

TEST REPORT FOR INVERTER
MMA POWER SOURCE

MODEL :

MODEL	TICK (✓)
CHAMP 800	

SLIP NO. :

SR.NO.:

1.0 SR.NO. OF PWM CONTROLLER CUM IGBT DRIVER PCB:

2.0 MECHANICAL & VISUAL CHECK : OK / NOT OK

3.0 VISUAL INSPECTION:

ENSURE FOLLOWING MECHANICAL ASPECTS	RESULT
1) TIGHTNESS OF ALL HARDWARES OF MAIN TX. & IGBT ASSEMBLY	OK / NOT OK
2) CRIMPING OF ALL LUGS	OK / NOT OK
3) TIGHTNESS OF ALL HARDWARES	OK / NOT OK

4.0 CONTINUITY TEST :

A. ISOLATION BETWEEN IGBT HS & DIODE HS : OK/NOT OK

B. ISOLATION BETWEEN FABRICATED BODY & DIODE HS : OK/NOT OK

C. ISOLATION BETWEEN FABRICATED BODY & IGBT HS : OK/NOT OK

5.0 PROTECTIVE CIRCUIT:

SR. NO.	ENSURE FOLLOWING ASPECTS	ACCEPTANCE CRITERIA	RESULT
1	CHECK THE SIZE OF INTERNAL PROTECTIVE EARTH CONDUCTOR	10 to 25 SQ.MM CROSS SECTION	OK / NOT OK
2	CHECK THE COLOUR FOR PROTECTIVE EARTH CONDUCTOR	EITHER OF SINGLE GREEN COLOUR OR OF TWIN COLOUR YELLOW AND GREEN	OK / NOT OK
3	CHECK FOR THE TIGHTNESS AND THE LENGTH OF PROTECTIVE EARTH	THE LENGTH OF PROTECTIVE EARTH CONDUCTOR IS MORE THAN LENGTH OF PHASE CONDUCTOR	OK / NOT OK
4	CHECK THE METHOD OF SECURING THE PROTECTIVE EARTH TO THE CONDUCTIVE PARTS (FABRICATION)	VISUAL	OK / NOT OK



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ROUTINE TEST FOR PROTECTIVE EARTH.

SR. NO.	APPLY 10A AC 50HZ FOR 1 SEC BETWEEN	VOLTAGE MEASURED	CONDUCTOR USED	RESULT
1	I/P- EARTH & PCB3- EARTH			OK / NOT OK
2	I/P- EARTH & PCB4- EARTH			OK / NOT OK
3	I/P- EARTH & PCB9- EARTH			OK / NOT OK
4	I/P- EARTH & PCB10- EARTH			OK / NOT OK
5	I/P- EARTH & PCB19- EARTH			OK / NOT OK

6.0 DIELECTRIC (H.V.) TEST:

ENSURE FOLLOWING ASPECTS	RESULT
1) INPUT SUPPLY SHORT CIRCUIT(R,Y,B) & EARTH	OK / NOT OK
2) OUTPUT TERMINAL SHORT CIRCUIT & EARTH	OK / NOT OK
3) INPUT SUPPLY SHORT CIRCUIT(R, Y, B) & OUTPUT TERMINAL SHORT CIRCUIT	OK / NOT OK

Insulation Resistance Between	AC Dielectric Test Voltage applied for 5 sec	Current mA	Remarks
Input and Earth	1.875 KV		OK/ NOT OK
Output And Earth	1.875 KV		OK/ NOT OK
Input And Output	3.750 KV		OK/ NOT OK

7.0 WIRING CHECK AS PER DRG. NO. CK79/1105 : OK / NOT OK

8.0 FAN FLOW CHECK (BACK TO FRONT) : OK / NOT OK

9.0 NO LOAD TEST: INPUT SUPPLY 415 VOLTS, 3 PHASE, 50 Hz

NO LOAD CURRENT AMPS.	IR	IY	IB	ACCEPTANCE CRITERIA	RESULT
				$\leq 1A$	OK / NOT OK
OPEN CIRCUIT VOLTAGE (VOLTS)	OBSERVED VALUE			ACCEPTANCE CRITERIA	RESULT
				89V (+/-5V)	OK / NOT OK

10.0 MAINS LED (GREEN) GLOWING : OK / NOT OK



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11.0 LOAD TEST: INPUT SUPPLY 415 VOLTS, 3 PHASE, 50 Hz.

Sr. No.	PARAMETER	ACCEPTANCE VALUE	ACTUAL RESULT	REMARKS
1.	CONTROL TR1 VOLTAGES	18-0-18 +/-0.2VAC 0-9.5 +/-0.2VAC 0-9.5 +/-0.2VAC		OK / NOT OK
	CONTROL TR2 VOLTAGES	18-0-18 +/-0.2VAC 0-9.5 +/-0.2VAC 0-9.5 +/-0.2VAC		
2.	MIN. OUTPUT CURRENT	100A @ 24V		OK / NOT OK
3.	MAX. OUTPUT CURRENT	800A @ 44V		OK / NOT OK
4.	SHORT CKT. OUTPUT CURRENT WITH ARC FORCE POTS AT MIN (0%)	EQUAL TO 30A MORE THAN SET CURRENT FOR LESS THAN 3 SECOND		CHECK AT 200A SET CURRENT
5.	SHORT CKT. OUTPUT CURRENT WITH ARC FORCE POTS AT MAX.(100%)	50-100A MORE THAN SET CURRENT FOR LESS THAN 3 SECOND		CHECK AT 200A SET CURRENT
6.	SUPPLY VOLTAGE IMMUNITY @ 370VAC & 470VAC	EQUAL TO SET CURRENT +/- 5A		CHECK AT 600A SET CURRENT

IMPORTANT: SEAL PRESETS P1, P3, VR1, AND VR2 POT BY SILASTIC AT THE EDGE ONLY. DO NOT COVER THE WHOLE PRESET.

MODEL	LOAD AMPS. / VOLTS	IR AMPS	IY AMP S	IB AMPS	I (Avg.) ACCEPT. CRITERIA	RESULT
CHAMP 800	800 / 44				<= 64	OK / NOT OK
	600 / 44				<= 50	OK / NOT OK

12.0 SINGLE PHASING PROTECTION TEST : OK / NOT OK

13.0 LOW VOLTAGE PROTECTION TEST (330Vac) : OK / NOT OK

14.0 OVERVOLTAGE PROTECTION TEST (470Vac) : OK / NOT OK

[For Sr. No. 12, 13 & 14 Mains Indication will remain on and Trip (Red) indication will glow]



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|------|-------------------------------------------------------------------------------------------|---------------|
| 15.0 | REMOTE CONTROL OPERATION TEST
(Connect Remote & Check current variation by remote pot) | : OK / NOT OK |
| 16.0 | MMA WELDING TEST | : OK / NOT OK |
| 17.0 | GOUGING TEST | : OK / NOT OK |
| 18.0 | LOAD THE MACHINE

@800A / 44V FOR 6 Minutes | : OK / NOT OK |
| 19.0 | LOAD THE MACHINE

@ 600A / 44V FOR 1-Hrs | : OK / NOT OK |

TESTED BY:

DATE: