

Title (en)

TWO-WIRE ELECTRONIC SWITCH AND DIMMER

Title (de)

ELEKTRONISCHER ZWEIDRAHT-SCHALTER UND DIMMER

Title (fr)

COMMUTATEUR ÉLECTRONIQUE À DEUX FILS ET GRADATEUR

Publication

EP 4107849 A4 20231108 (EN)

Application

EP 20948548 A 20200805

Priority

US 2020044930 W 20200805

Abstract (en)

[origin: WO2022031276A1] A bidirectional switch and dimmer for the control of power from an AC source to a load is described. The approach uses power MOSFETs in a bidirectional switch subcircuit configuration that includes a floating AC/DC power supply and a solid state double pole switch that alternates between connection of the AC source to the load and periodic connection of the AC source to the AC/DC power supply. The switch and dimmer circuit configuration allows insertion into an existing single-phase circuit using only two wires. The design allows for manufacturing the entire circuit on a single chip.

IPC 8 full level

H03K 17/06 (2006.01); **H02M 5/00** (2006.01); **H02M 5/293** (2006.01); **H02M 7/00** (2006.01); **H02M 7/217** (2006.01); **H03K 17/687** (2006.01); **H05B 39/08** (2006.01)

CPC (source: EP KR US)

H02M 1/0006 (2021.05 - EP US); **H02M 1/0067** (2021.05 - US); **H02M 1/08** (2013.01 - KR); **H02M 5/2932** (2021.05 - EP); **H02M 7/217** (2013.01 - KR US); **H02P 27/08** (2013.01 - KR); **H02P 29/00** (2013.01 - US); **H03K 17/063** (2013.01 - EP); **H03K 17/6874** (2013.01 - EP); **H03K 17/693** (2013.01 - KR); **H03K 17/725** (2013.01 - KR); **H05B 45/10** (2020.01 - US); **H05B 45/315** (2020.01 - EP); **H05B 45/3725** (2020.01 - US); **H05B 45/50** (2020.01 - US); **H05B 47/10** (2020.01 - KR); **H03K 2217/0009** (2013.01 - EP); **H03K 2217/0081** (2013.01 - EP)

Citation (search report)

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- [XI] US 2019116651 A1 20190418 - LINNARTZ JOHAN-PAUL MARIE GERARD [NL], et al
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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 2022031276 A1 20220210; CN 115668735 A 20230131; EP 4107849 A1 20221228; EP 4107849 A4 20231108; JP 2023525754 A 20230619; KR 20230008868 A 20230116; US 11870364 B2 20240109; US 2022311350 A1 20220929; US 2022416681 A1 20221229

DOCDB simple family (application)

US 2020044930 W 20200805; CN 202080100015 A 20200805; EP 20948548 A 20200805; JP 2022567875 A 20200805; KR 20227043357 A 20200805; US 202017596415 A 20200805; US 202217930597 A 20220908