EXTREME H2O · FOILING OCEAN CATAMARAN · TECHNICAL SPECIFICATION

PB72 SPECIFICATIONS

MORRELLI & MELVIN · GA PB72_001 REV A · PERSICO MARINE BUILD SPEC

LENGTH OVERALL	BEAM	RACING DISPLACEMENT	MAST
21.95 m 72.0 ft	**9.50 m** 31.2 ft	**≈ 21.5 t** As built · VPP targets at 20.3 t	**32.33 m** Air draft 37 m
UPWIND SAIL AREA	**FASTEST UPWIND**	**FASTEST DOWNWIND**	**PREDICTED TOP SPEED**
420 m² Main 224 + J1 196	**J3 + main** Full main 224 + J3 115 m²	**MHO + main** Full main 224 + MHO 358 m²	**40+ kn** VPP

PRINCIPAL DIMENSIONS

LENGTH OVERALL	21.95 m 72.0 ft
LENGTH INCL. LONGERON	24.10 m 79.1 ft
LENGTH WATERLINE	21.45 m 70.4 ft
BEAM OVERALL	9.50 m 31.2 ft
HULL CENTRELINE SPACING	7.52 m 24.7 ft
FREEBOARD	2.07 m 6.8 ft
DRAFT, BOARDS DOWN	5.31 m 17.4 ft
DRAFT, FOILS RAISED	0.65 m 2.1 ft
AIR DRAFT	37.00 m 121.4 ft

DISPLACEMENT & STABILITY

LIGHT DISPLACEMENT	≈ 21,000 kg As built · design 20,500 kg
RACING DISPLACEMENT	≈ 21,500 kg As built · as sailed in sea trials
VPP TARGET DISPLACEMENT	20,280 kg Design racing weight used for the polar targets
DESIGN DISPLACEMENT (MLDC)	23,047 kg Maximum load condition
MAX TOTAL LOAD (ISO 8666)	22,518 kg
STEADY-STATE SAILING RM	830 kNm At full-payload displacement
MAX DYNAMIC RM	1,340 kNm Race mode, RMFoil deployed

RIG

MAST TUBE LENGTH	32.33 m 106.1 ft
MAST DESIGN RAKE	4°
P	31.285 m Reefs: 26.604 · 21.970 · 14.190 m
E	9.678 m
I (1 · 2 · 3)	33.470 · 32.775 · 30.900 m
I HEADSTAY (5 · 6)	28.050 · 25.720 m
J (1 · 2 · 3)	12.180 · 11.730 · 10.980 m
J HEADSTAY (5 · 6)	8.744 · 8.072 m
BAD · HBI	1.906 · 2.019 m

SAIL AREAS

MAINSAIL, FULL	224 m² Reefs: 183 · 144 · 76.8 m²
J0	219 m²
J1	196 m²
J3	115 m²
J4 / STAYSAIL	87.3 m²
FRO	304 m²
MHO	358 m²
A1	365 m²
FASTEST UPWIND SETUP	J3 + full main J1 in marginal upwind conditions, 13–14 kn: partial foiling
FASTEST DOWNWIND SETUP	MHO + full main

FOILS & FLIGHT CONTROL

RIGHTING-MOMENT FOIL	≈ 16 × 3 ft Curved carbon foil in a hydraulically raked case
DAGGERBOARDS	Centreline, per hull Independent of the lifting foil
RUDDERS	Raking, T-foil Conical titanium bearings · ≈ 6 ft T-foils
FLIGHT CONTROL	Designed for fly-by-wire Foil lift and rudder-elevator control; programmed after sea trials

CONSTRUCTION & CLASS

HULL	Carbon fibre Foam & Nomex sandwich
SUPERSTRUCTURE	Carbon fibre Foam & Nomex sandwich
CLASSIFICATION	ISO 12215-7 Cat. A SER1 multihull · highest category, sport boat
PROPULSION	2 × 35 kW electric Torqeedo

