



Low noise diesel generator available to hire for professional and intensive use. Designed to spend its entire lifetime supplying power to large construction sites for heavy duty jobs and is also the [ideal generator for providing power at events](#). The low noise level means it can also be suitable for use in domestic / residential areas as well. Features a reliable diesel engine with an impressive tank capacity of 209 litres.

Main Features		
Frequency	Hz	50
Voltage	V	400
Power Factor	Cos $\phi$	0.8
Phase		13

Power Rating		
Standby Power LTP	kVA	83.00
Standby Power LTP	kW	66.40
Continuous Power COP	kVA	78.00
Continuous Power COP	kW	62.40

**Ratings definition (According to standard ISO8528 1:2005)**

**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.

**LTP** - Limited-Time running Power: It is defined as the maximum power available, under the agreed operating conditions, for which the generating set can deliver for up to 500 h of operation per year (whose no more than 300 for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available

Engine Specifications		
Engine Manufacturer		Perkins
Model		1104A-44TG2
50Hz Exhaust Emission Level		Non-Emission Certified
Engine Cooling System		Water
Nr. Of cylinder and disposition		4 in line
Displacement		4400 cm <sup>3</sup>
Aspiration		Turbocharged
Speed Governor		Mechanical
Prime gross power PRP		73.4 kW
Maximum gross power LTP		80.7 kW
Oil Capacity		8 L
Lube oil consumption @ PRP (max)		80.7%
Coolant Capacity		13 L
Fuel		Diesel
Specific fuel consumption @ 75% PRP		213.6 g/kWH
Specific fuel consumption @ PRP		214 g/kWh
Starting system		Electric
Starting engine capability		3 kW
Electric Circuit		12 V

Alternator Specifications		
Alternator		Mecc Alte
Model		ECP 32-3L/4 B
Voltage		380 V
Frequency		50 Hz
Power factor		0.8 cos $\phi$
Poles		4
Type		Brushless
Standard AVR		DSR
Voltage tolerance		1%
Efficiency @ 75% load		90.4%
Class		H
IP Protection		23

Dimensions		
Length	(L) mm	2285 mm
Width	(W) mm	920 mm
Height	(H) mm	1465 mm
Dry Weight	Kg	1141 kg
Fuel Tank Capacity	l	209 L
Fuel tank material		Plastic

Autonomy		
Fuel Consumption @ 75% PRP	l/h	13.50
Fuel Consumption @ 100% PRP	l/h	17.97
Running Time @ 75% PRP	h	15.48
Running Time @ 100% PRP	h	11.63

Noise Level		
Guaranteed Noise Level (LWA)	dB(A)	96
Noise Pressure Level @ 7 mt	dB(A)	67

Installation data		
Total air flow	m <sup>3</sup> /min	105.80
Exhaust gas flow @ PRP	m <sup>3</sup> /min	12.5
Exhaust gas temperature @ LTP	°C	555

Electrical Data		
Battery capacity	Ah	70
MAX Current	A	119.80
Circuit breaker	A	125

### Engine Equipment

#### Standards

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1

#### Fuel System

- Rotary type pump

#### Lube Oil System

- Wet steel sump with filler and dipstick

#### Filter

- Fuel filter
- Air filter
- Oil filter

#### Cooling system

- Mounted radiator
- Thermostatically controlled system with belt driven coolant pump and pusher fan

### Mechanical structure

Robust mechanical structure which permits easy access to the connections and components during routine maintenance check-ups.

### Voltage regulator

Voltage regulation with DSR. The digital DSR controls the range of voltage, avoiding any possible trouble that can be made by unskilled personnel. The voltage accuracy is  $\pm 1\%$  in static condition with any power factor and with speed variation between 5% and +30% with reference to the rated speed.

### Windings / Excitation system

Generator stator is wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th ...) harmonics on the voltage waveform and is found to be the optimum design for troublefree supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches. MAUX (Standard): The MAUX MeccAlte Auxiliary Winding is a separate winding within the main stators that feeds the regulator. This winding enables to take an overload of 300% forced current (short circuit maintenance) for 20 seconds. This is ideal for motor starting requirements.



### Insulation / Impregnation

Insulation is of class H standard. Impregnation is made with premium tropicalised epoxy resins by dipping and dripping. High voltage parts are impregnated by vacuum, so the insulation level is always very good. In the high-power models, the stator windings undergo a second insulation process. Grey protection is applied on the main and exciter stator to give enhanced protection.

