



## Specification

**AC INPUT VOLTAGE**  
90~264 VAC, 47~440Hz / 127~370VDC.

**POWER FACTOR (Typ.)**  
PF>0.95/230VAC PF>0.98/115VAC at full load

**AC INPUT CURRENT (Typ.)**  
Maximum input current 3.5A at 115VAC, 60Hz or 1.6A at 230VAC, 60Hz with 100% output load.

**INRUSH CURRENT (Typ.)**  
Inrush current is less than 25A at 115VAC or less than 40A at 230VAC under cold start conditions. Limiting provided by internal thermistors.

**SETUP, RISE TIME**  
1000ms, 20ms / 230VAC at full load  
3000ms, 20ms / 115VAC at full load

**HOLD-UP TIME (Typ.)**  
16ms / 230VAC at full load  
16ms / 115VAC at full load

**LEAKAGE CURRENT**  
Leakage current is less than 180 $\mu$ A at 264VAC for earth leakage current  
Leakage current is less than 100 $\mu$ A at 264VAC for patient leakage current

**DC OUTPUT ADJ. RANGE**  
DC output voltage (or CH1 of multiple output models) can be adjusted between -5%~+10% rated output voltage by potential meter.

**OVERLOAD PROTECTION**  
Fully protected against short circuit and output overload. The hiccup type protection will be activated at 120~160% rated load and recovers automatically after fault condition is removed.

**OVER VOLTAGE PROTECTION**  
Provided on output channel 1 only at 115%~135% rated output voltage. Output will be shut down when this protection is activated.

**OVER TEMPERATURE PROTECTION**  
When the temperature of TSW1 which detect on heat sink of power transistor reaches 95 $^{\circ}$ C, This protection is activated. Then output will be shut down and recovers automatically after temperature goes down.

**POWER GOOD / FAIL SIGNAL**  
TTL logic high for power good and TTL low for power fail. When the output voltage reaches 90% of rated value, a +5V TTL signal will be sent out with a 10~500ms delay; At least 1ms before the output voltage goes below 90% of the rated value, the TTL signal will be turned off.  
\* MPS-200-3.3 does not have this function.

**REMOTE CONTROL**  
RC+/RC-:0 ~ 0.8V=power on; 4 ~ 10V=power off sink current<4~10mA

## Features

- Universal AC input / Full range
- Low leakage current <180 $\mu$ A
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Free air convection for 140W and forced air convection for 200W
- UL60601-1 medical safety approved
- With power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- Fixed switching frequency at 100KHz
- 3 years warranty



**WORKING TEMP.**  
Whole series can operate from -20~70 $^{\circ}$ C. Please refer to the derating curves.

**WORKING HUMIDITY**  
20~90% RH non-condensing.

**STORAGE TEMP., HUMIDITY**  
-40~+85 $^{\circ}$ C, 10~90% RH

**TEMP. COEFFICIENT**  
 $\pm$ 0.04%/ $^{\circ}$ C on all outputs at full load between 0~50 $^{\circ}$ C of ambient temperature.

**VIBRATION**  
2G of acceleration, vibrating frequency adjust from 10Hz ~500Hz within a 10-minute cycle. 6 testing cycles (60 minutes) each along X, Y, Z axes.

**SAFETY STANDARDS**  
Medical : UL60601-1, TUV EN60601-1, IEC60601-1 approved  
Commercial : Also design refer to UL60950-1, TUV EN60950-1

**WITHSTAND VOLTAGE**  
4000VAC between input and output  
1500VAC between input and F.G.  
1500VAC between output and F.G.

