

BTS SERIES

80~100W DC/DC CONVERTERS Single Output



H112.8×W50×L118 (mm)

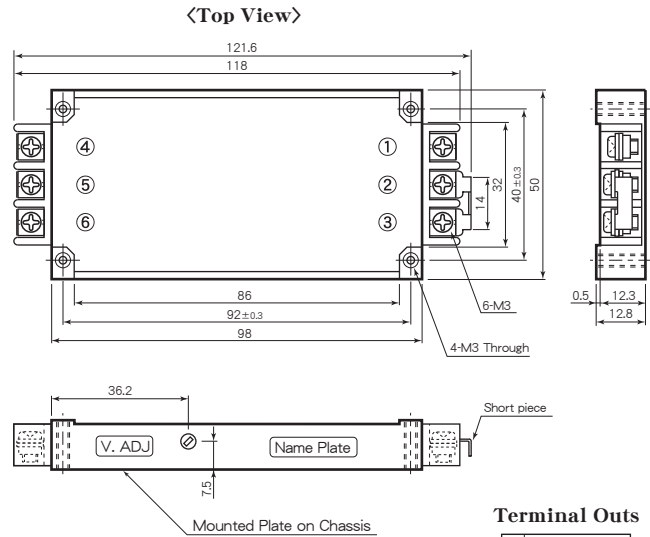
Features

- Low Profile 12.8mm
 - Built-in Input Filter
 - Input-Output Isolation
 - High Efficiency 88~91%
 - Wide Input Voltage Range
 - High Reliability
 - 6 Sided Metal Shielding
 - Remote ON/OFF Control
 - Adjustable Output Voltage ±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 RoHS2 Directive
 - Not built-in aluminum and tantalum electrolytic capacitor
- 薄型 12.8mm
 - 入力フィルタ内蔵
 - 入出力間絶縁
 - 高効率 88~91%
 - 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
 - RoHS2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 (at Ta : 25°C, Full Load, Nominal Vin) DC12, 24, 48, 100, 140V (See Table 1)
- Output Voltage, Current See Table 1
- Output Voltage Range ±5% Adjustable
- 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.
- Output Ripple 100mVp-p max.
- Output Noise Built-in, Auto-restart (See Fig. 2) 115~140% Output Voltage
- Short Circuit Protection ON : Short or 0~0.8V
- Over Voltage Protection OFF : Open or 2~10V (Between terminal ② ~ ③)
- Remote ON/OFF Control 0.02%/°C max.
- Temperature Coefficient -40°C~+85°C (See Fig. 1)
- Operating Ambient Temp. +105°C
- Max. Case Temperature -55°C~+125°C
- Storage Temperature AC1500V 1 min.
- Isolation Voltage AC2000V 1 min. (100V, 140V Vin only) (Input-Output-Case) 100MΩ min. (at DC1000V) (Input-Output-Case)
- Isolation Impedance Main Body : 170g max.
- Weight 20~95% RH
- Humidity 490m/s² (11msec 3directions)
- Shock 10~55Hz 98m/s² (30minutes 3directions)
- Vibration 6 Sided Aluminum Case
- Surface Structure 400,000H
- MTBF (Ta : 25°C, 80% Load, Nominal Vin)
- Warranty 5 years

Terminal Outs & Dimensions (±0.5mm)



