

# 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<sup>®</sup>

# 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:

<b>Main Dimensions</b> ready to fly arms folded for transportation & storage	1,920 mm x 1,820 mm x 470 mm 624 mm x 986 mm x 470 mm
<b>MTOM</b> (Maximum Take-Off Mass)	25 kg
<b>Max. Sensor Load</b>	up to 6.5 kg
<b>Empty Weight</b>	11 kg
<b>Max. tested and permitted Operating Altitude AMSL</b> <sup>1)</sup>	up to 4,000 m (13,100 ft) <sup>2) 3) 4)</sup> (under ISA <sup>5)</sup> conditions)
<b>Max. Flight Endurance</b>	up to 30 min <sup>6)</sup>
<b>Cruise Speed</b>	typ. 6 - 8 m/sec
<b>Take-off / Landing</b>	VTOL (Vertical Take-off and Landing)
<b>RiCOPTER Transportation Case</b> dimensions empty weight	1,220 mm x 810 mm x 540 mm approx. 20 kg
<b>RiCOPTER Ground Control Unit</b> 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) For flights above 3000 m AMSL pilots require a specific training.

For further information concerning the "RiCOPTER altitude flight rating" please contact [info@ricopter.com](mailto:info@ricopter.com)

5) ISA – International Standard Atmosphere

6) with 6.5 kg sensor load

### Limitations:

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

8) electronically limited

### Hot / Cold Weather Operation:

<b>Min. Operating Temperature</b>	-5°C OAT (Outside Air Temperature)
<b>Max. Operating Temperature</b>	+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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