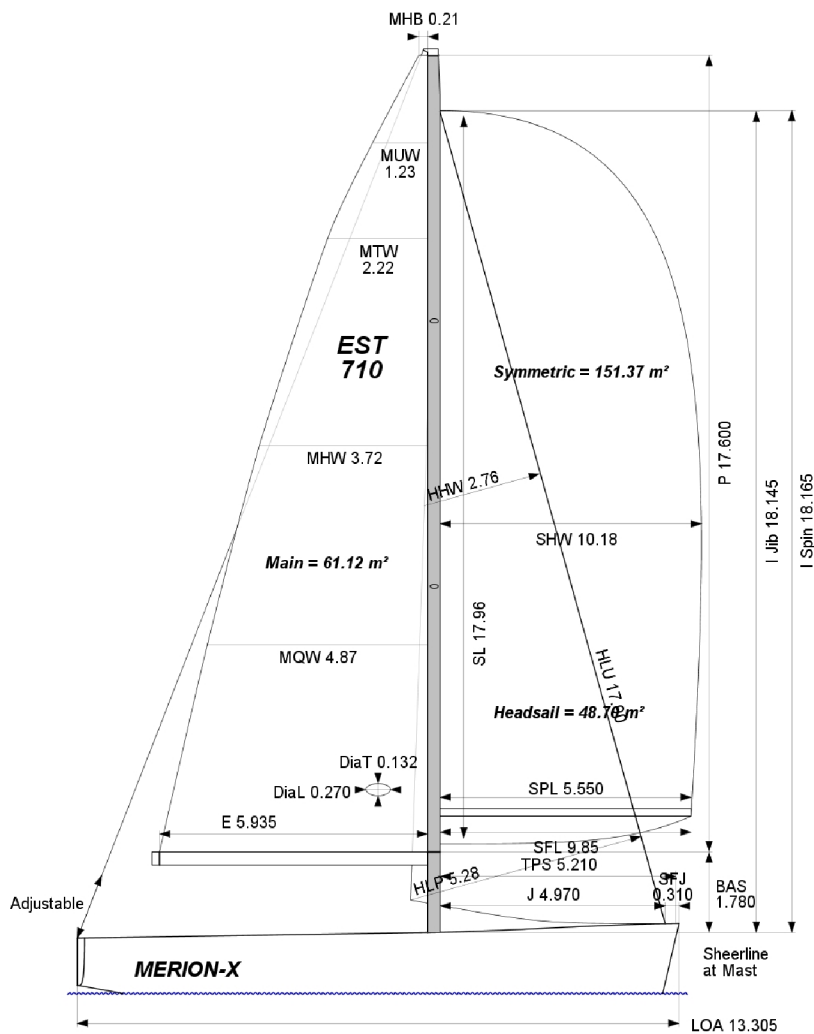




BOAT		GPH	HULL	
Name	MERION-X	553.7	Data File	EST710
Sail Nr	EST 710		LOA	13.305m
CLASS			Offset File	XP44.off
Class	Xp-44		Displacement	9,127kg
Designer	JEPPESEN		Dynamic All.	0.110%
Builder	X-YACHTS		Plan Review	Construction
Series	12/2010		Fiber Rigging	No
Age Date	06/2013		Crew Arm Ex	Aramid Core
Age Allowance	0.325%			Carbon Rudder
COMMENTS				Light Stanchions
PROPELLER			IMSLS	12.251m
Installation	Strut	PRD 0.457	VCGD	-0.186m
Type	Folding 2 blades	PBW 0.114	Sink	27.21kg/mm
		PIPA 0.0038	RL	11.048m
CENTERBOARD			VCGM	-0.153m
			WS	37.09m²
			LSM0	12.000m
			Displacement/Length ratio	5.2818
			Water Ballast	Trim Tab No
			BLR Index	0.0000
				N/A

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	537.8			601.7		
Time on Time	1.1156			1.1218		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	637.4	489.6	434.9	825.3	604.2	522.9
Time on Time	1.0590	1.3787	1.5522	0.8179	1.1171	1.2910



