

PART NUMBER: PK25 series

DESCRIPTION: DC/DC converter

features

- industry standard pin out
- wide 2:1 input range
- fully isolated
- output voltage trimmable
- low ripple & noise
- over-current protection
- over-voltage protection
- output on/off control
- HI-POT tested
- constant switching frequency
- high efficiency
- compact size 2.56"x2.0"x0.375"
- 3 year warranty



model ¹ number	output power (max)	input voltage	output voltage	output current (min)	output current (max)	ripple & noise ² mV P-P	efficiency (typ.)
PK25-D5-S3.3	10.6W	4.5-9VDC	3.3VDC	0A	3.2A	75	73%
PK25-D5-S5	16.0W	4.5-9VDC	5VDC	0A	3.2A	75	75%
PK25-D5-S12	20.4W	4.5-9VDC	12VDC	0A	1.7A	120	77%
PK25-D5-S15	21.0W	4.5-9VDC	15VDC	0A	1.4A	150	77%
PK25-D5-D5	16.0W	4.5-9VDC	±5VDC	0A	1.6A	100/100	75%
PK25-D5-D12	20.4W	4.5-9VDC	±12VDC	0A	0.85A	120/120	77%
PK25-D5-D15	21.0W	4.5-9VDC	±15VDC	0A	0.7A	150/150	77%
PK25-D12-S3.3	13.2W	8-16.5VD	3.3VDC	0A	4.0A	75	83%
PK25-D12-S5	20.0W	9-18VDC	5VDC	0A	4.0A	75	85%
PK25-D12-S12	25.2W	9-18VDC	12VDC	0A	2.1A	120	89%
PK25-D12-S15	25.5W	9-18VDC	15VDC	0A	1.7A	150	89%
PK25-D12-D5	20.0W	9-18VDC	±5VDC	0A	2.0A	100/100	80%
PK25-D12-D12	25.2W	9-18VDC	±12VDC	0A	1.05A	120/120	86%
PK25-D12-D15	25.5W	9-18VDC	±15VDC	0A	0.85A	150/150	86%
PK25-D24-S3.3	13.2W	18-36VDC	3.3VDC	0A	4.0A	75	83%
PK25-D24-S5	20.0W	18-36VDC	5VDC	0A	4.0A	75	85%
PK25-D24-S12	25.2W	18-36VDC	12VDC	0A	2.1A	120	89%
PK25-D24-S15	25.5W	18-36VDC	15VDC	0A	1.7A	150	90%
PK25-D24-D5	20.0W	18-36VDC	±5VDC	0A	2.0A	100/100	82%
PK25-D24-D12	25.2W	18-36VDC	±12VDC	0A	1.05A	120/120	86%
PK25-D24-D15	25.5W	18-36VDC	±15VDC	0A	0.85A	150/150	86%
PK25-D48-S3.3	13.2W	32-72VDC	3.3VDC	0A	4.0A	75	83%
PK25-D48-S5	20.0W	32-72VDC	5VDC	0A	4.0A	75	85%
PK25-D48-S12	25.2W	32-72VDC	12VDC	0A	2.1A	120	90%
PK25-D48-S15	25.5W	32-72VDC	15VDC	0A	1.7A	150	90%
PK25-D48-D5	20.0W	32-72VDC	±5VDC	0A	2.0A	100/100	82%
PK25-D48-D12	25.2W	32-72VDC	±12VDC	0A	1.05A	120/120	86%
PK25-D48-D15	25.5W	32-72VDC	±15VDC	0A	0.85A	150/150	86%

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. PK25-D5-S3.3M.

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



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INPUT

parameter	conditions/description	min	nom	max	units
input voltage range		4.5	5	9	VDC
		9	12	18	VDC
		18	24	36	VDC
		36	48	72	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	80%		89%	
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			65		grams
			(2.29)		(ounces)
MTBF	MIL-HDBK-217F		470k		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				

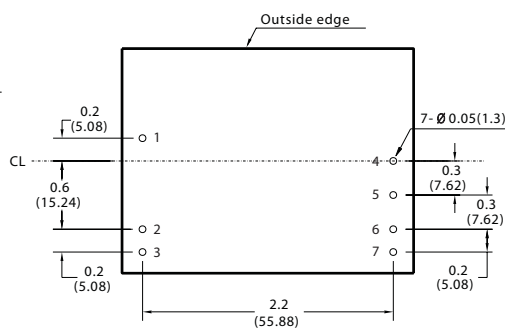
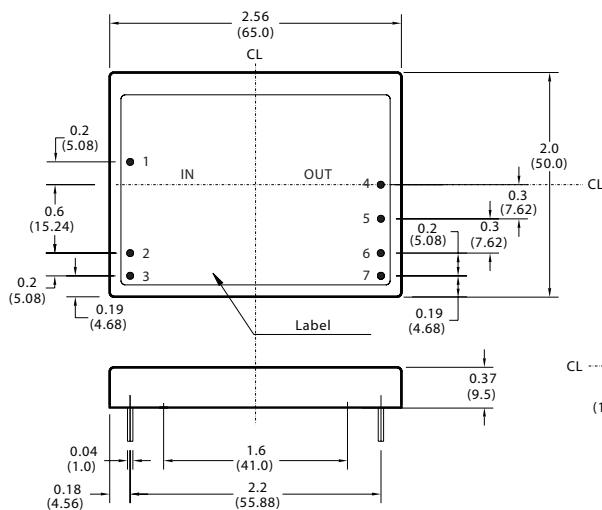


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DIMENSIONS (mm)

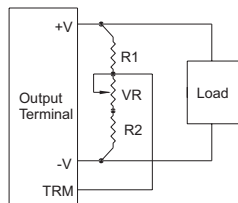
Pin Assignments

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

Trim Method



External Trim Resistors

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