



5W Ultraminiature Encapsulated Switching Power Supplies

ECA-5 series



- Universal 85-265VAC Input
- High Efficiency
- Improved EMI Performance
- 3000V Isolation
- Single and Dual Outputs
- UL60950-1, EN60950-1 & IEC60950-1



Model Number	Output Voltage	Output Amps(max)	(pk)
SINGLE OUTPUT - PCB Mount			
ESCA-5000	3.3 VDC	1.25A	1.56A
ESCA-5001	5 VDC	1A	1.5A
ESCA-5002	12 VDC	0.42A	0.63A
ESCA-5003	15VDC	0.33A	0.5A
ESCA-5005	24VDC	0.23A	0.35A
SINGLE OUTPUT - Chassis Mount			
ESCC-5000	3.3 VDC	1.25A	1.56A
ESCC-5001	5 VDC	1A	1.5A
ESCC-5002	12 VDC	0.42A	0.63A
ESCC-5003	15VDC	0.33A	0.5A
ESCC-5005	24VDC	0.23A	0.35A
SINGLE OUTPUT - DIN Rail Mount			
ESCC-5000/DRL	3.3 VDC	1.25A	1.56A
ESCC-5001/DRL	5 VDC	1A	1.5A
ESCC-5002/DRL	12 VDC	0.42A	0.63A
ESCC-5003/DRL	15VDC	0.33A	0.5A
ESCC-5005/DRL	24VDC	0.23A	0.35A
DUAL OUTPUT - PCB Mount			
EDCA-5006	+/-12VDC	+/-0.21A	+/-0.26A
EDCA-5007	+/-15VDC	+/-0.17A	+/-0.21A
DUAL OUTPUT - Chassis Mount			
EDCC-5006	+/-12VDC	+/-0.21A	+/-0.26A
EDCC-5007	+/-15VDC	+/-0.17A	+/-0.21A
DUAL OUTPUT - DIN Rail Mount			
EDCC-5006/DRL	+/-12VDC	+/-0.21A	+/-0.26A
EDCC-5007/DRL	+/-15VDC	+/-0.17A	+/-0.21A

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ASTRODYNE USA: 1-800-823-8082
 ASTRODYNE PACIFIC: 886-2-26983458
 ASTRODYNE EUROPE: 353 51 561060



- Universal 85-265VAC Input
- High Efficiency
- Improved EMI Performance
- 4000V Isolation
- Single and Dual Outputs
- UL60601, EN60601-1 & IEC60601-1



Model Number	Output Voltage	Output Amps(max)	(pk)
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SINGLE OUTPUT - PCB Mount

ESMA-5000	3.3 VDC	1.25A	1.56A
ESMA-5001	5 VDC	1A	1.5A
ESMA-5002	12 VDC	0.42A	0.63A
ESMA-5003	15VDC	0.33A	0.5A
ESMA-5005	24VDC	0.23A	0.35A

SINGLE OUTPUT - Chassis Mount

ESMC-5000	3.3 VDC	1.25A	1.56A
ESMC-5001	5 VDC	1A	1.5A
ESMC-5002	12 VDC	0.42A	0.63A
ESMC-5003	15VDC	0.33A	0.5A
ESMC-5005	24VDC	0.23A	0.35A

SINGLE OUTPUT - DIN Rail Mount

ESMC-5000/DRL	3.3 VDC	1.25A	1.56A
ESMC-5001/DRL	5 VDC	1A	1.5A
ESMC-5002/DRL	12 VDC	0.42A	0.63A
ESMC-5003/DRL	15VDC	0.33A	0.5A
ESMC-5005/DRL	24VDC	0.23A	0.35A

DUAL OUTPUT - PCB Mount

EDMA-5006	+/-12VDC	+/-0.21A	+/-0.26A
EDMA-5007	+/-15VDC	+/-0.17A	+/-0.21A

DUAL OUTPUT - Chassis Mount

EDMC-5006	+/-12VDC	+/-0.21A	+/-0.26A
EDMC-5007	+/-15VDC	+/-0.17A	+/-0.21A

DUAL OUTPUT - DIN Rail Mount

EDMC-5006/DRL	+/-12VDC	+/-0.21A	+/-0.26A
EDMC-5007/DRL	+/-15VDC	+/-0.17A	+/-0.21A



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ECA-5 series

INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC
Frequency Range	47-63 Hz
Inrush Current, typ:	20A@100V, 40A@200V Input *

