



PORTABLE PRODUCT SERIES

Diesel Engine Inverter Generator General Generator
Super Silent Generator Water Pump

RAY10 TECHNOLOGY COMPANY LIMITED



PORTABLE PRODUCT SERIES

Welcome to Ray10

We are the manufacturer to make engines more agile and innovative. Ray10 is designed to be an environmentally friendly product. In everything we do, we strive for preciseness and excellence. Our success is measured by your experience.

MAKE POWER FOR LIFE.





Diesel Engine



Single Cylinder Diesel Engine



Diesel Engine		RD170F	RD178F
Type		Single-cylinder, vertical, air-cooled, four-stroke, direct injection	Single-cylinder, vertical, air-cooled, four-stroke, direct injection
Borex Stroke (mm)		70x55	78x62
Displacement	L	0.211	0.296
Compression ratio		20	20
Rated power/Rated speed	kW/r/min	2.5/3000 2.8/3600	3.68/3000 4/3600
The lowest speed at zero load	r/min	<1300	<1300
Lubricating system		Pressure splashed	Pressure splashed
Starting system		Recoil starter or Electric starter	Recoil starter or Electric starter
Rotation direction (face to the output axle)		Anticlockwise	Anticlockwise
Fuel tank capacity	L	2.5	3.5
Fuel consumption	(g/kW.h)/r/min	280.23000 288.3/3600	276.1/3000 285.6/3600
Lube oil type		CD grade or SAE 10W-30, 15W-40	CD grade or SAE 10W-30, 15W-40
Lube oil capacity	L	0.75	1.1
Starting Motor Capacity	V, kW	12V 0.8kW	12V 0.8kW
Charging Generator Capacity	V, A	12V 3A	12V 3A
Accumulator Capacity	V, Ah	12V 24Ah-36Ah	12V 24Ah-36Ah
Overall dimension(LxWxH)	mm	335x380x415	385x420x450
Dry weight	kg	<27	<33

Single-Cylinder Diesel Engine



Diesel Engine		RD186F	RD186FA	RD192F
Type		Single-cylinder, vertical, air-cooled, four-stroke, direct injection	Single-cylinder, vertical, air-cooled, four-stroke, direct injection	Single-cylinder, vertical, air-cooled, four-stroke, direct injection
Borex Stroke (mm)		86x70	86x72	92x75
Displacement	L	0.406	0.418	0.499
Compression ratio		19	19	19.5
Rated power/Rated speed	kW/r/min	5.70/3000 6.3/3600	5.70/3000 6.3/3600	7.60/3000 8.6/3600
The lowest speed at zero load	r/min	1300	1300	1300
Lubricating system		Pressure splashed	Pressure splashed	Pressure splashed
Starting system		Recoil starter or Electric starter	Recoil starter or Electric starter	Recoil starter or Electric starter
Rotation direction (face to the output axle)		Anticlockwise	Anticlockwise	Anticlockwise
Fuel tank capacity	L	5.5	5.5	5.5
Fuel consumption	(g/kW.h)/r/min	275.1/3000 281.5/3600	275.1/3000 281.5/3600	260/3000 270/3600
Lube oil type		CD grade or SAE 10W-30, 15W-40	CD grade or SAE 10W-30, 15W-40	CD grade or SAE 10W-30, 15W-40
Lube oil capacity	L	1.65	1.65	1.65
Starting Motor Capacity	V, kW	12V 0.8kW	12V 0.8kW	12V 1.2kW
Charging Generator Capacity	V, A	12V 3A	12V 3A	12V 3A
Accumulator Capacity	V, Ah	Above 12V 36Ah	Above 12V 36Ah	Above 12V 36Ah
Overall dimension(LxWxH)	mm	420x440x495	420x440x495	417x444x494
Dry weight	kg	< 47	< 47	< 50

