

Series AM30K-NZ

30 Watt | DC-DC Converter



Models

Single output

FEATURES:

- RoHS compliant
- Remote On/Off control
- High Efficiency up to 90%
- Input Under voltage protection
- Trim adjustment
- Power modules for PCB mounting
- Operating temperature range: -40 to +85°C
- Standard package



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Maximum capacitive load (μF)	Efficiency (%)
AM30K-2405S-NZ	18 – 36	5	6	10200	88
AM30K-2412S-NZ	18 – 36	12	2.5	3240	89
AM30K-2415S-NZ	18 – 36	15	2	1100	89
AM30K-2424S-NZ	18 – 36	24	1.25	900	88
AM30K-4805S-NZ	36 – 75	5	6	10200	89
AM30K-4812S-NZ	36 – 75	12	2.5	3240	90
AM30K-4815S-NZ	36 – 75	15	2	1100	90
AM30K-4824S-NZ	36 – 75	24	1.25	900	90

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
	12	9-18		
Voltage range	24	18-36		VDC
	48	36-75		
Filter		π(Pi) Network		
Start up time		25		ms
	12 Vin		20	
Absolute Maximum Rating	24 Vin		40	VDC
	48 Vin		80	
Peak Input Voltage time			100	ms
Domesta On/Off Control	On	3.5 to 12VDC or open circuit		
Remote On/Off Control	Off	0 to 1.2VDC or short circuit between pin 2 and 3		
	9-18 Vin OFF	8		
Under Voltage protection	18-36 Vin OFF	16		VDC
-	36-75 Vin OFF	33		

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance	At 500Vdc	>1000		MOhm
Capacitance	100KHz / 1V	1000		pF

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Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Line voltage regulation	LL-HL	±0.2		% of Vin
Load voltage regulation	10% to 100% Load	±0.5		%
Short Circuit protection		Continuous		
Short Circuit restart		Auto Recove	ry	
Over current protection	Input Voltage Range	>120	160	%
Temperature coefficient		0.02		%/°C
Ripple & Noise	20MHZ Bandwidth	100		mV p-p
Transient Response Recovery Time	25% load step change	200		μs
Transient response overshoot		±2	±5	% of Vout
Voltage adjustment range		±10		%

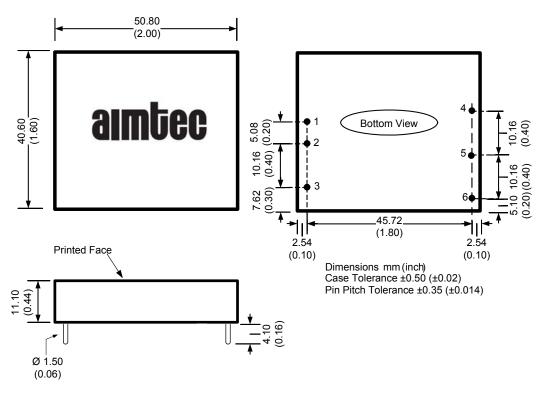
General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature	With derating above +71°C	-40 t	o +85	°C
Storage temperature		-55 to	o +105	°C
Case temperature			95	°C
Cooling		Free air convection		
Humidity			95	%
Case material		Black Anodized Aluminum		
Weight		45		g
Dimensions (L X W X H)	Tolerance ±0.5mm	2.00 x 1.60 x 0	.44 inches 50.80 x 40	0.60 x 11.10mm
MTBF	>1 000 000 hrs			

Pin Out Specifications

Dimensions

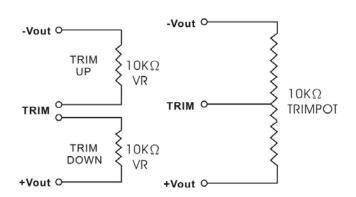
Pin	Single		
1	+V Input		
2	-V Input		
3	On/Off Control		
4	+V Output		
5	-V Output		
6	Trim		



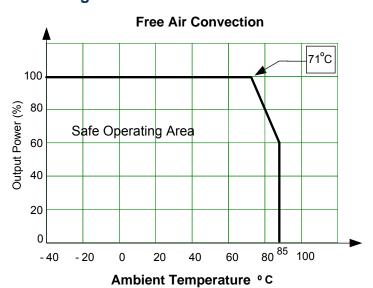
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Trimming

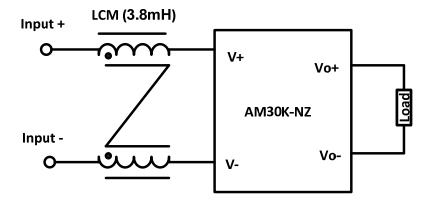


Derating



Recommended EMI Filtering (if required by end application)

Note: should your application not require filtering, no additional circuits are required.



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