



ARASH
Motor Company

Press Release 2016
The Geneva Motor Show



AFIO

Naughty



Spaceship Technology



Using Warp Drive

Spaceship technology explained

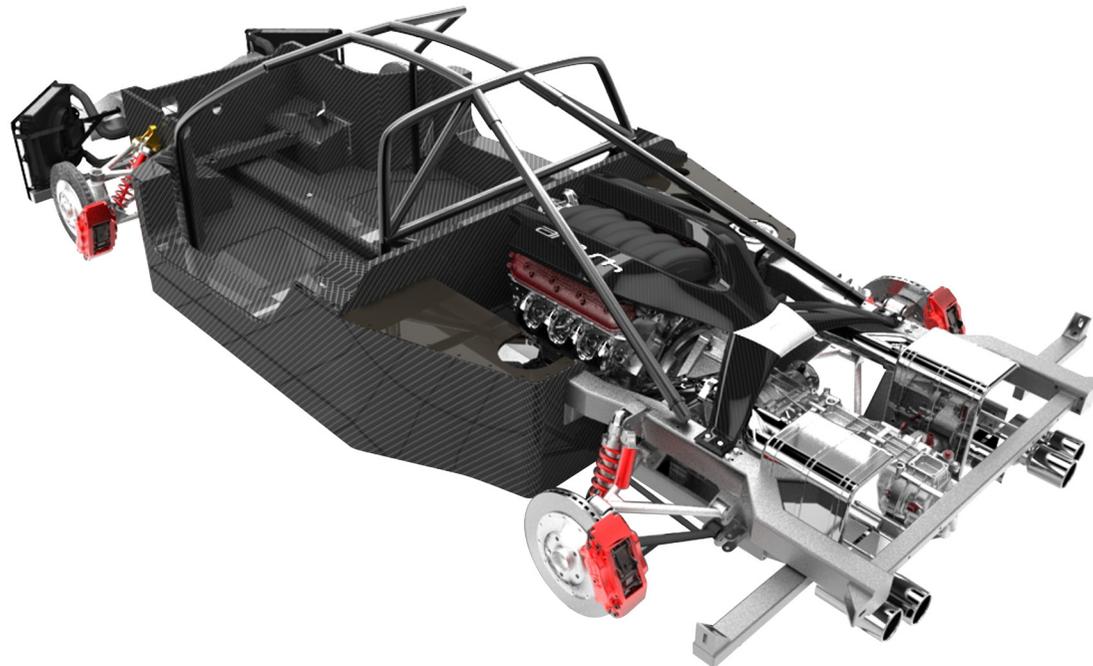
The things that matter – It's tear-drop cabin over a wing plane surface. Fixed rear wing and moving front wing for when it's needed – big speed. With the tight cabin, you could argue the AF10 has more spaceship DNA than car.



Warp drive system

Consists of 5 parts, 4 motors and 1 petrol engine. In total the warp drive system weighs 280kg.

Each warp drive unit has it's own gearbox, 2 speed for the electric drives and 6 speed for the petrol engine. Manual or Paddle-shift.



