Inspection and Test Record

Multiple-mode Inverter Installation Verification

Project Information

Installation Address:			
Customer Name:		Job Number:	
Inverter Model:		ITR Approved By:	
Battery Model:		Energy Source:	-

Visual Inspection

Result options: Acceptable / Defects / N/A (Not Applicable)

No.	Visual Inspection Item	Result	Date	Verified By
1	Equipment installed as per AS/NZS 4777.1:2024 & manufacturer's installation manual	-		
2	Signage installed correctly as per AS/NZS 4777.1:2024 Section 6	-		
3	Battery storage installed to AS/NZS 5139:2019 & manufacturer's installation manual	-		
4	Cabling, termination and installation comply with AS/NZS 3000	-		
5	Group and clearly label alternative supply circuits	-		
6	RCDs are Type A or as specified by the manufacturer	-		

Inspection and Test

No.	Inspection and Test Item	Result	Date	Verified By
1	Insulation resistance test (Pass value >1 MΩ @500V DC)	-		
2	Polarity Verification (L, N, E)	-		
3	Verification of impedance (Earth Fault Loop)	-		
4	Insulation resistance test of DC	-		
5	Polarity Verification of DC	-		
6	DC Voltage to Ground Verification	-		

Additional Testing for Alternative Supply

No.	Test Content	Result	Date	Verified By
1	**Confirm MEN only at main switchboard — Grid supply mode test** To confirm that the MEN is correctly configured when connected to the grid supply. The measurements for current flow shall be taken in the alternative supply active conductor, alternative supply neutral conductor and MEN connection between the earth and neutral bars with the installation configured with the following switch positions and loads: 1. MAIN SWITCH (GRID) IS ON 2. MAIN SWITCH (INVERTER) IS ON 3. MAIN SWITCH (ALTERNATIVE) IS ON 4. The circuits supplied by the grid supply are off (Non-Back up) 5. There is load connected to the alternative supply and is drawing current (Back-up) **Results: There shall be no current measured through the MEN connection.** *Note: A clamp meter may be used for measurement of current flow. Where a current is measured through the MEN connection, this can indicate an additional MEN connection within the inverter.*	A= A N= A N-E= A		

No.	Test Content	Result	Date	Verified By
2	**Confirm MEN only at main switchboard — Alternative supply mode test** To confirm that the MEN is correctly configured when connected to the alternative supply. The measurements for current flow shall be taken in the alternative supply active conductor, alternative supply neutral conductor and MEN connection between the earth and neutral bars with the installation configured with the following switch positions and loads: 1. MAIN SWITCH (GRID) IS OFF 2. MAIN SWITCH (INVERTER) IS ON 3. MAIN SWITCH (ALTERNATIVE) IS ON 4. The circuits supplied by the grid supply are off (Non-Back up) 5. There is load connected to the alternative supply and is drawing current (Back-up) **Results: There shall be no current measured through the MEN connection.** *Note: A clamp meter may be used for measurement of current flow. Where a current is measured through the MEN connection, this can indicate an additional MEN connection within the inverter.*	A= A N= A N-E= A		
3	**Continuity of neutral conductors verification** To confirm that the neutral conductor is continuous between the neutral bar with the MEN connection and the alternative supply neutral connected to the alternative supply. The measurements for voltage with reference to earth shall be taken between the alternative supply active conductor and main earth bar, alternative supply neutral conductor and main earth bar with the installation configured with the following switch positions: 1. MAIN SWITCH (GRID) IS OFF 2. MAIN SWITCH (INVERTER) IS ON 3. MAIN SWITCH (ALTERNATIVE) IS ON **Results: The voltage measurement between the main earth bar and the alternative supply active conductor shall be 230 V a.c ±10%. The voltage measurement between the main earth bar and the alternative supply neutral bar shall be 0V a.c.** *Note 1: If a voltage is recorded on the alternative supply neutral bar, this indicates the neutral conductors are not continuous to the main neutral.* *Note 2: Continuity testing between the main neutral bar and the alternative supply neutral bar can provide a pass test to indicate continuity in either de-energised or grid supply states, but then cannot maintain continuity when switched to the alternative supply mode.* *Note 3: The use of a low impedance voltmeter can cause nuisance tripping of RCDs.*	A-E= V N-E= V		
4	RCD testing verification — Alternative supply circuit trips with RCD testing instrument.	-		

Test Results

@500V DC or higher for insulation test **Insert N/A for non-applicable tests**

From	To	Voltage	Insulation (MΩ)	Comments
Red	White			
White	Blue			
Blue	Red			
Red	Neutral			
White	Neutral			
Blue	Neutral			
Red	Earth			
White	Earth			
Blue	Earth			
Neutral	Earth		N/A	
DC Positive 1	DC Negative 1		N/A	
DC Positive 2	DC Negative 2		N/A	
DC Positive 3	DC Negative 3		N/A	
DC Positive 1	Earth			
DC Negative 1	Earth			
DC Positive 2	Earth			
DC Negative 2	Earth			
DC Positive 3	Earth			
DC Negative 3	Earth			

Inspection and Test Equipment

No.	Make / Model	Serial No.	Calibration Cert. No.	Cal. Expiry Date
1				

Comments

Defects

☐ Defects identified rectified / Closed out **OR** ☐ Punch Listed

Sign-off

Name (CAPITALS): Signature: Date:

Tested By: Company Name: Elec. Licence No.: