

Perkins series

P60D5

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.

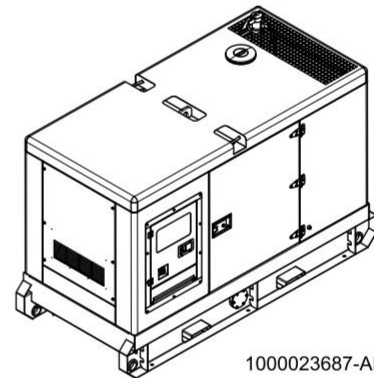
2 General Features

- Perkins engine 1103A-33TG2
- Close coupled to a MECC alternator ECO32-2L/4
- Microprocessor control module PLC-920
- NADER main circuit breaker: 100A
- Rotate speed governor: Mechanical governor
- Excitation System: Self excited, SHUNT
- A.V.R. Model: DSR
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1x12V/70AH 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 forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 12 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

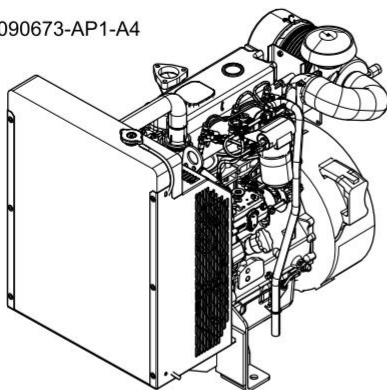


Model.....P60D5
Structure type R
Tank capacity.....180L
Dry weight.....1538kg
Sound pressure level @ 1m/7m 80.7dB(A)/67.4dB(A)
Sound power acc. 2000/14/EC.....95.3dB(A)
Dimensions L×W×H.....2338x1080x1551mm
Standby Power66kVA/53kW
Prime Power.....60kVA/48kW

Voltage	380V	400V	415V	440V	
Ampere	91.2A	86.6A	83.5A	78.7A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	7.2	10.4	13.9	15.4

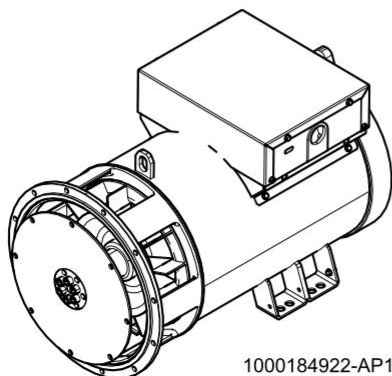
Diesel Engine

1000090673-AP1-A4



Engine Manufacturer/Brand.....	Perkins
Engine Model.....	1103A-33TG2
Dimensions L×W×H.....	1049×634×951mm
Dry Weigh (approx.)	420kg
Number of Cylinders.....	3
Bore.....	105mm
Stroke	127mm
Displacement.....	3.3L
Compression Ratio	17.25
Type of Injection.....	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤8kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12V
Type of Fuel.....	RF75-T-96 / DIN EN590 / BS2869 class A2
Type of Oil	API-CG4/ CH4
Oil Capacity	8.31L
Type of Coolant	Glycol mixture
Coolant Capacity	10.2L
Back Pressure	≤10kPa
Standby Power	60.5kW
Prime Power	55kW
Fuel Consumption(100%load).....	13.9L/h

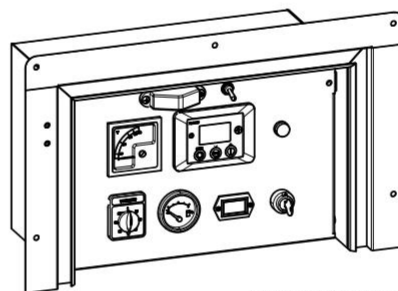
Alternator



1000184922-AP1-A1

Alternator Manufacturer/Brand	Mecc alte
Alternator Model	ECO32-2L/4
Exciter.....	Brushless
Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Terminals	12
Drip Proof	IP21
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	11.8m³/min(50Hz), 14.5m³/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



1000144402-AP1-D2

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.

