Astrodyne TDI
Now you have power.

30W Ultraminiature Modular Switching Power Supplies

MCA-30 series



PCB Mount as small as
3.5"L x 2.5"W x 0.98"H



Chassis 4.76"L x 2.56"W x 1.0"H

- Single / Dual / Triple Outputs
- Universal 90 to 264VAC Input
- 3.3VDC to 24VDC Outputs
- 3,000VAC Input to Output Isolation
- PCB and Chassis Mount Packages
- Full Safety Approvals

Model Number	Output Voltage	Output Amps	Output Watts
SINGLE OUTPUT - PCB Mount			
MSCA-0300	3.3 VDC	7.5	25W
MSCA-0301	5 VDC	6	30W
MSCA-0302	12 VDC	2.5	30W
MSCA-0303	15 VDC	2	30W
MSCA-0305	24 VDC	1.25	30W
SINGLE OUTPUT - Chassis Mount			
MSCC-0300	3.3 VDC	7.5	25W
MSCC-0301	5 VDC	6	30W
MSCC-0302	12 VDC	2.5	30W
MSCC-0303	15 VDC	2	30W
MSCC-0305	24 VDC	1.25	30W
SINGLE OUTPUT - DIN Rail Mount			
MSCC-0300/DRL	3.3 VDC	7.5	25W
MSCC-0301/DRL	5 VDC	6	30W
MSCC-0302/DRL	12 VDC	2.5	30W
MSCC-0303/DRL	15 VDC	2	30W
MSCC-0305/DRL	24 VDC	1.25	30W

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

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Model Number	Output Voltage	Output Amps	Output Watts
DUAL OUTPUT - PCB Mount			
MDCA-0306	±12 VDC	±1.25	30W
MDCA-0307	±15 VDC	±1	30W
MDCA-0308	+5/12 VDC	3/1.25	30W
DUAL OUTPUT - Chassis Mount			
MDCC-0306	±12 VDC	±1.25	30W
MDCC-0307	±15 VDC	±1	30W
MDCC-0308	+5/12 VDC	3/1.25	30W
DUAL OUTPUT - DIN Rail Mount			
MDCC-0306/DRL	±12 VDC	±1.25	30W
MDCC-0307/DRL	±15 VDC	±1	30W
MDCC-0308/DRL	+5/12 VDC	3/1.25	30W
TRIPLE OUTPUT - PCB Mount			
MTCA-0309	+5,±12 VDC	3,0.63/0.63	30W
MTCA-0311	+5,±15 VDC	3,0.5/0.5	30W
TRIPLE OUTPUT - Chassis Mount			
MTCC-0309	+5,±12 VDC	3,0.63/0.63	30W
MTCC-0311	+5,±15 VDC	3,0.5/0.5	30W
TRIPLE OUTPUT - DIN Rail Mount			
MTCC-0309/DRL	+5,±12 VDC	3,0.63/0.63	30W
MTCC-0311/DRL	+5,±15 VDC	3,0.5/0.5	30W

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INPUT SPECIFICATIONS

Input Voltage	90-264VAC
	Nominal: 100-240VAC
Input Frequency	47-440 Hz
	Nominal: 50-60Hz
Inrush Current (100V / 200V)	Cold Start, 20A / 40A, typ
Leakage Current	<3.5mA at 264Vin, 50Hz

OUTPUT SPECIFICATIONS

Output Voltage/Current	See Specific Model
Initial Accuracy	±1%, adjustable
Voltage Adjust	±6%, typ
Load Regulation (20%-100%)	±0.3%, typ
Line Regulation	±0.3%, typ
Cross Regulation	±3%, typ
Temperature Coefficient	±0.03%/°C
Ripple/Noise(20Mhz BW)	150mV Pk-Pk, typ
Overvoltage Protection	Clamp, 130-150% *
Hold Up Time	30mS, typ
Short Circuit Protection	Continuous, self-recovering *
Current Limit	130% typ, Self-Reset Foldback

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	0 to +50°C FL See Derate *
	(Free-air Convection)
Relative Humidity	0-95%, Non-Condensing
Storage Temperature	-25 to +71°C *
MTBF, Single/Multi Output	180,000 Hrs/110,000 Hrs
	Mil Std 217, 25C

PHYSICAL SPECIFICATIONS

Case Material		Rynite, 94V-0 Rated
Construction		Encapsulated, Soft Pot
Size	PCB Mount	Single O/P: 3.5" x 2.5" x 0.98"
		Multi O/P: 4.06" x 2.5" x 0.98"
	Chassis Mount	Single O/P: 4.76" x 2.56" x 1.0"
		Multi O/P: 5.34" x 2.56" x 1.0"
Weight		PCB / CHASSIS
	Singles	10.4 oz (295g) / 13.4 oz (380g)
	Duals/Triples	12.1 oz (343g) / 15.4 oz (437g)

GENERAL SPECIFICATIONS

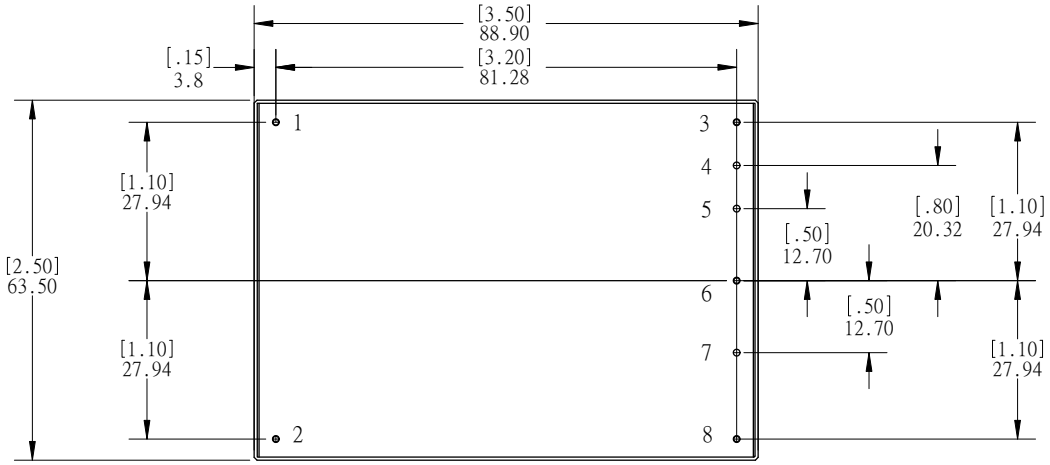
On/Off Control		Open Collector
		Logic "1"/Open=ON
		Logic "0"/GND=OFF
Input-Out Isolation		3000VAC
Output-Ground Isolation		1000VAC
Input-Ground Isolation		2500VAC
Operating Frequency		140 Khz, typ., fixed
Efficiency (@ Full Load)		75 - 80%, typ (3.3V: 70% typ.)
Safety	UL/cUL:	UL60950-1 2nd ed./
		C22.2 60950-1 2nd ed.
	UL-EU:	EN60950-1 2nd ed.
	CE:	EN60601-1-2
	CB:	IEC60950-1 2nd ed.
EMI		EN55011 Class B

* 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 warranteed nor implied.

