

240 Watts

AK80A

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



Special Features

- High efficiency - up to 87%
- 500 KHz fixed frequency
- 85°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°C to +85°C
 Storage temperature: -40°C to +105°C
 Overtemperature protection: 90°C typical
 MTBF: > 1 million hours (50°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)	

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) Up to 0.5V
Remote sense	
Output Voltage	±10% of nominal output
Adjust Range	10% typical deviation with 300µs recovery (25-75% full load)
Transient Response	5% typical
Current Share Accuracy	130% nominal Vo
Overvoltage Protection	115% Io max
Current Limit	

Control

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

Notes

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

Specifications subject to change without notice.

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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

