

MITSUBISHI BASIC DIESEL GENERATOR SET TECHNICAL SPECIFICATION



MGS0300P-CN

| MGS Model | | MGS0300P-CN | |
|--|--------|--|----------------|
| Frequency (Hz) | | 50 | |
| Voltage (V) | | 380 / 400 / 415 | |
| Duty | | Standby (ESP) | Prime (PRP) |
| Rated Output ⁽¹⁾ | (kVA) | 288 | 250 |
| | (kW) | 230 | 200 |
| Engine model | | S610EAA2M | |
| Fuel Consumption ⁽²⁾ (liter/h) (% load) | 25% | 19 | 17 |
| | 50% | 32 | 28 |
| | 75% | 45 | 39 |
| | 100% | 61 | 53 |
| Generator | model | MGP-L46M8 | |
| Cooling system | (Type) | Closed looped circuit by integral radiator | |
| Length | (mm) | 4350 | |
| Width | (mm) | 1450 | |
| Height | (mm) | 2000 | |
| Weight (Dry) | (kg) | 4009 | |
| | (Wet) | (kg) | 4109 |

OPERATION CONDITONS

- (1) Ambient Temperature: -25°C to 50°C (coolant heater required below 5°C)
 Relative Humidity: <90% Altitude: ≤1000m
 Please contact technical department for power derating above 50°C or 1000m.
- (2) Tested with GB 19147-2006 #0 diesel (density: 0.835 g/cm³ at 20°C).
- (3) Installation Location: Outdoors or indoors (with adequate ventilation)

STANDARD & CERTIFICATIONS

- Certified to standards ISO 9001:2015
- Complies to GB/T2820(ISO8528), IEC60034-1 / BS EN60034-1, ISO3046, ISO3744, IEC60204, IEC60947, GB/T20136, JB/T10303, GB/T4712, GB12699, GB/T12786, GB/T6072, GB/T1859, GB755, GB/T10585, GB7251, GB4208, GB191, GB/T14315 and GB/T16895.6
- Fully compliant with the NFPA110 Standard for Emergency and Standby Power
- Provides 100% load acceptance in one step to meet these demands

ADVANCED CONTROL PANEL

- Rugged metal sheet with anti-vibrator isolator
- Operator-friendly interface and navigation
- Complete instrument and control accessories to meet a wide range of installation requirements
- Expansion module and custom programming are available for specific customer requirements

FEATURES

(1) High Emission Standard:

Complies with GB20891 China Non-Road T2 emission standards.

(2) Engine type: In-line, 4 strokes, water-cooled, 4 valves, Turbo charged, air-to-air intercooled, Direct injection.

(3) Ultra-Low Noise:

High-density flame-retardant sound-absorbing foam.

Residential-grade muffler and customized airflow ducts.

Non-load noise Level at 7m: less than 80 dBA.

(4) Dual Fuel Tanks:

Internal and external tanks with a single-handle switch valve; digital fuel level display.

(5) Voltage Stability ($\pm 0.5\%$):

Leroy-Somer™ alternator, SHUNT excitation, AVR (Automatic Voltage Regulator).

(6) Automatic Fuel Bleeding System:

Self-priming fuel pump to remove air after filter replacement.

(7) Mobility:

Lifting points (top/base) and towing holes for narrow spaces.

(8) Wiring Convenience:

Right-rear outlet box with copper busbars.

(9) The standard configuration features a world-renowned VARTA® valve-regulated lead-acid maintenance-free AGM battery for startup, with a cold start current of 840 CCA and exceptional cold resistance. The non-hazardous, flow-free electrolyte allows free transportation, while its cycle life is three times longer than conventional lead-acid batteries.

(10) The fuel system is standard equipped with an fuel-water separator to prevent water from entering the engine.

