

# AFC SERIES

## 20~25W AC/DC CONVERTERS Single, Dual & Triple Outputs



H30×W60×L110 (mm)

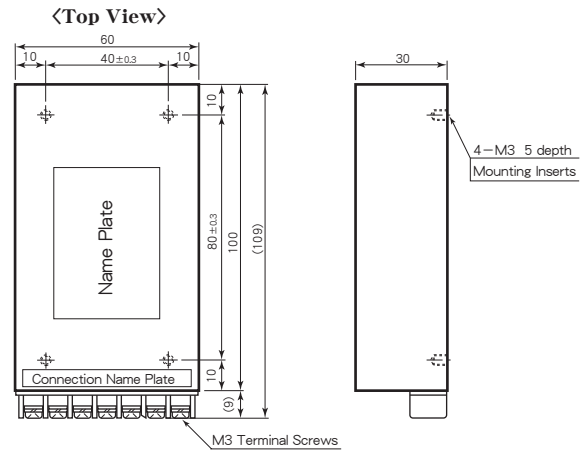
### Features

- Input-Output Isolation
- Completely Molding Device
- High Efficiency 75~80%
- Long Life by Mounting on Chassis or Using Heat Sink
- Output Over Voltage Protection (Single and Dual Output only)
- Operating Ambient Temperature -25°C~+71°C
- Conformity to RoHS Directive
- 入出力間絶縁
- 完全モールド製品
- 高効率 75~80%
- シャーシや放熱板への取付けにより長寿命化
- 出力過電圧保護回路内蔵 (単出力、2出力のみ)
- 動作周囲温度 -25°C~+71°C
- RoHS指令対応

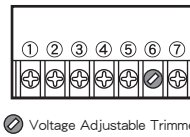
### General Characteristics

- Input Voltage, Range (at Ta:25°C, Full Load, Nominal Vin) AC100V, 200V (See Table 1)
- Input Frequency 47~440Hz
- Output Voltage, Current See Table 1
- Output Voltage Adjustment, Accuracy Single, Dual: ±5% Adjustable Triple: ±2% (5V Vout: ±3%)
- Efficiency See Table 1
- Line Regulation 0.1% max. (at Vin Range)
- Load Regulation Single, Dual: 0.5% max. 1% max. (5V Vout only) (0~100% Load) Triple: 1% max. (5V Vout) (0~100% Load) ±3% max. (±12V, ±15V Vout) (10~100% Load)
- Output Ripple (0.1%Vout+40mV)p-p max.
- Output Noise (0.5%Vout+50mV)p-p max.
- Short Circuit Protection Built-in, Auto-restart (See Fig 2)
- Over Voltage Protection 115~140% Output Voltage (Single and Dual Output only)
- Temperature Coefficient 0.02%/°C max.
- Operating Ambient Temp. -25°C~+71°C (See Fig 1)
- Max. Case Temperature +85°C
- Storage Temperature -40°C~+85°C
- Isolation Voltage AC1500V one minute (Input-Output-Case)
- Isolation Impedance 100MΩ min. (at DC1000V) (Input-Output-Case)
- Weight 430g max.
- Humidity 20~95% RH
- Shock 490m/s<sup>2</sup> (11msec 3directions)
- Vibration 10~55Hz 98m/s<sup>2</sup> (30minutes 3directions)
- Surface Structure Aluminum Case
- MTBF Single: 110,000H, Dual: 90,000H Triple: 80,000H (Ta:25°C, 80%Load, Nominal Vin)
- Warranty 5 years

### Terminal Outs & Dimensions (±0.5mm)



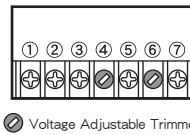
#### Single Output



#### Terminal Outs

①	AC in
②	AC in
③	No Connection
④	No Connection
⑤	+Vdc out
⑥	Vout Adjustment
⑦	0Vdc out

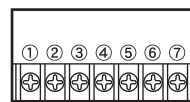
#### Dual Outputs



#### Terminal Outs

①	AC in
②	AC in
③	+Vdc out
④	+Vout Adjustment
⑤	Common
⑥	-Vout Adjustment
⑦	-Vdc out