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

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MECHANICAL DIMENSIONS - PCB MOUNT - SINGLE OUTPUT

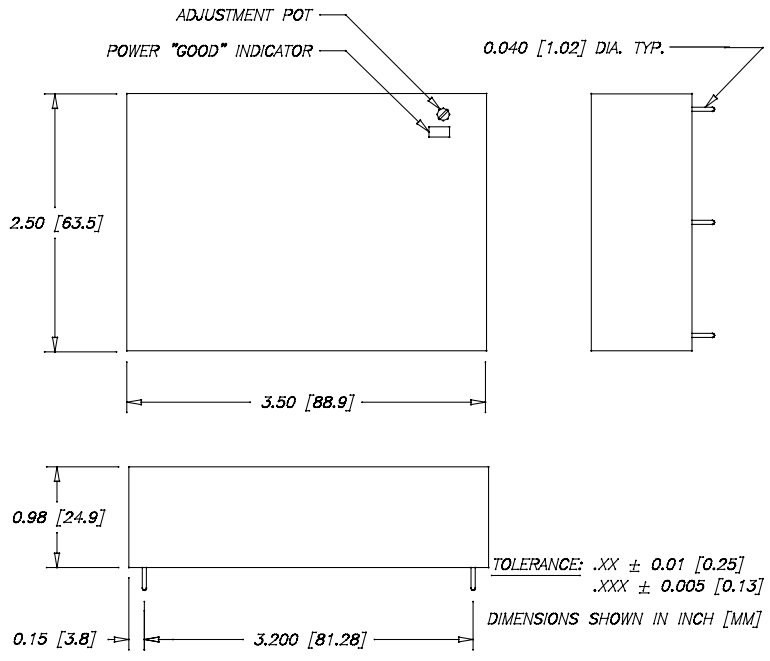


PIN - OUT VIEWED FROM BOTTOM



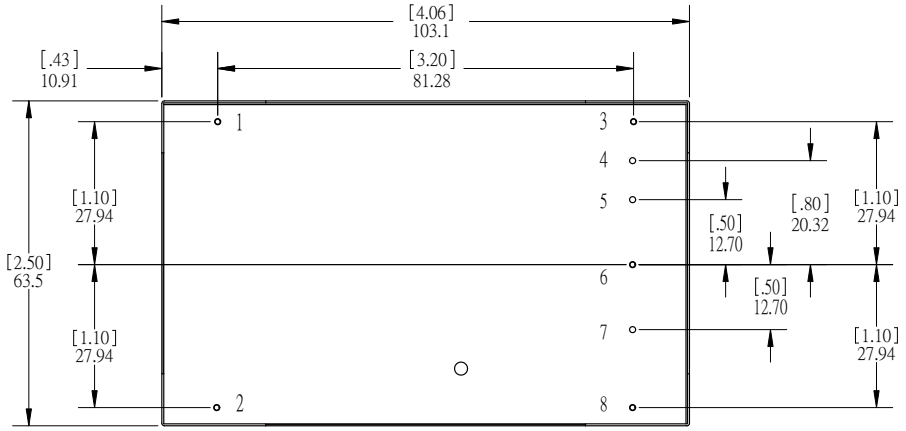
Model Type/Pin#	Single
1	AC HI
2	AC LO
3	No Pin
4	No Pin
5	No Pin
6	-Vout
7	No Pin
8	+Vout

NOTES :
1. All dimension in mm [inch] .
2. tolerance : .XX±0.254 [0.01].
.XXX±0.13[0.005].

