

SERIES: VF-S320-XXA-CFS | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

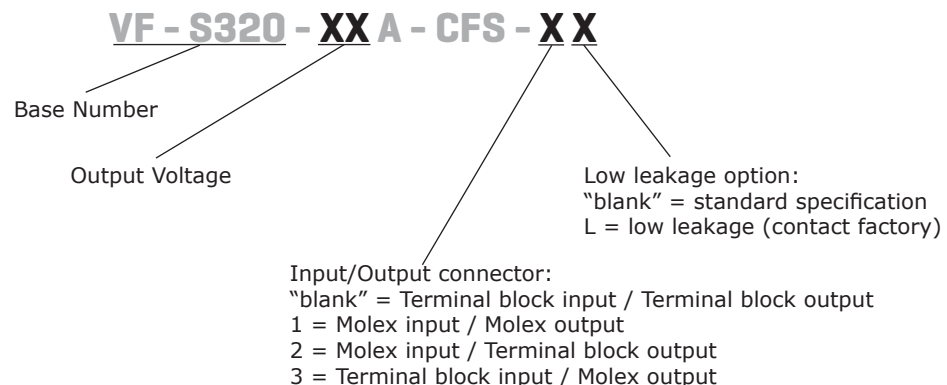
- up to 320 W continuous power
- 700 W peak power within 500 μ s duty duration
- metal top cover and side fan
- passive power factor correction
- power good signal
- remote on/off control
- 3,000 Vac isolation voltage
- over load, over voltage, over temperature, and short circuit protections
- UL, cUL, and TUV 60950-1 safety approvals
- efficiency up to 83%



MODEL	output voltage	output current	output power	ripple and noise	efficiency
	(Vdc)	max (A)	max (W)	max (mVp-p) ^{2,3}	typ (%)
VF-S320-05A-CFS	5	50	250	50	75%
VF-S320-09A-CFS	9	32	288	90	83%
VF-S320-12A-CFS	12	26.37	316.5	120	80%
VF-S320-15A-CFS	15	23.53	353	150	83%
VF-S320-18A-CFS	18	20	360	180	83%
VF-S320-24A-CFS	24	15.24	365.75	240	83%
VF-S320-28A-CFS	28	11.85	331.8	280	83%
VF-S320-36A-CFS	36	9.14	329	360	83%
VF-S320-48A-CFS	48	7.44	357	480	83%
VF-S320-54A-CFS	54	6.27	338.5	540	83%

Notes:

1. Maximum power must not exceed 180 W with convection cooling or 320 W for forced air. 5 and 9 V models maximum current listed.
2. 1% minimum load is required to maintain the ripple and regulation.
3. Ripple and noise is measured from 10 KHz to 20 MHz at output terminals with a 0.1 μ F ceramic capacitor and a 22 μ F electrolytic capacitor in parallel.

PART NUMBER KEY


INPUT

parameter	conditions/description	min	typ	max	units
voltage	90-132/180-264 auto selectable	90/180		132/264	Vac
frequency		47		63	Hz
current	at 100~120 Vac, cold start at 200~240 Vac, cold start			8 4	A A
inrush current	at 115 Vac, full load, cold start at 230 Vac, full load, cold start			35 70	A A
power factor	compliant to EN 61000-3-2 class A				
remote on/off	designated as RMSW on the CN1, requires a low signal to inhibit output, hiccup mode				

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	low line to high line		±1		%
load regulation	all other outputs		±1		%
temperature coefficient			0.25		mV/°C
transient response	Output voltage returns to within 1% in less than 2.5 ms for a 50% load change. Peak transient does not exceed 5%.				
start-up time	at 120 Vac			1	s
rise time		0.2		20	ms
hold-up time	at 120 Vac and 80% of rated maximum load	20			ms
adjustability			±5		%
power good	Designated as PG on the CN1. This signal goes high 100-500 mS after the output reaches regulation. It goes low at least 1 mS before loss of regulation.				
fan drive	12 Vdc / 300 mA for external fan				

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	AC input needs to be reset to restart the power supply.			130	%
over current protection	automatically recovers		110	140	%
short circuit protection	short circuit can be continuous, recovers automatically upon removal of short				
over temperature protection	auto recovery			85	°C

SAFETY & COMPLIANCE

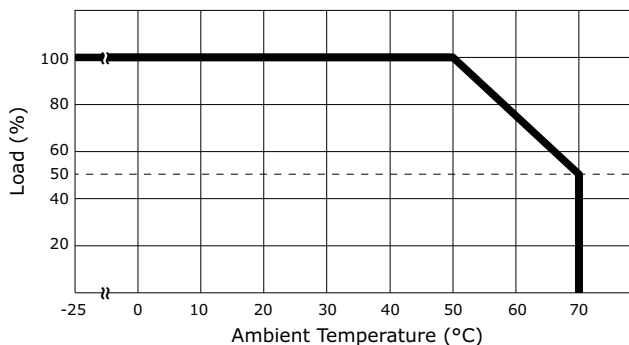
parameter	conditions/description	min	typ	max	units
isolation voltage	applied for 3 seconds at 10 mA max. primary to secondary primary to transformer core primary to earth chassis	3,000 1,500 1,500			Vac Vac Vac
safety approvals	UL 60950-1, CSA C22.2 No. 60950-1-03, TUV EN 60950-1, CE Mark (LVD) EN 61000-3-(2,3) & IEC 61000-4 Series regulations and CB				
EMI/EMC	pass FCC Part 15, CISPR 22 class B, conducted				
leakage current	at 264 Vac			1.5	mA
RoHS compliant	yes				
MTBF	according to MIL-HDBK-217 at 30 °C	100,000			hrs

