

# RACECARD

**2018** AUTOFAGASTA MINERALS SANTIAGO **EPRIX**



**SATURDAY  
FEBRUARY 3  
2018**

**2017-2018  
ABB FIA FORMULA E  
CHAMPIONSHIP  
ROUND 4**

**SANTIAGO  
CHILI**



## THE SANTIAGO EPRIX 2018

First ever E-Prix in Chile

The circuit crosses the  
Mapocho River

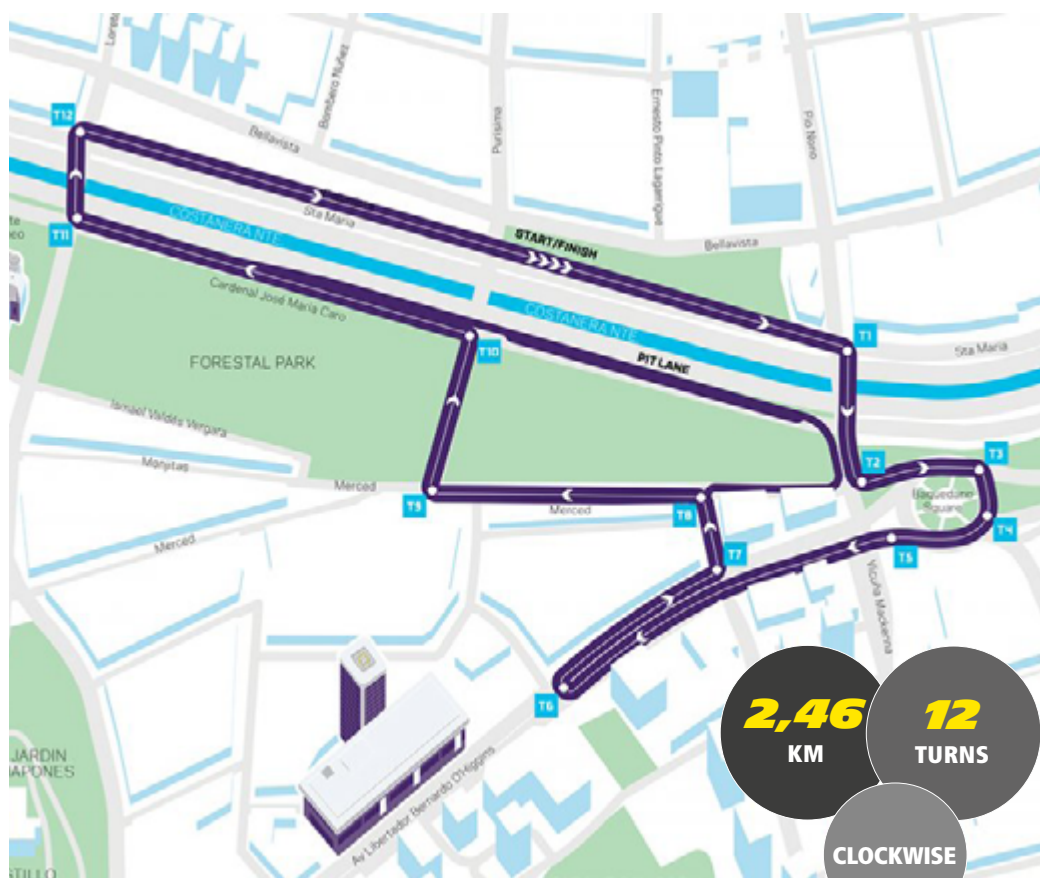
The circuit visits Avenida  
Santa Maria, Plaza  
Baquedano and Forestal  
Park

The Santiago E-Prix is the  
first of a series of three  
Formula E races in Latin  
America

1 race (37 laps)



## THE CIRCUIT AUTOFAGASTA MINERALS SANTIAGO



### FORMULA E NEWS

- » The season's cancelled showpiece in Montreal will not be replaced. The 2017/2018 championship will consequently end in New York on July 15.
- » Switzerland's Nico Muller posted the fastest lap at the recent Rookie Test in Marrakesh driving an Audi e-tron FE04/ Michelin
- » Jaguar recently unveiled the I-Pace Trophy which will star in a new production car-based electric vehicle racing series organised in association with Michelin.
- » Digital imagery has been released of the Gen2, the next-generation electric single-seater that is poised to star in the next three ABB FIA Formula E Championships, beginning with the 2018/2019 season.

