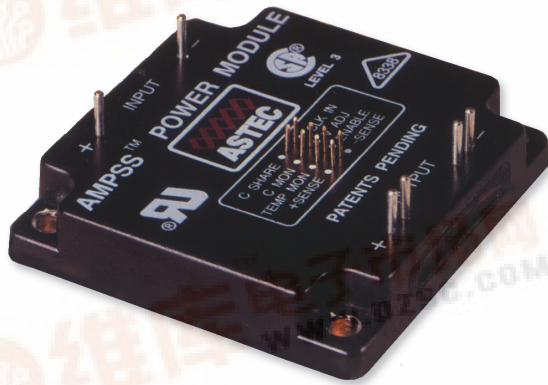


Astec Integrated Power

120 Watts

AL60A



Total Power: 120 Watts
Input Voltages: 12V, 24V or 48V
No. of Outputs: Single, Dual

Electrical Specs

Input

Input Range 180 to 400 VDC or 36 to 72 VDC
 Efficiency 83% typical (5V @ 20A);
 85% typical (12V @ 9A)

Output

Load Regulation 0.2% typical down to no load
 Line Regulation 0.1% typical
 Noise/Ripple 75 mV typical (output below 5V)
 2% typical (output 5V and over)
 Up to 0.5V

Remote sense
 Output Voltage
 Adjust Range $\pm 10\%$ of nominal output
 Transient Response 4% typical deviation with
 250 μ s recovery (25-75% full load)

Current Share Accuracy 5% typical
 Overvoltage Protection 125% nominal V_o
 Current Limit 110% I_o max

Control

Voltage Adjust 90 to 110% V_o
 Enable TTL compatible (low to enable)
 Clock Input
 (external sync) 3.3 to 5.5Vp-p @ 1MHz $\pm 10\%$
 Temperature
 Monitor Output 10 mV/ $^{\circ}$ K (2.73V = 0 $^{\circ}$ C)
 Current Monitor Output 0 to 1mA (1mA = 100% I_o Rated)

Special Features

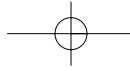
- High efficiency - up to 86%
- 500 KHz fixed frequency
- 100 $^{\circ}$ C baseplate operating temperature (with no derating)
- Low output ripple and noise
- Excellent transient response
- Safety isolated low voltage control and monitoring
- High reliability
- Wide input voltage range
- Parallelable with accurate current sharing
- Adjustable output voltage and current limit
- Regulation to zero load
- Temperature monitor output

Environmental

Storage temperature: -40 $^{\circ}$ C to +105 $^{\circ}$ C
 Overtemperature shutdown: 90 $^{\circ}$ C typical
 MTBF: > 1 million hours (50 $^{\circ}$ C baseplate)

Safety

UL	UL 1950	E182206 & E32002
CSA	CSA22.2-234 CSA22.2-950	LR53982C
VDE	IEC 950	20396-3336-1003 & 1009
EN	60950	
CE	CEMark (LVD)	



AMERICAS

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Facsimile: 760-930-0698

EUROPE

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West Midlands, DY5 1LX, UK
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Facsimile: 44 (1384) 843-355

ASIA

Units 2111-2116, Level 21
Tower1, Metroplaza
223, Hing Fong Road
Fwai Fong, New Territories
Hong Kong
Telephone: 852-2437-9662
Facsimile: 852-2402-4426



