

BPM SERIES

20~50W DC/DC CONVERTERS Single Output & Dual Outputs



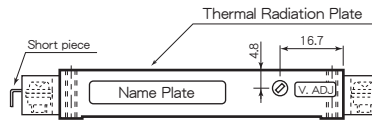
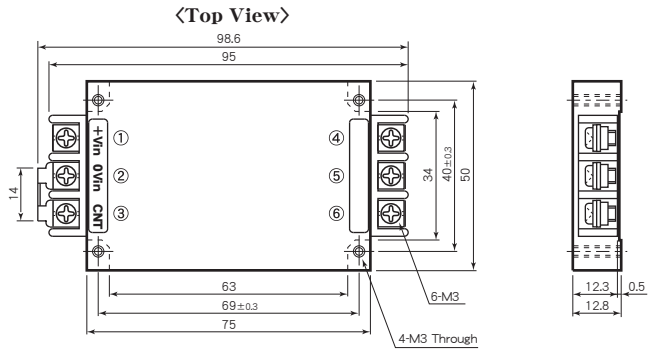
Features

- Low Profile 12.8mm
 - 6 Sided Metal Shielding
 - Built-in Input Filter
 - Wide Input Voltage Range
 - Input-Output Isolation
 - Adjustable Output Volt. ±5%
 - High Efficiency 81~90%
 - Remote ON/OFF Control
 - 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
 - High Reliability
 - Conformity to RoHS Directive
 - Not built-in aluminum and tantalum electrolytic capacitor
- 薄型 12.8mm
 - 6面メタルシールド
 - 入力フィルタ内蔵
 - 広範囲な入力電圧
 - 入出力間絶縁
 - 可変出力電圧 ±5%
 - 高効率 81~90%
 - リモートON/OFFコントロール
 - 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
 - 高信頼性
 - 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

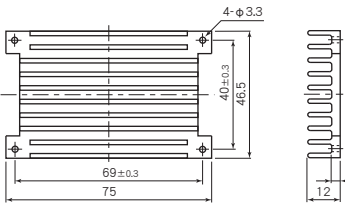
General Characteristics

- 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
 - Temperature Coefficient
 - Operating Ambient Temp.
 - Max. Case Temperature
 - Storage Temperature
 - Isolation Voltage
 - Isolation Impedance
 - Weight
 - Humidity
 - Shock
 - Vibration
 - Surface Structure
 - MTBF
 - Warranty
- (at Ta : 25°C, Full Load, Nominal Vin)
- DC12, 24, 48, 100V (See Table 1)
- See Table 1
- ±5% Adjustable
- See Table 1
- ±0.3% max. (at Vin Range)
- Single : ±0.5% max. (0~100% Load)
- Dual : ±3% max. (10~100% 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
- 40°C~+115°C
- AC1500V 1 min.
- AC2000V 1 min. (100V Vin only)
- (Input-Output-Case)
- 100MΩ min. (at DC1000V)
- (Input-Output-Case)
- Main Body : 150g max.
- Heat Sink : 55g max.
- 20~95% RH
- 490m/s² (11msec 3directions)
- 10~55Hz 98m/s²
- (30minutes 3directions)
- 6 Sided Aluminum Case
- Single : 500,000H
- Dual : 600,000H
- (Ta : 25°C, 80% Load, Nominal Vin)
- 5 years

Terminal Outs & Dimensions (±0.5mm)



Option Heat Sink



* Option Heat Sink Model : A3-13987

Terminal Outs

Single Output		Dual Outputs	
①	+Vdc in	①	+Vdc in
②	0 Vdc in	②	0 Vdc in
③	ON/OFF Control	③	ON/OFF Control
④	+Vdc out	④	+Vdc out
⑤	0 Vdc out	⑤	Common
⑥	No Connection	⑥	-Vdc out

