

# **TYPE-CERTIFICATE**

# **DATA SHEET**

NO. EASA.A.627

for **Ventus-3** 

Type Certificate Holder Schempp-Hirth Flugzeugbau GmbH

> Krebenstraße 25 73230 Kirchheim/Teck Germany

For models: Ventus-3T Ventus-3M Ventus-3F Ventus-3E



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#### Section A: Ventus-3T A.I General 1. Type/ Model/ Variant 1.1 Type: Ventus-3 1.2 Model: Ventus-3T Powered Sailplane, CS 22 - Utility 2. Airworthiness Category 3. Manufacturer Schempp-Hirth Flugzeugbau GmbH Krebenstraße 25 73230 Kirchheim / Teck Germany 4. EASA Type Certification Application Date 30 September 2015 5. EASA Type Certification Date 20 July 2018 A.II EASA Certification Basis 1. Reference Date for determining 30 September 2015 the applicable requirements 2. Airworthiness Requirements **Certification Specifications for Sailplanes** and Powered Sailplanes CS 22, Amend. 2, effective on March 5, 2009 3. Special Conditions None 4. Exemptions None 5. (Reserved) Deviations None 6. Equivalent Safety Findings CS 22.207 (a), (c) CS 22.335 (f) 7. Environmental Protection ICAO Annex 16 (details refer to TCDSN EASA.A.627)



# A III Technical Characteristics and Operational Limitations

A.II	l <u>lechnical</u>	Characteristics and Operational Lim	litations				
1.	Type Design	Definition	Lis	t of drawing files Ve	entus-3T,		
			lss	ue April 2018			
2.	Description			gle seat, mid-wing	non-self-laun	ching	
	•			wered sailplane, CF		-	
				piece 18 m wing wit			
			•	anging-flaps, triple-			
				brakes on upper wi			
			inv	wings and fin (optio	onal), CFRP/G	FRP/AFRP-	
			fus	elage, retractable i	main wheel w	ith hydraulic disc	
				ake, T-shaped horiz	•		
				bilizer with elevato		-	
				wer plant with fold	••••		
3.	Equipment			n. required Equipm			
			1	Air speed indicat	or (up to 300	km/h)	
			1 1	Altimeter	~~		
			1	Magnetic compa Outside air temp		ator with sonsor	
			T	(when flying with			
			1	Engine control ur		- /	
				- RPM indicator			
				- Engine hour me	eter		
				- Fuel quantity in	dicator		
			1	Rear view mirror			
			1	4-point harness (			
			1	Automatic or ma or	or manual parachute		
			1		ickness annro	x 8 cm when	
			<ol> <li>Back cushion (thickness approx. 8 cm when compressed) when flying without</li> </ol>				
				parachute			
			Ad	, ditional equipment	t refer to Fligh	nt and	
				Maintenance Ma	inual		
4.	Dimensions		Spa	an:	15 <i>,</i> 0 m	18,0 m	
			Wi	ng area:	9,53 m²	10,84 m²	
					•	ee AV.4)	
				ngth:	6,63 m		
				nen according AV.5			
-	<b>_</b> .		Ler	ngth:	6,78 m		
5.	Engine			0 0050			
		Model		LO 2350			
		Type Certificate		be Certificate Data			
	5.3	Limitations		aximum RPM:		min <sup>-1</sup>	
				aximum continuous	S RPIM: 5500	min <sup>-1</sup>	
	5.4	Maximum Continuous Power	15,	,3 kW			



