

50W AC/DC converter

Typical Performance

- ⊙ Wide Input voltage range
- ⊙ Typical efficiency: 82%
- ⊙ Switching frequency: 100 KHz
- ⊙ Overcurrent/Short circuit protection, Self-furbish
- ⊙ Input-output isolate
- ⊙ PCB board in-line type installs
- ⊙ Metal case



Technology parameter

Test condition: General Nominal Line, $T_c=25^{\circ}\text{C}$, Rated resistant load unless other wispecified

Input Feature	Min	Nom	Max	Notes
Input voltage (Vac)	165(200Vdc)	220	265(380Vdc)	N
	85(120Vdc)	220	265(380Vdc)	W
Input voltage (Hz)	47		440	
Remote ON/OFF				NONE

Output Feature

Voltage accuracy		Vo1; Vo2	$\pm 1.0\%$, $\pm 3.0\%$
Line regulation	Nominal load, full voltage input range	Vo1; Vo2	$\pm 0.1\%$; $\pm 1.5\%$
Load regulation	Nominal input voltage, 20% ~ 100% Nominal load	Vo1; Vo2	$\pm 0.5\%$; $\pm 3.0\%$
Ripple and noise	20MHz BM, test by 20M oscillograph		$\leq 1\%V_o$
Peak deviation	25% Rated load vary	$\Delta V_{o1}/V_{o1}$	$\leq \pm 5.0\%$
Dynamic response setting time			$\leq 200\mu\text{s}$

General Feature

Efficiency			82% Typical
Switching frequency			100KHz
Operating temperature			$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$
Storage temperature			$-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
Max case temperature			$+90^{\circ}\text{C}$

Relative humidity			10%~90%
case material			Metal case
Isolation voltage		Input-Output	2500Vac/1min
		Input-Case	2500Vac/1min
		Output-Case	500Vac/1min
Temperature coefficient			$\leq \pm 0.03\%/^{\circ}\text{C}$
Cooling			Natural convection
MTBF	BELLCORE TR332, (25℃)		2X10 ⁵ Hrs

NOTE:

(1)The 50-75W module working environment temperature more than 55℃ need derating use (- 0.86W/℃ for 50W, - 2.2W/℃ for 75W), but the max shell temperature shall not be more than 90℃.

(2)Capacitive load:

The output of the module can be applied electrolytic capacitor, but too much capacity and low ESR may cause the module instability, or cause current limiting point become low, we recommend 100 uF/A of the output capacitance, the current is rated output current.

Product Nomination Method

exam ple	L A 25 – 220 S 05 J ① ② ③ ④ ⑤ ⑥ ⑦						
①	Wide input voltage range: AC85-265V Narrow input voltage range: AC165-265V				⑤	S=Single route output, D=Dual route output, T=Triple route output, Q=Quadruple output	
②	Power adaptation mode: A（AC-DC）				⑥	output voltage	
③	Output power(W)				⑦	I: Dual output isolated	
④	Normal input voltage					J:Military level	

