



FEATURES:

- Screw Terminals on Input & Output
- Operating temperature: -40 to +80°C
- Over load, Over Voltage, Short Circuit Protection
- Optional DIN Rail mounting bracket
- Universal input: 90-264VAC, 47-440Hz
- RoHS compliant
- Soft start
- Energy Star compliant
- CE, cULus, CB approvals
- 4000VAC I/O Isolation



Models Single output

Model	Input Voltage (VAC/Hz)	Input voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Ripple & Noise (mV)	Maximum Capacitive Load (μF)	Efficiency (%)
AMES15-3.3SMAZ	90-264/47-440	120-370	9.9	3.3	3	50	4700	74
AMES15-5SMAZ	90-264/47-440	120-370	15	5	3	50	2200	78
AMES15-12SMAZ	90-264/47-440	120-370	15	12	1.25	100	1000	81
AMES15-15SMAZ	90-264/47-440	120-370	15	15	1	100	680	81
AMES15-24SMAZ	90-264/47-440	120-370	15	24	0.63	100	470	83

Models Dual output

Model	Input Voltage (VAC/Hz)	Input voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Ripple & Noise* (mV)	Maximum Capacitive Load (μF)	Efficiency (%)
AMES15-5DMAZ	90-264/47-440	120-370	15	±5	±1.5	50	±1000	78
AMES15-12DMAZ	90-264/47-440	120-370	15	±12	±0.63	100	±470	80
AMES15-15DMAZ	90-264/47-440	120-370	15	±15	±0.5	100	±330	81

*Ripple & Noise measured with 1μF M/C and 47μF E/C (20MHz bandwidth)

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current	115VAC		350	mA
	230VAC		180	mA
Inrush current <2ms	115 VAC		10	A
	230 VAC		20	A
Leakage current	115 VAC		0.1	mA
	264 VAC		0.2	mA
External Fuse (recommend)	slow blow type	2		A
Input Dissipation	No load	<0.5		W
Under Voltage Protection		88		VAC

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Line regulation	LL-HL	±0.5		%
Load regulation (single output)	0-100%	±0.5		%
Cross regulation (dual output)	25% load - 1 st out, 100% load - 2 nd out	±5		%
Transient Recovery Time		200		μs
Transient Recovery Deviation	25% load step	±2		% of Vout
Hold-up time	min	20		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		4000	VAC
Isolation resistance		>1000		MΩ

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		132		KHz
Start up time		900		mS
Over load protection	Auto recovery, hiccup mode	>131		%
Over voltage protection	Zener diode clamp			
Short circuit protection	Continuous			
Short Circuit restart	Auto recovery			
Operating temperature	With derating over 55 °C (10CFM)	-40 to +80		°C
Storage temperature		-50 to +100		°C
Max Case temperature			100	°C
Temperature coefficient		±0.02		% / °C
Cooling	Free air convection			
Humidity			95	% RH
Weight		100		g
Dimensions (L x W x H)	3.62 x 2.56 x 0.94 inches 92.0 x 65.0 x 24.0 mm			
MTBF	> 400 000hrs (MIL-HDBK -217F, t=+25°C)			

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.

