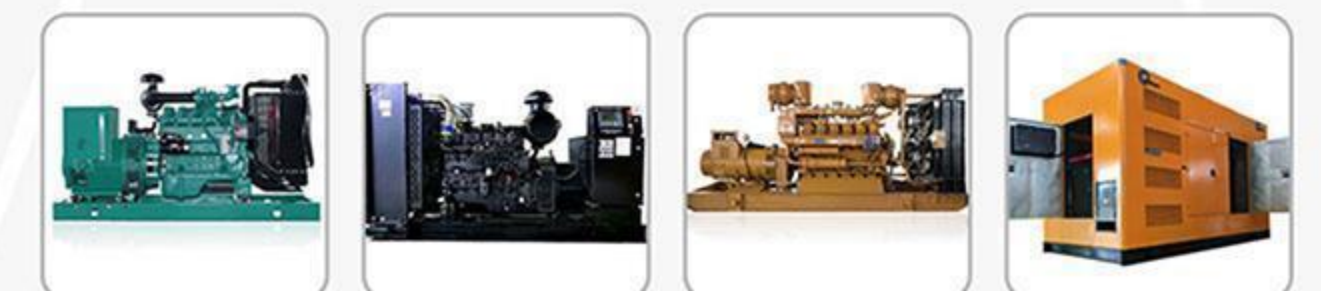




HONESTY AND CREDIBILITY BASED ON INNOVATION

THE PROFESSIONAL

A PROFESSIONAL MANUFACTURER OF GENERATING SET



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science technology
innovation unlimited power

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COMPANY PROFILE

(Jianhua Village), Yangzhou City, Jiangsu Province, covering an area of 30,000 square meters, with fixed assets of 100 million yuan, and is a professional manufacturer of 2-2000KW generator sets. The company has won the advanced enterprises in Jiangsu Province and the important contract trustworthy sets issued by Jiangsu Administration for Industry and Commerce, and has been rated as a super-grade credit enterprise by Yangzhou Bank-Enterprise Credit Rating Committee for many times. The company has the right of self-operated foreign import and export trade, is a double satisfactory set of product quality and after-sales service in Jiangsu Province, and is the seventh consumer trustworthy set in Jiangsu Province. Moreover, it is also the registered supplier of China Power System, Petrochemical System, Railway System and China Telecom.

practical experience in generator set manufacturing and has a group of high-quality workers. Among them, there are 2 professor-level senior engineers and top-notch talents at provincial and ministerial levels, 15 senior technicians and more than 20 engineers. The company has strong professionalism, solid technical force, complete processing equipment, advanced production technology, complete detection means and strict detection system. In the domestic generator set industry, our company has taken the lead in passing ISO9001 international quality system certification and various European Union certifications. In 1998, our company obtained the ISO9001 certification of "China United Certification Center", and passed the supervision and audit year after year. In 2003, our company successfully passed the 2000 version of the quality system certification, and obtained certification. At present, the annual production capacity of diesel generator sets in our company has reached more than 3,000 sets, with an annual output value of about 300 million yuan.

Due to the superior performance, reliable quality and first-class service of the company's diesel generator sets, it has won the trust of users. The products quickly spread all over the country and the sales volume is increasing day by day, and exported to Canada, Peru, Zimbabwe, Bangladesh, Ghana, Mongolia and other countries. XM series diesel generator sets show great vitality because of their unique advantages such as high efficiency, energy saving, long service life, advanced structure, stable operation, convenient disassembly and assembly, small body and light weight, etc., which promotes the level of domestic diesel generator sets to be improved by leaps and bounds.

After the review of relevant national experts, it is agreed that "the development of this series of diesel generator sets in our company is successful, and its various performance indexes are at the leading level in China. Moreover, the efficiency index of most diesel generator sets has reached the international advanced level. HC series diesel generator sets have been commended and recognized by the State Economic and Trade Commission, the State Science and Technology Commission, the Ministry of Electric Power, the Ministry of Metallurgy, the Ministry of Coal and other departments, and recommended as excellent energy-saving products by the State Economic and Trade Commission, the State Planning Commission and the State Science and Technology Commission, and won the title of national key new products for many times. The former Machinery Department was listed as the 16th and 17th batch of energy-saving mechanical and electrical products promotion projects in the machinery industry, and was listed as the main auxiliary equipment selection products of 300MW and 200MW thermal power sets by the Power Planning and Design Headquarters and Equipment Complete Set Department of the Ministry of Electric Power for many years, and was listed as the designated recommended products by the Ministry of Coal and the Ministry of Metallurgy.

Over the years, with the baptism in the market competition, our company has a satisfactory pre-sales and after-sales service team, and regularly trains maintenance operators for users, forming a unique corporate culture.

Enterprise spirit: Professional dedication, aspiring after excellence!

Enterprise goal: Base ourselves upon China, and walk up to the world!

OUR GOAL

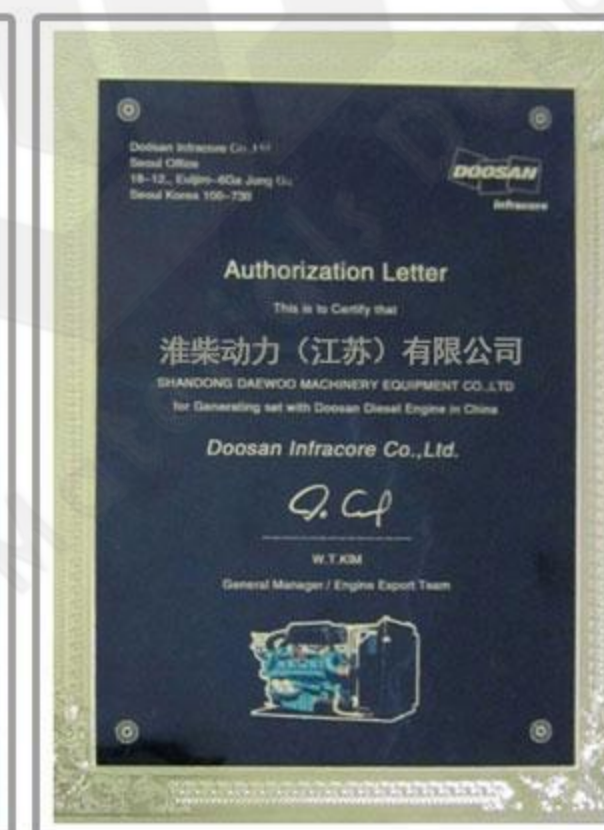
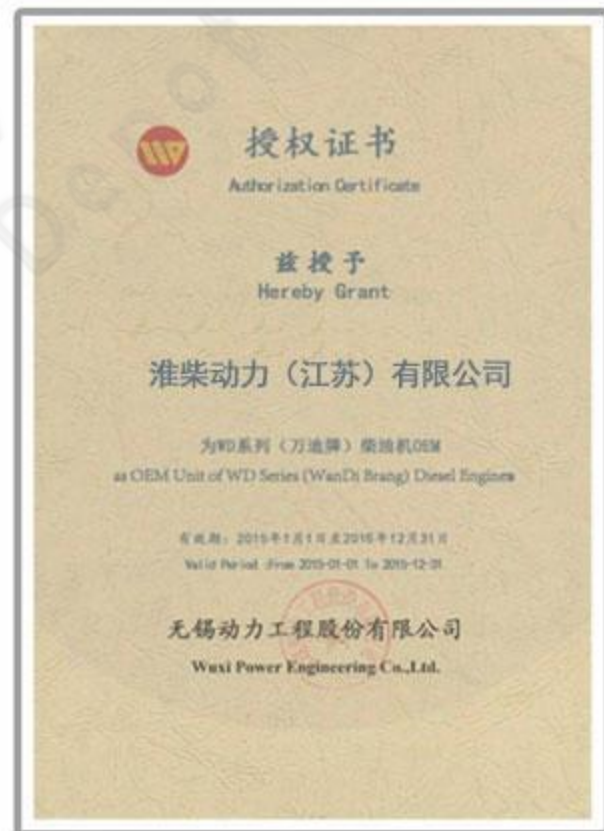
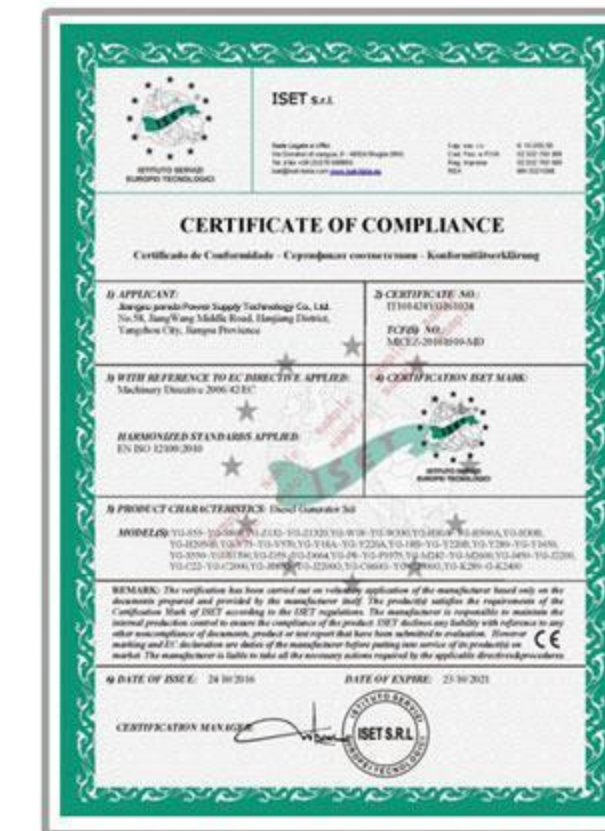
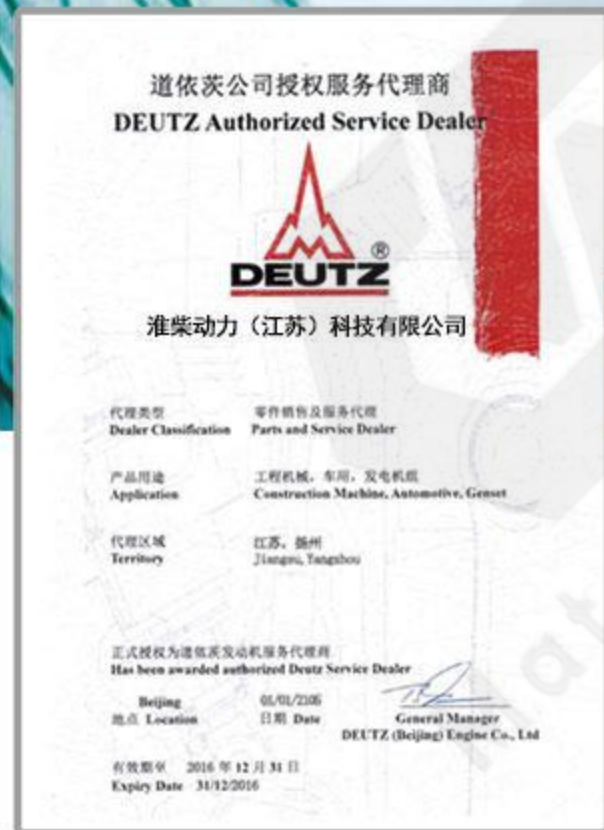
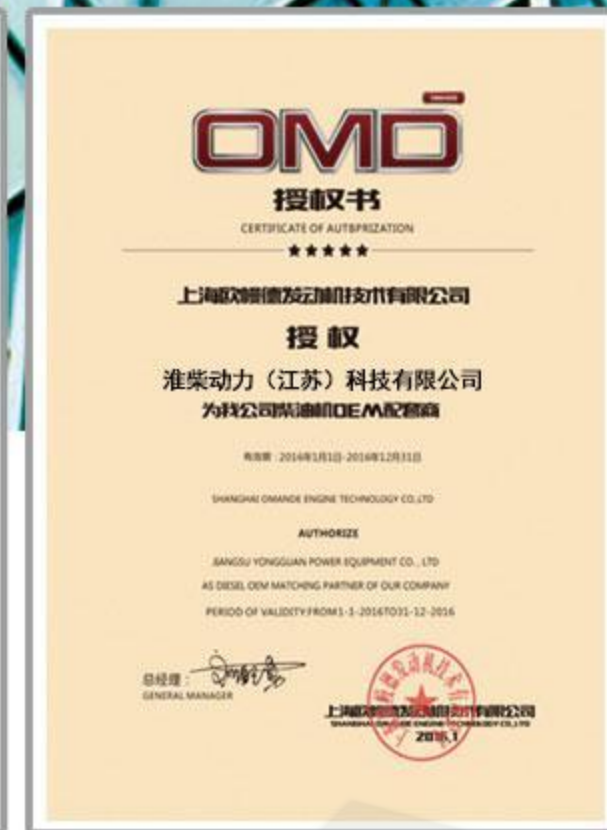
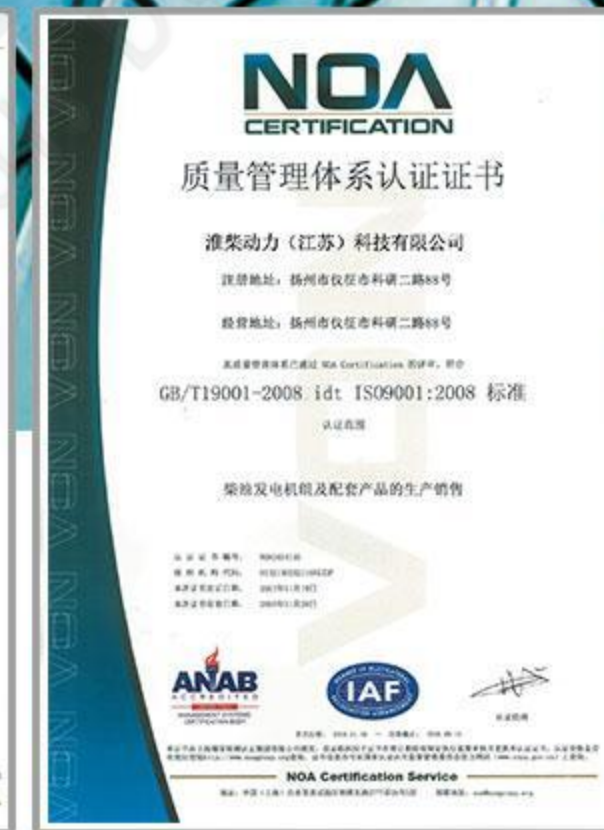
DIVERSIFICATION OF PRODUCTS AND HUMANIZATION OF SERVICE

SPECIALIZATION OF QUALITY AND INTERNATIONALIZATION OF TECHNOLOGY

DIVERSIFICATION OF DEVELOPMENT AND MODERNIZATION OF EQUIPMENT



ENTERPRISE QUALIFICATION



SCIENCE TECHNOLOGY
INNOVATION UNLIMITED POWER

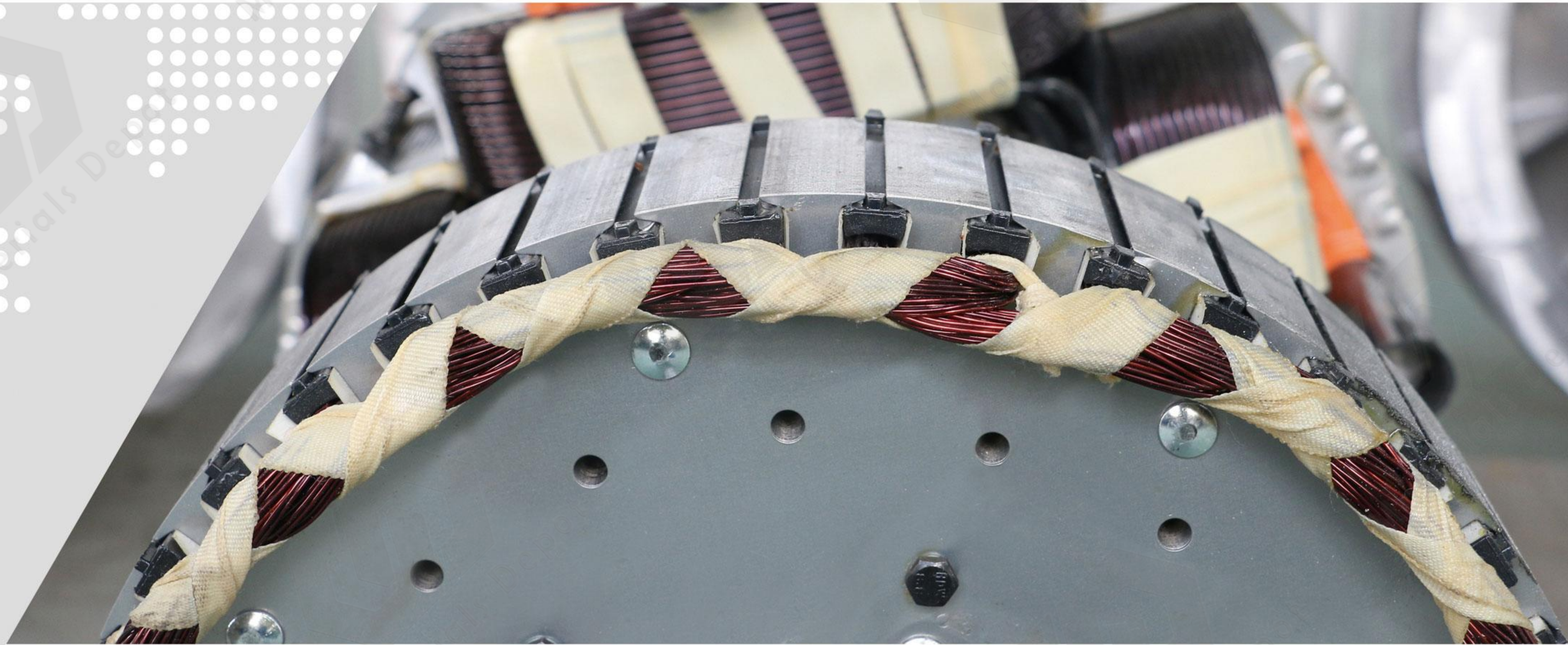
OUR TEAM

THE ROAD TO SUCCESS AND JOY IS
PRECISELY BECAUSE YOU ARE
AUTHENTICATING

... ..



REASONS FOR CHOOSING US



DEDICATED

Originated from 1993, after more than 20 years of development, it focuses on the national enterprise brand service .

SENIOR

Customer service of hundred enterprises, familiar with the development strategy of various enterprises .

COMPREHENSIVE

Design, research and development, production inspection, after-sales service, and provides integrated brand system solutions .

PROFESSIONAL

Strong professionalism, solid technology, complete equipment, perfect detection means, rich practical experience and high-quality workforce.

SCALE

With an annual production capacity of more than 3000 sets and an annual output value of about 300 million yuan, we have worked together to achieve win-win cooperations.

TAKING THE WHOLE PROCESS SERVICE AS THE FOUNDATION, WE STRIVE TO BUILD THE MOST PROFESSIONAL AND COMPREHENSIVE SERVICE ORGANIZATION IN MANUFACTURING INDUSTRY

QUALIFICATION

The company has passed ISO9001 international quality system certification and various European Union certifications in the domestic generator set industry. Moreover, the company has obtained the "China United Certification Center" ISO9001 certification, and passed the supervision and audit year after year, successfully passed the 2000 version of quality system certification, and obtained the certification.

AFTER-SALE

The company has a customer satisfaction of the pre-sales and after-sales service team, and regularly help users to train maintenance operators, forming a unique corporate culture.

TECHNOLOGY



Huachai Power (Jiangsu) Co., Ltd. was founded in 1993. Over the past 20 years, our company has accumulated rich practical experience in generator set manufacturing and has a group of high-quality workers. Among them, there are 2 professor-level senior engineers and top-notch talents at provincial and ministerial levels, 15 senior technicians and more than 20 engineers. The company has strong professionalism, solid technical force, complete processing equipment, advanced production technology, complete detection means and strict detection system. In the domestic generator set industry, our company has taken the lead in passing ISO9001 international quality system certification and various European Union certifications. In 1998, our company obtained the ISO9001 certification of "China United Certification Center", and passed the supervision and audit year after year. In 2003, our company successfully passed the 2000 version of the quality system certification, and obtained certification. At present, the annual production capacity of diesel generator sets in our company has reached more than 3,000 sets, with an annual output value of about 300 million yuan.

