

ERM500GS (500 KW) MITSUBISHI NATURAL GAS GENERATOR SET

	STANDBY RATING FOR EMERGENCY USE (*)	
ERM500GS RATED OUTPUT	60 HZ	
GENERATOR OUTPUT (KW)	500	
GENERATOR OUTPUT (KVA)	625	
GENERATOR SPEED (RPM)	1800	

FUEL EFFICIENCY	BTU/kwh	CFH
FUEL CONSUMPTION	9,769	5,664
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)	72" x 190" x 84"
Wet Weight (lbs)	20,000

WEIGHT / DIMENSIONS WITHOUT RADIATOR	
W x L x H (in)	62" x 130" x 80"
Wet Weight (lbs)	17,500

The **ERM500GS (500 kW)** continuous duty system stands out as a leader in its class. Boasting a continuous duty output of **500 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 **9,769** 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

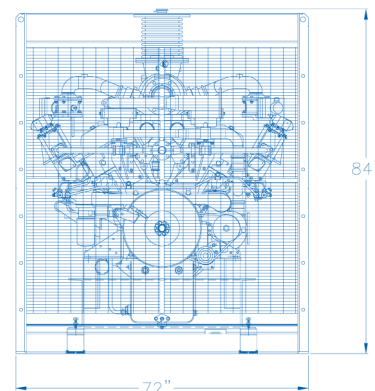
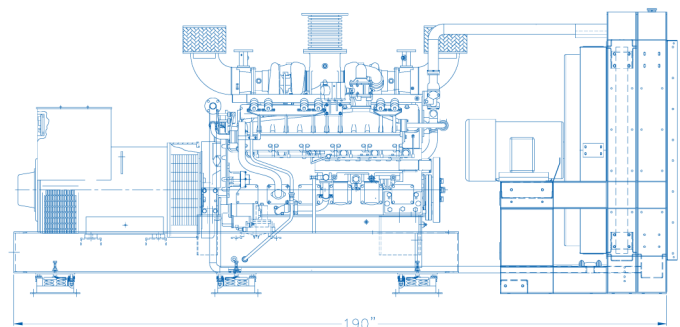
- ▶ **PRECISE VOLTAGE REGULATION**
± ½ % Steady State
± 1 % from No Load to Full Load
- ▶ **PRECISE FREQUENCY CONTROL**
The Woodward Electronic Isochronous Governor has 0% Droop, No Load to Full Load, and ± 1/2 % Steady State
- ▶ **PERMANENT MAGNET EXCITATION**
Provides excellent performance with heavy 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	2.0 g/bhp-hr (100% load)
CO	4.0 g/bhp-hr (100% load)
NMHC	1.0 g/bhp-hr (100% load)

STANDARD NATURAL GAS SUPPLY REQUIREMENTS

Requires a maximum of 5.6 Million BTU/hr of Pipeline Quality Gas at 1040 BTU/CF. Minimum Gas Pressure of 2.0 PSI



GENERATOR SET SPECIFICATIONS

ERM500GS RATED OUTPUT	60 HZ (100% loaded)
GENERATOR SPEED (RPM)	1800
GENERATOR OUTPUT (KW)	500
GENERATOR OUTPUT (KVA)	625
COMBUSTION AIR FLOW (CFM)	1736
HEAT REJECTION TO AMBIENT (BTU/MIN)	7500
EXHAUST TEMPERATURE	850°F
EXHAUST GAS FLOW (SCFM)	1820
RADIATOR AIR FLOW (CFM)	70,000

STANDARD EQUIPMENT

- ▶ MITSUBISHI GS12A2-PTK Natural Gas Lean Burn Engine
- ▶ STAMFORD Single Bearing Generator (HCI534C) rated for 150° C rise with 3 phase Static Voltage Regulator (MX341) 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 Fisher 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 – 4,160 or 13,800	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 30" W.C.
U.L. Certification	Automatic Transfer Switch	Others, as Required

NATURAL GAS ENGINE – MITSUBISHI GS12A2-PTK LEAN BURN

TYPE	4 Cycle, Water-Cooled, Turbocharged, Intercooled
COMBUSTION CHAMBER	Lean Burn with Pre-Chamber
COMPRESSION RATIO	11.5:1
ENGINE SPEED	1800 RPM
CYLINDER ARRANGEMENT	60° V, 12 Cylinder
DISPLACEMENT	2070 Cubic Inch; Bore, 5.91; Stroke 6.3
EXHAUST FLEX DIAMETER (MIN)	8 Inches (inside)
MUFFLER DIAMETER (MIN)	10 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.