

License: CERN-OHL-W-2.0

Author: Orion Serup

**Crab Labs**

Sheet: /Predrivers/

File: Predrivers.kicad\_sch

**Title: Gate Drivers**

Size: A4

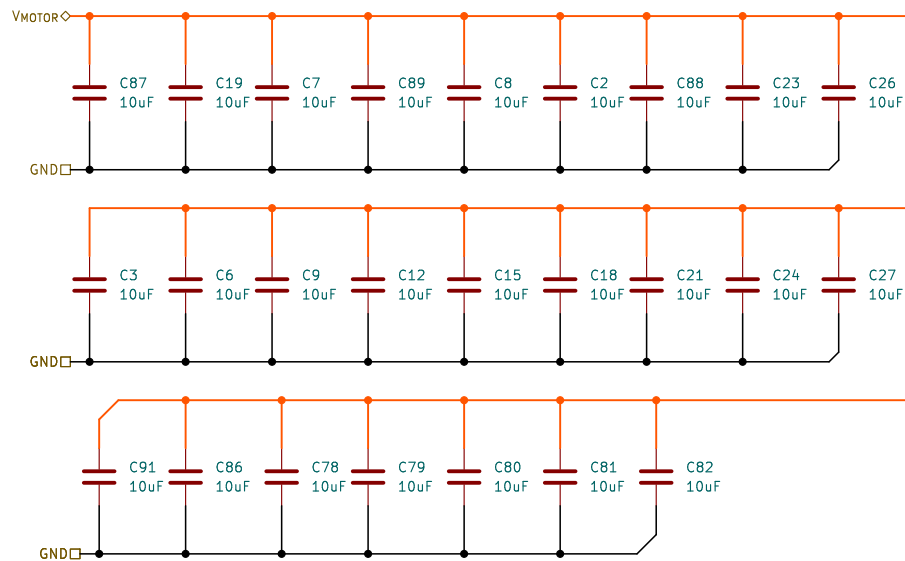
Date: 2024-05-19

**Rev: 1**

KiCad E.D.A. 8.0.3

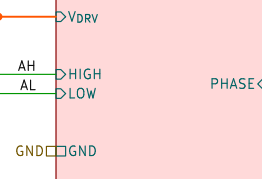
