

DESCRIPTIONS

75W, AC/DC Enclosed Switching Power Supply



UL62368-1



Report

EN62368-1



Report

BS EN62368-1

FEATURES

- Universal 85 - 264VAC or 120 - 370VDC Input voltage
- Accepts AC or DC input (dual-use of same terminal)
- Operating ambient temperature range: -30°C to +70°C
- Low standby power consumption, high efficiency
- High I/O isolation test voltage up to 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- OVC III (designed to meet EN62477)
- Operating altitude up to 5000m

APPLICATIONS

- Industrial
- LED
- Street light control
- Electricity
- Security
- Telecommunications

Selection Guide

Certification	Part No*	Output Power (W)	Nominal Output Voltage and Current (Vo/Io)	Output Voltage Adjustable Range(V)	Efficiency at 230VAC (%) Typ.	Capacitive Load (uF) Max.
UL/EN/BS EN	AE75-2B-05	70	5V/14A	4.5-5.5	86	10000
	AE75-2B-12	72	12V/6A	10.2-13.8	88	6000
	AE75-2B-15	75	15V/5A	13.5-18	88	5000
	AE75-2B-24	76.8	24V/3.2A	21.6-28.8	90	1500
	AE75-2B-36	76.8	36V/2.1A	32.4-39.6	90	1000
	AE75-2B-48	76.8	48V/1.6A	43.2-52.8	91.5	680



Note: 1. *Use suffix "Q" for conformal coating.

2. *If the terminal cover is required, please order "CPJ-032" for self-installation.

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

Specifications

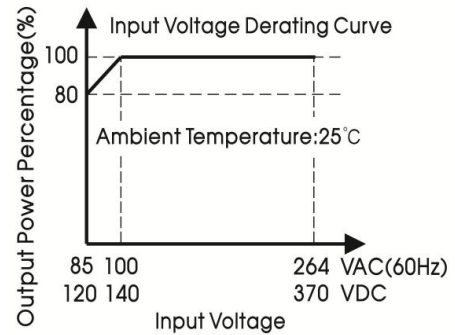
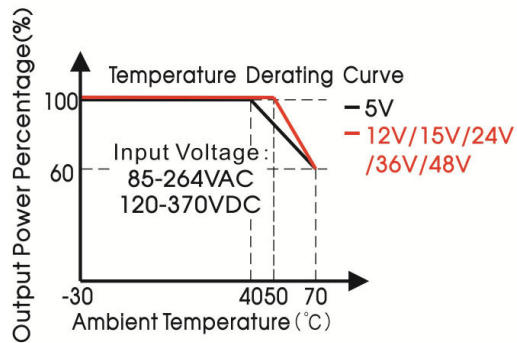
Product Specifications		Item	Operating Conditions		Min.	Typ.	Max.	Unit
Input Specifications	Input Voltage Range		AC input		85	--	264	VAC
			DC input		120	--	370	VDC
	Input Voltage Frequency				47	--	63	Hz
	Input Current		115VAC		--	--	2	A
			230VAC		--	--	1	
	Inrush Current		115VAC	Cold start	--	40	--	
			230VAC		--	65	--	
	Leakage Current		240VAC		< 0.75mA			
Hot Plug				Unavailable				
Output Specifications	Output Voltage Accuracy		Full load range	5V	--	±2	--	%
				12V/15V/24V/36V /48V	--	±1	--	
	Line Regulation		Full load		--	±0.5	--	
	Load Regulation		0% - 100% load	5V	--	±1	--	
				12V/15V/24V/36V /48V	--	±0.5	--	
	Ripple & Noise*		20MHz bandwidth (peak-to-peak value)	5V	--	100	--	mV
				12V/15V	--	120	--	
				24V	--	150	--	
				36V	--	200	--	
				48V	--	200	--	
	Temperature Coefficient		0°C to 50°C, 230VAC		--	±0.03	--	%/°C
	Minimum Load				0	--	--	%
	Stand-by Power Consumption				--	--	0.3	W
	Hold-up Time		115VAC		8	--	--	ms
			230VAC		55	--	--	
	Short Circuit Protection		Recovery time <5s after the short circuit disappear.		Hiccup, continuous, self-recover			
	Over-current Protection				120%-250% Io, self-recover			
Over-voltage Protection		5V		≤6.75VDC (clamp, self-recover)				
		12V		≤16.2VDC (Hiccup, self-recover)				
		15V		≤21.75VDC (Hiccup, self-recover)				
		24V		≤33.6VDC (Hiccup, self-recover)				
		36V		≤50VDC (Hiccup, self-recover)				
		48V		≤60VDC (Hiccup, self-recover)				
General Specifications	Isolation	Input - ⊕	Electric strength test for 1min., leakage current <10mA		2000	--	--	VAC
		Input - output			4000	--	--	
		Output - ⊕			1250	--	--	

