Application and Engineering Data

Basic Technical Data

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

Exhaust System

Exhaust manifold type	Dry
Exhaust flow at rated kW	670 cfm (18.9 m³/min)
Exhaust temperature at rated kW	1427 ºF (775 ºC)
Maximum allowable back pressure	3.0 in (10.2 kPa)
Exhaust outlet size at engine hookup	N/A

Cooling System

Ambient temperature	122 ºF (50 ºC)
Engine jacket water capacity	1.8 gal (6.8 L)
Radiator system capacity, including engine	6.0 gal (22.5 L)
Engine jacket water flow	38 gpm (144 Lpm)
Heat rejected to cooling water at rated	6300 Btu/min
Max restriction of cooling air, intake and discharge side of radiator	0.5 H2O (0.125 kPa)

Lubrication System

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

Electrical System

Ignition system	Individual Coil, Near Plug Ignition
Battery charging alternator:	
Ground	negative
Volts	12
Ampere rating	70
Starter motor rated voltage	12
Battery, recommended cold cranking amps (CCA):	
Qty rating for –18 ºC (0 ºF)	1,630
Battery voltage	12

Operation Requirements

Radiator-cooled cooling air, m³/min (scfm) ‡	5500 scfm (156 m³/min)
Combustion air	237 cfm (6.8 m³/min)
Heat rejected to ambient air:	
Engine	2700 Btu/min (47 kW)
Alternator	825 Btu/min (14.5 kW)

Fuel System

Fuel Type	Natural Gas

Fuel Consumption

Natural Gas	
100% Load	1185 cfh (33.6 m³/min)
75% Load	981 cfh (27.8 m³/min)
50% Load	777 cfh (22.0 m³/min)
25% Load	573 cfh (16.2 m³/min)