POWER GENERATOR TECHNOLOGY



Material of stator coil

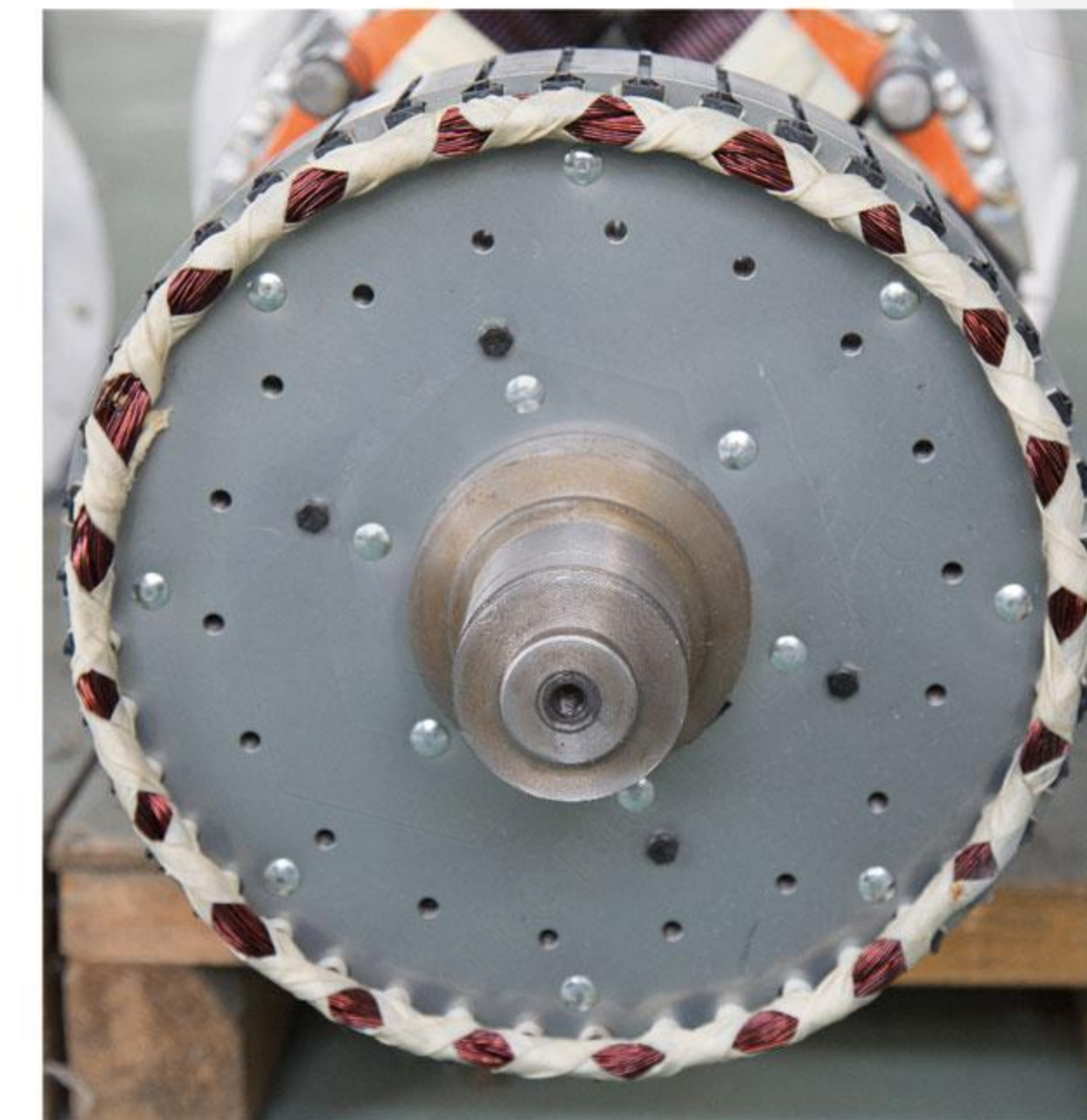
The stator coil was originally made of all-copper wire, but with the improvement of wire making technology, copper-clad aluminum wire appeared. Different from copper-plated aluminum wire, copper-clad aluminum wire is copper-clad aluminum with special die when drawing wire, and the copper layer is much thicker than copper-plated aluminum wire. For the generator stator coil, copper-clad aluminum wire is not much different in performance, but its service life is much shorter than that of all-copper wire stator coil.

Identification method: Because the diameter of copper-clad aluminum wire and copper-plated aluminum wire is thicker than that of copper wire of the same specification, the stator with copper-clad aluminum wire and copper-plated aluminum wire can only adopt 5/6 pitch and 48 slots. However, copper wire can be made of 2/3 pitch and 72 slots. Open the back cover of the generator and count the core slots of the stator, and you can identify it.

Similarly, the stator coil with all copper wire can also be made into 5/6 pitch and 48 turns. Because the coil is 24 turns less, the copper wire consumption is reduced, and the cost can be reduced by 10%.

For 2/3 pitch and 72 turns stator, its copper wire diameter is thin, the number of turns is 30% more, the number of coils per turn is also more, the current waveform is stable, and it is not easy to heat. The identification method is the same as above, just count the number of core slots of stator.

There is no omission in the quotation technical agreement of Huaichai Power about material, pitch, turns and other data, which is provided to customers as an annex to the contract. It is clearly stated in the contract, and if there is any discrepancy, one fake will be fined ten. However, most manufacturers will not provide these data to customers.



Excitation mode

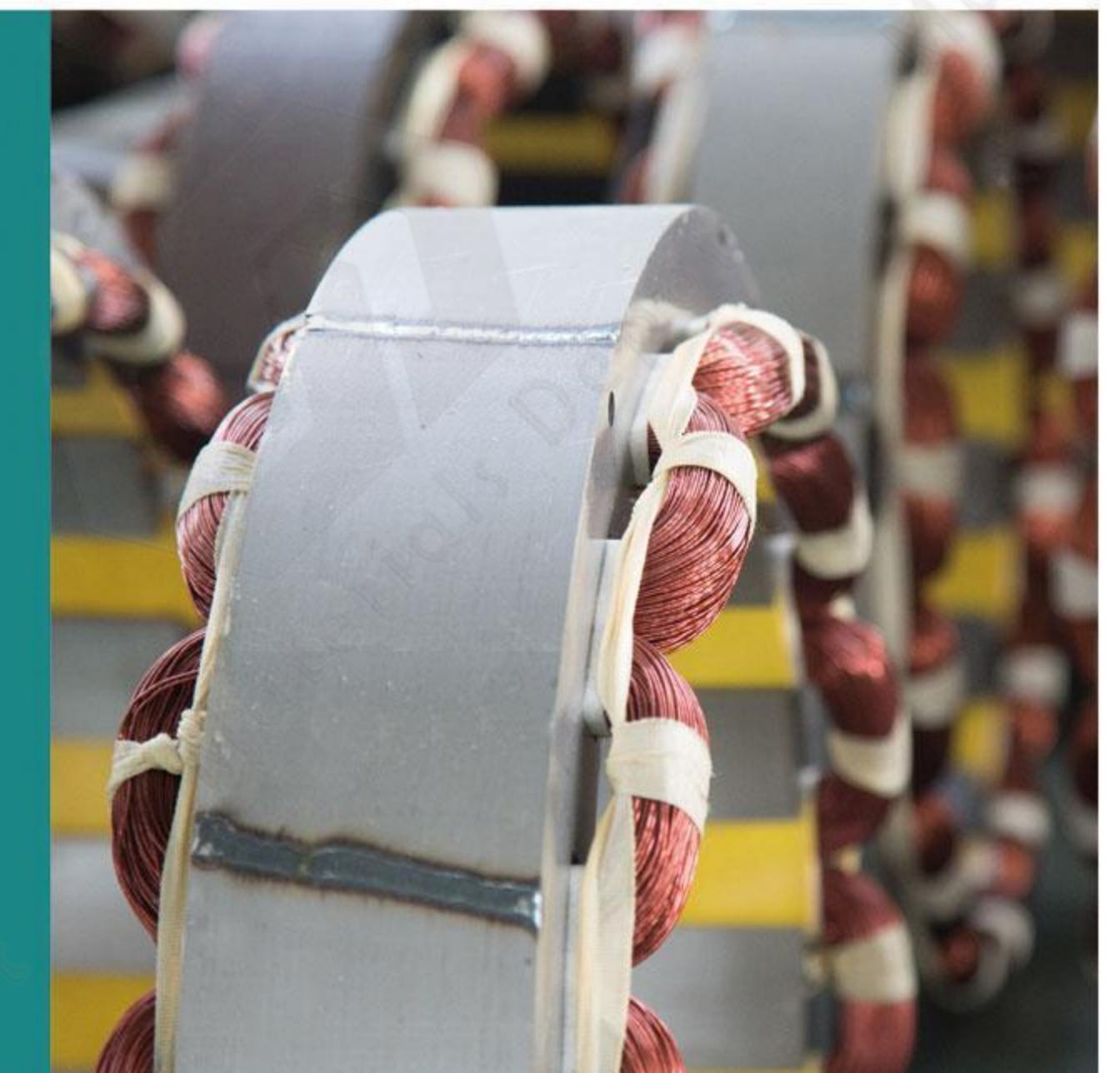
The excitation modes of generators are divided into phase compound excitation and brushless self-excitation. Brushless self-excitation has become the mainstream with the advantages of stable excitation and simple maintenance, but there are still some manufacturers who configure phase compound excitation generators in generator sets below 300KW for cost consideration. The identification method is very simple, you can use a flashlight to look at the heat dissipation outlet of the generator, and those with brushes are phase compound excitation.

The generators configured by Huaichai Power are all brushless self-excited from the minimum of 10KW to 2000KW.

The generators equipped by Huaichai Power Co., Ltd. are all equipped with permanent magnet excitation on the basis of brushless self-excitation, which ensures the excitation stability of the generator set and the stable operation of the generator set under the condition of large starting torque.

Silicon lamination of stator core

The stator core is made of silicon laminations which are stamped and welded one by one. The quality of silicon laminations will directly affect the magnetic field circulation of stator. The silicon laminations used by Huaichai Power are all made by Shanghai Baosteel, which are the same as those used by Stamford, Marathon and Leroysonmer. Huaichai Power can provide users with purchasing certificates of silicon laminations.



Rotor bearing

Rotor bearing is the only worn part in generator. The clearance between rotor and stator is extremely small. If the bearing quality is poor, after wear, it is easy for the rotor to rub against the stator, commonly known as "bore rubbing", which will produce high heat and burn the generator. The generator of Huaichai Power adopts high-precision bearings for machine tools, which have high concentricity and high wear resistance, and greatly prolong the service life.



THE SPIRIT OF SERVICE

Adhere to the brand concept and take customer satisfaction as the criterion. Everything we do is either to win customers or to maintain customers.

If you choose Huaichai Power, after the model is determined, you can know the manufacturer models of diesel engine, generator, control system and accessories. Huichai Power will provide you with itemized quotation of all spare parts, price list of all manufacturers and contact telephone number for your verification.

If you are still hesitating to select other manufacturers, but they do not provide such services as Huaichai Power. Don't worry! Huaichai Power can still provide you with free reference in the whole process. As long as there are basic technical parameters, Huaichai Power can provide you with corresponding information for verification.

If some manufacturers do not even provide basic technical parameters to you, or provide incomplete parameters, such manufacturers are not trustworthy, so give up as soon as possible to avoid being fooled.

If you have any doubt about Huaichai Power, the information provided by our company is full and accurate, and you can directly inquire about the contact information of relevant manufacturers and the specific price of relevant models online. In addition to Huaichai Power, there will be no generator set manufacturers can provide such clear cost accounting data to you.



OUR AFTER-SALES COMMITMENT

Thank you for choosing to use Huaichai series diesel generator sets. When you choose to use Huaichai diesel generator set, you will get the best after-sales service and pure spare parts supply provided by us.

Our company will strictly abide by the contents, plans and commitments involved in the company's service guarantee, and provide you with perfect technical support and diesel generator set application.

We can provide users with preventive maintenance programs to reduce the high cost of your machine downtime. We can determine the stock of spare parts that are not commonly used or urgently needed in a short time, and order and supply them in time, so as to ensure the timely supply of spare parts you need when you need them most.

■ Technical service system

First-level service organization: engineering and technical service departments of agents/distributors all over the country

Second-level service organization: after-sales service department of Huaichai Company

■ Service mode

1. Pre-sales technical support

Actively assist the user and design set to complete the pre-design work of set selection, generator room design and set installation, keep close communication and technical exchange with the user, go deep into the site, patiently, timely and accurately provide all kinds of technical support within their capabilities, provide reasonable opinions and suggestions, and act as the user's staff.

2. During the warranty period

In case of any abnormal failure of the set during the warranty period, we promise to provide maintenance services for users free of charge (failure caused by improper operation of users' users), arrive at the site within 24 hours for treatment (or according to actual traffic conditions), and provide compulsory warranty services to customers.

Remarks:

(1) The warranty period is one year from the date of acceptance of the equipment.

Definition of warranty period: The actual use of one year or 1000 hours (the above conditions shall be whichever comes first), or according to the relevant provisions of the contract, all parts damage or other set failures caused by the manufacturer's negligence in assembly or improper selection of design and raw materials can be guaranteed by the supplier.

(2) Vulnerable parts of diesel generator set, daily use accessories, human operation errors, negligent maintenance, etc. are not covered by this warranty.

3. Outside the warranty period

All spare parts will be provided at cost price. Our company will send technical personnel to the customer site or the customer designated place in time, and can ensure the repair of the set to normal use. Outside the warranty period, our company promises to provide lifelong tracking service to users.

■ Service content

1. The users we serve are the end users who use Huaichai diesel generator set.
2. When you start to purchase power generation equipment or when you use the generator set, we provide systematic and extensive technical services, and provide free consultation for the generator set that meets your technical specifications.
3. From the date of ordering, help check and locate the generator set you purchased to ensure that your generator set is put into normal operation in the shortest time.
4. Train technicians for you free of charge.
5. Provide preventive maintenance and repair to control your operating expenses.
6. Provide a large number of spare parts and accessories, and maintenance engineers can provide technical assistance for you at any time.
7. Provide free generator room design, power distribution design and application specification of diesel generator set.

■ Service commitment

1. Delivery and commissioning

Since the after-sales service department receives the startup application form from the user, our company will send technical service personnel within 2 hours, arrive at the delivery place designated by the user within 24 hours, and carry out delivery debugging according to the delivery debugging procedure.

2. Troubleshooting

Upon receipt of customer service notice, our company will immediately carry out troubleshooting. The notice should be sent by fax. The after-sales service department of our company will send engineers and technicians within 2 hours and arrive at the place where the equipment is to be repaired within 24 hours (48 hours in remote areas).

The after-sales service department will establish the technical files of users, and consult regularly or irregularly to understand the use status of users' equipment, so as to make your diesel generator set in a good standby state.

The company will regularly or irregularly visit the users who use Huaichai diesel generator set every year, and record the opinions and good suggestions of the users to our after-sales service department.



01 COMPANY PERFORMANCE

- Ningguo Rural Commercial Bank
- Hefei Institute of Material Science, Chinese Academy of Sciences
- Gansu Qunye Science and Technology Engineering Co., Ltd
- Jiangsu Tianyuan Intelligent Equipment Co., Ltd
- Hunan Anhua County Hospital of Traditional Chinese Medicine
- Jiangsu Nantong Sanjian Group Co., Ltd
- Wuhan Fenjin Power Tech Co., Ltd
- Zhuhai Huafeng Group

02 COMPANY PERFORMANCE

- Sinopec Sales Co., Ltd. Henan Zhoukou Petroleum Branch
- Nantong Sijian Construction Group Co., Ltd
- Hainan Province Land Resources Information Center
- Hubei Wanzhou Electric Group Co., Ltd
- Institute of Fishery Machinery and Instruments, Chinese Academy of Fishery Sciences
- Toshiba Hydro Power, Tonglu County, Hangzhou
- Zoomlion Heavy Industry Science & Technology Co., Ltd
- China National Aviation Fuel Group, Sino-Ocean Group



03 COMPANY PERFORMANCE

- China Huaneng - Daqing Thermal Power Co., Ltd
- Ningbo University
- Central South University
- The Fourth Hospital of Huangshi, Hubei
- Mingzhu Plaza Hotel, Lianyungang
- Huichang County Government of Ganzhou, Jiangxi Province
- Xuzhou Jiufa Construction Machinery Co., Ltd
- China Telecom Emergency Generator Vehicle

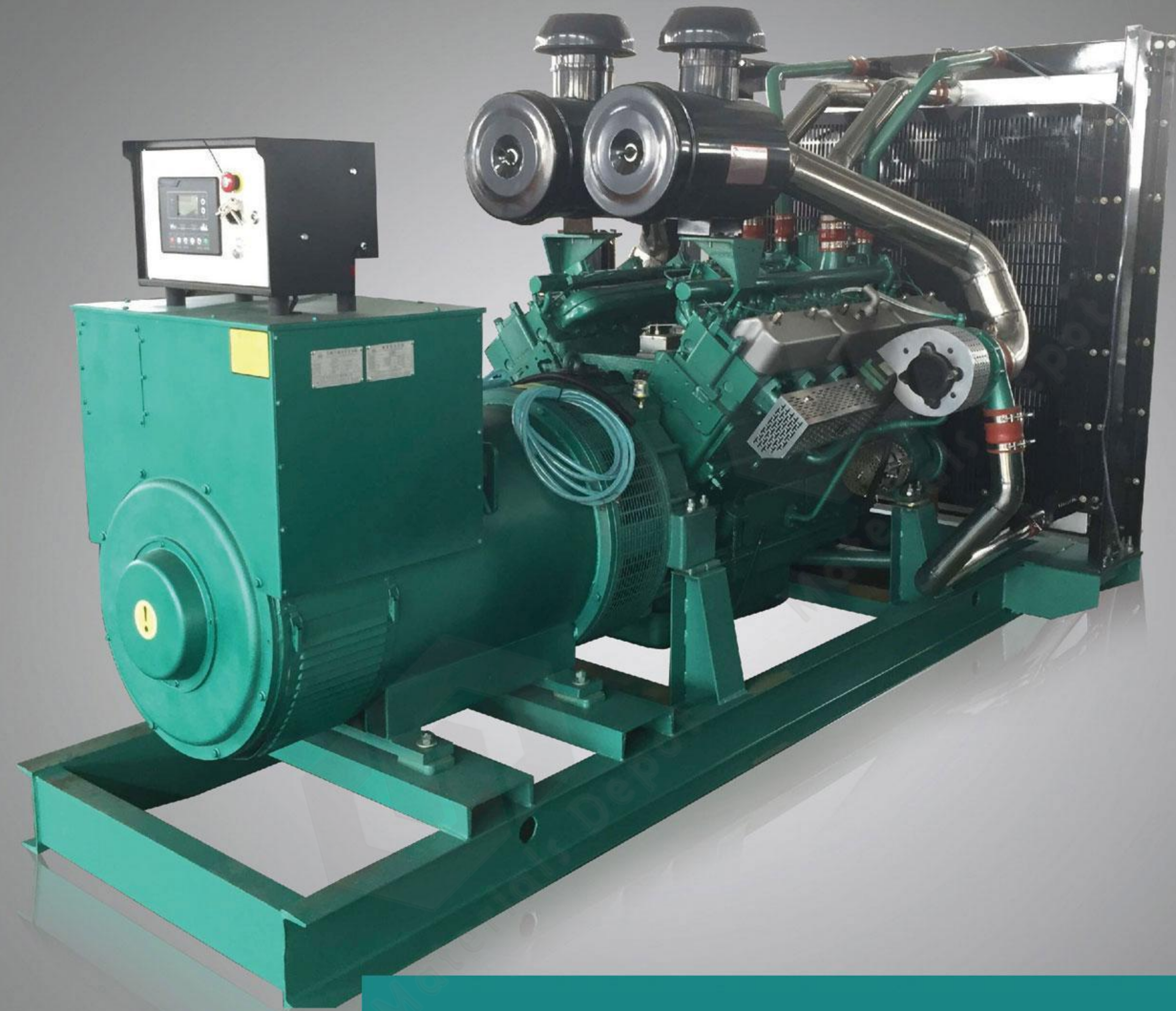


PERFORMANCE CORPORATE

04 COMPANY PERFORMANCE

- Zhejiang Electric Power Corporation
- Zhejiang Rifa Group
- Zhejiang Juhua Group
- Yantian International Container Terminals Co., Ltd
- Asia Pulp & Paper Co., Ltd
- Sharp Office Equipment (Changshu) Co., Ltd.
- Wahaha Group
- ...