Product Program

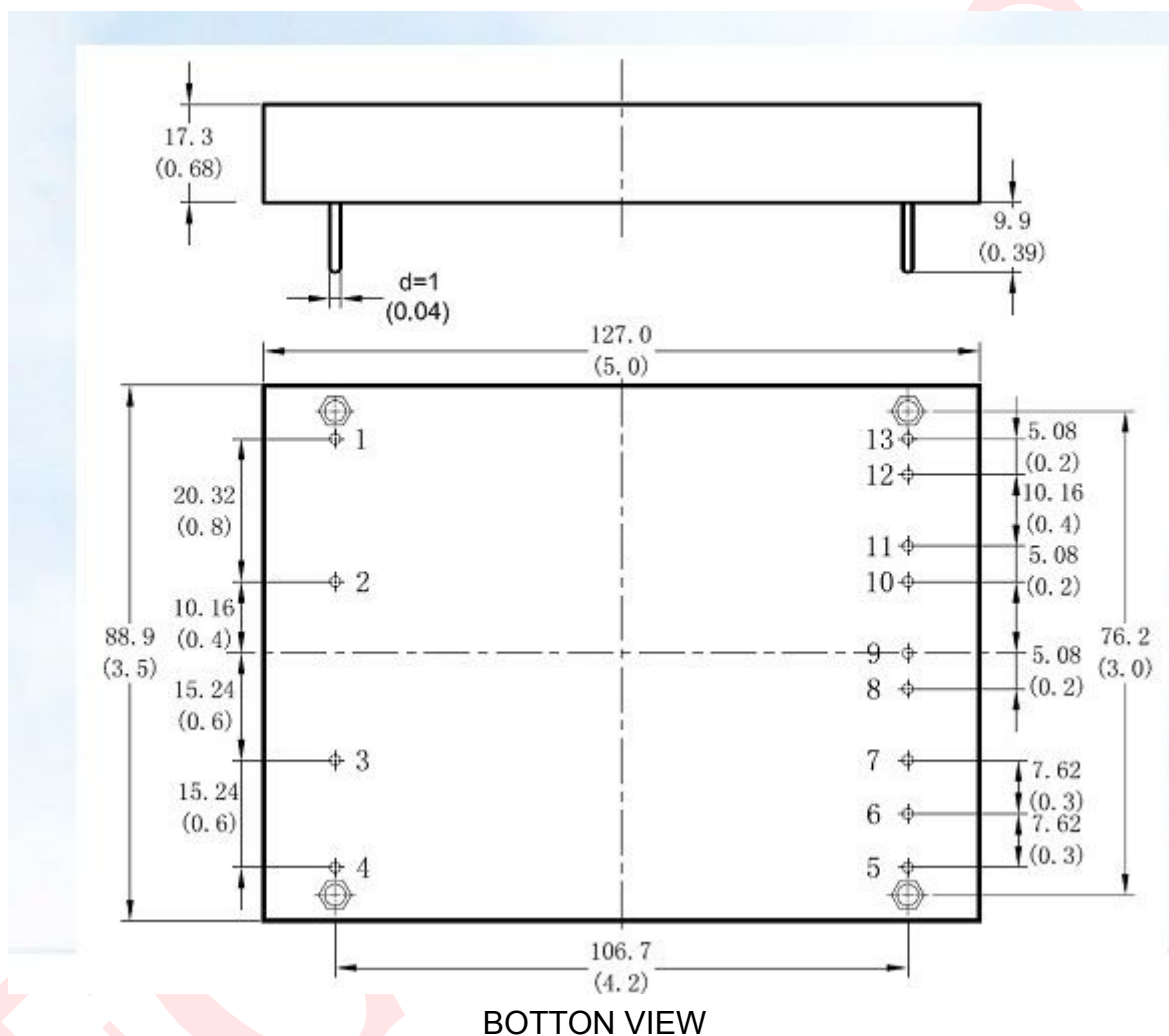
PART #	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	mA	V	mA	V	mA
LA50-220S05A	220V(85~265VAC) 120~380VDC	5V	10000mA				
LA50-220S09A		9V	5600mA				
LA50-220S12A		12V	4200mA				
LA50-220S15A		15V	3300mA				
LA50-220S24A		24V	2100mA				
LA50-220S48A		48V	1040mA				
LA50-220D05A		+5V	5000mA	-5V	5000mA		
LA50-220D09A		+9V	2800mA	-9V	2800mA		

LA50-220D12A		+12V	2100mA	-12V	2100mA		
LA50-220D15A		+15V	1650mA	-15V	1650mA		
LA50-220D24A		+24V	1050mA	-24V	1050mA		
LA50-220D48A		+48V	520mA	-48V	520mA		

*NOTE:

The output ripple noise (peak value) measurement, please reference module test instructions.

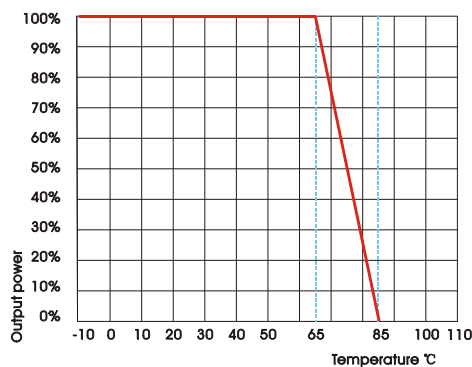
Mechanical Dimension



BOTTOM VIEW

UNIT:mm(inch)

Temperature Curve



Mechanical Data

WATT	L x W x H	Packing No.
50W	127.0 x 88.9 x 17.2mm(5*3.5*0.68inch)	A

Pin Assignment

PIN	1	2	3	4	5:6	7:8	9:10	11	12	13
Single O/P	NC	FG	AC(N)	AC(L)	+Vo	GND	NC	+S	TRIM	-S
Dual O/P	NC	FG	AC(N)	AC(L)	+Vo1	COM	-Vo2	+S	TRIM	-S

Note: The power modules such as the definition of the pin does not match with the hand book, please refer to the actual item.