

AFC20H SERIES

20 Watts

KEY FEATURES

- Low Standby <0.1W
- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-305VAC, 47-440 Hz
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- Small Size as AFCN 10Watt with 20Watt Higher Power
- CE 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.

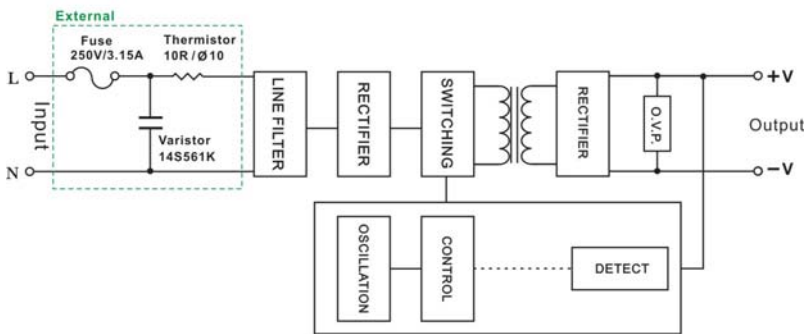
Model No.	AFC20H-5.1S	AFC20H-12S	AFC20H-15S	AFC20H-24S
Max Output Wattage (W)	18W	20W	20W	20W
Input	Voltage			
	90-305 VAC or 120-430 VDC			
	Frequency (Hz)			
	47-440 Hz			
	Current (Full load)			
	385 mA max. (115 VAC) / 250 mA max. (230 VAC)			
	Inrush Current (<2ms, Cold Start)			
	30 A max. (115 VAC) / 40 A max. (230 VAC)			
Leakage Current				
0.25 mA max. (230 VAC)				
External Fuse (recommended)				
3.15 A slow blow type				
External Varistor (recommended)				
14S561K				
External Thermistor (recommended)				
10R / 10φ				
Output	Voltage (V.DC.)			
	5.1V	12V	15V	24V
	Voltage Accuracy			
	±2%			
	Current (mA) max			
	3529	1660	1330	833
	Maximum Capacitive Load			
	4000uF	1000uF	680uF	220uF
	Minimum Load			
	0%			
Line Regulation (LL-HL) (typ.)				
±1%				
Load Regulation (5-100%) (typ.)				
±3%	±1%			
Ripple & Noise				
120mV max (Vp-p)	120mV max (Vp-p)	150mV max (Vp-p)	240mV max (Vp-p)	
Efficiency (at 230 VAC)				
82%	85%	85%	86%	
Hold-up Time(typ)				
36 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, CB				
EMC	EMI (Conducted & Radiated Emission)			
	EN 55032 class B			
EMS (Noise Immunity)				
EN 55024				

NOTE

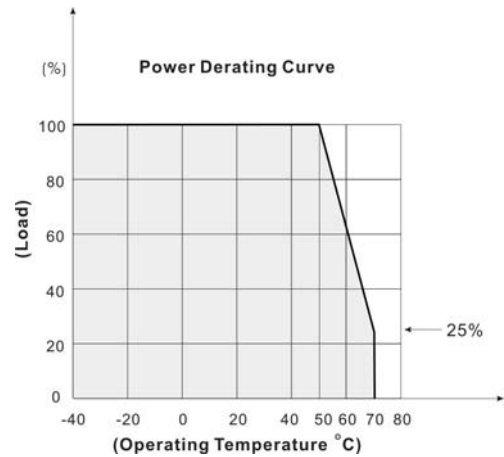
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's recommended Varistor 14S561K at L / N input side in parallel.
3. It's recommended Fuse 250V/3.15A at L input side in series connection.
4. It's recommended 10R / 10φ thermistor at L input side in series connection.

BLOCK DIAGRAM

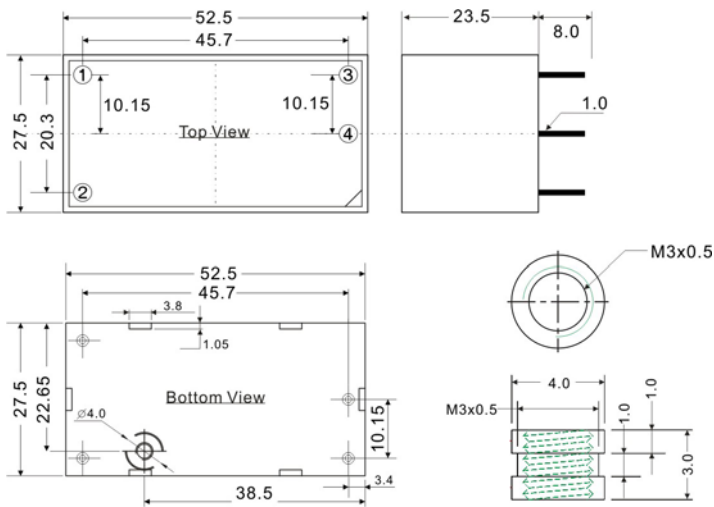
Single Output



DERATING



MECHANICAL DIMENSION (Top View)



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

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

