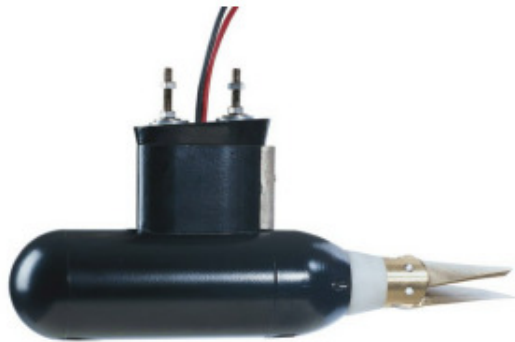


ELECTRIC POD - OUTBOARD MOTORS



all4solar
123 Harbour Drive
Trinity Park QLD 4879
ABN 61832274764
www.all4solar.com.au

all4solar
electric boat engines & solar power



Krätzler Advanced Electric Boat Engines Technology since 1971

Why install the advanced high tech induction POD's or Outboard Engines when you can get cheap DC motors for less money?

Induction motors do not contain permanent magnets or brushes which limit the torque and wear out. An induction motor offers the full torque over the whole rotation range. These engines are completely maintenance free and can run for far over 10000 hours.

These low voltage induction motors run on battery power controlled by a fully programmable inverter controller.

If you think about serious electric boat propulsion, an induction motor is the only way to go.

**ELECTRIC
AC POD MOTORS
2.4 - 9.7 KW 4 - 18 HP ***



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**Maintenance free
AC induction motor**



POD engine



curve shaped shaft



**THE COMPLETE KIT TO MAKE
YOUR BOAT ELECTRIC**

Krätler Motor Technology since 1971

THAT'S INCLUDED

- Advanced electric AC induction motor for 24/48 V DC
- Optional shaft, bracket and remote steering outboard
- Fix propeller 11'-13' / 3 blade
- Cables with plug to battery | Main Switch | Contactor
- Single lever with switch lock all prewired
- 5.1 KW h lithium battery pack with BMS 24/48 V DC or alternatively 4.8 KW h lead acid AGM
- Digital motor controller | battery monitor
- Battery charger 24/48 V for lithium battery

THAT'S THE PERFORMANCE

- 4/5 KW | 8 HP* output 108 A | 80% eff | 200 lbs thrust
- 8/9.7 KW | 16 HP* output 202 A | 82% eff | 350 lbs thrust
- Weight 30-44 kg 110 kg (lithium) 178 kg (lead acid)
- For boats upto 4.0 t / 8.0 t (one engine sailing boat)
- Run time at an average 40% throttle 2h30m | 1h15m

* performance thrust with lithium batteries average 100-1500 rpm

THAT'S THE COST

- For the latest prices see www.all4solar.com.au/SHOP or contact us.



OPTIONS

- Outboard (500-900 mm shaft)
- Tiller/remote
- Folding prop

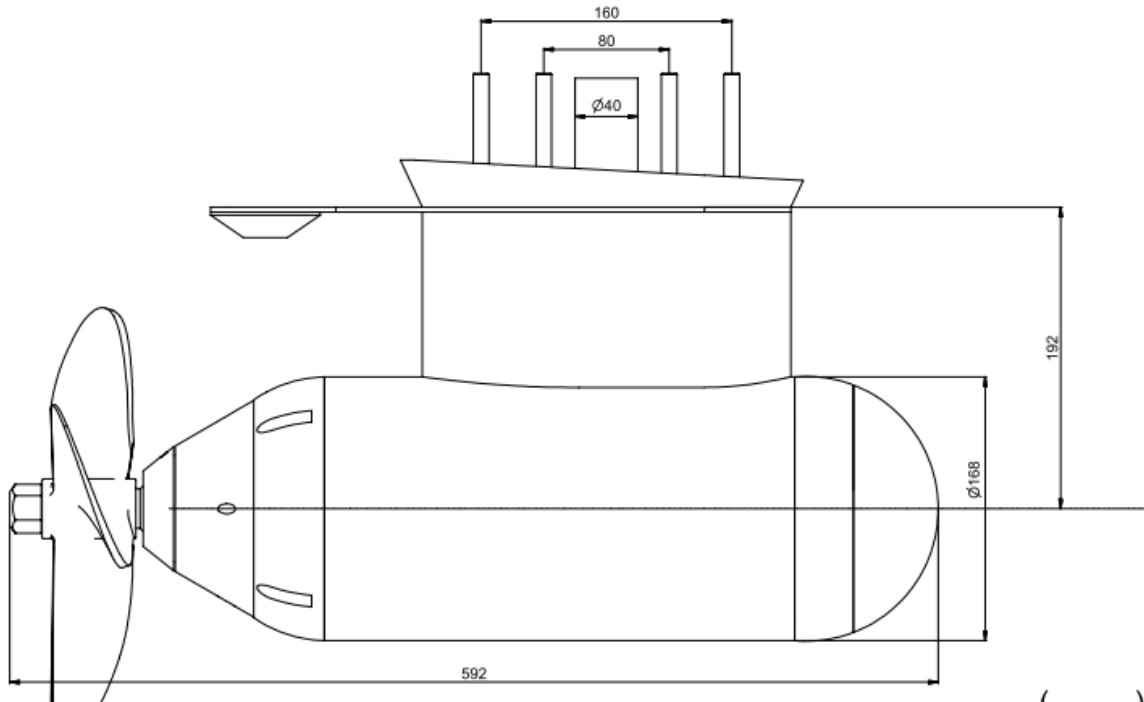
ELECTRIC
AC POD Dimensions
8 / 9.7 KW engine



