

# Gas Generator Set

# mtu 8V0071 GS60

# 60 kWe/60 Hz/Standby/208 - 600V

# System ratings

Voltage (L-L)	240V <sup>†</sup>	240V <sup>†</sup>	208V <sup>†</sup>	240V <sup>†</sup>	380V <sup>†</sup>	480V <sup>†</sup>	600V <sup>†</sup>
Phase	1	1	3	3	3	3	3
PF	1	1	0.8	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60	60	60
Natural Gas (NG)							
Amps	250	250	208	180	114	90	72
kW/kVA	60/60	60/60	60/75	60/75	60/75	60/75	60/75
Liquid Propane (LP)							
Amps	250	250	208	180	114	90	72
kW/kVA	60/60	60/60	60/75	60/75	60/75	60/75	60/75
NG and LP							
skVA@30% voltage dip	133	233	200	200	187	266	201
Generator model	362CSL1606	362CSL1615	361CSL1602	361CSL1602	362CSL1604	361CSL1602	361PSL1634
Temp rise	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C
Connection	12 LEAD DOUBLE DELTA	4 LEAD	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	12 LEAD WYE	4 LEAD WYE

<sup>†</sup> UL 2200 offered

## Certifications and standards

- Generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004
- Seismic certification optional
  - 2021 IBC certification
  - HCAI pre-approval
- UL 2200 optional (refer to System ratings for availability)
- CSA optional
  - CSA C22.2 No. 100
  - CSA C22.2 No. 14

- Performance Assurance Certification (PAC)
  - Generator set tested to ISO 8528-5 for transient response
  - · Verified product design, quality and performance integrity
  - All engine systems are prototype and factory tested
- Power rating
  - Accepts rated load in one step per NFPA 110



## Standard features\*

- Single source supplier
- Global product support
- Two (2) Year/3,000 Hour Basic Limited Warranty
- 5.7L engine
  - 5.7 liter displacement
  - 4-cycle
- Optional fuels: LP liquid and dual fuel
- Engine-generator resilient mounted
- Complete range of accessories
- Cooling system
  - Integral set-mounted
  - Engine-driven fan

- Generator
  - Brushless, rotating field generator
  - 2/3 pitch windings
  - 300% short circuit capability with optional Permanent Magnet Generator (PMG)
- Digital control panel(s)
  - UL recognized, CSA Certified, NFPA 110
  - Complete system metering
  - LCD display

# Standard equipment\*

#### **Engine**

- Air cleaner
- Oil pump
- Oil drain extension and shut-off valve
- Full flow oil filter
- Jacket water pump
- Thermostat
- Blower fan and fan drive
- Radiator unit mounted
- Electric starting motor 12V
- Governor electronic isochronous
- Base formed steel
- Industrial flywheel and bell housing
- Charging alternator 12V
- Battery box and cables
- Flexible fuel connectors
- Flexible exhaust connection
- EPA certified engine

#### Generator

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting
- Self-ventilated and drip-proof
- Superior voltage waveform
- Solid state, volts-per-hertz regulator
- $-\,$   $\pm$  1 % voltage regulation no load to full load
- 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
- 100% of rated load one step
- $-\,$  5% maximum total harmonic distortion

### Digital control panel(s)

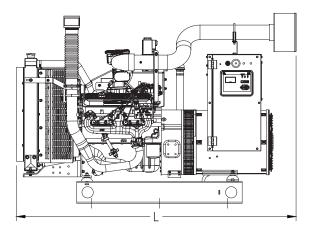
- Digital metering
- Engine parameters
- Generator protection functions
- Engine protection
- SAE J1939 engine ECU communications
- Windows®-based software
- Multilingual capability
- Communications to remote annunciator
- Programmable input and output contacts
- UL recognized, CSA certified, CE approved
- Event recording
- IP 54 front panel rating with integrated gasket
- NFPA 110 compatible

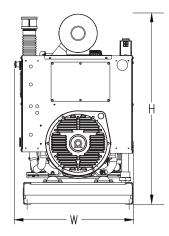
<sup>\*</sup> Represents standard product only. Consult the factory/mtu Distributor for additional configurations.

