

Diesel Generator Set: MCS1900-1

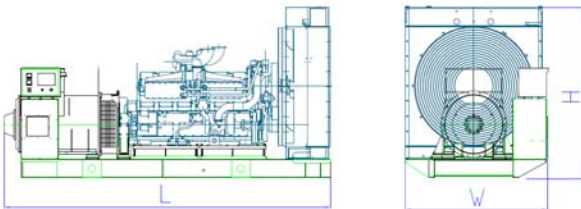
General Features

- Every generator set is subjected to a comprehensive test program which includes 50% load, 75% load, 100% load, 110% load and the checking and proving of all control and safety shut-down functions.
- Equipped with battery charger and 24V high performance maintenance-free lead-acid starting batteries and connecting with cables.
- Equipped with industrial silencer and flexible exhaust hose.
- Equipped with CHINT Air circuit breaker;
- Designed to Comply with ISO8528/GB2820;
- Powered by Cummins engine and coupled with Stamford alternator.



Benefits

- Function stability credibility, service convenience;
- Low operating cost results in optional economy;
- Gets the job done wherever you are;
- Ease of installation, operation and maintenance.



Dimension and Weight

- | | | |
|-----------------|----|------|
| ● Length(L) | mm | 5900 |
| ● Width(W) | mm | 2250 |
| ● Height(H) | mm | 2530 |
| ● Weight | kg | 9500 |
| ● Tank capacity | L | N/A |

Environment Condition

- | | | |
|---------------------------|----|-------|
| ● Environment temperature | °C | ≤40 |
| ● Relative humidity | % | ≤90 |
| ● Altitude | m | ≤1000 |

Genset Technical Data

Prime power	1900kVA
Standby power	2090 kVA
Rated speed	1500 RPM
Output frequency	50 Hz
Phase	3
Rated voltage	400 V
Engine model	QSK60-G3
Alternator model	PI734E
Fuel consumption of 100% load	363 Litres/h
Fuel consumption of 75% load	270 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	QSK60-G3
Engine manufacturer	Cummins
Number of cylinders	16
Cylinder arrangement	60° V
Cycle	Four stroke
Aspiration	Turbocharged and Aftercooled
Bore×Stroke (mm×mm)	159×190
Displacement (Liter)	60.2
Compression Ratio	14.5:1
Prime power/speed (kW/RPM)	1615/1500
Standby power/speed (kW/RPM)	1790/1500
Speed governor	Electrical
Cooling system	Forced Water Cooling Cycle
Steady speed droop (%)	≤1%
Total lubrication system capacity (L)	280
Coolant capacity (engine only) (L)	157
Fuel consumption at 100% load (g/kWh)	191(at 1500RPM)
Starter motor	DC24V,
Alternator	AC24V

Alternator Specifications

Alternator model	PI734E
Alternator manufacturer	Stamford
Exciter type	Single bearing, Brushless, PMG
Rated output prime power	1900 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

Remark

Alternator option:

Other alternator manufacturer: Leroy Somer, Marathon and Mecc Alte.

Control System DSE3110

All MPMC series genset have a control cubicle (the deepsea controller 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 gives digital readouts of:

- Generator voltage;
- Output frequency;
- Engine speed;
- Battery voltage;
- Engine hours run.



DSE3110

Note:

1. The engine coolant temperature used temperature meter display;
2. The engine oil pressure used oil pressure meter display;
3. Generator current used current meter display and used change switch for each phase displayed separately

The control module has indicators for failure information:

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

Automatic shutdown occurs under:

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

The controller option:



MP170-HC



HGM6120



DSE7110



DSE7120



DSE7510

Remark: the controller detail information please refer to the file “Control System Choice”

Generator Set Options and Accessories

Generator set

- Silence generator set
- Trailer generator set
- ABB Air circuit breaker
- 50°C Radiator

Fuel system

- Outside fuel tank

Exhaust system

- Residential exhaust silencer

Alternator

- 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 implement specifications or design changes without notice.

WARNING: Do not connect generator to any building's electrical system unless a disconnect switch has been installed.

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