

BRU SERIES

20~30W DC/DC CONVERTERS Single Output



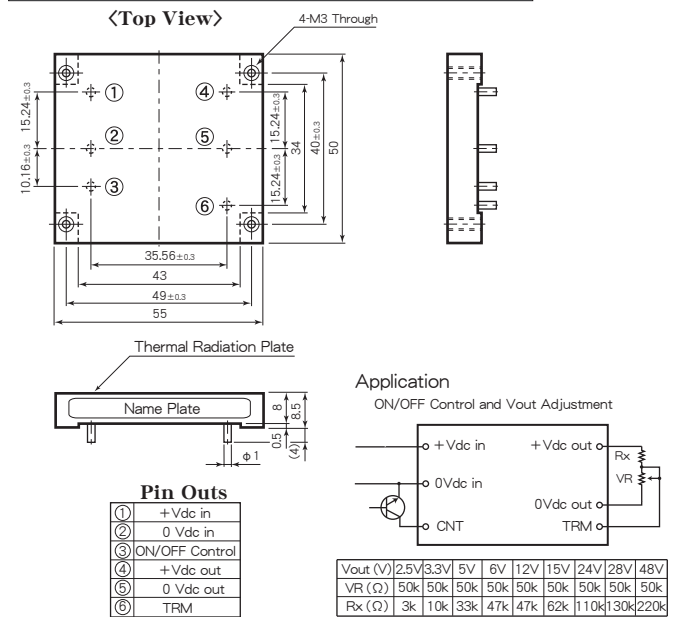
Features

- Low Profile 8.5mm
 - Built-in Input Filter
 - Input-Output Isolation (AC2000V)
 - High Efficiency 85~90%
 - Wide Input Voltage Range
 - High Reliability
 - 6 Sided Metal Shielding
 - Remote ON/OFF Control
 - Adjustable Output Volt. $\pm 5\%$
 - Input Low Voltage Protection
 - Input Over Voltage Protection
 - Output Over Voltage Protection
115~140% Operation
 - Thermal Protection
+110°C~+120°C
 - Operating Ambient Temperature
-40°C~+85°C
 - Max. Case Temperature
+105°C
 - Conformity to RoHS Directive
 - Not built-in aluminum and tantalum electrolytic capacitor
- 薄型 8.5mm
 - 入力フィルタ内蔵
 - 入出力間絶縁 (AC2000V)
 - 高効率 85~90%
 - 広範囲な入力電圧
 - 高信頼性
 - 6面メタルシールド
 - リモートON/OFFコントロール
 - 可変出力電圧 $\pm 5\%$
 - 入力低電圧保護回路内蔵
 - 入力過電圧保護回路内蔵
 - 出力過電圧保護回路内蔵
115~140% 動作
 - 過熱保護回路内蔵
+110°C~+120°C
 - 動作周囲温度
-40°C~+85°C
 - 最大ケース温度
+105°C
 - RoHS指令対応
 - アルミ電解コンデンサ及びタンタルコンデンサ不使用

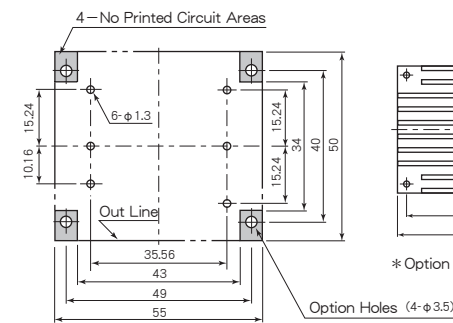
General Characteristics

- Input Voltage, Range
DC 12, 24, 48, 100V (See Table 1)
See Table 1
- Output Voltage, Current
 $\pm 2\%$ (12V, 15V, 24V, 28V, 48V Vout)
 $\pm 3\%$ (2.5V, 3.3V, 5V, 6V Vout)
 $\pm 5\%$ (Used trimmer)
See Table 1
- Output Voltage Accuracy
 $\pm 0.3\%$ max. (at Vin Range)
 $\pm 0.5\%$ max. (0~100% Load)
(3% Vin)Vp-p max.
40mVp-p max.
(48V Vout : 100mVp-p max.)
100mVp-p max.
(48V Vout : 200mVp-p max.)
- Output Adjustment Range
- Efficiency
- Line Regulation
- Load Regulation
- Reflected Input Ripple, Noise
(3% Vin)Vp-p max.
40mVp-p max.
(48V Vout : 200mVp-p max.)
- Output Ripple
- Output Noise
100mVp-p max.
(48V Vout : 200mVp-p max.)
- Short Circuit Protection
- Over Voltage Protection
- Remote ON/OFF Control
- Temperature Coefficient
- Operating Ambient Temp.
-40°C~+85°C (See Fig 1)
+105°C
- Max. Case Temperature
-50°C~+115°C
- Storage Temperature
AC2000V one minute
(Input-Output-Case)
100M Ω min. (at DC1000V)
(Input-Output-Case)
- Isolation Impedance
- Weight
Main Body : 60g max.
Heat Sink : 40g max.
- Humidity
20~95% RH
- Shock
490m/s² (11msec 3directions)
- Vibration
10~55Hz 98m/s²
(30minutes 3directions)
- Surface Structure
6 Sided Aluminum Case
- Soldering Conditions
Soldering DIP
Soldering iron
260°C, for 15 seconds max.
360°C, for 5 seconds max.
- MTBF
500,000H
(Ta:25°C, 80%Load, Nominal Vin)
- Warranty
5 years

