



DHV TESTREPORT LTF 2009

AIRCROSS U-CROSS XL

Type designation Aircross U-Cross XL
Type test reference no DHV GS-01-1982-12
Holder of certification [Kontest GmbH - AirCross](#)
Manufacturer [Kontest GmbH - AirCross](#)
Classification C
Winch towing Yes
Number of seats min / max 1 / 1
Accelerator Yes
Trimmers No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (110KG)

Test pilots



Harald Buntz

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (130KG)



Reiner Brunn

Inflation/take-off	C	C
Rising behaviour	Smooth, easy and constant rising	Smooth, easy and constant rising
Special take off technique required	Yes	Yes
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	C	C
Symmetric control pressure	Increasing	Increasing
Symmetric control travel	50 cm to 65 cm	50 cm to 65 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	B	B
Sink rate after two turns	More than 14 m/s	More than 14 m/s
Symmetric front collapse	B	B
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 30° to 60°	Dive forward 30° to 60°
Change of course	Keeping course	Keeping course
Cascade occurs	No	No
Symmetric front collapse in accelerated flight	B	B
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 30° to 60°	Dive forward 30° to 60°
Change of course	Keeping course	Keeping course

	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%	C	C
Change of course until re-inflation	90° to 180°	90° to 180°
Maximum dive forward or roll angle	Dive or roll angle 45° to 60°	Dive or roll angle 45° to 60°
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°
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Asymmetric collapse 70-75% in accelerated flight	C	C
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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
Big ears	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°

Big ears in accelerated flight**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°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight

Behaviour exiting a steep spiral**C****C**

Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
Turn angle to recover normal flight	720° to 1 080°, spontaneous recovery	720° to 1 080°, spontaneous recovery
Sink rate when evaluating spiral stability [m/s]	14	14

Alternative means of directional control**A****A**

180° turn achievable in 20 s	Yes	Yes
Stall or spin occurs	No	No

Any other flight procedure and/or configuration described in the user's manual

No other flight procedure or configuration described in the user's manual

Supplementary remarks

Testflugmanöver 1 Füllen/Starten: spezielle Starttechnik erforderlich, ansonsten bleibt Kappe hängen. Testflugmanöver 7 Rollstabilität und Rolldämpfung: sehr geringe Rolldämpfung. Testflugmanöver 22 Verhalten bei der Ausleitung von Steilspiralen: Je nach Manövereinleitung sehr schnelle Beschleunigung auf hohe Sinkgeschwindigkeiten größer 20 m/s, sehr hohe G Kräfte und stabile Spirale bereits bei 14 m/s möglich (Bei sehr schneller und verzögerungsfreier Einleitung). >> unbedingt Betriebsanleitung beachten !!! Für geübte Piloten ist die Sinkgeschwindigkeit angenehm dosierbar und leicht zu kontrollieren. Sehr direktes Handling.

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