

# ERM750GS (750 KW) MITSUBISHI NATURAL GAS GENERATOR SET

|                              | STANDBY RATING FOR<br>EMERGENCY USE (*) |
|------------------------------|---|
| <b>ERM750GS RATED OUTPUT</b> | <b>60 HZ</b>                            |
| GENERATOR OUTPUT (KW)        | 750                                     |
| GENERATOR OUTPUT (KVA)       | 937                                     |
| GENERATOR SPEED (RPM)        | 1800                                    |

| FUEL EFFICIENCY              | BTU/kwh | CFH   |
|------------------------------|---------|-------|
| FUEL CONSUMPTION             | 9,495   | 8,635 |
| At 100% load based on L.H.V. |         |       |

NOTE: Fuel consumption has a 5% tolerance

| HZ                                      | WIRE | VOLTAGE RANGE     |                   |
|---|------|-------------------|-------------------|
| 60 HZ                                   | 3    | 416 — 480         | 208 — 240         |
| 60 HZ                                   | 4    | 240/416 — 277/480 | 120/208 — 138/240 |
| NOTE: 4,160 & 13,800 are also available |      |                   |                   |

| WEIGHT / DIMENSIONS WITH RADIATOR |                   |
|-----------------------------------|-------------------|
| W x L x H (in)                    | 85" x 226" x 100" |
| Wet Weight (lbs)                  | 26,000            |

| WEIGHT / DIMENSIONS WITHOUT RADIATOR |                  |
|--------------------------------------|------------------|
| W x L x H (in)                       | 76" x 152" x 96" |
| Wet Weight (lbs)                     | 20,000           |

The **ERM750GS (750 kW)** continuous duty system stands out as a leader in its class. Boasting a continuous duty output of **750 kW** and powered by a heavy duty **MITSUBISHI** engine, coupled with an efficient **STAMFORD** generator, this ENER-G Rudox generator set will meet and exceed all your power generation needs. At **9,495 BTU/kwh** at full load, the fuel efficiency of the reliable **MITSUBISHI** engine provides the consistent, dependable performance you have come to expect from any ENER-G Rudox product. This unit is loaded with standard equipment such as a Digital Controller and the customer control interface is easy to operate with basic displays such as voltage, current and power as well as alarms like low oil pressure, battery charge failure and high coolant temperature. All of this comes with the exceptional 24 hour, seven day a week service guarantee provided by the ENER-G Rudox professional service team.

## PERFORMANCE CHARACTERISTICS

Standard ENER-G Rudox Generator Sets have High Performance Components to meet the Toughest Applications

- ▶ **PRECISE VOLTAGE REGULATION**
  - ± ½ % Steady State
  - ± 1 % from No Load to Full Load
- ▶ **PRECISE FREQUENCY CONTROL**

The Woodward Electronic Isochronous Governor has 0% Droop, No Load to Full Load, and ± 1/2 % Steady State
- ▶ **PERMANENT MAGNET EXCITATION**

Provides excellent performance with heavy SCR Loads

300% Full Load Current available for 10 Seconds during Short Circuit Condition
- ▶ **HIGH MOTOR STARTING CAPACITY GENERATOR**

250% of Rated Capacity for 10 Seconds
- ▶ **PARALLELING OPTIONS**

Controls can be added for completely Automatic Multi-Unit Synchronization and Load Sharing
- ▶ **LOW EMISSIONS - MEETS US EPA STANDARDS FOR STANDBY USE**

The MITSUBISHI Lean Burn Engine has Low Emissions and can be certified for Emergency or Prime Power Use
- ▶ **UL2200**

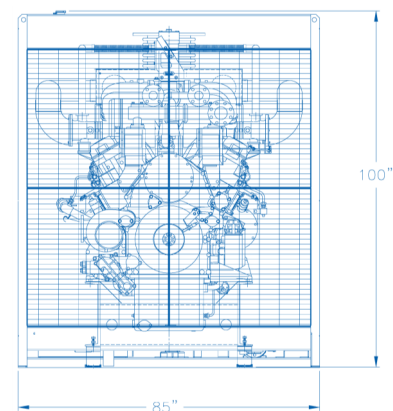
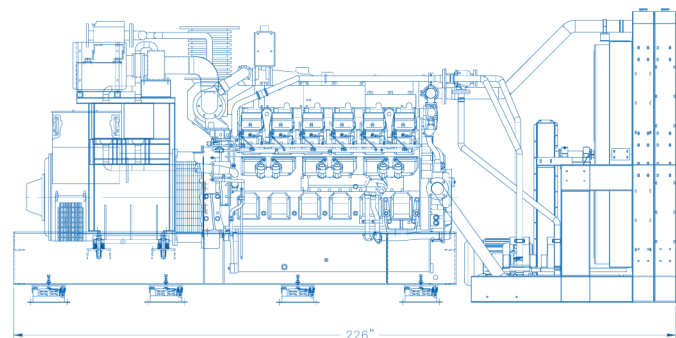
Units are built to U.L. Standards; U.L. Certification is also available

## CLEAN EXHAUST EMISSIONS DATA (FOR STANDBY)

|      |                          |
|------|--------------------------|
| NOx  | 1.0 g/bhp-hr (100% load) |
| CO   | 2.0 g/bhp-hr (100% load) |
| NMHC | 0.7 g/bhp-hr (100% load) |

