

JOOOL

*Powering
ocean freedom*

Propulsion & energy management
HYBRID-ELECTRIC SYSTEMS FOR YACHTS





Think hybrid
powered by JOOOL

Inspire a new way of sailing.
One of silence, comfort, and smart energy.

JOOOL engineers integrated energy and propulsion systems that redefine onboard power. **By storing more energy on board, yachts can operate silently at anchor, manoeuvre in electric mode and reduce reliance on generator sets.** The result is quieter operation, improved comfort and more efficient energy use at sea.

Hybrid-electric architectures operate within a unified ecosystem: **scalable, robust and ready for integration.** From intelligent energy management and high-capacity energy storage to electric propulsion, each component is engineered for absolute reliability at sea. Industrialized plug-and-play modules simplify installation, reduce wiring and optimize overall performance.

For nearly three decades, **Alternatives Energies** has refined marine power systems with the same rigor and technical vision. With JOOOL, this expertise sets a new benchmark for modern yacht construction, where advanced technology meets industrial precision.

Silent

sailing &
mooring

Since 1997 by Alternatives Energies

System integration for

New boats

First-fit integration with partner shipyards. Built into the vessel's production process from the outset.

Refit

Subject to a structural sizing study specific to the vessel : hull characteristics, minimum 40-foot length.

Custom

Bespoke unit engineered to specific constraints : size, use case, or certification requirements.

+119 vessels
worldwide

30 years
of experience

1 million
hours feedback



Silent sailing · Vibration-free · Instant torque

Electric drive

Electric drive eliminates engine noise and vibration from the moment you leave the dock. In harbour, instant torque makes docking precise and predictable, even in tight spaces or strong current. At sea, the PowerPod operates silently, no exhaust, no mechanical noise, no interference with the sailing experience.

Marine protected areas

Zero exhaust emissions allow access to emissions-restricted zones and eco-sensitive anchorages closed to combustion engines.

Diesel exhaust eliminated

No fumes in the cockpit or saloon. No smell at the helm. Passengers and crew breathe clean air from harbour to anchorage.



Extended autonomy · Silent anchorage · Home comfort

Energy autonomy

The JOOOL battery bank powers all onboard systems continuously, air conditioning, watermaker, cooking, charging, without generator intervention. Hydrogeneration under sail and solar panels recharge the bank automatically during the passage. At anchor, the system manages distribution autonomously, extending battery life to match the longest stops

No shore power dependency

The battery bank is sized to sustain full onboard comfort without any marina connection. Anchor anywhere, for as long as recharge sources keep pace with consumption.

Scalable capacity

Battery bank sized to cover a full day and night at anchor without any generator start : lighting, fridge, fans, electronics included.



No vibration · Zero noise · Silent anchorage

Silent mooring

The OneBox manages all onboard energy automatically : lighting, refrigeration, ventilation, without starting the generator. Battery capacity covers 24 hours or more of hotel loads at anchor. No engine noise. No vibration. The generator starts only when the battery level requires it, and only for as long as necessary.

All systems on & generator off

As long as the battery covers onboard demand, the generator stays off. You run the boat on stored energy, and silence is never interrupted.

24h+ hotel load autonomy

Battery bank sized to cover a full day and night at anchor without any generator start : lighting, fridge, fans, electronics included.



Solar · Hydrogeneration

Renewable energy

While sailing at 6 to 7 knots, the PowerPod operates in generator mode and recovers approximately 1.5 kWh per hour. On a twin-hull catamaran with two PowerPods, hydrogeneration reaches up to 3 kWh per hour — enough to cover a significant portion of hotel loads during a day's passage. Combined with solar input, renewable sources can sustain onboard autonomy without generator use on most sailing days.

Energy production while sailing

Every nautical mile under sail recharges the battery bank. Passages become self-sustaining energy cycles, the longer you sail, the more you store.

Solar — passive recharge

At anchor or underway, solar panels contribute continuously to the bank. Combined with hydrogeneration, most cruising days require no generator intervention.

ONEBOX

System



Inverter

Converts DC voltage into stable AC service power



Battery Pack LiFePO4

Modular, high-density storage for extended autonomy



Charger

Fast charging from shore



EPMS

Centralized supervision and control of all energy flows

ONE ECOSYSTEM
TWO CONFIGURATIONS

Both OneBox architectures share a standardized energy backbone built on industrial-grade components. Each module is engineered for reliability, scalability, and easy shipyard integration.

First step toward electric comfort

ONEBOX Energy



For motor yachts, catamarans, or sailboats equipped with a thermal engine. Centralizes all energy sources, distributes power automatically, and enables massive onboard storage : up to 152 kWh per system to reduce reliance on fossil fuels and optimized onboard comfort.

Full electric sailing experience

ONEBOX Propulsion



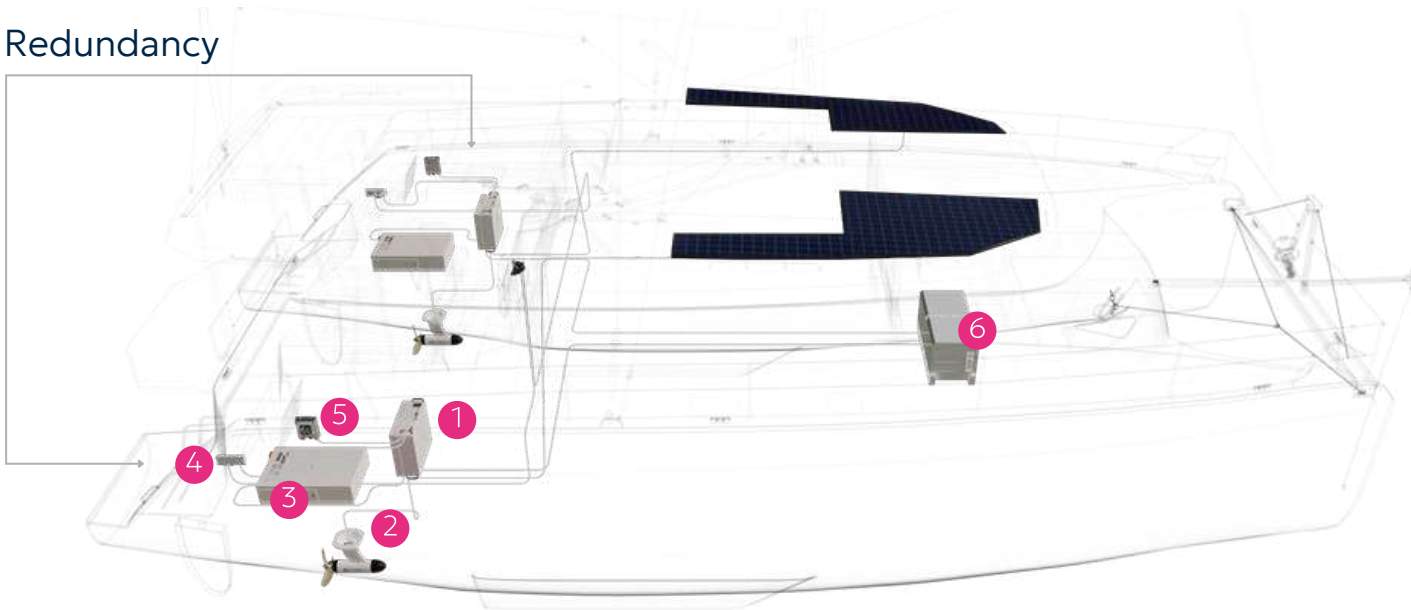
For sailing vessels equipped with JOOOL electric drive. Energy management and massive onboard storage : up to 152 kWh per system plus direct electric motor control and energy recovery under sail. All power flows managed within a single unit.



SYSTEM

Integration

Redundancy



1. OneBox Energy | Propulsion
2. PowerPod
3. Battery pack
4. EPMS
5. PowerUp Charger
6. Generator

Unique architecture

The same standardized, industrialized system integrates into every vessel : monohull or multihull, sailboat or motor yacht, new build or refit. One architecture, replicated identically across the entire shipyard fleet.

