



baitugyro.com

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New Generation Boat Gyro Stabilizer
With Electro-Mechanical Active Control System

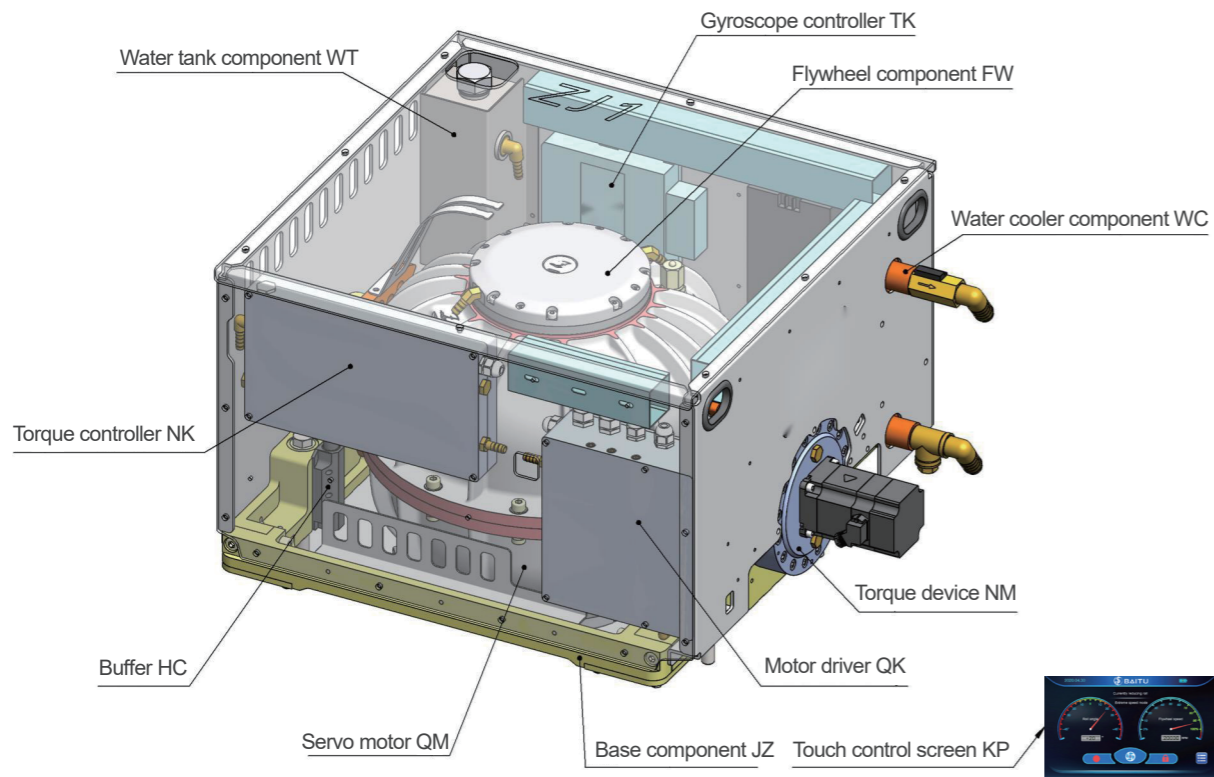
2024



Company Introduction

Baitugyro specialize in revolutionizing marine stability with our advanced Boat Anti Rolling Gyro Stabilizer technology. As a leader in the B2B maritime industry, our mission is to enhance the seafaring experience by providing cutting-edge solutions that ensure safety, comfort, and efficiency. Our products are designed and manufactured in China, embodying innovation, quality, and reliability.

New Generation Boat Gyro Stabilizer



The Gyro Stabilizer includes 5 systems:

1 Gyro System

This includes the flywheel and its base. The flywheel, placed vertically in a sealed casing, connects to the base via a side shaft and bearings. Its high-speed rotational movement produces anti-roll torque during precession, which helps reduce ship sway.

2 Drive System

Comprising a servo motor and servo driver, this system directly connects to the flywheel shaft. It ensures high transmission efficiency and boasts a compact structural design.

3 Torque Control System

This system includes a torque device, controller, reducer, buffer and electromagnetic brake. Utilizing an innovative integrated electromechanical torque device coupled with triple buffer protection, it surpasses traditional hydraulic systems in terms of compactness, durability, maintenance efficiency (up to 6000 hours of maintenance-free operation), reduced failures, ease of maintenance, and environmental friendliness, with no oil pollution. It is also more adept at handling harsh sea conditions.

4 Cooling System

Featuring a water tank, cooler, water pump, piping, and antifreeze, this system uses the cooler to exchange heat with seawater, subsequently cooling critical components like bearings, motors, and electronic controls.

5 Gyro Control System

It includes a gyro controller and a touch control screen, which are located in the cockpit. The controller is designed for adaptive active anti-roll control and is equipped with autonomous fault detection and an alarm-based shutdown mechanism. The touch screen allows for one-button start-stop functionality, fully automatic operation, and the ability to monitor operational parameters, enhancing both intuitiveness and ease of use.



WHAT MAKES US DIFFERENT

❶ Exceptional Stabilization Performance

It detects boat posture and adaptively controls it. This ensures superior stabilization in unpredictable waves, achieving up to 95% effectiveness.

❷ Innovative Architecture

Our system features an original integrated electromechanical torque control, known for its robustness and durability. It minimizes failures and offers easy maintenance.

❸ Advanced Triple Buffer Protection

Combining mechanical, electromagnetic, and electronic buffering, the system is designed to withstand impacts, ensuring reliability even in the most challenging sea conditions. This design is also protected by multiple patents.

❹ User-Friendly Design

With one-button start-stop and full automation, our system is convenient and intuitive. It can also run for about 30 minutes without electricity, offering both energy efficiency and equipment safety.

❺ Ease of Installation and Maintenance

Thanks to various optimizations and a modular design, our system boasts excellent adaptability and easy maintenance. Most maintenance tasks can be performed independently by users.

❻ Eco-Friendly

Advanced electromechanical design eliminates the need for hydraulic oil, providing a definitive solution to the problem of hydraulic oil leaks and pollution.



Reduce Ship Sway

Eliminate Seasickness

Improve Ship Stability

Ensure Onboard Safety

Enhance Onboard Comfort

Improve Operational Efficiency



BAITU SPECS



BAITU ZJ03

Boat Size Range: Length ≤ 5.5m/18.0'

Boat Displacement: DT ≤ 1 tonnes



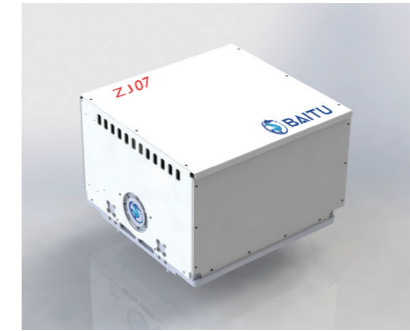
BAITU ZJ05

Boat Size Range: Length ≤ 6.5m/21.3'

Boat Displacement: DT ≤ 2 tonnes

Weight	55 kgs/121 lbs	80 kgs/176 lbs
Dimensions(L*W*H)	0.45 x 0.46 x 0.41 m 17.7" x 18.1" x 16.1"	0.47 x 0.48 x 0.42 m 18.5" x 18.9" x 16.5"
Installation Space(L*W*H)	0.46 x 0.48 x 0.45 m 18.1" x 18.9" x 17.7"	0.49 x 0.50 x 0.46 m 19.3" x 19.7" x 18.1"
Rated Speed	12,000 RPM	12,000 RPM
Angular Momentum at Max Rated RPM	300 Nms	500 Nms
Anti-Rolling Torque at Max Rated RPM	1,050 Nm	1,750 Nm
Spool-up Time to Max Rated RPM*	20 minutes	20 minutes
Spool-up Time to Stabilization*	10 minutes	10 minutes
Spool-up Power	500 Watts Max	700 Watts Max
Operating Power*	250~400 Watts	300~600 Watts
Power Input	DC60V 800 Watts	DC60V 1,000 Watts
Cooling Method	Water Cooled 5L/ minutes	Water Cooled 5L/ minutes
Ambient Air Temperature	-20°C ~60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 66dB	≤ 66dB

