

Perkins series

P45D5

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)
- TLC Quality Certification (TLC)
- ISO8528-1995
- GB/T2820-1997

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 above sea Level.

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.

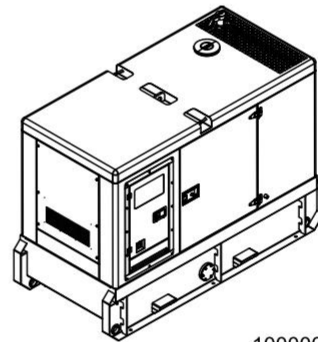
2 General Features

- Perkins engine 1103A-33TG1
- Close coupled to a Leroy Somer alternator LSA43.2S25
- Microprocessor control module PLC-5220
- NADER main circuit breaker: 3-Phase 80A
- Rotate speed governor: Mechanical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: R250
- Key switch

- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1x12V 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 16 hours running
- Drain points for fuel tank
- Operation Manual / Parts List / Specifications

3 Equipment Specification

General technical data



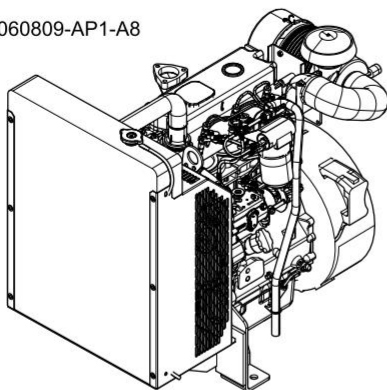
1000008319-AP1-C8

Model.....P45D5
Structure type R
Tank capacity.....180L
Dry weight..... 1375.22kg
Noise level @7m 67.3dBA
Dimensions L×W×H..... 2338x1080x1561mm
Standby Power 50kVA/40kW
Prime Power 45kVA/36kW

Voltage	380V	400V	415V	440V
Ampere	68.4A	65.0A	62.6A	59.1A

Diesel Engine

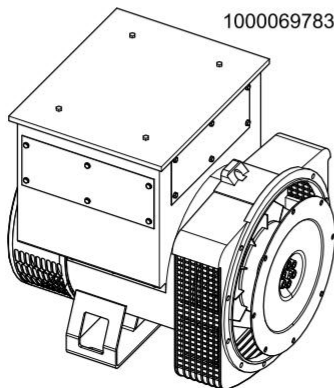
1000060809-AP1-A8



Engine Manufacturer/Brand.....	Perkins
Engine Model.....	1103A-33TG1
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	46.5kW
Continuous Power	42.2kW
Fuel Consumption(100%load).....	10.7L/h

Alternator

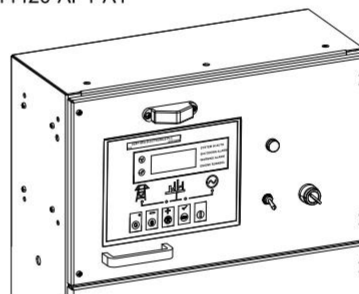
1000069783-AP1-A2



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA43.2S25
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.....	0.27m³/s(50Hz),0.32m³/s(60Hz)
Voltage Regulation	±0.5%
Total harmonic TGH / THC at no load < 2 % - on load < 2%	
Telephone Interference.....	THF<2%;TIF<50

PLC-5220 Control System

1000144420-AP1-A1



PLC-5220 is an automatic mains failure control module. It is used to monitor the mains supply and automatically start and stop the engine. The module indicates the operational status and fault conditions, automatically shutting down the engine and indicating engine failure on the LCD.

- Microprocessor control, with high stability and credibility
- Mains supply and generator operation monitoring
- Indicating operation status and fault conditions
- Multiple protections; multiple parameters display, like pressure, temp.
- Manual and automatic work mode selectable
- Real time clock for time and date display, overall runtime display, 99 log entries
- Overall power output display
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol

4 Overall Dimensions

1000008319-DR1-C8

Dry weight	1375.22kg
Fuel tank capacity	180L
Dimensions L x W x H	2338x1080x1561mm

