

STAR / WATER COOLED

# MSW Series

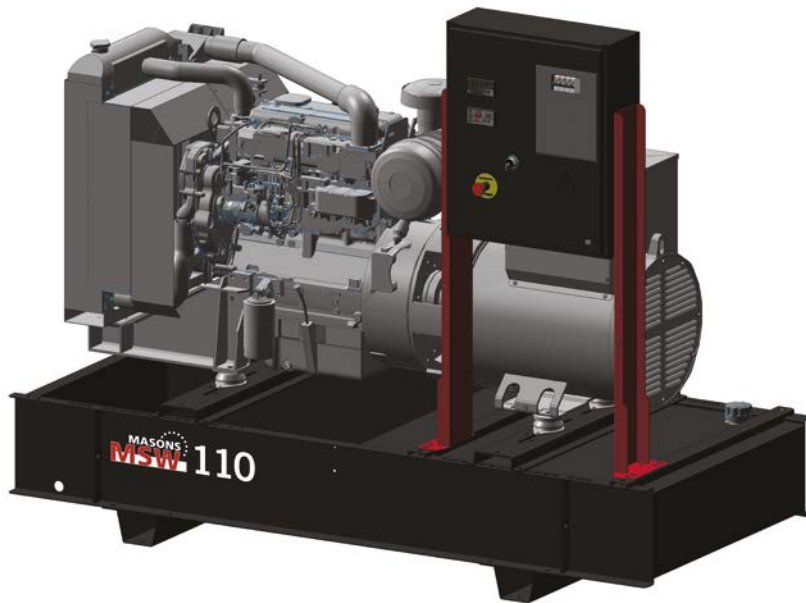
## 65-110P



Reliable, strong and versatile.

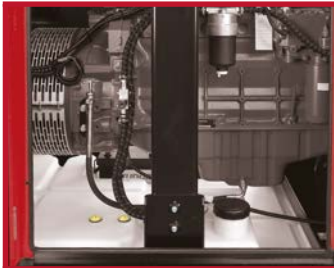
With a large list of optional extras, these generators are suitable for many applications.

High quality standards guaranteed.



### Main applications:

- Construction
- Mobile Workshop
- Emergency stand-by (residential / industry)
- Island/Mains synchro (MSW110P)



**PLASTIC FUEL TANK (CANOPY VERSION) COMPLETE WITH THE FOLLOWING COMPONENTS:**

- Filler neck
- Air breather (ventilation pipe)
- Minimum fuel level sensor



**HEAVY DUTY ANTI-VIBRATION MOUNTS FOR DAMPING, REDUCING VIBRATION AND SHOCK PROTECTION**



**NOISE ATTENUATION THANKS TO SOUNDPROOFING MATERIAL (ROCK WOOL)**



**CANOPY VERSION PROVIDED WITH SINGLE DETACHABLE LIFTING EYE PLACED ON THE ROOF**

GENERATING SET	MSW65P		MSW80P		MSW110P	
<b>MAIN DATA</b>						
POWER RATING	kVA	kWe	kVA	kWe	kVA	kWe
STAND BY POWER - LTP (kVA/kWe)	78	63	100	80	132	105
PRIME POWER - PRP (kVA/kWe)	71	57	94	75	119	95
VOLTAGE (VOLT)	380		380		380	
FREQUENCY	60Hz		60Hz		60Hz	
<b>DIESEL ENGINE</b>						
BRAND	Perkins		Perkins		Perkins	
MODEL	1103A-33TG2		1104A-44TG2		1104C-44TAG2	
NUMBER OF CYLINDERS / DISPLACEMENT (cc)	3 in line / 3300		4 in line / 4400		4 in line / 4410	
ASPIRATION	Turbocharged		Turbocharged		Turbocharged	
COOLING SYSTEM	Water		Water		Water	
STARTING SYSTEM / ELECTRIC CIRCUIT (Volt)	Electric / 12 V		Electric / 12 V		Electric / 12 V	
SPEED (rpm)	1800		1800		1800	
SPEED GOVERNOR (Type)	Mechanical		Mechanical		Electronic	
STAND-BY POWER (LTP) (kW <sub>m</sub> )	69,6		93,0		117,5	
PRIME POWER (PRP) kW <sub>m</sub>	63,3		84,5		106,8	
FUEL CONSUMPTION @ 75% PRP (l/h)	12,6		16,9		21,1	
<b>ALTERNATOR</b>						
TYPE	Brushless		Brushless		Brushless	
POLES	4		4		4	
VOLTAGE REGULATION SYSTEM	Electronic		Electronic		Electronic	
<b>GENSET VERSION</b>						
	<b>OPEN</b>	<b>CANOPY</b>	<b>OPEN</b>	<b>CANOPY</b>	<b>OPEN</b>	<b>CANOPY</b>
<b>FUEL TANK</b>						
MATERIAL	Metal	Plastic	Metal	Plastic	Metal	Plastic
CAPACITY (L)	240	209	240	209	240	209
AUTONOMY @ 75% PRP (h)	19,1	16,6	14,2	12,4	11,4	9,9
<b>NOISE LEVEL</b>						
NOISE POWER (LWA) - dB(A)	-	96	-	96	-	96
NOISE PRESSURE @ 7 m - dB(A)	-	67	-	67	-	67
<b>OVERALL DIMENSIONS</b>						
LENGTH (mm)	2200	2285	2200	2285	2200	2400
WIDTH (mm)	1000	920	1000	920	1000	1000
HEIGHT (mm)	1743	1465	1743	1465	1743	1530
DRY WEIGHT (Kg)	909	1085	964	1144	1170	1400



