
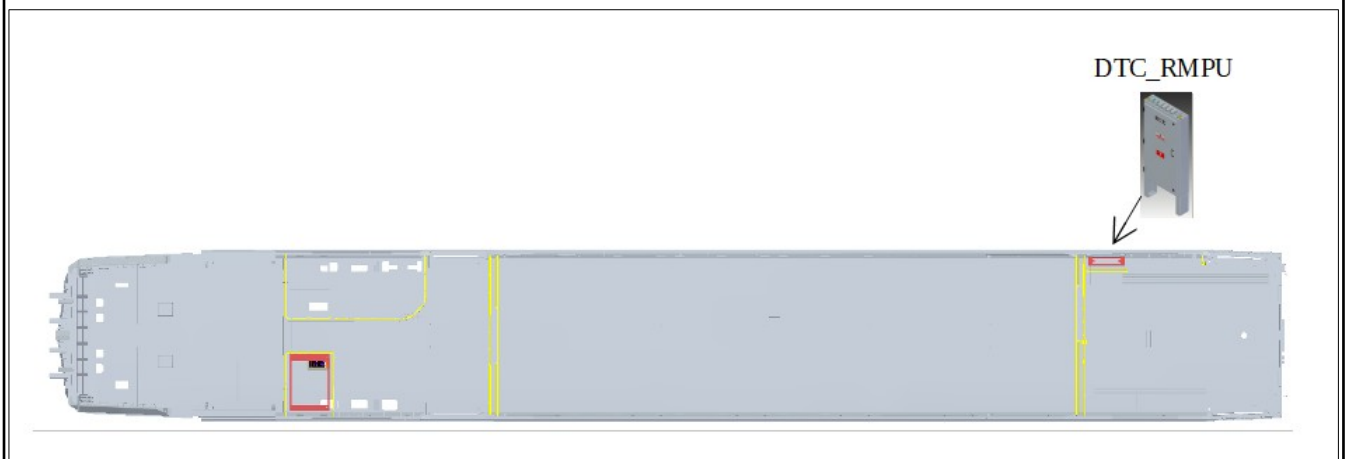


Doc. No.: SD-8623	Rev. No.: 00	Page: 1 of 7	Product Code: MAE675UV2	
Title: Maintenance Procedure of RMPU Panel- Electric Train set				
Prepared by	Checked by	Approved by	Initiated date	
Lakshmi Singh	Sushmitha	BOC Reddy	22.08.2022	

Overview of RMPU Panel location in the Locomotive:

Every Driving Trailer coach has one RMPU Panel. It is located beside left door on Non driving end. Weight of RMPU panel is around 100 Kgs approximately. The below picture shows the layout of RMPU in Driving Trailer Coach.



