

1.6"W x 2.11"L x 0.91"H

- Universal 90-264VAC Input
- High Efficiency
- Improved EMI Performance
- 3000V Isolation
- Single, Dual & Triple Outputs
- UL60950-1, EN60950-1 & IEC60950-1



Model Number	Output Voltage	Output Amps(max)
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SINGLE OUTPUT

EFM-5000	3.3 Volts(DC)	1.25A
EFM-5001	5 Volts(DC)	1A
EFM-5022	9 Volts(DC)	0.55A
EFM-5002	12 Volts(DC)	0.42A
EFM-5003	15 Volts(DC)	0.33A
EFM-5018	18 Volts(DC)	0.27A
EFM-5005	24 Volts(DC)	0.23A

DUAL OUTPUT

EFM-5006	±12Volts(DC)	±0.21A
EFM-5007	±15Volts(DC)	±0.17A

TRIPLE OUTPUT

EFM-5009	5±12Volts(DC)	0.53±0.1A
EFM-5011	5±15Volts(DC)	0.41±0.1A



5W Ultraminiature Open Frame Switching Power Supplies

EFM5 series

INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC
Frequency Range	47-63 Hz
Inrush Current, typ:	20A@115VAC, 40A@230VAC

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart	
Load Regulation (20%-FL)	Singles: $\pm 3\%$, Duals: $\pm 3\%$	
	Triple: 0.2 / $\pm 0.3\%$	
Line Regulation	Singles $\pm 0.1\sim 1\%$, typ	
	Duals $\pm 0.3\sim 1\%$, typ	
	Triples: 0.3/ $\pm 0.1\%$	
Cross Regulation (Duals)	NA / ± 0.1	
Preset Accuracy	Single/Duals: 1%	
	Triples: 1 / $\pm 5\%$	
DC Voltage Adjust (typ)	$\pm 6\%$ of FS (Primary)	
Temperature Coefficient	$\pm 0.03\%/^{\circ}\text{C}$	
Ripple/Noise	Single/Dual	100mV Pk-Pk, typ
	Triple	35mV Pk-Pk, typ
Over Voltage Protection	Clamp	
Over Temp. Protection	Latching, Auto Recov after Cooling and power restored	
Short Circuit Protection	Continuous, self-recovering	
Hold Up Time	30 mS, typ	
DC Output Power	5Watts, max	

GENERAL SPECIFICATIONS

Isolation	3KVAC Input/Output
	2500VAC Input-Ground
	1000VAC Output-Ground

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

Efficiency	Single/Duals: 75%~78%, typ
	EFM-5009: 63%
	EFM-5011: 61%
Switching Frequency	100Khz, (fixed, typical)
Safety	UL60950-1, EN60950-1
EMC	EN55022

PHYSICAL SPECIFICATIONS

Size	1.6" x 2.11" x 0.91"
Construction	Open Frame
Weight	1.4oz (38g)

ENVIRONMENTAL SPECIFICATIONS

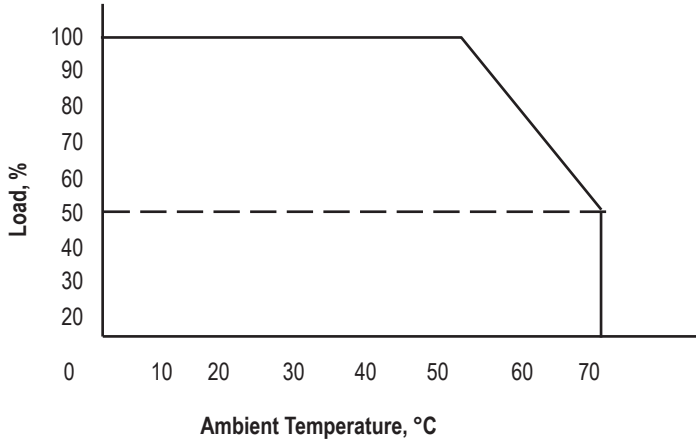
Oper. Temperature	0 to +50°C (See Derate)
Storage Temperature	-25 to +71°C *
Relative Humidity	0 to + 95%, non-cond *
EMC / EMI	FCC/A, VDE 0871/A, CISPRB
MTBF	(Mil Std 217, 25°C) 180,000 Hrs

Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.

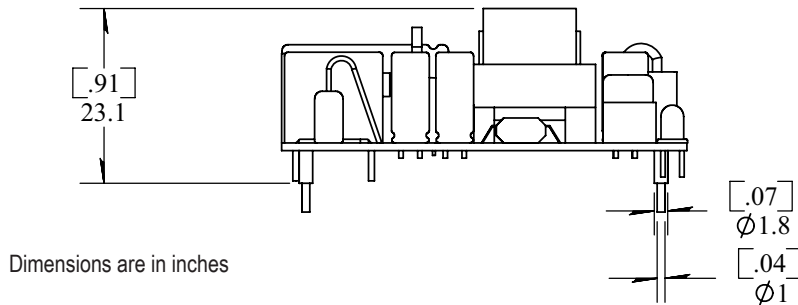
WWW.ASTRODYNE.COM

ASTRODYNE USA: 1-800-823-8082
ASTRODYNE PACIFIC: 886-2-26983458

OUTPUT DERATING CURVE



MECHANICAL DIMENSIONS - SINGLE + DUAL OUTPUTS



Pin#	Single Outputs	Dual Outputs
1	AC Line	AC Line
2	AC Neutral	AC Neutral
3	+Output	+Output
4	NC	Common
5	-Output	-Output

