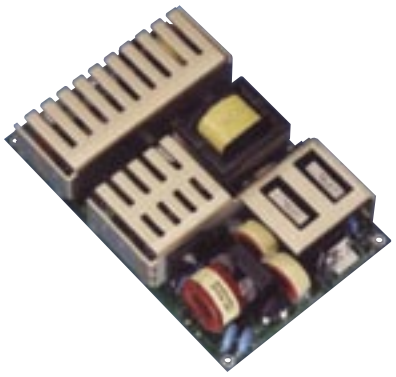
ASTRODYNE

150 Watt Open Frame Switching Power Supply with PFC

REL150 series



6" x 3.83" x 1.32"

- 150 Watts Output Power
- Universal 85-265VAC Input
- 1, 2, 3, and 4 Outputs
- Active Power Factor Correction
- 2.5VDC to 48VDC Outputs

Model Number	Output #1	Output #2	Output #3	Output #4
SINGLE OUTPUT				
REL150-1001	2.5V/30A			
REL150-1002	3.3V/30A			
REL150-1003	5V/30A			
REL150-1004	12V/12.5A			
REL150-1005	15V/10A			
REL150-1006	24V/6.3A			
REL150-1007	28V/5.4A			
REL150-1008	48V/3.1A			
DUAL OUTPUT				
REL150-2001	3.3V/15A	5V/8A		
REL150-2002	5V/15A	12V/5A		
REL150-2003	5V/15A	24V/3A		
REL150-2004	12V/7.5A	-12V5A		
REL150-2005	15V/5A	-15V/5A		
TRIPLE OUTPUT				
REL150-3001	5V/15A	12V/4A		-12V/3A
REL150-3002	5V/15A	15V/3A		-15V/2A
QUAD OUTPUT				
REL150-4001	3.3V/15A	5V/8A	12V/2A	-12V/2A
REL150-4002	5V/15A	3.3V/8A	12V/2A	-12V/2A
REL150-4003	5V/15A	3.3V/8A	15V/2A	-15V/2A
REL150-4004	5V/15A	-5V/8A	12V/2A	-12V/2A
REL150-4005	5V/15A	-5V/8A	15V/2A	-15V/2A
REL150-4006	5V/15A	24V/3A	12V/2A	-12V/2A
REL150-4007	5V/15A	24V/3A	15V/2A	-15V/2A

Medical Versions Available
Contact Factory

WWW.ASTRODYNE.COM

Order On-Line!
astrodyne.com

300 Myles Standish Blvd., Taunton, MA 02780
Ph: 1-800-823-8082 Fax: 508-823-8181

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INPUT SPECIFICATIONS

Input Voltage, Full Range:	85-264 VAC
Active PFC	>0.95@115VAC
Input Frequency	47-63Hz.
Inrush Current	30A @ 115VAC, typ 4
	40A @ 230VAC, typ 4
Leakage Current	<300uA @ 240VAC

OUTPUT SPECIFICATIONS

Output Power	100W, Conv/150W Forced Air
Minimum Load Requirement	10%
Max Current (A, Peak)	See Model Selection Chart 7
Initial Accuracy	+/-1%, typ
Voltage Adjust	± 5%, typ
Load Regulation	± 1%, typ
Cross Regulation	+/-5%
Line Regulation	± 0.5%, typ
Temperature Coefficient	± 0.02%/°C
Ripple/Noise	100mV Pk-Pk, typ
Overvoltage Protection	110-150%, Type 2 & 3
Remote Sense (Singles Only)	250mV compensation
Hold Up/Start Up Times	16mS/5Sec, typ
Short Circuit Protection	Continuous 4
Current Limit	110-160% typ, Auto Recovery

GENERAL SPECIFICATIONS

Input-Output Isolation	3000VAC 5
Output-Ground Isolation	500VAC
Input-Ground Isolation	1500VAC
Efficiency (@ Full Load)	82%, typ
	(or See Chart/Curve)
Safety	UL60950/EN60950 Approved
EMC	EN55022/B, EN61000-3-2,3/A
	EN61000--4-2,3,4,5,6,8,11/Cr A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	0 to +60 °C 4
Relative Humidity	10-95%, Description 4
Storage Temperature	-40 to +85 °C 4
MTBF	100KHrs
	MIL-Std 217F
Shock & Vibration	To MIL-Std 810E

PHYSICAL SPECIFICATIONS

Dimensions	6”x3.83”x1.32”
Material Flammability	to UL94V-0
Construction	Open Frame
Weight	1.15lb

SPECIFICATION NOTES

1) All specifications typical @ 25°C, Nominal Line & Load, unless otherwise noted.
2) O/P noise measured directly at pins/terminals with 0.1uFbypass, pk-pk @ 20MHz bandwidth.
3) Ripple and Noise dependant upon output voltage as specified per particular model.
4) 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 or implied.
5) Isolation for up to 1 minute duration.
6) No termination necessary with control pin to maintain constant “ON” operation (if applicable to this model)
7) Max load (peak) specified for 10mS max, 20% duty cycle, minimum load on all outputs

