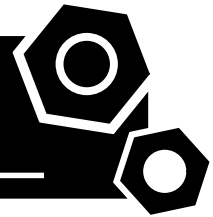


Generator set
Sound-proof type
WPS45S

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (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.

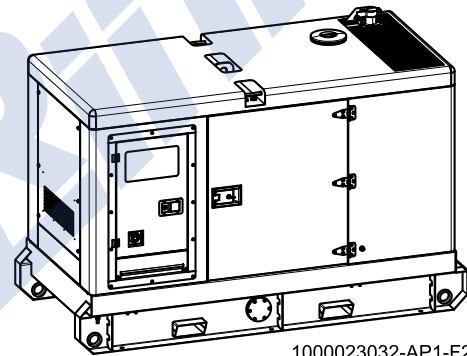
2 General Features

- Perkins engine 1103A-33TG1
- Close coupled to a Leroy Somer alternator LSA42.3M7
- Microprocessor control module PLC-7420
- NADER main circuit breaker: 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/70AH sealed for life maintenance free battery

- Lockable battery isolator switch
- Power 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 / Specifications

3 Equipment Specification

General technical data



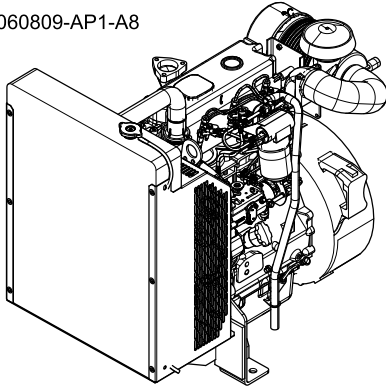
1000023032-AP1-F2

Model.....	WPS45S
Structure type	R
Tank capacity.....	180L
Dry weigh.....	1322kg
Sound pressure level @ 1m/7m	76.1dB(A)/66.9dB(A)
Sound power acc. 2000/14/EC.....	94.8dB(A)
Dimensions L×W×H.....	2338x1080x1551mm
Standby Power	49kVA/39kW
Prime Power	45VA/36kW

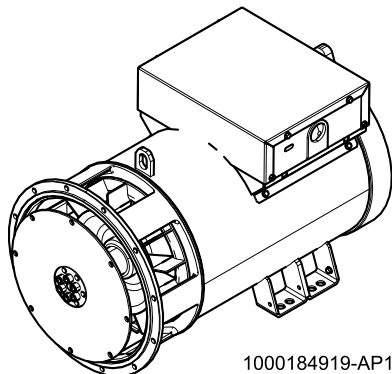
Voltage	380V	400V	415V	440V	
Ampere	45.6A	43.3A	41.7A	39.4A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	3.4	5.7	8.2	10.7	12.0

Dck Yf 'GrghYa

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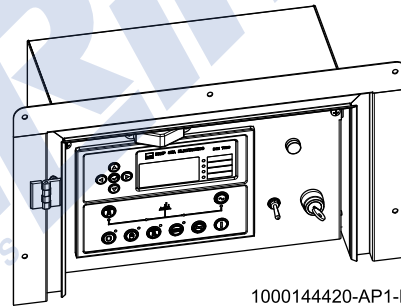
Engine Manufacturer/Brand	Perkins
Engine Model	1103A-33TG1
Dimensions L×W×H.....	1049×634×951mm
Dry Weigh (approx.)	420kg
Number of Cylinders.....	3
Bore.....	105mm
Stroke	127mm
Displacement.....	3.3L
Compression Ratio	17.25
Type of Injection	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤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
Prime Power	42.2kW
Fuel Consumption(100%load).....	10.7L/h



1000184919-AP1-A1

Alternator Manufacturer/Brand	Mecc alte
Alternator Model	ECO32-1L/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.....	11.8m ³ /min(50Hz), 14.5m ³ /min(60Hz)
Voltage Regulation	±1.5%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<45

