

ON BOARD WITH **FUN** **SAFE & CLEAN POWER**

NEXT GENERATION E-DRIVE

LIGHT
WEIGHT

INTEGRATED
CONTROLLER

ROBUST &
RELIABLE

UNIQUE
SAFETY

MOLABO

ISCAD V50

48 V | 50 kW





UNLIMITED FUN

From the very **first moment** you feel the power of **maximum acceleration**. No delay. An absolutely unique boating experience!



NATURE SAYS THANK YOU

A single drop of fuel pollutes thousands of litres of water. The superior efficiency of our electric motors **reduces your CO₂ footprint**.



ENJOY THE SILENCE

Electric motors are **completely quiet** and **generate less vibration**. The noise pollution for marine life is reduced, and you can **enjoy the silence** above water.

CLIMATE NEUTRAL
SOLUTIONS WITHOUT
HAVING TO COMPROMISE



ISCAD - THE INTELLIGENT STATOR CAGE DRIVE



LIGHT WEIGHT

Light weight reduces energy consumption and maximizes range. At **45 kg, including motor and controller**, our drive is much **lighter** compared to conventional electric models.



INTEGRATED CONTROLLER

ISCAD combines **motor and controller in a single unit**. This compact solution is **easily integrated** into boats, which **reduces cabling efforts** and **saves installation space**.



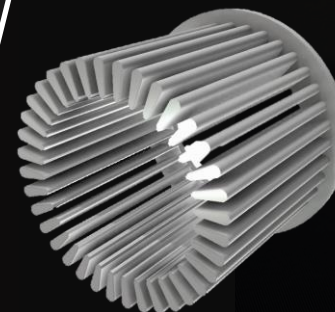
ROBUST AND RELIABLE

Due to the unique motor design, using a **stator cage**, ISCAD is much **more robust and failure tolerant** than conventional electric drives.



UNIQUE SAFETY

ISCAD is the first electric drive that can deliver a power output of **50 kW** at **safe-to-touch voltages of 48 V**.



STATOR CAGE



ISCAD V50

VARIOUS APPLICATIONS



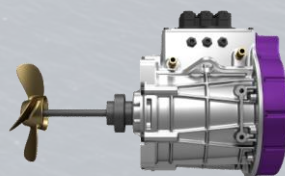
The drive is ideally suitable for:

- Motorboats
- Sailing yachts

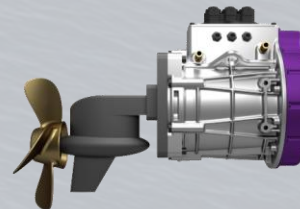
50 kW | 48 V

Rated Power	50 kW
Max. Power	80 kW
Voltage	48 V
Motor Speed	4,350 rpm
Mass	45 kg
Dimensions	Ø 254 mm, L: 265.5 mm
Motor Type	PM-SynRM

*Data incl. motor and controller



Shaft



Z-drive



Outboard



Saildrive

48 V

ADVANTAGES OF A LOW VOLTAGE SYSTEM



LV
CABLE



HV
CABLE

UNIQUE SAFETY

- A voltage of **48 V** is so low that in general, **contact** is possible **without risk**. The contact of a high-voltage system, on the other hand, can be life-threatening.
- Unlike a high-voltage system, there is **never any risk of electric shock**.

EASY INTEGRATION & MAINTENANCE

- **Wiring and clamping technology** for low-voltage systems are **much simpler** than for high-voltage systems.
- For low voltage systems, **integration and maintenance** are possible **without special high-voltage training**. This increases your flexibility and reduces costs.
- **No high-voltage technical inspection** is required.

ADVANTAGES OF A 48 V BATTERY

- The design of the **battery management system** is considerably **simplified**.
- The **availability** of the entire battery is significantly **increased**.

NO ADDITIONAL CONTROLLER NEEDED.

EXEMPLARY SETUP

THROTTLE

J1939 Standard



DISPLAY

Standard commercial navigation



DRIVETRAIN

Reduction gearbox with output
torque 305–470 Nm



CHARGING DEVICE

Commercially available charger
3–20 kW



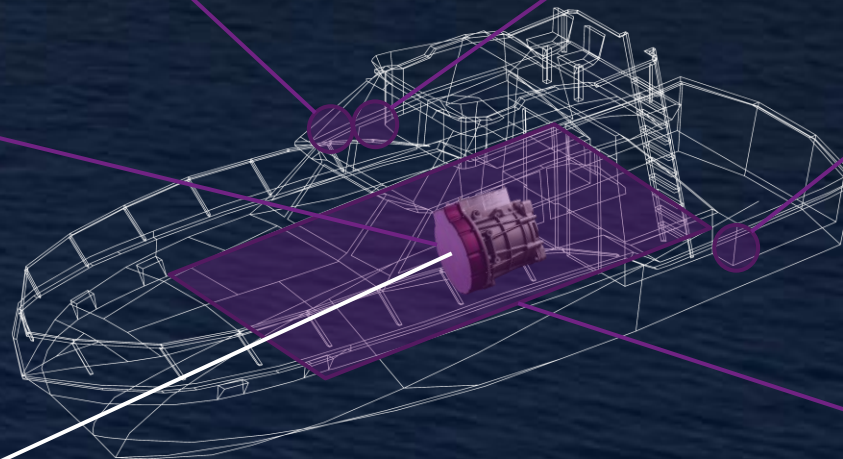
MOTOR INCL. CONTROLLER

ISCAD V50 incl. integrated
control unit with CAN Bus



BATTERY

30–150 kWh on the basis of
of 48 V standard modules



ABSOLUTE **FLEXIBILITY**

ECO

Power	30 kW
Capacity	20 kWh
Charging	3 kW
Display	7 Zoll touch
Throttle	CANBus

COMFORT

Power	50 kW
Capacity	30 kWh
Charging	10 kW
Display	7 Zoll touch
Throttle	CANBus

PERFORMANCE

Power	50 + 80 kW
Capacity	55 kWh
Charging	20 kW
Display	7 Zoll touch
Throttle	CANBus, Premium

MOLABO

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