Two-Cylinder Diesel Engine



Diesel Engine		RD2V80	RD292F
Type		V-twin, water-cooled, four-stroke	V-twin, air-cooled, four-stroke
Borex Stroke (mm)		80x79	92x75
Displacement	L	0.794	0.997
Compression ratio		23	19
Rated power/Rated speed	kW/r/min	12.5/3000, 14.5/3600	14/3000 15/3600
Lowest rotation speed at zero load	r/min	< 900	< 1000
Lubricating system		Pressure splashed	Pressure splashed
Starting system		Electric starter	Electric starter
Rotation direction ((face to the output axle)		Anticlockwise	Anticlockwise
Fuel type		0#,-10#,-20# diesel	0#,-10#,-20# diesel
Fuel consumption	(g/kW.h)/r/min	285/3000, 297/3600	260/3000 277/3600
Lube oil type		CD grade or SAE 10W-30, 15W-40	CD grade or SAE 10W-30, 15W-40
Lube oil capacity	L	2.27	2.75
Starting Motor Capacity	V, kW	12V 1.4kW	12V 1.4kW
Charging Generator Capacity	V, A	12V 20A	12V 20A
Battery capacity	V, Ah	12V 60Ah	12V 60Ah
Overall dimension(LxWxH)	mm	616x486x528	485x460x580
Dry weight	kg	57.5	85



Inverter Generator



Inverter Generator sets



Generating set		RIG1000		RIG2000	
Rated frequency	Hz	50	60	50	60
Rated power	kVA	0.9		1.8	
Max. power	kVA	1.0		2.0	
Rated voltage	V	230	120/240	230	120/240
Rated current	A	3.9	7.5/3.75	7.8	15/7.5
Rated rotation speed	r/min	5500		4500	
DC output		12V-5.0A		12V-5.0A	
Power factor	COSΦ	1		1	
Phase number		Single phase		Single phase	
Engine					
Engine type		RG144		RG160	
Structure type		Single cylinder, 4-stroke, air cooled, overhead valve		Single cylinder, 4-stroke, air cooled, overhead camshaft	
Bore×stroke	mm	43.5×35.8		60×40	
Displacement	L	0.532		0.113	
Compression ratio		7.6		9.1	
Rated power	kW/(r/min)	1.35/5500		2.3/5000	
Lube oil brand		Above SF SAE 10W-30、15W-40		Above SF SAE 10W-30、15W-40	
Lube capacity	L	0.2		0.4	
Ignition system		T.C.I		T.C.I	
Spark plug		CR7HSA		CR7HSA	
Starting system		Recoil starter		Recoil starter	
Fuel type		Vehicle lead-free petrol		Vehicle lead-free petrol	
Lowest fuel consumption(g/KW.h)	g/kW.h	480		400	
Genset					
Fuel consumption	g/kW.h	550		550	
Fuel tank capacity	L	2.6		3.7	
Continuous running time(hr)(rated output)	h	3.8		3	
Noise(unload-full load)	dB(A)/7m	54—59		61—73	
Overall dimensions	mm	460×259×395		530×290×425	
Net weight	kg	14		22	
Structure type		Portable, silent		Portable, silent	

Inverter Generator sets



Generating set		RIG3000		RIG6000	
Rated frequency	Hz	50	60	50	60
Prime power	kVA	2.8		5.5	
Standby power	kVA	3		6	
Rated voltage	V	230	120/240	230	120/240
Rated current	A	12.2	23.3/11.7	23.9	45.8/22.9
Rated rotation speed	r/min	3600		3600	
DC output		12V-5.0A		12V-5.0A	
Power factor	COS ϕ	1		1	
Phase number		Single phase		Single phase	
Engine					
Engine type		RG205GETI		RG390GETI	
Structure type		Single-cylinder, 4 stroke,air cooled, overhead valve		Single-cylinder, 4 stroke,air cooled, overhead valve	
Bore×stroke	mm	68×54		88×64	
Displacement	L	0.196		0.389	
Compression ratio		8.5 : 1		8.5 : 1	
Rated power	kW/(r/min)	4/3600		7.7/3600	
Lube capacity	L	0.6		1.1	
Ignition system		T.C.I		T.C.I	
Spark plug		WR7DC		WR7DC	
Starting system		Recoil starter,electric system		Electric system	
Battery capacity		12V – 8Ah		12V – 11Ah	
Fuel type		Vehicle lead-free petrol		Vehicle lead-free petrol	
Lowest fuel consumption(g/KW.h)	g/kW.h	395		374	
Genset					
Fuel consumption	g/kW.h	500		500	
Fuel tank capacity	L	13		22	
Continuous running time(hr)(rated output)	h	6.7		6	
Noise(unload-full load)	dB(A)/7m	63-73		65-75	
Overall dimensions	mm	685×430×495		802×495×655	
Net weight	kg	57		96.5	



