MITSUBISHI BASIC DIESEL GENERATOR SET
TECHNICAL SPECIFICATION

MGS
Mitsubishi
Generator Series

MGS0400P-CN

Mitsubishi Heavy Industries (Shanghai) co., Ltd.
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*image for illustration only

MGS Model		MGS0400P-CN	
Frequency (Hz)		50	
Voltage (V)		380 / 400 / 415	
Duty		Standby (ESP)	Prime (PRP)
Rated Output (1)	(kVA)	388	350
	(kW)	310	280
Engine model		S612EAA2M	
Fuel Consumption (2) (liter/h) (% load)	25%	25	23
	50%	42	38
	75%	59	54
	100%	81	73
Generator	model	MGP-L47S4	
Cooling system	(Type)	Closed looped circuit by integral radiator	
Length	(mm)	3053	
Width	(mm)	1248	
Height	(mm)	1691	
Weight (Dry)	(kg)	2748	
(Wet)	(kg)	2848	

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

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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) Voltage Stability (±0.5%):

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

(4) Automatic Fuel Bleeding System:

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

(5) Mobility:

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

(6) Wiring Convenience:

Right-rear outlet box with copper busbars.

(7)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.

(8) 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)	327	296
Speed	(RPM)	1500	
No. of cylinder		L6	
Bore / stroke	(mm)	128 / 153	
Total displacement	(liter)	11.8	
Compression ratio		17:1	
Injection pump	Type	In-line “P” type	
Governor	Type	Electric	
Frequency regulation		G2 class	
Steady state Frequency band		＜0.5%	

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STANDARD PAINTING

(1) RAL 5023 (Deep blue)

(2) Painting Process:

- MHISH utilizes an advanced automated painting line with sandblasting equipment to ensure superior quality.
- 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)	78
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)	432
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

BATTERY

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

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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
- 630A molded case circuit breaker (3P)
- Battery charger (24V/3A)

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.

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