DIESEL ENGINE

| Duty | | Standby (ESP) | Prime (PRP) |
|-----------------------------------|---------|------------------|-------------|
| Net Engine Power (with fan basis) | (kWm) | 270 | 245 |
| Speed | (RPM) | 1500 | |
| No. of cylinder | | L6 | |
| Bore / stroke | (mm) | 128 / 135 | |
| Total displacement | (liter) | 10.4 | |
| Compression ratio | | 17:1 | |
| Injection pump | Type | In-line "P" type | |
| Governor | Type | Electric | |
| Frequency regulation | | G2 class | |
| Steady state Frequency band | | <0.5% | |

STANDARD PAINTING

- (1) Enclosure: RAL 5023 (Deep blue)
 (2) Chassis: RAL 9017 (Traffic black)
 (3) Painting Process:

- MHISH utilizes an advanced automated painting line with sandblasting equipment to ensure superior quality.
- Enclosure Painting: Pretreatment: Henkel (Germany) process. Coating : Premium outdoor- grade powder paint.
- Chassis Powder Coating: Sandblasting + premium outdoor-grade powder paint Coating.

LUBRICATION SYSTEM

| | | |
|--------------------------|---------|-------------------------|
| Lubricating oil capacity | (liter) | 41 |
| Lubrication system | Type | Pressure-splash |
| Lubrication Oil filter | Type | Paper element |
| Lubrication Oil cooler | Type | Water cooled corrugated |

COOLING SYSTEM

| | | |
|---------------------------------|------------------------|---|
| Coolant capacity with radiator | (liter) | 75 |
| Thermostat | | Opens at 85°C Fully opens at 95°C |
| Maximum Coolant Temperature | | 98°C (at prime power) 102°C (at standby power) |
| Cooling fan airflow rate | (m ³ / min) | 468 |
| Cooling fan airflow restriction | (Pa) | 100 |

ELECTRICAL SYSTEM

| | | |
|------------------------|-----|-------------------|
| System voltage | (V) | 24 VDC |
| Starting system | | Electric starting |
| Starter motor capacity | | 5.5kW x 1 |
| Charging Alternator | | 28V 55A |

FUEL TANK

| | | |
|----------|--|------------------------------|
| Type | | Welded sheet metal structure |
| Capacity | | 500L / Optional:400L |

BATTERY

| | | |
|----------------|--|------------------------------|
| Brand/Type: | | VARTA / Maintenance-free AGM |
| Capacity/Model | | 4 × AGM H3 (840CCA) |

GENSET CONTROL PANEL

- (1) Type: Sheet metal structure, rear-mounted with observation window and control interface.
- (2) Protection Rating: IP54
- (3) Control Panel Configuration:
 - DSE 6120 MKIII auto-start controller (mains failure) × 1
 - Illumination lamp
 - Lamp switch
 - Controller power switch
 - Integrated audible/visual alarm indicator
- Emergency stop button
- (4) Internal Components:
 - Current transformers ×3
 - 400A molded case circuit breaker (3P)
 - Battery charger (24V/6A)

ALTERNATOR

| | | |
|-------------------------|---------------|--|
| Alternator | Type | Brushless, SHUNT excited, self-ventilated and rotating field |
| Configuration | | 3 Phase 4 Wire |
| Protection | | IP23 |
| Power factor | | 0.8 lagging |
| No of poles | | 4 poles |
| Insulation class | | Class H |
| Temperature rise | | Class F @105K |
| AVR | Type | R250 |
| Voltage regulation | 0 - 100% load | < ±1.0% |
| Wave form distortion | | < 5% (Non-Distorting Balanced Linear Load) |
| Unbalance loading | | < 25% |
| Negative phase sequence | | < 8% |
| Overspeed | | < 125% of nominal speed |

RATING DEFINITION IN ACCORDANCE WITH ISO8528-1

➤ Prime Power (PRP):

For variable load applications with no annual usage hour restrictions.
The average allowable output power over 24 hours must not exceed 80% of the PRP rating.

➤ Standby Power (ESP):

For emergency use during grid failure or testing conditions, with a maximum annual usage of 200 hours.
The average allowable output power over 24 hours must not exceed 80% of the ESP rating.

OPTION CONFIGURATION

- Multi-units parallel system
- Water heater
- Anti condensation heater
- 40°C standard condition
- Spare parts
- Trailer
- PMG