

Fact Sheet XXL

ABB FIA Formula E 2019/2020



Editorial

New manufacturers, new drivers, new tracks in major cities, and more suspense than ever – that’s the 2019/2020 ABB FIA Formula E. “Never change a winning team” – that’s why Audi and Schaeffler are again tackling this electrifying challenge together. With the more efficient MGU04 powertrain of the Audi e-tron FE06 optimized by Audi and us, we are fighting anew for victories and titles as Team Audi Sport ABT Schaeffler.



Daniel Pokorny
Head of Corporate
Communications
Future Trends at Schaeffler



#WhyWeRace

Schaeffler is actively involved in shaping the rapid developments in mobility of tomorrow. The things that matter are quality,

technology – and innovation. Besides digitalization and Industry 4.0, Schaeffler regards electric mobility as one of the key innovation drivers and concentrated all of its activities in this sector in its “E-Mobility” business unit as early as in 2018.

For Schaeffler, Formula E is a global stage for showcasing this enormous innovation prowess. At the same time, it is an ideal test laboratory for the development of e-mobility technologies – that’s why Formula E is an ideal fit for Schaeffler. The commitment in what is arguably the most advanced and revolutionary motorsport series worldwide has a powerful external and internal effect. As a global technology group we are trailblazers in shaping a sustainable future of mobility. Schaeffler has been actively involved in Formula E ever since the series was formed in 2014.

Our second major motorsport pillar is the spectacular and popular DTM touring car series, in which we’ve been demonstrating our decades-long expertise in internal combustion technologies.

3 questions for ...

... Matthias Zink, CEO Automotive OEM

Why is Schaeffler involved in Formula E?

Our Formula E commitment helps us present ideas for sustainable mobility in the areas of the powertrain and chassis, and to pit ourselves against others in a sporting competition of the highest caliber. Only those who are at the forefront of technology there will subsequently be among the front runners in the production side of the house as well. Agility, efficiency and innovation prowess play a key role in motor racing. At the same time, our commitment has been thrilling fans and employees for years.

Has the IC engine outlived its usefulness at Schaeffler?

Absolutely not. According to our market analyses, by 2030, about 30 percent of all new cars will have all-electric powertrains, 30 percent will exclusively be powered by an IC engine, and 40 percent by a hybrid system. That’s why we also continue to consistently optimize innovative technologies for the IC engine.

Gasoline, diesel, battery-electric, fuel cells or SynFuel?

All of these technologies have prospects. Schaeffler believes in an open approach to technology – that’s the only way to shape sustainable, carbon-neutral mobility.



Schaeffler facts & figures

> 89,000

employees worldwide

1,200

engineers in the field of e-mobility

75

plants worldwide

14.2 bn

euros in 2018 sales

In 8

business units, Schaeffler develops and sells e-mobility products

170

locations in more than 50 countries

18

research and development centers worldwide

15 to 300 kW

of output is delivered by the e-motors developed by Schaeffler

Proven Teamwork

The Daniel Abt and Lucas di Grassi duo enters Season Six

#11

Lucas di Grassi

Birthday
August 11, 1984

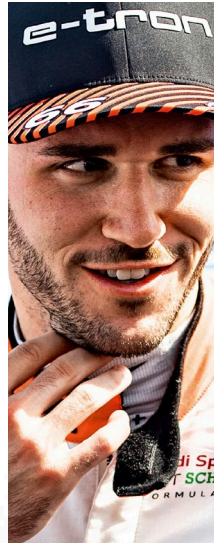
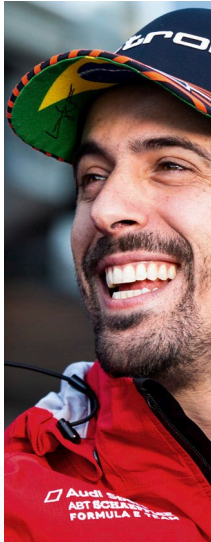
Birthplace
São Paulo (BR)

Residence
Monaco (MC)

Height
1.80 m

Weight
75 kg

Drivers



Daniel Abt

Birthday
December 3, 1992

Birthplace
Kempten (D)

Residence
Kempten/Munich (D)

