

KMP SERIES

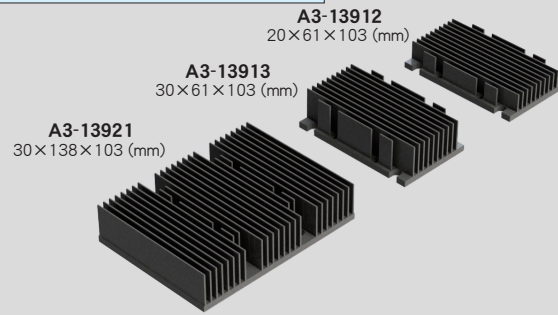
105~200W DC/DC CONVERTERS

Single Output



H20×W60×L105 (mm)

Option Heat Sink



Features

- Built-in Input Filter
 - Input-Output Isolation
 - High Efficiency 87~91%
 - Wide Input Voltage Range
 - High Reliability
 - 6 Sided Metal Shielding
 - Adjustable Output Volt. ±8%
 - Input Low Voltage Protection
 - Input Over Voltage Protection
 - Output Over Voltage Protection
 - Thermal Protection
+110°C~+120°C
 - Remote ON/OFF Control
 - Operating Ambient Temperature
-40°C~+85°C
 - Conformity to RoHS Directive
 - Not built-in aluminum and tantalum electrolytic capacitor
- 入力フィルタ内蔵
 - 入出力間絶縁
 - 高効率 87~91%
 - 広範囲な入力電圧
 - 高信頼性
 - 6面メタルシールド
 - 可変出力電圧 ±8%
 - 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
 - 過熱保護回路内蔵
+110°C~+120°C
 - リモートON/OFFコントロール
 - 動作周囲温度
-40°C~+85°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 (at Ta : 25°C, Full Load, Nominal Vin)
DC12, 24, 48, 100, 140V (See Table 1)
- Output Voltage, Current See Table 1
- Output Voltage Accuracy ±2%
- Output Voltage Range ±3% (3.3, 5, 6V Vout only)
- Efficiency ±8% Adjustable (Used trimmer)
- Line Regulation See Table 1
- Load Regulation ±0.3% max. (at Vin Range)
- Reflected Input Ripple, Noise ±1% max.
- Output Ripple (0.5% Vout+100mV)p-p max.
- Output Noise 80mVp-p max.
- Short Circuit Protection (0.5% Vout+100mV)p-p max.
- Over Voltage Protection Built-in, Auto-restart (See Fig. 5)
- Remote ON/OFF Control 115~140% Output Voltage
ON : Short or 0~0.8V
OFF : Open or 2~10V
(Between pin 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 AC2000V one minute
(Input-Output-Case)
- Isolation Impedance 100MΩ min. (at DC1000V)
(Input-Output-Case)
- Weight Main Body : 300g max.
Heat Sink
A3-13912 : 145g max.
A3-13913 : 185g max.
A3-13921 : 430g max.
- Humidity 20~95% RH
- Shock 490m/s² (11msec 3directions)
- Vibration 10~55Hz 98m/s²
(30minutes 3directions)
- Surface Structure Aluminum Case
- Soldering Conditions Soldering DIP 260°C, for 15 seconds max.
Soldering iron 360°C, for 5 seconds max.
- MTBF 400,000H
(Ta : 25°C, 80% Load, Nominal Vin)
- Warranty 5 years

