

Specification sheet

QSB5-G11

Emissions compliance:
EPA Tier 4 Final at 50 Hz and 60 Hz
EU Stage IIIA at 50 Hz



Description

The QSB5-G11 Tier 4 Final incorporates the latest diesel engine technology, including a high pressure common rail fuel system for greater fuel efficiency, lower noise and reduced emissions.

The addition of the Cummins Emissions Solution (CES) aftertreatment system achieves Tier 4 Final and EU Stage IIIA emissions by integrating a Diesel Oxidation Catalyst (DOC), Selective Catalytic Reduction (SCR) and Diesel Exhaust Fuel (DEF) Dosing Module into the diesel engine.

This engine is suitable in all markets and applications that require compliance with EPA Tier 4 Final emissions.

Features

Low Exhaust Emissions - Utilizing an in house design and proven solution for emission control – the QSB5-G11 design has an integrated cooled Exhaust Gas Recirculation (EGR) system, Diesel Oxidation Catalyst (DOC), Selective Catalytic Reduction (SCR), Diesel Exhaust Fluid (DEF) dosing system and Direct Flow™ Air Filter.

The QSB5-G11 engine requires Ultra Low Sulfur Diesel (ULSD) fuel (15 ppm sulfur maximum) and Low Ash CJ-4 lube oil.

Full Authority Electronic Controls - Integrated system that combines Tier 4 Final aftertreatment electronics into the engine control. Optimize engine operation and deliver critical information for controlling costs and reducing maintenance. Provides faster processing power and increased memory capability while allowing seamless electronic interface to other systems and seamless integration with other components.

Low-Maintenance Fuel Filter Assembly - The QSB5 uses Fleetguard NanoNet™ fuel filters that utilize nanotechnology in the filtration media, providing an exceptional level of efficiency and harmful particulate removal media. The primary fuel filter incorporates an integral water separator and water-in-fuel sensor.

Dripless Crankcase Breather System – Open, low emission crankcase breather filter system includes coalescing filter to remove emissions as required by regulations – with added benefit of eliminating oil drips and mist.

Reduced Operating Costs – Extended service intervals for oil and filter changes.

Service and Support - G-Drive products are backed by an uncompromising level of technical support and after sales service, delivered through a world class service network.

Codes and standards

	This engine has been built to comply with CE certification.		This engine has been designed in facilities certified to ISO9001 and manufactured in facilities certified to ISO9001 or ISO9002.
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1800 rpm (60 Hz Ratings)

Gross Engine Output			Typical Generator Set Output					
Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
126/169	114/153	102/13	100	125	90	114	83	103

1500 rpm (50 Hz Ratings)

Gross Engine Output			Typical Generator Set Output					
Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
109/147	98/131	88/118	90	113	81	101	73	92

General Engine Data

Type	4-Cycle, in-line, turbo charged, charge air cooled, EGR
Bore, mm	107 mm
Stroke, mm	124 mm
Displacement, Litre	4.5
Cylinder Block	Cast iron, 4 cylinder
Battery Charging Alternator	70 amps, 100 amps, 130 amps
Starting Voltage	12V and 24V starter
Fuel System	HPCR
Fuel Filter	Primary (stage 1) spin-on fuel filter, 8 micron, with water separator and Water in Fuel (WIF) sensor - OEM fitted Secondary fuel filter (stage 2) spin-on fuel filter, 5 micron - engine mounted
Lube Oil Filter Type(s)	Spin-on full flow filter
Lube Oil Capacity (l)	12.1
Flywheel Dimensions	SAE3

Weight and Dimensions

Length mm	Width mm	Height mm	Weight (dry) kg
817	720	969	371

Fuel Consumption 1800 rpm (60 Hz)

%	kWm	BHP	L/ph	US gal/ph
Standby Power				
100	126	169	30	8
Prime Power				
100	114	153	27	7.2
75	86	115	20	5.3
50	57	77	14	3.8
25	29	38	8	2.1
Continuous Power				
100	102	137	24	6.3

Ratings Definitions

Emergency Standby Power (ESP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Limited-Time Running Power (LTP):
Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.

Prime Power (PRP):
Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Base Load (Continuous) Power (COP):
Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN6271 and BS 5514.

Fuel Consumption 1500 rpm (50 Hz)

%	kWm	BHP	L/ph	US gal/ph
Standby Power				
100	110	147	26	6.8
Prime Power				
100	98	131	23	6.1
75	73	98	17	4.6
50	49	66	12	3.2
25	24	33	7	1.9
Continuous Power				
100	88	118	21	5.5