/// The AscTec Pelican for SLAM & Computer vision.

Ascending Technologies – manufacturer and innovator of micro UAVs.
With more than 1000 multicopters sold worldwide, the company is highly experienced. You are kindly invited to profit from the expertise of the long-standing technology leader in unmanned aerial vehicles (UAV).

The AscTec Pelican is the bestseller of the AscTec Research Line.
High quality standards are held during the production process, to ensure our products are reliable and safe. Our customers are registered to a database, allowing us to provide them with the newest software and hardware updates.

Date & version: 01.05.2015 – V 4.0
Product designation: AscTec Pelican
Producer: Ascending Technologies GmbH
Address: Konrad-Zuse-Bogen 4 /// 82152 Krailling Germany

/// Summary

This safety data sheet contains all relevant information about the flight system to apply for a take-off permission.

Table of content:
Technical data & safety functions.

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Technical data & safety functions

Flight system

<table>
<thead>
<tr>
<th>Type</th>
<th>Quadcopter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>651 x 651 x 188 mm</td>
</tr>
<tr>
<td>Engines</td>
<td>4 electrical, brushless (sensorless) motors</td>
</tr>
<tr>
<td>Rotor diameter</td>
<td>10&quot; (~ 25,4 cm)</td>
</tr>
<tr>
<td>Number of rotors</td>
<td>4</td>
</tr>
<tr>
<td>Rotor weight</td>
<td>~ 8 g</td>
</tr>
<tr>
<td>Empty weight</td>
<td>~ 620 g</td>
</tr>
<tr>
<td>Min. take-off weight</td>
<td>~ 1000 g</td>
</tr>
<tr>
<td>Max. take-off weight</td>
<td>~ 1650 g</td>
</tr>
<tr>
<td>Flight time</td>
<td>~ 16 min. 1</td>
</tr>
<tr>
<td>Max. range</td>
<td>1 km 2</td>
</tr>
<tr>
<td>Tolerable wind speed</td>
<td>10m/s 1/3</td>
</tr>
<tr>
<td>Max. payload</td>
<td>~ 650 g</td>
</tr>
</tbody>
</table>

- Max. airspeed
  Manual mode: 15m/s
  GPS mode: 3 m/s
  Max. climb rate: 8 m/s
  Max. thrust: 36N

Wireless communication

<table>
<thead>
<tr>
<th>2.4 GHz XBee link</th>
<th>10–63mW (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WiFi</td>
<td>(optional)</td>
</tr>
</tbody>
</table>

LiPo battery types [mAh]

| PP6250, 3 Cells     | 6250 |
| PP6100, 3 Cells     | 6100 |

Former & available payload options

AscTec Mastermind
+ Camera Mount Option 1, 2 or 3
+ Laser Scanner Mount

AscTec Atomboard
+ Camera Mount Option 1, 2, 3 or 4
+ Laser Scanner Mount

BlueFOX 1/3" CMOS Camera
30m Laser Scanner Hokuyo UTM-30LX
20m Laser Scanner Hokuyo UST-20LX
10m Laser Scanner Hokuyo UST-10LX
4m Laser Scanner Hokuyo URG-04LX

Propeller Protection (small/large)
Feet Extensions

Certification
CE, RoHS

Safety functions

- Telemetry in realtime: All necessary system information such as GPS position, height, velocity, battery load, link and GPS quality for instance is displayed live.

- Sensor output check: All important sensor values and system parameters are checked automatically before each flight. If a value is critical, it will be identified and interrupt the launching procedure automatically.

- 3 Emergency modes: The pilot can choose one of three emergency modes to determine the automatic landing in case of link loss: “Direct landing”, “Comehome straight” (at its current height) or “Comehome high” (at max. mission height). As soon as the link is reestablished you may take control again and continue the flight.

Certificate:
CE, RoHS

Incl. payload (~ 650 g) /// "Recommended line of sight (~ 150 m)" /// "GPS mode" /// This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

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AscTec Pelican /// Safety data sheet /// Applies for software V2.0 & higher (HLP & LLP).