

Astec Integrated Power

240 Watts AK80A



Total Power: 240 Watts
Input Voltages: 24V
No. of Outputs: Single

Electrical Specs

Input

Input Range 18 to 36 VDC
Efficiency 83% typical @ 5V;
 87% typical @ 12V;
 87% typical @ 15V

Output

Load Regulation 0.3% typical down to no load
Line Regulation 0.1% typical
Noise/Ripple 100 mV typical (output below 5V)
 2% typical (output 5V and over)
Remote sense Up to 0.5V
Output Voltage
Adjust Range $\pm 10\%$ of nominal output
Transient Response 10% typical deviation with 300 μ s recovery (25-75% full load)
Current Share Accuracy 5% typical
Overvoltage Protection 130% nominal V_o
Current Limit 115% I_o max

Control

Voltage Adjust 90 to 110% V_o
Enable TTL compatible (low to enable)
Current Limit Adjust 20 to 100% I_o rated
Clock Input
(external sync) 3.5 to 5Vp-p @ 1MHz $\pm 10\%$
Clock Output
(internal clock) 4.4 to 5.5Vp-p @ 1MHz $\pm 0.5\%$
Power
Good/Identification High (V_o) = power good
Temperature
Monitor Output 10 mV/ $^{\circ}$ K (2.73V = 0 $^{\circ}$ C)

Notes

Nominal values apply with sense pins connected and other control pins unconnected.

Specifications subject to change without notice.

Special Features

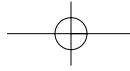
- High efficiency - up to 87%
- 500 KHz fixed frequency
- 85 $^{\circ}$ C baseplate operating temperature (with no derating)
- Low output ripple and noise
- Excellent transient response
- High reliability - over 1 million hours MTBF
- Wide input voltage range
- TTL compatible enable control
- Parallelable
- Adjustable output voltage and current limit
- Temperature monitor output
- Overtemperature and short circuit protection
- Regulation to zero load

Environmental

Operating temperature (baseplate):
 0 $^{\circ}$ C to +85 $^{\circ}$ C
Storage temperature: -40 $^{\circ}$ C to +105 $^{\circ}$ C
Overtemperature protection: 90 $^{\circ}$ C typical
MTBF: > 1 million hours (50 $^{\circ}$ C baseplate)

Safety

UL UL 1950 E132002
CSA CSA22.2-234 LR53982C
 CSA22.2-950
VDE IEC950 20366-3336-1002 & 1008
EN 60950
CE CEMark (LVD)



AMERICAS

5810 Van Allen Way
Carlsbad, CA 92008
Telephone: 760-930-4600
Facsimile: 760-930-0698

EUROPE

Astec House, Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX, UK
Telephone: 44 (1384) 842-211
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



AK80A

Ordering Information

Input Voltage	Output Voltage	Output Current	Model Number
24V	3.3V	40A	AK80A-024L-033F40
24V	5V	30A	AK80A-024L-050F30
24V	12V	14A	AK80A-024L-120F14
24V	15V	12A	AK80A-024L-150F12
24V	24V	8A	AK80A-024L-240F08

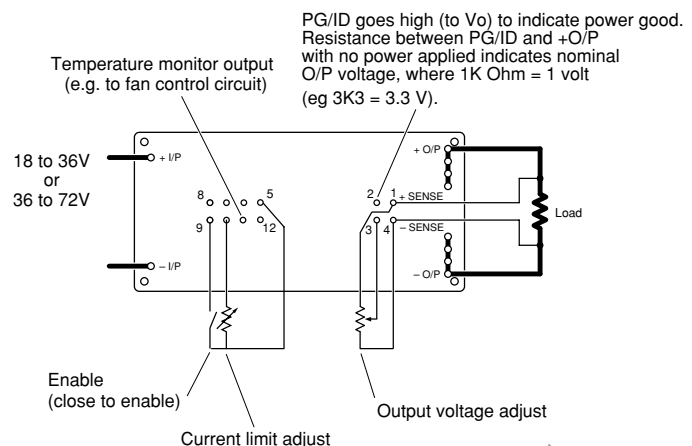
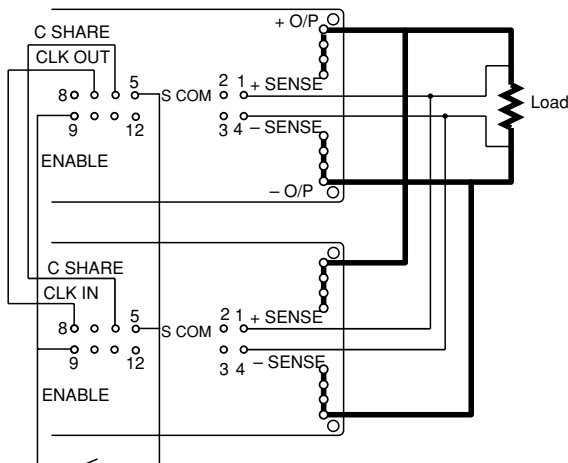
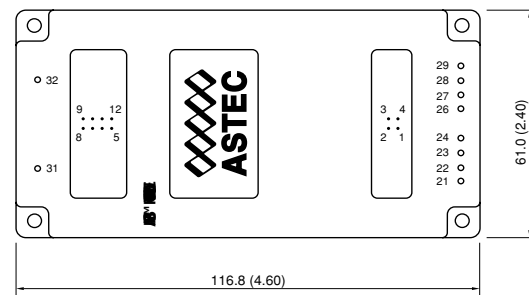
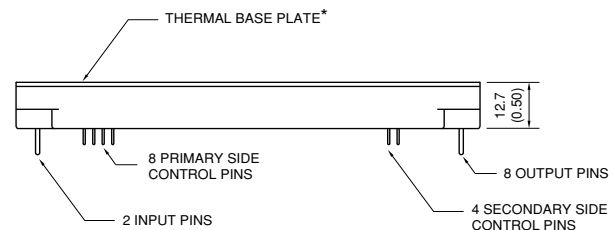
Please contact Astec for information on other output voltages, power ranges and configurations.

Pin Assignments

Input	Output	Control Pins
31. +ve	21. +ve	1. +SENSE
32. -ve	22. +ve	2. PG/ID
	23. +ve	3. V ADJ
	24. +ve	4. -SENSE
	26. -ve	5. S COM
	27. -ve	6. C SHARE
	28. -ve	7. CLK OUT
	29. -ve	8. CLK IN
		9. ENABLE
		10. C LIM ADJ
		11. TEMP MON
		12. PRI AUX

Secondary side controls

Primary side controls



Astec Integrated Power