

3C1102/A (Marine Propulsion, NA) technical parameters

NO.	Items	Specifications
1	Engine model	3C1102/A
2	Engine type	Vertical, In-line, Water Cooled, Four Stroke
3	Induction System	Naturally Aspirated
4	Combustion type	IDI
5	Cylinder NO.Bore(mm)×Stroke(mm)	3-76×78.4
6	Combustion Chamber	Direct injection, "ω" combustion chamber
7	Valve per cylinder	2
8	Displacement (L)	1.067
9	Compression ratio	24: 1
10	(L×W×H) mm	597×446×565 (with belt guard)
11	Dry Weight kg	120 (with belt guard)
12	Lubricating system	Pressure and splash lubrication
13	Cooling system	Internal circle water pump + External seawater pump and heat exchanger system
14	Start type	Starting motor 12V 1.4kw
15	Alternator	14V 40A
16	Fuel system	Stanadyne + pintle nozzle
17	Oil capacity L	3.8L (short oil pan)
18	Firing order	1-2-3
19	Crank Rotation	CCW (from flywheel)
20	Speed@Rated power r/min	17.5/3000
21	Torque/speed N.m/r/min	65/2200
22	Minimum fuel consumption(g/kW · h)	275
23	Oil consumption rate (g/kW · h)	≤0.2
24	The related speed drop range %	≥5.5
25	Speed drop %	≤10
26	Minimum adjustable no-load speed (r/min)	1500
27	Maximum allowable inlet resistance kPa	2
28	Maximum allowable exhaust pressure kPa	5
29	Smoke intensity of standard operating condition FSN	≤3.5
30	Noise Limit Lp dB(A) (bared engine) (1M)	≤95
31	Fuel type	Summer: a product 0#、10# light diesel fuel, Winter: a product 0#、-10# -20#、-35# light diesel fuel.
32	Oil type	Summer:15W/40CF Winter:0W/30CF
33	Battery Type	Common region: Battery capacity(Ah) ≥60: Cold starting current (A) 400 Plateau or alpine region: Battery capacity(Ah) ≥80: Cold starting current (A) 450
34	Ambient temperature	≤ -5°C start within 3 times, need to use heating plug

3C11G Series (Stage III) Marine (Auxiliary engine) technical parameters table

No.	Item	specification		
		3C11G3-4	3C11G2-4	3C11G0-4
1	Model	3C11G3-4	3C11G2-4	3C11G0-4
2	Type	Vertical、in-line、water cool、4 stroke		
3	Induction type	NA		
4	Combustion chamber	IDI		
5	Cylinder No.-Bore(mm)×Stroke(mm)	3-76×78.4		
6	Valve per cylinder	2		
7	Displacement L	1.067		
8	Compress ratio	24:1		
9	Dry Weight kg	120		
10	Dimension (L×W×H) mm	587.3x443x565		
11	Lubriacting system	Splash and pressure		
12	Start type	E-start		
13	Cooling type	Internal circulation pump and external circulation sea water pump heat exchanger		
14	Speed governor	E-governor		
15	Oil capacity(L)	3.7L		
16	Fire orde	1—2—3		
17	Crankshaft direction	Anticlockwise(face the fly wheel)		
18	Prime power(kW)/Speed (r/min)	8.3/1500	10.1/1800	16.9/3000
19	Standby power(kW)/Speed (r/min)	9.1/1500	11.1/1800	18.6/3000
20	BSFC(g/kW·h)	≤305		
21	Oil consumption(g/kW·h)	≤0.4		
22	Min adjustable no-load speed(r/min)	850-950		
23	Fuel type	Summer: a product 0#、10#light diesel oil, Winter: a product 0#、-10# -20#、-35# light diesel oil		
24	Oil type	Summer: 15W/40CF Winter:0W/30CF		
25	Speed drop %	≤5		
26	Relative speed drop range %	≥5.5		
27	Relative speed rise range %	≥2.5		
28	Steady-state rate volatility %	≤0.5		
29	(Under the rated speed)Instantaneous speed variation %	100%Reduce the power suddenly	≤+10	
		Increase the power suddenly	≤-7	
30	Speed recovery time s	≤3		
31	Maximum allowable inlet resistance kPa	2		
32	Maximum allowable exhaust pressure kPa	5		
33	Smoke intensity of standard operating condition FSN	≤3.5		
34	Noise limit L_p dB(A)(Bare) (1m)	≤94		
35	Starter power kW	1.2		
36	Alternator kW	0.5(40A)		
37	Voltage V	12		
38	Battery type	Recomend 6-QW-120(740)		
39	Emission	Stage III		
RemarkAs technology advances, the above parameters will continue to improve the parameters of theupdate.				

3C11G/A series engine (EU Stage III A/ Marine Auxiliary) technical parameters

NO.	Item	technical parameters		
1	engine model	3C11G1/A	3C11G2/A	3C11G3/A
2	engine type	In line 3 and 4 stroke、 water cooled		
3	Intake air system	Natural Aspiration		
4	combustion type	IDI		
5	Bore×Stroke(mm)	76×78.3		
6	valve per cylinder	2		
7	Displacement (L)	1.067		
8	Compression ratio	24: 1		
9	Dimension (L×W×H) mm	778×454×706 (With belt guard)		
10	Dry Weight kg	125 (With belt guard)		
11	Lubricating system	pressure and splash lubrication		
12	Cooling system	Forced water cooling closed cycle + sea water pump heat exchange system		
13	Start type	Starting motor 12V 1.2kw		
14	Alternator	14V 40A		
15	FIE system	stanadyne+pintle nozzle		
15	Oil capacity L	3.8		
16	Fire order	1—2—3		
17	Crank Rotation	CCW (from flywheel)		
18	Speed r/min @Rated power r/min	17.5/3000	11.1/1800	9.1/1500
19	Fuel consumption rate(g/kW·h)	≤285		
20	Oil consumption rate (g/kW·h)	≤0.2		
21	Speed drop %	≤5		
22	The related speed drop range %	≥5.5		
23	The related speed rise range %	≥2.5		
24	(Under the rated speed)Instantaneous speed variation %	100% Reduce the power suddenly	≤+10	
25		Increase the power suddenly	≤-7	
26	Speed recovery time s	≤3		
27	Maximum allowable inlet resistance kPa	2		
28	Maximum allowable exhaust pressure kPa	5		
29	Smoke intensity of standard operating condition FSN	≤3.5		
30	Nosie limit $L_{pdB}(A)$ (bare engine) (1 米)	≤94		
31	Fuel type	Summer: a product 0#, 10#light diesel oil, Winter: a product 0#, -10# -20#, -35# light diesel oil.		
32	Oil type	Summer:15W/40CF Winter:0W/30CF		
33	Battery Type	Common region: Battery capacity(Ah) ≥60; Cold starting current (A) 400 Plateau or alpine region: Battery capacity(Ah) ≥80; Cold starting current (A) 450		

No.	ITEM	Specification		
1	Engine mode	3D11G3-4	3D11G1-4	3D11G0-4
2	Engine type	Vertical, In line, 4 stroke, water cooled		
3	Induction System	NA		
4	Combustion Chamber	IDI		
5	Cylinder NO. - Bore × Stroke(mm)	3-76×78.4		
6	Valve NO. per cylinder	2		
7	Displacement L	1.067		
8	Compression ratio	24:1		
9	Dry weight kg	120		
10	Dimensions (L×W×H) mm	587.3×443×565(without belt guard)		
11	Lubricating system	Splash and pressure		
12	Start method	Electronic start		
13	Cooling type	Forced water cooling+Sea water pump heat exchanger system		
14	Speed governor type	E-Governor		
15	Oil capacity(L)	3.8L		
16	Fire order	1—2—3		
17	Crank rotation	CCW(Facing the flywheel)		
18	Prime power(kW)/Speed (r/min)	3.3/1500	10.1/1800	16.9/3000
19	Stand-by power(kW)/speed (r/min)	9.1/1500	11.1/1800	18.6/3000
20	External characteristics Minimum fuel consumption(g·kW·h)	≤280		
21	Oil consumption(g·kW·h)	≤0.2		
22	Fuel type	Summer: a product 0#,10#, light diesel, Winter: a product 0#, -10#,-20#, -35#light diesel		
23	Oil type	It is recommended to use a special engine oil with a quality grade of CF-4		
24	Speed drop %	≤1		
25	The related speed drop range %	≥5.5		
26	The related speed rise range %	≥2.5		
27	Steady-state rate volatility %	≤0.5		
29	(Under the rated speed)Instantaneous speed variation %	100% Reduce the power suddenly	≤+10	
		Increase the power suddenly	≤ - 7	
30	Speed recovery time s	≤3		
31	Maximum allowable inlet resistance kPa	2		
32	Maximum allowable exhaust pressure kPa	5		
33	Smoke intensity of standard operating condition FSN	≤3.5		
34	dB(A) (bare) (1 米)	≤94		
35	Starter power kW	1.4		
36	Alternator kW	0.5(40A)		
37	Voltage V	12		
38	Battery type	Recommand 6-QW-120(740)		
39	Emitting level	National IV/CCS/ZC		
40	Applicable altitude m	≤2000		

Remark: As technology advances, the above parameters will continue to improve the parameters of theupdate.

3M16G Series Marine Auxiliary Engines technical parameters

NO.	ITEM	Technical parameters	
1	Engine model	3M16G3/F	3M16G1/F
2	Engine type	Vertical, In line 3 cylinder and 4 stroke, water cooled	
3	Intake air system	Natural Aspiration	
4	combustion type	DI/ ω type	
5	Cylinder no.- Bore \times Stroke (mm)	3-88 \times 90	
6	Valve per cylinder	2	
7	Displacement (L)	1.64	
8	Compression ratio	18.2: 1	
9	Dry weight kg	150	
10	Dimensions (L \times W \times H) mm	664 \times 535 \times 675	
11	Lubricating system	pressure and splash lubrication	
12	Start type	Starting motor 12V 1.8kw	
13	Cooling system	Closed internal circulation pump + external circulation sea water pump heat exchange system	
14	Speed control system	Mechanical speed regulation	
15	Alternator	14V 50A	
16	FIE system	STANADYNE Rotary pump	
17	Oil capacity (L)	6.5	
18	Coolant capacity (L)	4.5	
19	Preheat method	Air intake preheating	
20	Fire order	1—3—2	
21	Crank Rotation	CCW (from flywheel)	
22	Rated power(kW)/Speed(r/min)	15/1500	24/3000
23	Min. fuel consumption (g/kW·h)	≤ 245	
24	Oil consumption (g/kW·h)	≤ 0.2	
25	Fuel type	Summer: GB 252-2000 or 0#,10# light diesel oil Winter: GB 252-2000 or 0#,-10#,-20#,-35#light diesel oil	
26	Oil type	Yuchai grade CF-4	
27	Governor regulation %	≤ 5	
28	The related speed drop range%	≥ 5.5	
29	The related speed rise range%	≥ 2.5	
30	Steady-state rate volatility %	≤ 0.5	
31	(Under the rated speed) Instantaneous speed variation %	100% Reduce the power suddenly	$\leq +10$
32		Increase the power suddenly	≤ -7
33	Speed recovery time (S)	≤ 3	
34	Maximum allowable inlet resistance(kPa)	2.1	
35	Maximum allowable exhaust pressure(kPa)	7.2	
36	Smoke intensity of standard operating condition FSN	≤ 3.5	
37	System voltage (V)	12	
38	Emission level	Non Regulated	

4D24G Series Marine power engine Main technical parameters

No.	Item	specification				
1	Model	4D24G0	4D24G1	4D24G3	4D24G7	4D24G6
2	Type	Vertical, in-line, water cool, 4 stroke				
3	Induction system	NA				
4	Combustion chamber	DI/ω				
5	Cylinder No. Bore(mm)×Stroke(mm)	4-87×103				
6	Valve per cylinder	2				
7	Displacement L	2.45				
8	Compress ratio	19:1				
9	Dry weight kg	255				
10	Dimension (L×W×H) mm	679×596×682 (not include cover and Sea water exhaust manifold)				
11	Lubrication system	Pressure and lubrication				
12	Start model	E-start				
13	Speed governor	E-Governor				
14	Fuel system	VP				
15	Oil capacity(L)	9.5L				
16	Fire order	1—3—4—2				
17	Crankshaft direction	CCW(face the fly wheel)				
18	Prime power(kW)/Speed (r/min)	33.5/3000	27/1800	22/1800	23/1500	18.5/1500
19	Min. Fuel consumption(g/kW·h)	≤252	≤232	≤232	≤232	≤232
20	Oil consumption(g/kW·h)	≤0.2	≤0.2	≤0.2	≤0.2	≤0.2
21	Min. Adjustable no-load speed(r/min)	/	/	/	/	/
22	Fuel type	Summer: a product 0#,10#, light diesel Winter: a product 0#, -10#-20#, -35#light diesel				
23	Oil type	It is recommended to use a special engine oil with a quality grade of CF-4				
24	Speed drop %	≤1				
25	Relative speed drop range %	≥5.5				
26	Relative speed rise range %	≥2.5				
27	Steady-state rate volatility %	≤0.5				
28	(Under the rated speed)Instantaneous speed variation %	100% Reduce the power suddenly	≤+10			
		Increase the power suddenly	≤-7			
29	Speed recovery time s	≤3				
30	Maximum allowable inlet resistance kPa	5				
31	Maximum allowable exhaust pressure kPa	10				
32	Smoke intensity of standard operating condition FSN	≤3				
33	Noise limit Lp dB(A) (Bare) (1米)	≤92				

