

FEATURES:

- I/O Isolation of 3000VAC or 3500VAC/6000VDC
- Maximum Capacitive load up to 1000 μ F
- Operating temperature: -40 to +105°C
- Efficiency up to 83%
- SIP7 Package
- Ultra-low Isolation capacitance

Models
Dual output



Model	Input Voltage (V)	Input current FL NL (mA)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load (μ F)	Efficiency (%)
AM3DG-121508DH30-NZ	11.4 – 12.6	280 40	+15 (14.25 ~ 15.75) / -8 (-6.4 ~ -9.6)	+120 / -120	1000	81
AM3DG-151508DH30-NZ	14.25 – 15.75	230 35				
AM3DG-241508DH30-NZ	22.8 – 25.2	144 30				
AM3DG-151504DH60-NZ*	13.5 – 16.5	151 15	+15 / -4	+100 / -100	220	82
AM3DG-151803DH60-NZ*	13.5 – 16.5	177 16	+18 / -3	+100 / -100	220	79
AM3DG-152004DH60-NZ*	13.5 – 16.5	196 16	+20 / -4	+100 / -100	220	83

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	See model's table			
Filter	Capacitor			
Absolute Maximum Rating	AM3DG-121508DH30-NZ		-0.7 - 14	VDC
	AM3DG-151508DH30-NZ		-0.7 - 16	
	AM3DG-241508DH30-NZ		-0.7 - 26	
	AM3DG-151504DH60-NZ		-0.7 - 21	
	AM3DG-151803DH60-NZ		-0.7 - 21	
	AM3DG-152004DH60-NZ		-0.7 - 21	
Peak Input Voltage time			100	ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	AM3DG-151504DH60-NZ AM3DG-151803DH60-NZ AM3DG-152004DH60-NZ	60sec, <1mA	3500/6000	VAC/VDC
	other models		3000	VAC
Resistance	I/O Isolation 500VDC	>1000		MOhm
Capacitance	AM3DG-151504DH60-NZ AM3DG-151803DH60-NZ AM3DG-152004DH60-NZ	100KHz/0.1V	3.5	pF
	other models	100KHz/0.1V	6	

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	AM3DG-151504DH60-NZ	+6 / +10	+10 / +18	%
	AM3DG-151803DH60-NZ	+4 / +12	+9 / +20	
	AM3DG-152004DH60-NZ	+4 / +10	+6 / +15	
	AM3DG-151504DH60-NZ	0 / 0	+2 / +5	%
	AM3DG-151803DH60-NZ	-3 / 0	+2 / +7	
	AM3DG-152004DH60-NZ	-1.5 / +0.5	+1 / +5.5	
	Others	See tolerance curve		

Short Circuit protection	AM3DG-151504DH60-NZ AM3DG-151803DH60-NZ AM3DG-152004DH60-NZ	Continuous, auto restart			
	Others		1	s	
Line voltage regulation	AM3DG-151504DH60-NZ, HL-LL AM3DG-151803DH60-NZ, HL-LL AM3DG-152004DH60-NZ, HL-LL	±1.1	±1.3	%	
	Others, HL-LL, +15 Vout		±5		
	Others, HL-LL, -8 Vout		±20		
Load voltage regulation	AM3DG-151504DH60-NZ	10 – 100% load, +Vout	5	8	%
	AM3DG-151803DH60-NZ		7	9	
	AM3DG-152004DH60-NZ		6	10	
	AM3DG-151504DH60-NZ	10 – 100% load, -Vout	10	13	%
	AM3DG-151803DH60-NZ		10	15	
AM3DG-152004DH60-NZ	12		20		
Temperature coefficient	10 – 100% load: 20Vdc output Full load		±15 ±0.03	% %/°C	
Ripple & Noise	AM3DG-151504DH60-NZ AM3DG-151803DH60-NZ AM3DG-152004DH60-NZ	20MHz Bandwidth	100	75	mV p-p
	Others, 20MHz Bandwidth		100	200	

General Specifications

Parameters	Conditions	Typical	Maximum	Units	
Switching frequency	AM3DG-151803DH60-NZ AM3DG-152004DH60-NZ	100% load	95	KHz	
	Others, 100% load	100			
Operating temperature	Derating above 85°C		-40 to +105	°C	
Storage temperature	AM3DG-151504DH60-NZ		-40 to +105	°C	
	Others		-55 to +125		
Case temperature rise	AM3DG-151504DH60-NZ AM3DG-151803DH60-NZ AM3DG-152004DH60-NZ	Ta=25°C		30	°C
	Others, Ta=25°C			40	
	Cooling	Free air convection			
Humidity			95	% RH	
Case material	Non-conductive black plastic (UL94V-0 rated)				
Weight	4.3			g	
Dimensions (L x W x H)	0.77 x 0.39 x 0.49 inches		19.50 x 9.80 x 12.50 mm		
MTBF	>3,500,000hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)				
Maximum soldering temperature	1.5 mm from case for 10sec		300	°C	

