

TOSHIBA

Leading Innovation >>>

(50kV AC)

15E : Electric Locomotives



With the increase in global demand for mineral resources in recent years, even the Republic of South Africa, a leading mineral producer, has experienced an urgent need to enhance transport capacity from mines to shipping ports.

Toshiba supplies the electrical equipment for Class 15E electric locomotives ordered by Transnet in the Republic of South Africa to haul heavy iron ore trains.

The Class 15E electric locomotive is designed to operate on a 50kV AC power supply, one of only a few such line voltages worldwide, and offers high reliability and redundancy of the main equipment.

Toshiba has developed high-output-power electric locomotive systems, which facilitate main freight transportation in the Republic of South Africa.

Map of South Africa



Features

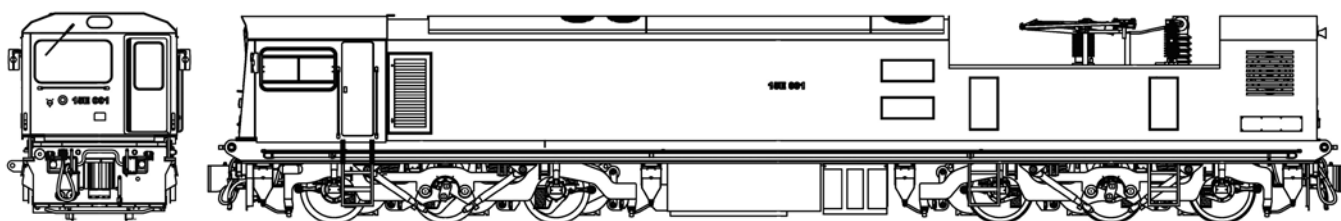
AC 50kV-50Hz power system
Power converter with water cooled IGBT
Train Controlling /Monitoring System equipped
Special functions:
•Automatic power control at neutral sections
•Slow-constant speed mode for loading ore
•Safety interlock for maintenance personnel

Dimensions

Overall length	21,378 mm
Maximum width	2,920 mm
Height (pantograph lowered)	3,885 mm

Specifications

Power system	50kV-50Hz AC
Axle load	30,000 kg
Gauge	1,067mm
Axle arrangement	Co' Co'
Total mass	180 tons (30tons×6axles)
Maximum speed	90 km/h
Output	4,500 kW
Starting tractive effort	588 kN
Maximum electric braking effort	413 kN
Ambient temperature	-10 to 45°C
Traction motors	6 × AC Motors



Class 15E Locomotive

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