

Perkins series

P15D5

50 Hz @ 1500rpm,3-phase/5-wiring



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 45°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters.

Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

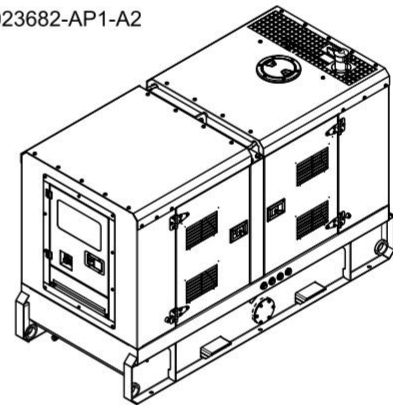
- Perkins engine 403A-15G2
- Close coupled to a MECC alternator ECP28-S/4
- Microprocessor control module PLC-920
- SCHNEIDER main circuit breaker: 32A
- Rotate speed governor: Mechanical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: DSR
- Key switch
- ATS (automatic transfer switch) receptacle
- 1x12V/72AH sealed for life maintenance free battery

- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Steel base frame with lifting lugs
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 24 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

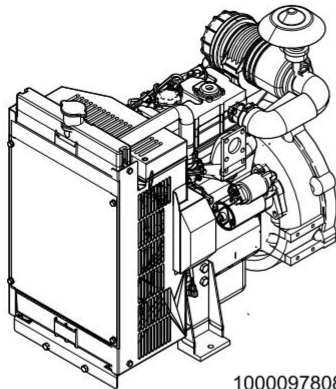
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Model.....P15D5
Structure type.....RS
Tank capacity.....100L
Dry weight.....758kg
Noise level @7m.....N/A
Dimensions L×W×H.....1932x880x1308mm
Standby Power.....17kVA/13kW
Prime Power.....15kVA/12kW

Voltage	380V	400V	415V	440V	
Ampere	22.8A	21.6A	20.8A	19.7A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	2.5	3.1	3.6	4.1	4.9

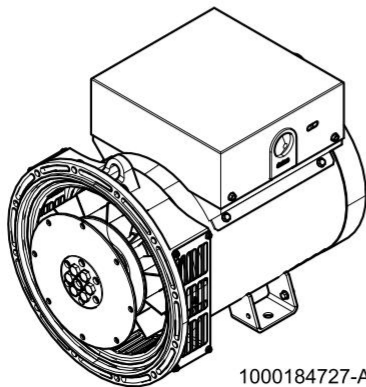
Diesel engine



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Engine Manufacturer/Brand.....	Perkins
Engine Model.....	403A-15G2
Dimensions L×W×H.....	820×469×793mm
Dry Weigh (approx.)	197kg
Number of Cylinders.....	3
Bore.....	84mm
Stroke	90mm
Displacement.....	1.496L
Compression Ratio	22.5
Type of Injection	Indirect injection
Intake System.....	Natural aspirated
Intake Resistance.....	≤6.4kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage.....	12V
Type of Fuel.....	EPA2D 89.330-96/CEC RF-06-99
Type of Oil	API-CH-4/ ACEA E5
Oil Capacity	6.0L
Type of Coolant	Glycol mixture
Coolant Capacity	6.0L
Back Pressure	≤10.2kPa
Standby Power	16kW
Prime Power	14kW
Fuel Consumption(100%load).....	4.9L/h

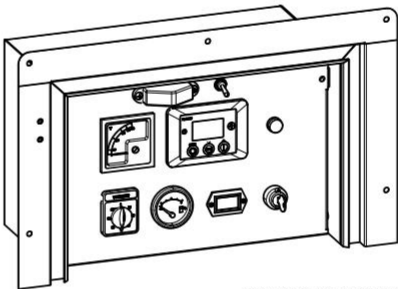
Alternator



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Alternator Manufacturer/Brand	Mecc alte
Alternator Model	ECP28-S/4
Exciter.....	Brushless
Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Terminals	12
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	5.3m³/min(50Hz),5.8m³/min(60Hz)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<45

