



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 89%(typ.)
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Built-in cooling fan ON-OFF control (by load)
- With DC OK signal output
- Built-in remote sense function
- All using 105°C long life electrolytic capacitors
- 5 years warranty

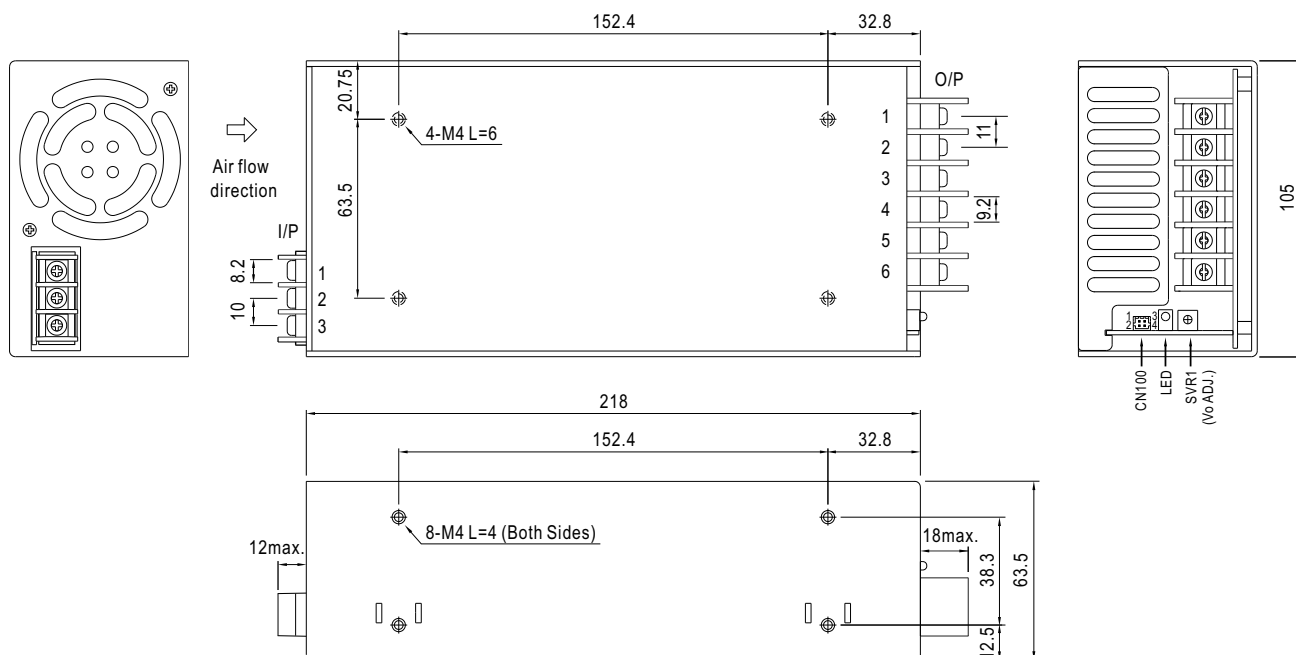


SPECIFICATION

MODEL		HRP-600-3.3	HRP-600-5	HRP-600-7.5	HRP-600-12	HRP-600-15	HRP-600-24	HRP-600-36	HRP-600-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRENT	120A	120A	80A	53A	43A	27A	17.5A	13A
	CURRENT RANGE	0 ~ 120A	0 ~ 120A	0 ~ 80A	0 ~ 53A	0 ~ 43A	0 ~ 27A	0 ~ 17.5A	0 ~ 13A
	RATED POWER	396W	600W	600W	636W	645W	648W	630W	624W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	2.8 ~ 3.8V	4.3 ~ 5.8V	6.8 ~ 9V	10.2 ~ 13.8V	13.5 ~ 18V	21.6 ~ 28.8V	28.8 ~ 39.6V	40.8 ~ 55.2V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1000ms, 50ms/230VAC 2500ms, 50ms/115VAC at full load							
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load							
INPUT	VOLTAGE RANGE Note.5	85 ~ 264VAC 120 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR (Typ.)	PF>0.94/230VAC PF>0.99/115VAC at full load							
	EFFICIENCY (Typ.)	78.5%	82%	87%	88%	88%	88%	89%	89%
	AC CURRENT (Typ.)	8.5A/115VAC 5A/230VAC							
	INRUSH CURRENT (Typ.)	35A/115VAC 70A/230VAC							
	LEAKAGE CURRENT	<1.2mA / 240VAC							
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed							
	OVER VOLTAGE	3.96 ~ 4.62V 6 ~ 7V 9.4 ~ 10.9V 14.4 ~ 16.8V 18.8 ~ 21.8V 30 ~ 34.8V 41.4 ~ 48.6V 57.6 ~ 67.2V Protection type : Shut down o/p voltage, re-power on to recover							
	OVER TEMPERATURE	80℃ ±5℃ (TSW1)detect on heatsink of power transistor 90℃ ±5℃ (TSW2) detect on heatsink of power doide for 3.3V,5V,7.5V ; 100℃ ±5℃ (TSW2) detect on main power output choke for others Protection type : Shut down o/p voltage, recovers automatically after temperature goes down							
FUNCTION	DC OK SIGNAL	PSU turn on : 3.3 ~ 5.6V ; PSU turn off : 0 ~ 1V							
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to output load derating curve)							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)							
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes							
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved							
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH							
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B							
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3							
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55024, EN61000-6-2, heavy industry level, criteria A							
	MTBF	140.6K hrs min. MIL-HDBK-217F (25℃)							
	DIMENSION	218*105*63.5mm (L*W*H)							
	PACKING	1.5Kg;8pcs/13Kg/1.34CUFT							
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 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. 5. Derating may be needed under low input voltages. Please check the derating curve for more details.								

