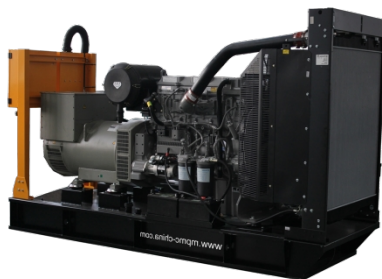


## Model: MBL900(S)-1

Powered by Baudouin



### Applicable Standards

- ISO 8528-5:2018
- GB/T2820.5-2009
- CE
- ISO 3046
- ISO 12944 (\*SC only)

### Environmental Conditions

- Ambient temperature: +5°C~+40°C (Rated Power)
- Maximal ambient temperature: 50°C
- Altitude: ≤1000m
- Anti-dust, anti-corrosion and ultra-silent

\*Remark: If your conditions are different from the above, please contact our sales.

### Factory Inspection

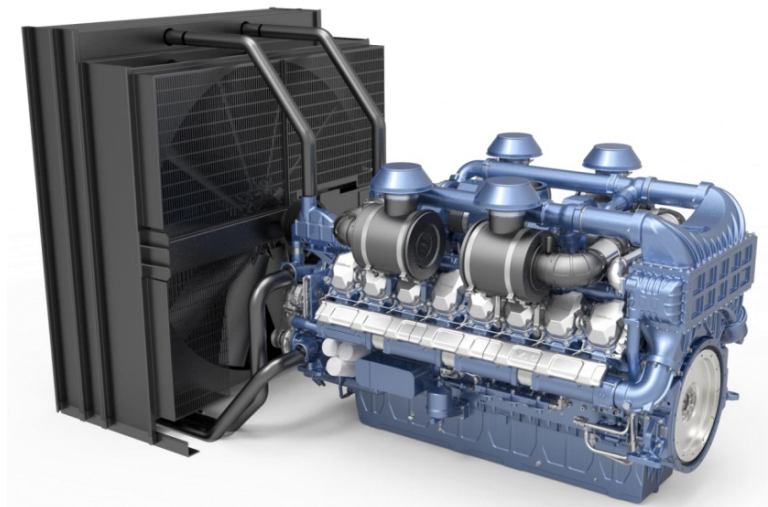
- Complete design and quality inspection
- 0%, 25%, 50%, 75%, 100%, 110% load test
- IP test
- Noise test
- Function test
- Protection test

| General Information          |                 |           | Rated Power                     |     |                          |     |
|------------------------------|-----------------|-----------|---------------------------------|-----|--------------------------|-----|
| Frequency                    |                 | Voltage   | Prime Power                     |     | Standby Power            |     |
| Hz                           |                 | V         | kVA                             | kW  | kVA                      | kW  |
| 50Hz<br>Rated                |                 | 415V/240V | 900                             | 720 | 990                      | 792 |
|                              | Rated           | 400V/230V | 900                             | 720 | 990                      | 792 |
|                              |                 | 380V/220V | 900                             | 720 | 990                      | 792 |
|                              |                 | 220V/110V | N/A                             | N/A | N/A                      | N/A |
| 60Hz                         |                 | 480V/277V | N/A                             | N/A | N/A                      | N/A |
|                              |                 | 440V/254V | N/A                             | N/A | N/A                      | N/A |
|                              |                 | 400V/230V | N/A                             | N/A | N/A                      | N/A |
|                              |                 | 380V/220V | N/A                             | N/A | N/A                      | N/A |
|                              |                 | 220V/127V | N/A                             | N/A | N/A                      | N/A |
|                              |                 | 220V/110V | N/A                             | N/A | N/A                      | N/A |
| Power Factor                 |                 |           | 0.8 Lagging                     |     |                          |     |
| Engine                       |                 |           | 8M33G1000-5                     |     |                          |     |
| Rated Speed                  |                 |           | 1500 RPM (Unchangeable)         |     |                          |     |
| Fuel Type                    |                 |           | Grade No. 2D per ASTM D975      |     |                          |     |
| Lube-oil Type                |                 |           | API Service CF Class SAE 15W-40 |     |                          |     |
| Alternator                   |                 |           | LYG 404D                        |     |                          |     |
| Noise Level                  |                 |           | 50Hz                            |     | 60Hz                     |     |
| Average Value<br>@1m,75%load | OE Series dB(A) |           | 118.3                           |     | N/A                      |     |
|                              | SR Series dB(A) |           | TBA                             |     | N/A                      |     |
| Fuel Consumption             |                 |           | 50Hz                            |     | 60Hz                     |     |
| Load Ration                  | L/h@110%        |           | 215.1                           |     | N/A                      |     |
|                              | L/h@100%        |           | 194.1                           |     | N/A                      |     |
|                              | L/h@75%         |           | 143.7                           |     | N/A                      |     |
|                              | L/h@50%         |           | 97.3                            |     | N/A                      |     |
| Dimension and Weight         |                 |           | OE Series<br>Open-type          |     | SR Series<br>Silent-type |     |
| Length (L) mm                |                 |           | 4300                            |     | 5000                     |     |
| Width (W) mm                 |                 |           | 1850                            |     | 2270                     |     |
| Height (H) mm                |                 |           | 2276                            |     | 2550                     |     |
| Net. Weight (kg)             |                 |           | 6650                            |     | 9000                     |     |

