

# 15 Watts

## AK40A

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



### 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 24 V
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

### 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

### 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

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AK40A

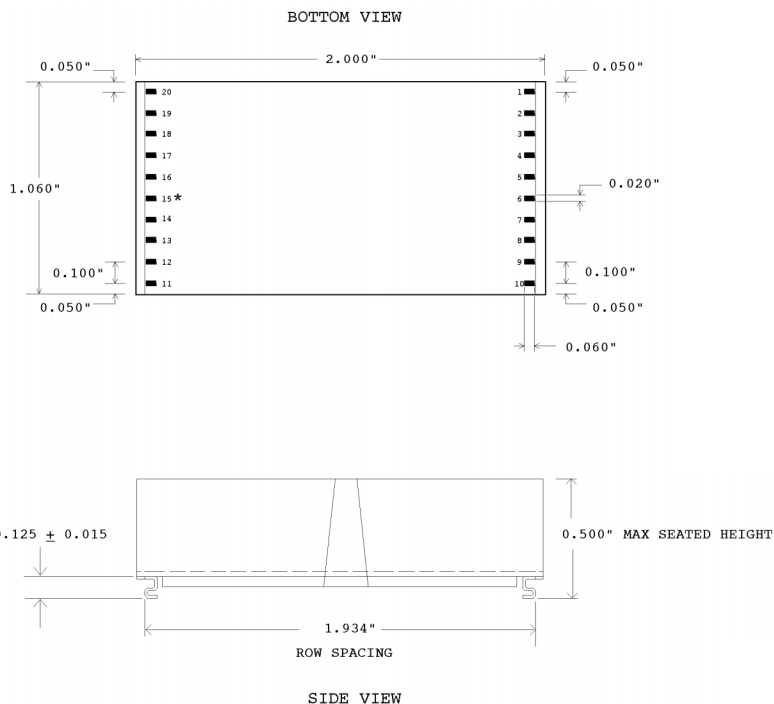
## Ordering Information

Input Voltage	Output 1 Voltage	Maximum Power	Model Number
18-36	1.5V @ 4A	6W	AK40A-024L-015F04SM
18-36	1.8V @ 4A	7.2W	AK40A-024L-018F04SM
18-36	2.1V @ 4A	8.2W	AK40A-024L-021F04SM
18-36	2.5V @ 4A	12W	AK40A-024L-025F04SM
18-36	3.3V @ 4A	13.2W	AK40A-024L-033F04SM
18-36	5.0V @ 3A	15W	AK40A-024L-050F03SM
18-36	12V @ 1.25A	15W	AK40A-024L-120F01SM
36-75	1.5V @ 4A	6W	AK40A-048L-015F04SM
36-75	1.8V @ 4A	7.2W	AK40A-048L-018F04SM
36-75	2.1V @ 4A	8.2W	AK40A-048L-021F04SM
36-75	2.5V @ 4A	12W	AK40A-048L-025F04SM
36-75	3.3V @ 4A	13.2W	AK40A-048L-033F04SM
36-75	5.0V @ 3A	15W	AK40A-048L-050F03SM
36-75	12V @ 1.25A	15W	AK40A-048L-120F01SM

## Pin Assignments

### Single Output

1. +Vout
2. +Vout
3. +Vout
4. +Vout
5. -Vout
6. -Vout
7. -V out
8. -Vout
9. Reserved
10. Adjust
11. Reserved
12. Reserved
13. Reserved
14. Reserved
15. Reserved
16. Reserved
17. +Vin
18. Shutdown
19. -Vin
20. Reserved



### 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 mF
6. Warranty: 1 yr

Dimensions: Single Output: 1"W x 2"L x 0.5"H  
 Maximum Weight: Single Output: 20 grams

Astec Conventional Power