This document presents the possible solution for the final prototype of the converter.

A possible solution will be a middle board between the already developed board and the new board:

1. Consider there the isolation part
2. DC/DC 6W 5V (in: 18 V to 36 V): <https://pt.mouser.com/ProductDetail/MEAN-WELL/SCWN06B-05?qs=sGAEpiMZZMvGsmoEFRKS8Koqt8Pjkl39JIdT15fGtVh11lKOddBtTg%3D%3D>
3. DC/DC 6W 15V (in: 18 V to 36 V): <https://pt.mouser.com/ProductDetail/MEAN-WELL/SCWN06B-15?qs=sGAEpiMZZMvGsmoEFRKS8Koqt8Pjkl39xmHW5abjk4%252BK%2FtWfcWRL5Q%3D%3D>
4. Considerar o seguinte amplificador de isolamento para medir a temperatura do termistor e a tensão do barramento DC:
   1. <http://www.ti.com/product/AMC1211-Q1>
5. Atuar relés com dual gate drivers (0,76€):
   1. Relés: Mouser No:653-G6DN-1A-SL-DC5
   2. <https://eu.mouser.com/ProductDetail/Microchip-Technology-Micrel/MIC4126YME?qs=sGAEpiMZZMv0DJfhVcWlK6a5JEW3DZhsFXN%252Bnyv8qD0%3D>
6. Usar isolador digital
7. Usar individual gate drivers (0,864€):
   1. <https://eu.mouser.com/ProductDetail/Microchip-Technology-Micrel/MIC44F18YMME?qs=sGAEpiMZZMvQcoNRkxSQkhw4FYdqpzaLcGKPBtvQWFY%3D>
   2. A tensão de alimentação tem de ser, no máximo, 10V
   3. Corrigido para o seguinte integrado:
   4. <https://eu.mouser.com/ProductDetail/IXYS/IX4340NETR?qs=sGAEpiMZZMv0DJfhVcWlKwu1gJoGdPFT1Ass75rrQKd0prQ%2FIC0rUQ%3D%3D>
   5. Circuito lógico para um dos braços: <https://circuitverse.org/users/14109/projects/41676>
   6. Necessárias 15 nand gates
8. Necessário uma fonte de 5V para o XMC4500 (24->5V não isolada)
9. Necessária uma fonte não isolada 15v-5v para alimentar o circuito de 5V do IPM
10. Necessário manter o circuito de drive, sem enables, com uma resistência no braço superior de 0ohm que permita ligar o sinal de gate do transistor de cima à massa

