

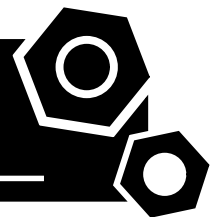
**Generator set**

**Containerized type**

**WPS800S**

**SPECIFICATIONS**

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**EP series**  
**WPS800S**  
 50 Hz @ 1500rpm,3-phase/5-wiring

**1 Standards & Conditions**

**Design Standards**

The designs and the productions are in conformity with:

- Conformance Europeenne (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 50°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.

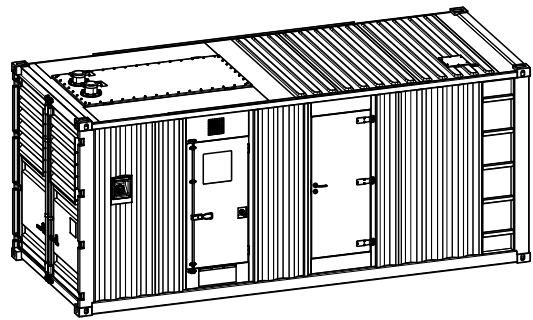
**2 General Features**

- Perkins engine 4006-23TAG3A
- Close coupled to a Leroy Somer alternator LSA49.1M75
- Microprocessor control module PLC-7420
- DMA main circuit breaker: 1250A
- Rotate speed governor: Electronic governor
- Excitation system: Self excited
- A.V.R model: R448
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 2x12V/150AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy, IP43 drip protection class

- 50°C radiator
- Fire extinguisher
- Oil pump on the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Fuel tank for 8 hours running
- Fuel inlet pump and it's control box for the fuel tank
- Added fuel-water separator for fuel tank
- Drain points for fuel tank
- Operation Manual / Specifications

**3 Equipment Specification**

**General technical data**

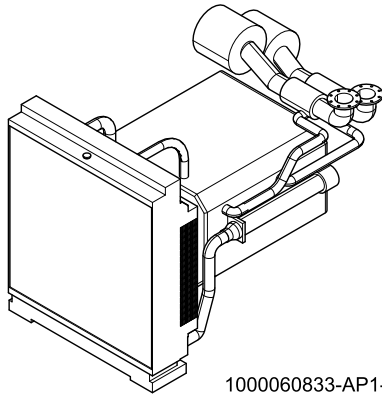


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Model..... WPS800S  
 Structure type ..... C  
 Tank capacity ..... 1450L  
 Dry weight..... 10895kg  
 Sound pressure level @7m ..... 106.75dB(A)  
 Sound power level acc. 2000/14/EC ..... 134.6dB(A)  
 Dimensions L×W×H..... 6058×2438×2730mm  
 Standby Power ..... 880kVA/704kW  
 Prime Power ..... 800kVA/640kW

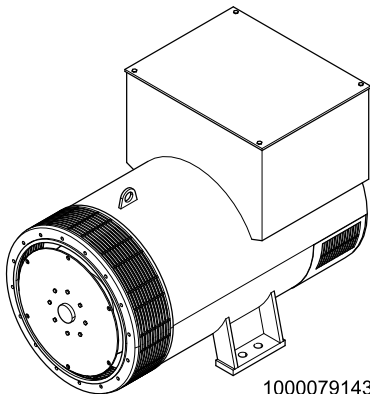
Voltage	380V	400V	415V	440V	
Ampere	1215.5A	1154.7A	1112.9A	1049.7A	
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	85.5	123.5	163.4	184.3

