



Diesel Generating Sets

60
Hz

Model: **KYC1138**

INDUSTRIAL RANGE

Powered by Cummins



Generating Rates

POWER RATING		STANDBY	PRIME
POWER	KVA	1250	1138
	KW	1000	910
Rated Speed	R.P.M	1800	
Standard Voltage	V	480	
Available Voltages	V	480/277-440/254-220/127-208/120	
Rated at power factor	Cos Phi	0.8	

Ambient conditions of reference: 1000 mbar, 25°C, 30% relative humidity. Power according to ISO 3046 normative.

P.R.P. Prime Power - ISO 8528 : prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during a 24

Standby Power (ISO 3046 Fuel Stop power): power available for use at variable loads for limited annual time (500h), within the following limits of maximum operating time: 100% load 25h per year – 90% load 200h per year. No overload available. Applicable i



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Engine Specifications 1800 r.p.m.

ENGINE		STANDBY		PRIME
Rated Output	kW	1000		910
Manufacturer		Cummins		
Model		QST30-G4		
No. of Cylinders and Build		4 Cycle; In-line; 12 Cylinder Diesel		
Aspiration and Cooling		Natural Aspiration		
Bore/Stroke	mm	140 x 165		
Cooling system		Water-cooled		
Total Coolant Capacity	L	57		
Engine Speed/Frequency	rpm/Hz	1800/60HZ		
Starting System		Electric 12 volt DC		
Displacement	L	30.48		
Lubricant system Capacity	L	154		
Battery Voltage / Capacity		24VDC		
Governing Type	Type	Mechanical		
Air Filter	Type	Dry		
Fuel Consumption	Load of prime power	100%	75%	50%
	L/h	245	190	136

ENGINE--Industrial 4 stroke cooled diesel engine complete with air,fuel and oil filters,electric starting and charging equipment,engine protection against low water level.

COOLING--Radiator and colling fan complete with protection guards,designed to cool engine at specified output in air temperatures upto 45 °C ,radiators suitable for higher temperatures are available.Low water level protection fitted as standard.

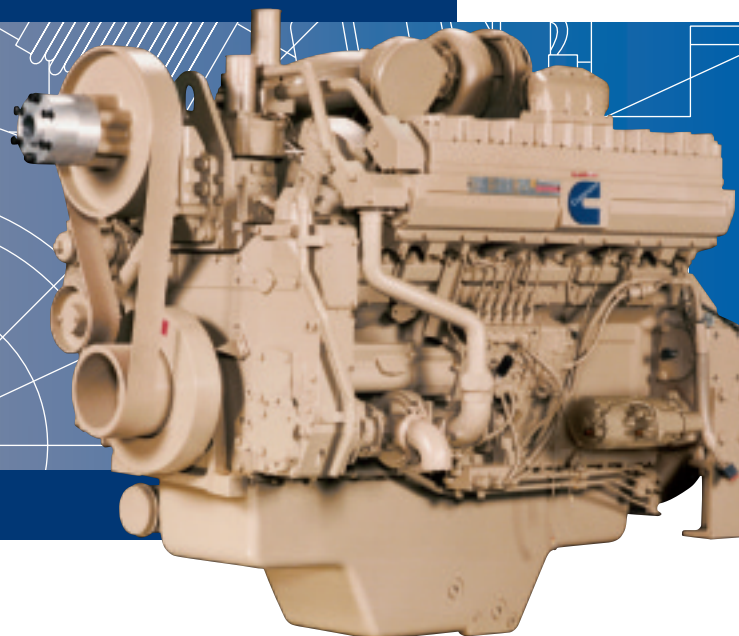
ELECTRICAL SYSTEM--12V upto.Axial type starter motor,battery charging alternator,high capacity lead acid battery,and battery tray mounted on the generator base frame,and heavy duty interconnecting cable with terminations.

EXHAUST SYSTEM--Heavy duty industrial exhaust silencer with flexible piping.

QST30-G4



S P E C I F I C A T I O N S

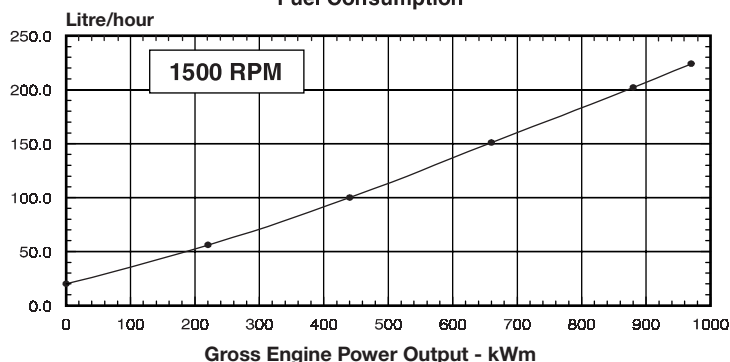


QST30-G4

CPL: 2499

Curves: FR-5160

Fuel Consumption



SPECIFICATIONS

Four Stroke Cycle, Turbocharged, Low Temperature Aftercooled (2 pump / 2 loop) V-12 Cylinder Diesel Engine.

