



# Application and Engineering Data

## Basic Technical Data

<b>Manufacturer</b>	General Motors
<b>Model</b>	Vortec 5.7 L
<b>Number of cylinders</b>	8
<b>Cylinder arrangement</b>	Vertical in-line
<b>Cycle</b>	4
<b>Induction system</b>	Turbocharged Air Cooled
<b>Compression ratio</b>	9.4:1
<b>Bore</b>	4.00 in (101.6 mm)
<b>Stroke</b>	3.48 in (88.4 mm)
<b>Cubic capacity</b>	350 cu in (5.7 L)
<b>Piston speed</b>	870 ft/min (265 m/min)
<b>Main bearings: qty and type</b>	5, M400 Copper Lead
<b>Governor type</b>	Electronic
<b>Rated rpm</b>	1800
<b>Max power at rated rpm</b>	133 hp (99 kW)
<b>Engine power at Standby rating</b>	N/A
<b>Frequency regulation, no-load to full-load</b>	Isochronous
<b>Frequency regulation, steady state</b>	± 0.5%
<b>Frequency</b>	Fixed
<b>Air cleaner type</b>	Dry

## Exhaust System

<b>Exhaust manifold type</b>	Dry
<b>Exhaust flow at rated kW</b>	670 cfm (18.9 m <sup>3</sup> /min)
<b>Exhaust temperature at rated kW</b>	1427 °F (775 °C)
<b>Maximum allowable back pressure</b>	3.0 in (10.2 kPa)
<b>Exhaust outlet size at engine hookup</b>	N/A

## Cooling System

<b>Ambient temperature</b>	122 °F (50 °C)
<b>Engine jacket water capacity</b>	1.8 gal (6.8 L)
<b>Radiator system capacity, including engine</b>	6.0 gal (22.5 L)
<b>Engine jacket water flow</b>	38 gpm (144 Lpm)
<b>Heat rejected to cooling water at rated</b>	6300 Btu/min
<b>Max restriction of cooling air, intake and discharge side of radiator</b>	0.5 H <sub>2</sub> O (0.125 kPa)

## Lubrication System

<b>Type</b>	Full Pressure
<b>Oil pan capacity</b>	25 qt (24 L)
<b>Oil pan capacity with filter</b>	3.75 qt (3.5 L)
<b>Oil filter: qty and type</b>	N/A

## Electrical System

<b>Ignition system</b>	Individual Coil, Near Plug Ignition
<b>Battery charging alternator:</b>	
<b>Ground</b>	negative
<b>Volts</b>	12
<b>Ampere rating</b>	70
<b>Starter motor rated voltage</b>	12
<b>Battery, recommended cold cranking amps (CCA):</b>	
<b>Qty rating for -18 °C (0 °F)</b>	1,630
<b>Battery voltage</b>	12

## Operation Requirements

<b>Radiator-cooled cooling air, m<sup>3</sup>/min (scfm) ‡</b>	5500 scfm (156 m <sup>3</sup> /min)
<b>Combustion air</b>	237 cfm (6.8 m <sup>3</sup> /min)
<b>Heat rejected to ambient air:</b>	
<b>Engine</b>	2700 Btu/min (47 kW)
<b>Alternator</b>	825 Btu/min (14.5 kW)

## Fuel System

<b>Fuel Type</b>	Natural Gas
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## Fuel Consumption

<b>Natural Gas</b>	
<b>100% Load</b>	1185 cfh (33.6 m <sup>3</sup> /min)
<b>75% Load</b>	981 cfh (27.8 m <sup>3</sup> /min)
<b>50% Load</b>	777 cfh (22.0 m <sup>3</sup> /min)
<b>25% Load</b>	573 cfh (16.2 m <sup>3</sup> /min)



