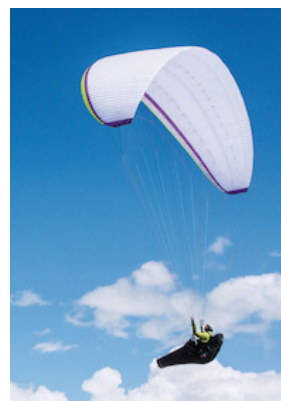




DHV TESTREPORT EN926-2:2014

NOVA PHANTOM XS

Type designation	NOVA Phantom XS
Type test reference no	DHV GS-01-2250-16
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 (55KG)

Test pilots



Sophia Putzer

Expert Reiner Brunn

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (90KG)



Harald Buntz

<u>Inflation/take-off</u>	A	A
Rising behaviour	Smooth, easy and constant rising	Smooth, easy and constant rising
Special take off technique required	No	No
<u>Landing</u>	A	A
Special landing technique required	No	No
<u>Speeds in straight flight</u>	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
<u>Control movement</u>	A	A
Symmetric control pressure	Increasing	Increasing
Symmetric control travel	Greater than 55 cm	Greater than 60 cm
<u>Pitch stability exiting accelerated flight</u>	A	A
Dive forward angle on exit	Dive forward less than 30°	Dive forward less than 30°
Collapse occurs	No	No
<u>Pitch stability operating controls during accelerated flight</u>	A	A
Collapse occurs	No	No
<u>Roll stability and damping</u>	A	A
Oscillations	Reducing	Reducing
<u>Stability in gentle spirals</u>	A	A
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
<u>en : Verhalten beim Verlassen einer vollständigen Steilspirale</u>	A	B
en : Erstes Ansprechen des Gleitschirms (die ersten 180°) Drehgeschwindigkeit	en : unmittelbare Verringerung der Drehgeschwindigkeit	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 Less than 720°, spontaneous recovery 720° to 1 080°, spontaneous recovery

Symmetric front collapse**A**

Entry Rocking back less than 45°
Recovery Spontaneous in less than 3 s
Dive forward angle on exit Dive forward 0° to 30°
Change of course Entering a turn of less than 90°
Cascade occurs No
en : Faltleinen wurden benutzt no

A

Rocking back less than 45°
 Spontaneous in less than 3 s
 Dive forward 0° to 30°
 Keeping course
 No
 no

en : Symmetrischer Frontklapper mindestens 50% Flügeltiefe**B**

Entry Rocking back less than 45°
Recovery Spontaneous in 3 s to 5 s
Dive forward angle on exit Dive forward 30° to 60°
Change of course Entering a turn of less than 90°
Cascade occurs No
en : Faltleinen wurden benutzt no

B

Rocking back less than 45°
 Spontaneous in 3 s to 5 s
 Dive forward 30° to 60°
 Keeping course
 No
 no

en : Symmetrischer Frontklapper im beschleunigten Flug**B**

Entry Rocking back less than 45°
Recovery Spontaneous in 3 s to 5 s
Dive forward angle on exit Dive forward 30° to 60°
Change of course Entering a turn of less than 90°
Cascade occurs No
en : Faltleinen wurden benutzt no

B

Rocking back less than 45°
 Spontaneous in 3 s to 5 s
 Dive forward 30° to 60°
 Keeping course
 No
 no

Exiting deep stall (parachutal stall)**A**

Deep stall achieved Yes
Recovery Spontaneous in less than 3 s
Dive forward angle on exit Dive forward 0° to 30°
Change of course Changing course less than 45°
Cascade occurs No

A

Yes
 Spontaneous in less than 3 s
 Dive forward 0° to 30°
 Changing course less than 45°
 No

High angle of attack recovery**A**

Recovery Spontaneous in less than 3 s
Cascade occurs No

A

Spontaneous in less than 3 s
 No

Recovery from a developed full stall**A**

Dive forward angle on exit Dive forward 0° to 30°
Collapse No collapse
Cascade occurs (other than collapses) No
Rocking back Less than 45°
Line tension Most lines tight

A

Dive forward 0° to 30°
 No collapse
 No
 Less than 45°
 Most lines tight

en : Kleiner einseitiger Klapper**A**

Change of course until re-inflation Less than 90°
Maximum dive forward or roll angle Dive or roll angle 15° to 45°
Re-inflation behaviour Spontaneous re-inflation
Total change of course Less than 360°
Collapse on the opposite side occurs en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs No
Cascade occurs No
en : Faltleinen wurden benutzt no

A

Less than 90°
 Dive or roll angle 0° to 15°
 Spontaneous re-inflation
 Less than 360°
 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
 No
 No
 no

en : Großer einseitiger Klapper**B**

Change of course until re-inflation 90° to 180°
Maximum dive forward or roll angle Dive or roll angle 15° to 45°
Re-inflation behaviour Spontaneous re-inflation
Total change of course Less than 360°
Collapse on the opposite side occurs en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs No
Cascade occurs No
en : Faltleinen wurden benutzt no

B

90° to 180°
 Dive or roll angle 15° to 45°
 Spontaneous re-inflation
 Less than 360°
 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
 No
 No
 no

en : Kleiner einseitiger Klapper im beschleunigten Flug**A**

Change of course until re-inflation Less than 90°
Maximum dive forward or roll angle Dive or roll angle 15° to 45°
Re-inflation behaviour Spontaneous re-inflation
Total change of course Less than 360°
Collapse on the opposite side occurs en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs No
Cascade occurs No
en : Faltleinen wurden benutzt no

B

90° to 180°
 Dive or roll angle 15° to 45°
 Spontaneous re-inflation
 Less than 360°
 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
 No
 No
 no

en : Großer einseitiger Klapper im beschleunigten Flug**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 : Falteinen wurden benutzt	no	no
<hr/>		
<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
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<u>Trim speed spin tendency</u>	A	A
Spin occurs	No	No
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<u>Low speed spin tendency</u>	A	A
Spin occurs	No	No
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<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
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<u>B-line stall</u>	A	B
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 3 s to 5 s
Dive forward angle on exit	Dive forward 30° to 60°	Dive forward 30° to 60°
Cascade occurs	No	No
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<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°
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<u>Big ears in accelerated flight</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°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight
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<u>Alternative means of directional control</u>	A	A
180° turn achievable in 20 s	Yes	Yes
Stall or spin occurs	No	No
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<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		