RIG & DECK HARDWARE

MAST	Carbon rotating wing mast Supplied by SSNZ · single spreader, double diamond, running backstays
PRIMARY WINCHES	4 × Harken 1125.3
SECONDARY WINCHES	2 × Harken 65.3 ST
WINDLASS	Lewmar V6 hydraulic

PROPULSION & POWER

MAIN ENGINES	2 × Torqeedo electric 25 kW continuous · 35 kW max each
DRIVE	Shaft drive Strut and P-bracket · Gori GP20 folding propellers
MOTORING SPEED	9.2 kn max 7.5 kn cruise (estimated)
GENERATORS	2 × 20 kW Fischer Panda
PROPULSION BATTERY	40 kWh lithium-ion BMW i3 cells
SOLAR	2 kW Panels on the coachroof
ELECTRICAL	120 V and 240 V AC 400 V DC charging & hydraulic bus · 24 V domestic · Empirbus digital switching

TANKAGE

FUEL	2 × 550 L
FRESH WATER	2 × 450 L Plus 70 L drinking water
WATERMAKER	Schenker Modular Zen 50
BLACK WATER	2 × 220 L

COMFORT & SYSTEMS

AIR CONDITIONING	64,000 BTU/h Termodinamica
GALLEY	Gaggenau hobs Pizza oven · Miele microwave · Miele coffee machine
REFRIGERATION	3 × 172 L fridges Plus Frigonautica freezer
NAVIGATION	B&G / Simrad
COMMUNICATIONS	VHF · 5G · Satcom Satellite broadband
STEERING	Outside helms + inside helm Fly-by-wire steering at the inside helm station

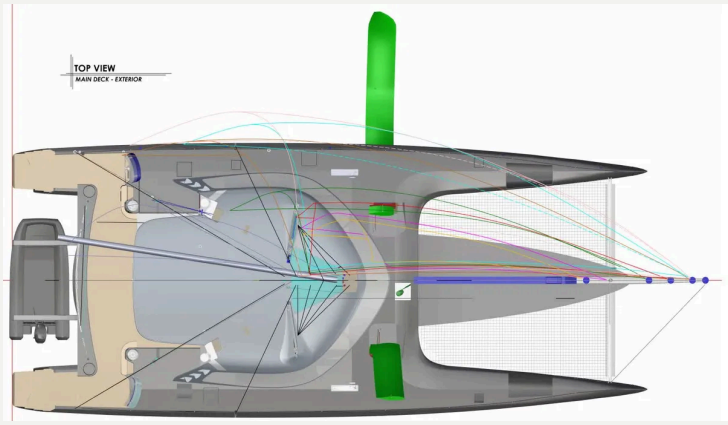
PERFORMANCE

PREDICTED TOP SPEED	40+ kn Polar peak 40.7 kn
FOILING ONSET	11–13 kn TWS Depending on sail set
UPWIND, 13 KN OF WIND	≈ 24 kn
DOWNWIND, 14 KN OF WIND	≈ 31 kn
CREW	4 per watch To sail her fast; two watches for round-the-clock ocean racing

Velocity prediction program, partially validated in sea trials.

DESIGN & BUILD

NAVAL ARCHITECTURE	Morrelli & Melvin Newport Beach, California
LEAD DESIGNER	Ferdinand van West Then at Morrelli & Melvin; now Van West Naval Architecture
INTERIOR ARCHITECTURE	Design Unlimited
BUILDER	Persico Marine Italy
FLIGHT CONTROL	Team New Zealand engineers
GENERAL ARRANGEMENT	PB72_001 · Rev A 6 August 2022



GENERAL ARRANGEMENT · PLAN VIEW · MORRELLI & MELVIN DESIGN & ENGINEERING

Figures from the Morrelli & Melvin general arrangement (PB72_001, Rev A, August 2022) and the Persico Marine build specification. Displacements are approximate as-built figures from Ferdinand van West (2026); righting moments are design estimates; performance figures are VPP predictions, calculated at the 20,280 kg design racing displacement.