6.	Propeller				
	6.1	Model	OE-FL 5.83/83 a5, v92		
	6.2	Type Certificate	Data Sheet No. OE-FL ./83		
	6.3	Number of blades	5		
	6.4	Diameter	830mm +/- 0mm Note: Propeller features blades of o = 92%)	different	lengths (d <sub>min</sub> /d
	6.5	Sense of Rotation	counter-clockwise		
7.	Fuel capacit	ies			
	7.1	Tank in the fuselage	10,5 l 11,6 l, whe	n accord	ling AV.5
8.	7.2 Launching H	Non-usable fuel looks	0,3 l Safety hook Tost "Europa G 8 Datasheet No. 60.230/2 Nose tow hook Tost "E22", D	8", LBA	-
9.	Weak Links		Ultimate strength: - for winch- and car launch: - for aero tow:	max. 8 max. 6	
10.	Load Factor	S	+5,3 / -2,65 (up to V <sub>A</sub> ) +4,0 / -1,5 (up to V <sub>NE</sub> )		
11.	Air Speeds		Manoeuvring Speed Never exceed speed Maximum permitted speeds - with flaps at 0, -1, -2, S, S1 - with flaps at +2, +1 - with flaps at L - in rough air - for winch / car launching	Va Vne Vfe Vfe Vre Vra Vw	180 km/h 280 km/h 280 km/h 180 km/h 150 km/h 180 km/h 150 km/h
			- for aero towing	VT	180 km/h
			<ul> <li>for gear operation</li> <li>for extended power plant:</li> <li>Ignition ON</li> <li>Ignition OFF</li> </ul>	V <sub>LO</sub> V <sub>MAX1</sub> V <sub>MAX2</sub>	180 km/h 150 km/h 180 km/h
			<ul> <li>for extending / retracting th</li> </ul>	•	•
				V <sub>POmin</sub> V <sub>POmax</sub>	90 km/h 120 km/h
12.	Approved C	perations Capability	VFR Day only Cloud flying permitted Aerobatic manoeuvres not pe	ermitted	I
13.	Launch met	hods	Aero tow Winch launch and car launch		

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14. Maximum Masses	Max. Mass:
	With 15 m Wing Span: 525 kg (see AV.4)
	With 18 m Wing Span: 600 kg
	Max. Mass of non-lifting parts:
	Power-plant installed: 320 kg
	Power-plant removed: 280 kg
15. Centre of Gravity Range	Power-plant installed:
	300 mm – 430 mm aft of datum
	Power-plant removed:
	290 mm – 430 mm aft of datum
16. Datum	Wing leading edge at root rib
17. Levelling Means	Wedge 100 : 3,0 on slope of rear top
	fuselage to be horizontal
	When according AV.5:
	Wedge 100 : 4,4 on slope of rear top
	fuselage to be horizontal
18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	0
21. Baggage/ Cargo Compartments	2 kg
22. Lifetime limitations	Refer to Flight Manual, section 2



#### A.IV Operating and Service Instructions

1.	Flight Manual	<ul> <li>Flight Manual Ventus-3T, Issue April 2018, or later</li> <li>EASA approved revisions</li> <li>When according AV.4:</li> <li>Flight Manual Ventus-3T, Issue January 2021, or later EASA approved revisions</li> <li>When according AV.5:</li> <li>Flight Manual Ventus-3T "Performance", Issue October 2021, or later EASA approved revisions</li> </ul>
2.	Maintenance Manual	Maintenance Manual Ventus-3T, Issue April 2018, or later EASA accepted revisions When according AV.4: Maintenance Manual Ventus-3T, Issue January 2021, or later EASA accepted revisions When according AV.5: Maintenance Manual Ventus-3T "Performance", Issue October 2021, or later EASA accepted revisions
3.	Structural Repair Manual	Repair Manual for the GFRP/CFRP powered sailplane model "Ventus-3T", latest applicable issue
4.	Operating Manual and Maintenance Manual for Eng	
		Approved manual for the SOLO Engine type 2350, latest applicable issue, by SOLO Kleinmotoren GmbH
5.	Operating Manual and Maintenance Manual for Pro	-
		Approved manual for the folding propeller type OE- FL ./83, latest applicable issue, Ingrid Oehler TB GmbH
6.	Manual for the Tost release, latest approved issue	



#### A.V Notes

- 1. Manufacturing is confined to industrial production.
- 2. All parts exposed to sun radiation except the areas for markings, registration and the cockpit area must have a white colour surface.
- 3. Approved for operations with power plant temporarily removed or inoperative in accordance with the instructions given in the flight manual.
- 4. Introduction of option for 15m-wingspan outer wing panels and new issues of Flight and Maintenance Manual with Modification Bulletin 627-2.
- 5. With Modification Bulletin 627-3 the "Performance-Edition"-fuselage can be used.



