

# Aerobatic Airplane "Extra 330LE"

with world-record electric motor  
from Siemens

The approximately 1,000 kilogram "Extra 330LE" serves as a prototype for the new drive system – as an aerobatic airplane, it is particularly well suited for taking the components to their limits, testing them and enhancing their design. The plane is designed for 20-minute flights, a period of time that includes take-off, climbing and five minutes of full-performance flight.

The Extra 330 LE had its maiden public flight on July 4, 2016, in Dinslaken, Germany. The record motor powered the aerobatic plane almost silently. It was the first time that an electric plane had flown in the performance class of a quarter of a megawatt. This has opened the door for the development of hybrid electric planes with four or more seats. The new type of electric motor weighs just 50 kilograms, yet supplies permanent electrical power of around 260 kilowatts – five times the level of comparable drive systems. Siemens plans to use the technology in its electric-flying partnership with Airbus that both companies set up in April 2016. Electric drives are scalable, and Siemens and Airbus will be using the record-setting motor as a basis for developing regional airliners powered by hybrid-electric propulsion systems.

Siemens expects to see the first planes with 100 passengers and a range of about 1,000 kilometers by 2030. The company is committed to using the hybrid-electric drive systems for aircraft as the basis for a future business.

## Further information

[siemens.com/electric-motorplane](http://siemens.com/electric-motorplane)  
[siemens.com/press/electric-motorplane](http://siemens.com/press/electric-motorplane)  
[siemens.com/press/inno2016](http://siemens.com/press/inno2016)



### World-record electric motor

For the first time ever, a plane in the certification category CS23 flies with Permit-to-Fly purely electric. The plane is powered by a 260 kilowatt Siemens motor that weighs a mere 50 kilogram – a record-setting power-to-weight ratio.

**Technical data for the record electric motor SP260D**

|  |            |
|--|------------|
| Permanent electrical power               | 260 kW     |
| Maximum continuous speed                 | 2,500 rpms |
| Continuous torque                        | 1,000 Nm   |
| Link voltage                             | 580 V      |
| Maximum coolant inlet temperature        | 90 °C      |
| Total weight including airscrew bearings | 50 kg      |
| Motor efficiency                         | 95 %       |

**Technical data for the electric test plane Extra 330LE**

|           |                    |
|-----------|--------------------|
| Wing span | 8 m                |
| Length    | 7.5 m              |
| Height    | 2.6 m              |
| Wing area | 10.7 square meters |
| Weight    | About 1,000 kg     |