Rev. 06.11.08
AIF12W300
1 of 2

AIF12W300

600 Watts

Total Power: 600 Watts
(48 V@12.5 Amps)
Input Voltage: 300 V
# of Outputs: Single



Special Features

- 600 W continuous power at 100 °C baseplate temperature
- 108 W/in^3 (6.6W/cm^3)
- High efficiency - up to 90%
- Low output ripple and noise
- Positive and Negative enable function
- Excellent transient response
- OVP, OCP, V Adj control with ALP™
- Paralleable with accurate current sharing

Safety

UL: 60950 Recognized
cUL: 60950 Recognized
TUV: EN60950 Licensed

Electrical Specifications

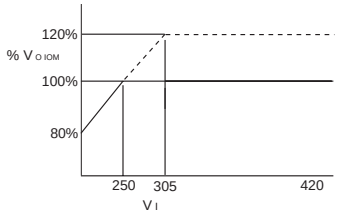
Input	
Input range:	250 - 420 Vdc
Input surge:	500 V / 100 ms
Efficiency:	90% typical
Output	
Load regulation:	400 mV typical down to no load
Line regulation:	200 mV typical
Noise / ripple:	480 mV typical
Transient response:	5% max deviation with 25% to 75% full load, slew = 1 A / uS
Current share accuracy:	3% typical, 5% max (≥80% of Io max)
Overvoltage protection:	125% ± 5% Vo (nominal) - latch up
Current limit:	105% - 120% Io maximum - hiccup
Short-circuit protection:	150% maximum - hiccup
Control	
Voltage Adjust*:	80 to 120% Vo linear programming (see page 2 graph)
Enable:	TTL compatible (positive & negative enable options)
Current limit ddjust:	20 to 100% Io linear programming
Clock input (external sync):	3.3 to 5.5 Vp-p @ 800 KHz ±10%
Clock output (internal clock):	4.5 Vp-p typical@ 800 KHz ±5%
Power good identification:	High (Vo) = power good
Temperature monitor output:	10 mV/°K (2.73 = 0 °C)
Current monitor output:	0 to 1 mA (1 mA = 100% $I_{o\ rated}$) ± 0.1 mA
Overvoltage protection adjust:	120 to 150% Vo
Auxiliary power:	12 V ± 1.5 V, 10 mA

ASTEC

EMERSON
Network Power

Environmental Specifications

Operating temperature	-20 °C to +100 °C (case temperature)
Start up temperature	-40 °C to +100 °C (case temperature)
Storage temperature	-40 °C to +125 °C
Overtemperature protection	110 °C max
MTBF	TBD hours



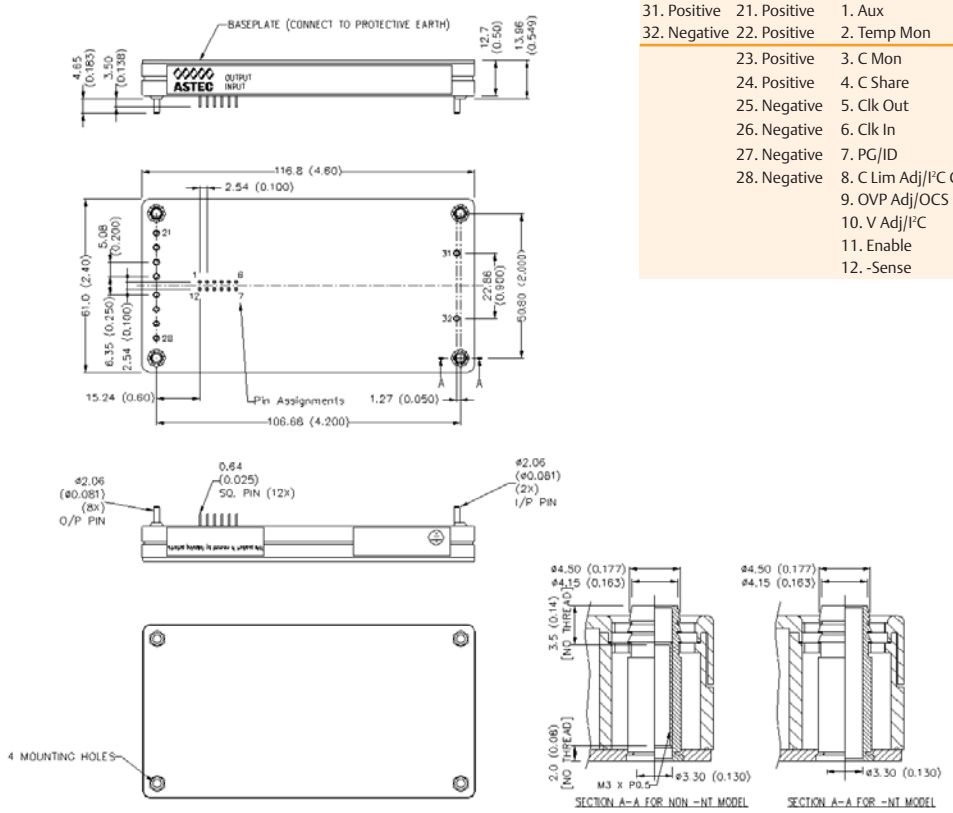
***Voltage Adjust**
see chart on page 1

Ordering Information

Input Voltage	Output Voltage	Efficiency	Model Number	Notes
300 V	48 V @ 12.5 A	90% (Typ)	AIF12W300-L	Positive Enable
300 V	48 V @ 12.5 A	90% (Typ)	AIF12W300N-L	Negative Enable

Note:
1. For Non-thread hole, add suffix "-NT".

Mechanical Drawing



Pin Assignments

Input	Output	Control Pins
31. Positive	21. Positive	1. Aux
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/I²C CLK
		9. OVP Adj/OCS
		10. V Adj/I²C
		11. Enable
		12. -Sense

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