


APPLICATION					REVISION
DESCRIPTION	DATE	REV	ECO	APPROVED	USED ON
FIRST RELEASE	03/15/06	1A	10038823	DAVID HUANG	7001186-0000
DOCUMENT CHANGE	04/11/06	1B	10045444	DAVID HUANG	7001186-0000
CHANGE OUTPUT REGULATION		1C			7001186-0000

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE : FRACTIONS DECIMALS ANGLE ± (XX) ±± (XXX) ±	APPROVALS	DATE		
	DRAWN Michael/ Joulin / Boris	03/15/06		
	CHECKED Joulin Liang	03/17/06		
MATERIAL :	P.E. MGR. DAVID HUANG	03/20/06	DESCRIPTION PRODUCT SPEC APN55-01	SIZE A4
	M.E. MGR. TIM WONG	03/20/06		
FINISH :	QLTY. MGR.		DRAWING NO 9701527-0000	REV 1C
	RELEASED		SCALE NONE	SHEET 1 OF 5

Model Name. : APN55-01

TLA No. : 7001186-0000

ELECTRONIC SPECS				
Output Power (W)		55w	Efficiency	>65%@full load
Isolation Voltage	I/P-O/P	4242V DC	No. of Outputs	3
	I/P-FG	4242V DC	Size (LxWxH)	161 x 86 x 40
	O/P-FG	--	Weight	---- kg
Isolation Resistance		≥10MΩ	MTBF	>20000H

Remark: 1. frequency of 50Hz, duration of 1min, cut off current less than 10mA, no breakdown or arcing.
 2. normal atmospheric pressure, relative humidity of 5%~ 100%,.
 3. measured at ambient of 25 °C and rated load .

INPUT SPECS				
AC Input (Vac)		100~ 240	Input Frequency (Hz)	47~ 63
Input Volts Nom. (Vac)		220	Input Current	<1.5A @ 90V AC
Inrush Current (at cold start)		≤37.5 A	Leakage Current (50~60Hz)	<3.5mA

Remark: 1. All Specifications are typical at Nominal Line, Full load and 25 °C, unless otherwise noted.
 2. The power supply is required to meet the functional specifications, and shall not be damaged for long time of input voltage (240~264V AC) operation.

OUTPUT/REGULATION SPECS					
Spec Description		O/P 1	O/P 2	O/P 2	Remarks
Nominal Output Voltage		-12 V	+12 V	+5 V	
Output Accuracy (V)	min.	-11.64	11.64	4.85	including line/load conditions
	max.	-12.36	12.36	5.15	
Rated Loading (A)		0.3	2	5.5	
Loading (A)	min.	0	0	0	capable of no load operation without damage and failure
	max.	0.3	2	5.5	
Load Regulation (V)	min.	-11.64	11.64	4.85	-12V out @±3%, +12 Vout@± 3%, +5V out @±3% .
	max.	-12.36	12.36	5.15	
Line Regulation (V)	min.	-11.64	11.64	4.85	-12V out @±3%, +12 Vout@± 3%, +5V out @±3% .
	max.	-12.36	12.36	5.15	
Capability Of Capacitor loading		2200uf	2200uf	2200uf	Operating normal
Over-current Protection (A)	min.	0.4	2.5	6.5	recovered after removal of the fault.
	max.	0.8	7	10	
Short Circuit Protection		hiccup	hiccup	Hiccup/ No Output	
Input Over voltage Protection		No Output	No Output	No Output	280±5 Vac Shut down, 270±5Vac recover
Ripple & Spike Noise (mVp-p)		<120	120	<100	Note 1.
Dynamic Response Recovery Time (µs)		<500	<500	<500	Note 2.
Dynamic Response Overshoot (%)		<±5%	<±5%	<±5%	Note 2.
Startup Delay Time (s)		≤1	≤1	≤1	-
Startup Overshoot (%)		<5%	<5%	<5%	-



DWG. NO.	SIZE	REV
79701527-0000	A4	1C
SCALE	SHEET	
NONE	2 OF 5	

OUTPUT/REGULATION SPECS

Spec Description	O/P 1	O/P 2	O/P 2	Remarks
Output hold up time(ms)	>10	>10	>10	Input voltage 120V
Shutdown Undershoot (%)	<5%	<5%	<5%	-
Temperature coefficient	0.04%/°C	0.04%/°C	0.04%/°C	At full load
Output wideband noise	≤20mv	≤20mv	≤20mv	-

Note 1: Measure with 10uf tantalum capacitor and 0.1uf ceramic capacitor across output.

Note 2: di/dt=0.1A/1us, load change 25% of full load.

ENVIRONMENTAL SPECS

Item	Requirement	Judgement
Operating Temperature Range	-10°C to 40°C	normal function
Storage Temperature Range	-40°C to 70°C	recovered to normal operation after 2hrs at room temperature
Relative Humidity	5% to 95%	non-condensing
Altitude	3000Feet	normal operation
Expected Product Life	>5 years at 25°C	
Vibration	With standing a random vibration in X,Y,Z axes , continue for 20 mins. the power spectrum densities are 30m ² /s ² , while power spectrum curve at 2~10Hz; the power spectrum densities are 3m ² /s ² , while power spectrum curve at 10~200Hz; the power spectrum densities are 1m ² /s ² , while power spectrum curve at 200~2000Hz;	no physical damage; capable of normal operation.
Impact (Shock)	half sine wave, at 30g acceleration with a pulse width of 11ms , 5 to 10 times for each axis	no physical damage; capable of normal operation

