

QSK50-G3

Emissions Compliance:
EPA NSPS Stationary Emergency Tier 2



> Specification sheet

Our energy working for you.™



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.

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
1401/1878	1210/1622	1100/1475	1353/1814	1176/1577	1066/1429	1232	1540	1120	1400	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
1559/2090	1395/1870	1223/1640	1505/2018	1357/1820	1185/1589	1400	1750	1275	1594	1137	1421

Our energy working for you.™

www.cumminsgdrive.com

©2011 | Cummins G-Drive Engines | Specifications Subject to Change Without Notice | Cummins is a registered trademark of Cummins Inc. (10/11) (GDSS147)



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)	40 (50Hz)	50 (60Hz)
Cooling System Air Flow (m ³ /s)**	35 (50Hz)	35 (60Hz)
Air Cleaner Type	Dry replaceable element with restriction indicator	

** @ 13 mm H₂O

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
Standby Power				
100	1401	1878	357	94.2
Prime Power				
100	1210	1622	313	85.5
75	908	1217	241	63.6
50	605	811	168	44.4
25	303	406	91	23.9
Continuous Power				
100	1100	1475	282	74.3

Fuel Consumption 1800 rpm (60 Hz)

%	kWm	BHP	L/ph	US gal/ph
Standby Power				
100	1559	2090	388	102.3
Prime Power				
100	1395	1870	345	91.1
75	1046	1403	280	73.8
50	698	935	204	54.0
25	349	468	113	29.9
Continuous Power				
100	1223	1640	313	82.7

Cummins G-Drive Engines

Asia Pacific

10 Toh Guan Road
#07-01
TT International Tradepark
Singapore 608838
Phone 65 6417 2388
Fax 65 6417 2399

Europe, CIS, Middle East and Africa

Manston Park Columbus Ave
Manston Ramsgate
Kent CT12 5BF. UK
Phone 44 1843 255000
Fax 44 1843 255902

Latin America

Rua Jati, 310, Cumbica
Guarulhos, SP 07180-900
Brazil
Phone 55 11 2186 4552
Fax 55 11 2186 4729

Mexico

Cummins S. de R.L. de C.V.
Eje 122 No. 200 Zona Industrial
San Luis Potosi, S.L.P. 78090
Mexico
Phone 52 444 870 6700
Fax 52 444 870 6811

North America

1400 73rd Avenue N.E.
Minneapolis, MN 55432
USA
Phone 1 763 574 5000
USA Toll-free 1 877 769 7669
Fax 1 763 574 5298

Our energy working for you.™

www.cumminsgdrive.com

©2011 | Cummins G-Drive Engines | Specifications Subject to Change Without Notice | Cummins is a registered trademark of Cummins Inc. (10/11) (GDSS147)

