

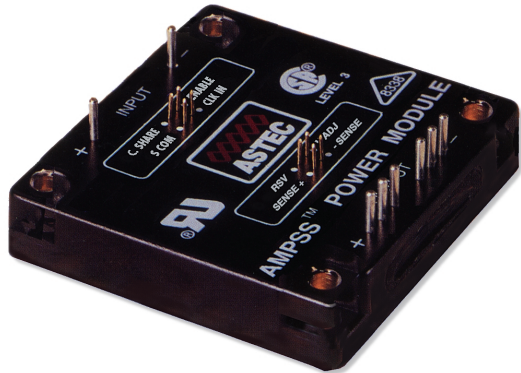


**THE DATASHEET OF  
AK60A-024L-240F04G**



# 100 Watts AK60A

**Total Power:** 100 Watts  
**Input Voltages:** 24V  
**No. of Outputs:** Single



## Electrical Specs

### Input

Input Range 18 to 36 VDC  
 Efficiency 83% typical (5V @ 20A)  
 88% typical (12V @ 8.3A)

### Output

Load Regulation 0.2% typical  
 Line Regulation 0.2% typical  
 Noise/Ripple 150 mV typical (output below 5V)  
 3% typical (output 5V and over)  
 Remote sense Up to 0.5V  
 Output Voltage Adjust Range ±10% of nominal output  
 Transient Response 10% max deviation with (25-75% full load) 500µs (max) recovery  
 Overvoltage Protection 130% nominal Vo  
 160% nominal Vo (2.2V)  
 140% nominal Vo (3.3V)  
 Current Limit 115% Io max

### Control

Voltage Adjust Enable 90 to 110% Vo  
 TTL compatible (low to enable)

## Special Features

- High efficiency - up to 88%
- 500 KHz Fixed frequency
- 100°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
- Adjustable output voltage
- Overtemperature and short circuit protection

## Environmental

Operating temperature (baseplate): -40°C to +100°C  
 Storage temperature: -55°C to +105°C  
 Overtemperature protection: 110°C typical  
 MTBF: > 1 million hours (50°C baseplate)

## Safety

|            |                            |          |
|------------|----------------------------|----------|
| <b>UL</b>  | UL 1950                    | E182206  |
| <b>CSA</b> | CSA22.2-234<br>CSA22.2-950 | LR53982C |
| <b>VDE</b> | IEC950                     |          |
| <b>EN</b>  | 60950                      |          |
| <b>CE</b>  | CEMark (LVD)               |          |

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AK60A

**Ordering Information**

| Input Voltage | Output Voltage | Output Current | Model Number       |
|---------------|----------------|----------------|--------------------|
| 24V           | 2.2V           | 20A            | AK60A-024L-022F20G |
| 24V           | 3.3            | 20A            | AK60A-024L-033F20G |
| 24V           | 5V             | 20A            | AK60A-024L-050F20G |
| 24V           | 12V            | 8.3A           | AK60A-024L-120F08G |
| 24V           | 15V            | 6.7A           | AK60A-024L-150F07G |
| 24V           | 24V            | 4.2A           | AK60A-024L-240F04G |

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

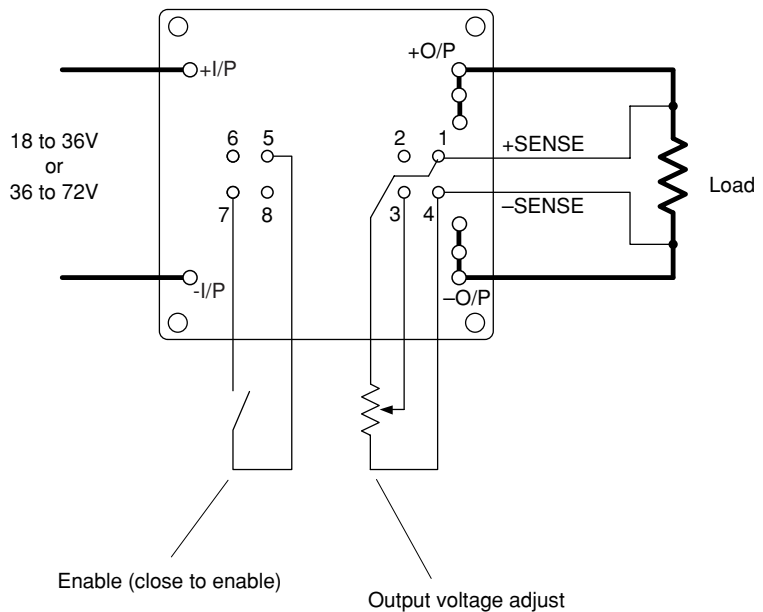
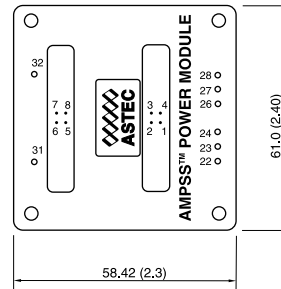
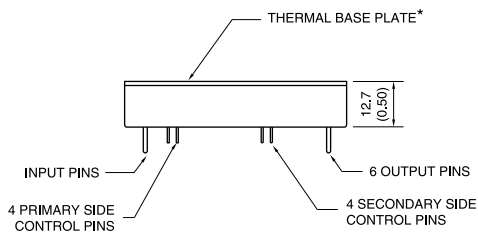
**Pin Assignments**

| Input   | Output  | Control Pins |
|---------|---------|--------------|
| 31. +ve | 22. +ve | 1. +SENSE    |
| 32. -ve | 23. +ve | 2. RSV       |
|         | 24. +ve | 3. V ADJ     |
|         | 26. -ve | 4. -SENSE    |
|         | 27. -ve | 5. S COM     |
|         | 28. -ve | 6. C.Share   |
|         |         | 7. ENABLE    |
|         |         | 8. CLK IN    |

**Notes:**

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

Specifications subject to change without notice.



Astec Integrated Power

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