

# Shaft drives

## Inspiration

For electric motors constructed ships have in the rarest cases, a shaft drive system, because the powertrain require much space and the installation of the shaft system is complex. However, the modification of an existing system is always a challenge that can be implemented with a shaft drive of Kräutler. Whether sail or motor boat, whether daysailer or passenger ship, the possibilities are diverse and the demands on the systems highly. Kräutler has the right solution for our boat.



WAAd 2,0 - 4,3 AC



WAAd 8,0 - 10,0 AC



WAZ 8,0 - 15,0 AC



WAZ 20,0 - 25,0 AC

## Low noise

The luxury of being able to move almost silently is the most beautiful experience of navigating with an electrically powered boat. By the selection of the gearbox the efficiency and smooth running are very important. Only with the use of gears which match these criteria, it is possible to offer innovative drive solutions for your application.

## System

By a new boat design, the shaft and propeller are dimensioned according to the characteristics of the electric drive. For this application a Kräutler shaft drive (without a gearbox) fits perfectly. For an existing shaft system with propeller, the shaft drive with a gearbox can be adjusted to the existing system.

## Environment

The future drive technology belongs to the electric motor. Besides the higher efficiency of an electric motor compared to a gasoline engine, the electric motor scores with its zero emissions. An additional advantage is that in comparison to the gasoline engine the electric motor is more simple structure and the resulting reduced amount of wear parts.

Article no.	Type	Power consumption	Power output	Voltage	Current	Total efficiency	Weight	up to boat weight			
								Sailing boat	Powerboat		
141011	WAAd 2,0 AC	2,5 kW	2,0 kW	24 V	104 A	80 %	35 kg	2,0 t	0,8 t		
	WAAd 4,0 AC	4,8 kW	4,0 kW	24 V	201 A	83 %	35 kg	4,0 t	1,6 t		
140447	WAAd 4,3 AC	5,1 kW	4,3 kW	48 V	108 A	83 %	35 kg	4,3 t	1,7 t		
1432603	WAAd 5,0 AC	6,0 kW	5,0 kW	48 V	124 A	83 %	35 kg	5,0 t	2,0 t		
140490	WAAd 6,0 AC	7,2 kW	6,0 kW	48 V	152 A	83 %	44 kg	6,0 t	2,4 t		
140756	WAAd 8,0 AC	9,4 kW	8,0 kW	48 V	193 A	86 %	44 kg	8,0 t	3,2 t		
	WAZ 8,0 AC						74 kg				
141281	WAAd 11,0 AC	13,0 kW	11,0 kW	48 V	270 A	85 %	69 kg	10,0 t	4,0 t		
	WAZ 11,0 AC						74 kg				
	WAAd 15,0 AC						69 kg			15,0 t	6,0 t
	WAZ 15,0 AC						97 kg				
	WAAd 18,5 AC	21,0 kW	18,5 kW	96 V	219 A	88 %	69 kg	18,5 t	7,4 t		
	WAZ 18,5 AC						97 kg				
water cooled											
	WAAd 15,0 AC	17,7 kW	15,0 kW	48 V	370 A	85 %	76 kg	15,0 t	6,0 t		
	WAZ 15,0 AC										
	WAAd 20,0 AC	23,1 kW	20,0 kW	48 V	480 A	88 %	97 kg	20,0 t	8,0 t		
	WAZ 20,0 AC										
	WAZ 25,0 AC	28,4 kW	25,0 kW	96 V	296 A	88 %	107 kg	25,0 t	10,0 t		
	WAZ 30,0 AC	34,1 kW	30,0 kW	144 V	237 A	88 %	168 kg	30,0 t	12,0 t		
possible option											
139538	Shaft $\varnothing=25\text{mm}$ up to 1,4m with stern tube 0,5m and rubber packing										
104446	Option mechanical seal for shaft $\varnothing=25\text{mm}$										
105322	Special base plate										
103247	Stern bearing to be screwed from outside										
101938	Shaft buck with rubber bearing $\varnothing=25\text{mm}$										
102659	Shaft buck with bearing and flange plate										
	Control unit KCU 5.7 for passenger ships with the possibility to connect a camera										
141590	Camera for KCU 5.7										
	Boost function 30% performance increase for 2 minutes										

