

A 1 2 3 4 5 6 7 8

# Module

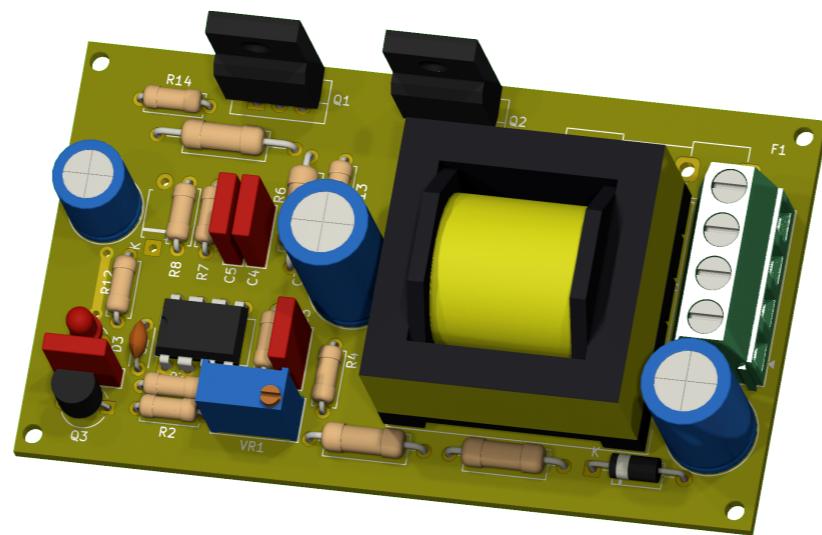
## Variant: CHECKED

# Rev + (Unreleased)

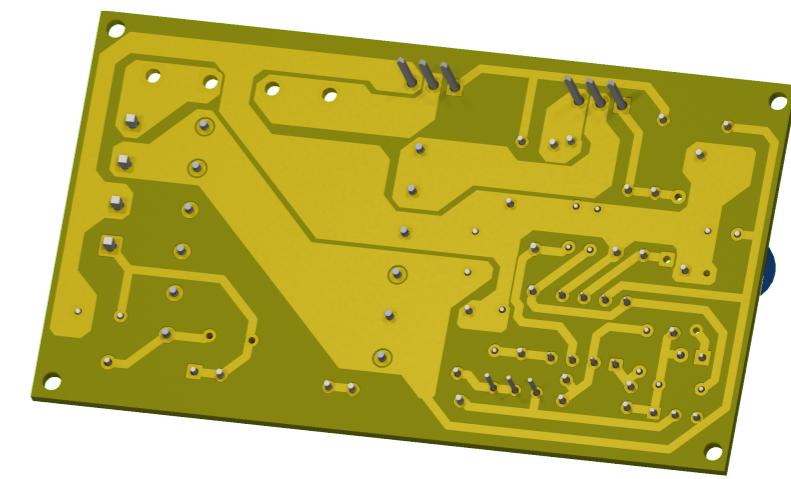
2025-12-19

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TOP VIEW



BOTTOM VIEW



## NOTES

Comment

Not fitted components are marked as

DRAFT - Early concept stage, schematic drafted.

PRELIMINARY - Minor schematic changes are expected, ready for layout planning.

CHECKED - DRC completed, schematic and layout ready for review.

RELEASED - Design ready for manufacturing.

Date: 19-Dec-2025

## DESIGN CONSIDERATIONS

DESIGN NOTE:  
Example text for informational design notes.

DESIGN NOTE:  
Example text for debug notes.

DESIGN NOTE:  
Example text for cautionary design notes.

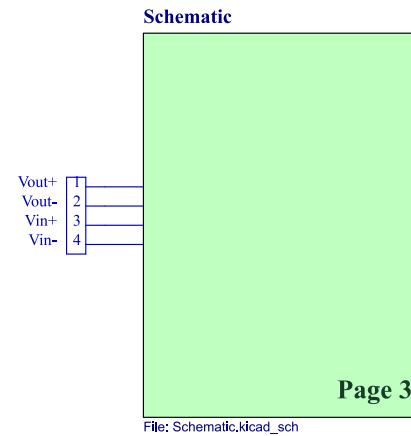
DESIGN NOTE:  
Example text for critical design notes.

LAYOUT NOTE:  
Example text for critical layout guidelines.

	Comments: <b>FR</b>	Company: <b>FR</b>	Variant: <b>CHECKED</b>	Git Hash: <b>cf618eb</b>
	Board Name: <b>Module</b>	Project Name: <b>Step-up module 12:450 V</b>		
	Sheet Title: File Name: <b>StepUp_module_12to450V.kicad_sch</b>	Designer: <b>FR</b>	Date: <b>2025-01-12</b>	Revision: <b>+ (Unreleased)</b>
	Sheet Path: <b>/</b>	Reviewer: <b>NA</b>	Size: <b>A3</b>	Sheet: <b>1 of 4</b>

