

# PLANTAS ELECTRICAS

## AC21

USO PRIME 19 KVA

USO EMERGENCIA 21 KVA

## 208-120 VAC



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

**Cummins Series**

**AC21 Technical Data**



# Cummins Power Generator

## 21KVA/17KW



**Powered by  
Cummins 4B3.9-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:**

<b>Genset Model</b>	<b>AC21</b>
Prime Power	15KW / 19KVA
Standby Power	17KW / 21KVA
Frequency/Speed	60Hz/1800rpm
Standard Voltage	127V/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.

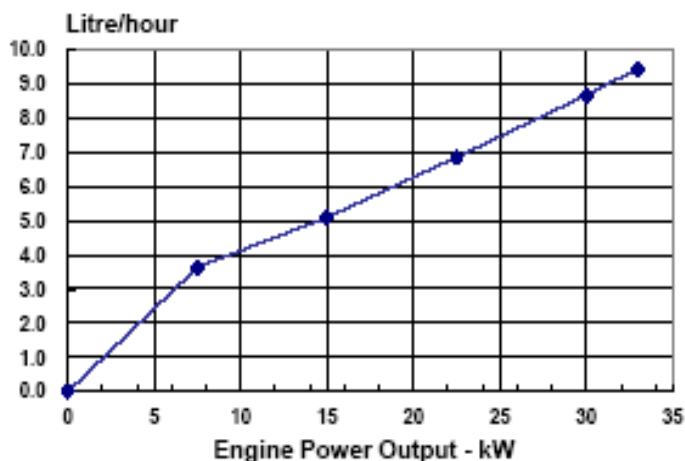


### Cummins Engine Data:

<b>Manufacturer</b>	Dongfeng Cummins Engine Co., Ltd.
<b>Model</b>	4B3.9-G2
<b>Engine speed</b>	1800rpm
<b>Engine power</b>	
----- <b>Standby power</b>	33kw / 44HP
----- <b>Base output power</b>	30kw / 40HP
<b>Air intake way</b>	Natural
<b>Cylinder quantity</b>	4
<b>Bore * Stroke</b>	102*120mm
<b>Displacement</b>	3.9L
<b>Fuel system</b>	BYC A/Electronic Governor
<b>Governor Regulation</b>	≤5%
<b>Low idle</b>	950-1050 rpm
<b>Piston speed</b>	7.2 m/s
<b>Friction energy output</b>	11.9 kw

### Fuel Consumption:

output power			fuel consumption	
%	KW	HP	g/KWm.h	L/h
standby power				
100	33	44	236	9.4
base output power				
100	30	40	238	8.6
75	22.5	30	251	6.8
50	15	20	280	5.0
25	7.5	10	400	3.6
continuse power				
TBD	TBD	TBD	TBD	TBD



### Exhaust system:

<b>Maximum Back Pressure</b>	10kPa
<b>Exhaust Pipe Size Normally Acceptable</b>	75 mm
<b>Exhaust temperature (prime power - standby power)</b>	326-352 °C
<b>Exhaust Gas Flow</b>	78.5-81.9 L/s

### Air intake system:

<b>Maximum Intake Air Restriction with Heavy Duty Air Cleaner</b>	
<b>Dirty Element</b>	6.2kPa
<b>Clean Element</b>	3.7kPa
<b>Air intake flow (prime power - standby power)</b>	43.0-43.0 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
Oil Capacity with OP 9006 Oil Pan : High - Low	9.5 - 8.5 L
Minimum Required Lube System Capacity - Sump plus Filters	10.9L
Angularity of Standard Oil Pan: (Values stated are for intermittent operation only): (any direction)	40 °

### 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	7.2L
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 Power	110/104 °C
Engine Water Flow to Engine	2.2L/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
Min. battery capacity_ -12°C (CCA: cold cranking Ampere)	625 0°F CCA	312 0°F CCA



### ALTERNATOR Specifications:

Manufacturer	Leroy-somer Electro-technique (Fuzhou) Company Ltd.
Model	LSA40S4
Frequency	60HZ
Voltage	208V, "YY"
Output power-----Continuous duty/40°C	15.2kw/19kva
-----Stand-by/27°C	16.8kw/21kva
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	±1%
Protection class	IP23
Totale Harmonic distortion THD (**)	no load < 3% - on load < 5%
Wave form : NEMA = TIF	< 50
Bearing	single
Coupling	Direct

