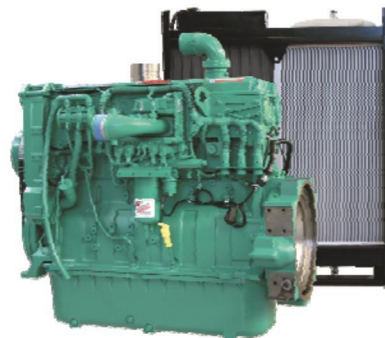


QSX15-G8



Emissions Compliance:

Non-Certified or "Flex" program for EU Mobile applications.
Formerly EU Stage2 @ 50Hz.

> Specification sheet



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Description

The QSX15-Series is the first heavy-duty diesel with 24-valve dual overhead camshaft technology. Yet it has an impressive 30% fewer parts than comparable diesels and a utilised design, which eliminates external lube, coolant and fuel lines, leading to higher reliability for such a high power output.

The 15 litre, six-cylinder QSX15 engine is ideally suited to both open and containerised applications in static or portable genset equipment. It can be matched to meet specific duty cycle and operating conditions of any genset.



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

Holset HX82 Turbocharging - Wastegated design optimizes operation. Improved transient response and low fuel consumption.

Integrated Block Design - Integrated fluid circuits replace hoses and eliminate potential leaks.

High-Pressure Fuel Injection - Capable of over 1,900 bar (28,000 psi) for cleaner, more fuel-efficient combustion.

24-Valve Cylinder Head – Four valves per cylinder for increased power with faster response at every rpm.

Coolpac Integrated Design - Products are supplied complete with cooling package and air cleaner kit for a complete power package. Each component has been specifically developed and rigorously tested for G-Drive products, ensuring high performance, durability and reliability.

Controls - Fitted with Power Generation Interface (PGI) to improve emissions.

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
500/670	444/595	317/425	477/639	426/571	299/400	440	550	400	500	281	351

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
455/610	414/555	295/395	419/561	383/513	264/354	400	500	360	450	248	310

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General Engine Data

Type	4 Cycle, In-line, Turbo Charged, Air Cooled
Bore mm	137 mm (5.39 in.)
Stroke mm	169 mm (6.65 in.)
Displacement Litre	15 litre (912 in. ³)
Cylinder Block	Cast iron, 6 cylinder
Battery Charging Alternator	35 amps
Starting Voltage	24 volt
Fuel System	Direct injection
Fuel Filter	Spin-on fuel filters with water separator
Lube Oil Filter Type(s)	Spin-on full flow filter
Lube Oil Capacity (l)	91.0
Flywheel Dimensions	SAE1

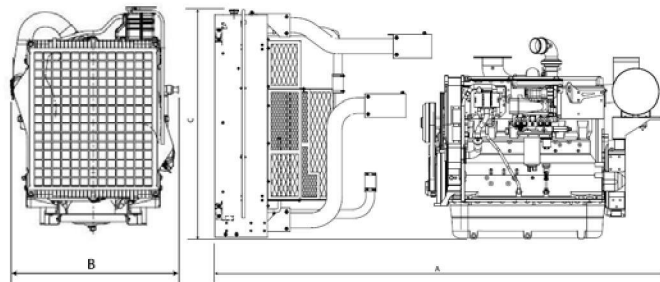
Coolpac Performance Data

Cooling System Design	Air-Air Charge Cooled
Coolant Ratio	50% ethylene glycol; 50% water
Coolant Capacity (l)	42.0
Limiting Ambient Temp.** (°C)	55
Fan Power (kWm)	16
Cooling System Air Flow (m ³ /s)**	11.8
Air Cleaner Type	Light duty dry replaceable element with restriction indicator

** @ 13 mm H²O Duct Restriction

Weight & Dimensions

Length mm	Width mm	Height mm	Weight (dry) kg
2269	1332	1669	1658



Fuel Consumption 1500 (50 Hz)

