

Title (en)

METHODS OF AND SYSTEM FOR REDUCING SPATTER IN A PULSE ARC WELDING PROCESS

Title (de)

VERFAHREN UND SYSTEM ZUR VERRINGERUNG VON SCHWEISSSPRITZERN BEI EINEM IMPULSLICHTBOGENSCHWEISSVERFAHREN

Title (fr)

PROCÉDÉ POUR COMMANDER UN SYSTÈME DE SOUDAGE À L'ARC POUR RÉDUIRE LA PROJECTION

Publication

EP 2629918 A2 20130828 (EN)

Application

EP 11817485 A 20111024

Priority

- US 201113267153 A 20111006
- US 41300710 P 20101112
- US 40589510 P 20101022
- IB 2011002532 W 20111024

Abstract (en)

[origin: WO2012052839A2] An electric arc welder and a method for performing a pulse welding process producing reduced spatter. The welder produces a current between an advancing electrode and a work- piece. The welder includes a short-detecting capability for detecting a short condition upon occurrence of a short circuit between the advancing electrode and the workpiece. The welder may also include a switching module in the welding circuit path of the welder having an electrical switch and a resistive path. Times of occurrence of short intervals can be tracked and a blanking signal can be generated based on the tracked short intervals to anticipate a next short interval in a next pulse period of the pulsed welding process. The blanking signal can be used to reduce a welding current in the welding circuit path by introducing additional resistance into the welding circuit path via the switching module, or by controlling a portion of a waveform of the welding process during the blanking interval.

IPC 8 full level

B23K 9/09 (2006.01); **B23K 9/095** (2006.01); **B23K 9/10** (2006.01)

CPC (source: EP US)

B23K 9/091 (2013.01 - EP US); **B23K 9/095** (2013.01 - EP US); **B23K 9/1043** (2013.01 - EP US)

Citation (search report)

See references of WO 2012052839A2

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 2012052839 A2 20120426; **WO 2012052839 A3 20121115**; CA 2815440 A1 20120426; CN 103269822 A 20130828; DE 202011110683 U1 20150909; EP 2629918 A2 20130828; JP 2013541422 A 20131114; JP 5710011 B2 20150430; MX 2013004477 A 20131028

DOCDB simple family (application)

IB 2011002532 W 20111024; CA 2815440 A 20111024; CN 201180062536 A 20111024; DE 202011110683 U 20111024; EP 11817485 A 20111024; JP 2013534403 A 20111024; MX 2013004477 A 20111024