

InstaSPIN™- MOTION

Motor Type

☒ ACIM
☐ PMSM/BLDC

Identification Method Automatic ID

Identification Settings

Res Est Current(A)

1

Ind Est Current (A)
PMSM Only

-1

Estimation Freq (Hz)

5

Motor Pole Pairs

4

Motor Max Current (A)

40

Motor Max Freq (Hz)

100

Rated Flux (Vline-line/Hz)
ACIM Only

0.0327964

Identification of Motor Parameters and Tuning of Current Loop Controllers

50%

Identified
Hardware
Target☐ HV KIT REV1.1
☒ DRV8301 KIT REVD
☐ DRV8312 KIT REVD
☐ HARDWARE NOT IDENTIFIED☒ FAULT STATUS

Reset DRV Fault

Hardware Parameters

ADC Max Volt (V)

66.32

Vbus (V)

ADC Max Current (A)

82.5

30

Voltage Filter Pole (Hz)

335.65

Identified Motor Parameters

Rs (Ω)

0.0268688

Ls_d (H) Identifies average Ls and uses
for both d and q. If saliency is
known set in user.h

Ls_q (H)

Flux (V/Hz)

0.0016398

Magn Current (A) ACIM Only

Rr (Ω) ACIM Only

Control Timing

Set in user.h pre-compile

PWM Frequency 20 KHz

ADC Sampling 10 KHz

Current Control 10 KHz

FAST™ 10 KHz

Identify Motor

Status

EST_State_Error

☒ Motor Not Identified☐ Identifying Motor☐ Lock Rotor then press
Proceed ACIM Only

Proceed

☒ Motor Identified

Reset System

Powered By: GUI Composer





1 2.00 V B_W 2 5.00 V B_W 3 2.00 V B_W 4 20.0 A B_W

1 Max 3.52 V

40.0ms

→ -64.6400ms

250kS/s
100k points

1 1.84 V

Coupling
DC AC μ

Impedance
1M Ω 50 Ω

Invert
On Off

Bandwidth
20MHz

4 Label
BEMF

More

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