Diesel Generator Set MDSME450S-1

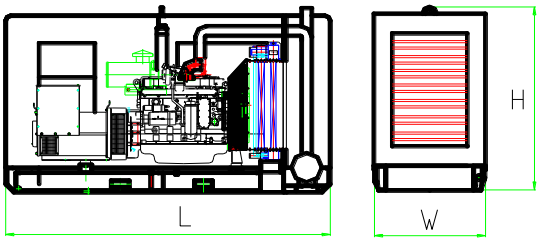
General Features

- All qualified generator sets are subjected to a comprehensive performance test which includes 50% load, 75% load, 100% load, 110% load and to check, verify that all control systems, alarm and shut-down protection.
- Equipped with battery charger and 24V high performance maintenance-free lead-acid starting batteries and connecting cables.
- Equipped with industrial silencer and flexible exhaust hose.
- Equipped with 8-hours operation base fuel tank.
- Equipped with CHINT MCCB circuit breaker.
- Designed to Comply with ISO8528/GB2820.
- Powered by Doosan engine and coupled with MECC alternator.

Photos reference only

Advantages

- Stability, reliability and easy-service
- Low operating and maintenance cost
- Widely used, location to meet customer needs
- Easy-installation, easy-operation and maintenance



Dimension and Weight

Length (L)	mm	4300
Width (W)	mm	1600
Height (H)	mm	2100
Weight	kg	3659
Tank capacity	L	500

Environment Condition

Environment temperature	℃	≤50
Relative humidity	%	≤90
Altitude	m	≤1000

Genset Technical Data

Prime power	450 kVA
Standby power	495 kVA
Rated speed	1500 RPM
Output frequency	50 Hz
Phase	3
Rated voltage	400 V
Noise dB(A) @7m	80
Engine model	P158LE-S
Alternator model	ECO40-2S
Fuel consumption of 100% load	99.5 Litres/h
Fuel consumption of 75% load	74.0 Litres/h
Voltage regulation rate	≤±1%
Random voltage variation	≤±1%
Frequency regulation rate	≤±5%
Random frequency variation	≤±0.5%

Prime Power

This rating is for the supply of continuous electrical power (at variable load). There is no limit on the annual hours of operation and 10% overload power can be supplied for 1 hour in 12.

Standby power

This rating is for the supply of continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted.

Rated voltage

Available with customer requirements.

Engine Specifications

Engine model	P158LE-S
Engine manufacturer	Doosan
Number of cylinders	8
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged & Intercooled (Air to Air)
Bore×Stroke (mm×mm)	128 x 142
Displacement (Liter)	14.618
Compression Ratio	15:1
Prime power/speed (kW/RPM)	402/1500
Standby power/speed (kW/RPM)	441/1500
Speed governor	Electrical
Cooling system	Water-cooled
Steady speed droop (%)	≤5%
Total lubrication system capacity (L)	28
Coolant capacity (engine only) （L）	20
Fuel consumption at 100% load (g/kWh)	99.5(at 1500rpm)
Starter motor	24 V×7.0kW
Alternator	24 V× 45A

Alternator Specifications

Alternator model	ECO40-2S
Alternator manufacturer	MECC
Exciter type	Single bearing, Brushless, Self-excited
Rated output prime power	450 kVA
Rated speed	1500 RPM
Rated frequency	50 Hz
Phase	3
Rated voltage	400 V(Available with customer requirements)
Power factor	0.8
Voltage adjust range	≥5%
Voltage regulation NL-FL	≤±1%
Insulation grade	H
Protection grade	IP23

Alternator option: Leroy Somer，Stamford，Lisite Alte.

Alternator Brand	Alternator Model	Phase	Rated Speed	Rated Prime Power(kva)
Leroy Somer	LSA 47.2 S5	3	1500RPM	455
Stamford	HCI 544C	3	1500RPM	450
Lisite	LYG 354B	3	1500RPM	450

Control System DSE3110

All MPMC gensets have a control cubicle (the Deepsea control module DSE3110 as standard) mounted on a isolated support, which has the following features.

- Electronic digital control module with monitoring/control facility and warning indicators
- Automatic shutdown protection
- Emergency stop button (lock-down type)
- AC output circuit breaker with over-current protection
- DC circuit control switch

The control module display

- Generator voltage
- Output frequency
- Engine speed
- Battery voltage
- Engine run-time (Hours)

DSE3110

Note:

1. The engine coolant temperature displayed by water temperature gauge
2. The engine oil pressure displayed by oil pressure meter
3. Generator current displayed by current meter, to change switch for each phase displayed separately

The control module display for failure information

- Overspeed / underspeed
- Emergency stop
- Low oil pressure
- High water temperature
- Failure to start
- Battery charger failure

Automatic shutdown

- Low engine oil pressure
- High engine water temperature
- Overspeed/underspeed
- Failure to start after three attempts

The control modules option

DSE3210

HGM6120

DSE7320

DSE8610

Remarks: For the specific and detailed features of the above types, please refer to “Control System Selection” file.

Generator Set Options and Accessories

Generator set

☐ Open generator set
☐ Trailer generator set
☐ Single phase generator set
☐ ABB MCCB circuit breaker

Fuel system

☐ 12 hour base tank(single wall)
☐ 24 hour base tank(single wall)
☐ Dual wall base fuel tank
☐ Outside fuel tank

Exhaust system

☐ Residential exhaust silencer

Alternator

☐ PMG excitation
☐ Space heater

Low environment temperature

☐ Water heater
☐ Oil heater
☐ Battery heater

Control system

☐ AMF function
☐ ATS control cabinet
☐ Multiple generator automatic synchrorising

Contact Us

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MPMC reserves the right to change the specifications and designs without notice.

WARNING:

Do not connect generator sets to any load and electrical equipments unless the circuit breaker in the disconnected condition.

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