



V-INFINITY
a division of CUI INC

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date 10/2007

PART NUMBER: FSK-S10-XXUB

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 (%)
FSK-S10-3R3UB	AC 85-264V / DC 110-340V	3.3V @ 2.5A	8.25 W	80 mVp-p	75
FSK-S10-5UB	AC 85-264V / DC 110-340V	5V @ 2.0A	10.0 W	80 mVp-p	77
FSK-S10-12UB	AC 85-264V / DC 110-340V	12V @ 0.83A	10.0 W	120 mVp-p	80
FSK-S10-15UB	AC 85-264V / DC 110-340V	15V @ 0.66A	10.0 W	150 mVp-p	80
FSK-S10-24UB	AC 85-264V / DC 110-340V	24V @ 0.42A	10.0 W	200 mVp-p	80

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





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PROTECTION CIRCUIT

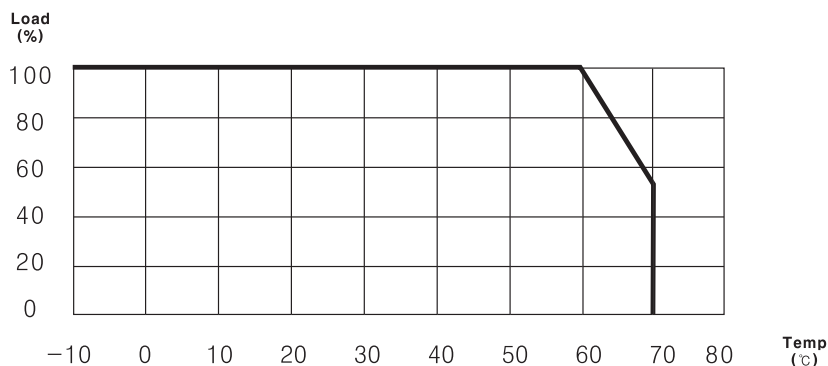
parameter	conditions/description
output over current	works at over 105% of the rating and recovers automatically.
over temperature	150 °C , recovers automatically
over voltage	clamp, 130~150%

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 (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	4.5×10^5				hours
RoHS	yes				
safety	approved to UL60950(E222889), CSA C22.2 NO.60950, CB(IEC 60950), CE(EN60950)				
EMC ¹	5W, 10W single output: approved; EN61204-3 class B, EN 6100-3-3 (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 (refer to manual)

DERATING CURVE

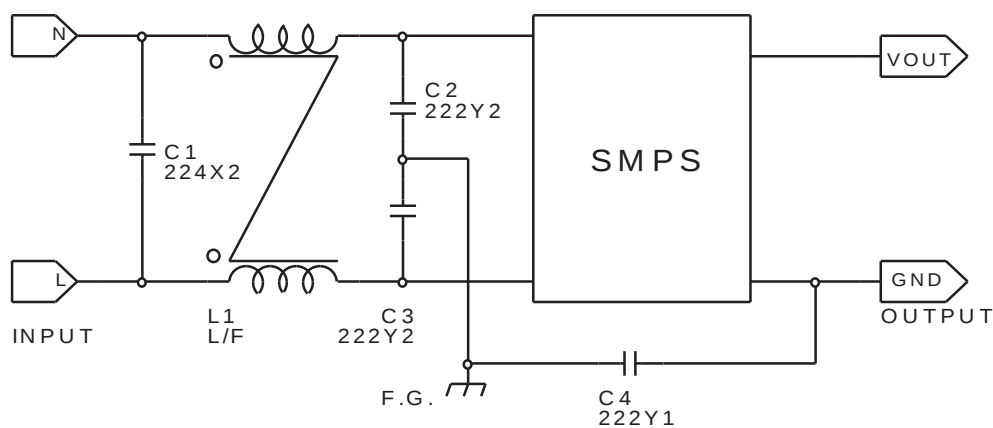


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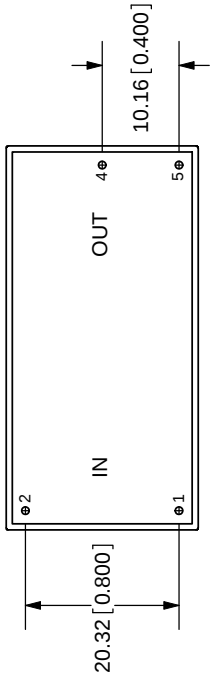
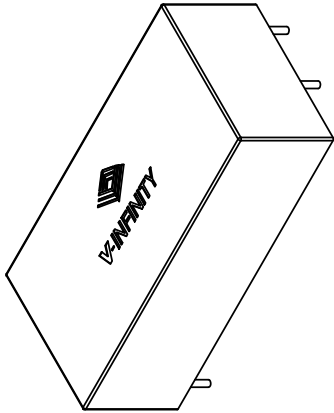
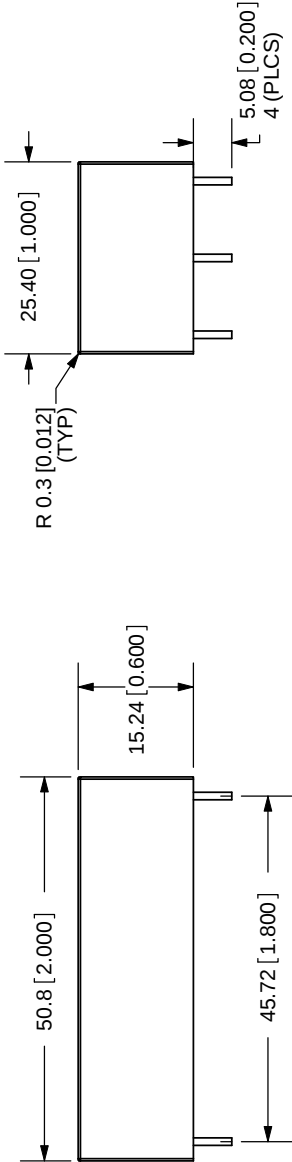
EMI

The figure below is a suggested diagram in order to reduce electromagnetic interference (EMI) on the FSK-S10-XXUB series.



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

REV.	DESCRIPTION	DATE
A	NEW DRAWING	11/1/2007



TOLERANCE:
±0.3mm UNLESS OTHERWISE
SPECIFIED

RoHS



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

PIN ASSIGNMENTS

Pin Number		Single Output	TITLE:	AC-DC Converter	REV:	A
1		AC (N)				
2		AC (L)				
3		No pin				
4		-V out				
5		+V out				

- Notes:
- All dimensions are in mm [inches]
 - Weight: 40g or less
 - Case material : PBT , UL94V-0
 - Construction: Encapsulated soft pot

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NAME:
FSK-S10-XXUB

UNITS:
MM [INCHES]

APPROVED BY:
ZRJ

SCALE:
1:1