Selection Guide

Table 1

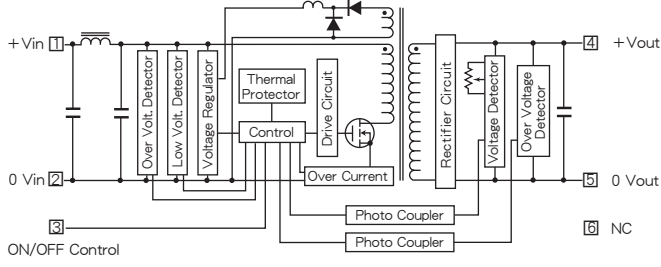
Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)		
				30% Load	80% Load	
BPM12-3.3S12A	12 (8~18)	3.3	12	87	85	
BPM12-5S10A		5	10	86	89	
BPM12-6S8.4A		6	8.4	87	87	
BPM12-12S4.2A		12	4.2	84	88	
BPM12-15S3.3A		15	3.3	83	88	
BPM12-24S2.1A		24	2.1	83	88	
BPM12-3.3D3A		±3.3	±3	80	81	
BPM12-5D3A		±5	±3	80	82	
BPM12-12D1.5A		±12	±1.5	81	83	
BPM12-15D1.2A		±15	±1.2	81	84	
BPM24-3.3S12A		24 (16~36)	3.3	12	84	85
BPM24-5S10A			5	10	85	88
BPM24-6S8.4A	6		8.4	87	89	
BPM24-12S4.2A	12		4.2	84	89	
BPM24-15S3.3A	15		3.3	85	89	
BPM24-24S2.1A	24		2.1	84	89	
BPM24-3.3D3A	±3.3		±3	80	81	
BPM24-5D3A	±5		±3	80	82	
BPM24-12D1.5A	±12		±1.5	81	84	
BPM24-15D1.2A	±15		±1.2	82	85	
BPM48-3.3S12A	48 (32~72)		3.3	12	85	86
BPM48-5S10A			5	10	85	88
BPM48-6S8.4A		6	8.4	85	88	
BPM48-12S4.2A		12	4.2	85	88	
BPM48-15S3.3A		15	3.3	85	90	
BPM48-24S2.1A		24	2.1	85	90	
BPM48-3.3D3A		±3.3	±3	80	81	
BPM48-5D3A		±5	±3	80	82	
BPM48-12D1.5A		±12	±1.5	81	84	
BPM48-15D1.2A		±15	±1.2	82	85	
BPM100-3.3S12A		100 (64~144)	3.3	12	84	87
BPM100-5S10A			5	10	86	89
BPM100-6S8.4A	6		8.4	84	89	
BPM100-12S4.2A	12		4.2	85	90	
BPM100-15S3.3A	15		3.3	85	90	
BPM100-24S2.1A	24		2.1	85	90	
BPM100-3.3D3A	±3.3		±3	80	81	
BPM100-5D3A	±5		±3	80	82	
BPM100-12D1.5A	±12		±1.5	81	84	
BPM100-15D1.2A	±15		±1.2	82	85	

※ 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.