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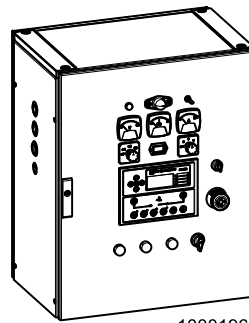
Engine Manufacturer/Brand.....	Perkins
Engine Model.....	4006-23TAG3A
Dimensions L×W×H.....	3027×1706×1964mm
Dry Weigh (approx.).....	2524kg
Number of Cylinders.....	6
Bore.....	160mm
Stroke.....	190mm
Displacement.....	22.92L
Compression Ratio.....	13.6
Type of Injection.....	Direct injection
Intake System.....	Turbocharged air-to-air charge cooled
Intake Resistance.....	≤3.7kPa
Cooling System.....	Water cooled
Fan.....	Pusher
Battery Voltage.....	24V
Type of Fuel.....	BS2869 1998 Class A1, A2
Type of Oil.....	API CG4 15W/40
Oil Capacity.....	113.4L
Type of Coolant.....	Glycol Mixture
Coolant capacity.....	105L
Back Pressure.....	≤6.0kPa
Standby Power.....	786kW
Prime Power.....	705kW
Fuel Consumption(100%load).....	210g/kW.h



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Alternator Manufacturer/Brand.....	Leroy Somer
Alternator Model.....	LSA49.1M75
Exciter.....	Brushless
Cooling Fan.....	Cast alloy aluminum
Windings.....	100% copper
Insulation Class.....	H
Winding Pitch.....	2/3
Terminals.....	6
Drip Proof.....	IP23
Altitude.....	≤1000m
Overspeed.....	2250Rev/Min
Air Flow.....	1m³/s(50Hz), 1.2m³/s(60Hz)
Voltage Regulation.....	±0.5%
Total Harmonic TGH / THCat no load < 4 % - on load < 4%	
Telephone Interference.....	THF<2%;TIF<50

## PLC-7420 Control System



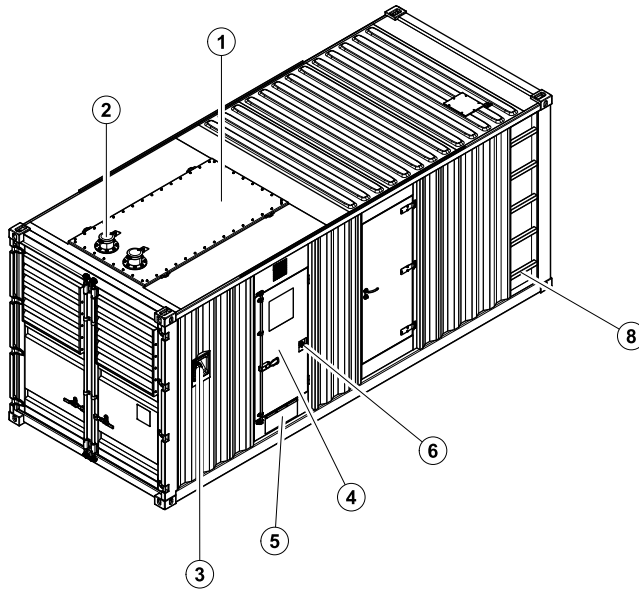
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PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal.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

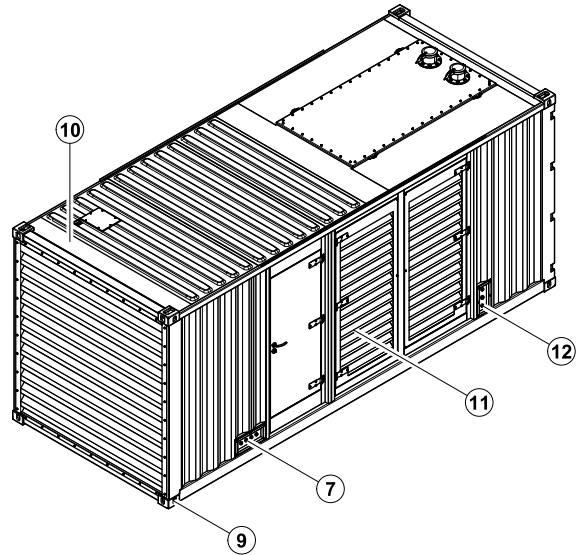
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, 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