PLC-7420 Control System



1000144420-AP1-F2

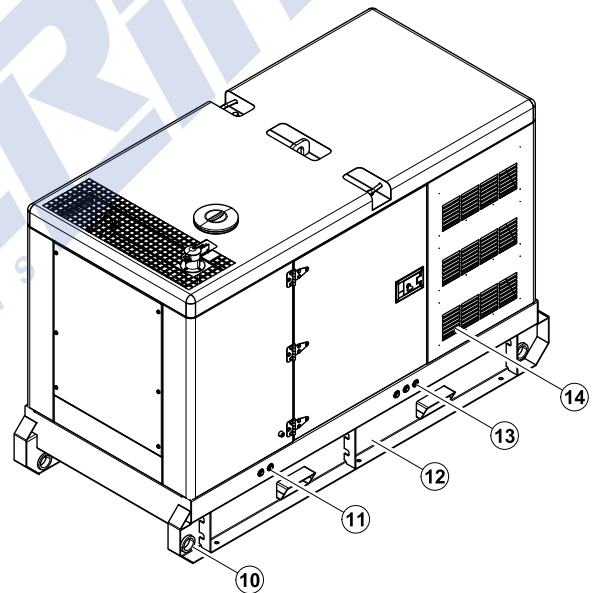
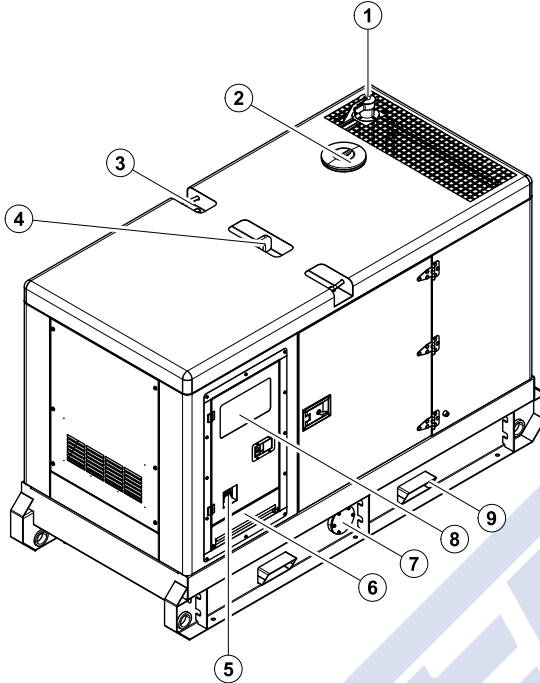
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and display all values and alarms information on the LCD. In addition, the control module can automatically shut down the engine and indicate the engine failure.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, automatic and remote work mode selectable
- Real time clock for time and date display, overall runtime display, 250 log entries
- Overall power output display
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed etc.
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol

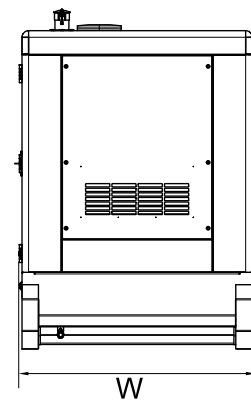
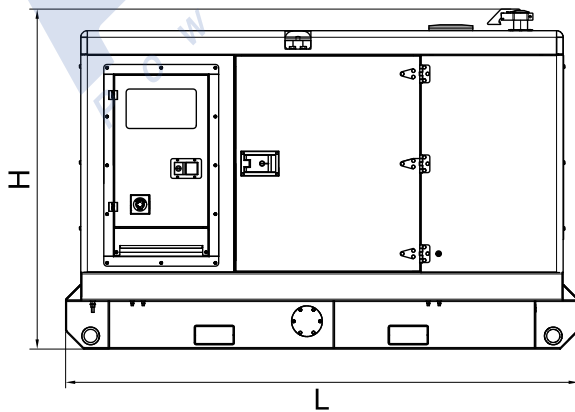
4 Overall Dimensions