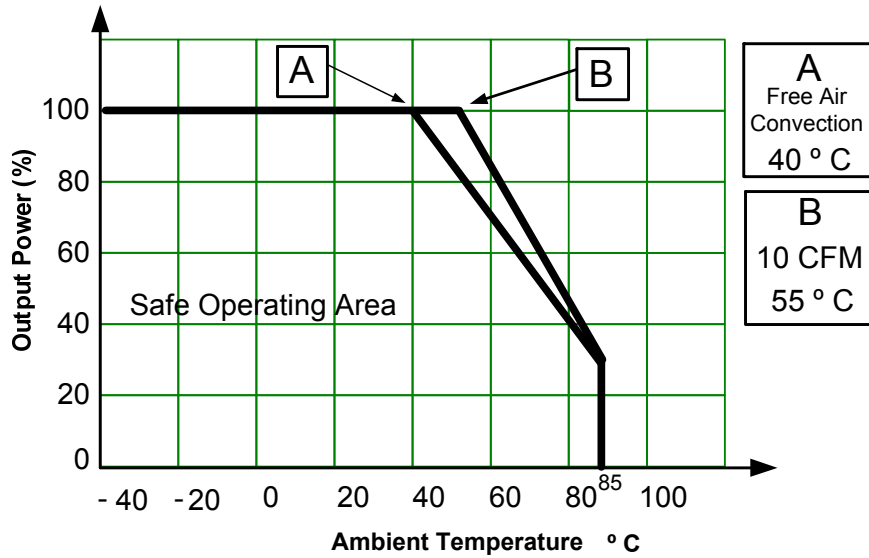
Environment Approval

Parameters	Conditions
Shock	Wave form: Half sine wave
	Acceleration amplitude: 5gn
	Bump duration: 30 ms
	Number of bumps: 18 (3 in each direction for every axis)
	Converter operation before and after test, body mounted (on chassis)
Vibrations	Test mode: Sweep sine
	10-100Hz, speed 0.05Hz/s
	Displacement: 1mm
	Acceleration: 3g
	3 loops 30min one cycle, 3h total, every axis tested
	Converter operation before and after test, body mounted (on chassis)

Safety & EMC Specifications

Parameters		
Agency approvals	cULus, CE, CB	
Standards	Medical Electrical Equipment	IEC\EN\UL 60601-1, CSA-C22.2 No. 601.1-M90
	Information technology Equipment	EN 60950-1:2006+A11:2009
	EMI - Conducted and radiated emission	EN55011, class B
	Harmonic Current Emissions	IEC/EN 61000-3-2, (EN60555-2)
	Voltage fluctuations and flicker	IEC/EN 61000-3-3, (EN60555-3)
	Electrostatic Discharge Immunity	IEC 61000-4-2
	RF, Electromagnetic Field Immunity	IEC 61000-4-3
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4
	Surge Immunity	IEC 61000-4-5
	RF, Conducted Disturbance Immunity	IEC 61000-4-6
	Power frequency Magnetic Field Immunity	IEC 61000-4-8
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11

