V-INFINITY
a division of CUI INC

date 04/2009

PART NUMBER: VEQ15

DESCRIPTION: dc-dc converter

features

- 15W isolated output
- 4:1 input range
- six-sided shield
- efficiency to 82%
- 200KHz switching frequency
- remote on/off control

RoHS

MODEL	input voltage	output voltage	output current	input current no load	input current full load	efficiency
VEQ15-Q24-S5	9-36VDC	5VDC	3000mA	15mA	810mA	77%
VEQ15-Q24-S12	9-36VDC	12VDC	1250mA	15mA	780mA	80%
VEQ15-Q24-S15	9-36VDC	15VDC	1000mA	15mA	780mA	80%
VEQ15-Q24-D12	9-36VDC	±12VDC	±625mA	20mA	780mA	80%
VEQ15-Q24-D15	9-36VDC	±15VDC	±500mA	20mA	780mA	80%
VEQ15-Q24-T512	9-36VDC	5/±12VDC	1500/±310mA	20mA	780mA	80%
VEQ15-Q24-T515	9-36VDC	5/±15VDC	1500/±250mA	20mA	780mA	80%
VEQ15-Q24-T5125	9-36VDC	+5/+12/-5VDC	1500/310/500mA	20mA	715mA	80%
VEQ15-Q48-S5	18-72VDC	5VDC	3000mA	10mA	410mA	77%
VEQ15-Q48-S12	18-72VDC	12VDC	1250mA	10mA	390mA	80%
VEQ15-Q48-S15	18-72VDC	15VDC	1000mA	10mA	390mA	80%
VEQ15-Q48-D12	18-72VDC	±12VDC	±625mA	15mA	380mA	82%
VEQ15-Q48-D15	18-72VDC	±15VDC	±500mA	15mA	380mA	82%
VEQ15-Q48-T512	18-72VDC	5/±12VDC	1500/±310mA	15mA	380mA	82%
VEQ15-Q48-T515	18-72VDC	5/±15VDC	1500/±250mA	15mA	380mA	82%
VEQ15-Q48-T5125	18-72VDC	+5/+12/-5VDC	1500/310/500mA	15mA	350mA	82%

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INPUT

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

OUTPUT

voltage accuracy	single	output	±1.0% max.
	dual	+output	±1.0% max.
		-output	±3.0% max.
	triple	5V	±3.0% max.
		12V/15V	±1.0% max.
voltage balance (dual)			±1.0% max.
transient response:	single, 25% step load change		<500µ sec.
	dualFL-1/2L ± 1% error band		<500µ sec.
external trim adj. range			±10%
ripple & noise	20MHz BW		10mV RMS., max 75mV p-p., max
temperature coefficient			±0.02%/°C
short circuit protection			continuous
line regulation[1]	single/dual		±0.2% max
	triple		±1.0% max
load regulation[2]	single/dual		±1.0% max
	triple		±5.0% max

GENERAL SPECIFICATIONS

efficiency	see table
isolation voltage	500VDC min.
Isolation resistance	10^9 Ohms
switching frequency	200KHz, typical
operating temperature range	-25°C to +71°C
case temperature	100°C max
cooling	free air convection
storage temperature range	-55°C to +105°C
EMI/RFI	six-sided continuous shield
dimensions	2.56x3.0x0.83 inches (65x76.2x21.1mm)
case material	black coated copper with non-conductive base

NOTES:
1. measured from high line to low line
2. measured from full load to 1/4 load
3. max. total power from all outputs is limted to 30 watts but no output should be allowed to exceed its max. current
4. min. current on each output is required to maintain specified regulation

