



World Leader in Rating Technology

2017 ORC Club Certificate

Rating Office

EYU
Regati 1
11911, Tallinn
Estonia

Certificate

Number **EST632**
Issued On **29.05.2017**
ORC Ref **EST00001366**
VPP Ver. **2017 1.00**
Valid until **31.12.2017**

Crew Weight

Declared **650kg**
Default* **638kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	653,0	0,9188
Double H.OSN	636,0	0,9434
Non Spin GPH	684,1	0,8771
Non Spin OSN	661,8	0,9066

Sails Limitations

Headsails **5** Spinnakers **3**

Spinnaker configuration

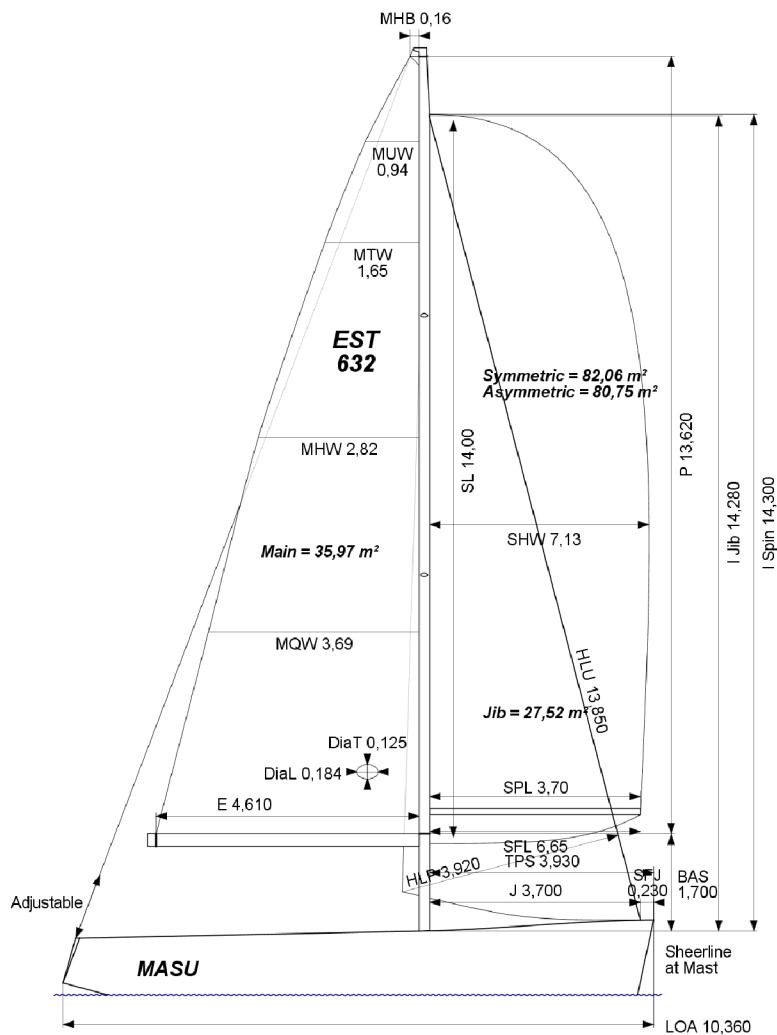
Symmetric: **Yes** **82,06**
Asymmetric: **Yes** **80,75**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 8,606

Stability (Measured)

Limit Positive Stab.: **116,0°**
Stability Index: **118,9**



BOAT	GPH	HULL
Name MASU Sail Nr EST 632	650,6	Data File Est0632 LOA 10,360m Offset File X34.OFF MB 3,384m Displacement 5 714kg Draft 1,926m
CLASS Class X-34 Designer JEPPESEN Builder X YACHTS Series 11.2007 Age Date 04.2008 Age Allowance 0,325%		IMS Division Cruiser/Racer Dynamic All. 0,254% Fwd Accom. Yes Construction Cored Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions
COMMENTS		IMSL 9,492m VCGD 0,095m Sink 18,24kg/mm RL 7,719m VCGM 0,063m WS 24,74m² LSM0 9,484m Displacement/Length ratio 6,6983
PROPELLER Installation Strut PRD 0,410 Type Folding 2 blades PBW 0,121 PIPA 0,0034		Water Ballast 0 Trim Tab No
		CENTERBOARD N/A

SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	631,7			705,9	
Time On Time	0,9499			0,9562		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	751,8	574,9	508,5	975,9	713,2	609,2
Time on Time	0,8978	1,1742	1,3274	0,6917	0,9465	1,1081



World Leader in Rating Technology

2017

ORC Club Certificate Appendix

BOAT	
Name	MASU
Certificate Number	EST632
Sail Nr	EST 632
Issued On	29.05.2017

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1127,5	937,3	832,7	760,0	730,0	717,5	709,2
52°	733,5	617,3	550,3	518,7	505,3	500,2	497,2
60°	690,1	582,0	528,4	504,1	491,1	485,2	481,3
75°	655,2	555,0	513,3	492,7	477,2	464,8	453,1
90°	652,9	542,9	499,5	480,9	473,0	459,6	431,8
110°	653,5	541,5	498,9	475,1	452,6	435,0	416,3
120°	677,3	558,6	506,6	481,4	459,1	435,8	399,0
135°	754,5	614,7	533,4	498,0	475,7	454,0	410,9
150°	888,1	704,3	597,5	530,2	498,2	477,1	436,2
Run VMG	1025,5	813,2	688,7	604,0	544,6	507,1	465,2

Selected Courses							
Windward / Leeward	1076,5	875,2	760,7	682,0	637,3	612,3	587,2
Circular Random	901,3	725,8	631,0	575,4	541,1	518,9	491,7
Ocean for PCS	1105,7	852,6	709,0	620,8	563,4	523,4	467,9
Non Spinnaker	962,1	768,7	662,6	599,6	560,4	535,0	504,3

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	43,5°	42,0°	42,3°	41,5°	40,3°	40,2°	40,3°
Beat VMG	3,19	3,84	4,32	4,74	4,93	5,02	5,08
52°	4,91	5,83	6,54	6,94	7,13	7,20	7,24
60°	5,22	6,19	6,81	7,14	7,33	7,42	7,48
75°	5,49	6,49	7,01	7,31	7,54	7,75	7,94
90°	5,51	6,63	7,21	7,49	7,61	7,83	8,34
110°	5,51	6,65	7,22	7,58	7,95	8,28	8,65
120°	5,32	6,45	7,11	7,48	7,84	8,26	9,02
135°	4,77	5,86	6,75	7,23	7,57	7,93	8,76
150°	4,05	5,11	6,03	6,79	7,23	7,55	8,25
Run VMG	3,51	4,43	5,23	5,96	6,61	7,10	7,74
Gybe Angles	145,7°	150,4°	152,1°	157,1°	176,4°	180,0°	180,0°