

| PROJECT         | CUSTOMER | VEHICLE        |
|-----------------|----------|----------------|
| Xtrapolis-PRASA | PRASA    | 304 – M2 – VPT |

RTR Vehicle Pre-Testing TS304 M2 Report  
 GIB0000008766



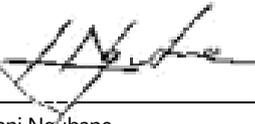
|                  | CREATED       | VERIFIED        | APPROVED        | DISTRIBUTION  |
|------------------|---------------|-----------------|-----------------|---|
| <b>Name</b>      | Vusumuzi ZULU | Lindani Ngubane | Kgomotso NKOANA | Confidentiality Category<br><i>Restricted</i> <i>Project</i> <i>Normal</i><br><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |
| <b>Date</b>      | 9/10/2025     | 9/10/2025       | 9/10/2025       | Control Category<br><i>Controlled</i> <i>Not Controlled</i><br><input checked="" type="checkbox"/> <input type="checkbox"/>   |
| <b>Signature</b> |               |                 |                 | Language<br><b>EN</b>   |

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### Table of modifications

| Rev | Date      | Modifications Content | Writer        |
|-----|-----------|-----------------------|---------------|
| A0  | 9/10/2025 | Creation              | Vusumuzi ZULU |

### Internal validations

|                 | Name            | Function            | Date      | Signature   |
|-----------------|-----------------|---------------------|-----------|---|
| <b>Creator</b>  | Vusumuzi ZULU   | EPU Manager         | 9/10/2025 | X <br>Vusumuzi ZULU<br>EPU Manager             |
| <b>Verifier</b> | Lindani Ngubane | Serial Test Manager | 9/10/2025 | X <br>Lindani Ngubane<br>Serial Test Manager |
| <b>Approver</b> | Kgomotso NKOANA | Test Expert         | 9/10/2025 | X <br>Kgomotso NKOANA<br>Test Expert         |

### Execution Plan

|                   |           |
|-------------------|-----------|
| <b>Start Date</b> | 22/9/2025 |
| <b>End Date</b>   | 22/9/2025 |

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## Section 1 – Purpose / Objectives

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### 1. Protective Bonding

The objective of this procedure is to verify the return path of the current to the ground.

### 2. Reflectometry

The objective of this procedure is to verify the integrity of the ethernet cables.

### 3. Config

The objective of this procedure is to set up car ID for specific systems such as fire and to verify wiring to the speed sensors and OTDR.

### 4. Traction motors

The objective of this procedure is to verify the wiring configuration of the motors. This is to ensure that all the motors are wired the same and shall rotate in the same direction in operation



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## Section 2 – Protective Bonding and Return Current

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### 2.1 Instructions list

### 2.1.1 Protective Bonding and Return Current

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction   | File  | Result status | Result value | Operator                             | Vehicle |
|-------|------|---|---|---------------|--------------|--------------------------------------|---------|
| 10001 | I    | Return Circuit: Car Body to Ground  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10002 | I    | The purpose of this test is to confirm that the car body of each car in the train is connected to ground via the earthing brush which will ensure that current from the overhead wire is returned to the substation without damage to equipment or risk of electric shock |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10003 | A    | Use the Tool List to record the serial number of the Ohmmeter that will be used in this test  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10004 | A    | Ensure that the current setpoint is 50A and voltage <50V (applicable for all impedance measurement) on the ohmmeter device to be used for the test.   |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10005 | I    | For all impedance measurements of the car body to ground the positive terminal shall be connected to the car body and the negative terminal to the rail   |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10006 | I    | For all other impedance measurements, the positive terminal shall be connected to the tested subject and the negative terminal to the car body shell  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10007 | A    | Visually identify and inspect that the earthing cables of the 1st and 2nd axle of the 1st and 2nd Bogie Frame are properly connected to the axle brushes  |  | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10008 | A    | Disconnect from the axle box the earthing cable of the 1st and 2nd axle of the 1st and 2nd Bogie Frame of the M2 car  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10009 | R    | All the earthing cables of the M2 car are disconnected.   |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10010 | A    | Connect the earthing cable of the 1st axle in the 1st Bogie Frame   |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10011 | R    | Only the earthing cable of the 1st axle of the 1st Bogie Frame is connected   |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10012 | A    | Using an ohmmeter measure the impedance between the car body to rail  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10013 | R    | ImpedanceResult Max : $x \leq 0.05$ (Ohms)  |   | OK            | 0.00468      | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |

|       |   |   |  |    |         |                                      |    |
|-------|---|---|--|----|---------|--------------------------------------|----|
| 10014 | A | Disconnect the earthing cable of the 1st axle of the 1st bogie frame        |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10015 | R | Earthing cable disconnected   |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10016 | A | Connect the earthing cable of the 2nd axle in the 1st Bogie Frame           |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10017 | R | Only the earthing cable of the 2nd axle of the 1st Bogie Frame is connected |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10018 | A | Using an ohmmeter measure the impedance between the car body to rail        |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10019 | R | ImpedanceResult Max : $x \leq 0.05$ (Ohms)                                  |  | OK | 0.00472 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10020 | R | Earthing cable disconnected   |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10021 | A | Disconnect the earthing cable of the 2nd axle of the 1st bogie frame        |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10022 | I | Earthing of Equipment on the Underframe                                     |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10023 | A | Connect the earthing cable of the 1st axle in the 2nd Bogie Frame           |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10024 | R | Only the earthing cable of the 1st axle of the 2nd Bogie Frame is connected |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10025 | A | Using an ohmmeter measure the impedance between the car body to rail        |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10026 | R | ImpedanceResult Max : $x \leq 0.05$ (Ohms)                                  |  | OK | 0.00452 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10027 | A | Disconnect the earthing cable of the 1st axle of the 2nd bogie frame        |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10028 | R | Earthing cable disconnected   |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10029 | A | Connect the earthing cable of the 2nd axle in the 2nd Bogie Frame           |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10030 | R | Only the earthing cable of the 1st axle of the 2nd Bogie Frame is connected |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10031 | A | Using an ohmmeter measure the impedance between the car body to rail        |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |

|       |   |  |  |    |          |                                      |    |
|-------|---|--|--|----|----------|--------------------------------------|----|
| 10032 | R | ImpedanceResult Max : x <= 0.05 (Ohms)   |  | OK | 0.00425  | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10033 | A | Reconnect all earthing cables of the 1st and 2nd axle of the 1st and 2nd Bogie Frame   |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10034 | R | All earthing cables connected on the 1st and 2nd Bogie Frame   |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10035 | A | Visually inspect that the earthing cable connecting the Traction Inverter Case to M2 car body is properly connected and related bolts are correctly torqued.   |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10036 | R | Traction Inverter Case visually grounded and torque is correctly marked  |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10037 | A | Using an ohmmeter measure the impedance between the Traction Inverter Case and the car body  |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10038 | R | ImpedanceResult Max : x <= 0.05 (Ohms)   |  | OK | 0.002852 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10039 | A | Visually inspect that the earthing cable connecting the Line Inductor Case to M4 car body is properly connected and related bolts are correctly torqued.   |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10040 | R | Line Inductor Case visually grounded and torque is correctly marked  |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10041 | A | Using an ohmmeter measure the impedance between the Line Inductor Case and the car body  |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10042 | R | ImpedanceResult Max : x <= 0.05 (Ohms)   |  | OK | 0.002786 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10043 | A | Visually inspect that the earthing cable connecting the Traction Motors of the 1st and 2nd axle of the 1st Bogie Frame to the car body is properly connected and related bolts are correctly torqued |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10044 | R | Traction Motors visually grounded and torque is correctly marked   |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10045 | A | Using an ohmmeter measure the impedance between the Traction Motors of the 1st and 2nd axle of the 1st Bogie Frame and the car body  |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10046 | R | ImpedanceResult Max : x <= 0.05 (Ohms)   |  | OK | 0.00498  | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10047 | A | Visually inspect that the earthing cable connecting the Traction Motors of the 1st and 2nd axle of the 2nd Bogie Frame to the car body is properly connected and related bolts are correctly torqued |  | OK |          | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |

|       |   |  |  |    |         |                                      |    |
|-------|---|--|--|----|---------|--------------------------------------|----|
| 10048 | R | Traction Motors visually grounded and torque is correctly marked   |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10049 | A | Using an ohmmeter measure the impedance between the Traction Motors of the 1st and 2nd axle of the 2nd Bogie Frame and the car body                            |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10050 | R | ImpedanceResult Max : $x \leq 0.05$ (Ohms)   |  | OK | 0.00492 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10051 | I | Earthing of Equipment on the Roof  |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10052 | A | Visually inspect that the earthing cable connecting the 1st Braking Resistor Box to M2 car body is properly connected and related bolts are correctly torqued. |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10053 | R | 1st Braking Resistor Box visually grounded and torque is correctly marked  |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10054 | A | Using an ohmmeter measure the impedance between the 1st Braking Resistor Box and the car body  |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10055 | R | ImpedanceResult Max : $x \leq 0.05$ (Ohms)   |  | OK | 0.00366 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10056 | A | Visually inspect that the earthing cable connecting the Saloon HVAC to M2 car body is properly connected and related bolts are correctly torqued.              |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10057 | R | Saloon HVAC visually grounded and torque is correctly marked   |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10058 | A | Using an ohmmeter measure the impedance between the Saloon HVAC and the car body   |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10059 | R | ImpedanceResult Max : $x \leq 0.05$ (Ohms)   |  | OK | 0.00427 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10060 | A | Visually inspect that the earthing cable connecting the 2nd Braking Resistor Box to M2 car body is properly connected and related bolts are correctly torqued. |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10061 | R | 2nd Braking Resistor Box visually grounded and torque is correctly marked  |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10062 | A | Using an ohmmeter measure the impedance between the 2nd Braking Resistor Box and the car body  |  | OK |         | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |
| 10063 | R | ImpedanceResult Max : $x \leq 0.05$ (Ohms)   |  | OK | 0.00375 | Amanda Ntuli<br>526239<br>22.09.2025 | M2 |



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## Section 3 – Reflectometry

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### 3.1 Instructions list

### 3.1.1 Network Cabling Integrity

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction   | File  | Result status | Result value | Operator                             | Vehicle |
|-------|------|---|---|---------------|--------------|--------------------------------------|---------|
| 10001 | I    | Network Cabling Integrity Test  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10002 | I    | It is necessary to check the network cables to ensure that they have been installed correctly to improve the overall operation of the system.   |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10003 | I    | The Cable Analyzer Module DSX-5000 will be used to validate cabling   |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10004 | I    | Register as a new Operator on the DSX-5000. Check on the manual below on how to register as a new Operator <a href="#">[9-36-52-308048_DSX 5000 User Manual.pdf]</a>                              |  | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10005 | I    | When saving the tests results for each line, it should be named by its trainset number (X) and the test code (Indicated in the test step). i.e. TS021_M2_P01 for PACIS and TS021_M2_T01 for TCMS. |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10006 | I    | TCMS cabling  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10007 | A    | From: [25A10 SWITCH ETHERNET (CRS1) (Local: +LV3; Connector: 25XP10_X4)] to: [25A11 SWITCH ETHERNET (CRS2) (Local: +LV3; Connector: 25XP11_X3)]<br><br>NOTE: Cable is crossed<br>TSX_M2_T01       |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10008 | A    | From: [25A10 SWITCH ETHERNET (CRS1) (Local: +LV3; Connector: 25XP10_X3)] to: [Local: END1 , Connector 90XR21.All]<br><br>NOTE: Cable is crossed<br>TSX_M2_T02                                     |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10009 | A    | From: [25A14 TBR-M2 (Local: +LV3; Connector: 25XP14_ETH0)] to: [(Local: +END1; Connector: 90XR21.A)]<br><br>NOTE: Cable is crossed<br>TSX_M2_T03  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |
| 10010 | A    | From: [25A14 TBR-M2 (Local: +LV3; Connector: 25XP14_ETH1)] to: [(Local: +END2; Connector: 90XR31.A)]<br><br>NOTE: Cable is crossed<br>TSX_M2_T04  |   | OK            |              | Amanda Ntuli<br>526239<br>22.09.2025 | M2      |

