

Electric Variable Transmission

The EVT is an innovative transmission concept consisting of two concentric electrical machines, meaning only two moving parts. It has two mechanical ports and one electrical port. It can function as a fully variable transmission with the possibility to be hybridized when using the electrical port. It is a fully scalable system with a range from light duty to very heavy duty applications.

The customer's benefits of the system are:

- Reduced fuel consumption due to engine operation near the optimal efficiency points, engine idle stop, engine downsizing, regenerative braking and higher alternator efficiency.
- Emission reduction due to exchanged start stop, avoiding fast engine transients, electrical after treatment, pure electric mode.
- Improved drivability and comfort due to continuously variable transmission and transient boost.
- Higher performance due to electrical boost and optimum power use of the engine.
- Individuality due to unique patented technology. This means that transmission suppliers and OEMs can offer added value to the end user.

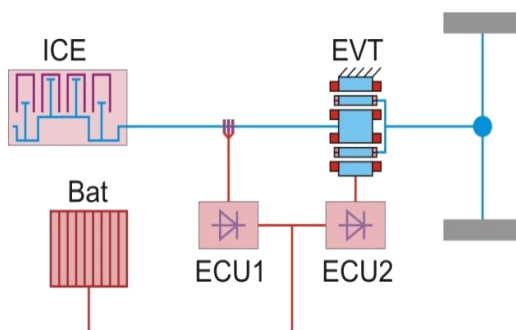
Technical Data

Input side

75kWatt continuous power @ 5200 RPM
 137 Nm continuous torque @ 3000 RPM
 6000 RPM maximum input speed

Output side

120 kWatt continuous power
 184 kWatt peak power
 382 Nm continuous torque
 530 Nm peak torque
 6000 RPM maximum output speed



This Electric Variable Transmission is a product of the Electric Variable Transmission BV. It is a joint venture between the high tech companies Altramotive, EMechForce and Magnetic Innovations. A close collaboration with research organization TNO has been formed, see EVTBV.com for more information.