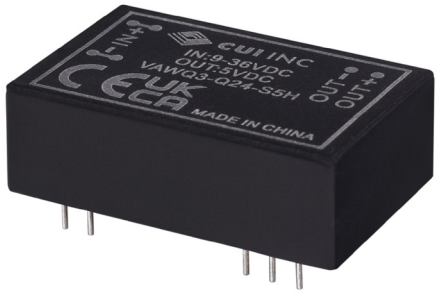
SERIES: VAWQ3 | **DESCRIPTION:** DC-DC CONVERTER

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 range -25 ~ 95°C with derating
- efficiency up to 77%

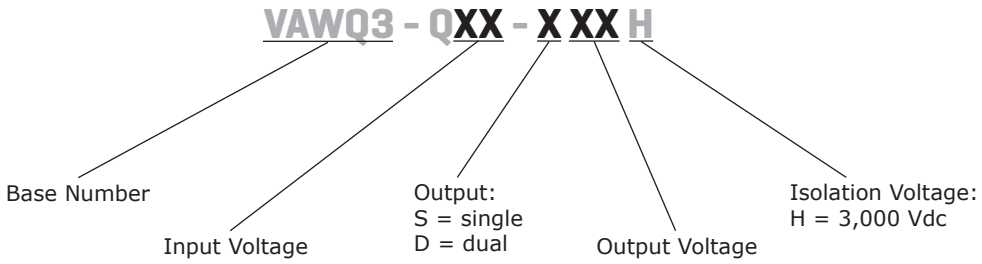


RoHS

MODEL

MODEL	input voltage range (Vdc)	output voltage (Vdc)	output current max (mA)	output power max (W)	ripple and noise max (mVp-p)	efficiency 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



Please read our datasheet & drawing disclaimer here.

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 models[1] dual output models[2]			±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: 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				

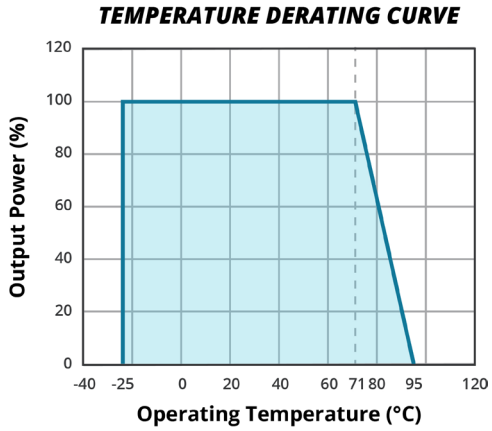
SAFETY AND COMPLIANCE

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	see derating curve	-25		95	°C
storage temperature		-40		100	°C

DERATING CURVES

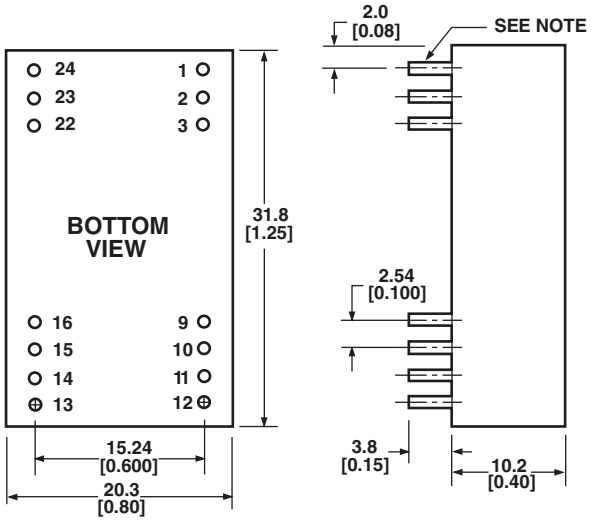


MECHANICAL

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

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
1.04	company logo updated	02/16/2021
1.05	derating curve updated	07/20/2021
1.06	company address updated	11/05/2024
1.07	maximum temperature updated	11/20/2024
1.08	product image updated	01/07/2025

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.

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