

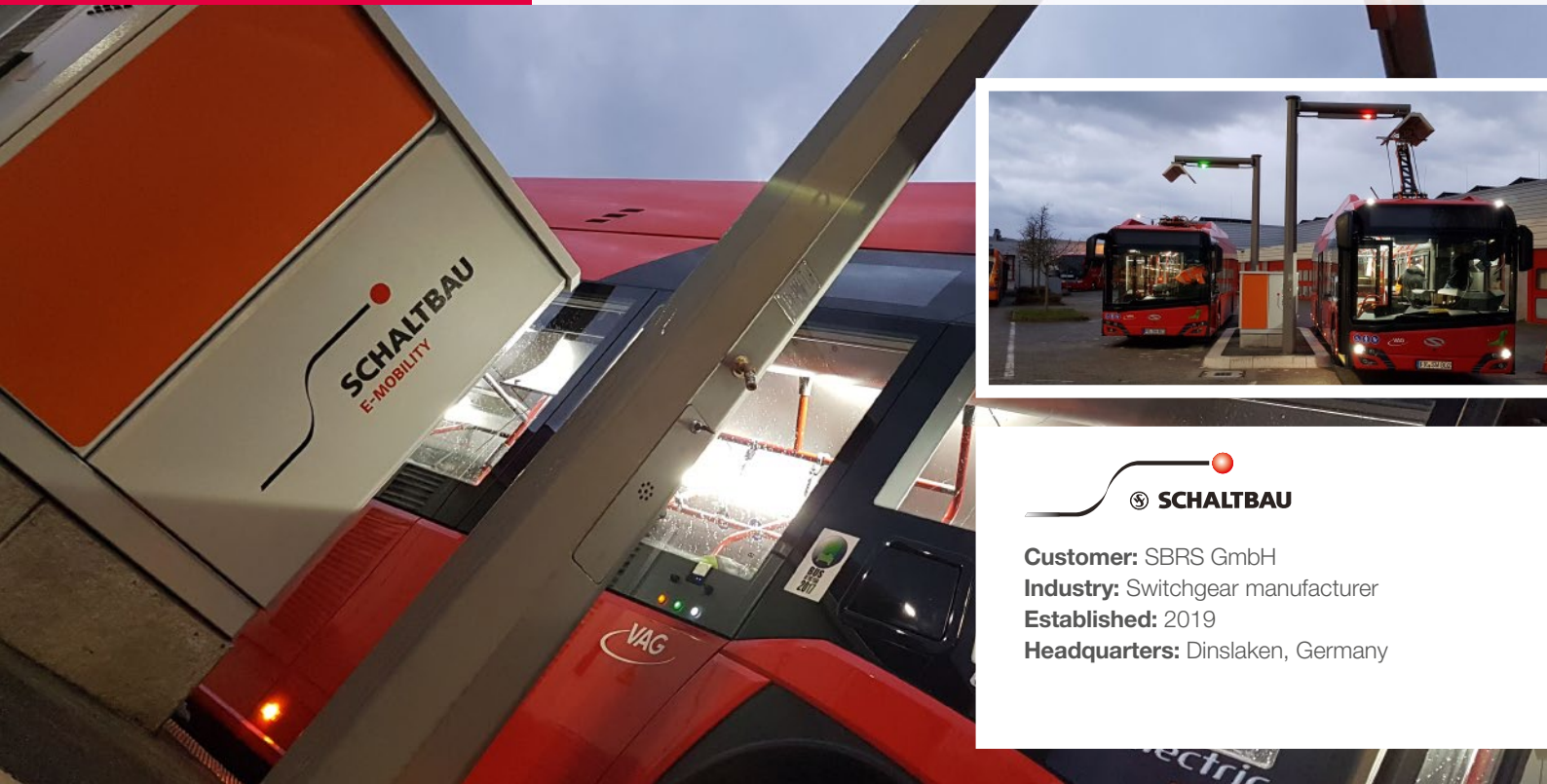
# Rittal – The System.

Faster – better – everywhere.

