

BCH SERIES, 1/2 BRICK, UP TO 350W

FEATURES:

- ✓ 5 years warranty
- ✓ 1500Vdc isolation voltage
- ✓ Wide(2:1) input voltage range
- ✓ Efficiency up to 90%
- ✓ Operating temperature range -40°C to +100°C
- ✓ Under voltage, over current, short circuit, overvoltage protection
- ✓ Remote on/off
- ✓ Adjustable output voltage



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (A)	Efficiency Typ.
BCH12-120V8	12(9.5~18)	12.0	8.33	84%
BCH24-120V6		12.0	6.25	86%
BCH24-120V13		12.0	12.50	86%
BCH24-150V7		15.0	6.67	87%
BCH24-150V10		15.0	10.00	87%
BCH24-150V13		15.0	13.40	89%
BCH24-240V3	24(18~36)	24.0	3.10	87%
BCH24-240V6		24.0	6.25	86%
BCH24-280V13		28.0	12.5	91%
BCH24-480V1		48.0	1.50	89%
BCH24-480V2		48.0	2.08	86%
BCH24-480V4		48.0	4.17	86%
BCH48-120V4		12.0	4.20	89%
BCH48-120V6		12.0	6.25	86%
BCH48-120V8		12.0	8.33	86%
BCH48-120V13		12.0	12.50	87%
BCH48-150V3		15.0	3.30	90%
BCH48-150V5		15.0	5.00	87%
BCH48-150V7	48(36~72)	15.0	6.67	87%
BCH48-240V2		24.0	2.08	87%
BCH48-240V3		24.0	3.10	87%
BCH48-240V4		24.0	4.16	88%
BCH48-240V6		24.0	6.25	87%
BCH48-240V13		24.0	12.5	87%
BCH48-280V4		28.0	3.57	86%

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Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (A)	Efficiency Typ.
BCH48-280V13	48(36~72)	28.0	12.5	93%
BCH48-480V1		48.0	1.10	88%
BCH48-480V4		48.0	4.00	87%
BCH48-33V6-120V2		3.3, 12.0	6.0, 2.0	84%
BCH48-240V8	48(31~60)	24.0	8.33	89%
BCH110-120V6	110(66~154)	12.0	6.25	87%
BCH110-120V13		12.0	12.5	86%
BCH110-150V7		15.0	6.7	87%
BCH110-150V10		15.0	10.0	87%
BCH110-240V3		24.0	3.0	87%
BCH110-240V6		24.0	6.25	86%
BCH110-280V5		28.0	5.4	87%

Notes: other input and output models may available on request.

ELECTRICAL

Input voltage range	24Vdc	18-36Vdc
	48Vdc	31-72Vdc
	110Vdc	66-154Vdc
Remote control	Negative logic	OFF: High level or left close ON: Low level or ground
	Positive logic	ON: High level or left open OFF: Low level or ground
Output power	Input voltage range	45-350W
Output voltage	Single output	12/15/24/28/48Vdc
Output voltage accuracy	Input voltage range, full load range	±1%
Output voltage regulation	Negative logic	±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	$\Delta V_o/\Delta t$: ±4.0%/500 μ s
Ripple and noise	Parallel test, 20MHz wide range	48V, 480mVp-p max.
		Other, 240mVp-p max.
Operating frequency	Typical value	300KHz typ.
Isolation voltage	Input to output	1500Vdc
	Input to case	1050Vdc
	Output to case	500Vdc
Isolation resistance	---	30M Ω

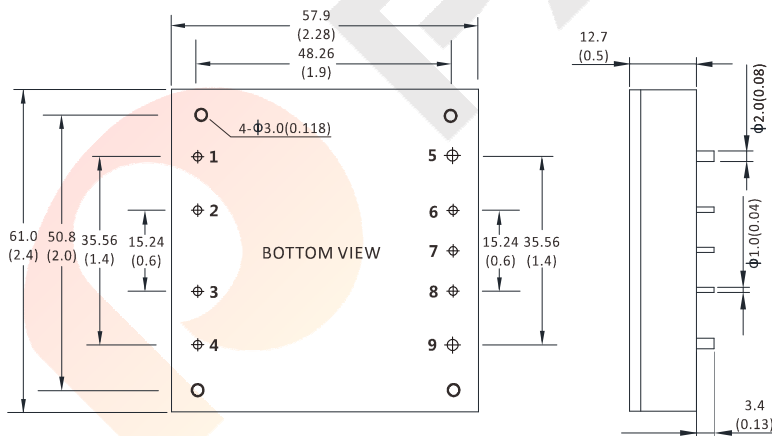
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ELECTRICAL

