



DHV TESTREPORT EN926-2:2014

NOVA ION 4S

Type designation NOVA Ion 4S
Type test reference no DHV GS-01-2185-15
Holder of certification [NOVA Vertriebsgesellschaft m.b.H.](#)
Manufacturer [NOVA Vertriebsgesellschaft m.b.H.](#)
Classification B
Winch towing No
Number of seats min / max 1 / 1
Accelerator Yes
Trimmers No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (80KG)

Test pilots



Beni Stocker

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (100KG)



Harald Buntz

Inflation/take-off

A

A

Rising behaviour Smooth, easy and constant rising
Special take off technique required No

Smooth, easy and constant rising
 No

Landing

A

A

Special landing technique required No

No

Speeds in straight flight

A

A

Trim speed more than 30 km/h Yes
Speed range using the controls larger than 10 km/h Yes
Minimum speed Less than 25 km/h

Yes
 Yes
 Less than 25 km/h

Control movement

A

A

Symmetric control pressure Increasing
Symmetric control travel Greater than 60 cm

Increasing
 Greater than 60 cm

Pitch stability exiting accelerated flight

A

A

Dive forward angle on exit Dive forward less than 30°
Collapse occurs No

Dive forward less than 30°
 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

en : Verhalten beim Verlassen einer vollständigen Steilspirale

B

B

en : Erstes Ansprechen des Gleitschirms (die ersten 180°)

en : keine unmittelbare Reaktion

Tendency to return to straight flight en : selbstständiges Ausleiten (G-Kraft abnehmend, Drehgeschwindigkeit abnehmend)

en : selbstständiges Ausleiten (G-Kraft abnehmend, Drehgeschwindigkeit abnehmend)

Turn angle to recover normal flight 720° to 1 080°, spontaneous recovery

720° to 1 080°, spontaneous recovery

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 Keeping course

Entering a turn of less than 90°

Cascade occurs No

No

en : Faltleinen wurden benutzt no

no

| | | |
|--|----------|--|
| <u>en : Symmetrischer Frontklapper mindestens 50% Flügeltiefe</u> | 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 |
| en : Faltleinen wurden benutzt no | | no |
| <u>en : Symmetrischer Frontklapper im beschleunigten Flug</u> | B | B |
| Entry Rocking back less than 45° | | Rocking back less than 45° |
| Recovery Spontaneous in 3 s to 5 s | | Spontaneous in 3 s to 5 s |
| Dive forward angle on exit Dive forward 30° to 60° | | Dive forward 30° to 60° |
| Change of course Entering a turn of less than 90° | | Entering a turn of less than 90° |
| Cascade occurs No | | No |
| en : Faltleinen wurden benutzt no | | no |
| <u>Exiting deep stall (parachutal stall)</u> | 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 |
| <u>High angle of attack recovery</u> | A | A |
| Recovery Spontaneous in less than 3 s | | Spontaneous in less than 3 s |
| Cascade occurs No | | No |
| <u>Recovery from a developed full stall</u> | 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 |
| <u>en : Kleiner einseitiger Klapper</u> | 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 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) | | en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| en : Faltleinen wurden benutzt no | | no |
| <u>en : Großer einseitiger Klapper</u> | 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 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) | | en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| en : Faltleinen wurden benutzt no | | no |
| <u>en : Kleiner einseitiger Klapper im beschleunigten Flug</u> | 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 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) | | en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| en : Faltleinen wurden benutzt no | | no |
| <u>en : Großer einseitiger Klapper im beschleunigten Flug</u> | 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 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) | | en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung) |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| en : Faltleinen wurden benutzt no | | no |

| | | |
|--|--|--|
| <u>Directional control with a maintained asymmetric collapse</u> | 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 |
| <u>Trim speed spin tendency</u> | A | A |
| Spin occurs | No | No |
| <u>Low speed spin tendency</u> | A | A |
| Spin occurs | No | No |
| <u>Recovery from a developed spin</u> | A | A |
| Spin rotation angle after release | Stops spinning in less than 90° | Stops spinning in less than 90° |
| Cascade occurs | No | No |
| <u>B-line stall</u> | 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> | B | B |
| Entry procedure | Dedicated controls | Dedicated controls |
| Behaviour during big ears | Stable flight | Stable flight |
| Recovery | Recovery through pilot action in less than a further 3 s | Recovery through pilot action in less than a further 3 s |
| Dive forward angle on exit | Dive forward 0° to 30° | Dive forward 0° to 30° |
| <u>Big ears in accelerated flight</u> | B | A |
| Entry procedure | Dedicated controls | Dedicated controls |
| Behaviour during big ears | Stable flight | Stable flight |
| Recovery | Recovery through pilot action in less than a further 3 s | Spontaneous in less than 3 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>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 | | |