

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
- Low Ripple and Low Noise
- Isolation Class II
- Small Size as AFCN 10Watt with 20Watt Higher Power
- CE, CB and UL Approval
- 3-Year Product Warranty



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)	75mV max (Vp-p)		1% of Vout		
	Noise (Full load)	120mV max (Vp-p)		1% of Vout		
	Efficiency (typ.)	73%	78%	82%	83%	83%
Protection	Hold-up Time(typ)	11 ms (at 115VAC) / 56 ms (at 230VAC)				
	Over Power Protection	Hiccup technique, auto-recovery				
	Over Voltage Protection	Zener diode clamp				
Isolation	Short Circuit Protection	Hiccup mode (automatic recovery)				
	Input-Output (V.AC)	3000V				
Environment	Operating Temperature (Note 3)	-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	Dimensions (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	IEC / EN 60950, UL / IEC / EN 62368-1				
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B				
	EMS (Noise Immunity)	EN 55024				

AFC20N SERIES

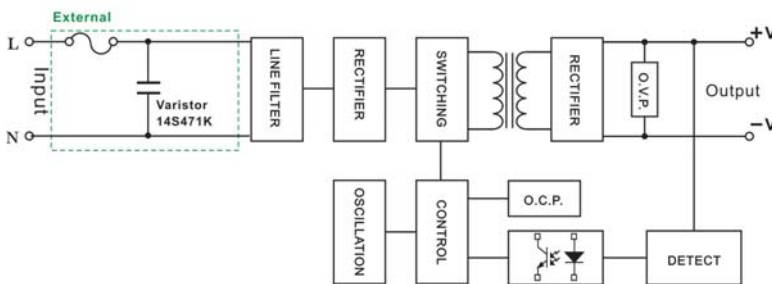
20 Watts

NOTE

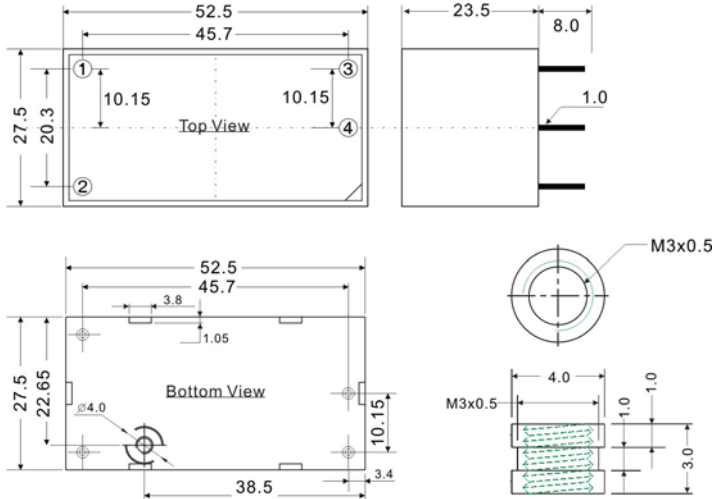
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's recommended to add Varistor 14S471K at L / N input side in parallel.
3. Due to varying customer application conditions, the product is tested for maximum operating temperature under full load only. For other regulatory requirements, please contact ARCH.
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

BLOCK DIAGRAM

Single Output



MECHANICAL DIMENSIONS (Top View)



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

Maximum Torque 12 { 1.21 } (kgf.cm { N.m })

DERATING

