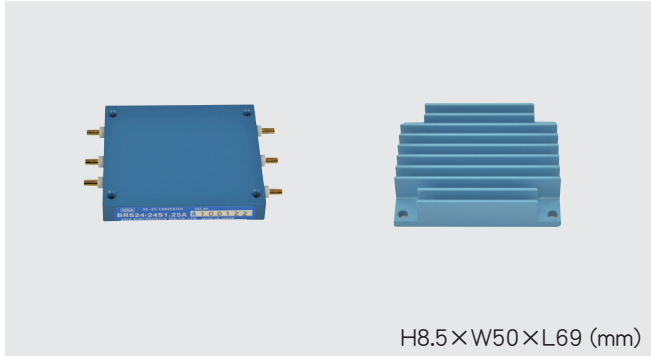


# BRS SERIES

## 23~30W DC/DC CONVERTERS Single Output



H8.5×W50×L69 (mm)

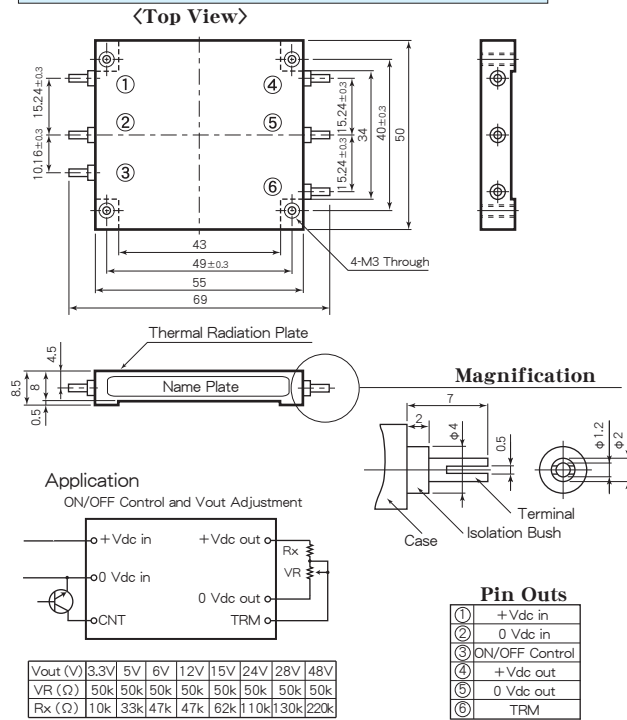
### Features

- 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

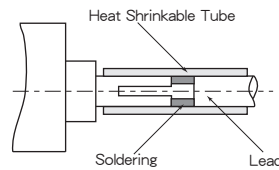
### General Characteristics

- 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) 100mVp-p max. 200mVp-p max. (48V Vout only)
- Output Noise Built-in, Auto-restart (See Fig. 2) 115~140% Output Voltage ON : Short or 0~0.8V OFF : Open or 2~10V (Between pin ② ~ ③) 0.02%/°C max.
- Short Circuit Protection -40°C~+85°C (See Fig. 1)
- Over Voltage Protection +105°C
- Remote ON/OFF Control -50°C~+115°C
- Temperature Coefficient AC2000V one minute (Input-Output-Case) 100MΩ min. (at DC1000V) (Input-Output-Case)
- Operating Ambient Temp. Main Body : 60g max. Heat Sink : 40g max.
- Max. Case Temperature 20~95% RH
- Storage Temperature 490m/s<sup>2</sup> (11msec 3directions)
- Isolation Voltage 10~55Hz 98m/s<sup>2</sup> (30minutes 3directions)
- Isolation Impedance 6 Sided Aluminum Case 500,000H (Ta : 25°C, 80% Load, Nominal Vin)
- Weight 5 years
- Humidity
- Shock
- Vibration
- Surface Structure
- MTBF
- Warranty

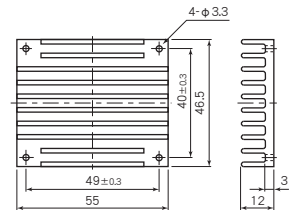
### Pin Outs & Dimensions (±0.5mm)



