



Drive from garge into the green future



Advanced Power And Energy Transportation (HK) Co., Ltd. (A Member of the APES Group)
www.salamanderian.com



Advanced Power And Energy Transportation (HK) Co., Ltd




APET - Advanced Power and Energy Transportation is a Hong Kong-based company. Our mission is to integrate the most applicable technologies into producing the most efficient, economically viable, habitable, and drivable electric vehicles.

Project Salamander is just a beginning....




Salamander

Advance Green Power



We code named our vehicle "Salamander", a mystic creature that is rumoured to be born out of fire and lives in water, symbolizing the energy solution we provide is GREEN and non-intrusive. Thus striking a balance with nature.

Salamander is a turn-key project allowing any car manufacturers or entities to go directly into the production/investment planning stage.



Salamander has been designed both as a comfortable 4-door sedan and a hatch back multi-purpose vehicle. Oval-shaped interior logic has been adopted to provide a womb sensation that comforts its passengers.

Structural/Chassis uses super-strong space frame aluminum alloy. Such design allows the passengers and batteries to be well protected inside the "frame". Lower and rear wheel motor/battery installation creates lower gravity mass, which also greatly increases safety for passengers.

Unleash Salamander

Motor

Rated Output	30kW
Maximum Output	74.7a6Wh
Rated Voltage	190V
Rated Current	137A
Rated Speed	7000rpm
Magnetising Current	75A
Maximum efficiency	95.9%, @10500rpm, 190V, 128A, 4.79kg/m
Maximum torque	10.62kg/m, @7000rpm, 190V, 136A, 95.4%
Maximum speed	10500rpm, @190V, 128A, 95.9%, 4.79kg/m
Base frequency	235Hz
Poles	4
Cooling	Air, 12V cooling fan

Weight

Dry weight EU (kg)	1150kg
Permitted load (kg)	400kg

Wheels

Tyre dimensions	215/45R17
Wheel dimensions	17/17

Car dimension

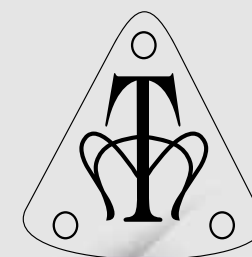
Full length (mm)	4010
Wheel base (mm)	2750
Width (mm)	1800
Height (mm)	1500
U-turn (m)	5.5

Target Performance

Max. speed (km/h / mph)	130/80
Acceleration (0 -100 km/h), (sec)	6.5 sec

Fuel consumption

Urban (Per 100km)	11.5kWh
Extra-urban (Per 100km)	10kWh
Combined (Per 100km)	11kWh
CO ₂ emissions (g/km)	0g/km



TEAM APET-X

Asia's only Official Contender of 2010 Automotive X-Prize Mainstream Competition

TEAM APET-X is the only Team from Asia accepted as an official contender for the mainstream competition, for 4 wheels 4 passengers car.

The 5 pillars of requirement from Automotive X-Prize:

1. 100 MPGe efficiency
2. No more than 200g/mile CO₂ equivalent
3. Meeting US safety standards (FMVSS)
4. Vehicles must be capable of being manufactured in quantities of 10,000 per year
5. A credible plan to manufacture, sell, and service 10,000 vehicles (or conversions) per year by 2014

