

BRU SERIES

23~30W DC/DC CONVERTERS Single Output



H8.5 × W50 × L55 (mm)

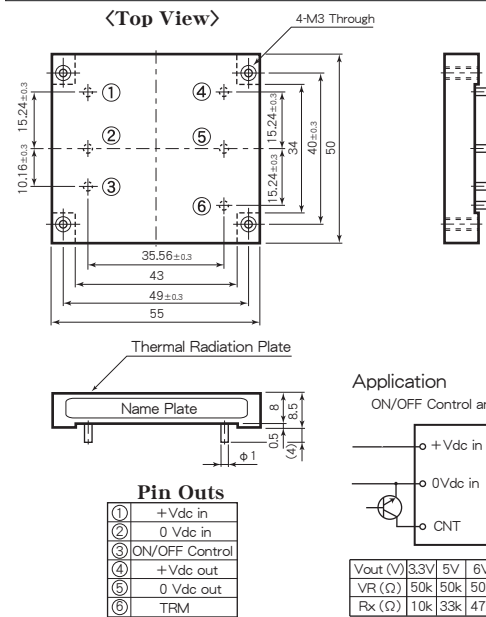
Features

- Low Profile 8.5mm
 - Built-in Input Filter
 - Input-Output Isolation (AC2000V)
 - High Efficiency 87~90%
 - Wide Input Voltage Range
 - High Reliability
 - 6 Sided Metal Shielding
 - Remote ON/OFF Control
 - Adjustable Output Volt. ±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 87~90%
 - 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 ±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

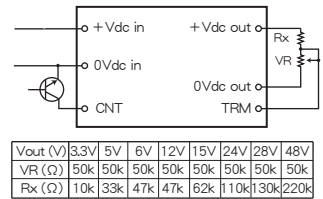
- Input Voltage, Range
DC12, 24, 48, 100V (See Table 1)
- Output Voltage, Current
See Table 1
- Output Voltage Accuracy
±2%
±3% (3.3, 5, 6V Vout only)
±5% Adjustable (Used trimmer)
- Efficiency
See Table 1
- Line Regulation
±0.3% max. (at Vin Range)
- Load Regulation
±0.5% max. (0~100% Load)
- Reflected Input Ripple, Noise
(3% Vin)Vp-p max.
40mVp-p max.
100mVp-p max. (48V Vout only)
- Output Ripple
100mVp-p max.
- Output Noise
200mVp-p max. (48V Vout only)
- Short Circuit Protection
Built-in, Auto-restart (See Fig. 2)
- Over Voltage Protection
115~140% Output Voltage
ON : Short or 0~0.8V
OFF : Open or 2~10V
(Between pin ② ~ ③)
- Temperature Coefficient
0.02%/°C max.
- Operating Ambient Temp.
-40°C~+85°C (See Fig. 1)
- Max. Case Temperature
+105°C
- Storage Temperature
-50°C~+115°C
- Isolation Voltage
AC2000V one minute
(Input-Output-Case)
- Isolation Impedance
100MΩ min. (at DC1000V)
(Input-Output-Case)
- 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 (±0.5mm)

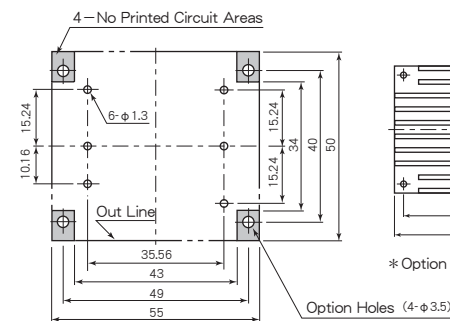


Application

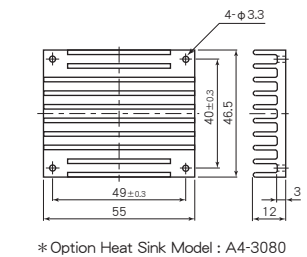
ON/OFF Control and Vout Adjustment



Holes on PCB (Top View)



Option Heat Sink



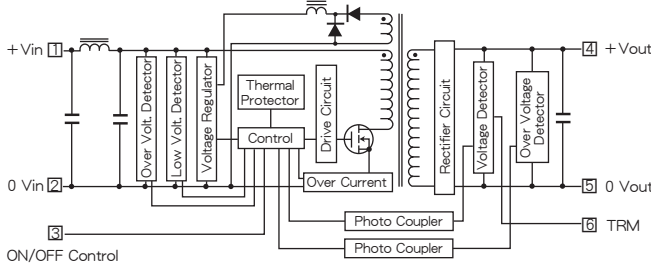
Selection Guide

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)	
				20% Load	80% Load
BRU12-3.3S 7A	12 (8~18)	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	24 (16~36)	28	1.07	84	90
BRU12-48S 0.6A		48	0.6	84	90
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	48 (32~76)	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
BRU48-3.3S 7A		3.3	7	84	87
BRU48-5S 6A		5	6	84	90
BRU48-6S 5A	100 (64~144)	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
BRU100-3.3S 7A		3.3	7	84	87
BRU100-5S 6A	5	6	84	90	
BRU100-6S 5A	100 (64~144)	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