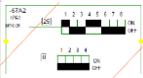
|       |   |   |    |  |                                       |    |
|-------|---|---|----|--|---------------------------------------|----|
| 10011 | A | From: [25A11 Ethernet Switch (Local: +LV3; Connector: 25XP11_X4)] to: [(Local: +END2; Connector: 90XR31.All)]<br><br>NOTE: Cable is straight<br>TSX_M2_T05                                  | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10012 | A | From: [(Local: +END2; Connector: 90XR32.All)] to: [(Local: +END1; Connector: 90XR22.All)]<br><br>NOTE: Cable is straight<br>TSX_M2_T06  | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10013 | A | From: [(Local: +END2; Connector: 90XR32.All)] to: [(Local: +END1; Connector: 90XR22.All)]<br><br>NOTE: Cable is straight<br>TSX_M2_T07  | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10014 | I | Pacis cabling   | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10015 | A | From: [(Local: +END2; Connector: -90XR32.El)] to: [(Local: +END1; Connector: -90XR22.El)]<br><br>NOTE: Cable is straight<br>TSX_M2_P01  | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10016 | A | From: [54A10 SWITCH ETHERNET (CRS1) (Local: +LV6; Connector: 54XP10_X7)] to: [(Local: +END2; Connector: -90XR31.El)]<br><br>NOTE: Cable is crossed<br>TSX_M2_P02                            | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10017 | A | From: [54A11 SWITCH ETHERNET (CRS2) (Local: +LV6; Connector: 54XP11_X8)] to: [(Local: +END1; Connector: -90XR21.El)]<br><br>NOTE: Cable is straight<br>TSX_M2_P03                           | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10018 | A | From: [54A11 SWITCH ETHERNET (CRS2) (Local: +LV6; Connector: 54XP11_X7)] to: [54A10 SWITCH ETHERNET (CRS1) (Local: +LV6; Connector: 54XP10_X8)]<br><br>NOTE: Cable is crossed<br>TSX_M2_P04 | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10019 | A | All cables have been validated on M2  | OK |  | Amanda Ntuli<br>526239<br>22.09.2025  | M2 |
| 10020 | R | Download all the results from Fluke and save them on PC with folder name "M2_TSxx"  | OK |  | Vusumuzi Zulu<br>420115<br>17.10.2025 | M2 |

## Section 4 – Config

### 4.1 Instructions list

#### 4.1.1 Vehicle Configuration

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction  | File  | Result status | Result value | Operator                               | Vehicle |
|-------|------|--|---|---------------|--------------|--|---------|
| 10001 | I    | Configuration Checks   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10002 | A    | Check continuity on all pins of End 1 connector 90XP15 & 90XP14 to ground                                      |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10003 | R    | There is no continuity   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10004 | A    | Check continuity on all pins of End 2 connector 90XP15 & 90XP14 to ground                                      |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10005 | R    | There is no continuity   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10006 | I    | Smoke Detector Address Configuration   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10007 | A    | Remove and configure the Smoke Detector 67A2 (+PA1) according to the figure below.                             |  | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10008 | A    | Reconnect Smoke Detector 67A2  |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10009 | A    | Remove and configure the Smoke Detector 67A3 (+PA3) according to the figure below.                             |  | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10010 | I    | Line Heat Detection  |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10011 | R    | Measure the resistance between point 1 and point 4 of the connector 67XP3_11Result Min/Max : 550<= x<= 700 ( ) |   | OK            | 589          | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10012 | A    | Reconnect Smoke Detector 67A3  |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |

|       |   |  |  |    |  |  |    |
|-------|---|--|--|----|--|--|----|
| 10013 | I | OTDR LOOP  |  | OK |  | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10014 | I | Check the continuity between the following points:   |  | OK |  | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10015 | A | From: [ +IV1 (local +END2 Connector 90XR33.B (pin 1))] to: [local +END1 Connector -90XR23.B (pin1)]  |  | OK |  | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10016 | A | From: [ -IV1 (local +END2 Connector 90XR33.B (pin 2))] to: [local +END1 Connector -90XR23.B (pin 2)] |  | OK |  | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |



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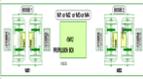
## Section 5 – Traction Motors

