



Electric traction system

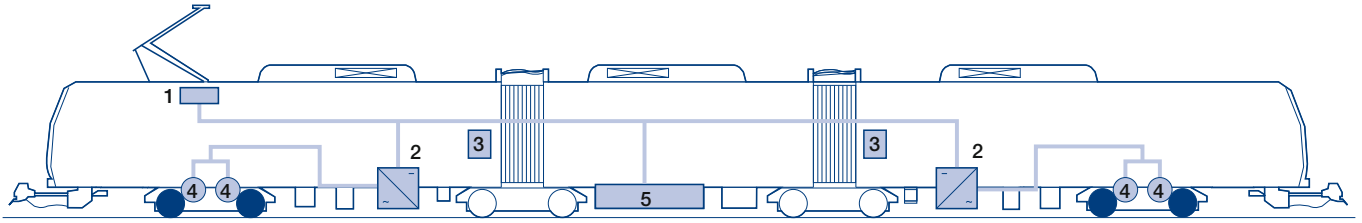
High-floor LRV Manila MRT3

Metro Rail Transit Corporation

The capital of the Philippines is supporting the extension of public passenger transportation. The city is taking into account increasing passenger numbers with the acquisition of 48 urban railway units for the MRT3 line by the operator, Metro Rail Transit Corporation. The 3-section vehicles from the manufacturer CRRC Dalian Locomotive & Rolling Stock Co. Ltd. are equipped with a traction system from Voith, consisting of high-voltage equipment (surge arrestor, high speed circuit breaker, auxiliary converter fuse), traction inverter, I/O module, traction motors as well as the auxiliary converter. Additionally, Voith delivers gearboxes and Scharfenberg coupler. The rail units are designed to operate in conjunction with up to 4 coupled carriages.

Vehicle manufacturer	CRRC Dalian Locomotive & Rolling Stock Co., Ltd.
Operator	Metro Rail Transit Corporation
Year of construction	2016
Track gauge	1 435 mm
Vehicle length	31,7 m
Tara weight	53 t
Axle configuration	Bo' + 2' + 2' + Bo'
Maximum speed	65 km/h
Catenary wire voltage	750 VDC
Maximum power	800 kW

Traction system



- 1 High voltage equipment
- 2 Traction inverter
- 3 IO unit
- 4 Traction motor
- 5 Auxiliary converter

Traction inverter EmCon I1000-9AU

The two traction inverters type I1000-9AU are installed under the floor. They provide continuous power of 350 kVA, as well as short-term peak power of 700 kVA, with each one driving two traction motors. As well as the power electronics, the converter includes the traction control unit.



IO unit VPort

The Voith VPort IO control unit provides further interfaces used for the implementation of decentral control systems. The integrated processor enables the realization of additional vehicle control functions.



Traction motor

The traction motors are coupled with Voith gearboxes and offer a continuous rated power of 120 kW each. The fully suspended motor-gear unit provides excellent dynamic characteristics and contributes to the high driving comfort.



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