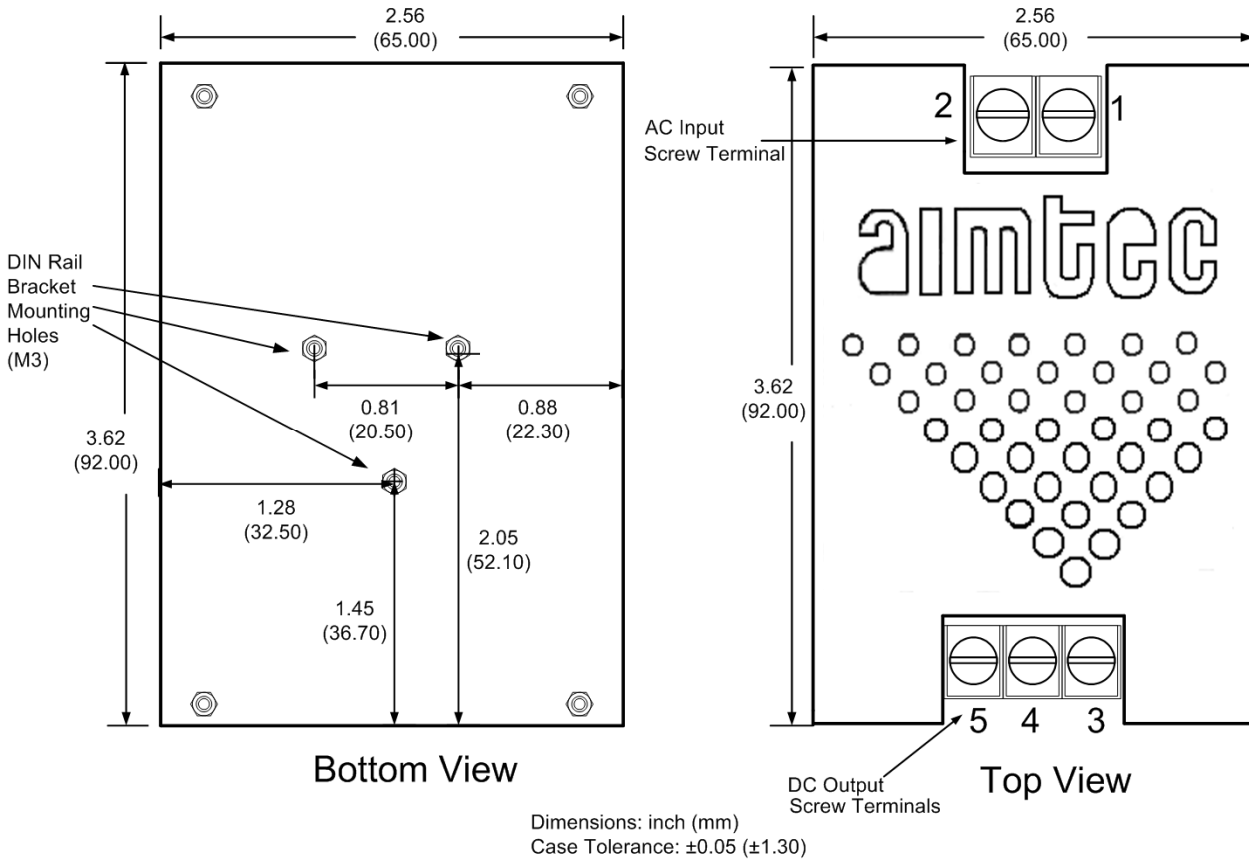
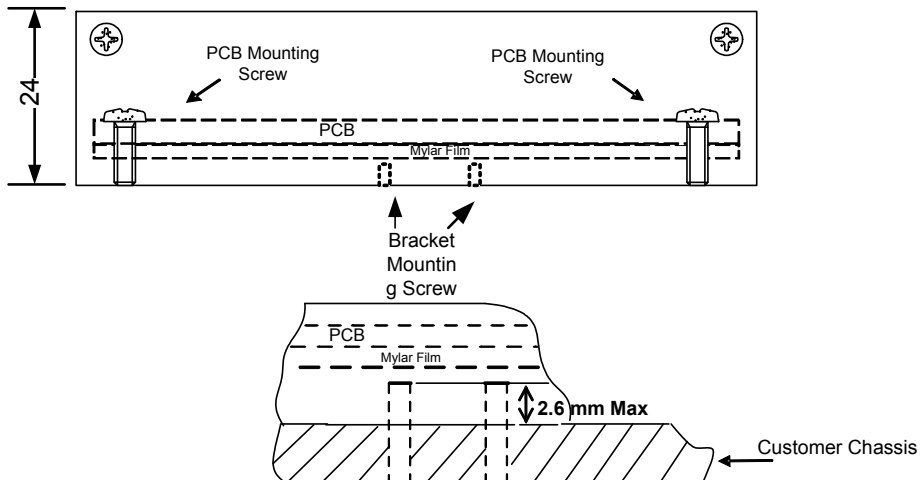
Derating



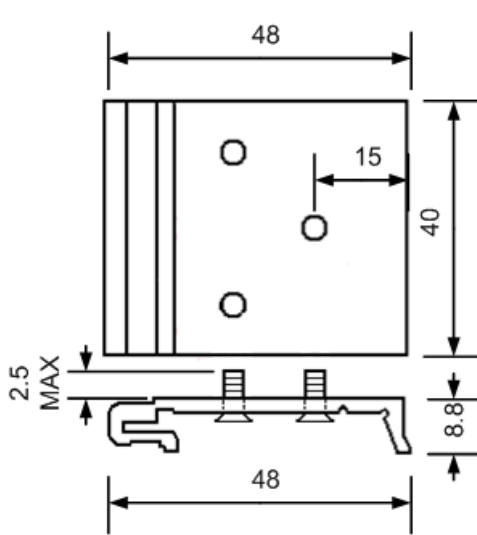
Pin Out Specifications

Pin	Single	Dual
1	AC Input (N)	AC Input (N)
2	AC Input (L)	AC Input (L)
3	-V Output	-V Output
4	No Connection	Common
5	+V Output	+V Output

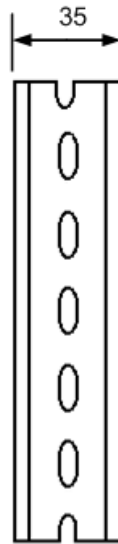
Dimensions



Optional DIN Rail Bracket



To order optional DIN rail bracket kit specify part number DRB01 when placing order



Optional DIN Rail Bracket compatible with DIN Rail TS35/7.5

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