Modular

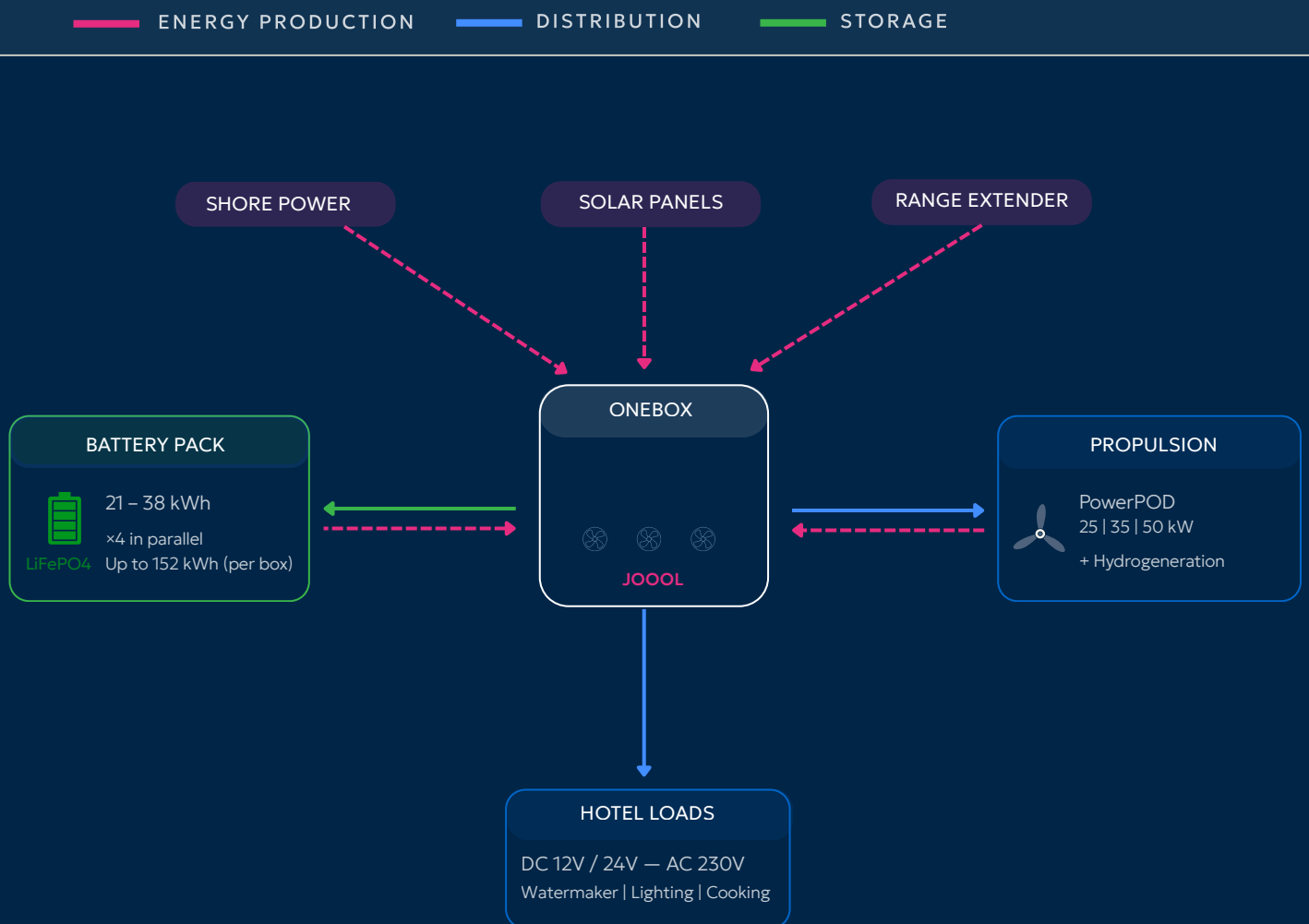
Each component is interconnected and operates as a single integrated system. The propulsion configuration covers sailing vessels from 40 to 65ft, the energy configuration scales to any vessel type up to 120ft, both adapt without redesign.

Plug & Play

Factory-wired and pre-configured. Ready to drop into a shipyard production line, standardized connectors, no specialist electrical engineering required on the vessel.

SYSTEM INTEGRATION – HOW IT WORKS

Centralized energy architecture



The JOOOL hybrid system relies on a centralized and intelligent architecture

All energy sources converge into the OneBox. It automatically manages incoming flows, prioritizes renewable sources, and optimizes battery charging with precision. Depending on the OneBox system, it powers both electric propulsion and onboard needs.

Automatic source prioritization

Solar and hydrogeneration are used first. Shore power and generator activate only when renewable input is insufficient.

12V or 24V output

Configured at installation to match the vessel's electrical architecture. DC power distributed to all service loads from a single unit.

Scalable storage

Battery capacity scales from 21 kWh to over 152 kWh with up to four LiFePO4 packs in parallel.

RANGE

Products

01 - ENERGY MANAGEMENT

EPMS Software manager

OneBox Energy

OneBox Propulsion

Inverter

Battery pack

02 - ELECTRIC PROPULSION

PowerPOD 25kW

PowerPOD 35kW

PowerPOD 50kW

03 - MONITORING & CONTROL

Marine throttle

Onboard screen and display

Chager PowerUP

Complete electric propulsion and energy management systems for sailboats and motor yachts. Designed, manufactured and supported from La Rochelle since 1997.



