|  |  |
| --- | --- |
| **Logo, company name  Description automatically generated** | **ADOR WELDING LIMITED**  WELDING EQUIPMENT GROUP |

**TITLE:** Instruction for Inspection and Testing of ‘3-PH PROTECTIONPCB ASSY’ (017.01.008.0350)

1. **SCOPE**
2. Applicable for testing of 3-ph Protection PCB Assy. as per BOM 017.01.008.0350:
3. **DETAILS OF THE INSTRUCTION**
4. Inspection / Measuring / Test Equipment. :
   1. AC Power Supply
   2. Digital Multimeter.
5. Record the test results in the test report as the testing Progresses**. (INSP4678/I5/R0)**
6. In the case of any nonconformity at any stage of inspection and testing. Refer to the procedure NCCR2001.
7. For visual inspection and vibration test refer to the inspection instruction INSP3207.
8. **ELECTRICAL TEST:**
9. Connect the PCB under test, as per the given below connection diagram.

RIN

YIN

BIN

1

1

10V AC

CN1

3

CN1

CN9

3

2

5

1

2

4

**2**

4

DISPLAY PCB

(017.01.008.0350)

PROTECTION PCB

5

1

(017.01.008.0352/017.01.008.0347)

CN2

S1

s1

2

1. Apply Input power supply 415V, 3Ph 50Hz to 3-Phase Protection

PCB at RIN, YIN & BIN Position.

1. Apply AC supply 0-10V to display PCB as per given above Connection diagram.
2. Mains ON LED will glow after switching on 10V AC Power Supply.
3. Keep switch S1 on OFF position
4. Now check the error signal on display pcb as per table given below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** | **TEST DESCRIPTION** | **TEST CONDITION** | **VOLTAGE LEVELS** | **ERROR ON DISPLAY PCB** |
| 1 | NORMAL TEST | APPLY 3 PHASE 415V AC 50HZ SUPPLY TO RIN, YIN & BIN |  | NO ERROR |
| 2 | UNDER VOLTAGE TEST | DECREASE VOLTAGE BELOW 360V AC | BETWEEN 330VAC TO 360VAC | ERR 1 |
| 3 | OVER  VOLTAGE TEST | INCREASE VOLTAGE ABOVE 480V AC | ABOVE 475VAC TO 480VAC | ERR 2 |
| 4 | SINGLE  PHASE TEST FOR R PHASE | REMOVE  R PHASE @415V |  | ERR 1 |
| 5 | SINGLE  PHASE TEST FOR Y PHASE | REMOVE  Y PHASE @415V AC |  | ERR 1 |
| 6 | SINGLE  PHASE TEST FOR B PHASE | REMOVE  B PHASE @415V AC |  | ERR 1 |
| 7 | TEMP TRIP TEST | SWITCH ON SWITCH S1 |  | ERR 3 |
| 8 | PROTECTION BYPASS ERROR | REMOVE CONNECTOR CN1 |  | ERR 11 |

Note: In case of Single-Phase test for R Phase & B Phase, No error will be displayed as display PCB will become off.