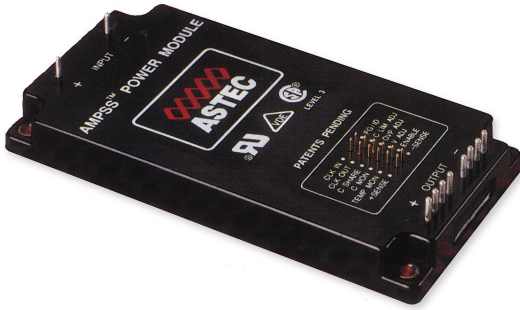


# 300 Watts BM80A

**Total Power:** 300 Watts  
**Input Voltages:** 48V or 300V  
**No. of Outputs:** Single



## Special Features

- 300W Continuous power at 85°C baseplate temperature
- 54W/in<sup>3</sup> (3.3W/cm<sup>3</sup>)
- High efficiency - 83% at full rated output
- 1MHz Fixed frequency
- Low output ripple and noise
- Excellent transient response
- Safety isolated low voltage interface with ALPTM linear control
- High reliability - over 1 million hours MTBF
- Wide input voltage range
- Parallelable with accurate current sharing

## Environmental

Operating temperature (baseplate):  
-20°C to +85°C

Storage temperature: -40°C to +105°C

Overtemperature protection: 90°C typical

MTBF: > 1 million hours (50°C baseplate)

## Safety

ULUL 1950

CSA CSA22.2-234 E132002

CSA22.2-950 LR53982C

VDE IEC950 20396-3336-1005 & 1006

EN60950

CECEMark (LVD)

## Electrical Specs

### Input

Input Range 180 to 400 VDC or 36 to 72 VDC  
Efficiency 83% typical (5V @ 60A)

### Control

Voltage Adjust 80 to 120% V<sub>o</sub>  
Enable TTL compatible (low to enable)  
Current Limit Adjust 20 to 100% I<sub>o</sub>  
Clock Input (external sync) 3.3 to 5.5Vp-p @ 1MHz ± 10%  
Clock Output (internal clock) 4.5Vp-p typical @ 1MHz ± 0.5%  
Power Good/Identification High (V<sub>o</sub>) = power good.  
Temperature  
Monitor Output 10 mV/°K (2.73V = 0°C)  
Current Monitor Output 0 to 1mA (1 mA = 100% I<sub>o</sub> rated)  
Over Voltage  
Protection Adjust 110 to 150% V<sub>o</sub> linear programming

### Output

Load Regulation 0.1% typical down to no load  
Line Regulation 0.02% typical  
Noise/Ripple 50mV typical  
Remote sense Up to 0.5V  
Output Voltage  
Adjust Range ±20% of nominal output  
Transient Response 3% typical deviation with 250µs recovery (25-75% full load)  
Current Share Accuracy 3% typical  
Overvoltage Protection 115% V<sub>o</sub> (nominal)  
Current Limit 110% I<sub>o</sub> max

### Notes

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

Specifications subject to change without notice.

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(0)1384-842211  
 Facsimile: +44(0)1384-843355

ASIA

Units 2111-2116, Level 21  
 Tower 1, Metroplaza  
 223, Hing Fong Road  
 Fwai Fong, New Territories  
 Hong Kong  
 Telephone: 852-2437-9662  
 Facsimile: 852-2402-4426



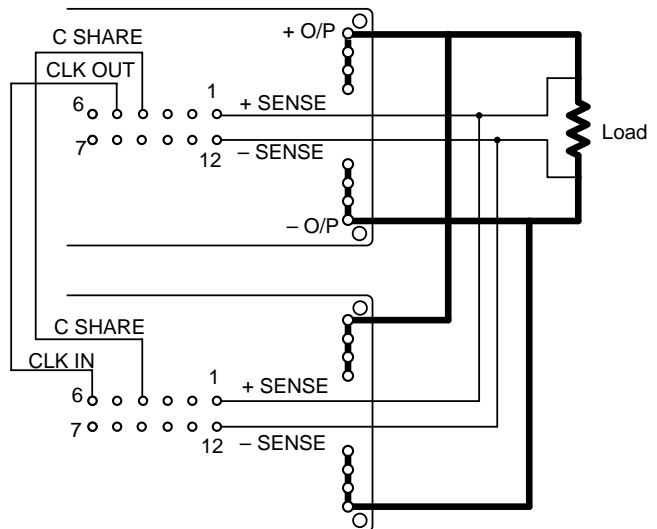
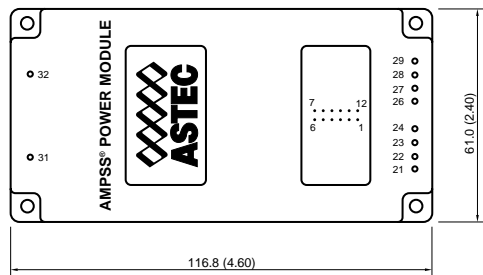
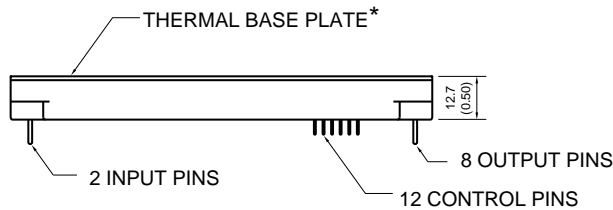
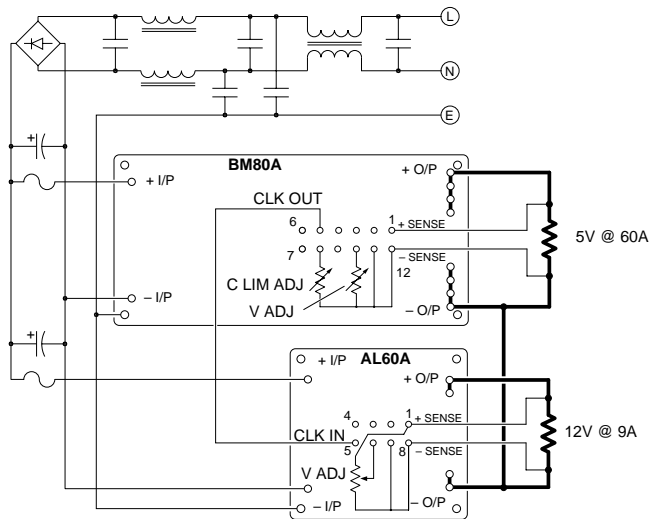
BM80A

Ordering Information

Input Voltage	Output Voltage	Output Current	Model Number	Input Voltage	Output Voltage	Output Current	Model Number
300V	5V	60A	BM80A-300L-050F60	48V	5V	60A	BM80A-048L-050F60
300V	3.3V	70A	BM80A-300L-033F70	48V	3.3V	70A	BM80A-048L-033F70
300V	2.2V	75A	BM80A-300L-022F75				
300V	2.2V	85A	BM80A-300L-022F85				
300V	3.3V	90A	BM80A-300L-033F90				

Pin Assignments

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



Parallel Connections

Dimensions

Connection example for a 400W dual output power supply using BM80A 300W and AL60A 100W modules

Astec Integrated Power