------Cummins series







Technical parameters of diesel generator set			
Model	HC420GF		
Rated power	420KW/525kVA		
Reserve power	505KW/631KVA		
Rated frequency	50HZ		
Rated speed	1500		
Rated current	757.6A		
Steady state voltage regulation rate	≤±1%		
Transient voltage regulation rate	+20%~-15%		
Steady state frequency adjustment rate	≤±1%		
Transient frequency adjustment rate	+10%~-7%		
Waveform distortion rate	≤5%		
Voltage fluctuation rate	≤±0.5%		
Voltage stability time	≤1\$		
Frequency fluctuation rate	≤±0.5%		
Frequency stability time	≤3\$		
Overall dimensions	3500*1350*1800mm		
Weight	3900KG		
Generator set manufacturer: Jiangsu Xinghuachang Power Generation Equipment Co., Ltd			



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Parts List							
Number	Name	Notes	Number	Name	Notes		
1	Engine	Standard	15	Exhaust chimney	Standard		
2	Alternator	Standard	16	User Manual	Standard		
3	Base	Standard	17	Certificate of Conformity	Standard		
4	Battery	Standard	18	Inspection report	Standard		
5	Tank	Standard	19	Random tool kit	Standard		
6	Water tank	Standard	20	Base oil tank	Optional		
7	Silencer	Standard	21	Water jacket heater	Optional		
8	Output circuit breaker	Standard	22	Fuel heater	Optional		
9	Control system	Standard	23	Silent speaker	Optional		
10	Battery cable	Standard	24	Automatic conversion cabinet	Optional		
11	Oil pipe	Standard	25	Air guide cover	Optional		
12	Battery rack	Standard	26	Smoke pipe	Optional		
13	Float charger	Standard	27	Automatic refueling system	Optional		
14	Corrugated pipe	Standard	28	Fuel level sensor	Optional		

STANDARDS:

Description: Generator and engine are optional.

Standby Power: Continues running at variable load for duration of an emergency.

No overload is permitted on these ratings.

Prime Power: Continues running at variable load for unlimited periods with 10% overload

available for 1 hour in any 12 hour period.

Note: All data sheets are for reference only and subject to change without prior notice.





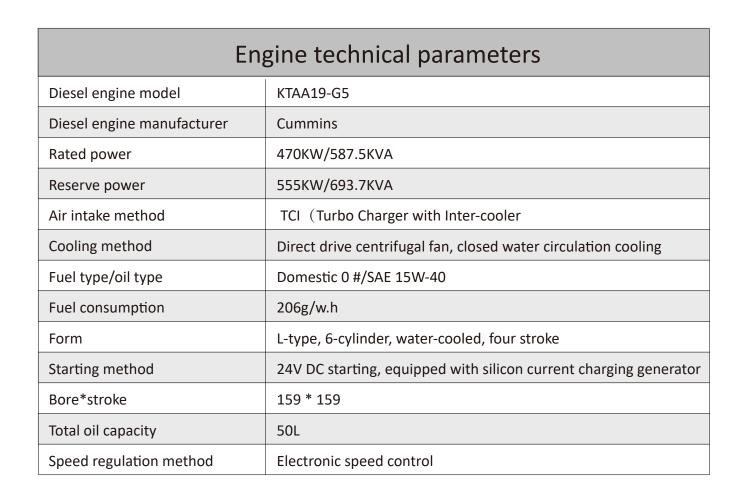




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Cummins engine characteristics features

- ——Cummins engines with advanced design, reliable performance, durable operation.
- ——Alloy-steel and connecting steel-rod, high durability
- ——High combustion efficiency and low fuel consumption, work continuously
- ——P/T pump injection technology, low cost, completely combustion









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Technical parameters of generator			
Generator model	HC450-14		
Generator power	450KW/562.5KVA		
Structure	Single bearing, 4-pole, brushless, anti drip		
Efficiency	0.935		
Rated power factor	0.8 (lag)		
Rated voltage	400/230V		
Protection level	IP23		
Voltage regulation method	AVR (Automatic Voltage Regulator)		
Wiring method	Three phase four wire, Y-type connection		
Excitation system	Brushless self excitation		
Insulation level	Н		
Steady state voltage regulation rate	≤ ± 1%		
Telephone interference coefficient	TIF<50		
Telephone harmonic factor	≤ 2%		
Generator manufacturer:Jiangsu Xinghuachang Power Generation Equipment Co., Ltd			