Remark: As technology advances, the above parameters will continue to improve the parameters of the update.

4D24G/A Series Engines(Marine Auxiliary) technical parameters

S/ N	Items	Specifications			
1	Model	4D24G1/A	4D24G2/A	4D24G3/A	4D24G4/A
2	Type	Vertical, In line, 4 stroke, water cooled			
3	Induction System	NA			
4	Combustion Chamber	DI/ ω			
5	Cylinder NO. - Bore \times Stroke(mm)	4-87 \times 103			
6	Valve NO. per cylinder	2			
7	Displacement (L)	2.45			
8	Compression ratio	19:1			
9	Weight kg	255 (With belt guard)			
10	Dimensions (mm)	702 \times 596 \times 682 (With belt guard)			
11	Lubricating system	Splash and pressure			
12	Cooling type	Forced water cooling+Sea water pump heat exchanger system			
13	Start method	Electronic start			
14	Speed governor type	Mechanical			
15	Fuel System	Stanadyne DB Pump			
16	Oil capacity(L)	9.5L			
17	Firing order	1—3—4—2			
18	Direction of rotation	anticlockwise(Facing the flywheel)			
19	Prime Power(kW)/speed (r/min)	27/1800	23/1500	22/1800	18.5/1500
20	Standby Power(kW)/speed (r/min)	29.7/1800	25.3/150 0	24.2/1800	20.3/1500
21	Min. fuel consumption (g/kw·h)	\leq 238	\leq 232	\leq 235	\leq 238
22	Oil Consumption(g/kw·h)	\leq 0.2	\leq 0.2	\leq 0.2	\leq 0.2
23	Fuel type	Summer: a product 0#,10#, light diesel Winter: a product 0#, -10#-20#, -35#light diesel			
24	Oil type	It is recommended to use a special engine oil with a quality grade of CF-4.			
25	Speed drop %	\leq 5			
26	The related speed drop range %	\geq 5.5			
27	The related speed rise range (%)	\geq 2.5			
28	Steady-state rate volatility %	\leq 1.5			
29	(Under the rated speed)Instantaneous speed variation %	100% Reduce the power suddenly	\leq +10		
		Increase the power suddenly	\leq -7		
30	Speed recovery time s	\leq 3			
31	Maximum allowable inlet resistance kPa	5			
32	Maximum allowable exhaust pressure(kPa)	10			
33	Smoke intensity of standard operating condition FSN	\leq 3			
34	Noise Limit Lp dB(A) (bared engine) (1M)	\leq 92			
35	Starter Power kW	2.3			
36	Alternator Power kW	0.75			
37	System voltage V	12V/24V (Options)			
38	Battery Type	Recommend 6-QW-120(740)			
39	Emitting level	EU IIIA			
Remark: As technology advances, the above parameters will continue to improve the parameters of the update.					

