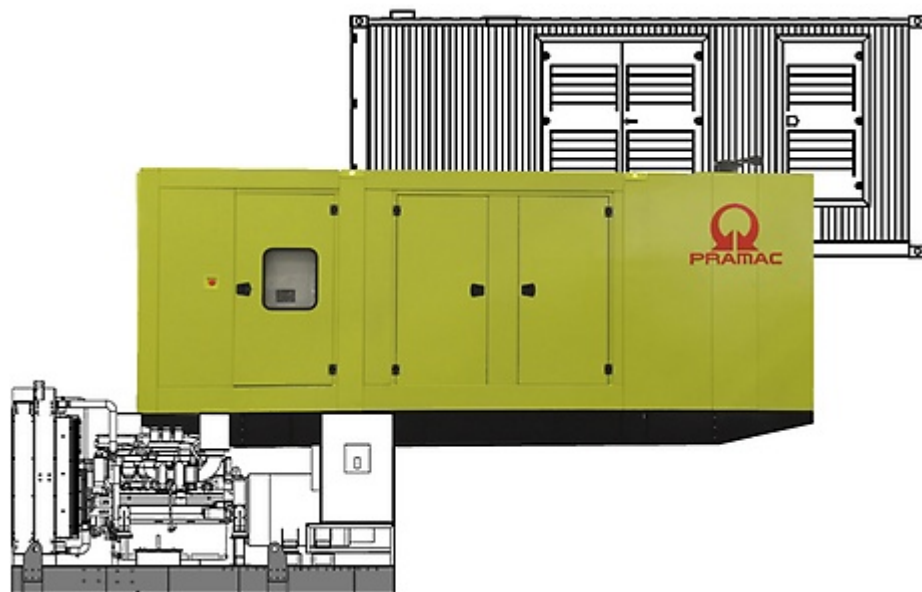
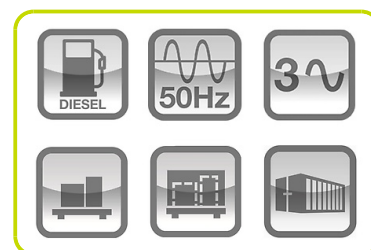


# GSW1100M



## Power Rating

|                                                   |            |         |
|---------------------------------------------------|------------|---------|
| Emergency Standby Power ESP                       | kVA        | 1116    |
| Emergency Standby Power ESP                       | kW         | 893     |
| Prime Power PRP                                   | kVA        | 1010    |
| Prime Power PRP                                   | kW         | 808     |
| PRP Rating available only with engine supplement: |            | DPA     |
| Voltage                                           | V          | 400/230 |
| Frequency                                         | Hz         | 50      |
| Power factor                                      | cos $\phi$ | 0.8     |
| Phase                                             |            | 3       |
| Fuel                                              |            | Diesel  |



## Ratings definition (ISO-8528)

### ESP - Emergency Standby Power:

It is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP.

### PRP - Prime Power:

It is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 h of operation shall not exceed 70 % of the prime power.

**G2 class load acceptance in accordance with ISO 8528-5:2013** Higher performance classes check upon request.

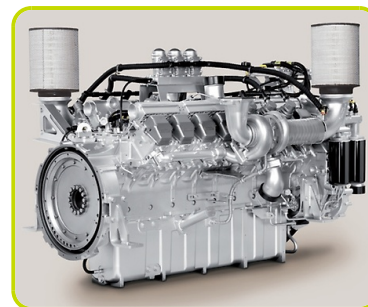
### Generators are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
- 2014/30/UE Electromagnetic compatibility.
- 2014/35/UE electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC) – If applicable
- 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2002/88/EC & 2004/26/EC) – If applicable
- EN 12100, EN 13857, EN 60204

**Company with quality certification ISO 9001**

### Engine specifications

|                                   |                             |       |
|-----------------------------------|-----------------------------|-------|
| Engine Brand                      | MTU                         |       |
| Model                             | 16V2000G76F<br>3D           |       |
| PRP Rating only with supplement:  | DPA                         |       |
| Operating Speed-Nominal           | rpm                         | 1500  |
| Engine cooling system             | Water                       |       |
| [50Hz] Exhaust emission level     | Unregulated                 |       |
| Nr. of cylinder and disposition   | 16 V                        |       |
| Displacement                      | cm <sup>3</sup>             | 35700 |
| Aspiration                        | Turbocharged<br>aftercooled |       |
| Speed governor                    | Electronic                  |       |
| Maximum gross power LTP ESP       | kW                          | 979   |
| Prime gross power PRP             | kW                          | 890   |
| Fan consumption                   | kW                          | 44    |
| Cooling fan air flow rate         | m <sup>3</sup> /min         | 1462  |
| Oil capacity                      | l                           | 114   |
| Lube oil consumption PRP (max)    | %                           | 0.35  |
| Coolant capacity                  | l                           | 150   |
| Fuel                              | Diesel                      |       |
| Specific fuel consumption 75% PRP | g/kWh                       | 202   |
| Starting system                   | Electric                    |       |
| Starting engine capability        | kW                          |       |
| Electric circuit                  | V                           | 24    |



