



# QSG12-G1



## 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 NanoNet™ 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 StrataPore™ 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.



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.

## 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
369/495	332/445	291/401	349/468	312/419	279/374	320	400	288	360	260	325

## General engine data

Type	6 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 (721 in. <sup>3</sup> )
Cylinder block	Cast iron, 6 cylinder
Battery charging alternator	80 amps
Starting voltage	24 volt, negative ground
Fuel system	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	SAE1

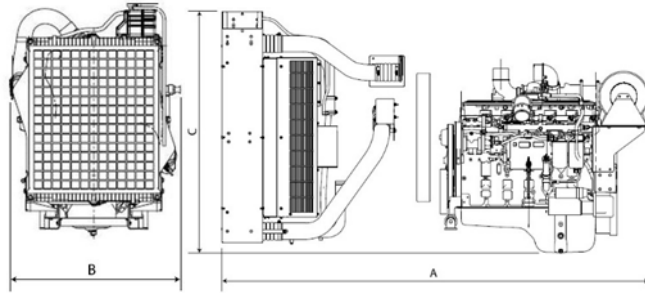
## Coolpac performance data

Cooling system design	Air-air charge cooled
Coolant ratio	50% ethylene glycol; 50% water
Coolant capacity (l)	48.0
Limiting ambient temp. ** (°C)	50
Fan power (kWm)	14.08
Cooling system air flow (m <sup>3</sup> /s)**	7.15
Air cleaner type	Normal duty dry replaceable element with restriction indicator

\*\* @ 13 mm H<sub>2</sub>O

## Fuel consumption 1500 (50 Hz)

%	kWm	BHP	L/ph	g/kWh
<b>Standby Power</b>				
100	369	495	82	188
<b>Prime Power</b>				
100	332	445	72	184
75	249	334	54	184
50	166	223	37	188
25	83	111	20	203
<b>Continuous Power</b>				
100	299	401	64	183



## Weights and dimensions

Length mm	Width mm	Height mm	Weight (dry) kg
2293	1083	1705	1010

## 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.

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