

Model: MPL1100(S)-2

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

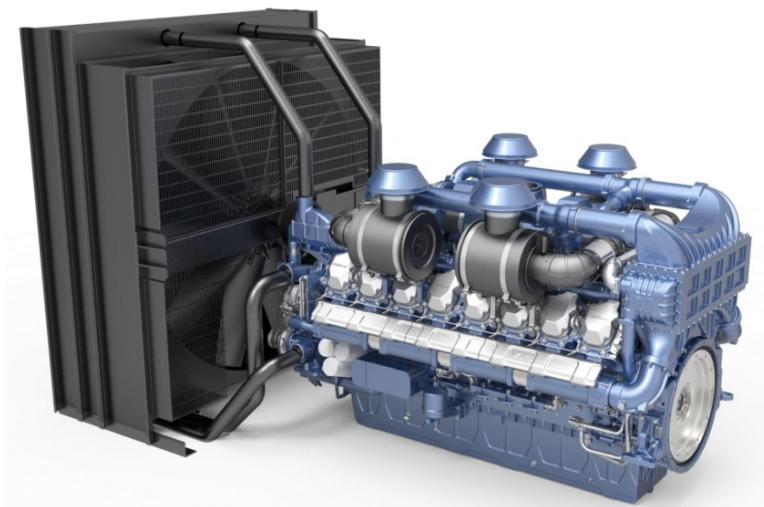
- Complete design and quality inspection
- 0%, 25%, 50%, 75%, 100%, 110% load test
- IP test
- Noise test
- Function test
- Protection test

| General Information | | | Rated Power | | |
|------------------------------|-----------------|---------------------------------|--------------------------|---------------|------|
| Frequency | Voltage | | Prime Power | Standby Power | |
| Hz | V | kVA | kW | kVA | kW |
| 50Hz | 415V/240V | 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/110V | N/A | N/A | N/A | N/A |
| 60Hz Rated | 480V/277V | 1250 | 1000 | 1375 | 1100 |
| | Rated 440V/254V | 1250 | 1000 | 1375 | 1100 |
| | 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 | | 12M33G1100-6 | | | |
| Rated Speed | | 1800 RPM (Unchangeable) | | | |
| Fuel Type | | Grade No. 2D per ASTM D975 | | | |
| Lube-oil Type | | API Service CF Class SAE 15W-40 | | | |
| Alternator | | LYG 404G | | | |
| Noise Level | | 50Hz | 60Hz | | |
| Average Value @1m,75%load | OE Series dB(A) | N/A | 120.7 | | |
| | SC Series dB(A) | N/A | TBA | | |
| Fuel Consumption | | 50Hz | 60Hz | | |
| Load Ration | L/h@110% | N/A | 313.4 | | |
| | L/h@100% | N/A | 278.7 | | |
| | L/h@75% | N/A | 205.9 | | |
| | L/h@50% | N/A | 140.7 | | |
| Dimension and Weight | | OE Series Open-type | SC Series Silent-type | | |
| Length (L) mm | | 4850 | 6058 | | |
| Width (W) mm | | 1950 | 2438 | | |
| Height (H) mm | | 2380 | 2896 | | |
| Net. Weight (kg) | | 7200 | 12200 | | |

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



Engine Specifications



| Engine model | | 12M33G1100-6 | |
|--|--|-------------------|--|
| Emission | N/A | | |
| Number of cylinders | 12 | | |
| Cylinder arrangement | At Vee | | |
| Cycle | Four stroke | | |
| Aspiration | Turbocharged and Aftercooled | | |
| Bore x Stroke | 150 x 185 mm | | |
| Displacement | 39.2 L | | |
| Compression ratio | 15 : 1 | | |
| Gross prime power /speed | N/A kWm/1500 rpm | 1150 kWm/1800 rpm | |
| Gross standby power /speed | N/A kWm/1500 rpm | 1265 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 | 160 L | | |
| Coolant capacity (engine only) | 83 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

