

MODEL NO. ENO1612 (ACTIVE PFC)

ENO-1612 is a 120W forced air-cooling, five outputs switching power supply.

1.0 I Input Characteristics:

1.1 AC input voltage and frequency limitations:

Minimum	Nominal	Maximum	Unit
90	100-240	254	VAC
47	60-50	63	Hz

1.2 Max.Input AC current:3.0A Max. at 90Vac.

1.3 Inrush current:(264Vac/63Hz Max. load condition) cold start:60A Max, hot start: no components damage.

1.4 Power factor correction(PF)>0.90 at full load ,115Vac.

2.0 Efficiency

The Power Supply Efficiency Shall Be Greater Than 80% at Input 115Vac With Max Load.

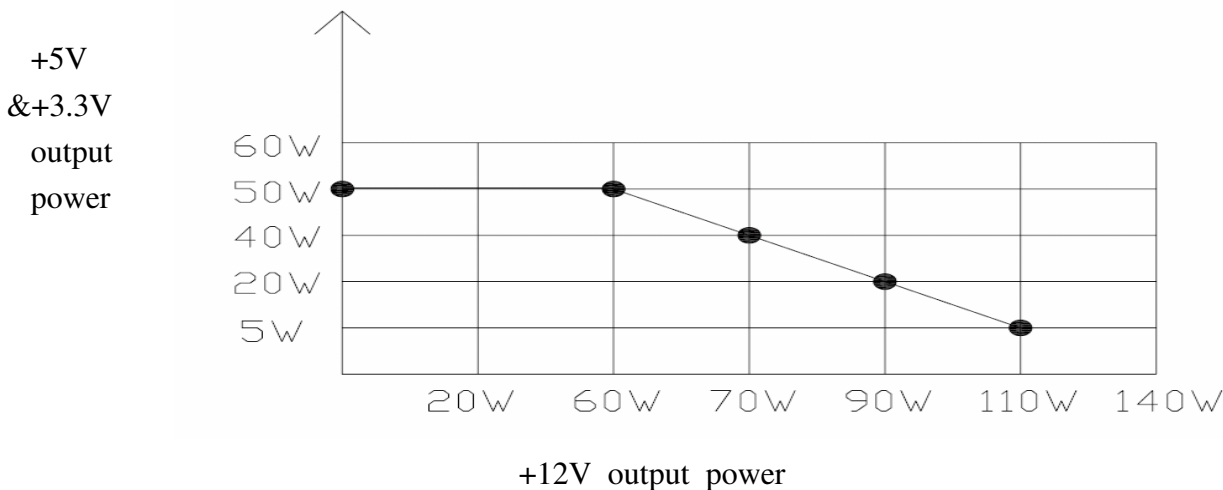
3.0 Output Characteristics.

3.1 Static load limitation:

Output	Rated Vostage	+3.3V	+5V	+5Vsb	+12V	-12V
Voltage	Regulation	3.1V~3.5V	4.85V~5.25V	4.8V~5.2V	11.4V~12.75V	-11.25V~-13.0V
Output Current	Minimum load	0A	1A	0A	0A	0A
	Rated load	2A	2.5A	0.75A	8A	0.5A
	Maximum load	7A	8A	1.0A	10.0 A	0.5A
	Ripple&Noise	50mV	50mV	120mV	120mV	200mV
	Rated Power	6.6W	12.75W	3.75W	96W	6W
	Max.Rated Pov	-	-	-	-	-
Total Load:125.1W						

Note: The ripple and noise measurement should be made by crossing a 47uf/tantalum and a 0.1uf/ceramic capacitors at each output with measuring from dc to 20MHz.

Total Combined output of 3.3V and 5V is ≤ 50W



3.2 Overshoot:

Any overshoot at turn on or turn off shall be less 10% of the normal value.

