Specification sheet

VTA28-G6

Description
The product of years of technical development and improvement, the VTA28-Series is recognised globally for its performance under even the most severe climatic conditions, and widely acknowledged as the most robust and cost-effective diesel engine in its power range.

Key design features include two large capacity aftercoolers for more efficient combustion, dual camshafts for precise control, valve and injector timing, a cooling system boasting a more even flow of coolant around the cylinder liners, valves and injectors, and Cummins PT self-adjusting fuel system for overspeed protection independent of the main governor.

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.

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.

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.

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


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.

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

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.

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.

This equipment has been built to comply with CE certification requirement subject to EU RoHS exclusion per EU 2011/65.

This engine has been designed in facilities certified to ISO9001 and manufactured in facilities certified to ISO9001 or ISO9002.
1500 rpm (50 Hz ratings)

<table>
<thead>
<tr>
<th>Gross engine output</th>
<th>Net engine output</th>
<th>Typical generator set output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby kWm/BHP</td>
<td>Prime kWm/BHP</td>
<td>Base kWm/BHP</td>
</tr>
<tr>
<td>733/983</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>705/945</td>
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<td>-</td>
</tr>
<tr>
<td>660</td>
<td>825</td>
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</table>

General engine data

Type: 4-cycle, 40 degree vee, 12-Cylinder Diesel

Bore mm: 140 mm (5.50 in.)

Stroke mm: 152 mm (6.00 in.)

Displacement litre: 28.0 litre (1710 in.³)

Cylinder block: Alloy cast iron, 12 cylinder

Battery charging alternator: 35 amps

Starting voltage: 24 volt, negative ground

Fuel system: Cummins PT™ self-adjusting system

Fuel filter: Dual, Fleetguard spin-on fuel filters

Lube oil filter type(s): Spin-on full flow filters with option of kit or mounted bypass filter

Lube oil capacity (l): 83.0

Flywheel dimensions: SAE 0

Coolpac performance data

Cooling system design: 1 pump – 1 loop

Coolant ratio: 50% ethylene glycol; 50% water

Coolant capacity (l): 182

Limiting ambient temp.** (°C): 40

Fan power (kWm): 19.6

Cooling system air flow (m³/s)**: 17.2

Air cleaner type: Dry replaceable element with restriction indicator

** @ 13 mm H₂O

Fuel consumption 1500 (50 Hz)

<table>
<thead>
<tr>
<th>%</th>
<th>kWm</th>
<th>BHP</th>
<th>L/ph</th>
<th>g/kWh</th>
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<tr>
<td>Standby Power</td>
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<tr>
<td>100</td>
<td>733</td>
<td>982</td>
<td>195</td>
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<td>75</td>
<td>550</td>
<td>737</td>
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<td>50</td>
<td>367</td>
<td>491</td>
<td>91</td>
<td>23.9</td>
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<tr>
<td>25</td>
<td>183</td>
<td>246</td>
<td>50</td>
<td>13.2</td>
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</table>

Weights and dimensions

<table>
<thead>
<tr>
<th></th>
<th>Length mm</th>
<th>Width mm</th>
<th>Height mm</th>
<th>Weight (dry) kg</th>
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</thead>
<tbody>
<tr>
<td>Standby Power</td>
<td>2754</td>
<td>1422</td>
<td>1963</td>
<td>2900</td>
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</table>

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.

For more information contact your local Cummins distributor or visit power.cummins.com

Our energy working for you.”

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