

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
- Low Standby <0.5W
- Small Size as AFC 10Watt with 20Watt Higher Power
- Screw Terminal For Optional
- CE, UL Approval
- 2-Years Product Warranty

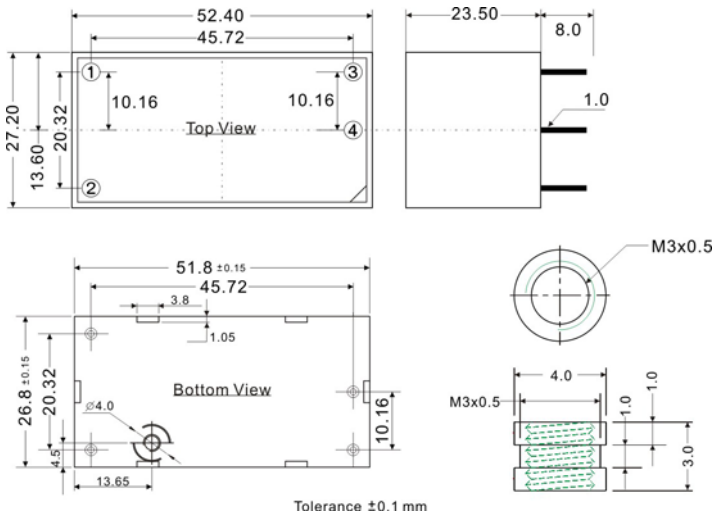

ELECTRICAL SPECIFICATIONS

Model No.	AFC20-3.3S	AFC20-5S	AFC20-12S	AFC20-15S	AFC20-24S
Max Output Wattage (W)	11.88W	18W	20W	20W	20W
Input	Voltage				
	90-264 VAC or 120-370 VDC				
	Frequency (Hz)				
	47-440 Hz				
Input	Current (Full load)				
	385 mA max. (115 VAC) / 250 mA max. (230 VAC)				
	Inrush Current (<2ms,Cold Start)				
	20 A max. (115 VAC) / 40 A max. (230 VAC)				
Output	Voltage (V.DC.)				
	3.3V	5.1V	12V	15V	24V
	Voltage Accuracy				
	±2%				
	Current (mA) max				
	3600	3600	1660	1330	833
	Maximum Capacitive Load				
	4500uF	3500uF	1800uF	1500uF	1200uF
	Minimum Load				
	0%				
	Line Regulation (LL-HL) (typ.)				
	±0.5%				
Load Regulation (5-100%) (typ.)					
±1%					
Ripple (Full load)			1% of Vout		
75mV max (Vp-p)			1% of Vout		
Noise (Full load)			1% of Vout		
120mV max (Vp-p)			1% of Vout		
Efficiency		74%	78%	82%	83%
Hold-up Time(typ)		12 ms (115VAC) / 56ms (230VAC)			
Switching Frequency		100k~133k Hz			
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					
95% RH					
MTBF					
>250,000 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					
59g					
Cooling Method					
Free air convection					
Safety	Agency Approvals				
UL/cUL, CE					
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.

Note :1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

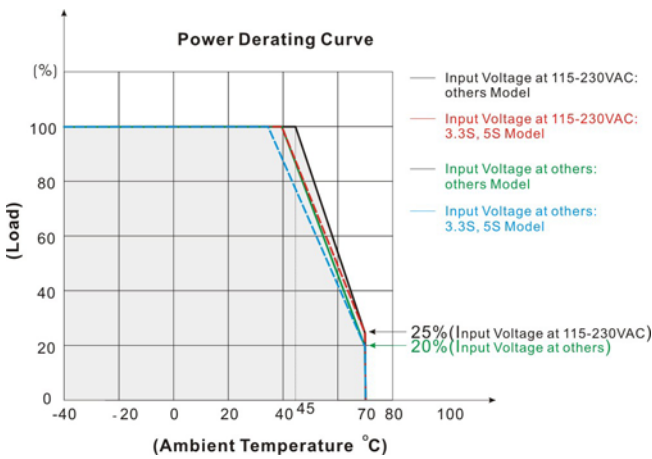
MECHANICAL DIMENSION



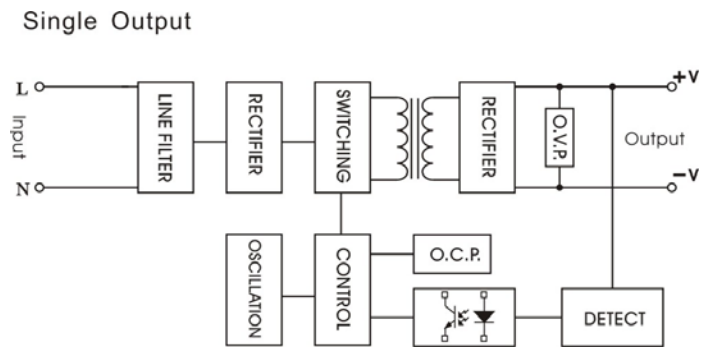
PIN#	SINGLE
1	AC IN (L)
2	AC IN (N)
3	+DC OUT
4	-DC OUT

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

DERATING



BLOCK DIAGRAM

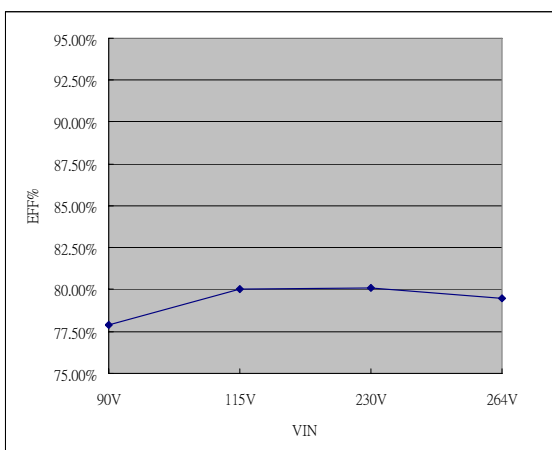


EFFICIENCY VERSUS LOAD

AFC20-5S (Full Load & Temperature: 25 °C)

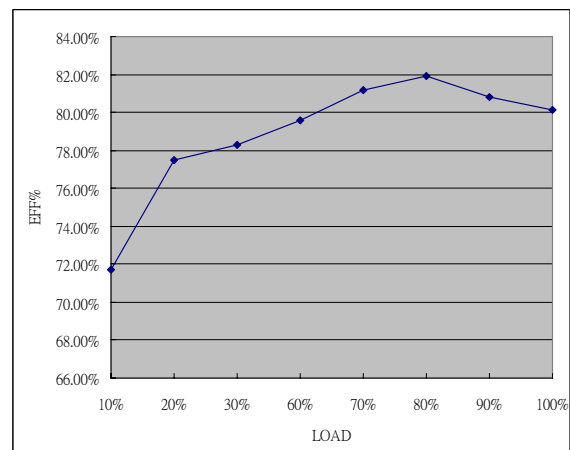
VIN VS Efficiency

Input Voltage (V)	90	115	230	264
Efficiency (%)	77.90	80.00	80.10	79.50



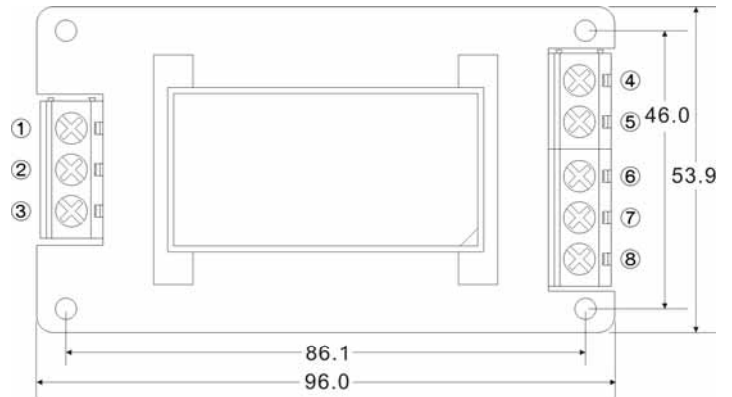
LOAD VS Efficiency

Load (%)	10	20	30	60	70	80	90	100
230V (%)	71.7	77.5	78.3	79.6	81.2	81.9	80.8	80.1

