

**SERIES:** VAWQ6 | **DESCRIPTION:** DC-DC CONVERTER

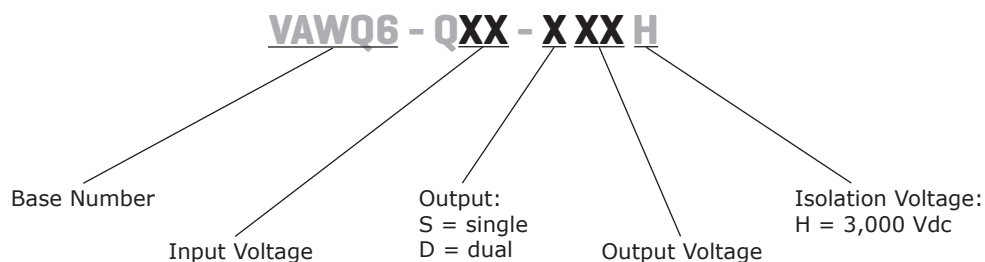
**FEATURES**

- up to 6 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 80%



MODEL	input voltage		output voltage (Vdc)	output current max (mA)	output power max (W)	ripple and noise <sup>1</sup> max (mVp-p)	efficiency typ (%)
	typ (Vdc)	range (Vdc)					
VAWQ6-Q24-S3R3	24	9~36	3.3	1,000	3.3	100	72
VAWQ6-Q24-S5	24	9~36	5	1,000	5	100	78
VAWQ6-Q24-S12	24	9~36	12	470	5.64	120	80
VAWQ6-Q24-S15	24	9~36	15	400	6	150	80
VAWQ6-Q24-D5	24	9~36	±5	±500	5	100	78
VAWQ6-Q24-D12	24	9~36	±12	±230	5.52	120	80
VAWQ6-Q24-D15	24	9~36	±15	±190	5.7	150	80
VAWQ6-Q48-S3R3	48	18~72	3.3	1,000	3.3	100	70
VAWQ6-Q48-S5	48	18~72	5	1,000	5	100	78
VAWQ6-Q48-S12	48	18~72	12	470	5.64	120	79
VAWQ6-Q48-S15	48	18~72	15	400	6	150	80
VAWQ6-Q48-D5	48	18~72	±5	±500	5	100	77
VAWQ6-Q48-D12	48	18~72	±12	±230	5.52	120	79
VAWQ6-Q48-D15	48	18~72	±15	±190	5.7	150	80

Notes: 1. ripple and noise are measured at 20 MHz BW with 10μF tantalum capacitor and 1μF ceramic capacitor across output

**PART NUMBER KEY**


**INPUT**

parameter	conditions/description	min	typ	max	units
operating input voltage	12 V model	9	24	36	Vdc
	24 V model	18	48	72	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 models <sup>1</sup>			±0.5	%
	dual output models <sup>2</sup>			±1.0	%
voltage accuracy				±2.0	%
voltage balance	dual output models			±1.0	%
switching frequency		200			kHz
temperature coefficient				±0.05	%/°C

Notes: 1. measured from 10% to 100% full load  
2. measured from 25% to 100% full load

**PROTECTIONS**

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

**SAFETY AND COMPLIANCE**

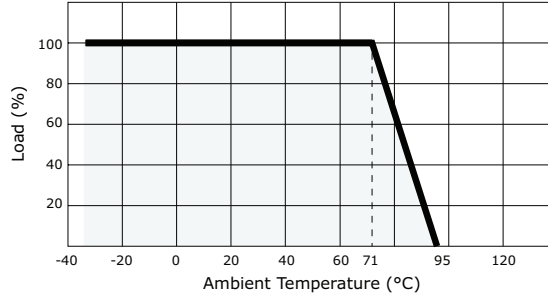
parameter	conditions/description	min	typ	max	units
isolation voltage		3,000			Vdc
insulation resistance		1,000			MΩ
RoHS compliant	yes				

**ENVIRONMENTAL**

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

Note: all specifications are typical measured at nominal line, full load, and 25°C unless otherwise noted

## DERATING CURVES

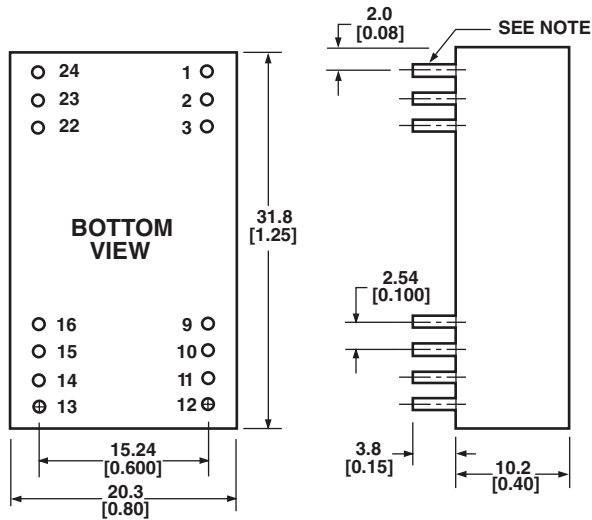


## MECHANICAL

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 = ±0.02, x.xxx = ±0.010  
 mm: x.xx = ±0.5, x.xxx = ±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

Note: All specifications measured at 25°C, nominal input voltage, and full load unless otherwise noted.

## REVISION HISTORY

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rev.	description	date
1.0	initial release	10/13/2008
1.01	updated information	04/09/2009
1.02	updated to new template	08/22/2011
1.03	V-Infinity branding removed	09/11/2011
1.04	updated spec	03/12/2013

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



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