






Solar Powered Yachts

Silent 55 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	55	16.70m	16.70m	8.46m	1.20m	9 kW	30 m²	29.13
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	knots
	17 t	22 t	2 x 25 kW	22 kW	30 kWh	7 kts	12 kts	
Notes 10 kWp solar, 30 kWh battery, 22kW generator, up to 20kt with 2x135 kW motors. First named SolarWave 54. Rename / rebranding to Silent-yachts.com? Solarwave 46 less stylish early model SolarWave 64 2 x 60 kW motors, topspeed 11 kts, 160 kWh batteries, 15 kWp solar, 22 kW generator. Solar only range: 100 miles @ 4kts, 50 miles @ 6 kts (12 kW input), 25 miles @ 7 knots (19 kW)								
Links solarwave-yachts silent-yachts.com								


Sun21 / Aquabus C60 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	45	14.00m		6.60m	1.00m	10 kW	65 m²	75.83
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	knots
	12 t	15 t	2 x 8 kW	22 kW	50 kWh	5 kts	7 kts	
Notes First solar boat to cross the atlantic at 5-6kts 24/7. Lead battery instead of lithium and less efficient solar panels Solar Heritage ferry in winchester								
Links transatlantic21.org solar-ferry								


Soelcat 12 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	39	11.80m	11.80m	5.80m	0.70m	8.6 kW	45 m²	97.32
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	5.5 t	10 t	2 x 30 kW		120 kWh	6.5 kts	14 kts	
Notes Slim 240Wp panels 1.6m x 0.8m, 8 hour range at 8 kts, produces 25.6 kWh daily, demountable, synchronous inboard motors, netherlands								
Links soelyachts								


FlatCat Solar 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	39	11.95m	11.90m	5.60m	0.70m	6.3 kW	32 m²	83.65
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	4.5 t	6 t	2 x 10 kW	12 kW	40 kWh	6 kts	8 kts	
Notes Slim 250 watt panels, AGM battery 800kg, 0.7m bridgedeck clearance, 1:12 hull aspect ratio								
Links multihull.de								


Horizon SunCat 46 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	46	14.12m		5.00m	1.00m	6.0 kW	48 m²	32.01
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	21 t	21 t	2 x 8 kW			4.3 kts	5.9 kts	
Notes From 2010, very heavy, 3.2 kWp Solar, Range 8hr@cruise speed, fisher panda motors, 28 panels?								
Links								


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Heliodive 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	38	11.70m		5.70m		10.0 kW	30 m²	63.82
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	5.5 t	8 t	2 x 65 kW		50 kWh		20 kts	
Notes Aluminium, dismountable, 2 x 345V torqeedo deep blue, Designer: Alexis Synodinos from France Links heliodive youtube								

DSe Island Pilot 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
		12.00m	11.13m	5.19m	0.89m		37 m²	49.87
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	9.0 t	9.8 t	2 x 7 kW / 2	10 kW	20 kWh	5 kts	8 kts	
Notes Defunct, from 2009. 6 kW @ 6 knots, 50kWh battery? Links dsehybrid webarchive								


"Black Hole Sun" bobcat 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	26	8.08m	7.78m	4.42m	0.63m	2.2 kW	9 m²	36.36
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	2.0 t	2.7 t	2 x 4 HP (8kW)	4 kW	20 kWh	5 kts		
Notes Range 75 km on batteries, Winston LiFePO4 48V, Rayco Twin 4HP, 2x Honda 2000 Generators, flexible solar panels? Hullcalc.xls predicts 1.5kW@5kts Links boatdesign.net youtube								


"RA" solar trimaran 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	48	14.64m				4.9 kW	34 m²	99.55
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	5.0 t		10kW + 2x4kW					
Notes Designer and builder Jim Greer, 6.3 kWp solar?, 2kW to move it, 20x 245Wp panels, Torqeedo outboards, used to have outriggers with solar now removed? Top speed of 10.7 mph at 7,300 W, normally 5mph with 30 mile range per day Links								


