

DGPL33P-3

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

33kVA
PERKINS
DGPL33P-3

A. STANDARDS & CONDITIONS

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (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

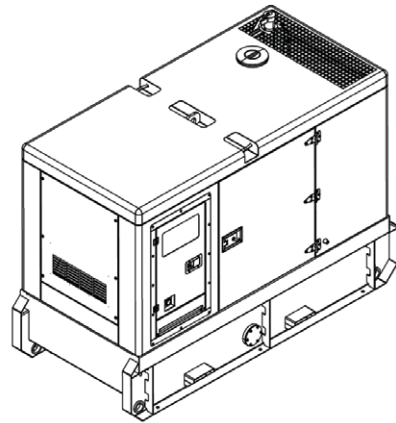
- Painting process specifications and colors are based on the manufacturer's standard
- The customer could also choose the color which the manufacturer offers

B. GENERAL FEATURES

- Perkins engine 1103A-33G
- Close coupled to a Leroy Somer alternator LSA42.3VS3
- Microprocessor control module PLC-7420
- SCHENIDER main circuit breaker: 50A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited, SHUNT
- A.V.R. Model: R220
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connector
- 1x12V/70AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50° C radiator
- Oil pump on the engine
- Steel base frame with forklifts

- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 45 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

C. GENERAL TECHNICAL DATA



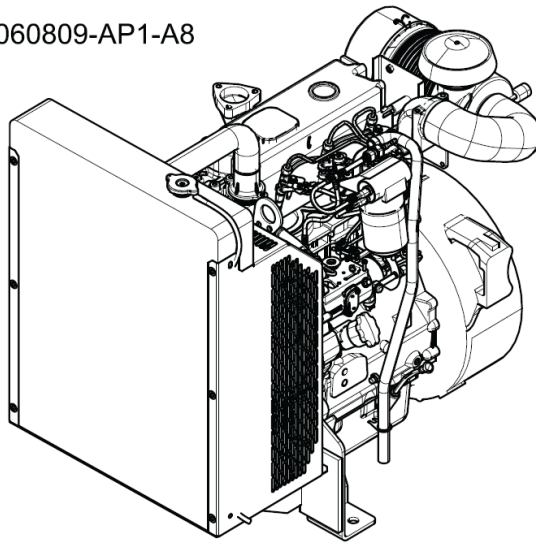
MODEL	DGPL33P-3
STRUCTURE TYPE	R
TANK CAPACITY	320 L
DRY WEIGHT	1342 kg
NOISE LEVEL @ 7M	67.4 dBA
DIMENSIONS	2338 x 1080 x 1700 mm
STANDBY POWER	33 kVA / 26 kW
PRIME POWER	30 kVA / 24 kW
VOLTAGE / AMPERE	415 V / 41.7 A

GENSET FUEL CONSUMPTION					
Freq./Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	3.9	5.4	7.1	7.9

DIESEL GENERATION AUSTRALIA

1000060809-AP1-A8

DIESEL ENGINE

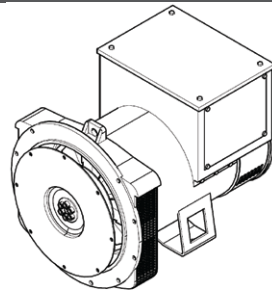


33kVA
PERKINS
DGPL33P-3

ENGINE SPECIFICATIONS

1	ENGINE MANUFACTURER/BRAND	Perkins
2	ENGINE MODEL	1103A-33G
3	DIMENSIONS	1029 × 629 × 951 mm
4	DRY WEIGHT (APPROX.)	412 kg
5	NUMBER OF CYLINDERS	3
6	BORE	105 mm
7	STROKE	127 mm
8	DISPLACEMENT (LITER)	3.3 L
9	COMPRESSION RATIO	19.25
10	TYPE OF INJECTION	Direct Injection
11	INTAKE SYSTEM	Turbocharged
12	INTAKE RESISTANCE	6.5 kPa
13	COOLING SYSTEM	Water Cooled
14	FAN	Pusher
15	BATTERY VOLTAGE	24V
16	TYPE OF FUEL	RF75-T-96 / DIN EN590 / BS2869 class A2
17	TYPE OF OIL	API-CG4/ CH4
18	OIL CAPACITY	8.31 L
19	TYPE OF COOLANT	Glycol Mixture
20	COOLANT CAPACITY	10.2 L
21	BACK PRESSURE	8 kPa
22	STANDBY POWER	31 kW
23	PRIME POWER	28.2 kW
24	FUEL CONSUMPTION (100% LOAD)	7.1 g/kWh

