

DIESEL GENERATOR SET

DG00300D5

400 – 230 V/306 kVA/50 Hz/Standby
Series 1600 – MTU 6R1600



Optional equipment and finishing shown. Standard may vary.

PRODUCT HIGHLIGHTS

// Benefits

- Industry-leading average load factor
- Low fuel consumption
- Emissions optimizations available
- High availability and reliability
- Outstanding load acceptance
- Long maintenance intervals

// Support

- Global product support offered

// Standards

- Engine-generator set is designed and manufactured in facilities certified to standards ISO 2008:9001
- Generator set complies to ISO 8528 and fullfills performance level G3
- Generator meets BS5000; NEMA MG 1; ISO; DIN EN and IEC standards
- NFPA 110

// Available optimizations

- Exhaust emission EU 97/68 EC Stage III A
- NEA Singapore for off road diesel engines (ORDE)
- ARAI Stg II
- Fuel optimized

// Wide Standard Scope of Supply

- 4P circuit breaker
- Island operation control panel
- Integrated fuel tank
- Industrial silencer (15 dB(A))
- Batteries & battery charger

// Complete range of accessories available

- Sound attenuated enclosure
- Fuel system accessories
- Control panel & ATS
- Range of additional electrical options

// Warranty

- Standard 36 months warranty after shipment

APPLICATION DATA^①

// Engine

Manufacturer	MTU
Model	6R1600G70F
Type	4-cycle
Arrangement	6-L
Displacement: L	10.5
Bore: mm	122
Stroke: mm	150
Compression ratio	17.5
Rated rpm	1500
Engine governor	ECU 8
Gross power: kWm	274
Air cleaner	Dry

// Fuel System

Max. fuel flow: L/h	171
Fuel tank capacity: OPU (EPU) in L	597 (597)
Autonomy: h	13

// Fuel Consumption

	L/h
At 100% of power rating:	65.31

// Liquid Capacity

Total oil system: L	46
Total coolant capacity: L	84

// Generator

Generator brand	Mecc-Alte
Generator type	HM250B1
Insulation class	H-class
Bearing	single bearing
Enclosure	IP23 M
Voltage regulation	A.V.R. (electronic)
Exciting system	self-excited, brushless

// Electrical

Electric system volts DC	24
Number of batteries	2
Capacity: Ah	2x 75

// Air Requirements

Aspirating: m ³ /min	18
Cooling air flow: m ³ /s	6.2

// Exhaust System

Gas temp. (stack): °C	499
Gas volume at stack temp.: m ³ /min	60
Maximum allowable back pressure: kPa	15

// Cooling/Radiator System

Ambient capacity of radiator in OPU (EPU): °C	50 (50)
Pressure on rad. exhaust: kPa	0.2
Heat rejection to coolant: kW	144

① Technical data is for a fuel-optimized unit.

STANDARD AND OPTIONAL FEATURES

// System Ratings (kW/kVA)

	DG00300D5
	Standby operation
Voltage	400 V
Phase	Three phase
Hz	50
kW [*]	245
kVA ^{**}	306
Rated AMPS	441

* cos phi = 1,0

** cos phi = 0,8

Also available for following voltages 380V & 415V - for details please contact your local MTU Onsite Energy Dealer.

// Engine

- 4- strokes diesel engine
- Flywheel housing SAE 1
- Flywheel 14"
- Four-valve, overhead camshaft
- Piston cooling via oil spray nozzle
- Forged crankshaft & connecting rods
- Oil pan
- Lube oil circulation pump
- Dry exhaust manifolds
- Hot components and radiator guards
- Mobile components guards
- Lube oil filter

// Fuel system

- Fuel main filter
- Fuel pre-filter with water separator
- Common rail fuel injection
- Automatic fuel transfer pump
- Heavy-duty fuel pre-filter with water separator
- 3-way valve for fuel filling

// Generator

- 3-Phase, synchronous, brushless, self exciting, self regulating, self ventilating alternator
- IP23 M protection degree
- Insulation class H

