



KOOP, Your Best Power Solution!

KOOP[®]



CHANGZHOU KOOP POWER MACHINERY CO.,LTD.

ADD: NO.6 Hexiang Road,Wujin Economic Development Zone,Changzhou Jiangsu China

TEL: 0086-519-88381659

FAX: 0086-519-88384889

E-mail: isaac@koopchina.com

* All datas are only for reference,actual configuration please refer to real product.

PRODUCT CATALOGUE

- » Diesel Engine
- » Open Frame Diesel Generator
- » Silent Diesel Generator
- » Diesel Welding Generator
- » Diesel Water Pump
- » Super Silent Generator
- » Multi-cylinder Diesel Generator

www.koopchina.com



KOOP[®]



KOOP TAKES CARE OF
QUALITY CONTROL AS LIFE.
EACH PRODUCT IS
MANUFACTURED BY HEART.

KOOP follows strictly to ISO9001 and TS16949 quality standard.
Raw material analysis with analytical instruments.
Equipped with automatic assembly production line
Product air tightness and performance online test through intelligent equipment.
Create a staff keep improving working environment.
Make sure high quality of each product before shipping.

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Multi-cylinder Diesel Generator



COMPANY PROFILE

KOOP is an enterprise specialized in the research and manufacture of small power engine and standby power system. The core team is grouped by reputable technical experts in the industry and meritocracy, who have the remarkable design capability and rich engineering experience in internal combustion engine, electrical and electric field. Through unremitting efforts, KOOP has become the professional leading supplier of small power engine and mobile power industry in China.

KOOP was founded in August, 2007, a joint-stock private technology enterprise. Located in Wujin Economic Development zone, surrounded by beautiful landscaping and gardens with convenient traffic and high-speed hub, KOOP covers an area of 50,000 square meters and an architectural area of 26,000 square meters. It owns 6 automatic flexible production lines and the testing center equipped with professional detection device for metallic phase, tension, fuel injector, fuel injector pump, camshaft, gear, cylinder airway

etc. Exports account for 70% of the company's main business income, and the market throughout the world, mainly in America, Africa, and Southeast Asia etc. KOOP export amount was more than 31.2 million US dollar since 2013. As a provincial high-tech enterprise, KOOP has persisted in leaping company forward with technology innovation and strengthening company development through scientific management. Over these years, it has been focused on developing core R&D resources and researching engine and power technology, obtaining 28 technology patents and supplying the demands of reliable power engine and high quality electrical energy. And KOOP products meet the standard of CE, EPA, ISO9001, and TS16949. KOOP awarded "Provincial hi-tech enterprise" in 2012, many products awarded "hi-tech product", which make KOOP become member of engineering technology center and council member of agricultural machinery distribution association of Changzhou city.

KOOP always insists that "quality is the only foundation to win the market". Every product is manufactured according to the standard of "zero defect". The company has established quality control system with ISO9001 and TS16949 standard and strictly carried out the system. The excellent quality and service have won world-wide reputation. R&D ability is the core competitive strength of the company, the R&D term continuously enriches product line and now has a variety product range of single, double cylinder air-cooled engines, gasoline engines, mobile portable power sets, pumping sets and garden machineries etc. Especially, KOOP took the lead in development and production of vertical two-cylinder diesel engine like KD292F, KD2V80, and KD2V86, which has won wide attention in the industry. KOOP always remembers the social responsibility imposed on the company, it initiated the enterprise mission of

"sharing the happiness of company growth with KOOP employees, customers and suppliers"; created the corporate culture of "being the brand of the new owner with company and actualize our own personal worth" and the service concept of "being the expert in power and providing excellent service". In the future, KOOP will certainly be dedicated to developing itself into becoming the best engine power supplier in China and offering best products and service for global customers.

KOOP®



DIESEL ENGINE

Your requirement is our direction of research and development. KOOP will do all best to make your dream come true.

PRODUCT FEATURES



Process innovation, long service life

Continuous innovation in the details of production process, improvement in the process of assembling, relevant spare parts running in good, high mechanical strength, running smoothly, little vibration, long service life.



Patented product, excellent performance

The product has won numbers of patents, covering multiple aspects of performance, with the characteristic of low fuel consumption, high power output and low noise etc.



Aim to high-end market, high quality components

KOOP products aim to high-end diesel engine market, all key components are purchased from brand suppliers, to make sure high quality from raw materials.



Light weight, compact construction

New generation of small diesel engines, with more reasonable design, more output at same volume, meet multiple applications.



Easy maintenance, low operation cost

Easy lead to engine makes easy maintenance, high combustion ratio, low fuel consumption, large torque, strong power and low operation cost.

KD

DIESEL ENGINE

KOOP technical team always follow the step of oversea advanced engine technology, has designed excellent fuel injection system with skilled craftsmanship and strict quality concept, which makes KOOP engine strong output, safe and reliable. This high-performance fuel injection system ensures high efficiency running, lower fuel consumption and emission, also much lower the noise level.



* Italian type starter handle



* Oil-bathed air filter

DIESEL ENGINE

Technical Data

PRODUCT FEATURES

Low fuel consumption

With new tip-clearance fuel pump and bottom inertia injection technology, combine new type combustor and high burning rate, its fuel economy is much lower than gasoline engines.

Low noise

Well-designed gear transmission structure, make the vibration decreased and noise lowered, patented air cleaner, lower the noise of air inlet and outlet.

Wide application area

Various kinds of output forms are optional.

Safe and reliable

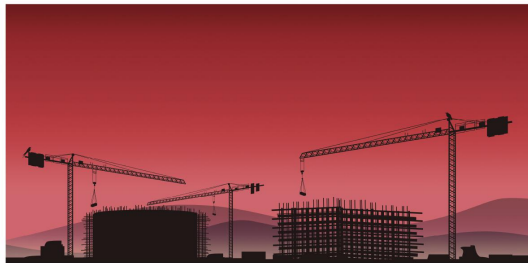
Excellent production process, strict QC system to make sure the products safe and reliable.

Strong power

Large reserves of torque, strong power, supper overload capacity.

