

DGPL220C - 3

50 Hz @ 1500rpm, 3-phase / 5-wiring

220kVA
CUMMINS
DGPL220C - 3

A. STANDARDS & CONDITIONS

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009
- AS 3000-1997
- AS 3010.1-1988

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

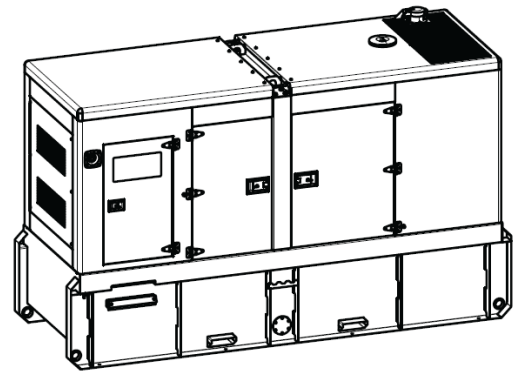
- Painting process specifications and colors are based on the manufacturer's standard
- The customer could also choose the color which the manufacturer offers

B. GENERAL FEATURES

- Cummins engine 6CTAA8.3-G2
- Close coupled to a Stamford alternator UCI274H
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 320A
- Rotate speed governor: Electrical governor S6700E
- Excitation System: PMG
- A.V.R.Model: MX341
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connextor
- 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 24 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

C. GENERAL TECHNICAL DATA

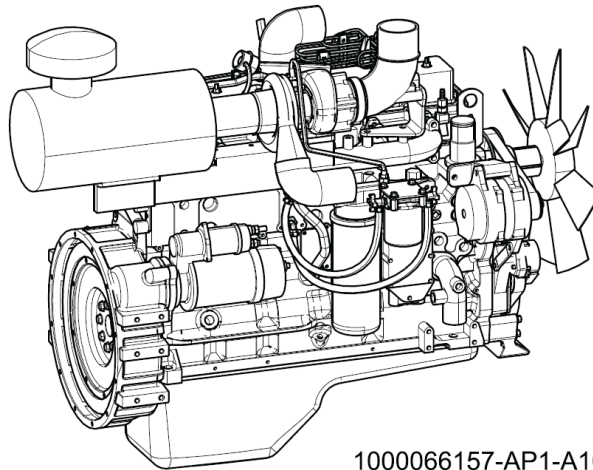


MODEL	DGPL220C - 3
STRUCTURE TYPE	R
TANK CAPACITY	1330 L
DRY WEIGHT	2959 kg
NOISE LEVEL @ 7M	74.2 dBA
DIMENSIONS	3592 x 1322 x 2148 mm
STANDBY POWER	220 kVA / 176 kW
PRIME POWER	200 kVA / 160 kW
VOLTAGE/AMPERE	415 V / 278 A

GENSET FUEL CONSUMPTION					
Freq./Load	25%	50%	75%	100%	110%
50Hz (L/h)	13.5	23.3	34.0	45.4	51.4

DIESEL GENERATION AUSTRALIA

DIESEL ENGINE



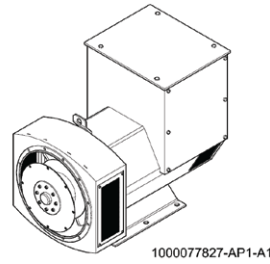
1000066157-AP1-A10

ENGINE SPECIFICATIONS

1	ENGINE MANUFACTURER/BRAND	Cummins
2	ENGINE MODEL	6CTAA8.3G2
3	DIMENSIONS	1485.3 x 866.5 x 1245.0 mm
4	DRY WEIGHT (APPROX.)	702 kg
5	NUMBER OF CYLINDERS	6
6	BORE	114 mm
7	STROKE	135 mm
8	DISPLACEMENT (LITER)	8.3 L
9	COMPRESSION RATIO	N/A
10	TYPE OF INJECTION	Direct Injection
11	INTAKE SYSTEM	Turbocharged, water-to-air charge cooled
12	INTAKE RESISTANCE	6.28 kPa
13	COOLING SYSTEM	Water Cooled
14	FAN	Pusher
15	BATTERY VOLTAGE	12/24V
16	TYPE OF FUEL	Diesel
17	TYPE OF OIL	ACEA E2, API CF, CF-4, CG-4
18	OIL CAPACITY	18.9 L
19	TYPE OF COOLANT	Glycol Mixture
20	COOLANT CAPACITY	45.3 L
21	BACK PRESSURE	10.1 kPa
22	STANDBY POWER	203 kW
23	PRIME POWER	183 kW
24	FUEL CONSUMPTION (100% LOAD)	45.4 g/kWh
25	HEAT REJECTED TO EXHAUST SYSTEM	123 kW (6999BTU/min)
26	HEAT REJECTED TO WATER & LUBE OIL	83 kW(4723BTU/min)

