

Quality Engineering Test Report

SERIES: MPD-65 65W AC-DC DUAL OUTPUT SWITCHING POWER SUPPLY

SAMPLE: A.MPD-65A

**V1: 5V/5.5A
V2: 12V/2.8A**

B.MPD-65B

**V1: 5V/3.5A
V2: 24V/2A**

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT
1	MAX. INRUSH CURREN	I/P:230VAC SPEC:40A O/P: FULL LOAD	A: 31.507A B: 29.53A	P
2	SET UP TIME	I/P:230VAC SPEC:800mS O/P:FULL LOAD	A: 2278.69mS B: 274.45mS	P
3	RISE TIME	I/P:230VAC SPEC:20mS O/P:FULL LOAD	A: 8.054 mS B: 15.07 mS	P
4	HOLD UP TIME	I/P:230VAC SPEC:20mS O/P:FULL LOAD	A: 97.45mS B: 91.14mS	P
5	LINE REGULATION	I/P:90~264VAC SPEC: O/P:FULL LOAD A: V1: ± 1 % V2: ± 2 % B: V1: ± 1 % V2: ± 2 %	A. V1: -0.5 % ~ +0.12 % V2: -0.098 % ~ +1.43 % B. V1: -0.238 % ~ +0.00 % V2: -0.237 % ~ +0.118 %	P
6	LOAD REGULATION	I/P:230VAC SPEC: O/P:MIN. TO FULL LOAD A: V1: ± 3 % V2: ± 4 % B: V1: ± 3 % V2: ± 4 %	A. V1: -1.0 % ~ +0.39 % V2: -1.13 % ~ +0.925 % B. V1: -0.237 % ~ +0.11 % V2: -0.315 % ~ +0.55 %	P
7	OUTPUT VOLTAGE TOLERANCE	I/P:90~264VAC SPEC: O/P:0% TO FULL LOAD A: V1: ± 4 % V2: ± 7 % B: V1: ± 4 % V2: ± 7 %	A. V1: -1.868 % ~ +0377 % V2: -0.684 % ~ +5.01 % B. V1: -1.98 % ~ +1.22 % V2: -3.321 % ~ +5.95 %	P
8	OVER LOAD PROTECTION	I/P:230VAC SPEC: 73W~105W O/P:TESTING	A: 102.36W B: 82.22W	P
9	AC INPUT VOLTAGE RANGE	I/P:TESTING SPEC:90~264VAC O/P:FULL LOAD	A. 54.688V ~ 264 VAC B. 58.81V ~ 264 VAC	P
10	RIPPLE&NOISE	I/P:230VAC SPEC: O/P:FULL LOAD A: V1: 60 mVp-p V2: 150 mVp-p B: V1: 60 mVp-p V2: 150 mVp-p	A: V1: 5 mVp-p V2: 39 mVp-p B: V1: 5 mVp-p V2: 44 mVp-p	P
11	AC INPUT CURRENT	I/P:230VAC SPEC:1A O/P:FULL LOAD	A: 0.757 A B: 0.759 A	P
12	EFFICIENCY	I/P:230VAC SPEC: A:75% O/P:FULL LOAD B:78%	A: 77.202 % B: 79.733 %	P
13	O/P VOLTAGE ADJ.RANGE	I/P:230VAC SPEC: A:4.75~5.25V O/P:MIN. LOAD B:4.75~5.25V	A. 4.1 V ~ 5.656 V B. 4.2 V ~ 5.7 V	P
14	GROUND LEAKAGE CURRENT	I/P:264VAC SPEC: L-FG--<0.3mA N-FG--<0.3mA	A: L-FG: 0.261mA N-FG: 0.264mA B: L-FG: 0.247mA N-FG: 0.251mA	P
15	DIELECTRIC / WITHSTAND VOLTAGE	SPEC: I/P- O/P: 4KVAC/ 1 min. (10mA CUT-OFF) I/P - FG: 1.5KVAC/ 1 min. (10mA CUT-OFF) O/P -FG: 0.5KVAC/ 1 min. (10mA CUT-OFF)	A: I/P-O/P: 2.337mA I/P-FG: 1.516mA O/P-FG: 3.72mA B: I/P-O/P: 2.1mA I/P-FG: 1.3mA O/P-FG: 3.6mA	P

