

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]
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.

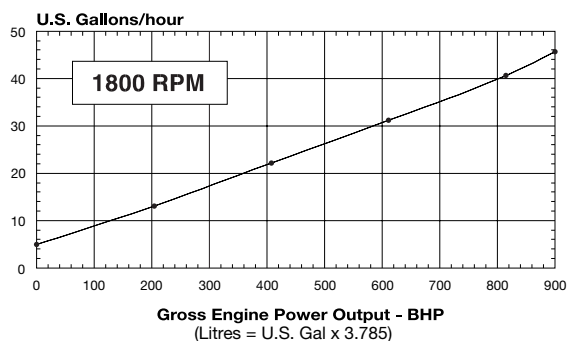
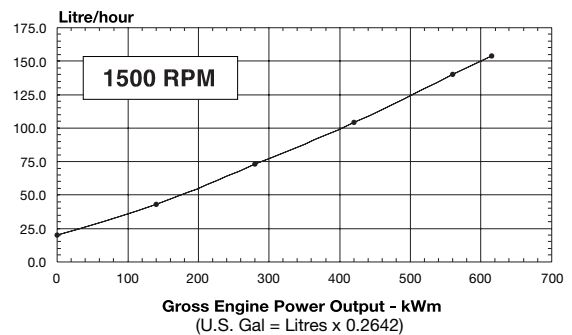
OPERATION at ELEVATED TEMPERATURE and ALTITUDE:

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.

VTA28-G5

GENERATOR DRIVE

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.



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