

Hybridní ohřivače vody LOGITEX

- Patentovaný vynález
- Ohřev vody pomocí FV panelů
- Schopnost přesměrování vyrobeného DC proudu dál z bojleru na druhý bojler, měnič, ...
- Systém dokáže efektivně rozdělit vyrobenou energii do celého dne pomocí bezpotencionálního připojení
- Možnost ohřevu vody současně AC + DC proudem, nebo pouze DC a AC vypnout



Velké nádrže LX ACDC od 300l-2000l

- na ohřev pitné vody: max.1 – 6kW DC
- akumulční nádrže: max.1 – 18kW DC

Použitelnost jen s přírubou 210/12

- 1- 6kW DC
- 1-4kW DC



DC Topení

LOGITEX®

FOTOVOLTAICKÉ SÁLAVÉ KÚRENIE

PARAMETRE

TEPELNÝ VÝKON TELESÁ

označenie	maximálny tepelný výkon	počet zárelkov
A	1100 W	5 ks
B	1500 W	6 ks
C	2000 W	8 ks

ROZMER TELESÁ

šírka	výška	hlbka
36 mm	73 mm	21 mm

FOTOVOLTAIKA
 2 kW MAXIMÁLNY TEPELNÝ VÝKON
 ČISTÁ ENERGIJA

LOGITEX®

FOTOVOLTAICKÉ PODLAHOVÉ KÚRENIE

PARAMETRE

ECOFLOOR CABEL KIT

označenie	výkon	dĺžka/m	počet panelov
18 F9V11 504	1500 W	13x,00	6 ks
12 F9V12 2004	2000 W	17',50	8 ks

Výkonnosť vodiča, materiál TF, šírka pásu, hĺbka drážky (hot link)
 Použitý materiál 2 x 5 m

