

Kazakhstan Temir Zholy “KZ8A” PRIMA T8 Heavy Freight Locomotives

Kazakhstan Temir Zholy selected a PRIMA T8 heavy freight locomotive to modernize freight operations. With their leading-edge technology, PRIMA locomotives meet the highest functionality and safety standards. The KZ8A is capable to operate in extreme climatic conditions. Its reliability and availability are proven in service.



KEY BENEFITS

Enhanced reliability and availability - The long intervals between maintenance activities provide to Kazakhstan Temir Zholy the best possible availability and reliability.

Operation in all conditions - The PRIMA T8 locomotive KZ8A is designed to operate in extreme weather conditions from -50°C to +50°C, delivering the best possible service reliability.

Continuous improvement – Being part of the PRIMA range, the KZ8A Locomotive takes advantage of the return of experience from more than 2.400 Locomotives sold all over the world.

Country..... Kazakhstan

Context..... In 2010 Kazakhstan Temir Zholy decided to purchase 200 double locomotives for freight operations up to 120 km/h under 25 kV. Being Kazakhstan a very challenging country due to its climatic conditions, technical requirements were very demanding.

Solution..... The KZ8A AC is a PRIMA T8 heavy freight locomotive developed on the basis of the Kazakhstan Temir Zholy technical requirements and in compliance with GOST standards and specifications.

The locomotive has a cutting edge traction system based on Alstom’s technology.

KZ8A is designed to operate in temperatures from -50 °C to +50 °C. It requires minimum maintenance and provides a high reliability level and low lifecycle cost, thanks to its modular design.

The specific design of KZ8A provides speed of up to 120 km/h with longer runs between maintenance and repair, reduced power consumption as well as reduced locomotive maintenance costs and enhanced fleet management efficiency.

Serial production of the locomotive is done by the locomotive assembling plant in Astana while the 25 first double locomotives were produced in Belfort before transferring the technology.

KEY FEATURES

Architecture	2 x BoBo
Class of service	Heavy Freight
Gauge	1.520 mm
Overall dimensions	According to GOST 9238-83 1-T
Weight	2 x 100 tons
Temperature range	-50°C to + 50°C
Power at continuous rating	8,8 MW
Overhead system	25 kV AC, 50 Hz
Maximum speed	120 km/h
Tractive effort at start	833 kN
Full length	2 x 17 500 mm

COMPETITIVE ADVANTAGES

High Traction Power – KZ8A with its 8 axles is one of the most powerful electric locomotive in the world, it is able to run at 120 km/h and can haul up to 9,000 tons. The installed power of 8.8 MW (continuous rating) still guarantee reduced power consumption and maintenance costs and is suitable for operations in extreme weather conditions from -50°C to +50°C.

Modular design - Being part of the Alstom PRIMA range, the KZ8A locomotive benefits from a joint development and always up-to-date solutions. The modular approach also allows maintenance and spare parts to be optimised.

Ergonomics and comfort - This locomotive is dedicated to long-distance heavy freight operations. Driver comfort over long distances is granted thanks to its large cabin equipped with climate control system, heated seat and footrest, meals cooking and storing facilities as well as a toilet. The cabin complies with all current ergonomics and safety regulations and ensure maximum safety and comfort.



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