Id: 2/15

# Bulk Capacitors

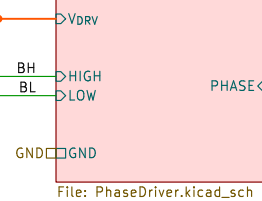


{GATES}

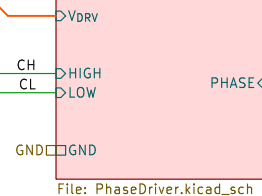
## Phase Driver A



## Phase Driver B



## Phase Driver C



DOUT{PHASES}

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Author: Orion Serup

**Crab Labs**

Sheet: /Drivers/

File: Drivers.kicad\_sch

**Title: Phase Drivers**

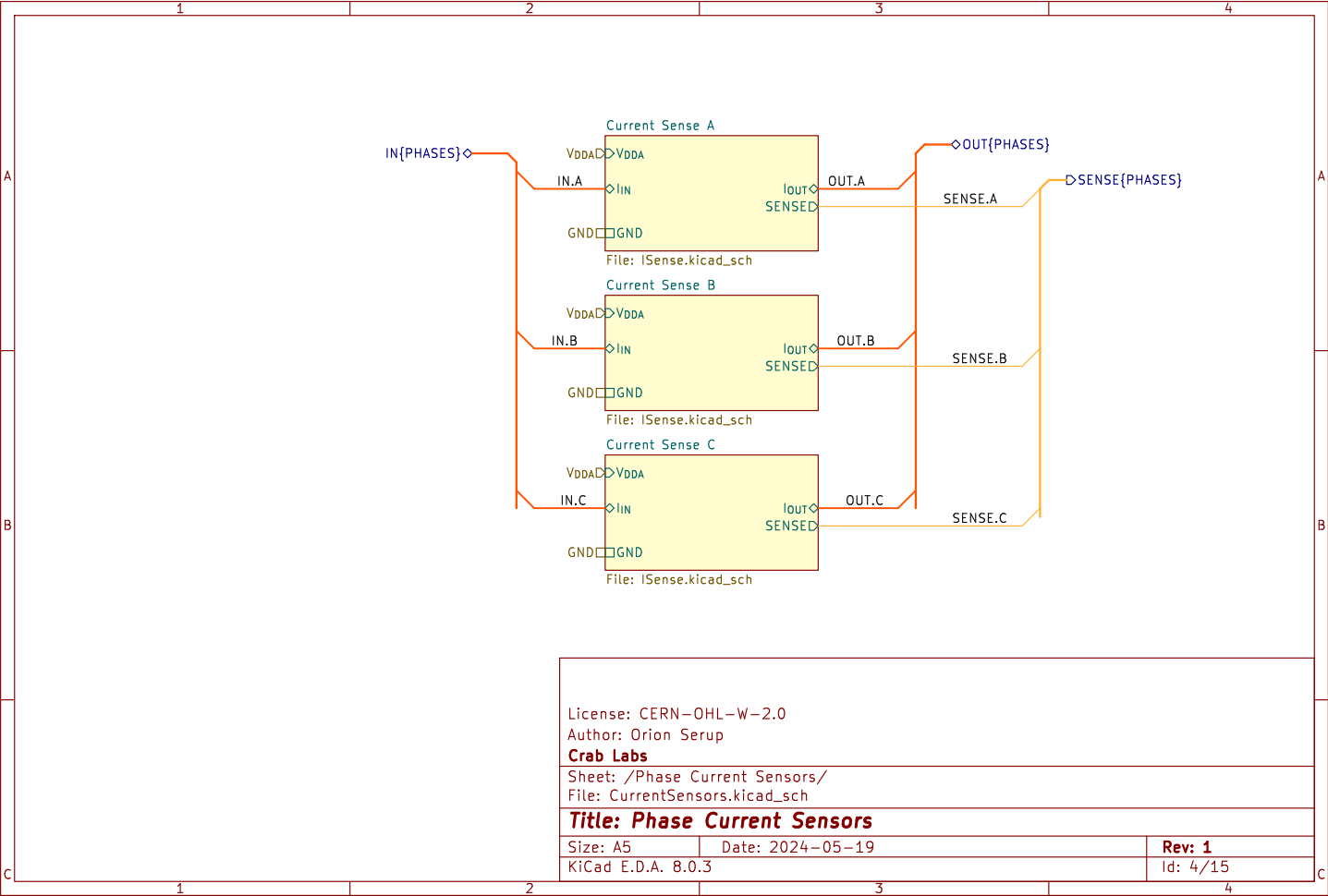
Size: A4

Date: 2024-05-19

Rev: 1

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Id: 3/15



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Author: Orion Serup

**Crab Labs**

Sheet: /Phase Current Sensors/

File: CurrentSensors.kicad\_sch

**Title: Phase Current Sensors**

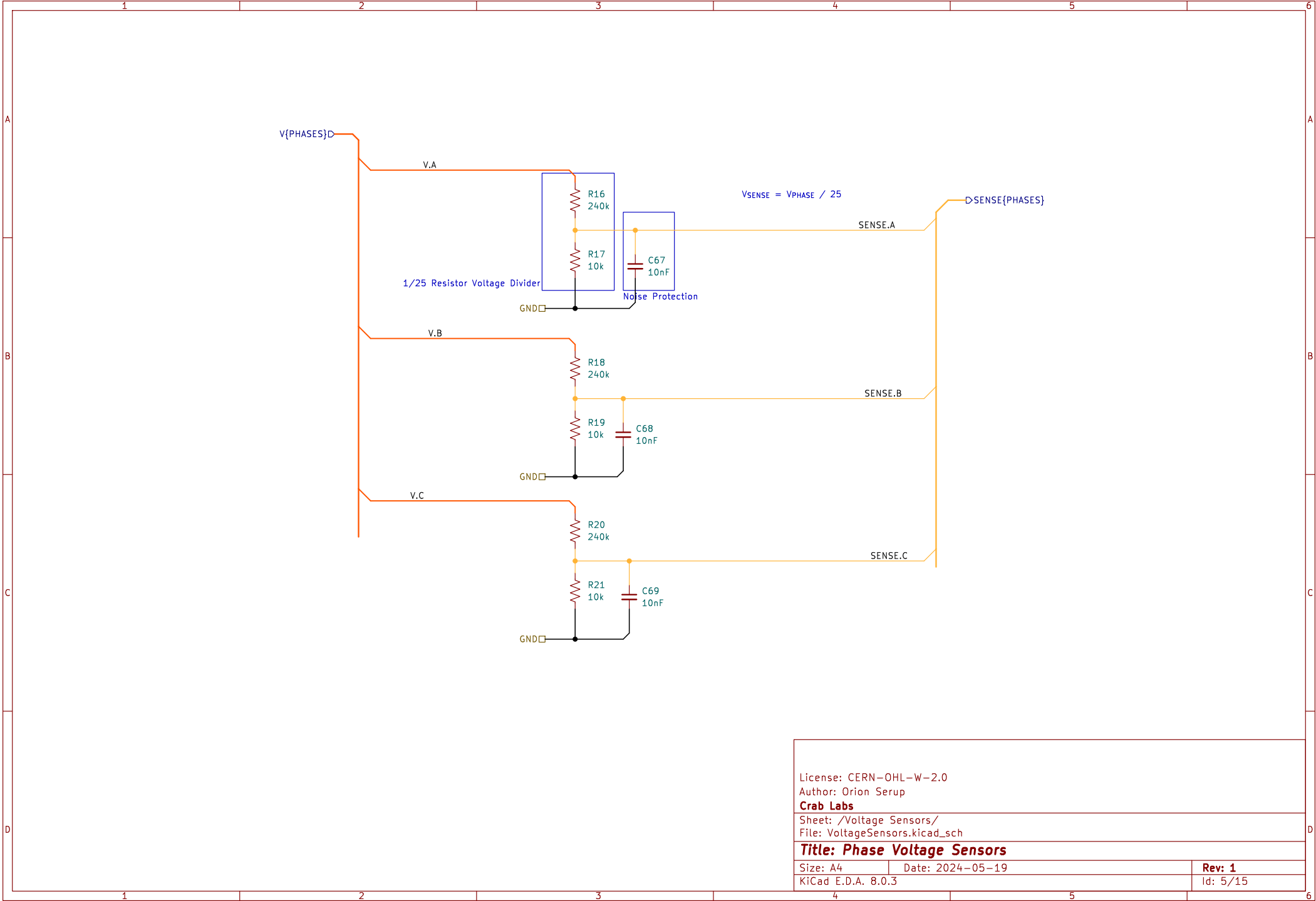
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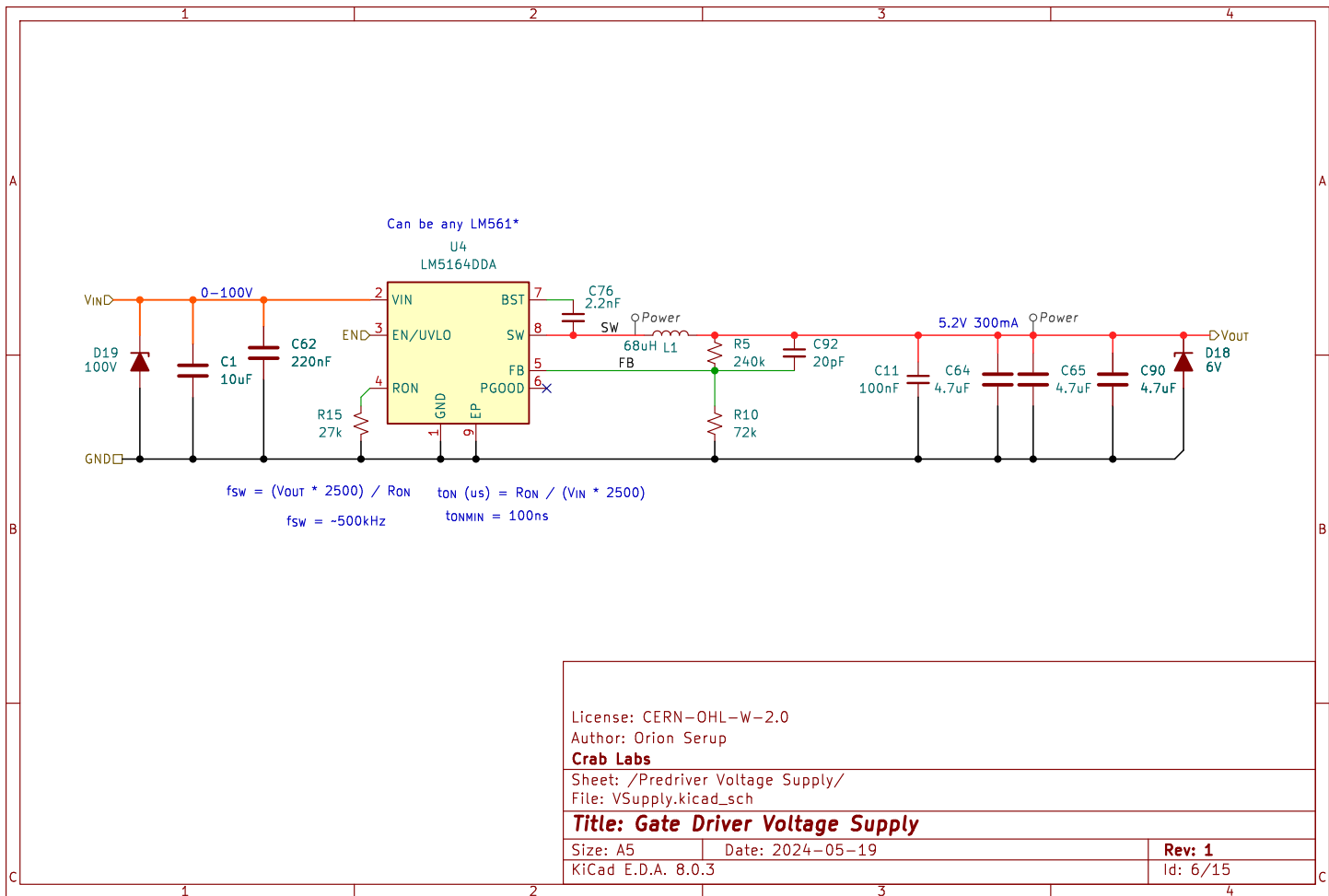
Date: 2024-05-19

