

# MP54AC Tier 4 Commuter Locomotive



The power of MP54AC  
**AC Traction**  
5400 BHP, Twin Engine Reliability  
First Tier 4 Commuter Locomotive

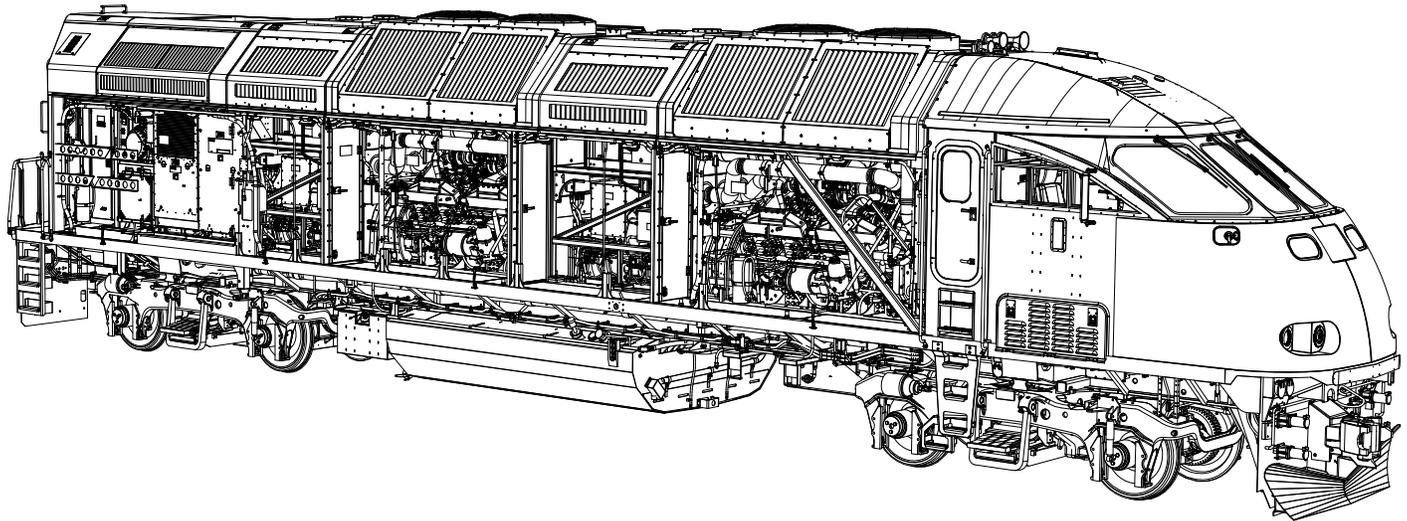


Solutions in Motion

# MP54AC Tier 4 Commuter Locomotive

For maximum performance and reliability, MotivePower, Inc. (MPI), a Wabtec company, offers the MP54 AC commuter locomotive. Based on the proven MPXpress® platform and powered by two Cummins QSK60 Tier 4 compliant engines, the locomotive provides up to 5400 HP, making it the most powerful diesel passenger locomotive in North America. The two engine configuration offers built-in redundancy, ideal for customers who typically operate single locomotive trainsets.

and need maximum reliability. Operational flexibility is also provided with the capability to operate in single engine mode for increased fuel savings. An IGBT based AC traction system is included with individual axle control, brushless AC motors and a synchronous alternator to minimize maintenance impact. This configuration can be offered as new or as a Tier 4 repower to existing MPXpress locomotives.



## MP54AC Specifications

Model	MP54AC	Model	MP54AC
Emissions	US EPA Tier 4	Main Generator	Dual 2.0 MW, Synchronous, Brushless
Power	4,026 kW (5,400 hp) Gross 3,425 kW (4,600 hp) Traction*	Trucks	MP2237, 4 Wheel, Cast Steel Frame
Tractive Effort***	82,900 lbs Starting 50,700 lbs Continuous	Traction Motors	AC Brushless With Individual Axle Control, 1,200 hp
Mass	280,000 - 290,000 lbs**	Air Compressor	Liquid-Cooled Screw Type
Axle Load	70,000 - 72,500 lbs	Brakes—Air	Wabtec Fastbrake®, Blended w/ DB
Maximum Speed	110 mph	Brakes—Dynamic	Extended Range
Power Per Driving Axle	1,200 hp (Maximum)	Cooling System	4 x 48" AC Powered Cooling Fans
Wheel Diameter	40"	HEP	Inverter HEP, IGBT
Fuel Capacity	1,800 or 2,400 Gallons	HEP Power	720 kW, 480 Vac or 575 Vac
Dimensions		Operator's Controls	Console Desk w/ CDU screen, PTC provisions
Length Over Couplers	68 Feet, 0 Inches	Cab	APTA Crashworthy, Air Conditioned
Height - Carbody	15' 9-15/16"	Control System	QES-III with Auto Engine Start Stop
Width Over Handrails	10' 7-5/8"	Special Features	
Bolster Centers	42' 10"	• Electronic Fuel Injection	• Regenerative Braking
Truck Wheelbase	9' 4"	• Certified US EPA Tier 4	• Optional Central Diagnostic System (CDS) with GPS Tracking
Curve (Single Unit)	248' (23.1°)	• 4600-5400 hp configurable	
Curve (With 85' Car)	315' (18.2°)		
Engine	Dual Cummins QSK60, MCRS, Tier IV 16 Cylinder, 2,700 hp each.		

\*With nominal HEP load.

\*\*Based on fuel capacity options.

\*\*\*Assumes AAR Conditions, Dry Rail, New 40" Wheels, 4 x 1200 hp AC Motors & 62:15 Gear Ratio.