DESCRIPTIONS

150W, AC-DC Converter



RoHS

3 Years Warranty

c UL us Report CE Report UKCA Report

UL62368-1 EN62368-1 BS EN62368-1

FEATURES

- Universal 80 - 305VAC or 100 - 430VDC Input voltage
- Accepts AC or DC input (dual-use of same terminal)
- Operating ambient temperature range: -40℃ to +85℃
- Low standby power consumption, high efficiency, small size
- High I/O isolation voltage up to 4000VAC
- Output short circuit, over-current, over-voltage, over-temperature protection
- Operating altitude up to 5000m
- OVC III (designed to meet EN62477)
- Designed to meet UL/EN/IEC/BS EN62368, EN/IEC60335

APPLICATIONS

- Industrial
- LED
- street light control
- electricity
- security
- Telecommunications
- smart home

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.
UL/EN/BS EN	AE150-12V2	150.0	12V/12.5A	11.4 -13.8	91.5	10000
EN/BS EN	AE150-15V2	150.0	15V/10.0A	14.2 -17.3	91.5	6000
UL/EN/BS EN	AE150-24V2	156.0	24V/6.5A	22.8 - 27.6	91.5	2400
EN/BS EN	AE150-36V2	154.8	36V/4.3A	34.2 - 41.4	91.5	1200
EN/BS EN	AE150-48V2	158.4	48V/3.3A	43.2 - 52.8	92.0	600
EN/BS EN	AE150-54V2	151.2	54V/2.8A	51.3 - 56.7	92.0	600

Note: 1.*Suffix "Q" for bottom conformal coating and "QQ" for both sides conformal coating;
2.If the terminal cover is required, please order "CPJ-033" 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		80	--	305	VAC
		DC input		100	--	430	VDC
	Input Voltage Frequency			47	--	63	Hz
	Input Current	115VAC		--	--	4	A
		230VAC		--	--	2	
	Inrush Current	115VAC	Cold start	--	30	--	
		230VAC		--	60	--	
	Contact Leakage Current	277VAC		< 0.5mA RMS			
	Hot Plug			Unavailable			
Output Specifications	Output Voltage Accuracy	Full load range		--	--	±1.0	%
	Line Regulation	Rated load		--	--	±0.5	
	Load Regulation	230VAC		--	--	±0.5	
	Ripple & Noise*	20MHz bandwidth (peak-to-peak value)	12V/15V	--	--	150	mV
			24V/36V/48V/54V	--	--	200	
	Temperature Coefficient			--	±0.03	--	%/℃
	Minimum Load			0	--	--	%
	Stand-by Power Consumption	Room temperature, 230VAC		--	0.3	0.5	W
	Hold-up Time	115VAC		--	8	--	ms
		230VAC		--	40	--	
	Short Circuit Protection			Hiccup, continuous, self-recovery			
	Over-current Protection			≥120% Io, hiccup, self-recover			
	Over-voltage Protection	12V		≤16.00V （Output voltage clamp, self-recover）			
		15V		≤21.75V （Output voltage clamp, self-recover）			
		24V		≤33.60V （Output voltage clamp or hiccup, self-recover）			
		36V		≤48.60V （Output voltage clamp, self-recover）			
		48V		≤60.00V （Output voltage clamp, self-recover）			
		54V		≤63.00V （Output voltage clamp, self-recover）			
	Over-temperature Protection			Output voltage turn off, self-recovery			
General Specifications	Isolation	Input - output	Electric strength test for 1min., leakage current <5mA	4000	--	--	VAC
		Input - ⏚		2000	--	--	
		Output - ⏚		1250	--	--	
	Insulation Resistance	Input - output	Testing voltage: 500VDC	100	--	--	MΩ
		Input - ⏚					
		Output - ⏚					
	Operating Temperature			-40	--	+85	℃