### Alternator Specifications

|                               |                   |      |
|-------------------------------|-------------------|------|
| Alternator                    | Mecc Alte         |      |
| Model                         | ECO43-1M/4 A      |      |
| Windings connection           | Parallel Star     |      |
| Frequency                     | Hz                | 50   |
| Voltage                       | V                 | 400  |
| Phases                        | 3                 |      |
| Power factor                  | cos $\phi$        | 0.8  |
| Emergency peak power 163°/27° | kVA               | 1120 |
| Efficiency @ 75% load         | %                 | 95.8 |
| Type                          | Brushless         |      |
| Poles                         | 4                 |      |
| Voltage regulation system     | Electronic        |      |
| Standard AVR                  | DER1              |      |
| Voltage tolerance             | %                 | 1    |
| Class                         | H                 |      |
| IP protection                 | 23                |      |
| Cooling air                   | m <sup>3</sup> /s | 1.5  |



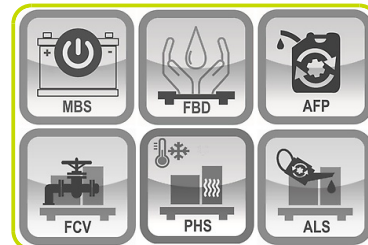
### Genset Equipment - Basic Configurations Available

|                                                    |    |      |
|----------------------------------------------------|----|------|
| Battery                                            | n  | 2    |
| Battery Capacity                                   | Ah | 200  |
| <b>INTEGRATED FUEL TANK - VERSIONS AVAILABLE :</b> |    |      |
| IFT1 - Integrated Fuel Tank (steel)                | l  | 500  |
| IFT2 - Integrated Fuel Tank (steel)                | l  | 1000 |



### Supplements available:

|                                                                    |   |
|--------------------------------------------------------------------|---|
| MBS - Manual Battery Switch                                        | • |
| FBD - Fully bunded base frame                                      | • |
| LDS - Leakage detection sensor (only with FBD)                     | • |
| FCV - Fuel Cut Off Valve                                           | • |
| AFP - Automatic Fuel Pump                                          | • |
| DFP - Double Automatic Fuel Pump                                   | • |
| PHS - Coolant Pre-Heating System                                   | • |
| ALS - Automatic Lube Oil Top Up System with lube oil tank          | • |
| Other Configurations and-or special versions available on requests | . |



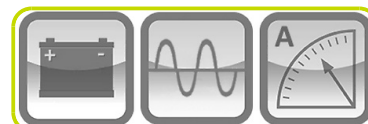
### Installation data

|                             |                     |        |
|-----------------------------|---------------------|--------|
| Total air flow              | m <sup>3</sup> /min | 1614   |
| Exhaust gas flow            | m <sup>3</sup> /min | 166.8  |
| Exhaust gas temperature     | °C                  | 540    |
| Fuel consumption 100% PRP   | l/h                 | 218.26 |
| Fuel consumption 75% PRP    | l/h                 | 162.69 |
| IFT1 - Running time 75% PRP | h                   | 3.07   |
| IFT2 - Running time 75% PRP | h                   | 6.15   |



### Electrical Data

|                 |            |         |
|-----------------|------------|---------|
| Battery Voltage | V          | 24      |
| Genset Voltage  | V          | 400/230 |
| Frequency       | Hz         | 50      |
| Phases          |            | 3       |
| Power Factor    | cos $\phi$ | 0.8     |
| Nominal current | A          | 1458    |
| Max current     | A          | 1611    |
| Circuit breaker | A          | 1600    |



### Control panel - Options Available:

|                         |     |
|-------------------------|-----|
| AUTOMATIC CONTROL PANEL | ACP |
| MODULAR PARALLEL PANEL  | MPP |



### ACP - AUTOMATIC CONTROL PANEL

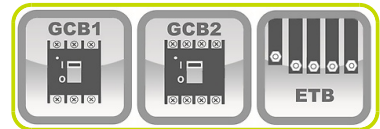
- Auto Mains Failure (AMF) function
- Gen-set controller for single genset operating in standby or prime power modes
- Full gen-set monitoring and protection
- Detailed event and performance log with time and date
- Wide range of remote control modules available as option
- Wide range of I/O expansion modules available as option



Power supply by terminal bus bar

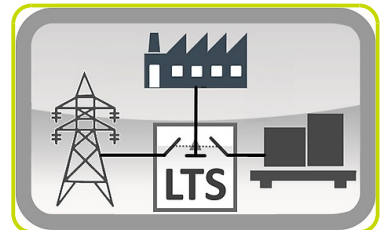
### ACP - Power Panel - Breakers Available:

|                                          |   |          |
|------------------------------------------|---|----------|
| GCB1 - Genset Circuit Breaker 3-pole     | A | 1600     |
| GCB2 - Genset Circuit Breaker 4-pole     | A | 1600     |
| ETB - External Terminal Board (with GCB) |   | Standard |



### LTS - Load Transfer Switch [Accessories for ACP Automatic Control Panel]

The Load Transfer Switch (LTS) panel operates the power supply changeover between the generator and the Mains in stand-by applications, guaranteeing load supply in a short period of time. LTS fit inside a sturdy standalone cabinet which can be installed separate from the generating set. The logic control of LTS is operated by the Automatic Control Panel (ACP) of the generating set.