PROGRESSIVE
AUTOMOTIVE

X
PRIZE

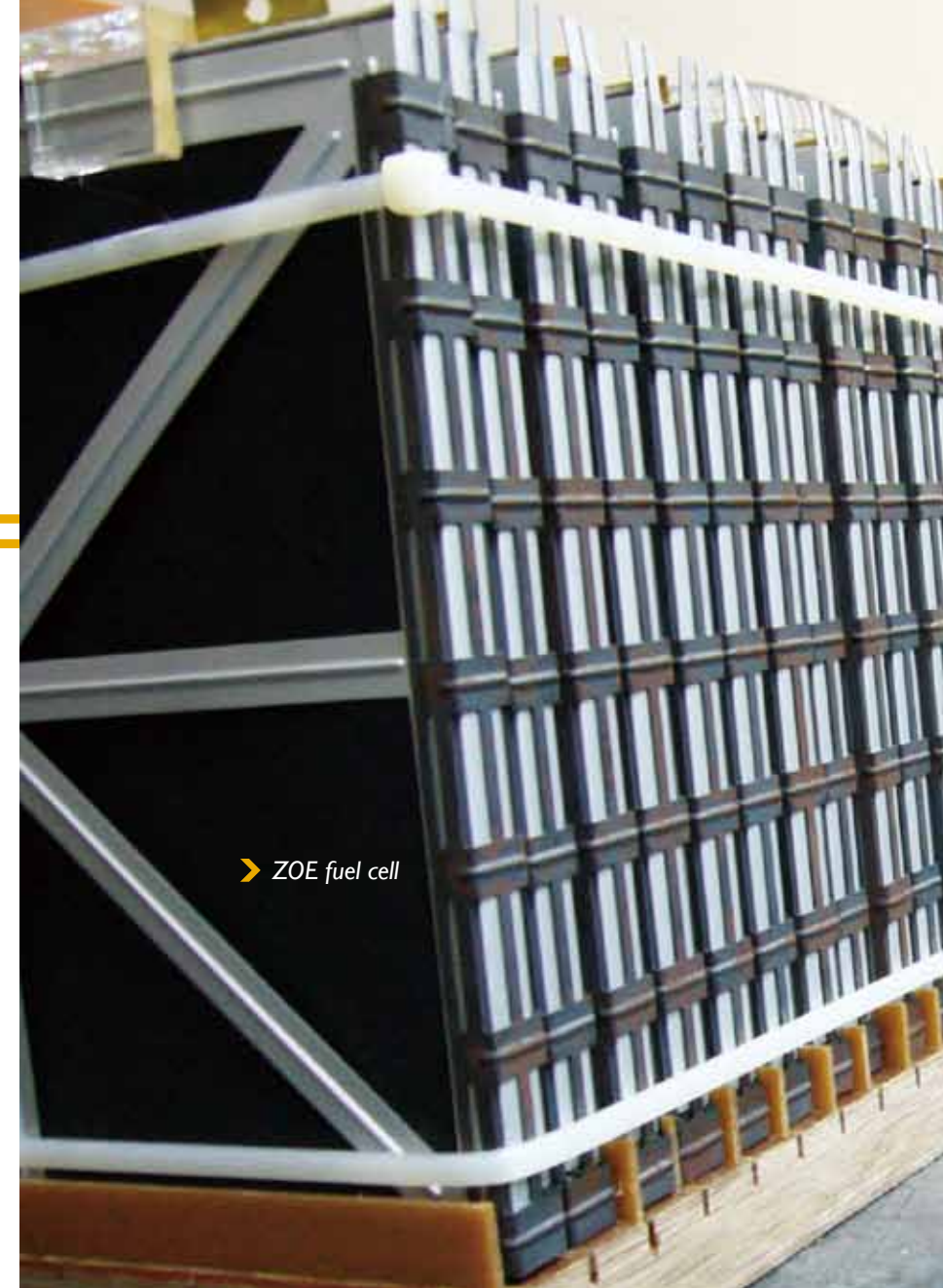
Remark: All technical data may vary from the production car.



Dual Electric Power

Prismatic NiMH battery delivers high performance, high rate of discharge, non-explosive with enhanced safety devices, fast charging, unique battery balance management system with fuel cells or household power supply. Every full charge of 30kWh will provide a normal range of 300km.

APET provides its own branded Salamander Prismatic NiMH batteries which are the most stable and economical secondary battery solution. These, together with ZOE Energy fuel cells produced by its sister company, are the most reasonable and sustainable POWER SOURCE.

