

# RACECARD

**2019** CBMM NIOBIUM MEXICO CITY **E-PRIX**



**SATURDAY,  
FEBRUARY 16**

**2019**

2018/2019 ABB  
FIA FORMULA E  
CHAMPIONSHIP  
**ROUND 4**

**4<sup>TH</sup> RUNNING**

JAGUAR I-PACE eTROPHY  
**ROUND 2**

MEXICO CITY  
**MEXICO**



**THE 2018  
MEXICO CITY  
E-PRIX**

#### WINNER:

Daniel Abt (Audi Sport Abt Schaeffler),  
47 laps

#### POLE POSITION:

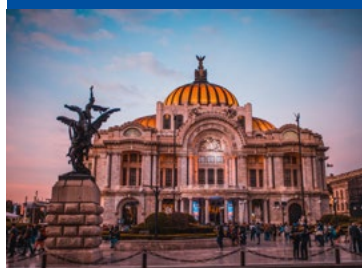
Felix Rosenqvist (Mahindra Racing),  
1m1.645s

#### FASTEST RACE LAP:

Lucas di Grassi (Audi Sport Abt  
Schaeffler), 1m2.202s

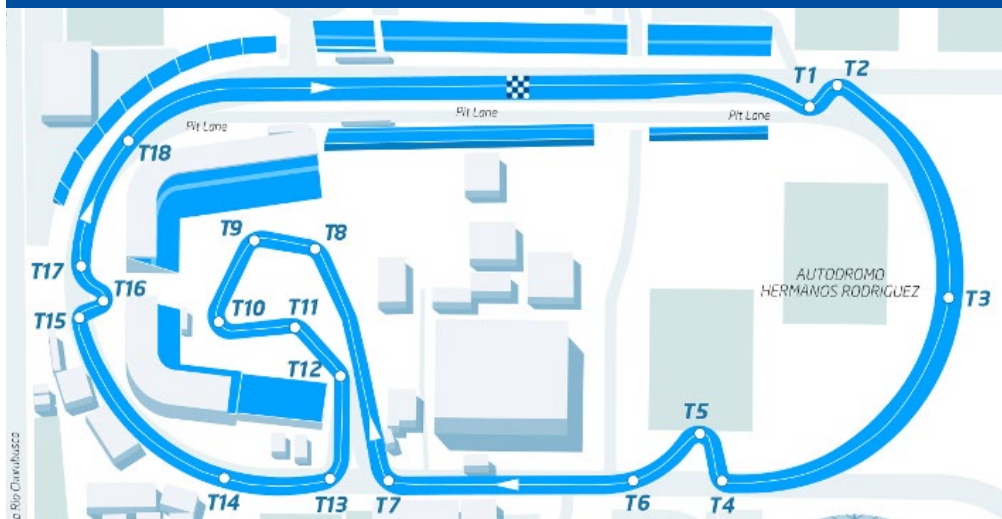
First Formula E win for Daniel Abt

Fifth consecutive pole position for Felix  
Rosenqvist



## THE CIRCUIT

**AUTODROMO HERMANOS RODRIGUEZ**



**2.093**  
KM

**17**  
TURNS

CLOCKWISE

The highest altitude visited this season (2,200 metres)

Located in the suburbs of Mexico City

Named in memory of brothers Ricardo and Pedro Rodriguez

The E-Prix track uses part of the F1 circuit



### MEXICO CITY E-PRIX WINNERS

**2015/2016**  
**JÉRÔME D'AMBROSIO**  
(DRAGON RACING)

**2016/2017**  
**LUCAS DI GRASSI**  
(AUDI SPORT ABT SCHAEFFLER)

**2017/2018**  
**DANIEL ABT**  
(AUDI SPORT ABT SCHAEFFLER)

### TIMETABLE

#### SATURDAY, FEBRUARY 16

<b>7:30am</b>	45 minutes	Free Practice 1 (FE)
<b>8:30am</b>	30 minutes	Qualifying (I-PACE eTROPHY)
<b>10:00am</b>	30 minutes	Free Practice 2 (FE)
<b>11:45am</b>	4 groups, 6 minutes	Qualifying (FE)
<b>12:30pm</b>		Super Pole (FE)
<b>2:00pm</b>	25 minutes + 1 lap	Race (I-PACE eTROPHY)
<b>4:00pm</b>	45 minutes + 1 lap	Race (FE)
<b>5:00pm</b>		Podium ceremony

