

BTM SERIES

80~100W DC/DC CONVERTERS Single Output



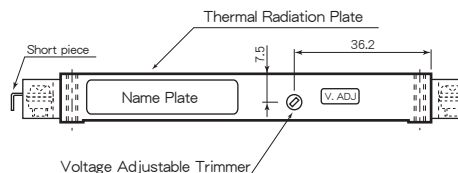
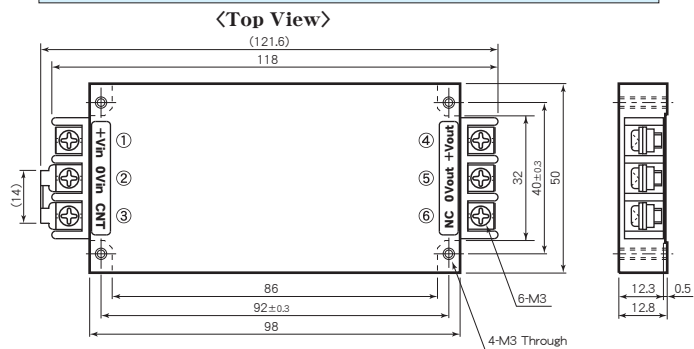
Features

- Low Profile 12.8mm
- 薄型 12.8mm
- Built-in Input Filter
- 入力フィルタ内蔵
- Input-Output Isolation
- 入出力間絶縁
- High Efficiency 88~91%
- 高効率 88~91%
- Wide Input Voltage Range
- 広範囲な入力電圧
- High Reliability
- 高信頼性
- 6 Sided Metal Shielding
- 6面メタルシールド
- Remote ON/OFF Control
- リモートON/OFFコントロール
- Adjustable Output Voltage $\pm 5\%$
- 可変出力電圧 $\pm 5\%$
- Input Low Voltage Protection
- 入力低電圧保護回路内蔵
- Input Over Voltage Protection
- 入力過電圧保護回路内蔵
- Output Over Voltage Protection
- 出力過電圧保護回路内蔵
- 115~140% Operation
- 115~140% 動作
- Thermal Protection
- 過熱保護回路内蔵
- +110°C~+120°C
- +110°C~+120°C
- Operating Ambient Temperature
- 動作周囲温度
- -40°C~+85°C
- -40°C~+85°C
- Max. Case Temperature +105°C
- 最大ケース温度 +105°C
- Conformity to RoHS2 Directive
- RoHS2指令対応
- Not built-in aluminum and tantalum electrolytic capacitor
- 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, 100V (See Table 1)
- Output Voltage, Current See Table 1
- Output Voltage Range $\pm 5\%$ Adjustable
- Efficiency See Table 1
- Line Regulation $\pm 0.3\%$ max. (at Vin Range)
- Load Regulation $\pm 0.5\%$ max. (0~100% Load)
- Reflected Input Ripple, Noise (3% Vin) Vp-p max.
- Output Ripple 40mVp-p max.
- Output Noise 100mVp-p max.
- Short Circuit Protection Built-in, Auto-restart (See Fig. 2)
- Over Voltage Protection 115~140% Output Voltage
- Remote ON/OFF Control ON : Short or 0~0.8V
OFF : Open or 2~10V
(Between terminal 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 -55°C~+125°C
- Isolation Voltage AC1500V 1 min.
AC2000V 1 min. (100V Vin only)
(Input-Output-Case)
- Isolation Impedance 100M Ω min. (at DC1000V)
(Input-Output-Case)
- Weight Main Body : 170g max.
Heat Sink : 73g max.
- Humidity 20~95% RH
- Shock 490m/s² (11msec 3directions)
- Vibration 10~55Hz 98m/s²
(30minutes 3directions)
- Surface Structure 6 Sided Aluminum Case
- MTBF 400,000H
(Ta : 25°C, 80% Load, Nominal Vin)
- Warranty 5 years