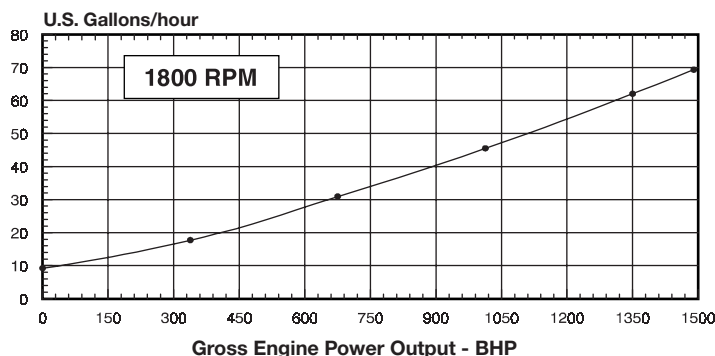
1500 RPM Engine Output

Standby Power Rating	970 kWm*	[1300 BHP]
Prime Power Rating	880 kWm*	[1180 BHP]
Continuous Power Rating	683 kWm*	[915 BHP]

1800 RPM Engine Output

Standby Power Rating	1112 kWm*	[1490 BHP]
Prime Power Rating	1007 kWm*	[1350 BHP]
Continuous Power Rating	832 kWm*	[1115 BHP]

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



General Engine Data:

Bore and Stroke	140x165 mm	[5.51x6.50 in.]
Displacement	30.48 L	[1860 cu.in.]
**Lube System Oil Capacity	154 L	[40.7 U.S. gal.]
Coolant Capacity		
- Engine	79 L	[21 U.S. gal.]
- Aftercooler	12 L	[3.2 U.S. gal.]
Net Weight with Standard Accessories, Dry	3012 kg	[6640 lb.]

Approx. Overall Dimensions:

Width	1422 mm	[55.98 in.]
Length	2026 mm	[79.76 in.]
Height	1650 mm	[64.97 in.]

** Including Bypass Filter.

RATING GUIDELINES:

Based on ISO8528 and defined in Cummins Power Rating Application Guidelines. Ref: AEB 26.02

OPERATION at ELEVATED TEMPERATURE and ALTITUDE:

The engine may be operated at:

- 1800 RPM up to:
1000 m [3280 ft] and 40 °C [104 °F] without power deration.
- 1500 RPM up to:
750 m [2460 ft] and 40 °C [104 °F] without power deration.

Note:

Refer to the Performance Derate Curves on Data Sheet FR-5160 for altitude and temperature effects on rated power.

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: 100 kPa [29.53 in Hg] barometric pressure (110 m [361 ft] altitude), 25 °C [77 °F] air temperature and a relative humidity of 30%.

NOTES:

- Cummins Engine Company recommends that Cummins engines be operated at a minimum load of 30% of their respective Standby Power rating.

QST30-G4



S P E C I F I C A T I O N S

Design Features:

QST30 Quantum Electronic Fuel System and Controls

Quantum electronics provide superior performance, efficiency, and diagnostics. The Electronic Fuel Pumps deliver up to 1100 bar injection pressure and eliminate mechanical linkage adjustments. The Quantum Fuel System results in an average of 5% increase in fuel economy compared with the KTA38.

Holset HX82 Turbocharging

Utilizes exhaust energy with greater efficiency for improved emissions and fuel consumption.

Low Temperature Aftercooling

Utilizing a two pump-two loop cooling system, the engine jacket is cooled by one radiator or heat exchanger and the aftercoolers are cooled by a separate radiator or heat exchanger. The separate cooling loop for the aftercoolers provides cooler, denser intake air producing more complete combustion and reducing engine stress for longer life and lower exhaust emissions. Both cooling loops are independent of each other. The individual water pumps are engine mounted on the rear of the gear cover: left and right bank sides. Cummins provides conventional water inlet and outlet connections for both cooling loops.

Cast Iron Pistons

High strength design delivers superior durability.

TUFTRIDE-treated Cylinder Liners and Ring Design

As compared to the KTA38, the cylinder and ring design result in reduced oil consumption and blowby with less friction and noise.