%	kWm	BHP	L/ph	US gal/ph
Standby Power				
100	500	670	123.0	32.4
Prime Power				
100	444	595	103.0	27.3
75	333	447	78.7	20.8
50	222	298	54.7	14.5
25	111	149	30.3	8
Continuous Power				
100	317	425	75.7	20

Fuel Consumption 1800 (60 Hz)

%	kWm	BHP	L/ph	US gal/ph
Standby Power				
100	455	610	107.0	28.4
Prime Power				
100	414	555	97.6	25.8
75	311	416	75.2	19.9
50	207	278	53.4	14.1
25	104	139	31.8	8.4
Continuous Power				
100	295	395	72.7	19.1

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

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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):

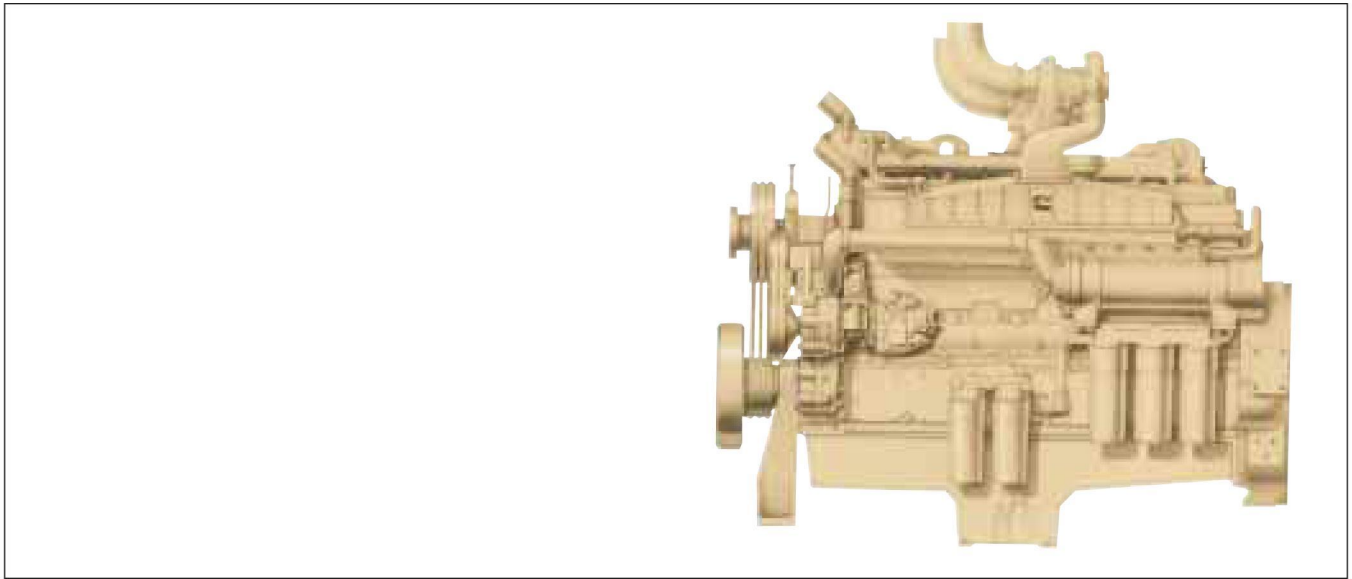
Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

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.



VTA28-G5 GENERATOR DRIVE



SPECIFICATIONS

4-Stroke Cycle, Turbocharged/Aftercooled,
V-12 Cylinder Diesel Engine.

1800 RPM Engine Output

Standby Power Rating	900 BHP	[671 kWm*]
Prime Power Rating	815 BHP	[608 kWm*]
Continuous Power Rating	675 BHP	[504 kWm*]

1500 RPM Engine Output

Standby Power Rating	825 BHP	[615 kWm*]
Prime Power Rating	750 BHP	[560 kWm*]
Continuous Power Rating	660 BHP	[492 kWm*]

* Refers to gross power available from engine, not generator set.