1

Number of petrol engines

4

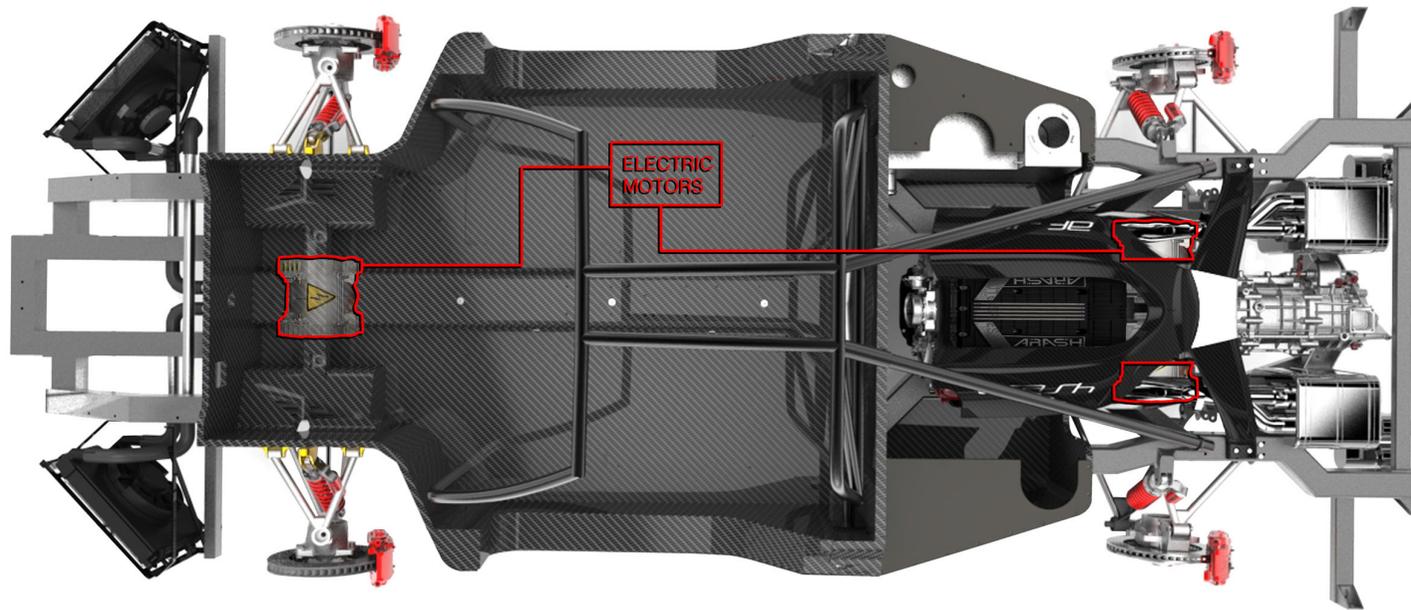
Number of electric motors

5

Number of gearboxes

The motors

Each of the 4 motors in the Warp Drive System are outputting



220
KW

270
Torque Nm

13,000
RPM

Raw power

The total power is insane.

It's 1180 BHP electric motors 900 BHP petrol engine total 2080 BHP! If the acronyms are too much to put it into other words that's really, really, really, REALLY fast.



The engine

The petrol engine is a v8 with a compact supercharger mounted inside its v cavity. No need for a large surface mounted pump – it all sits low and cools itself well with a built in charge cooler.

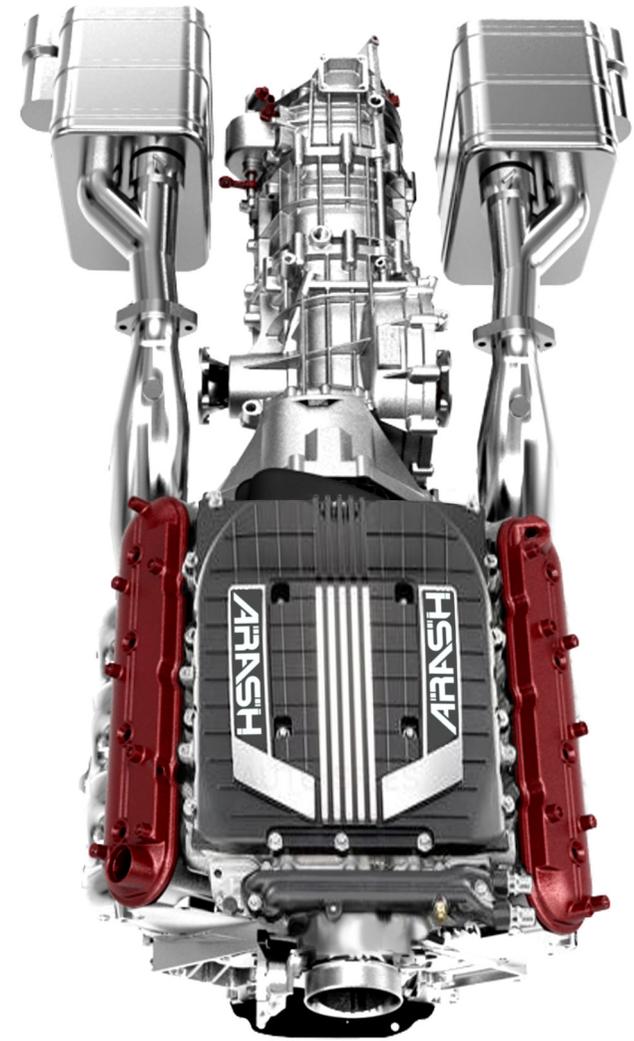
This engine again is simplified and lightened by using 2 valves per piston – makes the head size compact.