Generator Technical Performance

Generators can be optionally equipped with Stanford/Marathon/Leroy-Somer/Engga/Meccalte

- -- HC series generators are brushless AC synchronous generators, which comply with relevant national and international standards..
- ——Self excitation control or optional permanent magnet generator provides continuous short-circuit current capability
- ——Class H insulation meets harsh environmental requirements
- --2/3 of the winding pitch suppresses excessive neutral current
- ——12 stator output terminals can be reconnected
- ——Single pivot structure.
- ——Easy to install and maintain
- ——Standard IP23 protection level
- ——Unidirectional rotary fan
- ——Dedicated single pivot SAE2/11.5 or SAE1/14 connection Options or attachments:
- ——Winding temperature sensor RTD
- ——Bearing temperature sensor RTD
- ——Winding temperature protection thermistor and relay
- ——Optional permanent magnet generator provides excitation to isolate the control system from the output

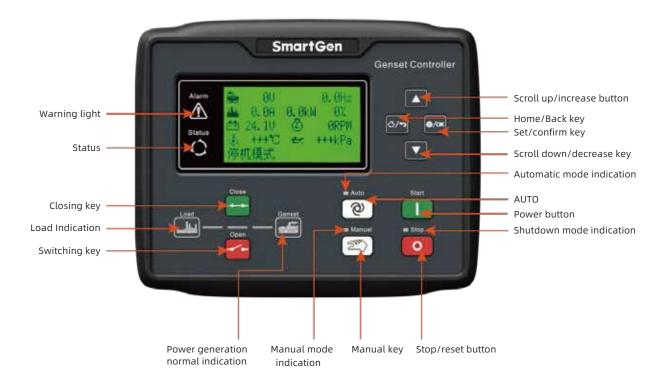




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CONTROL SYSTEM



Control system Performance characteristics

- ——LCD is 132x64, with backlight, displayed in eight languages (Chinese, English, Spanish, Russian, Portugal, Türkiye, Polish, French), and operated by tapping the button;
- --The screen protection adopts hard screen acrylic material, which has good wear resistance and scratch resistance;
- $-- Adopting \ silicone \ panels \ and \ buttons, \ with \ strong \ adaptability \ to \ high \ and \ low \ temperatures \ in \ the \ environment;$
- ——Equipped with RS485 communication interface, using MODBUS protocol can achieve the "three remote" function;
- Equipped with a CAN BUS interface, it can be connected to an electronic fuel injection machine with J1939. It can not only monitor common data of the electronic fuel injection machine (such as water temperature, oil pressure, speed, fuel consumption, etc.), but also control startup, shutdown, high and low speeds through the CANBUS interface (a controller with a CAN BUS interface is required);
- ——Control and protection functions: achieving automatic start/stop, closing and opening (ATS switching), and complete fault display protection functions for diesel generator sets;
- ——Equipped with power on shutdown, idle speed control, preheating control, and speed up and down control functions, all of which are relay outputs;
- ——Parameter setting function: allows users to change and set their parameters, while memorizing them in the internal FLASH memory, which will not be lost in case of system power failure. All parameters of the controller can be adjusted from the front panel of the controller, or through USB interface on a PC, or RS485 interface on a PC;
- ——Multiple temperature, pressure, and oil level sensors can be directly used, and parameters can be customized.
- ——Multiple successful starting conditions (speed, oil pressure, frequency) can be selected;
- —Equipped with emergency startup function;
- ——Equipped with automatic recognition function for flywheel tooth number;
- ——The power supply has a wide range of (8-35) VDC and can adapt to different starting battery voltage environments;
- ——All parameters are digitally adjusted, abandoning the analog adjustment method of conventional potentiometers, improving the reliability and stability of the entire machine;
- ——With maintenance function, the maintenance type can be selected as date or running time, and the maintenance action can be set (warning or alarm shutdown);
- ——It has the function of historical recording, real-time clock, and timed on/off (starting up once a month/week/day and can be set to load or not);
- ——There is a rubber sealing ring designed between the shell and the control screen, with a protective performance of IP65;
- ——The controller is fixed with metal clips;
- ——Modular structure design, flame-retardant ABS shell, pluggable terminal blocks, embedded installation method, compact structure, and convenient installation.



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