

STEMME Two Seat Aircraft (TSA) Program: Performance Data

The data within the following table are design data based on calculation and will have to be confirmed within the initial flight test program.

Changes may occur at any time without prior information !

	unit	S2	S2-acro	S 10-VT	S6	S6-R	S6-T		S6-RT		S8	S8-R	S8-T		S8-RT	
Altitude		MSL	MSL	MSL	MSL	MSL	MSL	16'000	MSL	16'000	MSL	MSL	MSL	16'000	MSL	16'000
Max T-O weight	kg	750.00	660.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00
Weight empty	kg	451.00	447.00	645.00	615.00	626.00	627.00	627.00	639.00	639.00	625.00	636.00	637.00	637.00	649.00	649.00
Payload	kg	299.00	213.00	205.00	235.00	224.00	223.00	223.00	211.00	211.00	225.00	214.00	213.00	213.00	201.00	201.00
Water ballast capacity	l	180.00	180.00	-	-	-	-	-	-	-	-	-	-	-	-	-
Power plant		-	-	Rotax 914F	Rotax 912S	Rotax 912S	Rotax 914F	Rotax 914F	Rotax 914F	Rotax 914F	Rotax 912S	Rotax 912S	Rotax 914F	Rotax 914F	Rotax 914F	Rotax 914F
Max T-O power at corresponding altitude	PS	-	-	115.00	100.00	100.00	115.00	90.00	115.00	90.00	100.00	100.00	115.00	90.00	115.00	90.00
Max continuous power at corresponding altitude	PS	-	-	100.00	94.00	94.00	100.00	90.00	100.00	90.00	94.00	94.00	100.00	90.00	100.00	90.00
Fuel capacity	l	-	-	90.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00
Fuel capacity long range	l	-	-	120.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00
Wing span	m	20.00	18.00	23.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
Wing span folded	m	7.20	7.20	11.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20
Wing area	m ²	18.70	17.86	18.70	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86
Wing aspect ratio	-	21.39	18.14	28.29	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14
Length overall	m	8.50	8.50	8.42	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
Height overall	m	1.70	1.70	1.80	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
Landing Gear		fix/retrac	fix/retrac	retractable	fixed	retractable	fixed	fixed	retractable	retractable	fixed	retractable	fixed	fixed	retractable	retractable
Wheel track	m	-	-	1.15	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Wheelbase	m	-	-	5.40	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Best glide ratio	-	47.00	42.00	50.00	32.00	38.00	32.00	32.00	38.00	38.00	31.00	37.00	31.00	31.00	37.00	37.00
Speed for best glide ratio at MTOW (EAS)	km/h	112.00	109.00	107.00	115.00	121.00	115.00	115.00	121.00	121.00	114.00	120.00	114.00	114.00	120.00	120.00
Min rate of sink at MTOW	m/s	0.60	0.65	0.60	0.93	0.80	0.93	1.19	0.80	1.03	0.95	0.81	0.95	1.22	0.81	1.04
Min wing loading (weight empty + 70kg)	kg/m ²	27.86	28.95	34.49	38.35	38.97	39.03	39.03	39.70	39.70	38.91	39.53	39.59	39.59	40.26	40.26
Max wing loading	kg/m ²	40.11	36.95	45.45	47.59	47.59	47.59	47.59	47.59	47.59	47.59	47.59	47.59	47.59	47.59	47.59
Rate of climb at MCP in corresponding altitude	m/s	-	-	3.50	4.18	4.49	4.63	3.38	4.94	3.71	4.13	4.46	4.58	3.32	4.91	3.66
Max rate of climb in corresponding altitude	m/s	-	-	4.14	4.45	4.79	5.57	3.38	5.91	3.71	4.43	4.76	5.55	3.32	5.88	3.66
Cruising speed at MCP (TAS)	km/h	-	-	228.00	267.00	280.00	272.56	311.02	280.00	346.17	263.00	280.00	268.48	306.36	280.00	339.76
Cruising speed at 75% MCP (TAS)	km/h	-	-	206.00	240.00	270.00	245.00	279.57	275.63	314.52	236.00	265.00	240.92	274.91	270.52	308.69
Cruising speed at 55% MCP (TAS)	km/h	-	-	176.00	214.00	240.00	218.46	249.28	245.00	279.57	211.00	236.00	215.40	245.79	240.92	274.91
Fuel consumption at MCP	l/h	-	-	27.20	25.00	25.00	26.60	26.60	26.60	26.60	25.00	25.00	26.60	26.60	26.60	26.60
Fuel consumption at 75% MCP	l/h	-	-	20.40	18.50	18.50	19.68	19.68	19.68	19.68	18.50	18.50	19.68	19.68	19.68	19.68
Fuel consumption at 55% MCP	l/h	-	-	16.00	14.50	14.50	15.43	15.43	15.43	15.43	14.50	14.50	15.43	15.43	15.43	15.43
Max range at 100% MCP long range	km	-	-	1005.88	1495.20	1568.00	1434.78	1637.23	1473.92	1822.25	1472.80	1568.00	1413.28	1612.70	1473.92	1788.49
Max range at 75% MCP long range	km	-	-	1211.76	1816.22	2043.24	1742.82	1988.74	1960.67	2237.33	1785.95	2005.41	1713.77	1955.61	1924.36	2195.88
Max range at 55% MCP long range	km	-	-	1320.00	2066.21	2317.24	1982.71	2262.48	2223.60	2537.36	2037.24	2278.62	1954.91	2230.79	2186.54	2495.09

- alle Daten mit 3-Blattpropeller (auch Leermasse / Zuladung) gerechnet
- alle Daten mit Festfahrwerksverkleidung (auch Leermasse / Zuladung) gerechnet
- künstliche Begrenzung der max. cruise speed für S6/8-R und S6/8-RT bei MCP in MSL von ca. 300 km/h auf 280 km/h nötig wegen Annäherung an VD