

System Rated Power

| Model | Voltage (V) | Phase | Frequency (Hz) | Prime Power | | | Standby Power | | | Data Center Power | | |
|--------|-------------|-------|----------------|-------------|-----|------|---------------|-----|------|-------------------|-----|------|
| | | | | kW | kVA | AMPS | kW | kVA | AMPS | kW | kVA | AMPS |
| C20YC | 380 | 3 | 50 | 16 | 20 | 30 | 18 | 23 | 34 | NA | NA | NA |
| CE23YC | 400 | 3 | 50 | 16 | 20 | 29 | 18 | 23 | 32 | NA | NA | NA |
| | 415 | 3 | 50 | 16 | 20 | 28 | 18 | 23 | 31 | NA | NA | NA |

Note : COSΦ=0.8 ; Models with 'E' denote standby rating, without 'E' denote prime rating
For products at other voltage levels, please consult the original manufacturer

| ITEMS | OPEN | SILENT |
|----------------------------------|--------------|----------------|
| Dimensions (L*W*H) (mm) | 1350*600*980 | 2500*1000*1550 |
| Weight (kg) | 530 | 980 |
| Control Module Brand | DEIF | DEIF |
| Single Genset Controller | SGC | SGC |
| Paralleling Controller(Optional) | AGC | AGC |



Product Features

Advantages

- Excellent fuel efficiency
- Robust Power & Superior Performance
- High Reliability & Long Service Life
- Advanced Injection Technology & Optimized Emissions
- Long maintenance and repair interval

Standards

- The unit is designed and manufactured in ISO9001, ISO14001 and ISO45001 certified facilities
- The unit complies with ISO 8528 and GB/T 2820 standards
- The alternator complies with NEMA MG1, BS5000, ISO, DIN EN, and IEC standards

Certificates

- CE Certificate

Performance Guarantee

- Unit undergoes transient response testing in accordance with ISO 8528-5
- Verified product design, quality, and performance
- Engines, alternator and system have all passed prototype and factory testing

A full range of accessories is optional

- Control Panel
- Circuit Breaker/Distribution Panel
- Fuel System
- Oil pipe with shut-off valve mounted on base
- Starting/Charging System
- Exhaust System
- Mechanical and Electrically Driven Radiators

Emissions

- China IV NRMM compliant (stationary)

Calsion is a one-stop system supplier

Hefei Calsion Electric System Co., Ltd.

www.calsionpower.com

Hotline: +86-400 168 1996

Version 2026-02

Technical Specifications

Diesel Engine

| | |
|-----------------------------------|----------------------------|
| Brand | Yuchai |
| Model | YCDV254FHZ-25 |
| Prime Power (kW) | 20 |
| Standby Power (kW) | 22 |
| Bore ×Stroke (mm) | 89×100 |
| Cylinder Number & Arrangement | 4L |
| Displacement (L) | 2.5 |
| Compression Ratio | 17.5:1 |
| Rated Speed (rpm) | 1500 |
| Aspiration | Exhaust Turbocharging |
| Max Exhaust Back Pressure (kPa) | 10 |
| Exhaust Flow Rate (m3/h) | 199.8 |
| Exhaust Temperature (°C) | 550 |
| Fuel Cons. at 100% Load (g/kWh) | 220 |
| Engine Oil Consumption (g/kWh) | 0.44 |
| Speed Control | Electronic |
| Fuel Supply System | Common Rail Fuel Injection |
| Cooling System | Radiator-Cooler with Fan |
| Air Intake Volume (m3/h) | 3710 |
| Air Exhaust Volume (m3/h) | 3600 |
| Total Coolant Capacity (L) | 12.5 |
| Total Lubricant Capacity (L) | 8 |

Generator Set Parallel Controller

The AGC controller can be used as a single generator set controller. Multiple AGC controllers can also be integrated into a complete power management system based on synchronous, islanded, or grid-connected operation.

