

NEW YORK E-PRIX CIRCUIT – IDENTITY CARD

BREMBO: THE 6 CHALLENGING TURNS IN THE MOST DEMANDING CIRCUIT FOR THE BRAKES

The global leader in braking systems is the unique supplier to Spark Racing Technology and equips all the 11 Teams in the ABB FIA Formula E Championship with bespoke calipers, carbon discs, pads & pump

Stezzano (Italy), 8 July 2019 – New York will be the home of the **ABB FIA Formula E Season 5 finale** with a double-header on July 13 and 14. With the backdrop of the Manhattan skyline and the Statue of Liberty, the 2.373 km Brooklyn street circuit has 14 turns and some of the longest straights of the Season, which make it **one of the toughest for the drivers**.

Given its features, the New York E-Prix is also one of the most demanding for the single-seaters' brakes. **Brembo**, a global leader in braking systems and **unique supplier of the Formula E brakes** through Spark Racing Technology, expects the track to be an important test bench and sees **6 corners particularly challenging for the drivers**.

The first severe section is in **Turn 1**, where the brakes will be under pressure slowing down the cars after the grid straight. Here the drivers could take advantage of the wide space for an overtaking.

After the following series of turns, the Gen2 single-seaters will speed into the longest straight of the circuit reaching maximum velocity. At the end, control going into the **Turn 6** will be key: arriving too fast means the drivers will have to sacrifice speed in **Turn 7** and consequently lose ground entering into the straight coming next.

Watch out also for the hairpin **Turn 10**, one of the tightest of the season and a possible scene for some tough racing action. The brakes will be already overheated due to the effort in **Turn 9** and their soaring temperatures could make the carbon discs glow.

Lastly, another 90 degrees corner in **Turn 11**, not to be underestimated: an excellent feeling with the brakes will make the difference to prepare the following chicane and close the last sector successfully.

THE BREMBO FORMULA E BRAKING SYSTEM

All the Formula E single-seaters are equipped with the same complete Brembo bespoke braking system: calipers, carbon discs and pads, bells and tandem pump.

The **discs** are carbon made, specifically designed for the needs of full electric cars.

Front: Thickness of 24 mm, diameter 278x24 mm, ventilated disk with 70 holes (diameter of single hole of 6.2 mm); Rear: Thickness of 20 mm, diameter 263x20 mm, ventilated disk with 90 holes (diameter of the single hole of 4.2 mm);

The monoblock machined 4-piston caliper is made of an oxidized aluminum alloy and weighs less than 1 kg at the rear (with piston diameter of 26-28 mm) and about 1.2 kg at the front (with piston diameter 30-36 mm).

The design of the caliper has been pushed to the limit: it has been considerably lightened in the less stressed areas in order to maximize weight reduction without compromising its stiffness. This has led to a dynamic and sporty aesthetic identity, in line with the features of the cars that equips.

The pads are carbon made: the front ones are 18 mm thick, while the rear ones are 16 mm. The bell is made of aluminum with bobbin mounting. The system is completed by the tandem master cylinder.

In terms of **temperatures**, the data measured at the very beginning of the braking action have shown that the discs can reach temperatures of 400-500 degrees, with peaks of 800 degrees in the most rough situations.

Brembo Formula E brakes have been developed considering the main challenge represented by the design of competition braking systems: by their very nature they must always represent the best possible balance between performance, safety, lightweight, durability, constant efficiency and low costs.



About Brembo SpA

Brembo SpA is the world leader and acknowledged innovator of disc brake technology for automotive vehicles. Brembo supplies high performance brake systems for the most important manufacturers of cars, commercial vehicles and motorbikes worldwide, as well as clutches and other components for racing. Brembo is also a leader in the racing sector and has won more than 400 championships. Today the company operates in 15 countries on 3 continents, with 25 production and business sites, and a pool of over 10,600 employees, about 10% of whom are engineers and product specialists active in the R&D. 2018 turnover is € 2,640 million (12.31.2018). Brembo is the owner of the Brembo, Breco, AP, Bybre, and Marchesini brands and operates through the AP Racing brand.

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