### TIMETABLE

#### SATURDAY, JANUARY 13

|            |         |                 |
|------------|---------|-----------------|
| 8:00am     | 45 min. | Free Practice 1 |
| 10:30am    | 30 min. | Free Practice 2 |
| 12:00 noon |         | Qualifying      |
| 12:45pm    |         | Super Pole      |
| 4:00pm     | 37 laps | Race            |

CIRCUIT TIME (GMT-3) - INFORMATION SUBJECT TO CHANGE



## MICHELIN AND THE 2018 SANTIAGO E-PRIX

- » Tyre: Michelin Pilot Sport EV2 (front: 245/40x18 / rear: 305/40x18)
- » Tyre allocation per driver: ten new tyres (five fronts, five rears)

## 2018 SANTIAGO E-PRIX TRIVIA

- » A Chilean Grand Prix (Formula Libre) was held in Santiago on December 17, 1950. The winner was Fangio.
- » Chile's Eliseo Salazar (24 F1 grands prix, Le Mans, Indy 500, etc.) did a parade run in Santiago in an electric single-seater to promote the race.
- » Santiago hosted the finish of the 2013 Dakar which was won by Stéphane Peterhansel (Mini/Michelin)
- » The Santiago E-Prix fits perfectly with Chile's policy in favour of electric vehicles which are expected to save 11 million tonnes of CO2 by 2050.
- » The Soki is the first electric car (two seats) to have been designed and marketed in Chile, with government support.
- » Antofagasta Minerals, the Santiago E-Prix's title sponsor, is a Chilean mining company that runs three copper mines. Copper is an important ingredient of electric vehicles.

## SANTIAGO

- » Santiago is located halfway up the Chilean coastline which extends some 4,300km from south to north
- » The Chilean capital sits between the Andes and the Pacific Ocean.
- » The population of the Santiago agglomeration is 7 million
- » Chile is subject to earthquakes and Santiago sits near the San Ramon Fault. The city recorded an 8.3-magnitude quake in 2010.



« THE  
LAYOUT OF  
THIS TRACK  
IS QUITE  
TIGHT. »

## SERGE GRISIN

Formula E Championship  
Programme Manager,  
Michelin Motorsport

"The layout of this track is quite tight, with several 90-degree turns and a very tight hairpin [Turn 8]. It's a bit of a mix between Montreal and Season 2's visit to Berlin's Alexander Platz, while the surface is more like Buenos Aires or Paris, with some very smooth but cracked asphalt, especially on the bridges and where it changes from one type of asphalt to another. Grip is likely to be very low and there are some delicate braking zones, but the need to reaccelerate hard out of the tight turns will give the Pilot Sport EV2 a chance to showcase its traction performance. The temperature is expected to be around 30°C."

## MICHELIN & THE SANTIAGO EPRIX

### TECHNICAL DATA

**PILOT SPORT  
EV2**  
FRONT: 245/40X18 &  
REAR: 305/40X18

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  
an entire race meeting



|  |  |
|--|--|
| <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>Exterior diameter</b>   | 18 inches  |
| <b>Weight (front/rear)</b>                                       | 8.8kg / 10.9kg   |
| <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>                        | 200 (160 new tyres + 40 from the previous race)                  |
| <b>Weight saving (compared with the MICHELIN Pilot Sport EV)</b> | 1.1kg front<br>1.4kg rear  |
| <b>Weight saving per set of four tyres</b>                       | 5kg (11 percent)   |
| <b>Rolling resistance</b>  | Lowered by 16 percent (equivalent to more than 2km, or one lap)  |



# SANTIAGO EPRIX

## ENTRY LIST

### AUDI SPORT ABT SCHAEFFLER



**LUCAS di Grassi** (BRA)

Wins : 6  
Podium : 20  
Pole position : 3



**Daniel Abt** (DEU)

Wins : 0  
Podium : 4  
Pole position : 1

### MS + ANDRETTI FORMULA E



**Antonio Felix Da Costa** (PRT)

Wins : 1  
Podium : 1  
Pole position : 0



**Kamui Kobayashi** (JPN)

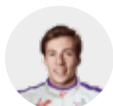
Wins : 0  
Podium : 0  
Pole position : 0