Mechanical Specification

Case No. 977A Unit:mm



AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG $\perp$

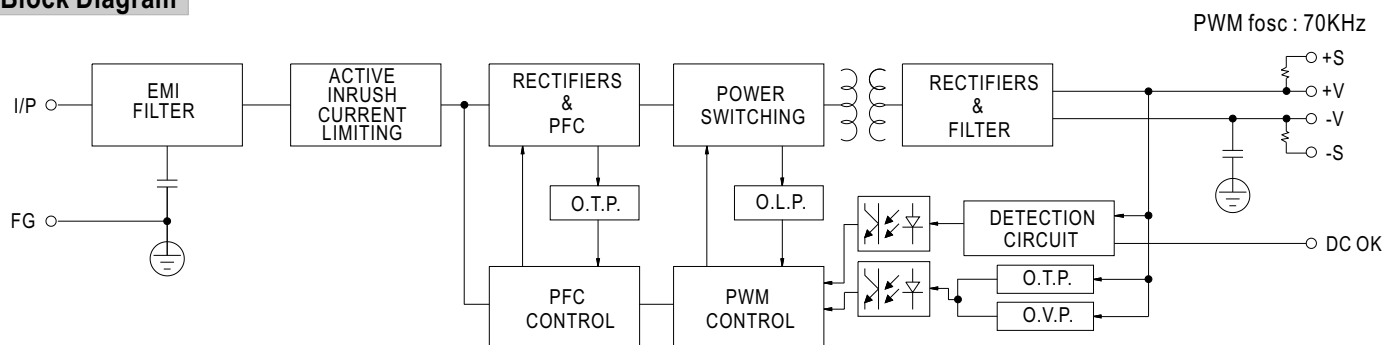
DC Output Terminal Pin No. Assignment

Pin No.	Assignment
1~3	-V
4~6	+V

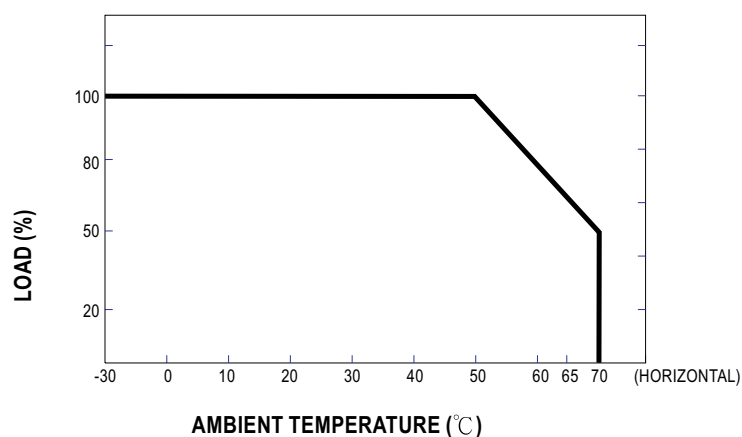
Connector Pin No. Assignment(CN100) : HRS DF11-4DP-2DS or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	DC-OK	HRS DF11-4DS or equivalent	HRS DF11-**-SC or equivalent
2	GND		
3	+S		
4	-S		