4D24 自然吸气船用发动机主要技术参数表（非道路 III 排放）

NO	Item	Technical specification				
		4D240	4D241	4D242	4D243	4D244
1	Engine model	4D240	4D241	4D242	4D243	4D244
2	Type	Vertical, In line, 4-stroke, water cooled				
3	Injection system	NA				
4	Combustion chamber	DIN				
5	Cylinder diameter (stroke mm)	447x333				
6	Valve per cylinder	2				
7	Displacement L	2.45				
8	Compression ratio	16:1				
9	Lubricating system	Pressure and splash				
10	Start type	E-start				
11	Governor system	E-governor				
12	Fuel system	Electronically controlled rack pump				
13	Oil capacity (L)	9.5				
14	Fire order	1-3-4-2				
15	Crank rotation	CW (Facing the Flywheel)				
16	Prime power/W (rated) (r/min)	30/2000	32/2000	35/2000	37/2000	39/2200
17	Max. torque/N.m	160	160	160	160	160
18	Max. Speed (r/min)	1800/1800	1800/1800	1800/1800	1800/1800	1800/1800
19	Min. Oil consumption rate(g/kWh)	≤235	≤235	≤235	≤235	≤235
20	Oil consumption rate(g/kWh)	≤5.4	≤5.4	≤5.4	≤5.4	≤5.4
21	Maximum adjustable rev./min	1000	1000	1000	1000	1000
22	Speed drop %	≤5				
23	Adjustable tilt angle	sea (°)	35			
24		land (°)	35			
25	Minimum starting temperature	No auxiliary device -10°C				
26	temperature	auxiliary device -30°C				
27	Adjustable stroke (mm)	≤1000%, power drop≤10%				
28	Maximum allowable intake resistance kPa	2				
29	Maximum allowable exhaust back pressure kPa	5				
30	Emission level	CE/Coast China III				
31	Smoke density of standard operating condition FSN	≤3.5				
32	Noise level (p.dBA) (Base engine) (1 m)	≤92				
33	Fuel type	Summer: GB191-2003 or 98, 100High speed oil Winter: GB191-2003 or 98, -10#, -20#, -35High speed oil				
34	Oil type	Recommended the use of quality grade CF-4 Yachi special oil Summer: 40, 15W-40, Winter: 30, 10W-30 or other diesel engine oil that is not lower than CF grade oil (GB1112-2008) and is suitable for these engines.				
35	Dry weight kg	192	192	192	192	192
36	Dimension L×W×H mm	660×311×687	660×311×687	660×311×687	660×311×687	660×311×687

Remark: As technology advances, the above parameters will continue to improve the parameters of this plate.

NO	Item	Technical specification				
		4D240	4D241	4D242	4D243	4D244
1	Engine model	4D240	4D241	4D242	4D243	4D244
2	Type	Vertical, In line, 4-stroke, water cooled				
3	Injection system	NA				
4	Combustion chamber	DIN				
5	Cylinder diameter (stroke mm)	447x333				
6	Valve per cylinder	2				
7	Displacement L	2.45				
8	Compression ratio	16:1				
9	Lubricating system	Pressure and splash				
10	Start type	E-start				
11	Governor system	E-governor				
12	Fuel system	Electronically controlled rack pump				
13	Oil capacity (L)	9.5				
14	Fire order	1-3-4-2				
15	Crank rotation	CW (Facing the Flywheel)				
16	Prime power/W (rated) (r/min)	32/2000	35.5/2000	37.5/2000	39/2200	41.5/2200
17	Max. torque/N.m	160	160	160	160	160
18	Max. Speed (r/min)	1800/1800	1800/1800	1800/1800	1800/1800	1800/1800
19	Min. Oil consumption rate(g/kWh)	≤235	≤235	≤235	≤235	≤235
20	Oil consumption rate(g/kWh)	≤5.4	≤5.4	≤5.4	≤5.4	≤5.4
21	Maximum adjustable rev./min	1000	1000	1000	1000	1000
22	Speed drop %	≤5				
23	Adjustable tilt angle	sea (°)	35			
24		land (°)	35			
25	Minimum starting temperature	No auxiliary device -10°C				
26	temperature	auxiliary device -30°C				
27	Adjustable stroke (mm)	≤1000%, power drop≤10%				
28	Maximum allowable intake resistance kPa	2				
29	Maximum allowable exhaust back pressure kPa	5				
30	Emission level	CE/Coast China III				
31	Smoke density of standard operating condition FSN	≤3.5				
32	Noise level (p.dBA) (Base engine) (1 m)	≤92				
33	Fuel type	Summer: GB191-2003 or 98, 100High speed oil Winter: GB191-2003 or 98, -10#, -20#, -35High speed oil				
34	Oil type	Recommended the use of quality grade CF-4 Yachi special oil Summer: 40, 15W-40, Winter: 30, 10W-30 or other diesel engine oil that is not lower than CF grade oil (GB1112-2008) and is suitable for these engines.				
35	Dry weight kg	192	192	192	192	192
36	Dimension L×W×H mm	660×311×687	660×311×687	660×311×687	660×311×687	660×311×687

Remark: As technology advances, the above parameters will continue to improve the parameters of this plate.

NO	Item	Technical specification				
		4D240	4D241	4D242	4D243	4D244
1	Engine model	4D240	4D241	4D242	4D243	4D244
2	Type	Vertical, In line, 4-stroke, water cooled				
3	Injection system	NA				
4	Combustion chamber	DIN				
5	Cylinder diameter (stroke mm)	447x333				
6	Valve per cylinder	2				
7	Displacement L	2.45				
8	Compression ratio	16:1				
9	Lubricating system	Pressure and splash				
10	Start type	E-start				
11	Governor system	E-governor				
12	Fuel system	Electronically controlled rack pump				
13	Oil capacity (L)	9.5				
14	Fire order	1-3-4-2				
15	Crank rotation	CW (Facing the Flywheel)				
16	Prime power/W (rated) (r/min)	29.5/2000	32.5/2000	35.5/2000	37.5/2000	39.5/2000
17	Max. torque/N.m	160	160	160	160	160
18	Max. Speed (r/min)	1800/1800	1800/1800	1800/1800	1800/1800	1800/1800
19	Min. Oil consumption rate(g/kWh)	≤235	≤235	≤235	≤235	≤235
20	Oil consumption rate(g/kWh)	≤5.4	≤5.4	≤5.4	≤5.4	≤5.4
21	Maximum adjustable rev./min	1000	1000	1000	1000	1000
22	Speed drop %	≤5				
23	Adjustable tilt angle	sea (°)	35			
24		land (°)	35			
25	Minimum starting temperature	No auxiliary device -10°C				
26	temperature	auxiliary device -30°C				
27	Adjustable stroke (mm)	≤1000%, power drop≤10%				
28	Maximum allowable intake resistance kPa	2				
29	Maximum allowable exhaust back pressure kPa	5				
30	Emission level	CE/Coast China III				
31	Smoke density of standard operating condition FSN	≤3.5				
32	Noise level (p.dBA) (Base engine) (1 m)	≤92				
33	Fuel type	Summer: GB191-2003 or 98, 100High speed oil Winter: GB191-2003 or 98, -10#, -20#, -35High speed oil				
34	Oil type	Recommended the use of quality grade CF-4 Yachi special oil Summer: 40, 15W-40, Winter: 30, 10W-30 or other diesel engine oil that is not lower than CF grade oil (GB1112-2008) and is suitable for these engines.				
35	Dry weight kg	192	192	192	192	192
36	Dimension L×W×H mm	660×311×687	660×311×687	660×311×687	660×311×687	660×311×687

Remark: As technology advances, the above parameters will continue to improve the parameters of this plate.

4D24T Marine Propulsion Technical Data Sheet

NO.	Items	Specifications	
1	Model	4D24T00/F	
2	Type	Vertical, In-line, Water Cooled, Four Stroke	
3	Induction System	Turbo Charged	
4	Emission	N/A	
5	Prime Power(kW)/speed (r/min)	48kW/2700rpm	
6	Combustion Chamber	Direct injection, "ω" combustion chamber	
7	Cylinder NO. - Bore Å~ Stroke	4-87×103	
8	Valve NO. per cylinder	2	
9	Displacement (L)	2.45	
10	Compression ratio	17.8:1	
11	Lubricating system	Splash and Pressure	
12	Start method	Electronic start	
13	Speed governor type	Mechanical	
14	Fuel System	Stanadyne Mechanical Pump	
15	Oil capacity (L)	9.5L	
16	Oil Consumption (g/kw.h)	≤0.4	
17	Firing order	1—3—4—2	
18	Fuel Consumption (g/kw.h)	≤220	
19	Direction of rotation	Anticlockwise (Facing the flywheel)	
20	Fuel type	Summer: a product 0#, 10# light diesel fuel Winter: a product 0#, -10# -20#, -35# light diesel fuel	
21	Oil type	Summer:15W/40CF Winter:0W/30CF	
22	Speed drop %	≤8	
23	The related speed drop range %	≥5.5	
24	The related speed rise range %	≥2.5	
25	Steady-state speed volatility %	≤1.5	
26	(Under the rated speed) Transient speed deviation %	100% Reduce the power suddenly	≤+10
27		Increase the power suddenly	≤-7
28	Speed recovery time s	≤3	
28	Maximum allowable inlet resistance kPa	5	
29	Maximum allowable exhaust pressure kPa	10	
30	Smoke intensity of standard operating condition FSN	≤3	
31	Noise Limit Lp dB(A) (bared engine) (1M)	≤92	