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		0		50	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	5%		90%	%
storage humidity	non-condensing	5%		95%	%
vibration	acceleration $\pm 7.35 M/(S \times S)$, on X, Y and Z Axis	5		50	Hz

DERATING CURVES

output power vs. ambient temperature

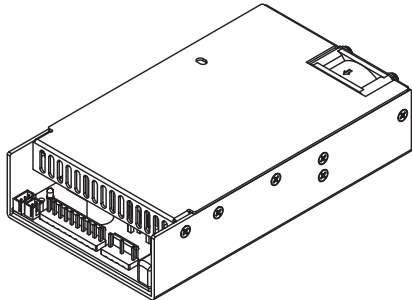


MECHANICAL

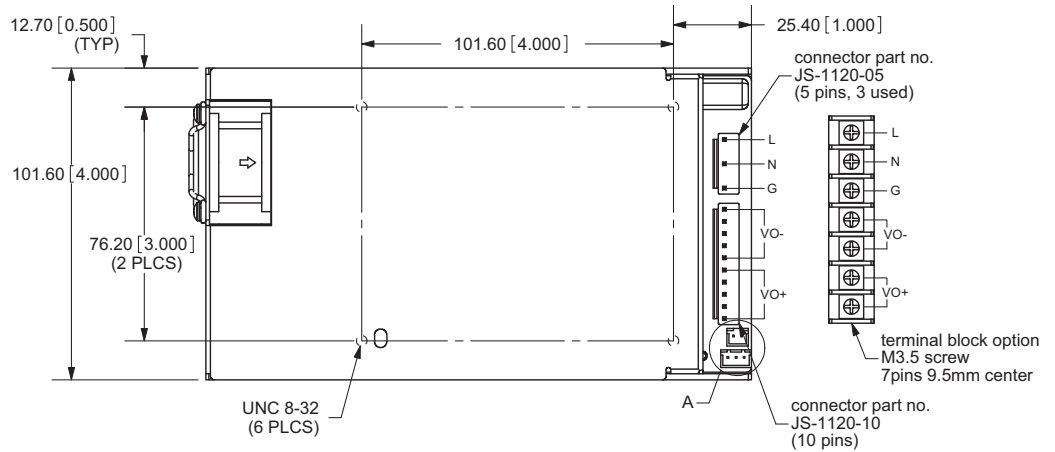
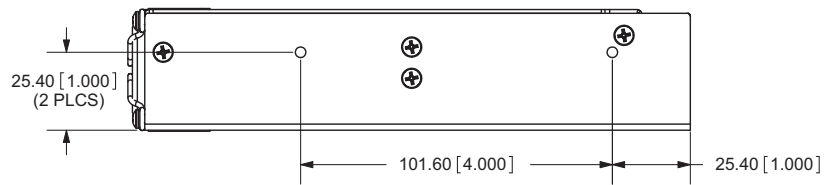
parameter	conditions/description	min	typ	max	units
dimensions	7(L) x 4(W) x 1.6(H)				inches
weight				800	g

MECHANICAL DRAWING

TOLERANCE:
±0.3mm UNLESS OTHERWISE
SPECIFIED

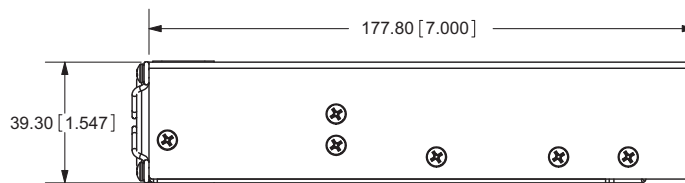
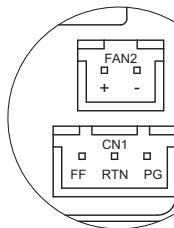


SCALE: 1:3



CN1	
1	ground
2	ac neutral
3	ac line

CN2	
1	Vo+
2	Vo+
3	Vo+
4	Vo+
5	Vo+
6	Vo-
7	Vo-
8	Vo-
9	Vo-
10	Vo-



- Notes:
1. CN1 mates with molex part no. JST XHP-3 or equivalent (CHYAO SHIUNN JS-2001-03) and JST SXH-002T-P0.6 mating pins
 2. CN2 mates with molex part no. JST VH series
 3. Fan drive connector mates with JST part no. XHP-2 or equivalent
 4. Mounting hole max depth 4.00mm

REVISION HISTORY

rev.	description	date
1.0	initial release	05/5/2009
1.01	new template applied	12/17/2011
1.02	V-Infinity branding removed	08/28/2012

The revision history provided is for informational purposes only and is believed to be accurate.



Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com

CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.