

# GAS ENGINE-GENERATOR SET TURBOCHARGED

100 kWe / 60 Hz / Standby  
208 - 600V



## SYSTEM RATINGS

Standby (NG) (LP)	GS100N6SDT GS100L6SDT	GS100N6SGT GS100L6SGT	GS100N6SPT GS100L6SPT	GS100N6SJT GS100L6SJT	GS100N6SRT GS100L6SRT	GS100N6SNT GS100L6SNT
<b>Voltage (L-L)</b>	<b>240V**</b>	<b>240V**</b>	<b>208V**</b>	<b>240V**</b>	<b>480V**</b>	<b>600V**</b>
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 Ratings: Amps	417	417	347	301	151	120
Natural Gas Ratings: kW/kVA	100/100	100/100	100/125	100/125	100/125	100/125
LP Gas Ratings: Amps	417	417	347	301	151	120
LP Gas Ratings: kW/kVA	100/100	100/100	100/125	100/125	100/125	100/125
skVA@30%						
Voltage Dip	311	130	277	277	277	277
Generator Model*	363CSL1617	431CSL6204	362CSL1606	362CSL1606	362CSL1606	362PSL1636
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 ZIG-ZAG	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE

\*\* UL 2200 Offered

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

## CERTIFICATIONS AND STANDARDS

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

// **UL 2200 / CSA – Optional**

- UL 2200 Listed
- CSA Certified

// **Performance Assurance Certification (PAC)**

- Engine-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



For More Information:  
(866) 787-3271  
Sales@PTSdcs.com

## STANDARD FEATURES\*

- // MTU Onsite Energy is a single source supplier
  - // Global Product Support
  - // 2 Year Standard Warranty
  - // 6.8L 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(s)
    - 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 & S/O Valve  
 Full Flow Oil Filter  
 Jacket Water Pump  
 Thermostat  
 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 Rack & 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 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  
 3% Maximum Harmonic Content

### // 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  
 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  
 NFPA110 Compatible

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

## APPLICATION DATA

### // Engine

Manufacturer	Ford
Model	6.8L V10
Type	4-Cycle
Aspiration	Turbocharged
Arrangement	10-V
Displacement: L (in <sup>3</sup> )	6.8 (415)
Bore: cm (in)	90.2 (3.55)
Stroke: cm (in)	105.8 (4.17)
Compression Ratio	9:1
Rated RPM	1,800
Engine Governor	Bosch
Maximum Power (NG): kWm (bhp)	132 (177)
Maximum Power (LP): kWm (bhp)	132 (177)
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 (1.6)
System Coolant Capacity: L (gal)	27.47 (7.25)

### // Electrical

Electric Volts DC	12
Cold Cranking Amps Under -17.8 °C (0 °F)	750

### // 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)	31.15 (1,100)	14.49 (511.5)
At 75% of Power Rating: m <sup>3</sup> /hr (ft <sup>3</sup> /hr)	23.67 (835.9)	11.32 (400)
At 50% of Power Rating: m <sup>3</sup> /hr (ft <sup>3</sup> /hr)	16.2 (520.1)	8.07 (284.8)

### // 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)	123 (32.5)
Heat Rejection to Coolant: kW (BTUM)	81.29 (4,623)
Heat Radiated to Ambient: kW (BTUM)	41.54 (2,362)

### // Air Requirements

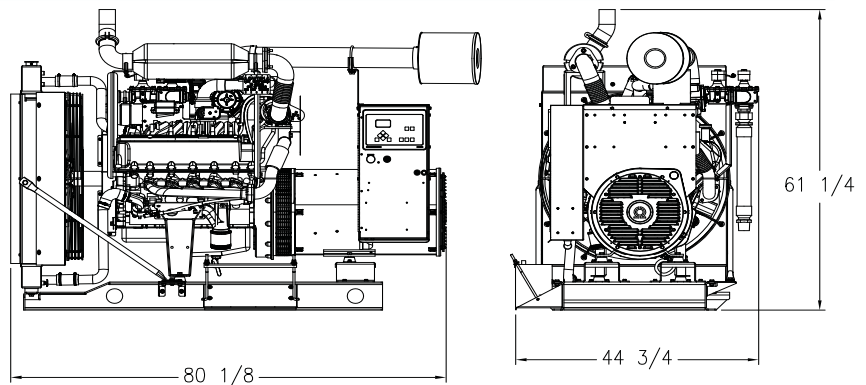
Aspirating: *m <sup>3</sup> /min (SCFM)	5.91 (208.7)
Air Flow Required for Rad. Cooled Unit: *m <sup>3</sup> /min (SCFM)	254.9 (9,001.7)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Gen-set Heat For a Max of 25 °F Rise: *m <sup>3</sup> /min (SCFM)	150.9 (5,329)

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

### // Exhaust System

Gas Temp. (Stack): °C (°F)	716.1 (1,321)
Gas Volume at Stack Temp: m <sup>3</sup> /min (CFM)	20.2 (713.4)
Maximum Allowable Back Pressure: kPa (in. H <sub>2</sub> O)	6.23 (25)

## 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 (L x W x H)	Weight (dry)
OPU	2,035 x 1,137 x 1,556 mm (80.13 x 44.75 x 61.25 in)	1,163.9 kg (2,566 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 (NG)	Standby Full Load (LP)
Level 0: Open Power Unit (dBA)	77.2	77.3

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

## EMISSIONS DATA

Fuel Type	THC + NO <sub>x</sub>	CO
Natural Gas	0.44	0.20
Liquid Propane	0.12	0.09

**All units are in g/hp-hr.**  
**Engine meets EPA 40 CFR Part 60/1048 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.



**For More Information:**  
**(866) 787-3271**  
**Sales@PTSdcs.com**

Materials and specifications subject to change without notice.

C/F = Consult Factory/MTU Onsite Energy Distributor

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