Safety Specifications

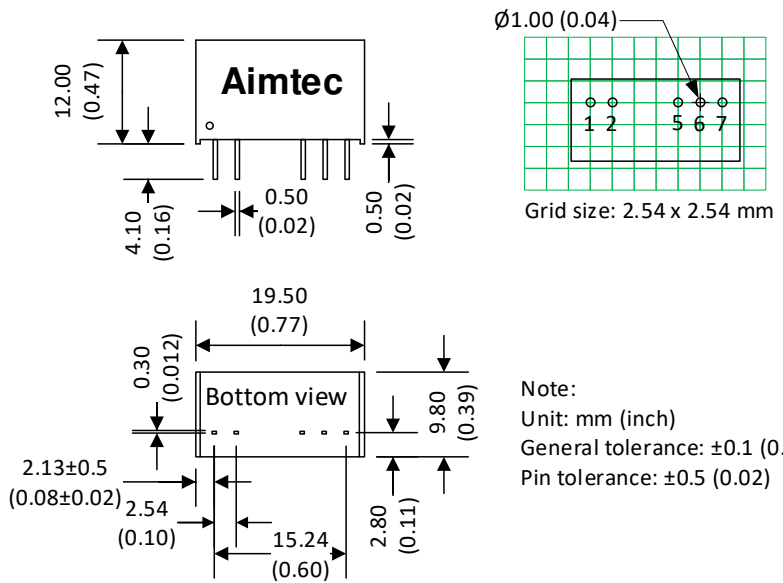
Parameters	
Agency approvals	cULus (except models marked with *) UL 60950-1 (AM3DG-152004DH60-NZ only) CISPR32/EN 55032 Class B for 6000Vdc(3500VAC) models (see recommended circuit)
Standards	Electrostatic Discharge Immunity IEC/EN 61000-4-2, Perf. Criteria B (Contact +/- 6KV for 3500VAC isolation models) (Contact +/- 8KV for 3000VAC isolation models)
	Electrical Fast Transient / Burst Immunity IEC 61000-4-4, Perf. Criteria B (EFT +/- 2KV), for 3000VAC isolated models only
	Surge Immunity IEC 61000-4-5, Perf. Criteria B (Surge Input to Output +/- 2KV), for 3000VAC isolated models

Pin Out Specifications

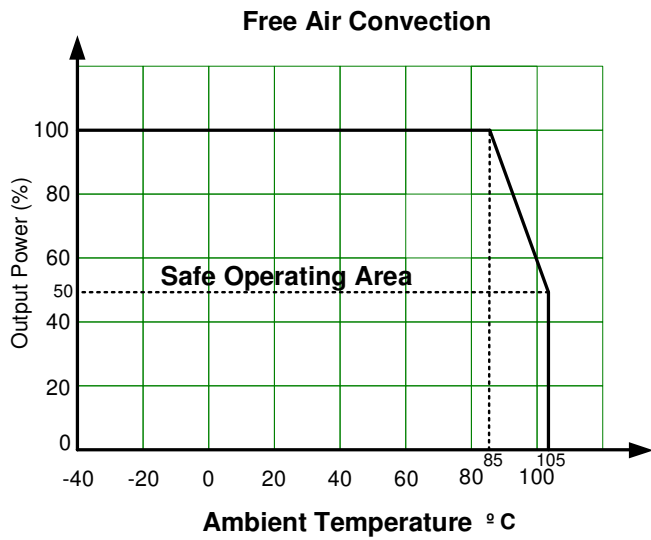
Pin	Dual
1	+ V Input
2	- V Input
5	- V Output
6	Common
7	+ V Output

* N.C. Not Connected

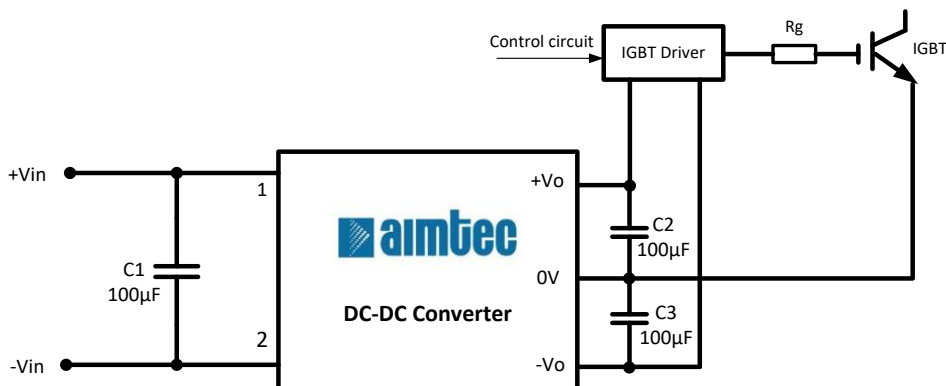
Dimensions



Derating

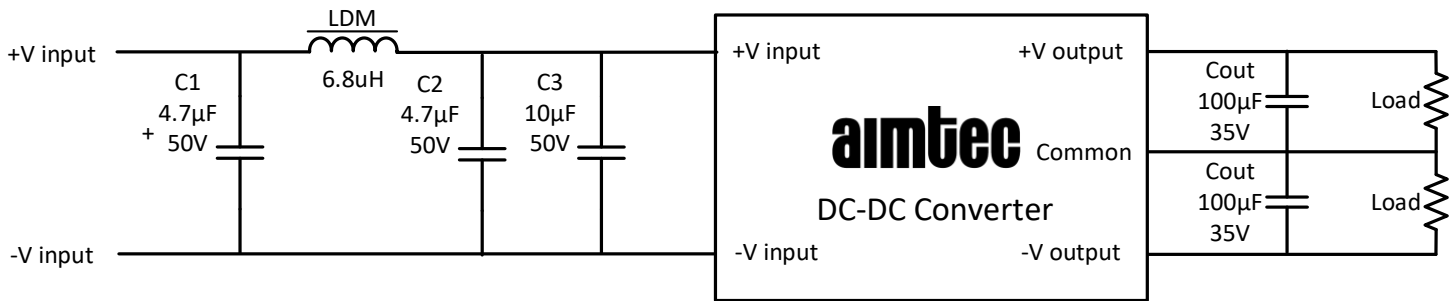


Application Circuit



Note: Low Internal resistance capacitors suggested

EMI Recommended Circuit (Class B for 3500VAC isolation models only)



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