

SOFTRONIC

TRANSMONTANA

Produced in Craiova – Romania, ensuring traction from the Arctic Circle, to the highest railway stations in the Carpathian Mountains, and through the warm Romanian plain.

The high power 6-axle locomotive for heavy freight trains ensures a performance ratio on any type of railway regardless of landform



Transmontana - Efficiency and traction power on 6 axles

Locomotive with asynchronous traction motors produced in Romania, using its 6000 kW with the help of the most efficient traction and control equipment developed by Softronic Craiova.

Transmontana is based on the concept of electric locomotives mainly intended for freight transport with maximum traction force of 425 kN, being adapted for the toughest traction and weather conditions all with the maximum allowed towing capacity.

Transmontana can also be used for passenger trains being able to haul very long trains at speeds up to 160 km/h ensuring all the safety conditions.

From passenger trains or from heavy cargo trains, connecting cities to routes crossing mountains with steep slopes, Transmontana is ready for any challenge. With the maximum speed of 160 km/h for passenger train and 120 km/h for freight trains, the Transmontana adapts to ensure effective traction.

Softronic's experience in the development of Transmontana locomotive ensures the best configuration according to our customers requests, including its adaptation for bi-system supplied at 15 and 25 kV, the implementation of class A or class B control and command systems for the infrastructure where it operates.

In 2019, Softronic obtained the TSI (Technical Specifications for Interoperability) certification from the Romanian NoBo, which confirms the interoperability of the locomotives produced at Craiova on the European railway system.

Technical Data

	Freight version	Passenger version
Axle formula		Co-Co
Gauge		1435 mm
Nominal load	126 t	120 t
Supply voltage	25 kV / 50 Hz 15 kV / 16 2/3 Hz	25 kV / 50 Hz
Nominal power		6000 kW
Maximum speed	120 km/h	160 km/h
Brake type		KE-GPR-E-mz
Electric brake		recuperative
Parking brake		Spring loaded for axles 3 and 4



Built to last in time. The train drivers second home

The welded structure of Transmontana locomotive is made in a certified workshop, having a design based on strength, optimal weight and durability. Being coated with a special paint to obtain the best quality it will withstand all the possible outdoor conditions of all environments.

Borlänge - Luleå route, almost 4000 tons of steel to the Arctic Circle

The Borlänge - Luleå route is one of the most important logistic rail links in Europe, for transport raw steel laminates. From the rough material compound to the point where the steel begins to get its final product shape, Transmontana is part of this efficient logistic chain. A single train carries almost 4000 tons of steel, comparatively accounting more than half from the weight of the steel used in the construction of the Eiffel tower. Trains cover the distance of 1047 km in a maximum of 15 hours, with a maximum speed of 120 km/h, ensuring a flow of transport of materials that cannot be carried out by road transport.

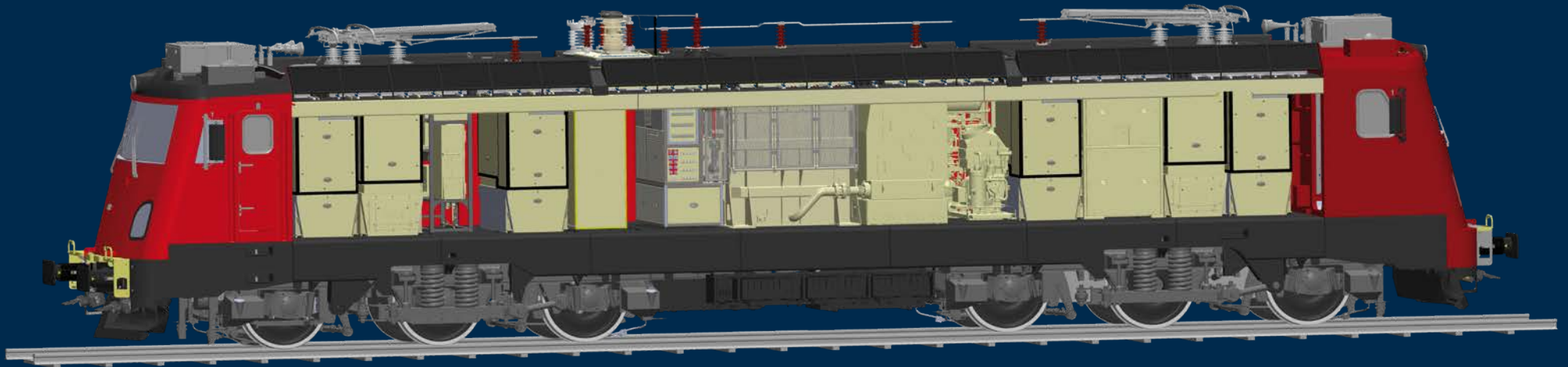
With a modern and elegant design, Transmontana locomotive driving cab offers optimal working conditions for the train drivers, the locomotive being their second home, especially in night traffic conditions.