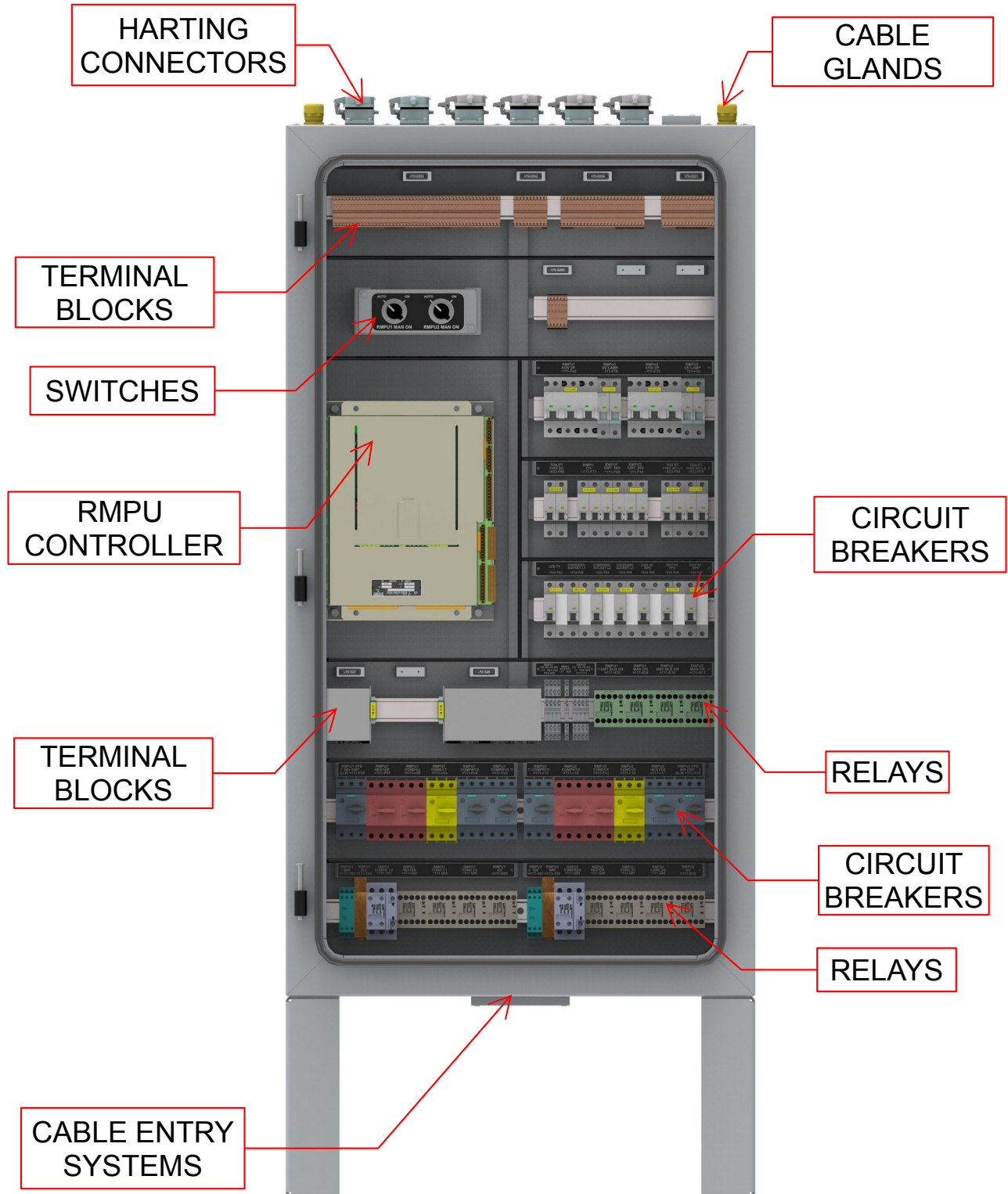
RMPU Panel consists of RMPU control Unit , DC-DC Converters, Contactors Relays, Breakers, Terminal blocks, Harting connectors, Power TBs etc.

Position of Electronics inside RMPU:


Equipment layouts are shown in below section.

