GAS GENERATOR SET
MTU 6R0135 GS150

130 kWe / 60 Hz / Prime
208 - 600V

Reference MTU 6R0135 GS150 (150 kWe) for Standby Rating Technical Data

SYSTEM RATINGS

Prime

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 Ratings: Amps	542	542	421	391	195	156
Natural Gas Ratings: kW/kVA	130/130	130/130	130/162	130/162	130/162	130/162
skVA@30% Voltage Dip	265	305	339	339	451	370
Generator Model	432PSL6210	431PSL6226	431PSL6204	431PSL6204	431PSL6204	431PSL6242
Temp Rise	105 °C/40 °C	105 °C/40 °C	105 °C/40 °C	105 °C/40 °C	105 °C/40 °C	105 °C/40 °C
Connection	12 LEAD DOUBLE DELTA	4 LEAD	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE

** UL 2200 Offered

CERTIFICATIONS AND STANDARDS

// **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)**
- 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
// 8.1 L Turbo Engine Charge Air Cooling
- 8.1 Liter Displacement
- 4-Cycle
// 3-Way Catalyst
// Engine-generator resilient mounted
// Complete Range of Accessories
// Generator
- Brushless, Rotating Field Generator
- 2/3 Pitch Windings
- 300% Short Circuit Capability with Optional PMG
// 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
Oil Drain Extension & S/O Valve
Full Flow Oil Filter
Jacket Water Pump
Thermostats
Blower Fan & Fan Drive
Radiator - Unit Mounted
Electric Starting Motor - 24V
Governor – Electronic Isochronous
Base - Formed Steel
SAE Flywheel & Bell Housing
Charging Alternator - 24V
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
Self Ventilated and Drip-proof
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
105 °C Maximum Prime 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
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	Doosan
Model	8.1L CAC
Type	4-Cycle
Arrangement	6-Inline
Displacement: L (in^3)	8.1 (492)
Bore: cm (in)	11.1 (4.37)
Stroke: cm (in)	13.9 (5.97)
Compression Ratio	10.5:1
Rated RPM	1,800
Engine Governor	Bosch
Maximum Power: kWm (bhp)	149 (199)
Speed Regulation	±0.5%
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: L (gal)	27.5 (7.2)
Engine Jacket Water Capacity: L (gal)	22.7 (5)
System Coolant Capacity: L (gal)	240 (63)

// Electrical

Electric Volts DC	24
Cold Cranking Amps Under -17.8 °C (0 °F)	1,050

// Fuel Inlet

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

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

At 100% of Power Rating: m^3/hr (ft^3/hr)	39.7 (1,400)
At 75% of Power Rating: m^3/hr (ft^3/hr)	30.7 (1,084)
At 50% of Power Rating: m^3/hr (ft^3/hr)	21.8 (769)

// 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_20)	0.12 (0.5)
Water Pump Capacity: L/min (gpm)	240 (63)
Heat Rejection to Coolant: kW (BTUM)	164.4 (9,357)
Heat Radiated to Ambient: kW (BTUM)	65.2 (3,710)
Fan Power: kW (hp)	5.6 (7.5)

* Installation of enclosures reduces the ambient capacity of the cooling system by 1 °C (1.8 °F). Gravity exhaust louvers reduce ambient capacity of the cooling system by an additional 3 °C (5.5 °F).

// Air Requirements

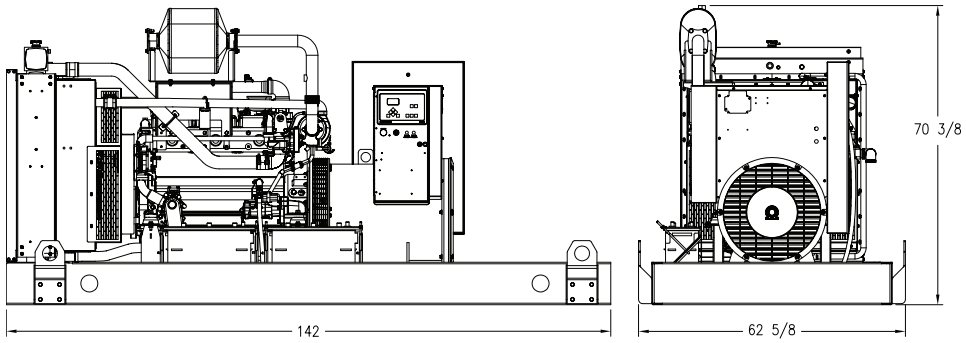
Aspirating: *m^3/min (SCFM)	9.3 (317)
Air Flow Required for Rad. Cooled Unit: **m^3/min (SCFM)	428 (15,100)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Gen-set Heat for a Max of 25 °F Rise: *m^3/min (SCFM)	147 (5,175)

* Air density = 1.184 kg/m^3 (0.0739 lbm/ft^3)
** At 0.25 kPa (1 in. H_20) static pressure and 52 °C (125 °F) at radiator

// Exhaust System

Gas Temp. (Stack): °C (°F)	660 (1,220)
Gas Volume at Stack Temp: m^3/min (CFM)	29.7 (1,050)
Maximum Allowable Back Pressure: kPa (in. H_20)	2.5 (10.25)

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)	3,607 x 1,591 x 1,788 mm (142 x 62.63 x 70.38 in)	2,562 kg (5,647 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	Prime Full Load (NG)	Prime Full Load (LP)
Level 0: Open Power Unit dB(A)	81.7	C/F

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	0.64	0.13

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

- // Ambient capability factor at 984 ft (300 m). Consult your local MTU Onsite Energy Power Generation Distributor for other altitudes.
- // Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO 8528-1, ISO 3046-1, BS 5514, and AS 2789. Average load factor: ≤ 75%. For limited running time and base load ratings, consult the factory.
- // Deration Factor:
  Production tolerances in engines and installed components can account for power variations. Altitude, temperature and excessive exhaust and intake restrictions should be applied to power calculations. Consult your local MTU Onsite Energy Power Generation Distributor for derations.

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