



15W Ultraminiature Encapsulated Switching Power Supplies

ECA-15 series



- Universal 90-264VAC Input
- High Efficiency
- Improved EMI Performance
- 3000V Isolation
- Single and Dual Outputs



Model Number	Output Voltage	Output Amps(max)	(pk)
--------------	----------------	------------------	------

SINGLE OUTPUT - PCB Mount

ESCA-1500	3.3 VDC	3.5A	3.8A
ESCA-1501	5 VDC	3A	3.6A
ESCA-1522	9 VDC	1.66A	1.9A
ESCA-1502	12 VDC	1.25A	1.5A
ESCA-1503	15VDC	1A	1.25A
ESCA-1505	24VDC	0.63A	0.75A

SINGLE OUTPUT - Chassis Mount

ESCC-1500	3.3 VDC	3.5A	3.8A
ESCC-1501	5 VDC	3A	3.6A
ESCC-1522	9 VDC	1.66A	1.9A
ESCC-1502	12 VDC	1.25A	1.5A
ESCC-1503	15VDC	1A	1.25A
ESCC-1505	24VDC	0.63A	0.75A

SINGLE OUTPUT - DIN Rail Mount

ESCC-1500/DRL	3.3 VDC	3.5A	3.8A
ESCC-1501/DRL	5 VDC	3A	3.6A
ESCC-1522/DRL	9 VDC	1.66A	1.9A
ESCC-1502/DRL	12 VDC	1.25A	1.5A
ESCC-1503/DRL	15VDC	1A	1.25A
ESCC-1505/DRL	24VDC	0.63A	0.75A

DUAL OUTPUT - PCB Mount

EDCA-1506	+/-12VDC	+/-0.63A	+/-0.8A
EDCA-1507	+/-15VDC	+/-0.5A	+/-0.65A

DUAL OUTPUT - Chassis Mount

EDCC-1506	+/-12VDC	+/-0.63A	+/-0.8A
EDCC-1507	+/-15VDC	+/-0.5A	+/-0.65A

DUAL OUTPUT - DIN Rail Mount

EDCC-1506/DRL	+/-12VDC	+/-0.63A	+/-0.8A
EDCC-1507/DRL	+/-15VDC	+/-0.5A	+/-0.65A

WWW.ASTRODYNE.COM

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



15W Ultraminiature Medical Grade Encapsulated Switchers

ECA-15 series



- Universal 90-264VAC Input
- High Efficiency
- Improved EMI Performance
- 4000V Isolation
- Single and Dual Outputs



Model Number	Output Voltage	Output Amps(max)	(pk)
--------------	----------------	------------------	------



SINGLE OUTPUT - PCB Mount

ESMA-1500	3.3 VDC	3.5A	3.8A
ESMA-1501	5 VDC	3A	3.6A
ESMA-1522	9 VDC	1.66A	1.9A
ESMA-1502	12 VDC	1.25A	1.5A
ESMA-1503	15VDC	1A	1.25A
ESMA-1505	24VDC	0.63A	0.75A

SINGLE OUTPUT - Chassis Mount

ESMC-1500	3.3 VDC	3.5A	3.8A
ESMC-1501	5 VDC	3A	3.6A
ESMC-1522	9 VDC	1.66A	1.9A
ESMC-1502	12 VDC	1.25A	1.5A
ESMC-1503	15VDC	1A	1.25A
ESMC-1505	24VDC	0.63A	0.75A

SINGLE OUTPUT - DIN Rail Mount

ESMC-1500/DRL	3.3 VDC	3.5A	3.8A
ESMC-1501/DRL	5 VDC	3A	3.6A
ESMC-1522/DRL	9 VDC	1.66A	1.9A
ESMC-1502/DRL	12 VDC	1.25A	1.5A
ESMC-1503/DRL	15VDC	1A	1.25A
ESMC-1505/DRL	24VDC	0.63A	0.75A

