

BM80A

300 WATTS

BM80A High Power Performance Series

Total Power	300 Watts
Input Voltages	48V or 300V
# of Outputs	Single



SPECIAL FEATURES

- 300W continuous power at 85°C baseplate temperature
- 54W/in³ (3.3W/cm³)
- High Efficiency - 83% at full rated output
- 1MHz fixed frequency
- Low output ripple and noise
- Excellent transient response
- Safety isolated low voltage interface with ALP™ 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

- UL** UL 1950
- CSA** CSA22.2-234 E132002
CSA22.2-950 LR53982C
- VDE** IEC95020396-3336-1005 & 1006
- EN** 60950
- CE** CEMark (LVD)

ELECTRICAL SPECIFICATIONS

Input

Input Range 180 to 400 VDC or 40 to 72 VDC

Efficiency 83% typical (5V @ 60A)

Control

Voltage Adjust 80 to 120% Vo

Enable TTL compatible (low to enable)

Current Limit Adjust 20 to 100% Io

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 (Vo) = power good.

Temperature Monitor Output ... 10 mV/°K (2.73V = 0°C)

Current Monitor Output 0 to 1mA (1 mA = 100% Io)

Over Voltage

Protection Adjust 110 to 150% Vo 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% Vo (nominal)

Current Limit 110% Io max

NOTES

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

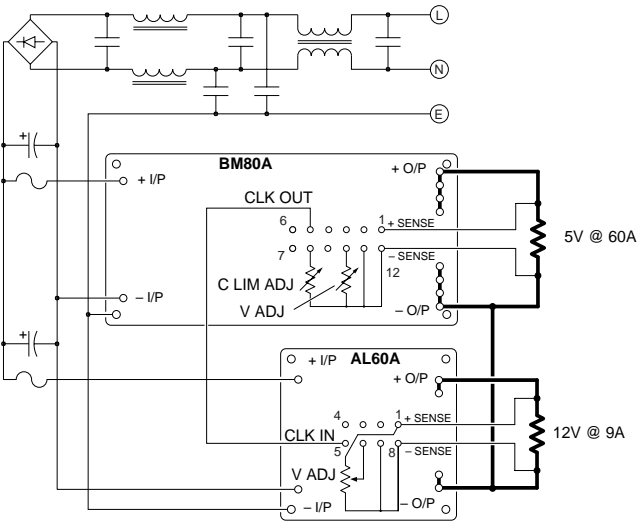
Specifications subject to change without notice.

ORDERING INFORMATION

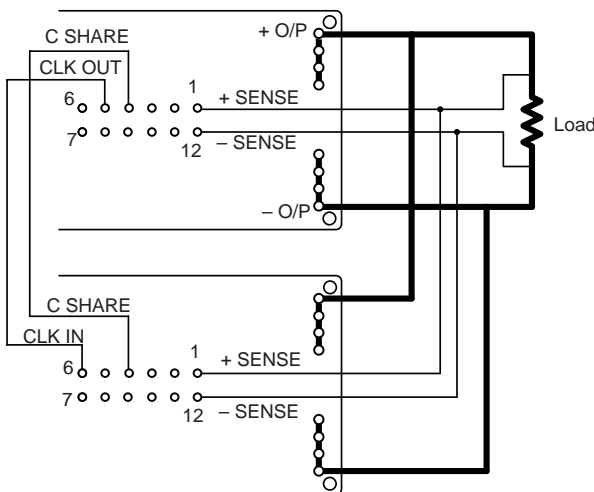
Input Voltage	Output Voltage	Output Current	Model Number	Input Voltage	Output Voltage	Output Current	Model Number
300V	5V	60A	BM80A-300L-050F60	48V	5V	60A	BM80A-048L-050F60
300V	3.3V	70A	BM80A-300L-033F70	48V	3.3V	70A	BM80A-048L-033F70
300V	2.2V	75A	BM80A-300L-022F75				
300V	2.2V	85A	BM80A-300L-022F85				

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

CONNECTIONS



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

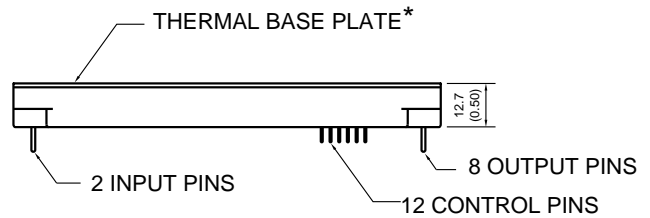


Parallel connections

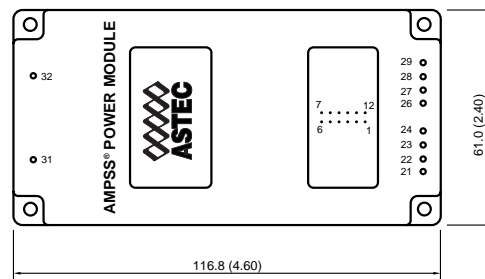
PIN ASSIGNMENTS

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

DIMENSIONS



*Must be connected to protective earth



Viewed from pins side. Dimensions in mm (inches)