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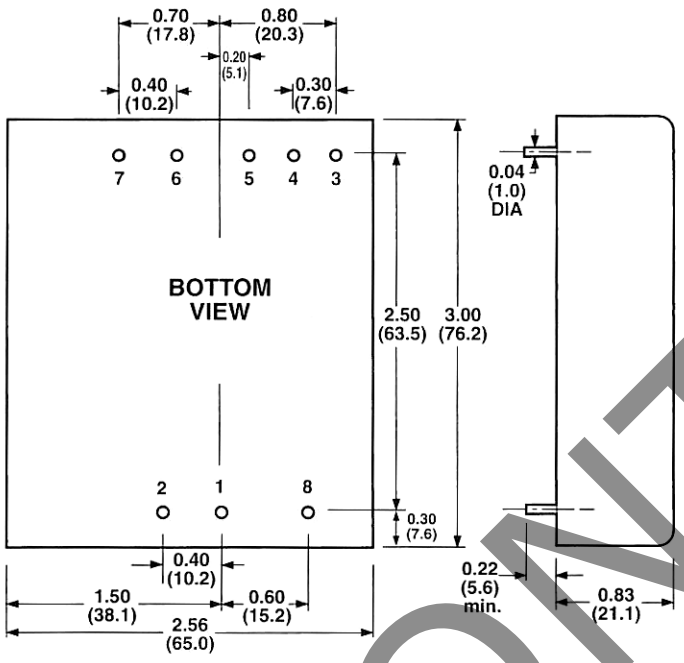
PART NUMBER: VEQ15 **DESCRIPTION:** dc-dc converter

DIMENSIONS (mm)

All Dimensions In Inches(mm)
Tolerance .xx= ±.04, .xxx= ±.010



PIN CONNECTION

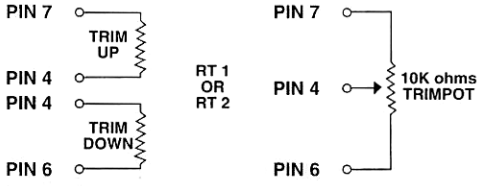
Pin	Single Output	Dual Output	Triple Output
1.	+Input	+Input	+Input
2.	-Input	-Input	-Input
3.	No Pin	+Output	+Output
4.	Output Trim	Common	Common
5.	No Pin	-Output	-Output
6.	+Output	No Pin	+5V Output
7.	-Output	No Pin	No Pin
8.	Remote On/Off Control		

Remote On/Off Control

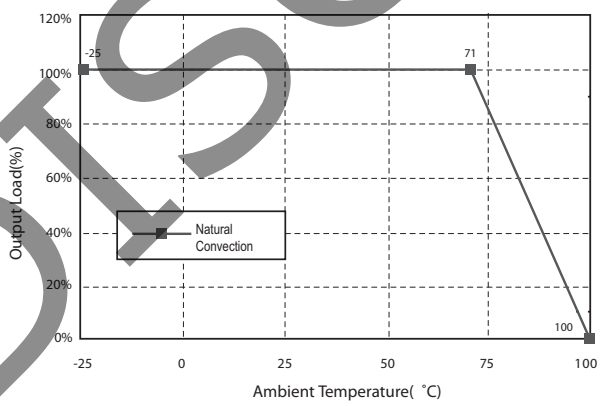
Logic Compatibility	CMOS or Open Collector TTL
EC-On	>+5.5VDC or Open Circuit
EC-Off	<1.8 VDC
Shutdown Idle Current	10 mA
Control Common	Referenced to Input Minus

External Output Trimming

Output may optionally be externally trimmed (±10%) with a fixed resistor or an external trimpot as shown.



DERATING CURVE



TRIPLE OUTPUT LOADING TABLE[1]

Output (Pin No.)	Voltage	Amperes	
		Min.(2)	Nom.
6	+5	0.25	1.5
3 & 5	±12	0.10	0.31
3 & 5	±15	0.10	0.25
3 & 5	+12 / -5	0.10 / 0.10	0.31/0.50

NOTE:
1. Maximum total power from all outputs is limited to 15 watts but no output should exceed its maximum current.
2. Minimum current on each output is required to maintain specified regulation.

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