

# QSK50-G5

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.



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.

## 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 | 1323/1774 | 1601/2147         | 1432/1920 | 1285/1723 | 1500                         | 1875 | 1365        | 1706 | 1233       | 1541 |

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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)**                  | 50                                                 |
| Fan Power (kWm)                               | 50                                                 |
| Cooling System Air Flow (m <sup>3</sup> /s)** | 35                                                 |
| 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 1800 rpm (60 Hz)

| %                       | kWm  | BHP  | L/ph | US gal/ph |
|-------------------------|------|------|------|-----------|
| <b>Standby Power</b>    |      |      |      |           |
| 100                     | 1656 | 2220 | 416  | 109.9     |
| <b>Prime Power</b>      |      |      |      |           |
| 100                     | 1470 | 1971 | 371  | 98.0      |
| 75                      | 1103 | 1478 | 290  | 76.7      |
| 50                      | 735  | 986  | 212  | 56.0      |
| 25                      | 368  | 493  | 120  | 31.6      |
| <b>Continuous Power</b> |      |      |      |           |
| 100                     | 1323 | 1774 | 337  | 89.0      |

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