

# GAS ENGINE-GENERATOR SET 60-GC6NLT1

60 kW<sub>e</sub> / 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	229	229	208	180	90	72
Natural Gas Ratings: kW/kVA	55/55	55/55	60/75	60/75	60/75	60/75
LP Gas Ratings: Amps	250	250	208	180	90	72
LP Gas Ratings: kW/kVA	60/60	60/60	60/75	60/75	60/75	60/75
skVA@30%						
Voltage Dip	127	230	148	148	142	140
Generator Model*	362CSL1606	362CSL1615	361CSL1602	361CSL1602	361CSL1601	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.

## STANDARD FEATURES

- // Engine-Generator Set Tested to ISO 8528-5 for Transient Response
- // UL2200 Listed, CSA Certified – Offered
- // Accepts Rated Load in One Step Per NFPA 110
- // All engine-generator sets are prototype and factory tested
- // MTU Onsite Energy is a single source supplier
- // Global Product Support
- // 2 Year Standard Warranty
- // 5.7 L Engine
  - 5.7 Liter Displacement
  - 4-Cycle
- // Complete Range of Accessories
- // Engine-generator resilient mounted
- // Generator
  - Brushless, Rotating Field Generator
  - PMG (Permanent Magnet Generator) supply to regulator
  - 300% Short Circuit Capability
  - 2/3 Pitch Windings
  - Standard for 570 frame and larger
  - Optional for 430 frame and smaller
- // Digital Control Panel(s)
  - UL Recognized, CSA Certified, NFPA 110
  - Complete System Metering
  - LCD Display
- // Cooling System
  - Integral Set-mounted
  - Engine Driven Fan

## 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 - Electronic Isochronous  
 Base - Formed Steel  
 SAE Flywheel & Bell Housing  
 Charging Alternator - 12V  
 Battery Box & Cables  
 Flexible Fuel Connectors  
 Flexible Exhaust Connection  
 EPA Certified Engine

### // 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  
 Up to 11 Contact Outputs  
 UL Recognized, CSA Certified, CE Approved  
 Event Recording  
 IP 54 Front Panel Rating with Integrated Gasket  
 NFPA 110 Compatible

### // Generator

NEMA MG 1, 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 Maximum 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

## APPLICATION DATA

## // Engine

Manufacturer	GM
Model	5.7L
Type	4-Cycle
Arrangement	8-V
Displacement: L (in <sup>3</sup> )	5.7 (350)
Bore: cm (in)	10.2 (4)
Stroke: cm (in)	8.8 (3.5)
Compression Ratio	9.4:1
Rated RPM	1,800
Engine Governor	Bosch
Maximum Power: Standby: kWm (bhp)	84.4 (113.2)
Speed Regulation	C/F
Air Cleaner	Dry

## // Liquid Capacity (Lubrication)

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

## // Electrical

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

## // Fuel Inlet

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

// Fuel Consumption (NG-1000 BTU/ft<sup>3</sup> / LP-2500 BTU/ft<sup>3</sup>)

	NG	LPG
At 100% of Power Rating: m <sup>3</sup> /hr (ft <sup>3</sup> /hr)	20.3 (717)	9 (317)
At 75% of Power Rating: m <sup>3</sup> /hr (ft <sup>3</sup> /hr)	15.3 (541)	6.8 (239)
At 50% of Power Rating: m <sup>3</sup> /hr (ft <sup>3</sup> /hr)	10.6 (376)	4.7 (166)

## // Cooling - Radiator System

Ambient Capacity of Radiator: °C (°F)	50 (122)
Maximum Restriction of Cooling Air, Intake, and Discharge Side of Rad.: kPa (in. H <sub>2</sub> O)	0.12 (0.5)
Water Pump Capacity: L/min (gpm)	113.6 (30)
Heat Rejection to Coolant: kW (BTUM)	59.8 (3,400)
Heat Radiated to Ambient: kW (BTUM)	17.5 (993.2)

## // Air Requirements

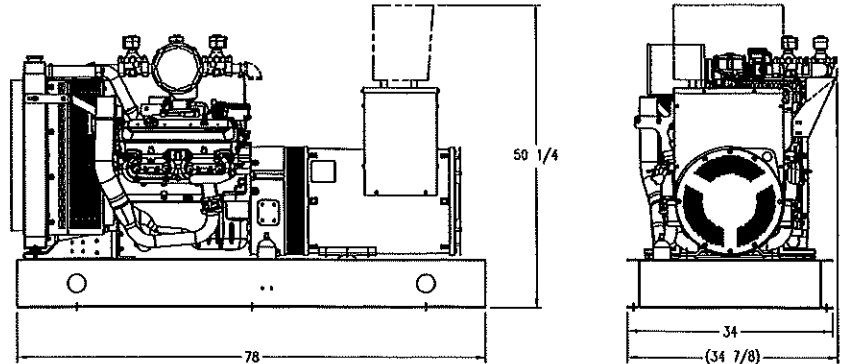
Aspirating: *m <sup>3</sup> /min (SCFM)	5.2 (182.3)
Air Flow Required for Rad. Cooled Unit: *m <sup>3</sup> /min (SCFM)	209.4 (7,396)
Air Flow Required for Heat Exchanger/Remote Rad. based on 25°F Rise: *m <sup>3</sup> /min (SCFM)	63.4 (2,240)

\* Air density = 1.184 kg/m<sup>3</sup> (0.0739 lbm/ft<sup>3</sup>)

## // Exhaust System

Gas Temp. (Stack): °C (°F)	704.4 (1,300)
Gas Volume at Stack Temp: m <sup>3</sup> /min (CFM)	16.7 (588.7)
Maximum Allowable Back Pressure: kPa (in. H <sub>2</sub> O)	10 (40)

## WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open power 480 volt engine-generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

System	Dimensions (LxWxH)	Weight (dry)
OPU	1,981 x 864 x 1,276 mm (78 x 34 x 50.25 in)	658 kg (1,450 lb)

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

## SOUND DATA

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

Sound data is provided at 7 m (23 ft).

## EMISSIONS DATA

Fuel type	THC + NO <sub>x</sub>	CO
Natural Gas	10.34	35.82
Liquid Propane	12.94	39.68

All units are in g/hp-hr.

Engine meets EPA 40 CFR Part 60/90 specifications.

## RATING DEFINITIONS AND CONDITIONS

// 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:** Consult your local MTU Onsite Energy Power Generation Distributor for altitude derations.

**Temperature:** Consult your local MTU Onsite Energy Power Generation Distributor for temperature derations.

Materials and specifications subject to change without notice.

C/F = Consult Factory/MTU Onsite Energy Distributor