APPLICATION AREA

- 
1 Agriculture Machine
- 
2 Outdoor Project
- 
3 Emergency Power Supply
- 
4 Standby Usage
- 
5 Vessel and Car



1-Cylinder Series

Model		KD170F/FE		KD178F/FE		KD186FA/FAE	
Engine Type		1-Cylinder,4-Stroke, Air-cooled,Vertical		1-Cylinder,4-Stroke, Air-cooled,Vertical		1-Cylinder,4-Stroke, Air-cooled,Vertical	
Combustion System		Direct injection		Direct injection		Direct injection	
Broke*Stroke	mm	70*55		78*62		86*72	
Displacement	L	0.211		0.296		0.418	
Compression Ratio		20:1		20:1		19.5:1	
Rated Speed	rpm	3000	3600	3000	3600	3000	3600
Rated Power	kW	2.5	2.8	3.7	4.0	5.8	6.6
Rated Power	hp	3.4	3.8	5.0	5.4	7.9	9.0
Starting System		F:Recoil start E:Electric start		F:Recoil start E:Electric start		FA:Recoil start FAE:Electric start	
Fuel Tank Capacity	L	2.5		3.5		5.5	
Lube Oil Capacity	L	0.75		1.10		1.65	
Fuel Consumption	g/kwh	275	280	275	280	275	280
Fuel Type		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil	
Lube Type		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)	
Overall Dimension (L*W*H)	mm	335*380*415		383*421*450		417*441*494	
Net Weight	kg	F: 27 FE: 31		F: 33 FE: 38		FA: 48 FAE: 53	
Rotation Direction (View from Flywheel)		Clockwise		Clockwise		Clockwise	

DIESEL ENGINE

Technical Data



* General starter handle



* General air filter

1-Cylinder Series

Model		KD188FA/FAE		KD192F/FE	
Engine Type		1-Cylinder,4-Stroke, Air-cooled,Vertical		1-Cylinder,4-Stroke, Air-cooled,Vertical	
Combustion System		Direct injection		Direct injection	
Broke*Stroke	mm	88*75		92*75	
Displacement	L	0.456		0.499	
Compression Ratio		19.5:1		19.5:1	
Rated Speed	rpm	3000	3600	3000	3600
Rated Power	kW	6.6	6.9	7.6	8.6
Rated Power	hp	9.0	9.4	10.3	11.7
Starting System		FA:Recoil start FAE:Electric start		F:Recoil start FE:Electric start	
Fuel Tank Capacity	L	5.5		5.5	
Lube Oil Capacity	L	1.65		1.65	
Fuel Consumption	g/kwh	275	280	275	280
Fuel Type		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil	
Lube Type		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)	
Overall Diemension (L*W*H)	mm	417*441*494		417*441*494	
Net Weight	kg	FA: 48 FAE: 53		F: 50 FE: 55	
Rotation Direction (View from Flywheel)		Clockwise		Clockwise	

DIESEL ENGINE

Technical Data



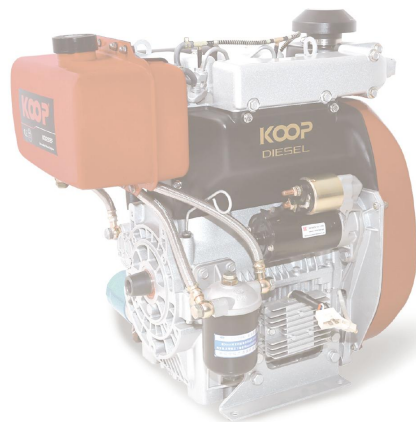
1-Cylinder Series

Model		KD195F/FE		KD1100F	
Engine Type		1-Cylinder,4-Stroke, Air-cooled,Vertical		1-Cylinder,4-Stroke, Air-cooled,Vertical	
Combustion System		Direct injection		Direct injection	
Broke*Stroke	mm	95*75		100*85	
Displacement	L	0.532		0.667	
Compression Ratio		20:1		20:1	
Rated Speed	rpm	3000	3600	3000	3600
Rated Power	kW	8.0	9.2	9.5	10.9
Rated Power	hp	10.7	12.3	12.7	14.9
Starting System		F: Recoil start FE: Electric start		Electric start(only)	
Fuel Tank Capacity	L	5.5		5.5	
Lube Oil Capacity	L	1.65		2.00	
Fuel Consumption	g/kwh	275	280	275	280
Fuel Type		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil	
Lube Type		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)	
Overall Diemension (L*W*H)	mm	417*441*494		420*490*550	
Net Weight	kg	F: 52 FE: 57		58	
Rotation Direction (View from Flywheel)		Clockwise		Clockwise	

KD

DIESEL ENGINE

KOOP technical team always follow the step of oversea advanced engine technology, has designed excellent fuel injection system with skilled craftsmanship and strict quality concept, which makes KOOP engine strong output, safe and reliable. This high-performance fuel injection system ensures high efficiency running, lower fuel consumption and emission, also much lower the noise level.



DIESEL ENGINE

Technical Data



* Water-cooled Type



* Air-cooled Type

PRODUCT FEATURES



High output

Two-cylinder design, compact construction, large displacement, high output.



Easy start

Multihole injection coupled with gear motor, starts easily and reliable.



Safe and reliable

Excellent production process, strict QC system to make sure the products safe and reliable.



Wide application area

Various kinds of output forms are optional.



Low noise

Well-designed gear transmission structure, make the vibration decreased and noise lowered, patented air cleaner, lower the noise of air inlet and outlet.

APPLICATION AREA



1 Agriculture Machine



2 Outdoor Project



3 Emergency Power Supply



4 Standby Usage



5 Vessel and Car



2-Cylinder Series

Model		KD2V80		KD292F	
Engine Type		2-Cylinder,4-Stroke, Water-cooled,V Type		2-cylinder,4-Stroke, Air-cooled,Vertical	
Broke*Stroke	mm	80*79		92*75	
Displacement	L	0.794		0.997	
Compressed Ratio		23:1		19:1	
Rated Speed	rpm	3000	3600	3000	3600
Rated Power	kW	12.0	14.0	14.0	15.0
Rated Power	hp	16.3	19.0	19.0	20.4
Starting System		Electric start		Electric start	
Lube Oil Capacity	L	2.30		2.75	
Fuel Type		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil	
Lube Type		SAE10W30(CF grade or above)		SAE10W30(CF grade or above)	
Power-take-off		Crankshaft		Crankshaft	
Overall Diemension(L*W*H)	mm	616*486*528		582*462*582	
Net Weight	kg	58		78	

OPEN FRAME DIESEL GENERATOR

KOOP R&D team never stops and strives to innovation to meet your personalized requirement.



• Engine



• Generator



• Water Pump

KDF

OPEN FRAME DIESEL GENERATOR

As emergency power, it can help to solve power failure rapidly. Light, 4-wheels is the best choice for outdoor working.



PRODUCT FEATURES



High conversion rate

100% copper alternator, class F insulation, high conversion rate.



Stable output

Smart AVR controller ensures stable voltage and less voltage waveform distortion.



