



LOCOMOTIVES



SD80ACe Freight Locomotive

For more than 90 years we have produced the most durable, reliable and sustainable locomotive products and services in the rail industry. We design and manufacture diesel-electric locomotives for all commercial rail applications, with 65,000 EMD-powered locomotives delivered to more than 75 countries. Our technology leadership and superior performance drive our reputation for exceptional quality, service and innovation.

The powerful and efficient 5,300 traction horsepower EMD SD80ACe locomotive integrates the EMD 710 engine, EM2000 microprocessor control system and AC traction. It also features a tropical roof and a cab engineered for operator safety and comfort.

The advanced technologies of the SD80ACe provide safety, reliability, efficiency and sustainability, while delivering life-cycle cost optimization and leading performance. It joins thousands of EMD SD-Series locomotives operating in extreme conditions and demanding heavy-haul applications across the globe, including North America, South America, the Middle East, Africa and Australia.

SD80ACe Freight Locomotive Features and Benefits

- ▶ **Highly reliable, turbocharged 20-cylinder 710 engine**
 - > Equipped with EPA Tier 1 Emissions hardware
 - > Optimized for fuel efficiency
 - > Operates on B20 (concentrations up to 20% B100 biofuel)
- ▶ **Provides 2 for 3 unit replacement**
- ▶ **Isolated cab for reduced operator exposure to noise and vibration**
- ▶ **Operates in extreme weather and warm climates up to 50° C**
 - > Tropical roof to minimize heat transfer
 - > Engine cooling system supports site conditions
- ▶ **Inverter driven accessories for improved fuel economy**
- ▶ **Meets AAR Specification S-580 crashworthiness standards**
- ▶ **Extended 184-day maintenance interval**
- ▶ **Optional high adhesion package**
- ▶ **Optional Intellitrain® remote monitoring and diagnostic services**

EM2000™ Microprocessor Control System

- ▶ **Excitation and load control**
- ▶ **Adhesion control**
- ▶ **Engine control**
- ▶ **Diagnostic system**
- ▶ **Archived unit history data**

SD80ACe Locomotive Technical Details

Locomotive Traction System	AC Traction
Diesel Engine	20-710G3C-ES
Number of Axles	6
Locomotive Height	4,816 mm
Length Over Couplers	23,317 mm
Traction Horsepower	3,952 kW
Maximum Speed	90 kph
Starting Tractive Effort	850 kN
Dynamic Braking Effort	467 kN
Fuel Capacity (usable)	23,470 liters
Maintenance Interval	184 days
Nominal Weight	196 mT
Maximum Axle Load	32.7 mT
Track Gauge	1,600 mm
Designed for	Brazil

Optional Model Configurations

Eight-Axle Configuration

Track Gauge Range 1,000 mm to 1,676 mm

Maximum Axle Load 25.0 mT to 27.5 mT