HUAICHAI / HUAICHAI DIESEL ENGINE SERIES

SERIES DIESEL GENERATING SET

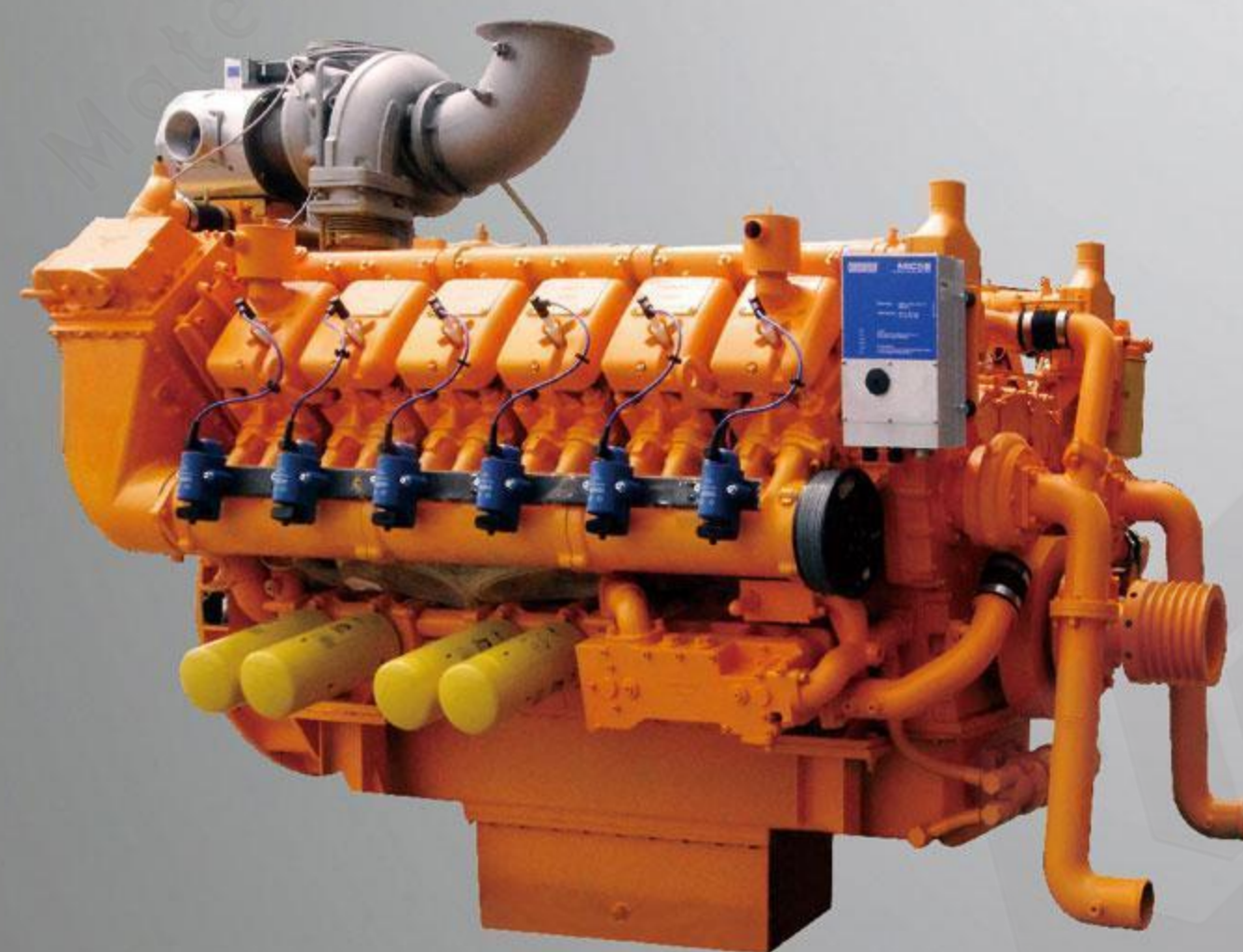
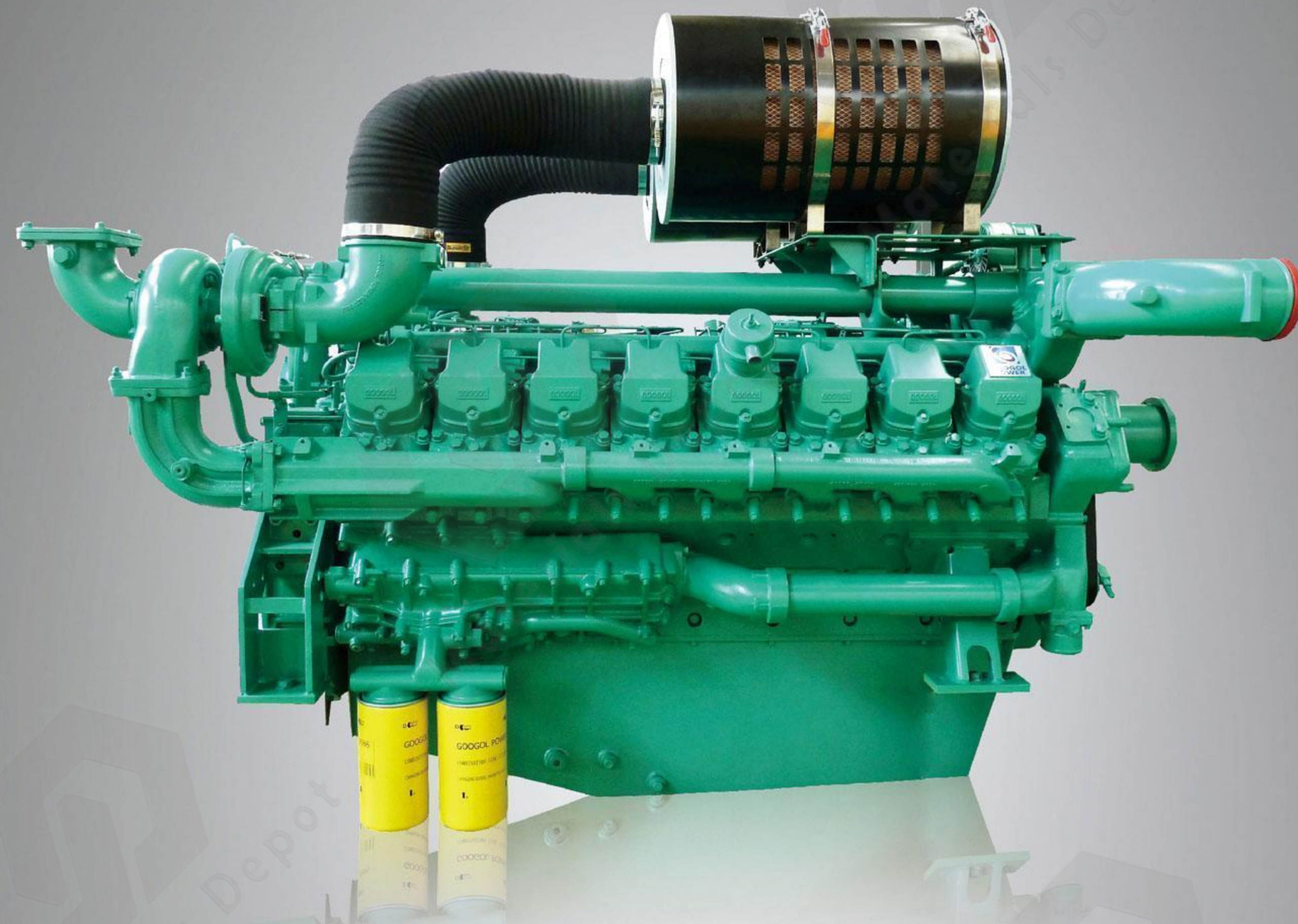


Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-Z30	25	30	HC4100D	4	100*115	3.61	6.00	18	13	1600*590*1250	720
HC-Z40	30	40	HC4100ZD	4	100*115	3.61	6.50	18	13	1600*590*1250	750
HC-Z50	40	50	HC4105ZD	4	105*115	3.87	10.56	20	14	1860*700*1300	800
HC-Z55	50	55	HC4105ZD	4	105*115	3.87	11.56	20	14	1860*700*1300	800
HC-Z80	75	80	HC6105ZD	6	105*125	6.49	19.80	35	19	2350*730*1300	1050
HC-Z110	100	110	HC6105AZLD	6	105*130	6.75	24.50	38	20	2350*750*1300	1150
HC-Z132	120	132	HC6105IZLD	6	105*130	7.15	26.30	38	22	2400*750*1300	1250
HC-Z160	150	160	HC6110ZLD	6	110-130	8.30	39.60	45	25	2450*780*1300	1380
HC-Z132	120	132	HC8D220D2	6	114*135	8.27	30.7	60	20	2800*900*1750	2250
HC-Z165	150	165	HC8D280D2	6	114*135	8.27	38.4	66	20	2800*950*1800	2350
HC-Z180	160	180	HC8D280D2	6	114*135	8.27	40.7	72	20	2800*950*1800	2350
HC-Z200	180	200	HC9D310D2	6	135*150	12.88	47.7	78	22	2950*980*1650	2050
HC-Z220	200	220	HC9D340D2	6	135*150	12.88	52.4	82	27	3000*960*1565	2090
HC-Z275	250	275	HC310D	6	135*150	12.88	66.7	90	26	3100*1380*1780	2450
HC-Z330	300	330	HC350D	6	135*165	14.16	78.7	92	28	3130*1380*1800	2750
HC-Z350	320	350	HC425D	6	135*150	25.8	83.7	92	37	3200*1650*2100	3300
HC-Z400	360	400	HC441D	6	135*150	25.8	93.0	96	36	3480*1460*2020	3550
HC-Z420	380	420	HC475D	12	135*155	26.6	102.3	101	36	3473*1470*2030	3650
HC-Z440	400	440	HCV510D	12	135*155	26.6	116.3	105	65	3475*1490*2030	3700
HC-Z500	450	500	HCV550D	12	135*155	26.6	127.9	120	65	3600*1600*2100	3890
HC-Z550	500	550	HCV610D	12	135*155	26.6	135.00	125	35	3850*1600*2200	4400
HC-Z600	550	600	HCV630D	12	135*155	28.7	144.00	125	44	3895*1650*2200	4500
HC-Z640	580	640	HCV660D	12	128*142	28.7	151.00	132	50	3950*1740*2165	4600
HC-Z660	600	660	HCV720D	12	128*142	29.6	158.00	140	52	3950*1740*2165	4700
HC-Z715	650	715	HCV780D	12	128*142	29.6	160.00	145	55	4020*1800*2300	4900
HC-Z770	700	770	HCV840D	12	128*142	29.60	179.00	150	65	4020*1800*2300	4900
HC-Z800	720	800	HCV936D	12	128*142	30.15	185.00	158	72	4120*1850*2300	5120
HC-Z825	750	825	HCV970D	12	138*165	30.15	198.00	160	75	4200*1950*2300	5600
HC-Z1100	800	880	HCV1100D	12	138*165	33.80	210.00	170	78	4300*1950*2300	5800
HC-Z1200	850	935	HCV1200D	12	138*165	33.80	221.00	180	80	4350*1950*2300	5900
HC-Z1300	900	990	HCV1300D	12	138*165	33.80	237.00	180	85	4400*1950*2300	6200

This information is only prepared for the user's set selection, for reference only, and does not constitute a binding force on the company. The information contained is subject to change without prior notice. The company has the final interpretation right of change.

HUAICHAI / GOOGOL SERIES

SERIES DIESEL GENERATING SET



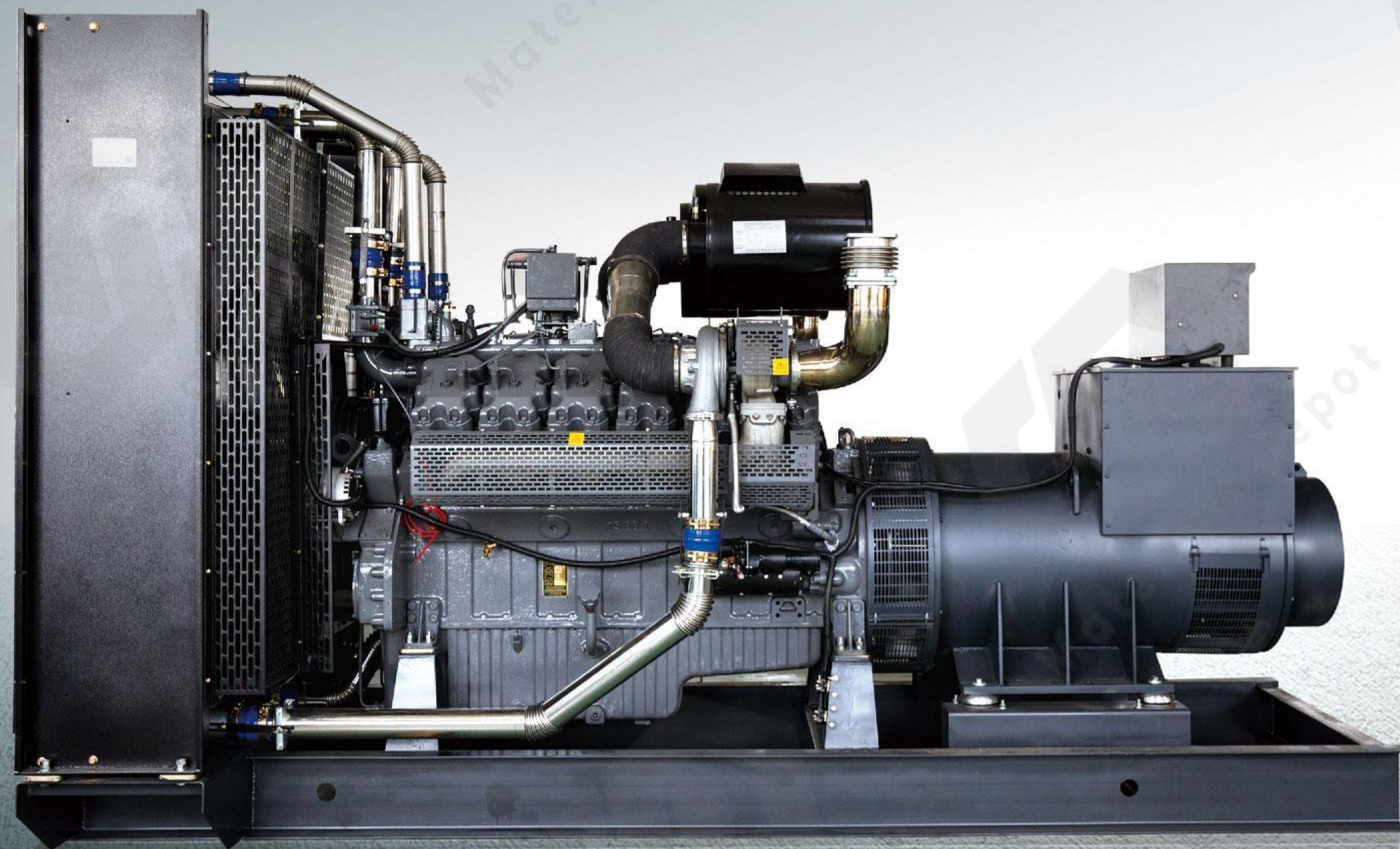
Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-K310	280	310	PTA780G3	6	128*166	12.8	78.49	18	40	3000*1110*1555	2563
HC-K330	300	330	PTA780G5	6	128*166	12.8	83.56	18	40	3100*1110*1555	2630
HC-K360	320	360	PTAA780G1	6	128*166	12.8	88.04	18	40	3100*1110*1555	2645
HC-K400	360	400	PTAA780G3	6	128*166	12.8	98.14	18	40	3150*1110*1555	2750
HC-K440	400	440	PTAA890G1	8	128*142	14.6	112.86	20	28	2900*1400*2080	3000
HC-K500	450	500	PTAA1120G1	10	128*142	18.3	129.61	21	34	3200*1400*2080	3400
HC-K550	500	550	PTAA1120G3	10	128*142	18.3	143.85	21	34	3200*1400*2080	3575
HC-K620	560	620	PTAA1340G3	12	128*142	21.9	152.14	23	36	3700*1400*2080	4110
HC-K660	600	660	PTAA1340G5	12	128*142	21.9	162.39	23	36	3700*1400*2080	4200
HC-K704	640	704	PTAA1780G3	16	128*142	29.2	169.79	32	48	4400*2140*2320	5590
HC-K800	720	800	PTAA1780G5	16	128*142	29.2	190.25	32	48	4500*2140*2320	5850
HC-K880	800	880	PTAA1780G7	16	128*142	29.2	207.77	32	48	4600*2140*2320	6201
HC-K880	800	880	QTA2160G1	8	170*195	35.4	204.87	70	160	4900*1920*2350	7606
HC-K1000	900	1000	QTA2160G5	8	170*195	35.4	223.37	70	160	4900*1920*2350	8257
HC-K1100	1000	1100	QTA2160G7	8	170*195	35.4	252.38	70	160	4900*1920*2580	8682
HC-K1100	1000	1100	QTA3240G1	12	170*195	53.1	251.58	100	180	5400*2210*2800	10092
HC-K1320	1200	1320	QTA3240G5	12	170*195	53.1	301.73	100	180	5400*2210*2800	10559
HC-K1500	1350	1500	QTA3240G7	12	170*195	53.1	339.16	100	180	5400*2210*2800	10951
HC-K1650	1500	1650	QTA3240G9	12	170*195	53.1	376.97	100	180	5600*2210*2930	12180
HC-K1800	1600	1800	QTA4320G3	16	170*195	70.8	403.59	140	240	6100*2620*2980	13303
HC-K2000	1800	2000	QTA4320G5	16	170*195	70.8	453.17	140	240	6300*2620*2980	14227
HC-K2200	2000	2200	QTA4320G7	16	170*195	70.8	503.02	140	240	7000*2620*3390	17402
HC-K2200	2000	2200	QTA5400G1	20	170*195	88.5	508.97	200	300	8100*3470*3850	20593
HC-K2420	2200	2420	QTA5400G3	20	170*195	88.5	554.85	200	300	8300*3470*3850	21318
HC-K2640	2400	2640	QTA5400G5	20	170*195	88.5	605.16	200	300	8300*3470*3850	22128

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HUAICHAH DIESEL ENGINE SERIES / SHANGHAI SERIES DIESEL GENERATING SET

Shanghai Diesel Engine Co., Ltd. was founded in 1947, formerly known as Shanghai Diesel Engine Factory. At present, it has seven series of diesel engines and natural gas engines, including R, H, D, C, E, E, G and W, with a power coverage of 50-1600KW. Shanghai's perfect after-sales service outlets and comprehensive accessories system have been recognized and favored by domestic users.



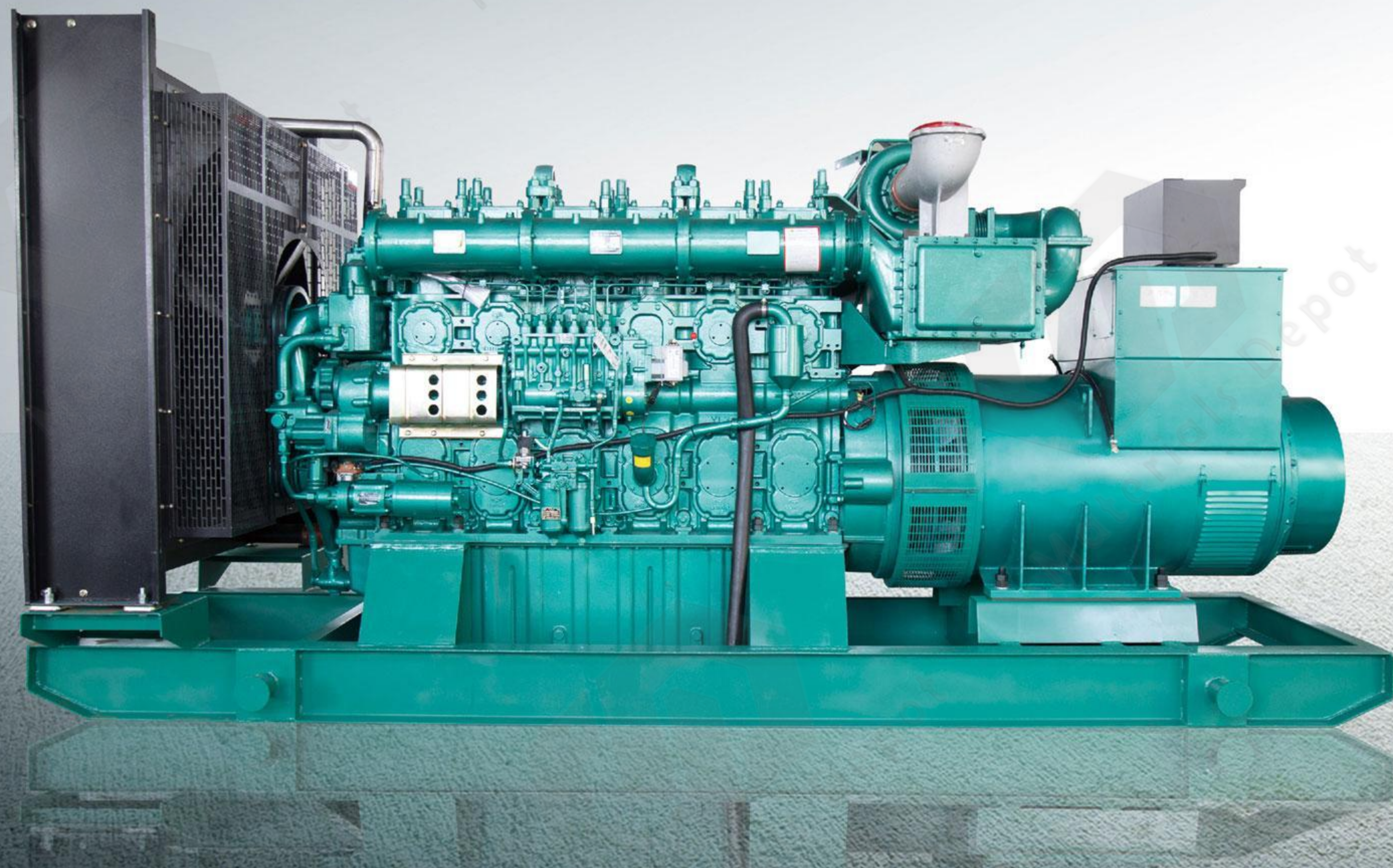
Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-S55	50	55	SC4H95D2	4	105*124	4.3	15.1	98	15	1910*893*1170	940
HC-S60	55	60	SC4H95D2	4	105*124	4.3	15.1	98	15	1910*893*1170	940
HC-S66	60	66	SC4H115D2	4	105*124	4.3	19	102	15	1950*893*1170	970
HC-S77	70	77	SC4H115D2	4	105*124	4.3	19	102	15	1950*893*1170	970
HC-S100	90	100	SC4H160D2	4	105*124	4.3	24.7	110	15	2060*933*1185	1020
HC-S110	100	110	SC4H160D2	4	105*124	4.3	24.7	110	15	2060*933*1185	1020
HC-S120	110	120	SC4H180D2	4	105*124	4.3	28.3	115	15	2100*933*1185	1080
HC-S135	120	135	SC7H230D2	6	105*124	6.5	35.6	124	20	2400*940*1376	1250
HC-S150	135	150	SC7H230D2	6	105*124	6.5	35.6	124	20	2400*940*1376	1250
HC-S165	150	165	SC7H250D2	6	105*124	6.5	38.6	130	20	2446*940*1376	1330
HC-S185	170	185	SC8D280D2	6	114*135	8.27	45	132	22	2515*980*1500	1520
HC-S200	180	200	SC9D310D2	6	114*144	8.82	50	132	22	2515*980*1500	1540
HC-S220	200	220	SC9D340D2	6	114*144	8.82	54.4	132	27	2706*1040*1486	1750
HC-S240	220	240	SC13G355D2	6	135*150	12.88	56.7	148	33	3156*1230*1647	2850
HC-S280	250	280	SC13G420D2	6	135*150	12.88	67.6	148	33	3156*1230*1647	2850
HC-S300	280	300	SC12E460D2	6	128*153	11.8	70.5	160	37	3175*1100*1595	2900
HC-S330	300	330	SC15G500D2	6	135*165	14.16	81.1	160	33	3156*1230*1674	2970
HC-S400	360	400	SC25G610D2	12	135*150	25.8	97.8	210	65	3533*1400*1992	4300
HC-S450	400	450	SC25G690D2	12	135*150	25.8	110.9	218	65	3548*1400*1992	4300
HC-S500	450	500	SC27G755D2	12	135*150	26.6	123.2	218	35	3548*1400*1992	4450
HC-S550	500	550	SC27G830D2	12	135*155	26.6	150.5	221	65	3548*1400*1992	4450
HC-S600	550	600	SC27G900D2	12	135*155	26.6	148.8	221	65	3548*1400*1992	4450
HC-S660	600	660	SC33W990D2	6	180*215	32.8	171.2	248	75	4362*1570*2135	7070
HC-S800	720	800	SC33W1150D2	6	180*215	32.8	189.5	248	75	4433*1775*2378	8000

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HUAICHAH DIESEL ENGINE SERIES / YUCHAI SERIES DIESEL GENERATING SET

Guangxi Yuchai Machinery Group Co., Ltd., headquartered in Yulin City, Guangxi, is a group company integrating engine industry chain and petrochemical industry chain. Yuchai has more than 2000 patented technologies, and its diesel engine has won the favor of customers at home and abroad for its high power, stable and reliable output and low emission. The power range of its products covers 30-1600KW, which is the first choice for the main commercial vehicles, construction machinery and power generation industries in China.

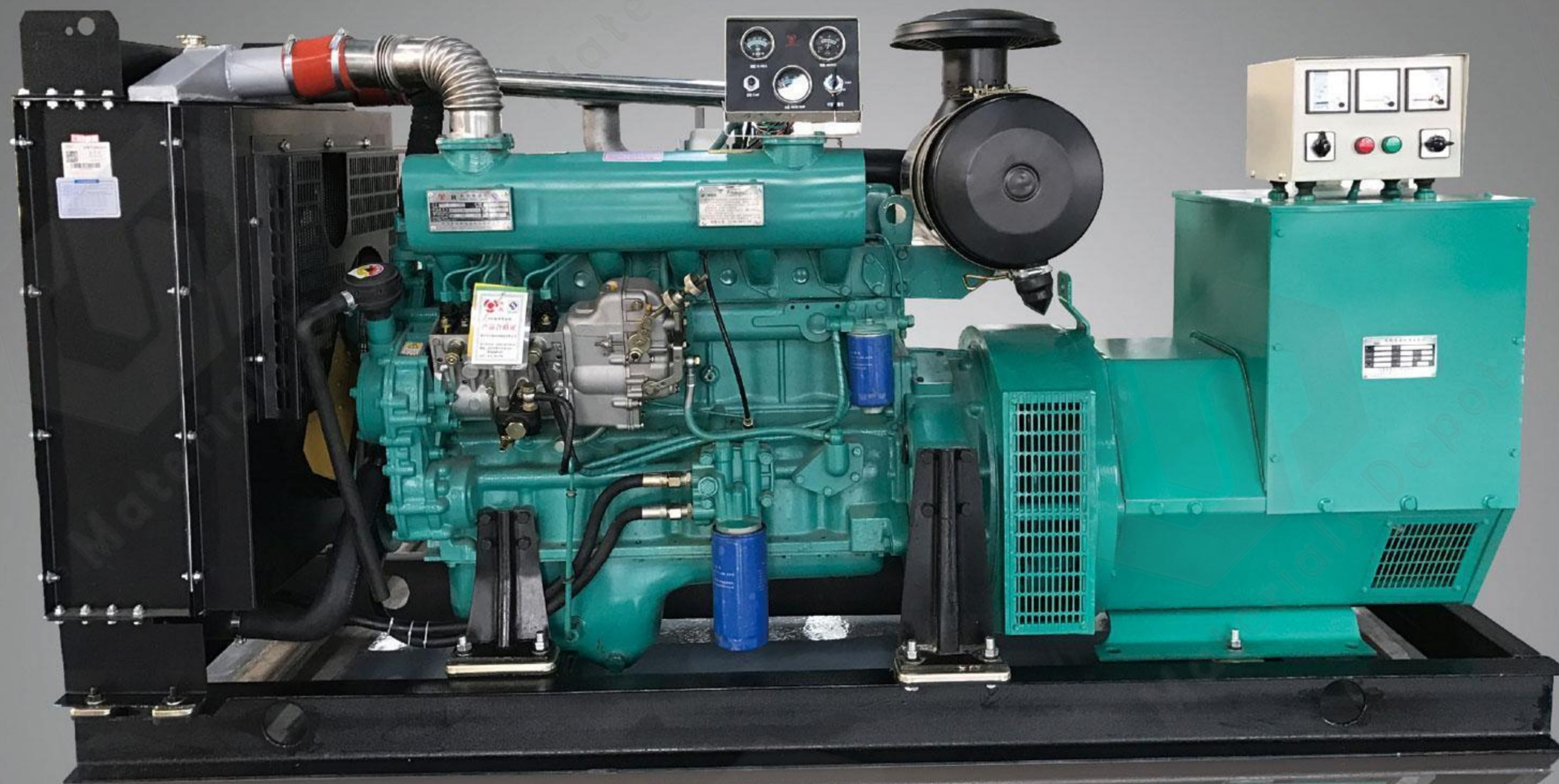
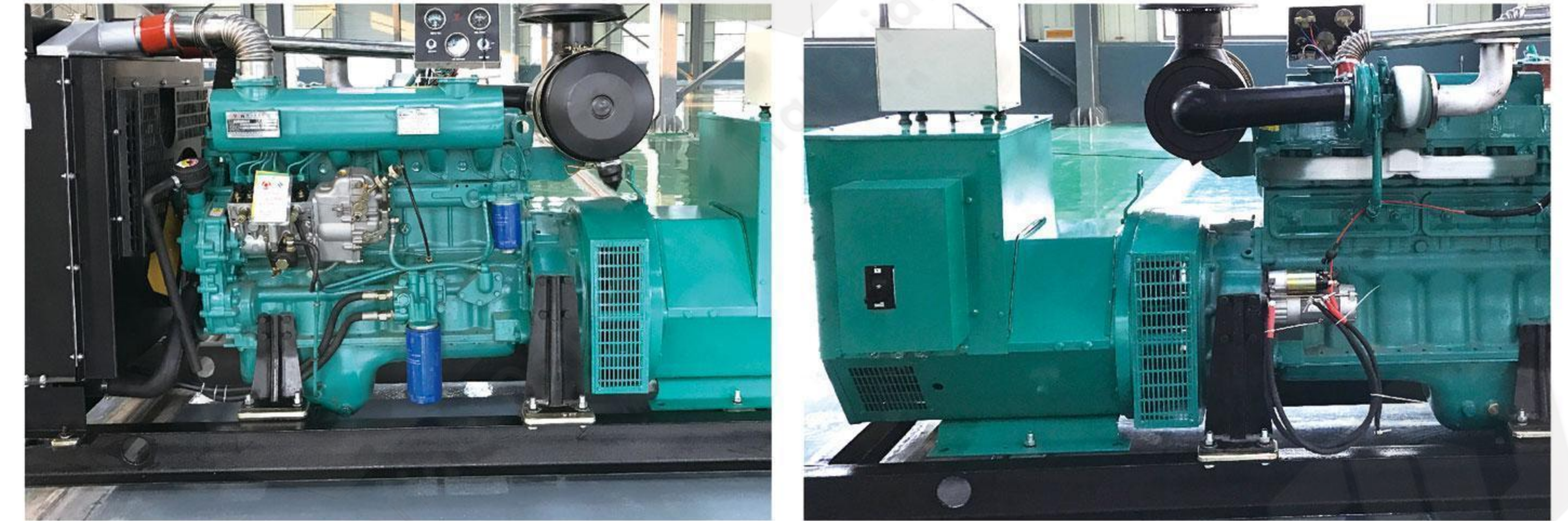


Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-Y18	15	18	YC2108D	2	108*120	2.1	5.1	50	10	1790*870*1500	580
HC-Y22	20	22	YC2115D	2	115*120	2.4	5.9	50	10	1790*870*1500	580
HC-Y30	25	30	YC2115ZD	2	115*120	2.4	8.2	50	10	1790*870*1500	580
HC-Y33	30	33	YC4D60-D21	4	108*115	4.2	11.9	78	13	1800*600*1150	980
HC-Y40	35	40	YC4D60-D21	4	108*115	4.2	11.9	78	13	1800*600*1150	1100
HC-Y45	40	45	YC4D85Z-D20	4	108*115	4.2	12.9	80	13	1800*600*1150	1100
HC-Y55	50	55	YC4D85Z-D20	4	108*115	4.2	14.8	85	13	1800*600*1150	1180
HC-Y60	55	60	YC4D90Z-D20	4	108*115	4.2	15.8	90	14.6	1830*700*1305	1200
HC-Y66	60	66	YC4A100Z-D20	6	108*125	6.8	21.2	108	17	2100*750*1350	1200
HC-Y90	80	90	YC6B135Z-D20	6	108*125	6.8	23.9	108	17	2100*750*1350	1200
HC-Y100	90	100	YC6B155L-D21	6	108*125	6.8	26.2	118	17	2100*800*1350	1300
HC-Y110	100	110	YC6B180L-D20	6	105*125	6.8	30.1	125	17	2200*700*1450	1690
HC-Y120	110	120	YC6B180L-D20	6	105*125	6.8	30.1	125	17	2200*700*1450	1690
HC-Y132	120	132	YC6B205L-D20	6	108*132	7.2	35.3	135	20	2560*980*1600	1700
HC-Y165	150	165	YC6A230L-D20	6	108*132	7.2	40.5	135	22	2560*980*1600	1700
HC-Y185	170	185	YC6MK285L-D20	6	120*145	9.8	49.6	135	25	2600*825*1565	1850
HC-Y220	200	220	YC6MK350L-D20	6	120*145	9.8	56.4	145	22	2900*1050*1700	2570
HC-Y280	250	280	YC6MK420L-D20	6	123*145	11.7	70.5	155	28	3300*1200*1700	2900
HC-Y320	300	320	YC6MJ480L-D20	6	131*145	11.7	80.1	160	28	3300*1200*1700	2550
HC-Y350	320	350	YC6K520-D30	6	145*165	16.35	88.5	160	28	3300*1210*1820	2550
HC-Y380	350	380	YC6K570-D30	6	145*165	16.35	92.2	180	35	3415*1050*1675	2670
HC-Y400	360	400	YC6T600L-D22	6	145*165	16.35	98.8	180	52	3550*1210*1820	2800
HC-Y440	400	440	YC6T660L-D20	6	145*165	16.35	108.2	180	52	3550*1260*1820	2880
HC-Y460	420	460	YC6T700L-D20	6	145*165	16.35	112.9	190	52	3550*1260*1820	2900
HC-Y520	470	520	YC6TD780L-D20	6	152*180	19.6	129.2	210	65	3550*1260*1820	3300
HC-Y550	500	550	YC6TD840L-D20	6	152*180	19.6	136.4	210	65	3550*1260*1820	3500
HC-Y600	550	600	YC6TD900L-D31	6	152*180	19.6	142.4	210	65	3600*1650*2100	4000
HC-Y660	600	660	YC6C1020-D31	6	200*210	39.58	169.4	210	80	4000*1500*2100	6800
HC-Y700	650	700	YC6C1070-D31	6	200*210	39.58	176.9	260	85	4000*1500*2100	6800
HC-Y800	750	800	YC6C1220-D31	6	200*210	39.58	195.4	260	90	4050*1550*2150	6900
HC-Y880	800	880	YC6C1320-D31	6	200*210	39.58	214.2	280	90	4100*1600*2150	7000
HC-Y1000	900	1000	YC6C1520-D31	6	200*210	39.58	222.5	295	101	4210*1700*2250	7400
HC-Y1100	1000	1100	YC12VC1680-D31	12	200*210	79.17	274.1	320	121	4500*1805*2400	7800
HC-Y1350	1200	1350	YC12VC2070-D31	12	200*210	79.17	290.4	340	121	4570*1750*2632	8200
HC-Y1500	1350	1500	YC12VC2270-D31	12	200*210	79.17	320.2	360	121	4630*1785*2700	8900
HC-Y1650	1500	1650	YC12VC2510-D31	12	200*210	79.17	365.0	380	121	4750*2045*2430	9200
HC-Y1800	1600	1800	YC12VC2700-D31	12	200*210	79.17	385.5	395	131	4910*2100*2550	9800

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HUAICHAI DIESEL ENGINE SERIES / WEICHAH SERIES DIESEL GENERATING SET

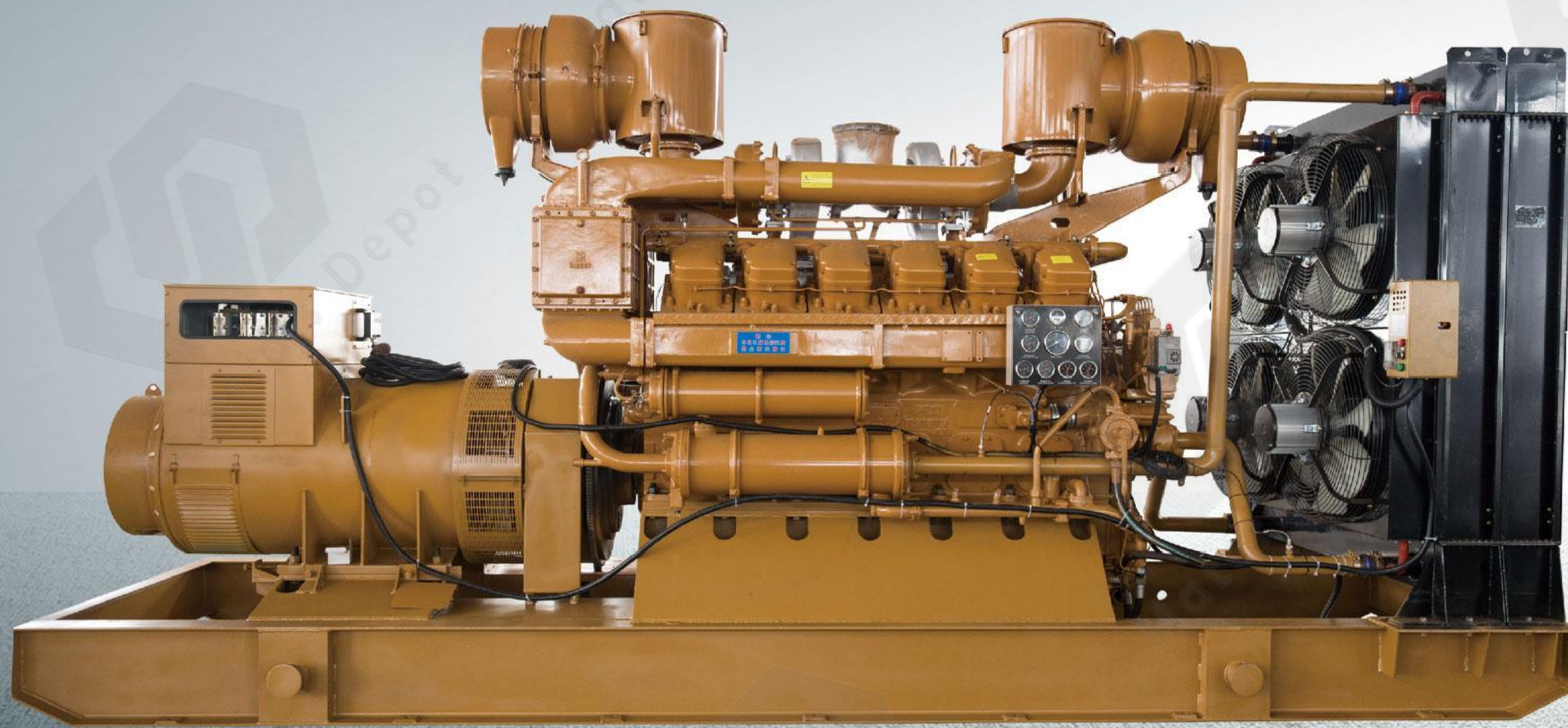
Weichai, founded in 1946, is one of the automobile and equipment manufacturing groups with the strongest comprehensive strength in China. Its products are widely used in automobiles, powertrains and luxury yachts. Its subsidiary has signed a cooperation agreement with Germany KION Group, a world-renowned enterprise, which indicates that Weichai's core technology has directly entered the global leading level. Its diesel engine power range covers 25-6500kW.



Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-W18	15	18	WP2.1D18E2	4	85*92	2.09	4.8	30	8.9	1465*650*1240	480
HC-W22	20	22	WP2.5D22E2	4	90*100	2.54	5.0	40	8.9	1465*650*1240	580
HC-W33	30	33	WP3.9D33E2	4	102*118	3.86	5.4	50	8.9	1465*650*1240	680
HC-W44	40	44	WP4.6D44E2	4	105*120	4.5	5.8	60	10	1685*800*1250	720
HC-W50	45	50	WP4.1D50E2	4	105*120	4.5	6.1	80	10	1685*800*1250	740
HC-W55	50	55	WP4.3D61E2	4	105*120	4.5	8.4	80	10	1685*800*1260	790
HC-W80	75	80	WP4D100E200	4	105*130	4.5	12.5	115	12	1950*890*1340	1025
HC-W90	80	90	WP4D108E200	4	105*130	4.5	18.75	120	12	2100*920*1500	1195
HC-W110	100	110	WP6D132E200	6	105*130	6.75	25.1	148	18	2410*930*1540	1490
HC-W132	120	132	WP6D152E200	6	105*130	6.75	30.1	160	18	2420*930*1540	1545
HC-W165	150	165	WP10D200E200	6	126*130	9.72	42.3	160	23	2858*1167*1800	1882
HC-W200	180	200	WP10D238E200	6	126*130	9.72	51.3	210	23	2858*1167*1800	2052
HC-W220	200	220	WP10D264E200	6	126*130	9.72	57.4	210	23	2858*1167*1800	2072
HC-W280	250	280	WP12D317E200	6	126*155	11.59	68.9	230	24	2980*1200*1855	2386
HC-W350	300	350	WP13D385E200	6	127*165	12.54	88.5	230	36	2980*1240*1590	2801

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HUAICHAI DIESEL ENGINE SERIES / JICHAO SERIES DIESEL GENERATING SET



HUAICHAO / JICHAO SERIES

Jichai, located in Jinan Economic Development Zone, Shandong Province, has international advanced R&D and experimental equipment for internal combustion engines. It was launched in 1996, and its diesel engine power range covers 30–6300KW. Its products have reliable performance and are widely used in oil exploration, land power stations, naval equipment and so on.

Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-J450	410	450	6190ZLC	6	190*210	35.73	110.5	225	112.6	4500*1800*2250	6500
HC-J540	490	540	G6190ZLC	6	190*210	35.73	131.7	240	114.1	4500*1800*2250	6500
HC-J720	660	720	8190ZLC	8	190*210	48.6	174.1	262	138.6	4550*2040*2700	9400
HC-J880	800	880	Z12V190BD	12	190*210	71.45	211.74	275	140.1	5330*2040*2700	10800
HC-J1000	910	1000	G12V190ZL1	12	190*210	71.45	258.82	424	186.5	5500*2040*2740	13600
HC-J1100	1000	1100	A12V190ZLD	12	190*2015	73.15	305.8	501	190.5	6250*2250*2740	19300
HC-J1320	1200	1320	A12V190ZLD	12	190*215	73.15	376.4	501	204	6250*2250*2740	19300
HC-J1360	1250	1360	B12V190ZLD	12	190*215	73.15	397.5	420	204	6381*2200*2780	17200
HC-J1700	1600	1700	H12V190ZLD	12	190*215	73.15	447.05	420	285.6	7880*2869*3175	19100
HC-J2000	1800	2000	H16V190ZL	12	190*215	73.15	517.6	420	290.6	7880*2869*3175	21000
HC-J2200	2000	2200	H16V190ZL	16	190*215	73.15	564.7	460	320.1	9060*2869*3175	24000

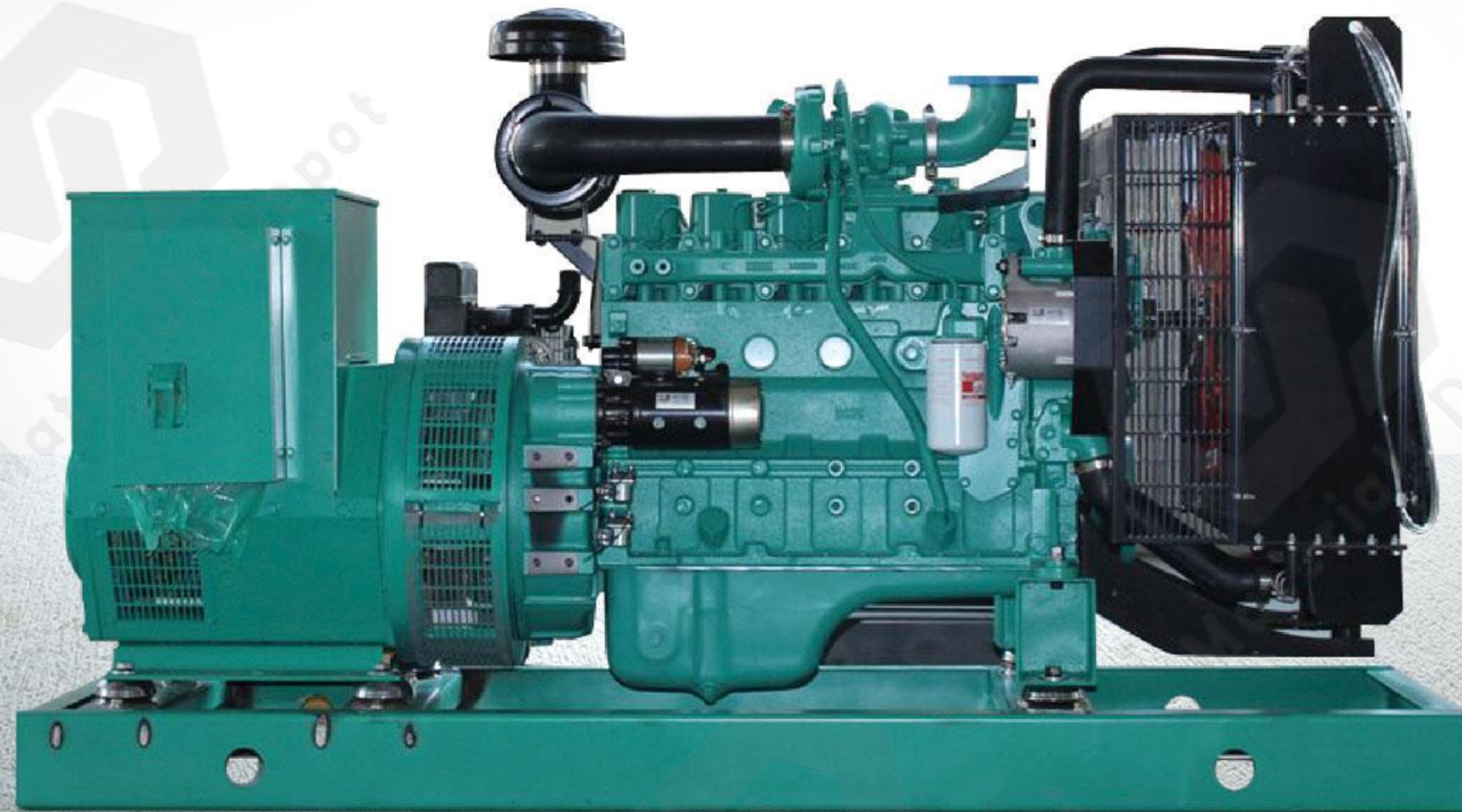
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HUAICHAI DIESEL ENGINE SERIES / DCEC SERIES DIESEL GENERATING SET

Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-C22	20	22	4B3.9-G1	4	102*120	3.9	9	18	11.0	1650*750*1553	710
HC-C22	20	22	4B3.9-G2	4	102*120	3.9	9	20	11.0	1650*750*1553	710
HC-C33	30	33	4BT3.9-G1	4	102*120	3.9	10	20	11.0	1650*750*1553	780
HC-C33	30	33	4BT3.9-G2	4	102*120	3.9	10	20	11.0	1765*750*1553	780
HC-C50	45	50	4BTA3.9-G2	4	102*120	3.9	11	21	11.0	1765*750*1565	950
HC-C55	50	55	4BTA3.9-G11	4	102*120	4.9	12	28	12.0	1865*750*1560	980
HC-C70	60	70	4BTA3.9-G11	4	102*120	4.9	12	28	12.0	1865*750*1560	1020
HC-C88	80	88	6BT5.9-G1	6	102*120	5.9	15	40	16.0	2165*800*1565	1051
HC-C88	80	88	6BT5.9-G2	6	102*120	5.9	18	40	16.0	2100*800*1565	1051
HC-C100	90	100	6BT5.9-G2	6	102*120	5.9	18	40	16.0	2100*800*1565	1051
HC-C110	100	110	6BTA5.9-G2	6	102*120	5.9	21	42	16.0	2100*800*1565	1300
HC-C120	110	120	6BTAA5.9-G2	6	102*120	5.9	27.6	42	16.0	2350*800*1585	1460
HC-C140	120	140	6BTAA5.9-G12	6	102*120	5.9	28.6	42	16.4	2390*900*1585	1490
HC-C160	150	160	6CTA8.3-G1	6	114*135	8.3	30	50	22.0	2463*1050*1585	1520
HC-C160	150	160	6CTA8.3-G2	6	114*135	8.3	34	53	24.0	3415*1050*1675	1596
HC-C180	160	180	6CTAA8.3-G2	6	114*135	8.3	43	53	24.0	2500*1050*1690	1830
HC-C220	200	220	6LTAA8.9-G2	6	114*144	8.9	53	66	28.0	2575*1050*1800	2200
HC-C330	300	330	6ZTAA13-G3	6	130*163	13	82.3	98	49.58	3099*1280*1558	3650
HC-C360	330	360	6ZTAA13-G2	6	130*163	13	89.1	98	45.42	3059*1220*1558	3565
HC-C380	360	380	6ZTAA13-G4	6	130*163	13	88.8	112	45.42	3122*1280*1610	3910
HC-C440	400	440	QSZ13-G3	6	130*163	13	101.1	120	45.42	3122*1280*1610	3950

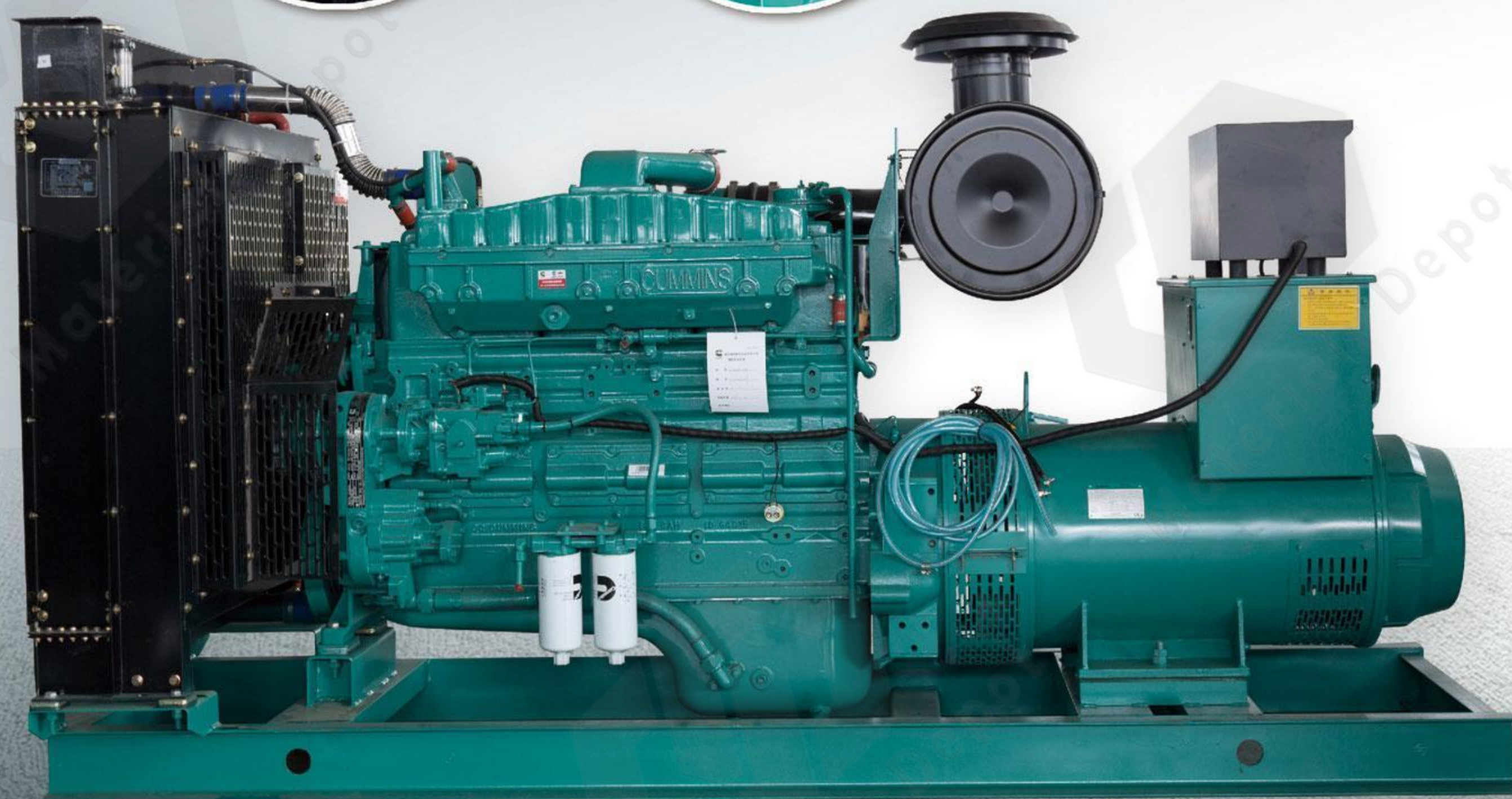
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HUAICHAI DIESEL ENGINE SERIES / DCEC SERIES DIESEL GENERATING SET

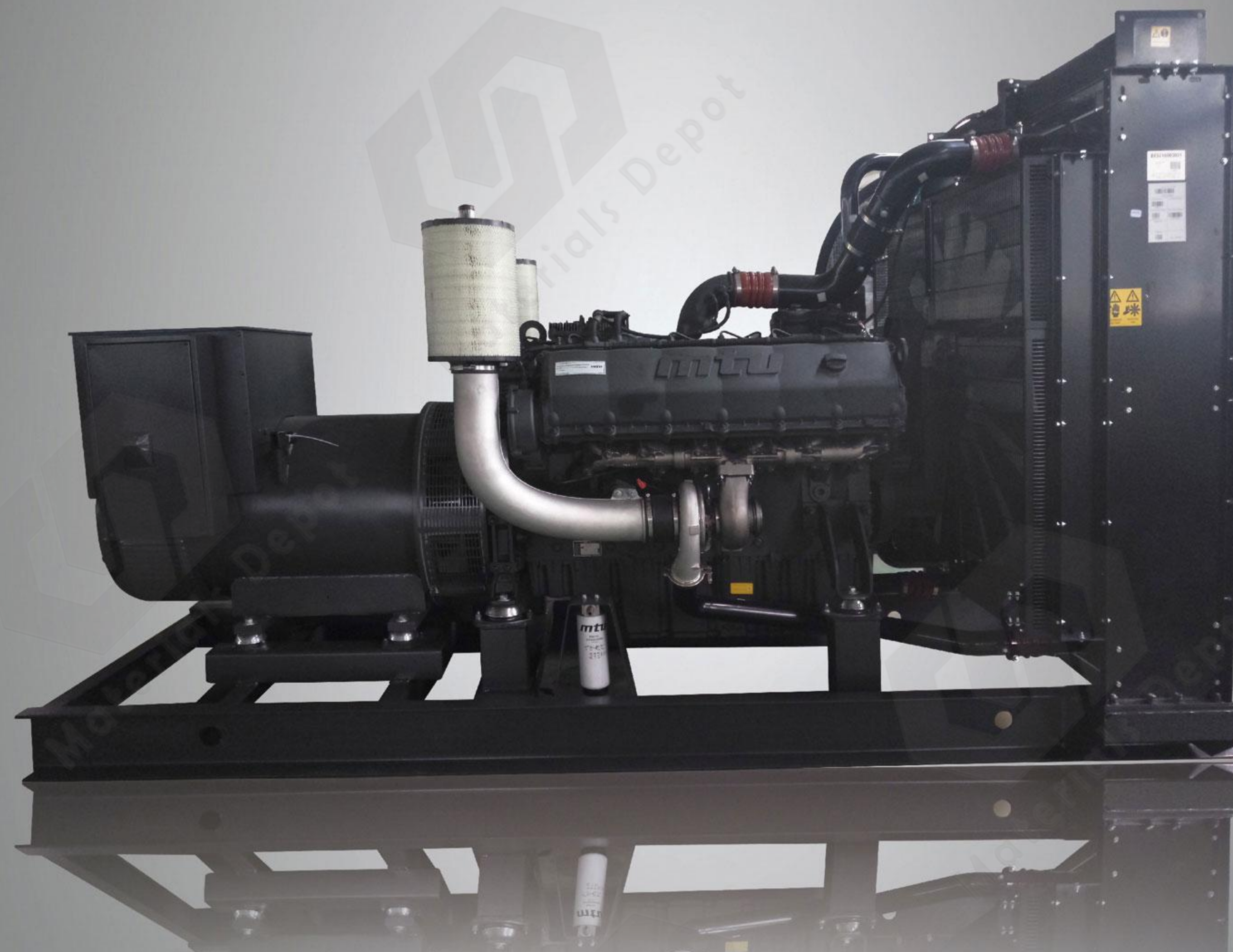
Cummins is the largest independent engine manufacturer in the world. In the 20th century, it established manufacturing plants in China, Japan and India, realizing the localization of Cummins manufacturing and production. Chongqing Cummins Engine Co., Ltd. is a joint venture of Cummins in China, and 11 of Cummins' 18 engine series have been localized in China. Its leading products are N, K, M11 and QSK series, which are used in automobile, industry, ship and power generation equipment fields, with power coverage of 60-3500 horsepower. Its advanced economy, power, reliability, durability and environmental safety are widely welcomed by users at home and abroad.



Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-C220	200	220	NT855-GA	6	140*152	14	55	66	37	3293*1100*1994	3150
HC-C220	200	220	MTA11-G2	6	125*147	10.8	59	75	39	3280*1180*1686	3290
HC-C250	220	250	NTA855-G1A	6	140*152	14	62	61	37	3393*1100*1994	3170
HC-C280	250	280	NTA855-G1B	6	140*152	14	69	61	39	3393*1100*1994	3310
HC-C280	250	280	MTAA11-G3	6	125*147	10.8	70	78	39	3324*1100*1685	3522
HC-C300	280	300	NTA855-G2A	6	140*150	14	72	62	36.7	3563*1100*1970	3330
HC-C330	300	330	NT855-G7	6	140*152	14	86	66	36.7	3563*1155*2035	3787
HC-C330	300	330	QSNT-G3	6	140*152	14	86	66	36.7	3563*1155*2035	3787
HC-C360	330	360	NTAA855-G7A	6	140*152	14	97	66	36.7	3563*1155*2035	3810
HC-C400	360	400	KTA19-G3	6	159*159	18.9	101	106	50.0	3360*1305*2185	4210
HC-C440	400	440	KTA19-G3A	6	159*159	18.9	108	106	50.0	3440*1450*2250	4300
HC-C440	400	440	KTA19-G4	6	159*159	18.9	108	106	50.0	3440*1450*2250	4300
HC-C500	450	500	KTAA19-G5	6	159*159	18.9	113	108	50.0	3555*1650*2350	4490
HC-C520	460	520	KTAA19-G6	6	159*159	18.9	119	110	50.0	3684*1454*2000	4564
HC-C550	500	550	KTAA19-G6A	6	159*159	18.9	128	110	50.0	3684*1454*2000	4700
HC-C520	450	520	KTA19-G8	6	159*159	18.9	141	117	50.0	3722*1510*2100	4855
HC-C570	520	570	QSKTAA19-G4	6	159*159	18.9	141	117	50.0	3722*1510*2100	4900
HC-C630	570	630	KT38-G1	12	159*159	37.8	204	240	135.0	4385*1730*2450	7100
HC-C660	600	660	KTA38-G2	12	159*159	37.8	204	240	135.0	4385*1730*2450	7100
HC-C710	640	710	KTA38-G2B	12	159*159	37.8	210	262	135.0	4385*1730*2450	7155
HC-C800	728	800	KTA38-G2A	12	159*159	37.8	215	262	135.0	4385*1730*2450	7185
HC-C880	800	880	KTA38-G5	12	159*159	37.8	228	275	200	4374*1785*2229	7667
HC-C1000	900	1000	KTA38-G9	12	159*159	37.8	256	275	200	4722*1785*2241	8179
HC-C1100	1000	1100	KTA50-G3	12	159*159	50	261	424	177	5105*2120*2260	9099
HC-C1300	1100	1300	KTA50-G8	16	159*159	50	289	501	204	5811*2033*2330	9664
HC-C1320	1200	1320	KTA50-GS8	16	159*159	50	309	501	204	5811*2033*2330	9664
HC-C1650	1500	1650	QSK60G3	16	159*190	60.2	363	420	378.5	6175*2286*2537	15152
HC-C1800	1650	1800	QSK60G4	16	159*190	60.2	394	420	378.5	6175*2286*2537	15366
HC-C2000	1700	2000	QSK60G21	16	159*159	60.2	412	420	378.5	6175*2286*2537	16210

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HUAICHAI DIESEL ENGINE SERIES /MTU SERIES DIESEL GENERATING SET

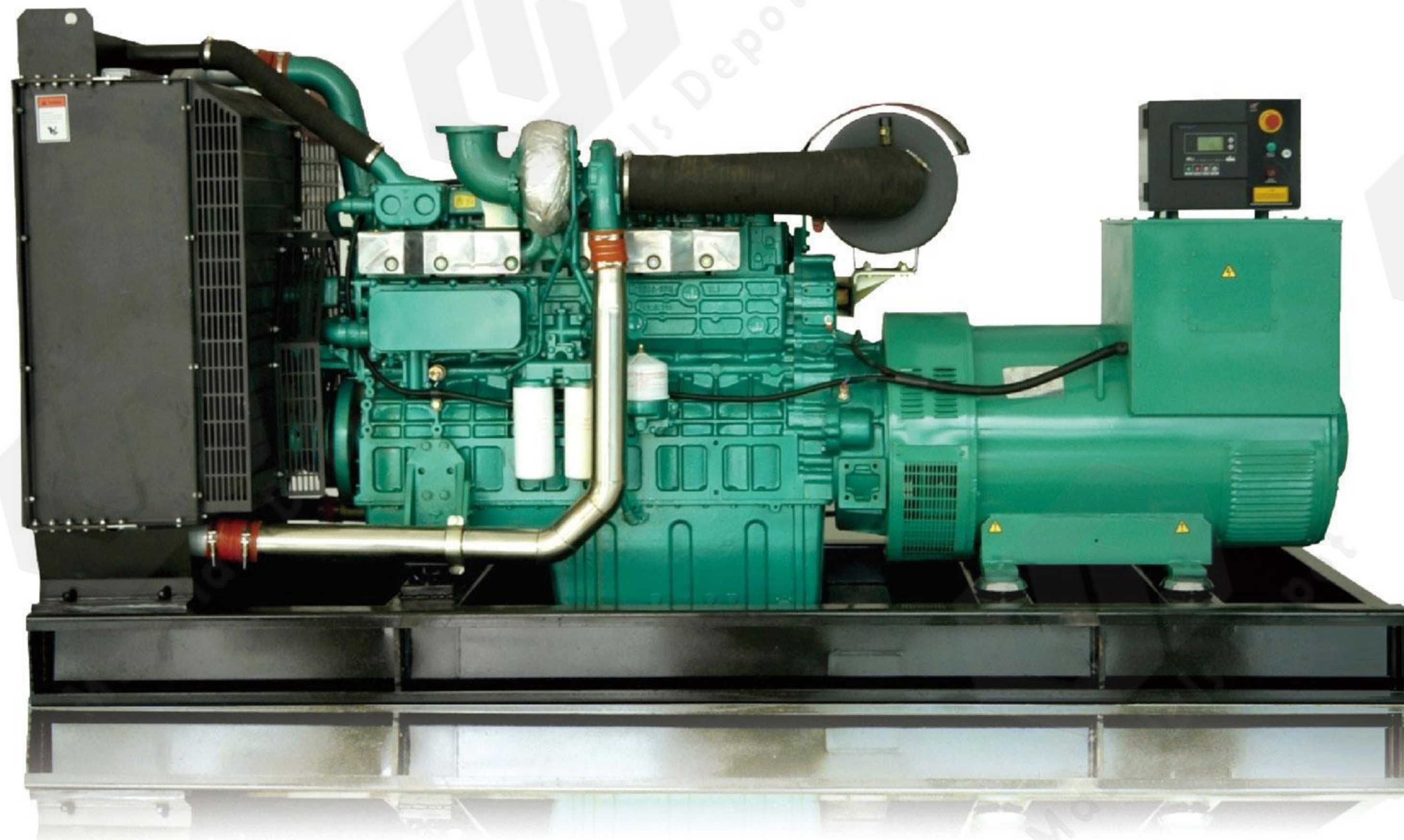


Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-M242	220	242	6R1600 G10F	6	122*150	10.5	52	89	46	2900*1100*1970	2800
HC-M275	250	275	6R1600 G20F	6	122*150	10.5	61.5	89	46	3050*1100*1970	2950
HC-M330	300	330	8V1600 G10F	8	122*150	14	80.3	84	46	3050*1314*2000	3250
HC-M360	320	360	8V1600 G20F	8	122*150	14	80.6	84	46	3050*1314*2000	3250
HC-M400	360	400	10V1600 G10F	10	122*150	17.5	91.4	94	60.5	3350*1314*2000	3450
HC-M440	400	440	10V1600 G20F	10	122*150	17.5	100.1	94	60.5	3350*1314*2000	3450
HC-M525	480	525	12V1600 G10F	12	122*150	21	122.7	99	72.5	3550*1414*2200	4450
HC-M576	524	576	12V1600 G20F	12	122*150	21	130.1	99	72.5	3550*1414*2200	4500
HC-M700	640	700	12V2000G65	12	130*150	23.88	165.2	176	77	3900*1414*2200	6180
HC-M800	720	800	16V2000G25	16	130*150	31.84	188.5	223	102	4450*1580*2400	7000
HC-M880	800	880	16V2000G65	16	130*150	31.84	207.3	2233	102	1150*1580*2400	7300
HC-M1000	900	1000	18V2000G65	18	130*150	35.82	236.4	222	130	4500*1805*2400	7700
HC-M1100	1000	1100	18V2000G26F	12	165*1920	48.7	253.7	467	260	4562*2200*2515	8775
HC-M1200	1100	1200	12V4000G23R	12	170*210	57.2	276.4	467	260	4562*2200*2515	9820
HC-M1400	1250	1400	12V4000G23	12	170*210	57.2	313.3	467	260	4562*2200*2515	10150
HC-M1600	1400	1600	12V4000G63	12	170*210	57.2	357.6	470	260	4562*2200*2515	10575
HC-M1800	1600	1800	16V4000G23	16	170*210	76.3	401.7	508	300	5030*2200*2515	13000
HC-M2000	1800	2000	16V4000G63	16	170*210	76.3	424.3	512	300	5030*2200*2515	13400
HC-M2200	2000	2200	20V4000G23	20	170*210	95.4	468.9	588	390	5519*2570*2975	17900
HC-M2400	2200	2400	20V4000G63	20	170*210	95.4	537.6	611	390	6405*2570*2975	18400
HC-M2600	2400	2600	20V4000G63L	20	170*210	95.4	584.7	611	390	6405*2570*2975	18900

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HUAICHAI DIESEL ENGINE SERIES / PERKINS SERIES DIESEL GENERATING SET



Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-P8	7	8	403A-11G1	4	84*100	2.2	5.3	40	9.8	1335*600*1095	420
HC-P11	10	11	403A-15G1	4	84*100	2.2	5.3	42	9.8	1335*600*1095	420
HC-P13	12	13	403A-15G2	4	84*100	2.2	5.3	55	9.8	1335*600*1095	420
HC-P18	16	18	404D-22G	4	84*100	2.2	5.3	68	9.8	1335*600*1095	428
HC-P27	24	27	1103A-33G	3	105*127	3.3	7.1	70	7.9	1465*650*1240	668
HC-P40	36	40	1103A-33TG1	3	105*127	3.3	10.7	112	7.9	1525*650*1240	800
HC-P53	48	53	1103A-33TG2	3	105*127	3.3	13.9	120	7.9	1710*700*1300	885
HC-P57	52	57	1104A-44G1	4	105*127	4.4	18.7	66	8.1	1830*700*1305	920
HC-P70	64	70	1104A-44TG2	4	105*127	4.4	18.7	75	8.1	1830*700*1305	925
HC-P88	80	88	1104C-44TAG2	4	105*127	4.4	22.6	61	8.1	1830*700*1385	1191
HC-P110	100	110	1106A-70TAG2	6	105*135	7.01	25.1	61	13	2100*725*1450	1510
HC-P132	120	132	1106A-70TAG2	6	105*135	7.01	28.6	78	13	2100*725*1450	1550
HC-P158	144	158	1106A-70TAG3	6	105*135	7.01	37.1	62	14	2100*725*1450	1610
HC-P176	160	176	1106A-70TAG4	6	105*135	7.01	41.6	66	14	2100*725*1450	1700
HC-P200	180	200	1506A-E88TAG2	6	116.6*135.9	8.7	46.8	66	15	2500*800*1500	1750
HC-P220	200	220	1506A-E88TAG3	6	116.6*135.9	8.7	55.1	106	15	2500*800*1500	1780
HC-P239	220	239	1506A-E88TAG4	6	105*135	7.01	66.2	106	16	2600*825*1565	1800
HC-P261	240	261	1506A-E88TAG5	6	105*135	7.01	68.5	108	16	2600*825*1565	1850
HC-P305	280	305	2206C-E13TAG2	6	130*157	12.5	71	110	40	3100*1130*2085	3300
HC-P349	320	349	2206C-E13TAG3	6	130*157	12.5	81	110	40	3100*1130*2085	3300
HC-P396	364	396	2506C-E15TAG1	6	137*171	15.2	95	117	62	3425*1130*2085	3800
HC-P434	400	434	2506C-E15TAG2	6	137*171	15.2	100	117	62	3425*1130*2085	3940
HC-P514	480	514	2806C-E18TAG1A	6	145*183	18.1	123	210	62	3425*1535*2085	5265
HC-P565	520	565	2806A-E18TAG2	6	145*183	18.1	132	235	62	3990*1710*2190	5380
HC-P632	600	632	4006-23TAG2A	6	160*190	23	157	240	113.4	3990*1710*2190	5380
HC-P679	640	679	4006-23TAG3A	6	160*190	23	172	262	113.4	3990*1710*2190	5380
HC-P767	720	767	4008TAG1A	8	160*190	30.6	305	262	165.5	4750*2045*2430	7342
HC-P899	818	899	4008TAG2A	8	160*190	30.6	305	275	165.5	4750*2045*2430	7400
HC-P1113	1000	1113	4012-46TWG2A	12	160*190	45.8	259	275	177.1	4750*2045*2495	9155
HC-P1207	1080	1207	4012-46TWG3A	12	160*190	45.8	283	424	177.1	4750*2045*2495	10000
HC-P1330	1200	1330	4012-46TAG2A	12	160*190	45.8	301	501	177.1	4980*2200*2520	10200
HC-P1588	1480	1588	4016TAG1A	16	160*190	61.1	343	501	237.2	5650*2756*3460	15100
HC-P1766	1600	1766	4016TAG2A	16	160*190	61.1	390	510	237.2	5650*2765*3460	15100
HC-P1975	1800	1975	4016-61TRG3	16	160*190	61.1	473	510	237.2	5650*2765*3460	15600

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HUAICHAI DIESEL ENGINE SERIES / VOLVO SERIES DIESEL GENERATING SET



HUAICHAI DIESEL ENGINE SERIES / VOLVO SERIES DIESEL GENERATING SET

Volvo generator sets are used in Sweden imported VOLVO diesel engine. Volvo generator with low cost and high efficiency, has a maximum running time and good reliability, etc., are widely used in heavy truck, ship, power generation, machinery industry. VOLVO company is Sweden's largest industrial enterprises, has been more than 120 years of history, its reliable quality to win customers favor.

Type	Set power		Diesel engine model	Cylinder number (mm)	Bore *stroke	Swept volume (L)	Fuel consumption rate (L/h)	Set coolant	Engine oil system capacity	Dimension L*W*H (mm*mm*mm)	Weight (KG)
	Master	Standby									
HC-V75	68	75	TAD530GE	4	108*130	4.76	22	115	16	2484*763*1447	1110
HC-V88	80	88	TAD531GE	4	108*130	4.76	26.1	124	16	2536*763*1447	1120
HC-V115	104	115	TAD532GE	4	108*130	4.76	32.4	124	16	2610*866*1485	1390
HC-V132	120	132	TAD731GE	6	108*130	7.15	38.7	130	20	2710*866*1490	1450
HC-V165	150	165	TAD732GE	6	108*130	7.15	44.1	132	34	2790*1003*1530	1680
HC-V180	165	180	TAD733GE	6	108*130	7.15	49.5	132	34	2820*1003*1625	1780
HC-V220	200	220	TAD734GE	6	108*130	7.15	57.1	132	29	2950*1050*1360	1980
HC-V280	250	280	TAD1341GE	6	131*158	12.78	65.4	148	36	3050*1114*1391	2420
HC-V300	280	300	TAD1342GE	6	131*158	12.78	71.9	148	36	3100*1114*1500	2500
HC-V330	300	330	TAD1343GE	6	131*158	12.78	78.6	160	36	3180*1114*1600	2650
HC-V360	320	360	TAD1344GE	6	131*158	12.78	84.4	160	36	3200*1114*1600	2700
HC-V400	360	400	TAD1345GE	6	131*158	12.78	96.8	210	36	3210*1114*1600	2750
HC-V440	400	440	TAD1641GE	6	144*165	16.12	110.1	210	42	3490*1160*2010	3220
HC-V500	455	500	TAD1642GE	6	144*165	16.12	128.1	225	48	3560*1160*2010	3890
HC-V550	500	550	TWD1643GE	6	144*165	16.12	140.1	225	48	3750*1350*2010	3910

HUAICHAI POWER AUTOMATIC DIESEL GENERATING SET

Characteristic description

1. Maintain the continuity and reliability of power supply.

The automatic control system of diesel generator set can accurately and quickly adjust the operation of diesel generator set.

When the generator set is in abnormal condition, the automatic control system can judge normally and deal with it in time, send out corresponding alarm signals and stop the generator set urgently, so as to avoid damaging the generator set. At the same time, it can automatically start the standby generator set, shorten the power failure time of the power grid and ensure the continuity of power supply.

2. Improve the power quality index and operation economy, and make all electrical equipment in a good working state.

Electrical equipment has higher requirements on the frequency and voltage of electric energy, and the allowable deviation range is very small. The automatic voltage regulator can keep the voltage constant and operate the governor to adjust the frequency. Automatic diesel power station relies on automatic regulating device to adjust frequency and useful power.

3. Accelerate the control and operation process to improve the continuity and stability of the system.

After realizing the automation of diesel power station, it can change the operation condition in time and adapt to the system requirements, and the operation process of the set can be carried out continuously in a predetermined order, and the completion situation can be monitored continuously. Taking emergency start-up generator set as an example, if manual operation is adopted, it will take 5-7 minutes at the earliest, and if automatic control is adopted, it will usually start successfully and restore power supply in less than 10 seconds.

4. Reduce operating energy and improve working conditions.

The environment condition of the generator room is very bad, which affects the health of the operator, while the automatic control system creates the condition for no one on duty.

Basic function

1. Automatic start

When the mains power failure, power failure, under-voltage, over-voltage, lack of phase, the set can automatically start, automatically speed up, automatically close, power supply to the load.

2. Automatic shutdown

When the mains power is restored and judged to be normal, control the switch to complete the automatic switching from power generation to mains power, then control the set to slow down and stop automatically after idling for 3 minutes.

3. Automatic protection

During operation, if the oil pressure is too low, overspeed and abnormal voltage occur, the set will stop urgently and send out sound and light alarm signals at the same time. If the set has high water temperature and high oil temperature faults, sound and light alarm signals will be sent out, and after delay, the set will stop normally.

4. Three-time start function

The set has the function of starting three times. If the first start is unsuccessful, it will be started again after 10 seconds delay. If the second startup is unsuccessful, the third startup will be carried out after delay. As long as one of the three starts is successful, it will run down according to the preset program. If three consecutive startups are unsuccessful, it is regarded as a startup failure, and sound and light alarm signals are sent out, and another set can be controlled to start at the same time.

5. Automatically maintain the quasi-start state

The set can automatically maintain quasi-start state. At this time, the automatic periodic pre-oil supply system of the set, the automatic heating system of oil and water, and the automatic charging device of the battery are put into operation.

6. Maintainable startup function

When the set is not started for a long time, maintenance startup can be carried out to check the performance and status of the set. Maintenance startup does not affect the normal power supply of mains. If mains failure occurs during maintenance startup, the system will automatically turn into normal startup state and be powered by the set.

7. It has two operation modes: manual and automatic.

Hardware design of control system

1. Select the PLC model according to the required input and output points

According to the control requirements of the automatic set, the required PLC input points are 11 and the output points are 12.

The control quantity of the system is basically switching quantity, only voltage and speed are analog quantity. In order to reduce the cost, analog quantity can be converted into switching quantity through detection circuit. In this way, PLC without analog input can be selected.

This system uses C28P-CDR-D small programmable controller with high reliability and small volume, with 16 input points and 12 output points. The power supply, input and output voltages are all 24VDC.

2. Program design of control system

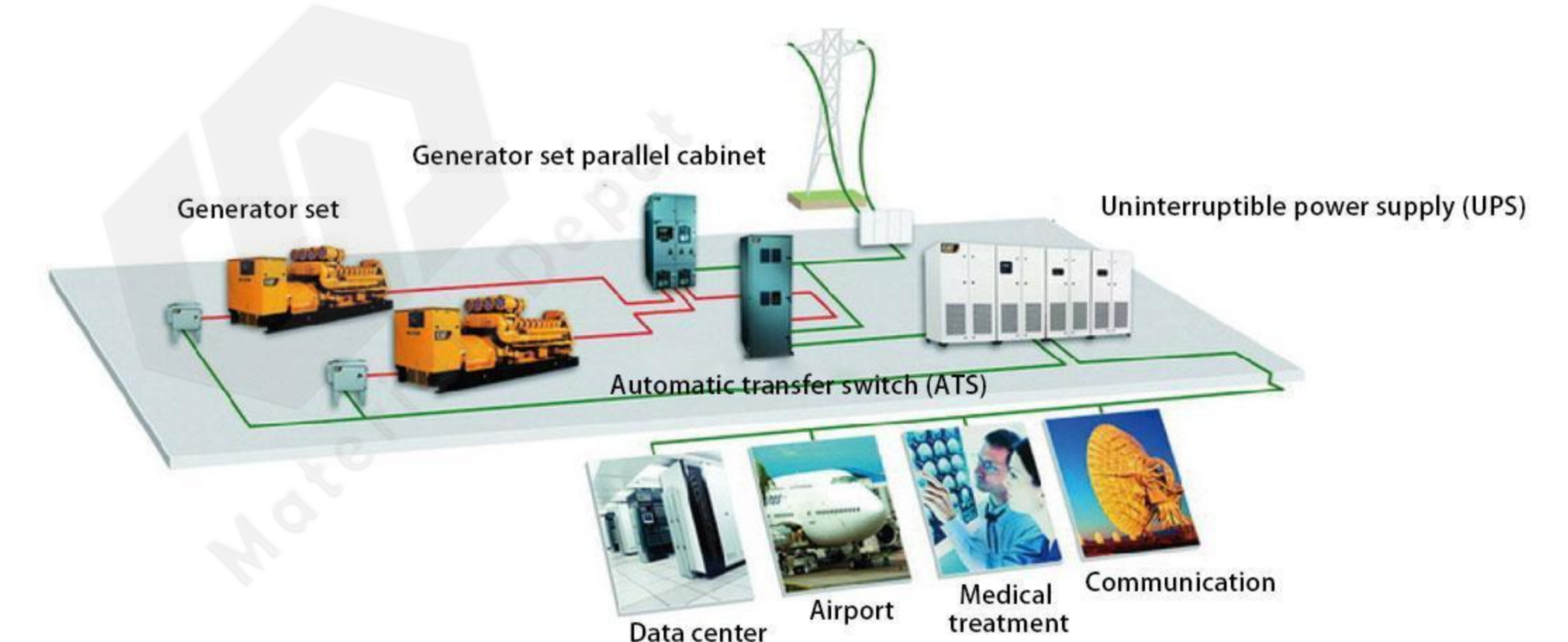
When the switch of the automatic set hits the automatic position, the set is in a quasi-start state.

PLC carries out uninterrupted cycle detection on commercial power, and the pre-supply oil pump periodically supplies oil to the lubricating oil passage of diesel engine. The cooling water and oil temperature of diesel engine can ensure the emergency start-up of the set at any time.

In the quasi-start state, once the mains power failure, under-voltage, over-voltage and lack of equal faults occur, and after 5 seconds confirmation, the PLC control set will automatically start, automatically increase the speed to the rated speed, and automatically protect the input.

When the set works normally, the control switch switches to the power generation state, and the set closes to supply power to the load.

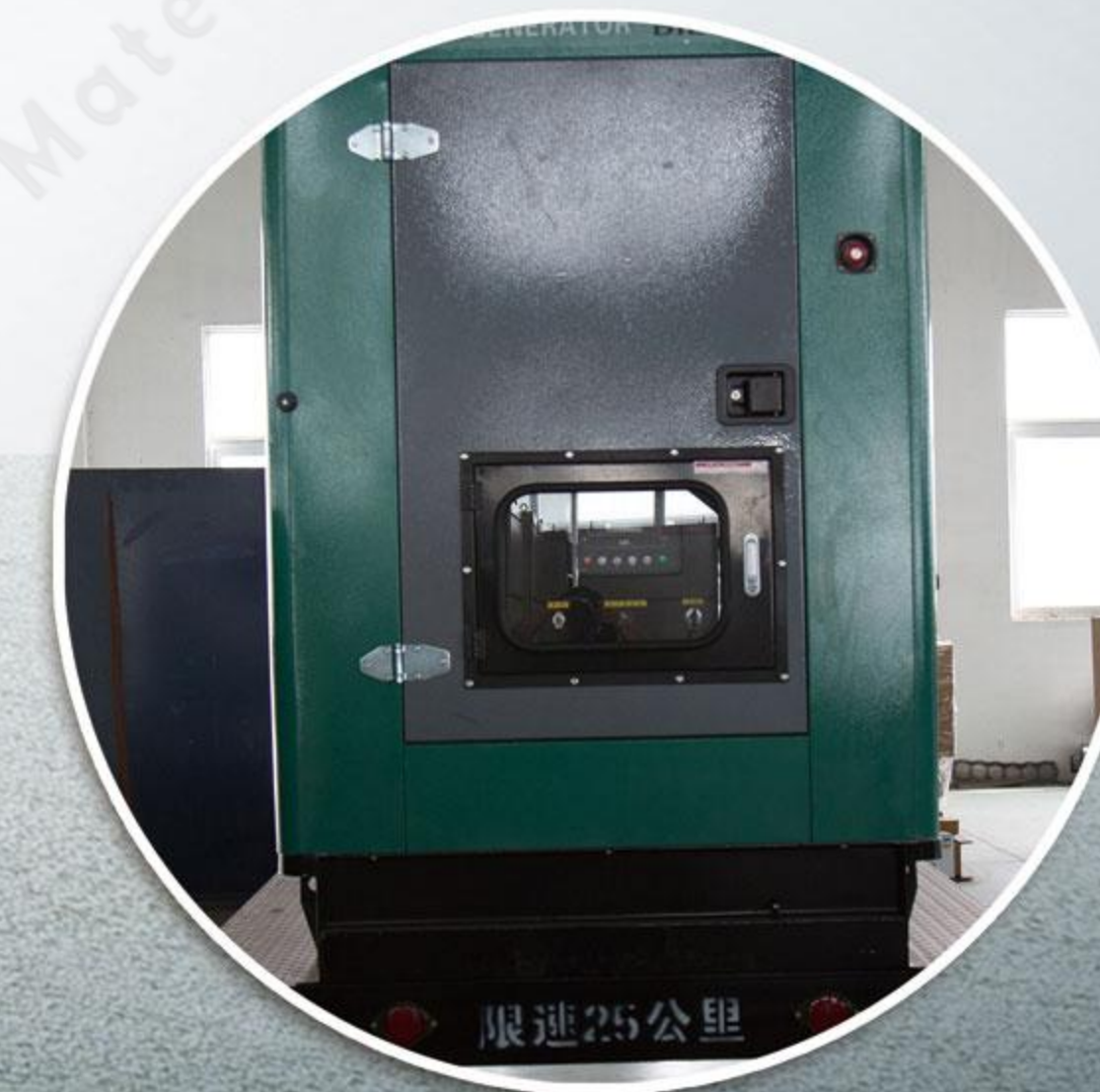
When the mains power returns to normal, after the delay of 5 seconds is confirmed, disconnect the output switch of the set, control the switch to switch to the mains power state, and the set will automatically slow down to the idle state. After 3 minutes of operation, the set will stop normally and automatically, and the set will be in a quasi-start state.





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HUAICHAI POWER MOBILE SILENT TYPE UNIT



HUAICHAI/YIDONGJINGYINGXINGJIZU SERIES DIESEL GENERATING SET

I. OVERVIEW

With the increasing market demand of mobile power station, our company specially designed mobile towed power station with power from 10 kW to 1200 kW. The trailer power station series diesel generator set provided by Huaichai Power is a new type of mobile power station, which installs the generator set on the trailer and works movably. Trailer power station has good mobility, strong adaptability and rapid power supply, and is suitable for power maintenance, engineering emergency repair, field operation and emergencies, etc. It is widely used in communication industry, power industry, film and television production, municipal engineering construction and emergency rescue.

II. CHARACTERISTICS OF TRAILER POWER STATION

1. Beautiful appearance, movable hook, 180° turntable and 90° turntable are adopted, and the steering is flexible to ensure the safety during driving.
2. The box is equipped with an observation window, which can clearly observe the running status of the set. There are doors on both sides for easy operation and maintenance.
3. An emergency stop button is installed outside the box, which can stop the machine urgently under extraordinary circumstances.
4. The box has good sealing performance, rainproof and safe use.
5. The trailer underframe is of integral frame structure, and leaf springs are installed to reduce vibration.
6. The taillights are equipped with seven-hole plug series with steering and brake lights (non-standard).
7. The trailer is equipped with manual brake or pneumatic brake device (non-standard), which brakes synchronously with the tractor to ensure the safety during driving.
8. In order to ensure the stability of the power supply vehicle during operation, it is equipped with 4 mechanical or hydraulic support devices (non-standard).
9. There is a ceiling explosion-proof lamp in the trunk, and it is equipped with a desk lamp, which is convenient for the staff to operate.
10. Two fire extinguishers are equipped with the vehicle to ensure safe use.
11. Silent scheme can be selected to reduce noise pollution to outdoor environment. The trunk, doors and doors of the power supply car are all decorated with double layers and equipped with sound-absorbing panels for silencing; The exhaust pipe is wrapped with insulation cotton, and the minimum noise can be controlled within 75dB (A).

III. Detailed description of the structure of Huaichai power generation trailer

1. The design of Huaichai power mobile diesel generator set is unique and innovative. The trailer diesel generator set has high maneuverability, low center of gravity, safe braking, excellent manufacture and beautiful appearance.
2. The control device of diesel generator set is located above the generator. This product is suitable for field work, urban engineering, remote and power-deficient areas, and is suitable for the common or standby power supply for lighting and power communication in departments with more mobility.
3. The diesel generator set is fixed on the trailer composed of standard auto parts and is composed of metal cover, which can move freely by automobile traction. By using sound insulation and noise reduction technology, the trailer power station can be made into a silent trailer power station. It has the characteristics of low noise, dustproof and rain-proof, and strong adaptability to the environment. This product can be used as emergency temporary power supply and power supply equipment for mobile resident.
4. The trailer power station installs the diesel engine and generator together on the steel plate base through direct connection. The power station adopts single-axis or double-axis structure, and the trunk is pressed with metal sheet. It adopts full-sealed structure, which can prevent dust and rain. Windows and lower doors are arranged in front, back, left and right for maintenance and use. The power station is equipped with braking, suspension, traction and other devices.
5. The power station is equipped with a complete set of instruments required for monitoring operation, with voltage setting, automatic voltage regulation and short circuit protection functions.
6. Trailer power station can be divided into single-axis and double-axis structures according to power. The power station is equipped with spring damping device, and the power station is

equipped with braking device, so as to ensure that the trailer can have enough maneuverability and safety on normal road surface. The trailer is equipped with rain cover and air shutter to ensure that the power station can work around the clock. There are doors on both sides of the rain cover for operation and maintenance, and the doors can be locked to ensure safety. The instrument can be observed through the glass window installed on the access door, which is convenient to use. The rain cover is equipped with a fuel tank and a storage battery. The fuel tank can supply the power station to work at full capacity for more than 8 hours. The trailer power station of our company is highly integrated and can be used immediately after being towed to the destination.

7. The trailer frame is welded into a frame structure by channel steel, and the node selection of trailer diesel generator set is reasonable, with high strength and good rigidity; At the same time, it is equipped with a leaf spring suspension structure; Mobile trailer power station, diesel generator trailer adopts height adjustable bolt traction frame, which is suitable for tractors of various heights; The trailer diesel generator set adopts circular steel pipe welded straight-through axle, and the structure is compact and the mobile trailer power station is safe and reliable; The four corners of the frame are equipped with mechanical support devices, equipped with inertial service braking, parking braking and departure emergency braking to ensure the safety of the set under various conditions; The front end of the diesel generator frame is provided with a support wheel, and the trailer diesel generator set has the function of bearing the vertical load of the set and also has the guiding function; Mobile trailer power station, diesel generator complete vehicle equipped with steering and brake indicator lights, and equipped with tail light standard plug.

8. It has specially designed support feet suitable for all-weather use, and the trailer is convenient and flexible to operate; Pneumatic brake and manual brake can ensure the safety of driving and parking; Pre-installed cable rack equipped with large-capacity set fuel tank can ensure the normal operation of the set; Efficient shock absorption measures can ensure the smooth operation of the set; With humanized design, the whole cover is convenient for users to use and maintain, and can be made into a silent trailer power station.

IV. The company may also add optional parts at the request of users: (Additional modification fee is required for optional parts)

- Cable joint box;
- Low noise sound protection cover and other accessories;
- Fuel tank (for 4-8 hours);
- Cable and cable reel (cable length can be configured according to user requirements);
- Manual and pneumatic braking devices;
- Telescopic mechanical outrigger.



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HUAICHAI/JINGYINGXINGJIZU SERIES DIESEL GENERATING SET



HUAICHAI/JINGYINGXINGJIZU SERIES DIESEL GENERATING SET

I. Overview

The low noise box is designed separately for places with high noise requirements, such as urban areas, campuses and hospitals. The following are the conventional values of exhaust noise.

Emission - noise (normal sound value)



Note: Installing a silent box will affect the air intake of the set, thus affecting the power of the generator set, which is generally reduced by about 3%, which can be controlled by regular enterprises. However, the power of some small companies is reduced to 10%-20%, and even the air intake is unreasonable, which leads to the phenomenon of machine shutdown at high temperature and cylinder pulling.

II. Equipment content (mainly including but not limited to this)

Diesel generator set, set control panel, set output switchgear, fuel system, high performance trailer, low noise box.

III. Performance characteristics of equipment:

■ Design thought

1. Set noise sources: exhaust noise, mechanical noise, combustion noise, cooling fan, exhaust channel noise, intake noise, etc.;
2. Adopt shock absorption and sound insulation measures to limit the way of vibration and noise transmission, so as to achieve the purpose of low noise work.

■ Control of exhaust noise

1. Exhaust noise is the most energy and component part of engine noise, and it is the main part of engine aerodynamic noise;
2. Reduce the exhaust noise, and select the muffler correctly to reduce the exhaust noise above 20-30dB (A);
3. The exhaust system is equipped with bellows shock absorber, which effectively cuts off the exhaust vibration propagation;
4. Wrap the exhaust pipe in the silent shell with heat insulation and sound insulation to improve the operating environment of the set and isolate the noise caused by the exhaust pipe.

■ Control of mechanical noise and combustion noise

1. Mechanical noise is mainly caused by the vibration or mutual impact caused by the periodic changes of gas pressure and motion inertia force during the operation of each moving part of the engine;
2. Combustion noise refers to the combustion noise in the cylinder;
3. Suppression of mechanical noise and combustion noise;
4. Adopt high-efficiency damping rubber pad to isolate the set;
5. Adopt a closed silent shell (doors and windows are sealed) to isolate noise from spreading out of the shell; High-efficiency sound-absorbing material is attached to the silent shell, which can absorb a large part of noise.

■ Control of cooling fan noise and exhaust channel noise

1. Fan noise is composed of rotating noise and vortex noise. The exhaust channel is directly communicated with the outside world, and the air velocity is very high. Airflow noise, fan noise and mechanical noise are radiated through this channel;
2. Noise control of cooling fan and exhaust channel;
3. Design a good exhaust and sound-absorbing channel: it is composed of air guide groove and exhaust and noise-reducing box or air guide groove and one or several groups of sound-absorbing baffles;
3. Exhaust sound absorption channel: The effective area of the exhaust outlet must meet the needs of heat dissipation of the set, so as to avoid the increase of exhaust noise and the shutdown of the set at high water temperature due to the increase of wind resistance of the exhaust outlet.

■ Control of intake noise

1. The air inlet channel and exhaust channel are directly communicated with the outside, the air flow rate is very large, and the noise of airflow and set operation is radiated to the outside through the air inlet channel;
2. Control of air intake;
3. The air filter itself has a certain silencing effect, and the air inlet channel needs sound absorption treatment: the combination of air inlet louver + air guide groove + silencing baffle or the combination of air inlet louver + noise reduction box.

HUAICHAI/JINGYINGXINGJIZU SERIES DIESEL GENERATING SET

IV. Advantages of protective sets:

- Beautiful appearance and reasonable structure;
- Good sealing performance: rain-proof, snow-proof, dust-proof, able to work in harsh environment;
- Good safety: totally enclosed box, made of 2mm steel plate;
- The ventilation in the box is smooth, and the temperature is not easy to be too high, which can ensure the running power of the set;
- Good anti-noise performance:

The protective set also has the performance of reducing noise, which can effectively isolate the noise of the box, so that the set can effectively reduce part of the noise during operation;

- Good operability:

Designers in line with the guiding ideology of people-oriented, fully considered the convenience and safety of the operation of the oil engine operators;

- Lifting:

In order to facilitate transportation in the field, four lifting devices are set at the top of the box (the simple set is not equipped, which should be noted when ordering).

V. Configuration of protective sets

1. Outside the box:

The box body is a square box body with a flat top and a flat steel plate at the bottom for dragging;

Air inlet sand box: There is a louver and sand box behind the box body to form an air inlet sand box (including anti-rat net), which makes the air freely enter and exit during the operation of the oil engine and effectively prevents dust from entering the box body (as shown in the following figure).

Emergency stop switch: A emergency stop switch is installed on the right side of the box body, which is convenient to stop when the set is in abnormal condition.

The structural material of the box body is anti-corrosion cold-rolled steel plate, and the surface of the box body is smooth and flat, and the surface is sprayed with plastic, which can effectively ensure the service life of the box body.

Exhaust louver: The front part of the box is equipped with an air guide cover, and the exhaust air is discharged through the air guide groove, which can greatly reduce the exhaust noise of the set and the reverse backflow of dust.

Box doors and windows: 2mm cold-rolled steel plate, a total of six doors and a glass window, effectively prevent dust intrusion when the set is idle.

2. Inside the box:

Set installation: The generator set is located in the center of the box.

Space: The interior space is spacious, which can store some organic parts and fire fighting equipment.

Electrical wiring: All electrical wiring in the box is made of PVC flame retardant insulated pipes.

Smoke exhaust pipe: Installed on the top of the box body through flexible shock absorption cushion sleeve, and treated with sound insulation and heat insulation.

3. Muffler: The exhaust system of protective set adopts muffler noise reduction structure and is installed outside or inside the box.

4. The set has excellent quality and excellent performance:

The factory strictly follows ISO8528 quality standard and ISO14001/ISO9001 management standard for production, and adopts the world's advanced set test system (automatic computer loading and data collection).

Huichai power sets have passed the Ministry of Information Industry, China Telecom Group Corporation, CE certification and PetroChina's selection, and have been applied to all parts of the country and all walks of life, and won wide acclaim, which fully demonstrates the excellent quality of HC series sets.

The vibration and noise of the set itself are at a low level among similar products: The engine and generator are connected by SAE standard, which can ensure extremely high coaxiality, thus making the vibration of the set itself extremely low, and the single vibration amplitude is less than 0.3 mm.

The integrated structure is convenient for users to use and install, and the appearance is more beautiful.

The set is of channel steel integrated structure with built-in high-efficiency shock absorption device, which can absorb most of the vibration of the set without worrying that the vibration of the set will be transmitted to the wall and foundation. The damping device can also effectively isolate the influence of external vibration on the set and ensure that the anti-earthquake requirements of the set are met.

The use of the set economy is good, reaching the international advanced level: Fuel consumption and oil consumption is far lower than the national standard of China (GB2820).

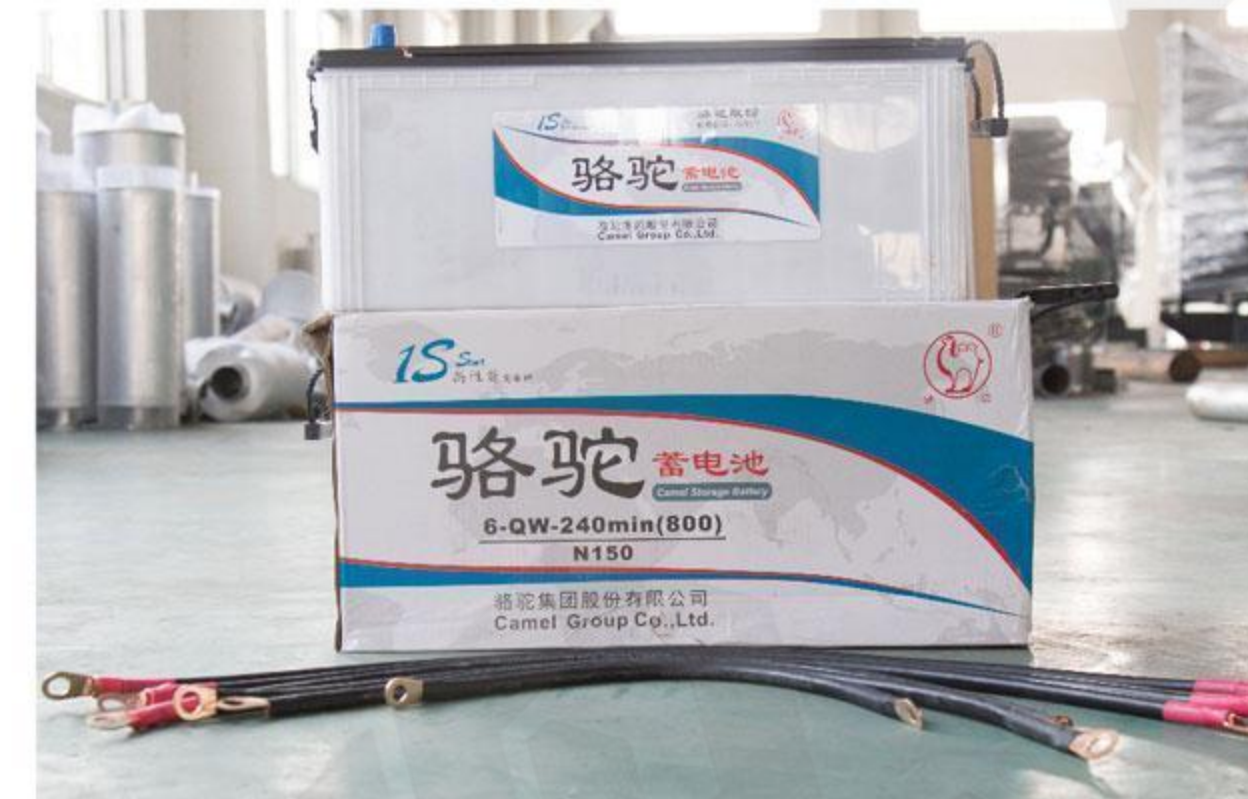
For environmentally friendly sets, their emissions can reach Euro No.3 standard.

The supporting parts and supporting technical data are complete, which makes the installation of users and the use of sets simple and flexible. The control system adopts modular design, which can configure different control systems for the set.



HUAICHAI POWER SUPPLY ACCESSORIES

science technology innovation unlimited power



◀ BATTERY, BATTERY

Batteries are divided into ordinary lead-acid batteries and maintenance-free batteries, and the price of the latter is twice that of the former. It must be indicated in the contract or technical agreement what kind of battery it is and whether the battery lead is available or not.

▶ COOLING WATER TANK

The main function of cooling water tank is to exchange heat in diesel engine with water as medium, so as to reduce the temperature of engine block. The water tank is connected in series by vertically arranged water pipes, and the gaps are filled with metal radiating fins.

At present, more than 90% of the water tanks of generator sets in the market are made of aluminum. Aluminum water tanks are not corrosion-resistant and easy to leak, but they are used because of their low cost.

According to the national standard, the arrangement gap of each water pipe is 0.8 cm, but the actual water tanks used by most diesel generator set manufacturers are 1 cm, and some even use 1.2 cm gap.

The water tanks used by Huaichai Power are all made of copper water pipes and heat sinks, and the arrangement gap is 0.8 cm, which conforms to the national standard and will never be adulterated.



▲ OIL TANK AND

Most diesel generator set manufacturers do not use the fuel tank as standard as Huichai, and their quotation does not include the fuel tank. If users ignore this problem, these manufacturers will not take the initiative to remind users. If the user mentions this problem, the manufacturers will give the user one if the transaction price is high, and if the transaction price is low, they will ask the customer to pay extra fees. When inquiring, customers need to ask whether the set is equipped with oil tanks and oil pipe.



▲ CHASSIS

At present, more than 90% of the chassis of generator sets in the market are made of steel plate bending, and the chassis made of steel plate bending is widely used because of its beautiful appearance and low cost. However, the chassis bent by steel plate has low strength and poor rigidity. Once it is lifted carelessly or moved several times, it will cause the concentricity deviation of the generator set. If the concentricity deviation is light, it will shorten the life of the generator bearing, and if it is heavy, it will cause the generator to burn out.

The whole series of generator chassis produced by Huaichai Power are made of channel steel or I-beam, and have undergone 500Kg torsion test and 30 days stress aging.

▶ Control system

Ordinary standard sets need manual switching, and it usually takes 10 to 30 minutes from power failure to diesel generator set starting power transmission.

The automatic control of diesel generator set is divided into semi-automatic and automatic unattended type. Semi-automatic generator set automatically starts when power is cut off and automatically stops when power is connected, which saves the time of starting and stopping, but still needs manual switching. The fully automatic unattended control panel produced by Huaichai Power is equipped with ATS dual power switch, which can directly and automatically detect the city electric signal, automatically switch, and control the automatic startup and shutdown of the generator set, realizing the fully automatic unattended operation, with the switching time adjustable from 3 to 7 seconds.

Hospitals, military, fire control and other places where power transmission is required in time shall be equipped with automatic control panels.

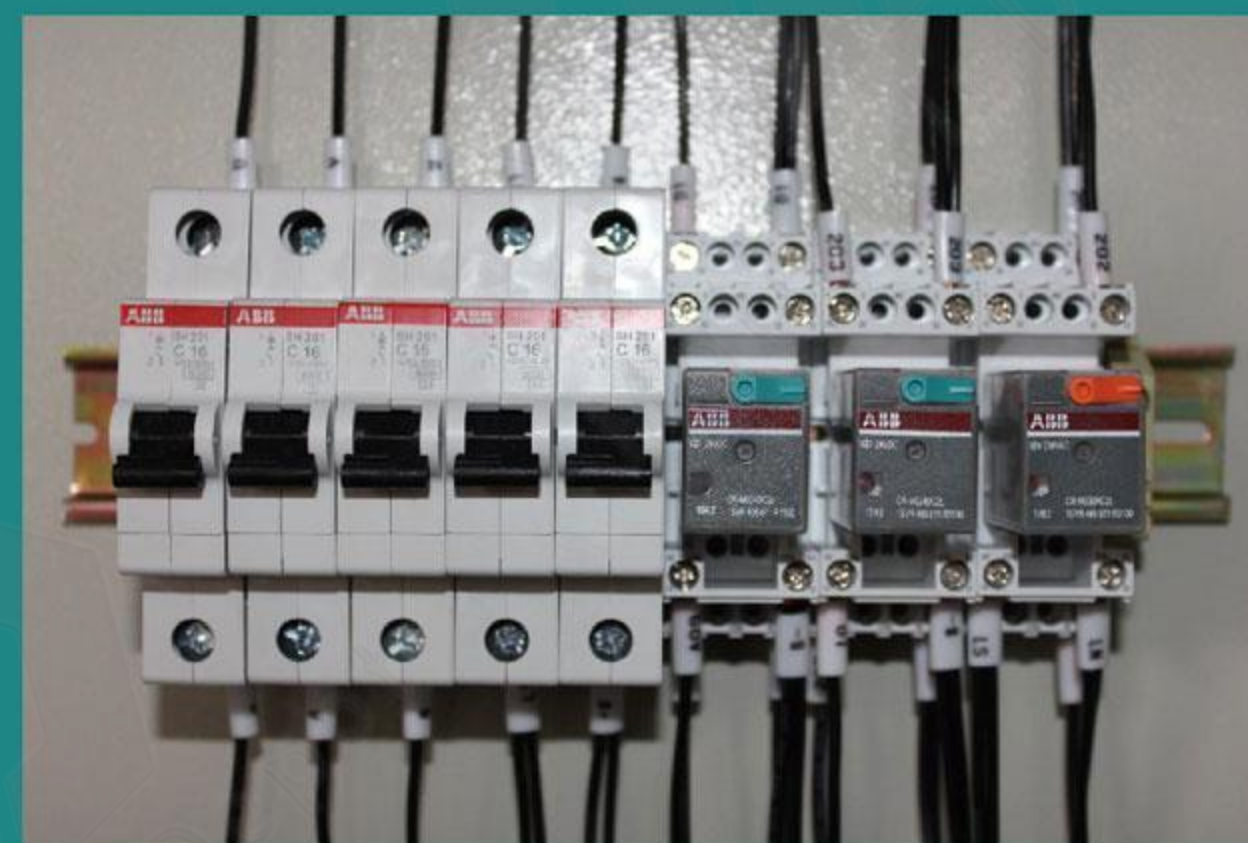


▼ ORIGINAL DEVICE OF CONTROL BOX

In addition to the main control module, the control box also has many original auxiliary electrical devices, such as circuit breakers, relays, fuses, etc. Huaichai uses ABB, Omron and other international brand electrical appliances, which have extremely low failure rate and ensure electrical stability.

Take relay as an example, the base of Chint brand made in China is about 8 yuan, while Omron's is about 48 yuan. The original devices of the whole control box are all of international brands, and the cost has only increased by about 1500 yuan, but the electrical failure rate has been greatly reduced, and the quality has increased by more than one grade.

Huaichai Power is the only generator set enterprise in the same industry that adopts such electrical component standards.



▲ 1PLC CONTROL MODULE

Well-known brand controllers include the following brands: DSE, British Deep Sea Electronics (average price 2500 yuan); Comap, imported Czech controller (average price 2200); Harsen, Hong Kong Harsen (average price 1200 yuan), is actually produced in Guangzhou; Smartgen, produced in Zhengzhou, Henan Province (average price in 800 yuan).

British Deep Sea is a senior manufacturer of generator control module. At present, the main control software and design ideas of other products in the market are borrowed from Deep Sea. The reliability of deep sea controller is much higher than that of other brands.

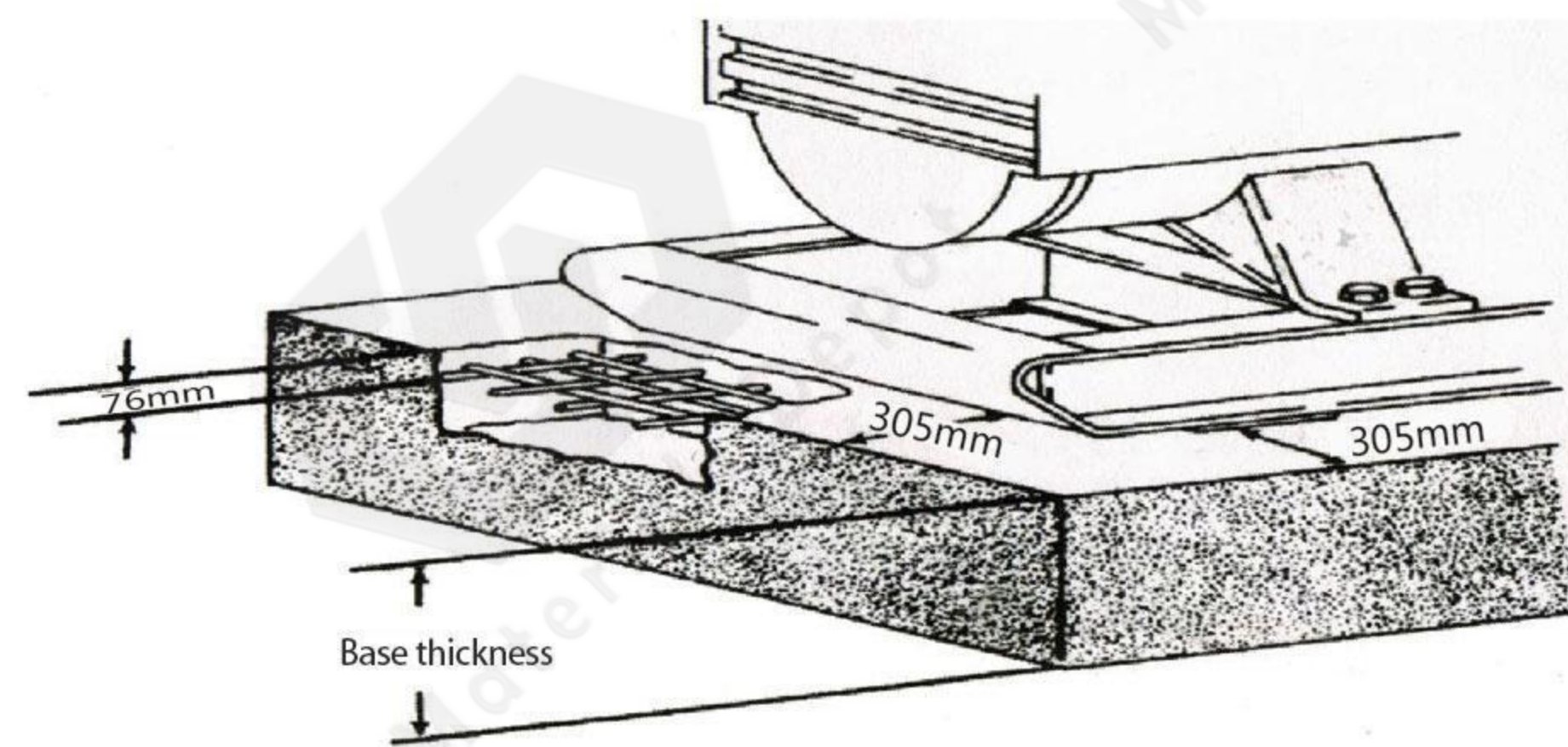
The whole series of products produced by Huaichai are equipped with British original deep-sea controllers as standard, and are guaranteed to be genuine.



HUAICHAI/CHAIYOUFADIANJIZU INSTALLATION INSTRUCTIONS

1. FOUNDATION

The installation of the set shall consider the load of the floor, the location of the passage and maintenance, vibration, ventilation, the connection and insulation of smoke exhaust pipes, the size and location of the fuel tank, and shall be subject to the local or national environmental protection regulations.



Huaichai series sets have excellent shock absorption performance, so the generator set does not need a specific foundation, and the set can be directly installed on the horizontal plane and concrete ground with sufficient strength. The ground is required to be horizontal and flat, and the flatness is required to be within the plane of $\pm 0.5^\circ$, and the ground must be able to bear 1.5 ~ 2 times the static weight of the generator set itself.

Concrete mounting base is a reliable installation method. The base is usually 100 ~ 200mm above the ground, and its thickness D is calculated as follows:

$$D = W / (d \times B \times L)$$

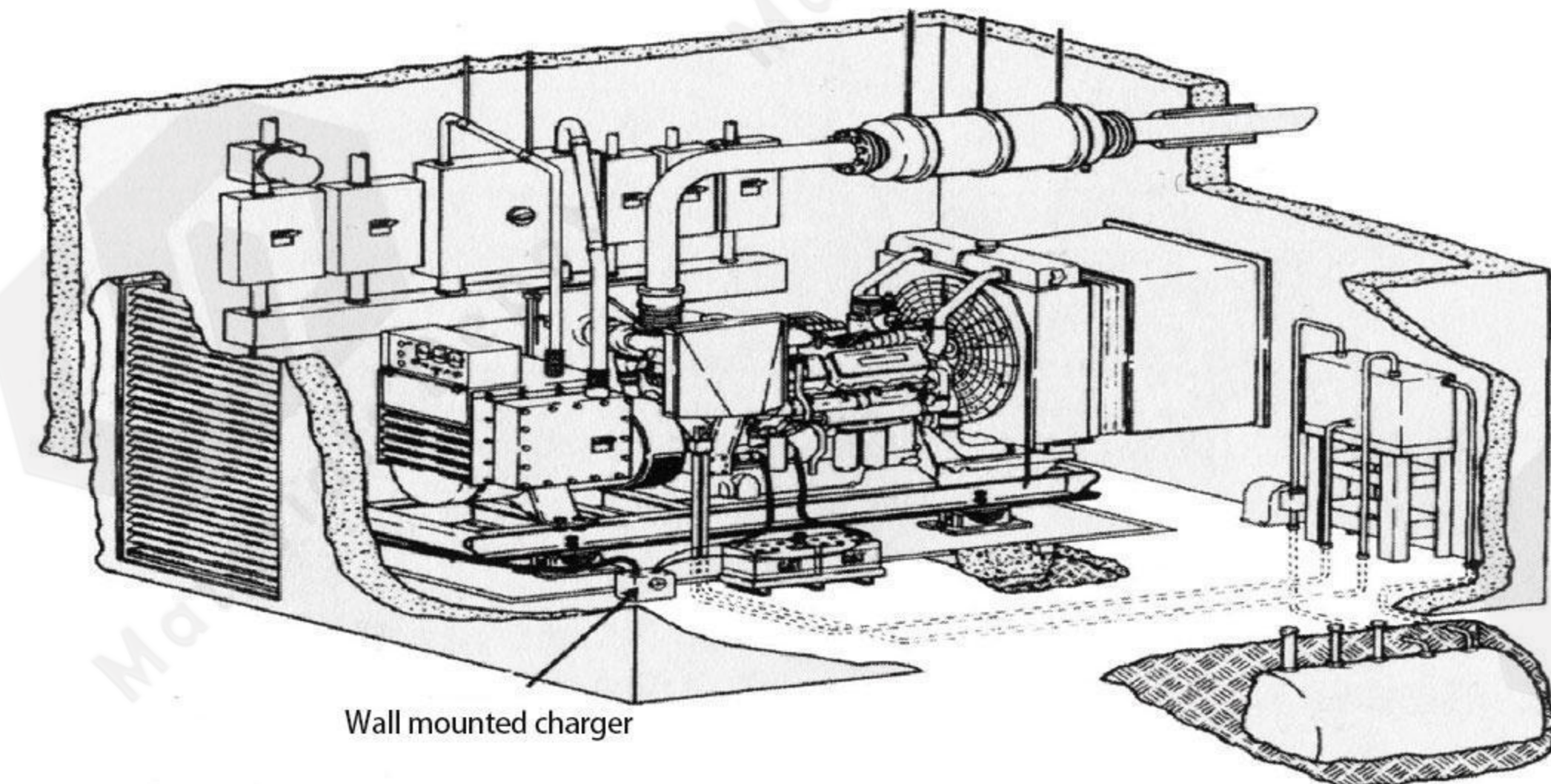
Where, w = total mass of generator set (kg)
 d = specific gravity of concrete, grade 450 is generally 2300 (kg/m³)
 B = Width of concrete base (m)
 L = Length of concrete base (m)

The concrete mixing volume ratio (cement sand and gravel) is 1: 2: 4 or 1: 3: 5 or 1: 3: 6.

2. GENERATOR ROOM

There must be enough space in the generator room to make the air circulate freely, which is very important to ensure the normal service performance of the set, reduce the power loss of the set and ensure the normal service life of the set.

Other inflammable and explosive articles and any objects that are easily involved in the protective net cover of the set or even directly sucked into the set and may affect the normal use of the set shall not be placed inside the generator room. In order to prevent hot air backflow, a wind guide cover is arranged between the cooling water tank and the exhaust outlet of the set to prevent hot air from circulating indoors.



For the installation and construction of sets with no special requirements, the design requirements for the generator room are not high. On the premise of ensuring that the exhaust back pressure does not exceed the specified value, it is only necessary to ensure that the air inlet and exhaust outlet of the generator room meet the requirements of technical specifications, avoid heating backflow, and reserve enough operation and maintenance space inside the generator room.

The generator room must ensure the air intake to supplement the air consumed for engine combustion and discharge a large amount of heat emitted by the set during operation outside the generator room through the radiator core, so that the temperature in the generator room is as close to the ambient temperature as possible and the engine body temperature is kept in the normal working range.

It should be ensured that the net area of the exhaust outlet is not less than 1.25 times of the effective area of the radiator core, the central position of the exhaust outlet should be consistent with the central position of the radiator core of the set as much as possible, and the width-height ratio of the exhaust outlet should be the same as that of the radiator core as much as possible.

