

AL80A

240 Watts

AL80A Enhanced Series

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

SPECIAL FEATURES

- High Efficiency - up to 86%
- 500 KHz fixed frequency
- 85°C baseplate operating temperature (with no derating)
- Low output ripple and noise
- Excellent transient response
- Safety isolated low voltage control and monitoring
- High Reliability
- Wide input voltage range
- Parallelable with accurate current sharing
- Adjustable output voltage and current limit
- Current and temperature monitoring outputs
- Regulation to zero load

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	E132002
CSA	CSA22.2-234	LR53982C
	CSA22.2-950	
VDE	IEC950	20396-3336-1004 & 1010
EN	60950	
CE	CEMark (LVD)	



ELECTRICAL SPECIFICATIONS

Input

Input Range 180 to 400 VDC or 36 to 72 VDC

Efficiency 82% typical (5V @ 40A);
86% typical (12V @ 18A)

Control

Voltage Adjust 90 to 110% V_o

Enable TTL compatible (low to enable)

Current Limit Adjust 20% to 100% I_o

Clock Input (external sync) ... 3.3 to 5.5Vp-p @ 1MHz $\pm$ 10%

Clock Output (internal clock) . 4.5Vp-p typical @ 1MHz $\pm$ 0.5%

Power Good/Identification High (V_o) = power good

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

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

Output

Load Regulation 0.2% typical down to no load

Line Regulation 0.1% typical

Noise/Ripple 100 mV typical (output below 5V)
2% typical (output 5V and over)

Remote Sense Up to 0.5V

Output Voltage

Adjust Range $\pm$ 10% of nominal output

Transient Response 3% typical deviation with 200 μ s recovery
(25-75% full load)

Current Share Accuracy 3% typical

Overvoltage Protection 125% nominal V_o

Current Limit 110% I_o typical max

NOTES

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

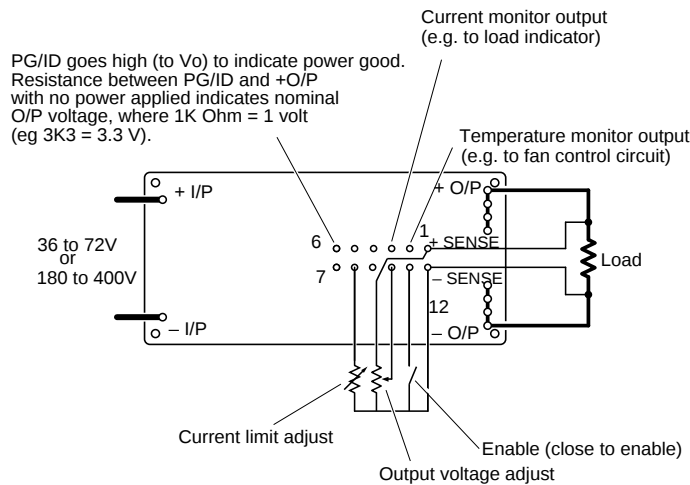
Specifications subject to change without notice.

ORDERING INFORMATION

Input Voltage	Output Voltage	Output Current	Model Number	Input Voltage	Output Voltage	Output Current	Model Number
300V	2.0V	60A	AL80A-300L-020F60	300V	12V	18A	AL80A-300L-120F18
300V	3.3V	50A	AL80A-300L-033F50	300V	15V	16A	AL80A-300L-150F16
300V	5V	40A	AL80A-300L-050F40	48V	5V	40A	AL80A-048L-050F40
300V	6.3V	34A	AL80A-300L-063F34				

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

CONNECTIONS



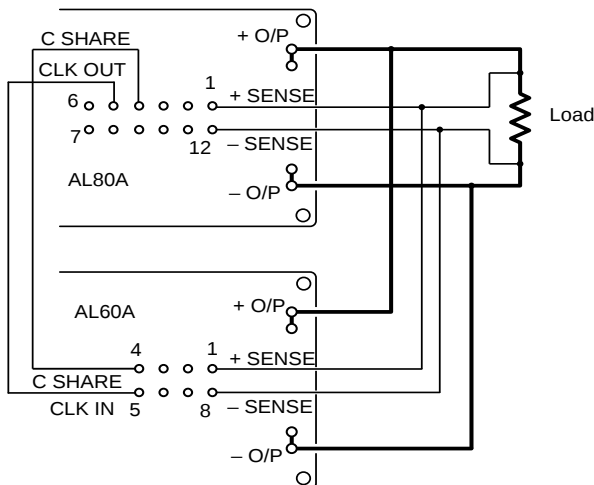
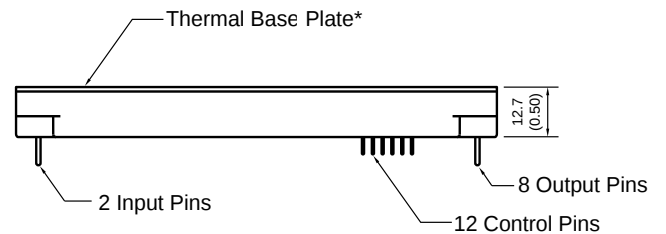
Connection example

PIN ASSIGNMENT

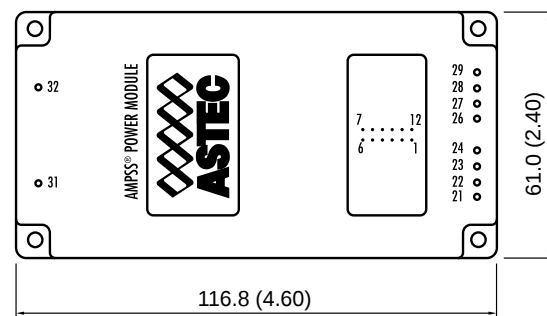
Input	Output	Control Pins
31. +ve 32. -ve	21. } 22. } +ve 23. } 24. } 26. } 27. } -ve 28. } 29. }	1. +SENSE 2. TEMP MON 3. C MON 4. C SHARE 5. CLK OUT 6. CLK IN 7. PG/ID 8. C LIM ADJ 9. RSV (Reserved) 10. V ADJ 11. ENABLE 12. -SENSE

Secondary side controls

DIMENSIONS



Parallel connections



Viewed from pins side. Dimensions in mm (inches)