

**KEY FEATURES**

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Low Standby <0.25W
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- Small Size as AFCN 10Watt with 20Watt Higher Power
- CE and UL Approval



**ELECTRICAL SPECIFICATIONS**

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

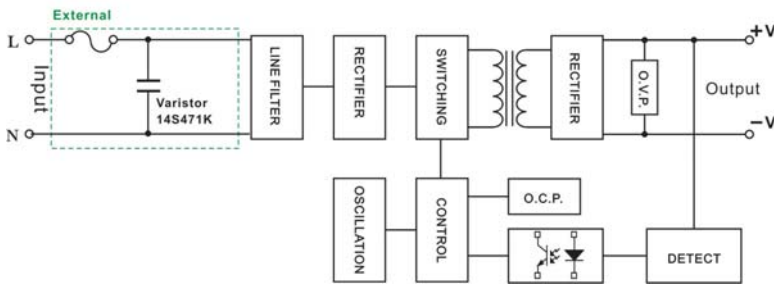
Model No.	AFC20N-3.3S	AFC20N-5S	AFC20N-12S	AFC20N-15S	AFC20N-24S
Max Output Wattage (W)	11.88W	18W	20W	20W	20W
Input	Voltage				
	90-264 VAC or 120-370 VDC				
	Frequency (Hz)				
	47-440 Hz				
	Current (Full load)				
385 mA max. (115 VAC) / 250 mA max. (230 VAC)					
Inrush Current (<2ms,Cold Start)					
20 A max. (115 VAC) / 40 A max. (230 VAC)					
External Fuse (mandatory)					
2 A slow blow type					
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				
	5000 uF	5000 uF	1500 uF	1000 uF	470 uF
	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)					
Noise (Full load)			1% of Vout		
120mV max (Vp-p)					
Efficiency (typ.)					
73%	78%	82%	83%	83%	
Hold-up Time(typ)					
11 ms (at 115VAC) / 56 ms (at 230VAC)					
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				
±0.05%/°C					
Humidity					
95% RH					
MTBF					
>400,000 h @ 25°C (MIL-HDBK-217F)					
Physical	Dimension (L x W x H)				
	2.07 x 1.08 x 0.93 Inches ( 52.5 x 27.5 x 23.5 mm ) Tolerance ±0.5 mm				
	Case Material				
	Plastic resin (flammability to UL 94V-0)				
Weight					
62 g					
Cooling Method					
Free air convection					
Safety	Agency Approvals				
CE, UL/cUL					
EMC	EMI (Conducted & Radiated Emission)				
	EN 55022 class B				
EMS (Noise Immunity)					
EN 55024					

**NOTE**

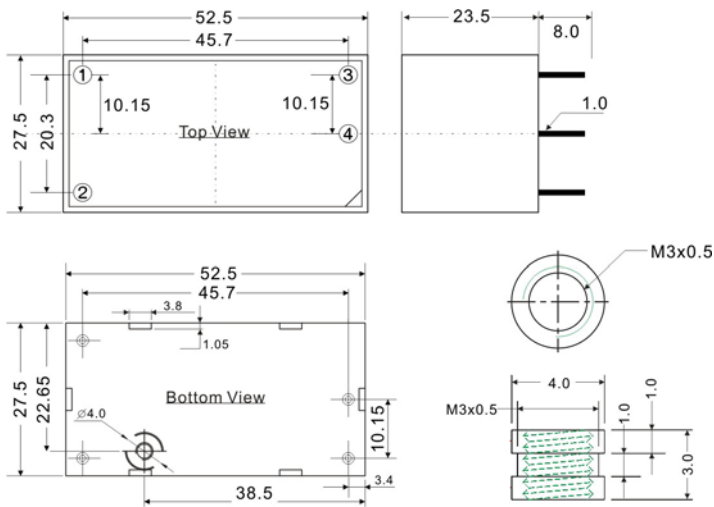
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's recommended to add Varistor 14S471K at L / N input side in parallel.
3. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