**ISOLATION RESISTANCE**  
>100M Ohms for I/P-O/P, I/P-FG, O/P-FG by using 500VDC test voltage.

**EMI COMPLIANCE**

EMI Specifications	Compliance Level
Conducted & Radiation	EN55011, Class B
	EN55022, Class B
Harmonic distortion	EN61000-3-2
Voltage flicker	EN61000-3-3

**EMS COMPLIANCE**

EMS Specification	Compliance Level
ESD air	EN61000-4-2, Level 3, 8KV
ESD contact	EN61000-4-2, Level 2, 4KV
RF field susceptibility	EN61000-4-3, Level 2, 3V/m
	Level 3, 10V/m
EFT(Electrical Fast Transient)/Burst	EN61000-4-4, Level 2, 1KV/5KHz
	Level 3, 2KV/5KHz
Lightning/Surge	EN61000-4-5, Level 4, 2KV/Line-Line
	4KV/Line-Earth
Conducted RF susceptibility	EN61000-4-6, Level 2, 3Vrms/m
	Level 3, 10Vrms/m
Magnetic field immunity	EN61000-4-8, Level 2, 3A/m
	Level 3, 10A/m
Voltage dip, interruption	EN61000-4-11, Compliance
Digital phone carrier immunity	ENV50204, Level 2, 3V/m, 900MHZ
	Level 3, 10A/m, 900MHZ

**MTBF**  
262,100 hours min. at full load and 25 $^{\circ}$ C of ambient temperature, calculated per MIL-HDBK-217F.

**DIMENSION (L\*W\*H)**  
177.8x107.2x35.5mm or 7"x4.22"x1.4"

**PACKING**  
0.66Kg; 24pcs/16.8Kg/0.99CUFT



1~4 Output Medical Type

# 200W Medical series

## Output Chart

MODEL	OUTPUT VOLTAGE	RATED CURRENT	OUTPUT CURRENT				RIPPLE & NOISE (Max.) (Note 2)	VOLTAGE TOLERANCE (Note 3)	LINE REGULATION	LOAD REGULATION	EFFICIENCY (typ.)
			MINIMUM LOAD	CONVECTION (max.)	WITH FAN (25CFM)	PEAK LOAD WITH 25CFM FAN (Note 4)					
MPS-200-3.3	3.3V	40A	0A	28A	40A	48A	80mVp-p	±2.0%	±0.5%	±1.0%	77%
MPS-200-5	5V	40A	0A	28A	40A	48A	80mVp-p	±2.0%	±0.5%	±1.0%	81%
MPS-200-12	12V	16.7A	0A	11.7A	16.7A	20A	100mVp-p	±2.0%	±0.5%	±1.0%	84%
MPS-200-15	15V	13.4A	0A	9.4A	13.4A	16A	100mVp-p	±2.0%	±0.5%	±1.0%	85%
MPS-200-24	24V	8.4A	0A	5.9A	8.4A	10A	150mVp-p	±1.0%	±0.5%	±1.0%	86%
MPS-200-48	48V	4.2A	0A	3A	4.2A	5A	200mVp-p	±1.0%	±0.5%	±1.0%	87%
MPD-200A	5V	20A	4A	15A	20A	24A	80mVp-p	±2.0%	±0.5%	±1.0%	82%
	12V	8A	0.8A	5.4A	8A	9.6A	120mVp-p	+8,-5%	±1.0%	±4.0%	
MPD-200B	5V	20A	4A	15A	20A	24A	80mVp-p	±2.0%	±0.5%	±1.0%	83%
	24V	4A	0.4A	2.7A	4A	4.8A	180mVp-p	±6.5%	±1.0%	+4,-6%	
MPT-200A	5V	20A	4A	15A	20A	24A	80mVp-p	±2.0%	±0.5%	±1.0%	80%
	12V	7.5A	0.8A	5A	7.5A	9A	120mVp-p	±8.0%	±1.0%	±5.0%	
	-5V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPT-200B	5V	20A	4A	15A	20A	24A	80mVp-p	±2.0%	±0.5%	±1.0%	80%
	12V	6A	0.6A	4.4A	6A	7.2A	120mVp-p	±8.0%	±1.0%	±5.0%	
	-12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPT-200C	5V	20A	4A	15A	20A	24A	80mVp-p	±2.0%	±0.5%	±1.0%	80%
	15V	4.7A	0.5A	3.3A	4.7A	5.6A	150mVp-p	±8.0%	±1.0%	±5.0%	
	-15V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPT-200D	5V	20A	4A	15A	20A	24A	80mVp-p	±2.0%	±0.5%	±1.0%	81%
	24V	3A	0.3A	2.2A	3A	3.6A	180mVp-p	±8.0%	±1.0%	±5.0%	
	12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPQ-200B	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	78%
	12V	7A	0.7A	5.3A	7A	8.4A	120mVp-p	±8.0%	±1.0%	±5.0%	
	-5V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPQ-200C	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	78%
	15V	5A	0.5A	4A	5A	6A	150mVp-p	±6.0%	±1.0%	±5.0%	
	-5V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-15V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPQ-200D	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	79%
	24V	3A	0.3A	2.3A	3A	3.6A	180mVp-p	±8.0%	±1.0%	±5.0%	
	12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPQ-200F	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	81%
	24V	2.7A	0.3A	2.1A	2.7A	3.3A	180mVp-p	±8.0%	±1.0%	±5.0%	
	15V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-15V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	

