

AFC-E1 SERIES
10 Watts
KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- Small Size: 2.06 x 1.07 x 0.93 Inches
- Screw Terminal For Optional
- CE, CB, UL Approval
- 2-Years Product Warranty


ELECTRICAL SPECIFICATIONS

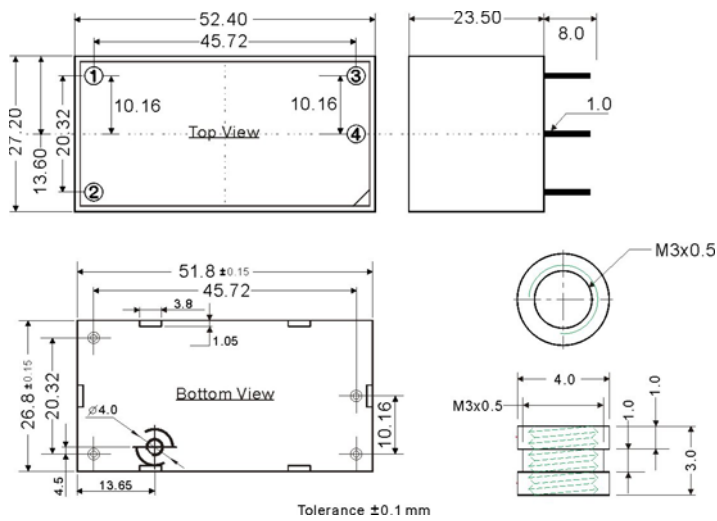
Model No.		AFC-3.3S-E1	AFC-5S-E1	AFC-12S-E1	AFC-15S-E1	AFC-24S-E1
Max Output Wattage (W)		10W	10W	10W	10W	10W
Input	Voltage	90-264 VAC				
	Frequency (Hz)	47-440 Hz				
	Current (Full load)	220 mA max. (115 VAC) / 150 mA max. (230 VAC)				
	Inrush Current (<2ms)	23 A max. (115 VAC) / 46 A max. (230 VAC)				
	Leakage Current	0.25 mA max.				
Output	Voltage (V.DC.)	3.3V	5V	12V	15V	24V
	Voltage Accuracy	±2%				
	Current (mA) max	2500	2000	833	667	417
	Line Regulation (LL-HL) (typ.)	±0.3%.				
	Load Regulation (5-100%) (typ.)	±0.5%.				
	Minimum Load	0%				
	Maximum Capacitive Load	470-23,000µF depending on model				
	Ripple	<0.2% Vout +40mV max (Vp-p)				
	Noise	<0.5% Vout +50mV max (Vp-p)				
	Efficiency	70%	72%	76%	75%	72%
	Hold-up Time	15 ms min.				
	Switching Frequency	125 kHz				
Protection	Over Power Protection	Hiccup technique, auto-recovery				
	Over Voltage Protection	Zener diode clamp				
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)				
Isolation	Input-Output (V.AC)	3000V				
Environment	Operating Temperature	-40°C...+70°C (with derating)				
	Storage Temperature	-40°C...+85°C				
	Temperature Coefficient	±0.02%/°C				
	Humidity	20-85% RH				
	MTBF	>330,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)	2.06 x 1.07 x 0.93 Inches (52.4 x 27.2 x 23.5 mm) Tolerance ±0.5 mm				
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)				
	Weight	54 g				
	Cooling Method	Free air convection				
Genera	Vibration	10-55 Hz 0.5 mm width/ 1 minute cycle				
	Shock	20 G (3 directions each 3 times.)				
Safety	Agency Approvals	UL/cUL, CE, CB				
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B				
	EMS (Noise Immunity)	EN 55024				

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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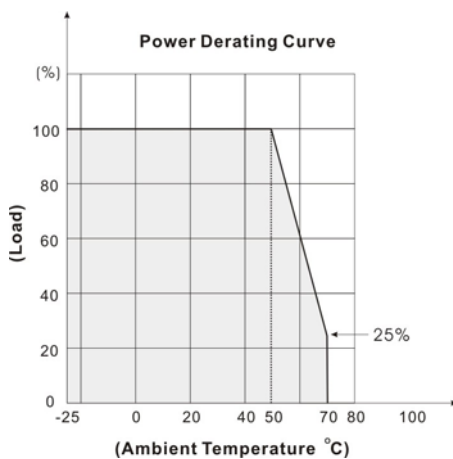
MECHANICAL DIMENSION (Top View)



PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

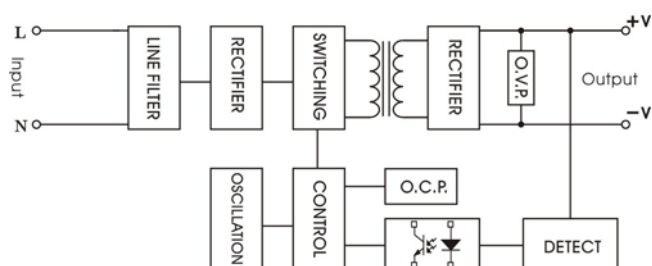
Maximum Torque 1 2 { 1.2 1 } (k g f . c m { N.m })

DERATING



BLOCK DIAGRAM

Single Output



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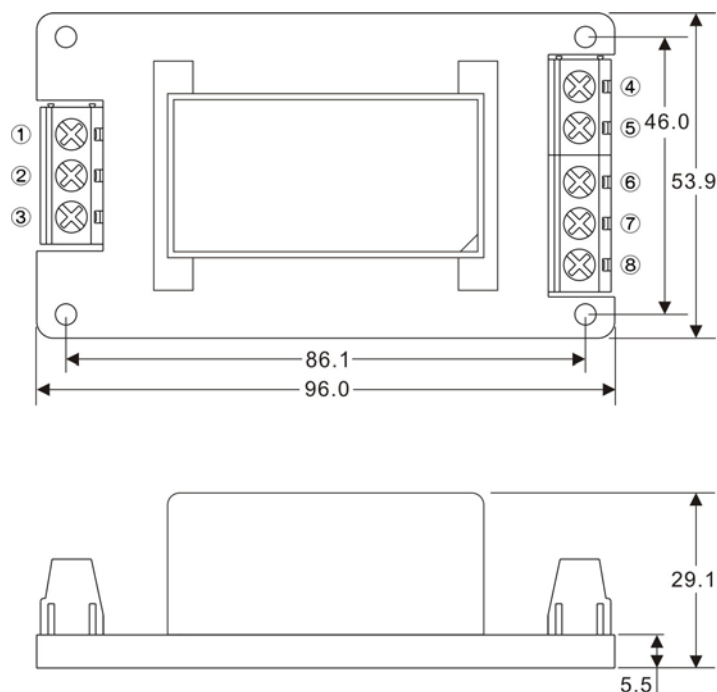
10 Watts

SCREW TERMINAL

AFC- E1-A2



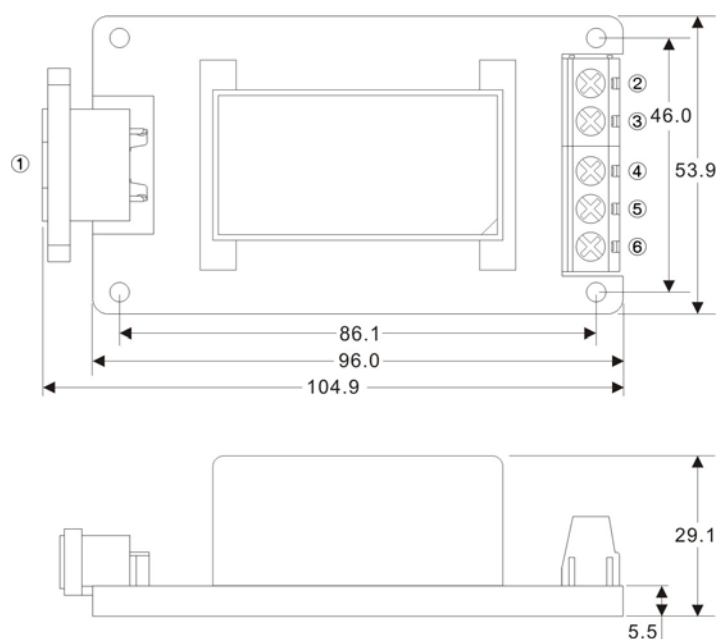
PIN#	Single
1	NO CONNECT
2	AC IN (N)
3	AC IN (L)
4.	NO CONNECT
5	+DC OUT
6	-DC OUT
7	NO CONNECT
8	NO CONNECT



