

BBL SERIES, NON-ISOLATED, POL CONVERTERS

FEATURES:

- ✓ 5 years warranty
- ✓ Output current up to 16A
- ✓ Efficiency up to 94%
- ✓ Operating temperature range -40°C to +85°C
- ✓ Under voltage, over current, short circuit, over voltage protection
- ✓ Remote on/off



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (A)	Output Power (W)	Efficiency Typ.
TRIMABLE					
BBL5-33T16	3.0~5.5	0.75-3.63	16.0	12-58	93%
BBL12-50T16	9.0~14.0	0.75-5.5	16.0	12-88	94%
UNTRIMABLE					
BBL3-480V003	3.0~3.6	-48.0	0.03	1.44	72%
BBL3-18V7	3.0~3.6	1.8	7.0	12.6	89%
BBL3-20V7	3.0~3.6	2.0	7.0	14	91%
BBL3-25V7	3.0~3.6	2.5	7.0	17.5	94%
BBL5-12V10	3.0~5.5	1.2	10.0	12	85%
BBL5-12V16	3.0~5.5	1.2	16.0	19.2	84%
BBL5-18V10	3.0~5.5	1.8	10.0	18	89%
BBL5-20V10	3.0~5.5	2.0	10.0	20	89%
BBL5-25V10	3.0~5.5	2.5	10.0	25	92%
BBL5-25V16	3.0~5.5	2.5	16.0	40	93%
BBL5-33V10	4.5~5.5	3.3	10.0	33	93%

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

ELECTRICAL

Input voltage range	3.3Vdc	3.0-3.6Vdc
	5Vdc	3.0-5.0Vdc
	12Vdc	9.0-14.0Vdc
Remote control	Negative logic	ON: Low level or grounded OFF: High level or close
Output current	Input voltage range	7-16A
Output voltage	Adjustable output	0.75-5.5Vdc
	Fixed voltage output	1.2/1.8/2.0/2.5/3.3/5.0Vdc

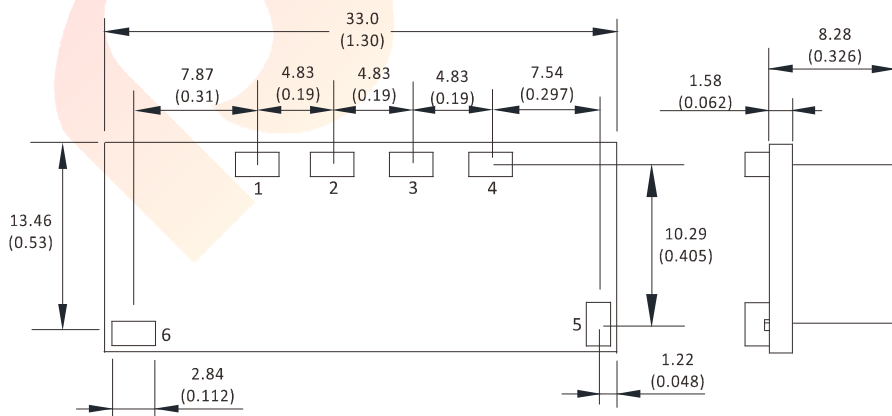
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ELECTRICAL

Voltage setting accuracy	Adjustable output	±3%
	Fixed voltage output	±1%
Output voltage adjustable	TRIM connect with -S	Continuously adjustable
Line regulation	Full load	±0.3%
Load regulation	10%-100% full load	±0.4%
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	Output=-48V, 140mVp-p Other, 50mVp-p max.
Operating frequency	Typical value	300KHz typ.
Temperature coefficient	---	200ppm
Operating temperature range	Auxiliary heat sink	-40°C to +85°C
Storage temperature range	---	-55°C to +125°C
Under voltage protection	---	Yes
Over current protection	---	Yes
Short circuit protection	---	Yes
Relative humidity	---	10%-90% max.
Packing	---	SMD
MTBF	Bellcore TR-332, 25°C	2x10 ⁵ 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



CONNECTION

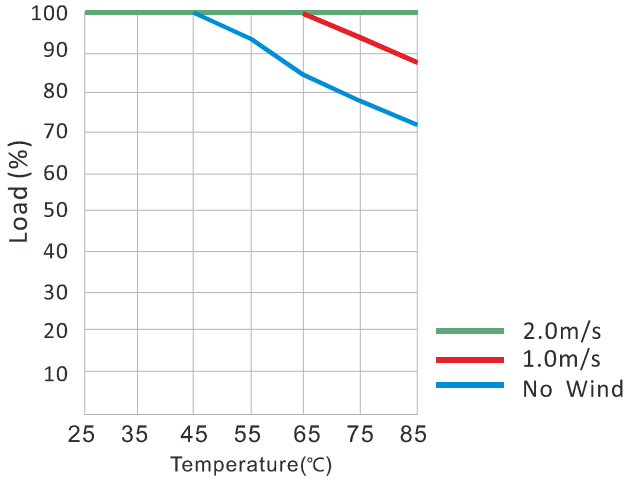
PIN #	SINGLE
1	
2	
3	
4	
5	
6	

Note:

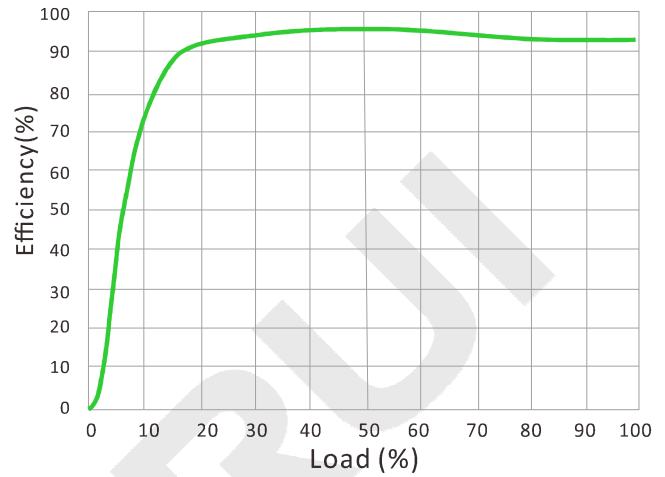
* Unit is mm(inch); The connection of each model is different. Please contact us if you need any model.

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DERATING CURVE

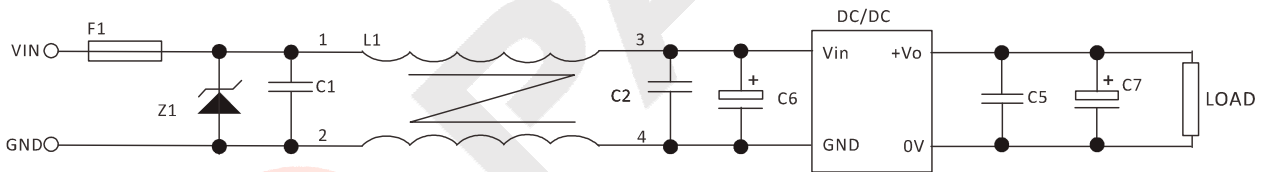


EFFICIENCY CURVE



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.