

MODEL : SD-150C-12

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 120 mVp-p (Max)	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	V1: 16 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 11 V~ 16 V	I/P: 48 VDC O/P:MIN LOAD Ta:25°C	9.48V~ 16.5 V	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 1 %~-1 % (Max)	I/P:36VDC / 72 VDC O/P:FULL/ MIN LOAD Ta:25°C	V1: 0.36 %~-0.36 %	P
4	LINE REGULATION	V1: 0.5 %~-0.5 % (Max)	I/P:36 VDC / 72 VDC O/P:FULL LOAD Ta:25°C	V1: 0.04 %~-0.04 %	P
5	LOAD REGULATION	V1: 0.5 %~-0.5 % (Max)	I/P: 48 VDC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.21 %~-0.21 %	P
6	SET UP TIME	2000 ms (Max)	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	1666ms	P
7	OVER/UNDERSHOOT TEST	< ±5%	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	TEST: <5 %	P
8	DYNAMIC LOAD	V1: 1200 mVp-p	I/P: 48 VDC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	291 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	36VDC~ 72 VDC	I/P:TESTING O/P:FULL LOAD Ta:25°C	31.6 V~ 72 V	P
			I/P: LOW-LINE-0.2V= 35.8 V HIGH-LINE+5%= 75.6 V O/P:FULL/MIN LOAD ON: 30 Sec . OFF: 30 Sec 10MIN (AC POWER ON/OFF NO DAMAGE)	TEST: OK	
2	EFFICIENCY	77 % (TYP)	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	84 %	P
3	INPUT CURRENT	4.2 A(TYP)	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	I = 3.75 A	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	105 %~ 135 %	I/P: 48 VDC O/P: TESTING Ta: 25°C	121 % Hiccup mode, recovers automatically after fault condition is removed	P
2	OVER VOLTAGE PROTECTION	CH1: 16.8V~ 20 V	I/P: 48 VDC O/P: 10% LOAD Ta: 25°C	18.7 V Hiccup mode, recovers automatically after fault condition is removed	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 48 VDC O/P: FULL LOAD Ta: 25°C	NO DAMAGE Hiccup mode, recovers automatically after fault condition is removed	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT																					
1	TEMPERATURE RISE TEST	MODEL : SD-150B-12 1. ROOM AMBIENT BURN-IN : 1 HRS I/P: 24 VDC O/P: FULL LOAD Ta= 22.4 °C	<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>ROOM AMBIENT Ta= 22.4 °C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Q1</td> <td>92.8</td> </tr> <tr> <td>2</td> <td>T1</td> <td>76.1</td> </tr> <tr> <td>3</td> <td>D11</td> <td>80.5</td> </tr> <tr> <td>4</td> <td>C33</td> <td>55</td> </tr> <tr> <td>5</td> <td>L1</td> <td>62.2</td> </tr> <tr> <td>6</td> <td>C5</td> <td>53.7</td> </tr> </tbody> </table>	NO	Position	ROOM AMBIENT Ta= 22.4 °C	1	Q1	92.8	2	T1	76.1	3	D11	80.5	4	C33	55	5	L1	62.2	6	C5	53.7		P
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3	D11	80.5																								
4	C33	55																								
5	L1	62.2																								
6	C5	53.7																								
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P: 24 VDC O/P: 128% LOAD Ta: 25°C	TEST : OK	P																					
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 24 VDC O/P: 100%LOAD / 80%LOAD Ta= 0°C / -10°C	TEST : OK	P																					
5	TEMPERATURE COEFFICIENT	± 0.03 % (0~25°C)	I/P: 24 VDC O/P: FULL LOAD	± 0.01% (0~25°C)	P																					
6	VIBRATION TEST	1 Carton & 1 Set Operating at I/P: 24 VDC NO LOAD (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	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 1.5 KVAC/min I/P-FG: 2 KVAC/min O/P-FG: 0.5 KVAC/min	I/P-O/P: 1.8 KVAC/min I/P-FG: 2.4 KVAC/min O/P-FG: 0.6 KVAC/min Ta:25°C	I/P-O/P: 2.5 mA I/P-FG: 3.5 mA O/P-FG: 2.1mA 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: 2G Ω I/P-FG: 2G Ω O/P-FG: 2G Ω NO DAMAGE	P

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RADIATION	EN55032 CLASS B	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	PASS Test by certified Lab	P
2	E.S.D	EN61000-4-2 LIGHT INDUSTRY AIR:8KV / Contact:4KV	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	CRITERIA A	P
3	E.F.T	EN61000-4-4 LIGHT INDUSTRY INPUT: 1KV	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	CRITERIA A	P
4	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	SUPPOSE C33 IS THE MOST CRITICAL COMPONENT I/P: 24VDC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 45941 HRS			P
2	MTBF	2897.06K hrs min. Telcordia SR-332 (Bellcore) ; 419.6K hrs min. MIL-HDBK-217F (25°C)			P

SAMPLE	TEST RESULT	TESTER	APPROVAL
RD SMAPLE	PASS	H.C.LIOU	MAX LIN