

**SERIES:** VF-D320-DXXA-CF | **DESCRIPTION:** AC-DC POWER SUPPLY

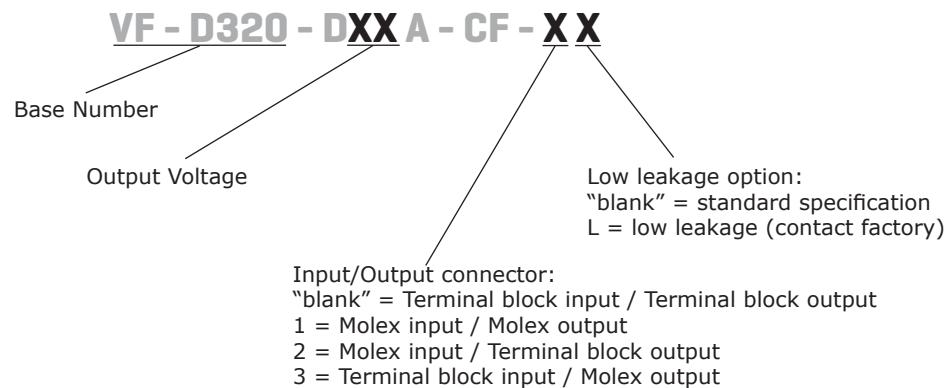
**FEATURES**

- up to 320 W continuous power
- metal top cover and fan
- passive power correction
- dual outputs
- power good signal
- remote on/off control
- 3000 Vac isolation voltage
- over load, over voltage, over temperature, and short circuit protections
- UL, cUL, and TUV 60950-1 safety approvals
- efficiency up to 75%



MODEL	output voltage	output current	output <sup>1</sup> power	ripple and noise <sup>2,3</sup>	efficiency
	(Vdc)	max (A)	max (W)	max (mVp-p)	typ (%)
VF-D320-D512A-CF	5 12	30 16.67	360	120	75%
VF-D320-D524A-CF	5 24	30 8.33	720	240	75%
VF-D320-D548A-CF	5 48	30 4.16	1440	480	75%
VF-D320-D1224A-CF	12 24	16.67 8.33	400	240	75%

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 µF ceramic capacitor and a 22 µF 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 EN61000-3-2 class A				
remote on/off	Designated as RMSW on the CN1, requires a low signal to inhibit output. Hiccough mode.				

**OUTPUT**

parameter	conditions/description	min	typ	max	units
line regulation	low line to high line		±5		%
load regulation	all other outputs		±5		%
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 maximim 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 / 400 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 temp. protection	Auto recovery.			85	°C

**SAFETY & COMPLIANCE**

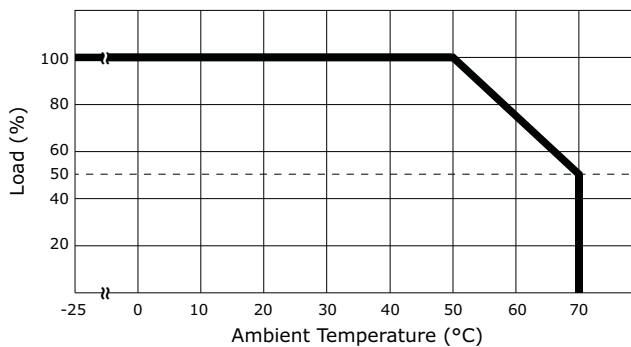
parameter	conditions/description	min	typ	max	units
isolation voltage	Applied for 3 seconds at 10 mA max. Primary to secondary: Primary to transformer core: Primary to earth chassis:	3,000 1,500 1,500			Vac Vac
safety approvals	UL60950-1, CSA C22.2 No. 60950-1-03, TUV EN60950-1 and CB, CE Mark (LVD) EN61000-3-2, 3 & IEC61000-4 Series regulations and CB				
EMI/EMC	Pass FCC Part 15, CISPR 22 class B, Conducted				
leakage current	at 240 Vac at 240 Vac at 120 Vac			1.5 500 300	mA
RoHS compliant	yes				
MTBF	According to MIL-HDBK-217 at 30 °C	100,000			hrs

## ENVIRONMENTAL

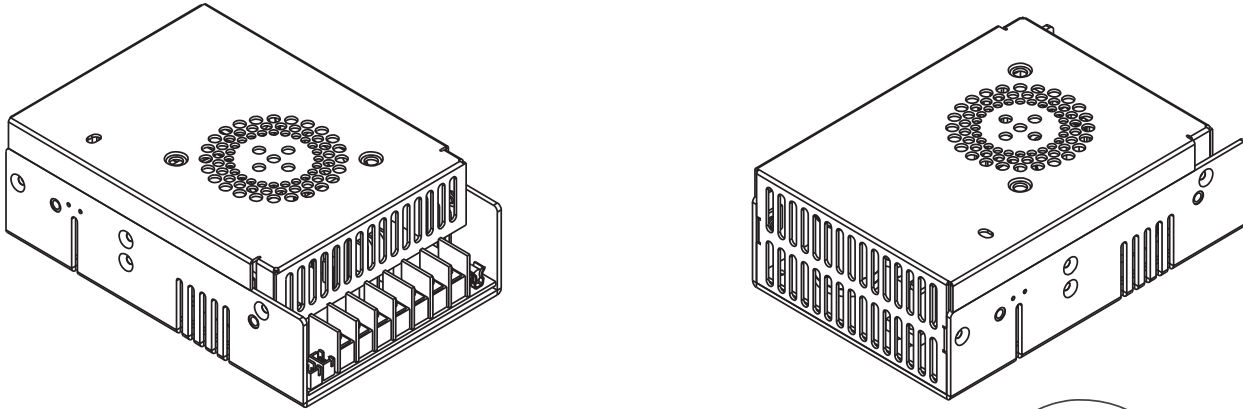
parameter	conditions/description	min	typ	max	units
operating temperature		0		50	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	5%		90%	%
storage humidity		5%		95%	%
vibration	Acceleration $\pm 7.35 M/(SxS)$ , on X, Y and Z Axis	5		50	Hz

## DERATING CURVES

output power vs. ambient temperature

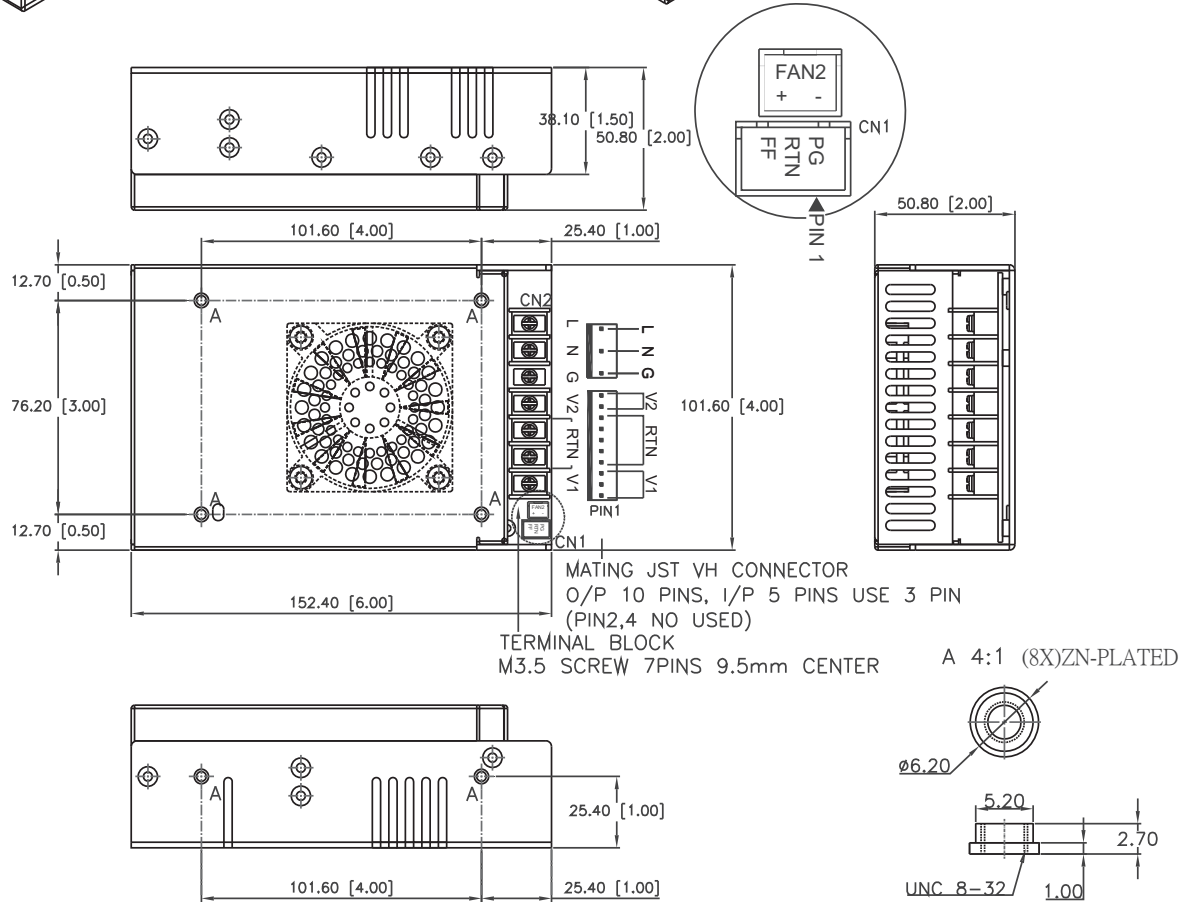


# MECHANICAL DRAWING



CN1	
1	ground
2	ac neutral
3	ac line

CN2	
1	Vo1
2	Vo1
3	Vo1
4	RTN
5	RTN
6	RTN
7	RTN
8	RTN
9	Vo2
10	Vo2



- 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 JST VH series
  3. Fan drive connector mates with JST part no. XHP-2 or equivalent (CHYAO SHIUNN JS-2001-02).
  4. Mounting hole max depth 4.00mm

## REVISION HISTORY

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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.



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