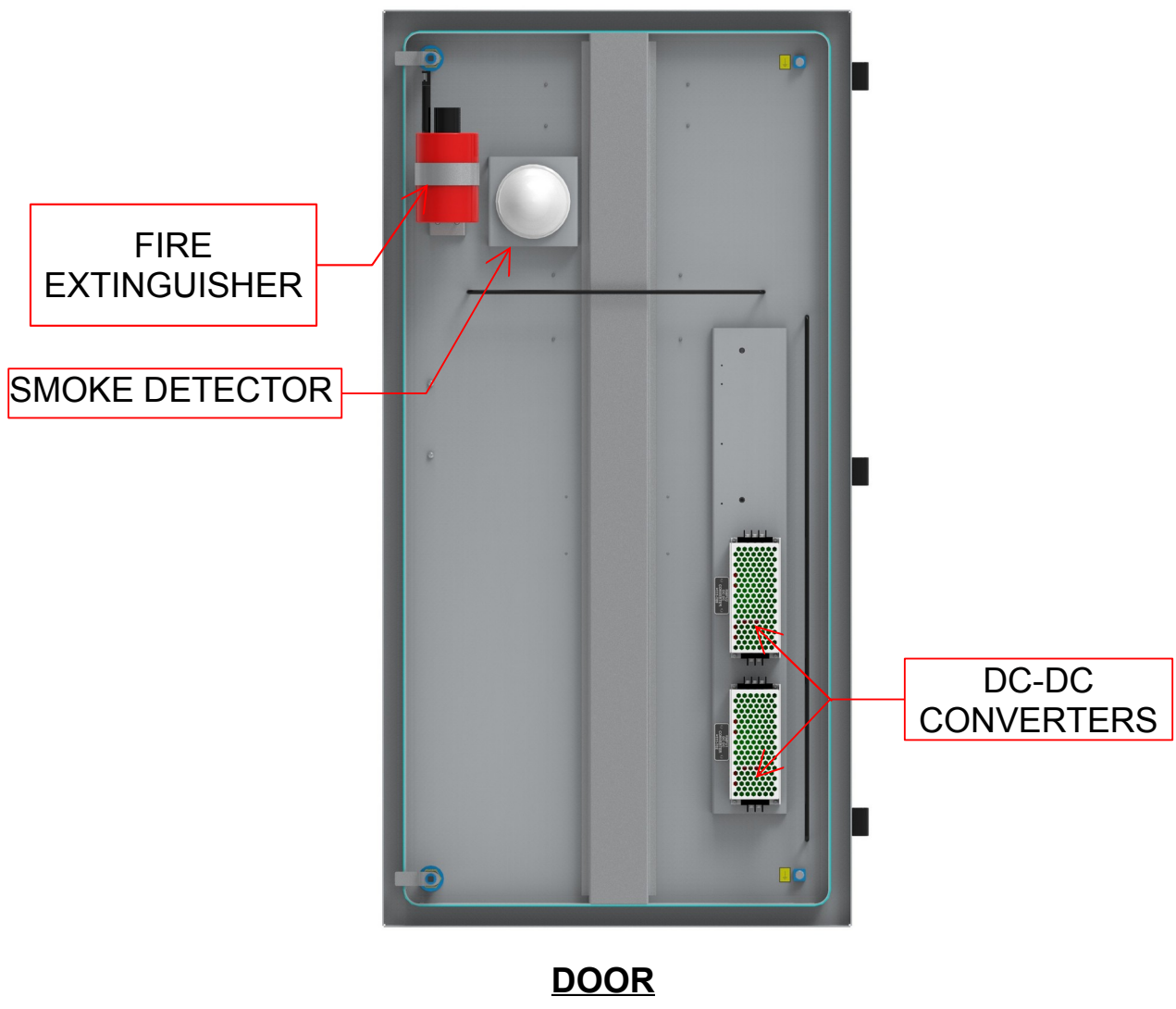
Title: Maintenance Procedure of RMPU Panel- Electric Train set

Prepared by	Checked by	Approved by	Initiated date
Lakshmi Singh	Sushmitha	BOC Reddy	22.08.2022




RMPU WITHOUT DOOR

Doc. No.: SD-8623	Rev. No.: 00	Page: 3 of 7	Product Code: MAE675UV2	
Title: Maintenance Procedure of RMPU Panel- Electric Train set				
Prepared by	Checked by	Approved by	Initiated date	
Lakshmi Singh	Sushmitha	BOC Reddy	22.08.2022	



Mounting Hardware of RMPU Panel:

S.no.	Code	Description	Qty / panel	Torque
1	69001204082	Plain washer M12,SS	6	---
2	69001214076	Spring washer M12,SS	6	---
3	65124404001	Bolt M12 Hex head 40 LG SS	2	62 N-m
4	65124254001	Bolt M12 Hex head 25 LG SS	2	62 N-m
5	56550210001	M12 bolt with rail nut	2	---
6	68012214089	Hex nut M12 SS	2	62 N-m
7	513355220001	Top Anchoring Mtg Bkt- A675UV2	2	---

Doc. No.: SD-8623	Rev. No.: 00	Page: 4 of 7	Product Code: MAE675UV2	
Title: Maintenance Procedure of RMPU Panel- Electric Train set				
Prepared by	Checked by	Approved by	Initiated date	
Lakshmi Singh	Sushmitha	BOC Reddy	22.08.2022	


8	69001004010	Plain washer M10 SS	2	---
9	69001014004	Spring washer M10 SS	2	---
10	65104204074	Bolt M10 Hex head 20 LG SS	2	50 N-m

Safety instructions:

- RMPU contains electrical equipments which use / carry high voltage. This can be highly dangerous .
- Any maintenance/ installation work is to be carried out by trained staff with appropriate precaution only.
- Always use protective clothing and protective equipment.
- Set the placard “Work in progress” or follow the employer instructions.
- Before commencing work on the vehicle, ensure that all voltage is disconnected.
- Lock the switches, isolators, fuses etc. where possible.