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16	INSULATION RESISTANCE	SPEC: I/P.O/P: 500VDC/100MOhms MIN. I/P-FG: 500VDC/100MOhms MIN. O/P-FG: 500VDC/100MOhms MIN.	A: TEST OK B: TEST OK	P																																
17	BURN-IN TEST	I/P: 230VAC O/P: FULL LOAD TA:25.7°C BURN-IN DURATION : 2.5 hrs	B:NON BREAK	P																																
18	ENVIRONMENT TEST	1.LOW TEMPERATURE TEST I/P:230VAC O/P:FULL LOAD AMBIENT TEMPERATURE:-10.1°C	AFTER 1hrs POWER ON OK	P																																
		2.HIGH AMBIENT TEMPERATURE FULL LOAD TEST I/P:230VAC O/P:FULL LOAD AMBIENT TEMPERATURE:40.9°C	AFTER 3 hrs NON BREAK																																	
		3.High Humidity High Voltage On/Off Test I/P:267VAC O/P:FULL LOAD AMBIENT TEMPERATURE:25°C AMBIENT HUMIDITY:95%	AFTER 15 hrs POWER ON NON BREAK																																	
19	TEMPERATURE RISE TEST Trise OF PARTS	A: I/P :230VAC O/P :FULL LOAD AFTER 3 hr BURN-IN TA:30°C	<table border="1"> <thead> <tr> <th>POSITION</th> <th>P/N</th> <th>TEMP</th> <th>Trise</th> </tr> </thead> <tbody> <tr> <td>BD1</td> <td>BRIDGE DIODE</td> <td>76.7°C</td> <td>46.7°C</td> </tr> <tr> <td>Q1</td> <td>MAIN TRANSISTOR</td> <td>83.5°C</td> <td>53.5°C</td> </tr> <tr> <td>T1</td> <td>MAIN TRANSFORMER WIRE</td> <td>91.9°C</td> <td>61.9°C</td> </tr> <tr> <td>D50</td> <td>O/P DIODE</td> <td>92.3°C</td> <td>62.3°C</td> </tr> <tr> <td>C51</td> <td>O/P FILTER CAPACITOR</td> <td>78.2°C</td> <td>48.2°C</td> </tr> <tr> <td>C5</td> <td>I/P FILTER CAPACITOR</td> <td>84.0°C</td> <td>54.0°C</td> </tr> <tr> <td>LF1</td> <td>I/P FILTER TRANSFORMER</td> <td>67.8°C</td> <td>57.8°C</td> </tr> </tbody> </table>	POSITION	P/N	TEMP	Trise	BD1	BRIDGE DIODE	76.7°C	46.7°C	Q1	MAIN TRANSISTOR	83.5°C	53.5°C	T1	MAIN TRANSFORMER WIRE	91.9°C	61.9°C	D50	O/P DIODE	92.3°C	62.3°C	C51	O/P FILTER CAPACITOR	78.2°C	48.2°C	C5	I/P FILTER CAPACITOR	84.0°C	54.0°C	LF1	I/P FILTER TRANSFORMER	67.8°C	57.8°C	P
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20	CRITICAL COMPONENT RECORD (FOR QC INSPECTION REFERENCE ONLY)	B: FUSE :2A/250V BRIDGE DIODE :D3SB60 LINE FILTER :TF0484 TRANSFOMER TF-791 POWER SWITCHER :SPP07N60C2 OUTPUT DIODE :BYQ28X-200 OUTPUT CAPACITOR :1200uF/16V 105° LL3K INPUT CAPACITOR :HITACHI 150uF/400V 85°C P.C.B :MPT-65-R3																																		
21	LIFE CYCLE	B: SUPPOSE C23 IS THE MOST CRITICAL COMPONENT I/P:230VAC O/P:FULL LOAD Ta:25°C Tc23:74.5°C Life: 49314hrs I/P:230VAC O/P:FULL LOAD Ta:45°C Tc23:95.2°C Life: 11744hrs		P																																
DATE	SAMPLE	TEST RESULT	TEST	APPROVAL																																
20011110	RD SAMPLE MPD-65A MPD-65B	PASS	VINCENT	MAX LIN																																
20011210	PRODUCT A109C24C MPD-65A MPD-65B	PASS	VINCENT	MAX LIN																																
20020919	PRODUCT A208A10 MPD-65B	PASS	VINCENT	MAX LIN																																
20021206	PRODUCT A209A10A MPD-65A	PASS	VINCENT	MAX LIN																																