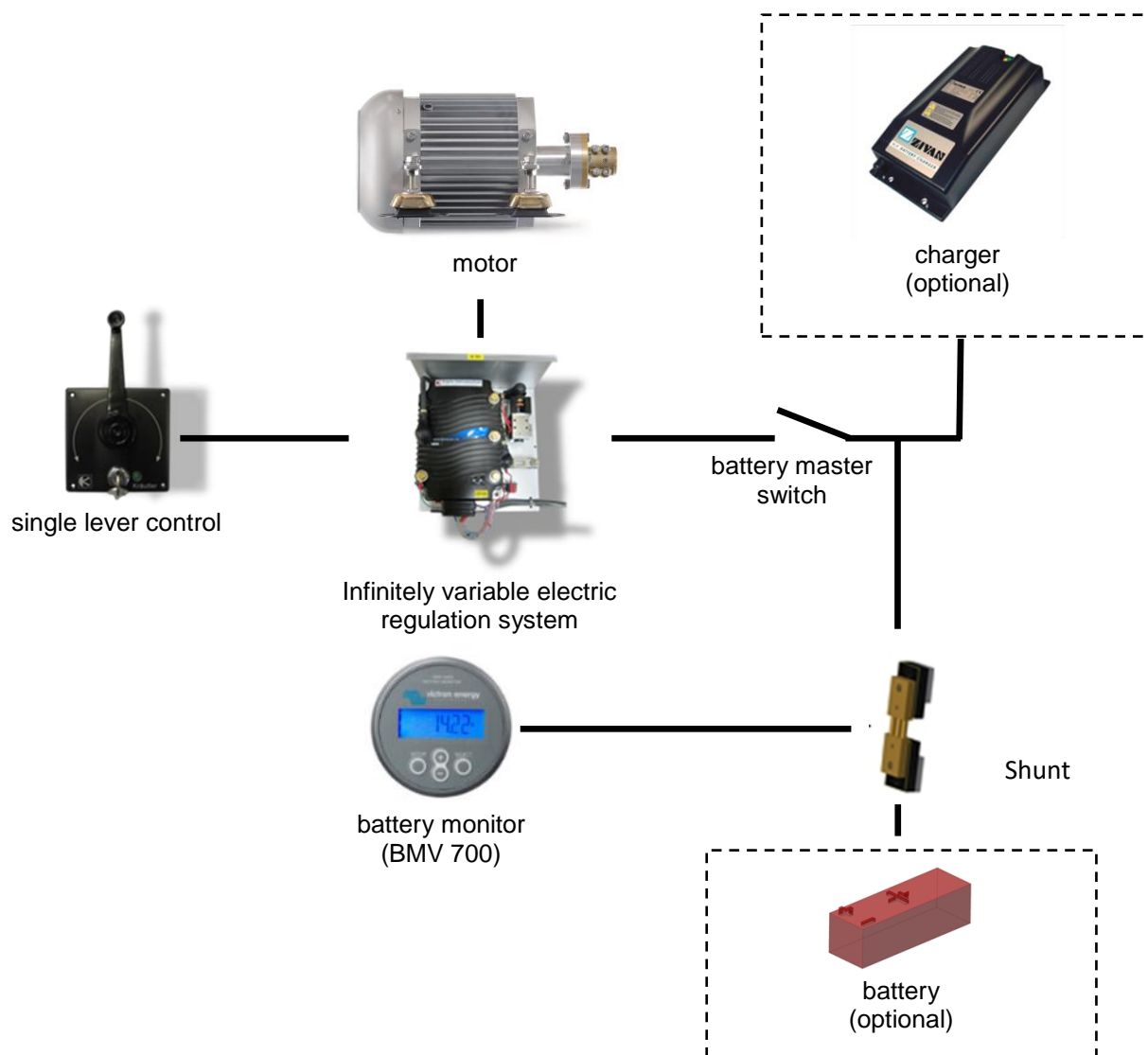


# Shaft drives

All electric drives for existing shafting (except for high speed) consist of:

- Motor with appropriate bracket or base plate with helical gear
- Clutch for shaft with Ø25mm
- Electric regulation system mounted on an aluminium base plate with fuse and cut-off relay
- Single lever control (throttle) for panel mounting in standard version with key switch, status LED, black front panel, black aluminium lever and mounting screws
  - Special designs at additional cost
- Cable set: controller-battery 3m, controller-motor 1,5m, controller-single lever control 5m
  - Optional cable lengths at additional cost
- Battery master switcher and battery fuse
- Battery monitor BMV 700 or BMV 700H with shunt and 10m connecting cable

**Attention: Water cooled drives are only useable in seawater with 2-circle water cooling.**



More information can be found in our catalog.  
[www.kraeutler.at/motoren/bootsmotoren](http://www.kraeutler.at/motoren/bootsmotoren)