Visual Inspection & Cleaning:

- Open the doors of the unit by unlocking with a square key.
- Clean the entire internal housing and the equipment with the vacuum cleaner.
- Visually inspect the entire box, enclosure walls, covers & welds for any damage or cracks.
- Visually inspect all internal and external cable connections for damage.
- Ensure that all glands ,Cable entry frames and connectors are in good condition.
- Visually inspect the bolts used for mounting the unit to bottom and top mounting frames Ensure that all bolts are present and tightened.
- Ensure that the door gasket is in good condition without holes, cracks. If the gasket is damaged, replace it with new gasket.
- Check the condition of hinges
- Close the doors of the unit after compressing the gasket properly.
- Lock the doors with the square key.
- Ensure all the doors of the unit are tightly closed during cleaning/water wash of coach.

Doc. No.: SD-8623	Rev. No.: 00	Page: 5 of 7	Product Code: MAE675UV2	
Title: Maintenance Procedure of RMPU Panel- Electric Train set				
Prepared by	Checked by	Approved by	Initiated date	
Lakshmi Singh	Sushmitha	BOC Reddy	22.08.2022	

Maintenance of electronics inside the unit:

No specific maintenance is required for electronics in the unit. If there is any faulty component , then there are to be replaced by taking proper precautions.

Replacement of Contactors :

- Refer circuit diagram to understand wiring before disconnecting the wires.
- Untie the cables of the contactor from the adjacent tie rod.
- Remove the screws of the contactor and remove the cables.
- Remove the contactor from dinrail & replace the contactor.
- Refit the cables and tighten the screws.
- Tie the hanging cables to the adjacent tie rod.

Replacement of Relays :


- Refer circuit diagram to understand wiring before disconnecting the wires.
- Untie the cables of the relay from the adjacent tie rod.
- Remove the relay from dinrail & replace the relay.
- Refit the cables to the relay.
- Tie the hanging cables to the adjacent tie rod.

Replacement of Circuit Breakers :

- Refer circuit diagram to understand wiring before disconnecting the wires.
- Untie the cables of the circuit breaker from the adjacent tie rod.
- Remove the screws of the circuit breaker and remove the cables.
- Untie the Auxiliary contact block if fixed
- Remove the circuit breaker from dinrail & replace the circuit breaker.
- Refit the Auxiliary contact block
- Refit the cables and tighten the screws.
- Tie the hanging cables to the adjacent tie rod.


Replacement of Terminal Blocks :

- Refer circuit diagram to understand wiring before disconnecting the wires.
- Untie the cables of the terminal block from the adjacent tie rod.
- Remove the cables and replace the terminal block on the dinrail.

Doc. No.: SD-8623	Rev. No.: 00	Page: 6 of 7	Product Code: MAE675UV2	
Title: Maintenance Procedure of RMPU Panel- Electric Train set				
Prepared by	Checked by	Approved by	Initiated date	
Lakshmi Singh	Sushmitha	BOC Reddy	22.08.2022	

- For weidmuller TBs with bus bars, untighten the screws of the bus bars first.
- After the replacement of TB, refit the busbar and tighten the screws.
- Refit the cables of the TB.
- Tie the hanging cables to the adjacent tie rod.

REV. NO.	DATE	ECR NO.	DESCRIPTION OF REVISION

Doc. No.: SD-8623	Rev. No.: 00	Page: 7 of 7	Product Code: MAE675UV2	
Title: Maintenance Procedure of RMPU Panel- Electric Train set				
Prepared by	Checked by	Approved by	Initiated date	
Lakshmi Singh	Sushmitha	BOC Reddy	22.08.2022	