

AM80A

240 WATTS



AM80A Performance Series

Total Power	240 Watts
Input Voltages	24V or 48V or 150V or 300V
# of Outputs	Single

SPECIAL FEATURES

- High Efficiency - up to 88%
- 1MHz fixed frequency
- 100°C baseplate operating temperature - no derating
- 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
- Current and temperature monitoring outputs

ENVIRONMENTAL

Operating Temperature (baseplate):
-20°C to +100°C

Storage Temperature: -40°C to +105°C

Overtemperature Protection: 110°C typical

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

SAFETY

UL UL 1950 E132002

CSA CSA22.2-234 LR53982C
CSA22.2-950

VDE IED95020396-3336-1005 & 1006

EN 60950

CE CEMark (LVD)

NOTES

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

Specifications subject to change without notice.

ELECTRICAL SPECIFICATIONS

Input

Input Range 18 - 36V or 36 - 72 VDC
or 90 - 200 VDC or 180 - 400 VDC

Efficiency 84% typical (5V @ 40A)
87% typical (12V @ 18A)

Control

Voltage Adjust 80 to 120% Vo linear programming

Enable TTL compatible (low to enable)

Current Limit Adjust 20 to 100% Io linear programming

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 by
voltage or resistor

Output

Load Regulation 0.1% typical down to no load

Line Regulation 0.02% typical

Noise/Ripple 50 mV typical (output below 5V)
1% typical (output 5V and over)

Remote sense Up to 0.5V

Output Voltage Adjust Range .. ±20% of nominal

Transient Response 3% typical deviation with 300µs recovery
(25-75% full load)

Current Share Accuracy 3% typical

Overvoltage Protection 115% Vo (nominal)

Current Limit 110% Io maximum

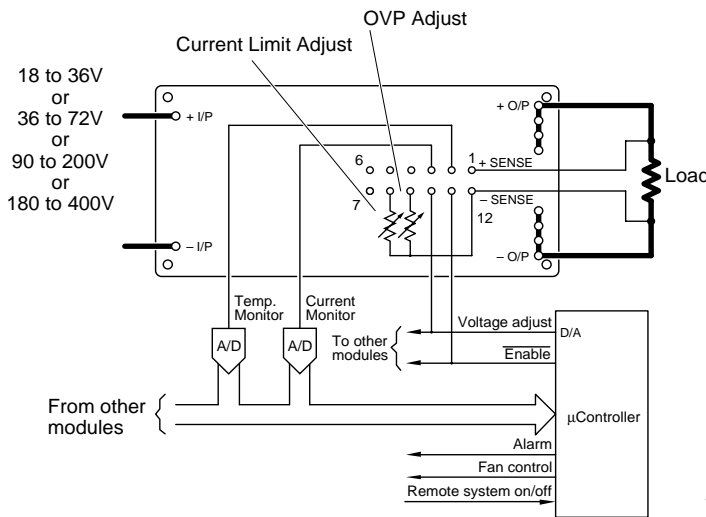
ORDERING INFORMATION

Input Voltage	Output Voltage	Output Current	Model Number	Input Voltage	Output Voltage	Output Current	Model Number
300V	2.2V	60A	AM80A-300L-022F60	150V	6.5V	33A	AM80A-150L-065F33
300V	3.3V	50A	AM80A-300L-033F50	48V	1.2V	60A	AM80A-048L-012F60
300V	5V	40A	AM80A-300L-050F40	48V	2.2V	60A	AM80A-048L-022F60
300V	6.5V	33A	AM80A-300L-065F33	48V	3.3V	50A	AM80A-048L-033F50
300V	12V	18A	AM80A-300L-120F18	48V	5V	40A	AM80A-048L-050F40
300V	15V	16A	AM80A-300L-150F16	48V	12V	18A	AM80A-048L-120F18
300V	24V	10A	AM80A-300L-240F10	48V	15V	16A	AM80A-048L-150F16
300V	28V	9A	AM80A-300L-280F09	48V	24V	10A	AM80A-048L-240F10
320V	28V	9A	AM80A-320L-280F09**	24V	6.5V	27A	AM80A-024L-065F27

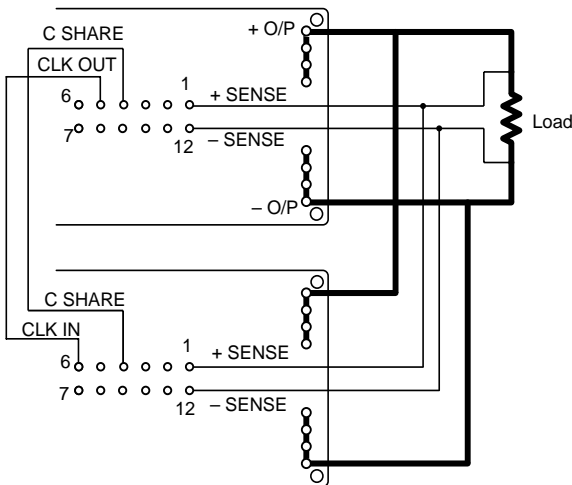
** (Max efficiency when used with the AMPSS® PFC module)

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

CONNECTIONS



Microprocessor connection example



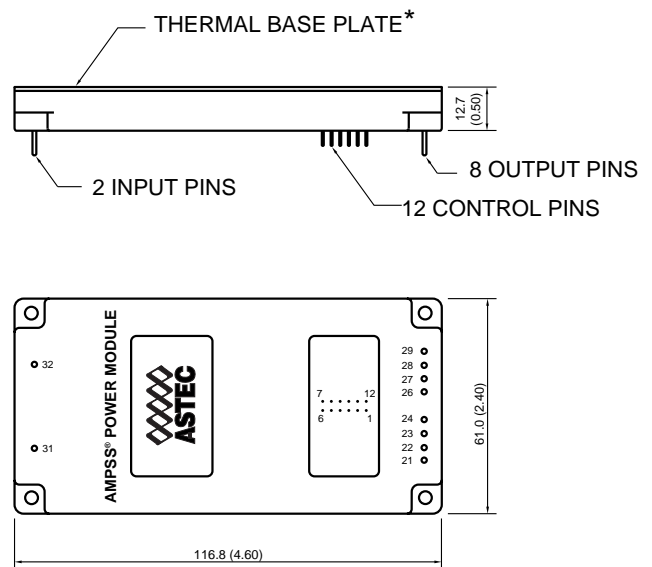
Parallel connections

PIN ASSIGNMENTS

Input	Output	Control Pins
31. +ve	21. } +ve	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

Secondary side controls

DIMENSIONS



*Must be connected to protective earth

Viewed from pins side. Dimensions in mm (inches)