3.3 Dynamic Load limitation:

Under Shoot 30% Load Change @ 1A/us

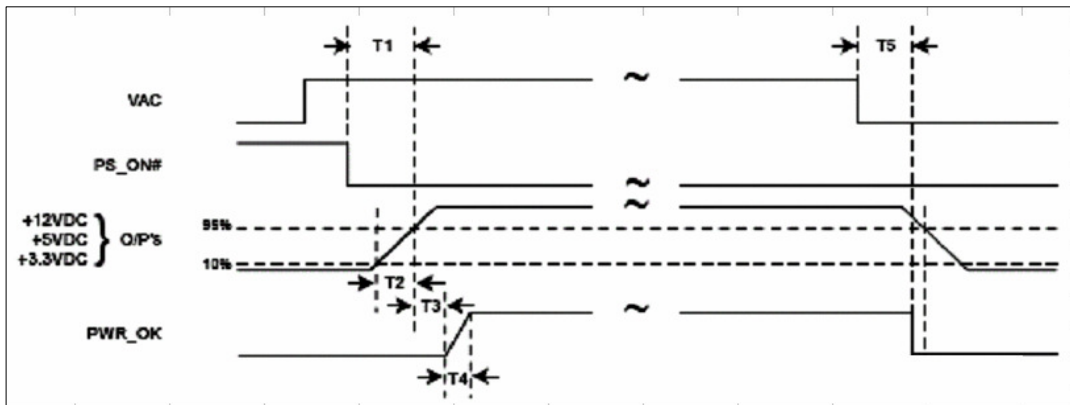
3.4 Load Regulation

The load regulation for +5V is less than +/-3%,for 12V is less than 7%~ -5%, for -12V is +8% ~ -7%. +3.3V' is less than +/-5% while the measuring is done by changing the measured output loading +/-40% from 60% rated load and keep other output is at 60% rated load.

3.5 Output Capacitive Loads

12V	3000uF
5V	5000uF
3.3V	5000uF
-12V	330uF
5Vsb	330uF

4.0 Timings



T1 ≤ 500mS 100mS ≤ T3 ≤ 500mS T5 ≥ 16mS
 T2 ≤ 20mS T4 ≤ 10mS

5.0 Protections:

Over Voltage Protection	★+3.3V、+5V、+5VSB、+12V (3.7~8.5V) (5.7~9.5V) (5.7~7.5V) (13.5~15.6V)
Short Circuit Protection (Outputs To GND)	★ +3.3V、+5V、+5VSB、+12V、-12V (Shut Down)(Shut Down)(Auto Recovery)(Auto Recovery)(Shut Down)
No Load Operation	No damage or hazardous condition will occur.
Fuse protection	The fuse inside the power supply shall open when the ac input current is over the rated current of fuse.
Over Power Protection	110%~180%

☛ 6.0 Dielectric Withstand Voltage:

- 6.1 Primary To Secondary 3000Vac 3SEC. Working current $\leq 10\text{mA}$.
- 6.2 Insulation Resistance: Primary to safety ground: 500Vdc, 50M ohms Min.
- 6.3 Leakage Current: 260Vac,3.5Hz, 1mA MAX
- 6.4 Primary To FG .1800Vac 3S , Leakage Current $\leq 15\text{mA}$.

☛ 7.0 Conducted Emi: Internal Filter To Meet

FCC docket 20480 curre "B"
EN55022"B"

☛ 8.0 Product Safety:

This power supply is designed to meet the following specs.

1. UL1950
2. VDE EN60950

☛ 9.0 Environment:

- 9.1 Operatint Temperature:+0 to +50 °C.,Output power 120W with min 38CFM forced air, 100W with mim 8CFM,and 85W with out external airflow.
- 9.2 Operating Relative Humidity: 10% to 70%.
- 9.3 Storage Temperature:-40 to +70°C.
- 9.4 Storage Relative Humidity:10% to 95%.

