

BPM SERIES

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



H12.8×W50×L95 (mm)

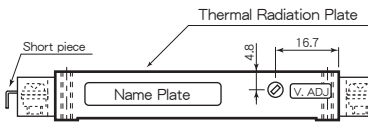
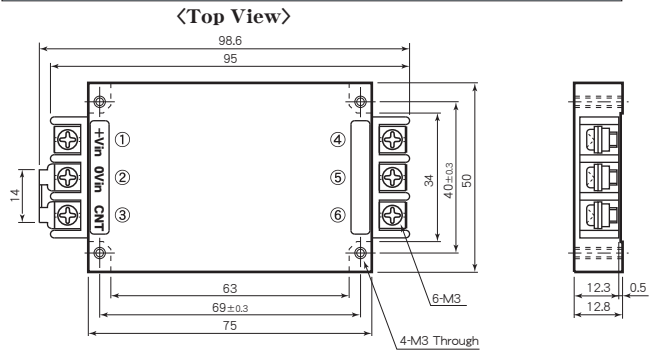
Features

- Low Profile 12.8mm
 - 6 Sided Metal Shielding
 - Built-in Input Filter
 - Wide Input Voltage Range
 - Input-Output Isolation
 - Adjustable Output Volt. $\pm 5\%$
 - 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 RoHS2 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 $\pm 5\%$
 - 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
 - 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
 - Output Voltage, Current
 - Output Voltage Range $\pm 5\%$ Adjustable
 - Efficiency
 - Line Regulation
 - Load Regulation
- (at T_a : 25°C, Full Load, Nominal V_{in})
DC12, 24, 48, 100, 140V (See Table 1)
See Table 1
- $\pm 5\%$ Adjustable
See Table 1
- $\pm 0.3\%$ max. (at V_{in} Range)
Single: $\pm 0.5\%$ max. (0~100% Load)
Dual: $\pm 3\%$ max. (10~100% Load)
(3% V_{in}) V_p -p max.
40mVp-p max.
- 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

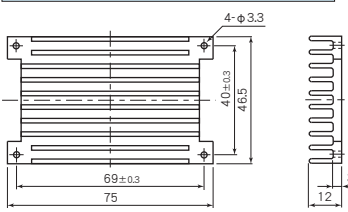
Terminal Outs & Dimensions (± 0.5 mm)



