



RACECARD

2019 SAUDIA AD DIRIYAH E-PRIX



**SATURDAY,
DECEMBER 15**

2018

ROUND 1

2018/2019 ABB
FIA FORMULA E
CHAMPIONSHIP

AD DIRIYAH
SAUDI ARABIA



THE CIRCUIT AD DIRIYAH



TIMETABLE

FRIDAY, DECEMBER 14

12:30pm	30 min.	Shakedown, Jaguar I-Pace eTrophy
2:30pm	30 min.	Shakedown, Formula E
3:45pm	40 min.	Practice, Jaguar I-Pace eTrophy

SATURDAY, DECEMBER 15

7:00am	45 min.	Practice 1, Formula E
7:55am	30 min.	Qualifying, Jaguar I-Pace eTrophy
9:05am	30 min.	Practice 2, Formula E
10:50am	6 min. 4 groups	Qualifying, Formula E
11:35am		Super Pole, Formula E
12:50pm	25min.	Race, Jaguar I-Pace eTrophy
3:05pm	45 min.	Race, Formula E

SUNDAY, DECEMBER 16

8:00am	180 min.	Test, Formula E
1:00pm	180 min.	Test, Formula E

(local time)

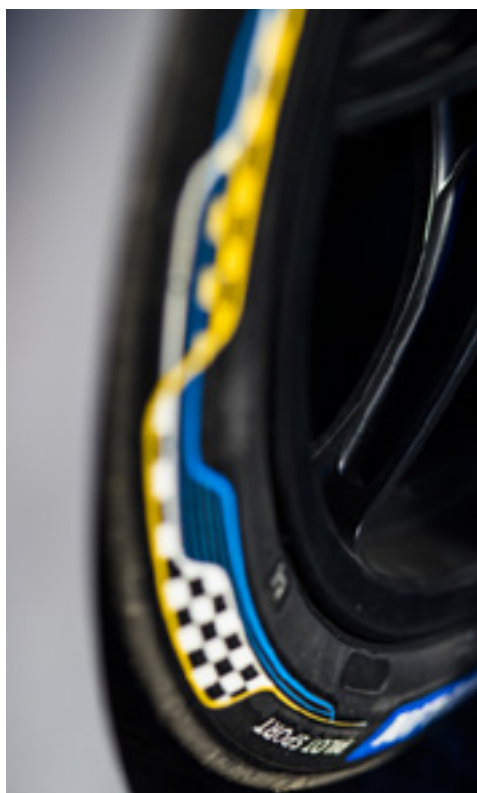
THE 2018
SAUDIA AD
DIRIYAH E-PRIX

1ST RUNNING
1 race (45 minutes)

**FIRST ROUND OF
SEASON 5**

**FIRST RACE TO
FEATURE THE NEW
GEN2 CARS**
(mid-race car swaps eliminated)

**FIRST FORMULA E RACE
IN THE MIDDLE EAST**



MICHELIN AND THE 2018 SAUDIA AD DIRIYAH E-PRIX

- » New Michelin Pilot Sport tyre
- » Size: front: 245/40x18 / rear: 305/40x18
- » Allocation of 4 new front tyres and 4 new rear tyres per car per event

THE SAUDIA AD DIRIYAH E-PRIX

- » The day after the Saudia Ad Diriyah E-Prix, Saudi driver Amna Al-Qubaisi will take part in a Formula E test session. Tatiana Calderon, Katherine Legge and Carmen Jorda are also scheduled to participate in the test.
- » The inaugural round of the Jaguar I-Pace eTrophy will take place ahead of the Saudia Ad Diriyah E-Prix. Michelin is the championship's exclusive tyre supplier.
- » Michelin was a partner of the Race of Champions which was held in Riyadh in January 2018.

AD DIRIYAH AND SAUDI ARABIA

- » Ad Diriyah is situated on the outskirts of the Saudi capital Riyadh.
- » The Turaif district has been a UNESCO World Heritage site since 2010.
- » Ad Diriyah was the capital under the first Saudi dynasty until 1818.
- » Ad Diriyah's clock face is the biggest in the world.
- » The Islamic doctrine Wahhabism originated in Ad Diriyah.
- » Ad Diriyah was the original home of the Saudi royal family.
- » Saudi Arabia (population: 31 million) is the Middle East's biggest country.
- » Saudi Arabia's Vision 2030 plan seeks to develop renewable energies in the country.
- » Saudi Arabia plans to build 41 gigawatts of photovoltaic solar panels in the desert.



SERGE GRISIN

Formula E Championship Programme Manager, Michelin Motorsport

"I THINK IT WILL BE TOUGH ON TYRES"

"The season kicks off with a trip to a new venue, which is a pattern we will see for a third of the 2018/2019 campaign. The circuit's layout and the early information we have suggest it will be tough on tyres, while the presence of sand on the surface will no doubt result in low grip levels."

