

DGPL550C - 3

50 Hz @ 1500rpm, 3-phase / 4-wiring

A. STANDARDS & CONDITIONS

Design Standards

The designs and the productions are in conformity with:

- Conformance Europeenne (CE)
- ISO8528-5:2005
- AS 3000-2018
- AS 3010-2017

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 varying: 0%, 25%, 50%, 75%, 100%, 110% Load

Painting Process

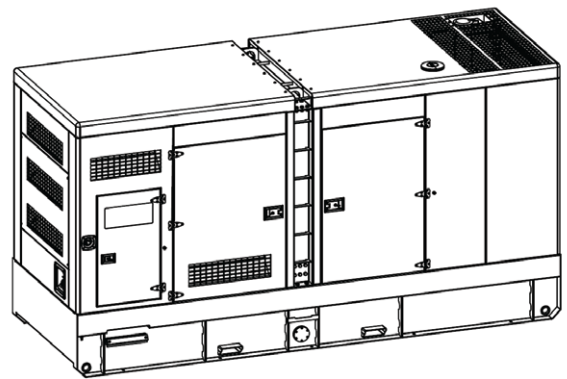
- Painting process specifications and colors are based on the manufacturer's standard
- The customer could also choose the color which the manufacturer offers

B. GENERAL FEATURES

- Cummins engine QSX15-G8
- Close coupled to a Stamford alternator HCI544D
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 800A
- Rotate speed governor: Electronic fuel injection governor
- Excitation system: Self excited
- A.V.R model: AS440
- Voltage changeover switch
- 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 16 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

C. GENERAL TECHNICAL DATA

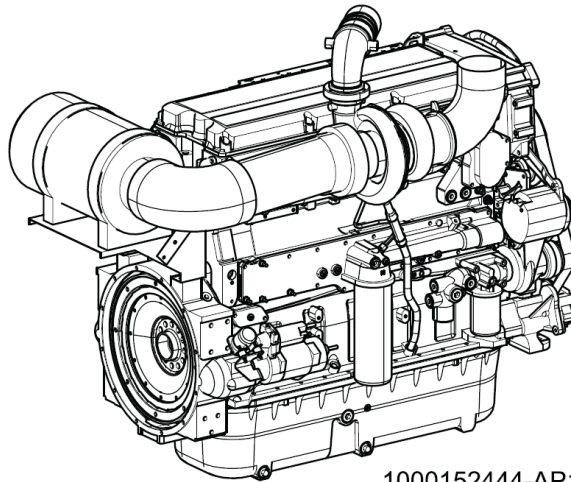


MODEL	WCS550S-AU
STRUCTURE TYPE	R
TANK CAPACITY	1600 L
DRY WEIGHT	6022 kg
NOISE LEVEL @ 7M	77.2 dBA
DIMENSIONS	4662 x 1623 x 2566 mm
STANDBY POWER	550 kVA / 440 kW
PRIME POWER	500 kVA / 400 kW
EMISSIONS COMPLIANCE	EU Stage II

Voltage	380V	400V	415V	440V	
Ampere	759.6A	721.1A	695.6A	656.1A	
GENSET FUEL CONSUMPTION					
Freq./Load	25%	50%	75%	100%	110%
50Hz (L/h)	30.3	54.7	78.7	103	123

DIESEL GENERATION AUSTRALIA

DIESEL ENGINE



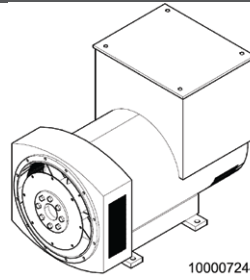
1000152444-AP1-A1

ENGINE SPECIFICATIONS

1	ENGINE MANUFACTURER/BRAND	Cummins
2	ENGINE MODEL	QSX15-G8
3	DIMENSIONS	2269 × 1332 × 1669 mm
4	DRY WEIGHT (APPROX.)	1658 kg
5	NUMBER OF CYLINDERS	6
6	BORE	137 mm
7	STROKE	169 mm
8	DISPLACEMENT (LITER)	15 L
9	COMPRESSION RATIO	17
10	TYPE OF INJECTION	Direct Injection
11	INTAKE SYSTEM	Turbocharged, air-to-air charge cooled
12	INTAKE RESISTANCE	6.2 kPa
13	COOLING SYSTEM	Water Cooled
14	FAN	Pusher
15	BATTERY VOLTAGE	24V
16	TYPE OF FUEL	No.2 or ASTM D975
17	TYPE OF OIL	API CH/SE or CCMCH4
18	OIL CAPACITY	91.0 L
19	TYPE OF COOLANT	Glycol Mixture
20	COOLANT CAPACITY	24.0 L
21	BACK PRESSURE	10.1 kPa
22	STANDBY POWER	500 kW
23	PRIME POWER	444 kW
24	FUEL CONSUMPTION (100% LOAD)	103 g/kWh

DIESEL GENERATION AUSTRALIA

ALTERNATOR

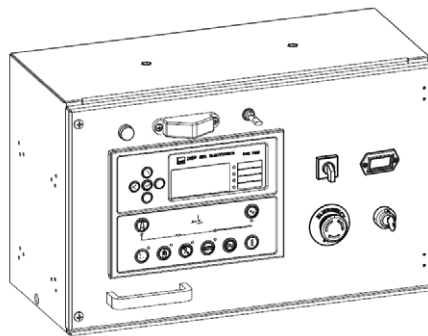


1000072447-AP1-A1

ALTERNATOR SPECIFICATIONS

1	ALTERNATOR MANUFACTURER/BRAND	Stamford
2	ALTERNATOR MODEL	HCl544D
3	EXCITER	Brushless
4	COOLING FAN	Cast Alloy Aluminum
5	WINDINGS	100% Copper
6	INSULATION CLASS	H
7	WINDING PITCH	2 / 3
8	TERMINALS	12
9	DRIP PROOF	IP23
10	ALTITUDE	≤ 1000m
11	OVERSPEED	2250rpm
12	AIR FLOW	0.11m³/s(50Hz),0.135m³/s(60Hz)
13	VOLTAGE REGULATION	± 0.5%
14	TOTAL HARMONING TGH / THCat No Load < 1.5%	on load < 5%
15	TELEPHONE INTERFERENCE	THF < 2%; TIF <50

