

**SERIES: VFM40 | DESCRIPTION: AC-DC POWER SUPPLY**
**FEATURES**

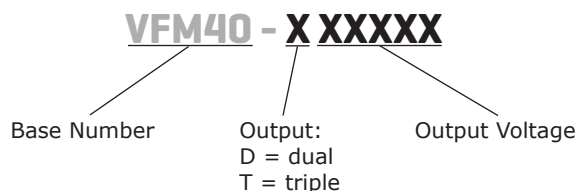
- up to 40 W continuous power
- industry standard footprint (2x4")
- universal input (90~264 Vac)
- 4,242 V isolation
- over current, over temperature, over voltage, and short circuit protections
- efficiency up to 81%



MODEL	output voltage (Vdc)	output current			output power max (W)	ripple and noise <sup>1</sup> max (mVp-p)	efficiency typ (%)
		min (A)	typ (A)	max (A)			
VFM40-D512	5 (V1)	0.4	3.2	5.0	40.0	50	80
	12 (V2)	0.2	2.0	2.5			
VFM40-D524	5 (V1)	0.4	3.2	5.0	40.0	50	81
	24 (V2)	0.2	1.0	1.5			
VFM40-T5125	5 (V1)	0.4	3.0	5.0	40.5	50	78
	12 (V2)	0.2	2.0	2.5		120	
	-5 (V3)	0	0.3	0.5		50	
VFM40-T512	5 (V1)	0.4	3.0	5.0	42.6	50	78
	12 (V2)	0.2	2.0	2.5		120	
	-12 (V3)	0	0.3	0.5		120	
VFM40-T515	5 (V1)	0.4	3.0	5.0	42.0	50	78
	15 (V2)	0.2	1.5	2.3		150	
	-15 (V3)	0	0.3	0.5		150	
VFM40-T52412	5 (V1)	0.4	3.0	5.0	42.6	50	78
	24 (V2)	0.2	1.0	1.5		240	
	-12 (V3)	0	0.3	0.5		120	
VFM40-T5245	5 (V1)	0.4	3.0	5.0	40.5	50	78
	24 (V2)	0.2	1.0	1.5		240	
	-5 (V3)	0	0.3	0.5		50	
VFM40-T52412-1	5 (V1)	0.4	3.0	5.0	42.6	50	78
	24 (V2)	0.2	1.0	1.5		240	
	12 (V3)	0	0.3	0.5		120	
VFM40-3512	3.3 (V1)	0.4	5.0	7.0	30.0	100	71
	5 (V2)	0.2	2.0	3.5		100	
	12 (V3)	0	0.3	0.5		120	

Notes: 1. Ripple & noise are measured at 20 MHz BW with 0.1  $\mu$ F ceramic cap and a 10  $\mu$ F electrolytic capacitors on the output

## PART NUMBER KEY



## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
		120		370	Vdc
frequency		47		440	Hz
input current	115 Vac			1	A
inrush current	230 Vac			60	mA

## OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	dual output models	V1		±1	%
		V2		±2	%
	triple output models	V1		±1	%
		V2		±2	%
V3			±1	%	
load regulation	dual output models	V1		±3	%
		V2		±5	%
	triple output models	V1		±3	%
		V2		±5	%
V3			±1	%	
voltage accuracy	dual output models	V1		±3	%
		V2		±4	%
	triple output models	V1		±3	%
		V2		±4	%
V3			±3	%	
hold-up time	115 Vac at full load		20		ms
adjustment range			10		%

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	V1	3.3 V	3.6	4.6	Vdc
		5 V	5.7	6.7	Vdc
	V2	12, 15, and 24 V	120		140
over current protection	auto recovery			180	%Io
short circuit protection	auto recovery upon removal of short				