### DS VIRGIN RACING



**Sam Bird** (GBR)

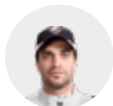
Wins : 5  
Podium : 9  
Pole position : 4



**Alex Lynn** (GBR)

Wins : 0  
Podium : 0  
Pole position : 1

### DRAGON



**Jérôme d'Ambrosio** (BEL)

Wins : 2  
Podium : 6  
Pole position : 2



**José María López** (ARG)

Wins : 0  
Podium : 2  
Pole position : 0

### PANASONIC JAGUAR RACING



**Nelson Piquet Jr** (BRA)

Wins : 2  
Podium : 5  
Pole position : 1



**Mitch Evans** (NZL)

Wins : 0  
Podium : 0  
Pole position : 0

### MAHINDRA RACING



**Nick Heidfeld** (DEU)

Wins : 1  
Podium : 12  
Pole position : 3



**Felix Rosenqvist** (SWE)

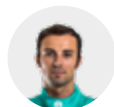
Wins : 1  
Podium : 5  
Pole position : 3

### NIO FORMULA E TEAM



**Oliver Turvey** (GBR)

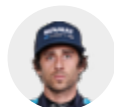
Wins : 0  
Podium : 0  
Pole position : 1



**Luca Filippi** (ITA)

Wins : 0  
Podium : 0  
Pole position : 0

### RENAULT E.DAMS



**Nicolas Prost** (FRA)

Wins : 3  
Podium : 5  
Pole position : 3



**Sébastien Buemi** (CHE)

Wins : 12  
Podium : 17  
Pole position : 8

### TECHEETAH



**Jean-Eric Vergne** (FRA)

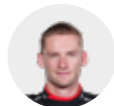
Wins : 1  
Podium : 9  
Pole position : 4



**André Lotterer** (DEU)

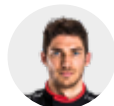
Wins : 0  
Podium : 0  
Pole position : 0

