1. SPECIFICATION

1-0 INPUT REQUIREMENTS

1-1 INPUT VOLTAGE

100 TO 240 ±10％Vac，FULL RANGE

1-2 INPUT FREQUENCY

47 TO 63 Hz

1-3 INPUT CURRENT

1.) 2.5 A MAX., AT 115Vac，FULL LOAD

2.) 1.2 A MAX., AT 230Vac，FULL LOAD

1-4 EFFICIENCY

80% MIN. AT DC OUTPUT FULL LOAD AND 115/230 Vac INPUT

1-5 INRUSH CURRENT

1.) 40A MAX. AT 110Vac， COLD START

2.) 80A MAX. AT 220Vac， COLD START

1-6 HARMONIC STANDARD & POWER FACTOR

THE ADAPTOR SHALL COMPLY WITH IEC 61000-3-2 CLASS D HARMONIC STANDARD WHILE INPUT POWER OVER 75 W. THE P.F. SHALL ≧ 0.95 AT 100 Vac AND ≧ 0.9 AT 240 Vac AND DC OUTPUT FULL LOAD

1-7 HOLD UP TIME

16mS MIN. DC OUTPUT AT FULL LOAD AND 115V/230Vac INPUT

1-8 TURN-ON TIME

THE OUTPUT VOLTAGE SHOULD RISE TO 90% TYP. VOLT. (20V) IN LESS THAN 3 SEC FROM AC APPLY TO AC 110V FOR START UP

1-9 CONFIGURATION

3-WIRE INPUT AC LINE(LINE ,NEUTRAL,FG)

1-10 INPUT FUSE

THE HOT LINE SIDE OF THE INPUT SHALL HAVE A FUSE, RATING SLOW BLO T3.15A/250V

1-11 LINE REGULATION

THE MAXIMUM VOLTAGE CHANGE ON DC OUTPUT SHALL BE WITHIN TOLERANCE WHEN AC INPUT VOLTAGE VARIES WITHIN THE RANGE SPECIFIED IN 1-1

1-12 POWER LINE NOISE

THE POWER SUPPLY WILL HAVE AN ON BOARD AC FILTER THAT WILL MEET CONDUCTED NOISE SPECIFICATIONS OF FCC AND CISPR

2-0 OUTPUT REQUIREMENTS

2-1 DC OUTPUT

	TOLERANCE	OUTPUT CURRENT			REMARK
OUTPUT VOLTAGE	(ACCURACY)	MIN.	MAX. (I)	PEAK.(II)	(I) FOR RELIABILITY TEST (II) FOR FUNCTIONAL TEST
+20 Vdc	19.5~21.0V	0.1	6.0 A	6.5A	

2-2 LOAD REGULATION

VOLTAGE	TOLERANCE	REGULATION
+20 Vdc	19.5~21.0V	19.5~21.0 Vdc

2-3 DYNAMIC LOAD REGULATION

+/-5% EXCURSION FOR 50% - 100% OR 100%-50% LOAD CHANGE OF DC OUTPUT AT ANY FREQUENCY UP TO 1KHz (DUTY 50%)

2-4 RIPPLE ＆ NOISE

THE POWER SUPPLY SHALL NOT EXCEED THE FOLLOWING LIMITS ON THE INDICATED VOLTAGES FOR 60Hz OR 50Hz RIPPLE , SWITCHING FREQUENCY RIPPLE AND NOISE AND DYNAMIC LOAD VARIATIONS MEASURED WITH A 20MHz BANDWIDTH

OUTPUT	RIPPLE/NOISE
+20 Vdc	250mV

OUTPUT: OUT VOLTAGE

RIPPLE/NOISE: 60Hz RIPPLE + SWITCHING RIPPLE AND NOISE

◎RIPPLE ＆ NOISE ARE MEASURED AT THE END OF OUTPUT CABLES WHICH ARE ADDED A

0.1uF CERAMIC CAPACITOR AND A 47uF ELECTROLYTIC CAPACITOR

2-5 OVER VOLTAGE PROTECTION

135% MAX. OF NOMINAL VOLTAGE, OUTPUT VOLTAGE WILL BE SHUNT-DOWN AND LATCHED WHEN OVP OCCURRED

2-6 OVER CURRENT PROTECTION

OVER CURRENT PROTECTION RANGE 7.2~8.4A

2-7 SHORT-CIRCUIT PROTECTION

A SHORT CIRCUIT PLACE AT OUTPUT WILL CAUSE NO DAMAGE TO THIS ADAPTER

2-8 OPEN CIRCUIT PROTECTION

WHEN PRIMARY POWER IS SUPPLIED WITH NO LOAD ON OUTPUT LEVEL,NO DAMAGES OR HAZARDOUS CONDITIONS SHOULD OCCUR

2-9 STABILITY

2% MAX. AT CONSTANT LOAD WITH CONSTANT INPUT (AFTER 30 MINUTES OF OPERATION)