AFC- E1-A3

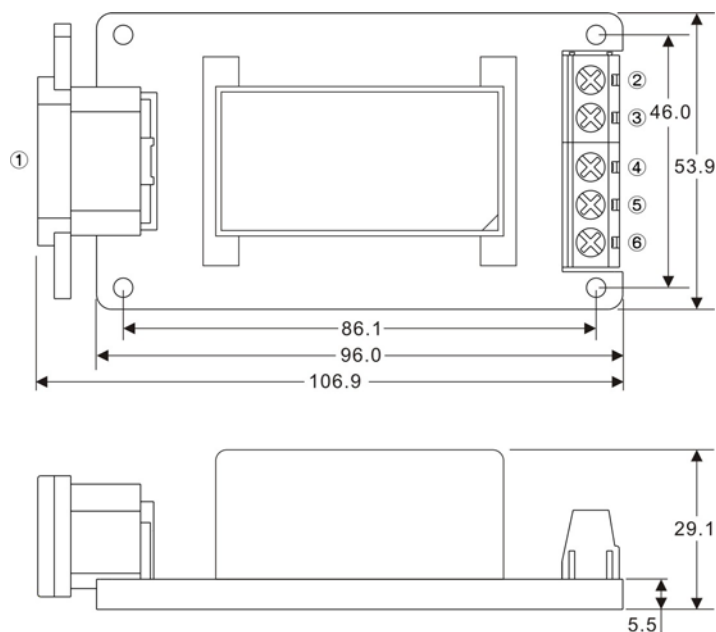


PIN#	Single
1	AC IN
2	NO CONNECT
3	+DC OUT
4.	-DC OUT
5	NO CONNECT
6	NO CONNECT

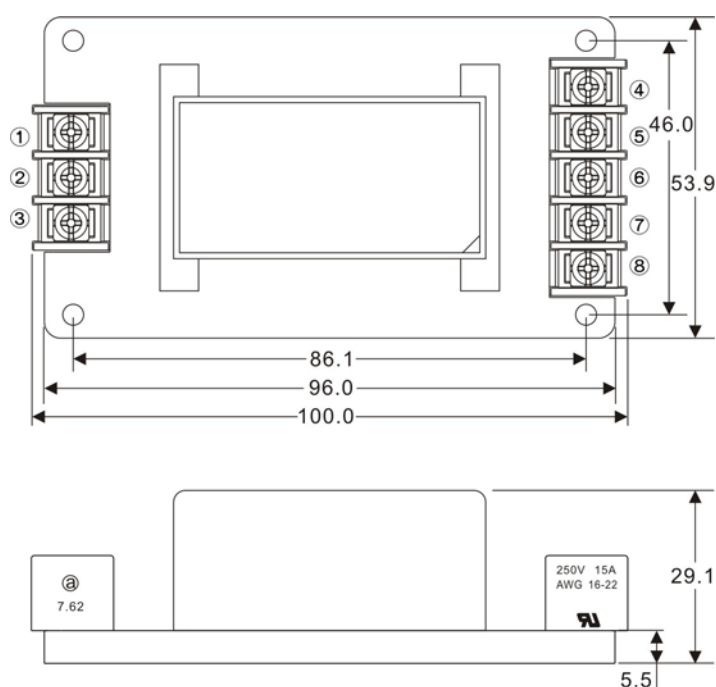


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AFC E1-A4


PIN#	Single
1	AC IN
2	NO CONNECT
3	+DC OUT
4	-DC OUT
5	NO CONNECT
6	NO CONNECT


AFC E1-A5


PIN#	Single
1	NO CONNECT
2	AC IN (N)
3	AC IN (L)
4	NO CONNECT
5	+DC OUT
6	-DC OUT
7	NO CONNECT
8	NO CONNECT



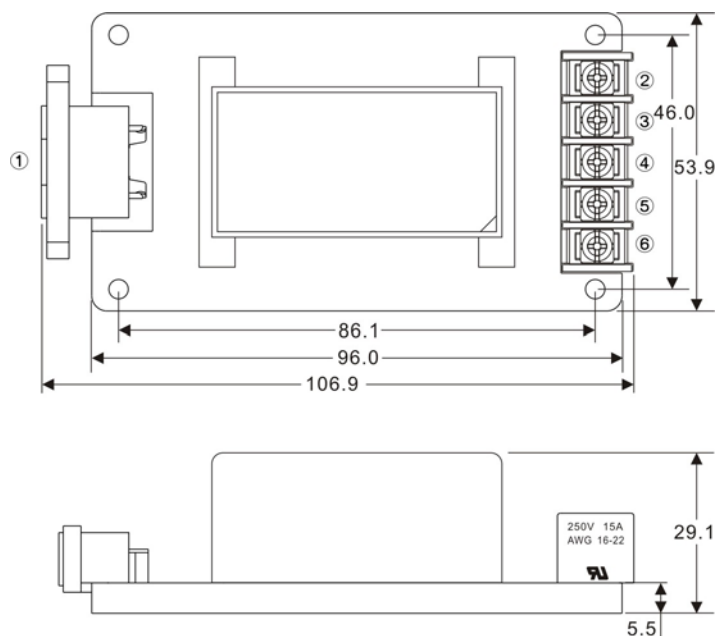
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AFC E1-A6



PIN#	Single
1	AC IN
2	NO CONNECT
3	+DC OUT
4	-DC OUT
5	NO CONNECT
6	NO CONNECT



AFC E1-A7



PIN#	Single
1	AC IN
2	NO CONNECT
3	+DC OUT
4	-DC OUT
5	NO CONNECT
6	NO CONNECT