LOCAL TIME



## THE MEXICO CITY E-PRIX AND MOTORSPORT IN MEXICO

- » For several years now, Mexico has hosted rounds of three FIA world championships: Formula 1 and WRC
- » The Carrera Panamerica – Pan-Am is a Mexican road race first organised in 1950. The 31st running will take place on October 10-17
- » Mexico's Lower California Peninsula hosts the famous Baja 1000 off-road race



- » Mexico City recently hosted the Michelin-partnered 2019 Race of Champions which was won by local star Benito Guerra
- » Brothers Ricardo and Pedro Rodriguez both raced in Formula 1 and at Le Mans. They both died in racing cars

## THE MEXICO CITY E-PRIX AND SUSTAINABLE ENERGY

- » Mexico is one of the fifteen G20 nations that invests the most in sustainable energies
- » Mexico has committed to halving its greenhouse gas emissions by 2050
- » Coahuila state in northern Mexico is home to the American continent's largest solar park (2.3 million solar panels, 1700gWh)
- » The Milpa Alta cactus market produces biogas and electricity thanks to a generator that is capable of treating 10 tonnes of organic waste daily
- » The Mexican electric car brand Zacua started production in 2018 in its Puebla factory
- » Ford plans to commit its Cuautitlán plant to the production of electric vehicles in 2020



## MEXICO CITY AND MEXICO

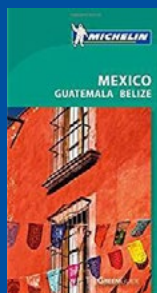
- » Mexico City is one of the world's 15th biggest cities (population: 20.8 million)
- » According to UN figures, Mexico's population in 2018 stood at 130.5 million (11th in the world)
- » Acapulco (Pacific Ocean) and Cancún (Gulf of Mexico) are two of the country's biggest tourist draws



- » The Mayas and Aztecs built more than 40,000 temples and pyramids in Mexico (source: INAH). 13,000 are listed and 187 can be visited

## MICHELIN GREEN GUIDE

The MICHELIN Green Guide Mexico is the ideal companion to discover this diverse country, from its pre-Colombian attractions and exotic beaches to its colourful Indian markets, traditional fiestas, colonial towns and tentacular capital



## SERGE GRISIN

Formula E Championship  
Programme Manager,  
Michelin Motorsport

## "WHICH MAKES IT THE HIGHEST VENUE OF THE SEASON."

"The E-Prix circuit uses the entire oval [F1 uses only half of it], along

with some tight hairpins and a bumpy infield through the baseball stadium grandstands. There are several surface changes and grip levels aren't very

high, while a number of turns are a challenge with regard to the tyres' thermal performance. The circuit itself sits at an altitude of more than 2,200 metres, which makes it the highest venue of the season."

»

## MICHELIN AND THE 2019 MEXICO CITY E-PRIX

### TECHNICAL DATA

**MICHELIN PILOT SPORT**  
FRONT: 245/40R18 &  
REAR: 305/40R18

Developed specifically for the FIA Formula E Championship

The first 18-inch single-seater racing tyre

The first single-seater racing tyre capable of competing in dry and wet conditions

The first tyre capable of lasting all the race



<b>Size (front/rear)</b>	24/64-18 / 27/68-18
<b>Width (front/rear)</b>	245mm / 305mm
<b>Tread width (front/rear)</b>	240mm / 270mm
<b>Side wall height (front/rear)</b>	98mm / 122mm (i.e. 40 percent of tread width)
<b>Rim diameter</b>	18 inches
<b>Weight (front/rear)</b>	8kg / 9.9kg
<b>Type of tread pattern</b>	Asymmetric, non-directional
<b>Usage</b>	Circuits, street circuits, asphalt, concrete, wet or dry weather
<b>Number of tyres taken to each race</b>	176 (22 cars x 8 tyres)
<b>Weight saving (compared with the MICHELIN Pilot Sport EV)</b>	-2kg front -2.5kg rear





