



AFC5-F SERIES

Single output

- · Linear regulated outputs
- Very low output noise
- 2 x 1 x 0.375 inch package
- Six sided shielding
- Short circuit protection
- UL94V-0 case

The AFC5-F Series of fixed frequency DC/DC converters provide 5 Watts of power, low output noise and tight output regulation, all housed within a 2 x 1 inch case. Six sided shielding to negate radiated noise and a non conductive base to prevent shorting to the PCB are standard features. Short circuit protection, isolation voltage of 500VDC, and a voltage accuracy of $\pm 1\%$ are included to offer the best possible solution to a system designer's low power needs. Ideal applications for the AFC5-F are data acquisition, digital to analog and analog to digital conversion. AFC5-F Series DC/DC converters are suitable for a wide range of general industrial applications, especially where low noise levels are required.

[2 YEAR WARRANTY]

SPECIFICATION All specifications are typical at nominal input, full load at 25°C unless otherwise stated

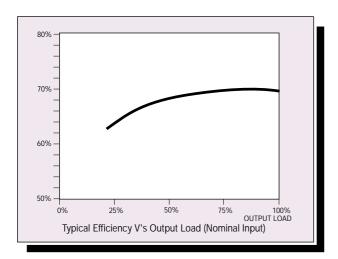
OUTPUT SPECIFICATION	ONS		
Voltage accuracy			±1.0%
Line regulation	LL to HL		±0.5%, max.
Load regulation	NL to FL		±0.5%
Total error band	See Note 2		±3.0%
Ripple and noise 5Hz to 20MHz		1	/ pk-pk, typ., mV rms, typ. pk-pk, max.
Transient response	50% to 100% load s	step	50μs, max.
Temperature coefficient		±0.0	3%/°C, max.
Minimum output current			0A
Short circuit protection			Indefinite
INPUT SPECIFICATION	IS		
Input voltage range	5VDC 12VDC		/ to 5.25VDC / to 13.2VDC
Input filter			LC filter
Input overvoltage	No damage, 5V nor No damage, 12V no	minal minal	7V, 10s 15V, 10s
Reflected ripple current			100mA pk-pk

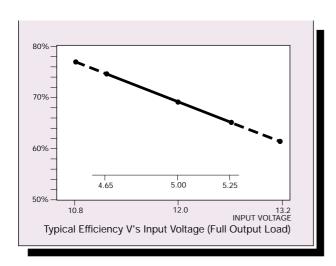
EMC CHARACTERISTICS			
Radiated emissions	EN55022, EN55011, FCC Level A		
GENERAL SPECIFICA	TIONS		
Efficiency		64% to 70%	
Isolation voltage	Input to output	500VDC, min.	
Switching frequency	Fixed, See Note 3	20kHz, min.	
Case material	Black anodised aluminium with non-conductive base		
Flammability rating	ſ	Meets UL94V-0	
Weight		30g (1.1oz)	
MTBF		840,000 hours	
ENVIRONMENTAL SPECIFICATIONS			
Thermal performance	Operating, see curve Non-operating –5 Derating Cooling Free-air con	55°C to +125°C See chart	
Relative humidity	Non-condensing !	5% to 95% RH	
Altitude		0,000 feet max. 0,000 feet max.	
Vibration, See Note 4	5Hz to 500Hz 2.40	G rms (approx.)	

INPUT	OUTPUT	OUTPUT	INPUT CURRENT		TYPICAL	MODEL
VOLTAGE	VOLTAGE	CURRENT	NO LOAD	FULL LOAD (1)	EFFICIENCY	NUMBER
5VDC	5VDC	1000mA	66mA	1.64A	64%	AFC5-05S05-F
5VDC	12VDC	420mA	44mA	1.52A	69%	AFC5-05S12-F
5VDC	15VDC	350mA	60mA	1.58A	70%	AFC5-05S15-F
12VDC	5VDC	1000mA	23mA	0.66A	66%	AFC5-12S05-F
12VDC	12VDC	420mA	17mA	0.62A	70%	AFC5-12S12-F
12VDC	15VDC	350mA	21mA	0.64A	71%	AFC5-12S15-F

Notes

- Maximum value at nominal line voltage.
- Error band is defined as the static output regulation at 25°C, including initial setting accuracy, input voltage within stated limits and output current within stated limits.
- Fixed frequency design provides for easier input filtering and better noise performance.
- Three orthogonal axes, random vibration, 10 minute test for each axis.





PIN CONNECTIONS		
PIN NUMBER	SINGLE OUTPUT	
1	+ Input	
2	– Input	
3	+ Output	
4	No Pin	
5	– Output	

