

PART NUMBER: VCQ15

DESCRIPTION: dc-dc converter

Features

- 15W isolated output
- Efficiency to 82%
- 4:1 input range
- Six sided shield
- Remote On/Off Control



MODEL	Input Voltage	Output Voltage	Output Current	Input Current		Efficiency
				No Load	Full Load	
VCQ15-Q24-S5	9-36VDC	5VDC	3000mA	15mA	810mA	77%
VCQ15-Q24-S12	9-36VDC	12VDC	1250mA	15mA	780mA	80%
VCQ15-Q24-S15	9-36VDC	15VDC	1000mA	15mA	780mA	80%
VCQ15-Q24-D5	9-36VDC	±5VDC	±1500mA	20mA	810mA	77%
VCQ15-Q24-D12	9-36VDC	±12VDC	±625mA	20mA	780mA	80%
VCQ15-Q24-D15	9-36VDC	±15VDC	±500mA	20mA	780mA	80%
VCQ15-Q24-T512	9-36VDC	5/±12VDC	1500/±310mA	20mA	780mA	80%
VCQ15-Q24-T515	9-36VDC	5/±15VDC	1500/±250mA	20mA	780mA	80%
VCQ15-Q24-S3R3	9-36VDC	3.3VDC	3000mA	15mA	545mA	76%
VCQ15-Q48-S5	18-72VDC	5VDC	3000mA	10mA	410mA	77%
VCQ15-Q48-S12	18-72VDC	12VDC	1250mA	10mA	390mA	80%
VCQ15-Q48-S15	18-72VDC	15VDC	1000mA	10mA	390mA	80%
VCQ15-Q48-D5	18-72VDC	±5VDC	±1500mA	15mA	400mA	79%
VCQ15-Q48-D12	18-72VDC	±12VDC	±625mA	15mA	380mA	82%
VCQ15-Q48-D15	18-72VDC	±15VDC	±500mA	15mA	380mA	82%
VCQ15-Q48-T512	18-72VDC	5/±12VDC	1500/±310mA	15mA	380mA	82%
VCQ15-Q48-T515	18-72VDC	5/±15VDC	1500/±250mA	15mA	380mA	82%
VCQ15-Q48-S3R3	18-72VDC	3.3VDC	3000mA	10mA	270mA	76%

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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	±2.0% max.
	12V/15V	±3.0% max.
Voltage Balance (Dual)		±1.0%max
Transient Response:	Single, 25% Step Load Change	<500μ sec.
	Dual, FL-1/2±1% Error Band	<500μ sec.
External Trim Adj. Range		±10%
Ripple & Noise	20MHz BW	10mV RMS., max 75mV p-p, max
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.

SAFETY & EMI

Isolation Voltage	500VDC min.
Isolation Resistance	10 ⁹ Ohm min.
Case Grounding	Connected to Output common
UL/cUL	UL60950-1
EMI/RFI	Six Sided Continuous Shield

ENVIRONMENTAL

Operating Temperature Range	-25°C to +71°C
Case Temperature	100°C max.
Cooling	Free-Air Convection
Storage Temperature	-55°C to +105°C
Temperature Coefficient	±0.02%/°C

GENERAL SPECIFICATIONS

Efficiency	see table
Switching Frequency	300KHz, Type
Dimensions	2x2x0.4 inches (50.8x50.8x10.2mm)
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

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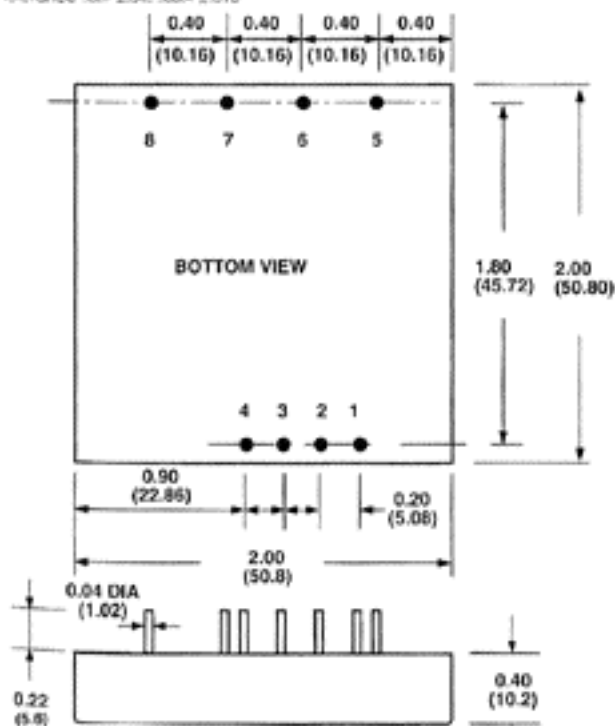
DESCRIPTION: dc-dc converter

Output (Pin No.)	Voltage	Amperes	
		Min.(2)	Nom.
7	+5	0.25	1.5
8 & 5	+12 or -12	0.10	0.31
8 & 5	+15 or -15	0.10	0.25

NOTE:

- Maximum total power from all outputs is limited to 15 watts but no output should be allowed to exceed its maximum current.
- Minimum current on each output is required to maintain specified regulation.

Dimensions (mm)

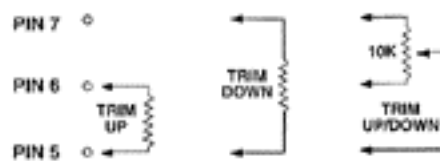
 All Dimensions in inches (mm)
 Tolerance .xxx ±0.01, .xxxx ±0.010


Pin	PIN CONNECTION		
	Single	Dual	Triple
1	Remote On/Off Control		
2	No Pin	No Pin	No Pin
3	-Vin	-Vin	-Vin
4	+Vin	+Vin	+Vin
5	Trim	Trim	-Aux. Out
6	-Vout	-Vout	Common
7	+Vout	Common	+5V out
8	No Pin	+Vout	+Aux. Out

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 ($\pm 10\%$) with a fixed resistor or an external trimpot as shown.



Derating Curve

