

◁ Dual-Powered Locomotive ▷



The Dual-Powered Locomotive is a member of the ALP 46 Platform. It can operate both as an electric locomotive under catenary as well as a diesel-electric locomotive on non-electrified train routes. As a passenger locomotive for North American applications, it provides head-end power and can be operated remotely from a cab car in push-pull services.

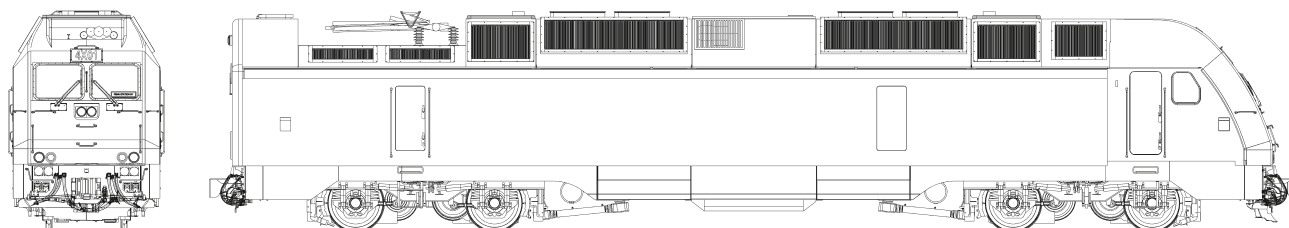
The Dual-Powered Locomotive is designed for high-capacity passenger trains consisting of single or double-deck coaches. The Dual-Powered Locomotive has a single operator's cab which is similar to the ALP 46. The Flexifloat bogie is adapted to the higher axle load and is able to run at speeds of up to 125 mph. The electric propulsion system

is built with the state-of-the-art IGBT traction converters used on the European TRAXX Locomotives. Diesel propulsion is obtained from two standard prime movers fulfilling actual emission requirements. High fuel efficiency is achieved with a novel power management system. The high speed diesel engines allow fast train acceleration, important for passenger services.

The Dual-Powered Locomotive combines the latest proven Bombardier designs for electric and diesel locomotives. In this way, it meets the high expectations of railways in terms of reliability, low service and maintenance requirements, as well as low operating costs. As a platform product, the Dual-Powered Locomotive gives the railways the advantages of long-term spare parts availability and commonality savings in a mixed fleet with the electric ALP 46 locomotive.

Dual-Powered Locomotive

North America



General Data

Track gauge	4' 8½" / 1435 mm
Clearance gauge	AMTRAK
Type of vehicle	Passenger locomotive

Technical Data

System voltage	25 kV/60 Hz, 12 kV/25 Hz
Head-end power	1 100 kVA, 3 x 480 V/60 Hz
Wheelset arrangement	Bo'Bo'
Drive system	Fully suspended
Axle load	72 000 lbs / 32.66 t
Number of traction motors	4
Max. electric traction power	5 360 hp / 4 000 kW
Max. diesel power	2 x 2 100 hp / 2x 1 567 kW
Max. rheostatic braking power	1 608 hp / 1 200 kW
Max. starting tractive effort	71 000 lbs / 316 kN
Max. electric braking effort	34 000 lbs / 150 kN
Max. speed	125 mph / 201 km/h
Traction converters	2 x MITRAC* TC 3350
Pantographs	Railway specific
Fuel capacity (usable)	1 600 – 1 800 U.S. Gallons / 6 044 – 6 800 l
Automatic train protection system	Railway specific
Train communication system	TCN / WTB

Dimensions and Weights

Length over coupler faces	71' 6¼" / 21 800 mm
Width	10' 10⅓" / 3 310 mm
Height over pantograph	14' 4⅛" / 4 400 mm
Virtual distance between bogie centers	43' ⅝" / 13 250 mm
Truck axle base	9' 2⅓" / 2 800 mm
Wheel diameter new	44" / 1 118 mm
Wheel diameter worn	41⅜" / 1 046 mm
Max. weight	288 000 lbs / 130.64 t

Special features

High fuel efficiency with power management

Countries of operation

USA, Canada

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