

**Features**

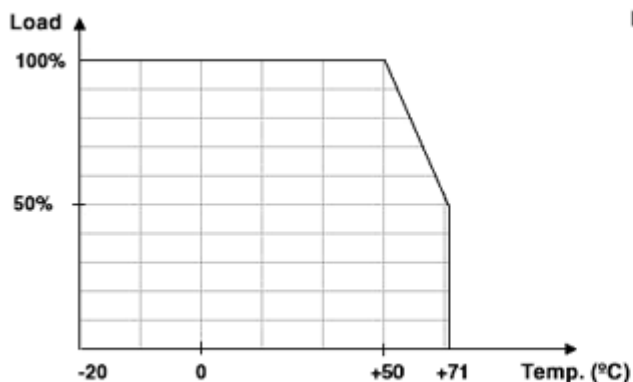
- Industry standard pin out
- Wide 2:1 input range
- Fully isolated
- Output voltage trimmable
- Output on/off control
- Over-current protection
- Over-voltage protection
- Six-sided EMI shielding
- Constant switching frequency
- High efficiency
- Compact size 2.0" x 2.0" x 0.4"
- -40°C~85°C Models available
- 3 year warranty



Model 1 Number	Output Power (max)	Input Voltage	Output Voltage	Output Current (max)	Ripple & Noise 2 mV P-P	Efficiency (Typ.)
PTK25-D24-S3	19.8W	18-36VDC	3.3VDC	6.0A	100	80%
PTK25-D24-S5	25.0W	18-36VDC	5VDC	5.0A	100	85%
PTK25-D24-S12	24.0W	18-36VDC	12VDC	2.0A	120	89%
PTK25-D24-S15	24.0W	18-36VDC	15VDC	1.6A	150	89%
PTK25-D24-D5	25.0W	18-36VDC	±5VDC	2.5A	75/75	84%
PTK25-D24-D12	24.0W	18-36VDC	±12VDC	1.0A	120/120	88%
PTK25-D24-D15	24.0W	18-36VDC	±15VDC	0.8A	150/150	87%
PTK25-D24-T312	19.95W	18-36VDC	3.3VDC/±12VDC	3.5A/0.35A	75/120/120	83%
PTK25-D24-T512	25.9W	18-36VDC	5VDC/±12VDC	3.5A/0.35A	75/120/120	84%
PTK25-D24-T315	19.95W	18-36VDC	3.3VDC/±15VDC	3.5A/0.28A	75/150/150	83%
PTK25-D24-T515	25.0W	18-36VDC	5VDC/±15VDC	3.5A/0.25A	75/150/150	84%
PTK25-D48-S3	19.8W	36-72VDC	3.3VDC	6.0A	100	81%
PTK25-D48-S5	25.0W	36-72VDC	5VDC	5.0A	100	85%
PTK25-D48-S12	24.0W	36-72VDC	12VDC	2.0A	120	89%
PTK25-D48-S15	24.0W	36-72VDC	15VDC	1.6A	150	89%
PTK25-D48-D5	25.0W	36-72VDC	±5VDC	2.5A	75/75	84%
PTK25-D48-D12	24.0W	36-72VDC	±12VDC	1.0A	120/120	88%
PTK25-D48-D15	24.0W	36-72VDC	±15VDC	0.8A	150/150	87%
PTK25-D48-T312	19.95W	36-72VDC	3.3VDC/±12VDC	3.5A/0.35A	75/120/120	83%
PTK25-D48-T512	25.9W	36-72VDC	5VDC/±12VDC	3.5A/0.35A	75/120/120	84%
PTK25-D48-T315	19.95W	36-72VDC	3.3VDC/±15VDC	3.5A/0.28A	75/150/150	83%
PTK25-D48-T515	25.0W	36-72VDC	5VDC/±15VDC	3.5A/0.25A	75/150/150	84%

**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.

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


**Regular Version**

**M Version**

## Input

Parameter	Conditions/Description	Min	Nom	Max	Units
Input voltage range		18	24	36	VDC
		36	48	72	VDC
Remote on/off control	Output turn-on <sup>3</sup>	2.5V	(open)	5.5V	
	Output turn-off	0V	(short)	0.8V	
Switching frequency	Constant		300		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 (Low line to high line)	Single output models	-0.25%		+0.25%	
	Dual output models	-2.5%		+2.5%	
	Triple: main output (Vout) auxillary outputs (+Vaux / -Vaux)	-0.25% -5%		+0.25% +5%	
Load regulation	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) auxillary outputs(+Vaux / -Vaux) - with 10% load on Vout and balanced loads on +Vaux and -Vaux	-0.25% -5%		+0.25% +5%	
	Minimum load	Converters will not be damaged if loading conditions are less than minimum specified loads, but regulation specs may not be met <sup>4</sup>			
Ripple and noise					See chart

**Note:** 4 Single output: no min. load required, dual: 10%, triple: balanced loads

## Protection

Parameter	Conditions/Description	Min	Nom	Max	Units
Over-current	Continuous auto recovery <sup>5</sup>	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	77%		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. 60950, TUV EN60950; (Single output only)				
Case material	Zn				
Material flammability	94 V-0				
Weight			80 (2.82)		grams (ounces)
MTBF	MIL-HDBK-217F		450k		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