Bore and Stroke	5.50 x 6.0 in.	[140x152 mm]
Displacement	1710 cu. in.	[28 L]
**Lube System Oil Capacity	21.9 U.S. gal.	[83 L]
Coolant Capacity	21.2 U.S. gal.	[80 L]

Net Weight with Standard Accessories, Dry	6,395 lb.	[2900 kg]
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Approx. Overall Dimensions:

Width	50.5 in.	[1283 mm]
Length	77.2 in.	[1960 mm]
Height	66.4 in.	[1685 mm]

** Bypass filters are included in total.

RATING GUIDELINES:

Standby Power Rating is applicable for supplying emergency electric power for the duration of the utility power outage. No overload capability is available for this rating. Under no condition is an engine allowed to operate in parallel with the public utility at the Standby Power rating.

Prime Power Rating is applicable for supplying electric power in lieu of commercially purchased power. Prime Power is the maximum power available at variable load for an unlimited number of hours. A 10% overload capability is available.

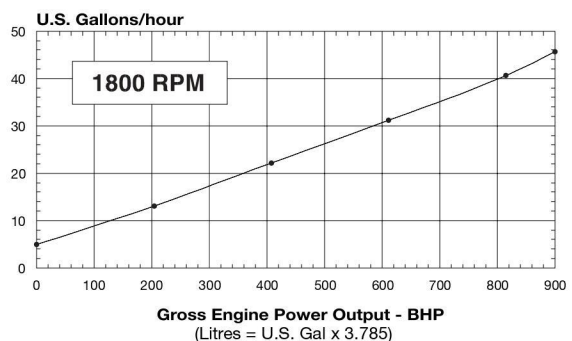
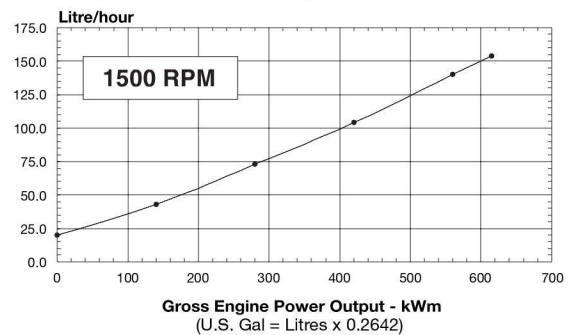
OPERATION at ELEVATED TEMPERATURE and ALTITUDE:

The engine may be operated at:

- 1800 RPM up to:
4000 ft. (1220 m) and 104 °F (40 °C) without power deration.
- 1500 RPM up to:
4000 ft. (1220 m) and 104 °F (40 °C) without power deration.

For sustained operation above these conditions derate by:
4% per 1,000 ft. (300 m) and 1% per 10 °F (2% per 11 °C).

VTA28-G5 CPL: 1651 (DRY) Curve: FR-5122
Fuel Consumption



PERFORMANCE:

Standard Conditions:

Data Shown Above Are Based On:

- Engine operating with fuel system, water pump, lubricating oil pump, air cleaner and exhaust silencer; not included are battery charging alternator, fan and optional driven components.
- Engine operating with diesel fuel corresponding to grade No. 2D per ASTM D975.
- ISO-3046, Part 1, Standard Reference Conditions of: 29.53 in. Hg. (100 kPa) barometric pressure (361 ft. [110 m] altitude), 77 °F (25 °C) air temperature and a relative humidity of 30%.

NOTES:

- For Continuous Power or Base Power, Interruptible Power (Utility Power Curtailment) and Peak Shaving, contact the local Cummins representative.
- Cummins Engine Company recommends that Cummins engines be operated at a minimum load of 30% of their respective Standby Power rating.

Design Features

Aftercooled: Two large capacity aftercoolers result in cooler, denser intake air for more efficient combustion and reduced internal stresses for longer life. Aftercooler is located in engine coolant system, eliminating need for special plumbing.

Bearings: Replaceable, precision type, steel backed inserts. Seven main bearings, 5.75 in. (146 mm) diameter. Connecting rod bearings 3.75 in. (95 mm) diameter.