## SBRS GmbH: Protected from rain and sunshine

### CUSTOMER REFERENCES

Electrical engineering & automation



**Customer:** SBRS GmbH  
**Industry:** Switchgear manufacturer  
**Established:** 2019  
**Headquarters:** Dinslaken, Germany

Freiburg – the picturesque city in Southwest Germany – can boast a new attraction. Climate-friendly electric buses are now in service here, helping cut pollution. The buses are optimally charged thanks to an ingenious charging infrastructure from SBRS with components from Rittal that offer ideal protection, not only against wind and weather but also against personal access. SBRS from Dinslaken, Germany, which has already managed similar projects in Brussels, Münster, Osnabrück

and Venice, was commissioned to create the charging infrastructure in Freiburg. This system integrator develops, plans and supplies the complete charging infrastructure – from the charger to the lightning protection. It also takes care of the civil engineering and cabling work. SBRS chose a TopTec suite of outdoor enclosures from Rittal for the enclosure technology.



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP

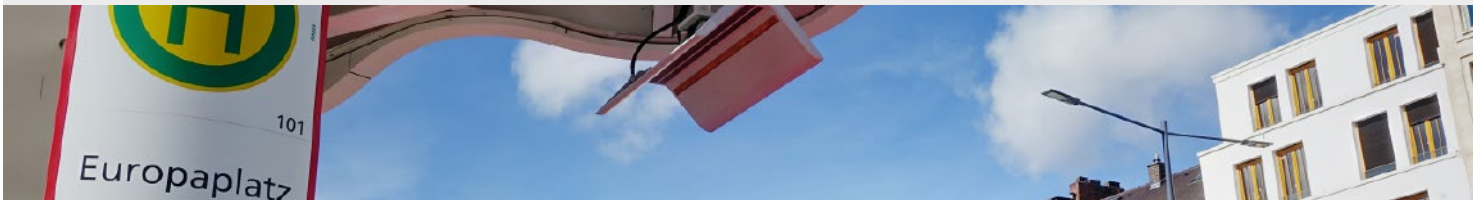
## THE PROJECT

### The Challenge

- Construction of charging infrastructure for e-buses in Freiburg/Breisgau
- Optimal protection against wind and weather
- Protection against personal access

### The Solution

- TopTec baying combination from Rittal
- EMC version for shielding of electromagnetic waves
- Demand-based ventilation for air conditioning using the ambient temperature
- “Chimney effect” prevents heating up due to solar radiation
- High corrosion protection through the use of stainless steel and aluminum



E-buses can be “refuelled” in only five to eight minutes if intermittently charged, then the next passengers are already waiting at the bus stop to be taken from A to B. These intermediate charges at bus stops are performed by automated contacting by pantograph. This is usually supplied with power from an infrastructure enclosure designed for outdoor installation. It means that these enclosures have to withstand every type of weather and must not pose a danger to people, for instance through the risk of electric shock. The safety requirements of this type of charging infrastructure are high, as the charging stations have a charging capacity of >450 kW and output voltages of up to 1,000 volts.

The e-bus charging stations are located both in the depot and at Freiburg’s “Europaplatz” bus terminal. They feature IP55 protection category, meaning they offer protection against physical contact, dust and penetrating water.

For system integrator SBRS, it was clear from the outset that Rittal would be chosen to provide the enclosure technology:

**“We appreciate the modular system used by Rittal enclosures. Rittal products make it possible to develop the charging infrastructure quickly and easily. The products are also available worldwide, which is a benefit for us in our international projects.”**

Dr Stephan Nahmer, Member of the Management Board and Head of Project Management at SBRS GmbH

The base point at Freiburg’s Europaplatz bus terminal is housed in a Toptec outdoor enclosure in EMC design, which delivers shielding from electromagnetic waves. This bayed enclosure suite is accessible at three different points. Rittal has installed fan-and-filter units for climate control that harness the ambient temperature to ensure needs-based ventilation. A twin-walled enclosure concept creates a “chimney effect”, which prevents overheating from solar radiation. This guides the flows of hot air upwards and outwards via the ventilated roof projection. A high level of corrosion protection is also achieved by using top-quality materials such as stainless steel and aluminium.

RITTAL GmbH & Co. KG  
Postfach 1662 · D-35726 Herborn  
Phone +49(0)2772 505-0 · Fax +49(0)2772 505-2319  
info@rittal.de · www.rittal.de



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP