

KORMO Charging systems for electromobility



SECURITY RESOURCE MANAGEMENT CALIBRATION LEGAL COMPLIANCE COST CONTROL

Electromobility will increasingly become an integral part of a resource-conserving urban lifestyle. Just how quickly this development will advance depends decisively on the development of a comprehensive charging network. Other issues play a major role, however:



The use of alternative energy sources
 Energy and load management
 Fleet management of company vehicles
 Range
 Charging priorities
 Billing systems

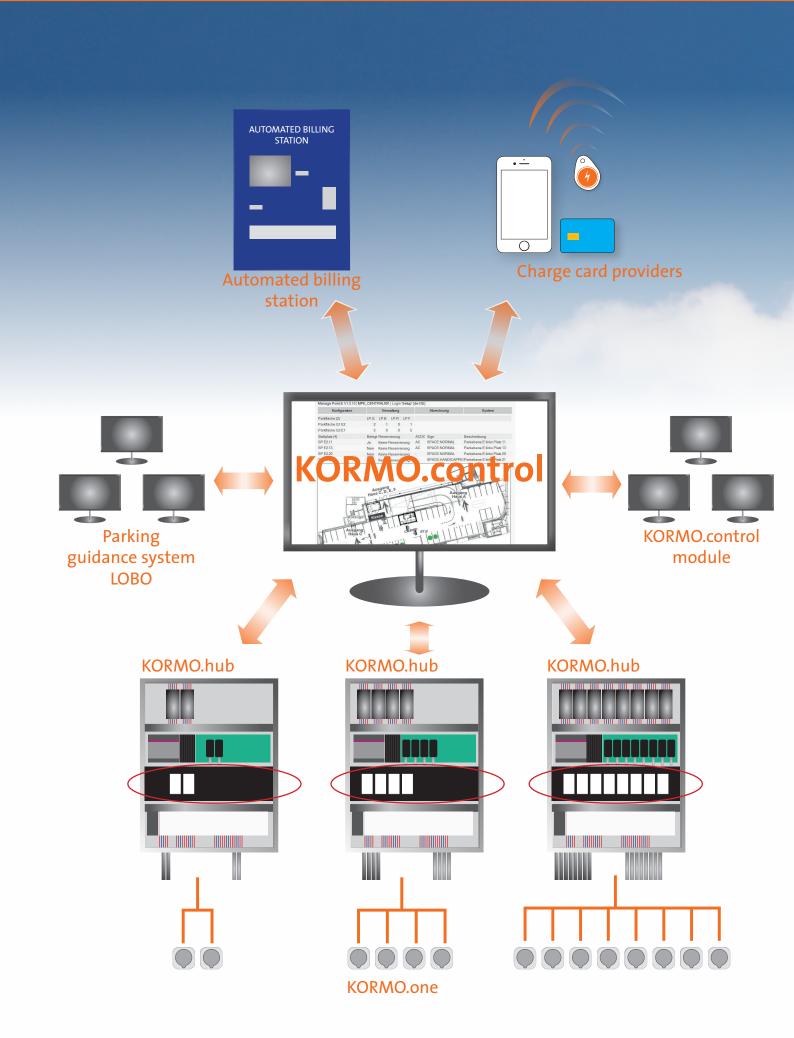
Only with the appropriate resource management is an intelligent energy transition possible!



RTB is actively shaping the rapidly progressing development of electromobility. This is what is driving the development of the intelligent charging system KORMO, which differs significantly from systems made by other manufacturers and is already designed to meet future technical and legal requirements. As a result, individual charging points in stand-by mode are free of charging voltage and safe.

Additional KORMO advantages are

- Individual billing of all recharging points via secure interfaces
 Support for all payment systems: whether cash or card payment systems, employee payment systems, settling charges against salary or via prepaid card provider (e.g., plug surfing)
 Billing via GLS bank paying system Giro-e possible
 Interconnection of parking guidance system, parking area monitoring, cash machines and charging points to create an integrated system
 Pre-reservation of parking and charging bays as well as the required energy
 Conform to calibration law
 Service-flexible and customer-oriented
- Experience in the area of billing through our parking ticket machine division



KORMO Charging systems for electromobility

O KORMO.control

- Monitoring of the hubs
- Reservation system
- Vehicle management
- Employee management
- Invoicing
- Evaluation/controlling
- Charge management

O Expansion modules for KORMO.control

- Fleet management
- Customer-specific requirements

O KORMO.hub (1-n pro control)

- Management of the charging stations
- Identification management
- Electricity meters
- Load management

O KORMO.one

- (1-8 per KORMO.hub)
- Type 2 connection head (separate), up to 22 kW Power output
- Display
- RFID reader
- Status LEDs



KORMO.one

The head of the KORMO charging system is characterized by a very slim design. The respective charging process can, for example, be started via an RFID card reader. An RGB status LED indicates the operational readiness or the charging process.



Further advantages:

- Free of charging voltage in stand-by mode, resulting in increased safety for users and technical staff
- Plug type 2
- Additional housing types available upon customer request
- Individual identification of each charging head
- Service-flexible and customer-oriented
- Particularly safe despite high currents
- Security against vandalism through externally located, decentralized electronics

SECURITY RESOURCE MANAGEMENT CALIBRATION LEGAL COMPLIANCE COST CONTROL

KORMO.hub

The KORMO.hub controller is installed directly on an industrial PC in the control cabinet close to the charging heads. It offers connection options for two, four or eight KORMO.one chargers. The existing energy is automatically divided among the charging heads so that there is an optimum load management.



