

G T 4 6 M A C / P A C L O C O M O T I V E



GT46MAC
Freight Locomotive

GT46PAC
Passenger Locomotive



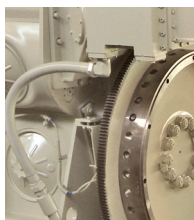
S P E C I F I C A T I O N S

GT46MAC/ GT46PAC

EMD'S AC TRACTION LOCOMOTIVE
FOR FREIGHT & PASSENGER APPLICATIONS

ELECTRO MOTIVE

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EMD'S AC TRACTION LOCOMOTIVE FOR FREIGHT & PASSENGER APPLICATIONS

GT46MAC Freight SPECIFICATIONS

Total Weight on Rails	126-128 tonnes
Height (top of rail to top of cooling fan)	4.12 meters
Overall Length	21.3 meters
Fuel Capacity	6,000 liters
Lube Oil Capacity	1,499 liters
Cooling Water Capacity	1,144 liters

PERFORMANCE

- 4,000 THP locomotive equipped with a 16-710G3B engine
- Tractive and braking effort capability:
 - 540 kN starting TE; higher starting TE available
 - 270 kN braking effort; higher braking effort available
- 12% improvement in fuel efficiency over earlier 645 Engine
- Other performance options available

GT46PAC Passenger SPECIFICATIONS

Total Weight on Rails	115.5 tonnes
Height (top of rail to top of cooling fan)	4.12 meters
Overall Length	21.3 meters
Fuel Capacity	6,000 liters
Lube Oil Capacity	950 liters
Cooling Water Capacity	1,045 liters

PERFORMANCE

- 4,000 THP locomotive equipped with a 16-710G3B engine
- Tractive and braking effort capability:
 - 270 kN starting TE; higher starting TE available
 - 190 kN braking effort; higher braking effort available
- 12% improvement in fuel efficiency over earlier 645 Engine
- Locomotive with high speed potential up to 160KPH (depending on gauge and other parameters) for passenger train operation
- Other performance options available

SPECIFICATIONS Identical to GT46MAC & GT46PAC

ENGINE

- 16-710G3B, High Efficiency Turbocharger, Unit Fuel Injection

AC TRACTION TECHNOLOGY

- Simple, robust motor design
- Higher efficiency, lower temperatures
- Doubles motor overhaul interval
- Bogie-controlled IGBT AC traction inverters for higher inherent reliability

HTSC SERIES BOGIE

- No wearing surfaces extend bogie overhaul interval to 1.6 million km
- Dual high adhesion and high-speed capability
- Available gear ratios for heavy haul and passenger operation
- Can be configured for various track gauges

CAB FEATURES

- Air operated windshield wipers
- Dual desk type control consoles-optional; single "AAR type" control stand available
- Multi-resettable vigilance controls-optional

EM2000 ADVANCED LOCOMOTIVE CONTROL COMPUTER

- 32-bit microprocessor
- Reduction in modules and components compared to Dash-2 series controls
- Improved reliability and performance
- Information can be downloaded to a laptop computer
- Flexible and expandable to accommodate future system enhancements
- Complete self-diagnostics
- Archived unit history data
- Provides control of IGBT AC traction inverters
- Multi-language capability (change with a keystroke)

FIRE™ DISPLAY SYSTEM (Optional)

- Man-Machine interface (replaces optional pneumatic gauges/analog instruments)

AIR SYSTEM

- Electronic Air Brake System available (direct engine driven air compressor)

RELIABILITY AND SERVICEABILITY

- 90-day maintenance intervals
- AC motor design (doubles traction motor life)
- No running maintenance required (no brushes, commutator, or rotor insulators; no flashovers)
- Bogie IGBT Inverter Control (high level of reliability with few parts)
- 1.6 million km overhaul with HTSC Bogie
- 6-year engine overhaul period
- Narrow long hood for easy access to engine and major components

SAFETY FEATURES

- Increased crashworthiness requirements
- Improved visibility with cab and carbody configuration
- Anti-climber available

PERFORMANCE IMPACT

- Provides unit reduction, fuel savings, additional revenue, tonnage capacity
- Fewer units result in significant maintenance and operation savings
- Flexible and adaptable for various applications