# [2] Block Diagram

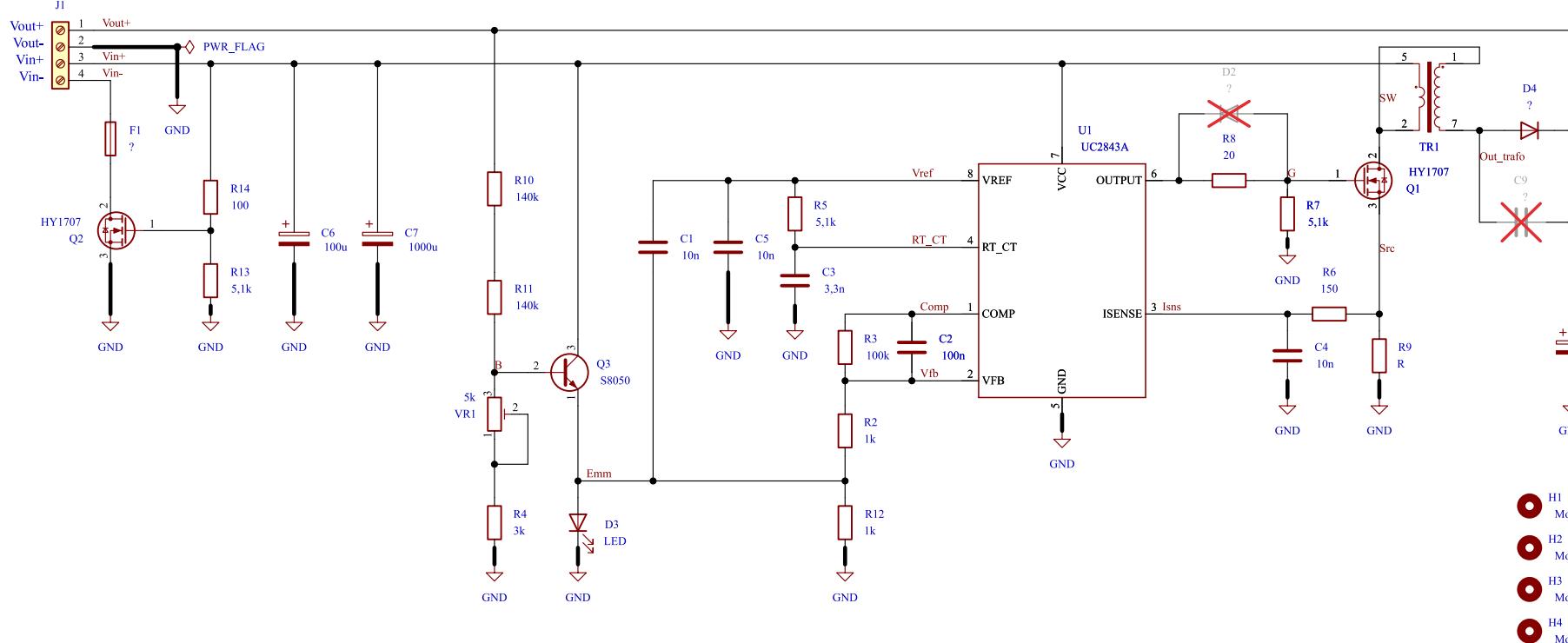
**MODULE INTERFACE:**  
 Vin: 9 V to 2 V according to  
 AliExpress product page  
 Vout: 200 V to 450 V,  
 adjustable through VR1



Page 3

	Comments: AliExpress module	Company: <b>FR</b>	Variant: CHECKED	Git Hash: cf618cb
	Board Name: <b>Module</b>			Project Name: <b>Step-up module 12:450 V</b>
	Sheet Title: Block Diagram	File Name: Block Diagram.kicad_sch	Designer: FR	Date: 2025-01-12      Revision: + (Unreleased)
	Sheet Path: /Block Diagram/		Reviewer: NA	Size: <b>A4</b> Sheet: <b>2</b> of <b>4</b>

### [3] Schematic



Comments: FR	Company: FR	Variant: CHECKED	Git Hash: cf618eb
Board Name: <b>Module</b>	Project Name: <b>Step-up module 12:450 V</b>		
Sheet Title: Schematic	File Name: Schematic.kicad_sch	Designer: FR	Date: 2025-01-12
Sheet Path: /Block Diagram/Schematic/	Reviewer: NA	Size: <b>A4</b>	Sheet: <b>3</b> of <b>4</b>

## [4] Revision History

A	<p><b>Version 1.0.0 - 2025-12-19</b></p> <hr/> <p>First issue</p> <p>Schematic capture complete, except for parts:</p> <ul style="list-style-type: none"> <li>- not populated (D2, C9);</li> <li>- with unreadable or absent markings (F1, D4, R9);</li> </ul> <p>Best guess:</p> <ul style="list-style-type: none"> <li>- F1: ~5 A</li> <li>- D4: ~500 mA x 600 V</li> <li>- R9: 10-100 mΩ</li> </ul> <p>&lt;!--</p>				A																				
B					B																				
C					C																				
D	<table border="1"> <tr> <td></td> <td>Comments: "Comment 1" "Comment 2" "Comment 3" "Comment 4"</td> <td>Company: <b>FR</b></td> <td>Variant: <b>CHECKED</b></td> <td>Git Hash: <b>cfc618ceb</b></td> </tr> <tr> <td></td> <td>Board Name: <b>Module</b></td> <td colspan="3">Project Name: <b>Step-up module 12:450 V</b></td> </tr> <tr> <td></td> <td>Sheet Title: Revision History</td> <td>File Name: Revision History.kicad_sch</td> <td>Designer: FR</td> <td>Date: 2025-01-12</td> </tr> <tr> <td></td> <td>Sheet Path: <a href="#">/Revision History/</a></td> <td>Reviewer: NA</td> <td>Size: <b>A4</b></td> <td>Sheet: <b>4 of 4</b></td> </tr> </table>					Comments: "Comment 1" "Comment 2" "Comment 3" "Comment 4"	Company: <b>FR</b>	Variant: <b>CHECKED</b>	Git Hash: <b>cfc618ceb</b>		Board Name: <b>Module</b>	Project Name: <b>Step-up module 12:450 V</b>				Sheet Title: Revision History	File Name: Revision History.kicad_sch	Designer: FR	Date: 2025-01-12		Sheet Path: <a href="#">/Revision History/</a>	Reviewer: NA	Size: <b>A4</b>	Sheet: <b>4 of 4</b>	D
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