The AGC controller offers users multiple options. Through main power station management, up to 32 generator sets can be operated. If more than 32 generator sets are required, expand power station management to group generators and connect up to 32 main grids or 32 groups. The AGC controller supports serial communication protocols, including Modbus (RS-485, USB, and TCP/IP) and Profibus. This capability enables remote monitoring of generator sets and power plants.

Alternator

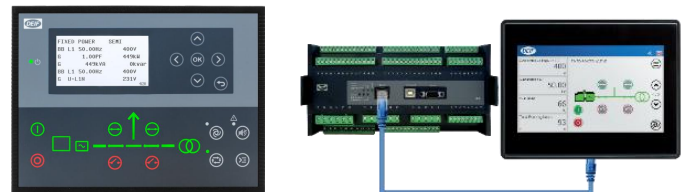
| | |
|----------------------------------|------------------------------|
| Brand | Engga |
| Excitation System | Brushless excitation |
| Voltage Regulation Method | Automatic Voltage Regulation |
| IP Rating | IP23 |
| Insulation Class | H |
| Temperature Rise | Class H (LV) / Class F (HV) |
| Short-Circuit Current Capability | 300%(3In):10s(with PMG) |
| Overspeed Capability | 2250rpm |

Environmental conditions specified in GB 1105 and ISO 3046 (compliant)

| | |
|----------------------------|--------|
| Altitude (m) | ≤1000 |
| Ambient temperature (°C) | -25~50 |
| Relative humidity (%) | 80 |

Generator Set Controller

The SGC controller provides protection and control for generator sets, configurable for engine drive, standalone generator set control (off-grid/island mode), and automatic mains failure (AMF) start-up. Featuring AUTO and MANUAL modes, it incorporates extensive control and protection functions suitable for engines and generators, including coolant temperature control, electrical monitoring, and grid voltage/frequency monitoring.



Standard and Optional Configurations

Diesel Engine

- four-stroke
- Standard Single-Stage Air Filter
- Oil drain pipe & shut-off valve
- Emission-optimized engine
- Closed-loop crankcase ventilation
- Electronic Synchronous Speed Control
- Electronic Management System Fuel Injection
- Fuel-optimized engine

Cooling System

- Water pump
- Thermostat
- Radiator for 40°C
- Radiator for 50°C
- Intake air intercooler
- Mechanically driven radiator
- Electrically driven radiator
- Jacket water heater

- Standard Configuration
- Optional Configuration

Alternator

- NEMA MG1, BS 5000, ISO, DIN EN, and IEC standards
- Self-ventilating structure
- Good voltage waveform
- Steady State, V/Hz Regulator
- Leroy Somer Alternator
- Engga Alternator
- Marathon Alternator
- Uprated Alternator
- Automatic Voltage Regulator
- Voltage fluctuation from no load to full load: ±0.25%
- Brushless alternator, brushless exciter
- 4-pole, rotating magnetic field
- Withstands short-circuit currents up to 300% of rated current for 10 seconds
- Permanent Magnet Exciter
- Other Alternator



Hefei Calsion Electric System Co., Ltd.

All rights reserved. To continuously enhance product quality, we may optimize product designs and specifications. Therefore, the actual product appearance, configuration, and packaging shall prevail. For the latest product information, please contact us.

Data is subject to change without prior notice as new products are always developed.

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Standard and Optional Configurations

