

SERIES: VUF-D400-D | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- safety approvals: UL 60950-1, CSA C22.2 No. 60950-1-03
- dual output
- current monitoring and remote voltage adjustments (margin)
- compact 1U size and high power density: 5.56 W/inch³
- power factor corrected to EN 61000-3-2 Class D
- short circuit, overload, over voltage and over temperature protections
- optional IEC320 AC inlet or terminal block
- current sharing



MODEL	output voltage ^{1,2,3} (Vdc)	output current max.		ripple and noise ^{4,5} max (% Vp-p)	efficiency typ (%)
		convection (A)	22.95 CFM (A)		
VUF-D400-D312	3.3 12	30 16.7	40 25	±1	75
VUF-D400-D324	3.3 24	30 8.34	40 12.5	±1	75
VUF-D400-D512	5 12	30 16.7	40 25	±1	75
VUF-D400-D524	5 24	30 8.34	40 12.5	±1	75
VUF-D400-D1242	12 24	16.7 8.33	25 12.5	±1	75

- Notes:
1. output is fully isolated
 2. output voltage is measured at output power connector
 3. provides peak power of 700 W within 500 μs for all models
 4. 1% minimum load is required to maintain the ripple and regulation
 5. Ripple & noise are measured at 20 MHz BW with 0.1 μF ceramic cap and a 22 μF electrolytic capacitors on the output

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at 90 Vac, full load			6.35	A
inrush current	at 230 Vac, full load, cold start			35	A
input fuse	Built-in ac fuse. A blown fuse usually indicates permanent damage to the power supply serviceable by factory only.				
power factor correction	meets EN 61000-3-2 Class D				

OUTPUT

parameter	conditions/description	min	typ	max	units
total regulation			±5		%
transient response	output voltage returns to within 1% in less than 2.5 ms, 50% load change, peak transient does not exceed 5%.				
overshoot	turn-on and turn-off overshoot shall not exceed 5% over nominal voltage.				
turn-on delay	at 230 Vac			1	s
hold-up time	at 80% load	20			ms
adjustment range	output user adjustable		±5		%
remote sense	Designated as RS+ and RS- on CN3. Total voltage compensation for cable losses with respect to the main output.				
remote on/off	Defined RSW on CN3, requiring a low signal to inhibit output.				
LED display (LED 1)	Green - the power supply is operating normally. Orange - when any protection occurs or RSW is low.				
power good	Designated as PG on CN3. This signal goes high 100~500 ms after the output reaches regulation. It goes low at least 1 ms before loss of regulation.				

PROTECTIONS

parameter	conditions/description	min	typ	max	units
input under voltage protection	Power supply shuts down when ac input is under 80 ±5 Vac. When ac line reappears over 86 ±5 Vac, the power supply restarts automatically.				
over voltage protection	shutdown and latches, ac input reset required to restart			130	%
over current protection	auto recovery	110		140	%Io
short circuit protection	auto recovery upon removal of short				
over temperature protection	shutdown	85			°C

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	primary to secondary at 2 mA for 3 seconds	4,000			Vac
	primary to transformer core at 2 mA for 3 seconds	1,500			Vac
	primary to earth ground at 2 mA for 3 seconds	1,500			Vac
safety approvals	UL 60950-1, CSA C22.2 No. 60950-1-03, TUV EN 60950-1, CE Mark (LVD) EN 61204-3/61000-3-(2,3) & IEC 61000-4 Series Regulations, CB				
EMI/EMC	FCC Part 15, CISPR22 Class B, conducted				
leakage current				1.5	mA
grounding test	allowable resistance measured when 40 A current is applied from the ground pin of the three prong plug to the farthest earthed connection point.			0.1	Ω
RoHS compliant	yes				
MTBF	according to MIL-HBK-217F at 30°C	100,000			hours