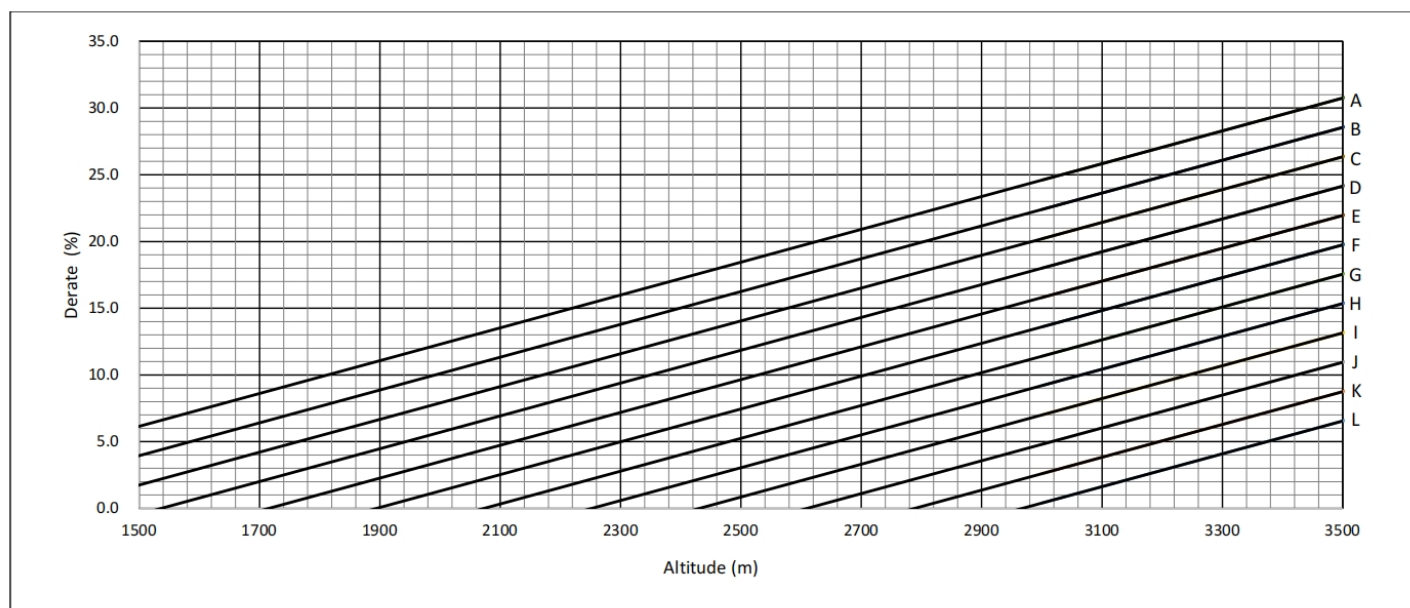
50Hz/1500RPM

N/A

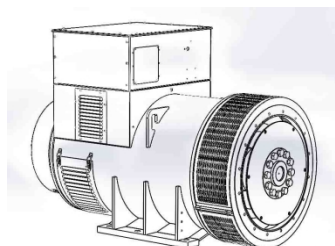
60Hz/1800RPM

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 |



Alternator Specifications



| Alternator model | LYG404G-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) | 1190.0 | 1250.0 | 1250.0 | 1135.0 | 1250.0 | 1313.0 | 1313.0 | 1190.0 |
| | Efficiency(%) | 94.9 | 94.9 | 95.0 | 95.2 | 94.7 | 94.7 | 94.8 | 95.2 |
| 60Hz | Series Star(V) | 416 | 440 | 460 | 480 | 416 | 440 | 460 | 480 |
| | Output(kVA) | 1310.0 | 1386.0 | 1449.0 | 1513.0 | 1369.0 | 1448.0 | 1514.0 | 1580.0 |
| | Efficiency(%) | 94.9 | 94.9 | 95.0 | 95.0 | 94.8 | 94.8 | 94.9 | 94.9 |