DIESEL GENERATION AUSTRALIA

ALTERNATOR

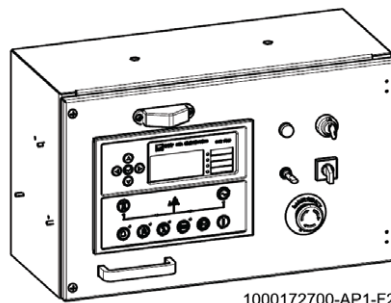


1000077827-AP1-A1

ALTERNATOR SPECIFICATIONS

1	ALTERNATOR MANUFACTURER/BRAND	Stamford
2	ALTERNATOR MODEL	UCI274H
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



1000172700-AP1-F2

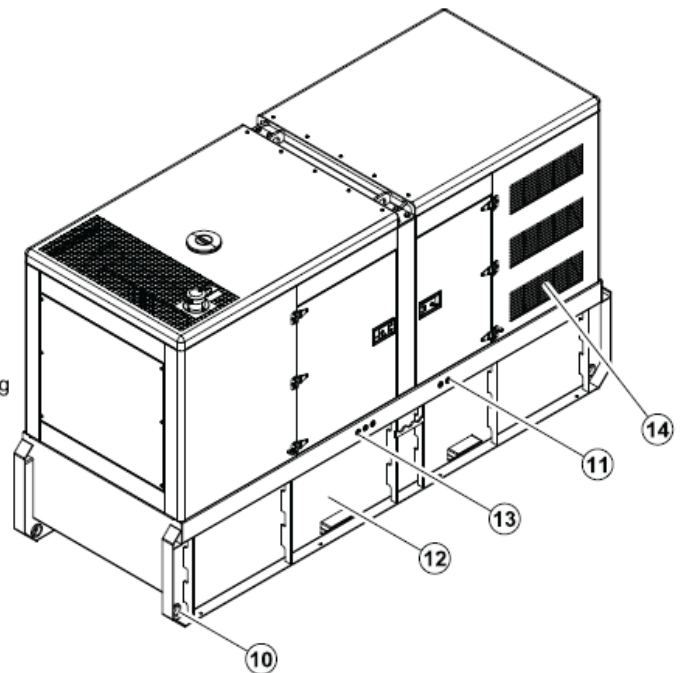
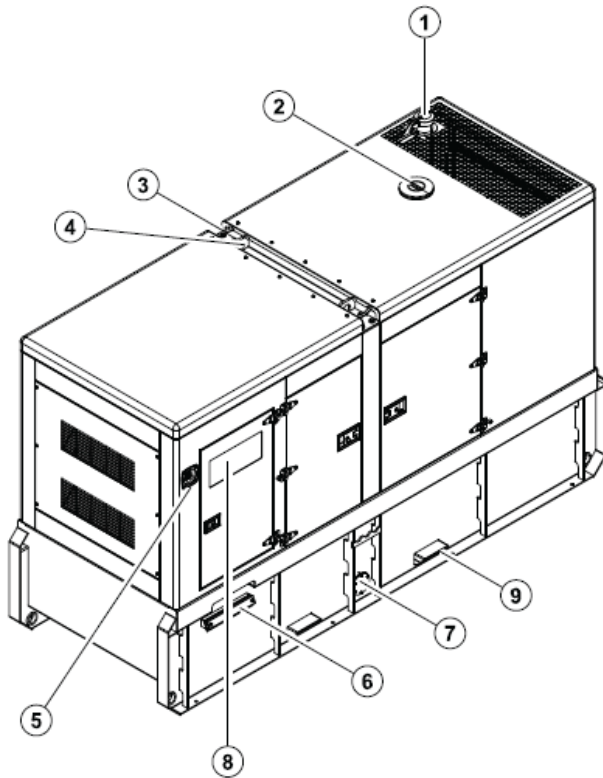
PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

