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NOVA ION 3S LIGHT

Type designation NOVA ION 3S light**Type test reference no** DHV GS-01-2106-14**Holder of certification** [NOVA Vertriebsgesellschaft m.b.H.](#)**Manufacturer** [NOVA Vertriebsgesellschaft m.b.H.](#)**Classification** B**Winch towing** Yes**Number of seats min / max** 1 / 1**Accelerator** Yes**Trimmers** No**BEHAVIOUR AT MIN WEIGHT IN FLIGHT (80KG)****BEHAVIOUR AT MAX WEIGHT IN FLIGHT (100KG)****Test pilots**

Beni Stocker



Harald Buntz

Inflation/take-off

A

A

Rising behaviour Smooth, easy and constant rising

Smooth, easy and constant rising

Special take off technique required No

No

Landing

A

A

Special landing technique required No

No

Speeds in straight flight

A

A

Trim speed more than 30 km/h Yes

Yes

Speed range using the controls larger than 10 km/h Yes

Yes

Minimum speed Less than 25 km/h

Less than 25 km/h

Control movement

A

A

Symmetric control pressure Increasing

Increasing

Symmetric control travel Greater than 60 cm

Greater than 60 cm

Pitch stability exiting accelerated flight

A

A

Dive forward angle on exit Dive forward less than 30°

Dive forward less than 30°

Collapse occurs No

No

Pitch stability operating controls during accelerated flight

A

A

Collapse occurs No

No

Roll stability and damping

A

A

Oscillations Reducing

Reducing

Stability in gentle spirals

A

A

Tendency to return to straight flight Spontaneous exit

Spontaneous exit

Behaviour in a steeply banked turn ⚠

A

A

Sink rate after two turns 12 m/s to 14 m/s

12 m/s to 14 m/s

Symmetric front collapse

A

A

Entry Rocking back less than 45°

Rocking back less than 45°

Recovery Spontaneous in less than 3 s

Spontaneous in less than 3 s

Dive forward angle on exit Dive forward 0° to 30°

Dive forward 0° to 30°

Change of course Entering a turn of less than 90°

Entering a turn of less than 90°

Cascade occurs No

No

Symmetric front collapse in accelerated flight

A

A

Entry Rocking back less than 45°

Rocking back less than 45°

Recovery Spontaneous in less than 3 s

Spontaneous in less than 3 s

Dive forward angle on exit Dive forward 0° to 30°

Dive forward 0° to 30°

Change of course Entering a turn of less than 90° Entering a turn of less than 90°
Cascade occurs No No

Exiting deep stall (parachutal stall)**A****A****Deep stall achieved** Yes Yes**Recovery** Spontaneous in less than 3 s Spontaneous in less than 3 s**Dive forward angle on exit** Dive forward 0° to 30° Dive forward 0° to 30°**Change of course** Changing course less than 45° Changing course less than 45°**Cascade occurs** No No**High angle of attack recovery****A****A****Recovery** Spontaneous in less than 3 s Spontaneous in less than 3 s**Cascade occurs** No No**Recovery from a developed full stall****A****A****Dive forward angle on exit** Dive forward 0° to 30° Dive forward 0° to 30°**Collapse** No collapse No collapse**Cascade occurs (other than collapses)** No No**Rocking back** Less than 45° Less than 45°**Line tension** Most lines tight Most lines tight**Asymmetric collapse 45-50%****A****A****Change of course until re-inflation** Less than 90° Less than 90°**Maximum dive forward or roll angle** Dive or roll angle 15° to 45° Dive or roll angle 15° to 45°**Re-inflation behaviour** Spontaneous re-inflation Spontaneous re-inflation**Total change of course** Less than 360° Less than 360°**Collapse on the opposite side occurs** No No**Twist occurs** No No**Cascade occurs** No No**Asymmetric collapse 70-75%****A****B****Change of course until re-inflation** Less than 90° 90° to 180°**Maximum dive forward or roll angle** Dive or roll angle 15° to 45° Dive or roll angle 15° to 45°**Re-inflation behaviour** Spontaneous re-inflation Spontaneous re-inflation**Total change of course** Less than 360° Less than 360°**Collapse on the opposite side occurs** No No**Twist occurs** No No**Cascade occurs** No No**Asymmetric collapse 45-50% in accelerated****flight****A****A****Change of course until re-inflation** Less than 90° Less than 90°**Maximum dive forward or roll angle** Dive or roll angle 15° to 45° Dive or roll angle 15° to 45°**Re-inflation behaviour** Spontaneous re-inflation Spontaneous re-inflation**Total change of course** Less than 360° Less than 360°**Collapse on the opposite side occurs** No No**Twist occurs** No No**Cascade occurs** No No**Asymmetric collapse 70-75% in accelerated****flight****B****B****Change of course until re-inflation** 90° to 180° 90° to 180°**Maximum dive forward or roll angle** Dive or roll angle 15° to 45° Dive or roll angle 15° to 45°**Re-inflation behaviour** Spontaneous re-inflation Spontaneous re-inflation**Total change of course** Less than 360° Less than 360°**Collapse on the opposite side occurs** No No**Twist occurs** No No**Cascade occurs** No No**Directional control with a maintained****asymmetric collapse****A****A****Able to keep course** Yes Yes**180° turn away from the collapsed side possible in 10 s** Yes Yes**Amount of control range between turn and stall or spin** More than 50 % of the symmetric control travel More than 50 % of the symmetric control travel**Trim speed spin tendency****A****A****Spin occurs** No No**Low speed spin tendency****A****A****Spin occurs** No No**Recovery from a developed spin****A****A****Spin rotation angle after release** Stops spinning in less than 90° Stops spinning in less than 90°**Cascade occurs** No No**B-line stall****A****A****Change of course before release** Changing course less than 45° Changing course less than 45°**Behaviour before release** Remains stable with straight span Remains stable with straight span**Recovery** Spontaneous in less than 3 s Spontaneous in less than 3 s**Dive forward angle on exit** Dive forward 0° to 30° Dive forward 0° to 30°**Cascade occurs** No No

<u>Big ears</u>	A	A
Entry procedure	Dedicated controls	Dedicated controls
Behaviour during big ears	Stable flight	Stable flight
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
<u>Big ears in accelerated flight</u>	A	A
Entry procedure	Dedicated controls	Dedicated controls
Behaviour during big ears	Stable flight	Stable flight
Recovery	Spontaneous in less than 3 s	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight
<u>Behaviour exiting a steep spiral</u>	A	A
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Less than 720°, spontaneous recovery
Sink rate when evaluating spiral stability [m/s]	14	14
<u>Alternative means of directional control</u>	A	A
180° turn achievable in 20 s	Yes	Yes
Stall or spin occurs	No	No
<u>Any other flight procedure and/or configuration described in the user's manual</u>		
No other flight procedure or configuration described in the user's manual		