



Test Report : GE40I48

40W AC-DC Interchangeable Industrial Adaptor

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

Other test

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	RIPPLE & NOISE	300mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	25 mVp-p
2	VOLTAGE TOLERANCE	-3% ~ +3% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-1.52% ~ -0.42%
3	LINE REGULATION	-1.0% ~ +1.0% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	+0.48% ~ +0.31%
4	LOAD REGULATION	-3% ~ +3 (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-0.59% ~ +0.52%
5	SET UP TIME	3000 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	1102.149 mS
6	RISE TIME	40 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	39.27 mS
7	HOLD UP TIME	12 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	16.301 mS

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	VOLTAGE RANGE	90VAC ~ 264VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	58V ~ 264V
2	FREQUENCY RANGE	50HZ - 60HZ (Typ) NO DAMAGE OSC	I/P: 100VAC ~ 240VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK
3	EFFICIENCY	89%	I/P:230VAC O/P:FULL LOAD Ta:25°C	89.58%
4	AVERAGE EFFICIENCY	87.59% (LEVEL VI) 88.60% (LEVEL 5)	I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C	90.89% (115VAC) 91.45% (230VAC)
5	AC CURRENT	1.0A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.779A
6	NO LOAD POWER CONSUMPTION	< 0.075W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.0748W
7	INRUSH CURRENT	<70A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	66.375A
8	LEAKAGE CURRENT	< 0.25mA	I/P:240VAC O/P:Min LOAD Ta:25°C	L-FG: 0.02mA N-FG: 0.02mA

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	OVER LOAD PROTECTION	110% ~ 200%	I/P:230VAC O/P:TESTING Ta:25°C	155.4% HICCUP MODE RESET : AUTO RECOVER
2	OVER VOLTAGE PROTECTION	115 ~ 135%	I/P:230VAC O/P:MIN LOAD Ta:25°C	Clamp by ZENER diode
3	SHORT PROTECTION	SHORT OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25°C	NO DAMAGE HICCUP MODE RESET AUTO RECOVER

SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P:4242 VDC/min	I/P-O/P:4242 VDC/min Ta:25°C	I/P-O/P: 0.03uA NO DAMAGE
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

RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT																																																							
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=25°C 2. HI AMBIENT BURN-IN : 16HRS I/P:230VAC O/P:100% LOAD Ta=40°C 3. HI AMBIENT BURN-IN : 16HRS I/P:230VAC O/P: 50% LOAD Ta=70°C																																																									
				<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>BD1</td> <td>62.6°C</td> <td>76.2°C</td> <td>85.0°C</td> </tr> <tr> <td>2</td> <td>L1</td> <td>58.7°C</td> <td>72.5°C</td> <td>85.7°C</td> </tr> <tr> <td>3</td> <td>I/P C6</td> <td>66.7°C</td> <td>80.3°C</td> <td>90.5°C</td> </tr> <tr> <td>4</td> <td>Q1</td> <td>84.7°C</td> <td>98.1°C</td> <td>100.3°C</td> </tr> <tr> <td>5</td> <td>T1 coil</td> <td>68.6°C</td> <td>81.7°C</td> <td>92.4°C</td> </tr> <tr> <td>6</td> <td>T1 core</td> <td>67.3°C</td> <td>80.2°C</td> <td>91.5°C</td> </tr> <tr> <td>7</td> <td>O/P D8</td> <td>66.5°C</td> <td>79.5°C</td> <td>90.4°C</td> </tr> <tr> <td>8</td> <td>O/P C9</td> <td>63.0°C</td> <td>76.1°C</td> <td>89.2°C</td> </tr> <tr> <td>9</td> <td>O/P C11</td> <td>54.2°C</td> <td>67.9°C</td> <td>84.8°C</td> </tr> <tr> <td>10</td> <td>CASE</td> <td>49.9°C</td> <td>63.7°C</td> <td>81.9°C</td> </tr> </tbody> </table>	NO	Position	1	2	3	1	BD1	62.6°C	76.2°C	85.0°C	2	L1	58.7°C	72.5°C	85.7°C	3	I/P C6	66.7°C	80.3°C	90.5°C	4	Q1	84.7°C	98.1°C	100.3°C	5	T1 coil	68.6°C	81.7°C	92.4°C	6	T1 core	67.3°C	80.2°C	91.5°C	7	O/P D8	66.5°C	79.5°C	90.4°C	8	O/P C9	63.0°C	76.1°C	89.2°C	9	O/P C11	54.2°C	67.9°C	84.8°C	10	CASE	49.9°C	63.7°C	81.9°C
NO	Position	1	2	3																																																							
1	BD1	62.6°C	76.2°C	85.0°C																																																							
2	L1	58.7°C	72.5°C	85.7°C																																																							
3	I/P C6	66.7°C	80.3°C	90.5°C																																																							
4	Q1	84.7°C	98.1°C	100.3°C																																																							
5	T1 coil	68.6°C	81.7°C	92.4°C																																																							
6	T1 core	67.3°C	80.2°C	91.5°C																																																							
7	O/P D8	66.5°C	79.5°C	90.4°C																																																							
8	O/P C9	63.0°C	76.1°C	89.2°C																																																							
9	O/P C11	54.2°C	67.9°C	84.8°C																																																							
10	CASE	49.9°C	63.7°C	81.9°C																																																							
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P : 230VAC O/P : 100% LOAD Ta= -20°C	TEST : OK																																																							

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	CAPACITOR LIFE CYCLE	SUPPOSE C9 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:100% LOAD Ta=25°C LIFE TIME=128654.22 HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME= 51888.93 HRS		
2	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 2.363 M.T.B.F : 423,115.296 HRS		

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG