

RiCOPTER



The RiCOPTER is a high-performance unmanned multi-rotor aircraft for professional UAV missions.

Key Facts:

- robust und reliable UAV-platform
- full mechanical and electrical integration of sensor components possible
- carbon fibre main frame, foldable propeller carrier arms, and shock-absorbing undercarriage for stable flights, landings and comfortable transportation
- **RiCOPTERControl (RiCC):** redundant flight control system developed and produced by RIEGL
- remote control Graupner MC32 (2.4 GHz; telemetry supported)
- 433, 868 or 915 MHz command and control link; 5.8 GHz live video downstream
- UN 38.3 certified batteries
- highly versatile and customizable



RiCOPTER®

Remotely Piloted Aircraft System for Multi-Purpose Applications

Robust and reliable unmanned airborne platform for carrying various types of sensors, e.g. laser scanners, photogrammetric cameras, thermal-infrared cameras, hyper-spectral cameras, magnetometers, radiation sensors, gas leak detectors.

RiCOPTER Aircraft Technical Data

Specifications and Performance:

Main Dimensions ready to fly	1,920 mm x 1,820 mm x 470 mm
arms folded for transportation & storage	624 mm x 986 mm x 470 mm
MTOM (Maximum Take-Off Mass)	25 kg
Max. Sensor Load	up to 6.5 kg
Empty Weight	11 kg
Max. tested and permitted Operating Altitude AMSL ¹⁾	up to 3,000 m (10,000 ft) ^{2) 3) 4)} (under ISA ⁵⁾ conditions)
Max. Flight Endurance	up to 30 min ⁶⁾
Cruise Speed	typ. 6 - 8 m/sec
Take-off / Landing	VTOL (Vertical Take-off and Landing)
RiCOPTER Transportation Case dimensions empty weight	1,220 mm x 810 mm x 540 mm approx. 20 kg
RiCOPTER Ground Control Unit weight	approx. 1.2 kg

1) AMSL – Above Mean Sea Level

2) depending on rotor blade configuration

3) For flight altitude above ground level, operational limits for civil unmanned aircraft according to national regulations have to be observed.

4) higher altitude possible with reduced performance

5) ISA – International Standard Atmosphere

6) with 6.5 kg sensor load

Limitations:

Max. Ground Speed	14 m/sec ⁸⁾
Max. Tolerable Wind Speed	8 m/sec
Max. Climb Rate Max. Descent Rate	5 m/sec 2 m/sec ⁸⁾

8) electronically limited

Hot / Cold Weather Operation:

Min. Operating Temperature	-5°C OAT (Outside Air Temperature)
Max. Operating Temperature	+40°C OAT (Outside Air Temperature)

Optional RiCOPTER Components / Accessories

RiCOPTER Ground Control Unit

The Ground Control Unit comes with accoring tripod mount.

- integrated datalink interface (433, 868 or 915 MHz)
- integrated receiver of video signal for FPV camera (5.8 GHz)
- powered via USB connection
- status display
- rugged PC for flight planning and configuration of the mission (optional)

RiCOPTER Charging Control Unit

- professional PELI-Carrying-Case for easy and safe transportation
- equipped with all required connectors and cables
- Power Supply: 100 – 240 VAC / max. 1.200 Watt
- 2 charging slots for max. 10 A each (2 Charging Control Units are recommended)
- charging time: approx. 1 hour for 1 set (4 batteries; 2 Charging Control Units)

Further accessories available (more information on request).



Remote Control Graupner MC32



easy to carry with integrated handle



Transportation Case:
foldable arms facilitate
easy transportation and storage



Ground Control Unit



Charging Control Unit

The RiCOPTER is a high performance unmanned multi-rotor aircraft, designed & manufactured by RIEGL Laser Measurement Systems GmbH. It is distributed, supported and serviced by RiCOPTER UAV GmbH, also a RIEGL company.

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