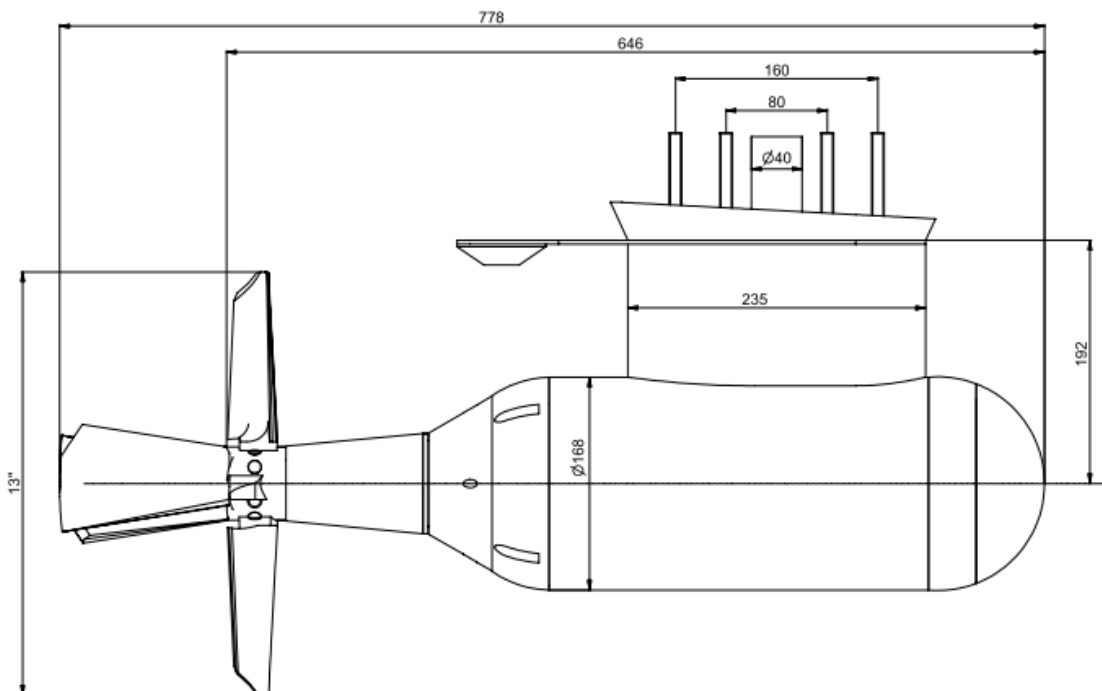
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9.7 KW induction motor pod | 10 mm bolts for fixing | 35 kg | 44 kg (outboard)