ALTERNATOR

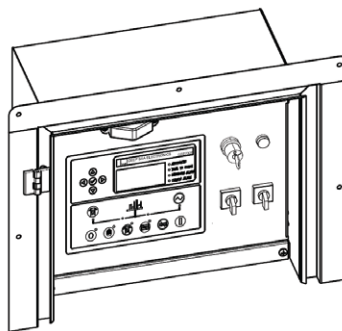


**33kVA
PERKINS
DGPL33P-3**

ALTERNATOR SPECIFICATIONS

1	ALTERNATOR MANUFACTURER/BRAND	Leroy Somer
2	ALTERNATOR MODEL	LSA42.3VS3
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	0.15m³/s
13	VOLTAGE REGULATION	± 0.5%
14	Total harmonic TGH / THC	< 4%
15	TELEPHONE INTERFERENCE	THF < 2%; TIF <50

PLC-7420 CONTROL SYSTEM

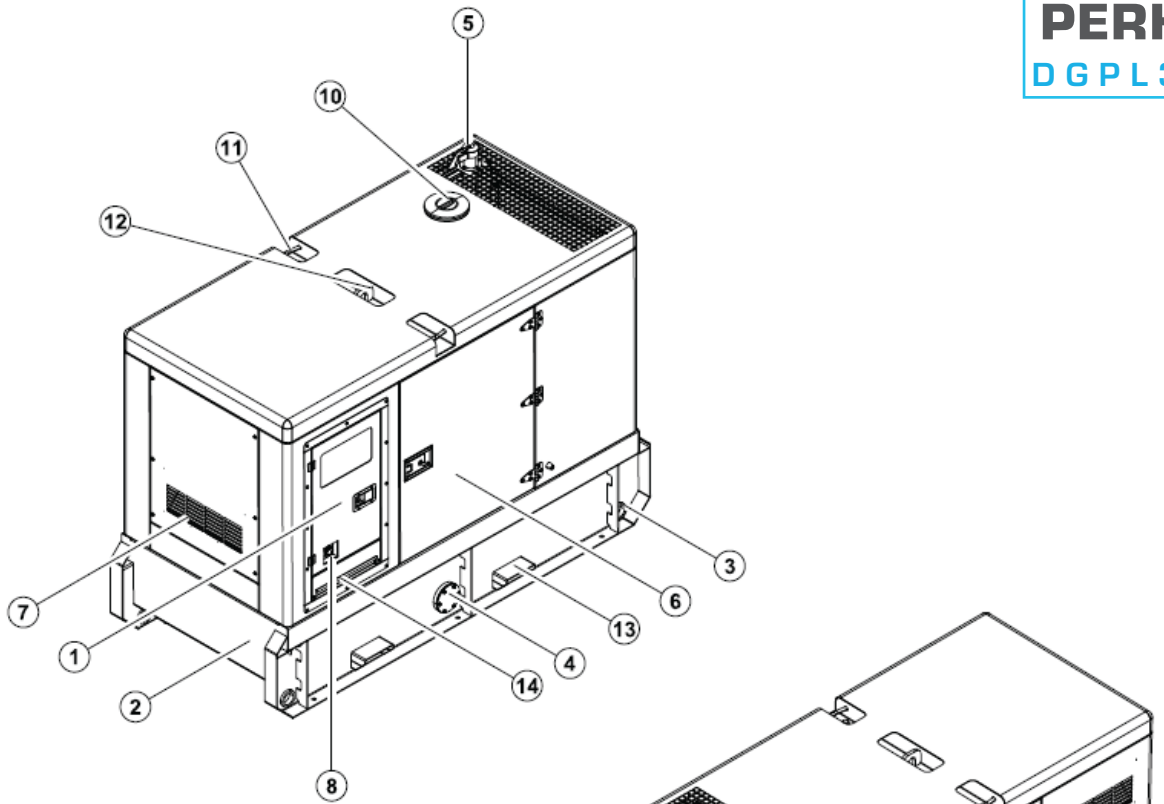


PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

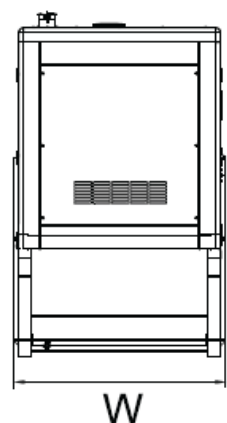
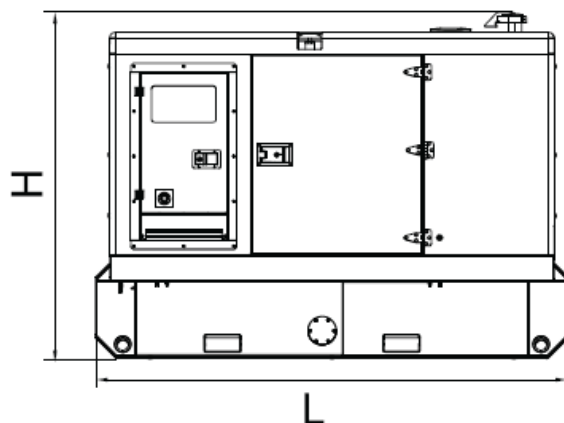
**33kVA
PERKINS
DGPL33P-3**