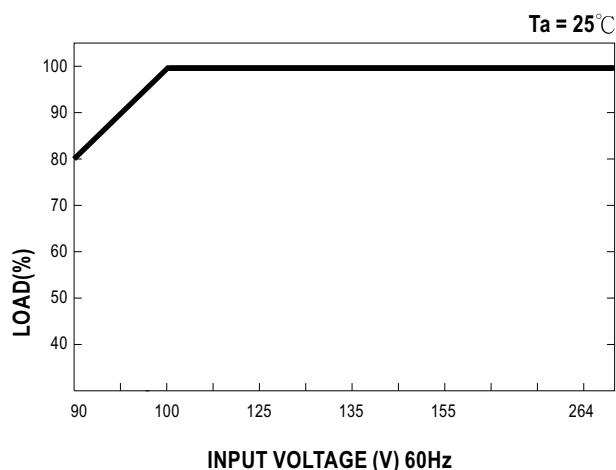
Block Diagram



Derating Curve



Output Derating VS Input Voltage



MODEL : HRP-600-36

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1 : 200 mVp-p (Max)	I/P : 230VAC O/P : FULL LOAD Ta : 25°C	V1 : 122 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1 : 28.8 V~ 39.6 V	I/P : 230 VAC I/P : 115 VAC O/P : MIN LOAD Ta : 25°C	26.4 V~ 43.1 V/ 230 VAC 26.4 V~ 43.1 V/ 115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1 : 1 %~ -1 % (Max)	I/P : 100 VAC / 264 VAC O/P : FULL/ MIN LOAD Ta : 25°C	V1 : 0.06 %~ -0.06 %	P
4	LINE REGULATION	V1 : 0.2 %~ -0.2 % (Max)	I/P : 100 VAC ~ 264 VAC O/P : FULL LOAD Ta : 25°C	V1 : 0.04 %~ -0.04 %	P
5	LOAD REGULATION	V1 : 0.5 %~ -0.5 % (Max)	I/P : 230 VAC O/P : FULL ~MIN LOAD Ta : 25°C	V1 : 0.04 %~ -0.04 %	P
6	SET UP TIME	230VAC : 1000 ms (Max) 115 VAC : 2500 ms (Max)	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 458 ms 115VAC/ 916 ms	P
7	RISE TIME	230VAC : 50 ms (Max) 115VAC : 50 ms (Max)	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 20 ms 115VAC/ 20 ms	P
8	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/ 22 ms 115VAC/ 17 ms	P
9	OVER/UNDERSHOOT TEST	< ±5%	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	TEST : < 5 %	P
10	DYNAMIC LOAD	V1 : 3600 mVp-p	I/P : 230 VAC O/P : FULL /Min LOAD 90%DUTY/1KHZ Ta : 25°C	2009 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	85VAC~264 VAC	I/P : TESTING O/P : FULL LOAD Ta : 25°C	51V~264V	P
			I/P : LOW-LINE-3V= 97 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 ~63 HZ NO DAMAGE OSC	I/P : 100 VAC ~ 264 VAC O/P : FULL-MIN LOAD Ta : 25°C	TEST : OK	P
3	POWER FACTOR	0.94 / 230 VAC(TYP) 0.99 / 115 VAC(TYP)	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	PF= 0.961 / 230 VAC PF= 0.996 / 115 VAC	P
4	EFFICIENCY	89% (TYP)	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	89.9 %	P
5	INPUT CURRENT	230V/ 5 A(TYP) 115V/ 8.5 A(TYP)	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I = 3.216 A/ 230 VAC I = 6.38 A/ 115 VAC	P
6	INRUSH CURRENT	230V/ 70 A(TYP) 115V/ 35 A(TYP) COLD START	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I = 60 A/ 230 VAC I = 30 A/ 115 VAC	P
7	LEAKAGE CURRENT	< 1.2 mA / 240 VAC	I/P : 264 VAC O/P : Min LOAD Ta : 25°C	L-FG : 0.7 mA N-FG : 0.75 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	105 %~ 135 %	I/P : 230 VAC I/P : 115 VAC O/P : TESTING Ta : 25°C	118.8%/ 230 VAC 118.8%/ 115 VAC Constant current limiting, recovers automatically after fault condition is removed	P
2	OVER VOLTAGE PROTECTION	CH1 : 41.4V~ 48.6 V	I/P : 230 VAC I/P : 115 VAC O/P : MIN LOAD Ta : 25°C	44.47 V/ 230 VAC 44.40 V/ 115 VAC Shut down Re- power ON	P
3	OVER TEMPERATURE PROTECTION	SPEC : TSW1 : 80 ± 5°C detect on heatsink of power transistor TSW2 : 100 ± 5°C detect on heatsink of power diode 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 Constant current limiting, recovers automatically after fault condition is removed	P



CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	DC OK SIGNAL	PSU turn on : 3.3 ~ 5.6V ; PSU turn off : 0 ~ 1V	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	PSU turn on : 5.176 V PSU turn off : 0 V	P
2	REMOTE SENSE	>0.5V	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	➤ 0.5 V	P
3	FAN ON/OFF control test	---	I/P : 230 VAC O/P : TESTING Ta : 25°C	> 32 %LOAD FAN ON < 27.4 %LOAD FAN OFF	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT																																																																																																																													
1	TEMPERATURE RISE TEST	MODEL : HRP-600-24 1. ROOM AMBIENT BURN-IN : 1 HRS I/P : 230VAC O/P : FULL LOAD Ta= 29.2 °C 2. HIGH AMBIENT BURN-IN : 2 HRS I/P : 230VAC O/P : FULL LOAD Ta= 58.4 °C <table><tr><th>NO</th><th>Position</th><th>P/N</th><th>ROOM AMBIENT Ta= 29.2 °C</th><th>HIGH AMBIENT Ta=58.4 °C</th></tr><tr><td>1</td><td>LF1</td><td>TR-385</td><td>32.8°C</td><td>60.0°C</td></tr><tr><td>2</td><td>BD1</td><td>30A/800V US30KB80R</td><td>42.4°C</td><td>69.5°C</td></tr><tr><td>3</td><td>L3</td><td>TR854</td><td>40.1°C</td><td>68.1°C</td></tr><tr><td>4</td><td>Q1</td><td>IRFP460A 20A/500V</td><td>33.5°C</td><td>66.8°C</td></tr><tr><td>5</td><td>D1</td><td>BYC10-600 10A/600V</td><td>34.3°C</td><td>73.8°C</td></tr><tr><td>6</td><td>C5</td><td>470u/400V 105°C 30*45 MXG</td><td>56.3°C</td><td>61.0°C</td></tr><tr><td>7</td><td>C18</td><td>100u/35V L7Kh 8*11.5 YXF</td><td>33.0°C</td><td>63.5°C</td></tr><tr><td>8</td><td>CN2</td><td>TSW1 90°C</td><td>49.8°C</td><td>64.7°C</td></tr><tr><td>9</td><td>C61</td><td>330u/25V L7Kh 8*16 YXG</td><td>54.7°C</td><td>60.9°C</td></tr><tr><td>10</td><td>U1</td><td>CM6800GIP</td><td>47.6°C</td><td>61.7°C</td></tr><tr><td>11</td><td>T1</td><td>TF1821</td><td>40.7°C</td><td>84.8°C</td></tr><tr><td>12</td><td>T2</td><td>TR-435</td><td>44.7°C</td><td>60.5°C</td></tr><tr><td>13</td><td>Q3</td><td>IRFP460A 20A/500V TO247</td><td>41.9°C</td><td>81.8°C</td></tr><tr><td>14</td><td>Q100</td><td>MBR20H100CT 20A/100V</td><td>38.4°C</td><td>82.7°C</td></tr><tr><td>15</td><td>L100</td><td>TR859</td><td>39.2°C</td><td>76.4°C</td></tr><tr><td>16</td><td>C106</td><td>1000u/35V UL10Kh 12.5*20 ZLH</td><td>34.7°C</td><td>70.1°C</td></tr><tr><td>17</td><td>C150</td><td>47u/50V L5Kh 6.3*11 YXF</td><td>34.8°C</td><td>75.1°C</td></tr><tr><td>18</td><td>RG1</td><td>RG L7812CV 1.0A/12V</td><td>33.2°C</td><td>71.8°C</td></tr><tr><td>19</td><td>C152</td><td>47u/50V L5Kh 6.3*11 YXF</td><td>38.2°C</td><td>67.8°C</td></tr><tr><td>20</td><td>CN102</td><td>TSW2 