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### 5.1 Instructions list

### 5.1.1 Traction Motors

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction   | File  | Result status | Result value | Operator                               | Vehicle |
|-------|------|---|---|---------------|--------------|--|---------|
| 10001 | I    | Traction Motors (SPP = 11)  |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10002 | I    | Ensure all the CONNECTORS are fully ASSEMBLED before running a continuity test.   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10003 | I    | The following test is used to confirm the wiring of the traction motors.  |  | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10004 | I    | SAFETY NOTICE: It is important to ensure that there is no 400Vac power supply on the vehicle.   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10005 | A    | Switch OFF the 400Vac power supply at the source and disconnect the supply cables from the vehicle  |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10006 | R    | There is no 400Vac available on the vehicle   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10007 | I    | Visual Inspection   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10008 | I    | For motor 1 and motor 2 connect 11XR1 and 11XR2 and visually inspect that the following cables are connected. From - 11XR1 connector to -11M1 motor and - 11XR2 connector to -11M2 motor respectively. NOTE: the cable configuration should be straight, none should cross the other. |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10009 | I    | Motor 2   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10010 | R    | [ -11XR2 connector (local: UND - 11XP2_2.X1 pin 1)] connected to: [ - 11XT2 motor terminals (U) -11M2].   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10011 | R    | [ -11XR2 connector (local: UND - 11XP2_2.X2 pin 1)] connected to: [ - 11XT2 motor terminals (V) -11M2].   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10012 | R    | [ -11XR2 connector (local: UND - 11XP2_2.X3 pin 1)] connected to: [ - 11XT2 motor terminals (W) -11M2].   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10013 | R    | -11M2 Motor terminals PE connected to - 11GND2.   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |
| 10014 | I    | Motor 1   |   | OK            |              | Gcobani Baliso<br>480570<br>22.09.2025 | M2      |

|       |   |  |    |  |    |
|-------|---|--|----|--|----|
| 10015 | R | [ -11XR1 connector (local: UND - 11XP1_2.X1 pin 1)] connected to: [ - 11XT1 motor terminals (U) -11M1].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10016 | R | [ -11XR1 connector (local: UND - 11XP1_2.X2 pin 1)] connected to: [ - 11XT1 motor terminals (V) -11M1].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10017 | R | [ -11XR1 connector (local: UND - 11XP1_2.X3 pin 1)] connected to: [ - 11XT1 motor terminals (W) -11M1].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10018 | R | -11M1 Motor terminals PE connected to - 11GND1.  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10019 | I | Visual Inspection  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10020 | I | For motor 3 and motor 4 connect 11XR3 and 11XR4 and visually inspect that the following cables are connected. From - 11XR3 connector to -11M3 motor and - 11XR4 connector to -11M4 motor respectively. NOTE: the cable configuration should be straight, none should cross the other | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10021 | I | Motor 3  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10022 | R | [ -11XR3 connector (local: UND - 11XP3_2.X1 pin 1)] connected to: [ - 11XT3 motor terminals (U) -11M3].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10023 | R | [ -11XR3 connector (local: UND - 11XP3_2.X2 pin 1)] connected to: [ - 11XT3 motor terminals (V) -11M3].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10024 | R | [ -11XR3 connector (local: UND - 11XP3_2.X3 pin 1)] connected to: [ - 11XT3 motor terminals (W) -11M3].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10025 | R | -11M3 Motor terminals PE connected to - 11GND3   | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10026 | I | Motor 4  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10027 | R | [ -11XR4 connector (local: UND - 11XP4_2.X1 pin 1)] connected to: [ - 11XT4 motor terminals (U) -11M4].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10028 | R | [ -11XR4 connector (local: UND - 11XP4_2.X2 pin 1)] connected to: [ - 11XT4 motor terminals (V) -11M4].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10029 | R | [ -11XR4 connector (local: UND - 11XP4_2.X3 pin 1)] connected to: [ - 11XT4 motor terminals (W) -11M4].  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |
| 10030 | R | -11M4 Motor terminals PE connected to - 11GND4.  | OK | Gcobani Baliso<br>480570<br>22.09.2025 | M2 |



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## Section 6 – Report summaries

### 6.2 Results status

| Test Instruction Sheet                | Compliant | Incomplete | Non-compliant |
|---------------------------------------|-----------|------------|---------------|
| Protective Bonding and Return Current | X         |            |               |
| Reflectometry                         | X         |            |               |
| Config                                | X         |            |               |
| Traction Motors                       | X         |            |               |

### 6.1 Tools used

| Function | Tool name              | Tool number          | Next Calibration date |
|----------|------------------------|----------------------|-----------------------|
| 012_PB   | Megger                 | Megger               | 8/11/2026             |
| 025_NET  | Cable Analyser DSX5000 | Fluke machine_Gibela | 12/31/2025            |
| CONFIG   | Multimeter             | Multimeter 2         | 9/30/2026             |