## Test Case 1.3

Validated Requirements

272: Provide operator and maintainer feature to select Traction Converter to reset (Functional Requirement)

191: Provide maintainer feature to select Traction Converter to cut-out, cut-in (Functional Requirement)

Description

Checks that a feature to select one or more Traction Converters for which LCB is closed to cut-out, cut-in and reset is provided on the HMI.

Categories

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| --- | --- |
| Formal Test | Yes |
| Execution Environment | Lab |
| V-Level | System |
| Function Group | Power Supply |
| Regression | No |
| Automated | No |
| Single Unit Operation Applicability | Yes |
| Multiple Unit Operation Applicability | No |

Pre-Condition

1. Set train to TS4

Test Case Design

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| # | Action | Expected Result |
| 1 | Make sure status of every Traction Converter is 'Charged' (state = 6). | Verify that:  - a feature to select one or more Traction Converters to Cut-out, Cut-In and Reset is NOT provided for any Traction Converter of the train.  *Note: This feature can be seen in figure 29 of the DDU's Picture Model (revision F document).* |
| 2 | Set status of Traction Converters 1 and 2 of C1M1 to 'Isolated' (state = 31).  On Propulsion Menu (Page 1), select Traction Converters 1 and 2 of C1M1. | On Propulsion Menu (Page 1), verify that:  - a feature to select one or more Traction Converters to Reset is provided only for Traction Converters 1 and 2 of C1M1 (Cut-out and Cut-In options are NOT provided for any Traction Converter). |
| 3 | On Propulsion Menu (Page 1):  - select Traction Converters 1 and 2 of C1M1 and request to 'Reset' by pressing the 'Reset' button.  Make sure status of every Traction Converter is 'Charged' (state = 6).  On the VDU of the active cab press the Maintenance button and enter the credentials to login as 'Maintainer' and confirm to enter 'Maintenance Mode'.  *Note: Maintenance Login Screen can be seen in figure 18 and 19 of the DDU's Picture Model (revision F).*  On Propulsion Menu (Page 1), select Traction Converters 1 and 2 of C1M1. | On the VDU of the active cab, go the the Propulsion Menu (Page 1) from the Menu Screen and verify that:  - a feature to select one or more Traction Converters to Cut-out is provided for every Traction Converter of the train (Cut-In and Reset options are NOT provided for any Traction Converter).  *Note: This feature can be seen in figure 30 of the DDU's Picture Model (revision F document).* |
| 4 | On the Propulsion Menu (Page 1):  - select Traction Converter 1 and Traction Converter 2 of C1M1  - request to Cut-Out by pressing the 'Cut-Out' button. | On Propulsion Menu (Page 1), verify that:  - a feature to select one or more Traction Converters to Cut-In is provided for Traction Converters 1 and 2 of C1M1  - a feature to select one or more Traction Converters to Cut-Out is provided for the remaining Traction Converters of the train (Reset option is NOT provided for any Traction Converter). |
| 5 | On the Propulsion Menu (Page 1):  - select Traction Converter 1 and Traction Converter 2 of C1M1  - request to Cut-In by pressing the 'Cut-In' button. | On Propulsion Menu (Page 1), verify that:  - a feature to select one or more Traction Converters to Cut-out is provided for every Traction Converter of the train (Cut-In and Reset options are NOT provided for any Traction Converter). |
| 6 | Set status Traction Converters 1 and 2 of C1M1 to 'Isolated' (state = 31).  On Propulsion Menu (Page 1), select Traction Converters 1 and 2 of C1M1. | On Propulsion Menu (Page 1), verify that:  - a feature to select one or more Traction Converters to Reset or Cut-Out is provided for Traction Converters 1 and 2 of C1M1.  - a feature to select one or more Traction Converters to Cut-out is provided for the remaining Traction Converters of the train (Cut-In option is NOT provided for any Traction Converter). |
| 7 | Clean-up:  - On Propulsion Menu (Page 1), select Traction Converters 1 and 2 of C1M1 and request to 'Reset' by pressing the 'Reset' button.  - Press the 'Maintenance' button to enter the 'Maintenance Menu' and press 'Logout' to leave 'Maintenance Mode'.  - Make sure status of every Traction Converter is 'Charged' (state = 6). | On the VDU of the active cab, go the the Propulsion Menu (Page 1) from the Menu Screen and verify that:  - a feature to select one or more Traction Converters to Cut-out, Cut-In and Reset is NOT provided for any Traction Converter of the train. |
| 8 | Repeat actions 1-7 for C1M2 and its traction converters in 6-car operation. | Verify that the appropriate expected results are set. |
| 9 | Repeat actions 1-7 for C2M2 and its traction converters in 6-car operation. | Verify that the appropriate expected results are set. |
| 10 | Repeat actions 1-7 for C2M1 and its traction converters in 6-car operation. | Verify that the appropriate expected results are set. |
| 11 | Repeat actions 1-10 from the other cab as active cab. | Verify that the appropriate expected results are set. |

Post-Condition

1. Set train to TS1.