### MPP - MODULAR PARALLEL PANEL

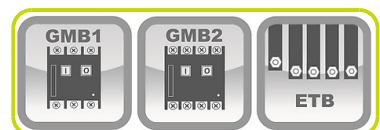
- Modular parallel panel allows the genset to work in parallel (up to 32 gen-sets)
- 7" full colour display
- Easy switching between parallel to mains or multiple genset applications
- Full gen-set monitoring and protection
- Detailed event and performance log with time and date
- Wide range of communication and connection capabilities available



Power supply by terminal bus bar

### MPP - Power Panel - Breakers Available:

|                                                |   |          |
|------------------------------------------------|---|----------|
| GMB1 - Genset Circuit Breaker 3-pole motorized | A | 1600     |
| GMB2 - Genset Circuit Breaker 4-pole motorized | A | 1600     |
| ETB - External Terminal Board (with GMB)       |   | Standard |



## OPEN VERSION

- Baseframe made of welded steel profile
- Anti-vibration mountings properly sized
- Lifting points on the baseframe for handling by crane
- Moving and rotating parts protection against accidental contact
- Grounding point to connect all metal parts to ground

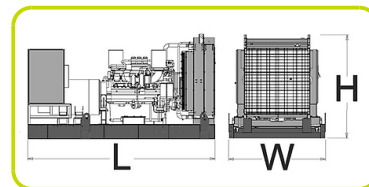
### Dimensional data Open Version

|        |        |      |
|--------|--------|------|
| Length | (L) mm | 4745 |
| Width  | (W) mm | 2170 |
| Height | (H) mm | 2377 |

|        |    |      |
|--------|----|------|
| Weight | Kg | 8250 |
|--------|----|------|

### OPTIONS AVAILABLE (ONLY FOR OPEN VERSION)

|                            |     |
|----------------------------|-----|
| Industrial Exhaust System  | IES |
| Residential Exhaust System | RES |



## CANOPY VERSION

- Weatherproof Enclosure made of galvanized sheet metal allows to protect genset from corrosion and aggressive condition
- Soundproofed enclosure tanks to high quality soundproof material and residential silencer, allows to have low noise emission level
- Big large lateral doors allows an easy service and maintenance operation
- Doors equipped with key lockable handles
- Baseframe made of welded steel profile
- Anti-vibration mountings properly sized
- Moving and rotating parts protection against accidental contact
- Grounding point to connect all metal parts to ground
- Lifting points on the enclosure for handling by crane

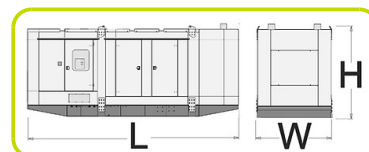
### Dimensional data Canopy Version

|        |        |      |
|--------|--------|------|
| Length | (L) mm | 6700 |
| Width  | (W) mm | 2170 |
| Height | (H) mm | 2896 |

|        |    |       |
|--------|----|-------|
| Weight | Kg | 10875 |
|--------|----|-------|

### Noise Level Canopy Version

|                            |       |        |
|----------------------------|-------|--------|
| Noise pressure level @ 7 m | dB(A) | 77+/-3 |
|----------------------------|-------|--------|



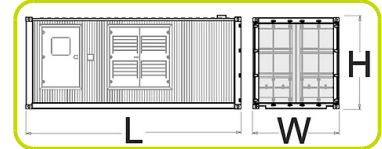
## CONTAINER VERSION

- Soundproofed Container adaptable to meet all your requirements and needs, equipped with residential silencer positioned inside or on the roof.
- Sturdy structure similar to shipping containers: upper and lower corner castings, monolithic structure, walls and roof made of corrugated steel sheet.
- Reinforced floor structure covered with teardrop patterned steel sheet
- High resistance to the atmospheric agents.
- Air inlet and exhaust openings air outlet for genset cooling.
- Large lateral doors allows an easy service and maintenance operation.
- Doors fixed by sturdy steel hinges equipped with lever bolt locks and panic bars.



### Dimensional data Container Version

|        |        |      |
|--------|--------|------|
| Length | (L) mm | 6060 |
| Width  | (W) mm | 2440 |
| Height | (H) mm | 2900 |



|        |    |       |
|--------|----|-------|
| Weight | Kg | 14600 |
|--------|----|-------|

### Noise Level Container Version

|                            |       |         |
|----------------------------|-------|---------|
| Noise pressure level @ 7 m | dB(A) | 77 +/-3 |
|----------------------------|-------|---------|