DUAL OUTPUT - PCB Mount

EDMA-1506	+/-12VDC	+/-0.63A	+/-0.8A
EDMA-1507	+/-15VDC	+/-0.5A	+/-0.65A

DUAL OUTPUT - Chassis Mount

EDMC-1506	+/-12VDC	+/-0.63A	+/-0.8A
EDMC-1507	+/-15VDC	+/-0.5A	+/-0.65A

DUAL OUTPUT - DIN Rail Mount

EDMC-1506/DRL	+/-12VDC	+/-0.63A	+/-0.8A
EDMC-1507/DRL	+/-15VDC	+/-0.5A	+/-0.65A

WWW.ASTRODYNE.COM

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



15W Ultraminiature Encapsulated Switching Power Supplies

ECA-15 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)
Safety	
Commercial	UL/EN60950-1, IEC60950
Medical	UL/EN60601-1, IEC60601

PHYSICAL SPECIFICATIONS

Size	PCB Mount	2.75L" x 1.89W" x 0.93H"
	Chassis Mount	3.96L" x 2.16W" x 1.0H"
Case Material	Rynite, 94V-0 Rated	
Construction	Encapsulated. Soft Pot	
Weight	PCB / CHA	5.6 oz (158g) / 8.9 oz (250g)

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) 559,000 Hrs

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

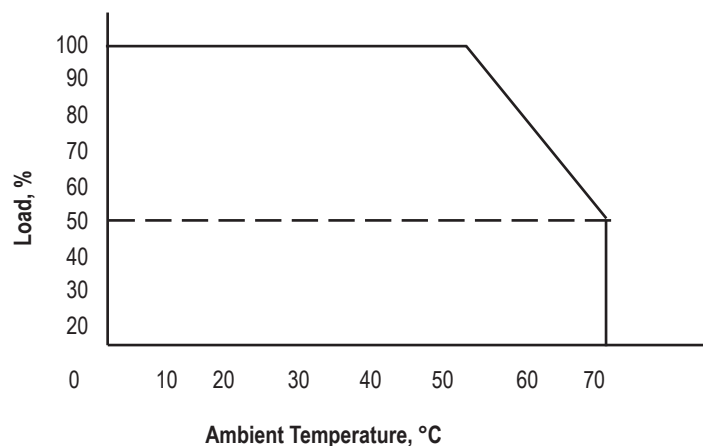
* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

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.

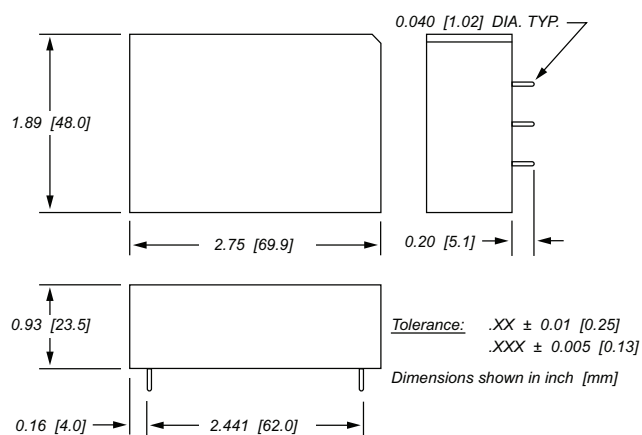
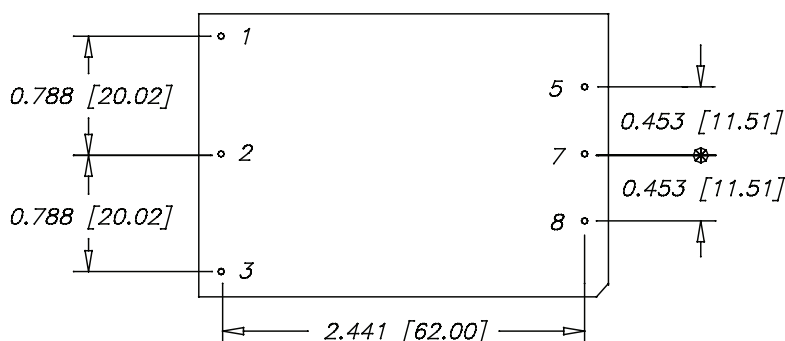
WWW.ASTRODYNE.COM