#### Triple Outputs



#### Terminal Outs

①	AC in
②	AC in
③	+5V out
④	0Vdc out
⑤	+Vdc out
⑥	Common
⑦	-Vdc out

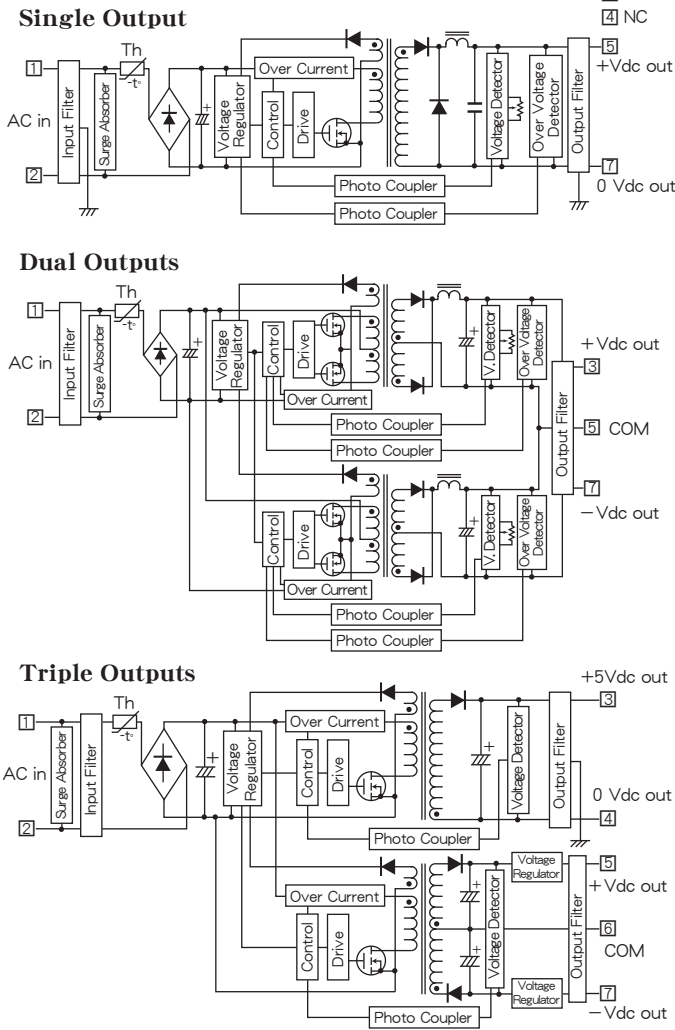
### Selection Guide

Model Number	Input Volt. (Range) (V. AC)	Output Voltage (V. DC)	Output Current (A)	Efficiency (Typical) (%)	
AFC100- 5S 4A	100 (85~132)	5	4	75	
AFC100-12S 2A		12	2	79	
AFC100-15S 1.6A		15	1.6	80	
AFC100-24S 1.1A		24	1.1	80	
AFC100-12W 1A		±12	±1	78	
AFC100-15W0.8A		±15	±0.8	79	
AFC100- 5S 12W		5, ±12	2, ±0.35	75	
AFC100- 5S 15W		5, ±15	2, ±0.3	75	
AFC200- 5S 4A		200 (175~264)	5	4	75
AFC200-12S 2A			12	2	79
AFC200-15S 1.6A	15		1.6	80	
AFC200-24S 1.1A	24		1.1	80	
AFC200-12W 1A	±12		±1	78	
AFC200-15W0.8A	±15		±0.8	79	
AFC200- 5S 12W	5, ±12		2, ±0.35	75	
AFC200- 5S 15W	5, ±15		2, ±0.3	75	

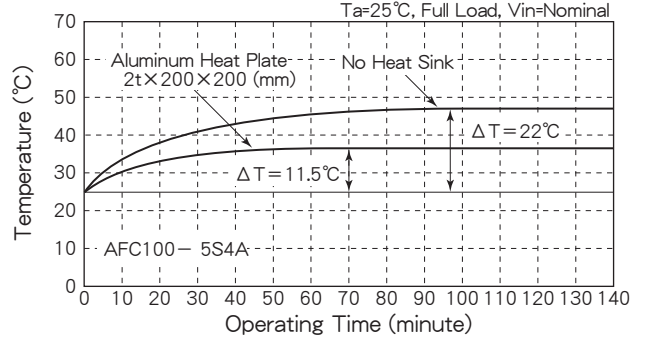
(注) ワイド入力電圧範囲 (AC85V~264V) の仕様製品も製作いたします。  
Note: We can offer wide Vin range (AC85V~264V) device.

# AFC SERIES DATA SHEET

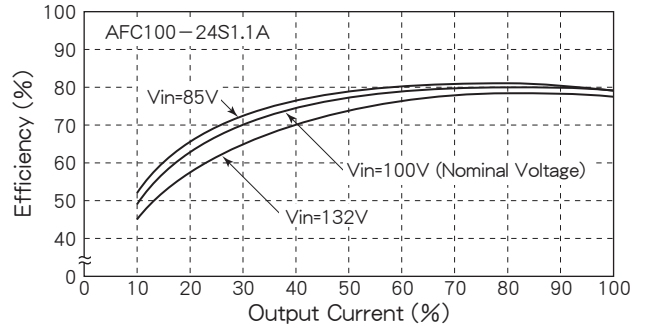
## Block Diagram



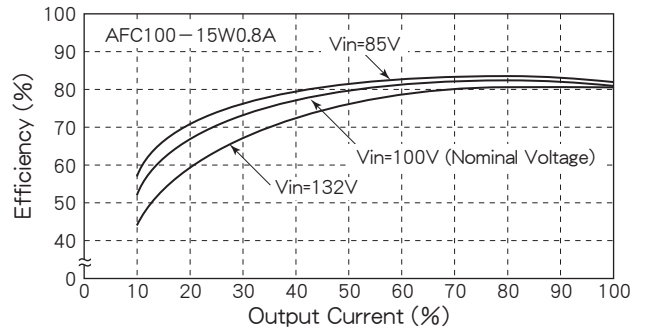
**Fig 3 Temperature Characteristic on Case Surface**



**Fig 4 Efficiency vs. Output Current**

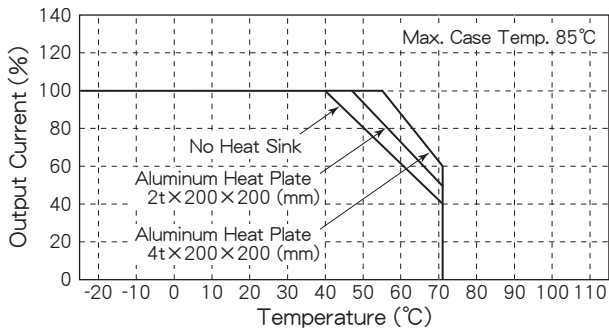


**Fig 5 Efficiency vs. Output Current**



## Characteristic Curves

**Fig 1 Derating Curve**



**Fig 2 Short Circuit Operating Area**

