QSK50 T4

Locomotive Power Module

CLEAN DIESEL LOCOMOTIVE POWER

The Cummins QSK50 Tier 4 Power Module is designed for ease of installation into multiple locomotive models. We pre-build the entire unit, including the engine, alternator, air intake, exhaust and air compressor drive, on a base skid. A new cooling module is also provided to install close coupled to the Power Module.

Then we work with the locomotive manufacturer or rebuilder on any modifications to the frame and hood as well as electronic wiring and controls. Installation and service manuals are also provided to guide the customer.

This packaged unit is pending EPA Tier 4 Line-Haul Locomotive certification rated at 2,400 HP at 1800 rpm. This engine is engineered, built and tested to deliver exceptional fuel economy, performance and reliability with reduced maintenance costs for decades of operation.

The Power Module is equipped with a Kato dual-bearing alternator rated at 1800 kW of traction power and 250 kW of 120v/3-phase companion power. If required, the alternator can be configured to meet the needs of your specific locomotive application.

The Cummins Tier 4 Locomotive Power Module provides reliability with a positive impact on the environment.

Specifications	
Horsepower	2,400 bhp
Governed speed	1,800 rpm
Low idle speed	750 rpm
Traction power	1,800 kW
Traction voltage	750 VDC
Traction current (cont. / int.)	4,400 amps / 6,600 amps
Companion alt	250 kW, 360 kVA
Weight	~41,000 lbs
Length	237 in
Width	69 in
Height	107 in
Coolant capacity	169 gallons
Lube oil capacity	70 gallons
Maint. interval	1,500 hours

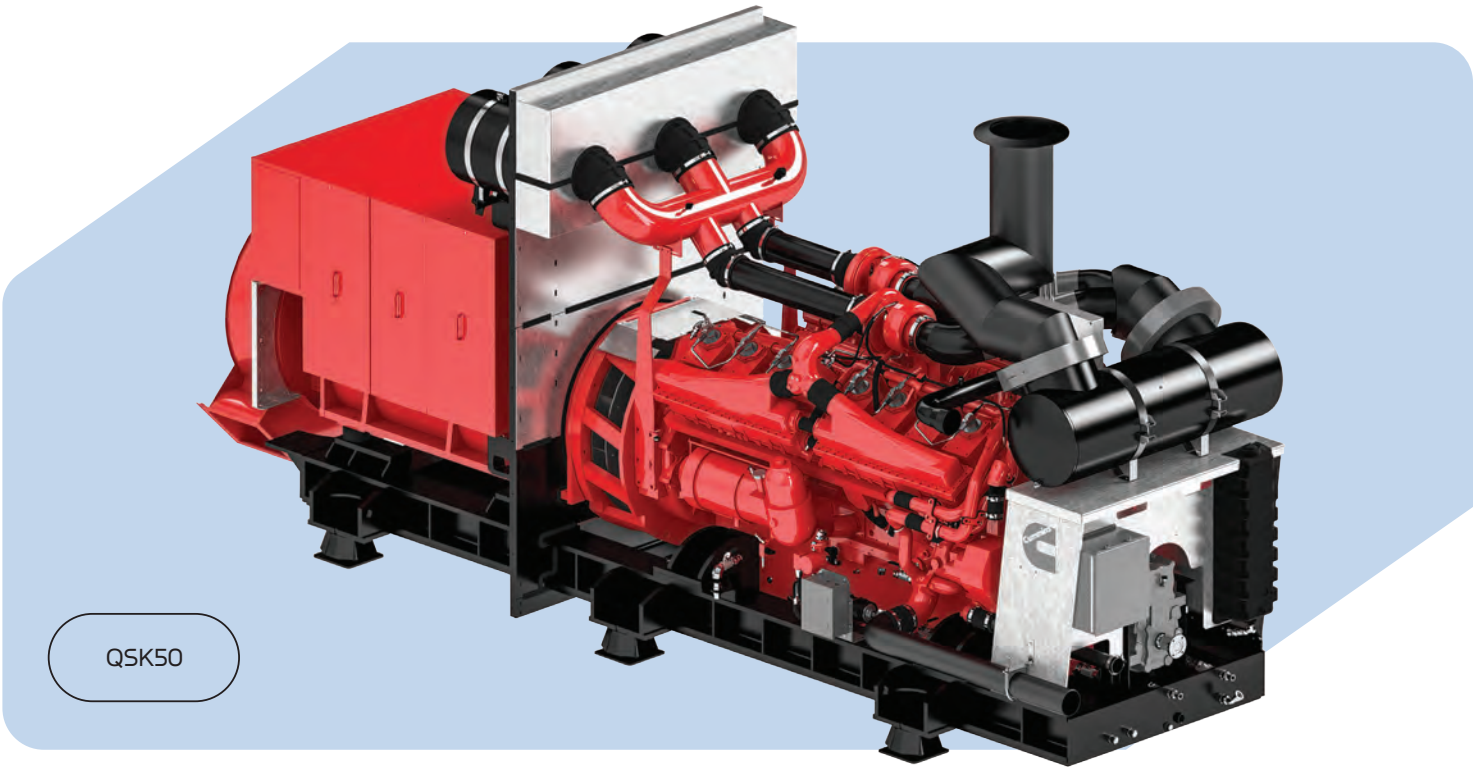
↓ 90%* NOx

↓ 90%* PM

↓ 90%* Lube oil consumption

↓ 30%* Fuel consumption

* When compared to Pre-Tier 0 Locomotives. Based on EPA Linehaul Locomotive Duty Cycle.



QSK50

STANDARD SPECIFICATIONS AND OPTIONS FOR LOCOMOTIVE POWER MODULE

System	Standard	Option
Engine	2,400 bhp @ 1,800 RPM EPA Tier 4 Locomotive Linehaul certified (pending) 64VDC dual starters and pre-lube pump	▪ Engine cold start aids ▪ Cummins FIT system
Alternator	Kato Dual-Bearing Slip ring brush type design Traction Alternator Winding: ▪ 1,800 kW @ 1,800 RPM ▪ 750 Volts rectified DC output ▪ 4,400 Amps continuous / 6,600 Amps intermittent Companion Alternator Winding: ▪ 250 kW, 360 kVA, 0.80 lagging power factor ▪ 400 or 200 VAC, 3-phase at 1,800 rpm	
Mounting	Fabricated base frame for mounting engine and alternator with rubber isolators between base frame and locomotive frame	
Cooling	Fully engineered package mounted to locomotive frame ▪ Mechanical bonded copper core construction ▪ Split jacket water and aftercooling circuits ▪ Expansion tank with low coolant level sensor	
Air Intake	Fleetguard metal canister 2-stage air cleaners ▪ Built-in clean air room wall	
Exhaust	Cummins Emission Solutions Dual 6000 Series SCR canisters with DEF tank, pump, filters and lines included Insulation blankets covering tubing and SCR canisters	
Fuel	Three stage fuel filtration 64VDC electric transfer pump to pull fuel from tank	PDI Fuel Dehydrator with auto water drain
Lube Oil	Sub-base type full sump oil pan Eliminator centrifuge oil filter	
Electrical	Isolated 24VDC electrical system for engine including dual batteries and charging alternator	
Controls	TMV TECU Locomotive Control System	▪ Less controls ▪ 64VDC Battery Charger ▪ Remote monitoring system

Contact your Locomotive Rebuilder or your local Cummins representative for pricing and more information.

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