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

OUTPUT DERATING CURVE

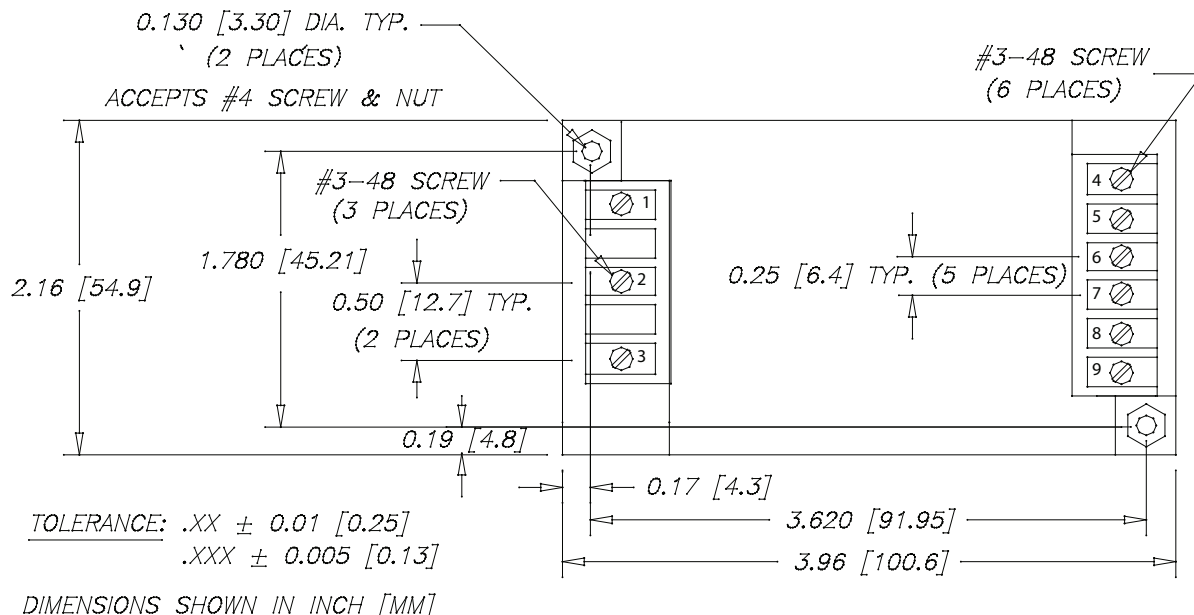


MECHANICAL DIMENSIONS

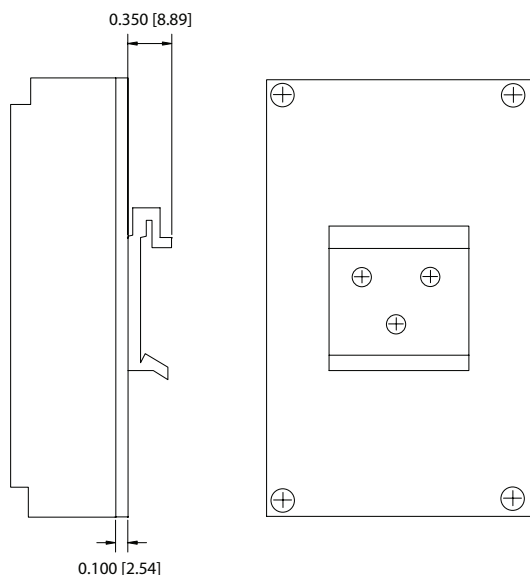


Model Type / Pin#	Single	Dual
1	AC HI	AC HI
2	AC LO	AC LO
3	GND	GND
5	+ Vout	+ Vout
7	No Pin	Out Com
8	- Vout	- Vout

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-15. Kit includes mounting plate, DIN Rail clip and assembly hardware.