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

Option Heat Sink



* Option Heat Sink Model : A3-13987

Selection Guide

Table 1

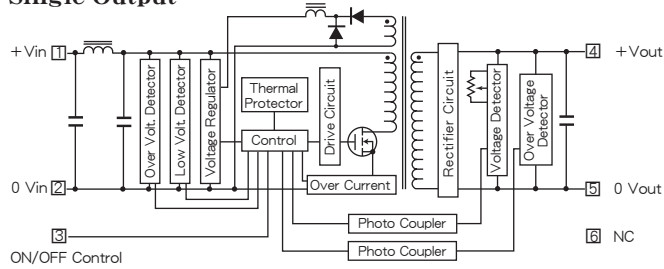
Model Number	Input Voltage (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (typ.) (%)		
				30% Load	80% Load	
BPM 12-3.3S 12A	12 (8~18)	3.3	12	87	85	
BPM 12-5S 10A		5	10	86	89	
BPM 12-6S 8.4A		6	8.4	87	87	
BPM 12-12S 4.2A		12	4.2	84	88	
BPM 12-15S 3.3A		15	3.3	83	88	
BPM 12-24S 2.1A		24	2.1	83	88	
BPM 12-3.3D 3A		± 3.3	± 3	80	81	
BPM 12-5D 3A		± 5	± 3	80	82	
BPM 12-12D 1.5A		± 12	± 1.5	81	83	
BPM 12-15D 1.2A		± 15	± 1.2	81	84	
BPM 24-3.3S 12A		24 (16~36)	3.3	12	84	85
BPM 24-5S 10A			5	10	85	88
BPM 24-6S 8.4A			6	8.4	87	89
BPM 24-12S 4.2A			12	4.2	84	89
BPM 24-15S 3.3A			15	3.3	85	89
BPM 24-24S 2.1A			24	2.1	84	89
BPM 24-3.3D 3A			± 3.3	± 3	80	81
BPM 24-5D 3A			± 5	± 3	80	82
BPM 24-12D 1.5A	± 12		± 1.5	81	84	
BPM 24-15D 1.2A	± 15		± 1.2	82	85	
BPM 48-3.3S 12A	48 (32~72)		3.3	12	85	86
BPM 48-5S 10A			5	10	85	88
BPM 48-6S 8.4A			6	8.4	85	88
BPM 48-12S 4.2A			12	4.2	85	88
BPM 48-15S 3.3A			15	3.3	85	90
BPM 48-24S 2.1A			24	2.1	85	90
BPM 48-3.3D 3A			± 3.3	± 3	80	81
BPM 48-5D 3A			± 5	± 3	80	82
BPM 48-12D 1.5A		± 12	± 1.5	81	84	
BPM 48-15D 1.2A		± 15	± 1.2	82	85	
BPM 100-3.3S 12A		100 (64~144)	3.3	12	84	87
BPM 100-5S 10A			5	10	86	89
BPM 100-6S 8.4A			6	8.4	84	89
BPM 100-12S 4.2A			12	4.2	85	90
BPM 100-15S 3.3A			15	3.3	85	90
BPM 100-24S 2.1A			24	2.1	85	90
BPM 100-3.3D 3A			± 3.3	± 3	80	81
BPM 100-5D 3A			± 5	± 3	80	82
BPM 100-12D 1.5A	± 12		± 1.5	81	84	
BPM 100-15D 1.2A	± 15		± 1.2	82	85	
BPM 140-3.3S 12A	140 (90~200)		3.3	12	86	89
BPM 140-5S 10A			5	10	86	89
BPM 140-12S 4.2A			12	4.2	85	90
BPM 140-24S 2.1A			24	2.1	85	90
BPM 140-48S 1.05A			48	1.05	85	90
BPM 140-1.05A			48	1.05	85	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.

