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Date: _____

Supplementary Report to Valid C.o.C nr: _____ Dated: _____ This Test Report Number: _____

Site Address or GPS Co-ordinates _____

User / Owners Contact Details Client's Name and Surname _____ Contact Number: _____
 SA ID Number _____
 Physical address _____
 Town _____ Province _____

Solar Contractors Details Installer Name and Surname _____
 Company Name _____
 Accreditation number _____

Electrical Contractor's Details Same as above
 Registered Person's Name and Surname _____
 Accreditation number _____
 Registration number with the Department of Labour _____

Electrical Contractor is a Single Phase Tester Installation Electrician Master Electrician

Type of Installation

Hybrid Inverter as Backup Complete Section 1, 2 and 5 Hybrid Inverter with Solar PV Complete Section 1, 2, 3, 4 and 5 Hybrid Inverter used in Grid tied configuration without Storage Complete Section 1, 3, 4 and 5

This document can only be issued at a site where there is an existing and valid Certificate of Compliance covering the Main electrical reticulation

1 **Section 1 - Hybrid Inverter** Number 1 of _____ Brand Name: _____

2 Inverter Serial Nr _____ Inverter Capacity (in kW or kVA) _____ kVA kW

3 DB Board is Single Phase Three Phase Inverter is wired To a single Phase To two Phases To all three Phases

4 AC Mains Input to Inverter - Circuit Breaker Size _____ Amps _____ kA

5 AC Mains input to inverter - Conductor Size _____ mm2 Input CB Labelled

6 AC Output from Inverter to Load - Circuit breaker size _____ Amps _____ kA

7 AC Output from Inverter to Load - Conductor Size _____ mm2 Output CB Labelled

8 Earth Neutral Bridge Programmable / Internal relay External Contactor / Relay Hard Wired

9 Inverter Casing bonded and continuous to Consumer Earth Bar 6.11 _____ Ohm

10 Inverter Number Label Fitted (where there is more than 1) Alternative Supply Label Fitted on Inverter

11 **Section 2 - Batteries** Lead-Acid Lithium Other please specify _____

12 Battery Brand Name _____ All Batteries are the same brand and size

13 Qty _____ Connected in Series Parallel

14 Battery Capacity _____ kWh Total Battery Bank Capacity _____ kWh Nominal Voltage of Battery Bank _____ Volts

15 Charge rate per unit _____ Amps Discharge Rate per unit _____ Amps

16 Take-off Lead from battery to Busbar / Fuse _____ mm2 Jumpers in between parallel batteries - Interlinks _____ mm2
 Cable Sizing to be - each mm2 = 1kA Fault current 6.7.3.2

17 Battery Enclosure Bonded to Consumer Earth Bar _____ Ohm Battery Cabinet Bonded to Consumer Earth Bar _____ Ohm

18 Protection DC Circuit breaker DC Fuse Fuse or Circuit breaker Size _____ Amps and _____ kA
 Fuse Protection (not the fuse or Circuit Breaker built into the battery)

19 Isolation DC Circuit breaker DC Disconnect Circuit breaker/DC Disconnect Rating _____ Amps and _____ kA
 (Fuse may not be used as an isolation device) - Double Pole

20 Busbar in between inverter and batteries Yes N/A (Where N/A has been selected, please skip the rest of this section)

21 Take-off Lead from Busbar to Inverter _____ mm2

22 Protection - Busbar to Inverter DC Circuit breaker DC Fuse Fuse or Circuit breaker Size _____ Amps and _____ kA
 Fuse Protection

23 Isolation - Busbar to Inverter DC Circuit breaker DC Fuse Fuse or Circuit breaker Size _____ Amps and _____ kA
 (Fuse may not be used as an isolation device) - Should be Double Pole Fuse or Circuit Breaker

24 **Section 3 - Solar Modules** Module Size _____ Watt Module Brand _____

25 Number of modules _____ Total PV System Size _____ kW

26 Nr of modules in a string _____ Number of Strings _____ Strings in parallel _____

Where possible, test and record the following values (alternatively calculate values), values indicated could be for single strings or parallel strings

	String 1	String 2	String 3	String 4	String 5	String 6	String 7	
27 Voc								<input type="checkbox"/> Calc. <input type="checkbox"/> Tested / Read
28 Vmp								<input type="checkbox"/> Calc. <input type="checkbox"/> Tested / Read
29 Imp								<input type="checkbox"/> Calc. <input type="checkbox"/> Tested / Read
30 Isc								<input type="checkbox"/> Calc. <input type="checkbox"/> Tested / Read

31 Values indicated above are for: Single Strings Parallel Strings Nr of strings in parallel _____

32 Values above were measured / read during cloudy / full sunshine conditions Cloudy Day Full Sun Day

33 PV Module Frames Bonded and continuous to Consumer Earth Bar _____ Ohm

34 All MC4 Type couplers are of the same Brand Yes Unknown

35 Mounting Structure Type Rooftop Ground Mount Carport Other

36 Module Frames are supported by Mounting Structure Rail made of Aluminium Galvanised Other

37 Mid and End Clamps are made of Stainless Steel Aluminium Galvanised Other

38 Conductors passing under tiles / through roofing materials are protected from Mechanical damage Yes N/A

39 Bolts on Mid and End Clamps are Torqued to which Value _____ Nm

40 **Section 4 - Combiner / Fuse Boxes** Combiner Box Fuse Box Other please specify _____

41 Short Circuit Protection DC Circuit breaker DC Fuse Fuse or Circuit breaker Size _____ Amps and _____ kA
Either Fuse or Circuit breaker Protection can be used on the positive conductors

42 Reverse Current Protection DC Fuse DC Fuse Size _____ Amps and _____ kA
Only Fuses can be used. Circuit breakers do not protect against reverse current, Fuses will be situated on the negative conductors

43 Isolation DC Disconnect DC Rated Isolator Isolation device Size _____ Amps and _____ kA
(Fuse may not be used as an isolation device) - Double Pole

44 String Conductors are numbered and Labelled Combiner Boxes are Installed at floor level and can be reached without a step ladder

45 Combiner Box is labelled with a "Danger - Live DC Conductors - Solar Power" Sign

46 **Section 5 - General** Hybrid Inverter is provided with Earth Spike as per SANS 7.12

47 Earth Leakage has been fitted after inverter Earth Neutral Bond before RCD

48 DC Surge Protection fitted Type 1 and 2 combined Yes N/A Type 2 Yes Type 3 Yes N/A

49 AC Surge Protection has been fitted Type 1 and 2 combined Yes N/A Type 2 Yes Type 3 Yes N/A

50 Metal Wireways and trunking Bonded and continuous to Consumer Earth Bar

51 Earth Loop impedance test before E/L on DB Powered by Inverter _____ Ω Neutral Loop test at point of control _____ Ω

52 Plug Test has been completed and Earth Leakage Units are fully operational

53 Resistance of earth continuity conductor _____ Ω

54 Prospective Short circuit current at point of control for the DB Board where inverter is installed _____ kA

55 Elevated voltage between incoming neutral and external earth _____ V

56 Voltage at Main DB with no load for each phase to neutral Red _____ V White _____ V Blue _____ V

57 Voltage at Main DB with load for each phase to neutral Red _____ V White _____ V Blue _____ V