V-INFINITY
a division of CUI INC

date 03/2009

PART NUMBER: PK6 series **DESCRIPTION:** dc-dc converter

features
- **industry standard pin out**
- **wide 2:1 input range**
- **fully isolated**
- **low ripple & noise**
- **over-current protection**
- **HI-POT tested**
- **constant switching frequency**
- **high efficiency**
- **compact size 1.85”x1.1”x0.35”**
- **3 year warranty**

RoHS

model [1] number	output power (max)	input voltage	output voltage	output current (min)	output current (max)	ripple & noise [2] mV P-P	efficiency (typ.)
PK6-D5-S3.3	3.3W	4.5-7.2VDC	3.3VDC	0A	1.0A	50	70%
PK6-D5-S5	5.0W	4.5-7.2VDC	5VDC	0A	1.0A	50	70%
PK6-D5-S12	5.4W	4.5-7.2VDC	12VDC	0A	0.45A	120	70%
PK6-D5-S15	5.25W	4.5-7.2VDC	15VDC	0A	0.35A	150	70%
PK6-D5-D12	5.52W	4.5-7.2VDC	±12VDC	0A	0.23A	120/120	70%
PK6-D5-D15	5.4W	4.5-7.2VDC	±15VDC	0A	0.18A	150/150	70%
PK6-D5-D512	5.56W	4.5-7.2VDC	5/12VDC	0A	0.8A/0.13A	75/120	68%
PK6-D5-D515	5.5W	4.5-7.2VDC	5/15VDC	0A	0.8A/0.1A	75/150	68%
PK6-D12-S3.3	4.0W	8-16.5VDC	3.3VDC	0A	1.2A	50	77%
PK6-D12-S5	6.0W	8-16.5VDC	5VDC	0A	1.2A	50	77%
PK6-D12-S12	6.0W	8-16.5VDC	12VDC	0A	0.5A	120	77%
PK6-D12-S15	6.0W	8-16.5VDC	15VDC	0A	0.4A	150	77%
PK6-D12-D12	6.0W	8-16.5VDC	±12VDC	0A	0.25A	120/120	77%
PK6-D12-D15	6.0W	8-16.5VDC	±15VDC	0A	0.2A	150/150	77%
PK6-D12-D512	5.56W	8-16.5VDC	5/12VDC	0A	0.8A/0.13A	75/120	70%
PK6-D12-D515	5.5W	8-16.5VDC	5/15VDC	0A	0.8A/0.1A	75/150	70%
PK6-D24-S3.3	4.0W	18-32VDC	3.3VDC	0A	1.2A	50	80%
PK6-D24-S5	6.0W	18-32VDC	5VDC	0A	1.2A	50	80%
PK6-D24-S12	6.0W	18-32VDC	12VDC	0A	0.5A	120	80%
PK6-D24-S15	6.0W	18-32VDC	15VDC	0A	0.4A	150	80%
PK6-D24-D12	6.0W	18-32VDC	±12VDC	0A	0.25A	120/120	80%
PK6-D24-D15	6.0W	18-32VDC	±15VDC	0A	0.2A	150/150	80%
PK6-D24-D512	5.56W	18-32VDC	5/12VDC	0A	0.8A/0.13A	75/120	72%
PK6-D24-D515	5.5W	18-32VDC	5/15VDC	0A	0.8A/0.1A	75/150	72%
PK6-D48-S3.3	4.0W	32-63VDC	3.3VDC	0A	1.2A	50	83%
PK6-D48-S5	6.0W	32-63VDC	5VDC	0A	1.2A	50	83%
PK6-D48-S12	6.0W	32-63VDC	12VDC	0A	0.5A	120	83%
PK6-D48-S15	6.0W	32-63VDC	15VDC	0A	0.4A	150	83%
PK6-D48-D12	6.0W	32-63VDC	±12VDC	0A	0.25A	120/120	83%
PK6-D48-D15	6.0W	32-63VDC	±15VDC	0A	0.2A	150/150	83%
PK6-D48-D512	5.56W	32-63VDC	5/12VDC	0A	0.8A/0.13A	75/120	74%
PK6-D48-D515	5.5W	32-63VDC	5/15VDC	0A	0.8A/0.1A	75/150	74%

Discontinued

NOTE: 1. All models (excluding the 5 V dc input, D5) are also available in an extended temperature range of -40°C~85°C. For these models, append “M” to the model number, e.g. PK6-D12-S3.3M.

2. Ripple & noise measured with a 20MHz bandwidth, off a 10uF electrolytic and a 0.1uF ceramic cap in parallel at the ouptut.

