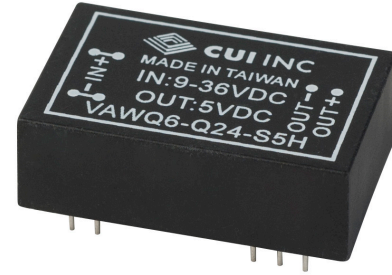


**SERIES:** VAWQ6 | **DESCRIPTION:** DC-DC CONVERTER

**FEATURES**

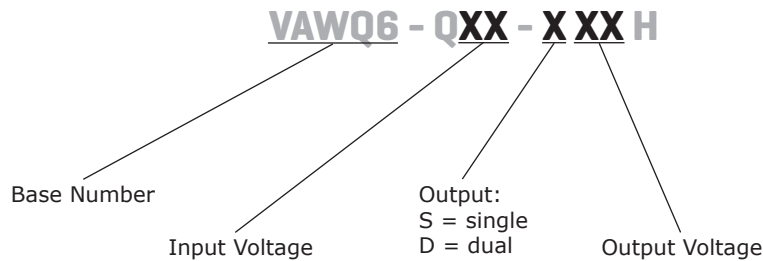
- up to 6 W isolated output
- wide input (4:1)
- industry standard 24 pin DIP package style
- single and dual regulated outputs
- 3,000 Vdc isolation
- short circuit protection
- wide temperature range -25 ~ 95°C with derating
- efficiency up to 80%



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-S3R3H	24	9~36	3.3	1,000	3.3	100	72
VAWQ6-Q24-S5H	24	9~36	5	1,000	5	100	78
VAWQ6-Q24-S12H	24	9~36	12	470	5.64	120	80
VAWQ6-Q24-S15H	24	9~36	15	400	6	150	80
VAWQ6-Q24-D5H	24	9~36	±5	±500	5	100	78
VAWQ6-Q24-D12H	24	9~36	±12	±230	5.52	120	80
VAWQ6-Q24-D15H	24	9~36	±15	±190	5.7	150	80
VAWQ6-Q48-S3R3H	48	18~72	3.3	1,000	3.3	100	70
VAWQ6-Q48-S5H	48	18~72	5	1,000	5	100	78
VAWQ6-Q48-S12H	48	18~72	12	470	5.64	120	79
VAWQ6-Q48-S15H	48	18~72	15	400	6	150	80
VAWQ6-Q48-D5H	48	18~72	±5	±500	5	100	77
VAWQ6-Q48-D12H	48	18~72	±12	±230	5.52	120	79
VAWQ6-Q48-D15H	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	24 Vdc models	9	24	36	Vdc
	48 Vdc models	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				

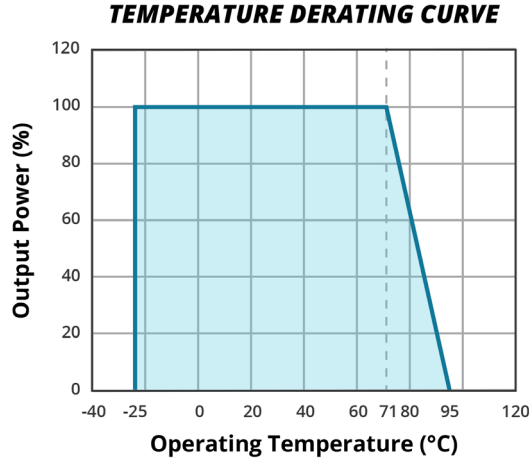
## SAFETY AND COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage		3,000			Vdc
insulation resistance		1,000			MΩ
RoHS	2011/65/EU				

## ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	-25		95	°C
storage temperature		-40		100	°C

## DERATING CURVES



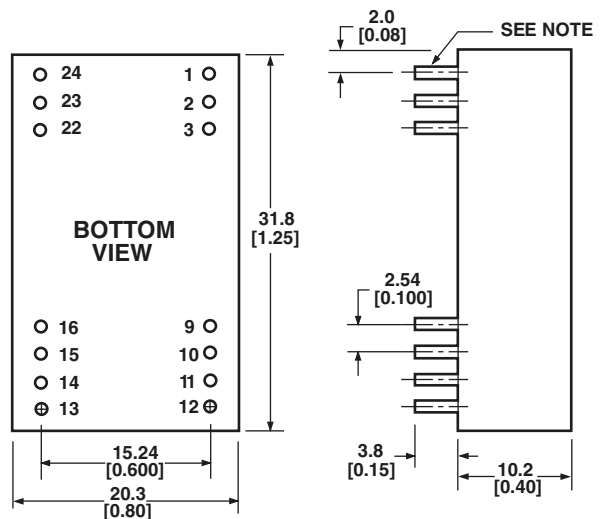
## MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	31.8 x 20.3 x 10.2 (1.25 x 0.80 x 0.40 inches)				mm
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: 0.5 mm [0.02"]

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

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
1.05	updated spec	05/12/2015
1.06	company logo updated	02/16/2021
1.07	company address updated	11/05/2024
1.07	maximum temperature updated	11/20/2024

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



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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.