

Title (en)  
COMPACT ELECTRIC CAM PHASER

Title (de)  
KOMPAKTER ELEKTRISCHER NOCKENVERSTELLER

Title (fr)  
DISPOSITIF DE MISE EN PHASE DE CAME ÉLECTRIQUE COMPACT

Publication  
**EP 2373875 A1 20111012 (EN)**

Application  
**EP 09799789 A 20091208**

Priority  
• US 2009067070 W 20091208  
• US 12169408 P 20081211

Abstract (en)  
[origin: WO2010068613A1] An electric cam phaser (ECP) for a camshaft of an internal combustion engine includes an axial flux electric machine (13) which is axially integrated with a positive differential gear train (12), and which is capable of providing frictional locking. The differential gear train (12) has three co-axial relatable branches. The first branch is connected to an input shaft (11), the second to the output shaft (14), and the third is integrated with a rotor (24) of the electric machine (13). The third branch is the control branch through which the differential gear train (12) can be unlocked from a neutral or "locked" mode of operation during phase adjustment by applying either a resistive torque in a second mode of operation, or a driving torque in a third mode of operation, through the electric machine (13) to the control branch.

IPC 8 full level  
**F01L 1/352** (2006.01)

CPC (source: EP KR)  
**F01L 1/344** (2013.01 - KR); **F01L 1/352** (2013.01 - EP KR)

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