



# **Driving mobility without barriers**

# The legislators demand accessible entrance in public transport such as train or buses.

Automatically opening doors or entrance helps like sliding steps: Increasingly sophisticated systems for increased safety, comfort and integration become the general standard in equipment of often-used means of transport.

OEM's and operators make use of the decades of experience KAG has in the area of drive systems for bus and train technology. Our drives for use in bus and train are designed for a high vibration resistance.

In our climate cabinets, we also review reliability of the drives in light of extreme environmental conditions. Required operating cycles are reviewed for supporting your TÜV acceptance.

Get to know our innovative solutions.

### Use of state-of-the-art drives

#### in bus and railway doors

- Reinforced vandalism-proof design
- Vibration-resistant design of all motor components
- Cogging-torque optimised
- Integrated magnetic incremental encoder





### for ramps and steps

- High performance in slim design
- Vibration-proof
- Integrated RFI suppression elements for reducing interference emission





#### for doors in trains

- Cogging-torque optimised
- Noise-optimised
- Integrated RFI suppression elements for reducing interference emission





# in mirror adjustments

- Power-on brake for maintaining the position
- Cogging-torque optimised
- High torque at slim design





# in sanding systems

- High protection class IP 65
- Special gear with customerspecific flange for direct assembly
- Integrated electronics with die-cast housing and separate CAN-bus interface
- Special cable according to DIN 5510 / EN 45545





### in switchgear

- Special development design for 48 V, 72 V and 110 V by multi-part collector
- Integrated RFI suppression elements for reducing interference emission
- Compact screw gear







# KAG motors can be found in

- ➤ Bus and railway doors
- ▶ Sliding steps
- ▶ Access ramps
- ▶ Doors for sanitary facilities in trains
- Switchgear
- ▶ Sanding systems
- ➤ Mirror adjustment
- ► Auxiliary compressors

# Your benefits as KAG customer

- ➤ Testing on close-to-series application test benches
- ➤ Tests of the drives in dedicated climate cabinets regarding extreme environmental conditions
- ➤ Testing the vibration resistance on our electrodynamic oscillation system
- ➤ Compact drives with integrated magnetic incremental encoders
- ► High protection types for avoiding additional housings



# Our adjustment options



Individual adjustment of the characteristic curve of the motor



Individual mechanical attachment



Various attachment components



Individual cables



IP-protection matching your application

For 40 years, KAG has stood for demanding customised and permanently reliable drive solutions for DC motors from 2.5 Watt onwards. We are characterised by speed and flexibility, as well as by high customer orientation.

#### Kählig Antriebstechnik GmbH

Pappelweg 4, D-30179 Hanover Phone: +49 (0) 511 67493-0 Fax: +49 (0) 511 67493-67 info@kag-hannover.de