Selection Guide

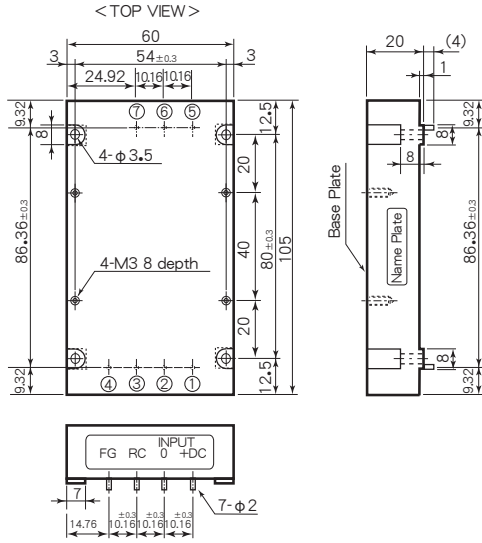
Table 1

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical)(%)			
				20% Load	50% Load	80% Load	
KMP12 - 3.3S 32A	12 (8~18) at 50% Load (9~18) at 100% Load	3.3	32	85	88	87	
KMP12 - 5S 32A		5	32	86	90	89	
KMP12 - 6S26.6A		6	26.6	86	90	89	
KMP12 - 12S13.4A		12	13.4	87	90	89	
KMP12 - 13.8S11.6A		13.8	11.6	87	90	89	
KMP12 - 15S10.7A		15	10.7	87	90	89	
KMP12 - 24S 6.7A		24	6.7	87	90	89	
KMP12 - 28S 5.8A		28	5.8	87	90	89	
KMP12 - 48S 3.4A		48	3.4	87	90	89	
KMP24 - 3.3S 40A		24 (16~36)	3.3	40	88	91	90
KMP24 - 5S 32A			5	32	90	92	91
KMP24 - 6S26.6A			6	26.6	90	92	91
KMP24 - 12S16.7A	12		16.7	90	92	91	
KMP24 - 13.8S14.5A	13.8		14.5	90	92	91	
KMP24 - 15S13.4A	15		13.4	90	92	91	
KMP24 - 24S 8.4A	24		8.4	90	92	91	
KMP24 - 28S 7.2A	28		7.2	90	92	91	
KMP24 - 48S 4.2A	48		4.2	90	92	91	
KMP48 - 3.3S 40A	48 (36~76)		3.3	40	88	91	90
KMP48 - 5S 32A			5	32	91	92	91
KMP48 - 6S26.6A			6	26.6	91	92	91
KMP48 - 12S16.7A		12	16.7	91	92	91	
KMP48 - 13.8S14.5A		13.8	14.5	91	92	91	
KMP48 - 15S13.4A		15	13.4	91	92	91	
KMP48 - 24S 8.4A		24	8.4	91	92	91	
KMP48 - 28S 7.2A		28	7.2	91	92	91	
KMP48 - 48S 4.2A		48	4.2	91	92	91	
KMP100 - 3.3S 40A		100 (64~144)	3.3	40	85	91	90
KMP100 - 5S 32A			5	32	87	92	91
KMP100 - 6S26.6A			6	26.6	87	92	91
KMP100 - 12S16.7A	12		16.7	87	92	91	
KMP100 - 13.8S14.5A	13.8		14.5	87	92	91	
KMP100 - 15S13.4A	15		13.4	87	92	91	
KMP100 - 24S 8.4A	24		8.4	87	92	91	
KMP100 - 28S 7.2A	28		7.2	87	92	91	
KMP100 - 48S 4.2A	48		4.2	87	92	91	
KMP140 - 3.3S 40A	140 (90~200)		3.3	40	85	91	90
KMP140 - 5S 32A			5	32	87	92	91
KMP140 - 6S26.6A			6	26.6	87	92	91
KMP140 - 12S16.7A		12	16.7	87	92	91	
KMP140 - 13.8S14.5A		13.8	14.5	87	92	91	
KMP140 - 15S13.4A		15	13.4	87	92	91	
KMP140 - 24S 8.4A		24	8.4	87	92	91	
KMP140 - 28S 7.2A		28	7.2	87	92	91	
KMP140 - 48S 4.2A		48	4.2	87	92	91	

* 上記仕様以外にも対応可能ですのでお問い合わせください。
Please consult with us about other specification.

KMP SERIES DATA SHEET

Pin Outs & Dimensions (±0.5mm)

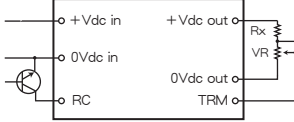


Pin Outs

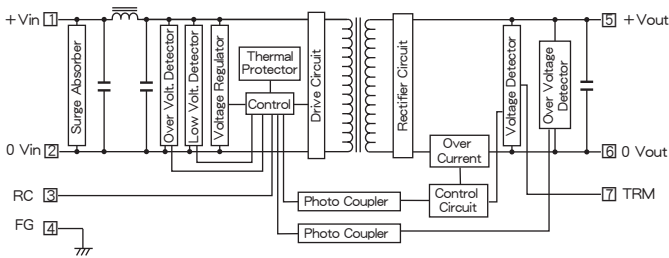
①	+Vdc in
②	0 Vdc in
③	RC
④	FG
⑤	+Vdc out
⑥	0 Vdc out
⑦	TRM

Application

ON/OFF Control and Vout Adjustment

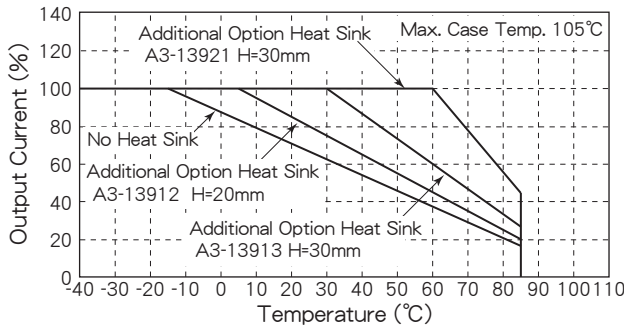


Block Diagram



Characteristic Curves

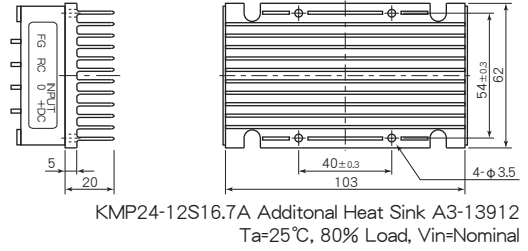
Fig. 1 Derating Curve



Option Heat Sink

Fig. 2 Temperature Characteristic on Case Surface

* Option Heat Sink Model : A3-13912



KMP24-12S16.7A Additional Heat Sink A3-13912
Ta=25°C, 80% Load, Vin=Nominal

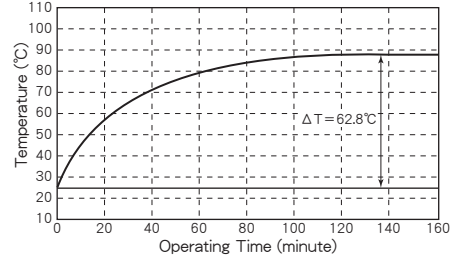
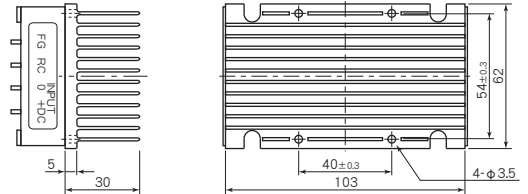


Fig. 3 Temperature Characteristic on Case Surface

* Option Heat Sink Model : A3-13913



KMP24-12S16.7A Additional Heat Sink A3-13913
Ta=25°C, 100% Load, Vin=Nominal

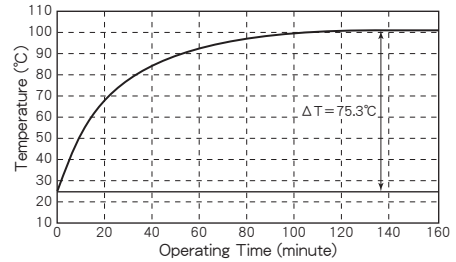
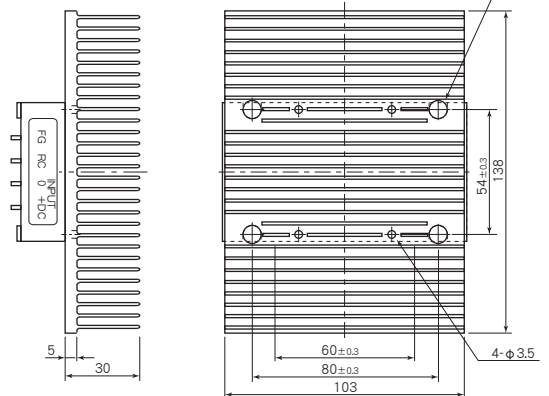
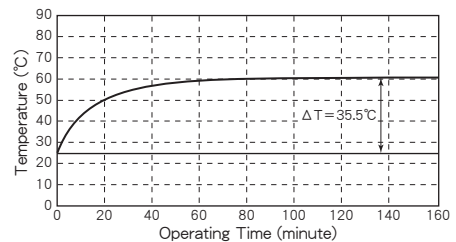


Fig. 4 Temperature Characteristic on Case Surface

* Option Heat Sink Model : A3-13921



KMP24-12S16.7A Additional Heat Sink A3-13921
Ta=25°C, 100% Load, Vin=Nominal



KMP SERIES DATA SHEET

Fig. 5 Short Circuit Operating Area

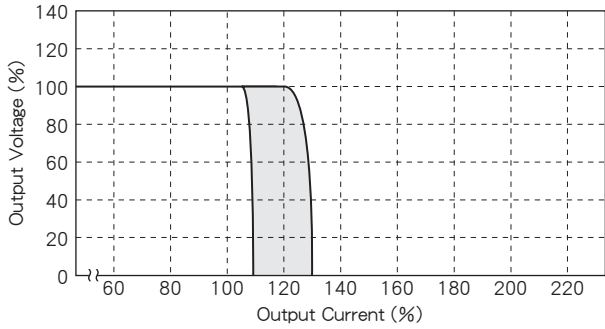


Fig. 6 Efficiency vs. Output Current

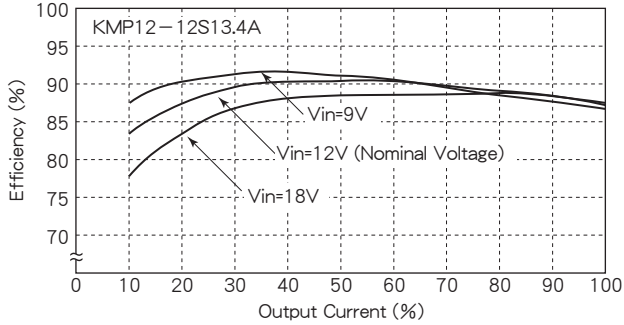


Fig. 7 Efficiency vs. Output Current

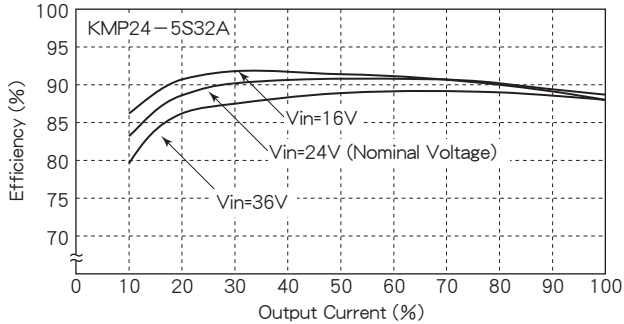


Fig. 8 Efficiency vs. Output Current

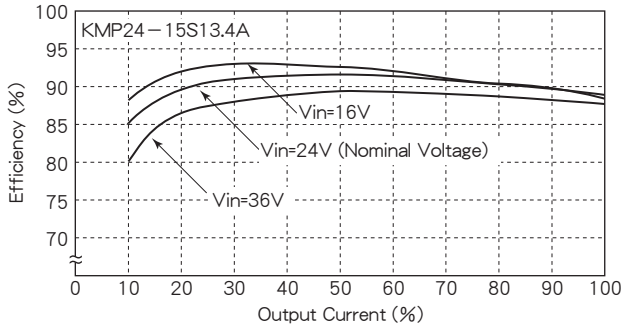


Fig. 9 Efficiency vs. Output Current

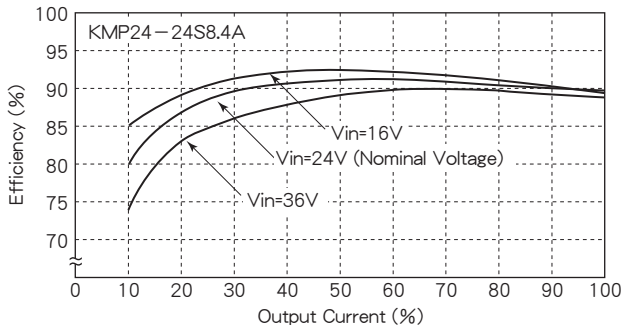


Fig. 10 Efficiency vs. Output Current

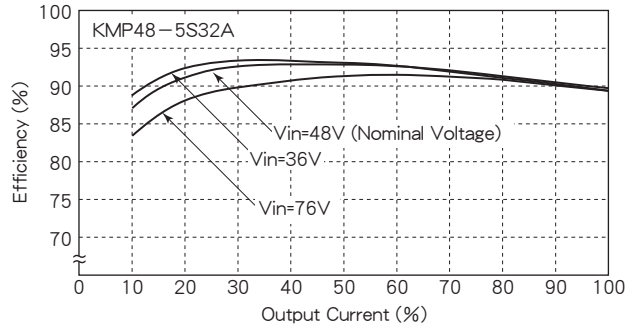


Fig. 11 Efficiency vs. Output Current

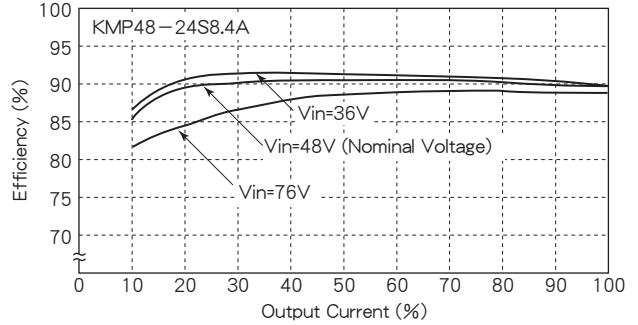


Fig. 12 Efficiency vs. Output Current

