

# **ENERGY GENERATION**



Main Features		
Frequency	Hz	50
Voltage	V	400
Power factor	cos φ	0.8
Phase and connection		3

Power Rating		
Standby power LTP	kVA	17.60
Standby power LTP	kW	14.08
Prime power PRP	kVA	15.77
Prime power PRP	kW	12.62

#### 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 maintenance intervals and procedures being carried out as 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 is capable of delivering 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 manufacturer Model [50Hz] Exhaust emission level Engine cooling system	Lombardini 11LD 626 3L Unregulated
[50Hz] Exhaust emission level	
	Unregulated
Engine cooling system	
	Air
Nr. of cylinder and disposition	3 in line
Displacement cm <sup>3</sup>	1870
Aspiration	Natural
Speed governor	Mechanical
Prime gross power PRP kW	14.7
Maximum gross power LTP kW	16.7
Oil capacity I	5
Fuel	Diesel
Specific fuel consumption @ 75% PRP g/kWh	238
Specific fuel consumption @ PRP g/kWh	238
Starting system	Electric
Electric circuit V	12



Alternator Specifications		
Brand		Linz
Model		E1S13ME
Voltage	V	400
Frequency	Hz	50
Power factor	cos φ	0.8
Туре		Brushes
Poles		4
Voltage regulation system		Compound
Voltage tolerance		4
Efficiency @ 75% load		86.3
Class		Н
IP protection		21



The E1S/4 series includes three-phase 4 poles alternators with brushes and compound regulation.

#### **Mechanical structure**

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

#### Voltage accuracy:

 $\pm$  4% from no load to full load,  $\cos\phi = 0.8$  at constant rotation speed.

## Output voltage wave form:

The low harmonic content (<5%) allows supplying any type of load, including distorting loads.

### Short circuit current:

In case of short circuit the permanent current exceeds rated current by three times, ensuring the correct operation of protections.

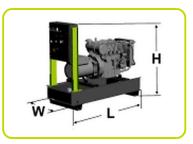
#### **Overload:**

10% overload for one hour every 6 hours is normally accepted. Short overloads can be very high (three times the rated current).

#### Asynchronous motors starting:

1 HP per KVA of the generator can be started.

Dimensional data		
Length	(L) mm	1226
Width	(W) mm	700
Height	(H) mm	1132
Dry weight	Kg	340
Fuel tank capacity		51



Autonomy		
Fuel consumption @ 75% PRP	l/h	3.11
Fuel consumption @ 100% PRP	l/h	4.17
Running time @ 75% PRP	h	16.40
Running time @ 100% PRP	h	12.23

Data Current		
Battery capacity	%	70
MAX current	A	25.40
Circuit breaker	А	25

MCP
AST

## MCP - Manual control panel

Manual control panel, mounted on the genset and complete of: instrumentation, control, protection and sockets

## **INSTRUMENTATION (ANALOGUE)**

- Voltmeter (1 phase)Hours-counter

## **COMMANDS AND OTHERS**

· Start selector switch with key





## PROTECTIONS

- Alarm Battery charger failure
- Alarm low oil pressure
- · Circuit breaker protection

## OUT PUT PANEL MCP

3P+N+T CEE 400V 32A	n	1
2P+T CEE 230V 16A	n	1



## ACP - Automatic control panel

# AUTOSTART CONTROL PANEL (AST)

Control panel manual, with remote start (AST), complete with engine protection unit MC01 and instrumentation for control and protection of the generating set.

## **INSTRUMENTATION (ANALOGUE)**

Voltmeter (1 phase)

• Hours-counter

## **COMMANDS AND OTHERS**

- Start selector switch with key (OFF ON START)
- Emergency stop button.
- Remote start capability via socket complete of two meters wiring (external device not supplied)

#### **PROTECTION WITH ALARM**

- Battery charger failure
- Low oil pressure

## **PROTECTIONS WITH SHUTDOWN**

- · Battery charger failure
- Low oil pressure
- Circuit breaker protection: III poles

## OUT PUT PANEL ACP

2P+T CEE 230V 16A	n	1
3P+N+T CEE 400V 32A	n	1
Remote start capability via socket (AST)		









Items available as accessory equipment

FEC - Flexible Exhaust Compensator Bellow and flanges

RES - Residential silencer



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