

# QSK50-G4

Emissions Compliance:  
EPA NSPS Stationary Emergency Tier 2



> Specification sheet



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## Description

The QSK50 is a V 16 cylinder engine with a 50 litre displacement. This Quantum series utilizes sophisticated electronics and premium engineering to provide outstanding performance levels, reliability and versatility for Standby, Prime and Continuous Power applications.

The base engine is designed to meet a variety of application duty cycles – continuous, prime and standby. Optional enhanced altitude capability is available for prime and standby operation, as detailed on the engine datasheets.



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.

## Features

**High pressure fuel pump, Modular Common Rail fuel System (MCRS)** and state of the art integrated electronic control system provide superior performance, efficiency and diagnostics. The electronic fuel pumps deliver up to 1600 bar injection pressure and eliminate mechanical linkage adjustments. The new MCRS utilizes an electric priming pump which is integrated with the off-engine stage-1 fuel filter head and is controlled and powered by the engine ECM. The stage-2 fuel filters are mounted on-engine

**CTT (Cummins Turbo Technologies) HX82/HX83 turbo-charging** utilizes exhaust energy with greater efficiency for improved emissions and fuel consumption.

**Low Temperature After-cooling** - Two-pump Two-loop (2P2L)

**Ferrous Cast Ductile Iron (FCD) Pistons** - High strength design delivers superior durability.

**G-Drive Integrated Design** - Each component has been specifically developed and rigorously tested for G-Drive products, ensuring high performance, durability and reliability.

**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.

## 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
1477/1980	1328/1780	1100/1475	1428/1914	1294/1735	1066/1429	1360	1700	1232	1540	1023	1279

## 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
1656/2220	1470/1971	1223/1640	1601/2147	1432/1920	1185/1589	1500	1875	1365	1706	1137	1421

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## General Engine Data

Type	4 cycle, Turbocharged, After-cooled
Bore mm	159
Stroke mm	159
Displacement Litre	50.3
Cylinder Block	Cast iron, 16 cylinder
Battery Charging Alternator	55A
Starting Voltage	24V
Fuel System	Direct injection Cummins MCRS
Fuel Filter	Spin on fuel filters with water separator
Lube Oil Filter Type(s)	Spin on full flow filter
Lube Oil Capacity (l)	235
Flywheel Dimensions	SAE 0

## Coolpac Performance Data

Cooling System Design	2 pump - 2 loop	
Coolant Ratio	50% ethylene glycol; 50% water	
Coolant Capacity (l)	294	
Limiting Ambient Temp (°C)**	52 (50Hz)	50 (60Hz)
Fan Power (kWm)	46 (50Hz)	46 (60Hz)
Cooling System Air Flow (m <sup>3</sup> /s)**	35 (50Hz)	35 (60Hz)
Air Cleaner Type	Dry replaceable element with restriction indicator	

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

## 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) in accordance with ISO 8528, ISO 3046, AS 2789, DIN6271 and BS 5514.

## Weight & Dimensions

Length	Width	Height	Weight (dry)
mm	mm	mm	kg
4674	2468	3100	7429

## Fuel Consumption 1500 rpm (50 Hz)

%	kWm	BHP	L/ph	US gal/ph
<b>Standby Power</b>				
100	1477	1980	373	98.4
<b>Prime Power</b>				
100	1328	1780	338	89.2
75	996	1335	258	68.1
50	664	890	183	48.4
25	332	445	100	26.4
<b>Continuous Power</b>				
100	1100	1475	281	74.1

## Fuel Consumption 1800 rpm (60 Hz)

%	kWm	BHP	L/ph	US gal/ph
<b>Standby Power</b>				
100	1656	2220	415	109.6
<b>Prime Power</b>				
100	1470	1971	365	96.4
75	1103	1479	291	76.8
50	735	986	212	56.0
25	368	493	119	31.4
<b>Continuous Power</b>				
100	1223	1640	313	82.7

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