Safety	---	IEC-60950-1, UL-60950-1 EN-60950-1, GB4943
Temperature coefficient	---	200ppm
PCB operating temperature	---	-40°C to +100°C
Storage temperature range	---	-40°C to +105°C
Over temperature protection	Typical	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 ⁶ Hrs

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

MECHANICAL

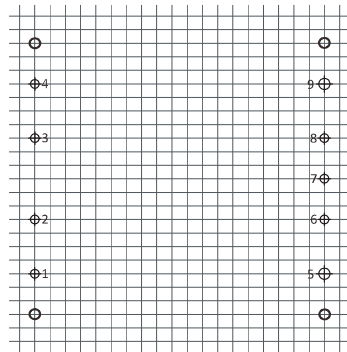


PCB LAYOUT

CONNECTION

PIN #	SINGLE
1	-Vin
2	FG
3	REM
4	+Vin
5	GND
6	-S
7	TRIM
8	+S
9	+Vo

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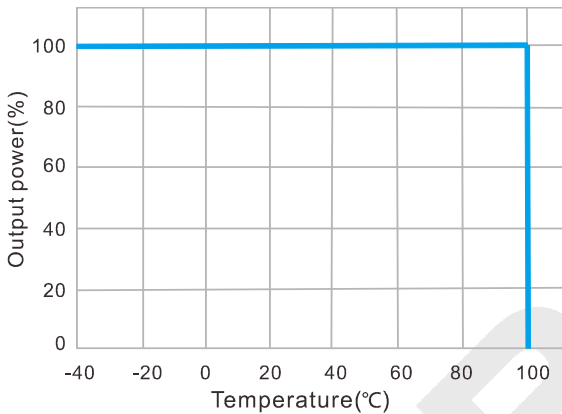


Unit : mm(inch)
PCB vertical view
Grid spacing: 2.54mm(0.1inch)

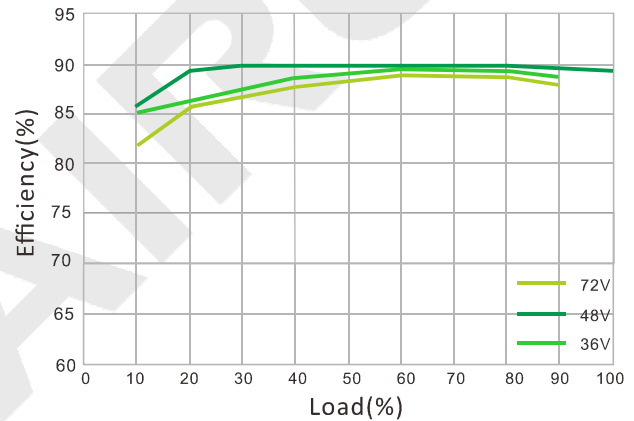
Note:

* Unit is mm(inch).

DERATING CURVE

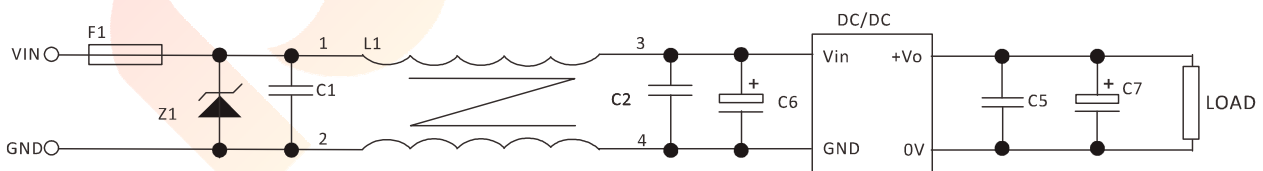


EFFICIENCY CURVE



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 μ F~100 μ F.
3. C1,C2 for the input filter capacitor,0.1~1 μ F 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 100 μ F and C5 connected with the chip to reduce the input voltage peak, recommended 0.1~1 μ F high-frequency ceramics capacitor or chip capacitor.