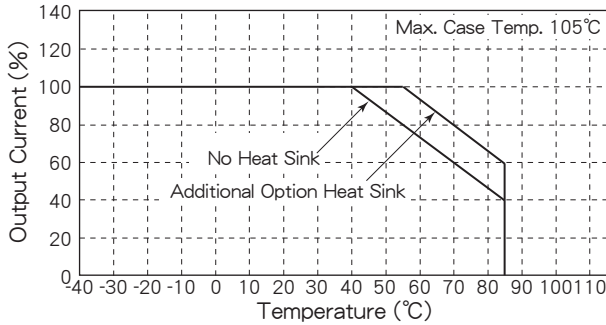


Fig. 2 Short Circuit Operating Area

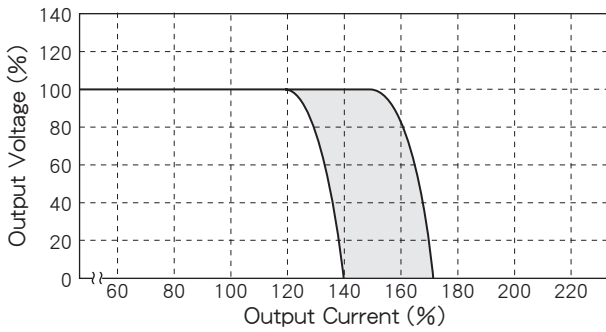


Fig. 3 Temperature Characteristic on Case Surface

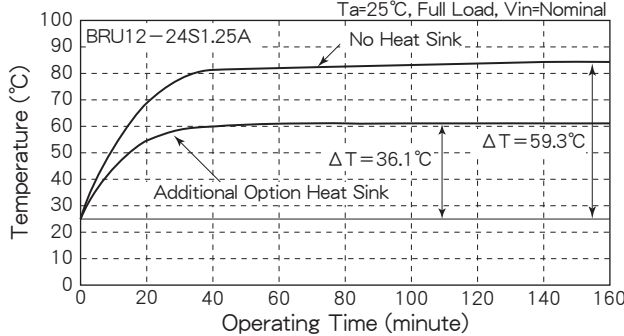


Fig. 4 Efficiency vs. Output Current (Vin=12V)

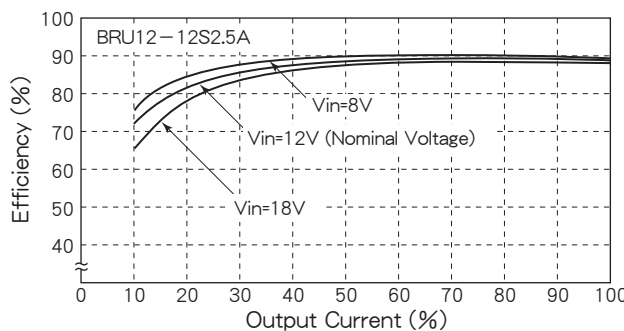


Fig. 5 Efficiency vs. Output Current (Vin=12V)

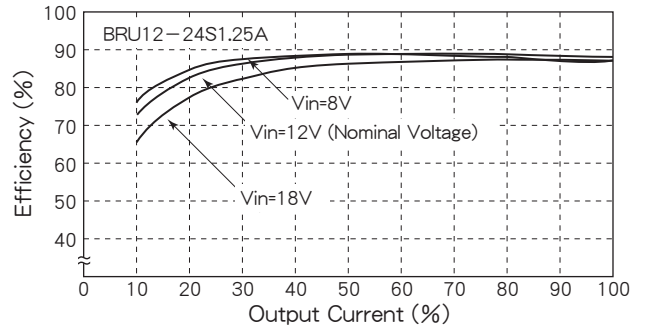


Fig. 6 Efficiency vs. Output Current (Vin=24V)

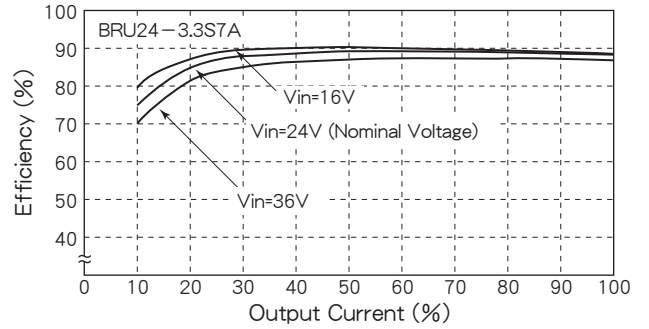


Fig. 7 Efficiency vs. Output Current (Vin=24V)

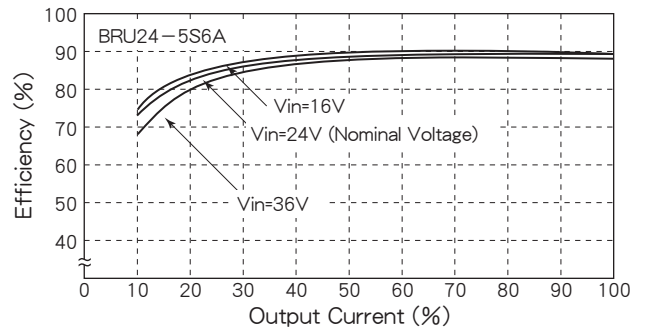


Fig. 8 Efficiency vs. Output Current (Vin=48V)

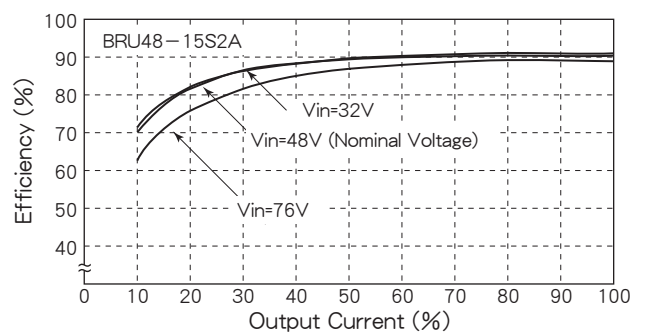


Fig. 9 Efficiency vs. Output Current (Vin=100V)