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Load Regulation (20%-FL)	Singles: +/- 3%, Duals: +/- 3%
Line Regulation	Singles +/- 0.1~1%, typ Duals +/- 0.3~1%, typ
Cross Regulation (Duals)	2%
Preset Accuracy	1%
DC Voltage Adjust (typ)	+/- 10% of FS (Primary)
Temperature Coefficient	+/-0.03%/°C
Ripple/Noise	100mV Pk-Pk, typ
Over Voltage Protection	Clamp, 130-150% *
Over Temp. Protection	Latching, Cool and Repower
Short Circuit Protection	Continuous, self-recovering
Hold Up Time	20 mS, typ

GENERAL SPECIFICATIONS

Input-Out Isolation	3KVAC, (4KVAC Medical)
I/P-Ground	2500VAC
O/P-Ground	1000VAC
Efficiency	75%~78%, typ
Switching Frequency	100Khz, (fixed, typical)

PHYSICAL SPECIFICATIONS

Size	PCB Mount	2.28L" x 1.77W" x 0.83H"
	Chassis Mount	3.77L" x 2.16W" x 1.0H"
Case Material	Rynite, 94V-0 Rated	
Construction	Encapsulated. Soft Pot	
Weight	PCB / CHA	4 oz (112g) / 8.5 oz (238g)

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	0 to +70°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

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

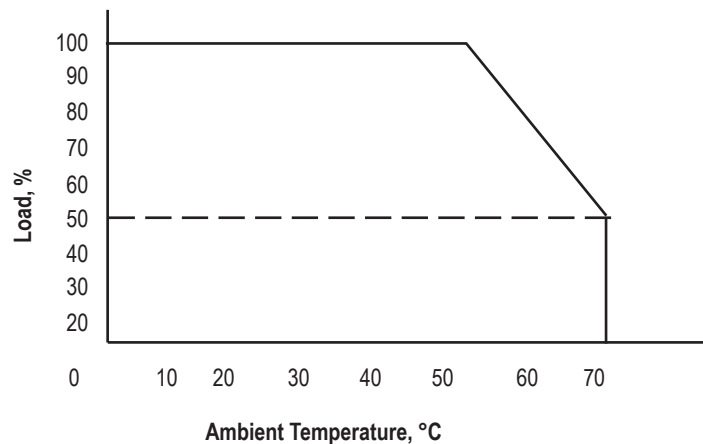
* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

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.

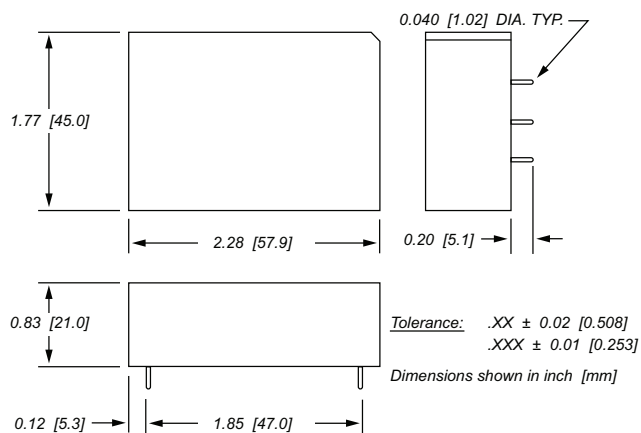
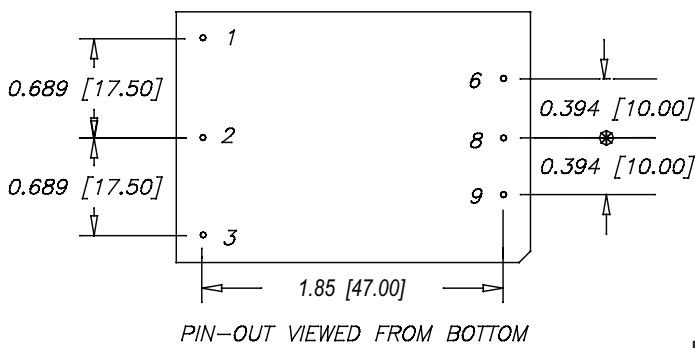
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OUTPUT DERATING CURVE



