



QSK50

Marine Propulsion and Auxiliary Engines for Commercial and Recreational Applications

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel
Aspiration	Turbocharged / Aftercooled
Displacement	50 L (3068 in ³)
Bore & Stroke	159 X 159 mm (6.25 X 6.25 in)
Rotation	Counterclockwise facing flywheel
Fuel System	High Pressure Common Rail



Product Dimensions and Weight

Overall Length	mm (in)	2780.2	(109.46)
Length of Block	mm (in)	2044.7	(80.50)
Overall Width	mm (in)	1573.4	(61.95)
Overall Height	mm (in)	2231.6	(87.86)
Weight	kg (lb)	6270	(13,823)

Dimensions and weight may vary based on selected engine configuration.

Power Ratings

Engine Model	Output Power			Engine Speed RPM	Rating Definition	Fuel Consumption		Emissions			
	kW	MHP	BHP			Rated Speed L/hr (gal/hr)	ISO* L/hr (gal/hr)	IMO	EPA	EU	RCD
Variable Speed											
QSK50-M1	1268	1724	1700	1600	Continuous	320.7 (84.7)	231.8 (61.2)	2	3	—	—
QSK50-M1	1268	1724	1700	1600	Continuous	311.5 (82.3)	220.5 (58.2)	2	—	3a	—
QSK50-M1	1268	1724	1700	1800	Continuous	324.3 (85.7)	223.9 (59.1)	2	—	3a	—
QSK50-M1	1342	1825	1800	1600	Heavy Duty	335.3 (88.6)	238.2 (62.9)	2	—	3a	—
QSK50-M1	1342	1825	1800	1800	Heavy Duty	350.5 (92.6)	248.2 (65.6)	2	3	—	—
QSK50-M1	1342	1825	1800	1800	Heavy Duty	346.6 (91.6)	235.8 (62.3)	2	—	3a	—
QSK50-M1	1342	1825	1800	1900	Heavy Duty	353.3 (93.3)	253.3 (66.9)	2	3	—	—
QSK50-M1	1342	1825	1800	1900	Heavy Duty	353.3 (93.3)	240.0 (63.4)	2	—	3a	—
QSK50-M1	1529	2079	2050	1800	Medium Continuous	388.2 (102.6)	271.0 (71.6)	2	—	3a	—
QSK50-DM1	1628**	2214	2183	1800	Diesel Electric	413.8 (109.3)	209.7 (55.4)	2	—	3a	—
QSK50-M1	1641	2231	2200	1900	Medium Continuous	426.7 (112.7)	287.6 (76.0)	2	—	3a	—
Fixed Speed											
QSK50-DM1	1290	1308	1730	1500 (50 Hz)	Prime Power	308.0 (81.4)	162.5 (42.9)	2	—	3a	—
QSK50-DM1	1342	1361	1800	1800 (60 Hz)	Prime Power	339.3 (89.6)	184.2 (48.7)	2	3	—	—
QSK50-DM1	1342	1361	1800	1800 (60 Hz)	Prime Power	332.3 (87.8)	177.3 (46.8)	2	—	3a	—
QSK50-DM1	1628**	1651	2183	1800 (60 Hz)	Prime Power	413.8 (109.3)	209.7 (55.4)	2	—	3a	—

* Average fuel consumption based on ISO 8178 E3 Standard Test Cycle (variable speed models) and ISO 8178 D2 Standard Test Cycle (fixed speed models)

** Contact your local Cummins distributor to discuss product details and availability

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Features and Benefits

Engine Design – Reliable base engine uses common components from the proven K19, K38 and K50 engines. A new cast-iron, ductile single-piece piston with nitride-coated rings and hardened cylinder liner provides excellent durability and long life

Fuel System – Modular Common Rail Fuel System features a simplified design which provides constant high injection pressure regardless of engine speed or load condition. Benefits include low noise and vibration for quiet operation, idle stability and low-end torque

Cooling System – Two-pump, two-loop, low temperature aftercooling maximizes efficiency and improves performance. Engine-mounted titanium plate heat exchanger provides superior durability with minimal maintenance requirements

Exhaust System – Dry-shielded exhaust manifold and turbocharger. Vertical or horizontal exhaust connections available for installation flexibility

Air System – Turbocharger optimized for vessel operating conditions and safety. Mounted or remote marine grade air cleaner with replaceable canister reduces maintenance cost

Lubrication System – Standard capacity 151 L (40 gal) and high capacity 204 L (54 gal) marine grade oil pan. Handed Cummins spin-on oil filters available for easy accessibility and servicing

Electronics – 24v Quantum System electronics feature an ECM to monitor operating parameters, while providing diagnostics, prognostics and complete engine protection. Simplified electrical customer interface box for all vessel connections to reduce installation complexity

Certifications – Complies with IMO Tier II, EPA Tier 3 and EU Stage IIIa emissions regulations. Designed to meet the International Association of Classification Societies (IACS) and SOLAS requirements. Consult your local Cummins professional for a complete listing of available class approvals

Optional Equipment

- C Command panels
- ELIMINATOR™ oil filtration system
- Premium coolant hose connections
- Duplex lube oil and fuel filtration
- SAE A or B (keel cooled only) accessory drives
- Front PTO adaptor
- CENTINEL oil management system
- Pre-Lube with QuickEvac
- Air or electric starter
- Rigid or flexible mounting arrangements