# MICHELIN PILOT SPORT

THE REVOLUTIONARY NEW  
MICHELIN PILOT SPORT:  
LIGHTER AND MORE ENERGY-  
EFFICIENT THAN EVER

## A REVOLUTIONARY RACING TYRE, IN MORE WAYS THAN ONE!

Developed specifically for the world's first all-electric single-seater motor racing championship, the new MICHELIN Pilot Sport is an exceptionally versatile tyre that was designed by Michelin Motorsport's engineers to cover the entire race day (free practice, qualifying, race), whatever the weather, as required by the technical regulations that govern the series.

**Another exceptional characteristic of the tyre is its size.** The MICHELIN Pilot Sport was effectively the first ever single-seater tyre to feature an interior diameter of 18 inches, a disruptive concept put forward by Michelin Motorsport and approved by the FIA (Fédération Internationale Automobile). The fact that 18-inch wheels have become a common

feature of road cars enables Michelin Motorsport's engineers and chemists to **carry over the lessons they learn on the racetrack to everyday tyres, in keeping with the firm's 'track to street' policy.**

The MICHELIN Pilot Sport (front: 245/40 R 18 / rear: 305/40 R 18) is tall and narrow in the interests of energy efficiency, which equates to longer range. Its low sidewalls also flex less, resulting in the generation of less heat, which **in turn means reduced energy consumption**, a valuable benefit for Formula E's latest-generation 'Gen2' Spark SRT 05Es.

**The MICHELIN Pilot Sport is a connected tyre, too**, thanks to an embedded RFID chip which facilitates tracking, from production through to recycling.



### FRONT

#### Size

24/64-18 equivalent to  
245/40R18

#### Side wall height

40% - 98mm



### Usage

Wet or dry weather

### Type of tread pattern

Asymmetric, non-directional

### Rim diameter

18 inches



### REAR

#### Size

27/68-18 equivalent to  
305/40R18

#### Side wall height

40% - 122mm



# ENTRY LIST

## 2019 MEXICO CITY E-PRIX

### ENVISION VIRGIN RACING (AUDI E-TRON FE05)



**N°2 SAM BIRD** (GBR)

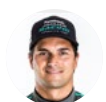
Victory: 8      Fastest race laps: 5  
Pole position: 5      Podium: 17



**N°4 ROBIN FRIJNS** (NLD)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 2

### PANASONIC JAGUAR RACING (JAGUAR I – TYPE III)



**N°3 NELSON PIQUET JR** (BRA)

Victory: 2      Fastest race laps: 5  
Pole position: 1      Podium: 5



**N°20 MITCH EVANS** (NZL)

Victory: 0      Fastest race laps: 1  
Pole position: 1      Podium: 1

### HWA RACELAB (VENTURI VFE05)

ROOKIE



**N°5 STOFFEL VANDOORNE** (BEL)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 0

ROOKIE



**N°17 GARY PAFFETT** (GBR)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 0

### GEOX DRAGON (PENSKE EV-3)

ROOKIE



**N°6 MAX GÜNTHER** (DEU)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 0



**N°7 JOSE-MARIA LOPEZ** (ARG)

Victory: 0      Fastest race laps: 1  
Pole position: 0      Podium: 2

### NIO FORMULA E TEAM (NIO SPORT 004)



**N°8 TOM DILLMANN** (FRA)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 0



**N°16 OLIVER TURVEY** (GBR)

Victory: 0      Fastest race laps: 0  
Pole position: 1      Podium: 1

### VENTURI FORMULA E TEAM (VENTURI FVE05)

ROOKIE



**N°19 FELIPE MASSA** (BRA)

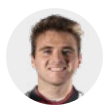
Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 0



**N°48 EDOARDO MORTARA** (CHE)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 1

### NISSAN E.DAMS (NISSAN IM01)



**N°22 OLIVER ROWLAND** (GBR)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 0



**N°23 SÉBASTIEN BUEMI** (CHE)

Victory: 12      Fastest race laps: 9  
Pole position: 12      Podium: 21

### DS TECHEETAH (DS E-TENSE FE19)



**N°25 JEAN-ERIC VERGNE** (FRA)

Victory: 5      Fastest race laps: 1  
Pole position: 8      Podium: 15



**N°36 ANDRÉ LOTTERER** (DEU)

Victory: 0      Fastest race laps: 2  
Pole position: 0      Podium: 2

### BMW I ANDRETTI MOTORSPORT (BMW iFE.18)

ROOKIE



**N°27 ALEXANDER SIMS** (GBR)

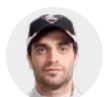
Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 0



**N°28 ANTONIO FELIX DA COSTA** (PRT)

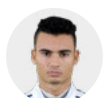
Victory: 2      Fastest race laps: 0  
Pole position: 1      Podium: 2

### MAHINDRA RACING (MAHINDRA M5ELECTRO)



**N°64 JÉRÔME D'AMBROSIO** (BEL)

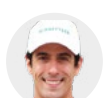
Victory: 3      Fastest race laps: 1  
Pole position: 2      Podium: 8



**N°94 PASCAL WEHRLEIN** (DEU)

Victory: 0      Fastest race laps: 0  
Pole position: 0      Podium: 1

### AUDI SPORT ABT SCHAEFFLER FORMULA E TEAM (AUDI E-TRON FE05)



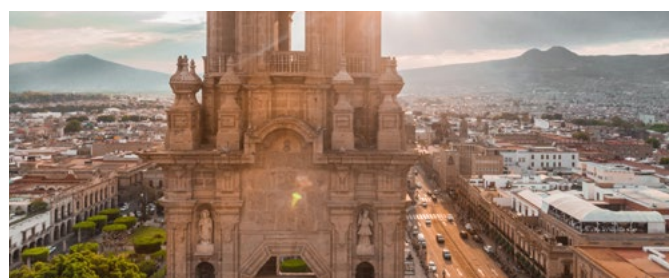
**N°11 LUCAS DI GRASSI** (BRA)

