



**ORC**  
Offshore Racing Congress  
World leader in rating technology

**2020  
ORC Club  
Certificate**

**Rating Office**

**Offshore  
Racing  
Congress**



**Certificate**

Number **022/20**  
Issued On **10/08/2020**  
ORC Ref **038500007A**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**

Default 463kg  
Maximum **462kg**  
Minimum\* **347kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>779.9</b>	<b>0.7693</b>
Non Spin OSN	<b>755.6</b>	<b>0.7940</b>

**Sails Limitations**

Headsails **5** Spinnakers **4**  
**Woven Polyester**

**Spinnaker configuration**  
Symmetric: **Yes** **51.63**  
Asymmetric: **No**  
Flying H/S: **No**  
Spin. Pole: **Yes**

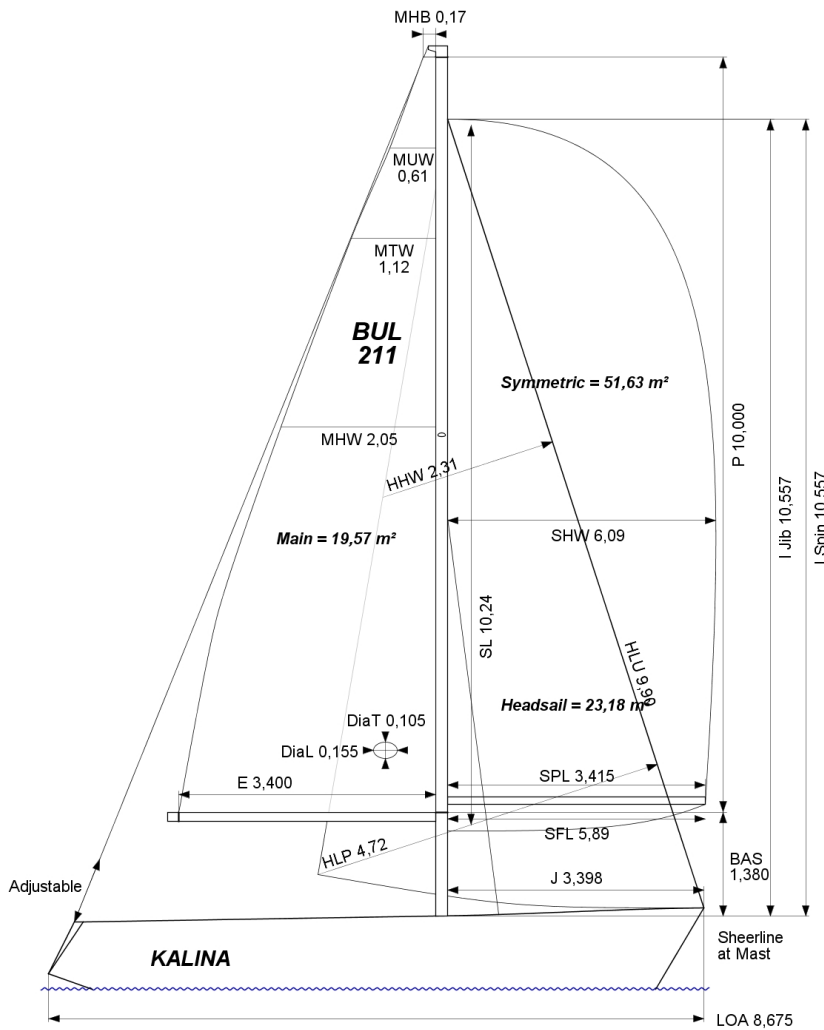
**Class Division Length**

**CDL = 6.442**

**Stability (Estimated)**

Limit Positive Stab.: **109.5°**  
Stability Index: **109.2**

**Owner**



BOAT		GPH	HULL			
Name <b>KALINA</b>		<b>748.2</b>	Data File <b>BUL211</b>	LOA <b>8.675m</b>		
Sail Nr <b>BUL-211</b>			Offset File <b>G1048sk.off</b>	MB <b>3.010m</b>		
			Displacement <b>3,611kg</b>	Draft <b>1.392m</b>		
<b>CLASS</b>			IMS Division <b>Cruiser/Racer</b>	Dynamic All. <b>0.492%</b>		
Class <b>FIRST 29 (SK)</b>			Plan Review	Construction <b>Solid</b>		
Designer <b>FINOT</b>			Fiber Rigging <b>No</b>	Aramid Core <b>No</b>		
Builder <b>BENETEAU</b>			Crew Arm Ex	Carbon Rudder <b>No</b>		
Series <b>01/1984</b>				Light Stanchions <b>No</b>		
Age Date <b>08/1989</b>			IMSL <b>7.523m</b>	VCGD <b>0.015m</b>		
Age Allowance <b>0.487%</b>			RL <b>5.360m</b>	VCGM <b>0.103m</b>		
<b>COMMENTS</b>			WS <b>17.44m²</b>	LSM0 <b>7.570m</b>		
Weight from endorsed 2018 IRC certificate.			Displacement/Length ratio <b>8.3241</b>	Water Ballast <b>0</b>		
<b>PROPELLER</b>			Trim Tab <b>No</b>	BLR Index <b>0.0000</b>		
Installation <b>Shaft exposed</b>	PRD <b>0.380</b>		<b>CENTERBOARD</b>			
Type <b>Folding 2 blades</b>	PBW <b>0.100</b>		<b>N/A</b>			
	PIPA <b>0.0014</b>					
<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>727.8</b>			<b>815.1</b>		
Time on Time	<b>0.8244</b>			<b>0.8281</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>863.7</b>	<b>662.0</b>	<b>584.1</b>	<b>1120.1</b>	<b>824.7</b>	<b>703.2</b>
Time on Time	<b>0.7815</b>	<b>1.0196</b>	<b>1.1556</b>	<b>0.6026</b>	<b>0.8185</b>	<b>0.9599</b>