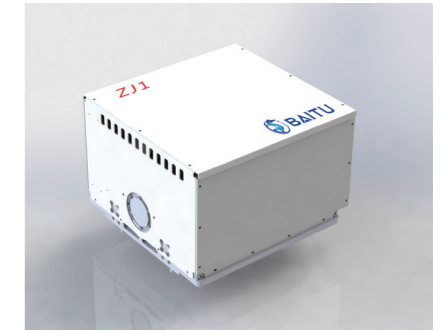
BAITU SPECS



BAITU ZJ07

Boat Size Range: Length ≤ 8 m/26.2'

Boat Displacement: DT ≤ 3.5 tonnes



BAITU ZJ1

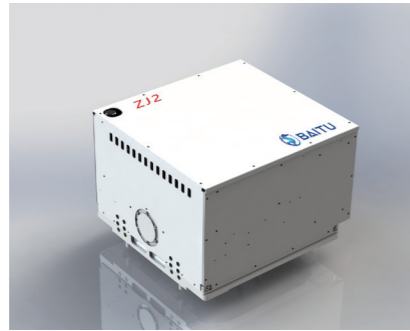
Boat Size Range: Length ≤ 9m/29.5'

Boat Displacement: DT ≤ 5 tonnes

Weight	110 kgs/243 lbs	128 kgs/282 lbs
Dimensions(L*W*H)	0.49 x 0.50 x 0.43 m 19.3" x 19.7" x 16.9"	0.49 x 0.50 x 0.43 m 19.3" x 19.7" x 16.9"
Installation Space(L*W*H)	0.50 x 0.62 x 0.47 m 19.7" x 24.4" x 18.5"	0.50 x 0.62 x 0.47 m 19.7" x 24.4" x 18.5"
Rated Speed	10,800 RPM	9,900 RPM
Angular Momentum at Max Rated RPM	700 Nms	1,000 Nms
Anti-Rolling Torque at Max Rated RPM	2,450 Nm	3,500 Nm
Spool-up Time to Max Rated RPM*	20 minutes	20 minutes
Spool-up Time to Stabilization*	10 minutes	10 minutes
Spool-up Power	800 Watts Max	900 Watts Max
Operating Power*	400~700 Watts	500~800 Watts
Power Input	Single Phase AC220V 900 Watts	Single Phase AC220V 1,000 Watts
Cooling Method	Water Cooled 5L/ minutes	Water Cooled 5L/ minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 68dB	≤ 68dB

* Spool-up time and operating power may vary depending on sea conditions.

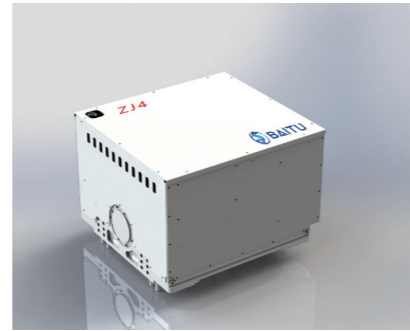
BAITU SPECS



BAITU ZJ2

Length ≤ 11m/36.1'

DT ≤ 8 tonnes



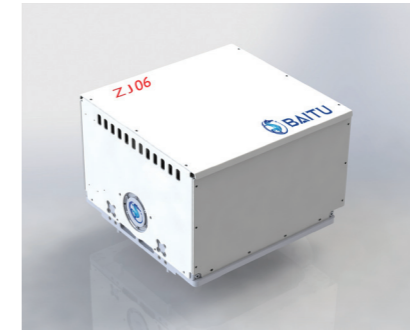
BAITU ZJ4

Length ≤ 14m/45.9'

DT ≤ 15 tonnes

Weight	198 kgs/437 lbs	320 kgs/705 lbs
Dimensions(L*W*H)	0.57 x 0.60 x 0.51 m	0.64 x 0.68 x 0.595 m
	22.4" x 23.6" x 20.1"	25.2" x 26.8" x 23.4"
Installation Space(L*W*H)	0.59 x 0.73 x 0.58 m	0.66 x 0.84 x 0.68 m
	23.2" x 28.7" x 22.8"	26.0" x 33.1" x 26.8"
Rated Speed	9,000 RPM	8,400 RPM
Angular Momentum at Max Rated RPM	2,000 Nms	4,000 Nms
Anti-Rolling Torque at Max Rated RPM	6,000 Nm	12,000 Nm
Spool-up Time to Max Rated RPM*	30 minutes	40 minutes
Spool-up Time to Stabilization*	15 minutes	20 minutes
Spool-up Power	1,200 Watts Max	2,200 Watts Max
Operating Power*	700~1,000 Watts	1,200~1,700 Watts
Power Input	Single Phase AC220V 1,300 Watts	Single Phase AC220V 2,300 Watts
Cooling Method	Water Cooled 5L/ minutes	Water Cooled 5L/ minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 70dB	≤ 72dB