Note: Specifications and illustrations are subject to revision without notice.



## Engine Specifications

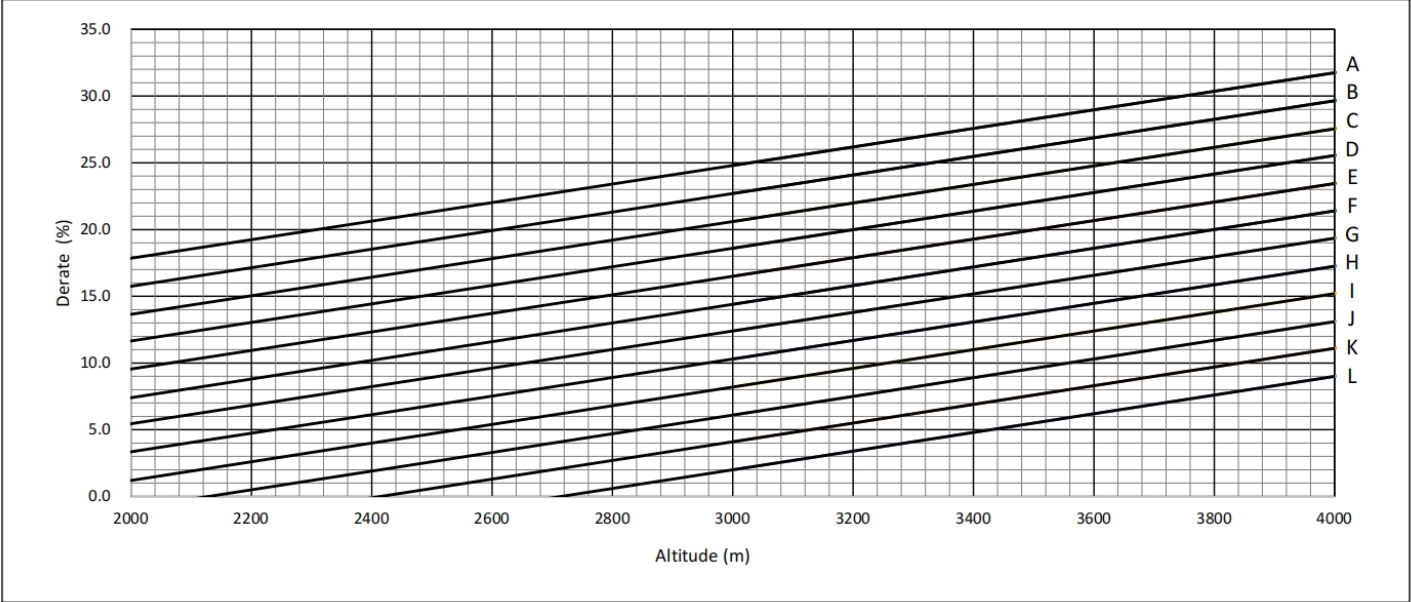


| Engine model                                                                                                                                         |                                                                                                              | 8M33G1000-5      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------|--|
| Emission                                                                                                                                             | N/A                                                                                                          |                  |  |
| Number of cylinders                                                                                                                                  | 8                                                                                                            |                  |  |
| Cylinder arrangement                                                                                                                                 | At Vee                                                                                                       |                  |  |
| Cycle                                                                                                                                                | Four stroke                                                                                                  |                  |  |
| Aspiration                                                                                                                                           | Turbocharged and Aftercooled                                                                                 |                  |  |
| Bore x Stroke                                                                                                                                        | 150 x 185 mm                                                                                                 |                  |  |
| Displacement                                                                                                                                         | 26.14 L                                                                                                      |                  |  |
| Compression ratio                                                                                                                                    | 15 : 1                                                                                                       |                  |  |
| Gross prime power /speed                                                                                                                             | 815 kWm/1500 rpm                                                                                             | N/A kWm/1800 rpm |  |
| Gross standby power /speed                                                                                                                           | 890 kWm/1500 rpm                                                                                             | N/A kWm/1800 rpm |  |
| Speed governor                                                                                                                                       | Electronic                                                                                                   |                  |  |
| Cooling system                                                                                                                                       | Liquid (water + 50% antifreeze)                                                                              |                  |  |