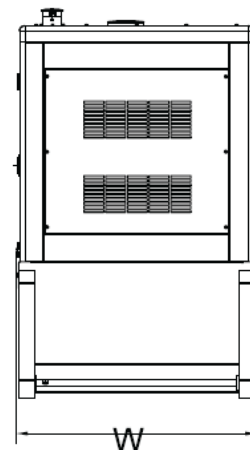
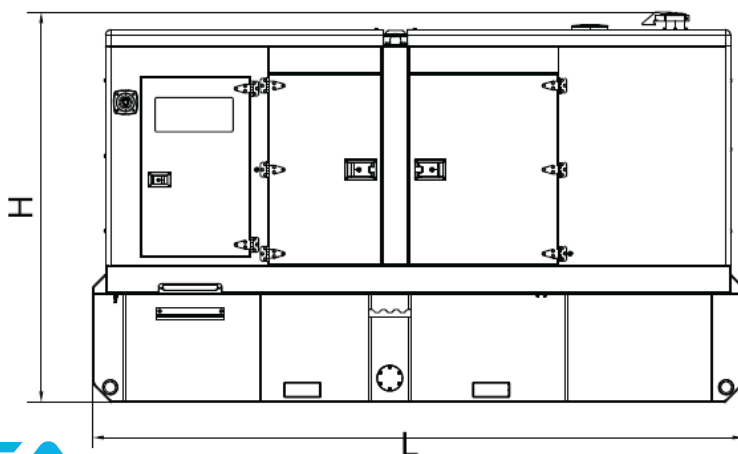
1000023420-DR1-C2

Dry weight	2959kg
Fuel tank capacity	1330L
Dimensions L x W x H	3592x1322x2152mm

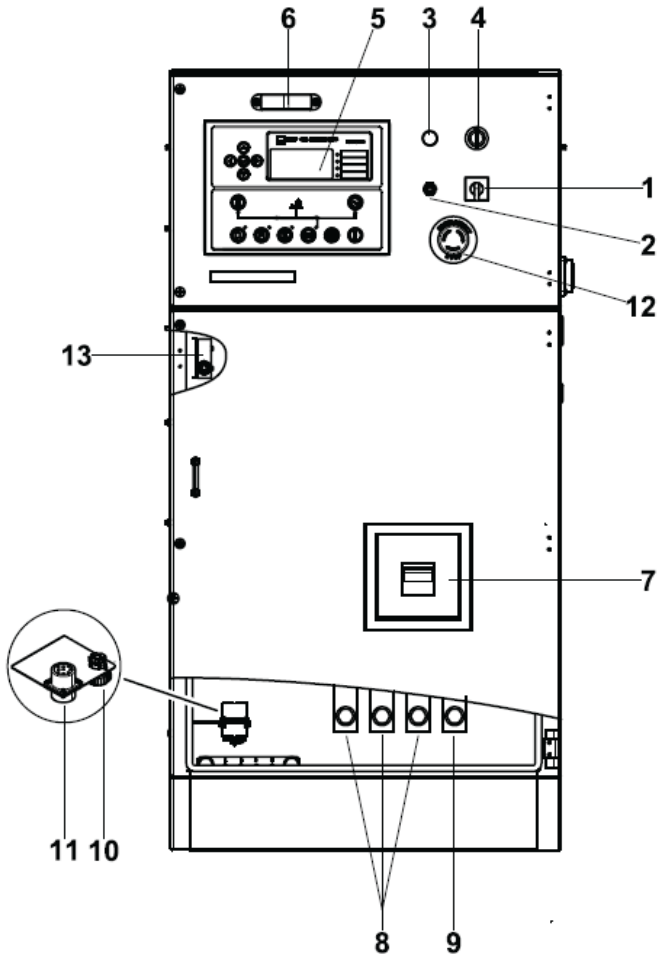


- ⑦ Fuel drain
- ⑥ Cable trench
- ⑤ Emergency stop switch
- ④ Lifting lug
- ③ Roping lug
- ② Coolant inlet
- ① Exhaust gas outlet
- ⑭ Air inlet
- ⑬ Coolant drain/
External fuel inlet/return hose fitting
- ⑫ Base frame
- ⑪ Oil drain hose fitting
- ⑩ Tie down
- ⑨ Fork lift channel
- ⑧ Control cabinet