General Generator



Diesel Generator Sets



Generator set		RDE6500E		RDE6500E3	
Rated frequency	Hz	50	60	50	60
Rated power	kVA	4.5	5.0	5.5	6.3
Max. power	kVA	5.0	5.5	6.0	7.0
Rated voltage	V	115/230	120/240	400/230	416/240
Rated current	A	39.1/19.6	41.7/20.8	7.9	8.7
Rated rotation speed	r/min	3000	3600	3000	3600
Generator					
Pole No.		2		2	
Phase number		Single phase		Three phase	
Excitation mode		Self-exciation and constant voltage(with IAVR)		Self-exciation and constant voltage(with IAVR)	
Power factor	COSΦ	1.0		0.8(lag)	
Insulation grade		F		F	
Engine					
Engine type		RD186FAG		RD186FAG	
Structure type		Single-cylinder, vertical, 4-stroke, air-cooled, direct-injected		Single-cylinder, vertical, 4-stroke, air-cooled, direct-injected	
Bore x stroke	mm	86x72		86x72	
Displacement	L	0.418		0.418	
Compression ratio		19:1		19:1	
Rated power	kW	5.7	6.3	5.7	6.3
Lubrication system		Pressure splashed		Pressure splashed	
Lube oil brand		Above CD or SAE 10W-30, 15W-40		Above CD or SAE 10W-30, 15W-40	
Lube capacity	L	1.65		1.65	
Starting system		12V Electric starter		12V Electric starter	
Charging generator capacity	V-Ah	12V 36Ah		12V 36Ah	
Fuel consumption ratio	g/kW.h	260.8	265.7	260.8	265.7
Fuel type		Diesel : 0# (summer), -10# (winter), -35# (chillness)		Diesel : 0# (summer), -10# (winter), -35# (chillness)	
Genset					
Panel type		General panel		General panel	
Output	Receptacle	2-Single phase		1-Single phase,1-three phase	
	Connection pole	without		without	
Nosie level(7m)	dB(A)	77		78	
Fue tank capacity	L	13.5		13.5	
Overall dimensions	mm	720x492x655		720x492x655	
Net weight	kg	100		100	

Diesel Generator Sets



Generator set		RDE6500T		RDE6500T3	
Rated frequency	Hz	50	60	50	60
Rated power	kVA	4.5	5.0	5.5	6.3
Max. power	kVA	5.0	5.5	6.0	7.0
Rated voltage	V	115/230	120/240	400/230	416/240
Rated current	A	39.1/19.6	41.7/20.8	7.9	8.7
Rated rotation speed	r/min	3000	3600	3000	3600
Generator					
Pole No.		2		2	
Phase number		Single phase		Three phase	
Excitation mode		Self-exciation and constant voltage(with IAVR)		Self-exciation and constant voltage(with IAVR)	
Power factor	COSΦ	1.0		0.8(lag)	
Insulation grade		F		F	
Engine					
Engine type		RD186FAGET		RD186FAGET	
Structure type		Single-cylinder, vertical, 4-stroke, air-cooled, direct-injected		Single-cylinder, vertical, 4-stroke, air-cooled, direct-injected	
Bore x stroke	mm	86x72		86x72	
Displacement	L	0.418		0.418	
Compression ratio		19 : 1		19 : 1	
Rated power	kW	5.7	6.3	5.7	6.3
Lubrication system		Pressure splashed		Pressure splashed	
Lube oil brand		Above CD or SAE 10W-30, 15W-40		Above CD or SAE 10W-30, 15W-40	
Lube capacity	L	1.65		1.65	
Starting system		12V Electric starter		12V Electric starter	
Charging generator capacity	V-Ah	12V 36Ah		12V 36Ah	
Fuel consumption ratio	g/kW.h	260.8	265.7	260.8	265.7
Fuel type		Diesel : 0# (summer), -10# (winter), -35# (chillness)		Diesel : 0# (summer), -10# (winter), -35# (chillness)	
Genset					
Panel type		General panel		General panel	
Output	Receptacle	2-Single phase		1-Single phase,1-three phase	
	Connection pole	without		without	
Nosie level(7m)	dB(A)	72		72	
Fue tank capacity	L	15		15	
Overall dimensions	mm	910x530x740		910x530x740	
Net weight	kg	145		148	