EPMS- Software manager

IP42

CE

HEART OF THE SYSTEM

The EPMS is the intelligence behind the entire JOOOL system. It coordinates all components : OneBox, Electric Pod, battery packs, charger, ensures they work together, and manages all energy sources in real time, prioritizing renewables and limiting generator use to when strictly necessary.

System coordinator

Connects and coordinates all JOOOL components : OneBox, PowerPod, batteries, charger. Every modules communicates through the EPMS.

Real-time energy management

Monitors and optimizes all onboard energy flows continuously. Shore power, solar, generator, battery, managed without manual intervention.

Renewable priority

Automatically prioritizes solar and hydrogenation input. Generator activates only when battery reserves require it, and stops as soon as possible.

Shipyards ready

Proprietary architecture developed and manufactured in France. Designed for production line integration : same configuration, every vessel.



KEY FEATURES

- CAN Bus
- 12/24v
- OTA updates
- Industrial connectors

OneBox-Energy

IP40

HVIL

CE

AUTOMATED ENERGY MANAGEMENT

The OneBox Energy centralizes all energy flows : shore power, solar, generator, and battery storage into a single unit. It automatically manages distribution, minimizes generator runtime, and delivers stable DC power to all onboard systems. Three output connectors allow additional options such as inverter 230VAC or direct DC bus. Several units can be connected in parallel to scale capacity with the vessel.

100A DC/DC

24V BI DIRECTIONAL

2x50A

152 kWh

MAX STORAGE

1 x 21kWh to 4 × 38 kWh

3 × 6 kW

AC OUTPUT

50/60 Hz with external inverter

32 kW

MAX GENSET POWER

415–480 VAC



SPECS

VALUE

Input battery capacity 1 x 21kWh to 4 × 38 kWh

Input battery charger [kW] up to 2x6kW

Input generator Voltage [VAC] 415-480

BI directional DC/DC [A] 2 x 50A (24V)

230V AC output up to 3 X 6kW with external inverter

Weight [Kg] 50

Dimensions H x W x D [mm] 700 x 700 x 282

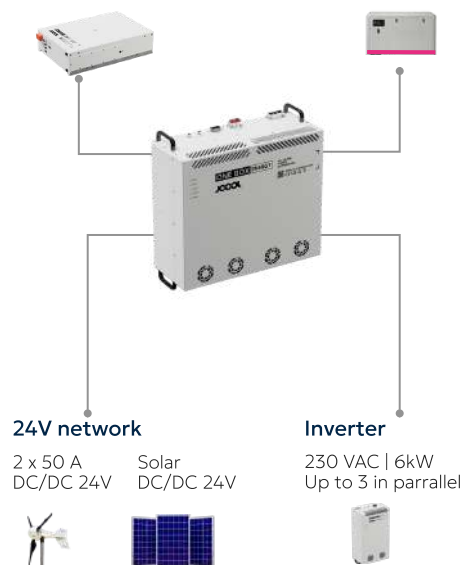
Cooling system air

Battery

1x21kWh up to 4x38kWh

Generator

415 | 480 Vac
Up to 32kW



OneBox-Propulsion

IP40

HVIL

CE

AUTOMATED ENERGY MANAGEMENT

The OneBox Propulsion integrates energy management and electric propulsion control within a single architecture. It drives the PowerPod direct-drive motor, manages hydrogeneration under sail, and coordinates all energy flows : shore power, generator, battery, solar, automatically.

50kW

MAX PROPULSION

25kW | 35kW | 50kW

152 kWh

MAX STORAGE

1 x 21kWh to 4 x 38 kWh

2 x 6 kW

MAX AC OUTPUT

50/60 Hz with external inverter

32 kW

MAX GENSET POWER

415-480 VAC



ONEBOX PROPULSION



ELECTRIC PROPULSION

SPECS	25 kW AC	25 kW DC	35 kW DC	50 kW DC
Input battery capacity	1 x 21kWh to 2 x 38 kWh	1 x 21kWh to 2 x 38 kWh	1 x 21kWh to 4 x 38 kWh	1 x 21kWh to 4 x 38 kWh
Propulsion drive [A]	60	60	90	120
BI directional DC/DC [A]	50A (12V)	50A (12V/24V opt)	50A (24V)	50A (24V)
230 AC Output [kW]	6kW	-	up to 2x6kW with external inverters	up to 2x6kW with external inverters
Weight [kg]	60	40	55	55
Dimensions H x W x D [mm]	680 x 700 x 280	680 x 430 x 280	700 x 700 x 280	700 x 700 x 280
Cooling	air			

Inverter (OIM)

IP40

HVIL

CE

ALTERNATIVE CURRENT — 230 VAC

The Inverter converts DC power into stable 230 VAC for onboard hotel loads.

