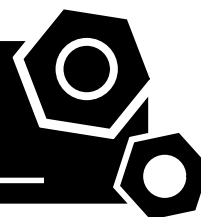


Generator set
Sound-proof type
WPS100S-AU

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-5:2005
- GB/T2820.5-2009
- AS3000-2018
- AS3010.1-2017

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 50°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 90%.
- 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.

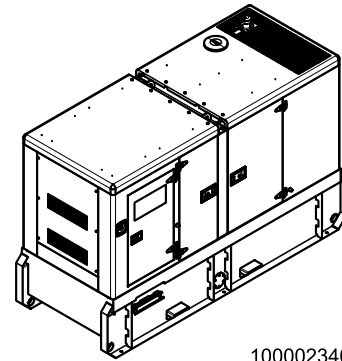
2 General Features

- Perkins engine 1104C-44TAG2
- Close coupled to a Leroy Somer alternator LSA44.3S5
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 160A
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: Self Excited SHUNT
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- Remote run connector
- 1x12V/120AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Non-returning valve for fuel inlet hose of the engine
- Steel base frame with forklifts
- 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
- Breather valve for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

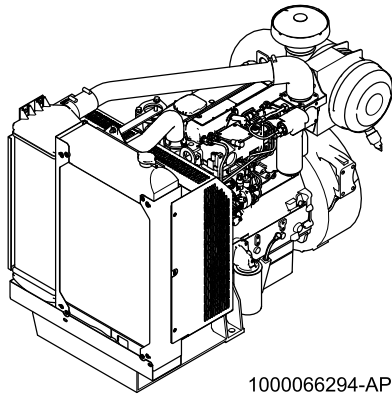


1000023403-AP1-D2

Model..... WPS100S-AU
 Structure type R
 Tank capacity 550L
 Dry weight..... 1971kg
 Noise level @7m N/A
 Dimensions L×W×H..... 2888×1165×1900mm
 Standby Power 110kVA/88kW
 Prime Power 100kVA/80kW

| | | | | | |
|--------------------------------|------|------|------|------|------|
| Voltage | 415V | 440V | 460V | 480V | |
| Ampere | 139A | 131A | 126A | 120A | |
| Genset Fuel Consumption | | | | | |
| Frequency/Load | 25% | 50% | 75% | 100% | 110% |
| 50Hz (L/h) | N/A | 11.2 | 17.1 | 22.6 | 24.9 |

Diesel Engine

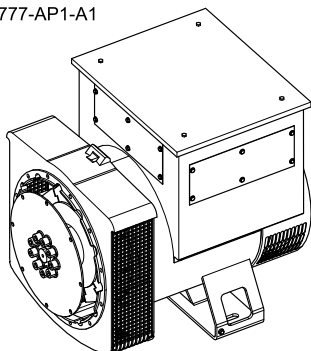


1000066294-AP1-A5

| | |
|---------------------------------|--|
| Engine Manufacturer/Brand..... | Perkins |
| Engine Model..... | 1104C-44TAG2 |
| Dimensions L×W×H..... | 1259×721×966mm |
| Dry Weigh (approx.) | 401kg |
| Number of Cylinders..... | 4 |
| Bore..... | 105mm |
| Stroke | 127mm |
| Displacement..... | 4.4L |
| Compression Ratio..... | 18.23 |
| Type of Injection | Direct |
| Intake System..... | Turbocharged, air-to-air charge cooled |
| Intake Resistance..... | ≤8.0kPa |
| Cooling System | Water cooled |
| Fan | Pusher |
| Battery Voltage | 12V |
| Type of Fuel..... | EPA2D 89.330-96 |
| Type of Oil | API-CC/SE or CCMC-D1 |
| Oil Capacity | 8.0L |
| Type of Coolant | Glycol mixture |
| Coolant Capacity | 12.6L |
| Back Pressure | ≤18kPa |
| Standby Power | 103kW |
| Prime Power | 93.6kW |
| Fuel Consumption(100%load)..... | 22.6L/h |

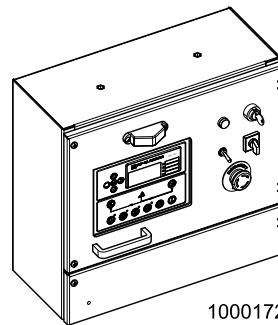
Alternator

1000069777-AP1-A1



| | |
|---|------------------------------|
| Alternator Manufacturer/Brand | Leroy Somer |
| Alternator Model | LSA44.3S5 |
| 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..... | 0.25m³/s(50Hz),0.3m³/s(60Hz) |
| Voltage Regulation | ±0.5% |
| Total harmonic TGH / THC at no load < 2 % - on load < 5 % | |
| Telephone Interference..... | THF<2%;TIF<50 |

PLC-7420 Control System



1000172720-AP1-F2

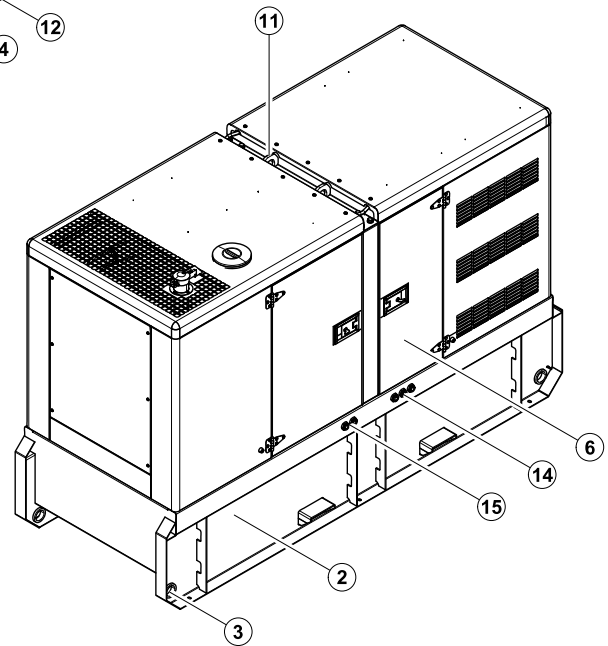
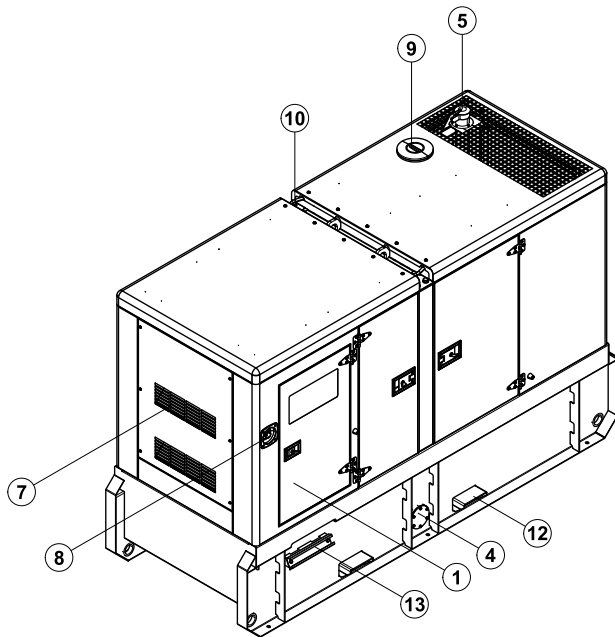
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and 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