Sobotia catamaran 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	44	10.30m	8.24m	4.65m	0.84m	2.0 kW	14 m²	28.02
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	5.0 t		4kW torqeedo		8.5 kWh	2.8 kts	4.5 kts	
Notes Converted Catalac 10 / Catalac 34 by a non profit club in Luebeck for educational purposes, used crowdfunding. 4x180Ah AGM lead batteries. Test results: 4.5kW=4.5kts(16,6 nm range), 2.5kW=3.5kts(24nm), 1kW=2.8kts(47nm) Links sobotia (german only) youtube								


e Clou monohull 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	29	9.00m		2.80m		1.3 kW	7 m²	34.00
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	1.8 t		10 kW		20.0 kWh	5.0 kts	7.6 kts	
Notes 2kW=5kts, 4.5kW=7.6kts in deeper lake water Links youtube								

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Blue Planet 32E 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	32	9.76m	9.76m	4.88m	0.33m	200.0 kW		#DIV/0!
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
			2 x 2 kW		5 kWh	6.0 kts	7.0 kts	
Notes Not really solar but electric. Twin Cruise 2.0R Torqeedo. Optional wind generators too. 80 miles range, \$200000 Links blueplanetcats youtube								

EcoloStation Solar Cat 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
		10.00m		4.00m		3.0 kW	20 m²	68.00
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	3.0 t		2 x 4kW		10 kWh	6.0 kts	9.0 kts	
Notes No info on length or beam or displacement. Cruising speed 6 knots unlimited range, 9 max speed with range 2h. Prototype for sale 71k€ Links https://www.ecolostation.fr/electro-solar-boat								

Planetsolar 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
		31.00m		15.00m		97.3 kW	512 m²	186.73
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	85.0 t	100.0 t	2 x 60kW + 2 x 10kW			7.5 kts	8.0 kts	
Notes 35m x 23m with flaps! 40M² auto kite, 8t of batteries, 200kg hydrogen storage Links https://www.raceforwater.org/en/#boat								

Energy Observer 	Feet	LOA	LWL	BOA	Draft	Solar peak	Solar Area	Cs
	100	30.50m		12.80m		21.0 kW	130 m²	141.61
	Lightship	Loaded disp	Engines	Generator	Battery	Cruise Speed	Max Speed	
	28.0 t		2 x 41 kW	22 kW	106 kWh	8.0 kts	10.0 kts	
Notes 22 kW power fuel cell, 8 tanks with 62kg hydrogen, 2x 1kw wind turbine, smart traction kite, 5kW hydrogeneration with kite Links http://www.energy-observer.org/en/								

Other solar power catamarans

Aerofleet solar catamaran

Silistra Solar Catamaran

RA trimaran

Tamar catamaran

OCIUS Solar Sailor

Trybrid

Solar Albatross

Moondog

RayPower Solar Boote

48', Belgium build, swiss customer, 7.5 beam, 8t displacement, Custom version of "Defline Areo 48e" <https://www.youtube.com/watch?v=FqFmREfn8Yw>

Danube. [Video](#). PV 5kWp poly Inverter/charger- 4.5 kVA Battery- 2X 48V180Ah 8,64 kWh Lifepo4 with BMS EI outboard - 2X from 5kW up to 7kW (by setting of the controller) AIS/GPS transmitter radiostation LED ligts Konstruktion: LDPE moduls Tube frames Aluminium floor Top speed 14 km/h 140A curent Nominal speed 5km/h (All day- 60A only from PV)

Also called RA, canadaian. <https://www.youtube.com/watch?v=TeB0fyCKazw>

60' <http://www.shuttleworthdesign.com/gallery.php?boat=floatingclassroom>

https://en.wikipedia.org/wiki/OCIUS_Technology

<http://www.trybrid.org/trimaran/about-2/>

<https://web.archive.org/web/20180727195951/http://www.trybrid.org:80/trimaran/about->

Solar PV sail, for "Solar Sailor", <http://elcat.eu>

<https://www.youtube.com/watch?v=dMli0zNjaKE>

18', PV Solbianflex 500w, Torqueedo Cruise2R, 2 x 55AH Optima Blue spiral lead acid batteries. <https://www.youtube.com/watch?v=DnzLvCr9JGw>

<http://www.kopf-solardesign.com/solarboote-und-solarschiffe-fuer-den-tourismus-und-f>