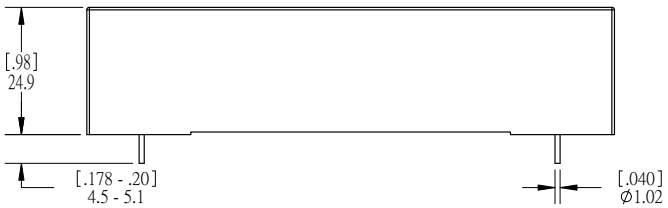


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MECHANICAL DIMENSIONS - PCB MOUNT - DUAL & TRIPLE OUTPUT

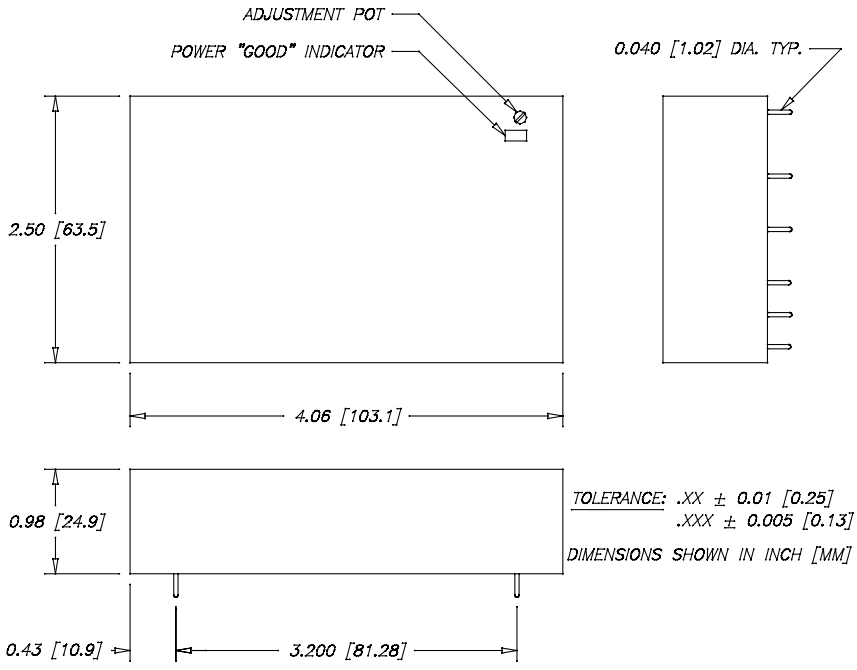


PIN-OUT VIEWED FROM BOTTOM



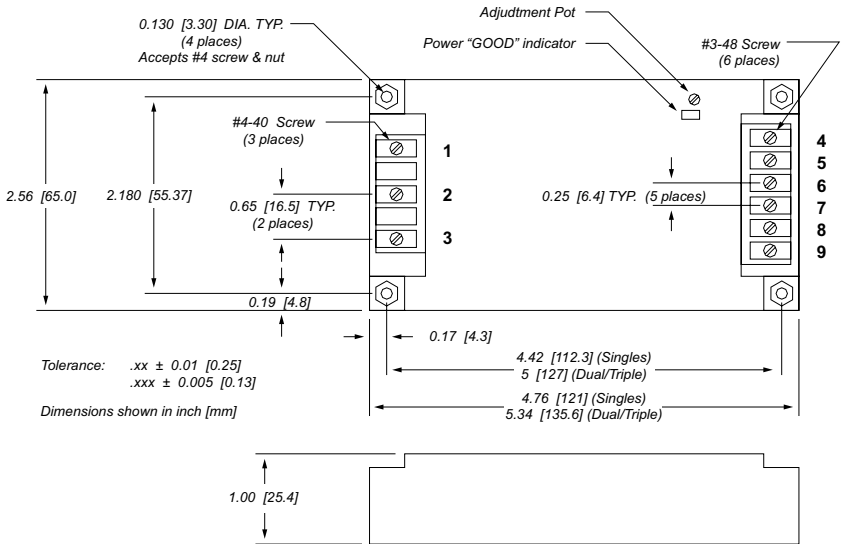
Model Type/Pin#	Dual Matched	Dual (5/12V)	Triple
1	AC HI	AC HI	AC HI
2	AC LO	AC LO	AC LO
3	-Vout	COM	-Vout
4	No Pin	No Pin	No Pin
5	No Pin	No Pin	+5VRTN
6	COM	+5Vout	+/-COM
7	No Pin	No Pin	+5Vout
8	+Vout	+12Vout	+Vout

NOTES :
1. All dimension in mm [inch] .
2. tolerance : .XX±0.254 [0.01].
.XXX±0.13[0.005].

