AI POWER

# DIESEL GENERATOR DATA SHEET

**Power By Cummins**

**Model: AC220**




## Output Ratings

| Generator set model | Voltage (V) | Hz | Phase | P.F. | Prime Power | | Standby Power | |
|---|---|---|---|---|---|---|---|---|
| | | | | | KVA | KW | KVA | KW |
| AC220 | 230/400 | 50 | 3 | 0.8 | 200 | 160 | 220 | 176 |

•220/380V, 240/415V, 254/440V is avaliable

## Dimension & weight

| Generator set model | Type | L*W*H(mm) | Weight(kg) |
|---|---|---|---|
| AC220 | Open | 2656*1100*1658 | 1572 |
| | Silent | 3200*1133*1766 | 2948 |

## Other datas

| | |
|---|---|
| Circuit Breaker capacity (A) | 400 |
| Battery Brand | Varta |
| Daily Fuel Tank Capacity (L) | 360 |

## Notes:

• Standby power: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046 .

• Prime power: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528, ISO 3046.

•Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

## Warranty

•The standard warranty period: One year after ex-work or 1000 operation hours whichever come first shall apply.

•Consumable parts(air filter, fuel filter, lube oil filter) , All failures and damages due to the mal-operation, neglect of maintenance and operation not according to the operation manual, are out of the scope of warranty.

## Standard Configuration

• Engine include air, fuel, oil filters, starting motor and charge alternator etc.
• Brushless AC alternator, single bearing, flange connection, with AVR
• Radiator with engine driven fan mounted on skid
• Channel steel base frame, <550KW base 8hrs mounted fuel tank as standard
• Anti-vibration pads between engine/alternator and base frame
• Circuit breaker 3P as standard, 4P optional
• Auto control panel
• Start battery with connecting cable and floating battery charger
• Flexbile pipe, exhaust elbow, industrial silencer etc.
• Standard tools kit
• Electric drawing, test report ,operation & maintaince manual of generator etc.
•Optional soundproof/Container canopy, ATS cabinet, remote control panel, synchronization panel, movable trailers, heat exchanger, remote horizontal water tank system, external fuel tank, etc




Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

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# Engine

## GENERAL ENGINE DATA

| | | |
|---|---|---|
| Engine manufacturer | | Cummins Engine, Inc. |
| Engine brand | | Cummins |
| Engine model | | QSB7G5 |
| Engine speed (rpm) | | 1500 |
| Net engine output(kW) | | |
| | Standby power rating | 197 |
| | Prime power rating | 168 |
| Type | | 4-Cycle, In-line, 6 Cylinder |
| Aspiration | | Turbocharged and air to air cooled |
| Borer * Stroke (mm) | | 107 * 124 |
| Displacment (litre) | | 6.69 |
| Battery Charging Alternator | | 100A |
| Starting Voltage | | 12 volt, negative ground |
| Fuel Filter | | Spin on fuel filters with water separator |
| Lube Oil Filter Type(s) | | Spin on full flow filter |
| Lube Oil Capacity (l) | | 18.9 |
| Flywheel Dimensions | | SAE 2 |

## COOLING SYSTEM

| | |
|---|---|
| Cooling System Design | Air-Air Charge Cooled |
| Coolant Ratio | 50% ethylene glycol; 50% water |
| Coolant Capacity (L) | 26 |
| Limiting Ambient Temp.**(°C) | 60 |
| Fan Power (kWm) | 6.9 |
| Cooling System Air Flow (m3/s)** | 5.3 |
| Air Cleaner Type | Light duty dry replaceable element with restriction indicator |

## FUEL SYSTEM

| | | |
|---|---|---|
| Type Injection System | | Direct injection |
| Fuel Consumption (litre/hour) | | |
| | 110% output power | 51 |
| | 100% output power | 45 |
| | 75% output power | 36 |
| | 50% output power | 26 |
| | 25% output power | 13 |

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## ALTERNATOR

| | |
|---|---|
| Alternator manufacturer | Cummins Generator Technologies(China) Co. Ltd |
| Alternator brand | Stamford |
| Alternator model | UCI274H |
| Control system | SELF EXCITED |
| A.V.R. | Included |
| Voltage regulation | ±1.0% |
| Insulation system | Class H |
| Protection | IP23 |
| Rated power factor | 0.8 |
| Winding pitch | Two thirds |
| Winding leads | 12 |
| Frequency (Hz) | 50 |
| Voltage (V) | 400 |
| Phase | 3 |
| Output ratings (kVA/kW) | |
| ----------Cont.H-40°C | 200/160 |
| ----------Standby-27°C | 220/176 |
| THF | <2% |
| TIF | <50 |
| Max. overspeed (Rev/Min) | 2250 |
| Bearing | Single |

## CONTROL SYSTEM




The **DEEPSEA DSE 6120** is an Auto Mains (Utility) Failure Control Module developed to provide a wide range of operating and monitoring features for single diesel and gas gen-sets.
**DSE7320, ComAp AMF25 etc for option.**

### Protection function:

•Low oil Pressure
•High water temperature
•High voltage and low voltage
•Over current
•Overspeed
•Volt adjuster and frequency adjuster.
•Emergency stop
•Low fuel alarm and shutdown
•Low coolant alarm and shutdown

### Key Functions:

• Multiple display languages
• Data logging facility
• Fully configurable via PC using USB communication
• Front panel configuration
• 3 phase generator sensing
• 3 phase mains (utility) sensing
• Generator/load power monitoring (kW, kV A, kV Ar, pf)
• Accumulated power monitoring (kW h, kVA h, kVAr h)
• Generator/load current monitoring and protection
• Generator overload protection (kW)
• Breaker control via fascia buttons
• Fuel and start outputs, configurable when using CAN
• 4 configurable DC outputs
• 4 configurable analogue/digital inputs
• Support for 0 to10 V & 4 to 20 mA oil pressure sensors
• 6 configurable digital inputs
• Configurable staged loading outputs
• CAN, MPU and alternator speed sensing in one variant
• 3 engine maintenance alarms
• Engine hours counter
• Engine pre-heat
• Engine run-time scheduler
• Engine idle control for starting & stopping
• Fuel pump control
• Battery voltage monitoring
• Start on low battery voltage
• Configurable remote start input
• 1 alternative configuration
• Comprehensive warning, electrical trip or shutdown protection.
• LCD and LED alarm indication

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## SILENT CANOPY




①Durable stainless steel hinges
②Durable stainless steel hinges
③Strong base fuel tank
④High performance exhaust silencer
⑤Deepsea control system
⑥Emergency stop
⑦High quality 3P Circuit breaker and terminal output
⑧Fresh air inlet cooling system




①air inlet cooling system
②stainless door lock
③fuel cap lock
④tow holes
⑤engine
⑥radiator
⑦insluation and soundproof materials
⑧maintenance door

**Performance Features:**

- More than 2mm thick steel to make the canopy.
- High quality paint materials and strict powder paint processing.
- large-scale impedance combined type silencer effectively reduce noise of the generator.
- Stainless steel door locks and hinges and 180° revolvable and disassemble door for easy maintenance.
- High quality soundproof and insulation materials could efficiently reduce noise.
- Transparent viewing window make the control panel clear at a glance.
- Lifting earis mounted in the base frame for easy pull.
- From 10kva to 700kva we use normal silent canopy, more than 700kva we are using containerized canopy.
- ISO standard 20', 40' and 40HQ sea container canopy for options.
- Standard sea container canopy is easier for shipping.

## AI POWER COMPANY SHOW




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