Height
1.79 m

Weight
72 kg

#66

Partners



Audi

Active in motorsport with factory-backed commitments since the 1980s +++ Success in rally, sports car and touring car racing +++ In Formula E, initially gives its name to the team +++ 2016/2017 partnership with Schaeffler and ABT intensifies +++ Manufacturer and entrant since the 2017/2018 season



ABT

Founded as a blacksmith shop in 1896 +++ Bavarian family-owned company +++ Leading refiner for automobiles of the Volkswagen Group +++ A fixture in motorsport since the 1990s +++ Formula E fielding team since the inaugural season +++ Daniel Abt is the son of owner Hans-Jürgen Abt



Audi e-tron FE06

Length
5,200 mm

Width
1,800 mm

Height
1,250 mm

Wheelbase
3,100 mm

Minimum weight
900 kg (incl. driver)

0–100 km/h
approx. 2.8 sec

Top speed
240 km/h

Output in qualifying
250 kW

Output in the race
200 kW

Powertrain

Rear-wheel drive, Audi Schaeffler MGU04 motor-generator unit, 1-speed transmission

Bodywork

Specification Spark carbon body with specification aerodynamics, FIA crash and safety standard

Battery

Lithium-ion battery from McLaren Applied Technologies, usable capacity 52 kWh, charging time approx. 45 minutes, weight approx. 385 kilograms (wet)

Brakes

Hydraulic dual-circuit brake system, electronically controlled brake force distribution, carbon fiber brake discs, "brake by wire" on the rear axle

Pioneers and record holders

At the forefront from day one

In 2014, when no one truly believes in the Formula E idea, two pioneers of electric mobility, ABT and Schaeffler, embark on this big adventure. What follows is a motorsport success story in five acts.

2014/15

Spark-Renault SRT 01E



1 victory
7 podiums
1 pole position
2 fastest laps

Team	Lucas di Grassi	Daniel Abt
3rd place	3rd place	11th place
165 points	133 points	32 points

The adventure begins

In Season One, all teams race with specification cars. On the grid from day one: Schaeffler. The team's history begins sensationally: Lucas di Grassi wins the inaugural race in Beijing.

2015/16

ABT Schaeffler FE01



3 victories
10 podiums
0 pole positions
0 fastest laps

Team	Lucas di Grassi	Daniel Abt
2nd place	2nd place	7th place
221 points	153 points	68 points

Schaeffler inside

The series relaxes the technical regulations. From now on, Schaeffler develops the powertrain together with ABT. With a mere deficit of two points, Lucas di Grassi just barely misses winning the title.

2016/17

★ **Champion Drivers** (di Grassi)

2 victories
7 podiums
3 pole positions
1 fastest lap

ABT Schaeffler FE02



Team	Lucas di Grassi	Daniel Abt
2nd place	Champion	8th place
248 points	181 points	67 points

Champion!

In the evolution of the ABT Schaeffler FE02, Lucas di Grassi starts a fightback pursuing leader of the standings Sébastien Buemi. In the end, he crowns it with the title win in the finale.

2017/18

★ **Champion Teams**

4 victories
11 podiums
1 pole position
6 fastest laps

Audi e-tron FE04



Team	Lucas di Grassi	Daniel Abt
Champion	2nd place	5th place
264 points	144 points	120 points

The best team

Audi enters the series as a manufacturer, Schaeffler remains the exclusive technology partner. Following a bumpy start, the Audi team wins the teams' championship with 11 podium finishes and 4 victories.

2018/19

Audi e-tron FE05



2 victories
5 podiums
0 pole positions
4 fastest lap

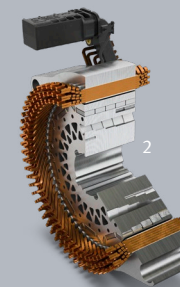
Team	Lucas di Grassi	Daniel Abt
2nd place	3rd place	7th place
203 points	108 points	95 points

Never change a winning team

In 2018/19, Schaeffler is the exclusive technology partner of the Audi factory team. For the first time, Audi also supplies the FE05 powertrain developed together with Schaeffler to the Envision Virgin Racing Team.



1



2

Expertise in E-Mobility

Schaeffler is a pioneer and a visionary

Electric powertrains significantly help make mobility more environmentally compatible and reduce emissions in big cities. As a partner of the automotive industry, Schaeffler develops suitable, sustainable solutions.



