

## Diesel Generating Set

## PP28C

MODEL	PP28C
Standby Power (50Hz)	22KW / 28KVA
Prime Power (50Hz)	20KW / 25KVA

### Standard Features

#### General Features:

Engine (DCEC Cummins 4B3.9-G1 )  
 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

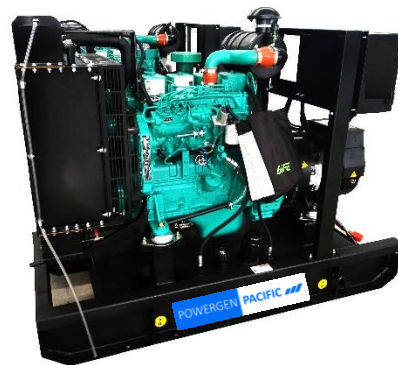


PHOTO FOR REFERENCE ONLY

### 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	36	22/28	20/25
415/240	50	3	0.8	38	22/28	20/25
400/230	50	3	0.8	40	22/28	20/25
380/220	50	3	0.8	42	22/28	20/25

**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.

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### ENGINE DATA

Manufacturer / Model:	DCEC Cummins 4B3.9-G1, 4-cycle
Air Intake System:	Air natural cooled
Fuel System:	A model fuel pump
Cylinder Arrangement:	4 in line
Displacement:	3.9L
Bore and Stroke:	102*120 (mm)
Compression Ratio:	16.5:1
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	27KW/36HP
Governor Type:	RSV Mechanical (Std) / Electronic (Optional)

### Exhaust System

Exhaust Gas Flow:	4.3m <sup>3</sup> /min
Exhaust Temperature:	410°C
Max Back Pressure:	10kPa

### Air Intake System

Max Intake Restriction:	5kPa
Burning Capacity:	2.0m <sup>3</sup> /min
Air Flow:	136m <sup>3</sup> /min

### Fuel System

100%( Prime Power) Load:	245 g/kWh
75%(Prime Power) Load:	260 g/kWh
50%(Prime Power) Load::	296 g/kWh
100%( Prime Power) Load:	6.9L/h

### Oil System

Total Oil Capacity:	11L
Oil Consumption:	≤4g/kwh
Engine Oil Tank Capacity:	8.5~9.5L
Oil Pressure at Rated RPM:	345kPa

### Cooling System

Total Coolant Capacity:	21L
Max Water Temperature:	104°C

## 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%
Alternator Capacity:	25KVA
Alternator Efficiencies:	87.2%

## GENERATOR 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:	≤1.5%
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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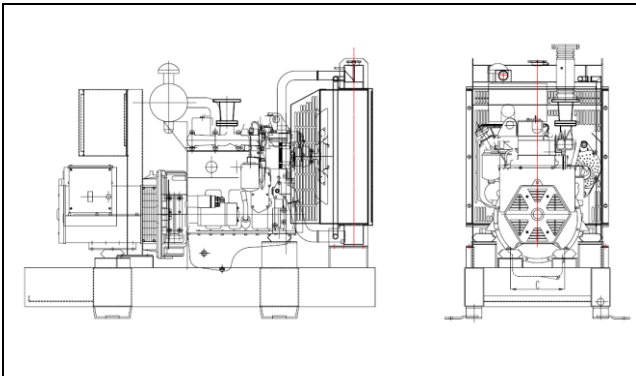
### Standard Features

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

### Options

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

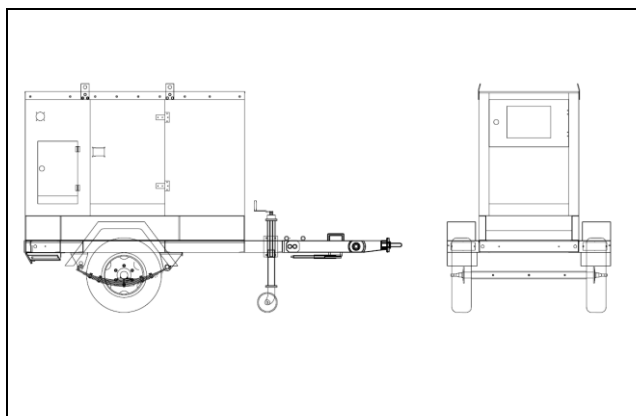
### Dimension & Weight



#### Open Type with Base Fuel Tank

Overall Size: 1760×760×1380 (mm)

Weight: 730 kg



#### Soundproof Type

Overall Size: 2290×1060×1680 (mm)

Weight: 1250kg

#### Trailer Type

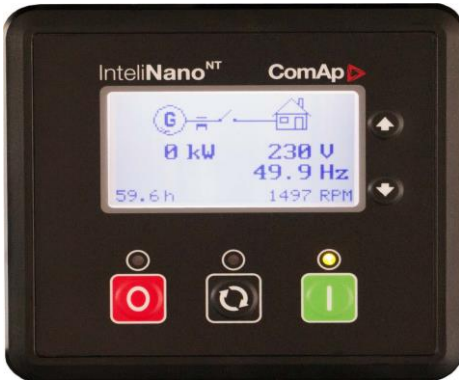
Overall Size: 2860×1640×2320 (mm)

Weight: 1850kg

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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. 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 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