

A 1 2 3 4 5 6 7 8

# Module

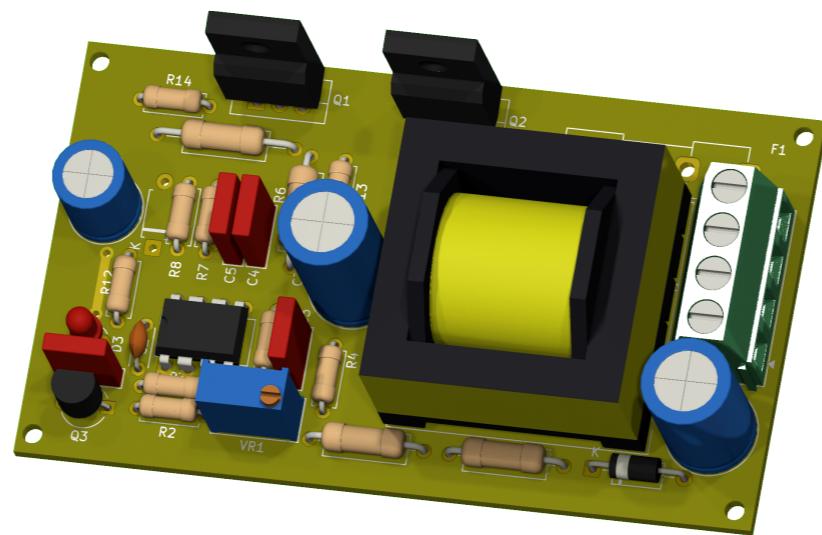
## Variant: CHECKED

# Rev + (Unreleased)

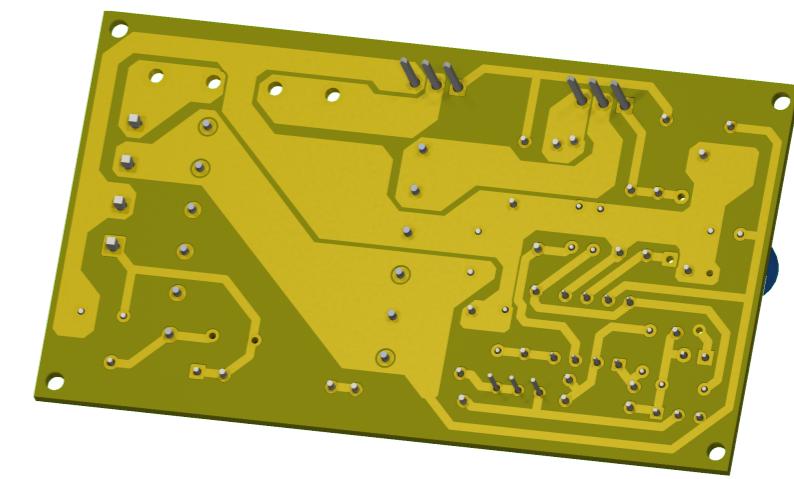
2025-12-19

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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.

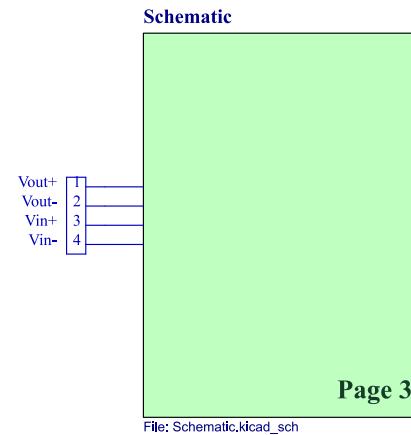
DESIGN NOTE:  
Example text for critical design notes.

LAYOUT NOTE:  
Example text for critical layout guidelines.

	Comments:	Company: <b>FR</b>	Variant: <b>CHECKED</b>	Git Hash: <b>37228d3</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

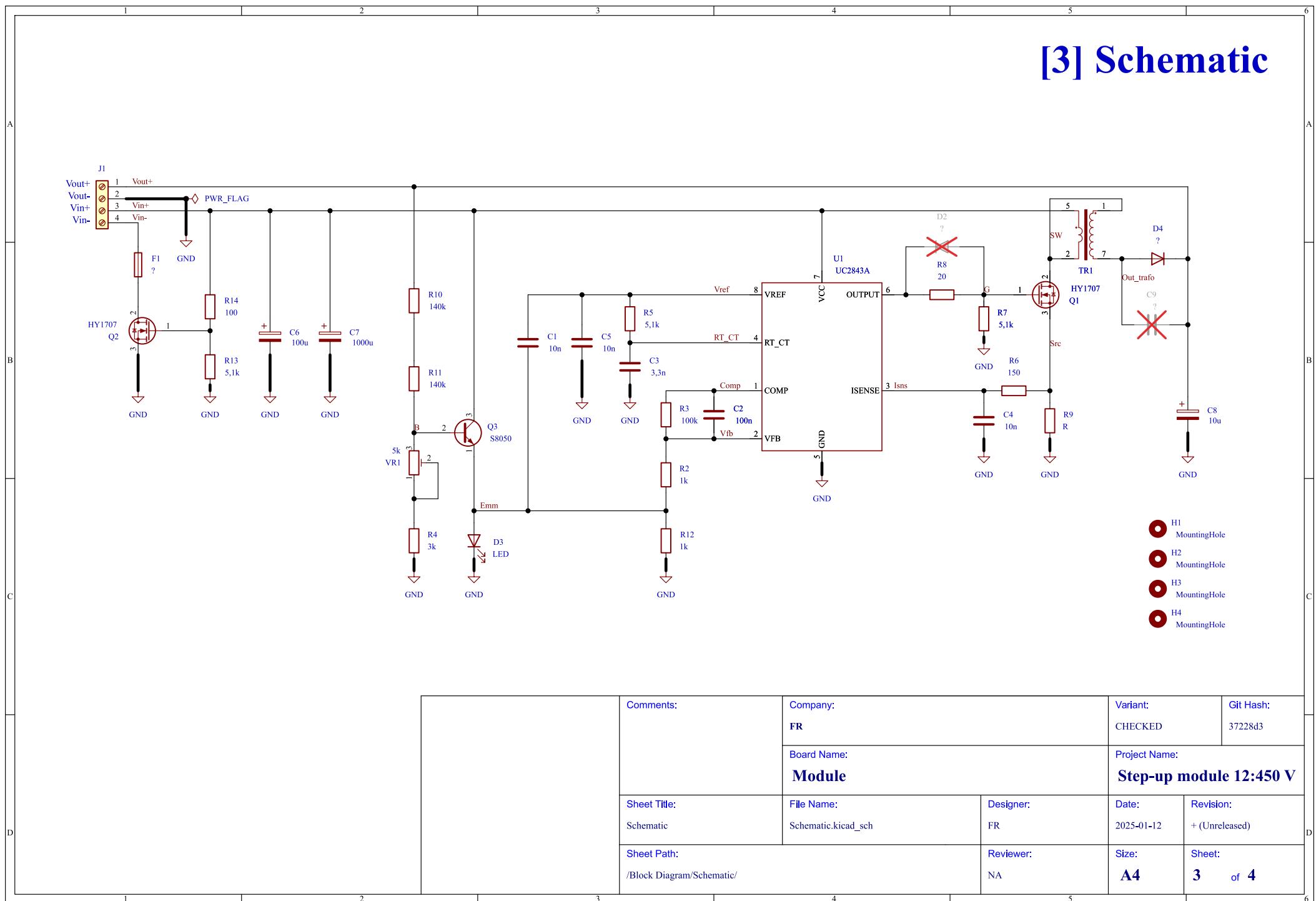
**MODULE INTERFACE:**  
 Vin: 9 V to 2 V according to  
 AliExpress product page  
 Vout: 200 V to 450 V,  
 adjustable through VR1



Page 3

	Comments: AliExpress module	Company: FR	Variant: CHECKED	Git Hash: 37228d3
	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



## [4] Revision History

	1	2	3	4	5	6																							
A	<b>Version 1.0.0 - 2025-12-19</b> <hr/> <p>First issue Schematic capture complete, except for parts: - not populated (D2, C9); - with unreadable or absent markings (F1, D4, R9); Best guess: - F1: ~5 A - D4: ~500 mA x 600 V - R9: 10-100 mΩ</p> <p>&lt;!--</p>					A																							
B						B																							
C						C																							
D			<table border="1"><tr><td></td><td><b>Comments:</b> "Comment 1" "Comment 2" "Comment 3" "Comment 4"</td><td><b>Company:</b> <b>FR</b></td><td><b>Variant:</b> CHECKED</td><td><b>Git Hash:</b> 37228d3</td></tr><tr><td></td><td></td><td><b>Board Name:</b> <b>Module</b></td><td colspan="3"><b>Project Name:</b> <b>Step-up module 12:450 V</b></td></tr><tr><td></td><td><b>Sheet Title:</b> Revision History</td><td><b>File Name:</b> Revision History.kicad_sch</td><td><b>Designer:</b> FR</td><td><b>Date:</b> 2025-01-12</td><td><b>Revision:</b> + (Unreleased)</td><td>D</td></tr><tr><td></td><td><b>Sheet Path:</b> /Revision History/</td><td></td><td><b>Reviewer:</b> NA</td><td><b>Size:</b> <b>A4</b></td><td><b>Sheet:</b> <b>4 of 4</b></td></tr></table>		<b>Comments:</b> "Comment 1" "Comment 2" "Comment 3" "Comment 4"	<b>Company:</b> <b>FR</b>	<b>Variant:</b> CHECKED	<b>Git Hash:</b> 37228d3			<b>Board Name:</b> <b>Module</b>	<b>Project Name:</b> <b>Step-up module 12:450 V</b>				<b>Sheet Title:</b> Revision History	<b>File Name:</b> Revision History.kicad_sch	<b>Designer:</b> FR	<b>Date:</b> 2025-01-12	<b>Revision:</b> + (Unreleased)	D		<b>Sheet Path:</b> /Revision History/		<b>Reviewer:</b> NA	<b>Size:</b> <b>A4</b>	<b>Sheet:</b> <b>4 of 4</b>		
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