Up to 3 units can be installed in parallel, delivering up to 18 kW when paired with the OneBox 50 kW.

6 kW

MAX POWER

7 kW peak

3 units

MAX IN PARALLEL

Up to 18 kW combined

530 VDC

HIGH VOLTAGE INPUT

300–790 VDC range



INVERTER

KEY FEATURES

- 50 / 60 Hz
- Lifespan > 50,000 h
- IP68 connectors
- Synchronizable

SPECS

INVERTER 6kW

Input voltage	300–790 VDC
Max power [kW]	6 kW — 7 kW peak
Output voltage	230 VAC
Weight [kg]	30
Dimensions H x W x D [mm]	600 × 344 x 215

Battery pack - LifePO4

IP45

HVIL

CE

MARINE-GRADE ENERGY STORAGE

The JOOOL Battery Pack provides energy storage for propulsion and hotel loads.

Available in four capacities from 21 to 38 kWh, up to four units in parallel.

LiFePO4 chemistry selected for thermal stability. No active cooling. No routine maintenance

10 years

OF LIFESPAN

Under normal use

7 years

GUARANTEE

80% retained capacity

80%

RECYCLABLE

Colbalt free - no weled cells

152kWh

MAX CAPACITY

1 x 21kWh to 4 x 38 kWh



KEY FEATURES

- Zero maintenance
- BMS integrated
- Industrial connectors
- Scalable & modular

FIREPRO - AUTOMATIC FIRE INSTING

88°C 190°F - SUPPRESSION
Agent released - oxygen eliminated

SPECS	21kWh	27kWh	32kWh	38kWh
Nominal Voltage VDC	205	256	307	358
Nominal Energy [kWh]	21.5	26.9	32.3	37.7
Weight [kg]	200	245	290	335
Dimensions H x L x W [mm]	275 x 760 x 770	275 x 885 x 770	275 x 1030 x 770	275 x 1165 x 770
Cooling	air			

Electric Drive

IP68

HVIL

CE

ELECTRIC DRIVE

The JOOOL PowerPOD is a compact, high-performance electric propulsion system for sailboats. Available in 25 kW, 35 kW and 50 kW, it ensures efficient, silent, and eco-friendly navigation. Direct-drive technology with hydrogenation capability.

50 kW

MAX POWER

25kW | 35kW | 50kW

up to 4kW

HYDROGENERATION

according vessel speed

500 Nm

MAX TORQUE

Proven & tested across the fleet



KEY FEATURES

- Hydrodynamic design
- Direct electric motor
- Industrial connectors
- Foldable propeller (opt)

SPECS	25kW	35kW	50kW
Thermal engine hp equivalence	60hp	90hp	120hp
Continuous torque [Nm]	250	350	500
Nominal speed	1100 RPM		
Dimensions: H[mm] x L[mm]	463 x 664		804 x 786
Ogive Diameter [mm]	172		
Propeller	22-24 inches		24-26 inches
Weight [kg]	58	58	125
Cooling	natural		

MONOHULL & MULTIHULL

PowerPOD 25

PowerPOD 35

PowerPOD 50

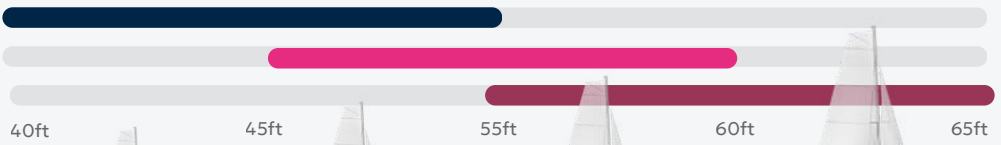
40ft

45ft

55ft

60ft

65ft



Energy production

Consumption

Storage

Shore power
Solar panels
Generator

Propulsion
Hydrogeneration

Energy storage

Hotel load 12V/24V - 230V



Hybrid marine throttle

IP66

HVIL

CE

SMOOTH OPERATION

Provides intuitive and secure control of electric or hybrid propulsion, from start-up to regeneration, all with one hand. Available as single lever (monohull) or dual lever (catamaran).