General Specifications	Insulation Resistance	Input - 	At 500VDC		100	--	--	MΩ
		Input - output			100	--	--	
		Output - 			100	--	--	
	Operating Temperature				-30	--	+70	°C
	Storage Temperature				-40	--	+85	
	Storage Humidity		Non-condensing		20	--	90	%RH
	Operating Humidity				--	--	95	
	Switching Frequency				--	65	--	KHz
	Power Derating		5V output	+40°C to +70°C	1.3	--	--	% / °C
			Other output	+50°C to +70°C	2	--	--	
			85VAC-100VAC			1.33	--	--
	Safety Class				CLASS I			
	MTBF		MIL-HDBK-217F@25°C		≥300,000 h			
Mechanical Specifications	Case Material		Metal (AL1100, SGCC)					
	Dimension		99.00 x 97.00 x 30.00 mm					
	Weight		220g (Typ.)					
	Cooling Method		Free air convection					
Note: *The “Tip and barrel method” is used for ripple and noise test, output parallel 47uF electrolytic capacitor and 0.1uF ceramic capacitor								

Electromagnetic Compatibility (EMC)

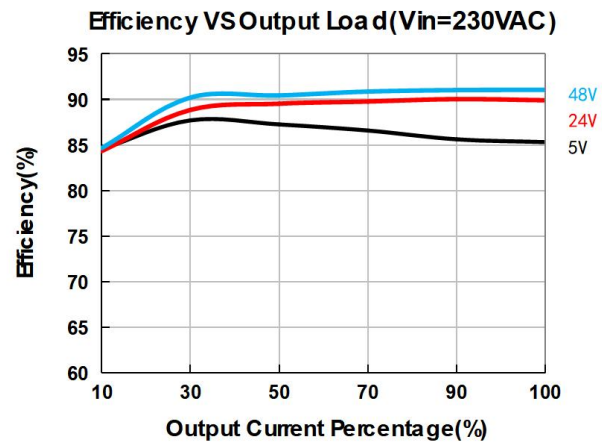
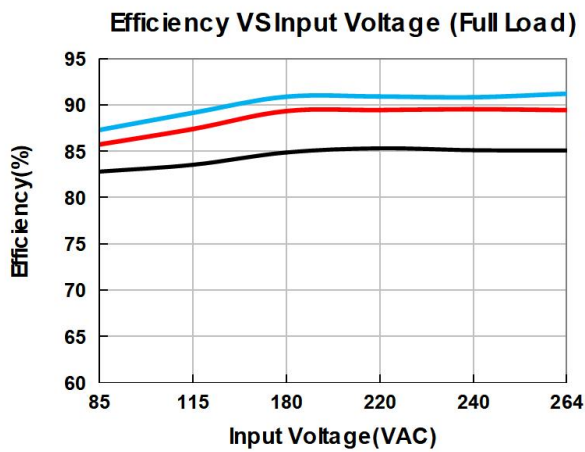
Electromagnetic Compatibility (EMC)	Emissions (EMI)	CE	CISPR32/EN55032 CLASS B				
		RE	CISPR32/EN55032 CLASS B				
		Harmonic current	IEC/EN61000-3-2 CLASS A				
	Immunity (EMS)	ESD	IEC/EN61000-4-2	Contact ±6KV/Air ±8KV		perf. Criteria A	
		RS	IEC/EN61000-4-3	10V/m		perf. Criteria A	
		EFT	IEC/EN61000-4-4	±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	10 Vr.m.s		perf. Criteria A	
		MS	IEC/EN61000-4-8	30A/m		perf. Criteria A	
		Voltage dip, short interruption and voltage variation	IEC/EN61000-4-11	0%, 70%		perf. Criteria B	