### **MCP - Manual control panel**

Mounted on the generator and complete with analogue instrumentation, control, module for engine protection, secured with lockable door.

#### **INSTRUMENTATION (ANALOGUE)**

- Voltmeter (1 phase)
- Ammeter (1 phase)
- Hour meter

#### **COMMANDS**

- Start/stop selector switch with key
- Emergency stop button

#### **PROTECTION WITH ALARM**

- Low fuel level
- Battery charger failure
- Low oil pressure
- High engine temperature
- Earth Fault

#### **PROTECTION WITH SHUTDOWN**

- Low fuel level
- Battery charger failure
- Low oil pressure
- High engine temperature
- Circuit breaker protection: III poles
- Emergency stop button

#### **OTHER PROTECTION**

- Panel secured with lockable door

#### **POWER OUTPUT**

- Power cables connection to circuit breaker



### **ACP - Automatic control panel**

Automatic control panel mounted on the generator, complete with digital control unit AMF26P for monitoring, control and protection of the generator.

#### **DIGITAL INSTRUMENTATION (AMF-26P)**

- Mains voltage
- Generator voltage (3 phases)
- Generator frequency
- Generator current (3 phases)
- Battery voltage
- Hour meter

#### **COMMANDS AND OTHER**

- Four operation modes: OFF - Manual - Automatic - Automatic test
- Push-button for forcing Mains contactor or Generator contactor
- Push-buttons: start/stop, fault reset, up/down/page/enter selection
- Emergency stop button
- Remote starting availability
- DC system disconnection switch
- Automatic battery charger
- Password security option

#### **PROTECTION**

- Engine protection: low oil pressure, high engine temperature
- Generator protection: under/over voltage, overload, under/over battery voltage
- Circuit breaker protection: III poles
- Differential protection

#### **OUTPUT PANEL ACP**

- Plinth row for connection from ACP to LTS panel



**MPP - Modular Parallel Panel**

Mounted on the generator, complete with digital control unit IG-NTC for monitoring, control, protection and load sharing for both single and multiple generators operating in standby or parallel modes (up to 32 generators in island).

**DIGITAL INSTRUMENTATION (through IG-NTC control unit)**

- Mains: voltage, Intensity, Frequency
- Mains kW - kVA<sub>r</sub> -Power factor Cos φ
- Generator voltage (3 phases)
- Generator frequency
- Generator current (3 phases)
- Generator Power (kVA - kW - kVA<sub>r</sub>)
- Generator Power factor Cos φ
- Generator kWh and kVAh
- Battery voltage
- Hour meter
- Engine speed r.p.m.
- Fuel level (%)
- Engine temperature (depending on model)
- Oil pressure (depending on model)

**COMMAND AND OTHER**

- Graphical display 128x64 pixels
- Operation modes: OFF - AMF function - Single Parallel to mains Island application - Single Parallel to Mains AMF application - Multiple parallel generator Island application
- Push-button for forcing Mains Breaker/contactor or Generator Breaker/contactor
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Multiple parallel and Power Management operation with digital load AVR sharing
- Automatic synchronizing and power control (via speed goveroner or ECU)
- Base load Import/Export and Peak shaving
- Voltage and PF control (AVR)
- Configurable digital I/O (12/12) and analogue inputs (3)
- Integrate PLC programmable functions
- Event-based history (up to 500records)
- Selectable measurement range 120/277V and 0-1/0-5A
- Remote starting and Blocking signal availability
- DC system disconnection switch
- Acoustic alarm
- Automatic battery charger
- 2xRS232/RS485/USB Communication ports
- Password security option

**PROTECTION WITH ALARM AND SHUTDOWN**

- Engine protection: low fuel level, low oil pressure, high engine temperature
- Generator protection: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage
- Others: overcurrent, short-circuit, reverse power, earth fault

**OTHER PROTECTION:**

- Circuit breaker protection: IV poles Motorized
- Emergency stop button
- Panel secured with lockable door

**OUTPUT PANEL MPP**

- Multi-pin connectors (in and out ) for parallel with other generators
- Connecting cable with 2 connectors multipin (length 10m)
- ETB External terminal board

**MASONS DISTRIBUTOR IN YOUR AREA IS:**



[www.masonsgenerators.com](http://www.masonsgenerators.com)

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