- Notes :
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μf & 47μf parallel capacitor.
  3. Tolerance : includes set up tolerance, line regulation and load regulation.
  4. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.
  5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
  6. Derating may be needed under low input voltages. Please check the derating curve for more details.

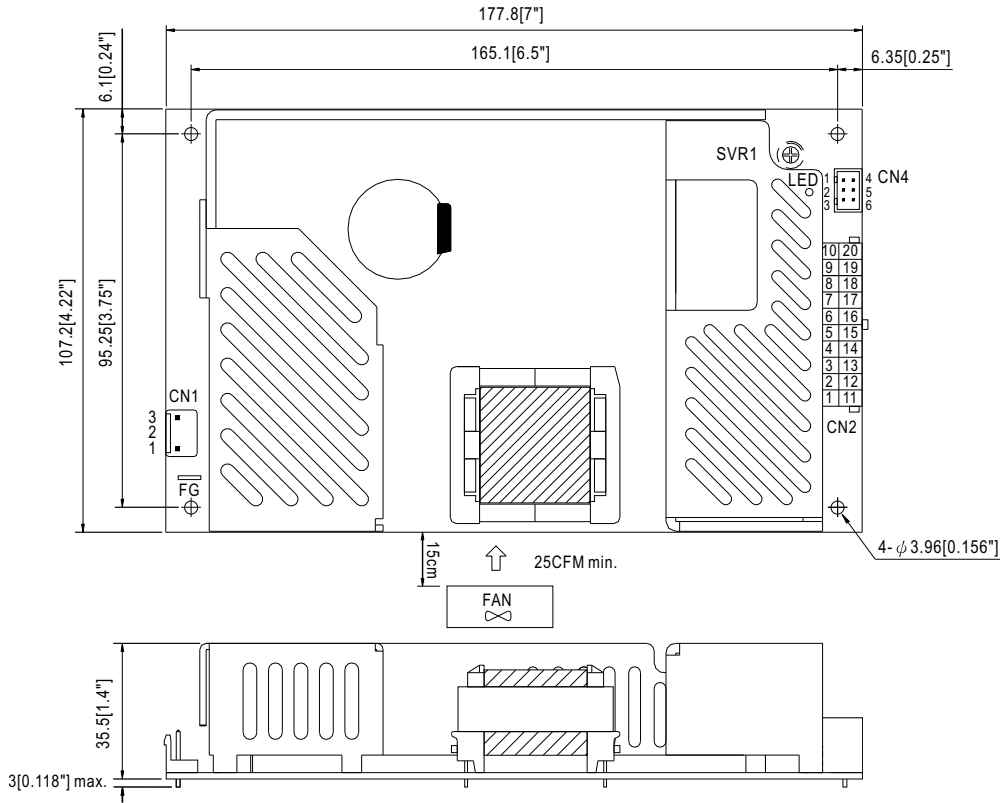


1~4 Output Medical Type

# 200W Medical series

## Mechanical Specification(MPS-200)

Unit:mm



AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

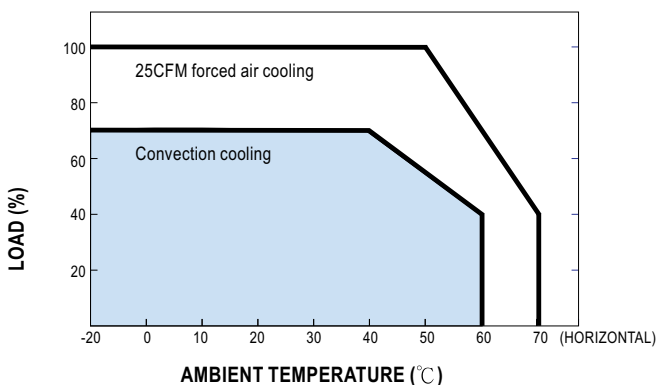
DC Output Connector (CN4) : JS-2008-03\*2 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	PG	JS-2007-03*2 or equivalent	JS-2007-T or equivalent
2	RS-		
3	GND		
4	RC+		
5	RS+		
6	RC-		