| Steady State Stability Band at any Constant Load                                                                                                     | ≤ ±0.5%                                                                                                      |                  |  |
| Total lubrication system capacity                                                                                                                    | 110 L                                                                                                        |                  |  |
| Coolant capacity (engine only)                                                                                                                       | 63 L                                                                                                         |                  |  |
| Starter motor                                                                                                                                        | DC 24V                                                                                                       |                  |  |
| Charge alternator                                                                                                                                    | DC 24V 55Amps                                                                                                |                  |  |
| <input checked="" type="checkbox"/> Industrial silencer / <input type="checkbox"/> Residential silencer / <input type="checkbox"/> Critical silencer | <input type="checkbox"/> Spark arrestor                                                                      |                  |  |
| <input checked="" type="checkbox"/> Heavy duty air filter / <input type="checkbox"/> Single-core air filter                                          | <input checked="" type="checkbox"/> -18°C start up battery / <input type="checkbox"/> -45°C start up battery |                  |  |
| <input checked="" type="checkbox"/> Anti-vibration mount                                                                                             | <input checked="" type="checkbox"/> Flexible fuel connection hoses                                           |                  |  |
| <input type="checkbox"/> Water-fuel separator / <input type="checkbox"/> Multi-water-fuel separators                                                 | <input type="checkbox"/> Jacket water heater / <input type="checkbox"/> Fuel jacket water heater             |                  |  |
| <input type="checkbox"/> Coolant level sensor                                                                                                        | <input checked="" type="checkbox"/> Coolant temperature sensor                                               |                  |  |
| <input checked="" type="checkbox"/> Lube-oil pressure sensor                                                                                         | <input type="checkbox"/> Lube-oil temperature sensor                                                         |                  |  |
| <input type="checkbox"/> Lube-oil auto refilling meter                                                                                               | <input type="checkbox"/> Lube-oil auto refilling tank                                                        |                  |  |
| <input type="checkbox"/> Smoke temperature sensor                                                                                                    | <input type="checkbox"/> Lube-oil manual pump                                                                |                  |  |
| <input checked="" type="checkbox"/> Replaceable fuel filter, oil filter                                                                              | <input type="checkbox"/> Breath box                                                                          |                  |  |