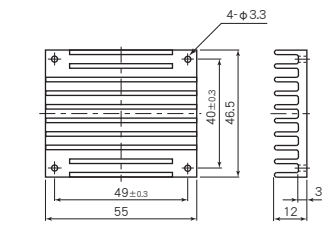
Pin Outs & Dimensions (± 0.5 mm)



Holes on PCB (Top View)



Option Heat Sink



* Option Heat Sink Model : A4-3080

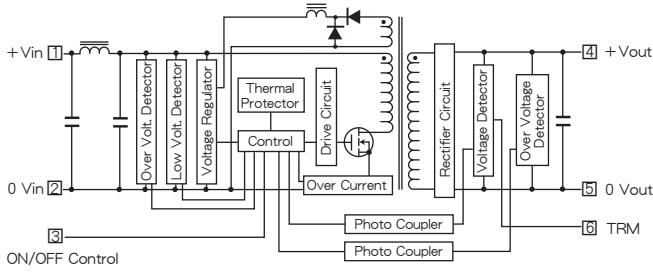
Selection Guide

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)	
				20% Load	80% Load
BRU12-2.5S	8A	2.5	8	82	85
BRU12-3.3S	7A	3.3	7	84	87
BRU12-5S	6A	5	6	84	90
BRU12-6S	5A	6	5	84	90
BRU12-12S	2.5A	12	2.5	84	90
BRU12-15S	2A	15	2	84	90
BRU12-24S	1.25A	24	1.25	84	90
BRU12-28S	1.07A	28	1.07	84	90
BRU12-48S	0.6A	48	0.6	84	90
BRU24-2.5S	8A	2.5	8	82	85
BRU24-3.3S	7A	3.3	7	84	87
BRU24-5S	6A	5	6	84	90
BRU24-6S	5A	6	5	84	90
BRU24-12S	2.5A	12	2.5	84	90
BRU24-15S	2A	15	2	84	90
BRU24-24S	1.25A	24	1.25	84	90
BRU24-28S	1.07A	28	1.07	84	90
BRU24-48S	0.6A	48	0.6	84	90
BRU48-2.5S	8A	2.5	8	82	85
BRU48-3.3S	7A	3.3	7	84	87
BRU48-5S	6A	5	6	84	90
BRU48-6S	5A	6	5	84	90
BRU48-12S	2.5A	12	2.5	84	90
BRU48-15S	2A	15	2	84	90
BRU48-24S	1.25A	24	1.25	84	90
BRU48-28S	1.07A	28	1.07	84	90
BRU100-2.5S	8A	2.5	8	82	85
BRU100-3.3S	7A	3.3	7	84	87
BRU100-5S	6A	5	6	84	90
BRU100-6S	5A	6	5	84	90
BRU100-12S	2.5A	12	2.5	84	90
BRU100-15S	2A	15	2	84	90
BRU100-24S	1.25A	24	1.25	84	90
BRU100-28S	1.07A	28	1.07	84	90

* 上記仕様以外にも対応可能ですのでお問い合わせ下さい。
Please consult with us about other specification.