D. OVERALL DIMENSION



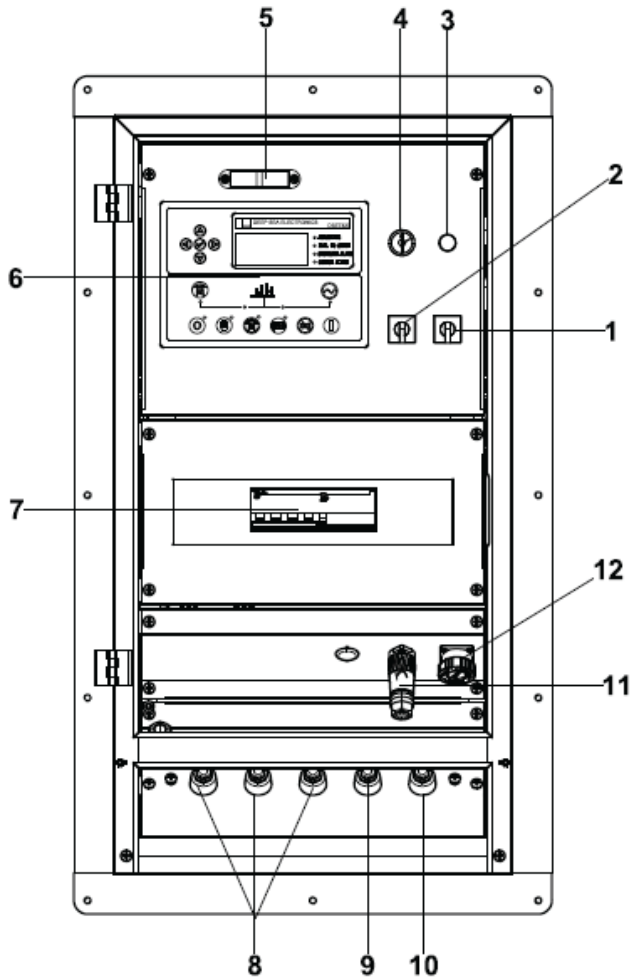
- ⑧ Emergency stop switch
- ⑦ Air inlet
- ⑥ Access door
- ⑤ Exhaust gas outlet
- ④ Fuel drain
- ③ Tie down
- ② Base frame
- ① Control cabinet
- ⑮ External fuel inlet/return hose fitting
- ⑭ Cable trench
- ⑬ Fork lift channel
- ⑫ Lifting lug
- ⑪ Roping lug
- ⑩ Coolant inlet
- ⑨ Coolant/Oil drain hose fitting

DIMENSIONS	2338 x 1080 x 1700 mm
DRY WEIGHT	1342 kg

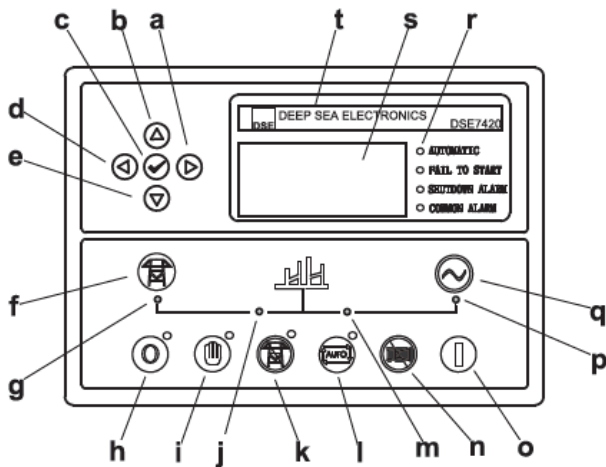


**33kVA
PERKINS
DGPL33P-3**

E. CONTROL SYSTEM



Control & Field wiring cabinet



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	Main Circuit Breaker
8	Live Wire Terminals
9	Neutral Wire Terminal
10	Ground Wire Terminal
11	Remote Run Terminal
12	ATS 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)
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

1000023613-E2-E

10.2020