

| Fact Sheet Solar Catamaran TÛRANOR PlanetSolar

Length (with flaps)	31 m (35 m)
Beam (with flaps)	15 m (23m)
Height above waterline	6.10 m
Draft	1.55 m
Deadweight est.	85,000 kg
Crew planned for circumnavigation	4 people
Working hours for completion	68.000
Cruising Speed est.	7,5 kn (14 km/h)
Max. Speed	14 kn (26 km/h)
 <u>Solar Generator</u>	
Surface of	537 m ²
Power (STC)	93,5 kW peak (ca. 127 PS)
Efficiency	18.8%
 <u>Battery</u>	
Technology	Lithium Ion (NCA)
Battery Voltage	388 V
Capacity	2910 Ah (485 Ah / cell)
Total Cells	648
Weight per Cell	13 kg
Total Weight Battery with chassis	ca. 11 tons
Efficiency	> 95% (in solar yacht application)
 <u>Motor (2 motors each side)</u>	
Type	Permanent Magnet Synchronous Motor
Nominal Power	2 x 10 kW @ 1000 rpm (only 1 motor each side)
Maximal power	2 x 60 kW @ 1600 rpm (2 motors each side)
Transmission Ratio	1:10
Efficiency @ nominal load	92 %
 <u>Propeller and Steering System</u>	
Principle	Vector Prop, Rudderless Steering System Pitch Control for optimization efficiency
Propeller	5 blades
Diameter	about 2 meters
Nominal Speed / Maximal Speed	100 rpm / 160 rpm
 <u>Materials used</u>	
Carbon Fibre	20.6 t
Sandwich Core	11.5 t
Epoxy Resin + Hardener	23 t

Status: April 2010 (K2K)