## STANDARD NATURAL GAS SUPPLY REQUIREMENTS

Requires a maximum of 8.5 Million BTU/hr of Pipeline Quality Gas at 1040 BTU/CF. Minimum Gas Pressure of 3.0 PSI



**GENERATOR SET SPECIFICATIONS**

|                                     |                            |
|-------------------------------------|----------------------------|
| <b>ERM750GS RATED OUTPUT</b>        | <b>60 HZ (100% loaded)</b> |
| GENERATOR SPEED (RPM)               | 1800                       |
| GENERATOR OUTPUT (KW)               | 750                        |
| GENERATOR OUTPUT (KVA)              | 937                        |
| COMBUSTION AIR FLOW (CFM)           | 2601                       |
| HEAT REJECTION TO AMBIENT (BTU/MIN) | 7950                       |
| EXHAUST TEMPERATURE                 | 790°F                      |
| EXHAUST GAS FLOW (SCFM)             | 2848                       |
| RADIATOR AIR FLOW (CFM)             | 60,000                     |

**STANDARD EQUIPMENT**

- ▶ Mitsubishi GS12R-PTK Natural Gas Lean Burn Engine
- ▶ STAMFORD Single Bearing Generator (HCI634G) rated for 150° C rise with 3 phase Static Voltage Regulator (MX321) and Permanent Magnetic Excitation. All rated per NEMA Code with Class H Insulation.
- ▶ Heavy Duty Structural Steel Sub-Base
- ▶ Woodward Electronic Governor and Air/Fuel Ratio Controller
- ▶ 24 Volt Electric Start System
- ▶ Dual 20 Amp Battery Chargers
- ▶ Residential Silencer with Stainless Steel Flexible Connection
- ▶ 2-Way Oxidation Catalyst
- ▶ 24 Volt Lead Acid Batteries, Rack and Cables
- ▶ Flexible Gas Line with Duplex Gas Shutoff Valves and Natural Gas Regulator
- ▶ Freestanding radiator cooling system for 100°F Ambient and 0.5" Additional Static
- ▶ Freestanding Control Panel
- ▶ Engine Safety Switches and Pre-Alarms to Meet NFPA Requirement
- ▶ Pre-chamber Gas Compressor Mounted Integral with Generator Skid

**OPTIONAL EQUIPMENT**

|   |  |  |
|---|--|--|
| Remote Radiator System or High Ambient System | High Voltage Generator – 4160 or 13800 | Paralleling Controls   |
| Critical Silencer                             | Main Line Circuit Breaker              | Jacket Water Heater  |
| Outdoor Sound Attenuated Enclosure            | Remote Annunciator (NFPA Compliant)    | Starting Aids for 10 to 15 Second Start-up                   |
| US EPA Certifications or Site Testing         | Spring Vibration Dampers               | Gas Booster when Main Gas from Utility is less than 50" W.C. |
| U.L. Certification                            | Automatic Transfer Switch              | Others, as Required  |

**NATURAL GAS ENGINE – MITSUBISHI GS12R-PTK LEAN BURN**

|                               |  |
|-------------------------------|--|
| TYPE                          | 4 Cycle, Water-Cooled, Turbocharged, Intercooled |
| COMBUSTION CHAMBER            | Lean Burn with Pre-Chamber                       |
| COMPRESSION RATIO             | 11.3:1   |
| ENGINE SPEED                  | 1800 RPM   |
| CYLINDER ARRANGEMENT          | 60° V, 12 Cylinder                               |
| DISPLACEMENT                  | 2990 Cubic Inch; Bore, 6.69; Stroke 7.09         |
| EXHAUST FLEX DIAMETER (MIN)   | 12 Inches (inside)                               |
| MUFFLER DIAMETER (MIN)        | 12 Inches (inside)                               |
| MAXIMUM EXHAUST BACK PRESSURE | 23.6 Inches of Water                             |



**DISPLAYS FOR DIGITAL CONTROL PANEL**

|                        |                          |                   |
|------------------------|--------------------------|-------------------|
| Engine Speed           | Battery Voltage          | Frequency         |
| Hours Run              | Phase to Neutral Voltage | Power Factor      |
| Manifold Air Temp      | Phase to Phase Voltage   | kW and kVA Output |
| Intercooler Inlet Temp | Current (Amps) per Phase | Various Others    |

**ENGINE / GENERATOR ALARMS**

|                        |                          |                           |
|------------------------|--------------------------|---------------------------|
| High Manifold Air Temp | High Coolant Temp        | Reverse Power             |
| Low Coolant Level      | Emergency Stop Activated | Negative Sequence Current |
| Low Oil Pressure       | Over and Under Voltage   | Various Others            |
| Over-speed             | Incorrect Phase Sequence |                           |
|                        | Over and Under Frequency |                           |



ENER-G Rudox, founded in NJ in 1949, is a full service energy product provider for commercial and industrial energy applications. Products include energy efficient Stand-by Power Solutions, Emergency Rentals, Cogeneration, and CHP or CCHP/Tri-Generation systems with state of the art monitoring capabilities. ENER-G Rudox can recommend different techniques and holistic technologies and can develop, deliver and finance sustainable energy solutions. In-house capabilities allow ENER-G Rudox to design and supply a system to meet the customer's exact specifications. With its fully staffed 24/7 Service Department and Parts Department, ENER-G Rudox has established a reputation of providing quality machines with responsive, reliable, personalized service at competitive prices.