BAITU SPECS



BAITU ZJ6

Length ≤ 16m/52.5'

DT ≤ 21 tonnes



BAITU ZJ7

Length ≤ 17 Meter/55.8'

DT ≤ 25 tonnes

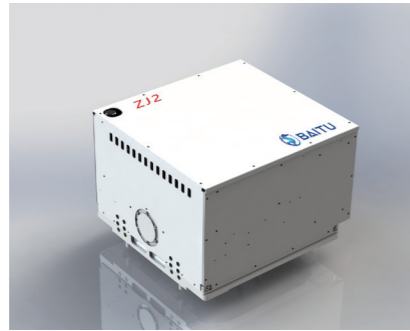
Boat Size Range:

Boat Displacement:

Weight	460 kgs/1,014 lbs	510 kgs/1,124 lbs
Dimensions(L*W*H)	0.76 x 0.805 x 0.69 m	0.76 x 0.805 x 0.69 m
	29.9" x 31.7" x 27.2"	29.9" x 31.7" x 27.2"
Installation Space(L*W*H)	0.78 x 0.95 x 0.78 m	0.78 x 0.95 x 0.78 m
	30.7" x 37.4" x 30.7"	30.7" x 37.4" x 30.7"
Rated Speed	7,800 RPM	7,800 RPM
Angular Momentum at Max Rated RPM	5,500 Nms	7,000 Nms
Anti-Rolling Torque at Max Rated RPM	16,500 Nm	21,000 Nm
Spool-up Time to Max Rated RPM*	40 minutes	50 minutes
Spool-up Time to Stabilization*	20 minutes	25 minutes
Spool-up Power	2,800 Watts Max	2,800 Watts Max
Operating Power*	1,400~2,200 Watts	1,500~2,400 Watts
Power Input	Single Phase AC220V 3,000 Watts	Single Phase AC220V 3,000 Watts
Cooling Method	Water Cooled 10L/ minutes	Water Cooled 10L/ minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 72dB	≤ 72dB

* Spool-up time and operating power may vary depending on sea conditions.

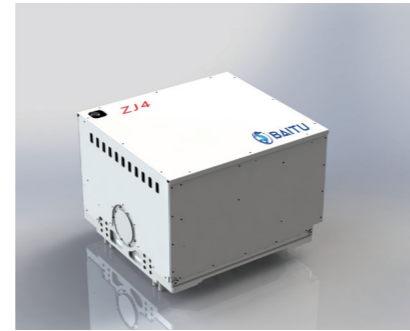
BAITU SPECS



BAITU ZJ10

Boat Size Range: Length ≤ 19 Meter/62.3'

Boat Displacement: DT ≤ 35 tonnes



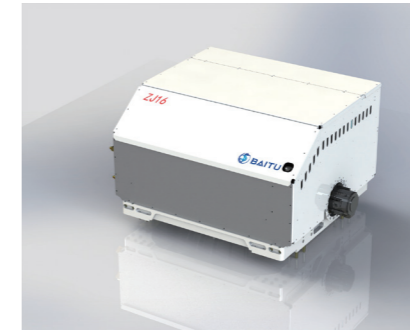
BAITU ZJ12

Boat Size Range: Length ≤ 20m/65.6'

Boat Displacement: DT ≤ 40 tonnes

Weight	680 kgs/1,499 lbs	760 kgs/1,676 lbs
Dimensions(L*W*H)	0.88 x 0.93 x 0.78 m	0.88 x 0.93 x 0.78 m
	34.6" x 36.6" x 30.7"	34.6" x 36.6" x 30.7"
Installation Space(L*W*H)	0.92 x 1.08 x 0.88 m	0.92 x 1.08 x 0.88 m
	36.2" x 42.5" x 34.6"	36.2" x 42.5" x 34.6"
Rated Speed	6,600 RPM	6,300 RPM
Angular Momentum at Max Rated RPM	9,500 Nms	12,000 Nms
Anti-Rolling Torque at Max Rated RPM	28,500 Nm	36,000 Nm
Spool-up Time to Max Rated RPM*	50 minutes	50 minutes
Spool-up Time to Stabilization*	25 minutes	25 minutes
Spool-up Power	3,500 Watts Watts Max	3,500 Watts Watts Max
Operating Power*	2,000~3,000 Watts	2,000~3,000 Watts
Power Input	Single Phase AC220V 4,000 Watts	Single Phase AC220V 4,000 Watts
Cooling Method	Water Cooled 15L/ minutes	Water Cooled 15L/ minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 75dB	≤ 75dB

