DESCRIPTIONS

75W, AC-DC Converter



RoHS

c UL us CE Report UKCA Report CB

UL62368-1 EN62368-1 BS EN62368-1 IEC 60335-1
EN 60335-1 IEC 61558-1
EN 61558-1

FEATURES

- Universal 85 - 264VAC or 120 - 370VDC Input voltage
- Accepts AC or DC input (dual-use of same terminal)
- Operating ambient temperature range: -30℃ to +70℃
- 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/IEC	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 and suffix "QQ" for double side 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℃ to 50℃, 230VAC		--	±0.03	--	%/℃
	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	--	--	

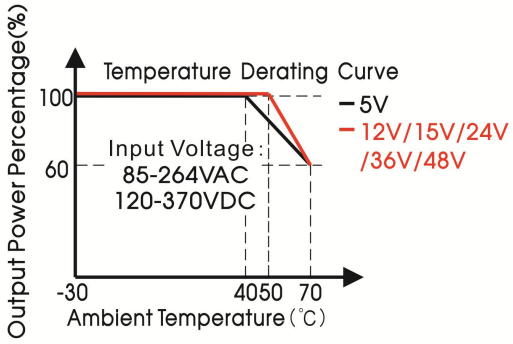
		Output - ⏚		1250	--	--	
	Insulation Resistance	Input - ⏚	At 500VDC	100	--	--	MΩ
		Input - output		100	--	--	
		Output - ⏚		100	--	--	
	Operating Temperature			-30	--	+70	℃
	Storage Temperature			-40	--	+85	
	Storage Humidity	Non-condensing		20	--	90	%RH
	Operating Humidity			--	--	95	
	Switching Frequency			--	65	--	KHz
	Power Derating	Operating temperature derating	5V output +40℃ to +70℃	1.3	--	--	%/℃
			Other output +50℃ to +70℃	2	--	--	
		Input voltage derating	85VAC-100VAC	1.33	--	--	%/VAC
	Safety Class			CLASS I			
	MTBF	MIL-HDBK-217F@25℃		≥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					

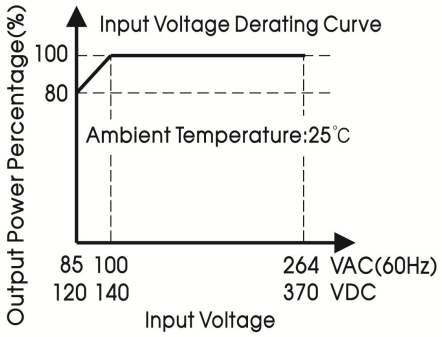
Note: *The “Tip and barrel method” is used for ripple and noise test, output parallel 47uF electrolytic capacitor and 0.1uF ceramic capacitor