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#### Section B: Ventus-3M **B.I** General 1. Type/ Model/ Variant 1.1 Type: Ventus-3 1.2 Model: Ventus-3M 2. Airworthiness Category Powered Sailplane, CS 22 - Utility 3. Manufacturer Schempp-Hirth Flugzeugbau GmbH Krebenstraße 25 73230 Kirchheim / Teck Germany 4. EASA Type Certification Application Date 2 October 2017 5. EASA Type Certification Date 15 November 2019 B.II EASA Certification Basis 1. Reference Date for determining 2 October 2017 the applicable requirements **Certification Specifications for Sailplanes** 2. Airworthiness Requirements and Powered Sailplanes CS 22, Amend. 2, effective on March 5, 2009 3. Special Conditions None 4. Exemptions None 5. (Reserved) Deviations None 6. Equivalent Safety Findings CS 22.207 (a), (c) CS 22.335 (f) 7. Environmental Protection ICAO Annex 16 (details refer to TCDSN EASA.A.627)



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#### B.III Technical Characteristics and Operational Limitations

1.	Type Desigr	Definition	List of drawing files	
2.	Description		CFRP/GFRP/AFRP-c with Winglets, char Schempp-Hirth typ surface, water balla (optional), CFRP/GI main wheel with hy horizontal tail (fixe	ng powered sailplane, construction, 6-piece 18 m wing mber changing-flaps, triple-panel e airbrakes on upper wing ast tanks in wings and fin FRP/AFRP-fuselage, retractable ydraulic disc brake, T-shaped d horizontal stabilizer with dder), retractable power plant
3.	Equipment		<ol> <li>Altimeter</li> <li>Magnetic com</li> <li>Outside air ter (when flying w</li> <li>Power plant o         <ul> <li>RPM indicato</li> <li>Engine hour</li> <li>Fuel quantity</li> <li>Coolant liquity</li> <li>Warning sign</li> <li>Rear view mirr</li> <li>4-point harnes</li> <li>Automatic or roor</li> </ul> </li> <li>Back cushion (compressed) w</li> </ol>	cator (up to 300 km/h) pass nperature indicator with sensor vith water ballast) perating unit featuring: or meter indicator d temperature indicator als for ss (symmetrical) manual parachute thickness approx. 8 cm when when flying without parachute ent refer to Flight and
4.	Dimensions		Span:	18,0 m
			Wing area:	10,84 m <sup>2</sup>
5.	Engine		Length:	6,78 m
Э.	-	Model	SOLO 2625, variatio	n SOLO 2625-01 i
	5.1	model	When according to	
			U U	on SOLO 2625-01 i neo
	5.2	Type Certificate		ta Sheet No. EASA.E.218
	5.3	Limitations	Maximum RPM:	6600 min <sup>-1</sup>
			Maximum continue	bus RPM: 6250 min <sup>-1</sup>



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6.	Propeller				
	6.1	Model	KS-1G-152-R 122		
	6.2	Type Certificate	LBA-Data Sheet No. 32.110/1	.8	
	6.3	Number of blades	2		
	6.4	Diameter	1580 mm +/-50mm		
	6.5	Sense of Rotation	counter-clockwise		
7.	Fuel capacit	ies			
	7.1	Tank in the fuselage	13,0 l		
	7.2	Non-usable fuel	0,3		
8.	7.3 Launching H	Tank in wing(s) looks	optional, see Flight Manual Safety hook Tost "Europa G 8 Datasheet No. 60.230/2 Nose tow hook Tost "E22", D		t 11.402/9NTS
9.	Weak Links		Ultimate strength: - for winch- and car launch: - for aero tow:	max. 82 max. 60	
10.	Load Factor	S	+5,3 / -2,65 (up to V <sub>A</sub> ) +4,0 / -1,5 (up to V <sub>NE</sub> )		
11.	Air Speeds		Manoeuvring Speed Never exceed speed Maximum permitted speeds	V <sub>A</sub> V <sub>NE</sub>	180 km/h 280 km/h
			- with flaps at 0, -1, -2, S, S1	$V_{\text{FE}}$	280 km/h
			- with flaps at +2, +1	$V_{\text{FE}}$	180 km/h
			- with flaps at L	V <sub>FE</sub>	150 km/h
			- in rough air	V <sub>RA</sub>	180 km/h
			- for winch / car launching	Vw	150 km/h
			- for aero towing - for gear operation	V <sub>T</sub> V <sub>LO</sub>	180 km/h 180 km/h
			- for extended power plant	V <sub>MAX</sub>	180 km/h
			- for extending / retracting th		
				V <sub>POmin</sub>	92 km/h 120 km/h
12.	Approved O	perations Capability	VFR Day only Cloud flying permitted Aerobatic manoeuvres not pe	ermitted	
13.	Launch met	hods	Aero tow Winch launch and car launch Self launch		
14.	Maximum N	Aasses (	Max. Mass: 600 kg Max. Mass of non-lifting part Power-plant installed: Power-plant removed:	s: 365 kg 320 kg	

