

Title (en)  
AN APPARATUS FOR CONVERTING ALTERNATING VOLTAGE INTO DIRECT VOLTAGE

Title (de)  
VORRICHTUNG ZUM UMSETZEN EINER WECHSELSPANNUNG IN GLEICHSPANNUNG

Title (fr)  
APPAREIL PERMETTANT DE CONVERTIR UNE TENSION ALTERNATIVE EN TENSION DIRECTE

Publication  
**EP 1338083 A1 20030827 (EN)**

Application  
**EP 01976990 A 20011017**

Priority  
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• SE 0004028 A 20001106

Abstract (en)  
[origin: WO0237658A1] An apparatus for converting alternating voltage into direct voltage and conversely comprises a VSC-converter arranged between two poles (5, 6), a positive and a negative, of a direct voltage side of the apparatus and having a series connection of at least four units (1-4) each comprising a semiconductor device (10-13) of turn-off type and a diode (14-17) connected in anti-parallel therewith, an alternating voltage phase line (20) connected to a first midpoint (18), called phase out-put, of the series connection between two units while dividing the series connection in two equal parts, in which the two poles of the direct voltage side are put on substantially the same voltage but with opposite signs with respect to a zero voltage level of the direct voltage side. The apparatus has also a second midpoint (29) between two said units of one part of the series connection and which is through a flying capacitor (28) connected to a second midpoint of a second part of the series connection corresponding to the second midpoint first mentioned with respect to the phase output. Each second midpoint is connected to ground through a rectifying member (31, 32) each with the rectifying member connected to the second midpoint closest to the positive pole with a conducting direction from ground to the second midpoint and with the rectifying member connected to the second midpoint closest to the negative pole with the conducting direction from the second midpoint to ground.

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**H02M 7/48**

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