

BBF SERIES, FULL BRICK, UP TO 700W

FEATURES:

- ✓ 5 years warranty
- ✓ 1500Vdc isolation voltage
- ✓ Wide(2:1) input voltage range
- ✓ Efficiency up to 94%
- ✓ Operating temperature range -40°C to +100°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. |
|--------------|---------------------|----------------------|--------------------|-----------------|
| BBF24-280V22 | 24(18~36) | 28.0 | 21.5 | 88% |
| BBF48-120V42 | | 12.0 | 42.0 | 89% |
| BBF48-240V13 | | 24.0 | 12.5 | 85% |
| BBF48-240V26 | 48(36~72) | 24.0 | 26.0 | 94% |
| BBF48-280V18 | | 28.0 | 18.0 | 94% |
| BBF48-280V25 | | 28.0 | 25.0 | 94% |

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

ELECTRICAL

| | | | |
|--|---------------------------------|--|--|
| Input voltage range | 24V 48V | | 18-36Vdc 36-72Vdc |
| Remote control | Current-model control | | ON: current operating on remote terminal OFF: no current operating on remote terminal |
| Output power | Input voltage range | | 300-700W |
| Output voltage | Single output | | 12/24/28Vdc |
| Output voltage accuracy | Input voltage range | | ±1% |
| Output voltage adjustable | 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 | | 240mVp-p max. |
| Operating frequency | Typical value | | 300KHz typ. |

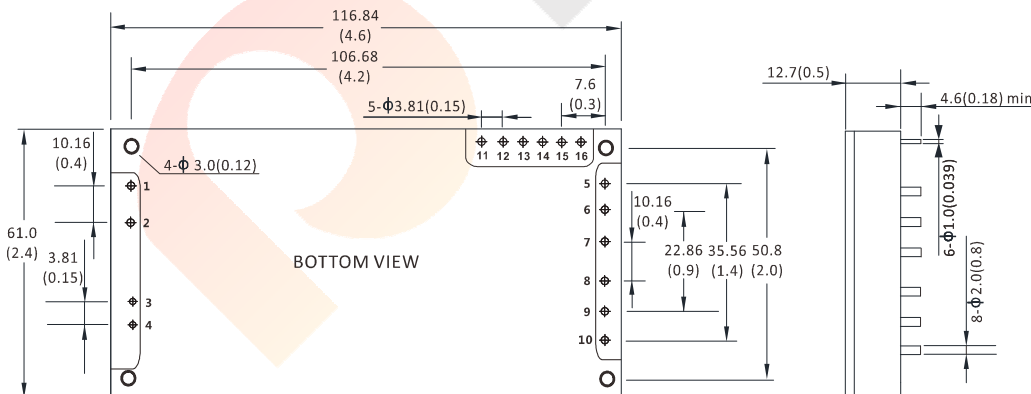
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ELECTRICAL

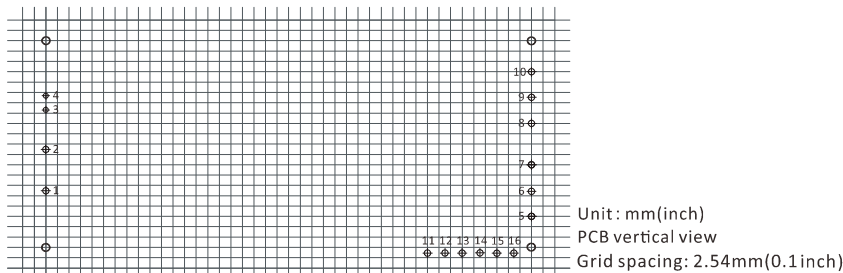
| | | |
|-----------------------------|-----------------------|-----------------------|
| Isolation voltage | Input to output | 1500Vdc |
| | Input to case | 1050Vdc |
| | Output to case | 500Vdc |
| Isolation resistance | --- | 100MΩ |
| Safety | --- | EN-60950 |
| Temperature coefficient | --- | 200ppm |
| Operating temperature range | Auxiliary heat sink | -40°C to +100°C |
| Storage temperature range | --- | -40°C to +105°C |
| Over temperature protection | Typical | 105°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 | 2*10 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

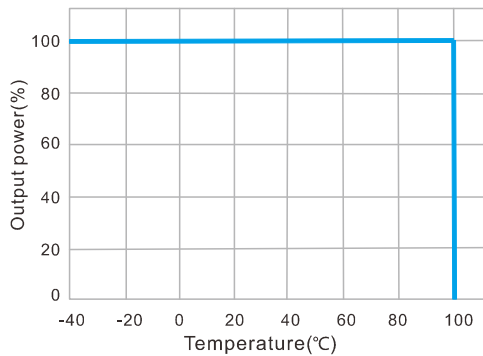
| PIN # | SINGLE |
|--------|--------|
| 1 | -Vin |
| 2 | +Vin |
| 3 | -REM |
| 4 | +REM |
| 5 6 7 | GND |
| 8 9 10 | +Vo |
| 11 | AUX |
| 12 | IOG |
| 13 | PC |
| 14 | TRIM |
| 15 | +S |
| 16 | -S |

Note:

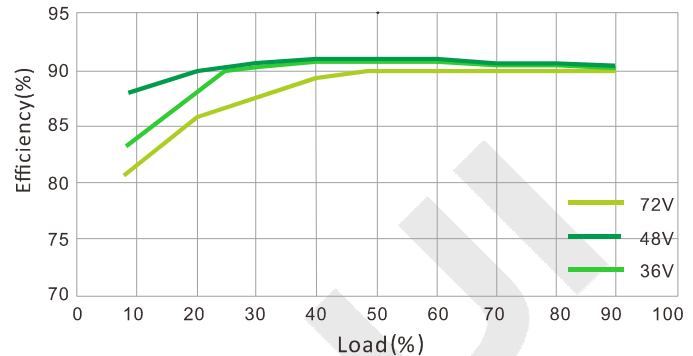
* Unit is mm(inch).

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DERATING CURVE

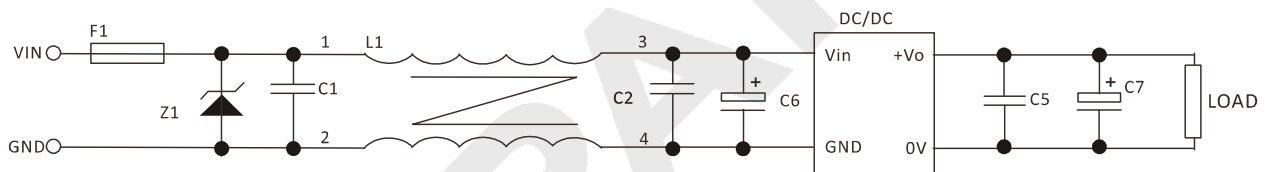


EFFICIENCY CURVE



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.