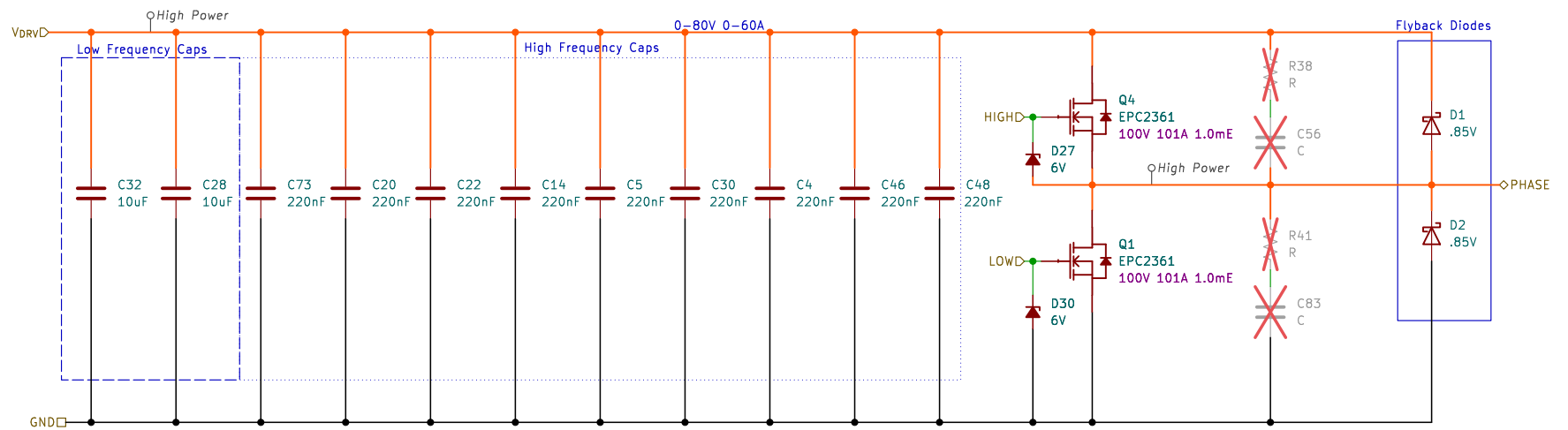
**Rev: 1**

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Id: 4/15







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**Crab Labs**

Sheet: /Drivers/Phase Driver A/

File: PhaseDriver.kicad\_sch

**Title: Phase Driver**

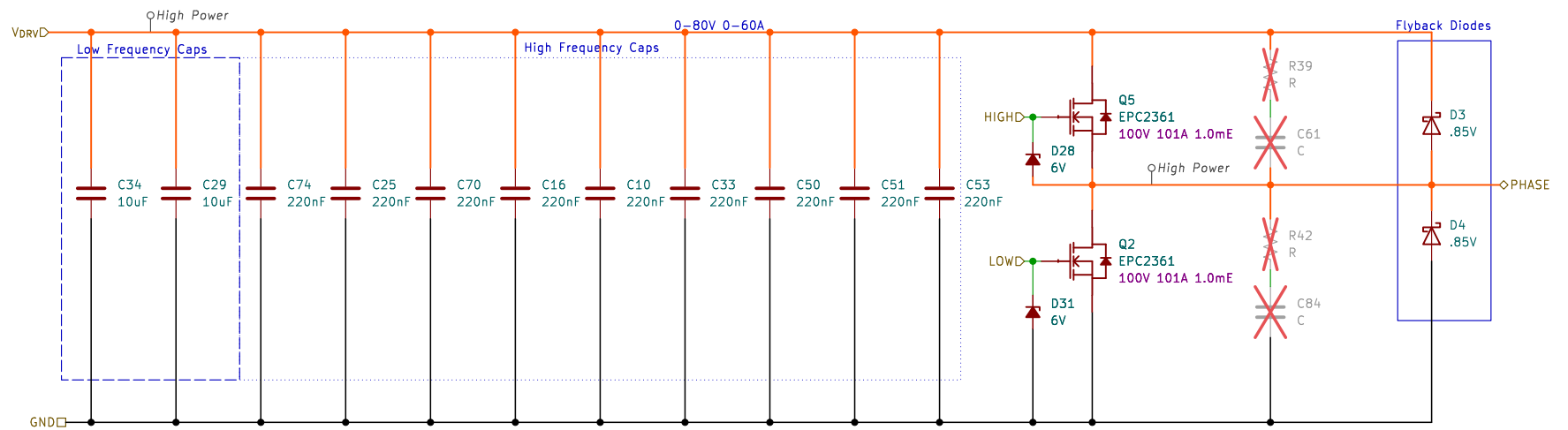
Size: A4

Date: 2024-05-19

**Rev: 1**

KiCad E.D.A. 8.0.3

Id: 7/15



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Author: Orion Serup

**Crab Labs**

Sheet: /Drivers/Phase Driver B/

File: PhaseDriver.kicad\_sch

**Title: Phase Driver**

Size: A4

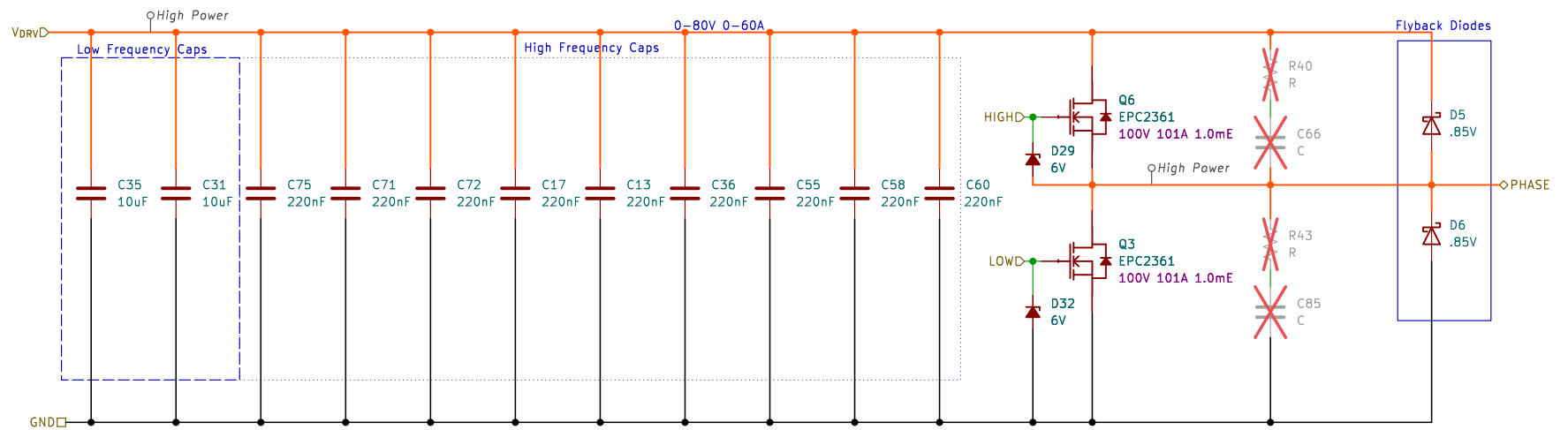
Date: 2024-05-19

**Rev: 1**

KiCad E.D.A. 8.0.3