PART NUMBER: PK6 series **DESCRIPTION:** DC/DC converter

INPUT

parameter	conditions/description	min	nom	max	units
input voltage range		4.5	5	7.2	VDC
		8	12	16.5	VDC
		18	24	32	VDC
		32	48	63	VDC
switching frequency	constant		300		KHz

OUTPUT

parameter	conditions/description	min	nom	max	units
set point accuracy		-2%		+2%	
line regulation	all models	-0.5%		+0.5%	
load regulation	single output models	-1.0%		+1.0%	
	dual output models (10% min. load)	-2.5%		+2.5%	
minimum load		0.0			Amps
ripple and noise	20 MHz bandwidth			1.0% Vout	mVpp

PROTECTION

parameter	conditions/description	min	nom	max	units
over-current	continuous auto recovery [3]	105%		135%	
over-voltage	internally zener clamped [3]	110%		140%	

NOTE: 3 continuous operation in a protected state may compromise long-term reliability.

GENERAL

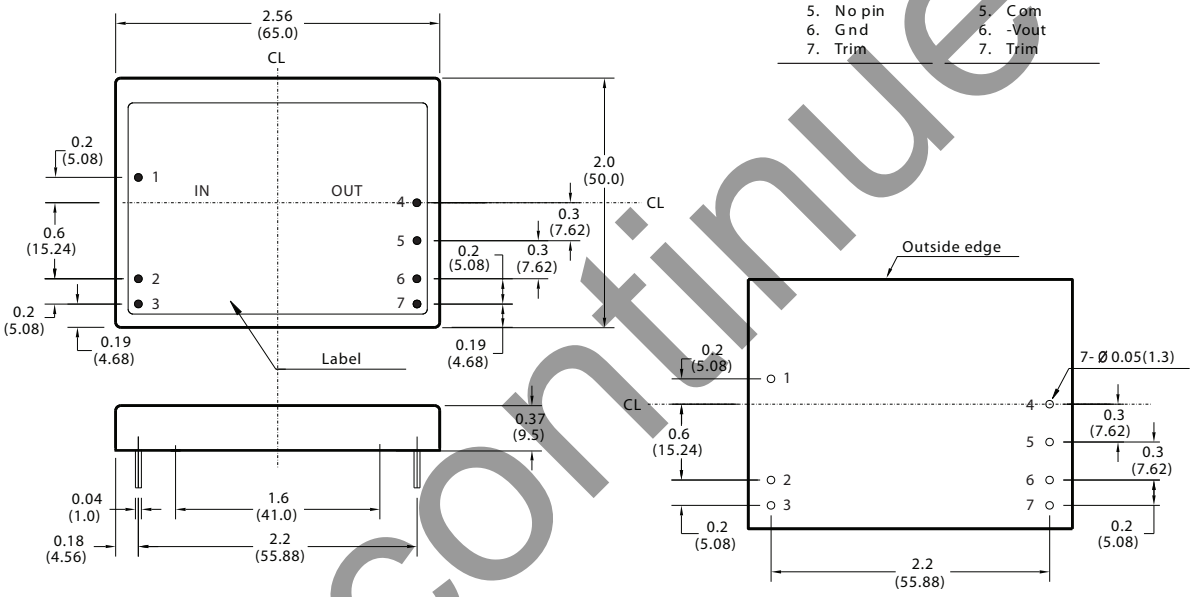
parameter	conditions/description	min	nom	max	units
efficiency	typical at full load	68%		83%	
dielectric withstand	input/case, input/output, output/case	500			VAC
insulation resistance	at 500 VDC	100M			Ohms
agency standards	approved to UL1950, EN60950, CISPR22, CE				
case material			STS		
material flammability			94 V-0		
weight			22 (0.78)		grams (ounces)
MTBF	MIL-HDBK-217F		740k		hours
operating temperature	regular models	-20		+71	°C
	extended temperature models	-40		+85	°C
storage temperature		-40		+105	°C
humidity	operating (non-condensing)	20%		90%	RH
washability	not intended for aqueous wash				

Discontinued

PART NUMBER: PK6 series **DESCRIPTION:** DC/DC converter

DIMENSIONS (mm)

All dimensions are in inches (mm).



Pin Assignments

Single Output	Dual Output
1. +Vin	1. +Vin
2. -Vin	2. -Vin
3. CNT	3. CNT
4. +Vout	4. +Vout
5. No pin	5. Com
6. Gnd	6. -Vout
7. Trim	7. Trim

TOP VIEW

PIN CONNECTIONS

Pin assignments

Single Output	Dual Output
1. +Vin	1. +Vin
2. -Vin	2. -Vin
3. +Vout	3. +Vout
4. No pin	4. Com
5. -Vout	5. -Vout

Discontinued