### Soldering Method



### Option Heat Sink



\* Option Heat Sink Model : A4-3080

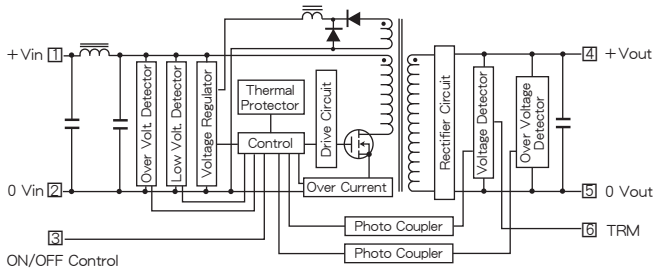
### Selection Guide

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)		
				20% Load	80% Load	
BRS12-3.3S 7A	12 (8~18)	3.3	7	84	87	
BRS12-5S 6A		5	6	84	90	
BRS12-6S 5A		6	5	84	90	
BRS12-1.2S 2.5A		12	2.5	84	90	
BRS12-1.5S 2A		15	2	84	90	
BRS12-2.4S 1.25A		24	1.25	84	90	
BRS12-2.8S 1.07A		28	1.07	84	90	
BRS12-4.8S 0.6A		48	0.6	84	90	
BRS24-3.3S 7A		24 (16~36)	3.3	7	84	87
BRS24-5S 6A			5	6	84	90
BRS24-6S 5A	6		5	84	90	
BRS24-1.2S 2.5A	12		2.5	84	90	
BRS24-1.5S 2A	15		2	84	90	
BRS24-2.4S 1.25A	24		1.25	84	90	
BRS24-2.8S 1.07A	28		1.07	84	90	
BRS24-4.8S 0.6A	48		0.6	84	90	
BRS48-3.3S 7A	48 (32~76)		3.3	7	84	87
BRS48-5S 6A			5	6	84	90
BRS48-6S 5A		6	5	84	90	
BRS48-1.2S 2.5A		12	2.5	84	90	
BRS48-1.5S 2A		15	2	84	90	
BRS48-2.4S 1.25A		24	1.25	84	90	
BRS48-2.8S 1.07A		28	1.07	84	90	
BRS100-3.3S 7A		100 (64~144)	3.3	7	84	87
BRS100-5S 6A			5	6	84	90
BRS100-6S 5A			6	5	84	90
BRS100-12S 2.5A	12		2.5	84	90	
BRS100-15S 2A	15		2	84	90	
BRS100-24S 1.25A	24		1.25	84	90	
BRS100-28S 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.

