

PD SERIES

85~110W DC/DC CONVERTERS Single Output



H35×W70×L158 (mm)

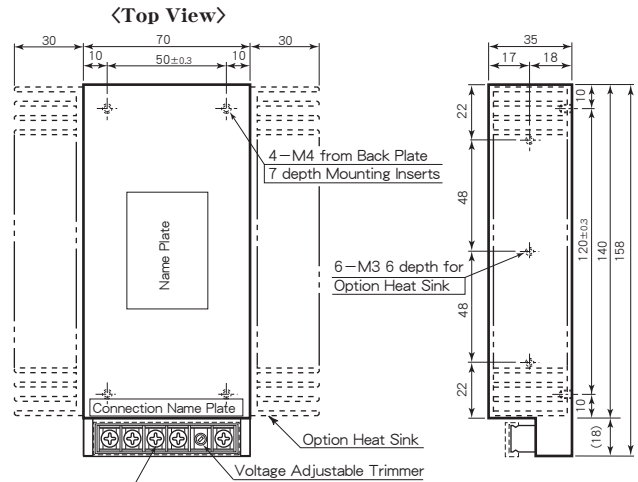
Features

- Wide Input Voltage Range
- 広範囲な入力電圧範囲
- High Efficiency 83%~90%
- 高効率 83%~90%
- Input-Output Isolation (AC2000V)
- 入出力間絶縁 (AC2000V)
- Low Output Ripple and Noise
- 出力リップル/ノイズが小さい
- Long Life by mounting on Chassis or Using Heat Sink
- シヤージや放熱板への取付により長寿命化
- 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 120%~140% Operation
- 出力過電圧保護回路内蔵 120%~140%動作
- Operating Ambient Temp. -25°C~+71°C
- 動作周囲温度 -25°C~+71°C
- Max. Case Temperature+85°C
- 最大ケース温度+85°C
- Conformity to RoHS2 Directive
- RoHS2指令対応

General Characteristics

- Input Voltage, Range (at Ta : 25°C, Full Load, Nominal Vin) DC12, 24, 48, 96V (See Table 1)
- Output Voltage, Current See Table 1
- Output Voltage Adjustment ±5%
- Efficiency See Table 1
- Line Regulation 0.1% max. (at Vin Range)
- Load Regulation 1% max. (0~100% Load)
- Output Ripple (0.1% Vout+50mV) p-p max.
- Output Noise (0.5% Vout+50mV) p-p max.
- Short Circuit Protection Built-in, Auto-restart (See Fig. 2)
- Output Over Voltage Protection Built-in, Shut-down (120%~140% Vout)
- Temperature Coefficient 0.02%/°C max.
- Operating Ambient Temp. -25°C~+71°C (See Fig. 1)
- Max. Case Temp. +85°C
- Storage Temp. -40°C~+85°C
- Isolation Voltage AC2000V one minute (Input-Output-Case)
- Isolation Impedance 100MΩ min. (at DC1000V) (Input-Output-Case)
- Weight Main Body : 800g max.
Pair Heat Sinks : 250g max.
- Humidity 20~95% RH
- Shock 490m/s² (11msec 3directions)
- Vibration 10~55Hz 98m/s² (30minutes 3directions)
- Surface Structure Aluminum Case
- MTBF 120,000H (Ta : 25°C, 80% Load, Nominal Vin)
- Warranty 5 years

Terminal Outs & Dimensions (±0.5mm)



| | |
|---|-----------------|
| ① | +Vdc in |
| ② | 0 Vdc in |
| ③ | Frame Ground |
| ④ | +Vdc out |
| ⑤ | Vout Adjustment |
| ⑥ | 0 Vdc out |

* Option Heat Sink Model : A3-3664

Selection Guide

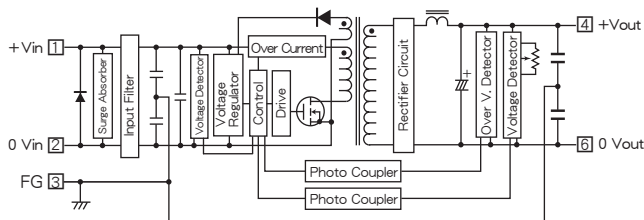
Table 1

| Model Number | Input Volt. (Range) (V. DC) | Output Voltage (V. DC) | Output Current (A) | Efficiency (typ.) (%) |
|-------------------|-----------------------------|-------------------------|--------------------|-----------------------|
| PD12 - 3.3S 26A | 12 (6~18) at 50% Load | 3.3 | 26 | 83 |
| PD12 - 5S 20A | | 5 | 20 | 85 |
| PD12 - 12S 8.3A | | 12 | 8.3 | 85 |
| PD12 - 13.8S 7.3A | | 13.8 | 7.3 | 85 |
| PD12 - 15S 7A | | 15 | 7 | 85 |
| PD12 - 24S 4.5A | | 24 | 4.5 | 86 |
| PD12 - 48S 2.3A | (8~18) at 100% Load | 48 | 2.3 | 88 |
| PD12 - 100S 1.1A | | 100 | 1.1 | 90 |
| PD12 - 140S 0.8A | | 140 | 0.8 | 90 |
| PD12 - 200S 0.55A | | 200 | 0.55 | 90 |
| PD12 - 300S 0.36A | | 300 | 0.36 | 90 |
| PD24 - 3.3S 26A | | 24 (14~40) at 50% Load | 3.3 | 26 |
| PD24 - 5S 20A | 5 | | 20 | 85 |
| PD24 - 12S 8.3A | 12 | | 8.3 | 86 |
| PD24 - 13.8S 7.3A | 13.8 | | 7.3 | 86 |
| PD24 - 15S 7A | 15 | | 7 | 86 |
| PD24 - 24S 4.5A | 24 | | 4.5 | 88 |
| PD24 - 48S 2.3A | (17~40) at 100% Load | 48 | 2.3 | 89 |
| PD24 - 100S 1.1A | | 100 | 1.1 | 90 |
| PD24 - 140S 0.8A | | 140 | 0.8 | 90 |
| PD24 - 200S 0.55A | | 200 | 0.55 | 90 |
| PD24 - 300S 0.36A | | 300 | 0.36 | 90 |
| PD48 - 3.3S 26A | | 48 (28~80) at 50% Load | 3.3 | 26 |
| PD48 - 5S 20A | 5 | | 20 | 85 |
| PD48 - 12S 8.3A | 12 | | 8.3 | 85 |
| PD48 - 13.8S 7.3A | 13.8 | | 7.3 | 86 |
| PD48 - 15S 7A | 15 | | 7 | 86 |
| PD48 - 24S 4.5A | 24 | | 4.5 | 88 |
| PD48 - 48S 2.3A | (34~80) at 100% Load | 48 | 2.3 | 89 |
| PD48 - 100S 1.1A | | 100 | 1.1 | 90 |
| PD48 - 140S 0.8A | | 140 | 0.8 | 90 |
| PD48 - 200S 0.55A | | 200 | 0.55 | 90 |
| PD48 - 300S 0.36A | | 300 | 0.36 | 90 |
| PD96 - 3.3S 26A | | 96 (56~160) at 50% Load | 3.3 | 26 |
| PD96 - 5S 20A | 5 | | 20 | 87 |
| PD96 - 12S 8.3A | 12 | | 8.3 | 85 |
| PD96 - 13.8S 7.3A | 13.8 | | 7.3 | 86 |
| PD96 - 15S 7A | 15 | | 7 | 86 |
| PD96 - 24S 4.5A | 24 | | 4.5 | 88 |
| PD96 - 48S 2.3A | (68~160) at 100% Load | 48 | 2.3 | 89 |
| PD96 - 100S 1.1A | | 100 | 1.1 | 90 |
| PD96 - 140S 0.8A | | 140 | 0.8 | 90 |
| PD96 - 200S 0.55A | | 200 | 0.55 | 90 |
| PD96 - 300S 0.36A | | 300 | 0.36 | 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.