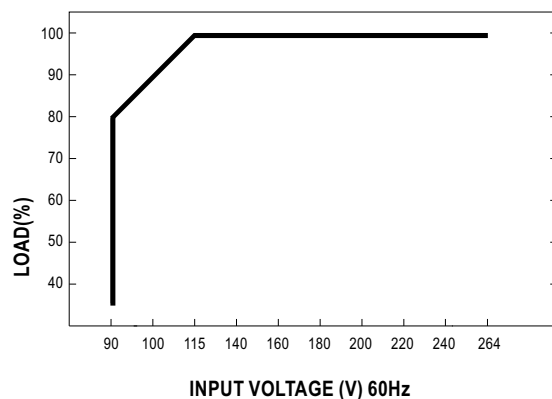
DC Output Connector (CN2) : MOLEX 5566-20 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1~5,11~15	DC OUTPUT -V	MOLEX 5557 or equivalent	MOLEX 5556 or equivalent
6~10,16~20	DC OUTPUT +V		

## Derating Curve (MPS-200)



## Static Characteristics (MPS-200)



MODEL: MPQ-200D

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 80 mVp-p (Max) V2: 180 mVp-p (Max) V3: 80 mVp-p (Max) V3: 80 mVp-p (Max)	I/P: 230VAC O/P:FULL LOAD Ta:25°C	V1: 12 mVp-p (Max) V2: 92 mVp-p (Max) V3: 31 mVp-p (Max) V4: 24 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 4.75 V- 5.5 V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	4.53 V- 5.61 V/ 230 VAC 4.53 V- 5.61 V/ 115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 2 % - -2 % (Max) V2: 8 % - -8 % (Max) V3: 5 % - -5 % (Max) V4: 5 % - -5 % (Max)	I/P: 115 VAC / 264 VAC O/P:FULL/ MIN LOAD Ta:25°C	V1: 0.3 % - -0.3 % V2: 2.8 % - -2.8 % V3: 0.1 % - -0.1 % V4: 0.1 % - -0.1 %	P
4	LINE REGULATION	V1: 0.5 % - -0.5 % (Max) V2: 1 % - -1 % (Max) V3: 0.5 % - -0.5 % (Max) V4: 0.5 % - -0.5 % (Max)	I/P: 115 VAC ~ 264 VAC O/P:FULL LOAD Ta:25°C	V1: 0 % - 0 % V2: 0.03 % - -0.03 % V3: 0.05 % - -0.05 % V4: 0.05 % - -0.05 %	P
5	LOAD REGULATION	V1: 1 % - -1 % (Max) V2: 5 % - -5 % (Max) V3: 1 % - -1 % (Max) V4: 1 % - -1 % (Max)	I/P: 230 VAC O/P:FULL -MIN LOAD Ta:25°C	V1: 0.24 % - -0.24 % V2: 2.1 % - -1 % V3: 0.1 % - -0.1 % V4: 0.05 % - -0.05 %	P
6	CROSS REGULATION	V1: 1 % - -1 % (Max) V2: 5 % - -5 % (Max) V3: 1 % - -1 % (Max) V4: 1 % - -1 % (Max)	I/P: 230 VAC O/P: Testing O/P 60%LOAD Other O/P 40%LOAD Change Ta:25°C	V1: 0 % - 0 % V2: 2.8 % - -2.8 % V3: 0 % - 0 % V4: 0.05 % - -0.05 %	P
7	SET UP TIME	230VAC: 1000 ms (Max) 115 VAC: 3000 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 701 ms 115VAC/ 1926 ms	P
8	RISE TIME	230VAC: 20 ms (Max) 115VAC: 20 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 15 ms 115VAC/ 14 ms	P
9	HOLD UP TIME	230VAC: 16 ms (TYP) 115VAC: 16 ms (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 19 ms 115VAC/ 19 ms	P
10	OVER/UNDERSHOOT TEST	< ±5%	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	TEST: <5 %	P
11	DYNAMIC LOAD	V1: 1000 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	248 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	90VAC-264 VAC)	I/P:TESTING O/P:FULL LOAD Ta:25°C	71V-264V	P
			I/P: LOW-LINE-3V= 87 V HIGH-LINE+15%=300 V O/P:FULL/MIN LOAD ON: 30 Sec . OFF: 30 Sec 10MIN ( AC POWER ON/OFF NO DAMAGE )	TEST: OK	
2	INPUT FREQUENCY RANGE	47HZ ~440HZ NO DAMAGE OSC	I/P: 90 VAC ~ 264 VAC O/P:FULL-MIN LOAD Ta:25°C	TEST: OK	P
