

NHTSA Seeking Detailed Info

The American National Highway Traffic Safety Administration (NHTSA) is delving deeper into the matter, seeking detailed records from the two fires that occurred in the United States – (the third happened in Mexico after an accident). Last month, the NHTSA said it would not investigate the fires, so what's changed? This time, Tesla asked the agency to look into the matter. A Tesla blog post maintained that incidence of fires in the Model S is still lower than combustion cars, and noted that no one was injured in any of the fires. "However," the post said, "if a false perception about the safety of electric cars is allowed to linger, it will delay the advent of sustainable transport." Tesla has also launched a software update for the Model S' air suspension system, which will give cars higher ground clearance at highway speeds. The company is also amending its warranty to include fire damage, even if it's the result of driver error; a reasonably "fair" outcome to appease the critics.



Third Tesla Model S Fire

A third Tesla Model S has caught fire, This particular incident happened yesterday on Interstate 24 in Tennessee, and was quickly broadcast across Twitter and Instagram. As with the first incident, this latest fire was caused by the Model S driver running over a large piece of metal debris in the road--in this case, a tow hitch, which then pierced the undercarriage. It's not clear if the fire involved the battery pack directly. The first report of a Model S fire came just a month ago, so perhaps it's the sudden rapid-fire news blasts that have people stirred up. Cars catch fire when they crash, sometimes. The Tesla Model S is a car. So what's the big deal? If anything, the incidence of Tesla Model S crashes/fires is merely a result of their rapid and fairly widespread adoption; the car is selling quickly, perhaps it's best to take a page from the owner of the first of these burned electric luxury sedans: shrug it off and carry on.

Quimera Responsible Racing

The Barcelona based company has several alternative fuel racing cars under development, from pure electric to hydrogen. QRR will soon present the AEGT Evo2, an electric racing car designed and built by Quimera, in collaboration with Dutch designer Sabino Learentveld, with technical supervision by Altran. The AEGT features a carbon fiber monocoque chassis, and a powertrain delivering up to 700 bhp (522 kW). Three 231 bhp (172 kW) UQM electric motors deliver torque of more than 1,000 N·m (738 lb-ft). Top speed is 300 km/h (186 mph), with acceleration from 0-100 km/h in 3 seconds. The racer uses high power Lithium Polymer battery packs from the South Korean firm EIG.



GT-AEGT

Altran, global leader in innovation and high-tech engineering consulting, and Quimera have signed a new agreement to invest in their continued development and construction of breakthrough vehicles to achieve better performance while dramatically reducing environmental impact. Both companies have strengthened their already important links in order to achieve new milestones in the fields of sustainable mobility and non-fossil powered motor sport. Altran and Quimera will initially focus on their respective teams and capacities in the research and development areas of technologies and solutions, and the innovative application of available technologies to be tested in a motor sport environment: the most demanding test bed for new technologies in the field of mobility.

As part of the new agreement, Altran plans to enhance its Excellence Centre for New Automotive, a hub for EV development, with an R&D budget of 4 million euros. Previous project vehicles included the GT-AEGT and the Drift Car-AEDC, both presented in 2012.



AMR Series Motors



EVDives AMR series of 3 phase motor-controller packages employ a range from 16kW @ 132V for small cars or motorcycles, priced at a reasonable US\$3,550 + shipping from their Oregon headquarters. To very impressive dual Stack AMR motors (like above) with power outputs in excess of 800HP.

SPECS (for the big one):- EVD600HV-HT-dRcr-115p high torque - 602-720vdc matched motor & DUAL JDPI484 controllers.

Power: 500kW cont., 600kW peak (for 1 minute) @ 6,800-8,500 RPM @ 700v nominal
Torque: 760 N.m., 1300Nm. peak @ 700v nom. 720Arms cont., 968Arms peak
Maximum RPM: 10,000
Motor weight: 235 lbs.
Motor gross dimensions: 11 inch diameter, 18 inch body length (20 inch overall length)
Motor cooling: min. 50L/min – oil w/ internal pump std. – oil/water-glycol exchanger mounted on top – OPTIONAL
Controller weight EACH: 64kg
Controller gross dimensions EACH: 196mm x 464mm x 712mm
Controller cooling – 30L/min, Coolant inlet temp -40C to 70 C – water/glycol
PRICE US\$ 44,900

EVDive



Seems persistence does pay off, I've been trying to locate a supplier of the high performance motor - controller units that are used for high performance racing vehicles and until now not had any success. However, this month I not only found a supplier I found two!

EVDives "We decided to now open up sales of these motor and matched controller packages beyond our OEM customers and to now include end-users."

And ELMOFO seem to be a supplier of the EVDive motors but with alternate controller hardware.

EVDive supply single-core motors and controller as a package, both are liquid-cooled and are waterproof. The dual core motors are oil cooled with OPTIONAL water/oil exchanger which mounts on top near rear of motor. All systems support "regen" and many other advanced features.

EVDive offers optional master controllers (VCU – Vehicle Control Units) that communicate via CANbus to coordinate functions of multiple slave controller - motor sub-systems (e.g. 4 motor AWD motor per wheel systems).

ELMOFO supply the Rinehart Motion System controller that can handle from 160V to 720VDC at up to 450Amps – Maximum is actually 720V @ 300Amps = 216KW.

These Rinehart units are designed specifically for EV or HEV systems and weigh in at only 10.7Kg for the largest of the range.

One model the PM100DXR is reserved for Race Applications Only with RMS Approval. The DXR model is designed for performance, not necessarily long life.

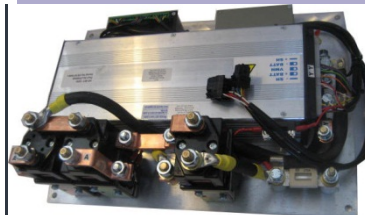
Price of the PM100DX - 100kW 160 – 320V 350A unit = \$5990

The Shape Of Things to Come!!



Nissan Blade-Glider

At the Tokyo motor show last week, Nissan released its "Exploratory Prototype" – BladeGlider. This is the Japanese company's futuristic electric sports car design that's built with speed in mind. It has a carbon fiber-covered body that's shaped like a rocket with a narrow nose and a wider rear. Beyond its Lamborghini-like doors is a sci-fi-worthy steering wheel placed smack dab in the middle where the driver seat is -- the two passengers that can fit in the vehicle will have to make peace with being backseat drivers. The automaker's keeping quiet on the finer details, but it says the rear wheels will be fitted with in-wheel electric motors powered by lithium-ion batteries. Company officials also say that due to the car's design and reduced weight, it consumes less energy than its popular Leaf EV; although driving may be stimulating with a 30/70 weight distribution.



This Month's Technology Review

Now here's an interesting device that I haven't come across before. If you have a 96 or 120 Volt system then you can install this Regen Braking controller unit for your series wound DC motor. Seems that the device uses a PWM control system to extract the most out of

your series motors generative output without harming the brushes or commutator through flashover. Current rating is 160A for 1 hour, and 400A for 2 minutes, assuming suitable heatsinking is fitted. It operates at a fixed high frequency and is designed to be used with suitable switching contactors (supplied) to perform the regenerative braking; Suitable for most vehicles particularly those over 1200 kg or very fast vehicles. Price £1750
http://www.everything-ev.com/index.php?main_page=product_info&cPath=65_101_67&products_id=402