

TheMotion | TheSubframe

Subframe for TheWheel
a hardware composer



Technical Specification

Revision: 1.2
Date: 09/2019

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1 Intended Use

- To be used as the hardware connection for TheWheel™ to complete the system as an axle

2 Highlights

- Developed to connect and fit direct-drive in-wheel-motors within electric vehicles.
- Allows for easy plug and play integration by standard interfaces for air suspension and shock absorbers
- Easy to integrate in air brake systems with Knorr brake calipers and disks

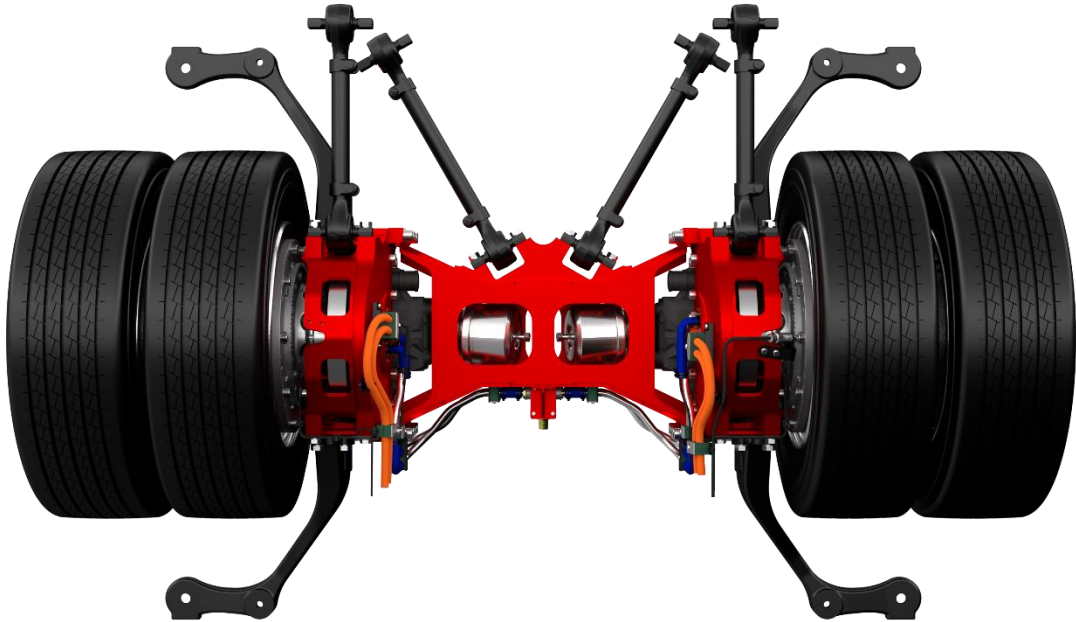
3 Features

- Allowing a low floor bus set up
- Providing the necessary rods for a complete assembly
- Be the housing for the mechanical brake system
- Guiding of electrical/pneumatic connections of the braking system
- Guiding of HV, CANbus and coolant connections of TheWheel™

