

**page** 1 of 3

date 09/2009

**DESCRIPTION:** screw terminal dc-dc converter

#### **Features**

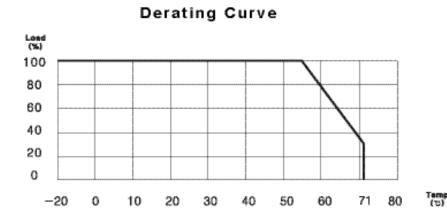
**SERIES: PTK15-T** 

- ·U-frame with screw terminals
- ·Industry standard pin out
- ·Wide 4:1 input range
- Fully isolated
- ·Output voltage trimmable
- ·Output on/off control
- ·Over-current protection
- ·Over-voltage protection
- ·Six-sided EMI shielding
- ·Constant switching frequency
- ·High efficiency
- ·Compact size 2.25"x3.0"x0.67"
- -40°C~85°C Models available
- ·3 year warranty



MODEL 1	Output Power	Input Voltage	Output Voltage	Output Current	Ripple & Noise <sup>2</sup> mV P-P	Efficiency (Typ.)
	(max)			(max)		
PTK15-Q24-S3-T	13.2W	10-36VDC	3.3VDC	4.0A	75	80%
PTK15-Q24-S5-T	15.0W	10-36VDC	5VDC	3.0A	75	85%
PTK15-Q24-S12-T	15.0W	10-36VDC	12VDC	1.25A	120	86%
PTK15-Q24-S15-T	15.0W	10-36VDC	15VDC	1.0A	150	84%
PTK15-Q24-D5-T	15.0W	10-36VDC	±5VDC	1.5A	50/50	85%
PTK15-Q24-D12-T	15.0W	10-36VDC	±12VDC	0.625A	120/120	87%
PTK15-Q24-D15-T	15.0W	10-36VDC	±15VDC	0.5A	150/150	87%
PTK15-Q48-S3-T	13.2W	20-72VDC	3.3VDC	4.0A	75	80%
PTK15-Q48-S5-T	15.0W	20-72VDC	5VDC	3.0A	75	85%
PTK15-Q48-S12-T	15.0W	20-72VDC	12VDC	1.25A	120	87%
PTK15-Q48-S15-T	15.0W	20-72VDC	15VDC	1.0A	150	87%
PTK15-Q48-D5-T	15.0W	20-72VDC	±5VDC	1.5A	50/50	85%
PTK15-Q48-D12-T	15.0W	20-72VDC	±12VDC	0.625A	120/120	86%
PTK15-Q48-D15-T	15.0W	20-72VDC	±15VDC	0.5A	150/150	87%

Note: 1 All models are also available in an extended temperature range of -40°C~85°C. For these models, append "M" to the model number, e.g. PTK15-Q48-S5M.



<sup>2</sup> Ripple & noise measured with a 20MHz bandwidth, off a 10  $\mu F$  electrolytic and a 0.1  $\mu F$  ceramic cap in parallel at outuut.



page 2 of 3

date 09/2009

**SERIES:** PTK15-T **DESCRIPTION:** screw terminal dc-dc converter

## Input

Parameter	Conditions/Description	Min	Nom	Max	Units
Input voltage range		10	24	36	VDC
		20	48	72	VDC
Remote on/off control	Output turn-on <sup>3</sup>	2.5V	(open)	5.5V	
	Output turn-off	0V	(short)	V8.0	
Switching frequency	Constant		250		KHz

Note: 3 Output defaults to "on" when there is no connection to the "CNT" pin.