6.2

There's no substitute for
cubic capacity

120

Weight kg



Power and speed, hands and feet

The all-new AF10 has an impressive acceleration time of just 2.8 seconds from 0-60 mph. After all it is 4 wheel drive.

2.8

Seconds 0-60

2080

Power BHP



The chassis

It's awesome! It's a carbon bathtub – a tub in car world lingo. It has a patented 13 piece construction. Very strong, light, stiff – like a plastic construction toy block – which sounds like 'eggo'. Everything hangs off this structure. It's what F1 and endurance sports cars have and the AF10 looks really cool when being assembled.

13

Piece Construction

658

Weight in iPhone 6's



The Racer

Racy bits that matter

Fire extinguisher, roll cage, intercom.



The design

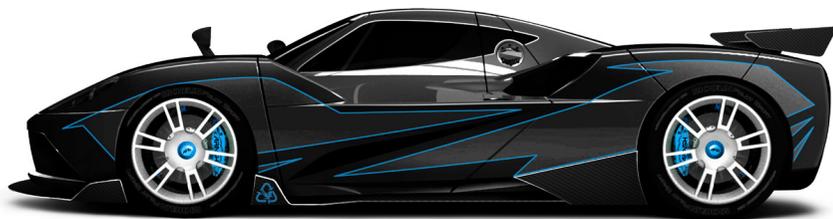
The electric lightning bolt livery.



The Racer

The interior

The interior is pure lightweight carbon. The seats, the dash, the lot.



The wheels

Magnesium centre lock race wheels makes a saving of 50kg.



Tech specs AF10

Hyper Drive System

Complete system

Max system power 2080bhp or 1551kW (1.551kW) Max torque 2280Nm total (4x220kW) from electric motors including the 1200nm from petrol engine.

Combustion engine

V8 Cruciform Crankshaft with displacement of 6,200cm³. V submerged Supercharger with built in charge cooling.

Maximum power, more than 900bhp and 1200Nm of torque.

Electric motors

Total is 880kW (4 x 220kW), 1080Nm (4x 270Nm) . In Bhp 1180 (4 x 295bhp) – Motors manufactured for Arash by Compact Dynamics Germany. Max motor speed is 13,000 rpm

Battery

Kreisel Liquid cooled, high performance Lithium-Ion (Li-Ion) Hybrid battery.

Energy content, 32kWh at max power output of more than 880 kW.

On board charging device (22 kW) in the vehicle.

Arash universal charging system.

Battery charging also automatically done in Race mode via the 4 electric motors behaving as generators.

Transmission

Each motor has its own gearbox with 2 speeds.

Petrol engine has a 6 speed manual or paddleshift gearbox.

Chassis

Carbon reinforced patented 13 piece construction in T1000 carbon fibres and Aramids. Sandwich panels of carbon and aluminium honeycomb. Fuel tanks and battery pack housed in lower floor sections and side pontoons.

Front and rear sub assemblies in machined aluminum and Tig welded box sections. Torsional rigidity more than 60,000Nm per degree twist force.