MECHANICAL DIMENSIONS



Model

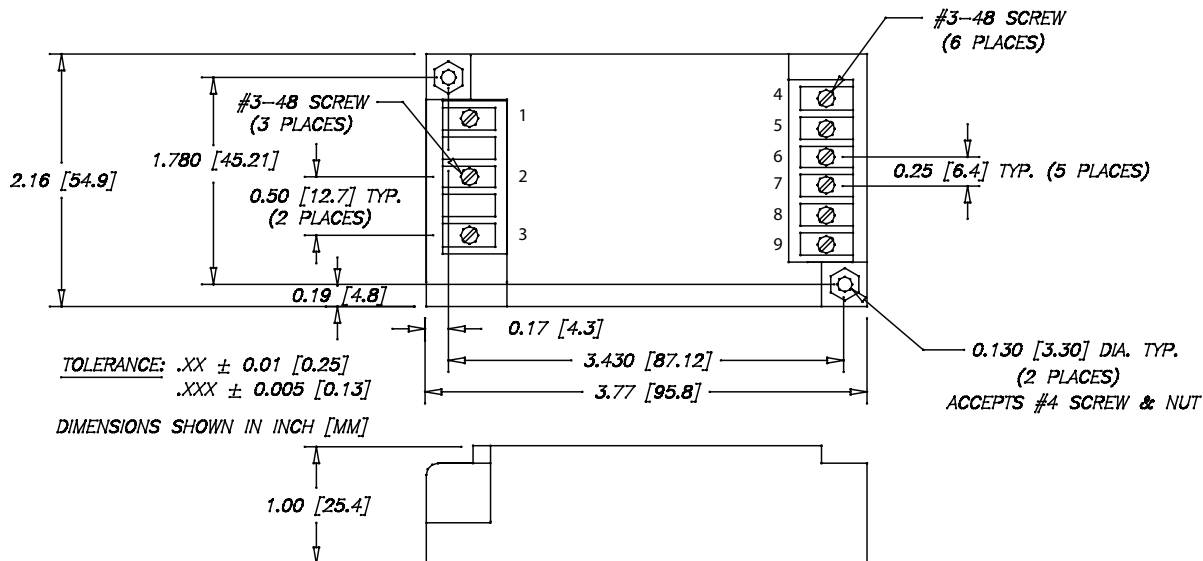
Type / Pin#

Single

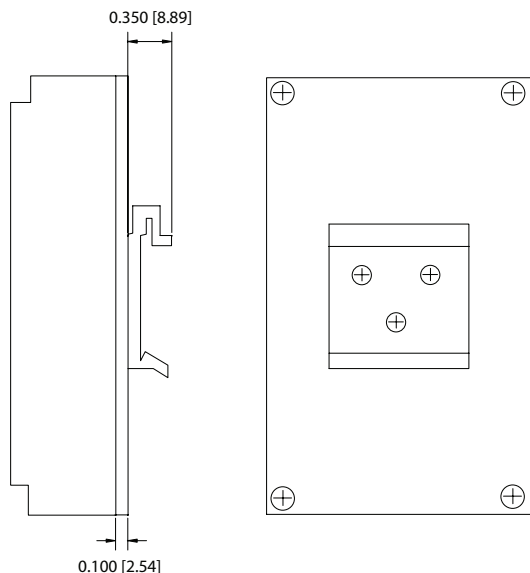
Dual

1	AC HI	AC HI
2	AC LO	AC LO
3	GND	GND
6	+Vout	+Vout
8	No Pin	Out Com
9	-Vout	-Vout

MECHANICAL DIMENSIONS - CHASSIS MOUNT



MECHANICAL DIMENSIONS - DIN RAIL



Model

Type / Pin#

Single

Dual

1	AC LO	AC LO
2	GND	GND
3	AC HI	AC HI
4	N/C	N/C
5	-Vout	-Vout
6	-Vout	Com
7	+Vout	Com
8	+Vout	+Vout
9	N/C	N/C

DIN Rail mounting kit available for Chassis-mount modules, specify part # M-DRL-01. Kit includes mounting plate, DIN Rail clip and assembly hardware.