

# Case Study

## Space-Saving Cabinets for Rolling Stock Applications



SCHROFF

### MAXIMIZING ON-BOARD SPACE WITH EASY ACCESS TO ELECTRONICS



#### REQUIREMENT



- Access of electronics from the driver's cab
- High mechanical stability
- Maximization of usable on-board space
- Meeting global railway standards



#### CHALLENGE

- Increasing amount of electronic equipment in vehicle, such as
  - Advanced train control systems
  - Wireless communication systems
  - Embedded computers
  - IoT integrated devices
- Rider-friendly interior design

#### Project Details

Location	MUs in Europe and US
Type of System	Retro-Fit Cabinet with swing frame
Technology	nVent SCHROFF Varistar
Product Scope	CENELEC EN 50125-3, AREMA 11.5.1, EN 45545-2, EN 61000-5-7, IP 55
Date/Time Frame	Ongoing
Contract Scope	Mechanical & Electrical Integration



#### SOLUTION

The **nVent SCHROFF Varistar** recently was used to help overcome spatial limitations to integrate the train control unit into the driver's cab. To minimize the footprint of the electronics cabinet while allowing easy access to the panels inside, the Varistar included a *swing frame*. In a swing frame configuration, the door itself holds electronics and swings opens to allow access to the back panel, which typically contains wiring to inputs/outputs and is necessary for maintenance. Without the swing frame, accessing the back panel electronics in the cabinet would either require the broad (panel) side of the cabinet to sit perpendicular to the cabin wall, obstructing the cab walkway, or removal of the front panel electronics in order to access the back. With the flexible, modular design of the Varistar, configuring a swing frame was a simple modification, and is one of many customizable assembly options.



Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER