

Generator set
Sound-proof type

WPS400S-AU

SPECIFICATIONS





1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- ConformiteEuropeenne(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 45°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.

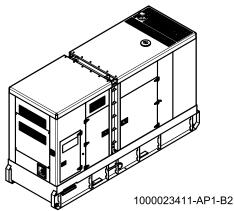
2 General Features

- Perkins engine 2206C-E13TAG3
- Close coupled to a Leroy Somer alternator LSA47.2VS4
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 630A
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: Self Excited
- A.V.R.Model: R250
- · Key switch
- Emergency stop switch
- · ATS (automatic transfer switch) receptacle

- · Remote run connector
- 2x12V/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 forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- · Base fuel tank for 9 hours running
- Drain points for fuel tank
- · Breather valve for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

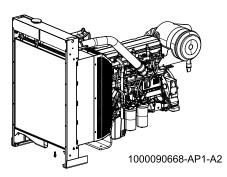
General technical data



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Model	WPS400S-AU
Structure type	R
Tankcapacity	1650L
Dry weight	4576kg
Noise level @7m	N/A
DimensionsL×W×H	4242×1614×2476mm
Standby Power	440kVA/352kW
Prime Power	400kVA/320kW
Voltage/Current	415V/556A

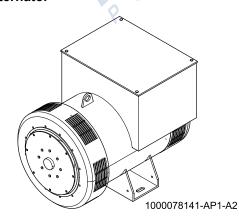
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	46	65	85	93

Diesel engine



Engine Manufacturer/Brand	Perkins
Engine Model	2206C-E13TAG3
Dimensions L×W×H	2410×1120×1725mm
Dry Weigh (approx.)	1478Kg
Number of Cylinders	6
Bore	130mm
Stroke	157mm
Displacement	12.5L
Compression Ratio	16.3
Type of injection	Direct injection
Intake System Turbocharge	d,air-to-air charge cooled
Intake Resistance	N/A
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel BSEN590 or ASTI	M D975 Class 1D and 2D
Type of Oil	15W40 to API CI4.
Oil Capacity	40L
Type of Coolant	
Coolant Capacity	51.4L
Back Pressure	
Standby Power	413kW
Prime Power	368kW
Fuel Consumption(100%load)	

Alternator



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA47.2S4
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Windings	100% copper
Insulation Class	Н
Winding Pitch	2/3
Terminals	12
Drip Proof	IP23
Altitude	≤1000m
Overspeed	2250rpm
Air Flow0	.9m³/s(50Hz),1.1m³/s(60Hz)
Voltage Regulation	±0.5%
Total harmonic TGH / THCat no	load < 1,5 % - on load < 2 %
Telephone Interference	THF<2%;TIF<50

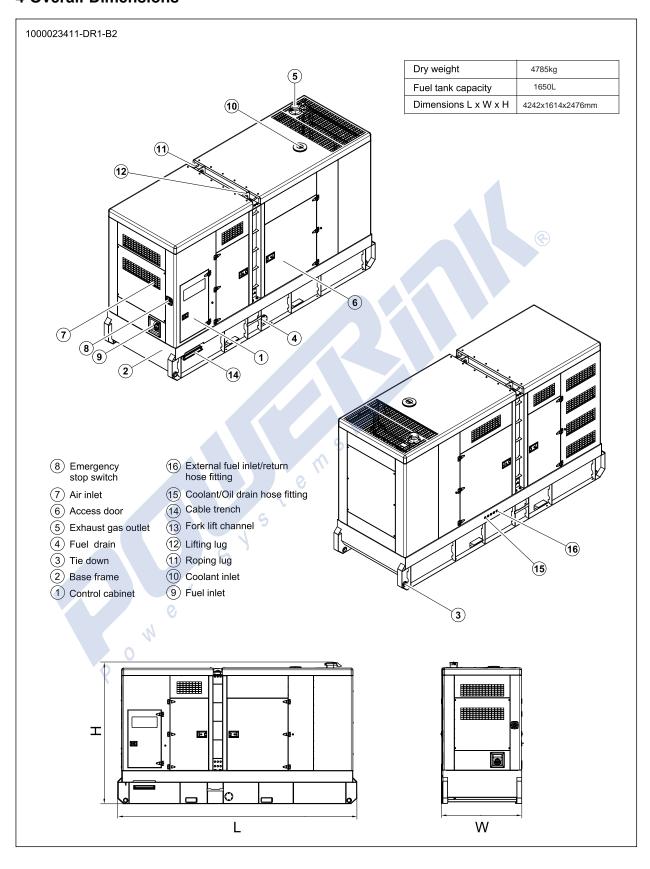
PLC-7420 Control System



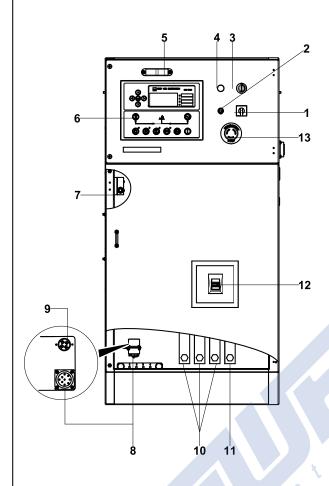
PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

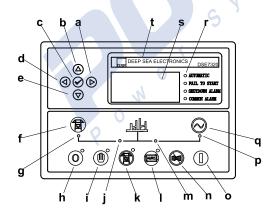
4 Overall Dimensions



5 Control System



Control & Field wiring cabine



Control module

Ref.	Description
1	Control cabinet lamp switch
2	Mains input changeover switch
3	Charge indicator
4	Key switch
5	Control cabinet lamp
6	Control module
7	Limit switch
8	Mains input/ AMF communication connector
9	Mains input/ remote communication connector
10	Live wire terminals
11	Neutral wire terminal
12	Main circuit breaker
13	Emergency stop switch

	а	Button (next page)
	b	Button (increase value / previous item)
١	С	Button (accept)
	d	Button (previous page)
	8 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)
	ı	Auto button (Auto mode)
	m	Genset on load LED
	n	Mute/Lamp test button
	O	Start button (Manual)
	р	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

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