

HEC is a state-of-the-art embedded controller designed for railway HVAC applications.

### Customer benefits

- Designed according to international railway standards, incl. EN, GOST and STM
- Compliant with cutting-edge protocols (i.e. TRDP, IPTCOM and CIP)
- Allows implementation of advance monitoring and condition-based maintenance (CBM) solutions (Knorr-Bremse iCOM CBM platform and web-service terminal IST)
- Backward compatibility with legacy controllers
- Compatible with other Knorr-Bremse Group electronic subsystems as part of Unified Control System (UCS) platform

### Applications

- High-speed trains
- Light rail vehicles
- Locomotives
- Metros
- Passenger coaches
- Regional and commuter trains
- Special vehicles



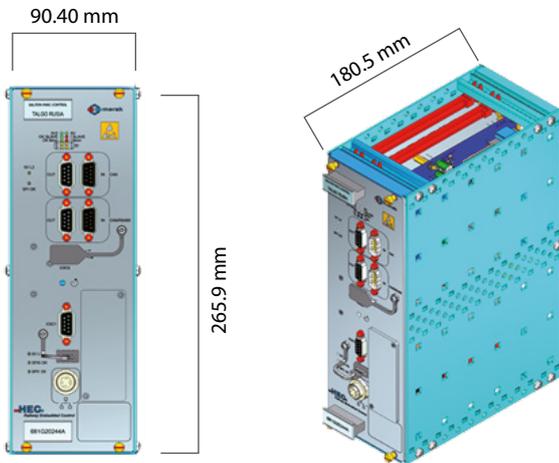
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## Main Features

- Reliable. Qualified according to the strictest type and stress tests
- Compact. Smaller dimensions than previous models and weight reduction by over 30%, to less than 2 kg
- Easy maintenance. Simple installation process
- Standard solutions (based on 3 different configurations) for any HVAC application
- Operation under extreme temperatures (EN 50155 Class TX/start-up at -50 °C)
- Low power consumption: reduced by 28.5% to 14 W in comparison to previous models

TYPICAL INTERFACES FOR EACH CONFIGURATION											
CONFIGURATION	MP bus	Solid-state output	Mech. relay output	Batt. digital input	24 V digital input	Analog inputs	Analog outputs	RS-232	External CAN	Ethernet	RS-485
S1	1	8	4	16	0	8	2	1	1	1	1
S2	1	10	4	16	16	14	2	1	1	1	1
S3	1	18	6	16	16	14	2	1	1	1	1

Additional communication interfaces (e.g. MVB and LON) can be integrated through internal PC104 connection. Third-party devices (e.g. HMI) could be connected by means of external CAN bus.



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