3

Diverse portfolio available now

Schaeffler is already making efficient electric powertrains available to its partners. They extend from 48-volt systems enabling electric driving at low speeds while saving more than 20 percent fuel and emissions to electric axle drives and diverse hybrid modules to fully electric drive systems.

Schaeffler shapes change

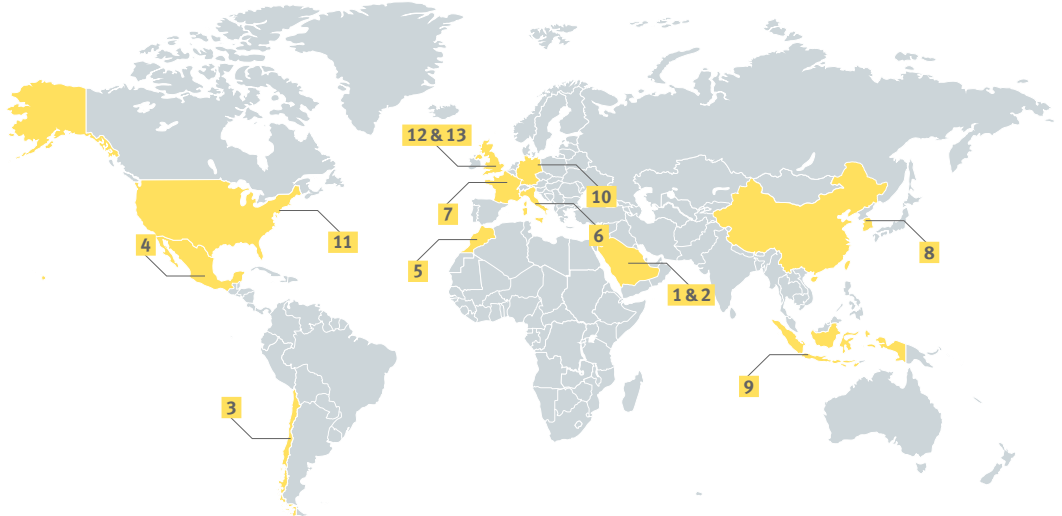
Nowhere else can change be noticed as quickly as in the world's megacities. New mobility concepts – based on smart interlinking of personally operated vehicles and means of local public transportation – are rapidly gaining acceptance. From microvehicles to subways: Schaeffler is on board everywhere.

1_Full power: Schaeffler 4ePerformance technology prototype with four e-motors and 1,200 horsepower

2_Electrical assistants: Schaeffler will start offering e-motors from 15 to 300 kW of output in 2021

3_Innovative mobility: electric and autonomous Schaeffler Mover for urban transportation

Season 2019/2020 race calendar



1 & 2

Ad Diriyah Saudi Arabia
November 22 & 23, 2019



3

Santiago de Chile Chile
January 18, 2020



4

Mexico City Mexico
February 15, 2020



5

Marrakesh Morocco
February 29, 2020



6

Rome Italy
April 4, 2020



7

Paris France
April 18, 2020



8

Seoul South Korea
May 3, 2020



9

Jakarta Indonesia
June 6, 2020



10

Berlin Germany
June 21, 2020



11

New York USA
July 11, 2020



12 & 13

London United Kingdom
July 25 & 26, 2020

#followUs

Audi Sport
ABT SCHAEFFLER
FORMULA E TEAM



Schaeffler	schaeffler.com	SchaefflerGroup	schaefflergroup	SchaefflerGroup	SchaefflerGroup
Audi Sport	audi.com/audisport	AudiSport	audisport	audisport	Audi Sport Official
ABT	abt-sportline.com/motorsport/	abtmotorsport	abtmotorsport	abtmotorsport	ABT Sportsline
#11 L. di Grassi	lucasdigrassi.com.br/en/	lucasdigrassi	lucasdigrassi	LucasDiGrassi	Lucas di Grassi
#66 D. Abt	danielabt.de	abtdaniel	daniel_abt	Daniel_Abt	Daniel Abt
FIA Formula E	fiaformulae.com	fiaformulae	fiaformulae	FIAFormulaE	ABB Formula E