Victory: 8      Fastest race laps: 4  
Pole position: 3      Podium: 27



**N°66 DANIEL ABT** (DEU)

Victory: 2      Fastest race laps: 6  
Pole position: 2      Podium: 9





# FIA FORMULA E

## DRIVERS STANDINGS

																TOT.
			SA 15/12	MA 12/01	CL 26/01	MX 16/02	HK 10/03	CN 23/03	IT 13/04	FR 27/04	MC 11/05	DE 25/05	CH 22/06	US 13/07	US 14/07	
1	▲	<b>2 S. BIRD (GBR)</b> ENVISION VIRGIN RACING		0	18	25	-	-	-	-	-	-	-	-	-	<b>43</b>
2	▼	<b>64 J. D'AMBROSIO (BEL)</b> MAHINDRA RACING		15	25	1	-	-	-	-	-	-	-	-	-	<b>41</b>
3	▼	<b>28 A. DA COSTA (PRT)</b> BMW I ANDRETTI MOTORSPORT		28	0	0	-	-	-	-	-	-	-	-	-	<b>28</b>
4	▲	<b>4 R. FRIJNS (NLD)</b> ENVISION VIRGIN RACING		0	18	10	-	-	-	-	-	-	-	-	-	<b>28</b>
5	▼	<b>25 J.E. VERGNE (FRA)</b> DS TECHEETAH FORMULA E TEAM		18	10	0	-	-	-	-	-	-	-	-	-	<b>28</b>
6	▲	<b>20 M. EVANS (GBR)</b> PANASONIC JAGUAR RACING		12	2	8	-	-	-	-	-	-	-	-	-	<b>22</b>
7	▲	<b>66 D. ABT (DEU)</b> AUDI SPORT ABT SCHAEFFLER		4	1	16	-	-	-	-	-	-	-	-	-	<b>21</b>
8	▼	<b>36 A. LOTTERER (DEU)</b> DS TECHEETAH FORMULA E TEAM		11	8	0	-	-	-	-	-	-	-	-	-	<b>19</b>
9	▲	<b>94 P. WEHRLEIN (DEU)</b> MAHINDRA RACING		-	0	18	-	-	-	-	-	-	-	-	-	<b>18</b>
10	▼	<b>27 A. SIMS (GBR)</b> BMW I ANDRETTI MOTORSPORT		0	12	6	-	-	-	-	-	-	-	-	-	<b>18</b>
11	▼	<b>23 S. BUEMI (CHE)</b> NISSAN E.DAMS		8	4	3	-	-	-	-	-	-	-	-	-	<b>15</b>
12	▲	<b>48 E. MORTARA (CHE)</b> VENTURI FORMULA E TEAM		0	0	12	-	-	-	-	-	-	-	-	-	<b>12</b>
13	▼	<b>11 L. DI GRASSI (BRA)</b> AUDI SPORT ABT SCHAEFFLER		2	7	0	-	-	-	-	-	-	-	-	-	<b>9</b>
14	▼	<b>22 O. ROWLAND (GBR)</b> NISSAN E.DAMS		6	0	0	-	-	-	-	-	-	-	-	-	<b>6</b>
15	▲	<b>16 O. TURVEY (GBR)</b> NIO FORMULA E TEAM		0	0	4	-	-	-	-	-	-	-	-	-	<b>4</b>
16	▲	<b>7 J.M. LÓPEZ (ARG)</b> GEOX DRAGON		0	0	2	-	-	-	-	-	-	-	-	-	<b>2</b>
17	●	<b>3 N. PIQUET JR. (BRA)</b> PANASONIC JAGUAR RACING		1	0	0	-	-	-	-	-	-	-	-	-	<b>1</b>
18	●	<b>6 M. GÜNTHER (DEU)</b> GEOX DRAGON		0	0	0	-	-	-	-	-	-	-	-	-	<b>0</b>
19	●	<b>8 T. DILLMANN (FRA)</b> NIO FORMULA E TEAM		0	0	0	-	-	-	-	-	-	-	-	-	<b>0</b>
20	●	<b>17 G. PAFFETT (GBR)</b> WA RACELAB		0	0	0	-	-	-	-	-	-	-	-	-	<b>0</b>
21	●	<b>5 S. VANDOORNE (BEL)</b> HWA RACELAB		0	0	0	-	-	-	-	-	-	-	-	-	<b>0</b>
22	●	<b>19 F. MASSA (BRA)</b> VENTURI FORMULA E TEAM		0	0	0	-	-	-	-	-	-	-	-	-	<b>0</b>
23	●	<b>94 F. ROSENQVIST (SWE)</b> MAHINDRA RACING		0	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>

# FIA FORMULA E

## TEAMS STANDINGS

			SA 15/12	MA 12/01	CL 26/01	MX 16/02	HK 10/03	CN 23/03	IT 13/04	FR 27/04	MC 11/05	DE 25/05	CH 22/06	US 13/07	US 14/07	TOT.
1	▲ ENVISION VIRGIN RACING		0	36	35	-	-	-	-	-	-	-	-	-	-	71
2	● MAHINDRA RACING		15	25	19	-	-	-	-	-	-	-	-	-	-	59
3	▼ DS TECHEETAH FORMULA E TEAM		29	18	0	-	-	-	-	-	-	-	-	-	-	47
4	▼ BMW I ANDRETTI MOTORSPORT		28	12	6	-	-	-	-	-	-	-	-	-	-	46
5	▲ AUDI SPORT ABT SCHAEFFLER		6	8	16	-	-	-	-	-	-	-	-	-	-	30
6	● PANASONIC JAGUAR RACING		13	2	8	-	-	-	-	-	-	-	-	-	-	23
7	▼ NISSAN E.DAMS		14	4	3	-	-	-	-	-	-	-	-	-	-	21
8	▲ VENTURI FORMULA E TEAM		0	0	12	-	-	-	-	-	-	-	-	-	-	12
9	▲ NIO FORMULA E TEAM		0	0	4	-	-	-	-	-	-	-	-	-	-	4
10	▲ GEOX DRAGON		0	0	2	-	-	-	-	-	-	-	-	-	-	2
11	● HWA RACELAB		0	0	0	-	-	-	-	-	-	-	-	-	-	0

