

GAS ENGINE-GENERATOR SET

50-GC6NLT1

50 ekW / 60 Hz / Standby
208 - 600V



SYSTEM RATINGS

Standby

| Voltage (L-L) | 240V** | 240V** | 208V** | 240V** | 480V** | 600V** |
|------------------|-----------------|------------|-----------------|------------------|----------------|------------|
| Phase | 1 | 1 | 3 | 3 | 3 | 3 |
| PF | 1.0 | 1.0 | 0.8 | 0.8 | 0.8 | 0.8 |
| Hz | 60 | 60 | 60 | 60 | 60 | 60 |
| Natural Gas | | | | | | |
| Ratings: Amps | 188 | 188 | 173 | 150 | 75 | 60 |
| Natural Gas | | | | | | |
| Ratings: kW/kVA | 45/45 | 45/45 | 50/62.5 | 50/62.5 | 50/62.5 | 50/62.5 |
| LP Gas | | | | | | |
| Ratings: Amps | 208 | 208 | 173 | 150 | 75 | 60 |
| LP Gas | | | | | | |
| Ratings: kW/kVA | 50/50 | 50/50 | 50/62.5 | 50/62.5 | 50/62.5 | 50/62.5 |
| skVA@30% | | | | | | |
| Voltage Dip | 127 | 118 | 148 | 148 | 197 | 138 |
| Generator Model* | 362CSL1606 | 361CSL1612 | 361CSL1602 | 361CSL1602 | 361CSL1602 | 361PSL1633 |
| Temp Rise | 130°C/27°C | 125°C/40°C | 130°C/27°C | 130°C/27°C | 130°C/27°C | 125°C/40°C |
| Connection | 12 LEAD ZIG-ZAG | 4 LEAD | 12 LEAD LOW WYE | 12 LEAD HI DELTA | 12 LEAD HI WYE | 4 LEAD WYE |

* The Generator Model Number identified in the table is for standard C Series Configuration. Consult the factory for alternate configuration.

** UL2200 Offered

FACTS

- // Engine-Generator Set Tested to ISO 8528-5 for Transient Response
- // UL2200, CSA Listing Offered
- // Accepts Rated Load in One Step Per NFPA 110, Level 1
- // All engine-generator sets are prototype and factory tested
- // MTU Onsite Energy is a single source supplier
- // Global Product Support
- // 2 Year Standard Warranty
- // Custom Design for Any Application
- // 5.0 L Engine
 - 5.0 Liter Displacement
 - 4-Cycle
- // Integral Vibration Isolators

- // Complete Range of Accessories
- // Permanent Magnet Generator (PMG) - Optional
 - Brushless, Rotating Field
 - 300% Short Circuit Capability
 - 2/3 Pitch Windings
- // Digital Control Panel(s)
 - UL Recognized, cULus, NFPA 110
 - Complete System Metering
 - LCD Display
- // Cooling System
 - Integral Set-Mounted
 - Engine Driven Fan

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STANDARD EQUIPMENT

// Engine


Air Cleaner
 Oil Pump
 Full Flow Oil Filter
 Jacket Water Pump
 Thermostat
 Exhaust Manifold – Dry
 Blower Fan & Fan Drive
 Radiator – Unit Mounted
 Electric Starting Motor – 12V
 Governor – Electric Isochronous
 Base – Formed Steel
 SAE Flywheel & Bell Housing
 Charging Alternator – 12V
 Battery Box & Cables
 Flexible Fuel Connectors
 Flexible Exhaust Connection
 EPA Certified Engine

// Generator

NEMA MG1, IEEE and ANSI standards compliance for temperature rise and motor starting
 Sustained short circuit current of up to 300% of the rated current for up to 10 seconds
 Self-Ventilated and Drip-Proof
 Superior Voltage Waveform
 Digital, Solid State, Volts-per-Hertz Regulator
 No Load to Full Load Regulation
 Brushless Alternator with Brushless Pilot Exciter
 4 Pole, Rotating Field
 130°C Standby Temperature Rise
 1 Bearing, Sealed
 Flexible Coupling
 Full Amortisseur Windings
 125% Rotor Balancing
 3-Phase Voltage Sensing
 ±1% Voltage Regulation
 100% of Rated Load – One Step
 3% Maximum Harmonic Content

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// Digital Control Panel(s)

Digital Metering
 Engine Parameters
 Generator Protection Functions
 Engine Protection
 SAE J1939 Engine ECU Communications
 Windows-Based Software
 Multilingual Capability
 Remote Communications to our RDP-110 Remote Annunciator
 16 Programmable Contact Inputs
 7 Contact Outputs
 UL Recognized,  CE Approved
 Event Recording
 IP 54 Front Panel Rating with Integrated Gasket
 NFPA110 Level Compatible

APPLICATION DATA

// Engine

| | |
|-------------------------------|-------------|
| Manufacturer | GM |
| Model | 5.0L |
| Type | 4-Cycle |
| Arrangement | 8-V |
| Displacement: Cu In (lit) | 305 (5) |
| Bore: in (cm) | 3.75 (9.5) |
| Stroke: in (cm) | 3.48 (8.8) |
| Compression Ratio | 9.4:1 |
| Rated RPM | 1,800 |
| Engine Governor | Bosch |
| Max Power: Standby: bhp (kWm) | 88.3 (65.9) |
| Speed Regulation | ±1% |
| Frequency | 60 Hz |
| Air Cleaner | Dry |