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15. Centre of Gravity Range	Power-plant installed: 320mm – 430mm aft of datum Power-plant removed: 300mm – 430mm aft of datum
16. Datum	Wing leading edge at root rib
17. Levelling Means	Wedge 100 : 4,4 on slope of rear top fuselage to be horizontal
18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	0
21. Baggage/ Cargo Compartments	2 kg
22. Lifetime limitations	Refer to Flight Manual, section 2

#### B.IV Operating and Service Instructions

1.	Flight Manual	Flight Manual Ventus-3M, Issue March 2019, or later EASA approved revisions When according BV.4: Flight Manual Ventus-3M, Issue February 2021, or later approved revisions
2.	Maintenance Manual	Maintenance Manual Ventus-3M, Issue March 2019, or later EASA accepted revisions When according BV.4: Maintenance Manual Ventus-3M, Issue February 2021, or later accepted revisions
3.	Structural Repair Manual	Repair Manual for the GFRP/CFRP powered sailplane model "Ventus-3M", latest applicable issue
4.	Operating Manual and Maintenance Manual for Eng	gine
		Approved manual for the SOLO Engine type 2625- 01i, latest applicable issue, by SOLO Kleinmotoren GmbH
		When according to BV.4:
		Approved manual for the SOLO Engine type 2625- 01i neo, latest applicable issue, by SOLO Kleinmotoren GmbH
5.	Operating Manual and Maintenance Manual for Pro	peller
		Operation and Installation Manual No. P3 for the two blade composite propellers with fixed pitch KS 1 G()()() KS 1 C ()()(), valid issue as appropriate
6.	Manual for the Tost release, latest approved issue	



#### B.V <u>Notes</u>

- 1. Manufacturing is confined to industrial production.
- 2. All parts exposed to sun radiation except the areas for markings, registration and the cockpit area must have a white colour surface.
- 3. Approved for operations with power plant temporarily removed or inoperative in accordance with the instructions given in the flight manual.
- 4. Introduction of new engine variant SOLO 2625-01 I neo and new issues of Flight and Maintenance Manuals with Modification Bulletin 627-1.



#### Section C: Ventus-3F

#### C.I General

- 1. Type/ Model/ Variant
  - 1.1 Type:
  - 1.2 Model:
- 2. Airworthiness Category
- 3. Manufacturer

Ventus-3 Ventus-3F Powered Sailplane, CS 22 - Utility Schempp-Hirth Flugzeugbau GmbH Krebenstraße 25 73230 Kirchheim / Teck Germany 04 May 2017 8 Juni 2022

- 4. EASA Type Certification Application Date
- 5. EASA Type Certification Date

## C.II EASA Certification Basis

- 1. Reference Date for determining the applicable requirements
- 2. Airworthiness Requirements
- 3. Special Conditions
- 4. Exemptions
- 5. (Reserved) Deviations
- 6. Equivalent Safety Findings
- 7. Environmental Protection

04 May 2017

Certification Specifications for Sailplanes

and Powered Sailplanes CS 22, Amend. 2, effective on March 5, 2009

SC.22-2014-01 Installation of Electric Propulsion in sailplanes, SC E-01 Airworthiness Standard for CS-22H Electrical Retractable Engine to be operated in Powered Sailplanes None

None

CS 22.207 (c)(1), CS 22.335 (f)

ICAO Annex 16 (details refer to TCDSN EASA.A.627)

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# C.III Technical Characteristics and Operational Limitations

