



(19) **United States**

(12) **Patent Application Publication**  
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(10) **Pub. No.: US 2012/0194313 A1**

(43) **Pub. Date: Aug. 2, 2012**

(54) **AC POWER CONDITIONING CIRCUIT**

(52) **U.S. Cl. .... 336/170**

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(57) **ABSTRACT**

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A multi-coil choke for an AC power conditioner includes a magnetic core having first, second and third parallel legs. A first coil wrapped around the first leg terminates in first and second leads at respective ends. A second coil wrapped around the second leg terminates in first and second leads at respective ends. A third coil wrapped around the third leg terminates in first and second leads at respective ends. A fourth coil is formed from a proximal portion of the second lead of said first coil. The fourth coil is wrapped around a proximal portion of the second lead of the third coil. A fifth coil is formed from a proximal portion of the second lead of the third coil. The fifth coil is wrapped around a distal portion of the second lead of the first coil. AC power conditioners using one or more such chokes are also disclosed.

(21) **Appl. No.: 13/015,694**

(22) **Filed: Jan. 28, 2011**

**Publication Classification**

(51) **Int. Cl. H01F 27/28 (2006.01)**