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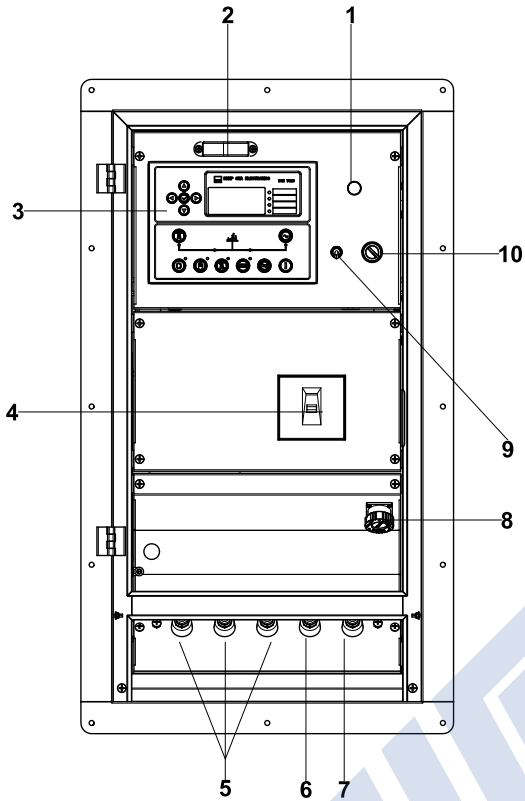
Dry weight	1322kg
Fuel tank capacity	180L
Dimensions L x W x H	2338x1080x1551mm



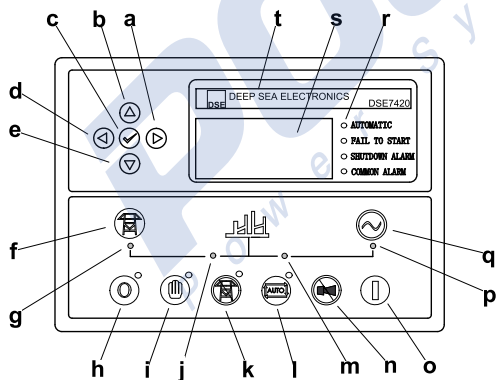
- ⑦ Fuel drain
- ⑥ Cable trench
- ⑤ Emergency stop switch
- ④ Lifting lug
- ③ Roping lug
- ② Coolant inlet
- ① Exhaust gas outlet
- ⑭ Air inlet
- ⑬ Coolant drain/
External fuel inlet/return hose fitting
- ⑫ Base frame
- ⑪ Oil drain hose fitting
- ⑩ Tie down
- ⑨ Fork lift channel
- ⑧ Control cabinet



5 Control System



Control & field wiring cabinet



Control panel

Ref.	Description
1	Charge indicator
2	Control panel lamp
3	PLC-7420 Control module
4	Main circuit breaker
5	Live wire terminals
6	Neutral wire terminal
7	Ground wire terminal
8	Mains input/Remote/ATS/AMF communication connector
9	Control panel lamp switch
10	Key switch

a	Button (next page)
b	Button (increase value / previous item)
c	Button (accept)
d	Button (previous page)
e	Button (decrease value / next item)
f	Button (transfer the load to the mains supply, when in Manual mode only)
g	Mains supply available LED
h	Stop / Reset button
i	Manual button (Manual control mode)
j	Mains supply on load LED
k	Test button (Test mode)
l	Auto button (Auto mode)
m	Genset on load LED
n	Mute/Lamp test button
o	Start button (Manual)
p	Genset available LED
q	Button (transfer the load to the genset, when in Manual mode only)
r	Alarm LED (4 alarm items)
s	LCD display
t	Control module name

1000023032-F2-E

08.2013

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Power Systems

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*Specification may change without prior notice. For more info.,
contact Power Link or your local distributors please.*