COMPLIANCE WITH STANDARDS

Safety	3C,UL60950, CE mark	
EMI (Conducted and Radiated)	Conducted GB 9254-1998 Class B, Radiated GB 9254-1998 Class B.	
EMC		
ESD	GB/T 17626.2-1998 (ESD air:8KV; ESD contact:6KV;)	Judgement: B
Power frequency magnetic field immunity	GB/T 17626.8-1998	Judgement: A
Electrical Fast Transient/Burst Immunity	GB/T 17626.4-1998 (line to line: ±2KV,5/50ns)	Judgement: B
DIP	GB/T 17626.11-1998	Judgement: A
Surge Immunity	GB/T 17626.5-1998	Judgement: B
Conducted Immunity	GB/T 17626.6-1998 0.15-80MHz, Level: 3V/m, 80% AM(1KHz)	Judgement: A
Radiated Immunity	GB/T 17626.6-1998 80-1000MHz, Level: 3V/m, 80% AM(1KHz)	Judgement: A
	GB/T 17626.6-1998 80-1000MHz, Level: 10V/m, 80% AM(1KHz)	Judgement: B
Flicker	GB/T 17625.2-1999	

Table 1 DIP/interruption (AC) Test Class

Fall To	Fall Time	Functional Judgement
0%U	10ms	A

Note:

- Normal performance within the specification limits.
- Temporary degradation or loss of function or performance which is selfrecoverable.
- Temporary degradation or loss of function or performance which requires operator intervention or system reset.
- Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data.



DWG. NO.
9701527-0000

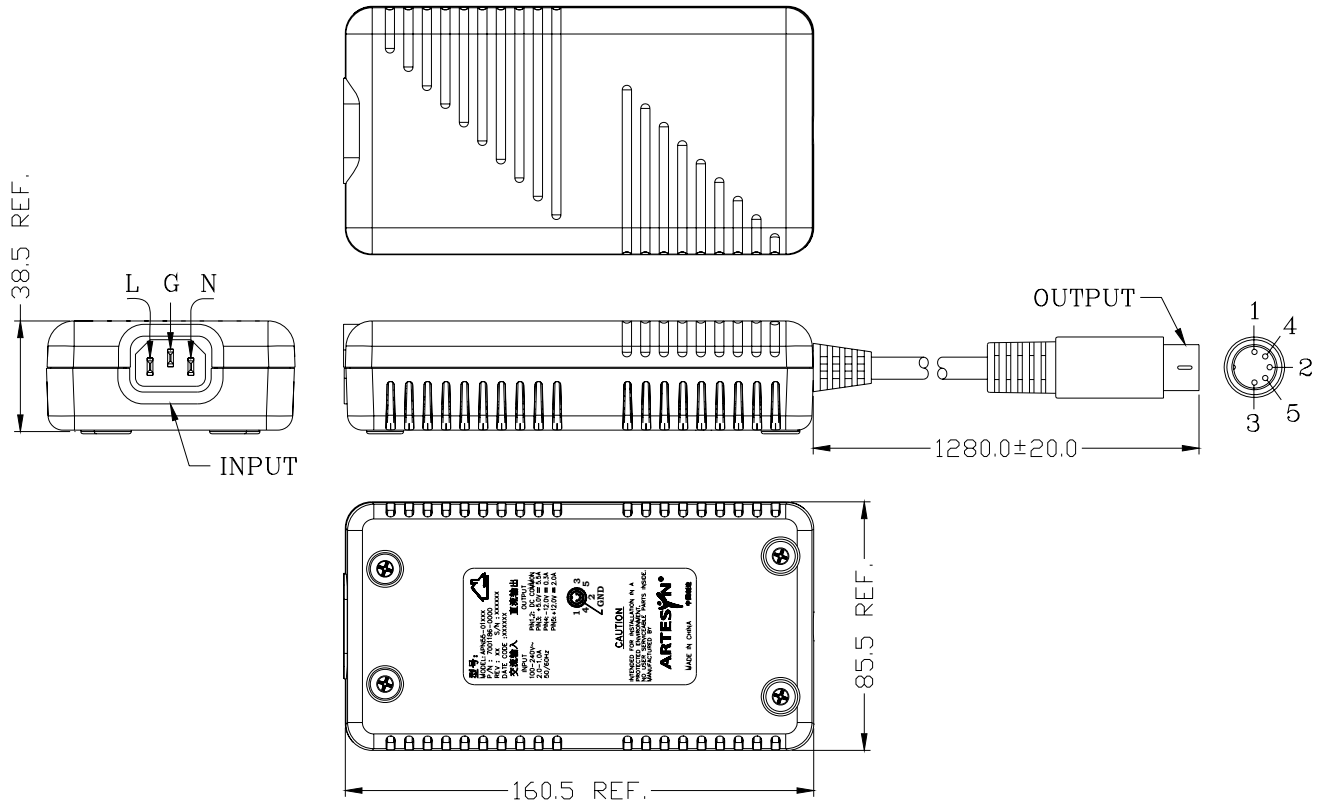
SIZE
A4

REV
1C

SCALE
NONE

SHEET
3 OF 5

OUTLINE DRAWING AND PINOUT (INCLUDING ALL OUTLINE DIMENSIONS)
(ALL DIMENSIONS ARE IN MM)



INPUT CONNECTOR USE 220VAC 3 PIN SOCKET.

LINE : 100-240VAC
 FREQUENCY : 50/60HZ
 CURRENT : 2.0-1.0A

INPUT PIN NO.	INPUT
L	LIVE
N	NEUTRAL
G	GROUND

OUTPUT CONNECTOR USE 5 PIN MD5M DC SOCKET, MATING SOCKET USE 5 PIN MD BEND PCB SOLDER SOCKET.

OUTPUT PIN NO.	OUTPUT	
	APN55-01	55W
1	GND	
2	GND	
3	+5V	5.5A
4	-12V	0.3A
5	+12V	2.0A



5 PIN MD5M DC SOCKET