

PLANTAS ELECTRICAS

AC55

USO CONTINUO 44 KVA
USO EMERGENCIA 55 KVA



GEDI**Power** *el poder de la energía en sus manos*

Cummins Series

AC55 Technical Data



Cummins Power Generator

55KVA/44KW



**Powered by
Cummins 4BTA3.9-G2****General feature:**

- ◆ Assembled by Cummins diesel engine and Leroy Somer alternator.
- ◆ Three filters as standard, fuel and water separator as optional.
- ◆ Radiator and fan with safety guard.
- ◆ Single bearing alternator IP 23, Insulation Class H.
- ◆ Heavy duty steel as base frame and 8hrs operation base fuel tank.
- ◆ Automatic control panel and 3 poles circuit breaker, internal cable.
- ◆ 12V or 24V battery, battery wires.
- ◆ Battery charger and float battery charger as standard supply scope.
- ◆ Optional soundproof canopy, ATS, synchronization panel, movable trailers.

Genset Main Technical Data:

| Genset Model | AC55 |
|---------------------|--------------------------|
| Prime Power | 40KW / 50KVA |
| Standby Power | 44KW / 55KVA |
| Frequency/Speed | 60Hz/1800rpm |
| Standard Voltage | 120V/208V |
| Phases | Three phases, four wires |

- (1) PRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1. A 10% overload capability is available for a period of 1 hour within 12-hour period of operation. In accordance with ISO 3046-1.
- (2) ESP: The Standby Power Rating is applicable for supplying emergency power in variable load applications for up to 200 hours per year in accordance with ISO8528-1. Overload is not allowed.

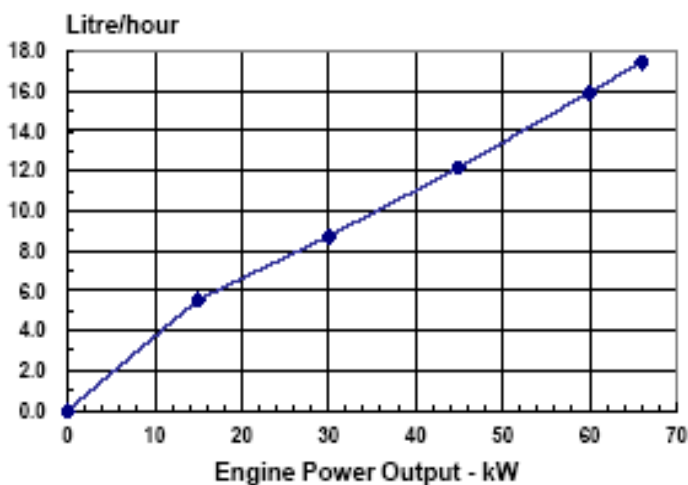


Cummins Engine Data:

| | |
|-------------------------------|-----------------------------------|
| Manufacturer | Dongfeng Cummins Engine Co., Ltd. |
| Model | 4BTA3.9-G2 |
| Engine speed | 1800rpm |
| Engine power | |
| -----Standby power | 66kw / 88HP |
| -----prime power power | 60kw / 80HP |
| Air intake way | After-cooled, turbo-charged |
| Cylinder quantity | 4 |
| Bore * Stroke | 102*120mm |
| Displacement | 3.9L |
| Fuel system | BYC A/Electronic Governor |
| Governor Regulation | ≤5% |
| Low idle | 950-1050 rpm |
| Piston speed | 7.2 m/s |
| Friction energy output | 8.2 kw |

Fuel Consumption:

| output power | | | fuel consumption | |
|-------------------|-----|-----|------------------|------|
| % | KW | HP | g/KWm.h | L/h |
| standby power | | | | |
| 100 | 66 | 88 | 218 | 17.4 |
| base output power | | | | |
| 100 | 60 | 80 | 219 | 15.9 |
| 75 | 45 | 60 | 223 | 12.2 |
| 50 | 30 | 40 | 240 | 8.7 |
| 25 | 15 | 20 | 305 | 5.5 |
| continuse power | | | | |
| TBD | TBD | TBD | TBD | TBD |



Exhaust system:

| | |
|---|-------------|
| Maximum Back Pressure | 10kPa |
| Exhaust gas temperature (prime power- standby power) | 393-405 °C |
| Exhaust Gas Flow (prime power- standby power) | 134-151 L/s |

