GAS GENERATOR SET
MTU 10V0068 GS125

125 kWe / 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	1	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60	60
Natural Gas (NG)						
Amps	521	521	434	376	188	151
kW/kVA	125/125	125/125	125/156.25	125/156.25	125/156.25	125/156.25
Liquid Propane (LP)						
Amps	521	521	434	376	188	151
kW/kVA	125/125	125/125	125/156.25	125/156.25	125/156.25	125/156.25
NG and LP						
skVA@30%						
Voltage Dip	196	130	323	323	430	331
Generator Model	431PSL6224	431CSL6204	363CSL1607	363CSL1607	363CSL1607	363PSL1658
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
Connection	4 LEAD	12 LEAD DOUBLE DELTA	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE

**UL2200 Offered
Note: This unit is available with a dual fuel configuration.

CERTIFICATIONS AND STANDARDS

// **Generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004**

// **Seismic Certification – Optional**
- IBC Certification
- OSHPD Pre-Approval

// **UL 2200 / CSA – Optional**
- UL 2200 Listed
- CSA Certified

// **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*

// MTU Onsite Energy is a single source supplier
// Global Product Support
// 2 Year Standard Warranty
// 6.8LT CAC Engine
- 6.8 Liter Displacement
- 4-Cycle
// 3-Way Catalyst
// Optional Fuels: LP Liquid and Dual Fuel
// Engine-generator resilient mounted
// Complete Range of Accessories
// Generator
- Brushless, Rotating Field Generator
- 2/3 Pitch Windings
- 300% Short Circuit Capability
// Digital Control Panel
- UL Recognized, CSA Certified, NFPA 110
- Complete System Metering
- LCD Display
// Cooling System
- Integral Set-Mounted
- Engine-Driven Fan

STANDARD EQUIPMENT*

// Engine

Heavy Duty Air Cleaner
Oil Pump
Oil Drain Extension and S/O 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
SAE Flywheel and Bell Housing
Charging Alternator - 12V
Battery Rack and Cables
Flexible Exhaust Connection
Liquid Cooled, Ball Bearing Turbocharger
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
Superior Voltage Waveform
Solid State, Volts-per-Hertz Regulator
±1% Voltage Regulation No Load to Full Load
Brushless Alternator with Brushless Pilot Exciter
4 Pole, Rotating Field
130 °C Max. 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% Max. 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
Remote Communications to RDP-110 Remote Annunciator
Programmable Input and Output Contacts
UL Recognized, CSA Certified, CE Approved
Event Recording
IP 54 Front Panel Rating with Integrated Gasket
NFPA110 Compatible

* Represents standard product only. Consult Factory/MTU Onsite Energy Distributor for additional configurations.

APPLICATION DATA

// Engine

Manufacturer	MTU
Model	6.8LT CAC V10
Type	4-Cycle
Aspiration	Turbocharged, Intercooled
Arrangement	10-V
Displacement: L (in^3)	6.8 (415)
Bore: cm (in)	9 (3.55)
Stroke: cm (in)	10.6 (4.17)
Compression Ratio	9:1
Rated RPM	1,800
Engine Governor	Bosch
Max. Power (NG): kWm (bhp)	154 (207)
Max. Power (LP): kWm (bhp)	154 (207)
Speed Regulation	C/F
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: L (gal)	5.7 (1.5)
Engine Jacket Water Capacity: L (gal)	6.1 (1.6)
System Coolant Capacity: L (gal)	35.04 (9.25)

// Electrical

Electric Volts DC	12
Cold Cranking Amps Under -17.8 °C (0 °F)	925

// Fuel Inlet - Vaporous Supply

Fuel Supply Connection Size	1 1/2" NPT
Fuel Supply Pressure: mm H_20 (in. H_20)	178–279 (7–11)

// Fuel Inlet - Liquid Supply

Fuel Supply Connection Size	#6 (3/8") Female SAE 45° Flare
Max. Fuel Supply Pressure: kPa (PSI)	2,150 (312)

// Fuel Consumption (NG-1000 BTU/ft^3 / LP-2500 BTU/ft^3)

	NG	LPG
At 100% of Power Rating: m^3/hr (ft^3/hr)	41.4 (1,463)	18.1 (640)
At 75% of Power Rating: m^3/hr (ft^3/hr)	32.9 (1,161)	14.3 (505)
At 50% of Power Rating: m^3/hr (ft^3/hr)	24 (849)	10.4 (366)

// Cooling - Radiator System

	NG and LPG
Ambient Capacity of Radiator: °C (°F)	50 (122)*
Max. Restriction of Cooling Air: Intake and Discharge Side of Rad.: kPa (in. H_20)	0.12 (0.5)
Water Pump Capacity: L/min (gpm)	123 (32.5)
Heat Rejection to Coolant: kW (BTUM)	85.3 (4,850)
Heat Radiated to Ambient: kW (BTUM)	39.82 (2,265)
Heat Rejected to Charge Air Cooler: kW (BTUM)	14.1 (800)
Fan Power: kW (hp)	9.1 (12.2)

* Installation of enclosures reduces the ambient capacity of the cooling system by 3 °C (5.4 °F).

// Air Requirements

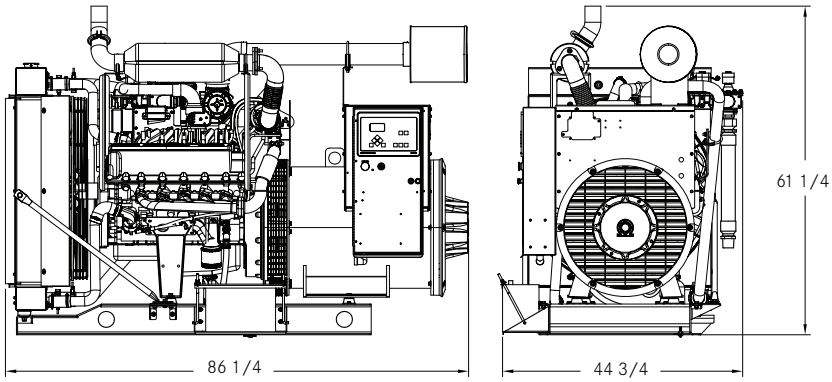
	NG and LPG
Aspirating: *m^3/min (SCFM)	7.8 (275)
Air Flow Required for Rad. Cooled Unit: *m^3/min (SCFM)	256 (9,056)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Generator Set Heat For a Max. of 25 °F Rise: *m^3/min (SCFM)	144.6 (5,107)

* Air density = 1.184 kg/m^3 (0.0739 lbm/ft^3)

// Exhaust System

	NG and LPG
Gas Temp. (Stack): °C (°F)	649 (1,200)
Gas Volume at Stack Temp: m^3/min (CFM)	25.1 (886)
Max. Allowable Back Pressure: kPa (in. H_20)	6.2 (25)

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 (L x W x H)	Weight (dry)
Open Power Unit (OPU)	2,191 x 1,137 x 1,556 mm (86.25 x 44.75 x 61.25 in)	1,126-1,908 kg (2,482-4,207 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 (NG)	Standby Full Load (LP)
Level 0: Open Power Unit dB(A)	83	83

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_x	CO
Natural Gas	0.4	0.04
Liquid Propane	0.11	0.16

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%.

// 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.

C/F = Consult Factory/MTU Onsite Energy Distributor
N/A = Not Available