



Inspiro London

The new metro which was specifically developed for London, sets new standards in design and innovation to comply with LUL's unique and diverse requirements such as the restricted amount of space.

Our outstanding MoComp components are the backbone of London's metro system, increasing reliability and availability by optimizing the overall efficiency of the drive and brake systems.

- The converter design (compact) supports our permanent magnet synchronous motor drive
- Rugged and reliable



Technical Data	
	Converter
Power	2x 1C1M
Input	750 V DC (400 – 1000 V DC)
Output	3 AC 210 A
Dimensions	2,366 x 431 x 1,800 mm (maximum)
Weight	1,160 kg



Technical Data	
	APS
Power	90 kVA – 40 kW
Input	750 V DC
Dimensions	2,366 x 850 x 434 mm
Weight	435 kg

“SiC is our new standard”

- Higher efficiency (~30%) and reliability compared to IGBTs
- Low noise
- Special design for LUL (restricted space)



Technical Data	
	Bogie SF 1800
Gauge	1,435 mm
Wheelbase	1,800 mm
Max. static axle load	14.5 t
Max. speed	100 km/h
Weight	5.5 t
Additional equipment	Bogie monitoring system

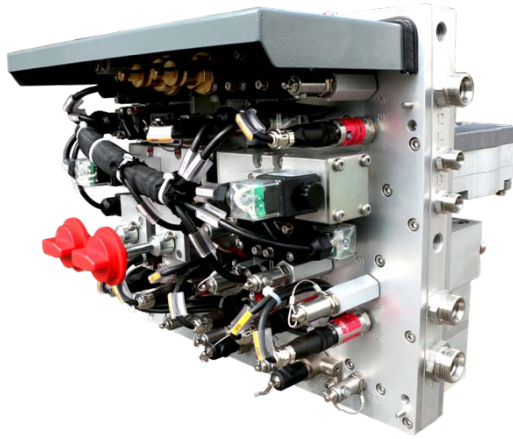
- Very compact bogie design with optimized component arrangement
- Short wheelbase for increased track friendliness
- Low bogie profile (height)
- Extremely curve-friendly (track-friendly) bogie
- Adaptive wheelsets with special axle bearing system
- Low bogie weight based on an optimized bogie frame



Technical Data	
	Permanent magnet synchronous motor traction drive
Rated power	110 kW
Max. starting torque	1,239 Nm
Max. speed	5,175 rpm
Weight	737 kg
Cooling	Self-ventilated / encapsulated
Gearbox	Double stage
Transmission ratio	6,095
Operating speed	100 km/h

The compact and energy-efficient motor-gearbox unit and bogie were developed as an integral system. This project represents our first permanent-magnet traction motor for rail vehicles in series production.

- Significantly higher power ratings in the same installation space
- Lower vehicle energy consumption and operating costs
- Reduced maintenance effort



- Reliable design based on proven components
- Significantly reduced size and weight of the brake equipment unit
- Bogie-wise brake control / axle-wise WSP (wheel slide protection)
- Frequency converter for flexible compressor control

Technical Data	
	Brake system
Control	Combined drive & brake control unit (DBC/ BCU3)
	Bogie wise brake control/ Axle wise WSP
Brake equipment unit dimensions	420 x 380 x 360 mm
Brake equipment unit weight	~ 57 kg
Number of air supply units	2 per train

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