

date 03/12/2013

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SERIES: VAWQ3 | DESCRIPTION: DC-DC CONVERTER

FEATURES

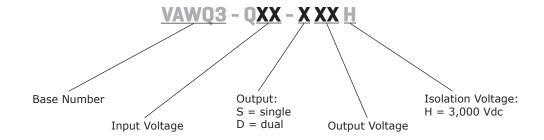
- up to 3 W isolated output
- wide input (4:1)
- industry standard 24 pin DIP package style
- single and dual regulated outputs
- 3,000 V isolation (H version)
- short circuit protection
- wide temperature (-25~71°C)
- efficiency up to 77%





MODEL	input voltage	output voltage	output current	output power	ripple and noise	efficiency
	range (Vdc)	(Vdc)	max (mA)	max (W)	max (mVp-p)	typ (%)
VAWQ3-Q24-S3R3	9~36	3.3	600	2	100	70
VAWQ3-Q24-S5	9~36	5	600	3	100	72
VAWQ3-Q24-S12	9~36	12	250	3	100	76
VAWQ3-Q24-S15	9~36	15	200	3	100	76
VAWQ3-Q24-D5	9~36	±5	±300	3	100	70
VAWQ3-Q24-D12	9~36	±12	±125	3	120	72
VAWQ3-Q24-D15	9~36	±15	±100	3	150	72
VAWQ3-Q48-S3R3	18~72	3.3	600	2	100	70
VAWQ3-Q48-S5	18~72	5	600	3	100	72
VAWQ3-Q48-S12	18~72	12	250	3	100	77
VAWQ3-Q48-S15	18~72	15	200	3	100	77
VAWQ3-Q48-D5	18~72	±5	±300	3	100	71
VAWQ3-Q48-D12	18~72	±12	±125	3	120	72
VAWQ3-Q48-D15	18~72	±15	±100	3	150	72

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
operating input voltage		9 18	24 48	36 72	Vdc Vdc
input filter	PI type				

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	measured from low line to high line			±0.5	%
load regulation	single output models¹ dual output models²			±0.5 ±1.0	% %
voltage accuracy				±2.0	%
voltage balance	dual output models			±1.0	%
switching frequency		100			kHz
temperature coefficient				±0.05	%/°C

Notes:

PROTECTIONS

parameter	conditions/description	min	typ	max	units
short circuit protection	continuous				

SAFETY AND COMPLIANCE

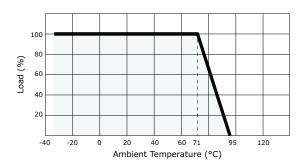
parameter	conditions/description	min	typ	max	units
isolation voltage		3,000			Vdc
insulation resistance		1,000			ΜΩ
RoHS compliant	yes				

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		-25		71	°C
case temperature				95	°C
storage temperature		-40		100	°C

^{1.} measured from 10% to 100% full load 2. measured from 25% to 100% full load

DERATING CURVES



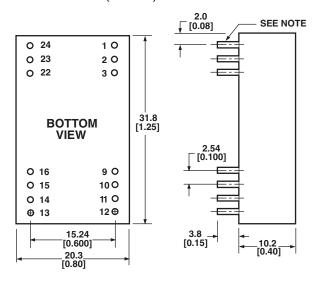
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	1.25 x 0.80 x 0.40 (31.8 x 20.3 x 10.2 mm)				inch
case material	non-conductive black plastic				
weight			12.5		g

MECHANICAL DRAWING

units: mm [inches]

tolerance: inches: $x.xx = \pm 0.02$, $x.xxx = \pm 0.010$ mm: $x.xx = \pm 0.5$, $x.xxx = \pm 0.25$ Note: Pin diameter 0.02 inch (0.5 mm)



PIN CONNECTIONS					
	SINGLE OUTPUT	DUAL OUTPUT			
PIN	FUNCTION	FUNCTION			
1,24	NP	NP			
2,3	-Vin	-Vin			
4,5	NP	NP			
9	NC	Common			
10,15	NC	NC			
11	NC	-Vo			
12,13	NP	NP			
14	+Vo	+Vo			
16	-Vo	Common			
20,21	NP	NP			
22,23	+Vin	+Vin			

NP = No Pin

NC = No connection

CUI Inc | SERIES: VAWQ3 | DESCRIPTION: DC-DC CONVERTER date 03/12/2013 | page 4 of 4

REVISION HISTORY

rev.	description	date
1.0	initial release	04/06/2009
1.01	updated to new template	06/06/2012
1.02	V-Infinity branding removed	09/11/2012
1.03	updated spec	03/12/2013

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.

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