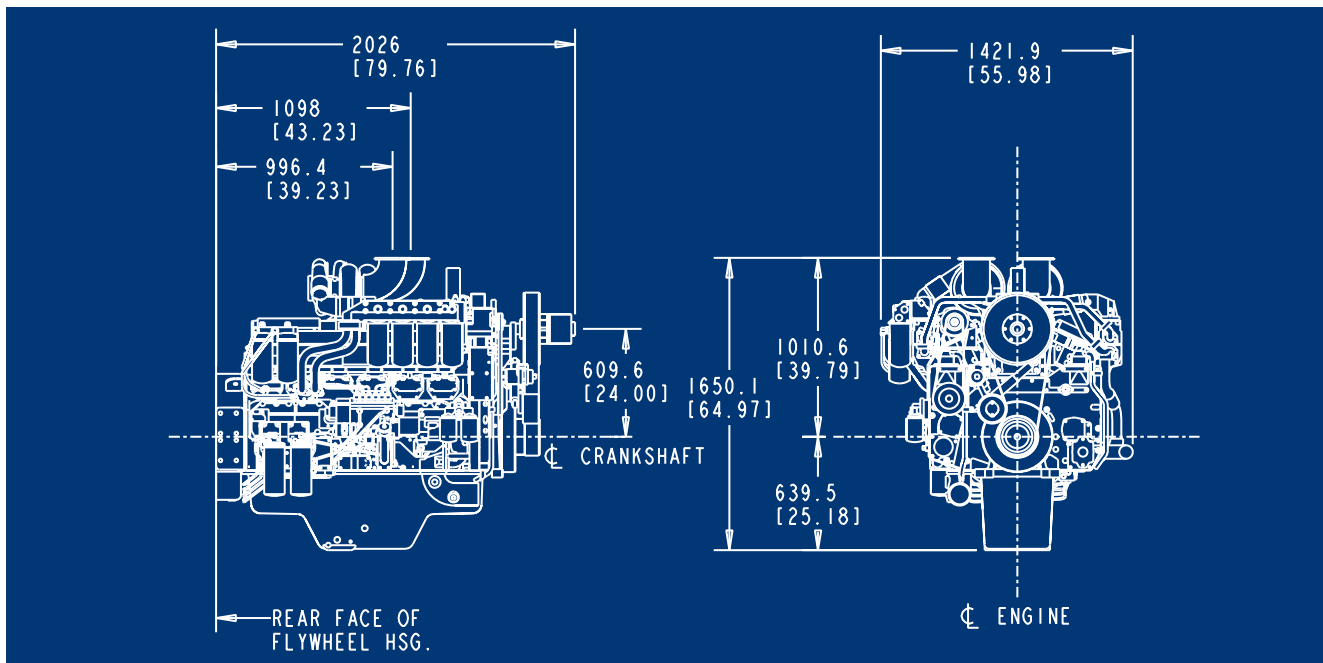
Optional Equipment:

- Meter Drivers for Coolant Temperature, Oil Pressure and Engine Speed
- Speed Bias Signals for Paralleling with Barber-Colman and Woodward
- Service Tool for Troubleshooting, Diagnostics and Data Logging
- Relay Drivers for Alarm and Shutdown Conditions
- Fan Drives
- Starters and Alternators
- Engine Mounted Air Cleaners
- Air Heaters
- Coolant / Oil Heaters

Please contact your local Cummins representative for additional information regarding engine options.

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

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Box 3005
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U.S.A.





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Alternator Technical Specifications

ALTERNATOR BRAND		STAMFORD
Model		HCI634J
Exciter System		Self-excited, brushless
Poles	Num	4
Cooling Fan		Cast alloy aluminum
Bearing		Single, double shielded
Windings		100% copper
Connection Type		Reconnectable
Insulation Type	Class	Class H
Pitch		2/3
Amortisseur Winding		Full
Voltage Regulator		A.V.R. (Electronic)
Steady Voltage Precision		± 1%
Underspeed Protection		Standard
Overexcitation Protection		IP23
TIF (1960 Weightings)		<50

ALTERNATOR--Brushless, self exciting, self regulation, screen protected, drip proof rated in accordance with IEC60034.Voltage regulation maintained within ±0.5% from no load to full load. between 0.8 lagging and unity. All standard voltages available



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Control Panel Technical Specifications



DSE Genset



DSE6110

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

FEATURES

DSE6110



KEY FEATURES

- Back-lit text LCD display
- Front panel editing
- LED and LCD alarm indication
- Power Save mode
- CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- PC and front panel configuration
- 6 Digital inputs
- 3 Analogue inputs
- 6 Outputs (4 configurable on Magnetic Pick-up/Alt., 6 configurable on CAN version)
- Configurable timers and alarms
- Alternative configuration
- Event Log(10)
- Remote Start input
- 3 Phase generator monitoring

