

Air Turquoise SA Rte du Pré-au-Comte 8 | CH-1844 Villeneuve tel. +41 21 965 65 65 | mobile +41 79 202 52 30 info@para-test.com

Apco Aviation Ltd. Mr Cohn Anatoly 7, Chalamish St., Industrial park 38900 Caesarea Israel

Certificate

The hereunder sample of paraglider has been tested in accordance with the following standards: EN 926-2:2005 & EN 926-1:2006



Certification number	PG_0184.2008
Manufacturer	. Apco Aviation Ltd.
Glider model	Karma Sport M
Category	В
Maximum weight in flight (kg)	110 kg
Minimum weight in flight (kg)	80 kg
Glider's weight (kg)	5.8 kg

Date of flight test

Flight tests	23. 09. 2008
Serial number	140290

Alain Zoller

IndiEnton Randi Eriksen

Best Regards,

para-test.com PD \mathbb{R} 300 paragliding by air turquoise

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PG_0184.2008

01.05.2009





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Class: B

In accordance with EN standards 926-2:2005 & 926-1:2006:

Date of issue (DMY):

Manufacturer: Apco Aviation Ltd. Karma Sport M Model:

Serial number:

Configuration during flight tests

Paraglider

Falagiluei		Accessories
Maximum weight in flight (kg)	110	Range of speed system (cm)
Minimum weight in flight (kg)	80	Speed range using brakes (km/h)
Glider's weight (kg)	5.8	Range of trimmers (cm)
Number of risers	4	Total speed range with accessories
Projected area (m2)	25.6	
Harness used for testing (max weight)		Inspections (whichever happens f
Harness type	ABS	every 12 months
Harness brand	Sol Paragliders	Warning! Before use refer to user's
Harness model	Slider L	Person or company having presen glider for testing: None
Harness to risers distance (cm)	47	
Distance between risers (cm)	45	

Accessories

Speed range using brakes (km/h)	11
Range of trimmers (cm)	0
Total speed range with accessories (km/h)	17
Inspections (whichever happens first)	
Warning! Before use refer to user's manual	
Person or company having presented the glider for testing: None	
	Range of trimmers (cm) Total speed range with accessories (km/h) Inspections (whichever happens first) every 12 months Warning! Before use refer to user's manual Person or company having presented the

9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 1 2 3 4 5 6 7 8



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Flight test report



Manufacturer	Apco Aviation Ltd.	Certification number		PG_0184.2008	
Address	7, Chalamish St., Industrial park 38900 Caesarea Israel	Date of flight test		23. 09. 2008	
Representative	None	Place of test		Villeneuve	
Glider model	Karma Sport M	Classification		В	
Trimmer	no			-	
mininei	10				
	Test pilot	Thurnheer Claude		Zoller Alain	
	•	Sky paragliders - Axel II M		Sol Paragliders - Slider L	
	Total weight in flight (kg)			110	
1. Inflation/Take-off		A			
Rising behaviour		Smooth, easy and constant rising	А	Smooth, easy and constant rising	А
Special take off techn	lique required	No	А	No	А
2. Landing		Α			
Special landing techn	ique required	No	А	No	А
3. Speed in straight	flight	Α			
Trim speed more than	n 30 km/h	Yes	А	Yes	А
Speed range using th	e controls larger than 10 km/h	Yes	А	Yes	А
Minimum speed		Less than 25 km/h	А	Less than 25 km/h	А
4. Control movement	nt	Α			
Max. weight in flight u	ıp to 80 kg				
Symmetric control pre	essure / travel	Increasing / greater than 55 cm	А	not available	0
Max. weight in flight 8	80 kg to 100 kg				
Symmetric control pre	essure / travel	not available	0	not available	0
Max. weight in flight g					
Symmetric control pre		not available	0	Increasing / greater than 65 cm	А
-	ting accelerated flight	Α			
Dive forward angle or	n exit	Dive forward less than 30°	А	Dive forward less than 30°	A
Collapse occurs		No	А	No	A
6. Pitch stability ope flight	erating controls during accelerated	Α			
Collapse occurs		No	А	No	А
7. Roll stability and	damping	Α			
Oscillations		Reducing	А	Reducing	А
8. Stability in gentle	spirals	Α			
Tendency to return to	straight flight	Spontaneous exit	А	Spontaneous exit	А
9. Behaviour in a ste	eeply banked turn	В			
Sink rate after two tur	ns	12 m/s to 14 m/s	А	More than 14 m/s	В
10. Symmetric front	collapse	Α			
Entry		Rocking back less than 45°	А	Rocking back less than 45°	А
Recovery		Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle or	n exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	A
Cascade occurs		No	А	No	А
With accelerator					
Entry		Rocking back less than 45°	А	Rocking back less than 45°	А
Recovery		Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A

Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	А	No	А
11. Exiting deep stall (parachutal stall)	Α			
Deep stall achieved	Yes	А	Yes	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Change of course	Changing course less than 45°	А	Changing course less than 45°	А
Cascade occurs	No	А	No	А
12. High angle of attack recovery	Α			
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Cascade occurs	No	А	No	А
13. Recovery from a developed full stall	Α			
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Collapse	No collapse	А	No collapse	А
Cascade occurs (other than collapses)	No	А	No	А
Rocking back	Less than 45°	А	Less than 45°	А
Line tension	Most lines tight	А	Most lines tight	А
14. Asymmetric collapse	В			
With 50% collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 0° to 15°	A	Less than 90° / Dive or roll angle 0° to 15° $$	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	No	А
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
With 75% collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45° $$	A	Less than 90° / Dive or roll angle 15° to 45°	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	No	А
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
With 50% collapse and accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45° $$	A	Less than 90° / Dive or roll angle 15° to 45° $$	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	No	А
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
With 75% collapse and accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45° $$	A	90° to 180° / Dive or roll angle 15° to 45°	В
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	No	А
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
15. Directional control with a maintained asymmetric collapse	Α			
Able to keep course	Yes	А	Yes	А
180° turn away from the collapsed side possible in 10 s	Yes	А	Yes	А
Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	A	More than 50 % of the symmetric control travel	A
16. Trim speed spin tendency	Α			
Spin occurs	No	А	No	А

17. Low speed spin tendency	Α			
Spin occurs	No	А	No	А
18. Recovery from a developed spin	Α			
Spin rotation angle after release	Stops spinning in less than 90°	А	Stops spinning in less than 90°	А
Cascade occurs	No	А	No	А
19. B-line stall	Α			
Change of course before release	Changing course less than 45°	А	Changing course less than 45°	А
Behaviour before release	Remains stable with straight span	A	Remains stable with straight span	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Cascade occurs	No	А	No	А
20. Big ears	Α			
Entry procedure	Dedicated controls	А	Dedicated controls	А
Behaviour during big ears	Stable flight	А	Stable flight	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
21. Big ears in accelerated flight	Α			
Entry procedure	Dedicated controls	А	Dedicated controls	А
Behaviour during big ears	Stable flight	А	Stable flight	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	A	Stable flight	A
22. Behaviour exiting a steep spiral	Α			
Tendency to return to straight flight	Spontaneous exit	А	Spontaneous exit	А
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	A	Less than 720°, spontaneous recovery	A
Sink rate when evaluating spiral stability [m/s]	15		22	
23. Alternative means of directional control	Α			
180° turn achievable in 20 s	Yes	А	Yes	А
Stall or spin occurs	No	А	No	А
24. Any other flight procedure and/or configuration described in the user's manual	0			
Procedure works as described	not available	0	not available	0
Procedure suitable for novice pilots	not available	0	not available	0
Cascade occurs	not available	0	not available	0
25. Comments of test pilot				
Comments				