StarSim FPGA Circuit Motor Library

For real-time simulation of various types of motors
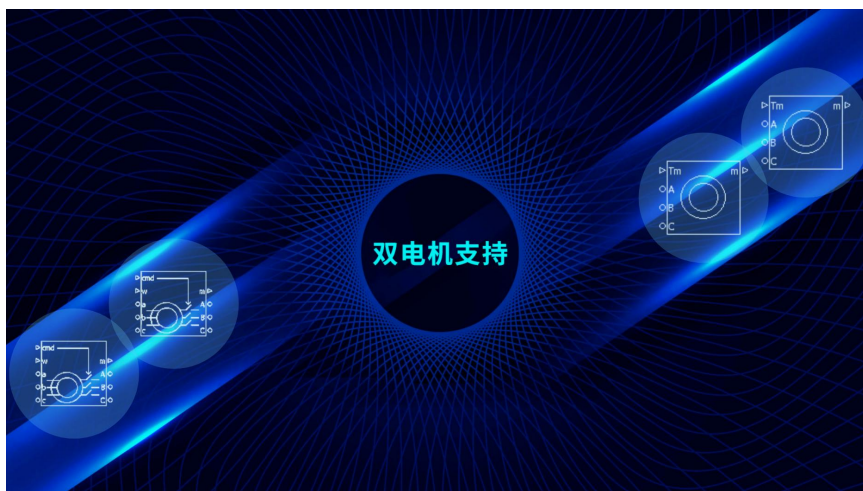
StarSim FPGA Motor Library

StarSim FPGA Motor Library is a software section developed by ModelingTech. Specially for simulating various types electric motor, which usually is used combine with StarSim FPGA Circuit Solver, StarSim HIL. With StarSim FPGA Motor Library, StarSim real-time simulator is able to run motor model on FPGA in 1μs timestep, so as to achieve more accurate motor simulation.

Detailed Highlights

Running in us-level timestep

Motor models run in us-level timestep on FPGA, so users can accurately simulate operating characteristics of motors.

Dual motors support

Support 2 three-phase PMSMs or 2 three-phase squirrel cage motors.

Supporting multiple motor position sensors

Supporting a lot of motor position sensor includes encoder,hall,resolver.

Application Scenarios

DC

High speed
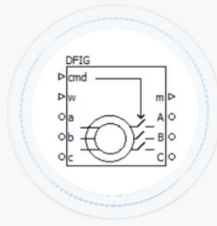elevator,railway,subway
tramship industry

BLDC

VTOL drone,
vehicle,medical equipment

Three-Phase PMSM

E-vehicle,aerospace,wind
electrogenerating

AC

Domestic
appliance,industry drive
motor

DFIG

wind
electrogenerating,hydraulic
electrogenerating

Six-Phase PMSM

E-vehicle,ship electric
propulsion,wind
electrogenerating