Easy carrying

An open frame configuration means it's easy to move and use.



Digital panel

Digital intelligent control panel with display of voltage, frequency and running time, makes easy maintenance.



Wide application

Various output sockets are available to meet all customers' requirements.

APPLICATION AREA



1 Agriculture Machine



2 Outdoor Project



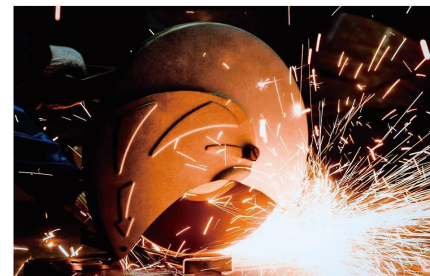
3 Emergency Power Supply



4 Standby Usage



5 Vessel and Car



OPEN FRAME DIESEL GENERATOR

Technical Data



* Round tube frame without wheel



* Round tube frame with 4 wheels

1-Cylinder Series

Model		KDF2500X/XE		KDF4000X/XE		KDF6700X/XE(-3)	
Rated Frequency	Hz	50	60	50	60	50	60
Rated Voltage	V	220,230,240,110/220,115/230,120/240		220,230,240,110/220,115/230,120/240		220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415	
Rated Output Power	kVA	1.8	2.0	2.6	2.8	4.5(5.6)	5.0(6.3)
Max Output Power	kVA	2.0	2.2	2.8	3.0	5.0(6.3)	5.5(6.9)
Phase Number		1-Phase/3-Phase		1-Phase/3-Phase		1-Phase/3-Phase	
Excitation Transistorized		Self-excitation,brush		Self-excitation,brush		Self-excitation,brush	
Power Factor Cos	Φ	1.0		1.0		1.0(0.8)	
Insulation Grade		F		F		F	
Fuel Tank Capacity	L	12.5		12.5		12.5	
Frame Type		25*25mm Round tube frame		25*25mm Round tube frame		35*35mm Square tube frame	
Engine Model		X: KD170F XE:KD170FE		X:KD178F XE:KD178FE		X:KD186FA XE:KD186FAE	
Starting System		X: Recoil start XE: Electric start		X:Recoil start XE:Electric start		X:Recoil start XE:Electric start	
Engine Type		1-Cylinder,4-Stroke,Air-cooled,Veritical		1-Cylinder,4-Stroke,Air-cooled,Veritical		1-Cylinder,4-Stroke,Air-cooled,Veritical	
Broke*Stroke	mm	70*55		78 * 62		86*72	
Displacement	L	0.211		0.296		0.418	
Compression Ratio		20:1		20:1		19.5:1	
Rated Rotation Speed	rpm	3000	3600	3000	3600	3000	3600
Rated Power	kW	2.5	2.8	3.7	4.0	5.8	6.6
Lube Oil Capacity	L	0.75		1.10		1.65	
Fuel Consumption	g/kwh	275	280	275	280	275	280
Fuel Type		0#(summer), -10#(winter), Diesel oil		0#(summer), -10#(winter),Diesel oil		0#(summer),-10#(winter),Diesel oil	
Lube Type		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)	
Optional Standard		ATS		ATS		ATS	
		Remote control		Remote control		Remote control	
		Digital Smart Panel		Digital Smart Panel		Digital Smart Panel	
		Wheel and handle		Wheel and handle		Wheel and handle	
Overall Diemension (L*W*H)	mm	640*460*520		660*460*540		740*505*630	
Net Weight	kg	X:48 XE:63		X:63 XE:72		X:99 XE:113	

OPEN FRAME DIESEL GENERATOR

Technical Data



* Square tube framed with wheels & handles



1-Cylinder Series

Model		KDF7500X/XE(-3)		KDF8500X/XE(-3)	
Rated Frequency	Hz	50	60	50	60
Rated Voltage	V	220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415		220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415	
Rated Output Power	kVA	5.0(6.3)	5.5(6.9)	6.0(7.5)	6.5(8.1)
Max Output Power	kVA	5.5(6.9)	6.0(7.5)	6.5(8.1)	7.0(8.8)
Phase Number		1-Phase/3-Phase		1-Phase/3-Phase	
Excitation Transistorized		Self-excitation,brush		Self-excitation,brush	
Power Factor Cos	Φ	1.0(0.8)		1.0(0.8)	
Insulation Grade		F		F	
Fuel Tank Capacity	L	12.5		12.5	
Frame Type		35*35mm Square tube frame		35*35mm Square tube frame	
Engine Model		X:KD188FA XE:KD188FAE		X:KD192F XE:KD192FE	
Starting System		X:Recoil start XE:Electric start		X:Recoil start XE:Electric start	
Engine Type		1-Cylinder,4-Stroke,Air-cooled,Veritical		1-Cylinder,4-Stroke,Air-cooled,Veritical	
Broke*Stroke	mm	88*75		92*75	
Displacement	L	0.456		0.499	
Compression Ratio		19.5:1		19.5:1	
Rated Rotation Speed	rpm	3000	3600	3000	3600
Rated Power	kW	6.6	6.9	7.6	8.6
Lube Oil Capacity	L	1.65		1.65	
Fuel Consumption	g/kwh	275	280	275	280
Fuel Type		0#(summer),-10#(winter),Diesel oil		0#(summer),-10#(winter),Diesel oil	
Lube Type		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)	
Optional Standard		ATS		ATS	
		Remote control		Remote control	
		Digital Smart Panel		Digital Smart Panel	
		Wheel and handle		Wheel and handle	
Overall Diemension (L*W*H)	mm	740*505*630		740*505*630	
Net Weight	kg	X:100 XE:114		X:107 XE:124	

