

Title (en)

SYSTEM AND METHOD FOR SUPPLYING DECENTRALIZED FUNCTIONAL UNITS WITH ELECTRICAL ENERGY

Title (de)

SYSTEM UND VERFAHREN ZUM VERSORGEN VON DEZENTRALEN FUNKTIONSEINHEITEN MIT ELEKTRISCHER ENERGIE

Title (fr)

SYSTÈME ET PROCÉDÉ D'ALIMENTATION ÉLECTRIQUE D'UNITÉS FONCTIONNELLES DÉCENTRALISÉES

Publication

EP 3313709 A1 20180502 (DE)

Application

EP 16722583 A 20160502

Priority

- EP 15173810 A 20150625
- EP 2016059772 W 20160502

Abstract (en)

[origin: WO2016206842A1] The invention relates to a system and to a method for supplying decentralized functional units (E) arranged in an industrial installation with electrical energy, wherein: a) a superordinate control system (STW) is provided, which exchanges information with the decentralized functional units (E) by means of data telegrams via a data bus (CB, NB1, NB2), b) network node units (SND) are arranged sequentially between two feed points (PS1, PS2) of an energy bus (EB) having a ring-like structure, which network node units provide the decentralized functional units (E) with the access to the energy bus (EB) and optionally to the data bus (CB), c) the network node units (SND) have a controllable switching module (S), which comprises a first switch (S1) and a second switch (S2), wherein each switch (S1, S2) can be used to switch access to one of the two feed points (PS1, PS2), d) the first switch (S1) and/or the second switch (S2) is selectively opened and a voltage dropping across the inputs of the energy bus into the network node unit can be measured; and e) an evaluating module (CPU, SL) is provided, which evaluates the measured voltage within a network node unit (SND) and/or among adjacent network node units (SND) for an interruption of the energy bus (EB) and/or a faulty switching module (S).

IPC 8 full level

B61L 19/06 (2006.01); **B61L 27/00** (2006.01)

CPC (source: EP)

B61L 19/06 (2013.01); **B61L 27/70** (2022.01)

Citation (search report)

See references of WO 2016206842A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3109125 A1 20161228; EP 3313709 A1 20180502; EP 3313709 B1 20190626; WO 2016206842 A1 20161229

DOCDB simple family (application)

EP 15173810 A 20150625; EP 16722583 A 20160502; EP 2016059772 W 20160502