

**Waukesha****VSG GAS ENGINEATOR®****VSG11GSI – VSG11GSID****BASIC ENGINEATOR SPECIFICATIONS**

AIR CLEANER – Two stage, dry element type with rain shield and service indicator.

BASE – Engine, generator and optional cooling components are mounted on heavy, structural steel base suitable for lifting.

BREATHER – Crankcase, closed.

CAMSHAFT – Forged alloy steel, quiet helical gear drive.

CONNECTING RODS – Forged alloy steel. Angle split.

COOLING SYSTEM – Choice of mounted radiator with pusher fan, core guard and duct adaptor, heat exchanger with shipped loose expansion tank or connections for remote radiator cooling.

CRANKCASE – Integral alloy cast iron crankcase and cylinder frame with nodular iron main bearing caps.

CRANKSHAFT – Forged alloy steel with precision ground and induction hardened main and crankpin journals, statically and dynamically balanced. Viscous vibration damper.

CYLINDERS – Replaceable wet cylinder liners of centrifugally cast alloy iron.

EXHAUST SYSTEM – Water cooled exhaust manifold. Single vertical exhaust connection with ANSI 125# outlet flange.

FUEL SYSTEM – Natural gas carburetor, gas pressure regulator, 24V DC gas solenoid valve (shipped loose). Pressure required: G models, 5 – 15 psig; GSI models, 12 – 15 psig for continuous power, 17 – 20 psig for standby; GSID models, 0.5 – 15 psig.

GENERATOR – Open, drip-proof, direct connected, synchronous, fan cooled, AC revolving field type, 2/3 pitch, single bearing generator with PMG brushless exciter for 300% short circuit sustain (250% for 50 Hz) and motor starting. TIF and Deviation Factor within NEMA MG-1.32. Voltage: 480/277, 3 phase, 12 wire Wye, 60 Hz, and 380/220 12 wire Wye, 50 Hz. Temperature rise within NEMA 105° C for continuous duty, within NEMA 130° C for standby duty. Voltage regulation is $\pm 0.5\%$. All generators are rated at 0.8 power factor, are mounted on the engine flywheel housing, and have multiple steel disc flexible coupling drive. All continuous power gensets have 10% overload capability.

GOVERNOR – Woodward 1724 Electrically powered governor (EPG) control system on G models. Woodward 4024 electrically powered governor (EPG) control system on GSI and GSID models. Includes mounted actuator and magnetic pickup, and control box (shipped loose). 24V DC operation.

IGNITION SYSTEM – Altronic V, solid state low tension magneto, with ground switch, coils, cables and spark plugs. Non shielded.

INSTRUMENT PANEL – Engine mounted, includes water temperature, oil pressure gauges.

INTERCOOLER – Air to Water.

JUNCTION BOXES – Separate AC & DC junction boxes for engine wiring and external connections.

LUBRICATION SYSTEM – Gear type pump, full pressure system. Adjustable relief valve and full flow depth type heavy duty oil filter. (Centrifugal oil filter on G). Engine mounted plate type oil cooler. Industrial type oil pan of cast aluminum alloy.

PAINT – Oilfield Orange.

PISTONS – Aluminum alloy, with cast iron top ring insert. Oil cooled. Top ring is chrome plated keystone type. 10:1 Compression ratio.

ENGINE PROTECTION SHUTDOWN CONTACTS – High water temperature, low oil pressure, and overspeed.

STARTING SYSTEM – 24V DC starting motor. Crank termination switch (shipped loose).

TURBOCHARGER – Exhaust driven, dry type, with integral wastegate.

VOLTAGE REGULATOR – Automatic type.

WATER CIRCULATING SYSTEM, AUXILIARY CIRCUIT – Belt driven pump for intercooler. Inlet temperature of 85° F (29° C) for heat exchanger models and 130° F (54° C) for water connected and radiator models.

WATER CIRCULATING SYSTEM, JACKET WATER CIRCUIT – 180° – 190° F (82° – 88° C) thermostatic temperature regulation. Belt-driven pump for jacket water and oil cooler.

DOCUMENTATION - The following items are supplied as standard with every order:

- Electronic notification and access to drawings for review and approval.
- One Enginator® manual consisting of:
 - *Engine operation/service manual.
 - *Engine parts book.
 - *Generator/voltage regulator instructions.
 - *Instructions on major special items.