1.	Type Design	Definition		f drawing files	Ventus-3F,	
2.	Description		Issue Single powe 6-pie chang airbra in win fusela brake eleva	July 2021 e seat, mid-win ered sailplane, ce 18 m wing ging-flaps, trip akes on upper ngs and fin (op age, retractabl	ng non-self-l CFRP/GFRP, with Winglet le-panel Sch wing surfact tional), CFR le main whe l (fixed horiz dder), electr	/AFRP-construction, ts, chamber empp-Hirth type e, water ballast tanks P/GFRP/AFRP- el with hydraulic disc contal stabilizer with
3.	Equipment		1 / / 1 / / 1 / / 1 / / - - - - - - - - - - - - -	(when flying w Engine control - RPM indicato - Engine time - Battery level - Motor tempe 4-point harnes Automatic or r or Back cushion (	cator (up to c pass nperature in rith water ba unit FCU: or (V meter, A erature ss (symmetri manual para thickness ap when flying v ent refer to f	ndicator with sensor illast) meter) cal) chute prox. 8 cm when vithout parachute
4.	Dimensions		Span: Wing Lengt	area:	18,0 m 10,84 m 6,63 m	2
5.	Engine		201181		0,00 m	
	5.1	Model	Outru Magr	/EN-M100 unner BLDC br net motor with nutation syste	electronica	hronous permanent Ily controlled
	5.2	Type Certificate	accep	oted as part of	the aircraft	
		Limitations		mum Tempera continuous Te		90°C 70°C

\*\*\* \* \* \*\*\*

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6.	Propeller				
	6.1	Model	FES-VEN-P1-102, traktor type	!	
	6.2	Type Certificate	accepted as part of the aircra	ft	
	6.3	Number of blades	2		
	6.4	Diameter	1000 mm +20/- 0mm		
	6.5	Sense of Rotation	clockwise		
	6.6	Limitations	4300 RPM max. continuous ro 4500 RPM maximum rotatior		•
7. 8.	Fuel capacit Launching F		N/A Safety hook Tost "Europa G 8 Datasheet No. 60.230/2 Nose tow hook Tost "E 85", L Datasheet No. 60.230/2	8", LBA	
9.	Weak Links		Ultimate strength: - for winch- and car launch: - for aero tow:		25 daN 60 daN
10.	Load Factor	S	+5,3 / -2,65 (up to V <sub>A</sub> ) +4,0 / -1,5 (up to V <sub>NE</sub> )		
11.	Air Speeds		Manoeuvring Speed Never exceed speed Maximum permitted speeds	V <sub>A</sub> V <sub>NE</sub>	180 km/h 280 km/h
			- with flaps at 0, -1, -2, S, S1	$V_{\text{FE}}$	280 km/h
			- with flaps at +2, +1	V <sub>FE</sub>	180 km/h
			- with flaps at L	VFE	150 km/h
			- in rough air - for winch / car launching	V <sub>RA</sub> V <sub>W</sub>	180 km/h 150 km/h
			- for aero towing	v <sub>W</sub> V <sub>T</sub>	130 km/h
			- for gear operation	VLO	180 km/h
			<ul> <li>for engine operation and for engine start:</li> </ul>	V <sub>POmax</sub>	160 km/h
12.	Approved C	Operations Capability	VFR Day only Cloud flying permitted Aerobatic manoeuvres not pe	ermittec	I
13.	Launch met	hods	Aero tow Winch launch and car launch		
14.	Maximum M	Masses	Max. Mass: With 18 m Wing Span: Max. Mass of non-lifting part FES-Batteries installed: FES-Batteries removed:	600 kg s: 320 kg 280 kg	
15.	Centre of G	ravity Range	FES-Batteries removed. FES-Batteries installed: 300 mm – 430 mm aft of datu FES-Batteries removed: 290 mm – 430 mm aft of datu	um	
16.	Datum		Wing leading edge at root rib	1	



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17. Levelling Means	Wedge 100 : 3,0 on slope of rear top fuselage to be horizontal
18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	0
21. Baggage/ Cargo Compartments	2 kg
22. Lifetime limitations	Refer to Flight Manual, section 2



#### C.IV Operating and Service Instructions

1.	Flight Manual	Flight Manual Ventus-3F, Issue August 2021
2.	Maintenance Manual	Maintenance Manual Ventus-3F, Issue August 2021
3.	Structural Repair Manual	Repair Manual for the GFRP/CFRP powered sailplane model "Ventus-3F", latest applicable issue
4.	Manual for the Tost release, latest approved issue	



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## C.V Notes

- 1. Manufacturing is confined to industrial production.
- 2. All parts exposed to sun radiation except the areas for markings, registration and the cockpit area must have a white colour surface.
- 3. Approved for operations with FES-Batteries and/or propeller temporarily removed in accordance with the instructions given in the flight manual.
- 4. Engine and propeller are accepted as part of the aircraft according to PART 21.A.23(b)(2).