Diesel Generator Sets



Generator set		RDE15000EA		RDE15000EA3	
Rated frequency	Hz	50	60	50	60
Rated power	kVA	9.0	10	11.25	12.5
Max. power	kVA	10	11	12.5	13.75
Rated voltage	V	115/230	120/240	400/230	416/240
Rated current	A	78.2/39	83.3/41.6	16.3	17.4
Rated rotation speed	r/min	3000	3600	3000	3600
Generator					
Pole No.		2		2	
Phase number		Single phase		Three phase	
Excitation mode		Self-exciation and constant voltage(with iAVR)		Self-exciation and constant voltage(with iAVR)	
Power factor	COSΦ	1.0		0.8(lag)	
Insulation grade		B		B	
Engine					
Engine type		WS2V88A		WS2V88A	
Structure type		V-twin, four stroke, direct injection, air cooling		V-twin, four stroke, direct injection, air cooling	
Bore x stroke	mm	88x72		88x72	
Displacement	L	0.87		0.87	
Compression ratio		19 : 1		19 : 1	
Rated power	kW	13	14	13	14
Lubrication system		Pressure splashed		Pressure splashed	
Lube oil brand		Above CD or SAE 10W-30, 15W-40		Above CD or SAE 10W-30, 15W-40	
Lube capacity	L	2.3		2.3	
Starting system		12V Electric starter		12V Electric starter	
Charging generator capacity	V-Ah	12V 36Ah		12V 36Ah	
Fuel consumption ratio	g/kW.h	270	280	270	280
Fuel type		Diesel : 0# (summer), -10# (winter), -35# (chillness)		Diesel : 0# (summer), -10# (winter), -35# (chillness)	
Genset					
Panel type		Smartgen		Smartgen	
Output	Receptacle	2-Single phase		2-Single phase	
	Connection pole	with		with	
Nosie level(7m)	dB(A)	85		85	
Fue tank capacity	L	25		25	
Overall dimensions	mm	930x600x650		930x600x650	
Net weight	kg	185		185	

