

▼ Motor Control Blockset

▼ Controls

▼ Control Reference



ACIM Control Reference



ACIM Feed Forward Control



ACIM Slip Speed Estimator



ACIM Torque Estimator



DQ Limiter



LUT based PMSM Control Reference



MTPA Control Reference



PMSM FeedForward Control



PMSM Torque Estimator



Position Generator



Six Step Commutation



SRM Commutation



Vector Control Reference

▼ Controllers



Derating Function



Field Oriented Control Autotuner



PI Controller

▼ Math Transforms



3-Phase Sine Voltage Generator



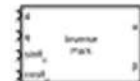
atan2



Clarke Transform



Inverse Clarke Transform



Inverse Park Transform



Park Transform



PWM Reference Generator



Sine-Cosine Lookup

▼ Electrical Systems

▼ Inverters



Average-Value Inverter

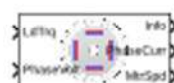


Average-Value Inverter

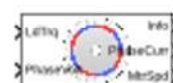
▼ Motors



Induction Motor



Interior PMSM



Surface Mount PMSM

▼ Protection and Diagnostics



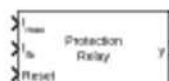
Host Serial Receive



Host Serial Setup

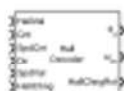


Host Serial Transmit



Protection Relay

▼ Sensor Decoders



Hall Speed and Position



Hall Validity



Mechanical to Electrical Position



Quadrature Decoder



Resolver Decoder

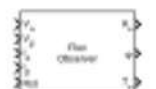


Software Watchdog Timer

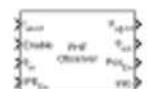


Speed Measurement

▼ Sensorless Estimators



Flux Observer



Pulsating High Freq Observer



Sliding Mode Observer

▼ Signal Management



IIR Filter



Position Compensation



Vector plot

▼ Motor Control Blockset HDL Support

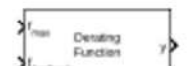
▼ Controls

▼ Control Reference



DQ Limiter

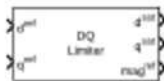
▼ Controllers



▼ Motor Control Blockset HDL Support

▼ Controls

▼ Control Reference



DQ Limiter

▼ Controllers



Derating Function



PI Controller

▼ Math Transforms



Clarke Transform



Inverse Clarke Transform



Inverse Park Transform



Park Transform



PWM Reference Generator

▼ Electrical Systems

▼ Motors



Induction Motor Configuration



Induction Motor HDL



PMSM Configuration



PMSM HDL

▼ Sensor Decoders



Mechanical to Electrical Position



Quadrature Decoder



Speed Measurement

MCB IP List

Sunday, July 14, 2024 10:25 AM

Controls

Control Reference

ACIM Control Reference	PMSM Control Reference LUT Based	Vector Control Reference	DQ Limiter (HDL)
ACIM Feed Forward Control	PMSM Feed Forward Control	MTPA Control Reference	Position Generator
ACIM Slip Special Estimator			Six Step Commutation
ACIM Torque Estimator	PMSM Torque Estimator		SRM Commutation

Controllers

Derating Function (HDL)
FOC Autotuner
PI Controller (HDL)

Math Transform

3-Phase Sine Voltage Generator	atan2
Clarke Transform (HDL)	Inverse Clarke Transform (HDL)
Park Transform (HDL)	Inverse Park Transform (HDL)
PWM Reference Generator (HDL)	Sine-Cosine Lookup (HDL)

Electrical Systems

Inverters

Average Value Inverter

Motors

Induction Motor (HDL)	Induction Motor Configuration (HDL)
Interior PMSM (HDL)	PMSM Configuration (HDL)
Surface Mount PMSM (HDL)	PMSM Configuration (HDL)

Protection and Diagnostics

Host Serial Receive
Host Serial Setup
Host Serial Transmit
Protection Relay

Sensor Decoders

Hall Speed and Position
Hall Validity
Mechanical to Electrical Position (HDL)
Quadrature Decoder (HDL)
Software Watchdog Timer
Speed Measurement (HDL)

Sensorless Estimators

Flux Observer
Pulsating High-Freq Observer
Sliding Mode Observer

Signal Measurement

IIR Filter
Position Compensation
Vector Plot