BRU SERIES DATA SHEET

Block Diagram



Characteristic Curves

Fig 1 Derating Curve

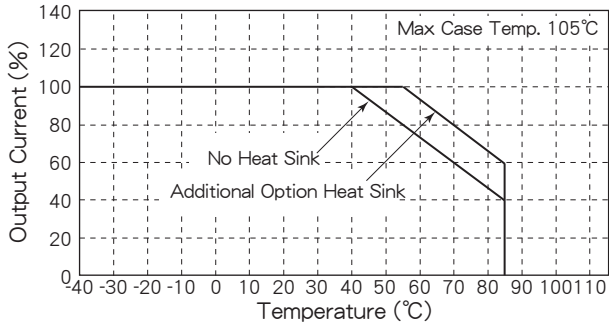


Fig 2 Short Circuit Operating Area

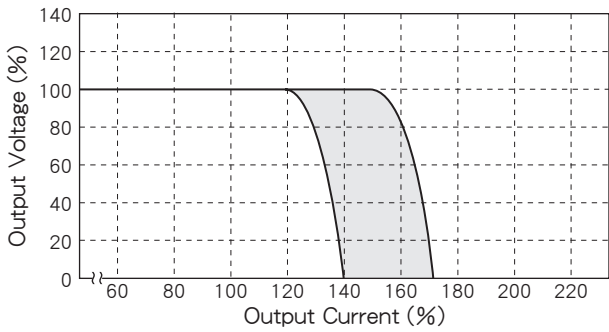


Fig 3 Temperature Characteristic on Case Surface

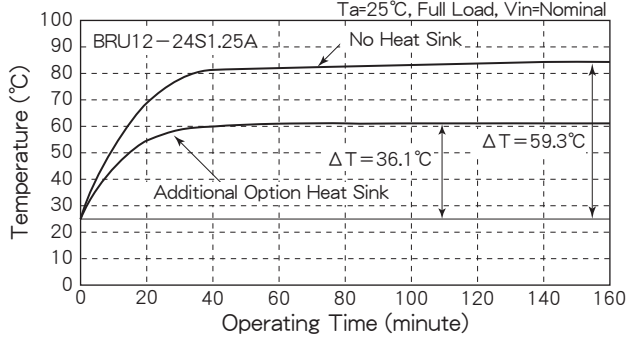


Fig 4 Efficiency vs. Output Current (Vin=12V)

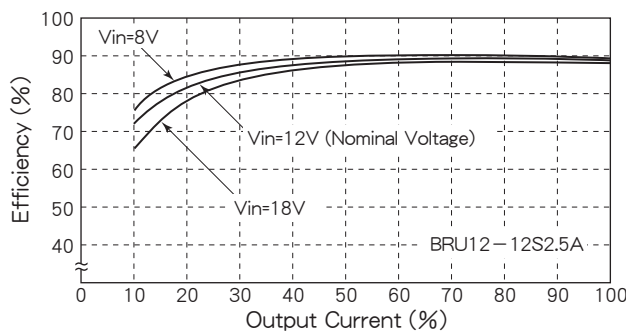


Fig 5 Efficiency vs. Output Current (Vin=12V)

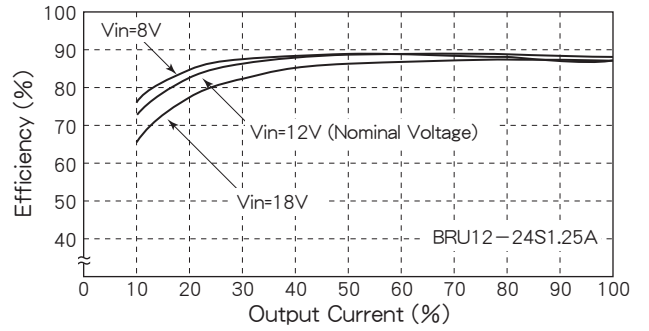


Fig 6 Efficiency vs. Output Current (Vin=24V)

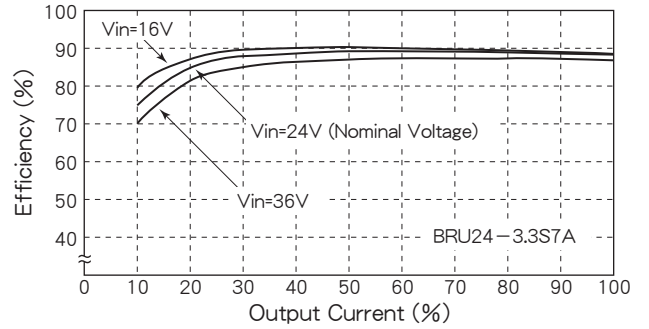


Fig 7 Efficiency vs. Output Current (Vin=24V)

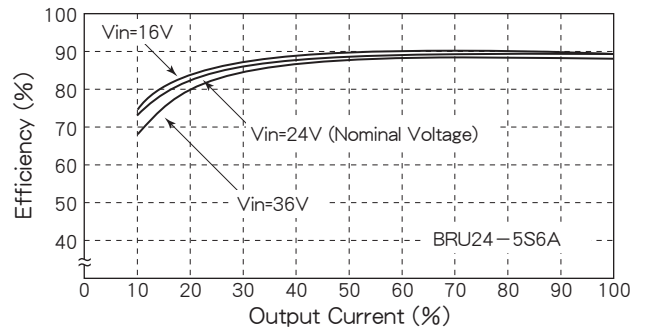


Fig 8 Efficiency vs. Output Current (Vin=48V)

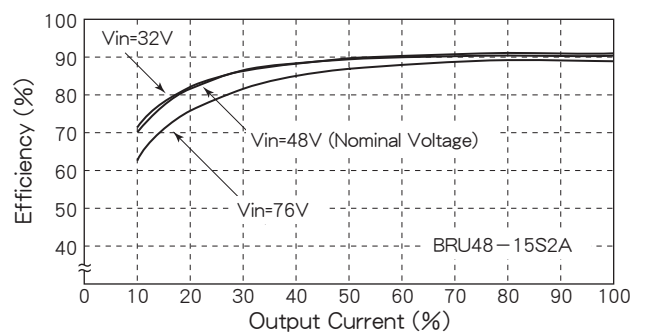


Fig 9 Efficiency vs. Output Current (Vin=100V)