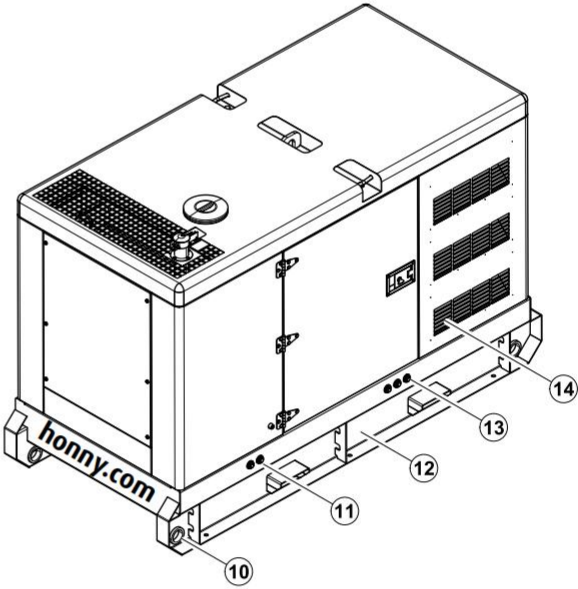
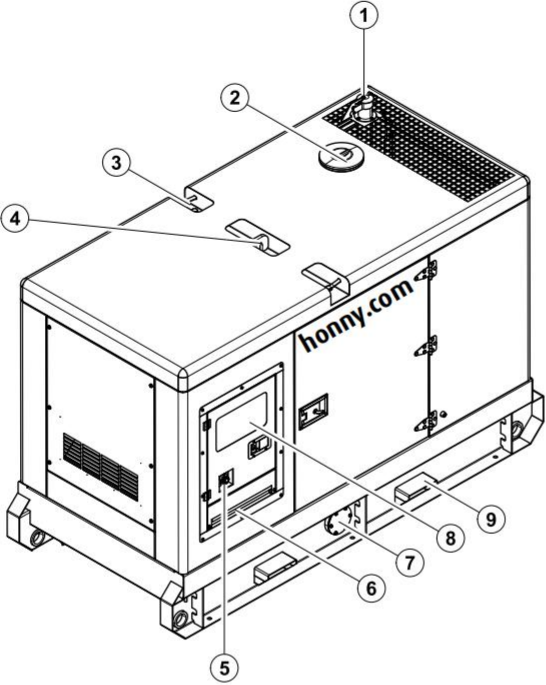
Standard Control Function

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

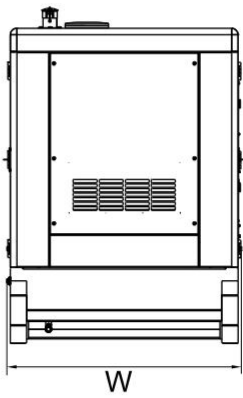
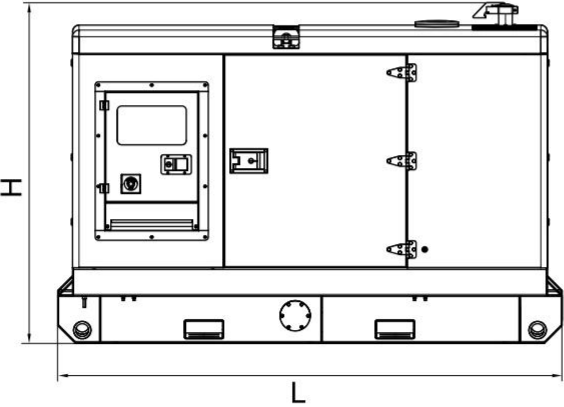
4 Overall Dimensions

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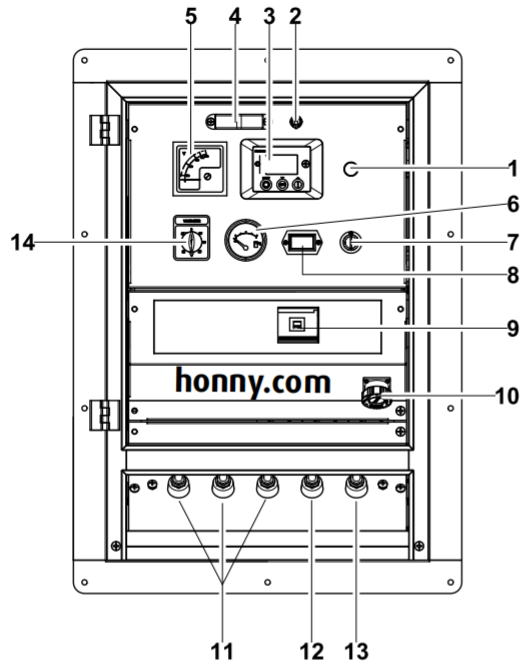
Dry weight	1538kg
Fuel tank capacity	180L
Dimensions L x W x H	2338x1080x1551mm



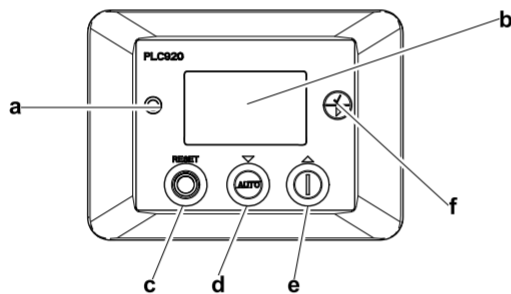
- ⑦ Fuel drain
- ⑥ Cable trench
- ⑤ Emergency stop switch
- ④ Lifting lug
- ③ Roping lug
- ② Coolant inlet
- ① Exhaust gas outlet
- ⑭ Air inlet
- ⑬ Coolant drain/
External fuel inlet/return hose fitting
- ⑫ Base frame
- ⑪ Oil drain hose fitting
- ⑩ Tie down
- ⑨ Fork lift channel
- ⑧ Control cabinet



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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