Camshaft: Dual camshafts precisely control valve and injector timing. Lobes are induction hardened for long life. Fourteen replaceable precision type bushings 2.0 in. (51 mm) diameter.

Connecting Rods: Drop forged, I-beam section 12 in. (305 mm) center-to-center length. Rifle drilled for pressure lubrication of piston pin. Rod is tapered on piston pin end to reduce unit pressures. Rods are removable through cylinders.

Cooling System: Belt driven centrifugal water pump. Large volume water passages provide even flow of coolant around cylinder liners, valves and injectors. Dual modulating bypass thermostats regulate coolant temperature.

Crankshaft: High tensile strength steel forging with induction hardened fillets and journals. Fully counterweighted and dynamically balanced.

Cylinder Block: Alloy cast iron with removable wet liners. Cross bolt support to main bearing cap provides extra strength and stability.

Cylinder Heads: Alloy cast iron. Each head serves three cylinders. Drilled fuel supply and return lines. Valve seats are replaceable corrosion resistant inserts. Valve guides and cross head guides are replaceable inserts.

Cylinder Liners: Replaceable wet liners dissipate heat faster than dry liners and are easily replaced without reboring the block.

Fuel System: Cummins PT™ self-adjusting system. Integral dual flyweight governor provides overspeed protection independent of main governor. Camshaft actuated fuel injectors give accurate metering and timing. Fuel lines are internal drilled passages in cylinder heads. Spin-on fuel filter.

Gear Train: Timing gears and accessory drive gears are induction hardened helical gears driven from crankshaft and located at front of block.

Lubrication: Large capacity gear pump provides pressure lubrication to all bearings and oil supply for piston cooling. All pressure lines are internal drilled passages in block and heads. Oil cooler, full flow filters, and bypass filters maintain oil condition and maximize oil and engine life.

Pistons: Aluminum alloy, designed to compensate for thermal expansion assures precise fit at operating temperatures. Oil cooled for rapid heat dissipation. Two compression and one oil ring.

Piston Pins: Full floating, tubular steel retained by snap rings 2 in. (51 mm) diameter.

Turbocharger: Two Holset turbochargers mounted at top of engine. Turbocharging provides more power, improved fuel economy, altitude compensation, and lower smoke.

Valves: Dual 1.875 in. (48 mm) diameter poppet type intake and exhaust valves. Wear resistant face on exhaust valves.

Vibration Damper: Standard configuration equipped with a rubber member damper, recommended for use with all 1800 RPM ratings. 1500 RPM ratings should use the viscous damper.

Standard Equipment

Cooling System

1. Fan drive for radiator (0.63:1 drive ratio, 19.25 in. [489 mm] center).
2. Remote cooling capability.

Exhaust System:

1. Exhaust manifold, dry only.
2. Exhaust connection, 90° exhaust elbow for adapting flexible 5 in. (127 mm) tubing.

Filters: Fleetguard.

1. Corrosion resistor sized for a 37-69 gallon system.
2. Dual spin-on fuel filters.
3. Spin-on full flow lube filters with option of kit or mounted bypass filter.

Flywheel: To fit SAE-514 (18.375 in. [467mm] diameter) or SAE-518 (22.500 in. [572 mm] diameter) generator flexible drive disk. Complies with SAE standard J620.

Flywheel Housing: SAE No. 0 dry type.

Governors: Electric or hydraulic; for droop or isochronous operation. Cummins EFC (electric fuel control) or others.

Starting System:

1. Electric starter (24 volt positive engagement type).
2. Pre-engagement compressed air starter.
3. Battery charging alternator negative ground (24 volt, 35 ampere).

For other available equipment consult your local Cummins representative.

Agency Certification

Certification: Contact the local Cummins representative.

Cummins has always been a pioneer in product improvement. Thus, specifications may change without notice. Illustrations may include optional equipment.



Cummins Engine Company, Inc.
Box 3005
Columbus, IN 47202-3005
U.S.A.