Title (en)

ELECTRICAL APPARATUS AND CONTROL SYSTEM

Title (de)

ELEKTRISCHE VORRICHTUNG UND STEUERUNGSSYSTEM DAFÜR

Title (fr)

APPAREIL ÉLECTRIQUE ET SYSTÈME DE CONTRÔLE

Publication

EP 2697904 A4 20151202 (EN)

Application

EP 12771634 A 20120411

Priority

- US 201161475336 P 20110414
- US 2012033009 W 20120411

Abstract (en)

[origin: WO2012142082A1] A system receives power from a power grid, has a variable frequency AC drive has an output connected to an AC motor, and an input connected to the grid. The motor is connected with a load, and the drive includes an active converter having a maximum apparent power capacity. The converter is coupled to a controller programmed to regulate reactive power generation and consumption of the drive so that the drive produces reactive power which is fed to the grid when the converter is utilizing less than maximum apparent power capacity. A device calculates power factor, which is fedback to a controller that generates a reference signal to control the system's power factor. The controller is programmed to respond to the signal, so that the apparent power does not exceed the maximum capacity of the converter and avoids generating reactive power thats result in a leading power factor.

IPC 8 full level

H02J 3/18 (2006.01); **H02M 1/42** (2007.01)

CPC (source: EP US)

H02J 3/1821 (2013.01 - EP US); **H02M 1/4233** (2013.01 - EP US); **H02P 23/26** (2016.02 - EP); Y02B 70/10 (2013.01 - EP); Y02E 40/30 (2013.01 - EP)

Citation (search report)

- [XI] EP 1394920 A1 20040303 - VACON OYJ [FI]
- [XI] US 2004201354 A1 20041014 - HOLDEN STEVEN J [US]
- [A] US 2009243398 A1 20091001 - YOHANAN TOM G [US], et al
- [X] DE 19653182 A1 19980625 - SIEMENS AG [DE]
- See references of WO 2012142082A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2012142082 A1 20121018; AU 2012242967 A1 20131031; BR 112013026470 A2 20161220; CA 2832888 A1 20131018; EP 2697904 A1 20140219; EP 2697904 A4 20151202

DOCDB simple family (application)

US 2012033009 W 20120411; AU 2012242967 A 20120411; BR 112013026470 A 20120411; CA 2832888 A 20120411; EP 12771634 A 20120411