

# SOFRONIC

Craiova, Romania



## Hyperion

Bi-system Electric Multiple Unit



# SOFTRONIC

Softronic's newest product, **Hyperion**, is an electric multiple unit train bi-system capable to operate both 25 kV AC and 3 kV DC.

**Hyperion** is the first electric low floor train ever to be built in Romania, aiming to reduce costs and increase efficiency.

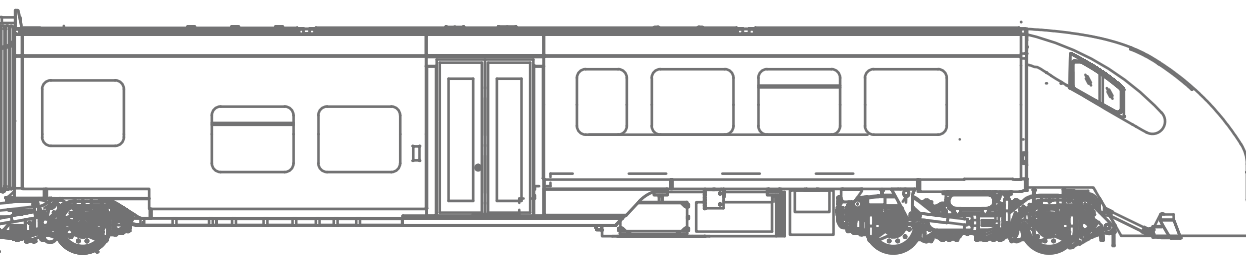
The train was built using cutting edge technologies after a 2012 project. In the same time it is based on our previous experience in railway vehicles manufacture and equipped with the best electrical, electronical and mechanical components.

Comfort and safety are key aspects of our train offering open-space compartments, free internet access, diffused lighting systems and comfortable seats. All of these making short and long journeys an enjoyable and recreational travelling experience.

Internal and external monitoring systems ensure passenger safety, providing direct views and recordings to the driver's cabin.

The train meets the specific requirements of all European Standards (EN and UIC) and the technical specifications for interoperability (TSIs) and is registered at the 2014 ERA (European Railway Agency) database.

The four wagon train was designed to achieve a high level of **Reliability** and **Flexibility** in service, being a reference point of the modern railway transport systems.



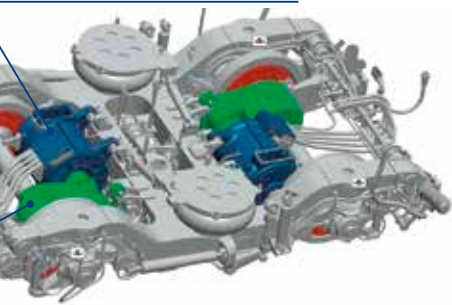
Knorr Bremse  
Braking system

Voith Turbo  
Gearbox





BB 430 kW traction motors



**Motor bogie**

Train-Set Composition	<ul style="list-style-type: none"> <li>• 4 Cars:               <ul style="list-style-type: none"> <li>- 2 End Motor Cars;</li> <li>- 2 Intermediate Trailer Cars</li> </ul> </li> </ul>
Bogies	<ul style="list-style-type: none"> <li>• 2 end Jacobs motorized bogies</li> <li>• 3 intermediate Jacobs trailer bogies</li> </ul>
Overall train-set length	69 935 mm
Body width	<ul style="list-style-type: none"> <li>• 2 930 mm</li> <li>• 600 mm high Floor at entrance doors level</li> <li>• 800 mm trailer Floor level height (from t.o.r.) bogies areas</li> <li>• 1 250 mm Floor level at motor bogies areas</li> </ul>
Motor Car length	20 367.5 mm
Intermediate Trailer Car length	14 600 mm
Doors	1 per car side (total of 8 side doors)
Width of access doors	1 300 mm
Total Mass (Exceptional Load)	170 t
Supply Power Voltage	3 kV DC / 25 kV - 50 Hz AC (bistandard systems power supply)
Pantographs and transformers	2 pantographs and 2 transformers
Electric motors	Two 430 kW asynchronous tractions motors per bogie (total power 1720 kW)
Maximum Speed	160 km/h
Maximum acceleration	0.8 m/s <sup>2</sup>
Total seated passengers number	188 + 1 disable person
Total standing passengers number	225 (4 passengers/m <sup>2</sup> )
Toilets	1 standard + 1 for disable (HK) person
Air Conditioning	4 HVAC units (passengers), 2 HVAC (driver)

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