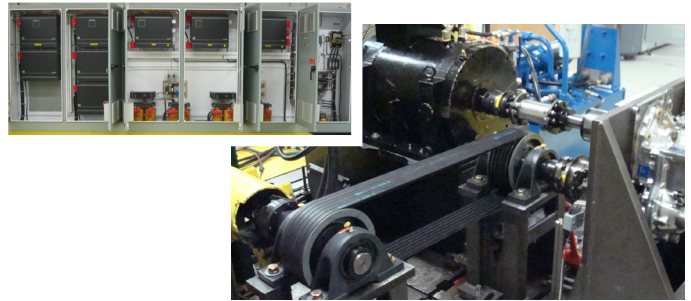
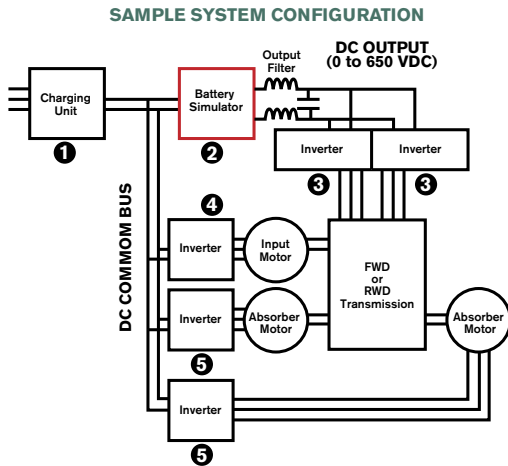


## Systems

Revolutionary Engineering (RE) designs and builds turnkey dynamometer-based test systems enabling our customers to perform a full range of testing scenarios – from the simplest to the most demanding.

RE is ready with advanced technology and ideas to assist you with your systems and testing needs. RE will work hand in hand with your team to develop innovative and practical solutions.



*RE was instrumental in assisting TESLA Motors with the development of their electric vehicle transmission by performing a series of tests, including WOT and road load profiles up to 14,000 RPM.*

### SYSTEM COMPONENTS:

- 1 Charging unit
- 2 DC-DC inverter
- 3 Internal motor inverters
- 4 Input inverter
- 5 Absorber inverter

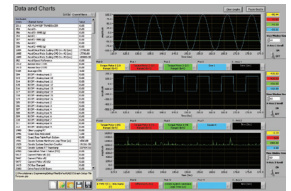
For electric/hybrid testing, a DC-DC converter is utilized. This allows the voltage supplied to the inverters controlling the test article to be decreased to a level which is typical to what the motor will see when installed in a vehicle. The output voltage and current can be controlled to any level between 0-750 VDC. Control can be analog, digital, or serial. The output filter on the DC-DC converter minimizes ripple and assists the drive in controlling the slew rate of voltage and current.

## Testing

RE is committed to keeping pace with advances in vehicle technology to support the testing needs of the inventive clients we serve – both in automotive and alternative energy. Our AC dynamometers, combined with our inverters and battery simulators, enable us to perform a variety of hybrid and electric vehicle tests efficiently and with fast turnaround.

### Testing Capabilities include:

- 0-17,000 RPM
- Power analyzer
- Full torque at zero speed
- 0-750 VDC, 0-800 ADC battery simulation
- Frequency, analog, and digital acquisition control
- Road load simulation
- 0-30,000 LB FT TOT
- Durability testing
- Transient torque and speed response
- Temperature and encoder feedbacks



Data and Charts

## Revolutionary Engineering Pro System (REPS)

The Revolutionary Engineering Pro System (REPS) offers the customer complete cell control, and high-speed, accurate data acquisition in one product. The customer has the option of adding on multiple controlled devices and acquisition systems. REPS can support the following communications protocols: CAN, Analog and Digital, ProfiBUS, Ethernet, Fiber Optic, GPIB, and others.



Main Display