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

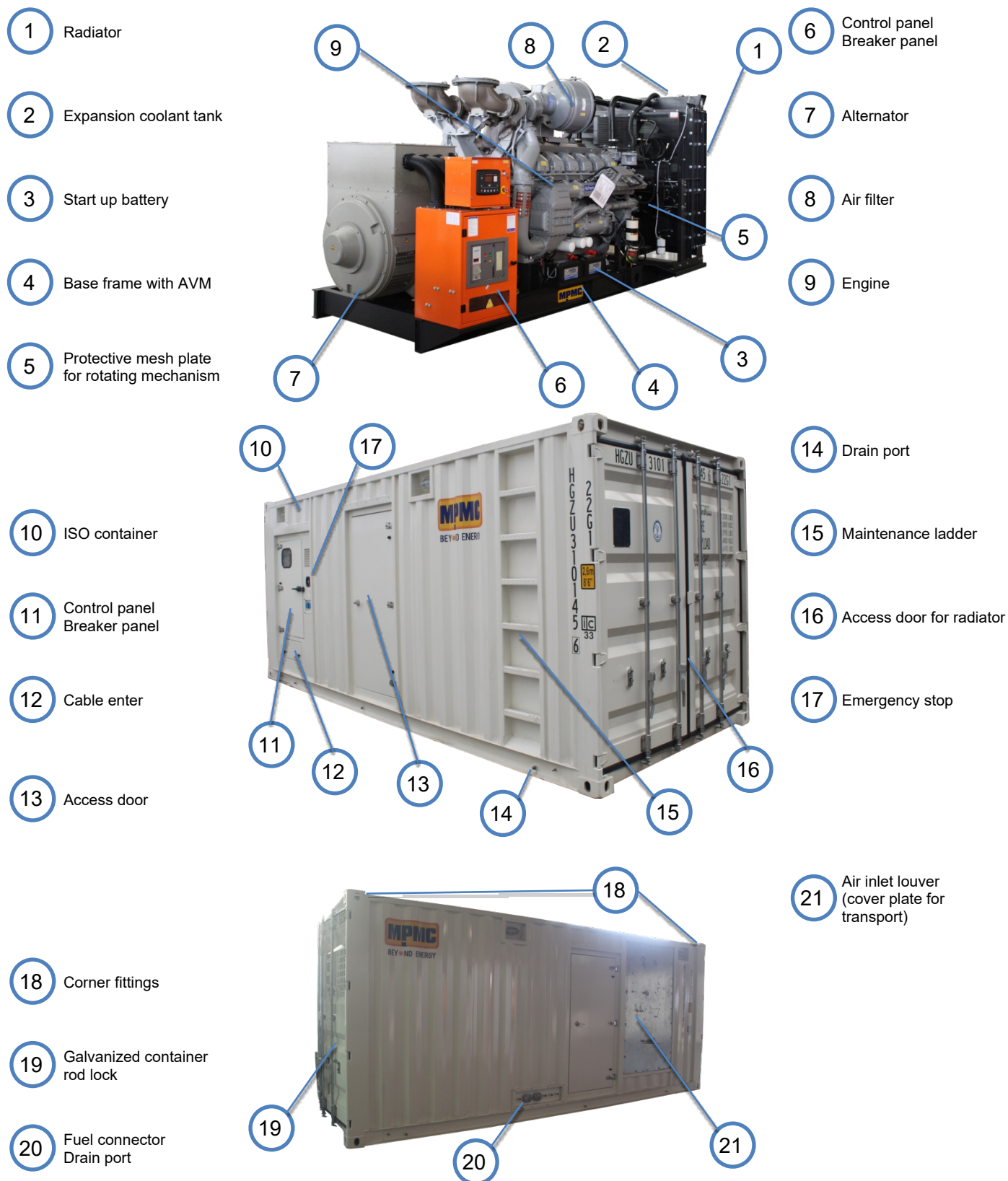
- Auto Start and AMF mode in one module.
- J1939-75 support and CAN alarm ignore function.
- Alternator frequency & CAN speed sensing in one variant.
- Largest back-lit icon display in its class.
- Heated display option.
- Real time clock provides accurate event logging.
- Fully configurable via the 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

Typical General Arrangement

Main Components on MPMC Standard Product



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.

sales@mpmc-china.com | www.mpmc-china.com



MPMC USA



MPMC UK



MPMC UAE



MPMC ZA



MPMC CN



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<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.