APEX-10 Heavy Lift Ellipsoid Aerostat

Specification January 2026

Category	Technical Parameter	Description / Unit of Measure
1. General Characteristics	Model / Designation	**APEX-10 Heavy Lift**
	Purpose	Heavy-Payload (Persistent) Infrastructure Aerostat
	Construction Type	The internal pressure maintains the envelope's rigidity
2. Geometric Dimensions	length	5 X 55 X 3.5 m
	Helium Volume	App 48 m3
	Stabilisation	Polyester mesh (stabilisation sail)
3. Masses and Payload	Gross lift	App 48 kg
	Empty System Weight	App 17 kg
	Maximum Payload Capacity	10 kg
4. Operational Performance	Max Operating Altitude	100 – 150 m
	Max Wind Speed Limit	35 km/h
	Operating Temp. Range	-10 to 60 °C
	Daily Helium Leakage	Up to 1% per day on total volume
5. Materials & Craftsmanship	Envelope Material	125 microns TPU White
	Seam Technology	Ultrasonic Welding (0.3 mm seam)
	Stabilisation	Stabilisation sail
	Valve System	Scoprega 2 stage valve at the back at the low point
	Safety valve	YES (RX/TX control of the valve)
6. Tether & Power System	Tether Line	100m 10 mm Polyester (450 kg BS)
	Tether Power System (TPS)	No (Available on request)
7. Logiscs & Preparation	Setup / Inflation Time	Up to 2 hour
	Packaging Dimensions	1.5 x 1.5 x 1 m

All info: Aero Drum Ltd, Vojislava Ilica 99a, 11050 Belgrade, Serbia, Europe, rczeppelin@gmail.com, rczeppelin@protonmail.com, +381641213546, +381645637679