Front and rear axle Double wishbone with hydraulic lift system. lifts for speed bumps – 15cm. lowers 15cm for high speed ground effect.

High strength Tripod style GKN drive shafts per axle. Air craft specification aluminium hub carriers with titanium bolt components for 'Racer Hybrid'.

Wheels

20 x 12 inch rear, 19 x 9 inch fronts. Tyres – Michelin Pilot Sport Cup 2, premium super car tyre. 345,30 – 20 (Y) rear.

Body

Carbon reinforced plastic with aluminium honeycomb sandwich construction throughout. Naked polished finishes in defined areas. Front and side aerofoils. Fixed active rear wing with smaller lower fixed rear wing. Active front high speed wing.

2 x dihedral hydro electrically lifting doors with safety anti-drop valve system. Soft close. Neonode Air Bar gesture open system. Arash AP via Vodafone for body functions on Apple Watch or Iphone.

Electro hydraulic rear engine cover and front bonnet lift.

Suspension

All wheel premium damper with electro hydraulic lifter for speed bumps (+150mm). Lower suspension setting for high speed (+150mm)

Tech specs AF10

Driving Performance

Top Speed

Overall more than 201mph with combustion engine

Overall more than 200mph with electric motors

Acceleration

0 -100km (62mph) less than 3 seconds

0-200kmh (124mph) less than 8 seconds

0 - 300kmh (186mph) less than 27 seconds

Overtaking acceleration

80-120kmh (50-75mph) less than 1.8s

Acceleration in electric mode only

0 - 60kmh (37mph) less than 3 seconds

0 -100kmh (62mph) less than 5 seconds

Equipment

Electro hydraulic door opening system with soft close.

Neonode with Air Bar door gesture system. Infotainment system with Air Bar touch-less sat nav, OBD, climate control.

Dimensions

Length: 4,645mm

Height: 1,165mm

Width: 2,001mm

Wheel base: 2,730mm

Fuel Capacity: 70 litres

Boot Capacity: 70 litres

Please visit our website for more details at www.arashcars.com

AF8 Cassini

Spread Your Wings



Made to move you

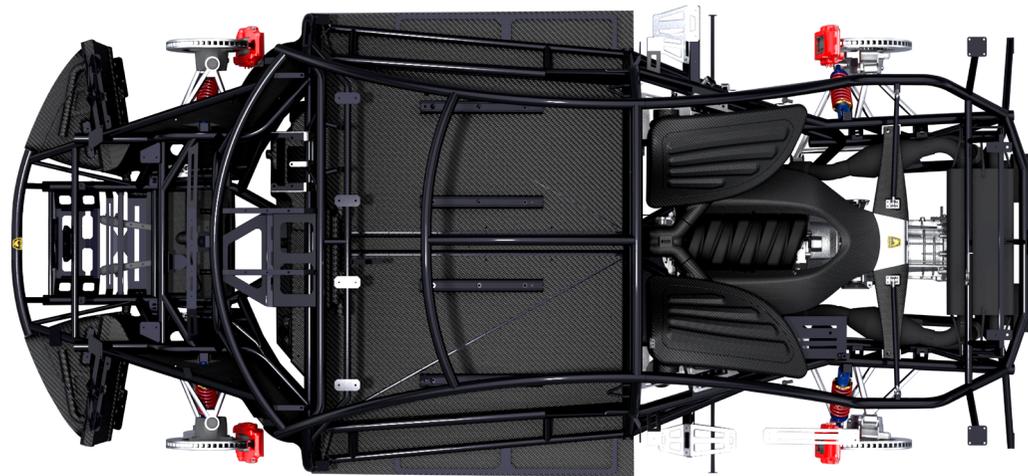
The all-new AF8 Cassini, a beautiful design, low drag coefficient and spectacular down force. A designer's eye leads to innovation and thus to something timeless and leading to a future legacy.