Characteristic Curve

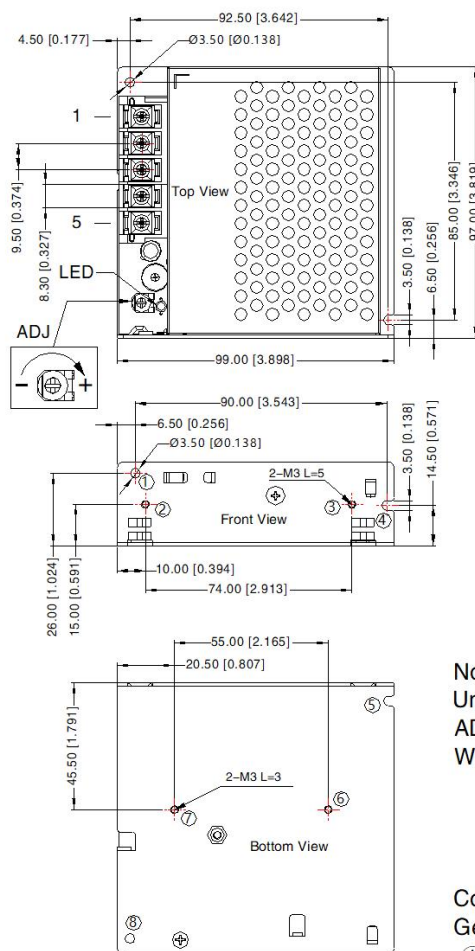


Note: 1. With an AC input voltage between 85 -100VAC and a DC input between 120-140VDC the output power must be derated as per the temperature derating curves;

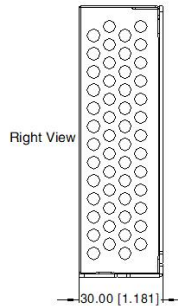
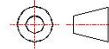
2. This product is suitable for applications using natural air cooling.



Dimensions and Recommended

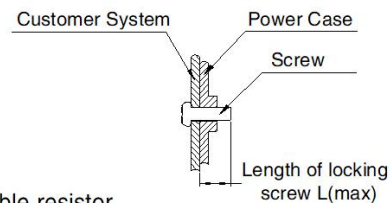


THIRD ANGLE PROJECTION



Pin-Out	
Pin	Function
1	AC(L)
2	AC(N)
3	
4	-Vo
5	+Vo

Position	Screw Spec.	Length of locking screw L(max)	Torque(max)
② - ④	M3	5mm	0.4N · m
⑦ - ⑧	M3	3mm	0.4N · m



Note:

Unit: mm[inch]

ADJ: Output adjustable resistor

Wire range: Input: 22-10AWG(16-10AWG for pin3)

Output: 5V: 16-10AWG

12V: 18-10AWG

15V, 24V: 20-10AWG

36V, 48V: 22-10AWG

Connector tightening torque: M3.5, 0.8N · m Max

General tolerances: $\pm 1.00 [\pm 0.039]$

① - ⑧ any position must be connected to PE

Note:

- Unless otherwise specified, parameters in this datasheet were measured under the conditions of $T_a=25^\circ\text{C}$, humidity<75%RH with nominal input voltage and rated output load;
- The room temperature derating of $5^\circ\text{C}/1000\text{m}$ is needed for operating altitude greater than 2000m;
- All index testing methods in this datasheet are based on our company corporate standards;
- 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;
- We can provide product customization service, please contact our technicians directly for specific information;
- Products are related to laws and regulations: see "Features" and "EMC";
- The out case needs to be connected to PE () of system when the terminal equipment in operating;
- The output voltage can be adjusted by the ADJ, clockwise to increase;
- .Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units;
- The power supply is considered a component which will be installed into a final equipment. All EMC tests should be confirmed with the final equipment. Please consult our FAE for EMC test operation instructions.