

Title (en)  
STAND-UP UMBRELLA WITH A SPRING-REINFORCED OPENING DEVICE

Title (de)  
STANDSCHIRM MIT FEDERUNTERSTÜTZTER AUFSPANNVORRICHTUNG

Title (fr)  
PARASOL COMPORTANT UN DISPOSITIF D'OUVERTURE ASSISTE PAR RESSORT

Publication  
**EP 1077621 A1 20010228 (DE)**

Application  
**EP 00906122 A 20000303**

Priority  
• CH 0000122 W 20000303  
• CH 44499 A 19990310  
• CH 87999 A 19990510

Abstract (en)  
[origin: CH689752A5] The inventive stand-up umbrella consists of a standing pole (1) and an umbrella structure consisting of roof ribs (3) which are linked to a stationary end crown (2) and which are supported by support ribs (5). Said support ribs are linked to the roof ribs (3) by their top end and to a running crown (4), which is displaceable on the standing pole (1), by their bottom end. A pneumatic or steel draw spring (6) is located between the end crown (2) or the top end area of the roof ribs (3) near the end crown (2) and the outer area of the support ribs (5), respectively. These draw springs (6) perform a reinforcing function when the umbrella is being opened and a braking, damping function when it is being closed.

IPC 1-7  
**A45B 23/00**; **A45B 25/16**

IPC 8 full level  
**A45B 23/00** (2006.01); **A45B 25/16** (2006.01)

CPC (source: EP)  
**A45B 23/00** (2013.01); **A45B 25/16** (2013.01); **A45B 2023/0012** (2013.01)

Citation (search report)  
See references of WO 0053051A1

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