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>	
Name	<b>KALINA</b>
Sail Nr	<b>BUL-211</b>
Certificate Number	<b>022/20</b>
Issued On	<b>10/08/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1329.9</b>	<b>1115.3</b>	<b>997.4</b>	<b>912.1</b>	<b>857.0</b>	<b>839.1</b>	<b>846.5</b>
52°	<b>848.6</b>	<b>719.6</b>	<b>644.2</b>	<b>603.2</b>	<b>581.7</b>	<b>571.2</b>	<b>568.9</b>
60°	<b>792.9</b>	<b>673.6</b>	<b>611.1</b>	<b>582.3</b>	<b>565.2</b>	<b>554.2</b>	<b>548.2</b>
75°	<b>755.3</b>	<b>642.9</b>	<b>590.2</b>	<b>566.1</b>	<b>549.9</b>	<b>536.2</b>	<b>517.0</b>
90°	<b>759.8</b>	<b>631.6</b>	<b>574.4</b>	<b>548.3</b>	<b>531.0</b>	<b>521.7</b>	<b>499.9</b>
110°	<b>745.4</b>	<b>618.2</b>	<b>566.4</b>	<b>539.4</b>	<b>515.7</b>	<b>494.2</b>	<b>466.3</b>
120°	<b>765.8</b>	<b>632.8</b>	<b>572.6</b>	<b>544.4</b>	<b>520.6</b>	<b>497.4</b>	<b>459.4</b>
135°	<b>840.3</b>	<b>692.2</b>	<b>600.7</b>	<b>561.8</b>	<b>536.9</b>	<b>513.4</b>	<b>470.8</b>
150°	<b>981.0</b>	<b>782.8</b>	<b>667.2</b>	<b>594.0</b>	<b>560.4</b>	<b>537.3</b>	<b>494.2</b>
Run VMG	<b>1132.7</b>	<b>902.5</b>	<b>766.8</b>	<b>671.3</b>	<b>604.6</b>	<b>567.6</b>	<b>522.8</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1231.3</b>	<b>1008.9</b>	<b>882.1</b>	<b>791.7</b>	<b>730.8</b>	<b>703.4</b>	<b>684.6</b>
Circular Random	<b>1035.0</b>	<b>834.7</b>	<b>726.0</b>	<b>661.8</b>	<b>622.0</b>	<b>596.8</b>	<b>568.5</b>
Coastal / Long Distance	<b>1221.5</b>	<b>943.1</b>	<b>788.1</b>	<b>687.2</b>	<b>630.3</b>	<b>593.7</b>	<b>538.2</b>
Non Spinnaker	<b>1090.9</b>	<b>874.6</b>	<b>756.0</b>	<b>685.2</b>	<b>641.0</b>	<b>612.8</b>	<b>581.1</b>

<b>Velocity Prediction in Knots for True Wind Speeds</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>45.0°</b>	<b>43.9°</b>	<b>44.6°</b>	<b>44.3°</b>	<b>42.4°</b>	<b>42.0°</b>	<b>43.5°</b>
Beat VMG	<b>2.71</b>	<b>3.23</b>	<b>3.61</b>	<b>3.95</b>	<b>4.20</b>	<b>4.29</b>	<b>4.25</b>
52°	<b>4.24</b>	<b>5.00</b>	<b>5.59</b>	<b>5.97</b>	<b>6.19</b>	<b>6.30</b>	<b>6.33</b>
60°	<b>4.54</b>	<b>5.34</b>	<b>5.89</b>	<b>6.18</b>	<b>6.37</b>	<b>6.50</b>	<b>6.57</b>
75°	<b>4.77</b>	<b>5.60</b>	<b>6.10</b>	<b>6.36</b>	<b>6.55</b>	<b>6.71</b>	<b>6.96</b>
90°	<b>4.74</b>	<b>5.70</b>	<b>6.27</b>	<b>6.57</b>	<b>6.78</b>	<b>6.90</b>	<b>7.20</b>
110°	<b>4.83</b>	<b>5.82</b>	<b>6.36</b>	<b>6.67</b>	<b>6.98</b>	<b>7.29</b>	<b>7.72</b>
120°	<b>4.70</b>	<b>5.69</b>	<b>6.29</b>	<b>6.61</b>	<b>6.92</b>	<b>7.24</b>	<b>7.84</b>
135°	<b>4.28</b>	<b>5.20</b>	<b>5.99</b>	<b>6.41</b>	<b>6.70</b>	<b>7.01</b>	<b>7.65</b>
150°	<b>3.67</b>	<b>4.60</b>	<b>5.40</b>	<b>6.06</b>	<b>6.42</b>	<b>6.70</b>	<b>7.28</b>
Run VMG	<b>3.18</b>	<b>3.99</b>	<b>4.69</b>	<b>5.36</b>	<b>5.95</b>	<b>6.34</b>	<b>6.89</b>
Gybe Angles	<b>148.0°</b>	<b>152.0°</b>	<b>154.0°</b>	<b>161.0°</b>	<b>180.0°</b>	<b>180.0°</b>	<b>180.0°</b>