

SF5, 10 Series

5/10W AC-DC CONVERTER



FEATURES Single, Dual Outputs

- High Efficiency
- Encapsulated, Compact Case
- Universal Input
- External EMI Filter Needed
- Surface Mounting Technology
- 100kHz (SF5), 132kHz (SF10) Fixed Frequency
- Thermal Shut Down / Output Short Circuit Protection
- Low Output Ripple / Noise
- Isolated Output
- Over Voltage Protection
- Over Current Protection
- Low Power Consumption at No Load (Max. 0.3W)
- 5 Year Warranty

ELECTRICAL SPECIFICATIONS

Input	<ul style="list-style-type: none"> • Input Range AC 85V - 264V (or DC 110 - 340V) 50/60Hz (NOTE) • Current [SF55 : 0.15A Max. @110Vac / 0.08A Max. @220Vac SF510 : 0.25A Max. @110Vac / 10.13A Max. @220Vac • Frequency 47 - 440Hz Max. (50 - 60Hz Typ.) • Efficiency 68-81% Typ. • Inrush Current (at Cold Start) 20A Max. @120Vac / 40A Max. @240Vac • Leakage Current 0.5mA Max. @110Vac / 0.75mA Max. @220Vac
Output	<ul style="list-style-type: none"> • Output Voltage Tolerance ±2.0% (Single and Uncomplementary Dual), ±3.0% (Complementary Dual) • Ripple and Noise ±1.0% Max. • Line Regulation ±1.0% Max. • Load Regulation ±1.0% Max. @Output 1 / ±2.0% Max. @Output 2 • Dynamic Load Regulation ±3.0% Max. @Output 1 • Temp Drift ±1.0% Typ. • Rising Time 100ms Max. • Holding Time 10ms Min.
Protection Circuit	<ul style="list-style-type: none"> • Over Current Protection Work Over 105% of Rating (Recovers Automatically) • Over Voltage Protection Work at 130 - 150% of Rating (Zenor Clamp) • Over Temperature Protection SF55 : 150°C Min / SF510 : 130°C Latching, Recovering
Electrically Isolated	<ul style="list-style-type: none"> • Input - Output AC 3KV, 1minute, 10mA / DC 500V, 100MΩ Min.

ENVIRONMENTAL

- Operating Temperature Range -20°C ~ 70°C
- Operating Humidity (Non-Condensing) 20% ~ 90%RH
- Storage Temperature Range -40°C ~ 80°C
- Storage Humidity (Non - Condensing) 10% ~ 95%RH

- Vibration 10 ~ 55Hz at 10G 3Minutes Period
- Impact 50G for 11ms, once on each X, Y and Z-axis
- Cooling Method Convection
- MTBF (MIL-HDBK-217F) 4.5×10^5 hrs
- Safety (Single Output) UL (UL 60950-1, CSA C22.2 NO.60950-1) : E227474
CB (IEC 60950-1) / CE_LVD (EN 60950-1) through TÜV
- EMC (Single Output) *Approved EN 61204-3 CLASS B / EN 6100-3-2 / EN 61000-3-3 through TÜV

* To meet the standard of EN61204-3 Class-B, use the external noise filter between L and N (Refer to manual)

NOTE For cases where conformance to various safety specs(UL, CSA, CE, CB etc)are required input voltage and frequency range will be 100-240 Vac, 50~60Hz.

ORDERING INFORMATION

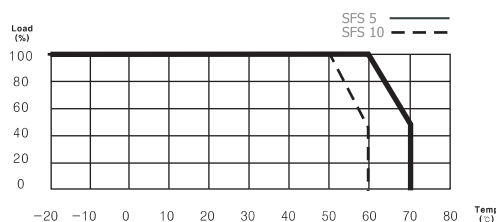
Input	Output1	Output2	Maximum Power	Ripple&Noise Max.	Efficiency Typ.	Model Number
AC 85 ~ 264V or DC 110 ~ 340V	3.3V@1.25A		4.125W	80mVp-p	68%	SFS5-3R3(C)
	5V@1.00A		5.00W	80mVp-p	75%	SFS5-5(C)
	12V@0.42A		5.00W	120mVp-p	77%	SFS5-12(C)
	15V@0.33A		5.00W	150mVp-p	77%	SFS5-15(C)
	24V@0.21A		5.00W	200mVp-p	77%	SFS5-24(C)
	+12V@0.21A	-12V@0.21A	5.00W	120/120mVp-p	72%	SFD5-1212
	+15V@0.17A	-15V@0.17A	5.00W	150/150mVp-p	72%	SFD5-1515
	3.3V@2.50A		8.25W	80mVp-p	70%	SFS10-3R3(C)
	5V@2.00A		10.00W	80mVp-p	76%	SFS10-5(C)
	12V@0.83A		9.96W	120mVp-p	77%	SFS10-12(C)
	15V@0.66A		9.90W	150mVp-p	78%	SFS10-15(C)
	24V@0.42A		10.08W	200mVp-p	80%	SFS10-24(C)
	+5V@1.00A	-5V@1.00A	10.00W	50/50mVp-p	76%	SFD10-0505
	+12V@0.45A	-12V@0.45A	10.80W	120/120mVp-p	80%	SFD10-1212
	+15V@0.35A	-15V@0.35A	10.50W	150/150mVp-p	81%	SFD10-1515

C: Chassis Mount Type

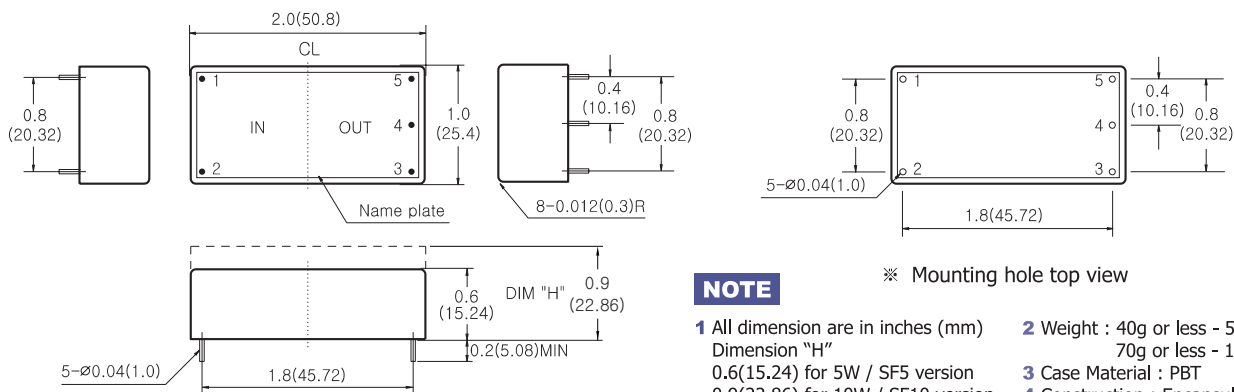
PIN ASSIGNMENTS

Single Output	Dual Output
1. AC(N)	1. AC(N)
2. AC(L)	2. AC(L)
3. No Pin	3. - Vout
4. - Vout	4. GND
5. +Vout	5. +Vout

DERATING CURVE



DIMENSION



NOTE

- 1 All dimension are in inches (mm)
- 2 Weight : 40g or less - 5W
70g or less - 10W
- 3 Case Material : PBT
- 4 Construction : Encapsulated, Soft Pot