// Liquid Capacity (Lubrication)

| | |
|---|-----------|
| Total Oil System: gal (lit) | 1.3 (4.9) |
| Engine Jacket Water Capacity: gal (lit) | 2.3 (8.7) |
| System Coolant Capacity: gal (lit) | 6 (22.7) |

// Electrical

| | |
|--|-----|
| Electric Volts DC | 12 |
| Cold Cranking Amps Under 0°F (-17.8°C) | 600 |

// Fuel Inlet

| | |
|--|----------------|
| Fuel Supply Connection Size | 1 1/2" NPT |
| Fuel Supply Pressure: in. H ₂ O (mm H ₂ O) | 7-11 (178-279) |

// Fuel Consumption (NG-1000 BTU/ft³ / LP-2500 BTU/ft³)

| | NG | LPG |
|---|------------|-----------|
| At 100% of Power Rating: ft ³ /hr (m ³ /hr) | 600 (17) | 265 (7.5) |
| At 75% of Power Rating: ft ³ /hr (m ³ /hr) | 452 (12.8) | 200 (5.7) |
| At 50% of Power Rating: ft ³ /hr (m ³ /hr) | 317 (9) | 140 (4) |

// Cooling - Radiator System

| | |
|--|--------------|
| Ambient Capacity of Radiator: °F (°C) | 122 (50) |
| Max. Restriction of Cooling Air, Intake, and Discharge Side of Rad.: in. H ₂ O (kPa) | 0.5 (0.12) |
| Water Pump Capacity: gpm (lit/min) | 30 (113.6) |
| Heat Rejection to Coolant: BTUM (kW) | 3,400 (59.8) |
| Heat Radiated to Ambient: BTUM (kW) | 466 (8.2) |

// Air Requirements

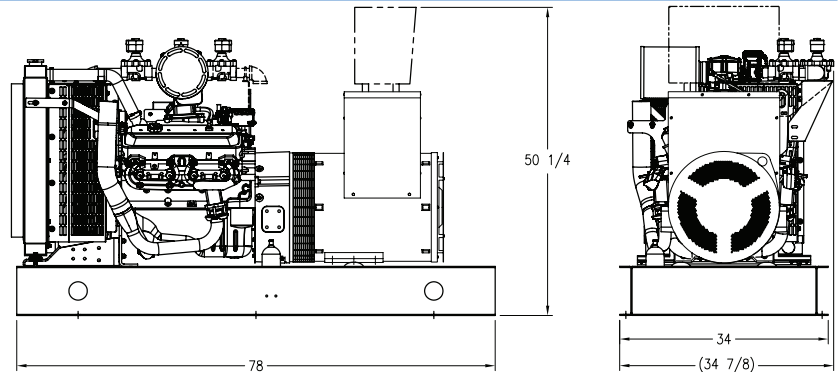
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|--|---------------|
| Aspirating: *SCFM (m ³ /min) | 158.9 (4.5) |
| Air Flow Required for Rad. | |
| Cooled Unit: *SCFM (m ³ /min) | 7,396 (209.4) |
| Air Flow Required for Heat Exchanger/Remote Rad. based on 25°F Rise: *SCFM (m ³ /min) | 1,051 (29.8) |

* Air density = 0.0739 lbm/ft³ (1.184 kg/m³)

// Exhaust System

| | |
|---|---------------|
| Gas Temp. (Stack): °F (°C) | 1,300 (704.4) |
| Gas Volume at Stack | |
| Temp: CFM (m ³ /min) | 513 (14.5) |
| Maximum Allowable | |
| Back Pressure: in. H ₂ O (kPa) | 40 (10) |

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open power 480 volt generator. Lengths may vary with other voltages. Do not use for installation design.

| System | Dimensions (L x W x H) | Weight (dry) |
|--------|---|-------------------|
| OPU | 78 x 34 x 50.25 in (1,981 x 864 x 1,276 mm) | 1,450 lb (658 kg) |

Weights and dimensions are based on open power units and are estimates only. Consult the factory for accurate weights and dimensions for your specific generator set.

SOUND DATA

| Unit Type | Standby Full Load | Standby No Load |
|----------------------------------|-------------------|-----------------|
| OPU (dBA) | C/F | C/F |
| WPE - No Sound Attenuation (dBA) | C/F | C/F |
| CQE (dBA) | C/F | C/F |

Measurements for sound data are taken at 23 ft (7m).

EMISSIONS DATA

| Fuel Type | THC + NO _x | CO |
|----------------|-----------------------|-------|
| Natural Gas | 10.34 | 42.3 |
| Liquid Propane | 11.63 | 53.17 |

All units are in g/hp-hr.

Engine meets 40 CFR Part 60/90 specifications.

RATING DEFINITIONS AND CONDITIONS

- // Ambient capability factor at 984 ft (300 m). Consult your local MTU Onsite Energy Power Generation Distributor for other altitudes.
- // Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.
- // Deration Factor:
Altitude: 3% per 1,000 ft (305 m) above 328 ft (100 m).
Temperature: 1% per 10°F (5.5°C) above 77°F (25°C).

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Materials and specifications subject to change without notice.