

Title (en)  
Automatic starter for engine

Title (de)  
Automatische Startvorrichtung für Brennkraftmaschine

Title (fr)  
Starter automatique pour moteur

Publication  
**EP 0693620 B1 20020102 (EN)**

Application  
**EP 95107919 A 19950523**

Priority  
JP 17088694 A 19940722

Abstract (en)  
[origin: EP0693620A2] The present disclosure concerns an improved automatic starter for an engine designed to make a compact construction with fewer parts by eliminating a conventional thermally insulating cover and to enable smooth re-starting of the engine. The automatic starter comprises a case body 1 in which a heating means E having a thermo-element T with a piston 7b moving with thermal expansion and contraction of a thermally expanding unit Ta is housed to regulate fuel supply for stable arrangement and electric contact of the parts. The case body 1 is formed with a hollow 6 to divide the wall of the case body into an inner wall 4 and an outer wall 3 for thermal insulation and the hollow 6 can be filled with a thermally insulating material for excellent thermal insulation. <MATH>

IPC 1-7  
**F02M 1/12**

IPC 8 full level  
**F02M 1/12** (2006.01)

CPC (source: EP)  
**F02M 1/12** (2013.01)

Cited by  
EP1188921A3

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**EP 0693620 A2 19960124; EP 0693620 A3 19970716; EP 0693620 B1 20020102; CN 1072768 C 20011010; CN 1118040 A 19960306;**  
DE 69524821 D1 20020207; DE 69524821 T2 20020829; JP H0828355 A 19960130; KR 100301953 B1 20011122; TW 284828 B 19960901

DOCDB simple family (application)  
**EP 95107919 A 19950523; CN 95106646 A 19950530; DE 69524821 T 19950523; JP 17088694 A 19940722; KR 19950013887 A 19950530;**  
TW 84105228 A 19950524