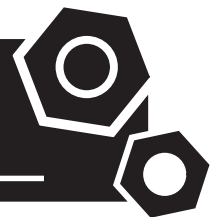


Generator set
Containerized type
WCS2250S

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

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 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.

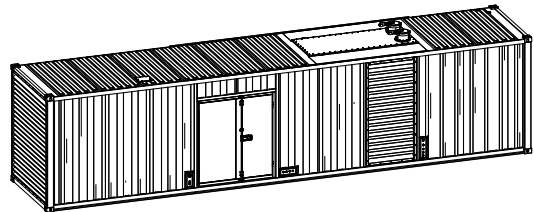
2 General Features

- Cummins engine QSK60-G13
- Close coupled to Stamford alternator S7L1D-G41
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 3200A
- RCQ
- Rotate speed governor: Electronic fuel injection gover-nor
- Excitation system: PMG
- A.V.R model: MX341
- Key switch
- Emergency stop switch
- Mains input/remote communication connector
- Fuel adding device

- ATS (automatic transfer switch) receptacle
- 4x12V/200AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- Standard container
- 50°C radiator
- Fire extinguisher
- Oil pump on the engine
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Fuel tank with 12 hours running
- Drain points for fuel tank
- Fuel-water separator for fuel tank
- Operation Manual / Specification

3 Equipment Specification

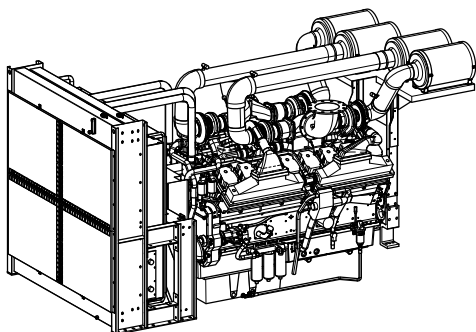
General technical data



Model.....	WCS2250S			
Structure type	C			
Tank capacity.....	5000L			
Dry weight.....	23500kg			
Noise level @7m	84dBA			
Dimensions L×W×H.....	12192x2438x2896mm			
Standby Power	2250kVA/1800kW			
Prime Power	2003kVA/1602kW			

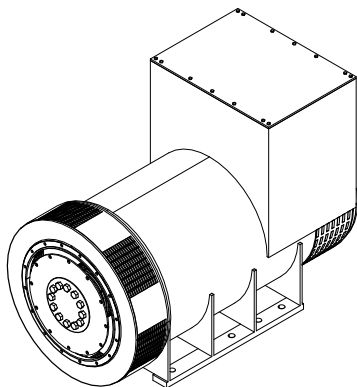
Voltage	380V	400V	415V	440V	
Ampere	3039A	2887A	2782A	2624A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	116	205	295	393	523

Diesel engine



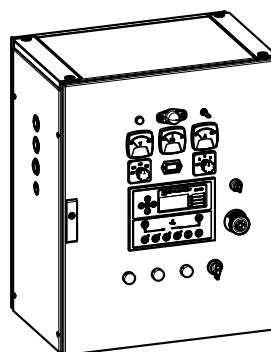
Engine Manufacturer/Brand	Cummins
Engine Model	QSK60-G13
Dimensions L×W×H	4893×2468×2943mm
Dry Weigh (approx.)	10295Kg
Number of Cylinders	16
Bore	159mm
Stroke	190mm
Displacement	60.2L
Compression Ratio	14.5
Type of injection	Direct injection
Intake System	Turbocharged and Low Temp Aftercooled
Intake Resistance	≤6.2kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel	No. 2 diesel or ASTM D2
Type of Oil	15W40 to API CG4
Oil Capacity	280.1L
Type of Coolant	Glycol mixture
Coolant Capacity	34.1L
Back Pressure	≤7kPa
Standby Power	2164kW
Prime Power	1727kW
Fuel Consumption(100%load)	393L/h

Alternator



Alternator Manufacturer/Brand	Stamford
Alternator Model	S7L1D-G41
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	2250rpm
Air Flow	2.69m³/s(50HZ),3.45m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference	THF<2%;TIF<50