### VENTURI FORMULA E



**Maro Engel** (DEU)

Wins : 0  
Podium : 0  
Pole position : 0



**Edoardo Mortara** (CHE)

Wins : 0  
Podium : 0  
Pole position : 0

# FIA FORMULA E

## DRIVERS STANDING

| DRIVERS |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  | TOT. |
|---------|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|------|
| HK      | HK  | MA  | CL  | MX  | BR  | IT  | FR  | DE  | DE  | CH   | US  | US  |   |   |   |      |
| 1       | <b>ROSENQVIST F. (SWE)</b><br>MAHINDRA RACING<br>SPARK-MAHINDRA - MAHINDRA<br>M3ELECTRO                 |    | 0   | 29  | 25  |   |   |   |   |  |   |   |   |   |   | 54   |
| 2       | <b>BIRD S. (GBR)</b><br>DS VIRGIN RACING<br>SPARK-CITROËN - VIRGIN DSV-02                               |    | 25  | 10  | 15  |   |   |   |   |  |   |   |   |   |   | 50   |
| 3       | <b>VERGNE J. (FRA)</b><br>TECHEETAH<br>SPARK-RENAULT - RENAULT Z.E 16                                   |    | 21  | 12  | 10  |   |   |   |   |  |   |   |   |   |   | 43   |
| 4       | <b>PIQUET JR. N. (BRA)</b><br>PANASONIC JAGUAR RACING<br>NIO FORMULA E TEAM<br>FORMULAE 002             |    | 12  | 0   | 13  |   |   |   |   |  |   |   |   |   |   | 30   |
| 5       | <b>MORTARA E. (CHE)</b><br>VENTURI FORMULA E<br>SPARK-VENTURI - VENTURI<br>VM200-FE-02                  |    | 6   | 18  | 0   |   |   |   |   |  |   |   |   |   |   | 24   |
| 6       | <b>BUEMI S. (CHE)</b><br>RENAULT E.DAMS<br>SPARK-RENAULT - RENAULT Z.E 16                               |    | 0   | 1   | 21  |   |   |   |   |  |   |   |   |   |   | 22   |
| 7       | <b>HEIDFELD N. (DEU)</b><br>MAHINDRA RACING<br>SPARK-MAHINDRA - MAHINDRA<br>M3ELECTRO                   |    | 15  | 0   | 6   |   |   |   |   |  |   |   |   |   |   | 21   |
| 8       | <b>EVANS M. (NZL)</b><br>PANASONIC JAGUAR RACING<br>SPARK-JAGUAR - JAGUAR I-TYPE 1                      |    | 0   | 15  | 0   |   |   |   |   |  |   |   |   |   |   | 15   |
| 9       | <b>ABT D. (DEU)</b><br>ABT SCHAEFFLER AUDI SPORT<br>SPARK-ABT SPORTSLINE - ABT<br>SCHAEFFLER FE02       |    | 11  | 0   | 1   |   |   |   |   |  |   |   |   |   |   | 12   |
| 10      | <b>FELIX DA COSTA A. (PRT)</b><br>MS AMLIN ANDRETTI<br>SPARK-ANDRETTI - ATEC-02                         |  | 8   | 0   | 0   |   |   |   |   |  |   |   |   |   |   | 8    |
| 11      | <b>TURVEY O. (GBR)</b><br>NEXTEV NIO<br>SPARK-NEXTEV - NEXTEV TCR<br>FORMULAE 002                       |  | 0   | 8   | 0   |   |   |   |   |  |   |   |   |   |   | 8    |
| 12      | <b>J. LOPEZ (ARG)</b><br>DRAGON RACING<br>SPARK-PENSKO - PENSKO 701-EV                                  |  | -   | -   | 8   |   |   |   |   |  |   |   |   |   |   | 8    |
| 13      | <b>LYNN A. (GBR)</b><br>DS VIRGIN RACING<br>SPARK-CITROËN - VIRGIN DSV-02                               |  | 4   | 2   | 2   |   |   |   |   |  |   |   |   |   |   | 8    |
| 14      | <b>ENGEL M. (DEU)</b><br>VENTURI FORMULA E<br>SPARK-VENTURI - VENTURI<br>VM200-FE-02                    |  | 0   | 6   | 0   |   |   |   |   |  |   |   |   |   |   | 6    |
| 15      | <b>PROST N. (FRA)</b><br>RENAULT E.DAMS<br>SPARK-RENAULT - RENAULT Z.E 16                               |  | 2   | 4   | 0   |   |   |   |   |  |   |   |   |   |   | 6    |
| 16      | <b>T. BLOMQUIST</b><br>MS&AD ANDRETTI FORMULA E   |  | -   | -   | 4   |   |   |   |   |  |   |   |   |   |   | 4    |
| 17      | <b>FILIPPI I. (ITA)</b><br>NEXTEV NIO<br>SPARK-NEXTEV - NEXTEV TCR<br>FORMULAE 002                      |  | 1   | 0   | 0   |   |   |   |   |  |   |   |   |   |   | 1    |
| 18      | <b>LOTTERER A. (DEU)</b><br>TECHEETAH<br>SPARK-RENAULT - RENAULT Z.E 16                                 |  | -   | -   | 0   |   |   |   |   |  |   |   |   |   |   | 0    |
| 19      | <b>DI GRASSI L. (BRA)</b><br>ABT SCHAEFFLER AUDI SPORT<br>SPARK-ABT SPORTSLINE - ABT<br>SCHAEFFLER FE02 |  | -   | -   | 0   |   |   |   |   |  |   |   |   |   |   | 0    |
| 20      | <b>D'AMBROSIO J. (BEL)</b><br>DRAGON RACING<br>SPARK-PENSKO - PENSKO 701-EV                             |  | -   | -   | 0   |   |   |   |   |  |   |   |   |   |   | 0    |
| 21      | <b>KOBAYASHI K. (JPN)</b><br>MS AMLIN ANDRETTI<br>SPARK-ANDRETTI - ATEC-02                              |  | 0   | 0   | -   |   |   |   |   |  |   |   |   |   |   | 0    |
| 22      | <b>JANI N. (CHE)</b><br>DRAGON RACING<br>SPARK-PENSKO - PENSKO 701-EV                                   |  | 0   | 0   | -   |   |   |   |   |  |   |   |   |   |   | 0    |



## RACE DAY FORMAT

**Shakedown** is held on Friday - the day before the main event - but this is dependent on the track being available. Drivers use this session to check the electronic systems and the reliability of the car, but not overall performance as the cars run at a reduced speed.

