

## Diesel Generating Set

## PP80C

MODEL	PP80C
Standby Power (50Hz)	64KW / 80KVA
Prime Power (50Hz)	58KW / 72.5KVA

### Standard Features

#### General Features:

Engine (DCEC Cummins 4BTA3.9-G11)

Radiator 50°C max, fans are driven by belt, with safety guard

24V charge alternator

Alternator: single bearing alternator IP23, insulation class H/H

Absorber

Dry type air filter, fuel filter, oil filter

Main line circuit breaker

Standard control panel

Two 12V batteries, rack and cable

Ripple flex exhaust pipe, exhaust siphon, flange, muffler

User manual



PHOTO FOR REFERENCE ONLY

### Generator Ratings

Voltage	HZ	Phase	P.F (COS φ )	Standby Amps	Standby Ratings (KW/KVA)	Prime Ratings (KW/KVA)
440/254	50	3	0.8	105	64/80	58/72.5
415/240	50	3	0.8	111	64/80	58/72.5
400/230	50	3	0.8	115.5	64/80	58/72.5
380/220	50	3	0.8	121.5	64/80	58/72.5

Prime Power (PRP): Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820 (eqv ISO8528) ; A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.

Standby Power Rating (ESP): The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

**Diesel Generating Set****PP80C****ENGINE DATA**

Manufacturer / Model:	DCEC Cummins 4BTA3.9-G11, 4-cycle
Air Intake System:	Turbo, Water/Air DC
Fuel System:	PB type fuel pump
Cylinder Arrangement:	4 in line
Displacement:	3.9L
Bore and Stroke:	102*120 (mm)
Compression Ratio:	17.3:1
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	80KW/109HP
Governor Type:	Electronic

**Exhaust System**

Exhaust Gas Flow:	8.04m <sup>3</sup> /min
Exhaust Temperature:	548°C
Max Back Pressure:	10kPa

**Air Intake System**

Max Intake Restriction:	6.2kPa
Burning Capacity:	4.2m <sup>3</sup> /min
Air Flow:	158m <sup>3</sup> /min

**Fuel System**

100%( Prime Power) Load:	208 g/Kw.h
75%(Prime Power) Load:	208 g/Kw.h
50%(Prime Power) Load::	214 g/Kw.h
100%( Prime Power) Load:	16L/h

**Oil System**

Total Oil Capacity:	11L
Oil Consumption:	≤4g/kwh
Engine Oil Tank Capacity:	10.9L
Oil Pressure at Rated RPM:	207-345kPa

**Cooling System**

Total Coolant Capacity:	8.3L(engine only)
Max Water Temperature:	104°C

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### **ALTERNATOR SPECIFICATION**

#### **GENERAL DATA**

Compliance with GB755, BS5000, VDE0530, NEMAMG1-22, IED34, CSAC22 and AS1359 standards.

#### **Alternator Data**

Number of Phase:	3
Connecting Type:	3 Phase and 4 Wires, "Y" type connecting
Number of Bearing:	1
Power Factor:	0.8
Protection Grade:	IP23
Altitude:	≤1000m
Exciter Type:	Brushless, self-exciting
Insulation Class, Temperature Rise:	H/H
Telephone Influence Factor (TIF):	<50
THF:	<2%
Voltage Regulation, Steady State:	≤±1%
Alternator Capacity:	72.5KVA
Alternator Efficiencies:	89.9%
Air Cooling Flow:	0.216m <sup>3</sup> /s

### **GENERATING SET DATA**

Voltage Regulation:	≥±5%
Voltage Regulation, Stead State:	≤±1%
Sudden Voltage Warp (100% Sudden Reduce):	≤+25%
Sudden Voltage Warp (Sudden Increase):	≤-20%
Voltage Stable Time (100% Sudden Reduce):	≤6S
Voltage Stable Time (Sudden Increase)	≤6S
Frequency Regulation, Stead State:	≤5%
Frequency Waving:	≤0.5%
Sudden Frequency Warp (100% Sudden Reduce):	≤+12%
Sudden Frequency Warp (Sudden Increase):	≤-10%
Frequency Recovery Time (100% Sudden Reduce):	≤5S
Frequency Recovery Time (Sudden Increase):	≤5S