### Circuit breaker specification:

	Manufacturer	Delixi group Co., Ltd.
	Brand	Delixi
	Model	CDM1-100L/3300-63
	Capacity	63amp
	Voltage	400V

### Starting Battery specification:

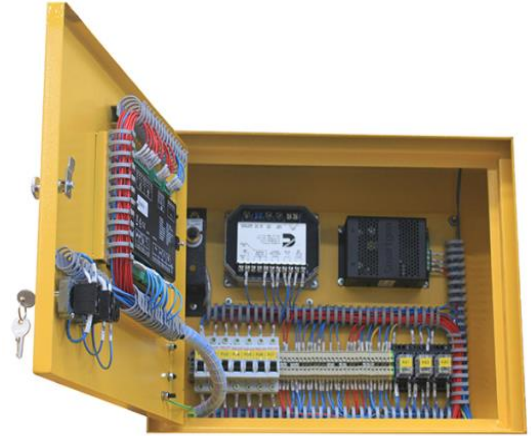
	Battery Voltage	12V
	Battery Capacity	36aH
	Quantity	2 pcs
	Battery type	Free maintenance, sealed lead-acid type

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:

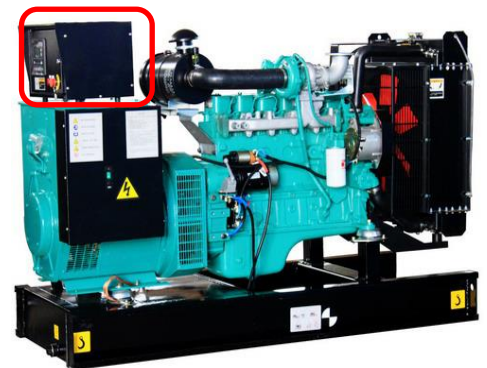
- ◆ Low Oil Pressure
- ◆ High water Temperature
- ◆ High voltage and low voltage
- ◆ Overspeed

- ◆ 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



open type



Silent type

### Soundproof Enclosure Specification:

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

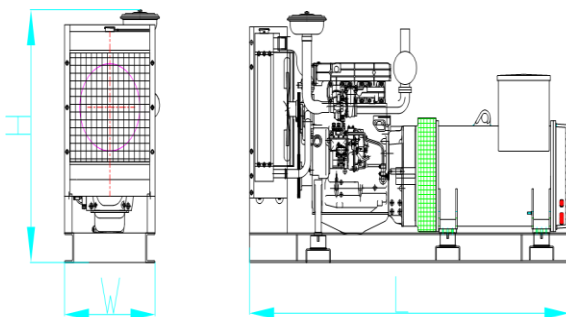
- ★ multi-way air intake and exhaust guarantee the power performance of the generator.
- ★ large-scale impedance combined type silencer effectively reduce noise of the generator.
- ★ internal high performance rubber damper and flexible materials reduce vibration.
- ★ Base mounted fuel tank supports the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

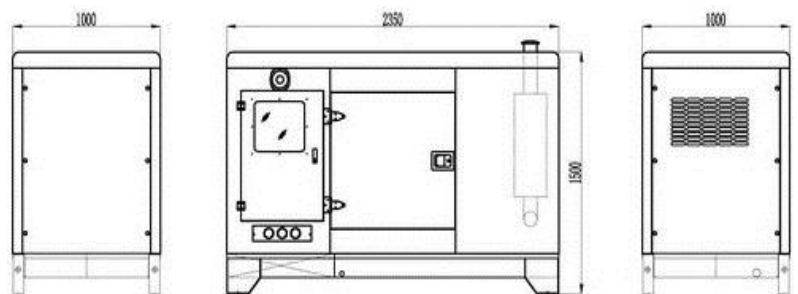
### Weight and Dimensions

#### 1. Open Version:



Open Type (Standard Configuration)  
Overall Size: 1280 × 860 × 1285mm(L\*W\*H)  
Weight: 641kg

#### 2. Soundproof Version:



Soundproof Type  
Overall size: 2250 × 1000 × 1550mm(L\*W\*H)  
Weight: 971kg