



AMG
PETRONAS
MOTORSPORT

Press Information

13 February 2019

Mercedes-AMG F1 W10 EQ Power+ Technical Specification

Chassis

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| Monocoque: | Moulded carbon fibre and honeycomb composite structure |
| Bodywork: | Carbon fibre composite including engine cover, sidepods, floor, nose, front wing and rear wing |
| Cockpit: | Removable driver's seat made of anatomically formed carbon composite, OMP six-point driver safety harness, HANS system |
| Safety Structures: | Cockpit survival cell incorporating impact-resistant construction and penetration panels, front impact structure, prescribed side impact structures, integrated rear impact structure, front and rear roll structures, titanium driver protection structure (halo) |
| Front Suspension: | Carbon fibre wishbone and pushrod-activated torsion springs and rockers |
| Rear Suspension: | Carbon fibre wishbone and pullrod-activated torsion springs and rockers |
| Wheels: | OZ forged magnesium |
| Tyres: | Pirelli |
| Brake System: | Carbon Industries Carbon / Carbon discs and pads with rear brake-by-wire |
| Brake Calipers: | Brembo |
| Steering: | Power-assisted rack and pinion |
| Steering Wheel: | Carbon fibre construction |
| Electronics: | FIA standard ECU and FIA homologated electronic and electrical system |
| Instrumentation: | McLaren Electronic Systems (MES) |
| Fuel System: | ATL Kevlar-reinforced rubber bladder |
| Lubricants & Fluids: | PETRONAS Tutela |

Transmission

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| Gearbox: | Eight speed forward, one reverse unit with carbon fibre maincase |
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Gear Selection: Sequential, semi-automatic, hydraulic activation
Clutch: Carbon plate

Dimensions

Overall Length: Over 5000mm
Overall Width: 2000mm
Overall Height: 950mm
Overall Weight: 743kg

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Power Unit Specification

Type: Mercedes-AMG F1 M10 EQ Power+
Minimum Weight: 145 kg
Power Unit Perimeter: Internal Combustion Engine (ICE)
Motor Generator Unit - Kinetic (MGU-K)
Motor Generator Unit - Heat (MGU-H)
Turbocharger (TC)
Energy Store (ES)
Control Electronics (CE)
Power Unit Allocation: Three ICE, TC & MGU-H per driver per season
Two MGU-K, ES, CE per driver per season

Internal Combustion Engine (ICE)

Capacity: 1.6 litres
Cylinders: Six
Bank Angle: 90
No of Valves: 24
Max rpm ICE: 15,000 rpm
Max Fuel Flow Rate: 100 kg/hour (above 10,500 rpm)
Fuel Injection: High-pressure direct injection (max 500 bar, one injector/cylinder)
Pressure Charging: Single-stage compressor and exhaust turbine on a common shaft



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Max rpm Exhaust Turbine: 125,000 rpm

Energy Recovery System (ERS)

Architecture: Integrated Hybrid energy recovery via electrical Motor Generator Units

Energy Store: Lithium-Ion battery solution of minimum 20 kg regulation weight

Max energy storage/lap: 4 MJ

Max rpm MGU-K: 50,000 rpm

Max power MGU-K: 120 kW (161 hp)

Max energy recovery/lap MGU-K: 2 MJ

Max energy deployment/lap MGU-K: 4 MJ (33.3 s at full power)

Max rpm MGU-H: 125,000 rpm

Max power MGU-H: Unlimited

Max energy recovery/lap MGU-H: Unlimited

Max energy deployment/lap MGU-H: Unlimited

Fuel & Lubricants

Fuel: PETRONAS Primax

Lubricants: PETRONAS Syntium



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