



Test Report : GE40I12

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	120mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	18 mVp-p
2	VOLTAGE TOLERANCE	-3% ~ +3% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0.68% ~ +0.75%
3	LINE REGULATION	-1.0% ~ +1.0% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	+0.00% ~ +0.03%
4	LOAD REGULATION	-3% ~ +3 (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-0.73% ~ +0.71%
5	SET UP TIME	3000 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	954.36 mS
6	RISE TIME	40 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	6.863 mS
7	HOLD UP TIME	12 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	14.163 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	68V ~ 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	87%	I/P:230VAC O/P:FULL LOAD Ta:25°C	87.52%
4	AVERAGE EFFICIENCY	87.59% (LEVEL VI) 88.59% (LEVEL 5)	I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C	88.93% (115VAC) 89.29% (230VAC)
5	AC CURRENT	1.0A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.811A
6	NO LOAD POWER CONSUMPTION	< 0.075W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.0687W
7	INRUSH CURRENT	<70A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	64.015A
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	150.0% 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>68.9°C</td><td>81.5°C</td><td>88.6°C</td></tr> <tr><td>2</td><td>L1</td><td>65.0°C</td><td>77.7°C</td><td>85.9°C</td></tr> <tr><td>3</td><td>I/P C6</td><td>73.8°C</td><td>86.6°C</td><td>91.1°C</td></tr> <tr><td>4</td><td>Q1</td><td>86.3°C</td><td>99.4°C</td><td>96.2°C</td></tr> <tr><td>5</td><td>T1 coil</td><td>79.8°C</td><td>92.3°C</td><td>96.2°C</td></tr> <tr><td>6</td><td>T1 core</td><td>79.7°C</td><td>91.9°C</td><td>96.3°C</td></tr> <tr><td>7</td><td>O/P D8</td><td>93.4°C</td><td>105.2°C</td><td>102.7°C</td></tr> <tr><td>8</td><td>O/P C9</td><td>84.9°C</td><td>96.9°C</td><td>98.7°C</td></tr> <tr><td>9</td><td>O/P C11</td><td>66.2°C</td><td>78.7°C</td><td>89.2°C</td></tr> <tr><td>10</td><td>CASE</td><td>91.9°C</td><td>74.7°C</td><td>86.3°C</td></tr> </tbody> </table>	NO	Position	1	2	3	1	BD1	68.9°C	81.5°C	88.6°C	2	L1	65.0°C	77.7°C	85.9°C	3	I/P C6	73.8°C	86.6°C	91.1°C	4	Q1	86.3°C	99.4°C	96.2°C	5	T1 coil	79.8°C	92.3°C	96.2°C	6	T1 core	79.7°C	91.9°C	96.3°C	7	O/P D8	93.4°C	105.2°C	102.7°C	8	O/P C9	84.9°C	96.9°C	98.7°C	9	O/P C11	66.2°C	78.7°C	89.2°C	10	CASE	91.9°C	74.7°C	86.3°C
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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= 28194.76 HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME= 12272.48 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