**BLOCK DIAGRAM**

Single Output



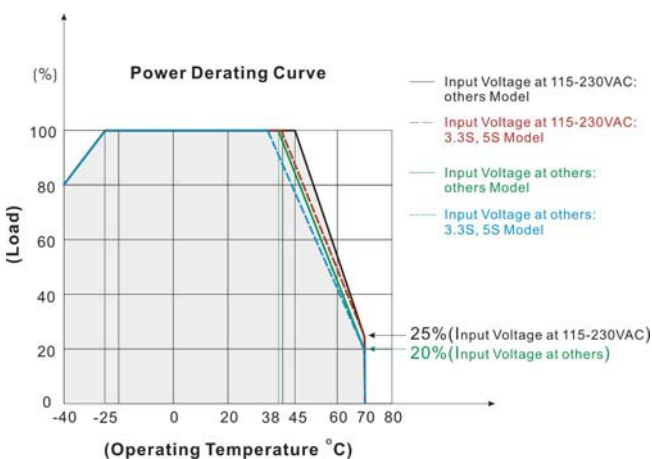
**MECHANICAL DIMENSION ( Top View )**



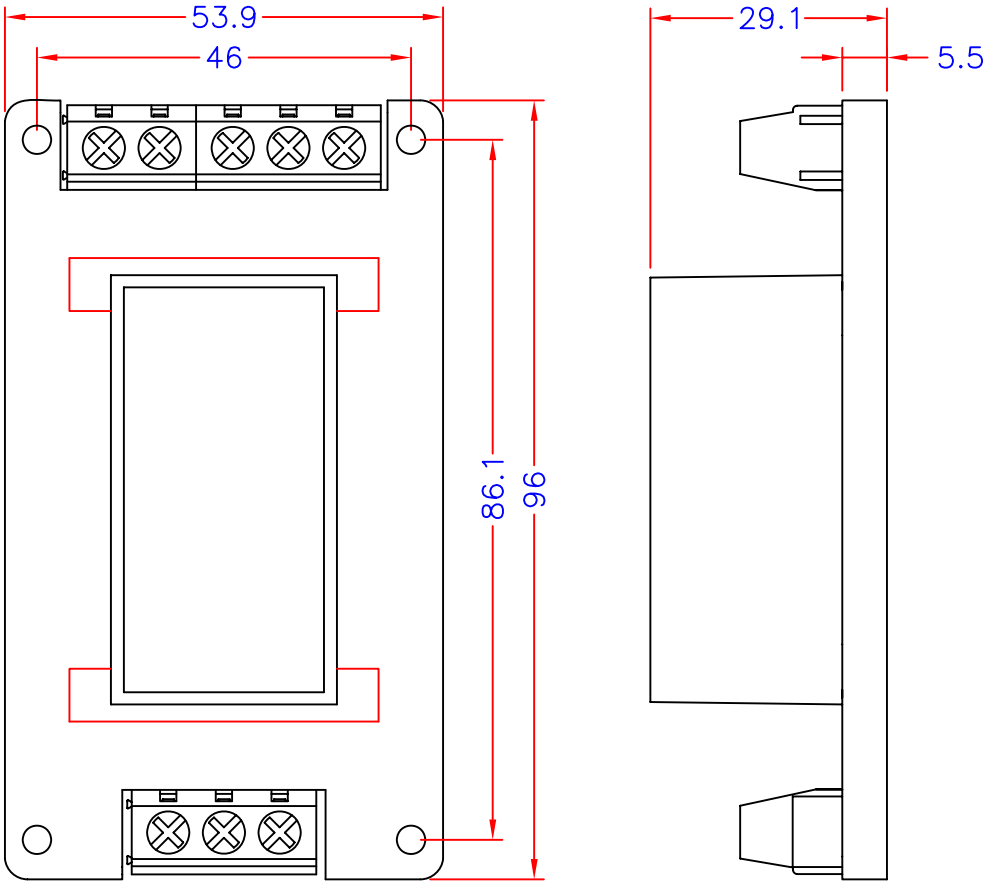
PIN#	Single
1	AC IN (L)
2	AC IN (N)
3	+DC OUT
4	-DC OUT

Maximum Torque 12 { 1.2 1 } ( k g f . c m { N.m } )

**DERATING**



REVISIONS			
REV	DESCRIPTION	DATE	BY



TITLE AFC-A2		MATERIAL AFC-A2		COLOR BLACK		DRAWN <i>Linda</i>		DATE XXXXXXX	
PART NUMBER		DRAWING NUMBER		FINISH		CHECK		APPROVED	
SIZE A4	SCALE 1:1	UNIT mm	REV A	UNLESS OTHERWISE SPECIFIED TOLERANCE ±0.1					