

15 Watts

AK42A Dual

Total Power: 15 Watts
Input Voltages: 48V, 24 VDC
No. of Outputs: Dual



Special Features

- Surface mount
- High power density 15W/Cu. in.
- Full power capability without external heat sink
- Input differential and common mode filtering
- Hot insertable with inrush current limit
- Ability to limit inrush current in an external input capacitor
- Input undervoltage lockout with hysteresis
- Output overvoltage protection
- Remote shutdown
- Loadsharing on dual outputs

Environmental

Operating ambient temperature range:
 -40 to +75° C (no derating)
 Cooling method: Convection
 MTBF: 7.5 Mhrs
 Storage temperature: -55 to +125 C

Safety

UL 1950
 IEC 950
 CSA C22.2-9.50
 CB 52719-106

Electrical Specs

Input

Input Range: 36 to 75 VDC for 48V
 18 to 36 VDC for 24V

Maximum Inrush Current Limit: 1.0 A Max.

Maximum External Capacitor to Limit Inrush Current to 1.0 A: 4.0mF

Low Input Shutdown: 34.0 +/- 2.0 V for 48V
 17.0V +/- 1.0V for 24V

Auto Recovery: 37.0V +/- 2.0 V for 48V
 18.5V +/- 1.0 V for 24V

Hysteresis: 3 V +/- 1 V for 48V
 1.5V +/- 0.5V for 24V

Efficiency: 85%

Enable: Open Circuit or up to 0.5V max.

Disable: 4V min., 75V max.

Output

Voltage Tolerance: ± 3% for single output
 ± 5% for dual output

Noise/Ripple: 75mV rms max.

Output Voltage Adjust Range: ±10% for single output
 dual output non adjustable

Output Voltage Protection: Self-limiting Clamp, 140% max.

Short Circuit Protection: Continuous Auto Start

Switching Frequency: 200kHz nominal

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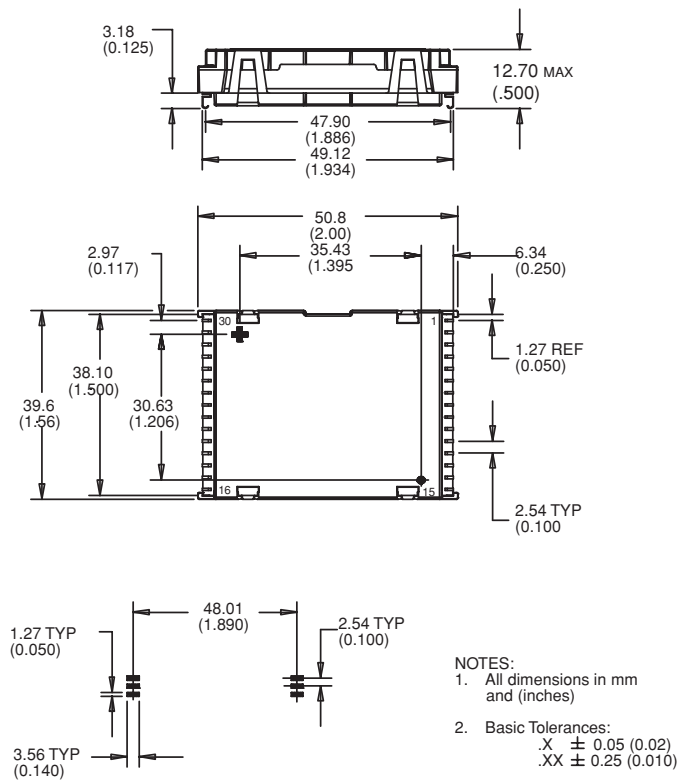
Ordering Information

Input Voltage	Output 1 Voltage	Output 2 Voltage	Maximum Power	Model Number
Dual Output- 15 Watts Total Output Power				
18-36	3.3V	2.5V	13.2W/10W	AK42A-024L-033D025SM
18-36	5V	3.3V	15W/13.2W	AK42A-024L-050D033SM
36-75	3.3V	2.5V	13.2W/10W	AK42A-048L-033D025SM
36-75	5V	3.3V	15W/13.2W	AK42A-048L-050D033SM

Pin Assignments

Dual Output

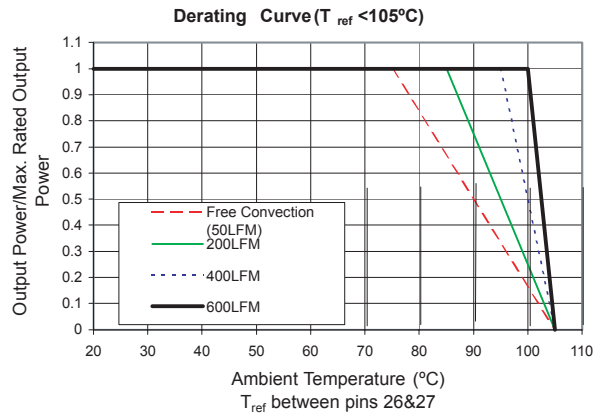
1. NC
2. V out 1
3. V out 1
4. V out 1
5. V out 1
6. V out 2
7. V out 2
8. V out 2
9. V out 2
10. GND
11. GND
12. GND
13. GND
14. GND
15. Reserved
16. +V in
17. +V in
18. CAP
19. CAP Inrush - consult TRN
20. CAP Inrush - consult TRN
21. CAP Inrush - consult TRN
22. CAP Inrush - consult TRN
23. CAP Inrush - consult TRN
24. CAP Inrush - consult TRN
25. CAP Inrush - consult TRN
26. Reserved / NC
27. Shutdown
28. -V in
29. -V in
30. -V in



Maximum Weight: Dual Output: 30 grams

Notes:

1. All specifications are typical at nominal input and full load unless otherwise noted.
2. Specification subject to change without notice.
3. Mechanical drawings for reference only.
4. Minimum Load: 0.2 A (min 15%).
5. Max. Capacitive Load: 330 m.
6. Warranty: 1 yr



AK42A

Astec Conventional Power