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

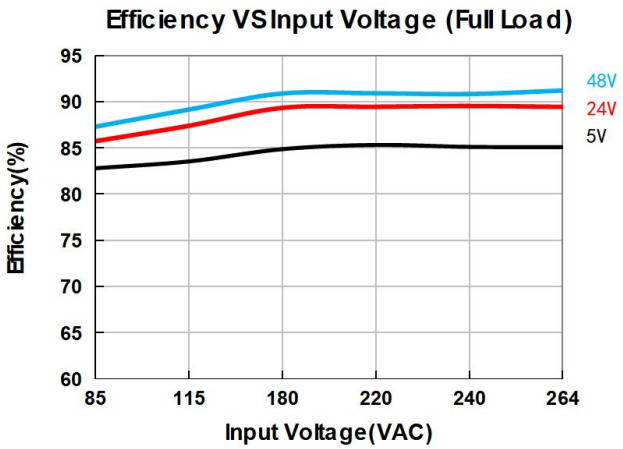
Characteristic Curve

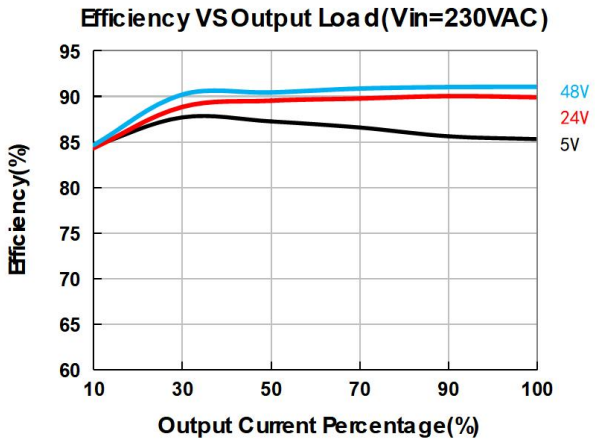




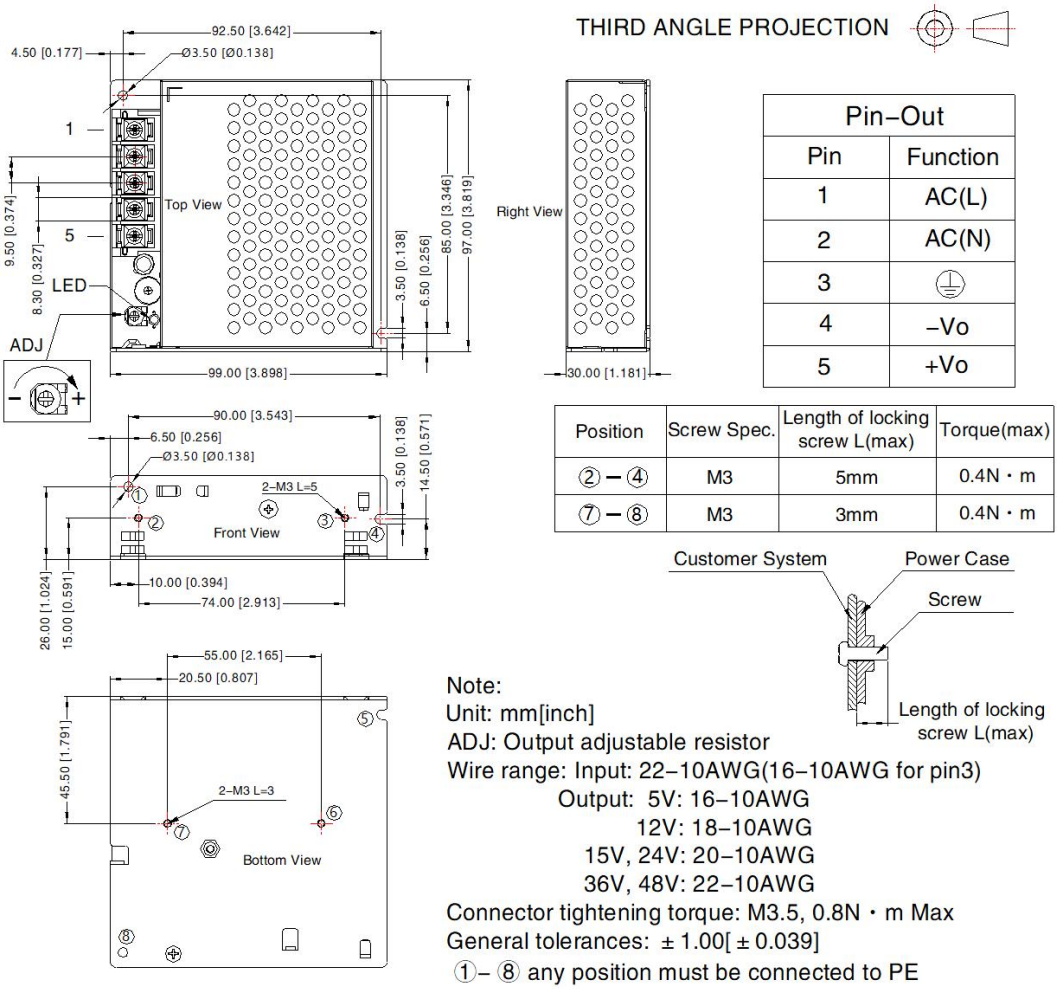
Note: 1. With an AC input voltage between 85 -100VAC and a DC input between 120-140VDC the output power must be derated as per the temperature derating curves;

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





Dimensions and Recommended



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: ± 1.00[± 0.039]
①– ⑧ any position must be connected to PE

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 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 out case needs to be connected to PE (⏚) of system when the terminal equipment in operating;
8. The output voltage can be adjusted by the ADJ, clockwise to increase;
9. .Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units;
10. 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.
11. 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.