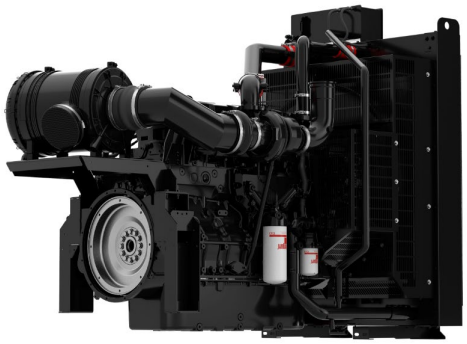
Specification Sheet

QSZ13-G5

EU Stage II



Description

The QSZ13 engine is designed to meet the European Union (EU) Stage II generator set emission standards. Evolved from the proven and successful base engine platform of an automotive engine, the QSZ13 engine utilizes the Cummins High Pressure Injection (XPI) fuel system and is widely accepted for its high levels of in-service reliability and performance.

The QSZ13 engine was developed using Cummins unique in-house capabilities, including adapting core technologies in electronics, fuel systems, turbo charging, filtration, and emissions. The QSZ13 engine has high derating thresholds for temperature and altitude, which are coupled with 50° C ambient capable cooling system to make these engines top performers in the harshest conditions.

Robust, clean, resilient and capable of matching the duty cycle and operating conditions of many applications, the QSZ13 engine is suitable for both open and enclosed installations as well as stationary or mobile applications.

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	

Features

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

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

Fuel Filtration System – Two-stage fuel filtration system provides high levels of protection against fuel becoming contaminated with dust, dirt, or water.

Controls – Includes Power Generation Interface (PGI) for ease of integration. 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.

Crankcase Breather – Cummins patented variable impactor breather design and coalescing filter removes emissions as required by regulations, with the added benefit of eliminating oil drips and mist while keeping the surroundings clean.

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

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

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
469/629	410/550	369/495	445/597	390/523	349/468	416	520	365	456	327	408

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
500/670	450/604	412/553	475/636	430/577	392/526	446	558	404	505	368	460

General Engine Data

Fuel Rating	FR20378
Type	4 cycle, in-line, turbocharged, air-cooled
Bore mm	130 mm (5.12 in.)
Stroke mm	163 mm (6.42in.)
Displacement litre	13 litre (793 $in.^3$)
Cylinder block	6 cylinder
Battery charging alternator	80 amps
Starting voltage	24-volt
Fuel system	Cummins XPI
Fuel filter	Spin-on fuel filters with water separator
Lube oil filter type(s)	Spin-on full flow filter
Lube oil capacity (l)	75.3
Flywheel dimensions	SAE 1

Coolpac Performance Data

Cooling system design	Air-air charge cooled
Coolant ratio	50% ethylene glycol; 50% water
Coolant capacity (l)	77.1
Limiting ambient temp.** (°C)	50 (50 Hz); 55 (60 Hz)
Fan power (kWm)	14.2 (50Hz); 23.6 (60Hz)
Cooling system air flow (m^3/s)**	8.1 (50Hz); 10.3 (60Hz)
Air cleaner type	Normal duty dry replaceable element with restriction indicator

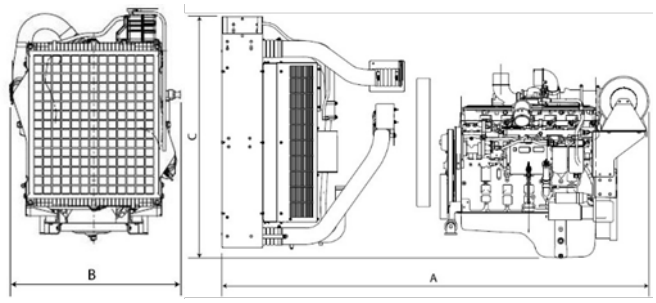
** @ 12.7 mm H_20

Fuel Consumption 1500 (50 Hz)

%	kWm	BHP	L/hr	US Gal./hr
Standby Power				
100	469	629	107	28.3
Prime Power				
100	410	550	93	24.6
75	308	413	70	18.6
50	205	275	49	13
25	103	138	30	7.9
Continuous Power				
100	369	495	84	22.2

Fuel Consumption 1800 (60 Hz)

%	kWm	BHP	L/hr	US Gal./hr
Standby Power				
100	500	670	117	30.9
Prime Power				
100	450	604	107	28.3
75	338	453	81	21.4
50	225	302	54	14.3
25	113	152	35	9.2
Continuous Power				
100	412	553	96	25.4



**Drawing for illustration purposes only.*

Weights and Dimensions

Length mm	Width mm	Height mm	Weight (dry) kg
2398	1255	1841	1530

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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