MICHELIN AND THE 2018 SAUDI AD DIRIYAH E-PRIX

TECHNICAL DATA

PILOT SPORT
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



Size (front/rear)	24/64-18 / 27/68-18
Width (front/rear)	245mm / 305mm
Tread width (front/rear)	240mm / 270mm
Side wall height (front/rear)	98mm / 122mm (i.e. 40 percent of tread width)
Rim diameter	18 inches
Weight (front/rear)	8kg / 9.9kg
Type of tread pattern	Asymmetric, non-directional
Usage	Circuits, street circuits, asphalt, concrete, wet or dry weather
Number of tyres taken to each race	176 (22 cars x 8 tyres)
Weight saving (compared with the MICHELIN Pilot Sport EV)	-2kg front -2.5kg rear
Weight saving per set of four tyres (compared with the MICHELIN Pilot Sport EV2)	-9kg for 4 tyres (season 5 vs season 1)



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

2018 SAUDI AD DIRIYAH E-PRIX

ENVISION VIRGIN RACING



N°2 SAM BIRD (GBR)

Victories: 7 Fastest race laps: 5
Pole position: 4 Podium: 15



N°4 ROBIN FRIJNS (NLD)

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

PANASONIC JAGUAR RACING



N°3 NELSON PIQUET JR (BRA)

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



N°20 MITCH EVANS (NZL)

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

HWA RACELAB

ROOKIE



N°5 STOFFEL VANDOORNE (BEL)

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

ROOKIE



N°17 GARY PAFFETT (GBR)

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

GEOX DRAGON

ROOKIE



N°6 MAX GÜNTHER (DEU)

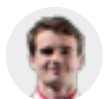
Victories: 0 Fastest race laps: 0
Pole position: 0 Podium: 0



N°7 JOSE-MARIA LOPEZ (ARG)

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

NIO FORMULA E TEAM



N°8 TOM DILLMANN (FRA)

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



N°16 OLIVER TURVEY (GBR)

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

VENTURI FORMULA E

ROOKIE



N°19 FELIPE MASSA (BRA)

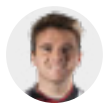
Victories: 0 Fastest race laps: 0
Pole position: 0 Podium: 0



N°48 EDOARDO MORTARA (CHE)

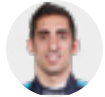
Victories: 0 Fastest race laps: 0
Pole position: 0 Podium: 1

NISSAN E.DAMS



N°22 OLIVER ROWLAND (GBR)

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



N°23 SÉBASTIEN BUEMI (CHE)

Victories: 12 Fastest race laps: 9
Pole position: 11 Podium: 21

DS TECHEETAH FORMULA E TEAM



N°25 JEAN-ERIC VERGNE (FRA)

Victories: 5 Fastest race laps: 1
Pole position: 8 Podium: 14



N°36 ANDRÉ LOTTERER (DEU)

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

BMW I ANDRETTI MOTORSPORT

ROOKIE



N°27 ALEXANDER SIMS (GBR)

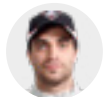
Victories: 0 Fastest race laps: 0
Pole position: 0 Podium: 0



N°28 ANTONIO FELIX DA COSTA (PRT)

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

MAHINDRA RACING



N°64 JÉRÔME D'AMBROSIO (BEL)

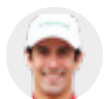
Victories: 2 Fastest race laps: 1
Pole position: 2 Podium: 6



N°94 FELIX RONSENQVIST (SWE)

Victories: 3 Fastest race laps: 3
Pole position: 6 Podium: 7

AUDI SPORT ABT SCHAEFFLER



N°11 LUCAS DI GRASSI (BRA)

Victories: 8 Fastest race laps: 3
Pole position: 3 Podium: 27



N°66 DANIEL ABT (DEU)

Victories: 2 Fastest race laps: 5
Pole position: 2 Podium: 8

THE 2018/2019 CALENDAR

15/12
2018



AD DIRIYAH E-PRIX
(SAUDI ARABIA)

12/01
2019



MARRAKESH E-PRIX
(MOROCCO)

26/01
2019



SANTIAGO E-PRIX
(CHILE)

16/02
2019



MEXICO CITY E-PRIX
(MEXICO)

10/03
2019



HONG KONG E-PRIX
(HONG KONG)

23/03
2019



SANYA E-PRIX
(CHINA)

13/04
2019



ROME E-PRIX
(ITALY)

27/04
2019



PARIS E-PRIX
(FRANCE)

11/05
2019



MONACO E-PRIX
(MONACO)

25/05
2019



BERLIN E-PRIX
(GERMANY)

22/06
2019



BERN E-PRIX
(SWITZERLAND)

13-14/07
2019



NEW YORK CITY E-PRIX
(USA)





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 / regenera-

tion: 250kW) which can be activated twice per race. The car's halo head protection device lights Up (Blue) when the Attack Mode 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

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

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