CAN Bus / Analog / PWM

12-24V DC

Dual helm stations



SINGLE LEVER
Monohull



DUAL LEVER
Catamaran

KEY FEATURES

One-handed operation

Ergonomic design for precise & intuitive control

Neutral point detection

Click-feedback confirms neutral and ensures safe stop

Auto-calibrating sensor

Self-adjusting potentiometer — no upkeep required

Prop / Regen buttons

Dedicated buttons for propulsion and regenerative braking

Quick connection setup

Fast installation with plug-and-play interfaces

IP66 waterproof

Rated for harsh marine environments

SPECS

VALUE

Power supply

12-24V DC

Output

CAN Bus / Analog / PWM

Materials

Aluminium, A2 Stainless Steel, POM

Interfaces- Onboard display

CE

ONE SCREEN FOR THE WHOLE SYSTEM

The JOOOL display centralizes all hybrid system data into a clear, intuitive interface. Whether you're cruising, regenerating, or charging at anchor, it adapts in real time to match your onboard needs, you stay in control effortlessly.

7" sunlight-readable

Marine-grade IP67

Dual-station ready

CAN bus integration



PROPULSION INTERFACE

[catamaran display]



ENERGY MANAGEMENT INTERFACE

[catamaran display]

KEY FEATURES

Power flow monitoring

Full picture of onboard energy at a glance. Track how solar panels, shore power, and batteries supply all onboard systems in real time.

Propulsion performance

Live motor insights for single or dual engine. Monitor RPM and power output per engine to optimize efficiency, range, and responsiveness.

Marine-grade touchscreen

Rugged, waterproof and sunlight-readable. Designed for permanent deck exposure in all sea conditions.

Autonomy & regeneration

Monitor energy recovery in real time while sailing. See autonomy forecasts and live battery charge status at a glance.

Charger

IP67

HVIL

CE

COMPACT & GLOBALLY COMPATIBLE

An advanced high-efficiency charger built for marine and industrial use. With robust design, wide input compatibility, and compact size, PowerUp delivers reliable performance in every port in the world.

CAN BUS

AC 90–265V



3.3 kW or 6.6 kW output

Delivers strong and reliable output, ideal for hybrid marine propulsion systems. Two power levels to match vessel requirements.

Global compatibility

Wide input range — AC 90–265V / 47–63Hz — for worldwide port use. No adapter or configuration change required.

SPECS

PowerUP 3.3

PowerUP 6.6

Output current [A]

10

20

Input Voltage Range [VAC]

90-265

Frequency

47-63

Lifespan

>40 000 hours



JOOL

*Powering
ocean freedom*

Monohull – system integration

DUFOUR 48 - DUFOUR YACHTS



Multihull— system integration

FP44 - FOUNTAINE PAJOT





OneBox Propulsion

PROPULSION	2 x 25kW
ENERGY STORAGE	2 x 32kWh

Leopard 52
powered by JOOOL



OneBox Propulsion

PROPULSION	2 x 25kW
ENERGY STORAGE	2 x 27kWh

Leopard 46

powered by JOOOL



OneBox Propulsion

PROPULSION	50kW
ENERGY STORAGE	38kWh

Dufour 54
powered by JOOOL



OneBox Propulsion

PROPULSION	2 x 25kW
ENERGY STORAGE	4 x 32kWh

DAY 1

powered by JOOOL



OneBox Propulsion

PROPULSION	2 x 25kW
ENERGY STORAGE	2 x 27kWh

FP 44

powered by JOOOL



OneBox Propulsion

PROPULSION	25kW
ENERGY STORAGE	32kWh

Dufour 48

powered by JOOOL



OneBox Energy

PROPULSION	Thermal
ENERGY STORAGE	2 x 32kWh
230 VAC Output	18kW

Power 70
powered by JOOOL



OneBox Energy	
PROPULSION	Thermal
ENERGY STORAGE	2 x 152kWh
230 VAC Output	2 x 18kW

Power 80

powered by JOOOL

JOOL

*Powering
ocean freedom*



20 millions
passengers transported

119 boats
in service

1 millions
hours of operation

CHOSEN BY LEADING SHIPYARDS



www.jool.energy
info@jool.energy
+33 5 46 44 87 17
La Rochelle, France

+119 vessels
around the world
30 years
of experience
1 million
hours feedback

Catalogue 2026 Copyright ©

@jool_energy