OPEN FRAME DIESEL GENERATOR

Technical Data

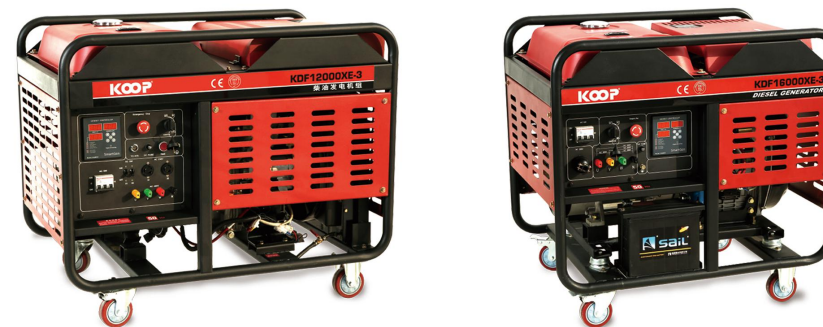


1-Cylinder Series

Model		KDF9500XE(-3)	KDF11000XE(-3)
Rated Frequency	Hz	50	50
Rated Voltage	V	220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415	220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415
Rated Output Power	kVA	6.6(8.3)	8.0(10)
Max Output Power	kVA	7.5(9.3)	8.5(10.6)
Phase Number		1-Phase/3-Phase	1-Phase/3-Phase
Excitation Transistorized		Self-excitation,brush	Self-excitation,brush
Power Factor Cos	Φ	1.0(0.8)	1.0(0.8)
Insulation Grade		F	F
Fuel Tank Capacity	L	12.5	12.5
Frame Type		35*35mm Square tube frame	35*35mm Square tube frame
Engine Model		KD195FE	KD1100F
Starting System		Electric start(only)	Electric start(only)
Engine Type		1-Cylinder,4-Stroke,Air-cooled,Vertical	1-Cylinder,4-Stroke,Air-cooled,Vertical
Broke*Stroke	mm	95*75	100*85
Displacement	L	0.532	0.667
Compression Ratio		20:1	20:1
Rated Rotation Speed	rpm	3000	3000
Rated Power	kW	8.0	9.5
Lube Oil Capacity	L	1.65	1.65
Fuel Consumption	g/kwh	275	275
Fuel Type		0#(summer),-10#(winter),Diesel oil	0#(summer),-10#(winter),Diesel oil
Lube Type		SAE10W30(CD grade or above)	SAE10W30(CD grade or above)
Optional Standard		ATS	ATS
		Remote control	Remote control
		Digital Smart Panel	Digital Smart Panel
		Wheel and handle	Wheel and handle
Overall Dimension (L*W*H)	mm	740*505*630	780*585*705
Net Weight	kg	123	160

OPEN FRAME DIESEL GENERATOR

Technical Data



2-Cylinder Series

Model		KDF12000XE(-3)		KDF16000XE(-3)	
Frequency	Hz	50	60	50	60
Voltage	V	220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415		220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415	
Rated Power	kVA	9.0(11.0)	9.5(11.5)	11.0(13.8)	12.0(15.0)
Max. Power	kVA	10.0(12.0)	10.5(12.5)	12.0(15.0)	13.0(16.0)
Phase Number		1-Phase/3-Phase		1-Phase/3-Phase	
Excitation Transistorized		Self-excitation,brush		Self-excitation,brush	
Power Factor Cos	Φ	1.0(0.8)		1.0(0.8)	
Insulation Grade		F		F	
Fuel Capacity	L	34		34	
Frame Type		35*35mm Round tube frame		35*35mm Round tube frame	
Engine Model		KD2V80		KD292F	
Starting System		Electric Start		Electric Start	
Engine Type		2-Cylinder,4-Stroke,Water-cooled,V Type		2-cylinder,4-Stroke,Air-cooled,Vertical	
Broke*Stroke	mm	2-80*79		2-92*75	
Displacement	L	0.794		0.997	
Compression Ratio		23:1		19:1	
Rated Rotation Speed	rpm	3000	3600	3000	3600
Rated Power	kW	12.0	14.0	14.0	15.0
Lube Oil Capacity	L	2.30		2.75	
Fuel Type		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil	
Lube Type		SAE10W30(CF grade or above)		SAE10W30(CF grade or above)	
Overall Dimension(L*W*H)	mm	1060*660*880		930*660*910	
Net Weight	kg	220		230	

SILENT DIESEL GENERATOR

KOOP R&D team never stops and strives to innovation to meet your personalized requirement.



• Engine



• Generator



• Water Pump

KDF

SILENT DIESEL GENERATOR

With two-stage muffler device, new air flue design, excellent sound-absorbing material, to make sure the generator less noise, which is widely used at homes and shops as standby power. Also it can be controlled by remoter, ATS and overload protection, provides you high quality life.



PRODUCT FEATURES



Two-stage muffler device

Scientific damping effect, patent two-stage muffler silencer, advanced air-flue design and muffler device.



High conversion efficiency

100% copper alternator, class F insulation, high conversion efficiency, smart AVR controller ensures stable voltage and less voltage waveform distortion.



Preheating device

With air-preheating device, it can be easily started at low temperature.



Strong power

With KOOP four-stroke diesel engine, new tip-clearance fuel pump and bottom inertia injection technology, makes burning full and power strong.

APPLICATION AREA



• Agriculture Machine



• Outdoor Project



• Emergency Power Supply



• Standby Usage



• Vessel and Car



SILENT DIESEL GENERATOR

Technical Data



1-Cylinder Series

Model		KDF6700Q(-3)		KDF7500Q(-3)		KDF8500Q(-3)	
Rated Frequency	Hz	50	60	50	60	50	60
Rated Voltage	V	220,230,240,110/220,127/220,115/230,120/240,220/380,230/400,240/415					
Rated Output Power	kVA	4.5(5.6)	5.0(6.3)	5.0(6.3)	5.5(6.9)	6.0(7.5)	6.5(8.1)
Max Output Power	kVA	5.0(6.3)	5.5(6.9)	5.5(6.9)	6.0(7.5)	6.5(8.1)	7.0(8.8)
DC Output		12V 8.3A		12V 8.3A		12V 8.3A	
Phase Number		1-Phase/3-Phase		1-Phase/3-Phase		1-Phase/3-Phase	
Excitation Mode		Self-excitation,brush		Self-excitation,brush		Self-excitation,brush	
Power Factor	ϕ	1.0(0.8)		1.0(0.8)		1.0(0.8)	
Insulation Grade		F		F		F	
Fuel Tank Capacity	L	14.5		14.5		30.0	
Engine Model		KD186FAE		KD188FAE		KD192FE	
Starting System		Electric Start		Electric Start		Electric Start	
Engine Type		1-Cylinder,4-Stroke, Air-cooled,Veritcal		1-Cylinder,4-Stroke, Air-cooled,Veritcal		1-Cylinder,4-Stroke, Air-cooled,Veritcal	
Broke*Stroke	mm	86*72		88*75		92*75	
Displacement	L	0.418		0.456		0.499	
Compression Ratio		19.5:1		19.5:1		19.5:1	
Rated Rotation Speed	rpm	3000	3600	3000	3600	3000	3600
Rated Power	kW	5.8	6.6	6.6	6.9	7.6	8.6
Lube Oil Capacity	L	1.65		1.65		1.65	
Fuel Type		0#(summer),-10#(winter),Diesel oil		0#(summer),-10#(winter),Diesel oil		0#(summer),-10#(winter),Diesel oil	
Lube Type		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)	
Low Oil Pressure Alarm System		With		With		With	
Optional Standard		ATS		ATS		ATS	
		Remote control		Remote control		Remote control	
		Digital smart panel		Digital smart panel		Digital smart panel	
Overall Diemension (L*W*H)	mm	910*530*740		910*530*740		910*530*840	
Net Weight	kg	149		151		171	