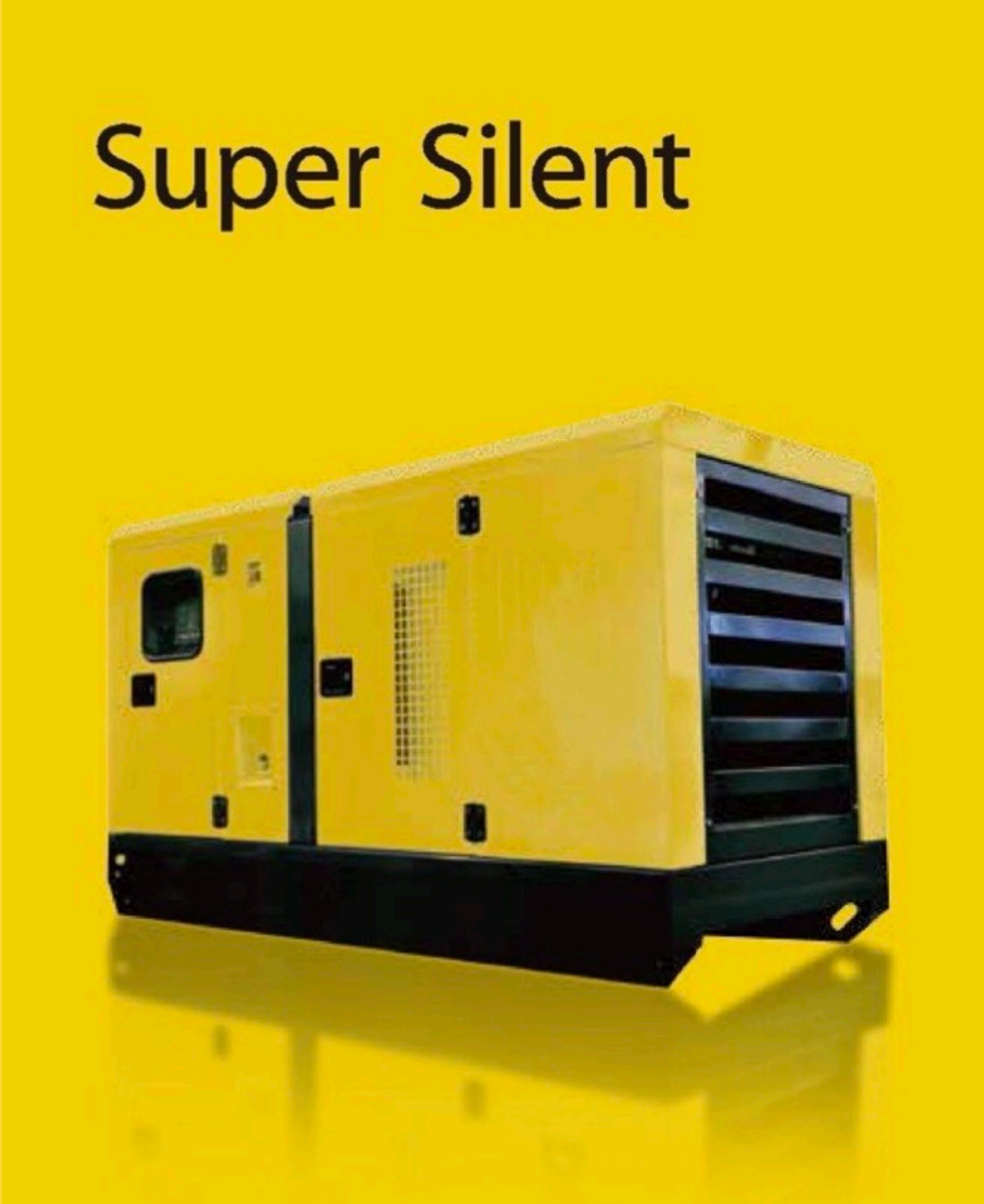
Diesel Generator Sets



Generator set		RDE7000STA		RDE7000STA3		RDE12STA	
Rated frequency	Hz	50	60	50	60	50	60
Rated power	kVA	4.2	4.6	5.25	5.75	8.5	9.0
Max. power	kVA	4.6	5.0	5.75	6.25	9.5	10
Rated voltage	V	115/230	120/240	400/230	416/240	115/230	120/240
Rated current	A	36.5/18.3	38.3/19.2	7.6	8.0	73.9/37	75/37.5
Rated rotation speed	r/min	3000	3600	3000	3600	3000	3600
Generator							
Pole No.		2		2		2	
Phase number		Single phase		Three phase		Single phase	
Excitation mode		Self-exciation and constant voltage(with IAVR)				Self-exciation and constant voltage(with AVR)	
Power factor	COSΦ	1.0		0.8(lag)		1.0	
Insulation grade		B		B		B	
Engine							
Engine type		RD186FAGET-1		RD186FAGET-1		RD2V80G	
Structure type		Single-cylinder, vertical, 4-stroke, air-cooled, direct-injected		Single-cylinder, vertical, 4-stroke, air-cooled, direct-injected		V-twin, 4-stroke, water-cooled	
Bore x stroke	mm	86x72		86x72		80x79	
Displacement	L	0.418		0.418		0.794	
Compression ratio		19:1		19:1		23:1	
Rated power	kW	5.7	6.3	5.7	6.3	12.5	14.5
Lubrication system		Pressure splashed		Pressure splashed		Pressure splashed	
Lube oil brand		Above CD or SAE 10W-30, 15W-40		Above CD or SAE 10W-30, 15W-40		Above CD or SAE 10W-30, 15W-40	
Lube capacity	L	1.65		1.65		2.27	
Starting system		12V Electric starter		12V Electric starter		12V Electric starter	
Charging generator capacity	V-Ah	12V 36Ah		12V 36Ah		12V 36Ah	
Fuel consumption ratio	g/kW.h	260.8	265.7	260.8	265.7	285	197
Fuel type		Diesel : 0# (summer), -10# (winter), -35# (chillness)					
Genset							
Panel type		Smartgen		Smartgen		Smartgen	
Output	Receptacle	2-Single phase		1-Single phase,1-three phase		2-Single phase	