// Control Panel & Electric Options

- Control and power electric panel, with measurements devices and controller
- Remote display
- ModBus connection to customer systems TCP/IP
- ATS (Automatic Transfer Switch)
- Expansion module for CAN communication
- Control version for synchronizing with mains without blackout
- Control version for parallel operation

STANDARD AND OPTIONAL FEATURES, CONTINUATION

// Circuit Breaker/Power Distribution

- 4 poles manual circuit breaker (motorized with DeepSea controllers)

// Starting/Charging System

- 24V electric system
- Starting batteries installed
- Pre-heating resistance/jacket water heater
- Battery charging alternator
- Battery disconnecter
- Battery charger

// Air Intake System

- Exhaust turbochargers
- Set of dry-type air filters with containment indicator
- Intercooler, integrated in radiator
- Heavy duty air filter with automatic dust evacuation

// Exhaust System

- Industrial silencer 15 pdB(A)
- Residential silencer 35 dB(A)

// Cooling System

- Coolant circulation pump
- Front type radiator for jacket water and charge aircooling circuit with integrated expansion tank
- Engine mounted fan drive

// Mounting System

- Mounted on steel base frame
- Resilient mounting of engine and generator
- Integrated fuel tank (level sensor and drain cap incl.)

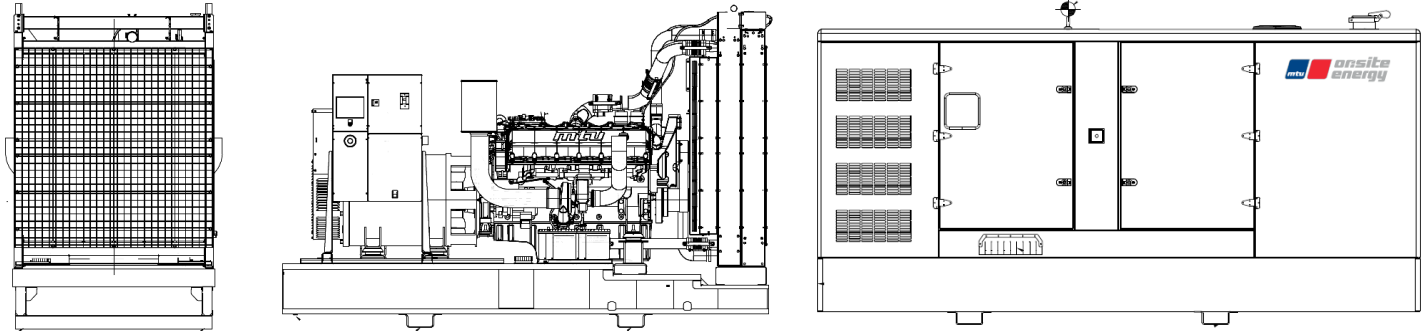
// Enclosures

- Sound proof enclosure
- Socket box

// Documentation & Certifications

- Genset & component manuals
- Maintenance schedule
- CE-certification for EU
- Fluids and lubricants specification

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open and enclosed power 400 Volt engine-generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

System

Open Power Unit (OPU)

Enclosed Power Unit

Dimensions (LxWxH)

3.310 x 1.390 x 2.081 mm

4.100 x 1.600 x 2.200 mm

Weight (wet/with standard accessories)

3.096 kg

4.531 kg

Consult the factory for accurate weights and dimensions for your specific engine-generator set. Lengths may vary with other voltages. Do not use for installation design.

SOUND DATA

Unit Type

Open Power Unit: dB(A)

Enclosed Power Unit: dB(A)

Sound data is provided at 7m for 75% prime power.

Standby full load and enclosed

on request

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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 8528-1, ISO 3046-1, BS 5514, AS 2789 and DIN 6271. Average load factor: < 85%, max. 500h/year.

// Derating factor:

Altitude: Consult your local MTU Onsite Energy Power Generation distributor for altitude deratings.

Temperature: Consult your local MTU Onsite Energy Power Generation distributor for temperature deratings.

Rated power for reference conditions at 25°C and 100m above sea level.

Materials and specifications subject to change without notice.

MTU Onsite Energy

A Rolls-Royce Power Systems Brand

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