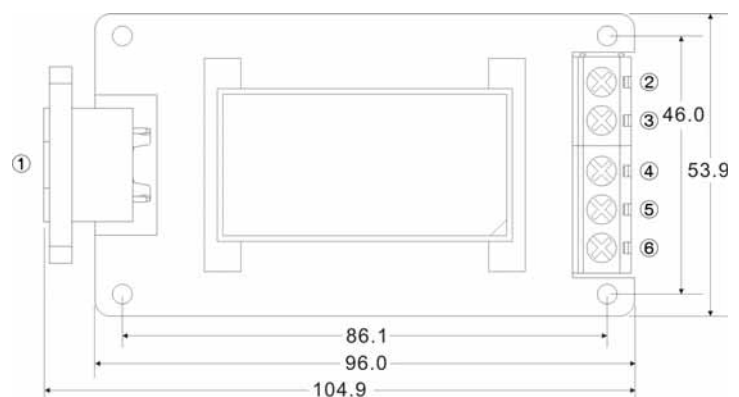


SCREW TERMINAL
AFC20-A2


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

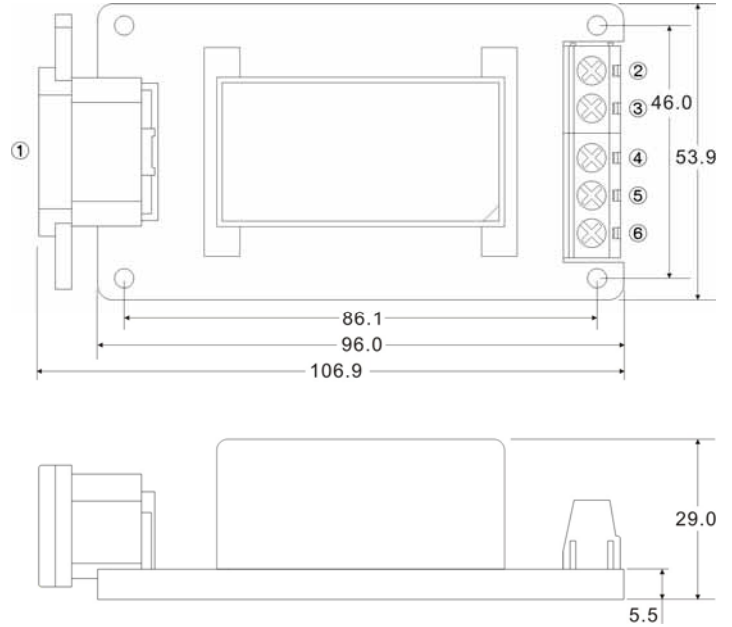

AFC20-A3


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

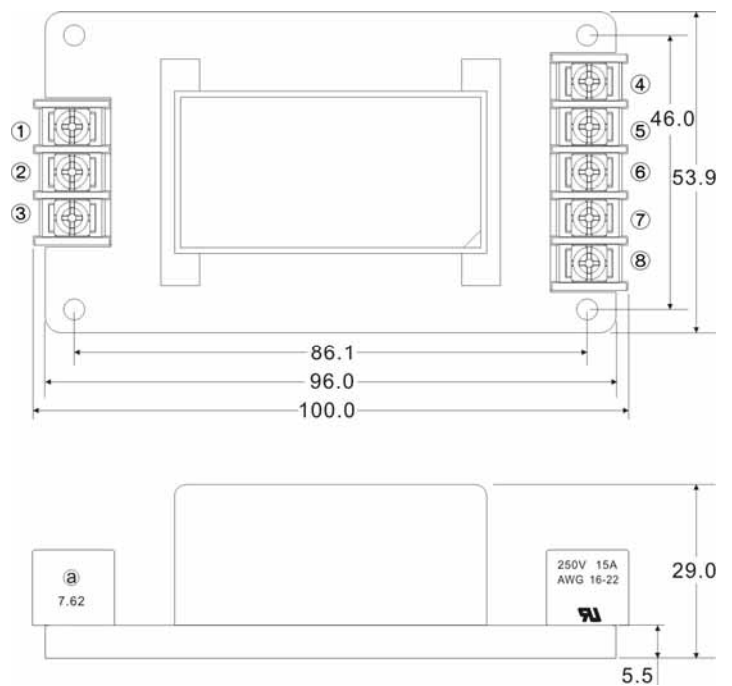


AFC20 SERIES
20 Watts
AFC20-A4


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


AFC20-A5


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



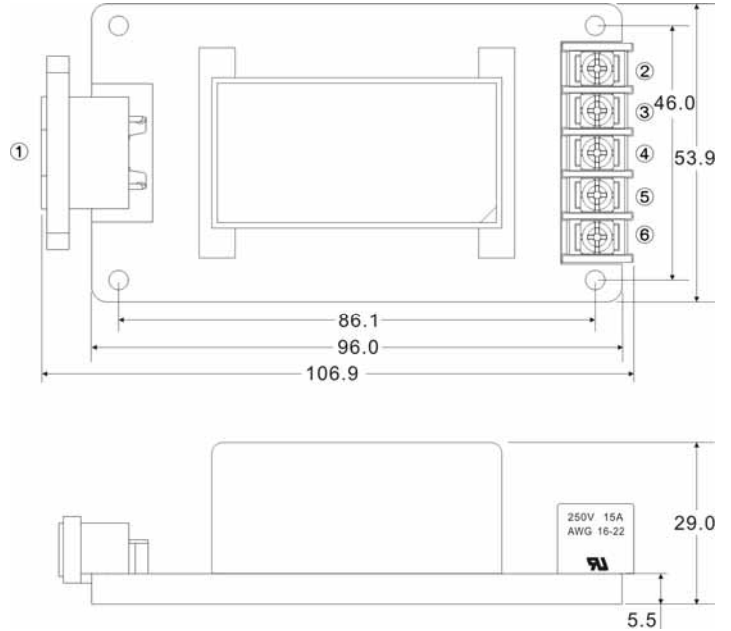
AFC20 SERIES

20 Watts

AFC20-A6



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



AFC20-A7



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

