo	

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



Note:
1. Unit: mm[inch]
2. ADJ: Output adjustable resistor
3. General tolerances: ± 1.00[± 0.039]
4. Do not use fan power to power other devices
5. The layout of the device is for reference only, please refer to the actual product
6. It is recommended 10mm distance between the PCB and other components for safety purpose
7. Class Ⅰ system ①, ③ positions must be connected to the earth(⏚)
8. Class Ⅱ system ①, ③ positions must be connected together

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. The room temperature derating of 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. We can provide product customization service, please contact our technicians directly for specific information;
5. Products are related to laws and regulations: see "Features" and "EMC";
6. The output voltage can be adjusted by the ADJ, clockwise to increase;
7. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units
8. 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.