

Electrical powertrain - ISAT - Master

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Different Hybrid architectures

The picture below gives the possibility to describe the different hybrid architectures : series, parallel and series-parallel.

Furthermore, energy sources, energy converters, power losses, system coupling can be described as well as fluid, mechanical and electrical energy flows can be shown.

1. Name the energy sources and sinks, represented by the rectangles with rounded angles.
2. Name the energy converters in the rectangles.
3. Which item describes the brake ?
4. Specify the energy flows (fuel=black, mechanical=red, electrical=green, losses=blue)
5. Name the different powers and losses.
6. Describe a series hybrid vehicle using this diagram.
7. Describe a parallel hybrid vehicle using this diagram.
8. Describe a series/parallel hybrid vehicle using this diagram.