NO	Items	Technical parameters				
1	Model	4D24TG0/A	4D24TG1/A	4D24TG2/A	4D24TG3/A	4D24TG7/A
2	Type	Vertical, in line, 4 stroke, water cooled				
3	Injection	Turbo				
4	Combustion chamber	DI ω shape				
5	Cylinder No.- Bore(mm)×Stroke(mm)	4-87×103				
6	Valve NO. per cylinder	2				
7	Displacement L	2.45				
8	Compression ratio	17.8:1				
9	Dry weight kg	210				
10	Dimension (L×W×H) mm	679×524×664				
11	Lubricating system	Pressure and splash				
12	Star method	Electronic start				
13	Speed governor type	Mechanical governor				
14	Fuel system	Stanadyne pump				
15	Oil capacity(L)	9.5L				
16	Fire order	1—3—4—2				
17	Direction of rotation	CCW(Power output oriented)				
18	Prime power (kW)/speed (r/min)	36/1500	32/1500	28/1500	36/1800	32/1800
19	1 hour power(kW)/speed (r/min)	39.6/1500	35.2/1500	30.8/1500	39.6/1800	35.2/1800
20	Min Fuel combustion rate(g/kW·h)	≤225	≤230	≤232	≤235	≤232
21	Oil combustion rate(g/kW·h)	≤0.4	≤0.4	≤0.4	≤0.4	≤0.4
22	Min adjustable no-load speed (r/min)	N/A	N/A	N/A	N/A	N/A
23	Fuel type	Summer: GB 252-2000 Premium or first grade 0#, 10#, light diesel fuel Winter: GB 252-2000 Premium or first grade 0#, -10# -20#, -35# light diesel fuel				
24	Oil type	Summer: 15W/40CF Winter: 0W/30CF				
25	Speed drop %	机械调速: ≤5				
26	Relative speed setting drop range %	≥5.5				
27	Relative speed setting rise range %	≥2.5				
28	Steady speed fluctuation %	≤0.5				
29	(Under the rated speed) Transient speed deviation %	100% Reduce the power suddenly	≤+10			
		Increase the power suddenly	≤-7			
30	Speed recover time s	≤3				
31	Maximum allowable inlet resistance kPa	5				
32	Maximum allowable exhaust pressure kPa	10				
33	Smoke intensity of standard operating condition FSN	≤3				
34	Noise limit L_p dB(A)	≤92				

Note: With the progress of technology, the above indicators will be constantly improved and updated.