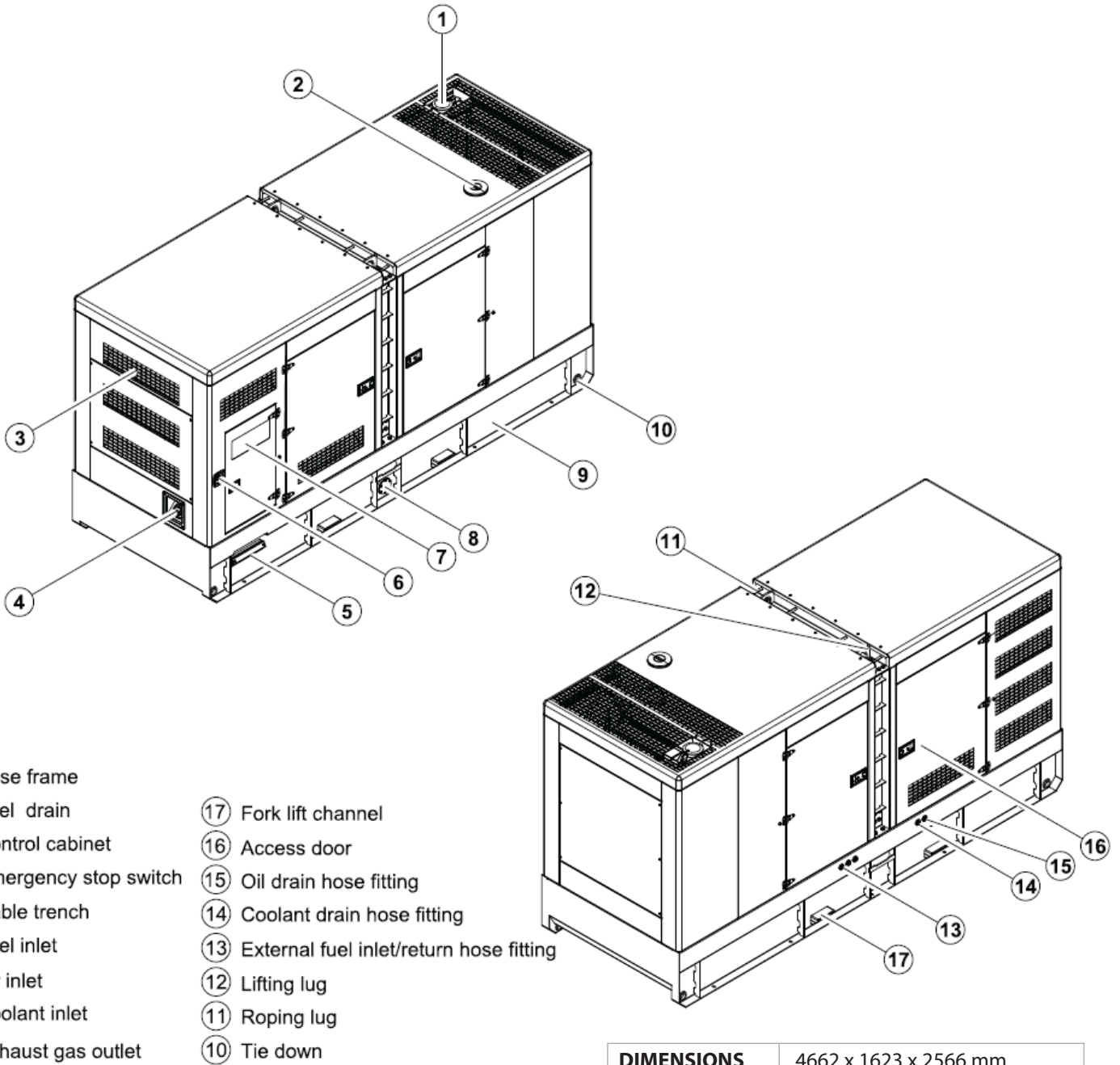
PLC-7420 CONTROL SYSTEM



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.

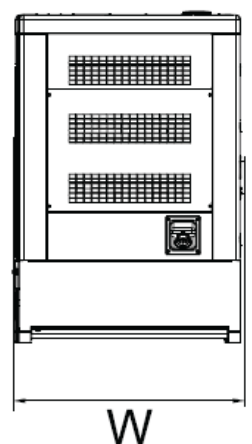
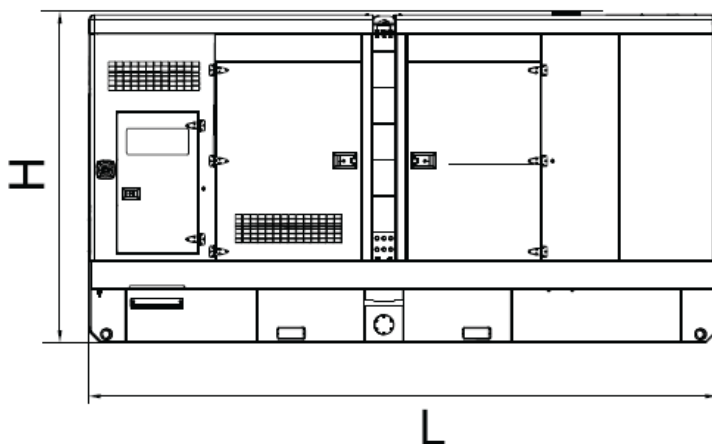
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual,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

D. OVERALL DIMENSION

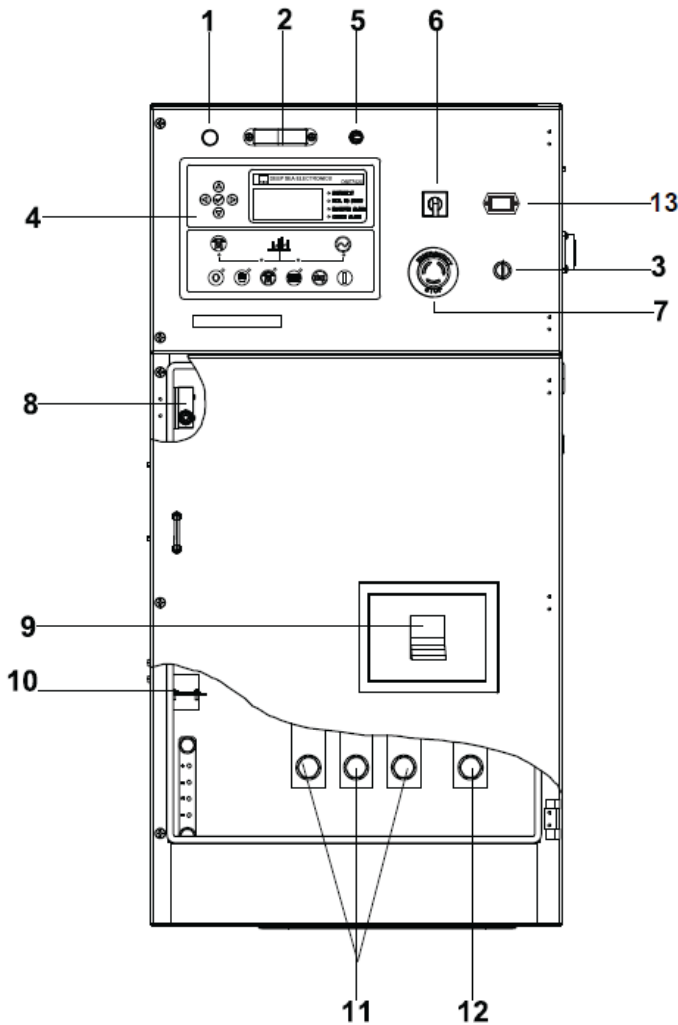


- ⑨ Base frame
- ⑧ Fuel drain
- ⑦ Control cabinet
- ⑥ Emergency stop switch
- ⑤ Cable trench
- ④ Fuel inlet
- ③ Air inlet
- ② Coolant inlet
- ① Exhaust gas outlet
- ⑬ Fork lift channel
- ⑫ Access door
- ⑪ Oil drain hose fitting
- ⑩ Coolant drain hose fitting
- ⑨ External fuel inlet/return hose fitting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

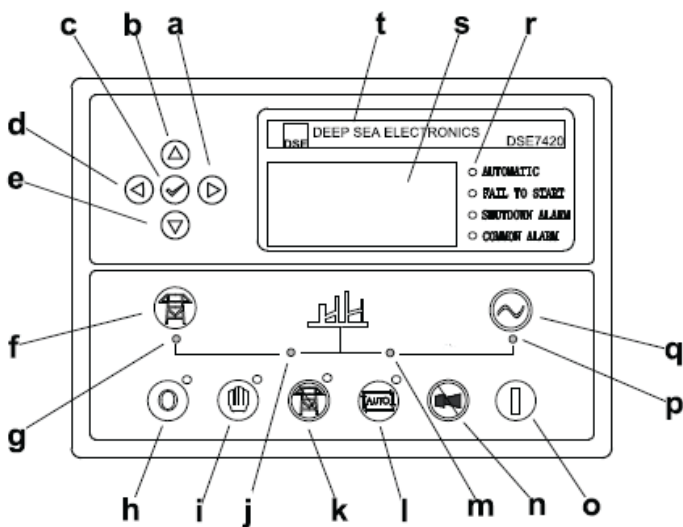
DIMENSIONS	4662 x 1623 x 2566 mm
DRY WEIGHT	6022 kg



E. CONTROL SYSTEM



Control & field wiring cabinet



Control module

Ref.	Description
1	Charge Indicator
2	Control Cabinet Lamp
3	Key Switch
4	Control Module
5	Control Cabinet Lamp Switch
6	Mains Input Changeover Switch
7	Emergency Stop Button
8	Limit Switch
9	Main Circuit Breaker
10	Mains Input / Remote / AMF Communication Connector
11	Live Wire Terminals
12	Neutral Wire Terminal
13	Time Counter

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)
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)
r.	Alarm LED (4 alarm items)
s.	LCD Display
t.	Control Module Name

1000024787-E2-E

10.2020