

Series AM30K-NZ

30 Watt | DC-DC Converter



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



Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Maximum capacitive load (μF)	Efficiency (%)
AM30K-1203S-NZ	9 – 18	3.3	6	19500	85
AM30K-1205S-NZ	9 – 18	5	6	10200	87
AM30K-1212S-NZ	9 – 18	12	2.5	3240	88
AM30K-1215S-NZ	9 – 18	15	2	1100	88
AM30K-1224S-NZ	9 – 18	24	1.25	900	88
AM30K-2403S-NZ	18 – 36	3.3	6	19500	86
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-4803S-NZ	36 – 75	3.3	6	19500	87
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
Voltage range	12	9-18		VDC
	24	18-36		
	48	36-75		
Filter	π(Pi) Network			
Start up time		25		ms
Absolute Maximum Rating	12 Vin		20	VDC
	24 Vin		40	
	48 Vin		80	
Peak Input Voltage time			100	ms
Remote On/Off Control	On	3.5 to 12VDC or open circuit		
	Off	0 to 1.2VDC or short circuit between pin 2 and 3		
Under Voltage protection	9-18 Vin OFF	8		VDC
	18-36 Vin OFF	16		
	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

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 Recovery			
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		%

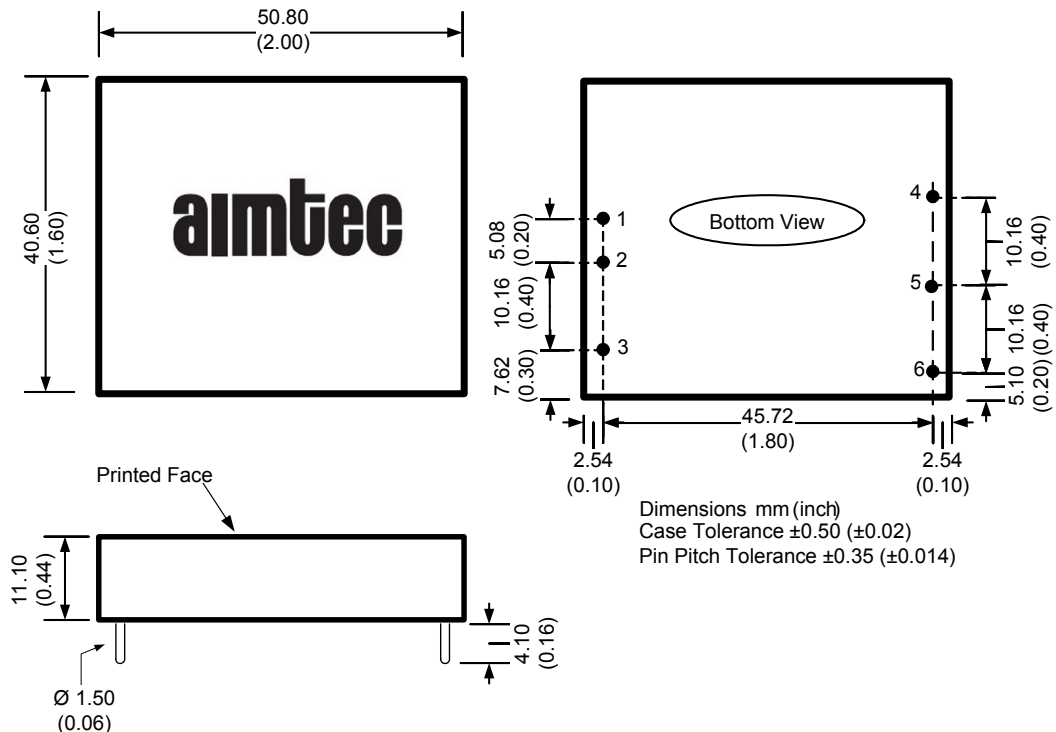
General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature	With derating above +71°C	-40 to +85		°C
Storage temperature		-55 to +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 40.60 x 11.10mm	
MTBF		>1 000 000 hrs		

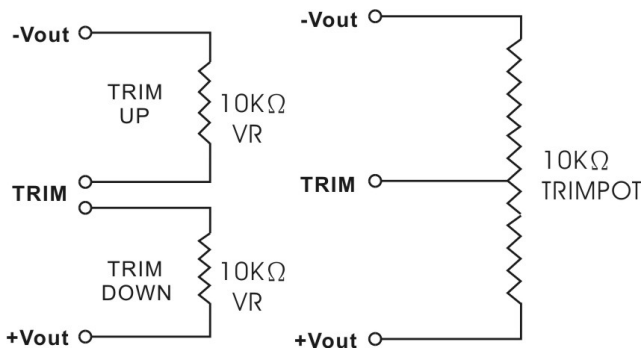
Pin Out Specifications

Dimensions

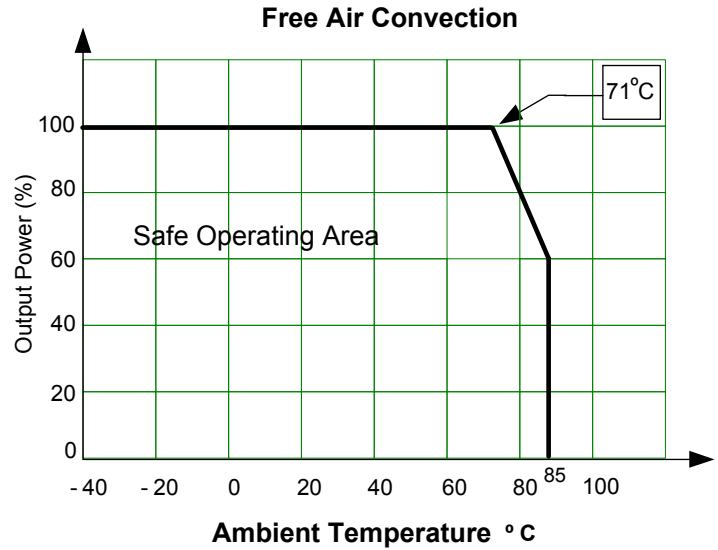
Pin	Single
1	+V Input
2	-V Input
3	On/Off Control
4	+V Output
5	-V Output
6	Trim



Trimming

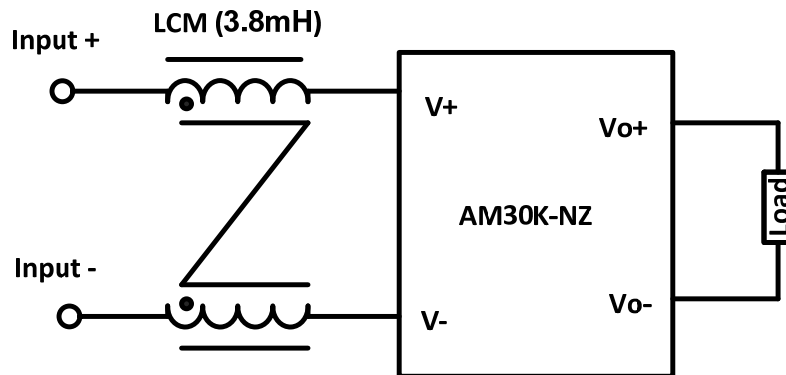


Derating



Recommended EMI Filtering (if required by end application)

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



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