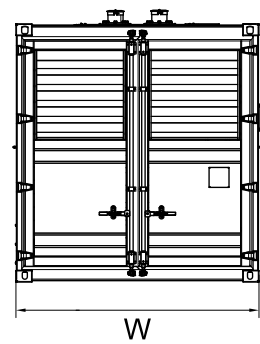
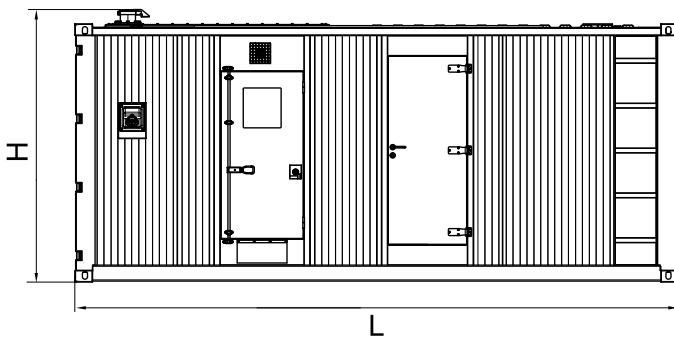
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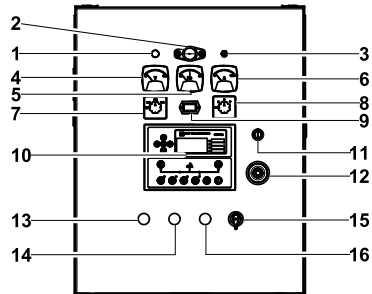
Dry weight	10895kg
Fuel tank capacity	1450L
Dimensions L x W x H	6058x2438x2730mm



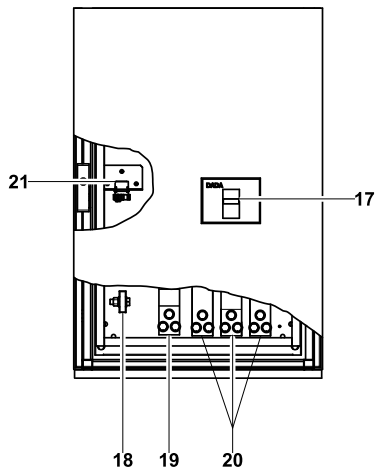
- ⑥ Emergency stop switch
- ⑤ Cable trench
- ④ Control cabinet
- ③ Fuel inlet
- ② Exhaust gas outlet
- ① Muffler
- ⑫ External fuel inlet/return hose fitting
- ⑪ Access door
- ⑩ Canopy
- ⑨ Fixing lug
- ⑧ Ladder
- ⑦ Coolant/oil drain hose fitting



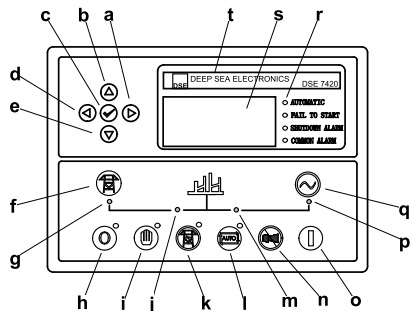
## 5 Control System



Control cabinet



Field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Control cabinet lamp
3	Control cabinet lamp switch
4	Voltage meter
5	Frequency meter
6	Current meter
7	Changerover switch-Voltage
8	Changerover switch-Current
9	Time counter
10	Control module
11	Key switch
12	Emergency stop switch
13	Fuel adding manual/auto selector
14	Running button with indicator
15	Oil drain switch
16	Stop button with indicator
17	Main circuit breaker
18	Ground wire terminal
19	Neutral wire terminal
20	Live wire terminals
21	Mains input/Remote control/ ATS communication connector

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

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04.2014