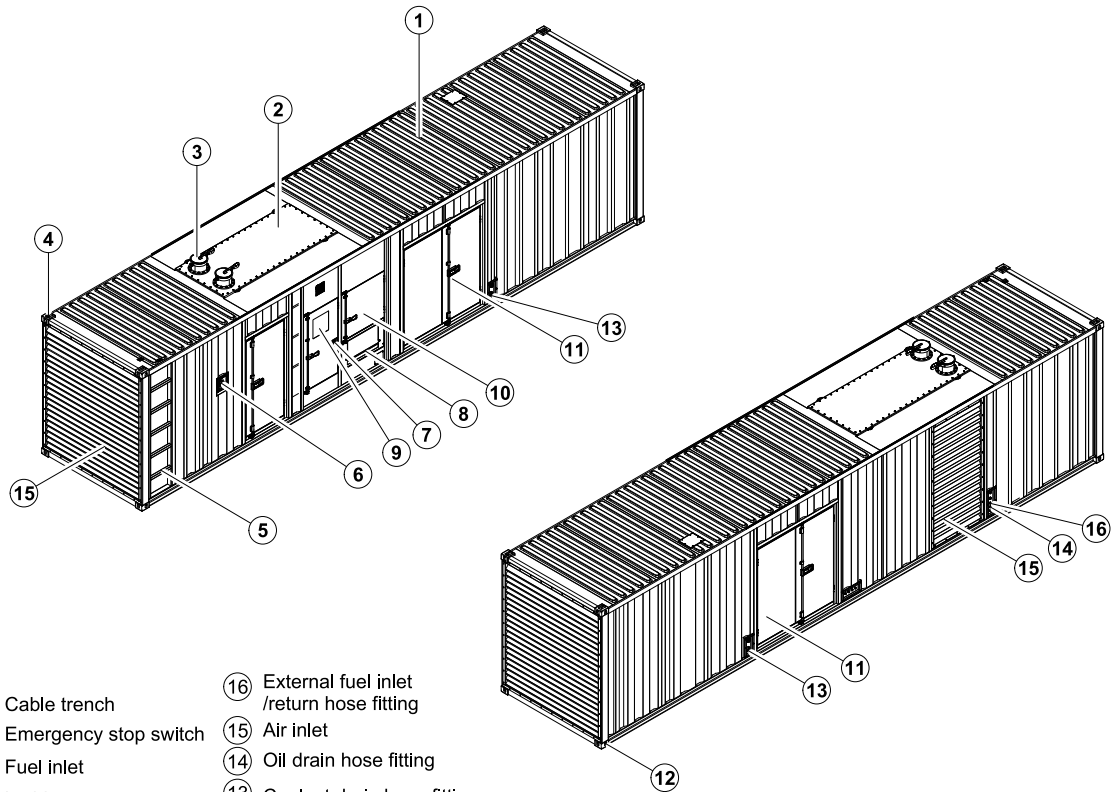
PLC-7420 Control System



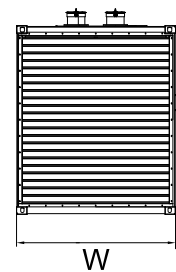
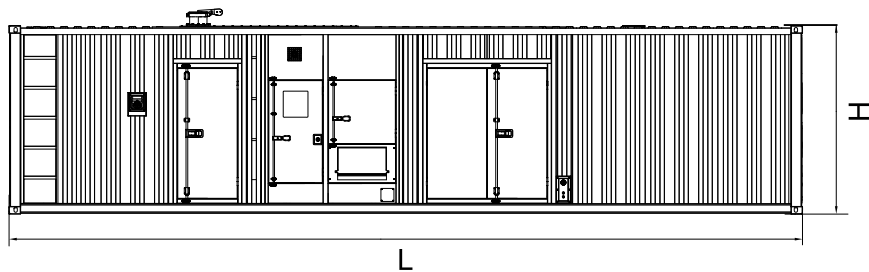
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

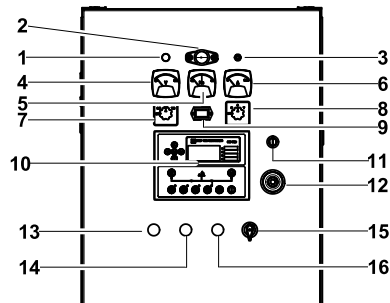
4 Overall Dimensions



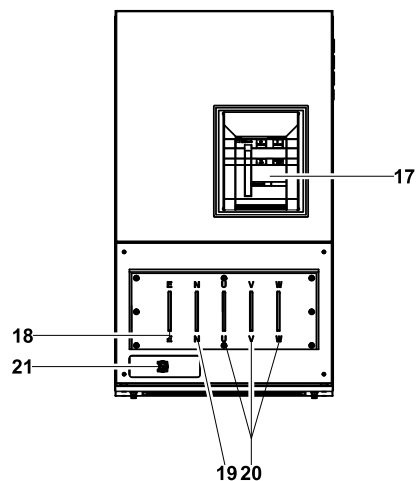
- | | |
|---------------------------|---|
| (8) Cable trench | (16) External fuel inlet /return hose fitting |
| (7) Emergency stop switch | (15) Air inlet |
| (6) Fuel inlet | (14) Oil drain hose fitting |
| (5) Ladder | (13) Coolant drain hose fitting |
| (4) Lifting lug | (12) Fixing lug |
| (3) Exhaust gas outlet | (11) Access door |
| (2) Muffler | (10) Switch cabinet |
| (1) Canopy | (9) Control cabinet |



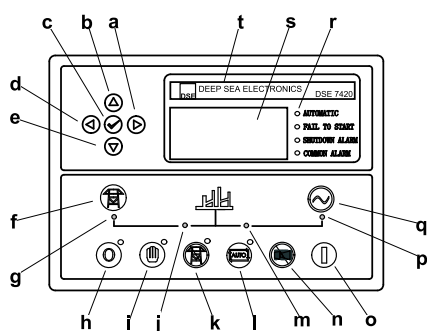
5 Control System



Control cabinet



Field wiring cabinet



Control module

A

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 leak indicator
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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