



**ELECTRICAL SPECIFICATIONS**

Input	
Input range	250 to 420 VDC
Input surge	450 V / 100 ms
Efficiency	90% @ 5.0 V (Typical)
Output	
Load regulation	0.2% typical down to no load
Line regulation	0.2% typical
Noise ripple	100 mV typical (below 5 V); 2% typical (5 V and above)
Remote sense	Up to 0.5 V
Output voltage adjust range	+/-20% for 5 V and above; +10%/-50% for below 5 V
Transient response	5% max for 3.3 V and above, 150 mV for 1.8 V , deviation with 25% to 75% full load 250 $\mu$ S (max) recovery
Current share accuracy	3% typical
Overvoltage protection	115% Vo (nominal)
Current limit	115% Io maximum
Isolation	
Voltage adjust	80 to 120% Vo linear programming for 12 V, 15 V, 24 V, 48 V. 50% to 110% for 1.8 V to 5.0 V
Enable	TTL compatible (positive & negative enable options)
Current limit adjust	20 to 100% Io linear programming or digital mode control
Clock input (external sync)	3.3 to 5.5 Vp-p @ 800 KHz $\pm$ 10%
Clock output (internal clock)	4.5 Vp-p typical@ 800 KHz $\pm$ 5%
Power good identification	High (Vo) = power good
Temperature monitor output	10 mV/ $^{\circ}$ K (2.73 = 0 $^{\circ}$ C)
Current monitor output	0 to 1 mA (1 mA = 100% Io rated)
Overvoltage protection adjust	110 to 150% Vo linear programming by voltage or resistor, or digital mode control

Notes: Nominal values apply with sense pins connected and other control pin unconnected.  
ALP: Astec Linear Programming

**ENVIRONMENTAL SPECIFICATIONS**

Operating temperature	-20 $^{\circ}$ C to +100 $^{\circ}$ C (case temperature)
Start up temperature	-40 $^{\circ}$ C to +100 $^{\circ}$ C (case temperature)
Storage temperature	-40 $^{\circ}$ C to +125 $^{\circ}$ C
Overtemperature protection	110 $^{\circ}$ C max

## ORDERING INFORMATION

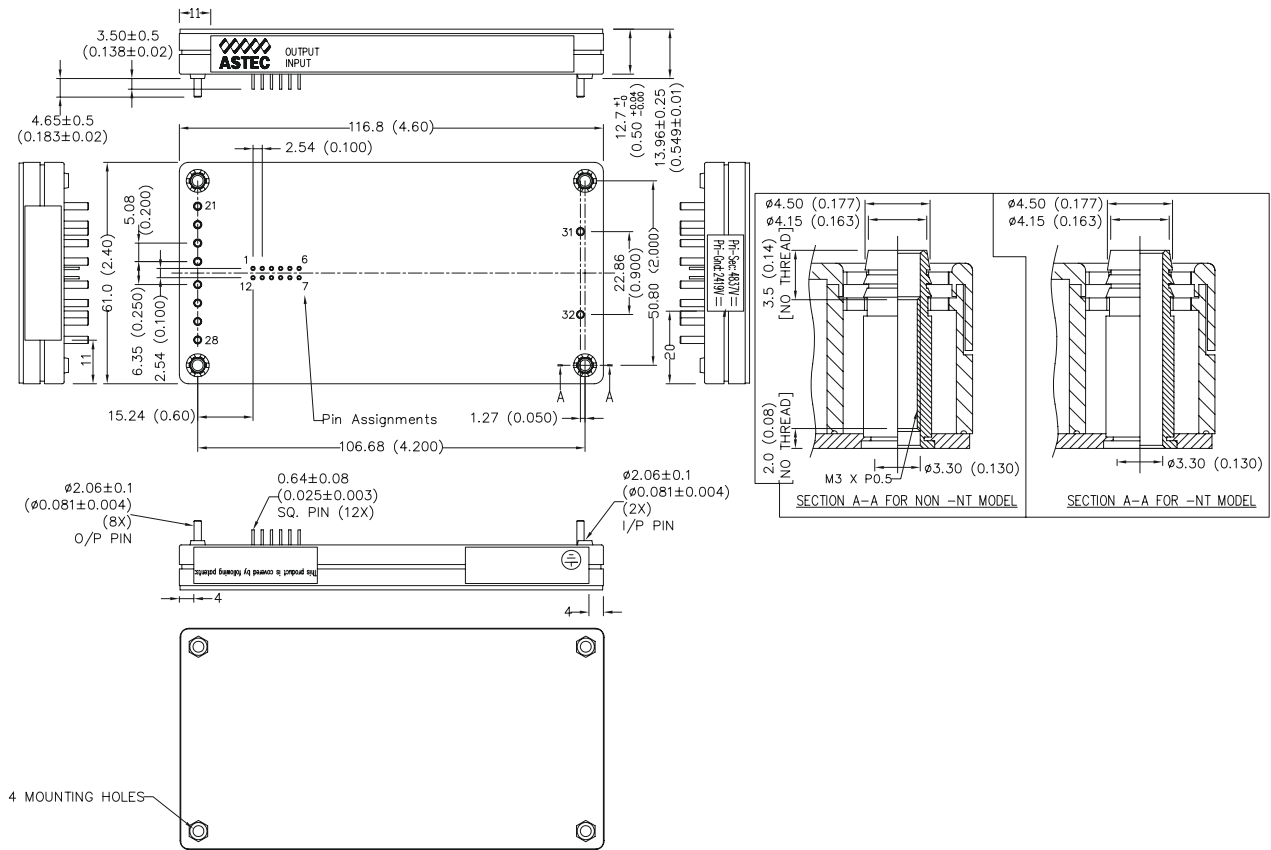
Input Voltage	Output Voltage	Efficiency	Model Number
300 VDC	1.8 V @ 120 A	80% (Typ)	AIF120Y300 *-**L
300 VDC	3.3 V @ 120 A	87% (Typ)	AIF120F300 *-**L
300 VDC	5.0 V @ 80 A	90% (Typ)	AIF80A300 *-**L
300 VDC	12 V @ 50 A	90% (Typ)	AIF50B300 *-**L
300 VDC	15 V @ 40 A	90% (Typ)	AIF40C300 *-**L
300 VDC	24 V @ 25 A	90% (Typ)	AIF25H300 *-**L

1. For Negative enable, add suffix "-N".
2. For Non-thread hole, add suffix "-NT".
3. For RoHS 6, add suffix "-L".

## PIN ASSIGNMENTS

Input (DC)	Output (DC)	Control Pins
31. Positive	21. Positive	1. +Sense
32. Negative	22. Positive	2. Temp Mon
	23. Positive	3. C Mon
	24. Positive	4. C Share
	25. Negative	5. Clk Out
	26. Negative	6. Clk In
	27. Negative	7. PG/ID
	28. Negative	8. C Lim Adj
		9. OVP Adj
		10. V Adj
		11. Enable
		12. -Sense

MECHANICAL DRAWINGS





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## ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

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