

## Diesel Genset Specification

# PL22X3

### General technical data

Model	PL22X3	Rated voltage V	Current A
Structure	PT	380	33.4
Prime power (PRP) : kVA/kW	22 / 18	400	31.7
Standby power (ESP) : kVA/kW	24 / 20	415	30.6
Frequency: Hz	50		
Rotate speed: RPM	1500	Load	Fuel consumption L/h
Phase: P	3	25%	1.5
Power factor: cosφ	0.8	50%	2.6
Protection class	IP54	75%	3.7
Noise level: dB@7m	65.2	100%	4.9
Tank capacity: L	125	110%	5.4

### Main Features

Design Standards	Environmental Operating Conditions	Factory Inspection
<ul style="list-style-type: none"> <li>Conformite Europeenne (CE)</li> <li>ISO8528-5:2005</li> <li>AS 3000-2018</li> <li>AS 3010-2017</li> </ul>	<ul style="list-style-type: none"> <li>Installation place: outdoor / indoor (well ventilated).</li> <li>Ambient temperature: -25°C to 45°C (the coolant heater is needed when the temperature is below 5°C)</li> <li>Humidity: Less than 80%</li> <li>Altitude: Below one thousand (1000) meters.</li> </ul>	<ul style="list-style-type: none"> <li>Protection devices working test</li> <li>Starting ability in normal temperature</li> <li>50% rated power load moment capacity</li> <li>Load test :0, 25%, 50%, 75%, 100%, 110%</li> </ul>

### Power Class Definition

- Prime Power (PRP): the unit runs continuously with variable load, the number of operating hours is not limited, and 1h overload 10% operation is allowed per 12h, and the average load factor is less than 70% per 24h.
- Standby Power (ESP): operating time does not exceed 500h per year, continuous operating time does not exceed 300h, the average load factor is less than 80% per 24h. Overload operation is not allowed.

### Product Statement

- The data of specifications is based on the following standard environmental test conditions.
  - Ambient temperature 25°C
  - Altitude 100m
  - Relative humidity 30%

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#### Power System

##### Engine

Manufacturer / brand	FAWDE	Intake system	Natural aspirated
Model	4DW91-29D	Intake resistance: kPa	≤6.3
Cylinders	4L	Exhaust back pressure: kPa	≤6.7
Bore: mm	90	Oil capacity: L	8.0
Stroke: mm	100	Coolant capacity: L	8.0
Displacement: L	2.54	Battery voltage: V	12
Compression ratio	17	Dimensions: mm	700×555×680
Rotate speed: RPM	1500	Dry weight: kg	220
Prime power: kWm	21.0		
Standby power: kWm	23.0		
Rotate speed governor	Mechanical		
Type of fuel Injection	Direct		

##### Alternator

Manufacturer / brand	OEM	Insulation class	H
Model	PL1G-3	Temperature rising class	H
Exciter	Standard self-excitation, SHUNT	Protection class	IP23
Windings	100% copper	Voltage regulation	±0.5%
Winding pitch	2/3	Telephone harmonic factor THF	<2%
Number of poles	4	Telephone interference factor TIF	<50
Terminals	12		

#### Control System

Brand	COMAP		
Model	AMF5		
General Functions		Monitoring and protection	
– Automatic start / stop control		Oil pressure	Over load
– Manual/remote start control		Water temperature	Over current
– Real time monitoring and display of multiple parameters		Rotate speed	Over voltage
– CAN and Modbus communication		Start	Under voltage
– Provide complete control solutions		Running time	Over frequency
		Battery voltage	Under frequency
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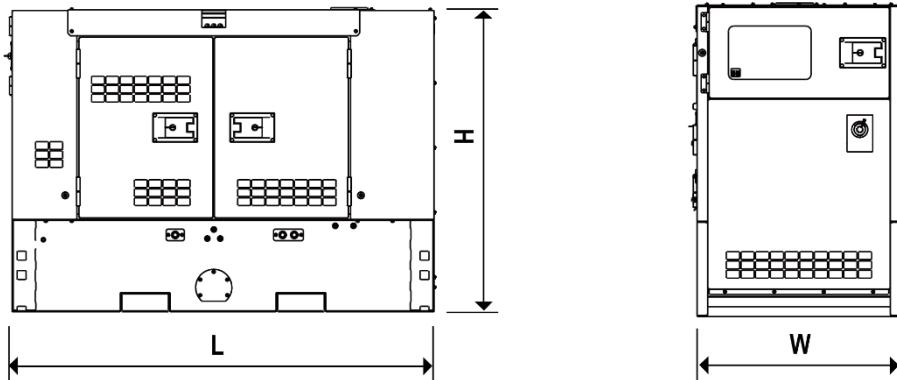
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### Product Configuration

Engine	Generator	Control switchgear	Canopy (sound-proof)	Base Frame
Electrical start motor	Alternator	PLC control system	SECC Electrogalvanized sheet	Steel base frame
Battery system	H class insulation	Main circuit breaker		Engine bracket
Speed control system	H class temp. rising	Breaker cabinet	Corrosion-resistant coating	Alternator bracket
Lockable isolator switch	IP23 protection	ATS connector	Access door	Radiator bracket
Battery charger	AVR voltage regulator	Mains floating charger	Stainless steel hinge	Vibration isolators
			Sound absorbing cotton	

Fuel system	Lubrication system	Cooling system	Intake / exhaust system	Service documents
Base frame fuel tank	Oil pressure sensor	Radiator	Air filter	Installation and operation manual
Fuel level sensor	Oil temperature sensor	Water level sensor	Exhaust muffler	Test report
Flexible connection pipe	Oil filter	Water pipe	Exhaust bellow	Wiring diagram
Fuel filter	Manual oil drain pump		Exhaust pipe and flange	Warranty manual
	Oil drain ball valve		High temperature protective sleeve	Engine manual

### Weight and Dimension



**Dimension: L x W x H (mm)**

**1630x794x1175**

**Dry Weight (kg)**

**827**

Note: Dimensions, weight and other parameters are for reference only, which shall be subject to the final design drawing.