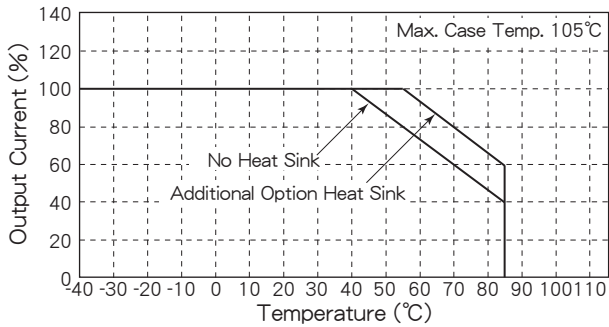
# BRS SERIES DATA SHEET

## Block Diagram

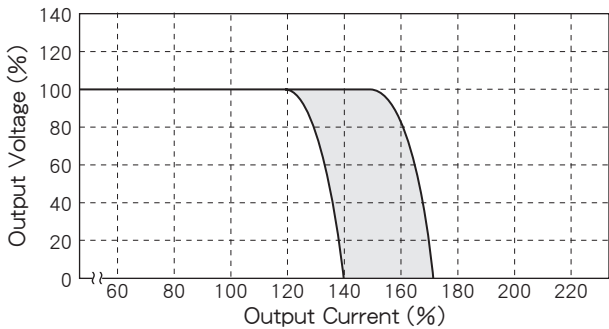


## Characteristic Curves

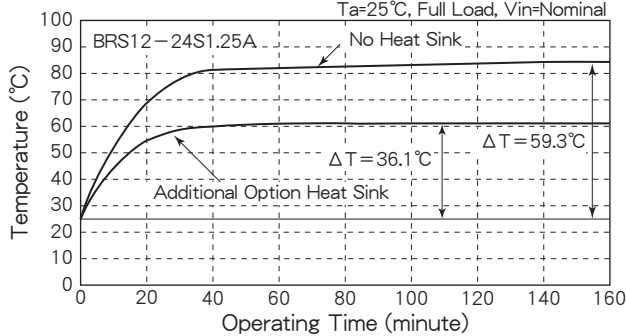
**Fig. 1 Derating Curve**



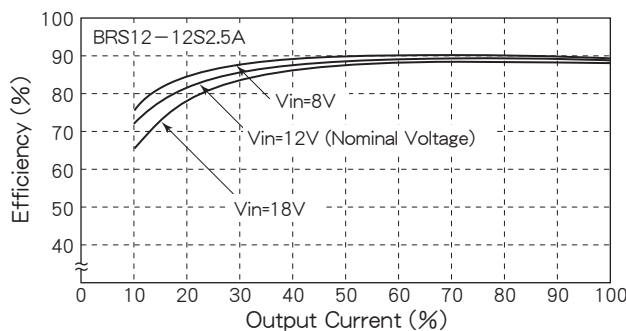
**Fig. 2 Short Circuit Operating Area**



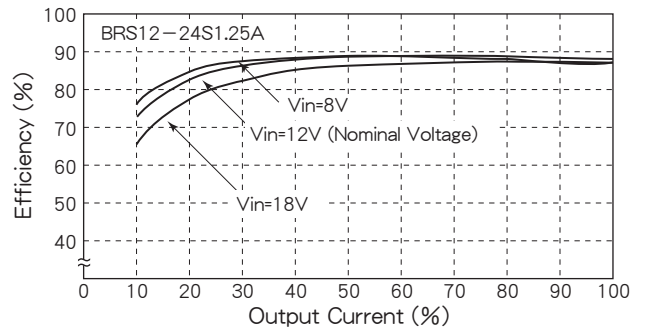
**Fig. 3 Temperature Characteristic on Case Surface**



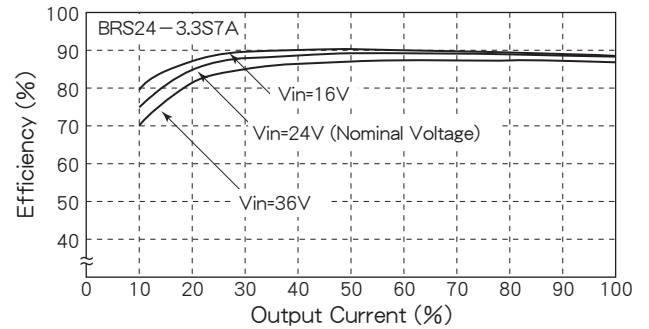
**Fig. 4 Efficiency vs. Output Current (Vin=12V)**



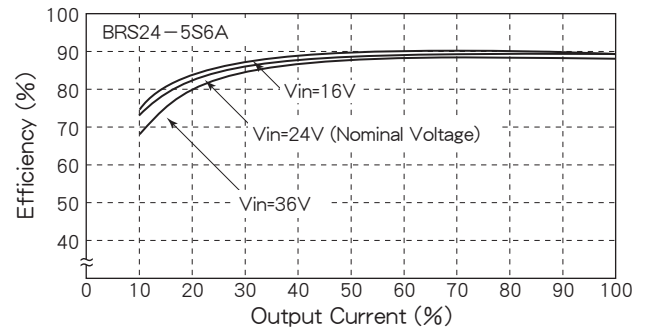
**Fig. 5 Efficiency vs. Output Current (Vin=12V)**



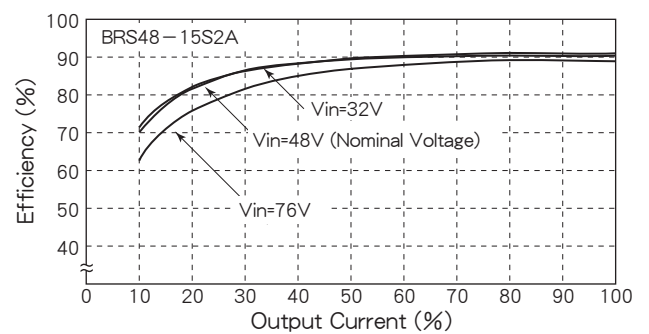
**Fig. 6 Efficiency vs. Output Current (Vin=24V)**



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



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



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

