GAS GENERATOR SET
GS350-6S

350 kWe / 60 Hz / Standby
208 - 600V

(Reference GP300N6S for Prime Rating Technical Data)

SYSTEM RATINGS

Standby (NG) (LP)	GS350N6SGA GS350L6SGA	GS350N6SPA GS350L6SPA	GS350N6SJA GS350L6SJA	GS350N6SRA GS350L6SRA	GS350N6SNA GS350L6SNA
Voltage (L-L)	**240V****	**208V****	**240V****	**480V****	**600V****
Phase	1	3	3	3	3
PF	1.0	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
Natural Gas Ratings: Amps	1438	1214	1052	526	481
Natural Gas Ratings: kW/kVA	345/345	350/437	350/437	350/437	350/437
LP Gas Ratings: Amps	1000	850	737	368	295
LP Gas Ratings: kW/kVA	240/240	245/306	245/306	245/306	245/306
skVA@30% Voltage Dip	700	930	930	1238	1100
Generator Model*	573RSL4035	433CSL6216	433CSL6216	433CSL6216	433PSL6248
Temp Rise	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C
Connection	12 LEAD ZIG-ZAG	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE

* Consult the factory for alternate configuration.
** 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
// 18.3 L Turbo Engine Charge Air Cooling
- 18.3 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 with PMG
    - PMG Standard for 570 frame and larger
    - PMG 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
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
Sustained short circuit current of up to 300% of the rated current for up to 10 seconds (with PMG only)
Self Ventilated and Drip-proof
Superior Voltage Waveform
Solid State, Volts-per-hertz Regulator (Digital when PMG is Standard)
±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
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	Doosan
Model	18.3L CAC
Type	4-Cycle
Arrangement	10-V
Displacement: L (in^3)	18.3 (1,115)
Bore: cm (in)	12.8 (5.04)
Stroke: cm (in)	14.2 (5.59)
Compression Ratio	10.5:1
Rated RPM	1,800
Engine Governor	Bosch
Maximum Power (NG): kWm (bhp)	400 (536)
Maximum Power (LP): kWm (bhp)	297 (398)
Speed Regulation	±0.5%
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: L (gal)	42.1 (11.1)
Engine Jacket Water Capacity: L (gal)	50 (11)
System Coolant Capacity: L (gal)	289 (63.5)

// Electrical

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

// Fuel Inlet

Fuel Supply Connection Size	3" NPT
Fuel Supply Pressure: mm H_20 (in. H_20)	178–279 (7–11)

// 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)	99.1 (3,498.8)	32.5 (1,145.9)
At 75% of Power Rating: m^3/hr (ft^3/hr)	77.2 (2,726.7)	27.7 (977.1)
At 50% of Power Rating: m^3/hr (ft^3/hr)	54.2 (1,913.7)	18.7 (658.5)

// 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)	660 (174)	
Heat Rejection to Coolant: kW (BTUM)	365 (20,784)	
Heat Radiated to Ambient: kW (BTUM)	88.5 (5,030)	
Fan Power: kW (hp)	20.9 (28)	20.9 (28)

* 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)	19.4 (664)
Air Flow Required for Rad. Cooled Unit: **m^3/min (SCFM)	1,019 (36,000)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Gen-set Heat for a Max of 25 °F Rise: *m^3/min (SCFM)	321 (11,350)

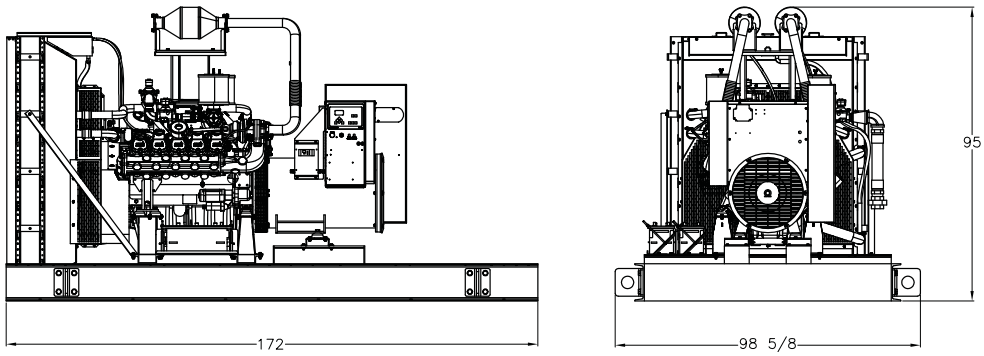
* Air density = 1.184 kg/m^3 (0.0739 lbm/ft^3)

** At 0.25 kPa (1 in. H_20) static pressure and 52 °C (125 °F) at radiator

// Exhaust System

Gas Temp. (Stack): °C (°F)	607 (1,125)
Gas Volume at Stack Temp: m^3/min (CFM)	58.6 (2,070)
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)	4,369 x 2,506 x 2,413 mm (172 x 98.63 x 95 in)	4,741 kg (10,452 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)	85.1	84.8

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	0.59	0.21
Liquid Propane	0.09	0.18

All units are in g/hp-hr and are EPA D2 cycle values.

RATING DEFINITIONS AND CONDITIONS

// Ambient capability factor at 984 ft (300 m). Consult your local MTU Onsite Energy Power Generation Distributor for other altitudes.

// 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:
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.

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Materials and specifications subject to change without notice.
C/F = Consult Factory/MTU Onsite Energy Distributor