### **OUTPUT**

Parameter	Conditions/Description	Min	Nom Max	Units		
Output trim range	With external trim resistors	-5%	+5%			
Set point accuracy	Single output	-2%	+2%			
	Dual output	-3%	+3%			
Line regulation	Single output models	-0.25%	+0.25%			
(Low line to high line)	Dual output models	-2.5%	+2.5%			
	Triple: main output (Vout)	-0.25%	+0.25%			
	auxillary outputs (+Vaux / -Vaux)	-5%	+5%			
Load regulation <sup>2</sup>	Single output models - no load to full load	-0.25%	+0.25%			
-	Dual output models - balanced loads	-2.5%	+2.5%			
	Triple: main output (Vout)	-0.25%	+0.25%			
	auxillary outputs(+Vaux / -Vaux) - with 10% load	-5%	+5%			
	on Vout and balanced loads on +Vaux and -Vaux					
Minimum load	Converters will not be damaged if loading conditions are less than minimum specified loads,					
	but regulation specs may not be met 4		•			
Ripple and noise				See chart		

Note: 4 Single output: no min. load required, Dual output: 10%, Triple output: balanced load

### **PROTECTION**

Parameter	Conditions/Description	Min	Nom	Max	Units
Over-current	Continuous auto recovery 5	105%		135%	
Over-voltage	Internally zener clamped <sup>5</sup>	110%		140%	

Note: 5 Continuous operation in a protected state may compromise long-term reliability.

## **GENERAL**

Parameter	Continuous/Description	Min	Nom	Max	Units
Efficiency	Typical at full load	78%		83%	
Dielectric withstand	Input/case, input/output, output/case	500			VAC
Insulation resistance	at 500 VDC	100M			Ohms
Agency standards	Approved to UL60950, CSA C22.2 No. 6	0950, TUV EN60950			
Case material			Zn		
Material flammability		94 V-0			
Weight			80		grams
			(2.82)		(ounces)
MTBF	MIL-HDBK-217F		470k		hours
Operating temperature	Regular models - see derating curve.	-20		+71	°C
	Extended temperature models	-40		+85	°C
Storage temperature		-40		+105	°C
Humidity	Operating(non-condensing)	5%		95%	RH

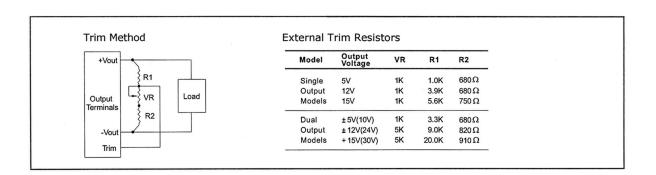


SERIES: PTK15-T

page 3 of 3

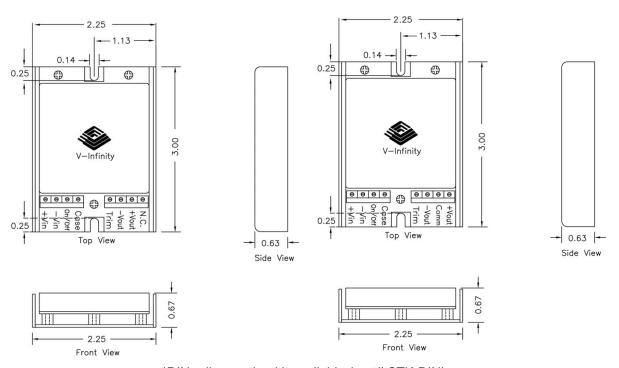
date 09/2009

**DESCRIPTION:** screw terminal dc-dc converter

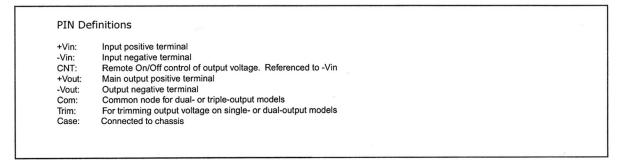


# **Single Output**

## **Dual Output**



\*DIN rail mounting kit available (part# STK-DIN)



V-Infinity reserves the right to make changes to its products or to discontinue any product or service without notice, and to advise customers to verify the most up-to-date product information before placing orders. V-Infinity assumes no liability or responsibility for customer's applications using V-Infinity products other than repair or replacing (at V-I's option) V-Infinity products not meeting V-I's published specifications. Nothing will be covered outside of standard product warranty.