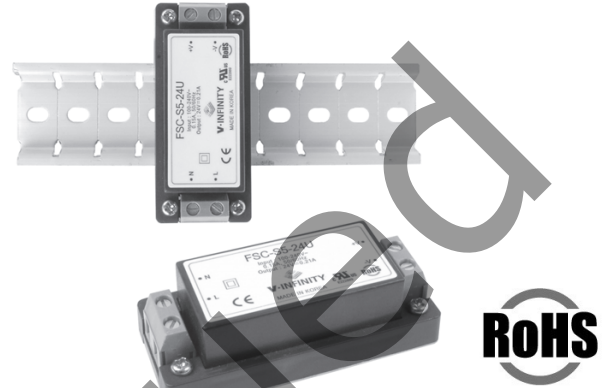


**SERIES:** FSC-S5**DESCRIPTION:** ac-dc converter**features**

- approved to UL60950, CSA C22.2 NO.60950, CB(IEC 60950), CE(EN60950)
- universal input 85~264 Vac/ 110~340 VDC
- encapsulated, compact case
- high efficiency
- surface mounting technology
- 100kHz fixed frequency
- fixed output voltage
- thermal shutdown
- output short circuit protection
- low output ripple and noise
- isolated output
- 2 year warranty



model number	input voltage	output voltage	power max.	ripple & noise max.	efficiency (%)
FSC-S5-3R3U	AC 85-264V / DC 110-340V	3.3V @ 1.25A	4.125 W	80 mVp-p	71
FSC-S5-5U	AC 85-264V / DC 110-340V	5V @ 1.0A	5.0 W	80 mVp-p	75
FSC-S5-12U	AC 85-264V / DC 110-340V	12V @ 0.42A	5.0 W	120 mVp-p	77
FSC-S5-15U	AC 85-264V / DC 110-340V	15V @ 0.33A	5.0 W	150 mVp-p	77
FSC-S5-24U	AC 85-264V / DC 110-340V	24V @ 0.21A	5.0 W	200 mVp-p	77

**INPUT**

parameter	conditions/description	min	nom	max	units
input frequency		47	(50~60)	440	Hz
input voltage	output power derated from 85-90 VAC	85		264	VAC
		110		340	VDC
input current	AC input of 110 VAC			150	mA
	AC input of 220 VAC			80	mA
inrush current	measured at 110 VAC at full load, cold start			20	A
	measured at 220 VAC at full load, cold start			40	A
leakage current	measured at 110 VAC			0.5	mA
	measured at 220 VAC			0.75	mA

**OUTPUT**

parameter	conditions/description	min	nom	max	units
voltage tolerance		-2%		+2%	
ripple and noise		-1%		+1%	
line regulation		-1%		+1%	
load regulation		-1%		+1%	
dynamic load regulation		-3%		+3%	
temperature drift		-1%		+1%	
rise time				100	mS
hold-up time		10			mS

**SERIES:** FSC-S5

**DESCRIPTION:** ac-dc converter

**PROTECTION CIRCUIT**

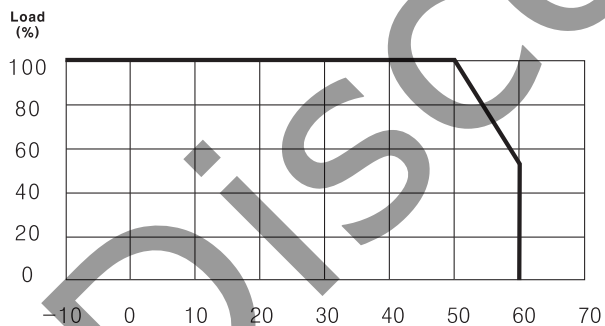
parameter	conditions/description
output over current	works at over 105% of the rating and recovers automatically.
over temperature	150 °C
over voltage	clamp, 130~150%

