

# Power Industries

T-57-11

## DC/DC Converter type 2PKV 2.5-3.0W

- *Wide input range: 9 to 36VDC  
18 to 72VDC*
- *High efficiency 75 to 85%*
- *Very low No load input current*
- *Input/Output isolation 1000V*
- *Short circuit protection, thermal and low line shutdown*
- *Input filter*

2PKV is a range of thickfilm hybrid DC/DC converters, designed with a flyback converter concept. The converter is encapsulated with an epoxyfilled plastic box. The encapsulation meets UL class V-0.

2PKV is characterized by a high efficiency, an excellent line regulation over the wide input VDC range and a very low No load input current.

A high reliability, >300,000h, is the result of the high efficiency with low selfheating and a low component count of the flyback hybrid.

2PKV is ideally suited for PCB voltage conversion in high quality telecom and industrial distributed power systems.



### Product program

Input voltage $V_{in}$	$V_{out}$	Output mA	W	Article code
24 (9-36)	5	500	2.5	2PKV 2405S
	12	250	3.0	2PKV 2412S
	15	200	3.0	2PKV 2415S
	±12	±125	3.0	2PKV 2412D
	±15	±100	3.0	2PKV 2415D
48 (18-72)	5	500	2.5	2PKV 4805S
	12	250	3.0	2PKV 4812S
	15	200	3.0	2PKV 4815S
	±5	±250	2.5	2PKV 4805D
	±12	±125	3.0	2PKV 4812D
	±15	±100	3.0	2PKV 4815D

### Absolute maximum ratings

Characteristics	Limits
Case hot spot temperature	+90°C
Max output power	See product program
Low temperature, operating	-40°C
Storage temperature	-40° to +125°C

For complete information, please ask for the specific data sheet for the Power Industries range type 2PKV.

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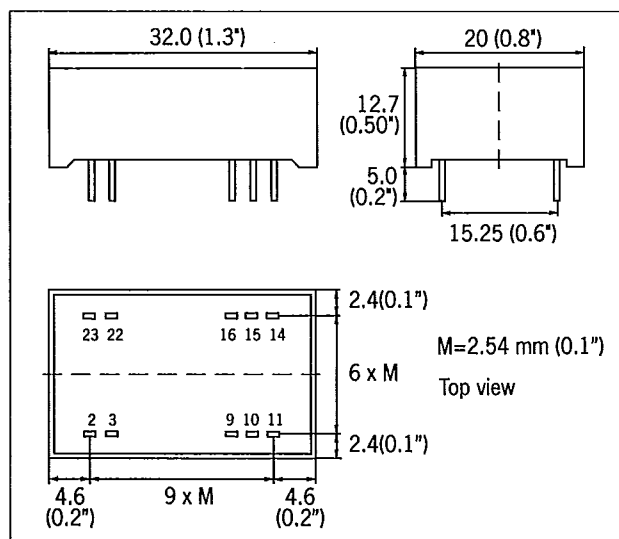
## Input data

Characteristics	Nominal input voltage				Units
	24V <sub>DC</sub>		48V <sub>DC</sub>		
	min	max	min	max	
Input voltage continuous surge	9	36 40	18	72 80	V <sub>DC</sub> V
Input power at no load		0.3		0.3	W

## Output data

Characteristics	Conditions	Input voltage 24/48V <sub>DC</sub>	Units
Output voltage Deviation from nom. V <sub>DC</sub>	P <sub>O</sub> max., U <sub>in</sub> min. to max.	±2.0	%
Line regulation	U <sub>in</sub> min. to max.	0.5	%
Load regulation 5V ±5V, >5V	(1.0 to 0.5) x P <sub>O</sub> max.	4.0 2.0	% %
Output ripple	U <sub>in</sub> min. to max. P <sub>O</sub> max.	150	mV <sub>p-p</sub>
Efficiency 5V, ±5V >5V	U <sub>in</sub> min. to max. P <sub>O</sub> max.	75 85	% %
Short circuit of output Input current Output current	U <sub>in</sub> min. to max.	200 2	mA A

## Dimensions



## Environmental tests

Test	Severity
Vibration IEC 68-2-6 F <sub>C</sub>	10-500Hz, 0.75 mm/100 m/s <sup>2</sup> 3 x 10 cycles
Bump IEC 68-2-29 E <sub>B</sub>	250 m/s <sup>2</sup> , Duration 6 ms 6 x 1000 bumps
Shock IEC 68-2-27 E <sub>A</sub>	Peak 1000 m/s <sup>2</sup> , Duration 6 ms
Damp heat IEC 68-2-3 C <sub>A</sub>	56 days at +40°C, 93% R.H.