#### Section D: Ventus-3E

#### D.I General

- 1. Type/ Model/ Variant
  - 1.1 Type:
  - 1.2 Model:
- 2. Airworthiness Category
- 3. Manufacturer

Ventus-3 Ventus-3E Powered Sailplane, CS 22 - Utility Schempp-Hirth Flugzeugbau GmbH Krebenstraße 25 73230 Kirchheim / Teck Germany 24 July 2023 13 June 2025

- 4. EASA Type Certification Application Date
- 5. EASA Type Certification Date

## D.II EASA Certification Basis

- Reference Date for determining the applicable requirements
- 2. Airworthiness Requirements
- 3. Special Conditions
- 4. (Reserved) Deviations
- 5. Equivalent Safety Findings
- 6. Environmental Protection

#### 24 July 2023

Certification Specifications for Sailplanes and Powered Sailplanes CS 22, Amend. 2, effective on March 5, 2009

SC.22-2014-01 Installation of Electric Propulsion in sailplanes, SC E-01 Airworthiness Standard for

#### None

CS 22.207 (a) (c), CS 22.335 (f) ICAO Annex 16 (details refer to TCDSN EASA.A.627)



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# D.III Technical Characteristics and Operational Limitations

D.III Technical Characteristics and Operational Limitations			
1. Type Design Definition	List of drawing files Ventus-3E, Issue February 2025 2DescriptionSingle seat, mid-wing self-launching powered sailplane, CFRP/GFRP/AFRP-construction, 6-piece 18/15 m wing with Winglets, chamber changing-flaps, triple-panel Schempp-Hirth type airbrakes on upper wing surface, water ballast tanks in wings and fin, CFRP/GFRP/AFRP-fuselage, retractable main wheel with hydraulic disc brake, T- shaped tail (fixed horizontal stabilizer with elevator, fin and rudder), retractable electric motor with fixed propeller.		
2. Equipment	<ul> <li>Min. required Equipment:</li> <li>Air speed indicator (up to 300 km/h)</li> <li>Altimeter</li> <li>Magnetic compass</li> <li>Outside air temperature indicator with sensor (when flying with water ballast)</li> <li>Engine control unit DCU: <ul> <li>RPM indicator</li> <li>Engine time</li> <li>Battery level (V meter, A meter)</li> <li>Battery temperature</li> <li>Motor temperature</li> <li>Controller temperature</li> </ul> </li> <li>Automatic or manual parachute or</li> <li>Back cushion (thickness approx. 8 cm when compressed) when flying without parachute</li> <li>Additional equipment refer to Flight and Maintenance Manual</li> </ul>		
<ol> <li>Dimensions</li> <li>Engine</li> </ol>	Span:       15m       18,0 m         Wing area:       9,53 m²       10,84 m²         Length:       6,63m       6,63 m		
4.1 Model	SOLO 8000/401 System axial flux motor, 228mm in diameter with two resolvers for determination of RPM and position Outrunner BLDC brushless synchronous permanent		
<ul><li>4.2 Type Certificate</li><li>4.3 Limitations</li></ul>	EASA.E.237Maximum revs.:3500rpmMax. continuous revs.:3200rpmMax. over speed revs.:3200rpmMax. motor temperature:120°CMax. power electronics temp.:85°C		



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5.	Propeller				
	5.1	Model	SHK 1-1		
	5.2	Type Certificate	accepted as part of the aircra	ıft	
	5.3	Number of blades	2		
	5.4	Diameter	1400 mm +10/- 10mm		
	5.5	Sense of Rotation	clockwise		
		Limitations	3200 RPM maximum rotation	nal snee	d
6.	Fuel capacit		N/A	iui spec	4
0.	Fuercapacit	165	N/A		
7.	Battery		Model: Battery capacity: Non-usable battery capacity: Max battery discharge tempe Min battery discharge temperat Max battery charge temperat Min battery charge temperat Range of permissible cell volt	erature: rature: ture: cure:	Battery BM384 11.2Ah 1.0 Ah(~10%) 70°C -20°C 50°C 0°C 2,5-4,2V
8.	Launching F	łooks	Safety hook Tost "Europa G 8 Datasheet No. 60.230/2 Nose tow hook Tost "E 85", L Datasheet No. 60.230/2		
9.	Weak Links		Ultimate strength: - for winch- and car launch: - for aero tow:		25 daN 60 daN
10.	Load Factor	S	+5,3 / -2,65 (up to V <sub>A</sub> ) +4,0 / -1,5 (up to V <sub>NE</sub> )		
11.	Air Speeds		Manoeuvring Speed	VA	180 km/h
			Never exceed speed Maximum permitted speeds	$V_{\text{NE}}$	280 km/h
			- with flaps at 0, -1, -2, S, S1	$V_{\text{FE}}$	280 km/h
			- with flaps at +2, +1	$V_{\text{FE}}$	180 km/h
			- with flaps at L	$V_{\text{FE}}$	150 km/h
			- in rough air	$V_{RA}$	180 km/h
			- for winch / car launching	Vw	150 km/h
			- for aero towing	VT	180 km/h
			- for gear operation	$V_{LO}$	180 km/h
			- for engine operation and	.,	4601
			for engine start:	V <sub>POmax</sub>	160 km/h
12.	Approved C	perations Capability	VFR Day only Cloud flying permitted Aerobatic manoeuvres not pe	ermitteo	ł