# Application data

Engine	Fuel consumption (NG-1000 BTU/ft <sup>3</sup> / LP-2500 BTU/ft <sup>3</sup> )		
Manufacturer PSI	NG LPG		
Model 5.7L NA	At 100% of power rating: m <sup>3</sup> /hr (ft <sup>3</sup> /hr) 23.2 (818) 10 (355)		
Type 4-cycle	At 75% of power rating: m³/hr (ft³/hr) 19.3 (680) 8.3 (293)		
Arrangement 8-V	At 50% of power rating: m³/hr (ft³/hr) 15.5 (547) 6.6 (235)		
Displacement: L (in <sup>3</sup> ) 5.7 (350)			
Bore: cm (in) 10.2 (4)	Cooling - radiator system		
Stroke: cm (in) 8.8 (3.5)	NG and LPG		
Compression ratio 9.4:1	Ambient capacity of radiator: °C (°F) 50 (122)		
Rated rpm 1,800	Maximum restriction of cooling air:		
Engine governor Bosch	intake and discharge side of radiator: kPa (in. H <sub>2</sub> 0) 0.12 (0.5)		
Maximum power (NG): kWm (bhp) 78.1 (104.7)	Water pump capacity: L/min (gpm) 132.5 (35)		
Maximum power (LP): kWm (bhp) 84.4 (113.2)	Heat rejection to coolant: kW (BTUM) 54.9 (3,120)		
Steady state frequency band ± 0.75%	Heat radiated to ambient: kW (BTUM) 17.5 (993.2)		
Air cleaner dry	Fan power: kW (hp) 3.2 (4.3)		
Liquid capacity	Air requirements		
Total oil system: L (gal) 4.73 (1.25)	NG and LPG		
Engine jacket water capacity: L (gal) 7.8 (2)	Aspirating: *m³/min (SCFM) 4.9 (173)		
System coolant capacity: L (gal) 22.7 (6)	Air flow required for radiator		
	cooled unit: *m³/min (SCFM) 138.4 (4,888)		
Electrical	Remote cooled applications; air flow required for		
Electric volts DC 12	dissipation of radiated generator set heat for a		
Cold cranking amps under -17.8 °C (0 °F) 925	maximum of 25 °F rise: *m³/min (SCFM) 90 (3,199)		
Batteries: group size 31			
Batteries: quantity 1	* Air density = 1.184 kg/m³ (0.0739 lbm/ft³)		
First tolet	Edward maken		
Fuel inlet - vaporous supply Fuel supply connection size  NG: 1-1/2" NPT  LP: 3/4" NPT	Exhaust system  NG and LPG		
117	Gas temperature (stack): °C (°F) 745 (1,373)		
Fuel supply pressure: mm $H_2O$ (in. $H_2O$ ) 178–279 (7–11)	·		
Fuel inlet - liquid cumply	Gas volume at stack temperature: m³/min (CFM) 15.8 (552.7)  Maximum allowable back pressure at		
Fuel inlet - liquid supply Fuel supply connection size #6 (3/8") female JIC 37° flare	•		
Maximum fuel supply pressure: kPa (PSI)  40 (3/8 ) Terriale 3/C 3/1 flare  2,150 (312)	outlet of engine, before piping: kPa (in. H <sub>2</sub> 0) 10 (40)		
iviaximum ruet suppty pressure. kra (FSI) 2,130 (S12)			

# Weights and dimensions





Drawing above for illustration purposes only, based on standard open power 480 volt 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
Open Power Unit (OPU)	1,949 x 829 x 1,326 mm (76.7 x 32.6 x 52.2 in)	819-1,053 kg (1,806-2,322 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 generator set.

## Sound data

Unit type	Standby full load	
Level 0 (OPU): dB(A)	73.3	

Sound data is provided at 7 m (23 ft). Generator set tested in accordance with ISO 8528-10 and with infinite exhaust.

## **Emissions data**

Fuel type	THC + NO <sub>x</sub>	NMHC + NOx	со	
Natural gas	N/A	4.89	19.93	
Liquid propane	7.20	N/A	22.08	

All units are in g/hp-hr and are EPA weighted cycle values.
 Emission levels of the engine may vary with ambient temperature,
 barometric pressure, humidity, fuel type and quality, installation
 parameters, measuring instrumentation, etc. The data was obtained
 in compliance with US EPA regulations.

# 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, and AS 2789. Average load factor: ≤ 85%.
- Nominal ratings at standard conditions: 25 °C and 300 meters (77 °F and 1,000 feet).
- Deration factor:
  - Consult your local **mtu** Distributor for altitude derations.
  - Consult your local *mtu* Distributor for temperature deration