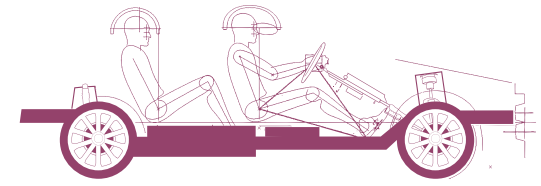


➤ ZOE fuel cell



➤ NiMH Battery

➤ Meticulous battery arrangement is key to a perfectly-balanced weight distribution.



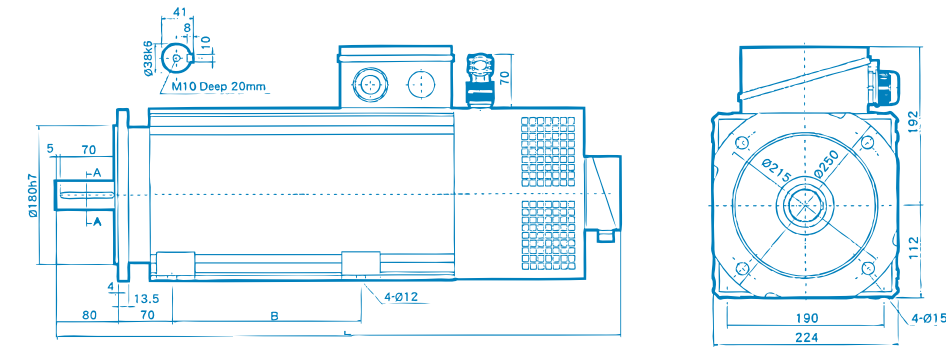
Hi-tech Chassis with Strong Protection

Our chassis is built with light weight aluminum alloy while providing extra strength to the front, back and side. The battery compartments are well protected from impact and damage. The perfectly balanced weight distribution and low centre of gravity ensures stability as well as drivability.



Highly Efficient Motor

The Salamander motor uses 0.35mm thick steel coils and the rotor is made of copper that further enhances its efficiency. Its super high efficiency at 94%+ propels a 1500kg vehicle to reach 80MPH (or 130km/h).



➤ The Salamander motor weighs 85kg only.

Intelligent Controller

Our multi-functional controller detects feedback from motor, human, battery and the road. The motor could be pre-programmed according to driving habit and preference. Sport mode will deliver immediate acceleration. Efficiency mode would perform mildly with extended ranges.

Energy Recovery System:

The APET designed Energy Recovery System is a multi-channel safe system for employing multiple energy sources. Under different scenarios, the system will respond with optimum performance.