## SAFETY & COMPLIANCE

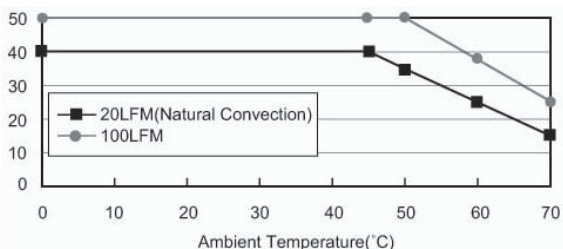
parameter	conditions/description	min	typ	max	units
isolation voltage	primary to secondary	4,242			Vac
safety standards	UL, TUV, CE				
EMI/EMC	EN 61204-3 Class B, CISPR, FCC Class B				
leakage current				3.5	mA
RoHS compliant	yes				

## ENVIRONMENTAL

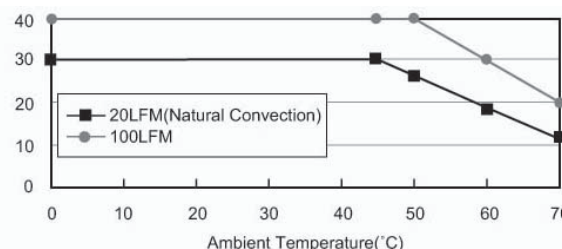
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	0		45	°C
storage temperature		-20		85	°C

## DERATING CURVES

All other models



VFM40-3512



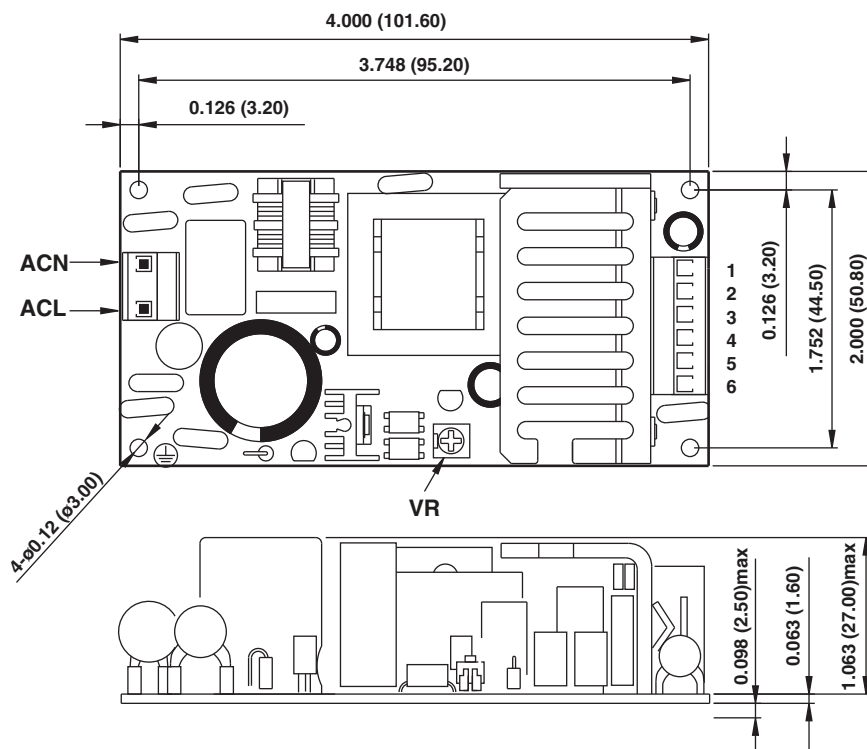
## MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	4 x 2 x 1.2 (101.6 x 50.8 x 30.48 mm)				inch
weight			180		g

## MECHANICAL DRAWING

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

MATING CONNECTORS	
CONNECTOR	MOLEX
AC input (CN1)	housing: 09-50-3031 crimp contact: 2878
DC output (CN2)	housing: 09-50-3061 crimp contact: 2878



PIN CONNECTIONS	
PIN	FUNCTION
1	V2
2	V1
3	V1
4	COM
5	COM
6	V3

## REVISION HISTORY

---

rev.	description	date
1.0	initial release	01/30/2007
1.01	updated spec template and derating curves	08/28/2007
1.03	new template applied, V-Infinity branding removed, safety marks/standards and mechanical drawing updated	08/17/2012

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.