With all controls installed complying with all TSI norms, having advanced monitoring equipment for traction and auxiliary systems, the train drivers benefit from the best operating conditions of the locomotive.

To ensure comfort, the cab benefits from modern heating and air conditioning systems, refrigerator and microwave oven.

Transmontana means power and safety

- Main transformer with rated power of 8100 kVA, suitable for 25 kV/50 Hz and 15 kV/16.7 Hz networks, manufactured by Hitachi (former ABB)
- 6 asynchronous traction motors of 1000 kW, each of them controlled by its traction converter, developed and produced by Softronic
- Safe and reliable brake system manufactured by Knorr-Bremse
- Crash tested driver's cabin



Top performance with top equipment

In addition to the traction motors and converters produced in Craiova, Transmontana has many components produced by major companies from the railway market.

The heart of the locomotive, the transformer produced by Hitachi Switzerland, the braking system produced by Knorr Bremse and power components produced by Secheron, Stemmann Technik, make Transmontana the best 6-axle locomotive produced today.



From Craiova to the Polar Circle – Green Cargo

Starting 2017, Softronic Craiova signed several contracts with Green Cargo Sweden, which led to a total of 16 locomotives delivered by 2020. Also, in 2020 a framework agreement was signed for the purchase of 100 locomotives. By now Green Cargo owns 22 Transmontana locomotives.

Transmontana locomotives are used to haul rolled steel trains of 3,600-3,800 tones at speeds of 80-100 km/h

between Luleå and Borlänge, on hill and mountain railways. This type of locomotive became the most efficient asset in the Swedish state freight fleet.

The ability of locomotives to operate in temperatures of -40°C or lower, combined with efficient traction on 6 axles encouraged Green Cargo to start authorization procedures in Norway and carry out tests with Transmontana in simple traction for freight trains.



DB Cargo relies on the reliability of Transmontana

DB Cargo Romania is Softronic's main client, with a fleet of over 30 Transmontana locomotives.

Locomotives operate in Romania and Hungary, providing traction for trains crossing the mountains Carpathians and the Romanian plain, towards Constanța Seaport and various industrial points. From the light trains transporting cars, to heavy coal and iron ore trains, DB Cargo relies its business on the reliability of locomotives produced by Softronic.

Deutsche Bahn Cargo Romania, subsidiary of the largest rail freight carrier in Europe – DB Cargo AG – has been present on the local market since 2000, offering services to clients from various industries, shunting rail freight and training schools for railway personnel. DB Cargo manages a fleet of almost 3,000 locomotives and 90,000 wagons in more than 15 countries, both leased and group owned.



Transmontana equipped with ETCS

LTE Rail Romania, a subsidiary of LTE Group Austria, is also a core customer of Softronic, operating 7 Transmontana locomotives. The last batch of 2 units is authorized to operate in Romania, Hungary and Slovakia, being the first batch of locomotives equipped with ETCS system from Thales, with NTC's MIREL and PZB.

This is the second project of Softronic to implement ETCS on its locomotives, since two years ago EBICAB 2000 system supplied by Alstom (former Bombardier Transportation) was installed and certified on locomotives LEMA 6000 kW produced for Green Cargo company in Sweden.



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