Folding prop option



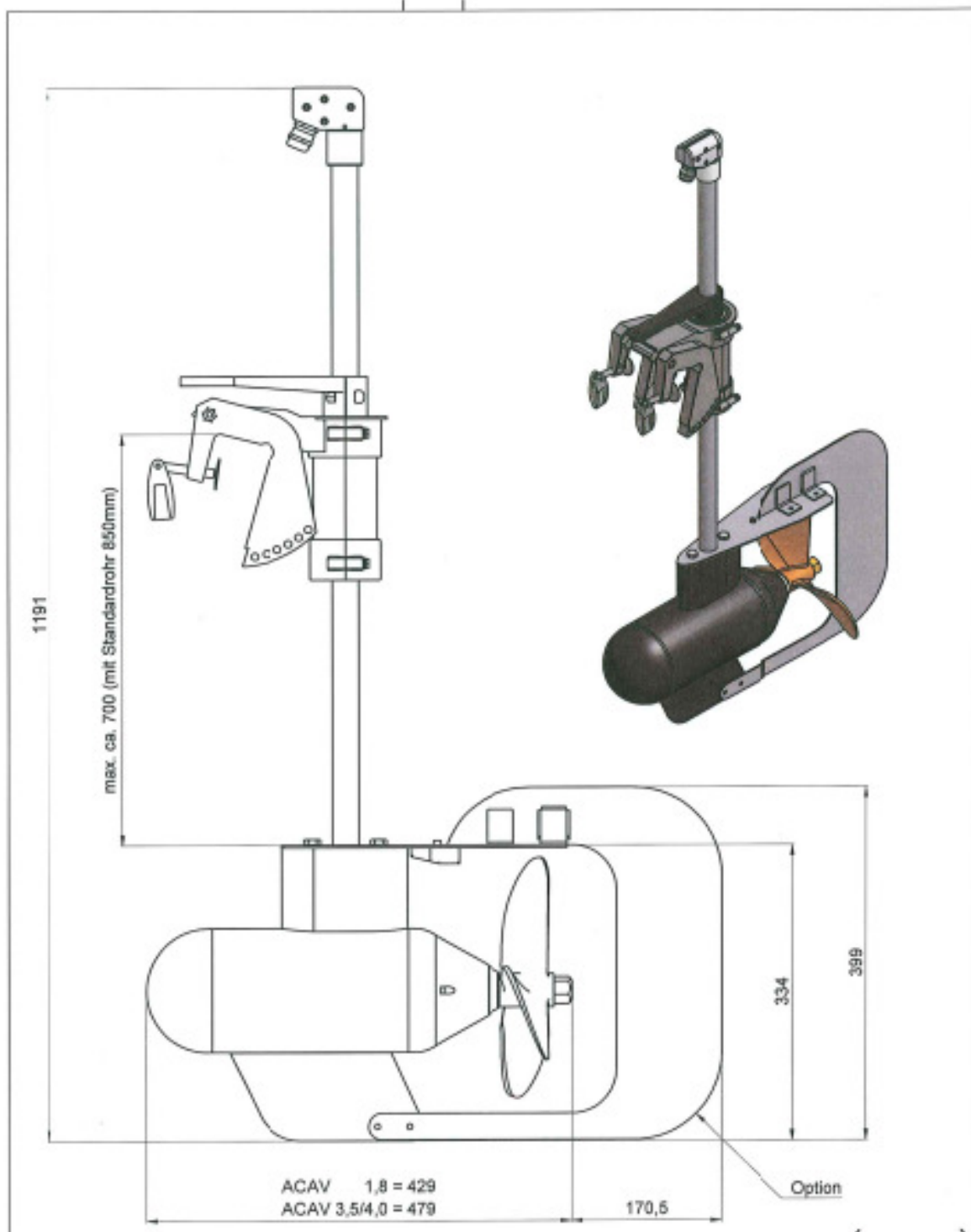
ELECTRIC AC POD Dimensions 2.5 — 5 KW engines



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2.5-5 KW induction motor outboard version for remote or tiller option
25-30 kg POD | 35-40 kg outboard version



Prices 2013 subject to change without notice. Prices only binding if confirmed by individual quote.
info@all4solar.com.au | 04 00 275 866 | 07 4057 6251 | Version 1.3—01.01.2014

ELECTRIC AC induction motor Controller unit

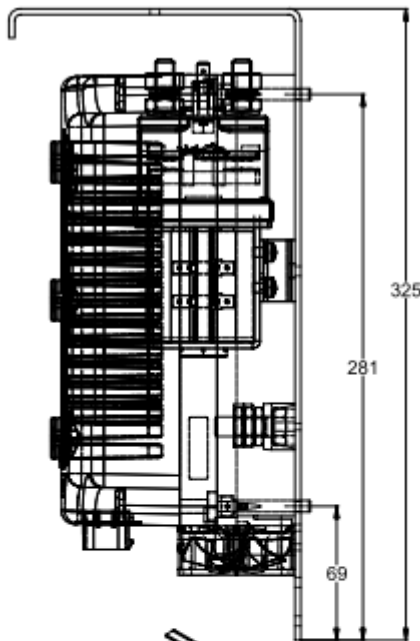
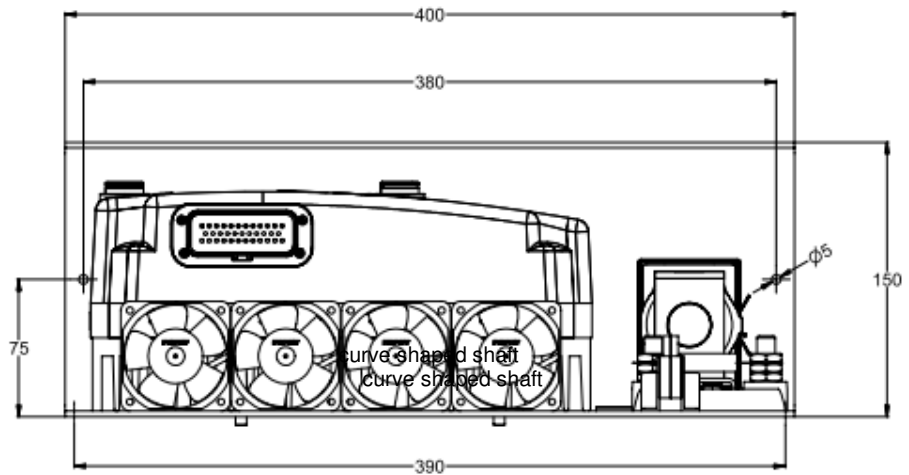