90°C</td><td>38.4°C</td><td>66.7°C</td></tr><tr><td>21</td><td>C231</td><td>100U/10V KY</td><td>34.9°C</td><td>62.2°C</td></tr><tr><td>22</td><td>C251</td><td>22u/50V L5Kh 5*11 KY</td><td>52.9°C</td><td>62.5°C</td></tr><tr><td>23</td><td>C235</td><td>22u/50V L5Kh 5*11 KY</td><td>29.2°C</td><td>60.5°C</td></tr><tr><td>24</td><td>Q103</td><td>BYV32E-200 20A/200V TO220</td><td>52.9°C</td><td>80.4°C</td></tr></table>			NO	Position	P/N	ROOM AMBIENT Ta= 29.2 °C	HIGH AMBIENT Ta=58.4 °C	1	LF1	TR-385	32.8°C	60.0°C	2	BD1	30A/800V US30KB80R	42.4°C	69.5°C	3	L3	TR854	40.1°C	68.1°C	4	Q1	IRFP460A 20A/500V	33.5°C	66.8°C	5	D1	BYC10-600 10A/600V	34.3°C	73.8°C	6	C5	470u/400V 105°C 30*45 MXG	56.3°C	61.0°C	7	C18	100u/35V L7Kh 8*11.5 YXF	33.0°C	63.5°C	8	CN2	TSW1 90°C	49.8°C	64.7°C	9	C61	330u/25V L7Kh 8*16 YXG	54.7°C	60.9°C	10	U1	CM6800GIP	47.6°C	61.7°C	11	T1	TF1821	40.7°C	84.8°C	12	T2	TR-435	44.7°C	60.5°C	13	Q3	IRFP460A 20A/500V TO247	41.9°C	81.8°C	14	Q100	MBR20H100CT 20A/100V	38.4°C	82.7°C	15	L100	TR859	39.2°C	76.4°C	16	C106	1000u/35V UL10Kh 12.5*20 ZLH	34.7°C	70.1°C	17	C150	47u/50V L5Kh 6.3*11 YXF	34.8°C	75.1°C	18	RG1	RG L7812CV 1.0A/12V	33.2°C	71.8°C	19	C152	47u/50V L5Kh 6.3*11 YXF	38.2°C	67.8°C	20	CN102	TSW2 90°C	38.4°C	66.7°C	21	C231	100U/10V KY	34.9°C	62.2°C	22	C251	22u/50V L5Kh 5*11 KY	52.9°C	62.5°C	23	C235	22u/50V L5Kh 5*11 KY	29.2°C	60.5°C	24	Q103	BYV32E-200 20A/200V TO220	52.9°C	80.4°C	P
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24	Q103	BYV32E-200 20A/200V TO220	52.9°C	80.4°C																																																																																																																														
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P : 230 VAC O/P : 116 % LOAD Ta : 25°C	TEST : OK	P																																																																																																																													
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 230 VAC O/P : 100 % LOAD Ta= -35 °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	± 0.03 %(0-50°C)	I/P : 230 VAC O/P : FULL LOAD	± 0.004 %(0-50°C)	P																																																																																																																													
6	VIBRATION TEST	1 Carton & 1 Set (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 10min/sweep cycle (4) Acceleration : 5G (5) Test Time : 1 hour in each axis (X.Y.Z) (6) Ta : 25°C		TEST : OK	P																																																																																																																													