## Engine Derating Curves

50Hz/1500RPM

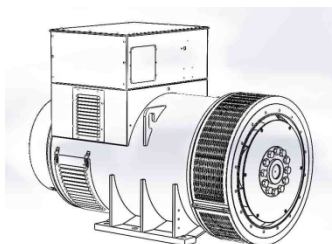
| Ambient Temperature (°C / °F) | A        | B        | C        | D        | E       | F       | G       | H       | I       | J       | K      | L      |
|-------------------------------|----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|--------|--------|
|                               | 55 / 131 | 50 / 122 | 45 / 113 | 40 / 104 | 35 / 95 | 30 / 86 | 25 / 77 | 20 / 68 | 15 / 59 | 10 / 50 | 5 / 41 | 0 / 32 |



60Hz/1800RPM

N/A

## Alternator Specifications



| Alternator model       | LYG404D-V01    |
|------------------------|----------------|
| Number of phase        | 3              |
| Power factor (Cos Phi) | 0.8            |
| Poles                  | 4              |
| Winding leads          | 6              |
| Insulation level       | H class        |
| Temperature rise       | H class        |
| Excitation             | Brushless      |
| AVR model              | MX341B         |
| Winding Pitch          | 5/6            |
| IP rating              | IP22           |
| Bearing                | Single bearing |
| Voltage regulator      | $\pm 0.5\%$    |

☐Space heater

☐Air filter (5% derating)

☐Anti-harsh environment

☐RTD ☐STD

**Alternator Ratings Table**

| Class-Temp Rise |                | Cont.H-125/40°C |        |        |        | Standby-163/27°C |        |        |        |
|-----------------|----------------|-----------------|--------|--------|--------|------------------|--------|--------|--------|
| 50Hz            | Series Star(V) | 380             | 400    | 415    | 440    | 380              | 400    | 415    | 440    |
|                 | Output(kVA)    | 865.0           | 910.0  | 910.0  | 825.0  | 910.0            | 955.0  | 955.0  | 955.0  |
|                 | Efficiency(%)  | 93.5            | 93.5   | 93.7   | 94.3   | 93.2             | 93.3   | 93.5   | 94.2   |
| 60Hz            | Series Star(V) | 416             | 440    | 460    | 480    | 416              | 440    | 460    | 480    |
|                 | Output(kVA)    | 986.0           | 1043.0 | 1090.0 | 1138.0 | 1030.0           | 1090.0 | 1140.0 | 1190.0 |
|                 | Efficiency(%)  | 93.3            | 93.4   | 93.5   | 93.6   | 93.1             | 93.2   | 93.3   | 93.4   |

### De-Rates

All values tabulated above are subject to the following reductions:

- 3% for every 500 meters by which the operating altitude exceeds 1000 meters above mean sea level
- 3% for every 5°C by which the operational ambient temperature exceeds 40°C
- For any other operating conditions impacting the cooling circuit please refer to applications

Note: Requirement for operating in an ambient exceeding 60°C and altitude exceeding 4000 meters must be referred to applications.

## Alternator Operating Charts

400V@50Hz

TBA

480V@60Hz

TBA

## One-step Load Acceptance

| ISO 8528-5                         | 50Hz                      |                            | 60Hz                      |                            |
|------------------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
|                                    | 50% sudden power increase | 100% sudden power decrease | 50% sudden power increase | 100% sudden power decrease |
| Transient frequency difference (%) | TBA                       | TBA                        | TBA                       | TBA                        |
| Frequency recovery time (s)        | TBA                       | TBA                        | TBA                       | TBA                        |
| Transient voltage deviation (%)    | TBA                       | TBA                        | TBA                       | TBA                        |
| Voltage recovery time (s)          | TBA                       | TBA                        | TBA                       | TBA                        |

\*All data comes from actual testing and is for reference only.

