

■ General Characteristics



| Item | Data |
|------------------------|-------------------|
| Standby Power (kVA) | 110 |
| Standby Power (kW) | 88 |
| Prime Power (kVA) | 100 |
| Prime Power (kW) | 80 |
| Power Factor (Cos Phi) | 0.8 |
| Diesel Engine | 6BT5.9G2 |
| Frequency (Hz) | 50 |
| Rated Speed (rpm) | 1500 |
| Phase | 3 |
| Standard Voltage (V) | 400/230 |
| Available Voltages (V) | 380/220 · 415/240 |

● Power Definition

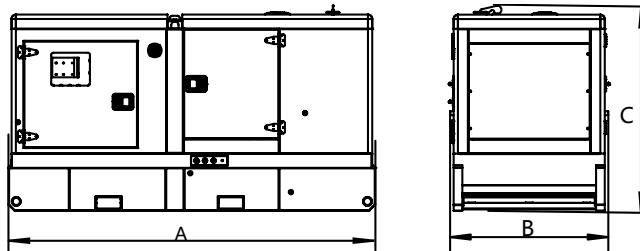
Standby Power(ESP): The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

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 & Fuel Tank



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 |
|----------|--------------|------------|------------|------------|---------------|----------------------|
| PCL110-O | Open set | 2150 | 982 | 1485 | 1080 | 260 |
| PCL110-C | Silent set | 3050 | 1135 | 1730 | 1600 | 175 |

■ Engine Data

| General Engine Data | |
|--|-----------------------------|
| Engine brand | Cummins |
| Engine model | 6BT5.9G2 |
| Engine type | 4-stroke diesel |
| Governor type | Electronic |
| Injection type | Direct |
| Aspiration type | Turbocharged |
| Number of cylinders and arrangement | 6-L |
| Bore and stroke (mm*mm) | 102X120 |
| Displacement (L) | 5.9 |
| Cooling system | Water-cooled |
| Lube oil consumption with full load | 0.5%-1% of fuel consumption |
| Compression Ratio | 17.3:1 |
| Air Filter | Dry |
| Fuel Consumption | |
| Fuel Consumption @ 100% load ESP (L/H) | 26.5 |
| Fuel Consumption @ 100% load PRP (L/H) | 24.2 |
| Fuel Consumption @ 75% load PRP (L/H) | 18.2 |
| Fuel Consumption @ 50% load PRP (L/H) | 12.5 |
| Air System | |
| Intake air flow (L/s) | 108 |
| Cooling air flow (L/s) | / |
| Exhaust System | |
| Maximum exhaust temperature (°C) | 564 |
| Exhaust gas flow (L/s) | 280 |
| Maximum allowed back pressure (kPa) | 10 |
| Starting System | |
| Starting power(kW) | 4.5 |
| Recommended battery (Ah) | 60 |
| Number of Batteries | 2 |
| Auxiliary voltage (Vdc) | 24 |
| Oil System | |
| Engine oil capacity (L) | 16.4 |
| Cooling System | |
| Total coolant capacity (L) | 22.4 |

■ 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.