Air intake system:

| | |
|---|-------------|
| Maximum Intake Air Restriction with Heavy Duty Air | |
| Dirty Element | 6.2kPa |
| Clean Element | 3.7kPa |
| Air intake flow (prime power - standby power) | 66-73 L/sec |



Lubrication system:

| | |
|--|---------|
| Engine Oil Pressure for Engine Protection Devices: | |
| Idle Speed(Minimum) | 207 kPa |
| Governed Speed(Maximum) | 345 kpa |
| Maximum Oil Temperature | 121 °C |
| Minimum Required Lube System Capacity - Sump plus | 10.9L |

Fuel system:

| | |
|---|------------------------|
| Type Injection System | BYC A Direct Injection |
| Maximum Restriction at Lift Pump | 13.6 kpa |
| Maximum Fuel Inlet Temperature | 70 °C |
| Total Drain Flow (constant for all loads) | 30 L/h |

Cooling system:

| | |
|--|------------|
| Coolant capacity – engine only | 8.3L |
| Maximum Coolant Friction Head External to Engine | 35 kPa |
| Maximum Static Head of Coolant Above Engine Crank Centerline | 14m |
| Standard Thermostat (Modulating) Range | 83-95 °C |
| Minimum Pressure Cap | 69 kPa |
| Maximum Top Tank Temperature for Standby/Prime | 104/100 °C |
| Engine Water Flow to Engine (prime power-standby | 2.8 L/s |

Electric system:

| | | |
|---|-------------|-------------|
| Cranking Motor (Heavy Duty, Positive Engagement) | 12V | 24V |
| Battery Charging System, Negative Ground | 63A | 40A |
| Maximum Allowable Resistance of Cranking Circuit | 0.00075 Ω | 0.002 Ω |
| Minimum Recommended Battery Capacity—Cold Soak @ 0 to 32-F (-18 to 0-C) | 625 0°F CCA | 312 0°F CCA |

ALTERNATOR Specifications:

| | |
|---------------------------------------|---|
| Manufacturer | Leroy-somer Electro-technique (Fuzhou) Company Ltd. |
| Model | LSA42.3M7 |
| Frequency | 60HZ |
| Voltage | 208V, "YY" |
| Output power-----Continuous duty/40°C | 40KW / 55KVA |
| -----Stand-by/40°C | 42.4kw/ 53kva |
| -----Stand-by/27°C | 44kw/55kva |
| AVR model | R220 |
| Number of phase | 3 |
| Power factor (Cos Phi) | 0.8 |
| Altitude | ≤ 1000 m |
| Overspeed | 2250RPM |
| Number of Pole | 4 |
| Exciter type | Shunt or AREP for option |
| Insulation class | H |
| Voltage regulation | ±0.5% |
| Protection class | IP23 |
| Totale Harmonic distortion THD (**) | no load < 3% - on load < 2% |
| Wave form : NEMA = TIF | < 50 |
| Bearing | single |
| Coupling | Direct |

ALTERNATOR GENERAL DATA:

- ◆ Operate either 50Hz or 60Hz.
- ◆ Standard enclosure IP23, but IP44, IP55 for option
- ◆ Insulation class H.
- ◆ Shunt excitataion systems.
- ◆ AREP or PMG system for options.
- ◆ Automatic voltage regulator
- ◆ Single bearing alternator
- ◆ Stator grease insulation covered
- ◆ Rotator and excitation high polymer
- ◆ Resist the corruption oil and acid
- ◆ Rotator balance is in accordance with BS5625 standard 12.5
- ◆ High-quality lubrication sealed long-time bearing
- ◆ Rotator silicon steel close tight

Circuit breaker specification:

| | | |
|--|--------------|------------------------|
|  | Manufacturer | Delixi group Co., Ltd. |
| | Brand | Delixi |
| | Model | CDM1-225/3300L-160A |
| | Capacity | 160amp |
| | Voltage | 400V |

Starting Battery specification:

| | | |
|--|------------------|---|
|  | Battery Voltage | 12V |
| | Battery Capacity | 36aH |
| | Quantity | 2 pcs |
| | Battery type | Free maintenance, sealed lead-acid type |

Control system:



Deepsea 6120

Auto start and stop control panel



Deepsea 6120 is an auto mains failure controller for single generator, it can monitor and protect the generator working all the time. it has a LCD display which clearly shows the status of the engine. this controller include six inputs and six outputs. This controller can also be programmed using the frong panel or by using DSE configuration Suite PC software.

