

ELECTRIC PODDED PROPULSION

IMPROVE MANOEUVRABILITY, HIGHLY EFFICIENT
SUSTAINABLE, RELIABLE, LOW TCO



A-POD BENEFITS

Engineered for maximum efficiency and minimal complexity:

- **Compact Design:** Integrated motor-in-pod layout saves valuable space
- **Low center of gravity:** Increase ships stability and performances
- **Water-Cooled Motor:** Eliminates external cooling systems → lower energy use
- **Lightweight Construction:** Up to 4 tons lighter than competing units
- **Simplified Drivetrain:** Only one gearbox → fewer parts, higher reliability
- **Efficient Lubrication:** Forced oil system uses 5–7x less oil → reduced energy & maintenance costs
- **Robust Shaft Design:** Bearings on both ends for superior load handling
- **All-Electric Steering:** No hydraulics → saves energy, space, and costs
- **Fast & Precise Response:** Reversible propeller for instant maneuverability
- **Low Vibration:** Integrated motor + single transmission → stable, quiet operation
- **Smart Control:** Slip-control technology boosts propulsion efficiency
- **High Thrust Efficiency:** Patented gearbox design enables optimal propeller speed

Result: Less energy, Less maintenance, More uptime.

UNIQUE CONCEPT

AAApropulsion's pioneering A-POD is the first electric driven propulsion system with an integrated electric motor featuring a hollow drive shaft. The hollow shaft drives a planetary gearbox that, in turn, drives a propeller shaft that extends through the whole POD housing. Due to the reduction ratio of the planetary gearbox, the propeller will always run at its most economical speed, resulting in optimal performance in terms of efficiency and thrust.

UNIQUE FEATURES

The A-POD's all-integrated and compact design facilitates an easy installation. As an additional advantage, being mounted on the outside of the vessel means the A-POD propulsion system allows engine room size to be significantly reduced. Furthermore, it accommodates a versatile placement of the noisy generators, resulting in increased comfort for the crew. The A-POD is available in a range from 60-85kW up to 3100kW, either with open propeller or in a nozzle. A pushing or pulling propeller configuration can be preferred, depending on the design and the user/sailing profile of the vessel. In case the A-POD is employed in a pulling version, an additional fin will be mounted to further improve the steering characteristics.

UNIQUE BENEFITS

AAApropulsion's A-POD counters the disadvantages of high price and low efficiency of the traditional POD-drives that generally use large oversized electric motors. The unique and compact design therefore offers many advantages, to both ship designers, shipyards and ship owners. Saving on labour costs, and offering flexibility whilst designing and building the vessel, ship owners and operators will reap the benefits

Model	A-POD							
	Max.power rating (kW)	Avg. Prop.	Execution					
	PG	DD	Ø [m]	Push / Pull	Deck mounted	CRP	Retract / Swing-Up	Tunnel
A-Pod220	85	x	0,6-0,7	•		•		•
A-Pod370	220	140	0,8-1,0	•	•	•		•
A-Pod450	500	200	0,9-1,3	•	•	•	•	•
A-Pod600	600	320	1,2-1,5	•			•	•
A-Pod670	1000	500	1,3-1,85	•			•	•
A-Pod770	1200	x	1,7-1,9	•				
A-Pod880	2420	x	1,8-3,0	•		•		
A-Pod1050	2500	x	2,4-3,0	•				
A-Pod1230	3100	x	2,8-3,3	•				

The above information is for guidance only. AAApropulsion will be more than happy to assist you with the best solution.