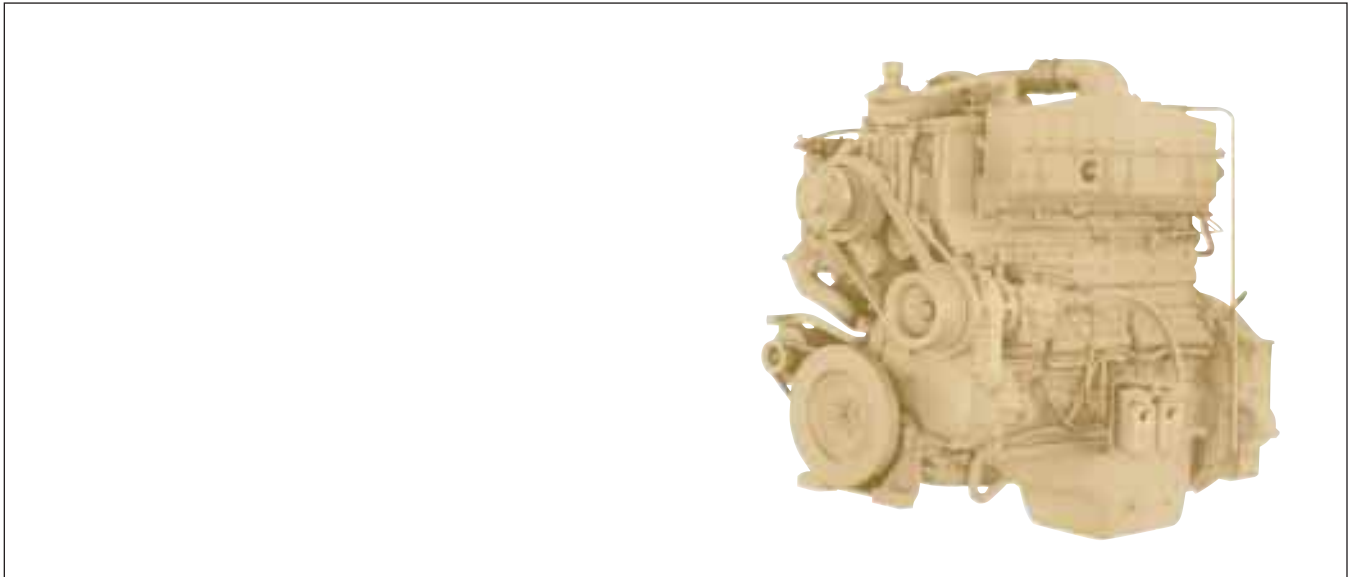




NTA855-G6

1500 RPM GENERATOR DRIVE



SPECIFICATIONS

Four Stroke Cycle, Turbocharged-Aftercooled, In-Line, 6 Cylinder Diesel Engine.

1500 RPM Engine Output

Standby Power Ratings	495 BHP	[369 kWm*]
Prime Power Ratings	Not Available	

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

Bore and Stroke	5.50x6.0 in	[140x152 mm]
Displacement	855 cu.in.	[14 L]
**Lube System Oil Capacity	10.2 U.S.gal.	[38.6 L]
Coolant Capacity	5.5 U.S. gal.	[20.8 L]
Net Weight with Std. Accessories, Dry	2,900 lb.	[1315 kg]
Approx. Overall Dimensions:		
Width	31.10 in.	[790 mm]
Length	60.71 in	[1542 mm]
Height	53.88 in.	[1364 mm]

**With combination full flow and by-pass filter.

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.

OPERATION at ELEVATED TEMPERATURE and ALTITUDE:

The engine may be operated at:

- 1500 RPM up to:
5000 ft. (1525 m) and 104 °F (40 °C) without power deration.

For sustained operation above these conditions derate by:

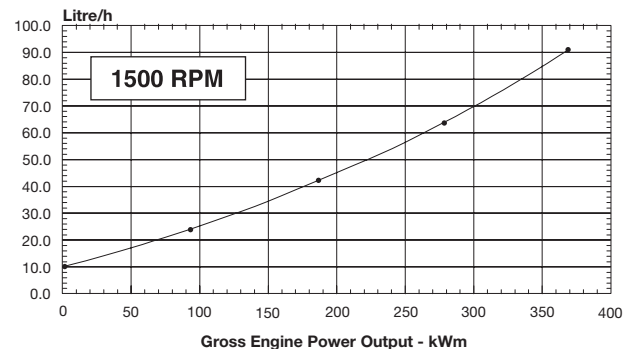
4% per 1,000 ft.(300 m) and 1% per 10 °F (2% per 11 °C).

NTA855-G6

CPL: 2117

Curve: FR-1832

Fuel Consumption



CONVERSIONS: (U.S. Gal = Litres x 0.2642)
(Engine BHP = Engine kWm x 1.34)

PLEASE NOTE: The NTA855-G6 is being released only with a Standby Rating and only for applications where it will back up reliable utility service in the event of emergency power outages. Please refer to Application Engineering Bulletin 28.02 for more information.

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. [110m] altitude), 77 °F (25 °C) air temperature and a relative humidity of 30%.

NOTES:

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

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GENERATOR DRIVE

DESIGN FEATURES

Aftercooler: Three pass design large capacity aftercooler results 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 tri-metal. Seven main bearings, 4.5 in. (114 mm) diameter. Connecting rod bearings 3.125 in. (79 mm) diameter.

Camshaft: Single camshaft with induction hardened lobes for long life.

Camshaft Followers: Crowned cam follower rollers for long camshaft and cam follower life.

Connecting Rods: Drop forged, I-beam section 12 in.(305 mm) center to center length. For increased piston pin bore strength, the rod is tapered at the piston pin end.

Cooling System: Belt driven centrifugal water pump. Modulating by-pass thermostat regulates coolant temperature. Spin-on corrosion resistor filter removes impurities and checks corrosion.

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.

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

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. Dual spin-on fuel filters.

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

Lubrication: Demand Flow Cooling (DFC) system with two pass thermostatically controlled oil cooler. Gear pump provides pressure lubrication to all bearings and piston cooling nozzles. All pressure lines are internally drilled passages in block and heads. Spin-on combination full flow and by-pass filter.

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

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

STC with Lube Oil Viscosity Sensor: Is a hydro-mechanical Step Timing Control that advances the injection timing on start-up for improved startability and white smoke control.

Turbocharger: Holset exhaust gas driven turbocharger. Turbocharging provides more power, improved fuel economy, altitude compensation, and lower smoke and noise levels.

Valves: Dual 1.875 in. (51 mm) diameter poppet type per intake and exhaust valves. Wear resistant face on exhaust valves.

STANDARD EQUIPMENT

Cooling System:

1. Fan drive for radiator (0.86:1 drive ratio, 20.20 in [513 mm] center).
2. Blower type fan, 36 in. (914 mm) diameter.

Exhaust System:

1. Exhaust manifold, dry type.
2. 90° turbocharger exhaust elbow, 5 in. (127 mm) diameter.

Filters: Fleetguard.

1. Coolant corrosion resistor
2. Dual fuel filters
3. Combination full flow and by-pass filter

Flywheel: To fit SAE-514 (18.375 in. [467 mm] diameter), generator flexible drive disk - reference SAE standard J162a.

Flywheel Housing: SAE No.1, or SAE No. 0, dry type.

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

Starting System:

1. Electric starter (24 volt positive engagement).
2. Battery charging alternator (24 volt, 35 ampere).

OPTIONAL EQUIPMENT

Contact the 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.



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