3	POWER FACTOR	0.95/ 230 VAC(TYP) 0.98/1150 VAC(TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	PF= 0.97 /230 VAC. PF= 0.99 /115 VAC	P
4	EFFICIENCY	79 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	79.9 %	P
5	INPUT CURRENT	230V/ 1.6 A (TYP) 115V/ 3.5 A (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 1.1 A/ 230 VAC I = 2.3 A/ 115 VAC	P
6	INRUSH CURRENT	230V/ 40 A(TYP) 115V/ 25 A(TYP) COLD START	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 26 A/ 230 VAC I = 13 A/ 115 VAC	P
7	LEAKAGE CURRENT a. For earth leakage current b. For patient leakage current	a. <180 uA / 264 VAC b. <100 uA / 264 VAC	I/P: 264 VAC O/P:Min LOAD Ta:25°C	a. 74 uA b. 41 uA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	120 %- 160 %	I/P: 230 VAC I/P: 115 VAC O/P: TESTING Ta:25°C	141 %/ 230 VAC 141 %/ 115 VAC Hiccup Mode	P
2	OVER VOLTAGE PROTECTION	CH1: 5.75 V- 6.75 V	I/P: 230 VAC I/P: 115 VAC O/P: MIN LOAD Ta:25°C	6.1 V/ 230 VAC 6.1 V/ 115 VAC Shunt down Re- power ON	P
3	OVER TEMPERATURE ROTECTION	SPEC: TSW1: 95 ± 5°C O.T.P. NO DAMAGE	I/P: 230 VAC O/P: FULL LOAD	O.T.P. Active Shut down o/p voltage , recovers automatically after temperature goes down	P
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 264 VAC O/P: FULL LOAD Ta:25°C	NO DAMAGE Hiccup Mode	P

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	REMOTE CONTROL	Rc+ / Rc- 0V - 0.8V POWER ON 4V - 10V POWER OFF	I/P: 230 VAC O/P: FULL LOAD Ta:25°C	0V ~ 2.5V POWER ON 2.6V ~ 10 V POWER OFF	P
2	POWER GOOD SIGNAL	DELAY 10ms ~ 500ms	I/P: 230 VAC I/P: 115 VAC O/P: FULL LOAD Ta:25°C	307 ms/ 230 VAC 307 ms/ 115 VAC	P
3	POWER FAIL SIGNAL	> 1ms	I/P: 230 VAC I/P: 115 VAC O/P: FULL LOAD Ta:25°C	5 ms/ 230 VAC 5 ms/ 115 VAC	P
4	REMOTE SENSE	>0.25V	I/P: 230 VAC O/P: FULL LOAD Ta:25°C	>0.25V	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	TEMPERATURE RISE TEST	MODEL : MPQ-200B WITH FAN 1. ROOM AMBIENT BURN-IN : 2HRS I/P: 230VAC O/P: FULL LOAD Ta= 28.8 °C 2. HIGH AMBIENT BURN-IN : 2HRS I/P: 230VAC O/P: FULL LOAD Ta= 50.7 °C			P
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR ( MIN )	I/P: 230 VAC O/P: V1@20A V2@9A V3@2.4A V4@2.4A Ta:25°C	TEST : OK	P
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 230 VAC O/P: 80 % LOAD Ta= -20 °C	TEST : OK	P
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 50 °C NO DAMAGE	I/P: 272 VAC O/P: FULL LOAD Ta= 50 °C HUMIDITY= 95 %R.H	TEST : OK	P
5	TEMPERATURE COEFFICIENT	± 0.04 % (0~50°C)	I/P: 230 VAC O/P: FULL LOAD	± 0.02 % (0~50°C)	P
6	VIBRATION TEST	1 Carton & 1 Set Operating (1) Waveform: Sine Wave (2) Frequency: 10~500Hz (3) Sweep Time: 10min/sweep cycle (4) Acceleration: 2G (5) Test Time: 1 hour in each axis (X.Y.Z) (6) Ta: 25°C		TEST : OK	P