	Connection pole	without		without		with	
Nosie level(7m)	dB(A)	66		66		72	
Fue tank capacity	L	15		15		26	
Overall dimensions	mm	870x645x710		870x645x710		1350x650x760	
Net weight	kg	175		175		310	



Super Silent



Diesel Generator Sets



Generator set		RDE18S3		RDE25S3		
Generator set	Rated frequency	Hz	50	60	50	60
	Prime power	kVA	15	17.5	20	25
		kW	12	14	16	20
	Standby power	kVA	17	21	22.5	30
		kW	13	15.4	18	24
	Rated voltage	V	400/230	416/240	400/230	416/240
	Rated current	A	21.7	24.3	29.0	34.7
	Rated rotation speed	r/min	1500	1800	1500	1800
Control panel		Smartgen		Smartgen		
Generator	Generator manufacturer		Xingnuo		Xingnuo	
	Generator type		XN162E	XN162F	XN162G	
	Pole No.		4		4	
	Excitation mode		Brushless, self-excitation and constant voltage (with AVR)		Brushless, self-excitation and constant voltage (with AVR)	
	Power factor	COSΦ	0.8(lag)		0.8(lag)	
	Insulation grade		H		H	
	Engine manufacturer		FAWDE		FAWDE	
	Engine type		4DW81-23D 4DW81-28D		4DW81-29D 4DW81-38D	
Engine	Rated power	kW	19	22	21	31
	Structure type		4-cylinder,in-lined,4-stroke,water-cooled		4-cylinder,in-lined,4-stroke,water-cooled	
	Bore x stroke	mm	85x95		90x100	
	Displacement	L	2.16		2.54	
	Compression ratio		17:1		17:1	
	Lubricating system		Pressure splashed		Pressure splashed	
	Lube oil brand		Above CD grade or SAE 10W-30,15W-40		Above CD grade or SAE 10W-30,15W-40	
	Fuel type		Diesel : 0# (summer), -10# (winter), -35# (chillness)		Diesel : 0# (summer), -10# (winter), -35# (chillness)	
Engine fuel consumption	g/kW.h	240		240		
Starting system		12V Electric starter		12V Electric starter		
Starting motor capacity		12V 3.5kW		12V 3.5kW		
Charging generator capacity		54A 14V		54A 14V		