PD SERIES DATA SHEET

Block Diagram



Characteristic Curves

Fig. 1 Derating Curve

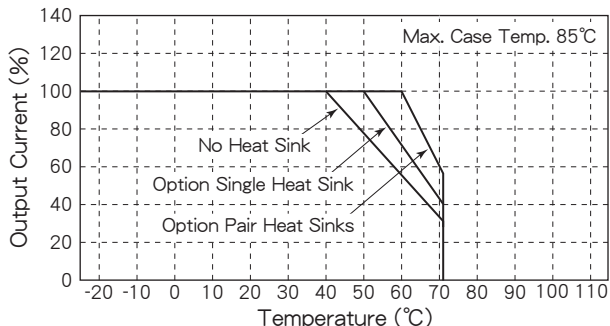


Fig. 2 Short Circuit Operating Area

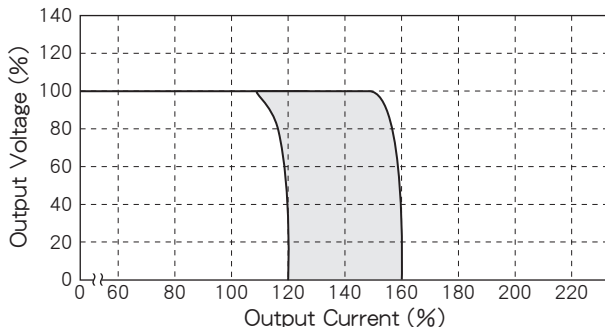


Fig. 3 Temperature Characteristic on Case Surface

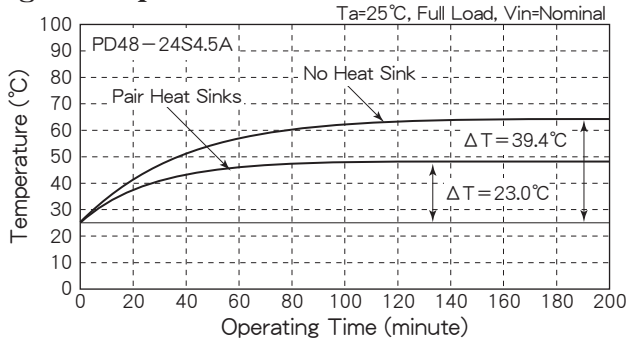


Fig. 4 Efficiency vs. Output Current

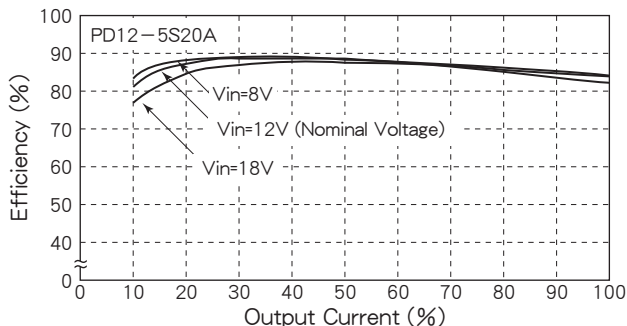


Fig. 5 Efficiency vs. Output Current

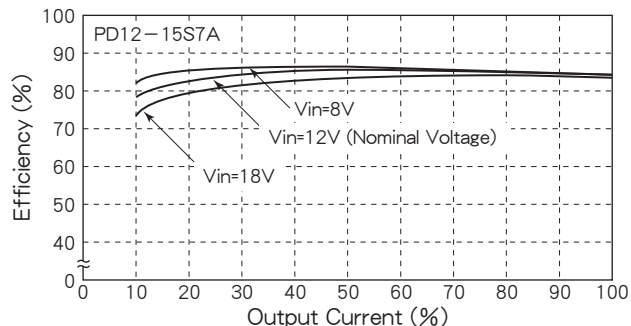


Fig. 6 Efficiency vs. Output Current

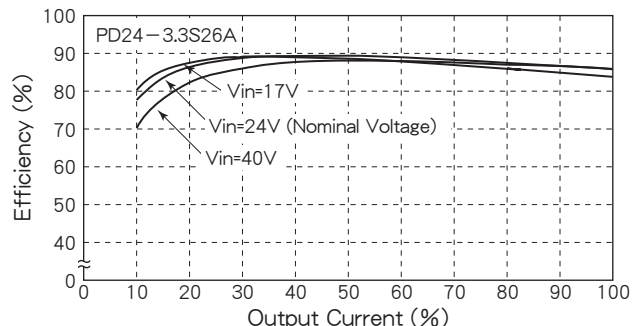


Fig. 7 Efficiency vs. Output Current

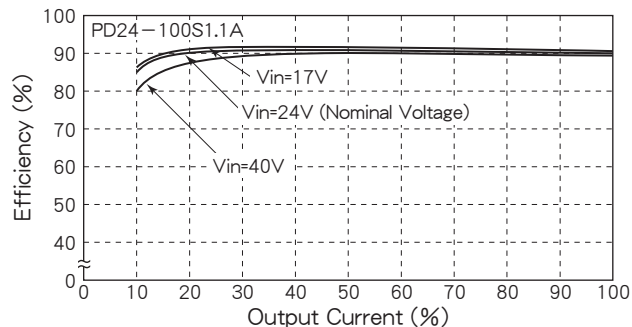


Fig. 8 Efficiency vs. Output Current

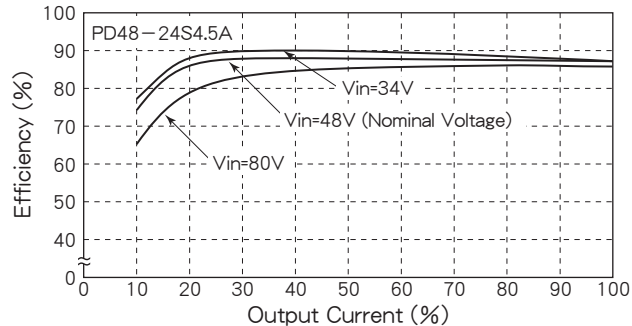


Fig. 9 Efficiency vs. Output Current

