

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 μ 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

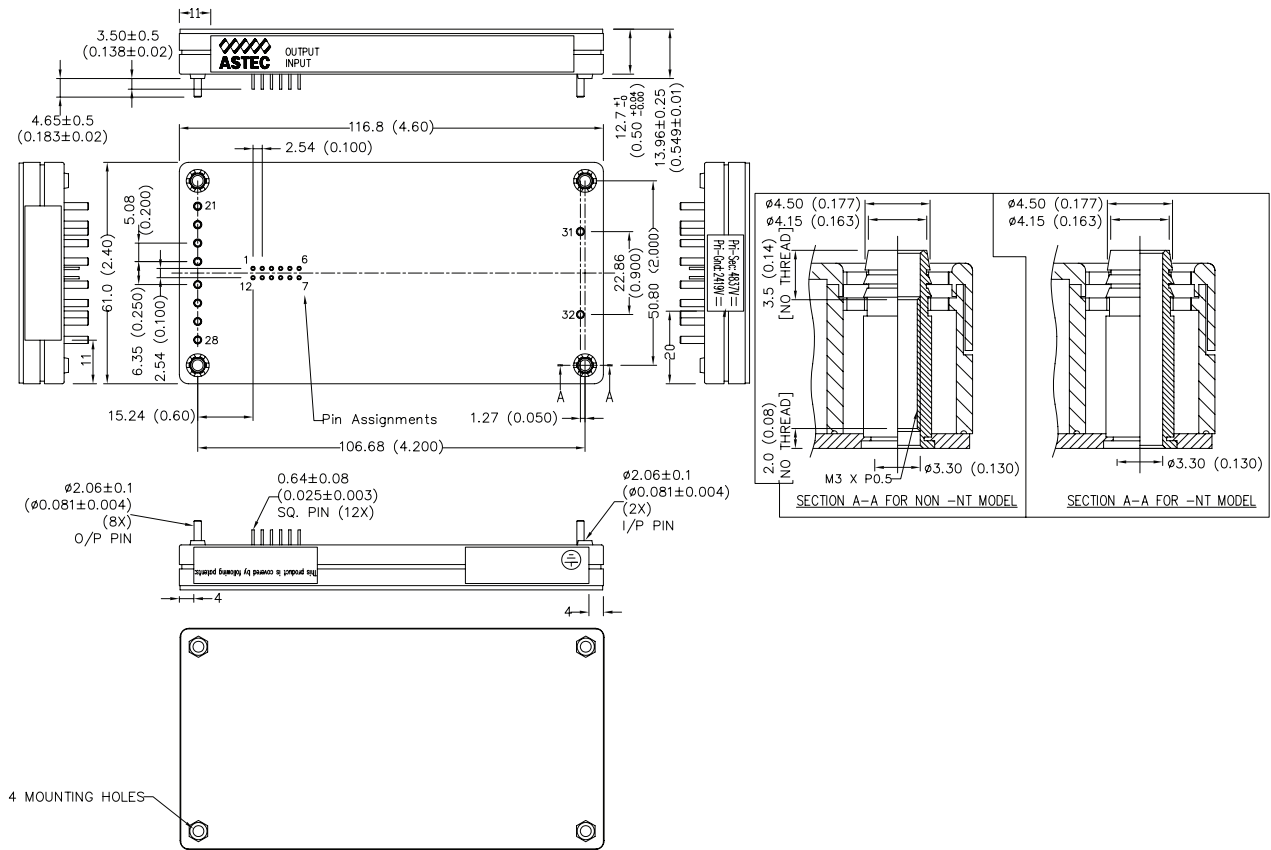
Input Voltage	Output Voltage	Efficiency	Model Number
300 VDC	1.8 V @ 120 A	80% (Typ)	AIF120Y300 *-**L
300 VDC	3.3 V @ 120 A	87% (Typ)	AIF120F300 *-**L
300 VDC	5.0 V @ 80 A	90% (Typ)	AIF80A300 *-**L
300 VDC	12 V @ 50 A	90% (Typ)	AIF50B300 *-**L
300 VDC	15 V @ 40 A	90% (Typ)	AIF40C300 *-**L
300 VDC	24 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. CL A /I2C CLK
		9. OVP A /DCS
		10. V A / I2C DATA
		11. ENABLE
		12. -SENSE

MECHANICAL DRAWINGS





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ABOUT ADVANCED ENERGY

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PRECISION | POWER | PERFORMANCE

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