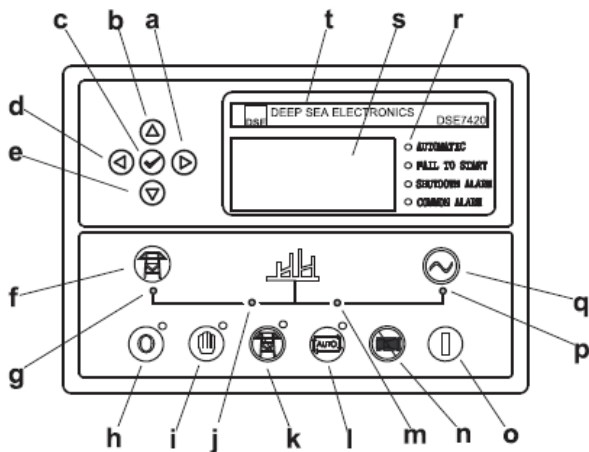
DIMENSIONS	3592 x 1322 x 2148 mm
DRY WEIGHT	2959 kg



E. CONTROL SYSTEM



Control & Field wiring cabinet



Control module

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

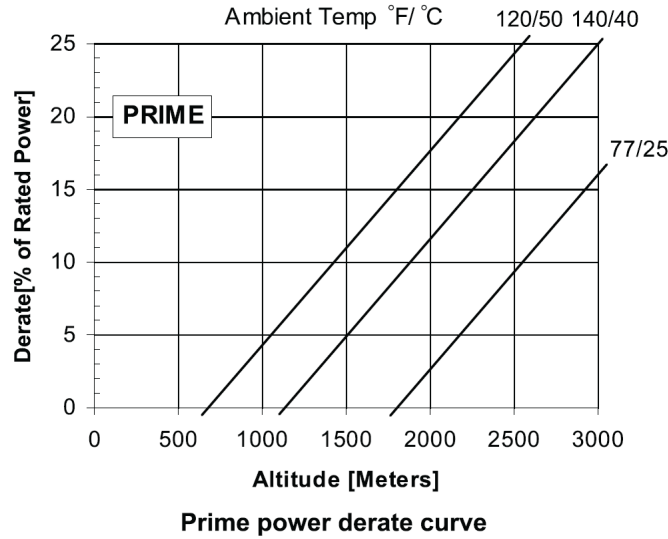
a.	Button (next page)
b.	Button (increase value / previous item)
c.	Button (accept)
d.	Button (previous page)
e.	Button (decrease value / next item)
f.	Button (transfer the load to the mains supply, when in Manual)
g.	Mains supply available LED
h.	Stop / Reset Button
i.	Manual button (manual control 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

1000023420-F2-E

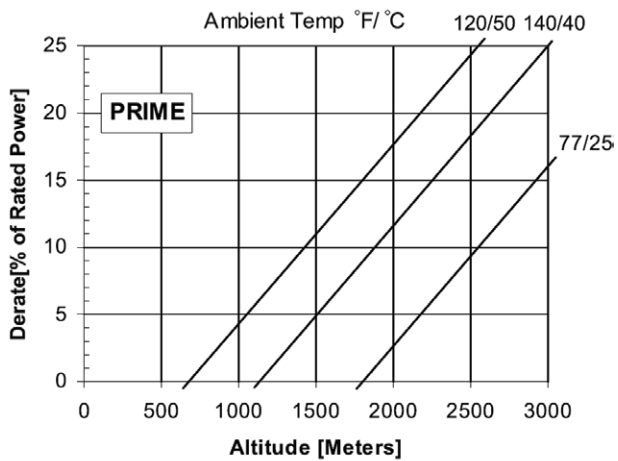
10.2020

F. DERATE CURVES

GENERATOR SET DERATE CURVES (GMS200CS-AU)



ENGINE DERATE CURVES @ 1500RPM (6CTAA8.3G2)



ALTERNATOR DERATE CURVES (UCI274H)

