

PART NUMBER: VAWQ3 series

DESCRIPTION: DC-DC converter

features

- 3W isolated output
- efficiency to 80%
- 24-pin DIP package
- 4:1 input range
- regulated outputs
- continuous short circuit protection
- Pi input filter
- high isolation voltage



model number ^{1, 2, 3}	input voltage	output voltage	output current	input current		efficiency
				no load	full load	
VAWQ3-Q24-S3R3	9-36VDC	3.3VDC	600mA	15mA	117mA	70%
VAWQ3-Q24-S5	9-36VDC	5VDC	600mA	15mA	174mA	72%
VAWQ3-Q24-S12	9-36VDC	12VDC	250mA	15mA	165mA	76%
VAWQ3-Q24-S15	9-36VDC	15VDC	200mA	15mA	165mA	76%
VAWQ3-Q24-D5	9-36VDC	±5VDC	±300mA	25mA	179mA	70%
VAWQ3-Q24-D12	9-36VDC	±12VDC	±125mA	25mA	174mA	72%
VAWQ3-Q24-D15	9-36VDC	±15VDC	±100mA	25mA	174mA	72%
VAWQ3-Q48-S3R3	18-72VDC	3.3VDC	600mA	7.5mA	58mA	70%
VAWQ3-Q48-S5	18-72VDC	5VDC	600mA	7.5mA	87mA	72%
VAWQ3-Q48-S12	18-72VDC	12VDC	250mA	7.5mA	78mA	80%
VAWQ3-Q48-S15	18-72VDC	15VDC	200mA	7.5mA	78mA	80%
VAWQ3-Q48-D5	18-72VDC	±5VDC	±300mA	12mA	88mA	71%
VAWQ3-Q48-D12	18-72VDC	±12VDC	±125mA	12mA	87mA	72%
VAWQ3-Q48-D15	18-72VDC	±15VDC	±100mA	12mA	87mA	72%

NOTES:

1. suffix "HM" for 1.5K Vdc isolation
2. suffix "H" for 3K Vdc isolation
3. suffix "-SMT" for SMT case style

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INPUT

input voltage range	24V 9-36V 48V 18-72V
input filter	PI type

OUTPUT

voltage accuracy	±2.0% max.
voltage balance (dual)	±1.0% max
ripple & noise 20MHz BW, Single & ±5V	100mV p-p, max.
dual	1% p-p max.
temperature coefficient	±0.05%/°C
short circuit protection	continuous
line regulation ¹ single/dual	±0.5% max
load regulation single ²	±0.5% max
load regulation ² dual	±1% max

GENERAL SPECIFICATIONS

efficiency	see table
isolation resistance	10 ⁹ Ohm
switching frequency	100KHz, min.
operating temperature range	-25°C to +71°C
case temperature (plastic case)	95°C
(copper case)	100°C
cooling	free-air convection
storage temperature range	-40°C to +100°C
dimensions	1.25x0.8x0.4 inches (31.8x20.3x10.2mm)

ISOLATION VOLTAGE

500 VDC min.	standard models
1.5K VDC min.	suffix "HM" models
3K VDC min	suffix "H" models

CASE MATERIAL

standard Models	non conductive black plastic
suffix "M" models	black coated copper with non-
conductive base	

NOTES:

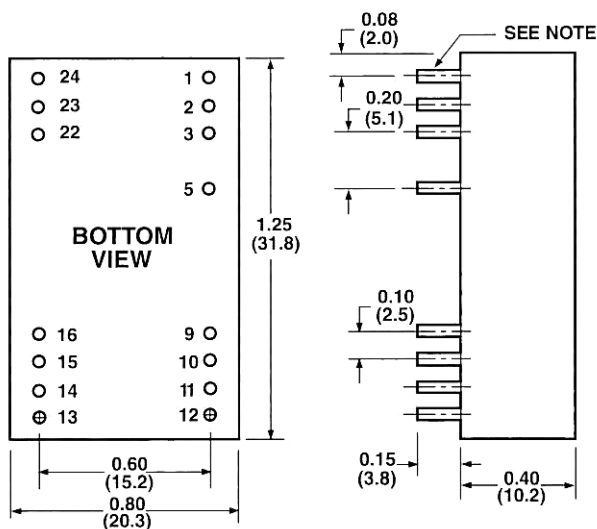
1. measured from high line to low line
2. measured from full load to 10% load
3. measured from full load to 1/4 load
4. non-conductive black plastic only

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DIMENSIONS (mm)

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA
All Dimensions In Inches(mm)
Tolerance .xx= ±.02, .xxx= ±.010



PIN CONNECTION

Pin	500 VDC		1.5K & 3K VDC		
	Single Output	Dual Output	Pin	Single Output	Dual Output
1	+V Input	+V Input	1	NP	NP
2	NC	-V Output	2	-V Input	-V Input
3	NC	Common	3	-V Input	-V Input
5	NP	NP	5	NP	NP
9	NP	NP	9	NC	Common
10	-V Output	Common	10	NC	NC
11	+V Output	+V Output	11	NC	-V Output
12	-V Input	-V Input	12	NP	NP
13	-V Input	-V Input	13	NP	NP
14	+V Output	+V Output	14	+V Output	+V Output
15	-V Output	Common	15	NC	NC
16	NP	NP	16	-V Output	Common
22	NC	Common	22	+V Input	+V Input
23	NC	-V Output	23	+V Input	+V Input
24	+V Input	+V Input	24	NP	NP

*NP-NO PIN

*NC-NO CONNECTION WITH PIN

DERATING CURVE

