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USE OF A HIGH-VOLTAGE REFRIGERATION CIRCUIT FOR THE OPERATION OF A REFRIGERATOR / FREEZER

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USE OF A HIGH-VOLTAGE REFRIGERATION CIRCUIT FOR THE OPERATION OF A REFRIGERATOR / FREEZER

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Technical task:

The object of the technical innovation is to provide an already existing high-voltage refrigeration circuit for the operation of a refrigerator/ freezer in motor vehicles.

Initial situation:

Today, refrigerators are used in motor vehicles which require their own cooling circuit for operation.

Solution:

The technical innovation describes the use of an existing high-voltage electric air-conditioning compressor for the operation of refrigerators or freezers in motor vehicles.

Advantages:

- Great cooling performance due to the large air-conditioning compressor already present in the BEV or hybrid vehicle for cooling the interior and the battery cooling on the other hand. This does not require any additional effort since the air conditioning compressor has sufficient capacity for the refrigeration compartment.
- Large HV batteries are used for BEVs, so the cooling capacity can be provided for a very long time and the cooling capacity can be maintained even when the system is at a standstill.
- Cost savings through the use of the existing climate compressor.
- If the refrigerator / freezer is installed in the front of the vehicle, short cable routes can be realized.

Possible application:

- Operation of refrigerators or freezers in motor vehicles with HV batteries.

Technical innovation