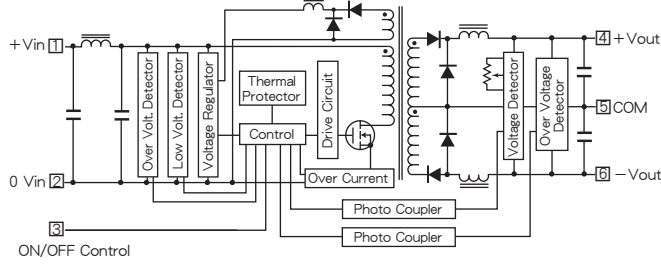
BPM SERIES DATA SHEET

Block Diagram

Single Output



Dual Outputs



Characteristic Curves

Fig. 1 Derating Curve

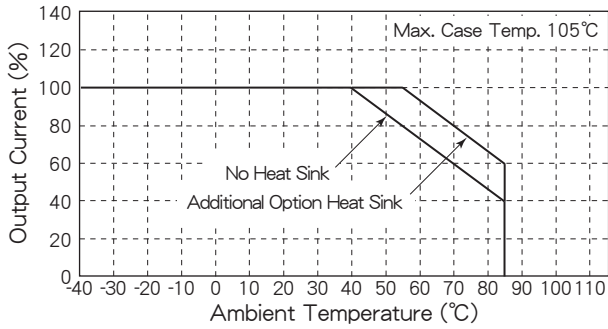


Fig. 2 Short Circuit Operating Area

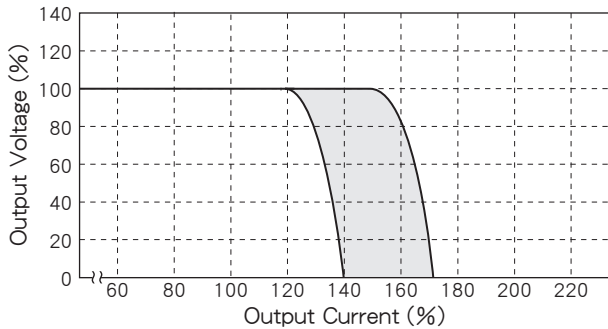


Fig. 3 Temperature Characteristic on Case Surface

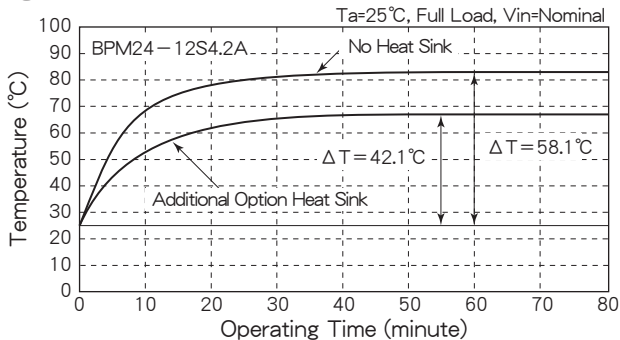


Fig. 4 Efficiency vs. Output Current (Vin=12V)

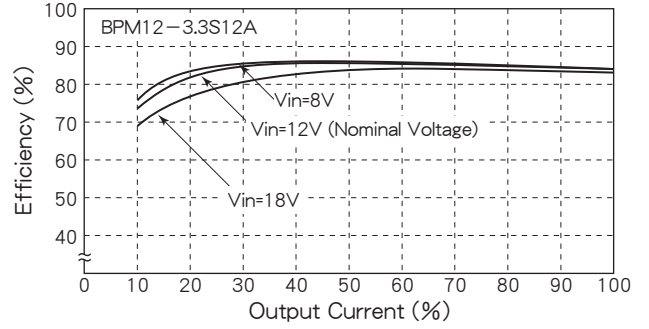


Fig. 5 Efficiency vs. Output Current (Vin=24V)

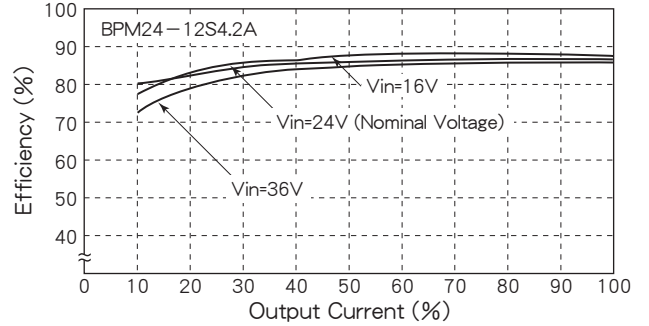


Fig. 6 Efficiency vs. Output Current (Vin=100V)

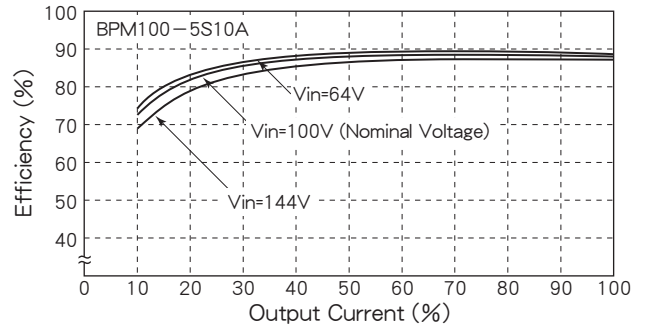


Fig. 7 Efficiency vs. Output Current (Vin=100V)

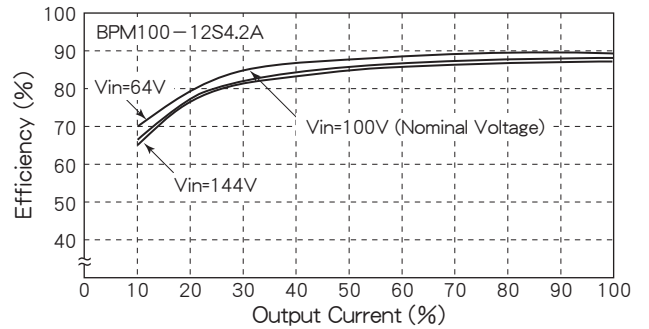


Fig. 8 Efficiency vs. Output Current (Vin=12V)