\* \* \* \* \* \* \*

13.	Launch methods	Aero tow Winch launch and car launch Self-launch	
14.	Maximum Masses	Max. Mass: Max. Mass of non-lifting parts: Engine and batteries installed: Engine and Batteries removed:	600 kg 365 kg 320 kg
15.	Centre of Gravity Range	Engine and Batteries installed: 320 mm – 430 mm aft of datun Engine and Batteries removed: 300 mm – 430 mm aft of datun	
16.	Datum	Wing leading edge at root rib	
17.	Levelling Means	Wedge 100 : 3,0 on slope of rea fuselage to be horizontal	ar top
18.	Control Surface Deflections	Refer to Maintenance Manual	
19.	Minimum Flight Crew	1	
20.	Maximum Passenger Seating Capacity	0	
21.	Baggage/ Cargo Compartments	2 kg	
22.	Lifetime limitations	Refer to Flight Manual, section 2	

## D.IV Operating and Service Instructions

1. 2.	Flight Manual Maintenance Manual	Flight Manual Ventus-3E, Issue February 2025 Maintenance Manual Ventus-3F, Issue February 2025	
3.	Structural Repair Manual	Repair Manual for the GFRP/CFRP powered sailplane model "Ventus-3E", latest applicable issue	
4.	4. Operating Manual and Maintenance Manual for Engine		
		Approved manual for the SOLO Engine 8000/401, latest applicable issue, by SOLO Kleinmotoren GmbH	
5.	Operating Manual and Maintenance Manual for Propeller		
		"Betriebshandbuch für den Propeller SHK 1", latest applicable issue	
c	Manual for the Test values a latest energy of issue		

6. Manual for the Tost release, latest approved issue

# D.V Notes

- 1. Manufacturing is confined to industrial production.
- 2. All parts exposed to sun radiation except the areas for markings, registration and the cockpit area must have a white colour surface.
- 3. Approved for operations with power plant temporarily removed or inoperative in accordance with the instructions given in the flight manual.



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4. Propeller is accepted as part of the aircraft according to PART 21.A.23(b)(2).



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#### Section E: <u>Administrative Section</u>

## E.I <u>Acronyms & Abbreviations</u>

AFRP	Aramid Fibre Reinforced Plastic
CFRP	Carbon Fibre Reinforced Plastic
GFRP	Glass Fibre Reinforced Plastic
CRI	Certification Review Item
CS	Certification Specification
EASA	European Union Aviation Safety Agency
LBA	Luftfahrt-Bundesamt
VFR	Visual Flight Rules

# E.II Type Certificate Holder Record

Schempp-Hirth Flugzeugbau GmbH Krebenstr. 25 73230 Kirchheim / Teck Germany

#### E.III Change Record

Issue	Date	Changes	TC Issue No. & Date
01	20 July 2018	Initial Issue	Initial Issue, 20. July 2018
02	01 July 2019 Some editorial and layout changes.		
03	15 November 2019	Addition of new model Ventus-3M	15 November 2019
04	28 April 2021	Introduction of 15m-wingtips for variant Ventus-3T and some editorial changes	n/a
05	15 October 2021	Introduction of modification bulletin 627-1 for Ventus-3M	n/a
06	22 July 2022	Introduction of new model Ventus-3F Introduction of modification bulletin 627-3 for Ventus 3T Some editorial changes	08 June 2022
07	18 June 2025	Addition of new model Ventus-3E	13 June 2025

-END-



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