**GENERAL**

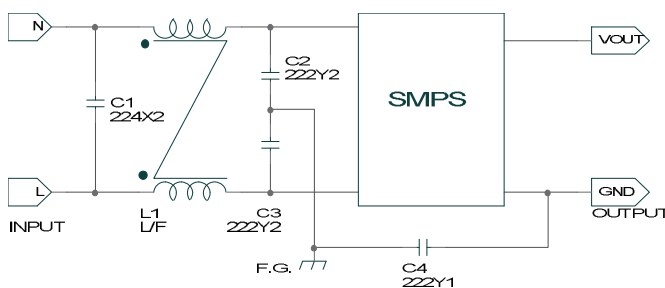
parameter	conditions/description	min	nom	max	units
operating temp.		-20		70	°C
storage temp.		-40		80	°C
operating humid.	non-condensing	20%		90%	RH
storage humid.	non-condensing	20%		90%	RH
isolation voltage (HI-POT)	applied for 1 minute, 10mA primary to secondary, 500 Vdc @ 100 MΩ	3000			VAC
vibration	at 10G 3 minute period	10		55	Hz
impact	50G for 11mS, once on each X, Y, Z axis				
MTBF	4.5 x 10 <sup>5</sup>				hours
RoHS	yes				
safety	approved to UL60950(E222889), CSA C22.2 NO.60950, CB(IEC 60950), CE(EN60950)				
EMC <sup>1</sup>	5W, 10W single output: approved; EN61204-3 class B, EN 61000-3-3, 61000-3-2 (through TUV)				
warranty	standard warranty length			2	years

NOTE: 1. to meet the standard of EN61204-3 class B, use the external noise filter between L and N

**DERATING CURVE**



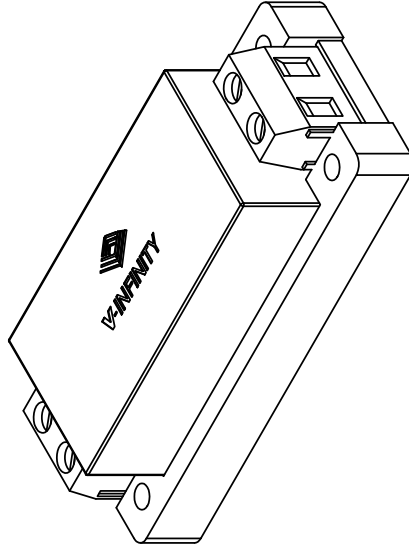
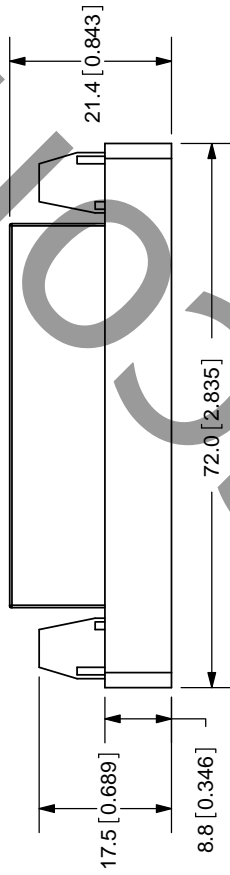
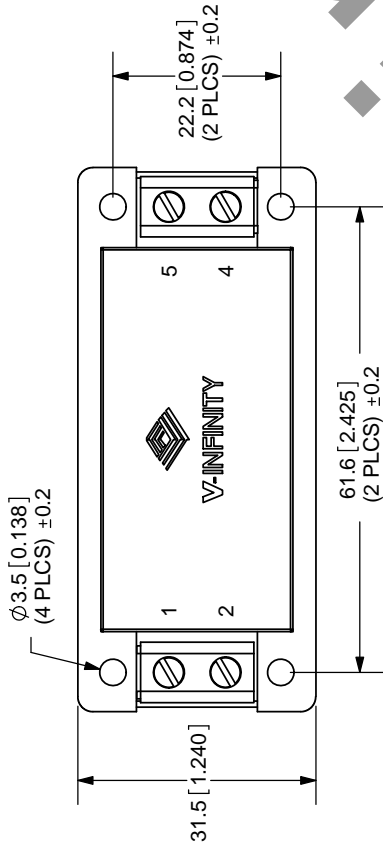
**EXTERNAL EMI FILTER**



**Components**

- L1 = 10~30mH Common Mode Line Filter
- C1 = 220nF X2 Capacitor
- C2,C3 = 2200pF Y2 Capacitor
- C4 = 2200pF Y1 Capacitor

REV. A	DESCRIPTION NEW DRAWING	DATE 9/11/2007
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TOLERANCE:  
±0.5mm UNLESS OTHERWISE  
SPECIFIED



20050 SW 112th Ave.  
Tualatin, OR 97062  
Phone: 503-612-2300  
800-275-4899  
Fax: 503-612-2383  
Website: [www.cui.com](http://www.cui.com)

TITLE: AC-DC CONVERTER	REV: A
PART NO: FSC-S5	UNITS: MM [INCHES]
DRAWN BY: ZRJ	APPROVED BY:
	SCALE: 1:1

**PIN ASSIGNMENTS**

1. AC (N)
2. AC (L)
4. -Vout
5. +Vout