4D24TG/A Series (Marine Auxiliary, Turbo charged) technical parameters

NO	Items	Technical Parameters				
1	Engine Model	4D24TG0/A	4D24TG1/A	4D24TG2/A	4D24TG3/A	4D24TG7/A
2	Engine Type	Vertical, In line, 4 stroke, water cooled				
3	Induction System	Turbo charged				
4	Combustion Chamber	DI / ω shape				
5	Cylinder NO. - Bore × Stroke(mm)	4-87×103				
6	Valve NO. per cylinder	2				
7	Displacement (L)	2.45				
8	Compression ratio	17.8:1				
9	Dry Weight (kg)	265(include belt cover)				
10	Dimensions (LxWxH) mm	714×620×682(include belt cover)				
11	Lubricating system	Splash and pressure				
12	Start method	Electronic start				
13	Speed governor type	Mechanical governor				
14	Fuel System	Stanadyne rotary pump				
15	Oil capacity(L)	9.5L				
16	Firing order	1—3—4—2				
17	Direction of rotation	<i>Anticlockwise (Power output oriented)</i>				
18	Prime Power(kW)/speed(r/min)	36/1500	32/1500	28/1500	36/1800	32/1800
19	1 hour power (kW)/ speed (r/min)	39.6/1500	35.2/1500	30.8/1500	39.6/1800	35.2/1800
20	Min. fuel consumption (g/kw·h)	≤225	≤230	≤232	≤235	≤232
21	Oil Consumption(g/kw·h)	≤0.4	≤0.4	≤0.4	≤0.4	≤0.4
22	Minimum adjustable no-load speed (r/min)	N/A	N/A	N/A	N/A	N/A
23	Fuel type	Summer: GB 252-2000 Premium or first grade 0#, 10#, light diesel fuel Winter: GB 252-2000 Premium or first grade 0#, -10#, -20#, -35# light diesel fuel				
24	Oil type	Summer: 15W/40CF Winter: 0W/30CF				
25	Speed drop %	≤5				
26	Relative speed setting drop range %	≥5.5				
27	Relative speed setting rise range %	≥2.5				
28	Steady speed fluctuation %	≤1.5				
29	(Under the rated speed) Transient speed deviation %	100% Reduce the power suddenly				≤+10
		Increase the power suddenly				≤-7
30	Speed recovery time (S)	≤3				
31	Maximum allowable inlet resistance (kPa)	5				
32	Maximum allowable exhaust pressure (kPa)	10				
33	Smoke intensity of standard operating condition FSN	≤3				
34	Noise Limit Lp dB(A) (bared engine) (1M)	≤92				
35	Starter Power kW	2.3				
36	Alternator Power kW	0.75				
37	System voltage V	12V(Standard)/24V(Option)				

Note: With the progress of technology, the above indicators will be constantly improved and updated.

4E38TG/F Series Engines(G-Drive) technical parameters

NO	Items	Technical Parameters			
		4E38TG3/F	4E38TG2/F	4E38TG1/F	4E38TG0/F
1	Engine Model	4E38TG3/F	4E38TG2/F	4E38TG1/F	4E38TG0/F
2	Engine Type	Vertical, In line, 4 stroke, water cooled			
3	Induction System	Turbo			
4	Combustion Chamber	DI / ω shape			
5	Cylinder NO. - Bore \times Stroke(mm)	4-102 \times 115			
6	Valve NO. per cylinder	2			
7	Displacement (L)	3.8			
8	Compression ratio	17.5:1			
9	Dry Weight (kg)	320 (include Radiator, air filter)			
10	Dimensions (LxWxH) mm	1163 \times 888 \times 715 (With Radiator, air filter)			
11	Lubricating system	Splash and pressure			
12	Cooling system	Forced water cooling closed cycle			
13	Start method	Electronic start			
14	Speed governor type	E-Governor			
15	Fuel System	Weifu inline pump + E-Governor			
16	Oil capacity(L)	7L (subject to the actual charge amount)			
17	Firing order	1—3—4—2			
18	Direction of rotation	Anticlockwise (Facing the flywheel)			
19	Prime Power(kW)/speed(r/min)	50/1500	55/1800	60/1500	65/1800
20	Standby Power(kW)/speed(r/min)	55/1500	60.5/1800	66/1500	71.5/1800
21	Min. fuel consumption (g/kw·h)	\leq 235			
22	Oil Consumption(g/kw·h)	\leq 0.2			
23	Fuel type	Summer: a product 0#, 10#, light diesel fuel			
		Winter: a product 0#,-10# -20#,-35# light diesel fuel			
24	Oil type	Summer:15W/40CF Winter:0W/30CF			
25	Speed drop level	GB/T 2820(ISO 8528) G2			
26	Maximum allowable inlet resistance (kPa)	5			
27	Maximum allowable exhaust pressure(kPa)	10			
28	Smoke intensity of standard operating condition FSN	\leq 2			
29	Noise Limit Lp dB(A) (bared engine)(1M)	\leq 102			
30	Starter Power kW	3.5			
31	Alternator Power kW	0.75			
32	System voltage V	12V			
33	Battery Type	A 120Ah cryogenic battery is recommended for cold areas where temp below-5 $^{\circ}$ C			
34	Emitting level	Non Regulated			
35	Ambient Temperature	-30 \sim 50 $^{\circ}$ C (need add heater when temp \leq -10 $^{\circ}$ C)			
36	Altitude high range at run area	Recommend to use it at below altitude 2000m, Power correction is required when altitude exceed 2000m.			