Id: 8/15





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Author: Orion Serup

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Sheet: /Drivers/Phase Driver C/

File: PhaseDriver.kicad\_sch

**Title: Phase Driver**

Size: A4

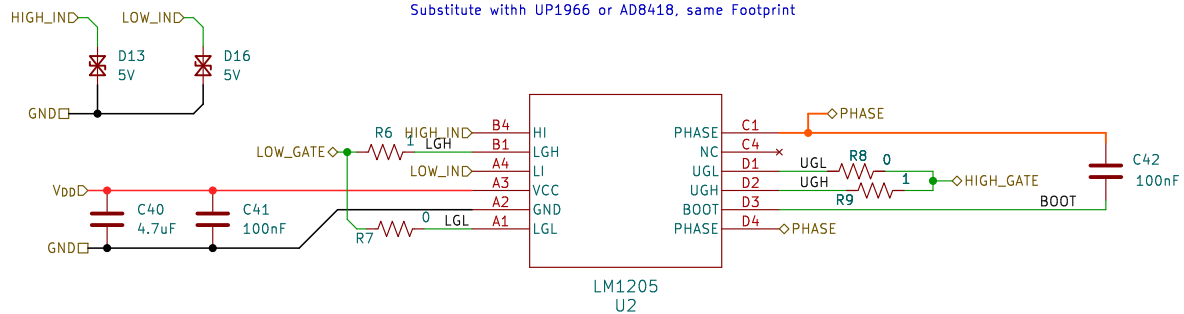
Date: 2024-05-19

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KiCad E.D.A. 8.0.3

Id: 9/15





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Sheet: /Predrivers/Gate Driver B/

File: GateDriver.kicad\_sch

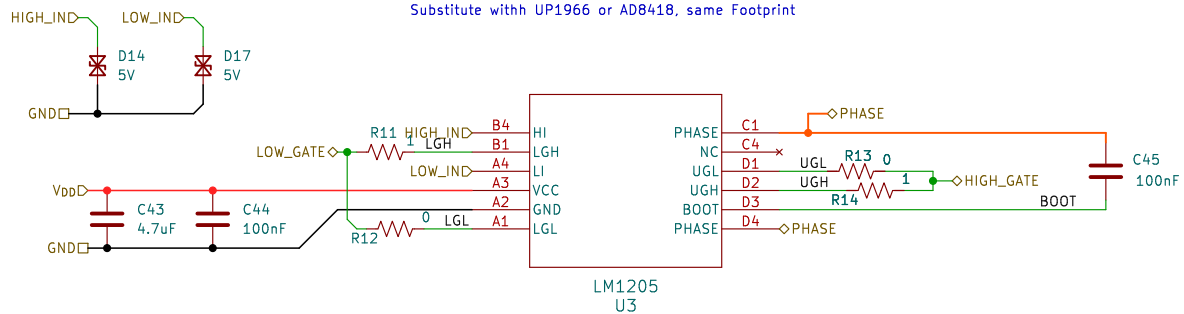
**Title: Gate Driver**

Size: A5 Date: 2024-05-19

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Sheet: /Predrivers/Gate Driver C/