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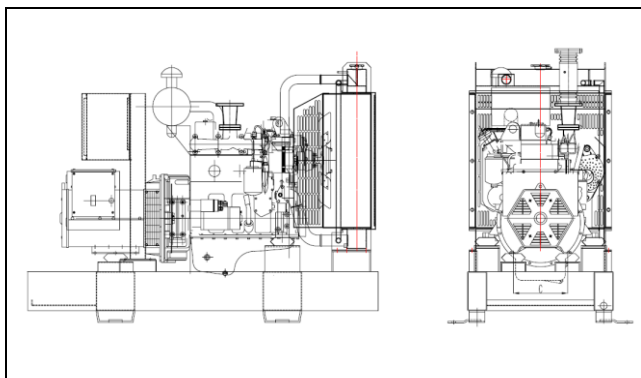
### Standard Features

- |   |  |  |
|---|--|--|
| ◇ Standard Auto Control System  | ◇ MCCB                                     | ◇ Special tool for Cummins engine            |
| ◇ Base Fuel Tank  | ◇ Oil Drain Valve                          | ◇ One set of fuel filter / oil filter / belt |
| ◇ Starting batteries (Maintenance-Free & Watering-Free) with connective wires | ◇ Exhaust System (including until muffler) | ◇ Documents                                  |

### Options

- |                     |                                   |                             |
|---------------------|-----------------------------------|-----------------------------|
| ◇ Daily Fuel Tank   | ◇ Permanent Magnet Generator(PMG) | ◇ Remote Control Panel      |
| ◇ Battery Charger   | ◇ Rainproof Type                  | ◇ Automatic Transfer Switch |
| ◇ Engine Heater     | ◇ Soundproof Type                 | ◇ Switch box                |
| ◇ Alternator Heater | ◇ Trailer Type                    | ◇ Paralleling System        |
| ◇ Water Separator   | ◇ Spare Parts                     |                             |

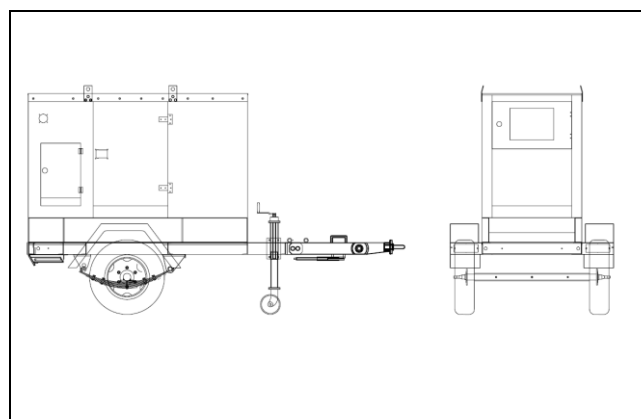
### Dimension & Weight



#### Open Type with Base Fuel Tank

Overall Size: 1860 (mm) × 760 (mm) × 1380 (mm)

Weight: 1030 kg



#### Soundproof Type

Overall Size: 2440 (mm) × 1060 (mm) × 1680 (mm)

Weight: 1500kg

#### Trailer Type

Overall Size: 3010 (mm) × 1640 (mm) × 2320 (mm)

Weight: 2150kg

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### Auto Module Control Panel



Powergen Pacific Standard Control Panel uses micro processing technique integrating digital, intelligent and network techniques which can carry out functions including auto start/stop, data measure, alarming. The controller uses LCD display, optional Chinese and English display interface with operation easy and reliable. It can be widely used in all types of generator automatic control system for compact structure, advanced circuits, simple connections and high reliability. USB interface and ECU support CAN J1939.

### Auto Parallel Control Panel



**Automatic Parallel Control Panel** This new automatic parallel system adopts intelligent modules, inserted and folded installed, no need the peripheral relay and logic circuit. The main switch adopts electronic breaker or frame breaker, combined together with the generator, which is very reliable. One generator, one panel. The panel can be used both for singly and parallel. It is only need to parallel generator with such panel when the capability needs to be enlarged in the future.

### Sales Promises

Powergen Pacific provides a full line of brand new and high quality products. Each and every unit is strictly factory tested.

Warranty is according to our standard conditions: a, 15 months, counted on the day Powergen Pacific sold to the first buyer; b, One year after installation; c, 1000 running hours (accumulated); subject to the earlier one.

Service and parts are available from Powergen Pacific or distributors in your location.