**SAFETY TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 4 KVAC/min I/P-FG: 1.5 KVAC/min O/P-FG: 1.5 KVAC/min	I/P-O/P: 4.2 KVAC/min I/P-FG: 1.8 KVAC/min O/P-FG: 1.8 KVAC/min Ta:25°C	I/P-O/P: 2 mA I/P-FG: 1.19 mA O/P-FG: 1.55 mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ I/P-FG: 500VDC>100MΩ O/P-FG:500VDC>100MΩ	I/P-O/P: 500 VDC I/P-FG: 500 VDC O/P-FG: 500 VDC Ta:25°C	I/P-O/P: 30 GΩ I/P-FG: 30 GΩ O/P-FG: 24 GΩ NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40 A / 2min Ta:25°C	18 mΩ	P
4	APPROVAL	TUV: Certificate NO : TA50069957 UL: File NO : E227340			P

**E.M.C TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	EN61000-3-2 CLASS A	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	PASS	P
2	CONDUCTION	EN55022 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL/50% LOAD Ta:25°C	PASS Test by certified Lab	P
3	RADIATION	EN55022 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS Test by certified Lab	P
4	E.S.D	EN61000-4-2 INDUSTRY AIR:8KV / Contact:4KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
5	E.F.T	EN61000-4-4 INDUSTRY INPUT: 2KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 INDUSTRY L-N :2KV L,N-PE:4KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
7	Test by certified Lab & Test Report Prepare				

**M.T.B.F & LIFE CYCLE CALCULATION**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C110 IS THE MOST CRITICAL COMPONENT I/P: 230VAC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 437900 HRS I/P: 230VAC O/P:FULL LOAD Ta= 50 °C LIFE TIME= 72238 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 262.1K HRS			P





COMPONENT STRESS TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) <b>Peak Voltage</b>	Q20 Rated IRFP450 : 500 V 14A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 386 V (2) 390 V (3) 386 V	P
2	Diode Peak <b>Voltage</b>	D100 Rated SBL3040PT : 40 V 30 A  D200 Rated S20LC20U : 200 V 20 A  D300 Rated FMX-12SL : 200 V 10 A  D300 Rated FMX-12SL : 200 V 10 A	I/P:High-Line +3V = 267 V O/P: (1) Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 23.9 V (2) 20.7 V (3) 23.9 V  (1) 104 V (2) 85.6 V (3) 105 V  (1) 70.8 V (2) 55.8 V (3) 75.6 V  (1) 72.4 V (2) 57.4 V (3) 73.6 V	P
3	<b>Input Capacitor Voltage</b>	C 5 Rated : 150u / 400V/ 105°C	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change (4) Burn in 1hour Ta:25°C	(1) 386 V (2) 382 V (3) 396 V (4) 390 V	P
4	<b>Control IC Voltage Test</b>	U1 Rated ML4800 : 18 V	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change Ta:25°C	(1) 15 V (2) 15.1 V (3) 15.6 V	P
5	Power Transistor (D to S) or (C to E) <b>Peak Voltage</b>	Q1 Rated IRFP460A : 500 V 20A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 408 V (2) 408 V (3) 390 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2005/5/17	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2005/9/3	PRODUCT SAMPLE W0507B20	PASS	VINCENT TSENG	MAX LIN
2006/4/11	PRODUCT SAMPLE W0603C35	PASS	VINCENT TSENG	MAX LIN

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