Parameters:

This controller can provide Generator frequency, Under/over speed, Generator volts, Generator current, Engine oil pressure, Engine coolant temperature, Flexible fuel level, Hours run counter, Battery volts, Fail to start/stop, Emergency Stop. Failed to reach loading voltage/frequency, Charge fail, Loss of magnetic pick-up signal, Low DC voltage, CAN diagnostics and CAN fail/error, Mains volts 3 phase, Mains frequency, AMF indications

Protection:

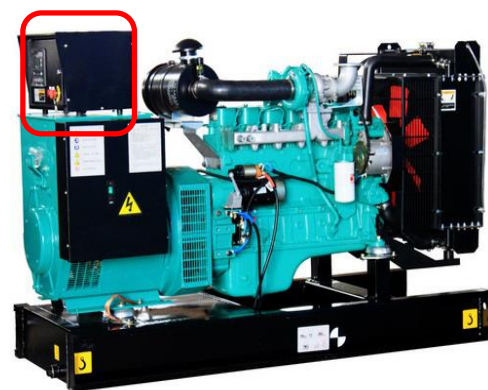
- ◆ Low Oil Pressure
- ◆ High water Temperature
- ◆ High voltage and low voltage
- ◆ Overspeed

- ◆ Emergency stop
- ◆ Fail to start

Features:

- ◆ Protection: Automatic start/stop, load transfer and alarming of generator;
- ◆ CAN and magnetic pick-up versions.
- ◆ PC and front panel configurable
- ◆ 6digital inputs and 4analogue inputs.
- ◆ 6 outputs
- ◆ 3 phase generator and mains voltage monitoring.
- ◆ Advanced metering capability.
- ◆ Test button.
- ◆ Power switch for city and power generation unit
- ◆ Reasonable structure and key layout
- ◆ Supports 6 languages display (Chinese, English, France, Thailand, Turkey, Arabia)
- ◆ Can simultaneously detect a variety of engine parameters
- ◆ Modules can be configured according to customer needs.
- ◆ IP65 protection class (silent type)

- ① Power switch
- ② Lamp switch
- ③ Power indicator
- ④ Operation buttons
- ⑤ LCD display



Soundproof Enclosure Specification:

Our silent generator is designed by professional acoustic engineers based on 15 years experience.

- ★ multi-way air intake and exhaust guarantee the power performance of the generator.
- ★ large-scale impedance combined type silencer effectively reduce noise of the generator.
- ★ internal high performance rubber damper and flexible materials reduce vibration.
- ★ Base mounted fuel tank supports the generator running for 8 hours.

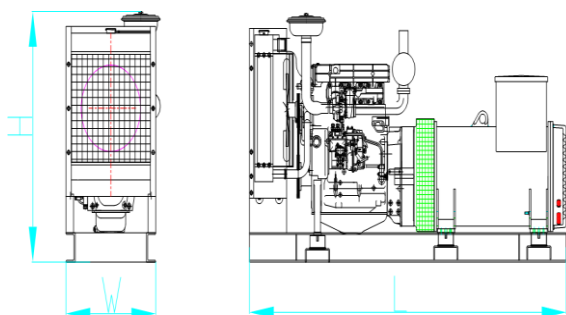


- ★ Cold steel materials of the canopy.
- ★ Best powder paint.
- ★ Zinc plated and Corrosion resistance.
- ★ Elegant appearance and reliable quality.
- ★ Stainless steel locks and hinges.
- ★ Access to all weather conditions.
- ★ Fireproof, waterproof and dustproof.
- ★ High quality soundproof materials could efficiently reduce noise.
- ★ Big base fuel tank in the frame guarantee sufficient diesel supply.
- ★ 180° revolvable and disassemble door for easy maintenance.
- ★ Concave lockable access door for easy operation and indefectible.
- ★ Lights inside of the canopy for maintenance.

- ★ Transparent viewing window make the control panel clear at a glance.
- ★ Emergency stop button mounted on the canopy exterior for urgency.
- ★ Cooling fluid injection hole is kept on the ceiling crust.
- ★ Pipe of lube oil and cooling fluid is mounted on the bottom of generator for easy let.
- ★ Fuel fill and battery can easy be accessed by lockable door.
- ★ Cooling fan and battery are fully guarded.
- ★ Heat insulation of exhaust smoke system inside the canopy.
- ★ Forkman slot is for choice.
- ★ Lifting ear is mounted in the base frame.

