

Roof Mounted AC Package Unit Controller

*Advanced Air Conditioning Management
for LHB Coaches*

Designed as per RDSO SPEC

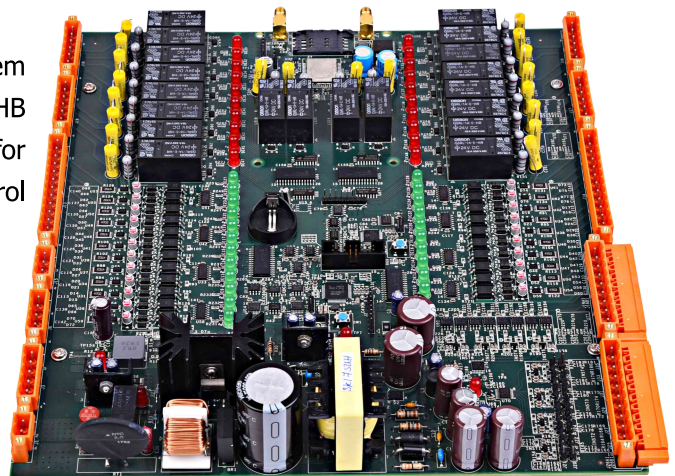


About Product

The RMPU Controller is a sophisticated microcontroller-based system designed to manage Roof Mounted AC Package Units (RMPUs) in LHB coaches. This intelligent system automatically controls all subsystems for heating, cooling and ventilation modes, ensuring optimal climate control during train journeys

Key Features

- Microcontroller-based control of two RMPU devices
- Automatic management of heating, cooling and ventilation modes
- Real-time sensing of return air, fresh air and supply air temperatures, humidity and pressure for all compressors
- Continuous monitoring of 22 digital inputs and 20 digital outputs
- Safety device monitoring for blowers, condensers, compressors and heaters
- Event Recording System with 2-minute sampling intervals, storing up to 8 days of data
- Fault Storage System capable of recording up to 2000 faults
- LED indicators for all digital I/O
- Capability to download datalog via USB
- RS485 external device communication
- Cloud connectivity through GSM Module for sharing event and fault data with location
- 7" TFT LCD display showing date, time, coach number, serial number and RMPU make number
- Customizable settings for coach information and RMPU selection
- Option to run one or both RMPU units
- Display of all functionality parameters
- Viewable 2000-fault log on the display
- RS232 communication between control and display units
- Graphical user interface on Windows PC for parameter configuration and internal testing
- Micro-controller Unit designed as per RDSO SPEC (RDSO/PE/SPEC/AC/0139-1 2009(Rev1))
- Controller complies with **IEC61373, IEC61000, IEC 60068, IEC60571 standards**



Control unit specifications:

Input supply voltage	110V +/- 30% AC / DC
Digital inputs	22 No's
Digital input switching type	Opto-isolated
Digital input voltage	110V +/- 30% AC / DC
Digital outputs	20 No's
Digital output switching type	Relay contacts (Normally open contact)
Switching output voltage	250V AC Max
Switching output current	Max 1A at 110V DC
Analog input (NTC temperature sensor)	7 No's
Analog Input (Current loop - 4 to 20mA)	8 No's
External Device Interface	RS485, RS232, USB
IoT device	For Remote monitoring - GSM and GNSS

Display unit specifications:

Power supply	12V DC
Panel Display type	7inch TFT LCD display
Resolution	800x480 Pixels
Backlight	LED
System Memory	512KB Flash, 100KB RAM
System I/O	RS232
Hard Buttons	6 No's

Why Choose the RMPU Controller

The Roof Mounted AC Package Unit (RMPU) Controller is the definitive solution for advanced air conditioning management in LHB coaches. Its state-of-the-art microcontroller technology, real-time monitoring capabilities and robust safety features work together to elevate passenger comfort and optimize operational efficiency. By ensuring a perfect environment within the coach and streamlining maintenance and monitoring processes, the RMPU Controller sets a new benchmark in railway air conditioning systems, making it the ideal choice for today's railway operations.