Rating Office
Estonian Yachting Union
 Purje 8, maja 3
 11911 Tallinn
 Estonia



Certificate
 Number 104/20
 Issued On 03/07/2020
 ORC Ref 03880000LVR
 VPP Ver. 2020 1.02
 Valid until 31/12/2020

Crew Weight
 Default 893kg
 Maximum 950kg
 Minimum* 713kg
 *when applied by the NoR and SI
 Non Manual Pwr Rig

Special Scoring
 ToD ToT
 Non Spin GPH 587.7 1.0209
 Non Spin OSN 571.2 1.0505

Sails Limitations
 Headsails 7 Spinnakers 5

Spinnaker configuration
 Symmetric: Yes 151.37
 Asymmetric: No
 Flying H/S: No
 Spin. Pole: Yes

Class Division Length
 CDL = 11.643

Stability (Measured)
 Limit Positive Stab.: 128.7°
 Stability Index: 133.1

BOAT

Name **MERION-X**
File **EST710**

Sail Nr **EST 710**
Data in **meters/kilograms**

RIG

Forestay Tension **Aft**
Inner Stay **None Fitted**
Carbon Mast **Yes**
Fiber Rigging **No**
Non-Circular Rigging **No**
Articulated Bowsprit **No**

Spreaders **2**
Runners/Checkstays **0**
Jib Furler **No**
Main Furler **No**

P **17.600** E **5.935** MDT1 **0.132** MW **0.270**
IG **18.145** J **4.970** MDL1 **0.270** GO **0.300**
ISP **18.165** SFJ **0.310** MDT2 **0.125** BD **0.300**
BAS **1.780** SPL **5.550** MDL2 **0.225** MWT **218.50**
FSD **0.038** TPS **5.210** TL **0.880** MCG **5.560**

INCLINING TEST AND FREEBOARDS

Inclining Test **Current Inclining**

Flotation date **26/07/2014**

SG **1.0020**

FFM **1.517** FF **1.531** SFFP **0.744**

FAM **1.207** FA **1.213** SAFF **13.259**

W1 **136.5** PD1 **533.0** WD **12.850**

W2 **136.5** PD2 **533.5** GSA **1.0**

W3 **136.5** PD3 **533.4** RSA **1.0**

W4 **136.5** PD4 **532.8** PLM **9000.0**

LCF from stem on CL / on sheer **7.440 / 7.698**

Maximum beam station from stem **9.119**

RM Measured **259.1kg·m**

RM Default **258.9kg·m**

Limit of positive stability / Stab.Index **128.7° / 133.1**

Freeboard at mast at 5.280 **1.358**

MIZZEN RIG AND SAILS

N/A

COMMENTS

PROPELLER

Installation **Strut**

Type **Folding 2 blades**

Twin Screw **No**

PRD **0.457**

PBW **0.114**

PIPA **0.0038**

ST1 **0.049** ST3 **0.175** ST5 **0.270**

ST2 **0.175** ST4 **0.111** EDL **2.750**

MOVABLE BALLAST

N/A

CENTERBOARD

N/A

Certificate

Number **104/20**

ORC Ref **03880000LVR**

Issued On **03/07/2020**

VPP Ver. **2020 1.02**

Valid until **31/12/2020**

EJL

ESTONIAN YACHTING UNION

SAILS INVENTORY

MAINSAIL (1)

Id

MHB

MUW

MTW

MHW

MQW

Area

Measurer

Meas.Date

Manufacture

Material

Comment

2a

0.21

1.23

2.22

3.72

4.87

61.12

02/07/2020

North

Unknown

HEADSAILS (9)