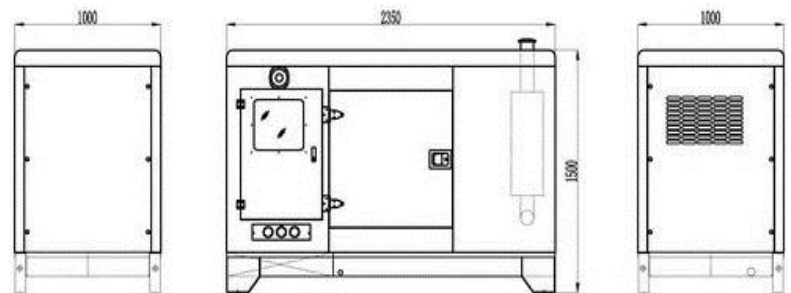
Weight and Dimensions

1. Open Version:



Open Type (Standard Configuration)
Overall Size: 1675×730 ×1285mm(L*W*H)
Weight: 770kg

2. Soundproof Version:



Soundproof Type
Overall size: 2250× 1000×1550mm(L*W*H)
Weight: 1100kg

Supply scope

1. Standard supply scope:



⑦ Exhaust silencer



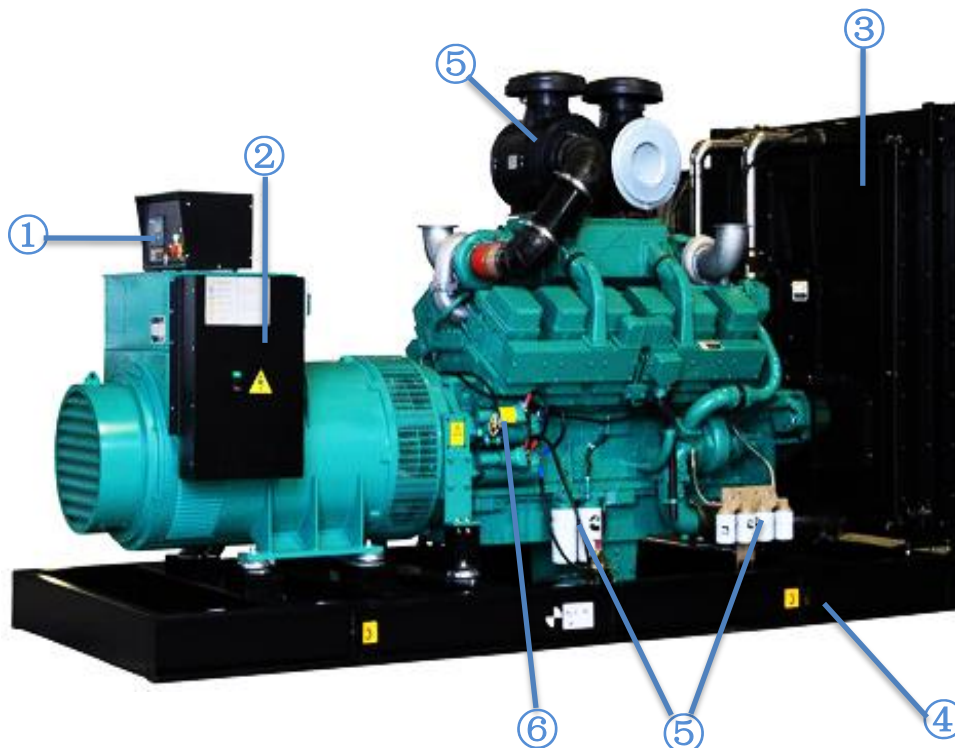
⑧ Starting battery



⑨ Float battery charger



⑩ Bellow



① Auto Control Panel

② Main Circuit Breaker

③ Cooling Radiator

④ Base Frame

⑤ Filter

⑥ Starting Motor

2. Optional supply scope:



① ATS



② fuel and water separator



③ Auto Fuel Pump



④ External daily fuel tank



⑤ ABB Breaker



⑥ Synchronization System



⑦ Lub oil heater



⑧ Elec. coolant Heater



⑨ Oil drain Pump



⑩ Trailer & Silent Canopy