



ORC
Offshore Racing Congress
World leader in rating technology

**2020
ORC Club
Certificate**

Rating Office

**Offshore
Racing
Congress**



Certificate

Number **013/20**
Issued On **05/06/2020**
ORC Ref **03880000JVM**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 614kg
Maximum **565kg**
Minimum* **424kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	659.6	0.9096
Non Spin OSN	638.9	0.9391

Sails Limitations

Headsails **5** Spinnakers **4**

Spinnaker configuration
Symmetric: **Yes** **69.90**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

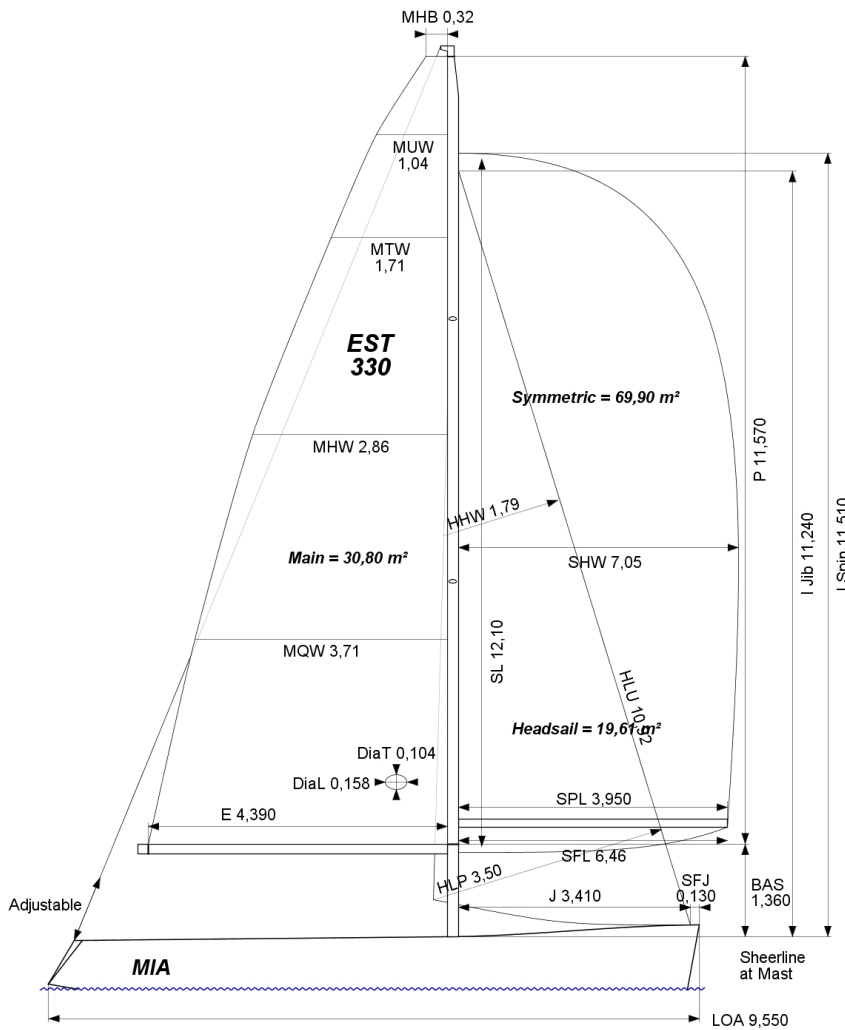
Class Division Length

CDL = 8.990

Stability (Estimated)

Limit Positive Stab.: **112.5°**
Stability Index: **109.0**

Owner



BOAT		GPH		HULL			
Name	MIA	621.5	Data File	EST330	LOA	9.550m	
Sail Nr	EST 330		Offset File	GDSURP.BOF	MB	2.984m	
			Displacement	2,746kg	Draft	2.079m	
CLASS		IMS Division Performance Dynamic All. 0.000%					
Class	GRAND SURPRISE 31	Plan Review Construction Solid					
Designer	Joubert-Nivelt	Fiber Rigging No Aramid Core No					
Builder	Archambault	Crew Arm Ex Carbon Rudder No					
Series	06/2000	Light Stanchions No					
Age Date	01/2003	IMSL	9.301m	VCGD	-0.080m	Sink	14.35kg/mm
Age Allowance	0.487%	RL	8.682m	VCGM	-0.117m	WS	18.66m²
COMMENTS		LSM0	9.226m	Displacement/Length ratio		3.4967	
		Water Ballast	0	Trim Tab	No		
		BLR Index	0.0000				
PROPELLER		CENTERBOARD					
Installation	Shaft exposed	PRD	0.410	N/A			
Type	Folding 2 blades	PBW	0.111				
		PIPA	0.0024				
SCORING OPTIONS							
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD			
Time on Distance	603.4			676.7			
Time on Time	0.9943			0.9975			
Triple Number	Low	Medium	High	Low	Medium	High	
Time on Distance	717.5	549.9	482.1	931.0	677.6	588.2	
Time on Time	0.9408	1.2276	1.4000	0.7250	0.9961	1.1475	

2020

ORC Club Certificate Appendix

BOAT	
Name MIA	Certificate Number 013/20
Sail Nr EST 330	Issued On 05/06/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1057.8	870.4	763.8	716.6	702.6	697.6	687.8
52°	692.9	580.0	529.0	509.0	501.3	497.5	491.1
60°	655.4	554.8	515.9	496.1	485.1	479.5	473.1
75°	629.5	537.9	505.5	482.3	461.0	446.9	436.5
90°	631.8	530.2	495.2	478.0	452.5	428.2	397.7
110°	626.2	522.6	483.3	448.6	424.7	407.2	376.7
120°	645.7	531.5	489.1	451.7	415.4	386.2	353.0
135°	718.7	576.8	512.0	477.7	441.3	404.9	334.2
150°	864.8	690.3	574.2	512.0	480.3	447.3	381.0
Run VMG	998.6	797.1	663.0	581.0	529.8	495.1	435.1
Selected Courses							
Windward / Leeward	1028.2	833.8	713.4	648.8	616.2	596.4	561.4
Circular Random	860.7	693.3	602.9	549.7	515.9	492.4	458.6
Coastal / Long Distance	1025.3	782.3	644.7	568.9	528.1	493.5	436.5
Non Spinnaker	929.3	741.3	638.7	577.8	539.3	513.2	477.5

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	42.9°	41.3°	40.3°	38.3°	37.9°	37.5°	38.2°
Beat VMG	3.40	4.14	4.71	5.02	5.12	5.16	5.23
52°	5.20	6.21	6.81	7.07	7.18	7.24	7.33
60°	5.49	6.49	6.98	7.26	7.42	7.51	7.61
75°	5.72	6.69	7.12	7.46	7.81	8.06	8.25
90°	5.70	6.79	7.27	7.53	7.96	8.41	9.05
110°	5.75	6.89	7.45	8.02	8.48	8.84	9.56
120°	5.58	6.77	7.36	7.97	8.67	9.32	10.20
135°	5.01	6.24	7.03	7.54	8.16	8.89	10.77
150°	4.16	5.22	6.27	7.03	7.50	8.05	9.45
Run VMG	3.60	4.52	5.43	6.20	6.80	7.27	8.27
Gybe Angles	138.5°	148.0°	148.0°	156.5°	180.0°	180.0°	180.0°