Control Panel

- | | |
|---|---|
| <input checked="" type="checkbox"/> Island Operation | <input type="checkbox"/> Deep Sea Controller |
| <input checked="" type="checkbox"/> Automatic Mains Failure with ATS | <input type="checkbox"/> ComAp Controller |
| <input type="checkbox"/> Automatic Mains Failure (including breakers control of the genset and mains) | <input type="checkbox"/> Basler Controller |
| <input type="checkbox"/> Islanded operation of multiple units | <input checked="" type="checkbox"/> Deif Controller |
| <input type="checkbox"/> Automatic Mains Failure & Short-term (<10s) Mains Parallel Operation after Restoration | <input checked="" type="checkbox"/> Complete System Measurement |
| <input type="checkbox"/> Single Set Mains Parallel Operation | <input checked="" type="checkbox"/> Digital Measurement |
| <input type="checkbox"/> Multi-set Mains Parallel Operation | <input checked="" type="checkbox"/> Engine Parameters |
| <input checked="" type="checkbox"/> J 1939 Engine ECU Communication | <input checked="" type="checkbox"/> Unit Protection Functions |
| <input checked="" type="checkbox"/> Multiple programmable contact inputs | <input checked="" type="checkbox"/> Engine Protection Function |
| <input checked="" type="checkbox"/> Event Log | <input checked="" type="checkbox"/> Multi-contact output |
| <input type="checkbox"/> Different expansion modules | <input checked="" type="checkbox"/> Multilingual Capability |
| <input type="checkbox"/> RTU-TCP Gateway | <input type="checkbox"/> Remote Signal Transmitter |

Fuel System

- | | |
|---|--|
| <input checked="" type="checkbox"/> Oil supply hose on the base | <input checked="" type="checkbox"/> Integrated Fuel Cooler in Radiator |
| <input type="checkbox"/> Fuel filter with water separator | <input type="checkbox"/> Switchable fuel filter with water separator |
| <input type="checkbox"/> Independent fuel cooler | |

- Standard Configuration Optional Configuration

Primary power (PRP) :

Suitable for equipment where mains power is unavailable or unreliable. Under variable load conditions, the generator set has unlimited operating hours. It possesses a 10% overload capacity for one hour within a 12-hour period. Power output complies with ISO 8528-1, ISO 3046-1, BS 5514, AS 2789, and DIN 6271. Average load factor: ≤70%.

Standby power (ESP) :

Suitable for applications with stable mains power supply. During mains power outages, standby power can be used to handle variable loads without overload capability. Power compliance meets ISO 8528-1, ISO 3046-1, BS 5514, AS 2789, and DIN 6271 standards. Average load factor: ≤70%. Annual operating time: Maximum 200 hours.

Circuit Breaker / Power Distribution

- | | |
|--|--|
| <input type="checkbox"/> 3-pole circuit breaker | <input type="checkbox"/> Manual operation of circuit breakers |
| <input type="checkbox"/> 4-pole circuit breaker | <input type="checkbox"/> Electrically Operated Circuit Breaker |
| <input type="checkbox"/> Integrated Breaker Panel Solution | <input type="checkbox"/> Split-Type Breaker Panel Solution |

Start / Charging System

- | | |
|--|---|
| <input checked="" type="checkbox"/> DC starter | <input type="checkbox"/> Battery rack |
| <input checked="" type="checkbox"/> Maintenance-free batteries and connecting cables | <input checked="" type="checkbox"/> Battery charger |

Exhaust System

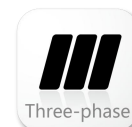
- | | |
|--|---|
| <input checked="" type="checkbox"/> Exhaust bellows with connecting flange | <input type="checkbox"/> Exhaust silencer with 35 dB(A) noise attenuation |
| <input checked="" type="checkbox"/> Exhaust silencer with 15 dB(A) noise attenuation | <input type="checkbox"/> Y-piece |
| <input type="checkbox"/> Exhaust silencer with 25 dB(A) noise attenuation | |

Base Frame

- | | |
|---|--|
| <input checked="" type="checkbox"/> Welded base frame | <input checked="" type="checkbox"/> Flexible mounting of engine and alternator |
| <input checked="" type="checkbox"/> Modular base design | |

Data Center Power (DCP) :

Suitable for applications with stable mains power supply. The operating time of the generator set is unrestricted under constant or variable load conditions. One hour of 10% overload operation is permitted every 12 hours. Power output complies with ISO 8528-1, ISO 3046-1, BS 5514, AS 2789, and DIN 6271. Average load factor: ≤100%.



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