

TEST REPORT FOR INVERTER MMA/TIG POWER SOURCE

MODEL :

MODEL	TICK (✓)
CHAMP 400 X	

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 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

6.0 WIRING CHECK AS PER DRG. NO. CK79/1174 : OK / NOT OK

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

8.0 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
				70V (+/-5V)	OK / NOT OK

9.0 MAINS LED (GREEN) GLOWING

: OK / NOT OK

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

Sr. No.	PARAMETER	ACCEPTANCE VALUE	ACTUAL RESULT	REMARKS
1.	CONTROL TX. VOLTAGES	18-0-18 +/-0.2VAC 0-9.5 +/-0.2VAC 0-9.5 +/-0.2VAC		OK / NOT OK
2.	MIN. OUTPUT CURRENT	10A @ 10V		ADJUST BY P3 POT
3.	MAX. OUTPUT CURRENT	400A @ 36V		OK / NOT OK
4.	SHORT CKT. OUTPUT CURRENT WITH ARC FORCE SET AT MIN.(IN MMA MODE)	EQUAL TO 30A MORE THAN SET CURRENT FOR LESS THAN 3 SECOND		CHECK AT 100A SET CURRENT
5.	SHORT CKT. OUTPUT CURRENT WITH ARC FORCE SET AT MAX.(IN MMA MODE)	70-100A MORE THAN SET CURRENT FOR LESS THAN 3 SECOND		CHECK AT 100A SET CURRENT
6.	SHORT CKT. OUTPUT CURRENT WITH ARC FORCE POT. AT MAX.(IN TIG MODE)	EQUAL TO 30A MORE THAN SET CURRENT		CHECK AT 100A SET CURRENT
7.	SUPPLY VOLTAGE IMMUNITY @ 370VAC & 470VAC (IN MMA MODE)	EQUAL TO SET CURRENT +/- 5A		CHECK AT 200A SET CURRENT

IMPORTANT: SEAL PRESETS P2, P3 POT BY SILASTIC AT THE EDGE ONLY. DO NOT COVER THE WHOLE PRESET.

11.0 VRD UNIT TEST (In MMA Mode)

: OK / NOT OK

(Keep machine in no load condition.
Keep VRD switch at ON position.
check that OCV will become 6-8V after 3 min
Then do the welding and observe
that OCV will available after arc striking)

- 12.0 VRD UNIT TEST (In TIG Mode) : OK / NOT OK
 (Keep machine in no load condition.
 Keep VRD switch at ON position.
 OCV will be available.
 VRD mode is not applicable.)

MODEL	LOAD AMPS. / VOLTS	IR AMPS	IY AMP S	IB AMPS	I (Avg.) ACCEPT. CRITERIA	RESULT
CHAMP 400 X	400 / 36				≤ 26	OK / NOT OK
	310 / 32				≤ 19	OK / NOT OK

- 13.0 SINGLE PHASING PROTECTION TEST : OK / NOT OK
 (Remove I/P Supply Phases one by one & check Err 001)

- 14.0 LOW VOLTAGE PROTECTION TEST (350Vac \pm 10V) : OK / NOT OK
 (Check Err 001)

- 15.0 OVERVOLTAGE PROTECTION TEST (485Vac \pm 10V) : OK / NOT OK
 (Check Err 002)

- 16.0 THERMAL PROTECTION TEST : OK / NOT OK
 (Remove CN2 from Line Filter PCB & check the Err 003)

- 17.0 CONNECTION ERROR TEST : OK / NOT OK
 (Remove CN9 of Display PCB & Check the Err 011)

- 18.0 SHORT CIRCUIT PROTECTION TEST (In MMA Mode) : OK / NOT OK
 (Load the machine at 100A, short the output & check that
 output current goes to min. current -in 3-5 sec.)

- 19.0 ANTISTICK TEST (In MMA Mode) : OK / NOT OK
 (Load the machine at 100A, drop the o/p voltage below 10V
 & check that output current goes to min. current.)

- 20.0 ANTISTICK TEST (In TIG Mode) : OK / NOT OK
 (Load the machine at 100A, short the output & check that
 output current remains equal to set current.)

- 21.0 HOT START TEST (In MMA Mode) : OK / NOT OK

- 22.0 REMOTE CONTROL OPERATION TEST : OK / NOT OK
 (Connect remote & check current variation by remote pot)

- 23.0 MMA WELDING TEST : OK / NOT OK

- 24.0 TIG WELDING TEST : OK / NOT OK

- 25.0 HEAT RUN TEST : OK / NOT OK



ADOR WELDING LIMITED WELDING EQUIPMENT GROUP

Load the machine for 100% @ 310A / 32.4 V (MMA Mode)
For 45 min

TESTED BY:

DATE: