



Key Features

- 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 2.0" x 2.0" x 0.4"
- 3 year warranty

Model Configurations

Output Power (Max.)	Input Voltage	Output Voltage	Output Current (Min.)	Output Current (Max.)	Efficiency (Typ.)	Line Reg.	Load Reg.	Model Number ¹
13.2W	10-36V	3.3V	0A	4.0A	78%	±0.25%	±0.25%	PTK15-Q24-S3
15.0W	10-36V	5V	0A	3.0A	80%	±0.25%	±0.25%	PTK15-Q24-S5
15.0W	10-36V	12V	0A	1.25A	80%	±0.25%	±0.25%	PTK15-Q24-S12
15.0W	10-36V	15V	0A	1.0A	80%	±0.25%	±0.25%	PTK15-Q24-S15
15.0W	10-36V	±5V	0A	1.5A	80%	±0.25%	±0.25%	PTK15-Q24-D5
15.0W	10-36V	±12V	0A	0.625A	80%	±0.25%	±0.25%	PTK15-Q24-D12
15.0W	10-36V	±15V	0A	0.5A	80%	±0.25%	±0.25%	PTK15-Q24-D15
14.1W	10-36V	3.3V/±12V	0A	2.0A/0.31A	80%	±0.25%	±0.25%	PTK15-Q24-T312
15.0W	10-36V	5V/±12V	0A	1.5A/0.31A	81%	±0.25%	±0.25%	PTK15-Q24-T512
14.1W	10-36V	3.3V/±15V	0A	2.0A/0.25A	80%	±0.25%	±0.25%	PTK15-Q24-T315
15.0W	10-36V	5V/±15V	0A	1.5A/0.25A	81%	±0.25%	±0.25%	PTK15-Q24-T515
13.2W	20-72V	3.3V	0A	4.0A	78%	±0.25%	±0.25%	PTK15-Q48-S3
15.0W	20-72V	5V	0A	3.0A	81%	±0.25%	±0.25%	PTK15-Q48-S5
15.0W	20-72V	12V	0A	1.25A	81%	±0.25%	±0.25%	PTK15-Q48-S12
15.0W	20-72V	15V	0A	1.0A	82%	±0.25%	±0.25%	PTK15-Q48-S15
15.0W	20-72V	±5V	0A	1.5A	81%	±0.25%	±0.25%	PTK15-Q48-D5
15.0W	20-72V	±12V	0A	0.625A	81%	±0.25%	±0.25%	PTK15-Q48-D12
15.0W	20-72V	±15V	0A	0.5A	82%	±0.25%	±0.25%	PTK15-Q48-D15
14.1W	20-72V	3.3V/±12V	0A	2.0A/0.31A	80%	±0.25%	±0.25%	PTK15-Q48-T312
15.0W	20-72V	5V/±12V	0A	1.5A/0.31A	83%	±0.25%	±0.25%	PTK15-Q48-T512
14.1W	20-72V	3.3V/±15V	0A	2.0A/0.25A	80%	±0.25%	±0.25%	PTK15-Q48-T315
15.0W	20-72V	5V/±15V	0A	1.5A/0.25A	83%	±0.25%	±0.25%	PTK15-Q48-T515

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



Input

Parameter	Conditions/Description	Min	Nom	Max	Units
Input voltage range		10 20	24 48	36 72	VDC VDC
Remote On/Off control	Output turn-on Output turn-off	2.5V -0.7V	(open) (short)	7.0V 0.8V	
Switching frequency	Constant		250		KHz

Output

Parameter	Conditions/Description	Min	Nom	Max	Units
Output trim range	With external trim resistors	-10%		+10%	
Set point accuracy		-2%		+2%	
Line regulation ² (Low line to high line)	Single-output models Dual-output models Triple: main output (Vout) auxiliary outputs (+Vaux / -Vaux)	-0.25% -0.5% -0.25% -5%		+0.25% +0.5% +0.25% +5%	
Load regulation ²	Single-output models Dual-output models Triple: main output (Vout) aux. outputs (main output varies from 10% - 100% load)	-0.25% -2.5% -0.25% -5%		+0.25% +2.5% +0.25% +5%	
Minimum load		0.0			Amps
Ripple & noise	20 MHz bandwidth			1.0%Vout	mVpp

Note 2. To maintain specified regulation, it is required to have a minimum 10% load on the main output, and a 20% load on each auxiliary output. Under no load conditions, operations will not damage the devices, but all specified regulation may not be met.

Protection

Parameter	Conditions/Description	Min	Nom	Max	Units
Over-current	Continuous auto recovery ³	105%		135%	
Over-voltage	Internally zener clamped ³	110%		140%	

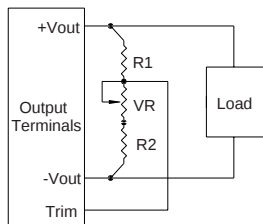
Note 3. Continuous operation in a protected state may compromise long-term reliability.

General

Parameter	Conditions/Description	Min	Nom	Max	Units
Efficiency	Typical at full load	78%		83%	
Dielectric withstand	Input/case, Input/output, Output/case	500			VAC
Insulation resistance	at 500 VDC	100M			Ohms
Agency standards	Designed to meet, UL1950, EN60950, CISPR22, CE				
Case material			Zn		
Material flammability			94 V-0		
Weight			75 (2.65)		grams (ounces)
MTBF	MIL-HDBK-217F		470k		hours
Operating temperature	Regular models Extended temperature models	-20 -40		+71 +85	°C °C
Storage temperature		-40		+105	°C
Humidity	Operating (non-condensing)	5%		95%	RH



Trim Method

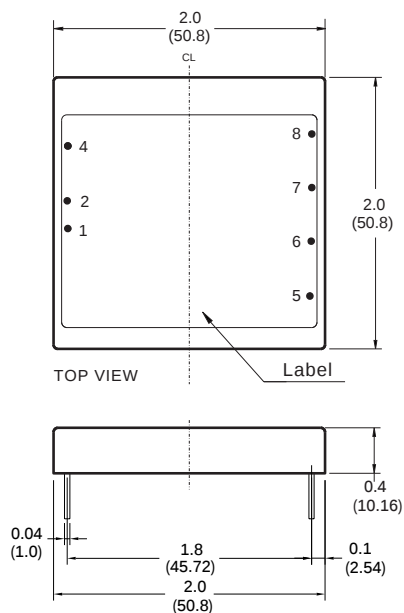


External Trim Resistors

Model	Output Voltage	VR	R1	R2
Single Output Models	5V	1K	1.0K	680Ω
	12V	1K	3.9K	680Ω
	15V	1K	5.6K	750Ω
Dual Output Models	±5V(10V)	1K	3.3K	680Ω
	±12V(24V)	5K	9.0K	820Ω
	+15V(30V)	5K	20.0K	910Ω

Dimensions

All dimensions are in inches (mm).



Pin Assignments

Single Output	Dual Output	Triple Output
1. +Vin	1. +Vin	1. +Vin
2. -Vin	2. -Vin	2. -Vin
3. No pin	3. No pin	3. No pin
4. CNT	4. CNT	4. CNT
5. NC	5. +Vout	5. +Vaux
6. +Vout	6. Com	6. +Vout
7. -Vout	7. -Vout	7. Com
8. Trim	8. Trim	8. -Vaux

