

## DC-DC Converter Bricks, Open/Enclosed

## BAH SERIES, 1/2 BRICK, UP TO 300W

#### FEATURES:

- ✓ 5 years warranty
- ✓ 1500Vdc isolation voltage
- ✓ Output current up to 60A
- ✓ Efficiency up to 93%
- ✓ Operating temperature range -40°C to +85°C
- ✓ Under voltage, over current, short circuit, over voltage protection
- ✓ Remote on/off
- ✓ Adjustable output voltage



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (A)	Efficiency Typ.
BAH48-25V30		2.5	30.0	88%
BAH48-25V40		2.5	40.0	90%
BAH48-25V50		2.5	50.0	89%
BAH48-25V60		2.5	60.0	87%
BAH48-33V15		3.3	15.0	91%
BAH48-33V25		3.3	25.0	92%
BAH48-33V30		3.3	30.0	93%
BAH48-33V40	48(36~72)	3.3	40.0	89%
BAH48-33V50		3.3	50.0	89%
BAH48-33V60		3.3	60.0	89%
BAH48-50V15		5.0	15.0	94%
BAH48-50V2 <mark>0</mark>		5.0	20.0	92%
BAH48-50V <mark>30</mark>		5.0	30.0	93%
BAH48-50V <mark>40</mark>		5.0	40.0	92%
BAH48-120 <mark>V25</mark>		12.0	25.0	93%

Notes:

1. Other input and output models may available on request;

2. You may request for the models with heatsink, plus "R" in the suffix, e.g. BAH48-25V30R.

ELECTRICAL		
Input voltage range	48Vdc	36-72Vdc
	Negative logic	OFF: High level or left close
Demote control	Negative logic	ON: Low level or grounded
Remote control	Desitive lesie	ON: High level or left open
	Positive logic	OFF: Low level or grounded
Output power Input voltage range		50-300W



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ELECTRICAL			
Output voltage	Single output	2.5/3.3/5/12Vdc	
Output voltage accuracy	Input voltage range	±1%	
Output voltage adjustable	Positive	-20% - +10%	
Line regulation	Full load	±0.2%	
Load regulation	10%-100% full load	±0.5%	
Dynamic response (transient/recovery time)	25%-50%-75% load capability	ΔVo/Δt: ±4.0%/500μs	
Ripple and noise	Parallel test, 20MHz wide range	180mVp-p max.	
Operating frequency	Typical value	250KHz typ.	
	Input to output	1500Vdc	
Isolation voltage	Input to case	1050Vdc	
	Output to case	500Vdc	
Isolation resistance		10ΜΩ	
Safety		IEC-60950-1, UL-60950-1	
Salety		EN-60950-1, GB4943	
Temperature coefficient	-	300ppm	
Operating temperature range	Auxiliary heat sink	-40°C to +85°C	
Storage temperature range		-40°C to +125°C	
Over temperature protection	ТурісаІ	110°C typ.	
Under voltage protection		Yes	
Over current protection		Yes	
Short circuit protection		Yes	
Over voltage protection		Yes	
Relative humidity		95% max.	
Packing		Hole package	
MTBF	Bellcore TR-332, 25°C	2x10 <sup>6</sup> Hrs	

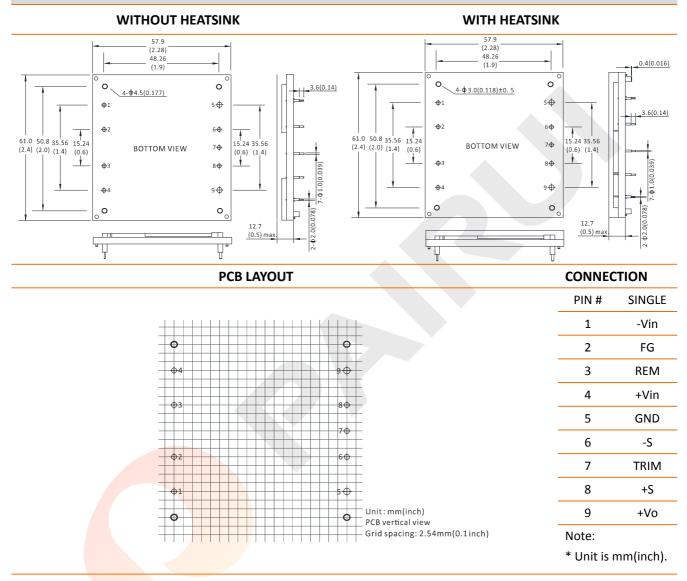
Notes: Unless otherwise specified, all the parameters of the test conditions are as follows: ambient temperature 25℃, the nominal input voltage, pure resistive nominal load.

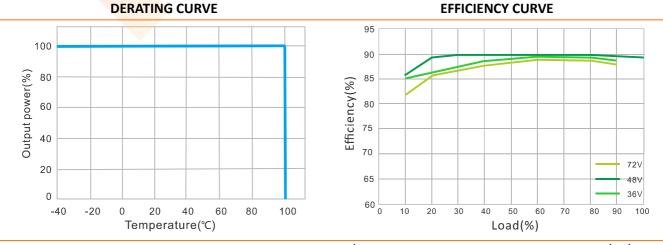


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### MECHANICAL



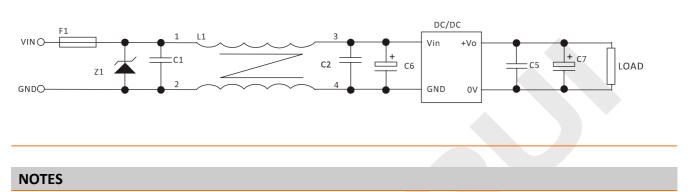




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### NOTES

#### **RECOMMENDED TEST AND APPLICATION CIRCUIT**



1. TVS&FUSE be helpful with over voltage protection and inrush limiting. Recommended FUSE better be 1.5~2times of the rated current .

2. The input filter capacitor C6 could select the aluminum electrolytic capacitors or tantalum capacitors, and the withstand voltage should be greater than the highest input voltage. Recommended capacitor should be between  $22\mu$ F $^{-}100\mu$ F.

3. C1,C2 for the input filter capacitor,0.1~1µF high-frequency ceramics capacitor or chip capacitor are recommended. The withstand voltage of output filter C5, C7 should be greater than the highest output voltage. Recommended capacitor of C7 better within 100µF and C5 connected with the chip to reduce the input voltage peak, recommended 0.1~1µF high-frequency ceramics capacitor or chip capacitor.