Terminal Outs

①	+Vdc in
②	0 Vdc in
③	ON/OFF Control
④	+Vdc out
⑤	0 Vdc out
⑥	No Connection

Selection Guide

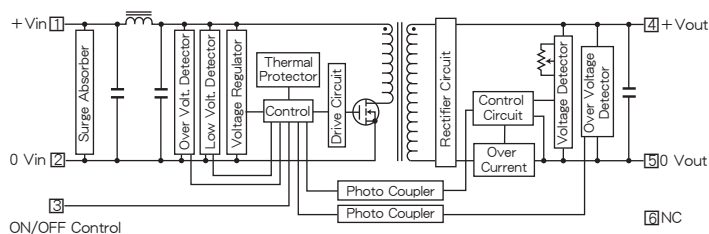
Table 1

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)	
				20% Load	80% Load
BTS 12- 3.3S 24 A	12 (8~18)	3.3	24	88	88
BTS 12- 5S 20 A		5	20	87	89
BTS 12- 6S 16.7A		6	16.7	87	89
BTS 12- 12S 8.4 A		12	8.4	87	89
BTS 12- 15S 6.7 A		15	6.7	86	89
BTS 12- 24S 4.2 A		24	4.2	85	89
BTS 24- 3.3S 24 A	24 (16~36)	3.3	24	88	88
BTS 24- 5S 20 A		5	20	88	90
BTS 24- 6S 16.7A		6	16.7	88	90
BTS 24- 12S 8.4 A		12	8.4	86	90
BTS 24- 15S 6.7 A		15	6.7	86	90
BTS 24- 24S 4.2 A		24	4.2	86	90
BTS 48- 3.3S 24 A	48 (32~72)	3.3	24	87	88
BTS 48- 5S 20 A		5	20	87	90
BTS 48- 6S 16.7A		6	16.7	87	90
BTS 48- 12S 8.4 A		12	8.4	87	91
BTS 48- 15S 6.7 A		15	6.7	86	91
BTS 48- 24S 4.2 A		24	4.2	86	91
BTS100- 3.3S 24 A	100 (64~144)	3.3	24	85	88
BTS100- 5S 20 A		5	20	86	90
BTS100- 6S 16.7A		6	16.7	86	90
BTS100- 12S 8.4 A		12	8.4	86	91
BTS100- 15S 6.7 A		15	6.7	86	91
BTS100- 24S 4.2 A		24	4.2	86	89
BTS140- 5S 20 A	140 (90~200)	5	20	86	90
BTS140- 12S 8.4 A		12	8.4	86	91
BTS140- 24S 4.2 A		24	4.2	86	89
BTS140- 48S 2.1 A		48	2.1	86	89

※ 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.