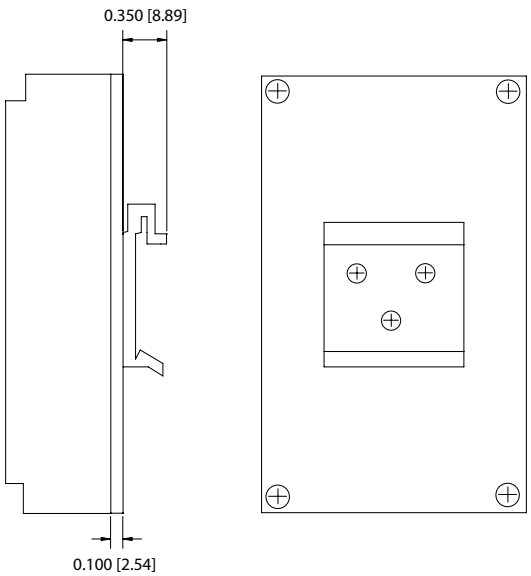


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MECHANICAL DIMENSIONS - CHASSIS MOUNT



MECHANICAL DIMENSIONS - DIN RAIL



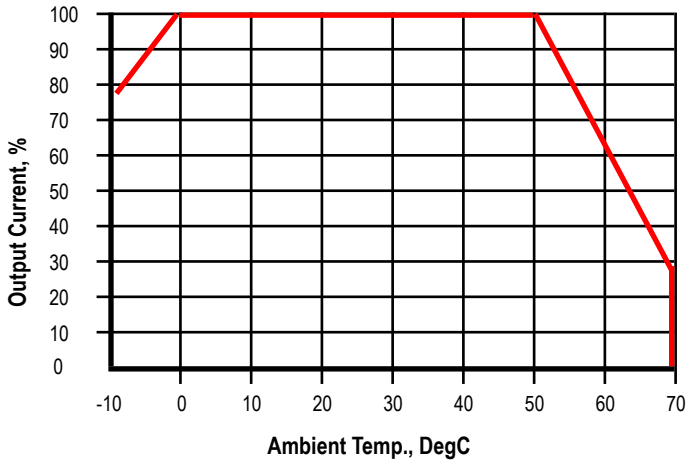
Model Type / Pin#	Single	Match Dual	Unmatch Dual	Triple
1	AC LO	AC LO	AC LO	AC LO
2	GND	GND	GND	GND
3	AC HI	AC HI	AC HI	AC HI
4	+Vout	+Vout	+12Vout	+Vout
5	+Vout	Com	+5Vout	+5Vout
6	-Vout	Com	+5Vout	± Com
7	-Vout	-Vout	Com	+5V Ret
8	N/C	N/C	Com	-Vout
9	Ctrl	Ctrl	Ctrl	Ctrl

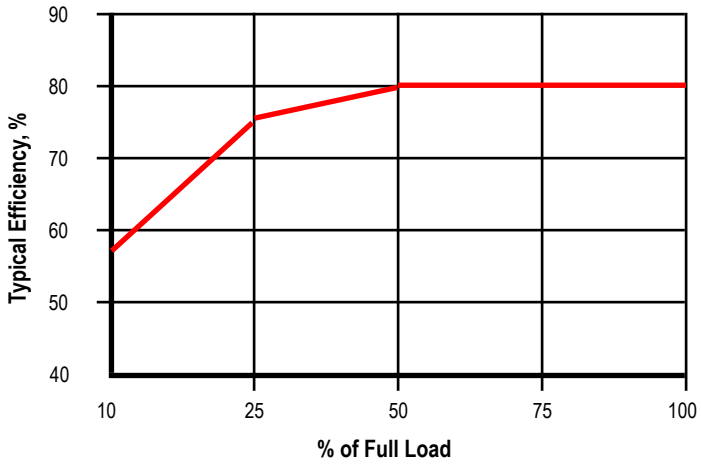
DIN Rail mounting kit available for Chassis-mount modules.
- For 30 watt single outputs specify part # M-DRL-30S
- For 30 watt dual/single outputs specify part # M-DRL-30T

Kit includes mounting plate, DIN Rail cliip and assembly hardware.

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PERFORMANCE CURVES





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