



Test Report : DLC03C-15

3W DIP Package DC-DC Regulated Converter

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

DESIGN VERIFY TEST
OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-2 % ~ +2 % (Max)	I/P:48VDC O/P:FULL LOAD Ta:25°C	V1 -0.4 % V2 -0.19 %	P
2	RIPPLE & NOISE	50 mVp-p (Max)	I/P:48VDC O/P:FULL LOAD Ta:25°C	V1 21.9 mv V2 17.5 mv	P
3	LINE REGULATION	-0.2 % ~ +0.2 % (Max)	I/P:36VDC~75VDC O/P:FULL LOAD Ta:25°C	V1 -0.02 % ~ +0.01 % V2 -0.01 % ~ +0.01 %	P
4	LOAD REGULATION	-0.5 % ~ +0.5 % (Max)	I/P:48VDC O/P:MIN-FULL LOAD Ta:25°C	V1 -0.01 % ~ -0.01 % V2 -0.04 % ~ +0.07 %	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	80 % (Typ)	I/P:48VDC O/P:FULL LOAD Ta:25°C	80.67 %	P
2	DC CURRENT	78 mA / FULL LOAD (Max) 10 mA / NO LOAD (Max)	I/P:48VDC O/P:NO / FULL LOAD Ta:25°C	77.06 mA / FULL LOAD 9.482 mA / NO LOAD	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	150%~250% (typ)	I/P:48VDC O/P:TESTING Ta:25°C	167%	P
2	SHORT PROTECTION	CONTINUOUS	I/P:75VDC O/P:FULL LOAD Ta:25°C	NO DAMAGE OK	P

SAFETY TEST
SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:1500 VDC/min	I/P-O/P:1500 VDC/min Ta:25°C	I/P-O/P: 0.002mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500 VDC Ta:25°C	I/P-O/P>100MΩ NO DAMAGE	P

RELIABILITY TEST
ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT								
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 12HRS I/P:48VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 12HRS I/P:48VDC O/P:FULL LOAD Ta=71°C			P								
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CASE</td> <td>55.6°C</td> <td>94.5°C</td> </tr> </tbody> </table>		NO	Position	1	2	1	CASE	55.6°C	94.5°C		
NO	Position	1	2										
1	CASE	55.6°C	94.5°C										
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P:48VDC O/P: FULL LOAD Ta= -40°C	TEST : OK	P								

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-HDBK-217F,NOTICE 2 ,PARTS COUNT TOTAL FAILURE RATE : 3.31777 M.T.B.F : 301407 HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ALROY WANG	VINCENT ZENG