



**CASE STUDY:**

**Hybrid propulsion system for Cyclone 30-38 hull**



The Transfluid hybrid system is a versatile system that integrates with standard engines and transmissions. It functions as an electric motor and generator, supporting up to 1100 kW in thermal power and 300 kW in electric mode. It is compatible with various transmission types and offers benefits such as reduced engine hours, noise reduction, and is self-charging.

Vessel type	Cyclone 30-38 models
Vessel length	9m - 10.6m
Beam	3.35m - 3.8m
Electric speed	5kts (2.5hrs)**
Charging time	<i>Shore:</i> 4 hrs with 7.5kW charger* <i>During operation:</i> 2.5 hrs*
Hybrid system	HM2000 144Vdc
Battery	LiFePO4: 140Vdc - 210Ah**
Main engine	1 x 450hp at 3000rpm
System cost	€99,500 including battery (ex VAT)

**Suitable vessels**

- Chartering
- Commercial Fishing
- Angling
- Survey
- Patrol
- Tour/sightseeing boats



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Continuous power e.motor	9kW
Intermittent power e.motor	21kW
Generator power e.motor	15 kW

\* with 20% left in battery  
\*\*based on 29.6 kWh battery



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### System list

#### Hybrid Propulsion System Kit

- Transfluid HM2000
  - EM2020 -20 144Vdc e-motor
  - Mounting brackets and rubber mounting blocks
  - Motor controller
  - Display TF1
  - Cabinet for electric signals
  - CANbus and signal cables
  - Single station control
  - Keyswitch
  - Remote monitoring system
  - Air power pack 'come home system'
- Battery LiFePO4 140Vdc- 210Ah- 29,6kWh
- Battery charger
- Cooling system



TOTAL: **€99,500 (ex VAT)**

#### Advantages:

- Maintain main diesel engine propulsion for higher speed to work site
- Utilise electric for slow speed operations.
- Reduces diesel engine operating hours
- Self-charging in diesel mode
- Quieter at slow speed
- Integrated control system for smooth transfer between diesel and electric modes
- Hybrid system fully approved to DNV