BAITU SPECS



BAITU ZJ16

Boat Size Range: Length ≤ 22 Meter/72.2'

Boat Displacement: DT ≤ 50 tonnes



BAITU ZJ20

Boat Size Range: Length ≤ 24 Meter/78.7'

Boat Displacement: DT ≤ 65 tonnes

Weight	1,070 kgs/2,359 lbs	1,180 kgs/2,601 lbs
Dimensions(L*W*H)	0.98 x 1.10 x 0.92 m	0.98 x 1.10 x 0.92 m
	38.6" x 43.3" x 36.2"	38.6" x 43.3" x 36.2"
Installation Space(L*W*H)	1.02 x 1.52 x 1.05 m	1.02 x 1.52 x 1.05 m
	40.2" x 59.8" x 41.3"	40.2" x 59.8" x 41.3"
Rated Speed	5,100 RPM	5,100 RPM
Angular Momentum at Max Rated RPM	16,000 Nms	20,000 Nms
Anti-Rolling Torque at Max Rated RPM	48,000 Nm	60,000 Nm
Spool-up Time to Max Rated RPM*	50 minutes	55 minutes
Spool-up Time to Stabilization*	25 minutes	28 minutes
Spool-up Power	4,500 Watts Watts Max	4,500 Watts Watts Max
Operating Power*	2,500~3,500 Watts	3,000~4,000 Watts
Power Input	Three Phase AC380V 5,000 Watts	Three Phase AC380V 5,000 Watts
Cooling Method	Water Cooled 15L/ minutes	Water Cooled 15L/ minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 75dB	≤ 75dB

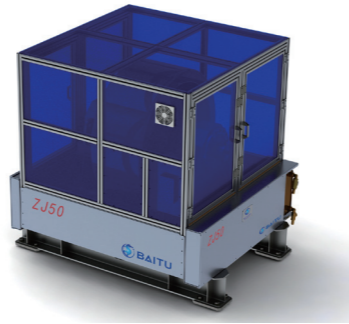
* Spool-up time and operating power may vary depending on sea conditions.

BAITU SPECS



BAITU ZJ35

Boat Displacement: DT ≤ 100 tonnes



BAITU ZJ50

Boat Displacement: DT ≤ 135 tonnes

Weight	2,250 kgs/4,960 lbs	2,500 kgs/5,512 lbs
Dimensions(L*W*H)	1.25 x 1.60 x 1.46 m	1.25 x 1.60 x 1.46 m
	49.2" x 63.0" x 57.5"	49.2" x 63.0" x 57.5"
Installation Space(L*W*H)	1.35 x 2.40 x 1.56 m	1.35 x 2.40 x 1.56 m
	53.1" x 94.5" x 61.4"	53.1" x 94.5" x 61.4"
Angular Momentum at Max Rated RPM	35 kNms	50 kNms
Anti-Rolling Torque at Max Rated RPM	105 kNm	157 kNm
Spool-up Time to Max Rated RPM*	30 minutes	40 minutes
Spool-up Time to Stabilization*	15 minutes	20 minutes
Spool-up Power	15 kWatts Max	15 kWatts Max
Operating Power*	7~10 kWatts	8~12 kWatts
Power Input	Three Phase AC380V 17 kWatts	Three Phase AC380V 17 kWatts
Cooling Method	Water Cooled 30L/minutes	Water Cooled 30L/minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 75 dB	≤ 75 dB