	Storage Temperature			-40	--	+85	
	Storage Humidity	Non-condensing		--	--	95	%RH
	Operating Humidity			--	--	95	%RH
	Power Derating	Operating temperature derating	-40℃ to -25℃	3.33	--	--	%/℃
			+50℃ to +70℃	2.50	--	--	
			+70℃ to +85℃	1.33	--	--	
	Power Derating	Input voltage derating	85VAC - 120VAC	0.57	--	--	%/VAC
			80VAC - 85VAC	2.00	--	--	
	Switching Frequency			--	90	--	kHz
	Safety Class			CLASS I			
	MTBF	MIL-HDBK-217F@25℃		> 300,000 h			
Mechanical Specifications	Case Material	Metal (AL5052, SGCC)					
	Dimensions	99.00 x 97.00 x 30.00 mm					
	Weight	270g (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	CE	CISPR32/EN55032	CLASS B	
		RE	CISPR32/EN55032	CLASS B	
	Immunity	ESD	IEC/EN 61000-4-2	Contact ±6KV/Air ±8KV	Perf. Criteria A
		RS	IEC/EN 61000-4-3	10V/m	Perf. Criteria A
		EFT	IEC/EN 61000-4-4	±4KV	Perf. Criteria A
		Surge	IEC/EN 61000-4-5	Line to line ±2KV/line to ground ±4KV	Perf. Criteria A
		CS	IEC/EN 61000-4-6	10Vr.m.s	Perf. Criteria A
		PFMF	IEC/EN 61000-4-8	30A/m	Perf. Criteria A
		Voltage Variations*	IEC/EN 61000-4-11	0% U_n, 0.5 cycle; 0°/45°/90°/135°/180°/225°/270°/315°	Perf. Criteria B
				0% U_n, 1 cycle; 70% U_n, 25/30 cycle (50/60Hz); Monophase: 0	
		Short interruptions*	IEC61000-4-11	0% U_n, 250/300 cycle (50/60Hz)	Perf. Criteria C

Note: * U_n Maximum input nominal voltage.

1. This power supply does not meet the harmonic current requirements specified in EN61000-3-2.

Please do not use this power supply under the following conditions:

1) The terminal equipment is used in the European Union.

2) Supporting terminals are connected to a public power grid with 220VAC or a higher voltage that comply with the requirements of EN61000-3-2.

3) The power supply is installed in terminal equipment with average or continuous input power greater than 75W.

4) The power supply belong to a part of lighting system.

Exception: The power supply used in the following terminal equipment does not need to meet EN61000-3-2.

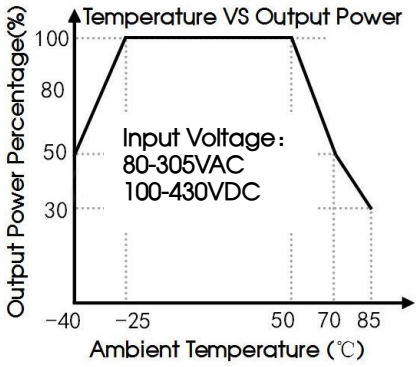
1) Professional equipment with a total rated input power greater than 1000W.

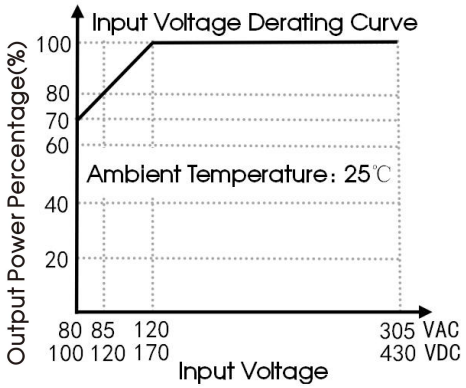
2) Symmetrically controlled heating element with a rated power less than or equal to 200W.

2. If no harmonic current is required or customers can solve harmonic current problems by themselves, this product can be used.

3.Unless otherwise specified, all specifIcations are tested under the input of 230VAC, rated load, and 25℃ ambient temperature.