## Control Panel

### DSE 4520 MKII

Auto start and auto mains failure control module  
(Alternator frequency & can speed sensing)



#### Key benefits

- Ultimate size to feature ratio.
- Automatically transfers between mains (utility) and generator.
- Hours counter provides accurate information for monitoring and maintenance periods.
- User-friendly set-up and button layout for ease of use.
- Multiple parameters are monitored simultaneously which are clearly displayed on the largest back-lit icon display in its class.
- The module can be configured to suit a wide range of applications.
- Compatible with a wide range of CAN engines including Tier 4.
- IP65 rating (with optional gasket) offers increased resistance to water ingress.

#### Key features

- Auto Start and AMF mode in one module.
- J1939-75 support and CAN alarm ignore function.
- Alternator frequency & CAN speed sensing in one variant.
- Largest back-lit icon display in its class.
- Heated display option.
- Real time clock provides accurate event logging.
- Fully configurable via the fascia or PC using USB communication.
- Extremely efficient power save mode.
- 3 phase generator sensing.
- 3 phase mains (utility) sensing
- Compatible with 600 V ph to ph nominal systems.
- Generator/load power monitoring (kW, kVA, kVar, PF).
- Accumulated power monitoring (kWh, kVAh, kVarh).
- Generator overload protection.
- Generator/load current monitoring and protection.
- Fuel and start outputs (configurable when using CAN).
- 4 configurable DC outputs.
- 3 configurable analogue/digital inputs
- 4 configurable digital inputs.
- Configurable staged loading outputs.
- 3 engine maintenance alarms.
- Engine speed protection.
- Engine hours counter.
- Engine pre-heat.
- Engine run-time scheduler.
- Engine idle control for starting & stopping.
- Tier 4 engine instrumentation screens.
- Battery voltage monitoring.
- Start on low battery voltage.
- Configurable remote start input.
- 1 alternative configuration.
- Comprehensive warning, electrical trip or shutdown protection upon fault condition.
- LCD alarm indication.
- Event log (50)

#### Expansion devices

□ N/A

## General Arrangement

### Main Components



## Generator Options

### Basement :

- ☐ 6 hours fuel tank
- ☒ 8 hours fuel tank
- ☐ 12 hours fuel tank
- ☐ 24 hours fuel tank
- ☐ Bonded fuel tank
- ☐ Fuel leakage sensor
- ☒ Lifting points
- ☒ Forklift holes

### Electrical system :

- ☒ CHINT Breaker / ☐ ABB Breaker / ☐ Schneider Breaker / ☐ Others:
- ☒ Manual breaker / ☐ Motorized breaker
- ☒ 3P Breaker / ☐ 4P Breaker
- ☐ RCD

### Silent Generator Only :

- ☒ Galvanized canopy
- ☐ Stainless steel canopy & hardware
- ☒ Sponge materials / ☐ Rock wool with mesh plate
- ☒ IP 21 / ☐ IP 22 / ☐ IP 23

- ☐ Drag holes
- ☒ Expansion joint
- ☐ Quick connector of external fuel pipe & tank
- ☐ Three-way valve
- ☒ Mechanical fuel level gauge
- ☐ Electronic fuel level sensor
- ☒ C-3 painting / ☐ C-4 painting / ☐ C-5 painting
- ☐ Others:

- ☐ MEN
- ☒ External AC charger
- ☐ Socket:
- ☐ Plug:

- ☒ Zinc alloy door lock
- ☒ Zinc alloy hinge
- ☐ Access door for radiator
- ☐ Aluminum canopy



MPMC POWERTECH CORP.

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MPMC USA



MPMC UK



MPMC UAE



MPMC ZA



MPMC CN



<https://www.facebook.com/mpmcgroup>



<https://www.linkedin.com/company/mpmcpowertech>



<https://www.youtube.com/user/MPMCGenerator>

\*All information in this document is substantially correct at time of printing and may be altered subsequently. Final weight and dimensions will depend on completed specification.