# REGULATIONS

## 2018/2019 ABB FIA FORMULA E CHAMPIONSHIP

### CARS (SINGLE-SEATERS)

- » **Spark STR-05e / chassis:** Dallara / battery: McLaren Applied Technologies
- » **Maximum length:** 5,200mm,
- » **Maximum width:** 1,800mm,
- » **Maximum height:** 1,250mm
- » **Minimum weight:** 900kg, including driver and battery/capacitor (385kg)
- » **Maximum power, electric powertrain:** 250kW (335hp) for free practice and qualifying, 200kW (270hp) during races.
- » 2 MGUs can be used
- » **Allocation per race number:** 2 electric motors, 2 gearboxes, 2 inverters and 1 battery pack for the season

### TYRES

- » A single type of tyre (pattern and construction)
- » No mid-race tyre changes
- » 4 new front tyres and 4 new rear tyres per driver per event
- » Can be inflated using air only
- » Minimum tyre pressure: 1.3 & 1.6 bar (measured at the end of races)
- » Tyre warmers not authorised

### EVENT FORMATS

- » A **Shakedown** session of a maximum duration of 30 minutes may be organised the day before the race. Power is restricted to 110kW. A maximum of six laps per car.
- » **Practice:** Two practice sessions (45 and 30 minutes) in the course of the morning of Race Day. Maximum power: 250kW.
- » **Qualifying:** The drivers are divided into four

groups as a function of their championship positions (or of the previous championship order in the case of the season's first race). Each driver has six minutes and up to two flying laps to post a qualifying time. The six fastest drivers go on to take part in the Super Pole shootout. Maximum power: 250kW.

- » **Super Pole:** Start order is based on the times posted in qualifying, with the 'slowest driver' to lap first, etc. One flying lap only.
- » **Grid:** The six places at the front of the grid are reserved for the drivers who take part in the Super Pole session.
- » **Race:** Standing start. Maximum duration: 45 minutes + 1 lap. Use of two power outputs mandatory: Normal Mode (200kW / regeneration: 250kW) and Attack Mode (225 kW / regeneration: 250kW) which must be activated twice per race, for a period of four minutes. The car's halo head protection device lights up (Blue) when the Attack Mode is activated.
- » **Attack Mode:** For the 2018/2019 season, drivers have two power options during the race: Normal Mode (200kW) and Attack Mode (250kW). Attack Mode must be activated twice per race. To trigger it, the driver must run off the ideal racing line through the corner specified for this purpose by the race organiser, a little like in Mario Kart. Attack Mode is activated for four minutes. The car's halo head protection device lights up when it is activated.
- » **FanBoost:** A temporary 100kJ power boost (240kW-250kW) for five drivers chosen by a fan vote. To be activated once when in Attack Mode. The car's halo head protection device lights up (Magenta).



### POINTS-SCORING SYSTEM

#### RACE

1<sup>st</sup>: 25 points / 2<sup>nd</sup>: 18 points / 3<sup>rd</sup>: 15 points  
 4<sup>th</sup>: 12 points / 5<sup>th</sup>: 10 points / 6<sup>th</sup>: 8 points  
 7<sup>th</sup>: 6 points / 8<sup>th</sup>: 4 points / 9<sup>th</sup>: 2 points  
 10<sup>th</sup>: 1 point

**POLE POSITION** 3 points  
**FASTEST RACE LAP** 1 point  
 (if a top-10 finisher)