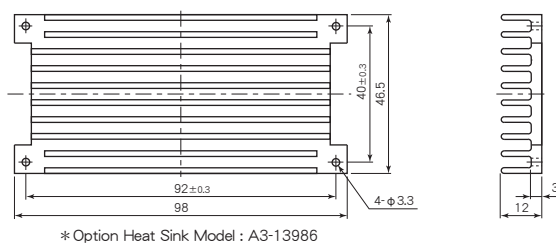
Terminal Outs & Dimensions (± 0.5 mm)



Terminal Outs

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

Option Heat Sink



Selection Guide

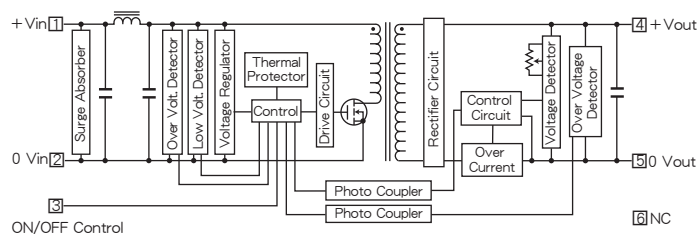
Table 1

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)	
				20% Load	80% Load
BTM 12-3.3S 24 A	12 (8~18)	3.3	24	88	88
BTM 12- 5S 20 A		5	20	87	89
BTM 12- 6S 16.7A		6	16.7	87	89
BTM 12- 12S 8.4 A		12	8.4	87	89
BTM 12- 15S 6.7 A		15	6.7	86	89
BTM 12- 24S 4.2 A		24	4.2	85	89
BTM 24-3.3S 24 A	24 (16~36)	3.3	24	88	88
BTM 24- 5S 20 A		5	20	88	90
BTM 24- 6S 16.7A		6	16.7	88	90
BTM 24- 12S 8.4 A		12	8.4	86	90
BTM 24- 15S 6.7 A		15	6.7	86	90
BTM 24- 24S 4.2 A		24	4.2	86	90
BTM 48-3.3S 24 A	48 (32~72)	3.3	24	87	88
BTM 48- 5S 20 A		5	20	87	90
BTM 48- 6S 16.7A		6	16.7	87	90
BTM 48- 12S 8.4 A		12	8.4	87	91
BTM 48- 15S 6.7 A		15	6.7	86	91
BTM 48- 24S 4.2 A		24	4.2	86	91
BTM100-3.3S 24 A	100 (64~144)	3.3	24	85	88
BTM100- 5S 20 A		5	20	86	90
BTM100- 6S 16.7A		6	16.7	86	90
BTM100- 12S 8.4 A		12	8.4	86	91
BTM100- 15S 6.7 A		15	6.7	86	91
BTM100- 24S 4.2 A		24	4.2	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.