SILENT DIESEL GENERATOR

Technical Data



1-Cylinder Series

Model		KDF9500Q(-3)		KDF11000Q(-3)	
Rated Frequency	Hz	50		50	
Rated Voltage	V	220,230,240,110/220,115/230,120/240, 220/380,230/400,240/415		220,230,240,110/220,115/230,120/240, 220/380,230/400,240/415	
Rated Output Power	kVA	6.6(8.3)		8.0(10.0)	
Max Output Power	kVA	7.5(9.3)		8.5(10.6)	
DC Output		12V 8.3A		12V 8.3A	
Phase Number		1-Phase/3-Phase		1-Phase/3-Phase	
Excitation Mode		Self-excitation,brush		Self-excitation,brush	
Power Factor	ϕ	1.0(0.8)		1.0(0.8)	
Insulation Grade		F		H	
Fuel Tank Capacity	L	30.0		26.0	
Engine Model		KD195FE		KD1100F	
Starting System		Electric Start		Electric Start	
Engine Type		1-Cylinder,4-Stroke,Air-cooled,Veritcal		1-Cylinder,4-Stroke,Air-cooled,Veritcal	
Broke*Stroke	mm	95*75		100*85	
Displacement	L	0.532		0.667	
Compression Ratio		20:1		20:1	
Rated Rotation Speed	rpm	3000	3600	3000	
Rated Power	kW	8	9.2	9.5	
Lube Oil Capacity	L	1.65		2.00	
Fuel Type		0#(summer),-10#(winter),Diesel oil		0#(summer),-10#(winter),Diesel oil	
Lube Type		SAE10W30(CD grade or above)		SAE10W30(CD grade or above)	
Low Oil Pressure Alarm System		With		With	
Optional Standard		ATS		ATS	
		Remote control		Remote control	
		Digital smart panel		Digital smart panel	
Overall Diemension (L*W*H)	mm	910*530*840		1120*692*764	
Net Weight	kg	175		210	

SILENT DIESEL GENERATOR

Technical Data



2-Cylinder Series

Model	KDF12000Q(-3)		KDF16000Q(-3)		
	50	60	50	60	
Frequency	Hz	50	60	50	60
Voltage	V	220,230,240,110/220,127/220,115/230, 120/240,220/380,230/400,240/415		220,230,240,110/220,127/220,115/230, 120/240,220/380,230/400,240/415	
Rated Power	kVA	9.0(11.0)	9.5(11.5)	11.0(13.8)	12.0(15.0)
Max. Power	kVA	10.0(12.0)	10.5(12.5)	12.0(15.0)	13.0(16.0)
Phase Number		1-Phase/3-Phase		1-Phase/3-Phase	
Excitation Transistorized		Self-excitation,brush		Self-excitation,brush	
Power Factor	φ	1.0(0.8)		1.0(0.8)	
Insulation Grade		F		F	
Fuel Capacity	L	26		26	
Noise Level(@7m)	Db	72		75	
Engine Model		KD2V80		KD292F	
Engine Type		2-Cylinder,4-Stroke,Water-cooled,V Type		2-cylinder,4-Stroke,Air-cooled,Vertical	
Starting System		Electric Start		Electric Start	
Broke*Stroke	mm	2-80*79		2-92*75	
Displacement	L	0.794		0.997	
Compression Ratio		23:1		19:1	
Rated Rotation Speed	rpm	3000	3600	3000	3600
Rated Power	kW	12.0	14.0	14.0	15.0
Lube Oil Capacity	L	2.30		2.75	
Fuel Type		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil	
Lube Type		SAE10W30(CF grade or above)		SAE10W30(CF grade or above)	
Overall Dimension(L*W*H)	mm	1200*650*890		1250*650*890	
Net Weight	kg	310		320	

SOCKET&PANEL OPTION

Code	Description	Specification	Socket	Panel
S01	S.Assocket	25A, 250V		
S02	British socket	32A, 240V		 A-type-Export standard
S03	British socket	16A, 240V		
S04	Square American type-socket	20A, 120A		
S05	Germany socket	16A, 250V		 B-type-U.S.A standard
S06	Three-phase five holes socket	16A, 415V		
S07	French socket	16A, 250V		 C-type-European standard
S08	Three phase four holes socket	16A, 215V		
S09	American type 4-hole anti loose socket	30A, 250V		
S10	American double socket	20A, 125V		 D-type-Australia standard
S11	3-hole anti loose socket (UL-anthentication optional)	30A, 250V		
S12	Australian socket	16A, 250V		
S13	Swiss socket	10A, 250V		 Three phase panel

KDF DIESEL WELDING GENERATOR



KOOP has designed the third generation super big diesel welding generator sets. With KOOP self-designed KD192F engine, can make continuous welding current over 220A, which achieves higher welding efficiency and more scope of application. Now KOOP is developing the king of welding generator with 2-cylinder engine, which welding current can be 300A.



PRODUCT FEATURES

One unit, dual function

Welding and power supply at the same time.

High conversion efficiency

100% copper alternator, class F insulation, high conversion efficiency, smart AVR controller ensures stable voltage and less voltage waveform distortion.

Supper welding

With KOOP strong air-cooled 4-stroke diesel engine, provides supper welding current.

Safe and low fuel consumption

With new tip-clearance fuel pump and bottom inertia injection technology, security is better than that of gasoline.

Portable design

New design of frame, compact structure, four strong wheels, easy to move.