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P : 3 KVAC/min I/P-FG : 1.5 KVAC/min O/P-FG : 0.5 KVAC/min	I/P-O/P : 3.6 KVAC/min I/P-FG : 1.8 KVAC/min O/P-FG : 0.6 KVAC/min Ta : 25°C	I/P-O/P : 5.59 mA I/P-FG : 4.64 mA O/P-FG : 4.28 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 / 70%RH	I/P-O/P : 29.5 GΩ I/P-FG : 25.4 GΩ O/P-FG : 30 GΩ NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40 A / 2min Ta : 25°C / 70%RH	11 mΩ	P
4	APPROVAL	TUV : Certificate NO : R 50153202 UL : File NO : E183223			P

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	EN61000-3-2 CLASS A CLASS D	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	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	HRP-600-24 : SUPPOSE C 106 I/P : 230VAC O/P : FULL LOAD I/P : 230VAC O/P : FULL LOAD	IS THE MOST CRITICAL COMPONENT Ta= 25 °C LIFE TIME= 2024763 HRS Ta= 50 °C LIFE TIME= 232873.8 HRS		P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE : 140.6K HRS			P

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) Peak Voltage	Q3 Rated SPW20N60C3 : 20.7A/600V	I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on (2) Output Short Ta : 25°C	(1) 468 V (2) 430 V	P
2	Diode Peak Voltage	Q100 Rated FME-220B : 20A/150V Q103 Rated BYV32E-200 : 20A/200V	I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on (2)Output Short Ta : 25°C	(1) 117 V (2) 110 V (1) 185 V (2) 186 V	P
3	Input Capacitor Voltage	C5 Rated 470u/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 Ta : 25°C	(1) 374.6 V (2) 383.5 V (3) 383.5 V	P
4	Control IC Voltage Test	U1 Rated CM6800GIP : 10V~20V	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) 14.145 V (2) 14.573 V (3) 14.571 V	P
5	P.F.C Transistor (D to S) or (C to E) Peak Voltage	Q1 Rated IRFP460A 20A/500V	I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on (2) Output Short Ta : 25°C	(1) 488 V (2) 418 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2009/3/17	RD SAMPLE	PASS	SANFORD SU	VINCENT TSENG
2009/6/22	PRODUCT SAMPLE W0904A29	PASS	SANFORD SU	VINCENT TSENG

2003/12/12 A50-F023