

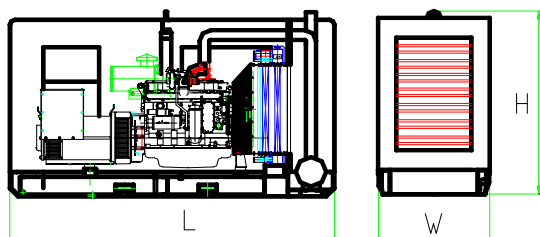
# Diesel Generator Set MKME20S-2

## 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 KUBOTA 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 | 2400 |
| ● Width (W)     | mm | 1100 |
| ● Height (H)    | mm | 1500 |
| ● Weight        | kg | 1200 |
| ● Tank capacity | L  | 160  |

## Environment Condition

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



Photos reference only

## Genset Technical Data

|                               |               |
|-------------------------------|---------------|
| Standby power                 | 20 kW         |
| Prime power                   | 18.2 kW       |
| Rated speed                   | 1800 RPM      |
| Output frequency              | 60 Hz         |
| Phase                         | 3             |
| Rated voltage                 | 480 V         |
| Noise dB(A) @7m               | 70            |
| Engine model                  | V2203-BG      |
| Alternator model              | ECP28-1L/4    |
| Fuel consumption of 100% load | 5.59 Litres/h |
| Fuel consumption of 75% load  | 4.19 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                          | V2203-BG         |
| Engine manufacturer                   | Kubota           |
| Number of cylinders                   | 4                |
| Cylinder arrangement                  | Vertical in-line |
| Cycle                                 | Four stroke      |
| Aspiration                            | Naturally        |
| Bore×Stroke (mm×mm)                   | 87 x 92.4        |
| Displacement (Liter)                  | 2.197            |
| Compression Ratio                     | 23:1             |
| Prime power/speed (kW/RPM)            | 17.2/1800        |
| Standby power/speed (kW/RPM)          | 20.1/1800        |
| Speed governor                        | Mechanical       |
| Cooling system                        | Water-cooled     |
| Steady speed droop (%)                | ≤5%              |
| Total lubrication system capacity (L) | 9.7              |
| Coolant capacity (engine only) (L)    | --               |
| Fuel consumption at 100% load (g/kWh) | 235 (at 1800rpm) |
| Starter motor                         | DC12V            |
| Alternator                            | AC12V            |

## Alternator Specifications

|                          |   |
|--------------------------|---|
| Alternator model         | ECP28-1L/4                                  |
| Alternator manufacturer  | MECC  |
| Exciter type             | Single bearing, Brushless, Self-excited     |
| Rated output prime power | 19.2kW                                      |
| Rated speed              | 1800 RPM                                    |
| Rated frequency          | 60 Hz                                       |
| Phase                    | 3   |
| Rated voltage            | 480 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(kW) |
|------------------|------------------|-------|-------------|-----------------------|
| Leroy Somer      | LSA 40 M5        | 3     | 1800RPM     | 20                    |
| Stamford         | PI 144D          | 3     | 1800RPM     | 20.8                  |
| Lisite           | LYG 184E         | 3     | 1800RPM     | 24                    |



## 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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