V·INFINITY

VCQ15 Series DC-DC Converter

Rev. 06-2006

Features

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



Model Number	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 Balence (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
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	10^9Ohm min.
Switching Frequency	300KHz, Type
Case Grounding	Connected to Output common
Operating Temperature Range	-25°C to +71°C
Case Temperature	100°C max.
Cooling	Free-Air Convection
Storage Temperature	-55°C to +105°C
EMI/RFI	Six Sided Continuous Shield
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

TRIPLE OUTPUT LOADING TABLE (1)

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

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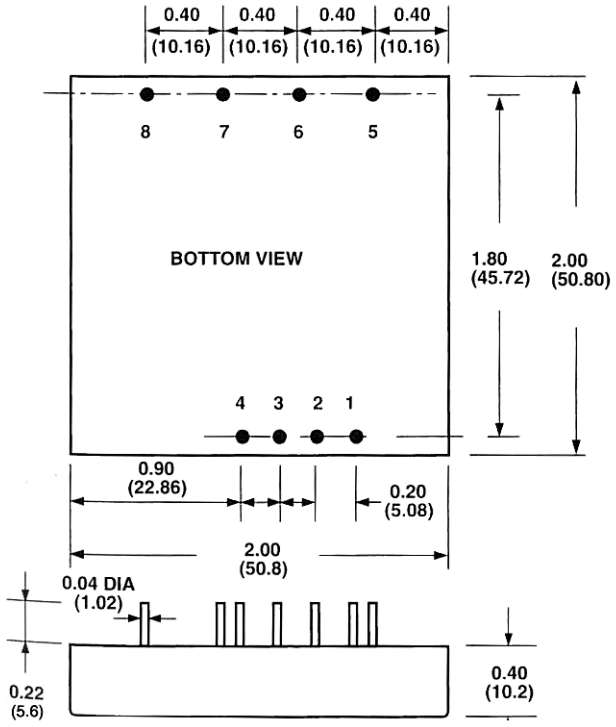
All Dimensions In Inches (mm)
Tolerance .xx= ±.04, .xxx= ±.010



PIN CONNECTION

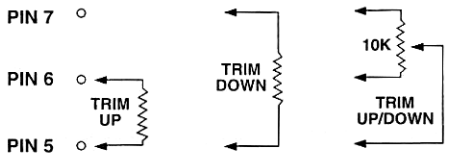
Pin	Single	Daul	Triple
1.	Remote On/Off Control		
2.	No Pin	No Pin	No Pin
3.	-Vin	-Vin	-Vin
4.	+Vin	+Vin	+Vin
5.	Trim	Trim	-Aux. Out
6.	-Vout	-Vout	Common
7.	+Vout	Common	+5V out
8.	No Pin	+Vout	+Aux. Out

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 (±10%) with a fixed resistor or an external trimpot as shown.



All Specifications Typical At Nominal Line, Full Load and 25˚C Unless Otherwise Noted.

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