AMX30 series

30W DC to DC Converter

Features

- 4:1 Wide Input Range Voltage
- Regulated Output
- Single or Dual Output
- 1500VDC Isolation
- Potting Material : Epoxy(Flammability to UL94V-0)
- Pin Material : Brass, Solder Coated
- Remote On/Off Control
- Case Material: Nickel-Coated Copper with Non-Conductive Base
- Over Voltage Protection(clamp)
- Short Circuit Protection : Automatics recovery
- 1 year warranty



Electrical Characteristics

Vin	Input Voltage for AMF30			9~36VDC
	Input Voltage for AMG30			18~75VDC
Fs	Switching Frequency			250kHz (typ.)
Ро	Output Power Range			30W
Vo	Output Voltage Range		See rating chart	
lo	Output Current Range		See rating chart	
Acc	Output Voltage Accuracy	lo=Full load, Vin=Typ., at 25°C		±2.0% (typ.)
Eff	Efficiency	lo=Full load, Vin=Typ., at 25°C		77~85%
REG-i	Line Regulation	lo=Full load, Vin=Vmax to Vmin, at 25°C		±0.5% (max.)
DEO -	Load Regulation	lo=20% to 100%, Vin=Typ., at 25°C	Single Output	±0.5% (max.)
REG-o			Dual Output	±2.0% (max.)
ОСР	Over Current Protection	lo=Full load, Vin=Typ., at 25°C		110~160%
Trp	Time of Transient Response	Load of 75% to 100%		280μS (max.)
Vp-p	Ripple & Noise(Peak to Peak)	lo=Full load, Vin=Typ., at 25°C		1% (typ.)
TC	Temperature Coefficient	All output		±0.05%/°C

Note: The Ripple & Noise which is 5VDC & 3.3VDC are 80mV(max). All specifications are measured at typical input, full load and 25°C unless otherwise noted.

Environmental

То	Operating Temperature With derating	-40~75°C
	Maximum Case Temperature	95°C (max.)
Ts	Storage Temperature	-55~115°C
Hr	Relative Humidity	0~95%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	0.5M Hrs (min.)
Cool	The Cooling Condition is Free	
Filter	Internal Capacitor	

Safety Specification

Vio	Dielectric With Standing Voltage for input to output	Input to output	1500VDC (min.)
Vioc	Dielectric With Standing Voltage for input or output to case	Input or output to case	1500VDC (min.)
Ris	Isolation Resistance		1000M (min.)
EP	Potting Material is Epoxy which is flammability to UL94V-0		
CISPER	EMI requirements for CISPER-22	lo-Full load, Vin=Typ., At 25°C	A CLASS
FCC	EMI requirements for FCC PART-15	lo-Full load, Vin=Typ., At 25°C	A CLASS

Note: For meeting CISPER and FCC, some filters must be added. (Please refer Emissions Solution)

Application:

- Automatic Control System
- Industry Control System
- Medical System
- Distributed Power Achitectures

Safety Approvals:





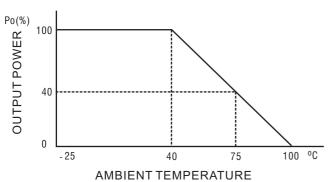


Selection Chart:

Model Number	Intput Voltage	Output Voltage	Output Current	Efficiency
AMF30-101	9~36VDC (Nominal:24V)	3.3VDC	6.00A	78%
AMF30-102		5VDC	6.00A	83%
AMF30-105		12VDC	2.50A	84%
AMF30-106		15VDC	2.00A	82%
AMF30-108		24VDC	1.25A	82%
AMF30-202		±5VDC	3.00A	81%
AMF30-205		±12VDC	1.25A	82%
AMF30-206		±15VDC	1.00A	83%
AMG30-101	18~75VDC (Nominal:48V)	3.3VDC	6.00A	78%
AMG30-105		12VDC	2.50A	86%
AMG30-106		15VDC	2.00A	83%
AMG30-108		24VDC	1.25A	83%
AMG30-202		±5VDC	3.00A	78%
AMG30-205		±12VDC	1.25A	85%
AMG30-206		±15VDC	1.00A	85%

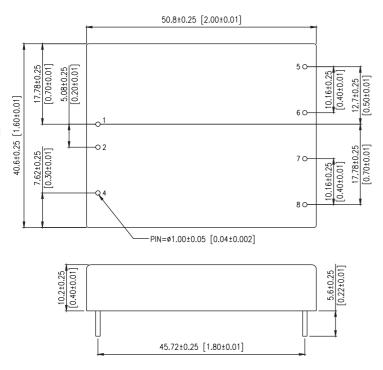
 $^{^{\}star}$ The typical efficiency is measured at nominal input, 25°C and at the module terminals.

Derating Curve:



Note: At nominal input, Full load and cooling is natural convection.

Mechanical Specifications:



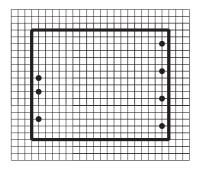
Pin Connections:

Pin	Single	Dual	
1	+Vin	+Vin	
2	- Vin	- Vin	
4	Remote control On / Off Control		
5	No Pin	+Vout	
6	+Vout	Common	
7	-Vout	-Vout	
8	Trim	Trim	

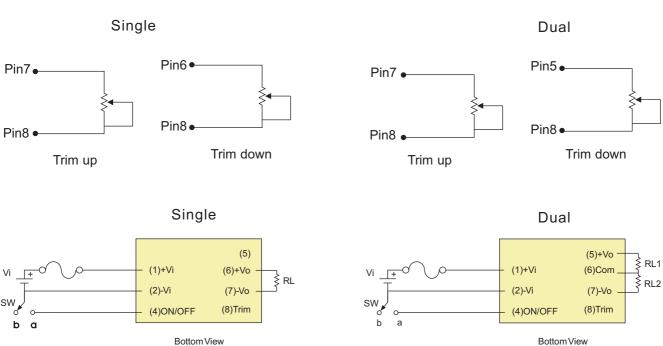
Note:

- 1. Dimensions are shown in mm.
- 2. Weight: 50gs.

Recommended Pin Patterns Bottom View (2.54mm / 0.1inch grids)



Tolerance	Millimeters	Inches
	X ±0.25	.XX ±0.01
	XX.XX ±0.25	.XXX ±0.01
Pin	±0.05	±0.002



Emissions Solution: Conducted / ESD / RS / EFT / SURGE / CS / PFMF