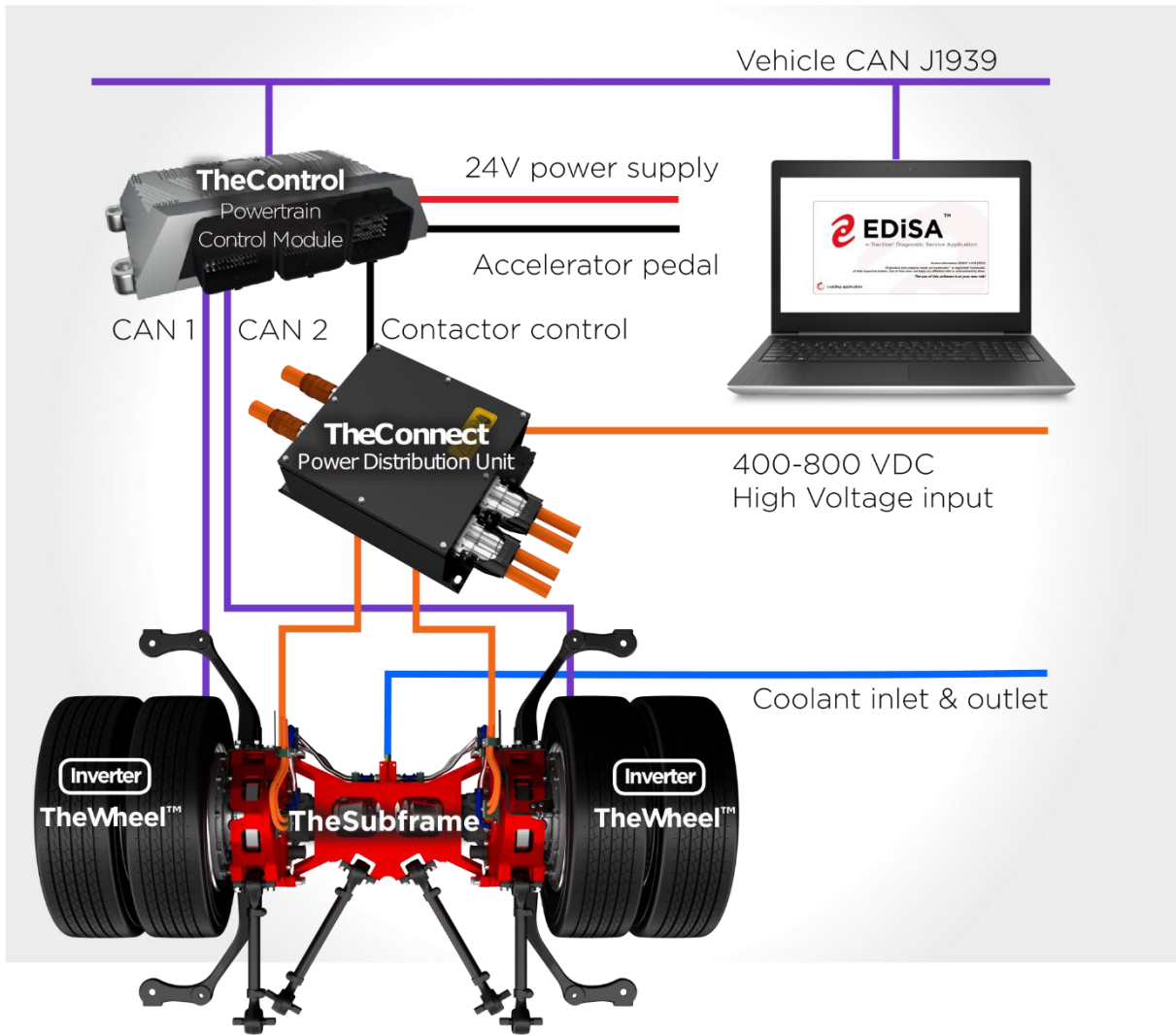
4 Technical Data

Specifications

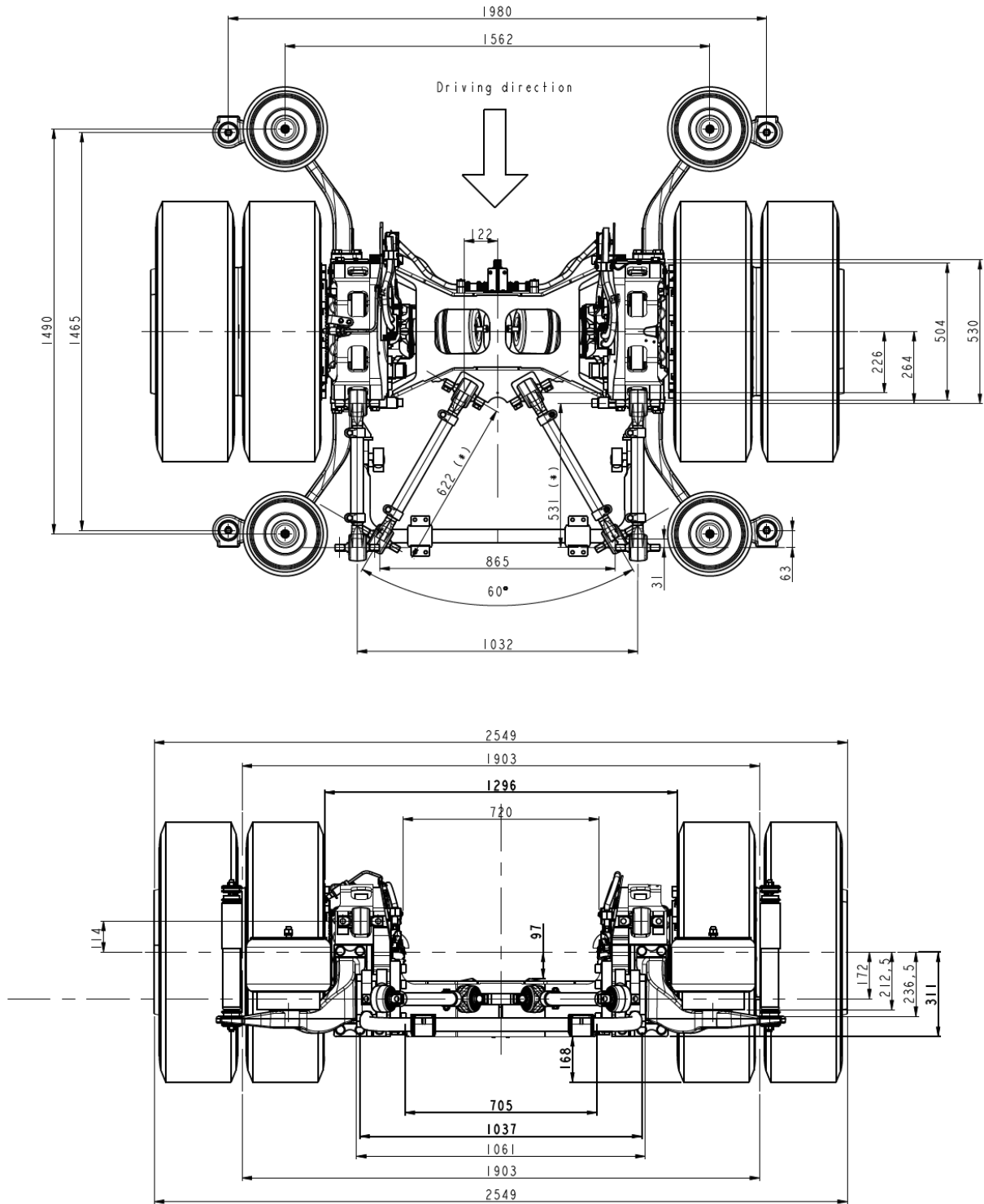
TheMotion TheSubframe	
Product-line	TheMotion
Product ID	TheSubframe
Product Type	In-wheel motor powertrain axle
Functionality and key features	
Intended Use	Heavy duty automotive applications
Technical Specifications	
Maximum axle load (technical)	13.000 [kg]
Brake system	Knorr SN7
Cooling	
	Coolant connections
Environmental conditions	
Operating temperature	-40 [°C] to 65 [°C]
Other features	
	Designed to comply to GB/T 18488:2015
Dimensions and Boundaries	
Dimensions	See mechanical drawing page 6
Mass	218 [kg]
Mechanical interfaces	
Suspension	4x mounting position for suspension carrier
Axle guiding	4x mounting position for axle guiding and alignment
Compliance	
Quality Management System	ISO 9001:2015 TÜV Approved

System Overview	
<i>Appearance Impression</i>	
	
Product Accessories	
<ul style="list-style-type: none">✓ Product Manual✓ Suspension carriers 4x✓ Reaction rods 4x	

5 System Layout



6 Mechanical Design



A long history of proven technology

Founded in the Netherlands in an inventor's workshop, e-Traction offers bespoke solutions and superior technology in e-mobility that are based on solid expertise and hard-won experience.

Since 1981, we have developed electric traction technology, evolving to unique, award-winning, electric in-wheel powertrain technology. With our sustainable, integrated technology, only a bare minimum of components is required to reach the highest efficiency level. The simplicity of our drivetrain is the ultimate sophistication for full electric and hybrid vehicles.

By creating the most energy efficient electric powertrain solutions, environmental impacts, energy consumption and costs of ownership of mobility are lowered substantially. e-Traction develops, realizes and implements superior, distinguished and patented powertrain technology in e-mobility.

e-Traction is convinced that teaming up with the customer is the most efficient way to achieve the perfect solution. We offer development, implementation and services in a dedicated working method and also participate in prototype and demonstration projects.

“e-Traction and their next in-wheel motor technology platform offers a revolution in motion.”

e-Traction

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