



## RX Ecosystem Partner Solution

# CT Green Tech 3KW Power Stage



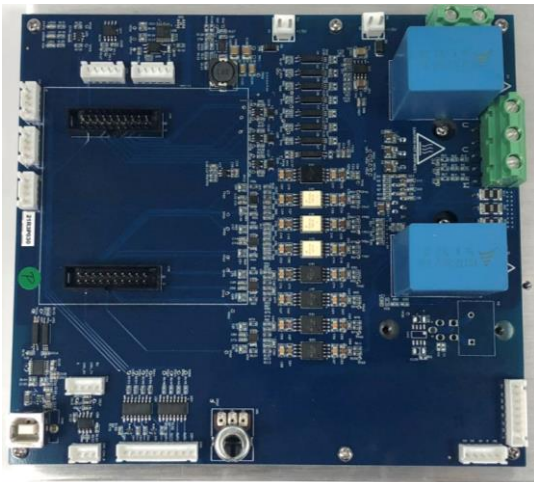
### Solution Summary

The 3KW POWER STAGE provides users easy-to-set-up motor control firmware development environment to increase time-to-market design based on [RX66T](#) device from the powerful 32-bit RX microcontrollers family running at 160MHz and delivering 6.0 CoreMark/MHz.

### Features/Benefits

- Supports 3-phase PMSM (permanent magnet synchronous motor), PMAC (permanent magnet AC motor), BLAC (brushless AC), and BLDC (brushless DC) motors
- Supports sensor-less motor control and sensor-based capabilities (Hall & Encoder Interfaces)
- Common interfaces (CNA and CNB connectors)
  - Allows user to switch RX family CPU card for different performance evaluation
- Supports external high voltage Inverters
- Supports Renesas motor Control PC GUI

### Diagrams/Graphics



### Target Markets and Applications

- DC motor control applications
  - Compressors
  - Air conditioning
  - Fans
  - Air extractors
  - Pumps
  - Home appliances
  - Inverters
  - Industrial drives
- Light electric vehicles

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## External Power Stage for DC motor control system

- 3-phase Permanent Magnet Synchronous (PMSM, PMAC, BLAC) 3-phase Brushless DC (BLDC)
- External power supply from: 80 to 450VDC, 15Apeak
- external supply up to 15VDC for primary side, 15VDC for Secondary side
- three shunts configuration (8m $\Omega$ )
- FT232R - USB UART IC from FDTI, 76.6KBd communication speed
- 12-bit A/D Converter, Programmable Gain Amplifiers, Port Output Enable
- Sensor-less vector control algorithm (Field Oriented Control)

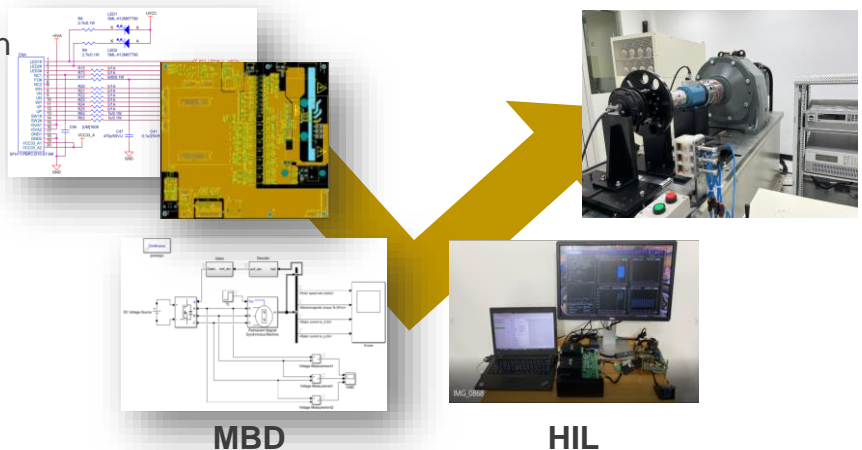
## About Us

CT Green Tech. is a development company focused on hardware and software design of various electric vehicles. We are research and development in the field of advanced of motors and controllers for electric vehicles, electric e-bike, power chain, and industrial control.

Our mission is to develop for customized and provide expectation solution for customers with adequate laboratory equipment. We aim to connect and communicate partners for working in transferring knowledge and technical expertise, offering innovative, research, and education.

Application area:

- DC Motor design
- Vehicle controller design
- LEV power chain
- Soft and firmware design
- Electric scooter
- Electric bike
- Electric assisted bike



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