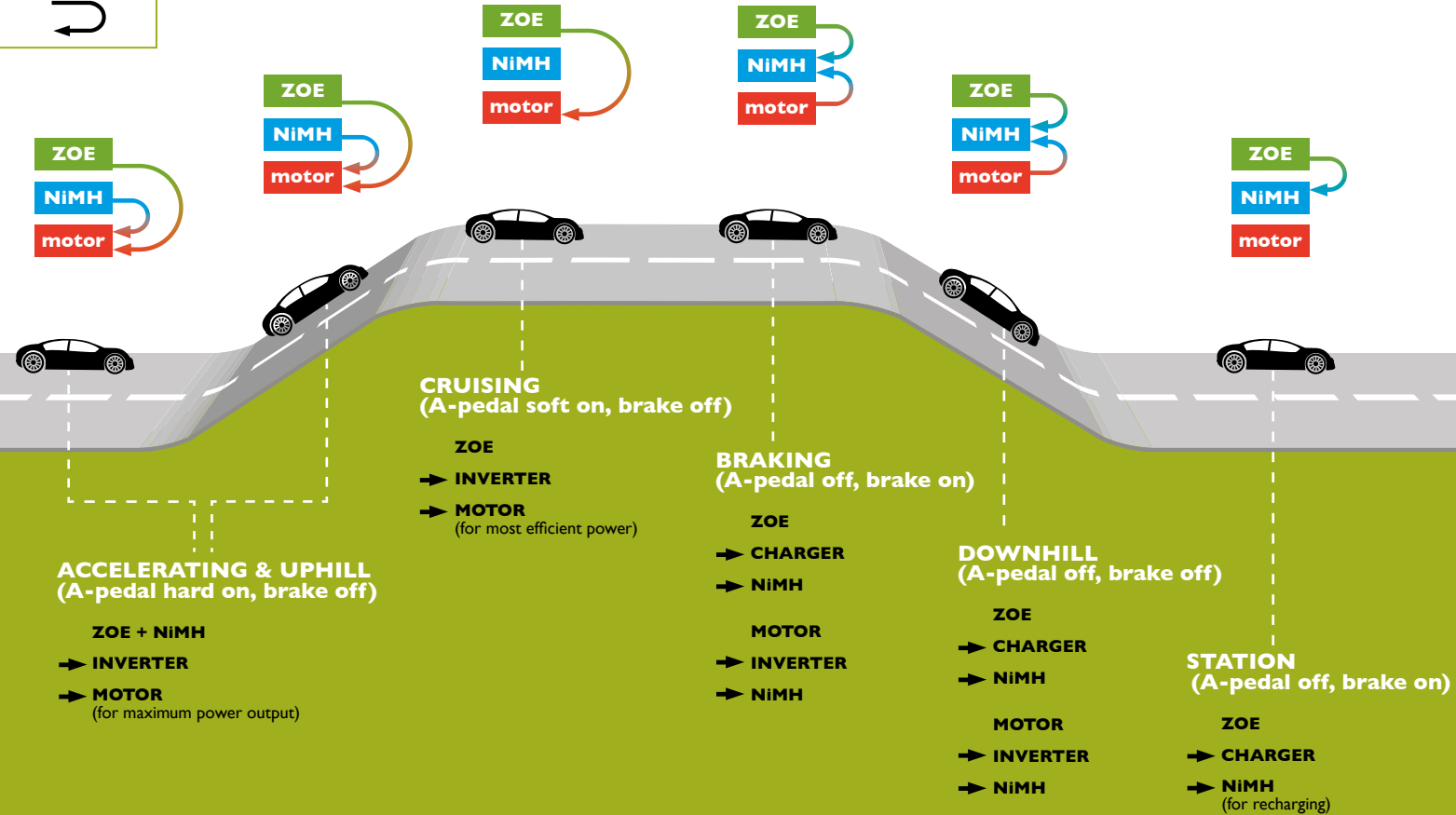
The system comprises:

1. MOTOR / GENERATOR
2. INVERTER / CONTROLLER
3. STEP UP CHARGER
4. ZOE or other types of FUEL CELL
5. NiMH or other types of RECHARGEABLE BATTERIES

With a little bit of learning, every driver can become very proficient in driving their EVs. Less pedaling, less braking, and allowing the car to glide more, with the Energy Recovery System, give you a much higher efficiency.

EFFICIENCY SAVES MONEY!

E-E Hybrid Power Management





➤ The best part of the CANBUS is a highly flexible customization.

Open Source CANBUS

All the electrical components of Salamander are controlled by APET's self-developed CANBUS. The system is written in LINUX open source code, which encourages talents of the world to contribute their solutions, and integrate with component providers. All signalling is devised through fiber-optics and will not suffer from electro-magnetic interferences.

Sharing of Green Vision

APET is taking the approach and direction of sharing this method of integration, with existing car manufacturers, or any individuals or entities that possess the resources to carry forward the production plan of Project Salamander. The more people accept the changes faster, the quicker we can put a halt to the irreversible process of Global Warming, allowing our children to enjoy the same environment we took for granted before.

Contact Us:

ADD: 1/F, Number 14, Lane 69, Song Jiang Road, Taipei City 104, Taiwan R.O.C.
TEL: 886-2-25090306
FAX: HKG: +852-31065923 / TPE: +886-2-25084850
WEB: www.salamanderian.com
BLOG: www.salamanderian.net