BAITU SPECS



BAITU ZJ80

Boat Displacement: DT ≤ 200 tonnes



BAITU ZJ110

Boat Displacement: DT ≤ 300 tonnes

Weight	2,850 kgs/6,283 lbs	4,900 kgs/10,803 lbs
Dimensions(L*W*H)	1.37 x 1.66 x 1.66 m	1.60 x 1.98 x 1.80 m
	53.9" x 65.4" x 65.4"	63.0" x 78.0" x 70.9"
Installation Space(L*W*H)	1.47 x 2.50 x 1.72 m	1.70 x 2.80 x 1.90 m
	57.9" x 98.4" x 67.7"	66.9" x 110.2" x 74.8"
Angular Momentum at Max Rated RPM	80 kNms	110 kNms
Anti-Rolling Torque at Max Rated RPM	248 kNm	290 kNm
Spool-up Time to Max Rated RPM*	40 minutes	40 minutes
Spool-up Time to Stabilization*	20 minutes	20 minutes
Spool-up Power	18 kWatts Max	25kWatts Max
Operating Power*	10~18kWatts	14~20 kWatts
Power Input	Three Phase AC380V 25kWatts	Three Phase AC380V 30 kWatts
Cooling Method	Water Cooled 30L/minutes	Water Cooled 30L/minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 75 dB	≤ 75 dB

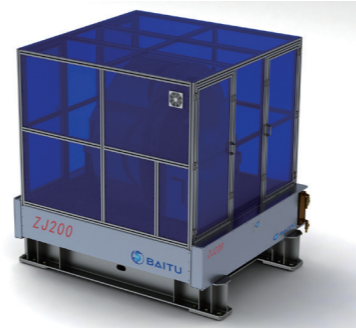
*Spool-up time and operating power may vary depending on sea conditions.

BAITU SPECS



BAITU ZJ150

Boat Displacement: DT ≤ 400 tonnes



BAITU ZJ200

Boat Displacement: DT ≤ 500 tonnes

Weight	5,500 kgs/12,125 lbs	7,200 kgs/15,873 lbs
Dimensions(L*W*H)	1.75 x 2.15 x 1.90 m	1.75 x 2.15 x 2.10 m
	68.9" x 84.6" x 74.8"	68.9" x 84.6" x 82.7"
Installation Space(L*W*H)	1.85 x 2.95 x 2.00 m	1.85 x 2.95 x 2.20 m
	72.8" x 116.1" x 78.7"	72.8" x 116.1" x 86.6"
Angular Momentum at Max Rated RPM	150 kNms	200 kNms
Anti-Rolling Torque at Max Rated RPM	350 kNm	460 kNm
Spool-up Time to Max Rated RPM*	40 minutes	50 minutes
Spool-up Time to Stabilization*	20 minutes	25 minutes
Spool-up Power	30 kWatts Max	35 kWatts Max
Operating Power*	17~23 kWatts	20~28 kWatts
Power Input	Three Phase AC380V 35 kWatts	Three Phase AC380V 40 kWatts
Cooling Method	Water Cooled 30L/minutes	Water Cooled 30L/minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 75 dB	≤ 75 dB

BAITU SPECS



BAITU ZJ400

Boat Displacement: DT ≤ 900 tonnes



BAITU ZJ800

Boat Displacement: DT ≤ 1,800 tonnes

Boat Displacement:

Weight	14,500 kgs/31,967 lbs	29,000 kgs/63,934 lbs
Dimensions(L*W*H)	1.75 x 3.90 x 2.20 m	3.70 x 3.90 x 2.20 m
	68.9" x 153.5" x 86.6"	145.7" x 153.5" x 86.6"
Installation Space(L*W*H)	1.85 x 4.70 x 2.40 m	4.00 x 4.70 x 2.40 m
	72.8" x 185.0" x 94.5"	157.5" x 185.0" x 94.5"
Angular Momentum at Max Rated RPM	400 kNms	800 kNms
Anti-Rolling Torque at Max Rated RPM	920 kNm	1,840kNm
Spool-up Time to Max Rated RPM*	50 minutes	minutes 50
Spool-up Time to Stabilization*	25 minutes	minutes 25
Spool-up Power	70 kWatts Max	140 kWatts Max
Operating Power*	40~55kWatts	80~110kWatts
Power Input	Three Phase AC380V 75 kWatts	Three Phase AC380V 150 kWatts
Cooling Method	Water Cooled 60L/minutes	Water Cooled 120L/minutes
Ambient Air Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Noise Level (at 1 meter)	≤ 75 dB	≤ 75 dB

*Spool-up time and operating power may vary depending on sea conditions.