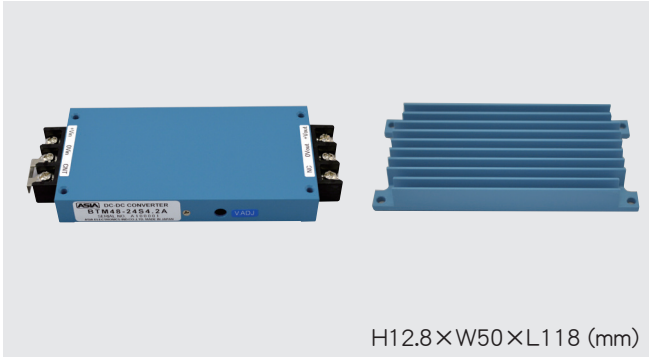


# BTM SERIES

## 80~100W DC/DC CONVERTERS Single Output



H12.8×W50×L118 (mm)

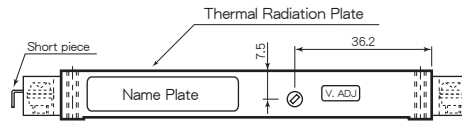
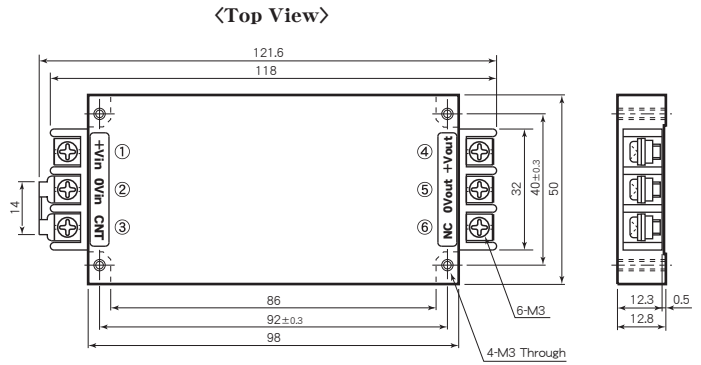
### Features

- 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  $\pm 5\%$
  - 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 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  $\pm 5\%$
  - 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
  - Output Voltage, Current
  - Output Voltage Range
  - Efficiency
  - Line Regulation
  - Load Regulation
  - Reflected Input Ripple, Noise
  - Output Ripple
  - Output Noise
  - Short Circuit Protection
  - Over Voltage Protection
  - Remote ON/OFF Control
- (at Ta : 25°C, Full Load, Nominal Vin)  
DC12, 24, 48, 100V (See Table 1)  
See Table 1  
 $\pm 5\%$  Adjustable  
See Table 1  
 $\pm 0.3\%$  max. (at Vin Range)  
 $\pm 0.5\%$  max. (0~100% Load)  
(3% Vin) Vp-p max.  
40mVp-p max.  
100mVp-p max.  
Built-in, Auto-restart (See Fig. 2)  
115~140% Output Voltage  
ON : Short or 0~0.8V  
OFF : Open or 2~10V  
(Between terminal ② ~ ③)  
0.02%/°C max.  
-40°C~+85°C (See Fig. 1)  
+105°C  
-55°C~+125°C  
AC1500V 1 min.  
AC2000V 1 min. (100V Vin only)  
(Input-Output-Case)  
100M $\Omega$  min. (at DC1000V)  
(Input-Output-Case)  
Main Body : 170g max.  
Heat Sink : 73g max.  
20~95% RH  
490m/s<sup>2</sup> (11msec 3directions)  
10~55Hz 98m/s<sup>2</sup>  
(30minutes 3directions)  
6 Sided Aluminum Case  
400,000H  
(Ta : 25°C, 80% Load, Nominal Vin)  
5 years
- Temperature Coefficient
  - Operating Ambient Temp.
  - Max. Case Temperature
  - Storage Temperature
  - Isolation Voltage
- Isolation Impedance
- Weight
- Humidity
  - Shock
  - Vibration
- Surface Structure
  - MTBF
  - Warranty

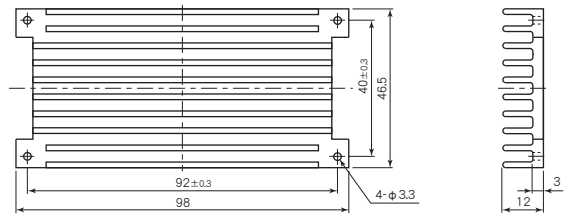
### Terminal Outs & Dimensions ( $\pm 0.5$ mm)



### 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



\* Option Heat Sink Model : A3-13986

### Selection Guide

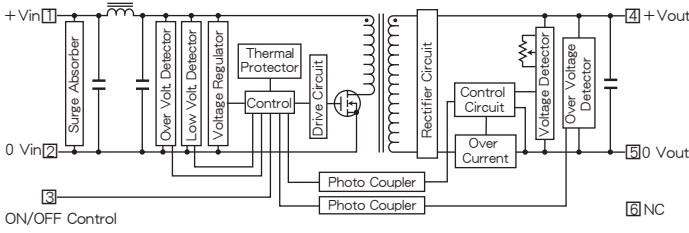
Table 1

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- 6S16.7A		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- 6S16.7A			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- 6S16.7A			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- 6S16.7A			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.