BTS SERIES DATA SHEET

Block Diagram



Characteristic Curves

Fig. 1 Derating Curve

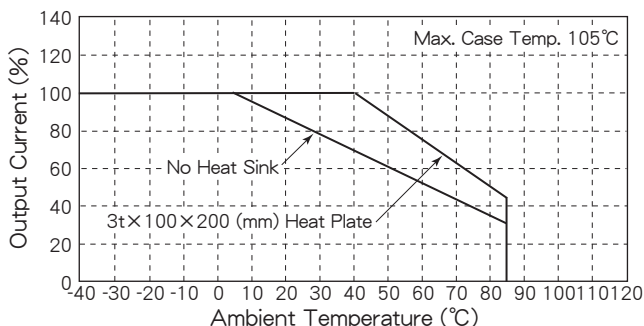


Fig. 2 Short Circuit Operating Area

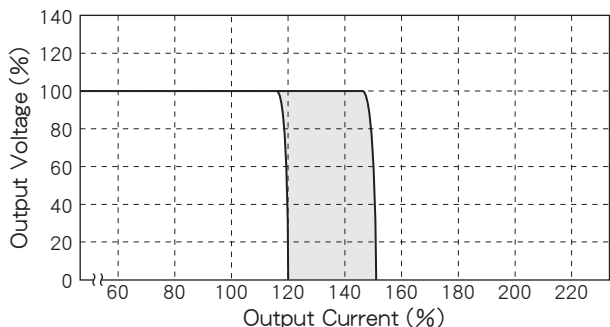


Fig. 3 Temperature Characteristic on Case Surface

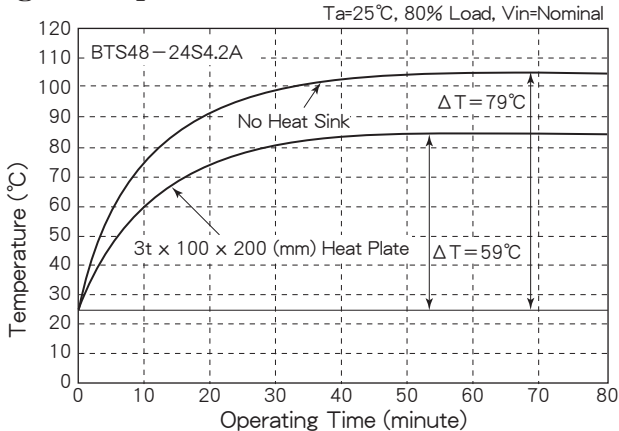


Fig. 4 Efficiency vs. Output Current (Vin=12V)

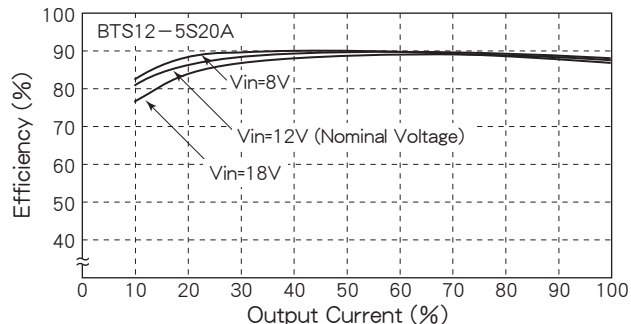


Fig. 5 Efficiency vs. Output Current (Vin=12V)

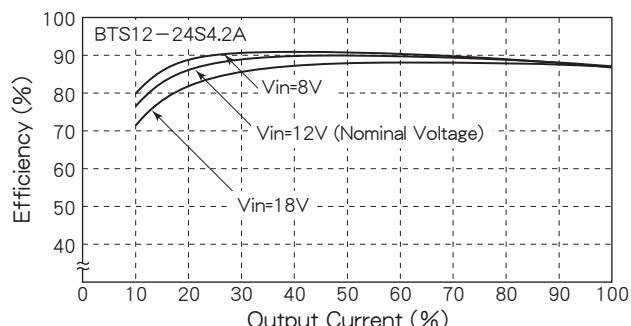


Fig. 6 Efficiency vs. Output Current (Vin=24V)

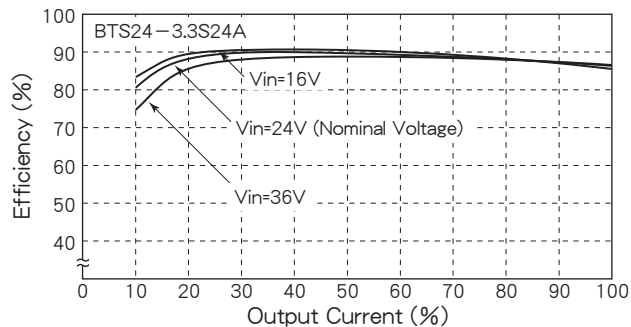


Fig. 7 Efficiency vs. Output Current (Vin=48V)

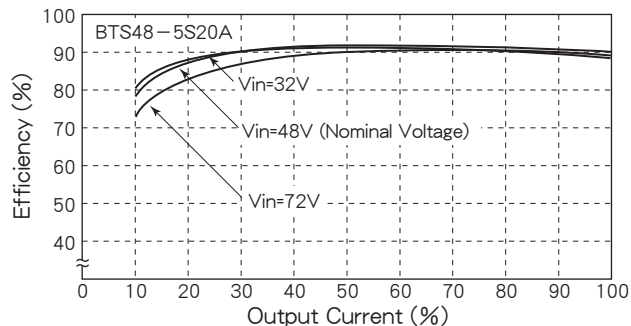


Fig. 8 Efficiency vs. Output Current (Vin=100V)