☛ 10. Burn-In

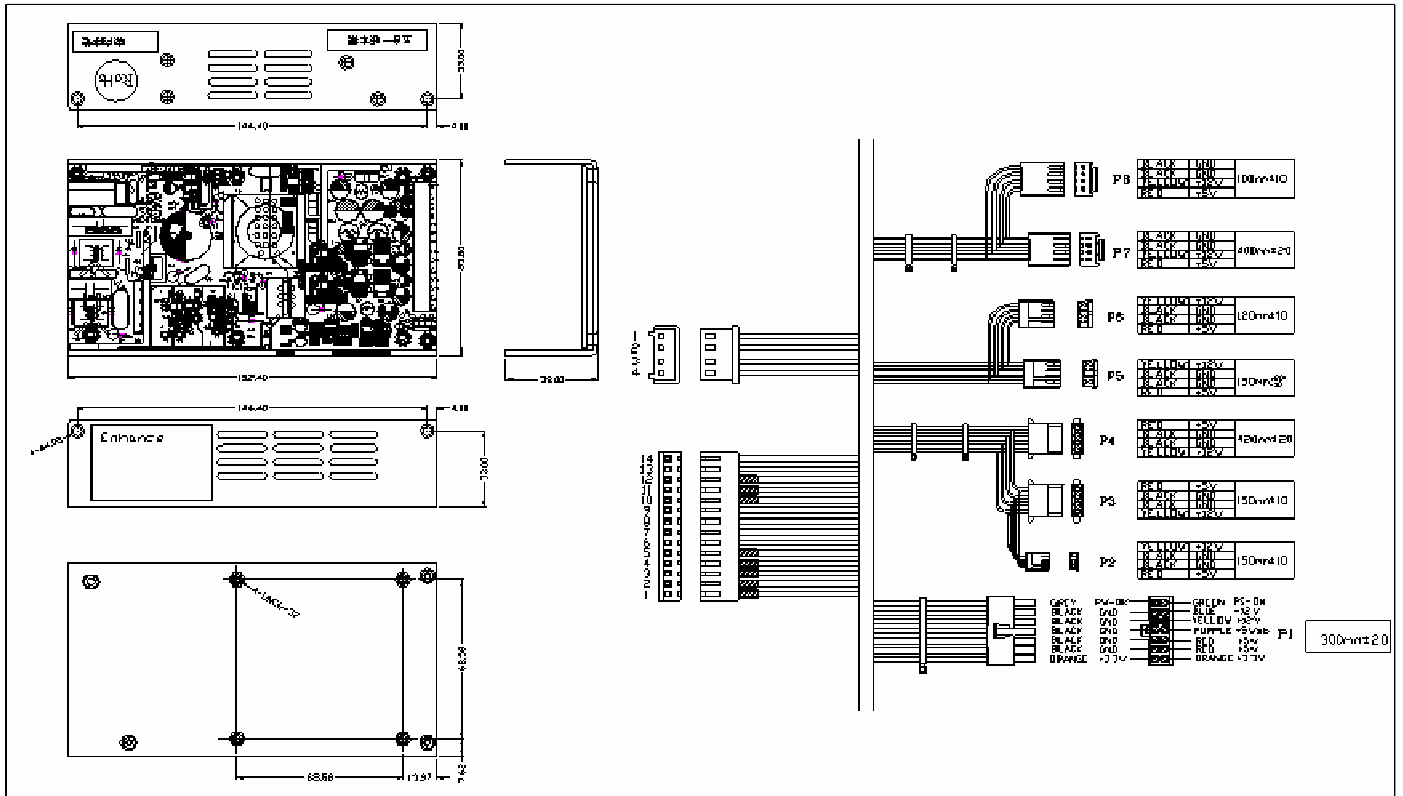
Power supply shall be burn in under 40°C , with 115Vac and 100% rated load.

☛ 11. MTBF

MTBF ≥ 100000 hours of continuous operation at 25°C , with 115Vac and 100% rated load.

12. Physical dimension

L*W*H =152.4mm*83.8mm*38mm



13. Connectors

13.1 AC INPUT

Connector : AC input (CON1) (Molex 5273-05A Withdraw IDins)

Pin	Signal
1	L
2	NC
3	N
4	NC
5	PE

13.2 Connector : DC output (CON2) (Molex 5273-14A)

Pin	Signal	Pin	Signal
14	-12V	3	GND
12	GND	1	GND
10	+12V	9	+12V
8	+12V	7	3.3V
6	3.3V	5	GND
4	5V	3	5V
2	GND	1	GND

13.3 Connector : DC output (CON3) (Molex5045~03A)

Pin	Signal
4	PG
3	PS/ON
2	GND
1	5Vsb

14. POWER Derating Curve(at natural air-cooling)