Diesel Generator Sets



Generator set		RDE30S3		RDE38S3		
Generator set	Rated frequency	Hz	50	60	50	60
	Prime power	kVA	25	31	30	37.5
		kW	20	25	24	30
	Standby power	kVA	28	34	32.5	41
		kW	22	27.5	26	33
	Rated voltage	V	400/230	416/240	400/230	416/240
	Rated current	A	36.2	43.1	43.5	52.1
	Rated rotation speed	r/min	1500	1800	1500	1800
Control panel		Smartgen		Smartgen		
Generator	Generator manufacturer	Xingnuo		Xingnuo		
	Generator type	XN184F	XN184G	XN182H	XN182K	
	Pole No.	4		4		
	Excitation mode	Brushless, self-excitation and constant voltage (with AVR)		Brushless, self-excitation and constant voltage (with AVR)		
	Power factor	COSΦ	0.8(lag)		0.8(lag)	
	Insulation grade		H		H	
Engine	Engine manufacturer	FAWDE		FAWDE		
	Engine type	4DW92-35D 4DW92-42D		4DX21-45D 4DX21-53D		
	Rated power	kW	26	34	33	35
	Structure type		4-cylinder,in-lined,4-stroke,water-cooled,turbocharger		4-cylinder,in-lined,4-stroke,water-cooled	
	Bore x stroke	mm	90×100		102×118	
	Displacement	L	2.54		3.86	
	Compression ratio		17:1		17:1	
	Lubricating system		Pressure splashed		Pressure splashed	
	Lube oil brand		Above CD grade or SAE 10W-30,15W-40		Above CD grade or SAE 10W-30,15W-40	
	Fuel type		Diesel : 0# (summer), -10# (winter), -35# (chillness)		Diesel : 0# (summer), -10# (winter), -35# (chillness)	
	Engine fuel consumption	g/kW.h	230		230	
	Starting system		12V Electric starter		24V Electric starter	
	Starting motor capacity		12V 3.5kW		24V 4.5kW	
Charging generator capacity		54A 14V		35A 28V		

Diesel Generator Sets



Generator set		RDE44S3		RDE80S3		RDE110S3		
Generator set	Rated frequency	Hz	50	60	50	60	50	60
	Prime power	kVA	40	43.5	67.5	81	100	106
		kW	32	34	54	65	80	85
	Standby power	kVA	43.75	46.75	73.5	89	110	116.5
		kW	35	37.4	59	71.5	88	93.5
	Rated voltage	V	400/230	416/240	400/230	416/240	400/230	416/240
	Rated current	A	58.0	60.4	97.8	112.5	144.9	147.2
	Rated rotation speed	r/min	1500	1800	1500	1800	1500	1800
Control panel		Smartgen		Smartgen		Smartgen		
Generator	Generator manufacturer		Xingnuo		Xingnuo		Xingnuo	
	Generator type		XN224C		XN224F	XN224G	XN274C	XN274D
	Pole No.		4		4		4	
	Excitation mode		Brushless, self-excitation and constant voltage (with AVR)		Brushless, self-excitation and constant voltage (with AVR)		Brushless, self-excitation and constant voltage (with AVR)	
	Power factor	COSΦ	0.8(lag)		0.8(lag)		0.8(lag)	
	Insulation grade		H		H		H	
	Engine manufacturer		FAWDE		FAWDE		FAWDE	
	Engine type		4DX22-50D	4DX22-60D	CA4110/125Z-09D	CA4110/125Z-11D	CA6DF2D-14D	CA6DF2D-16D
Rated power	kW	37	43	65	77	96	112	
Structure type		4-cylinder,in-lined, 4-stroke,water-cooled,turbocharger		4-cylinder,in-lined, 4-stroke,water-cooled,turbocharger		4-cylinder,in-lined, 4-stroke,water-cooled,turbocharger		
Bore x stroke	mm	102×118		110×125		110×115		
Displacement	L	3.86		4.75		6.55		
Engine	Compression ratio		17:1		17:1		17:1	
	Lubricating system		Pressure splashed		Pressure splashed		Pressure splashed	
	Lube oil brand		Above CD grade or SAE 10W-30,15W-40		Above CD grade or SAE 10W-30,15W-40		Above CD grade or SAE 10W-30,15W-40	
	Fuel type		Diesel : 0# (summer), -10# (winter), -35# (chillness)			Diesel : 0# (summer), -10# (winter), -35# (chillness)		
	Engine fuel consumption	g/kW.h	220		215		202	
	Starting system		24V Electric starter		24V Electric starter		24V Electric starter	
	Starting motor capacity		24V 4.5kW		24V 5kW		24V 6.2kW	
	Charging generator capacity		35A 28V		45A 28V		55A 28V	



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