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Option:

Software & USB cable to Windows PC to program engine parameters. The programming is usually done by all4solar according to the customers setup requirements and does not require changes.



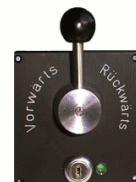
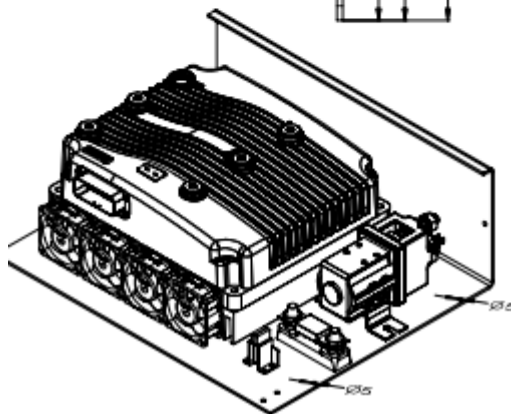
24-48 DC
150 A nominal
250 A max

Curtis Controller for AC induction motors

Aluminium base
Main fuse
Main contactor
Battery connection
Motor power connection
Motor temp / position encoder connection
Lever connection
Key Switch connection

Air cooling (ventilation)
Aux fuses

Single lever or dual lever (for 2 engines)



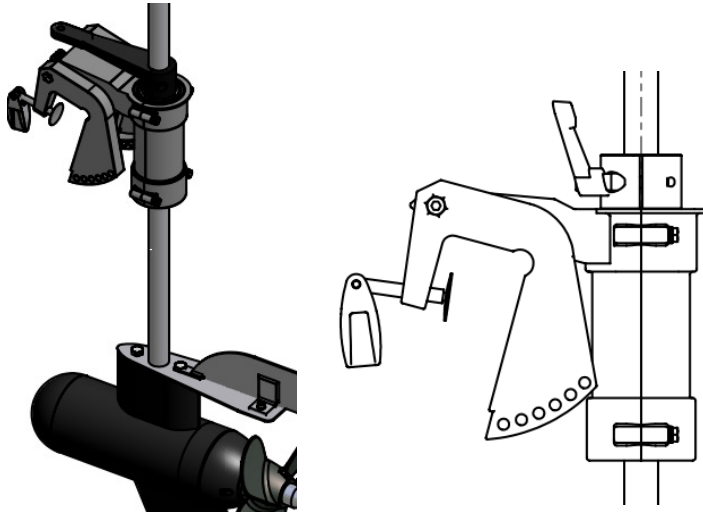
ELECTRIC AC induction POD motor Installation



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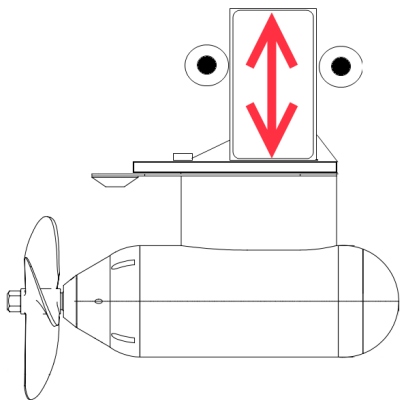
Outboard Bracket (option with outboard setup)



Standard Outboard Bracket for fix or rotating setup. Shaft length is variable to 1200 mm. Longer shafts require a fix installation with a horizontal lift (see below).

The motor controller has to be installed in a dry compartment inside the hull.

Vertical Lift (option)



Vertical engine lift manual or with electric actuators upto 500 mm / 200 kg lifting capacity (2000 N).

A square aluminium profile (100 x 100 mm) is welded to an aluminium base plate which is bolted to the POD cage (2 x or 4 x M10). The cables are mounted trough the profile. 16 rolls in an aluminium frame guide the engine which can be lifted manually of with electric actuators pulling the engine. Install the actuators upside down. Only use aluminium or stainless shafts and ball joints.

A cable winch is not suitable unless the engine is locked vertically when in the water, as the rotation power can lift the engine during operation.

