

Title (en)  
SURGE CONTROL SYSTEMS AND METHODS FOR DYNAMIC COMPRESSORS

Title (de)  
SYSTEME UND VERFAHREN ZUR PUMPSTEUERUNG FÜR DYNAMISCHE VERDICHTER

Title (fr)  
SYSTÈMES ET PROCÉDÉS DE RÉGULATION DE POMPAGE POUR COMPRESSEURS DYNAMIQUES

Publication  
**EP 4249753 A2 20230927 (EN)**

Application  
**EP 23179640 A 20211210**

Priority  
• US 202017247724 A 20201221  
• US 202017247725 A 20201221  
• EP 21840285 A 20211210  
• US 2021062800 W 20211210

Abstract (en)  
A system includes a dynamic compressor, a variable frequency drive (VFD), and a controller. The dynamic compressor includes a motor having a driveshaft rotatably supported within the dynamic compressor, and a compression mechanism connected to the driveshaft and operable to compress a working fluid upon rotation of the driveshaft. The VFD includes a sensor configured to sense a current provided to the motor. The controller is connected to the motor and includes a processor and a memory. The memory stores instructions that program the processor to operate the motor using the VFD to compress the working fluid, determine when surge events have occurred, store in the memory an indication of each determined surge event, and determine whether or not to take protective action when the processor determines that a surge event has occurred.

IPC 8 full level  
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