The following features are also extremely impressive:

- OCPP interface
- RFID, TAN/PIN, checkout and customer-oriented interface
- Cryptographic encryption of secure data transfer
- High system security
- Warning message
 - Monitoring of phase imbalance
- Data interface for evaluation

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KORMO. control

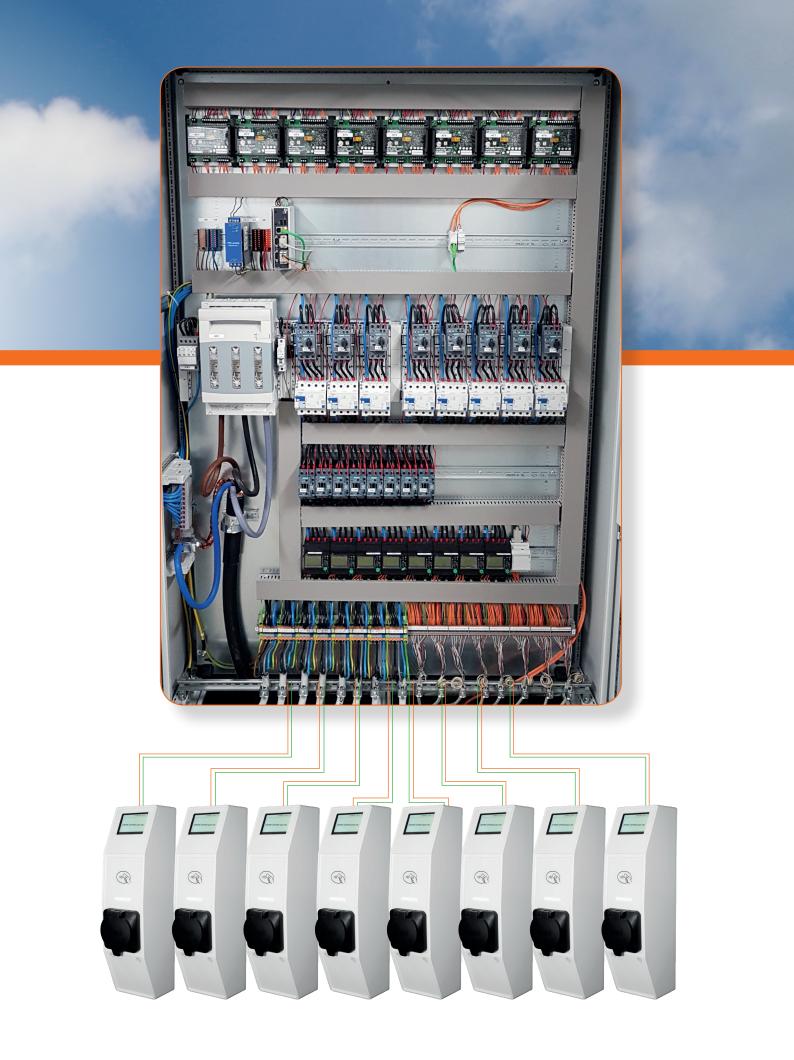
The software for operational monitoring is installed on a server independently of the chargers location, where it monitors all connected KORMO.hubs. It provides optimum resource management with the following advantages:

E-Mobility

• Priority-based charge management according to driver or vehicle

• Reservation system

- Vehicle and fleet management
- Employee management
- Invoicing, e.g., as a PDF file on a smartphone
- Evaluation/controlling



KORMO

E-Mobility

Interface with the LOBO dynamic parking guidance system

The networking of the RTB systems LOBO, NOSCO and KORMO offers a complete solution from a single source.

LOBO is the name of the dynamic parking guidance system. It comprises the following components:

- One infrared parking sensor for each parking space
- One multicolored LED for each parking space, alternatively one multicolored LED for two parking spaces
- Camera systems
- Data concentrators
- Entrance display
- **O** Zone displays
- Numerical displays of remaining parking spaces (optional)
- Parking guidance system server with LOBO.control software

The LOBO.control system is hierarchically structured. At the top, there is the parking guidance system server with the central LOBO.control software from RTB (control level). The basis is formed by the components of the parking guidance system, including sensors, counting units and route guidance signs. This field level also includes the components, such as induction loops or barriers, which can be controlled by the digital I/Os (DIO). The data concentrators and DIOs act as a link between the server and the components, which relay the information provided via Ethernet. A data concentrator can be assigned to up to 240 field devices.



By combining the two systems, parking will be even faster, easier and more comfortable in the future. Thus, for example, the LOBO dynamic parking guidance system already shows parking spaces and charging stations reserved through KORMO as "yellow." Furthermore, the dynamic displays very quickly guide the corresponding vehicle to the reserved parking space, thanks to license plate recognition.

The advantages are obvious!

COMBINATION

For drivers:

- **O** Complete and immediate information about
- parking availability
- Finding the fastest route to an available parking space
- O No traffic jams when searching for a parking space
- Reservation of specific parking spaces

For operators:

- O Better utilization
- Usage of difficult-to-find parking spaces through
- targeted guidance
- Guidance of special customers (VIPs, disabled persons, etc.)
- Time monitoring
- Reduction of traffic searching for a parking space/CO2 emissions
- Usage statistics, information and security





DIFFERENT than the OTHERS!

This is the premise we work on. We want to attract your attention with innovative strength, the highest quality and an excellent service. User-friendliness of our products and customer orientation are most important for us. We are doing everything for a reliable, partner-like cooperation.

Drawing on many years of experience, RTB develops, produces and sells innovative solutions for road traffic. In addition to supplemental equipment for traffic light signal systems, radar and laser systems for speed reduction and certified traffic data recording systems, our product range also includes parking ticket machines, innovative systems for electromobility and effective parking lot management.



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