APPLICATION AREA



DIESEL WELDING GENERATOR

Technical Data



Model		KDF6700WE		KDF8500WE	
Rated Frequency	Hz	50	60	50	60
Rated Voltage	V	220,230,240,110/220,115/230,120/240		220,230,240,110/220,115/230,120/240	
Rated Output Power	kVA	2.0	2.2	2.0	2.2
Welding Voltage Without Load	V	50~65		50~65	
Rated Current	A	160		200	
Work Voltage	V	25~30		25~30	
Current Regulation Range	A	50 ~ 180		70 ~ 220	
Welding Load Continuous Ration		60%		60%	
Phase Number		1-Phase		1-Phase	
Excitation Transistorized		Self-excitation,brush		Self-excitation,brush	
Power Factor	Φ	1.0		1.0	
Insulation Grade		F		F	
Fuel Tank Capacity	L	12.5		12.5	
Frame Type		25*25mm round tube frame		35*35mm Square tube frame	
Engine Model		KD186FAE		KD192FE	
Starting System		Electric start		Electric start	
Engine Type		1-Cylinder,4-Stroke,Air-cooled,Veritical		1-Cylinder,4-Stroke,Air-cooled,Veritical	
Broke*Stroke	mm	86*72		92*75	
Displacement	L	0.418		0.499	
Compression Ratio		19.5:1		19.5:1	
Ration Rotation Speed	rpm	3000	3600	3000	3600
Rated Power	kW	5.8	6.6	7.6	8.6
Power-take-off		Crankshaft		Crankshaft	
Lube Oil Capacity	L	1.65		1.65	
Fuel Type		0#(summer),-10#(winter),Diesel oil		0#(summer),-10#(winter),Diesel oil	
Lube Type		SAE10W30(above CD grade)		SAE10W30(above CD grade)	
Low Oil Pressure Alarm System		With		With	
Overall Diemension (L*W*H)	mm	710*515*630		750*515*640	
Net Weight	kg	116		127	

DIESEL WATER PUMP

Your requirement is our direction of research and development. KOOP will do all best to make your dream come true.



• Engine



• Generator



• Water Pump

KDP

DIESEL WATER PUMP

Supper suction capacity, with big flow, compact design, easy to move, widely used in agricultural irrigation, fishery, flood-fighting and emergency rescues, construction site, tunnels, etc. Self-suction pump, high pressure pump and iron pump to choose, can meet various requirements.



PRODUCT FEATURES



Low fuel consumption

With KOOP strong air-cooled diesel engine, make sure low fuel consumption.



Portable design

New light weight and compact design make it easy and safe to move.



Reliable and durable

Safe and reliable engine with enhanced pump cover structure assure the pump durable service.



Head high and less self-priming time

Strong engine and vortex impeller design, good sealing, greatly promote head of delivery, and less self-priming time.



Convenient Maintenance

Aluminum self-priming pump, maintenance free; open design, easy leads to the engine.

APPLICATION AREA



• Agriculture Machine



• Outdoor Project



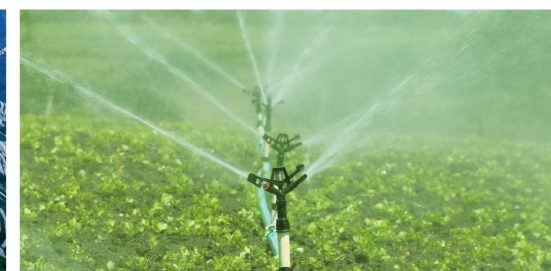
• Emergency Power Supply



• Standby Usage



• Vessel and Car



DIESEL WATER PUMP

Technical Data



General Water Pump

Model		KDP50B/BE/L/LE	KDP80B/BE/L/LE	KDP100B/BE/L/LE
Suction/Discharge Port Diameter	mm	50(2")	80(3")	100(4")
Cont. Capacity	m ³ /h	22	35	40
Cont. Head	M	15	17	19
Self-priming Time	s/4m	70	120	180
Max.Suction Head	M	7.0	7.0	7.0
Fuel Tank Capacity	L	B:small fuel tank(2.5L) L:large fuel tank(12.5L)	B:small fuel tank(3.5L) L:large fuel tank(12.5L)	B:small fuel tank(5.5L) L:large fuel tank(12.5L)
Engine Type		KD170F/FE	KD178F/FE	KD186FA/FAE
Starting System		F:Recoil start FE:Electric start	F:Recoil start FE:Electric start	FA:Recoil start FAE:Electric start
Engine Type		1-Cylinder,4-Stroke, Air-cooled,Vertical	1-Cylinder,4-Stroke, Air-cooled,Vertical	1-Cylinder,4-Stroke, Air-cooled,Vertical
Broke*Stroke	mm	70*55	78*62	86*72
Displacement	L	0.211	0.296	0.418
Compression Ratio		20:1	20:1	19.5:1
Rated Rotation Speed	rpm	3600	3600	3600
Rated Power	kW	2.8	4.0	6.6
Lube Oil Capacity	L	0.75	1.10	1.65
Fuel Type		0#(summer),-10#(winter) Diesel oil	0#(summer),-10#(winter) Diesel oil	0#(summer),-10#(winter) Diesel oil
Lube Type		SAE10W30(above CD grade)	SAE10W30(above CD grade)	SAE10W30(above CD grade)
Overall Diemension(L*W*H)	mm	490*410*520	560*455*550	650*470*700
Net Weight	kg	41	49	69

DIESEL WATER PUMP

Technical Data



High Pressure Water Pump

Model		KDP40H/HE/L/LE	KDP50H/HE/L/LE
Suction/Discharge Port Diameter	mm	40(1.5")	50(2")
Cont. Capacity	m ³ /h	12	18
Cont. Head	M	42	45
Self-priming Time	s/4m	120	180
Max.Suction Head	M	6.0	6.0
Fuel Tank Capacity	L	B:small fuel tank(3.5L) L:large fuel tank(12.5L)	B:small fuel tank(5.5L) L:large fuel tank(12.5L)
Engine Type		KD178F/FE	KD186FA/FAE
Starting System		F: Recoil start FE:Electric start	FA:Recoil start FAE:Electric start
Engine Type		1-Cylinder,4-Stroke, Air-cooled,Vertical	1-Cylinder,4-Stroke, Air-cooled,Vertical
Broke*Stroke	mm	78*62	86*72
Displacement	L	0.296	0.418
Compression Ratio		20:1	19.5:1
Rated Rotation Speed	rpm	3600	3600
Rated Power	kW	4.0	6.6
Lube Oil Capacity	L	1.10	1.65
Fuel Type		0#(summer),-10#(winter) Diesel oil	0#(summer),-10#(winter) Diesel oil
Lube Type		SAE10W30(above CD grade)	SAE10W30(above CD grade)
Overall Diemension(L*W*H)	mm	570*465*670	655*480*720
Net Weight	kg	47	67

