Specification Sheet

QSG12-G4

Fuel Optimized

Description

The QSG12 engine is designed with fewer parts and less weight to provide higher reliability and more convenient maintenance. Featuring the Cummins High Pressure Common Rail (HPCR) fuel system, the QSG12 has evolved from the proven and successful base platform of an automotive engine, which is widely accepted for its high levels of in-service reliability and performance.

The QSG12 engine also has excellent derating performance for temperature and altitude; when coupled with 50°C ambient capable cooling system, it makes these engines the best performers in the harshest conditions.

Features

Cummins High Pressure Common Rail (HPCR) Fuel System – Most capable common-rail fuel system utilized on a heavy-duty engine, enabling faster and smoother power delivery with lower fuel consumption.

Coolpac Integrated Design - Products are supplied complete with cooling package and normal-duty air cleaner kit for a complete power package. A heavy-duty air cleaner is offered as an option.

Full Authority Electronic Engine - Advanced engine monitoring, diagnostics, protection and control, coupled with the HPCR fuel system, capable of delivering extreme fuel injection pressures with multiple injection events, improved fuel efficiency, lower noise and enhanced engine performance.

Controls - Fitted with the Cummins CM2880 ECM that utilizes the latest in microprocessor technology. Includes the Cummins proprietary Power Generation Interface (PGI); the widely accepted SAE J1939 industry standard CAN based communication network provides advanced engine protection, ensuring faster connectivity along with a superior fault-finding capability.

Fuel Filtration System – Fleetguard two-stage fuel filtration system using NanoNetTM nanomedia can effectively block impurities as small as 5 microns and includes water in fuel (WIF) sensor. This provides reliable protection for engine fuel system components against fuel contaminated with dust, dirt or water.

Lube Filtration System – Fleetguard Lube Filter using patented StrataPoreTM filter paper delivers best in class performance while providing high efficiency filtration for extended protection to the engine and components.

Reduced Operating Costs – 500 hours for standard 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.

ISO 9001	This engine has been designed in facilities certified to ISO9001 and manufactured in facilities certified to ISO9001 or ISO9002.
This equipment has been designed and tested to meet EU product safety regulations. Material compliance declaration is available upon request	

1500 rpm (50 Hz Ratings)

Gross engine output			Net engine output			Typical generator set output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
409/549	371/498	334/448	390/523	356/477	319/428	364	455	333	416	298	372

1800 rpm (60 Hz Ratings)

Gross engine output			Net engine output			Typical generator set output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
466/625	424/569	382/512	445/597	408/547	366/491	418	523	383	479	344	429

General Engine Data

Fuel Rating	FR21318
Type	4 cycle, in-line, turbocharged, air-cooled
Bore mm	132 mm (5.20 in.)
Stroke mm	144 mm (5.67 in.)
Displacement litre	11.8 litre (720 $in.^3$)
Cylinder block	Cast iron, 6 cylinder
Battery charging alternator	110 amps
Starting voltage	24-volt
Fuel system	Cummins HPCR
Fuel filter	Spin-on fuel filters with water separator
Lube oil filter type(s)	Spin-on full flow filter
Lube oil capacity (l)	34.1
Flywheel dimensions	SAE 1

Coolpac Performance Data

Cooling system design	Air-air charge cooled
Coolant ratio	50% ethylene glycol; 50% water
Coolant capacity (l)	48.0
Limiting ambient temp.** (°C)	55
Fan power (kWm)	24.3
Cooling system air flow (m^3/s)**	8.4
Air cleaner type	Normal duty dry replaceable element with restriction indicator

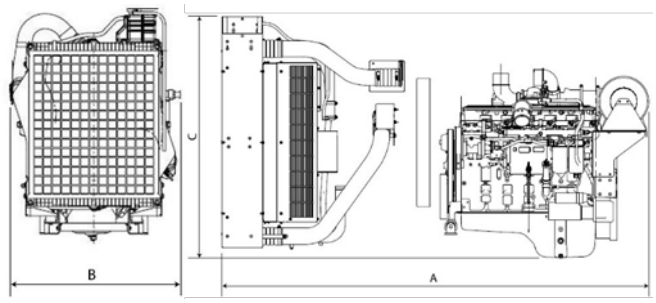
** @ 13 mm H_20

Fuel Consumption 1500 (50 Hz)

%	kWm	BHP	L/hr	US Gal./hr
Standby Power				
100	409	549	92	24.2
Prime Power				
100	371	498	82	21.5
75	279	374	60	15.9
50	186	249	41	10.8
25	93	125	22	5.7
Continuous Power				
100	334	448	73	19.2

Fuel Consumption 1800 (60 Hz)

%	kWm	BHP	L/hr	US Gal./hr
Standby Power				
100	466	625	107	28.3
Prime Power				
100	424	569	96	25.2
75	318	427	69	18.3
50	212	285	47	12.5
25	106	142	26	6.8
Continuous Power				
100	382	512	84	22.2



**Drawing for illustration purposes only.*

Weights and Dimensions

Length mm	Width mm	Height mm	Weight (dry) kg
2293	1083	1705	1110

Ratings Definitions

Emergency Standby Power (ESP):	Limited-Time Running Power (LTP):	Prime Power (PRP):	Base Load (Continuous) Power (COP):
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.	Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.	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.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN6271 and BS 5514.

For more information contact your local Cummins distributor or visit power.cummins.com

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QSG12-G4 PD00000465 (02/22)