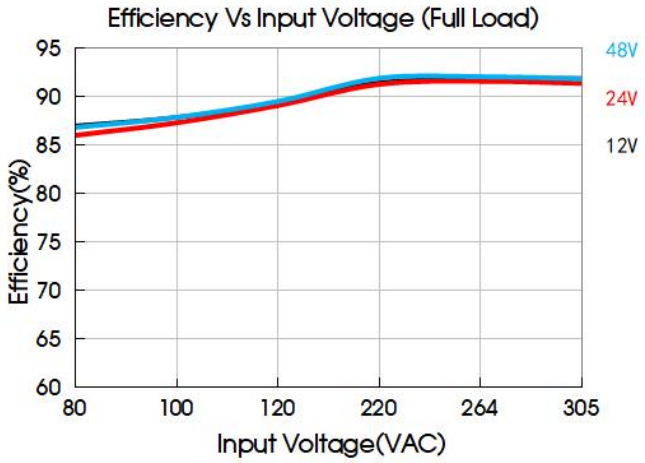
Product Characteristic Curve

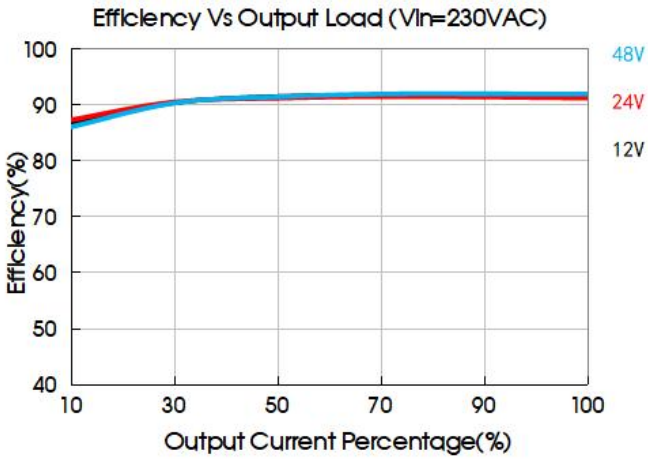




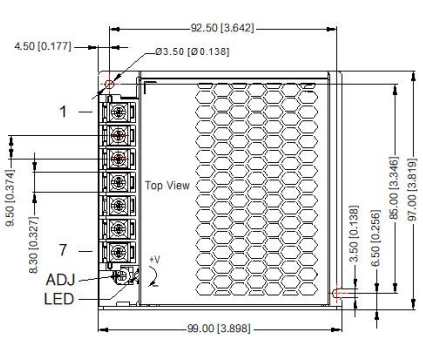
Note: ①With an AC input between 80-120VAC and a DC input between 100-170VDC, in addition to the voltage drop, temperature derating is also required;

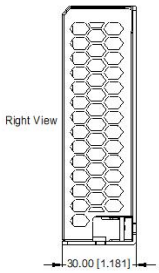
②This product is suitable for applications using natural air cooling.





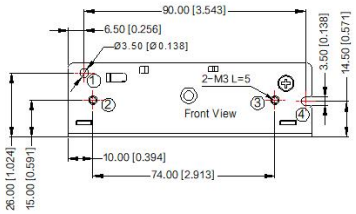
Dimensions and Recommended Layout

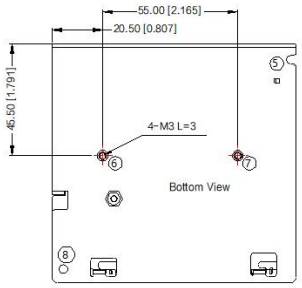




THIRD ANGLE PROJECTION

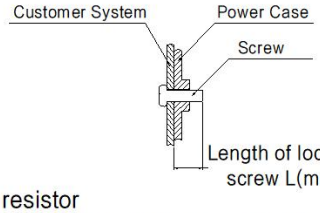
Pin-Out	
Pin	Mark
1	AC(L)
2	AC(N)
3	⏚
4	-Vo
5	-Vo
6	+Vo
7	+Vo





At least one of positions ① to ⑧must be connected to the earth(⏚)

Position	Screw Spec.	Length of locking screw L(max)	Recommended Torque
②－③	M3	5mm	0.4 ± 0.04N・m
⑥－⑦	M3	3mm	0.4 ± 0.04N・m



Note:
Unit: mm[inch]
ADJ: Output adjustable resistor
Wire range: Input：20-10AWG(16-10AWG for pin3)
Output：12V, 15V：14-10AWG
24V, 36V：18-10AWG
48V, 54V：20-10AWG
Connector tightening torque: M3.5, 0.8 ± 0.08N・m .
General tolerances: ± 1.00[± 0.039]

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 the earth (⏚) of system when the terminal equipment in operating;
8. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.
9. 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.