### Power

The power is limited to 110kW. Practice - each event has two practice sessions - an opening 45-minute session followed by a further 30-minute session. This is reduced to only one 45-minute session on the second day of a double-header. Here the teams and drivers take to the track for the first time in earnest - allowing them to get a feel for the track and adapt to the car set-up.

### Power

200kW is available throughout.

### Qualifying and super pole shoot-out

Qualifying determines the starting grid for the race, with the fastest driver lining-up in first place. The session lasts one hour and sees drivers divided into groups, decided by a lottery conducted in the driver briefing. Each driver has six minutes to set their best time, with the top-five drivers proceeding to the Super Pole shoot-out in a bid to secure Julius Baer Pole Position and an additional three points. During the Super Pole shoot-out, the drivers go out one-by-one, with the fifth fastest driver from the group stages going out first. When he or she crosses the line to start their flying lap, the pitlane light turns green and the fourth fastest driver heads out. This is repeated until all five drivers have completed a lap. Power - 200kW is available throughout.

### E-Prix

The E-Prix lasts for approximately 50-minutes with each driver making one mandatory stop to change cars. In race mode, the maximum power available is limited to 180kW - 10kW more than Season Three. The three drivers who receive the highly-acclaimed FANBOOST - as voted for by the fans - each have an extra 100kJ at their disposal.

### Power

Limited to 180kW, with additional energy for the winners of the FANBOOST vote.

### Double-header

The majority of races take place over a single day in order to minimise disruption to the host city. However, where possible some events stretch to two days with double the amount of action - these are referred to as double-headers. The schedules are mirrored from each day, with only one 45-minute practice session on the second day.

### Pit stops and car changes

During each E-Prix, drivers must make one mandatory stop in order to change cars - jumping into a second, fully-charged car that's ready and waiting in the garage. This must take place in their allocated garage or dedicated slot in the pitlane (depending on the location of the pitlane and garages) and be observed by an FIA steward to ensure all safety equipment and belts are correctly fastened. A minimum time is also enforced to prevent rushing and provide enough time to complete necessary checks. Tyre changes, unless caused by a puncture or other damage, are not permitted during this pit stop phase.

### Tyres and allocation

The bespoke 18-inch treaded all-weather tyres are supplied by Michelin - official tyre supplier of the FIA Formula E Championship. For each event, every driver is supplied with a new set of tyres - two new front tyres and two new rear tyres. In addition to the new set, drivers also carry over one front tyre and one rear tyre from the previous event. This same rule is also applied for double-headers.

**Per driver** - two new front tyres and two new rear tyres (plus one front and rear tyre from the previous event).

### Charging times

Charging the car is forbidden during both qualifying and the race, as well as throughout parc ferme and scrutineering. Teams can charge the cars in-between sessions and during practice.

### FANBOOST

FANBOOST is a fan interaction system, where fans vote to give a driver an extra energy boost during the race - to be used for attack or defence. Making a passing move on your nearest rival, or fending off an attempt to overtake. Therefore, fans can actively influence the outcome of the race - something unique to the world of competitive sport.

The voting window opens on the Monday of the week of the race, five days before the event. Fans can vote once per day on each eligible platform - via social media or the official Formula E website. Voting closes six minutes into the race, therefore the top-three drivers with the highest percentage of votes receive and additional 100kJ of energy in their second car only. When using FANBOOST, it can only be deployed once - not in a series of short bursts.

### POINTS SYSTEM

Formula E follows a standard points system, used in other FIA-sanctioned series - awarding points to the top-10 finishers

- 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

**Visa fastest lap** - 1 point (if in a top-10 finishing position)

