

**SERIES:** FSC-S30

**DESCRIPTION:** ac-dc converter

**Features**

- Encapsulated compact case
- High efficiency
- Universal input
- Built in EMI filter
- 100kHz fixed frequency
- Fixed output voltage
- Thermal shutdown
- 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-S30-3R3U	AC 85-264V / DC 110-340V	3.3V @ 6.0A	19.8 W	80 mVp-p	78
FSC-S30-5U	AC 85-264V / DC 110-340V	5V @ 6.0A	30 W	80 mVp-p	80
FSC-S30-12U	AC 85-264V / DC 110-340V	12V @ 2.5A	30 W	120 mVp-p	83
FSC-S30-15U	AC 85-264V / DC 110-340V	15V @ 2.0A	30 W	150 mVp-p	83
FSC-S30-24U	AC 85-264V / DC 110-340V	24V @ 1.25A	30 W	200 mVp-p	86

**INPUT**

parameter	conditions/description	min	nom	max	units
input frequency		47	(50-60)	440	Hz
input voltage		85		264	VAC
		110		340	VDC
input current	AC input of 110 VAC			0.49	A
	AC input of 220 VAC			0.25	A
inrush current	measured at 110 VAC at full load, cold start			30	A
	measured at 220 VAC at full load, cold start			60	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%	
		-3%		+3%	
ripple and noise		-1%		+1%	
line regulation		-1%		+1%	
load regulation		-1%		+1%	
dynamic load regulation		-3%		+3%	
temperature drift		-1%		+1%	
rise time				400	ms
hold-up time		10			ms

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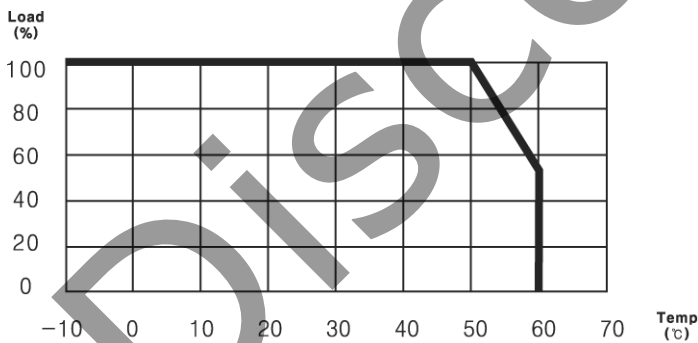
**PROTECTION CIRCUIT**

parameter	conditions/description
output over current	works at over 105% of the rating and recovers automatically.
over temperature	145 °C

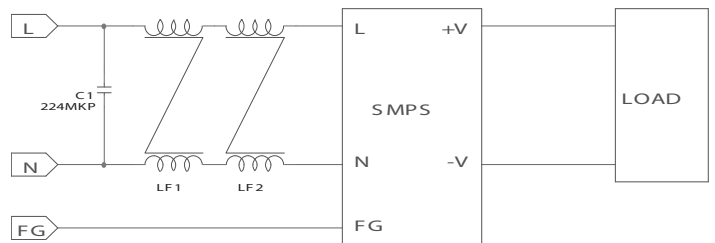
**GENERAL**

parameter	conditions/description	min	nom	max	units
operating temp.		-10		60	°C
storage temp.		-20		70	°C
operating humid.	non-condensing	20%		90%	RH
storage humid.	non-condensing	20%		90%	RH
isolation voltage	applied for 1 minute, 10mA				
(HI-POT)	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	3.0 x 10 <sup>5</sup>				hours
RoHS	yes				
safety	approved to UL60950(E222889), CSA C22.2 NO.60950, CE(EN60950) - through tuv				
warranty	standard warranty length			2	years

**DERATING CURVE**

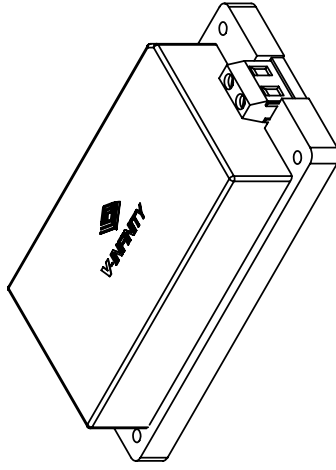
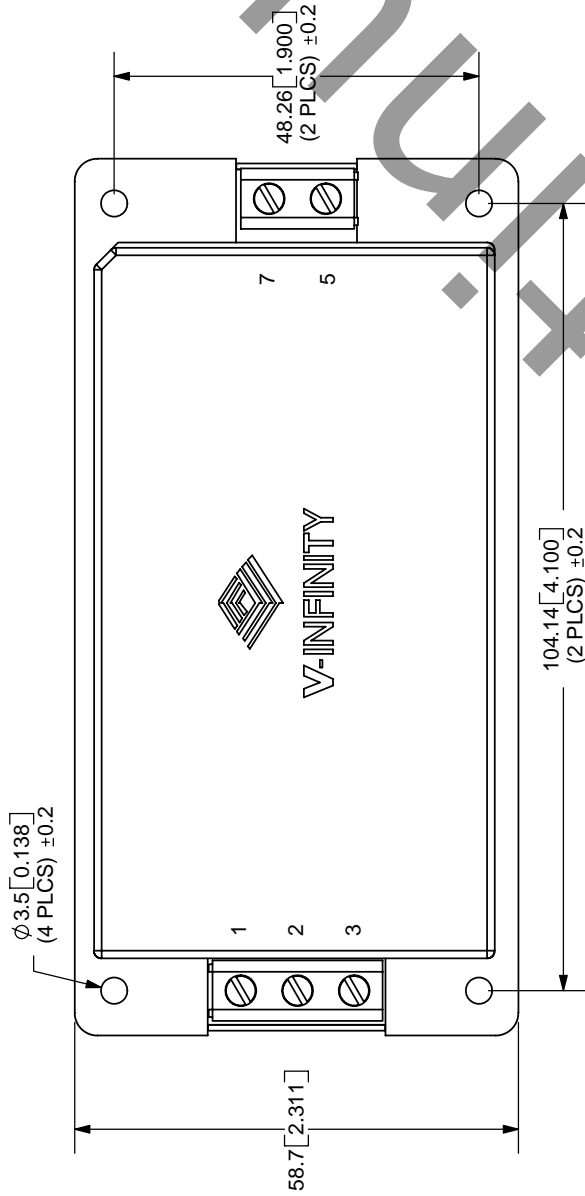


**EXTERNAL EMI FILTER**



C1 = 220nF / 275Vac, X2 Capacitor  
 LF1 = 20mH Common Mode Line Filter, Toroidal core φ14.0mm  
 LF2 = 20mH Common Mode Line Filter, Toroidal core φ14.0mm

REV.	DESCRIPTION	DATE
A	NEW DRAWING	9/11/2007



SCALE: 1:2



TOLERANCE:  
±0.5mm UNLESS OTHERWISE  
SPECIFIED



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TITLE: AC-DC CONVERTER	REV: A
PART NO: FSC-S30	UNITS: MM [INCHES]
DRAWN BY: ZRJ	APPROVED BY:
	SCALE: 1:1

PIN ASSIGNMENTS

1. FG
2. AC (N)
3. AC (L)
5. +Vout
7. -Vout