DIESEL WATER PUMP

Technical Data



Cast-iron Water Pump

Model		KDP40CB/CBE/L/LE	KDP50/40CB/CBE/L/LE
Suction/Discharge Port Diameter	mm	40(1.5")	50(2")*40(1.5")
Cont. Capacity	m ³ /h	19	30
Cont. Head	M	70	80
Self-priming Time	s/4m	120	180
Max.Suction Head	M	8.0	8.0
Fuel Tank Capacity	L	B:small fuel tank(2.5L) L:large fuel tank(12.5L)	B:small fuel tank(3.5L) L:large fuel tank(12.5L)
Engine Type		170F/FE	178F/FE
Starting System		F:Recoil start FE:Electric start	F:Recoil start FE:Electric start
Engine Type		1-Cylinder,4-Stroke,Air-cooled,Vertical	1-Cylinder,4-Stroke,Air-cooled,Vertical
Impeller Diameter	mm	160	175
Broke*Stroke	mm	70*55	78*62
Displacement	L	0.211	0.296
Compression Ratio		20:1	20:1
Rated Rotation Speed	rpm	3600	3600
Rated Power	kW	2.8	4.0
Lube Oil Capacity	L	0.75	1.10
Fuel Type		0#(summer),-10#(winter) Diesel oil	0#(summer),-10#(winter) Diesel oil
Lube Type		SAE10W30(above CD grade)	SAE10W30(above CD grade)
Overall Dimension (L*W*H)	mm	570*460*680	570*460*680
Net Weight	kg	65	70

DIESEL WATER PUMP

Technical Data



Cast-iron Water Pump

Model		KDP50CB/CBE/L/LE		KDP80CB/CBE/L/LE		KDP100/80CB/CBE/L/LE	
Suction/Discharge Port Diameter	mm	50(2")	50(2")	80(3")	80(3")	100/80(4"/3")	100/80(4"/3")
Cont. Capacity	m ³ /h	30	35	47	40	90	150
Cont. Head	M	80	92	80	102	60	75
Self-priming Time	s/4m	180	180	180	180	200	200
Max.Suction Head	M	8.0	8.0	8.0	8.0	8.0	8.0
Fuel Tank Capacity	L	B:small fuel tank(3.5L/5.5L) L:large fuel tank(12.5L)		B:small fuel tank(5.5L) L:large fuel tank(12.5L)		B:small fuel tank(5.5L) L:large fuel tank(12.5L)	
Engine Type		178F/FE	186FA/FAE	186FA/FAE	188FA/FAE	186FA/FAE	188FA/FAE
Starting System		F/FA:Recoil start FE/FAE:Electric start		FA:Recoil start FAE:Electric start		FA:Recoil start FAE:Electric start	
Engine Type		1-Cylinder,4-Stroke, Air-cooled,Vertical		1-Cylinder,4-Stroke, Air-cooled,Vertical		1-Cylinder,4-Stroke, Air-cooled,Vertical	
Impeller Diameter	mm	175	198	188	208	150	175
Broke*Stroke	mm	78*62	86*72	86*72	88*75	86*72	88*75
Displacement	L	0.296	0.418	0.418	0.456	0.418	0.456
Compression Ratio		20:1	19.5:1	19.5:1	19.5:1	19.5:1	19.5:1
Rated Rotation Speed	rpm	3600	3600	3600	3600	3600	3600
Rated Power	kW	4.0	6.6	6.6	6.9	6.6	6.9
Lube Oil Capacity	L	1.10	1.65	1.65	1.65	1.65	1.65
Fuel Type		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil		0#(summer),-10#(winter) Diesel oil	
Lube Type		SAE10W30(above CD grade)		SAE10W30(above CD grade)		SAE10W30(above CD grade)	
Overall Dimension (L*W*H)	mm	570*460*680	570*495*720	570*460*720	570*495*720	570*495*720	570*495*720
Net Weight	kg	75	78	80	80	85	85

KDF

SUPER SILENT GENERATOR



New design supper silent generator, silent as the aim of research and design, emphasizes at product comfort to meet requirement of high-end users. The sound level achieves international leading level; which overturns traditional image of Chinese silent diesel generator.



PRODUCT FEATURES



Supper silent

The sound level achieves international leading level; which overturns traditional image of Chinese silent diesel generator.



Super strong structure

New design canopy with thicker base frame to enhance generator structural strength, meanwhile achieve the effect of sound insulation and vibration reduction.



Unique design

New structure design, KOOP brand unique out-looking with red and black color.



U-type air flue design

With new U-type air flue design, all inlet and exhaust air go through it, achieves the effect of sound insulation.



Smooth output

100% copper alternator, class F insulation, high conversion efficiency, smart AVR controller ensures stable voltage and less voltage waveform distortion.

APPLICATION AREA



● Agriculture Machine



● Outdoor Project



● Emergency Power Supply



● Standby Usage



● Vessel and Car

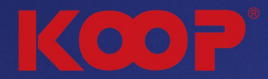


SUPER SILENT GENERATOR

Technical Data



Model		KDF6700QQ(-3)		KDF8500QQ(-3)	
Rated Frequency	Hz	50	60	50	60
Rated Voltage	V	220,230,240,110/220,115/230,120/240, 220/380,230/400,240/415		220,230,240,110/220,115/230,120/240, 220/380,230/400,240/415	
Rated Output Power	kVA	4.2(5.3)	4.5(5.6)	5.5(6.9)	6.0(7.5)
Max Output Power	kVA	4.5(5.6)	5.0(6.3)	6.0(7.5)	6.5(8.1)
Phase Number		1-Phase/3-Phase		1-Phase/3-Phase	
Excitation Mode		Self-excitation,brush		Self-excitation,brush	
Power Factor	Φ	1.0(0.8)		1.0(0.8)	
Insulation Grade		F		F	
Fuel Tank Capacity	L	14.5		14.5	
Noise Level (@7m)	Db	65	66	66	67
Engine Model		KD186FAE		KD192FE	
Starting System		Electric Start		Electric Start	
Engine Type		1-Cylinder,4-Stroke,Air-cooled,Vertical		1-Cylinder,4-Stroke,Air-cooled,Vertical	
Broke*Stroke	mm	86*72		92*75	
Displacement	L	0.418		0.499	
Compression Ratio		19.5:1		19.5:1	
Rated Rotation Speed	rpm	3000	3600	3000	3600
Rated Power	kW	5.8	6.6	7.6	8.6
Lube Oil Capacity	L	1.65		1.65	
Fuel Type		0#(summer),-10#(winter),Diesel oil		0#(summer),-10#(winter),Diesel oil	
Lube Type		SAE10W30(above CD grade)		SAE10W30(above CD grade)	
Low Oil Pressure Alarm System		with		with	
Optional Standard		ATS		ATS	
		Remote control		Remote control	
Overall Dimension (L*W*H)	mm	995*645*890		995*645*890	
Net Weight	kg	207		210	



MULTI-CYLINDER DIESEL GENERATOR



EXCELLENCE.QUALITY.TRUST.

EXCELLENCE.QUALITY.TRUST.

MULTI-CYLINDER DIESEL GENERATOR

Technical Data



50 HZ



Prime kVA	Standby kVA	Prime kW	Standby kW	Diesel Engine	Alternator	Controller	Silent			Open Frame		
							Model	Dimension L*W*H (mm)	Net weight kg	Model	Dimension L*W*H (mm)	Net weight kg
1-Phase (230V,1500RPM,50HZ)							1-Phase			1-Phase		
7.2	8	7.2	8	YD380PD	K164B	HGM4020	KDY8S	1770*860*1160	650	KDY8E	1350*700*950	440
8.6	9.5	8.6	9.5	YD385PD	K164C	HGM4020	KDY10S	1770*860*1160	660	KDY10E	1350*700*950	440
11	12	11	12	YD480PD	K164D	HGM4020	KDY12S	1770*860*1160	680	KDY12E	1350*700*950	450
13	14	13	14	YND485PD	K184E	HGM4020	KDY14S	1890*910*1160	740	KDY14E	1350*700*950	466
15	17	15	17	YSD490PD	K184E	HGM4020	KDY17S	1890*910*1160	790	KDY17E	1500*750*980	550
20	22	20	22	Y495PD	K184G	HGM4020	KDY22S	1890*910*1160	830	KDY22E	1500*750*980	630
25	28	25	28	Y4100PD	K184H	HGM4020	KDY28S	2200*940*1160	980	KDY28E	1650*800*980	735
3-Phase (400/230V,1500RPM,50HZ)							3-Phase			3-Phase		
9	10	7.2	8	YD380PD	K164B	HGM4020	KDY10S3	1770*860*1160	650	KDY10E3	1350*700*950	440
11	12	8.6	9.5	YD385PD	K164B	HGM4020	KDY12S3	1770*860*1160	660	KDY12E3	1350*700*950	440
14	15	11	12	YD480PD	K164C	HGM4020	KDY15S3	1770*860*1160	670	KDY15E3	1350*700*950	455
16	18	13	14	YND485PD	K164D	HGM4020	KDY18S3	1770*860*1160	700	KDY18E3	1350*700*950	470
20	22	16	18	YSD490PD	K184ES	HGM4020	KDY22S3	1890*910*1160	770	KDY22E3	1500*750*980	550
25	28	20	22	Y495PD	K184FS	HGM4020	KDY28S3	1890*910*1160	785	KDY28E3	1500*750*980	550
30	33	24	26	Y4100PD	K184G	HGM4020	KDY33S3	2200*940*1160	980	KDY33E3	1650*800*980	740
37	40	30	32	Y4105PD	K184H	HGM4020	KDY40S3	2200*940*1160	1070	KDY40E3	1650*800*980	830
43	47	34	37	Y4110PD	K224C	HGM4020	KDY47S3	2300*1000*1300	1200	KDY47E3	1800*840*1200	840
50	55	40	44	Y4102ZLD	K224D	HGM4020	KDY55S3	2300*1000*1300	1220	KDY55E3	1800*840*1200	890
60	66	48	53	Y4105ZLD	K224E	HGM4020	KDY66S3	2518*1050*1400	1250	KDY66E3	2100*900*1350	1050
70	77	56	62	YD4E2LD	K224F	HGM4020	KDY77S3	2518*1050*1400	1300	KDY77E3	2100*900*1350	1350
85	94	68	75	Y4110ZLD	K224G	HGM4020	KDY94S3	2518*1050*1400	1380	KDY94E3	2100*900*1350	1350

60 HZ



Prime kVA	Standby kVA	Prime kW	Standby kW	Diesel Engine	Alternator	Controller	Silent			Open Frame		
							Model	Dimension L*W*H (mm)	Net weight kg	Model	Dimension L*W*H (mm)	Net weight kg
1-Phase (240V,1800RPM,60HZ)							1-Phase			1-Phase		
8	8.8	8	8.8	YD380PD	K164B	HGM4020	KDY9S	1770*860*1160	650	KDY9E	1350*700*950	440
10	11	10	11	YD385PD	K164C	HGM4020	KDY11S	1770*860*1160	660	KDY11E	1350*700*950	440
12	13	12	13	YD480PD	K164D	HGM4020	KDY13S	1770*860*1160	680	KDY13E	1350*700*950	450
16	18	16	18	YND485PD	K184E	HGM4020	KDY18S	1890*910*1160	740	KDY18E	1350*700*950	466
20	22	20	22	YSD490PD	K184E	HGM4020	KDY22S	1890*910*1160	770	KDY22E	1500*750*980	550
24	26	24	26	Y495PD	K184G	HGM4020	KDY26S	1890*910*1160	785	KDY26E	1500*750*980	630
28	30	28	30	Y4100PD	K184H	HGM4020	KDY30S	2200*940*1160	980	KDY30E	1650*800*980	735
3-Phase (416/240V,1800RPM,60HZ)							3-Phase			3-Phase		
10	11	8	8.8	YD380PD	K164A	HGM4020	KDY11S3	1770*860*1160	650	KDY11E3	1350*700*950	440
13	14	10	11	YD385PD	K164B	HGM4020	KDY14S3	1770*860*1160	660	KDY14E3	1350*700*950	440
15	17	12	13	YD480PD	K164C	HGM4020	KDY17S3	1770*860*1160	680	KDY17E3	1350*700*950	455
20	22	16	18	YND485PD	K164D	HGM4020	KDY22S3	1770*860*1160	700	KDY22E3	1350*700*950	470
25	28	20	22	YSD490PD	K184ES	HGM4020	KDY28S3	1890*910*1160	770	KDY28E3	1500*750*980	550
30	33	24	26	Y495PD	K184FS	HGM4020	KDY33S3	1890*910*1160	785	KDY33E3	1500*750*980	635
35	39	28	31	Y4100PD	K184F	HGM4020	KDY39S3	2200*940*1160	980	KDY39E3	1650*800*980	740
45	50	36	40	Y4105PD	K184H	HGM4020	KDY50S3	2200*940*1160	1070	KDY50E3	1650*800*980	830
56	62	45	50	Y4102ZLD	K224D	HGM4020	KDY62S3	2518*1050*1400	1250	KDY62E3	1800*840*1200	890
63	69	50	55	Y4105ZLD	K224D	HGM4020	KDY69S3	2518*1050*1400	1300	KDY69E3	2100*900*1350	1050
73	80	58	64	YD4E2LD	K224E	HGM4020	KDY80S3	2518*1050*1400	1380	KDY80E3	2100*900*1350	1350