ENVIRONMENTAL

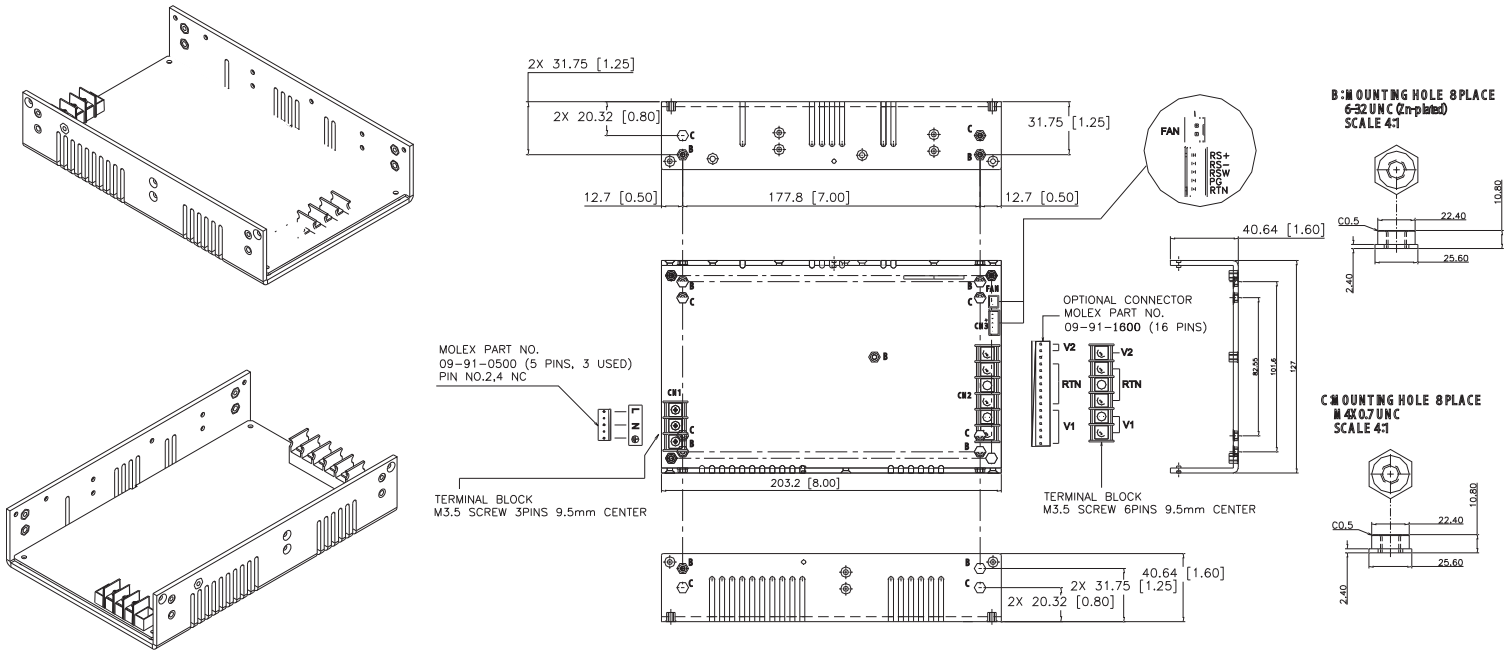
parameter	conditions/description	min	typ	max	units
operating temperature	derating linearly at 2.5% from 50~70°C	0		50	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	5		90	%RH
storage humidity	non-condensing	5		95	%RH

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	8 x 5 x 1.6 (203.2 x 127 x 40.64 mm)				inch
weight				1.0	kg
Mounting screws	6-32, 1/4" or shorter				

MECHANICAL DRAWING

units: inches (mm)
 tolerance: inches: x.xx = ±0.02
 mm: x.xx = ±0.5



INPUT CONNECTOR (CN1)	
Howder HD-121-3P (option 1)	Molex 26-48-1071 or similar. (option 2)
Suggested mating connector Molex 19198-0016 or similar	Suggested mating plug Molex Part No. 09-91-0700

OUTPUT CONNECTOR (CN2)			
Howder HD-121-6P (option 1)		Molex 26-48-1161 or similar. (option 2)	
Suggested mating connector Molex 19198-0045 or similar		Suggested mating connector Molex 09-91-1600	
PIN	FUNCTION	PIN	FUNCTION
1~2	+Vo	1~6	+Vo
3~5	RTN	7~13	RTN
6	-Vo	14~16	-Vo

LOGIC CONNECTOR (CN3)		FAN
JS B5B-XH-A		JS B2B-XH-A
Suggested mating connector JST XHP-5 or equivalent Contact: SXH-002T-P0.6		Suggested mating connector JST XHP-2 or equivalent, Contact: SXH-001T-P0.6
PIN	FUNCTION	
1	RTN - return	
2	PG - power good signal	
3	RSW - remove on/off	
4	RS- - remote sense (-)	
5	RS+ - remote sense (+)	

REVISION HISTORY

rev.	description	date
1.0	initial release	07/11/2006
1.04	new template applied, 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.