





# **■** General Characteristics

ltem	Data		
Standby Power (kVA)	33		
Standby Power (kW)	26		
Prime Power (kVA)	30		
Prime Power (kW)	24		
Power Factor (Cos Phi)	0.8		
Diesel Engine	4B3.9-G12		
Frequency (Hz)	50		
Rated Speed (rpm)	1500		
Phase	3		
Standard Voltage (V)	400/230		
Available Voltages (V)	380/220 · 415/240		

# Power Definition

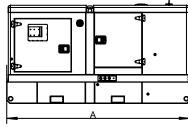
**Standby Power(ESP):** The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

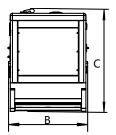
**Prime Power(PRP):** The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

## • Terms of use

According to the standard, the nominal power assigned by the genset is given for 25 °C air inlet temperature, of a barometric pressure of 100 kPA (100m A.S.L) and 30%.

# ■ Dimensions & Weights & FuelTank





Note: General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim"A"mm	Dim"B"mm	Dim"C"mm	Dry Weight kg	Fuel Tank Capacity L
PCL33-O	Open set	1800	902	1477	963	140
PCL33-C	Silent set	2330	970	1250	1010	70





# **■ Engine Data**

General Engine Data			
Engine brand	Cummins		
Engine model	4B3.9-G12		
Engine type	4-stroke diesel		
Governor type	Electronic		
Injection type	Direct		
Aspiration type	Naturally Aspirated		
Number of cylinders and arrangement	4-L		
Bore and stroke (mm*mm)	102X120		
Displacement (L)	3.9		
Cooling system	Water-cooled		
Lube oil consumption with full load	0.5%-1% of fuel consumption		
Compression Ratio	18:1		
Air Filter	Dry		
Fuel Consumption			
Fuel Consumption @100% load ESP (L/H)	8		
Fuel Consumption @100% load PRP (L/H)	7.4		
Fuel Consumption @75% load PRP (L/H)	6.1		
Fuel Consumption @50% load PRP (L/H)	4.5		
Air System			
Intake air flow (L/s)	34.5		
Cooling air flow (L/s)	1		
Exhaust System			
Maximum exhaust temperature (°C)	420		
Exhaust gas flow (L/s)	76.5		
Maximum allowed back pressure (kPa)	10		
Starting System			
Starting power(kW)	3.7		
Recommended battery (Ah)	60		
Number of Batteries	2		
Auxiliary voltage (Vdc)	24		
Oil System			
Engine oil capacity (L)	10.9		
Cooling System			
Total coolant capacity (L)	15.2		





# Alternator Data

Alternator Data			
Number of phase	3		
Power factor (Cos Phi)	0.8		
Poles	4		
Winding Connections (standard)	Star-serie		
Insulation	H class		
Enclosure(according IEC-34-5)	IP23		
Excitation system	Self-excited, brushless		
Voltage regulator	AVR (Electronic)		
No. of bearings	Single bearing		
Coupling system	Flexible disc		
Coating type	Standard (Vacuum impregnation)		

# **■ Control Module**



#### Protections with alarm

- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

#### Other Protections

- Emergency stop button.
- Panel protected through door with lockable handle

## **Digital Instrumentation**

- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos φ.
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

## Commands and other

- Four operation modes: OFF Manual starting -Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

## Protections with shutdown

- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.