File: GateDriver.kicad\_sch

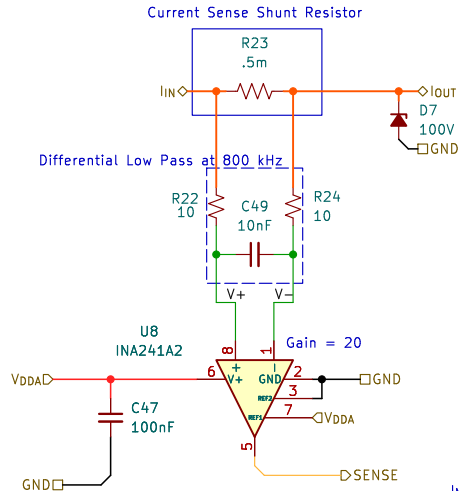
**Title: Gate Driver**

Size: A5 Date: 2024-05-19

KiCad E.D.A. 8.0.3

**Rev: 1**

Id: 12/15



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Author: Orion Serup

**Crab Labs**

Sheet: /Phase Current Sensors/Current Sense A/

File: ISense.kicad\_sch

**Title: Current Sense Amplifier**

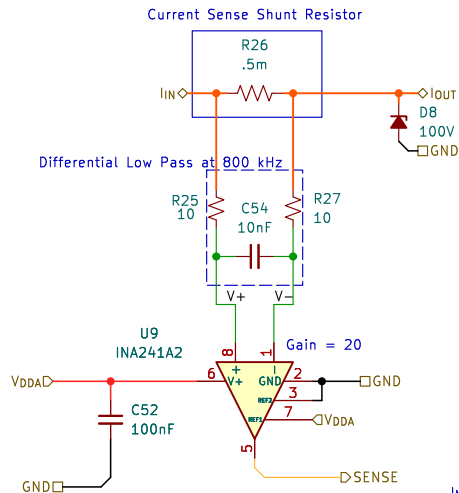
Size: A5

Date: 2024-05-19

Rev: 1

KiCad E.D.A. 8.0.3

Id: 16/15



$$V_{SENSE} = V_{REF} + I_{SHUNT} * .01$$

$$I_{MAX} = 165A, I_{MIN} = -165A, V_{DDA} = 3.3V, V_{REF} = 1.65$$

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Sheet: /Phase Current Sensors/Current Sense B/

File: ISense.kicad\_sch

**Title: Current Sense Amplifier**

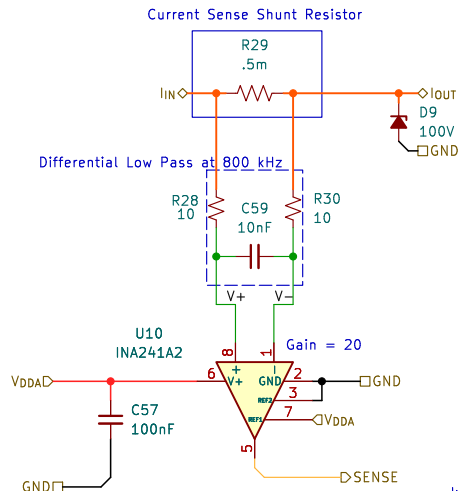
Size: A5

Date: 2024-05-19

Rev: 1

KiCad E.D.A. 8.0.3

Id: 17/15



$$V_{SENSE} = V_{REF} + I_{SHUNT} * .01$$

$$I_{MAX} = 165A, I_{MIN} = -165A, V_{DDA} = 3.3V, V_{REF} = 1.65$$

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Author: Orion Serup

**Crab Labs**

Sheet: /Phase Current Sensors/Current Sense C/

File: ISense.kicad\_sch

**Title: Current Sense Amplifier**

Size: A5

Date: 2024-05-19

Rev: 1

KiCad E.D.A. 8.0.3

Id: 18/15