

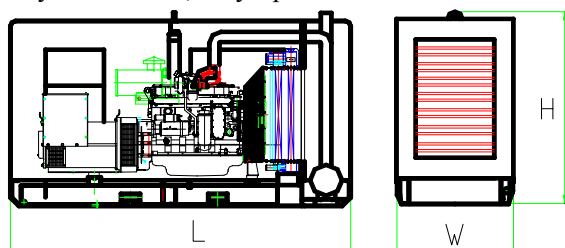
# Diesel Generator Set MVME450S-1

## 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 Volvo engine and coupled with MECC alternator.

## 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	4600
● Width (W)	mm	1630
● Height (H)	mm	2400
● Weight	kg	5200
● Tank capacity	L	900

## Environment Condition

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



Photos reference only

## 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	TAD1345GE
Alternator model	ECO40-2S
Fuel consumption of 100% load	92.2 Litres/h
Fuel consumption of 75% load	69.2 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	TAD1345GE
Engine manufacturer	Volvo
Number of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged
Bore×Stroke (mm×mm)	131 x 158
Displacement (Liter)	12.78
Compression Ratio	18.1:1
Prime power/speed (kW/RPM)	388/1500
Standby power/speed (kW/RPM)	431/1500
Speed governor	Electrical
Cooling system	Forced Water Cooling Cycle
Steady speed droop (%)	≤1%
Total lubrication system capacity (L)	---
Coolant capacity (engine only) (L)	---
Fuel consumption at 100% load (g/kWh)	196 (at 1500RPM)
Starter motor	DC24V
Alternator	AC24V

## 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
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*



DSE702



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 synchronising

## 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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