PLC-920 Control System



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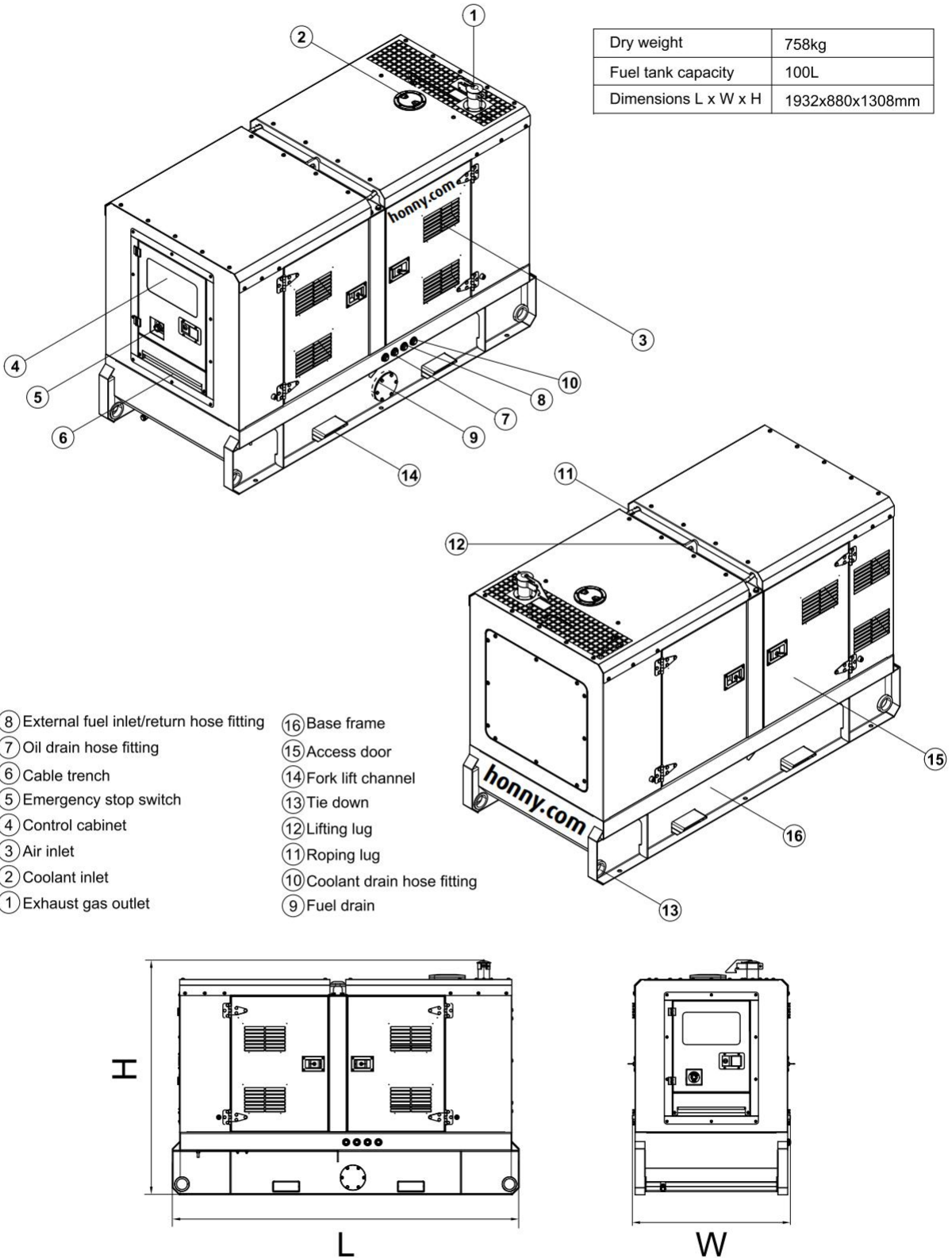
PLC-920 is an advanced control module based on micro-processor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

Standard Control Function

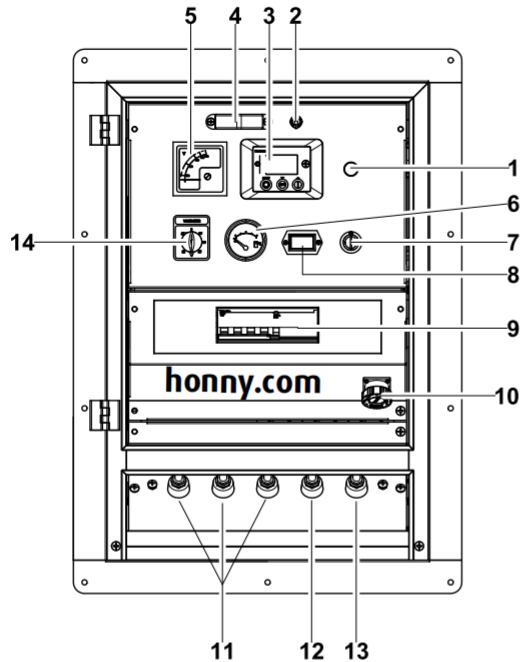
- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

4 Overall Dimensions

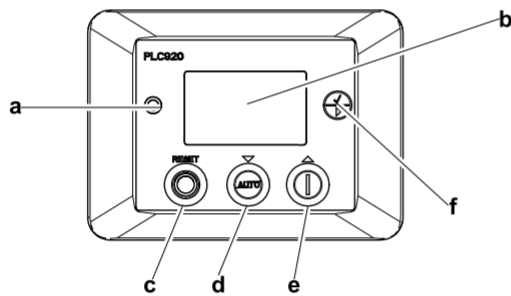
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5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Control cabinet lamp switch
3	Control module
4	Control cabinet lamp
5	Voltage meter
6	Fuel level meter
7	Key switch
8	Time counter
9	Main circuit breaker
10	Mains input /ATS /Remote communication connector
11	Live wire terminal
12	Neutral wire terminal
13	Ground wire terminal
14	Voltmeter change-over switch

Ref.	Description
a	Alarm indicator
b	Main status display
c	Stop/reset button; Next page (Configuration mode only)
d	Auto start button; Decrease value/next item (Configuration mode only)
e	Start button; Increase value/next item (Configuration mode only)
f	Navigation button; Accept (Configuration mode only)

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