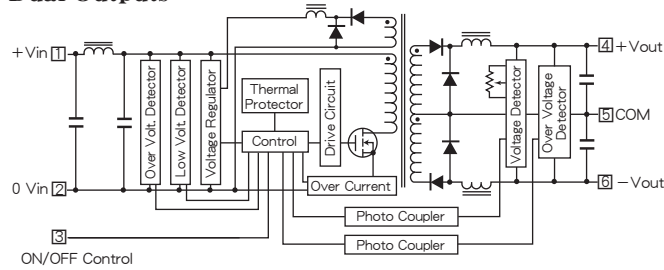
BPM SERIES DATA SHEET

Block Diagram

Single Output



Dual Outputs



Characteristic Curves

Fig. 1 Derating Curve

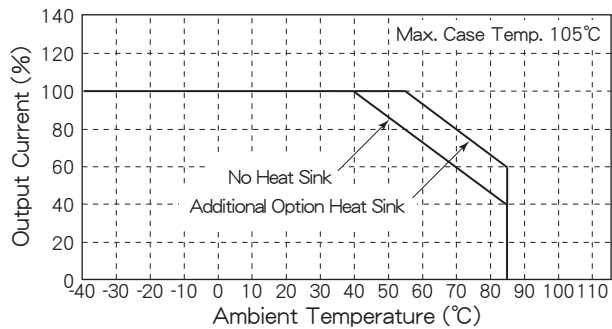


Fig. 2 Short Circuit Operating Area

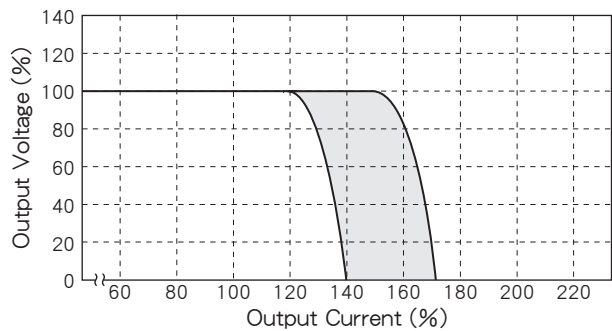


Fig. 3 Temperature Characteristic on Case Surface

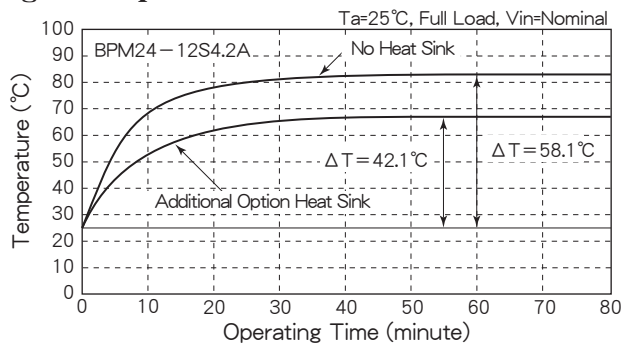


Fig. 4 Efficiency vs. Output Current (Vin=12V)

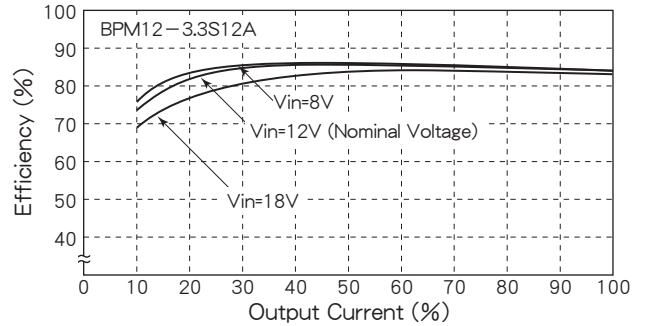


Fig. 5 Efficiency vs. Output Current (Vin=24V)

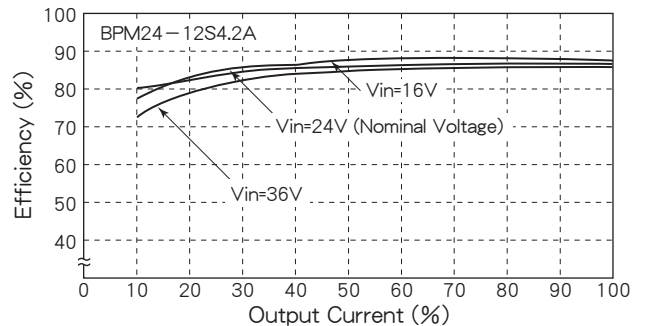


Fig. 6 Efficiency vs. Output Current (Vin=100V)

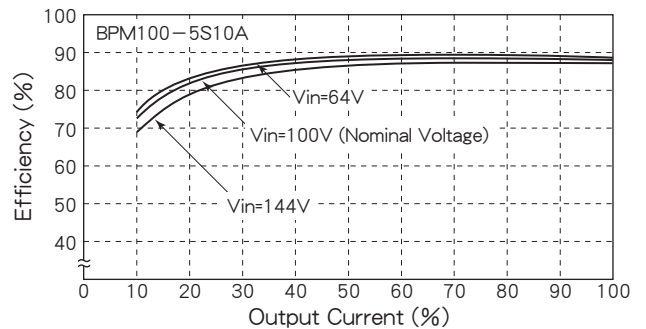


Fig. 7 Efficiency vs. Output Current (Vin=100V)

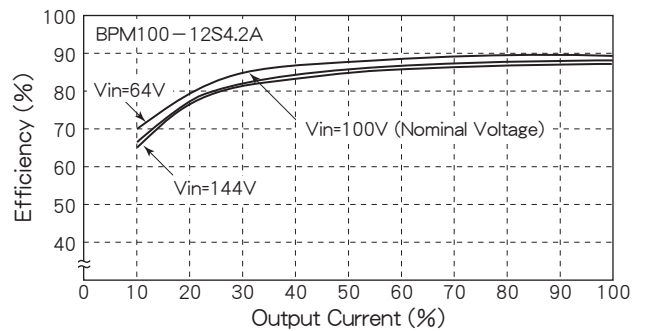


Fig. 8 Efficiency vs. Output Current (Vin=12V)