- Current Monitoring and protection
- Battery voltage monitoring
- Engine pre-heat
- Hours counter
- Comprehensive shutdown or warning on fault condition

KEY BENEFITS

- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout

- Multiple engine parameters are monitored simultaneously
- Module can be configured to suit individual applications
- Compatible with a wide range of CAN engines
- Tier 4 engine support
- Uses DSE Configuration Suite PC software for simplified configuration
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Licence-free PC software

SPECIFICATION

DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

CRANKING DROPOUTS

Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT

178 mA at 12 V, 95 mA at 24 V

MAXIMUM STANDBY CURRENT

88 mA at 12 V, 50 mA at 24 V

CHARGE FAIL/EXCITATION RANGE

0 V to 35 V

MAINS (UTILITY) DSE6120 ONLY

VOLTAGE RANGE
15 V - 333 V AC (L-N)

FREQUENCY RANGE

3.5 Hz to 75 Hz

OUTPUTS

OUTPUT A (FUEL)
2 A DC at supply voltage

OUTPUT B (START)
2 A DC at supply voltage

AUXILIARY OUTPUTS C, D, E & F
2 A DC at supply voltage

GENERATOR

VOLTAGE RANGE
15 V - 333 V AC (L-N)

FREQUENCY RANGE

3.5 Hz to 75 Hz

MAGNETIC PICK UP

VOLTAGE RANGE
+/- 0.5 V to 70 V

FREQUENCY RANGE

10,000 Hz (max)

DIMENSIONS

OVERALL
215 mm x 158 mm x 42 mm
8.5" x 6.2" x 1.6"

PANEL CUT-OUT

182 mm x 137 mm
7.2" x 5.4"

MAXIMUM PANEL THICKNESS

8 mm
0.3"

STORAGE TEMPERATURE RANGE

-40 °C to +85 °C



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Generating Sets Standard Features

Three phase four wire, output voltage 480V/277V, 60HZ, between 0.8 lagging, protection capability according with the standard of NAME1 and IP23.

General Features:

- Composed of Perkins diesel engine and Stamford or Leroy Somer alternator
- Oil and fuel filter fitted, water separator
- Lube-oil drain valve fitted
- Electric Starter Charge motor 12
- V.D.C Water-cooled
- 8-hours operation base tank
- Auto start
- Optional soundproof and weatherproof canopy
- 3 pole MCCB Delixi breaker
- Operation & Maintenance manual
- Special Integrated Steel Base tank and sprayed overall in gloss enamel paint

Voltage Regulation:

- Voltage regulation maintained within $\pm 0.5\%$
- Between 0.8 and 1.0 lagging and unity
- From no load to full load
- At speed droop variation upto 4.5%

Frequency Adjustable Ratio:

Change load from 0-100%, within 1.0% (electric speed regulator), within 4.5% (mechanical speed regulator)

Frequency Undulation:

- load from 0-100%, frequency undulation within 0.25%
- No load wire volts max undulation ration\ within 1.8%
- Three Phrase balanced load in the order of 5%
- Effect factor of Telecom
- TIF better than 50
- THF to IEC60034 Part 40 better than 2%



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Soundproofed Version Features

Robust Corrosion Resistant Construction

Black finish stainless steel lock and hinges

Body made from steel components treated with polyester powder coating

Excellent Access for Maintenance

Two large doors on each

side Radiator fill access plate

lube oil and cooling water drains pipes to exterior of the enclosure

Security and Safety

Control panel viewing window in a lockable access door

Emergency stop push button (red) mounted on enclosure interior

Cooling fan and battery charging alternator fully guarded

Exhaust silencing system totally enclosed for operator safety





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Generating Sets other Features

Generating Sets Optional Features

- Low fuel level alarm shutdown
- Automatic Fuel Filling System
- Engine oil feeding and drain pump
- Auto Transfer Switch(ATS)
- Parallel control panels
- Circuit Breaker MCCB & ACB
- Remote Control Panel
- weatherproof/soundproof
- Canopy Trailer type Gensets

Quality Standards

- ISO9001:2000,ISO14000,ISO3046
- ISO8528 BS4999
- BS5514,AS1359,ICE34
- CE Compliance

Gensets Dimensions & Weight

Open type:LxWxH (mm) Net Weight Kgs
4380*2080*2570,7800 kgs

Silent type:LxWxH (mm) Net Weight Kgs
20ft container soundproof, 11500 kgs

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