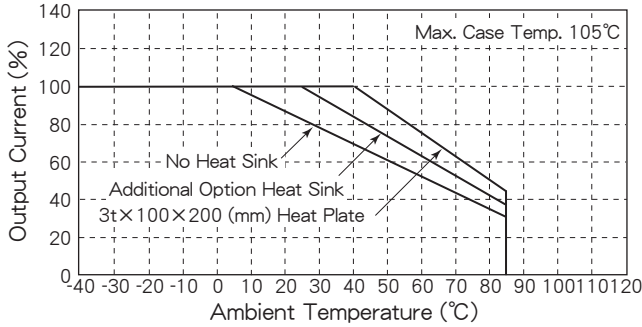
# BTM SERIES DATA SHEET

## Block Diagram

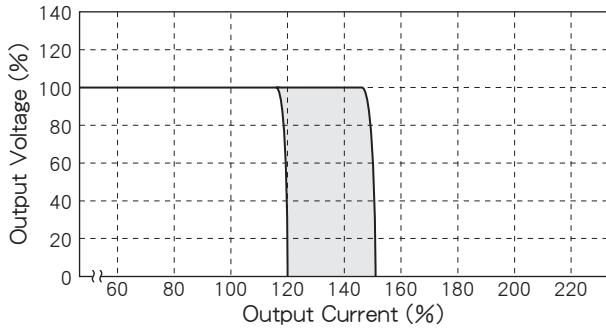


## Characteristic Curves

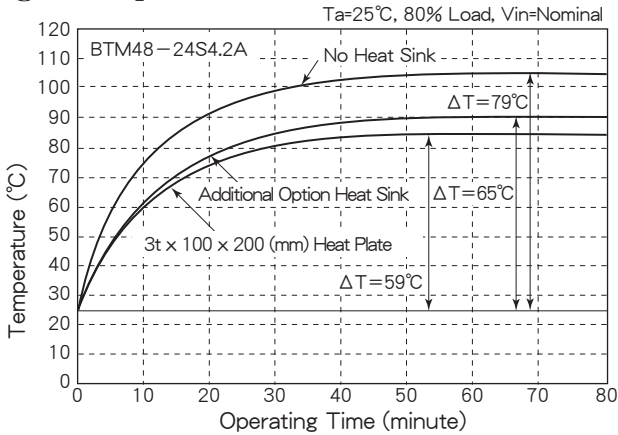
**Fig. 1 Derating Curve**



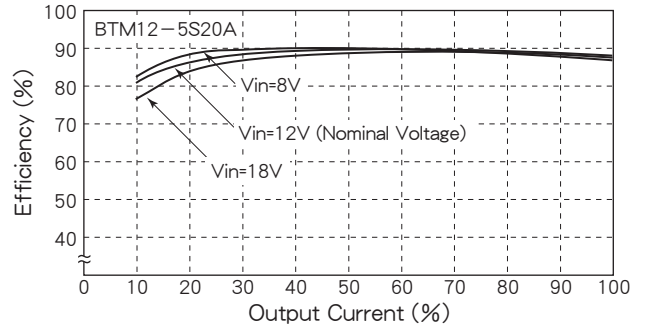
**Fig. 2 Short Circuit Operating Area**



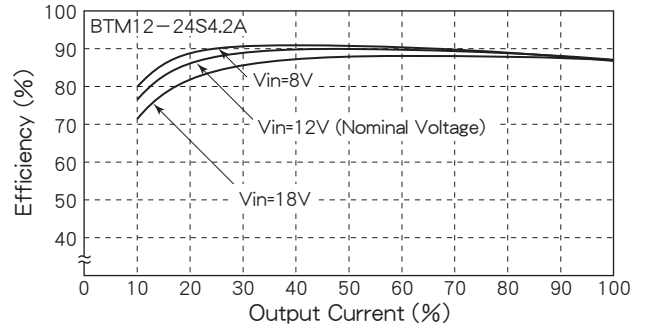
**Fig. 3 Temperature Characteristic on Case Surface**



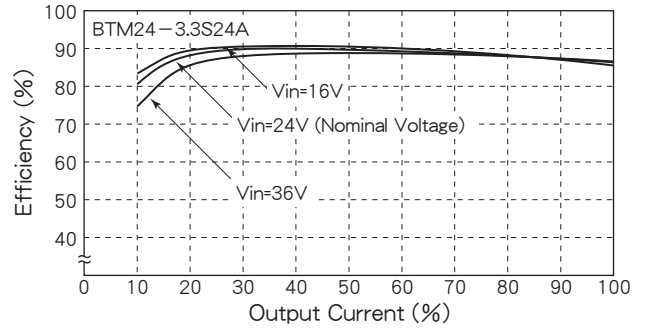
**Fig. 4 Efficiency vs. Output Current (Vin=12V)**



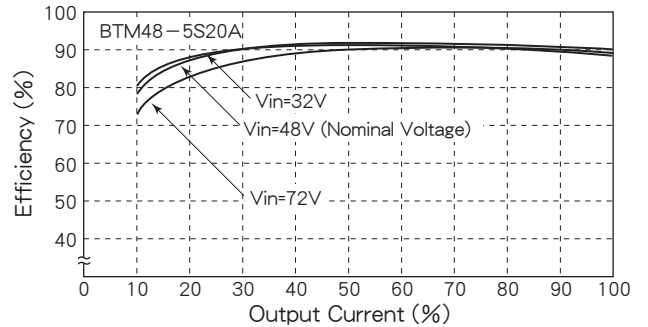
**Fig. 5 Efficiency vs. Output Current (Vin=12V)**



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



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



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