Id

HHB

HUW

HTW

HHW

HQW

HLP

HLU

Ovrlp

Area

Btn

Flying

Measurer

Meas.Date

Manufacture

Material

Comment

1

0.10

0.83

1.53

2.76

3.93

5.28

17.90

106%

48.70

No

12/07/2015

Unknown

JTb

0.11

0.86

1.54

2.79

4.00

5.25

17.73

106%

48.65

Y

No

02/07/2020

North

Unknown

JIB TOP

JTop

0.10

0.82

1.54

2.72

3.98

5.27

17.84

106%

48.56

No

15/07/2015

Unknown

JTa

0.10

0.82

1.54

2.77

3.99

5.29

17.73

106%

48.56

No

26/05/2014

North

Unknown

J1b

0.11

0.82

1.55

2.75

3.96

5.26

17.73

106%

48.31

Y

No

02/07/2020

North

Unknown

Light

J2a

0.10

0.83

1.51

2.75

3.91

5.27

17.80

106%

48.22

No

02/06/2014

Unknown

SYMMETRIC SPINNAKERS (2)

Id

SLU

SLE

SL

SHW

SFL

Area

Measurer

Meas.Date

Manufacture

Material

Comment

S4

17.96

17.96

17.96

10.18

9.85

151.38

07/08/2014

Unknown

SVa

17.78

17.78

17.78

10.16

9.82

149.53

06/05/2015

Unknown

ASYMMETRIC SPINNAKERS (0)

Id

SLU

SLE

SL

SHW

SFL

Area

Kind

Measurer

Meas.Date

Manufacture

Material

Comment

MEASUREMENT INVENTORY

Measurer **V.Rosme EST2**

Date **26/07/2014**

Comment

Internal Ballast total = 0.0

Id

Item

Weight

Distance

VCG

Description

Id

Item

Maker

Model

Id

Item

Weight

Description

MEASUREMENT INVENTORY

Id

Item

Tank Use

Tank Type

Capcty

Dist.

VCG

Condn

Description

Id

Item

Weight

Distance

VCG

Description

© Offshore Racing Congress 2020

www.orc.org

2020

ORC Club Certificate Appendix

BOAT			
Name	MERION-X	Certificate Number	104/20
Sail Nr	EST 710	Issued On	03/07/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	935.5	765.8	673.5	635.3	619.8	612.7	596.4
52°	611.5	510.7	462.4	445.0	438.7	435.4	428.8
60°	577.0	488.0	449.6	433.7	426.6	422.8	417.6
75°	550.5	472.5	440.8	423.4	410.8	402.6	395.6
90°	556.1	474.2	440.4	421.9	405.8	390.5	369.1
110°	569.5	469.7	430.5	407.9	393.1	380.8	359.2
120°	584.5	478.2	434.8	409.8	385.6	365.8	342.2
135°	648.3	521.5	455.7	426.3	402.9	378.6	329.7
150°	770.7	614.8	517.1	458.8	429.3	407.5	363.0
Run VMG	889.9	709.9	597.1	525.4	480.5	445.0	400.9
Selected Courses							
Windward / Leeward	912.7	737.9	635.3	580.3	550.2	528.9	498.6
Circular Random	764.9	616.4	537.0	490.9	462.5	443.2	416.8
Coastal / Long Distance	910.5	693.0	573.1	506.9	472.3	444.5	399.8
Non Spinnaker	826.3	659.8	569.1	515.5	482.0	459.5	429.4

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	42.8°	41.3°	40.3°	39.0°	38.3°	38.3°	37.9°
Beat VMG	3.85	4.70	5.34	5.67	5.81	5.88	6.04
52°	5.89	7.05	7.79	8.09	8.21	8.27	8.40
60°	6.24	7.38	8.01	8.30	8.44	8.51	8.62
75°	6.54	7.62	8.17	8.50	8.76	8.94	9.10
90°	6.47	7.59	8.17	8.53	8.87	9.22	9.75
110°	6.32	7.67	8.36	8.82	9.16	9.45	10.02
120°	6.16	7.53	8.28	8.78	9.34	9.84	10.52
135°	5.55	6.90	7.90	8.45	8.94	9.51	10.92
150°	4.67	5.86	6.96	7.85	8.39	8.84	9.92
Run VMG	4.05	5.07	6.03	6.85	7.49	8.09	8.98
Gybe Angles	142.0°	146.5°	148.0°	154.0°	162.5°	180.0°	180.0°