### Reference standards

Alternator manufactured according to , and complies with , the most common specification such as CEI 2-3, IEC 34-1, EN 60034-1, VDE 0530, BS 4999-5000, CAN/ CSA-C22.2 No14-95- No100-95.

### Genset Equipment

#### BASE FRAME MADE OF WELDED STEEL PROFILE, COMPLETE WITH:

- Anti vibration mountings properly sized
- Welded support legs

#### PLASTIC FUEL TANK WITH THE FOLLOWING COMPONENT:

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

#### OIL DRAINING PIPE WITH CAP:

- Oil draining facilities

#### ENGINE COMPLETE WITH:

- Battery
- Liquids (no fuel)

#### CANOPY:

- Soundproof canopy made up of modular panels, realized with zinc coated steel as treatment against corrosion and aggressive conditions, properly fixed and sealed allowing a full weatherproof enclosure.
- Easy access to the genset for maintenance purposes thanks to: Wide lateral access doors fixed by stainless steel hinges and provided with plastic lockable handles and internal perforated galvanized steel-sheet; Detachable panels, with screws holes protected by rubber tap.
- Control panel protection door provided with suitable window and lockable handle.
- Lateral air inlet opening properly protected and soundproofed. Exhaust air outlet from the roof, through wet section protected by proper grid.
- Single detachable lifting eye placed on the roof.

#### SOUNDPROOF:

- Noise attenuation thanks to soundproofing material
- Efficient residential silencer placed inside the canopy





### ACP – Automatic Control Panel

Mounted on the genset, complete with digital control unit for monitoring, control and protection of the generating set. Protected through door with lockable handle.

#### DIGITAL INSTRUMENTATION

- Generating set voltage (3 phases)
- Mains voltage
- Generating set frequency
- Generating set current (3 phases)
- Battery voltage
- Power (kVA – kW – kVAR)
- Power factor Cos  $\phi$
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)
- Engine temperature (depending on model)

#### COMMANDS AND OTHERS

- Four option modes: OFF – Manual starting – Automatic starting – Automatic test.
- Pushbutton for forcing mains contactor or Genset contactor
- Push-buttons: Start/stop, faulty reset, up/down/page/enter selection
- Remote starting availability
- DC system disconnection switch
- Acoustic alarm
- Automatic battery charger
- RS232 Communication port
- Settable PASSWORD for protection level

#### PROTECTIONS WITH ALARM

- Engine protections: low fuel level, low oil pressure, high engine temperature
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

#### PROTECTIONS WITH SHUTDOWN

- Engine protections: Low fuel level, low oil pressure, high engine temperature
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure
- Circuit breaker protection: III poles
- Earth fault included in the control unit

#### OTHERS PROTECTION

- Emergency stop button
- Panel protected through door with lockable handle





### MPF – Manual control panel full option

Mounted on the genset and complete of: analogue instrumentation, control, protection of the generating set, protected through door with lockable handle.

#### INSTRUMENTATION (ANALOGUE)

- Voltmeter with selector switch (3 phases)
- Frequency meter
- Ammeter with selector switch (3 phases)
- Hours-counter
- Fuel level indicator
- Oil pressure indicator
- Engine temperature indicator
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#### 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

#### PROTECTIONS WITH SHUTDOWN

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

#### OTHERS PROTECTION

- Panel protected through door with lockable handle





**MCP – Manual control panel**

Mounted on the genset and complete of: analogue instrumentation, control, protection of the generating set, protected through door with lockable handle.

**INSTRUMENTATION (ANALOGUE)**

- Voltmeter (1 phase)
- Ammeter (1 phase)
- Hours counter

**COMMANDS**

- Start/stop selector switch with key (Glow plugs preheating function also included)
- Emergency stop button installed on canopy side.

**PROTECTION WITH ALARM**

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

**PROTECTIONS WITH SHUTDOWN**

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

**OTHERS PROTECTION**

- Panel protected through door with lockable handle



**OUT PUT PANEL MCP**

Power cables connection to Circuit Breaker	
External Terminal Board (ETB)	Optional
Socket kit	Optional



**OUT PUT PANEL ACP**

Power cables connection to Circuit Breaker

Predisposed for remote control optional

RCG

External Terminal Board (ETB)

Optional

Socket Kit

Optional

**OUTPUT PANEL MPF**

ETB – External Terminal Board

ETB

Socket Kit

Standard

Individual CB & Earth Fault Protection

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3P+N+T 400V 63A IP67

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3P+N+T CEE 400V 16A IP67

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230V/16A 2P+T CEE IP67

n

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230V 16A SCHUKO IP68

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