The front of the car to the back has a story. From the front face of the car, its curved shapes and flat surfaces harks back to the company's beginnings.

Power and emotion combined

7.0ltr, 550 bhp and in V8 configuration. These evocative statistics produce an emotional noise through combustion. It has motorsport DNA and low weight of approximately 120kg and has a low position to provide the best prerequisites for exceptional dynamic driving performance on the road as well as race track.



645

Nm torque @ 6000 RPM

7.0

ltr V8

550

horsepower @ 7500 RPM

Born to soar

In designing the concept drawings of the AF8, the designers had chosen cues from the past, but have left the future open to imagination, but with hints and suggestions of evolution embedded.





Designed to engage

A short overhang front, a jet like forward position for the driver's cockpit and the large flat rear back ends suggesting that the car is wider than normal which mentally indicates where all the power is coming from. The windscreen wide and shaped at the edges suggesting motorsport.

Engineered to perform

High tensile steel side impact tubes for side sills and door inner crash structures. Carbon reinforced roll cages system. The use of 'uni-directional carbon reinforced plastic' has been used in crash sensitive areas as well as the engine brace. This system is frequently used in formula and prototype racing cars.



350

Carbon fibre body and chassis parts

1200

kg dry weight



Power and speed, hands and feet

The all-new AF8 has an impressive acceleration time of just 3.5 seconds from 0-60 mph. And with a 200 mph standard top speed, it's a fierce competitor in any environment.

350

Carbon fibre body and chassis parts

1200

kg dry weight

Underneath the skin

The Arash AF8 was born to be on the race track. This is clearly visible by the DNA of the car shining through from its carbon fibres in the body and in its chassis. These DNA cues continue inside the car itself, evidenced by the materials, the layout of the controls and the seating position.



Tech specs AF8 Cassini

Engine

7.0ltr V8
560 horsepower @ 7500Rpm
645Nm of torque @ 6000 Rpm
Carbon intake system

Transmission

6 Speed manual
Pressure fed lubrication system
Rear subframe mounted
Independent oil circuit with cooler

Ratios

1st: 3.15:1
2nd: 2.18:1
3rd: 1.57:1
4th: 1.19:1
5th: 0.94:1
6th: 0.76:1
Final Drive: 4.1:1

Wheels

Material: Forged aluminium
Wheels Front: 48.3 x 24.1cm / 19 x 9.5 Inch
Wheels Rear: 50.8 x 31.8cm / 20 x 12.5 Inch

Tyres

Type: Michelin Pilot Sport Cup 2
Tyres front: 235/35ZR19
Tyres rear: 345/30ZR20

Brakes

Front

Ventilated floating steel discs (6 piston)
380mm disk diameter

Rear

Ventilated floated steel discs (4 piston)
362mm disk diameter

Body & Chassis

Carbon fibre body panels
High tensile tubular steel chassis with integrated front and rear roll over bars
"Hybrid" chassis construction using carbon fibre and aluminium honeycomb

Steering

Rack & pinion design
Aluminium construction
11m turning circle
Impact compliant
Rake & reach adjustable

Vehicle Dimensions

Length: 4.15m
Width: 1.9m
Height: 1.1m

Performance

Top speed: More than 196mph
Acceleration (0-60mph): Less than 3.5

Aerodynamics

Enclosed flat underfloor
Rear diffuser
Front spoiler
Rear spoiler

Suspension

Double wishbone configuration
Bead blasted & Nickel coated
Cast aluminium front and rear hubs
Aluminium constructed oil filled dampers

Additional Information

Heated front screen
Carbon interior with choice of colours
Titanium exhaust system with by-pass valves
Light weight double skinned aluminium fuel tanks
Air conditioning
Touch screen multimedia system
Bi-Xenon front lights with LED rear lights

Weights & Volumes

Luggage capacity: 42ltrs
Fuel tank capacity: 70ltrs
Vehicle weight: 1200kg

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