AL60A

Ordering Information

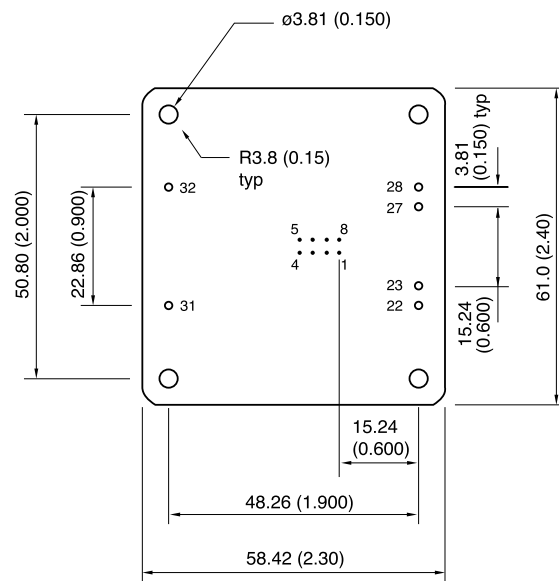
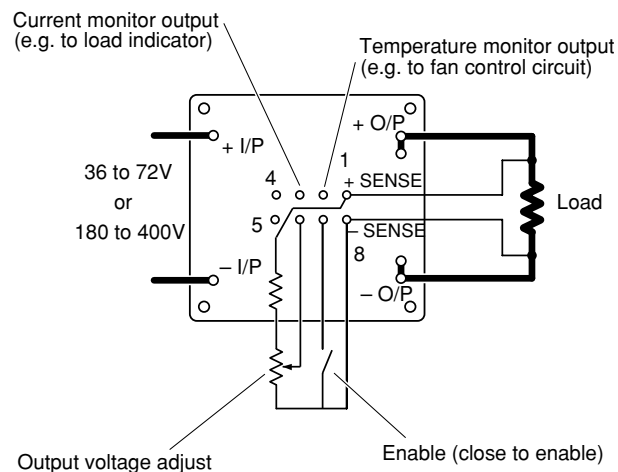
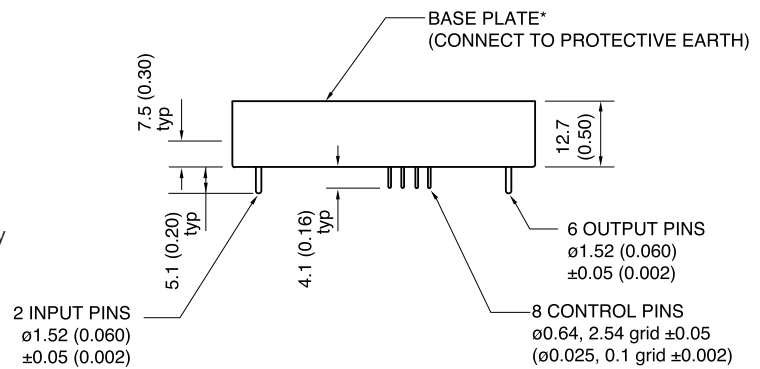
Input Voltage	Output Voltage	Output Current	Model Number	Input Voltage	Output Voltage	Output Current	Model Number
300V	2.0V	20A	AL60A-300L-020F20	48V	2.2V	30A	AL60A-048L-022F30
300V	3.3V	25A	AL60A-300L-033F25	48V	3.3V	25A	AL60A-048L-033F25
300V	5V	20A	AL60A-300L-050F20	48V	5V	10A	AL60A-048L-050F10
300V	12V	9A	AL60A-300L-120F09	48V	5V	20A	AL60A-048L-050F20
300V	15V	8A	AL60A-300L-150F08	48V	12V	6A	AL60A-048L-120F06
300V	24V	3A	AL60A-300L-240F03	48V	12V	9A	AL60A-048L-120F09
				48V	15V	8A	AL60A-048L-150F08

Please contact Astec for information on other output voltages, power ranges and configurations.

Pin Assignments

Input	Output	Control Pins
31. +ve	22. +ve	1. +SENSE
32. -ve	23. +ve	2. TEMP MON
	27. -ve	3. C MON
	28. -ve	4. C SHARE
		5. CLK IN
		6. V ADJ
		7. ENABLE
		8. -SENSE

Secondary side controls



Notes:

- All dimensions in mm and (inches)
- Baseplate must be connected to protective earth
- General tolerance: .X ±0.5 (0.02)
.XX ±0.25 (0.010)
- Surface Flatness: Concave 0.12mm max
Convex 0.38mm max

Astec Integrated Power