2-10 DROP-OUT(POWER LINE DISTURBANCE)

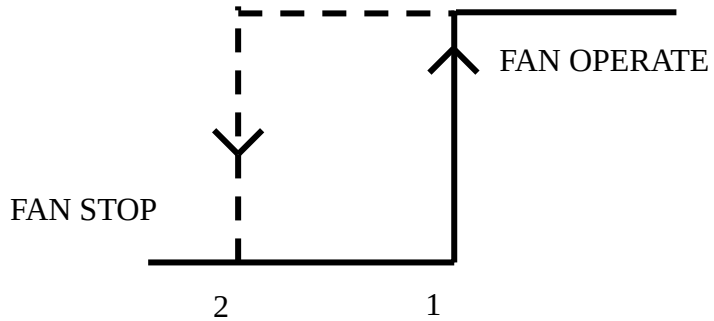
OUTPUT VOLTAGES SHALL REMAIN WITHIN THE SPECIFIED REGULATION RANGE , THROUGH THE ABSENCE OF A LINE INPUT DURING 1 CYCLE, AT FULL LOAD AND MIN.AC LINE INPUT

2-11 VOLTAGE ISOLATION

THE DC GROUND WILL BE ISOLATED FROM THE AC NEUTRAL AND AC LINE

2-12 FAN SPEED CONTROL AND ACOUSTIC NOISE

THE ADAPTOR MUST HAVE A FAN SPEED CONTROL TO REDUCE NOISE WHEN OUTPUT POWER LESS THEN 90W



1: OUTPUT POWER ≧ 90 ±10 W

2: OUTPUT POWER < 85 W

THE ACOUSTIC NOISE LEVEL SHALL LESS THAN 32 dba

2-13 CONTINUITY (GROUNDING)

100m OHM MAX. AT 25A

2-14 LEAKAGE CURRENT

LESS THAN 0.25 mA AT AC 100V

2-15 HI-POT TEST

1800Vac, 10mA, 3 SEC BETWEEN PRIMARY TO SECONDARY

2-16 INSULATION RESISTANCE

INSULATION RESISTANCE SHALL BE MORE THAN 100Mohm AT 500Vdc BETWEEN PRIMARY LINE, NEUTRAL TO SECONDARY

2-17 LED DISPLAY

DESCRIPTION	GREEN
POWER ON	ON
POWER OFF	OFF

3-0 ENVIRONMENTAL REQUIREMENTS

3-1 TEMPERATURE：

1.)OPERATION：0 TO 40℃

2.)STORAGE： - 20 TO 85℃

3-2 HUMIDITY

1.)OPERATION：10％～90％RH

2.)STORAGE：5％～95％RH

3-3 VIBRATION AND SHOCK

NO EVIDENCE OF ANY MECHANICAL OR FUNCTIONAL DAMAGE AFTER THE VIBRATION AND SHOCK TESTING

1.)SHIPPING VIBRATION

FREQUENCY: 5~200~5HZ

ACCELERATE: 1G/2G (DWELL AT RESONANCE)

SWEEP RATE: 0.3 DECADES/MIN

AXIS: X.Y.Z AXIS

2.)SHIPPING SHOCK

WAVE FORM: SEQUARE WAVE

ACCELERATION: 50G

VELOCITY: 167 IN/SEC

NO. OF SHOCK: EACH AXIS 1 TIME

3-4 ALTITUDE

1.)OPERATION：FROM SEA LEVEL TO 10,000 FEET

2.)STORAGE：FROM SEA LEVEL TO 40，000 FEET

4-0 EMI/EMC REQUIREMENTS

THE RADIATED AND CONDUCTED EMISSIONS OF THIS AC ADAPTER COMPLIES WITH

THE REQUIREMENTS OF THE FCC PART 15，CLASS B ＆ EN 55022 CLASS B

ESD PER IEC 1000-4-2, LEVEL 4, SURGE IMMUNITY PER IEC 61000-4-5, +2KV AND FAST TRANSIENT IMMUNITY PER IEC 61000-4-4, +2KV

5-0 SAFETY

THIS AC ADAPTER IS APPROVED BY FOLLOWING STANDARDS

UL, CUL, TUV, CB, CE

6-0 RELIABILITY

THE POWER SUPPLY SHALL BE DESIGNED AND PRODUCED TO HAVE A MEAN TIME BETWEEN FAILURES(MTBF) OF 60000 OPERATING HOURS AT 90% CONFIDENCE-LEVEL WHILE OPERATING UNDER THE FOLLOWING CONDITIONS

7-0 MECHANICAL FEATURES

7-1 MOUNTING CONNECTOR

OUTPUT CABLE WITH UL1185, 16AWG 2 WIRES AND DIN TYPE PLUG

7-2 WEIGHT

POWER ASS'Y : 500 GRAMS

7-3 DIMENSION

170.0*60.0*35.0 mm