BTM SERIES DATA SHEET

Block Diagram



Characteristic Curves

Fig. 1 Derating Curve

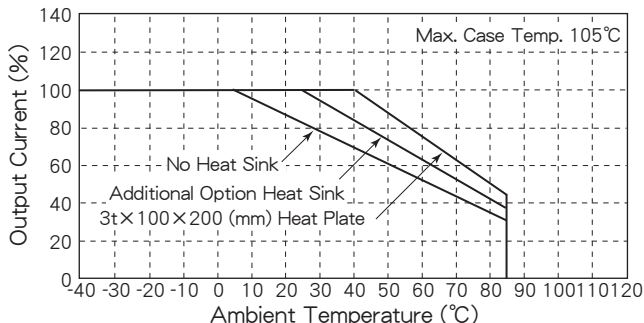


Fig. 2 Short Circuit Operating Area

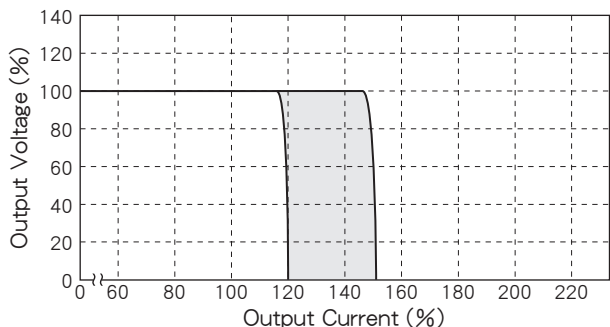


Fig. 3 Temperature Characteristic on Case Surface

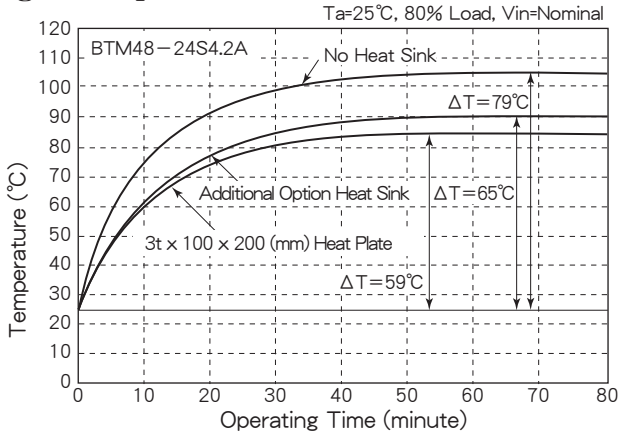


Fig. 4 Efficiency vs. Output Current

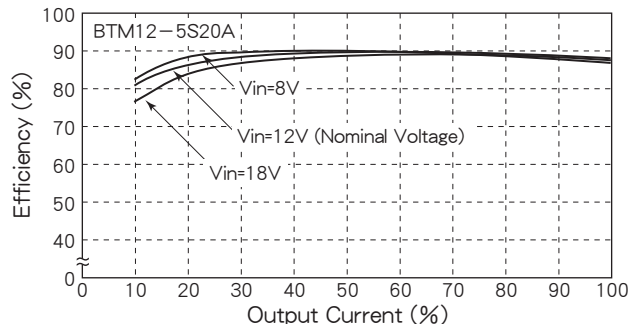


Fig. 5 Efficiency vs. Output Current

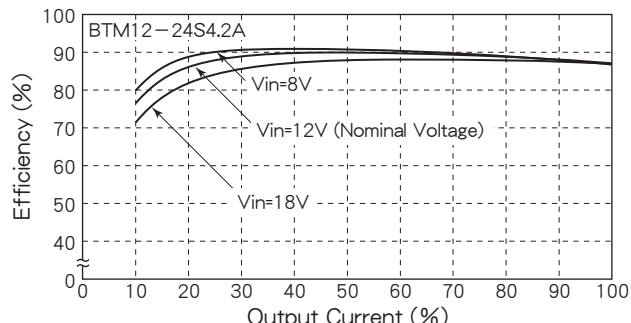


Fig. 6 Efficiency vs. Output Current

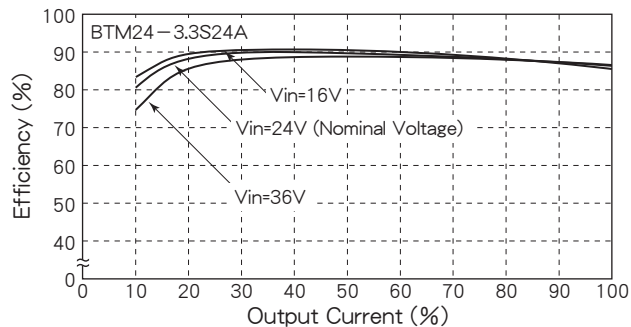


Fig. 7 Efficiency vs. Output Current

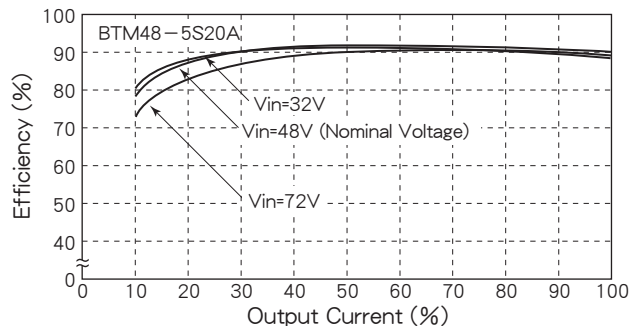


Fig. 8 Efficiency vs. Output Current