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

A **Blue Number** means see respective Specification

Astrodyne products are not authorized or warranteed 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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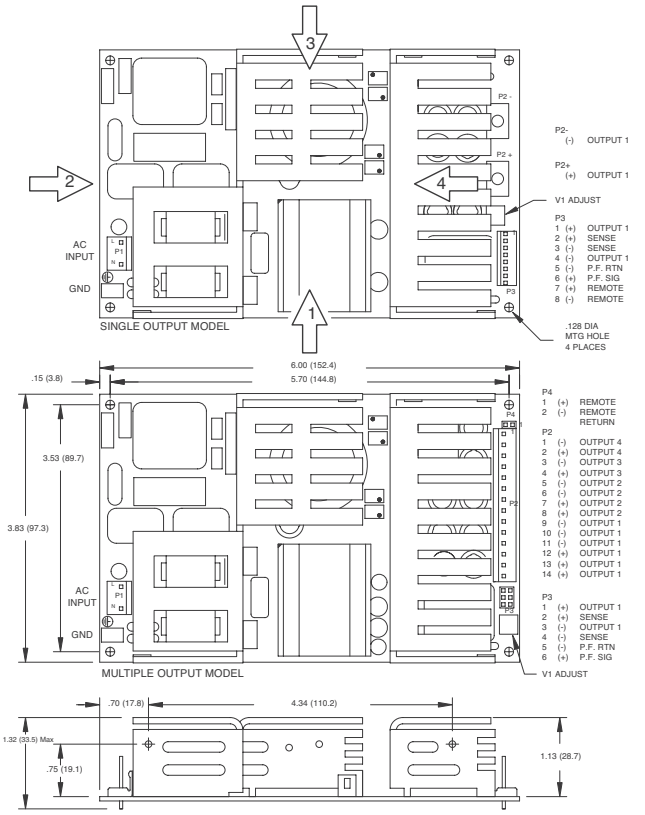
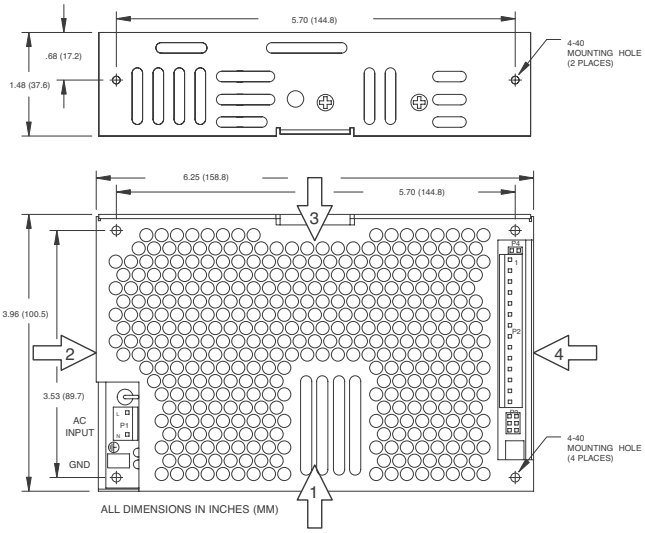
MECHANICAL DIMENSIONS

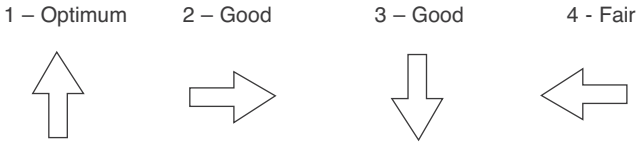
OPEN FRAME



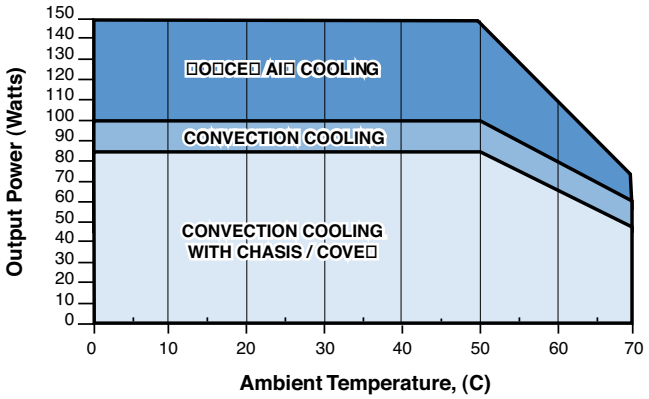
OPTIONAL CHASSIS/COVER



RECOMMENDED AIR FLOW DIRECTION



THERMAL PERFORMANCE



CONNECTOR SPECIFICATIONS

P1 AC Input
.156 friction lock header mates with Molex 09-50-3031 crimp terminal housing with Molex 2478 crimp terminal

P2 DC Output (Single)
6-32 screw down terminal accepts #6 ring tongue terminal

P2 DC Output (Multiple)
.156 friction lock header mates with Molex 09-50-3141 crimp terminal housing with Molex 2478 crimp terminal

G Ground
.187 quick disconnect terminal

P3 Remote PF Sense
.100 breakaway header mates with Molex 50-57-9008 crimp terminal housing with Molex 71851 crimp terminal

P3 P.F Sense (Multiple
.100 breakaway header mates with Molex 22-55-2061 crimp terminal housing with Molex 70058 crimp terminal

P4 Remote I (Multiple)
.100 breakaway header mates with Molex 50-57-9002 crimp terminal housing with Molex 71851 crimp terminal

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