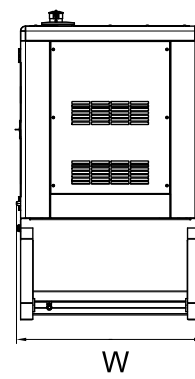
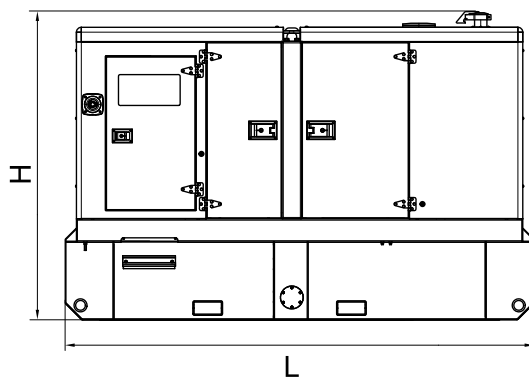
4 Overall Dimensions

1000023403-DR1-D2

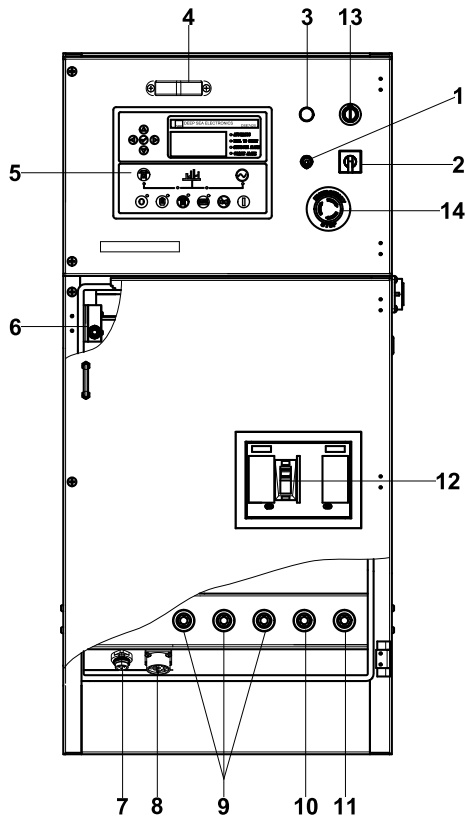
| | |
|----------------------|------------------|
| Dry weight | 1971kg |
| Fuel tank capacity | 550L |
| Dimensions L x W x H | 2888x1165x1900mm |



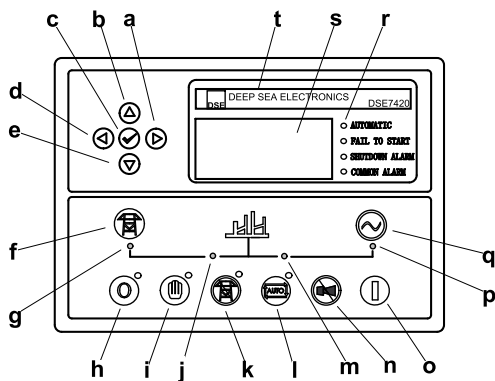
- ⑧ Emergency stop switch
- ⑦ Air inlet
- ⑥ Access door
- ⑤ Exhaust gas outlet
- ④ Fuel drain
- ③ Tie down
- ② Base frame
- ① Control cabinet
- ⑮ External fuel inlet/return hose fitting
- ⑭ Coolant/Oil drain hose fitting
- ⑬ Cable trench
- ⑫ Fork lift channel
- ⑪ Lifting lug
- ⑩ Roping lug
- ⑨ Coolant inlet



5 Control System



Control & Field wiring cabinet



Control Module

| Ref. | Description |
|------|--------------------------------|
| 1 | Control cabinet lamp switch |
| 2 | Mains input changeover switch |
| 3 | Charge indicator |
| 4 | Control cabinet lamp |
| 5 | Control module |
| 6 | Limit switch |
| 7 | Remote communication interface |
| 8 | ATS communication interface |
| 9 | Live wire terminals |
| 10 | Neutral wire terminal |
| 11 | Ground wire terminal |
| 12 | Main circuit breaker |
| 13 | Key switch |
| 14 | Emergency stop 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 |

| |
|-----------------|
| 1000023403-D2-E |
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| 01.2020 |
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<http://www.powerlinkworld.com>

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