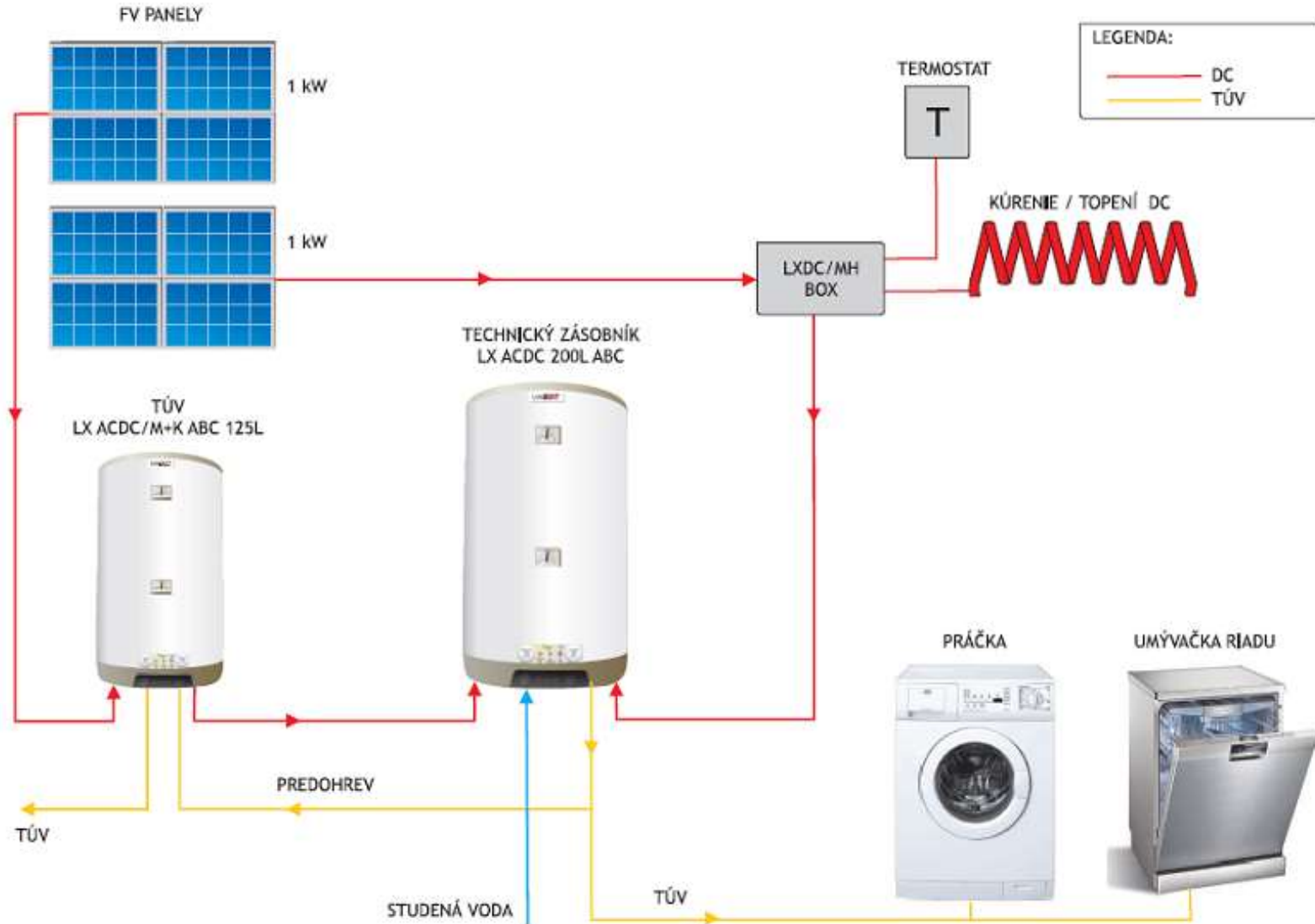
ECOFLOOR MAT SET

označenie	výkon	dĺžka/m	m ²	počet panelov
23 DTS 110/21,1	2000 W	42,2	21,1	8 ks

Výkonnosť vodiča (hĺbka), materiál TF, hĺbka drážky (hot link)
 Použitý materiál 3 x 3 m

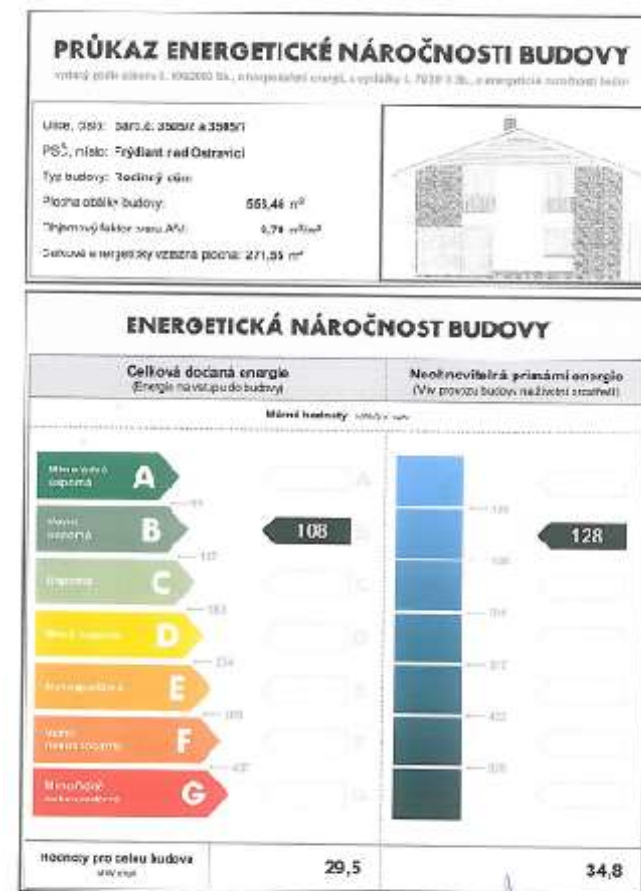
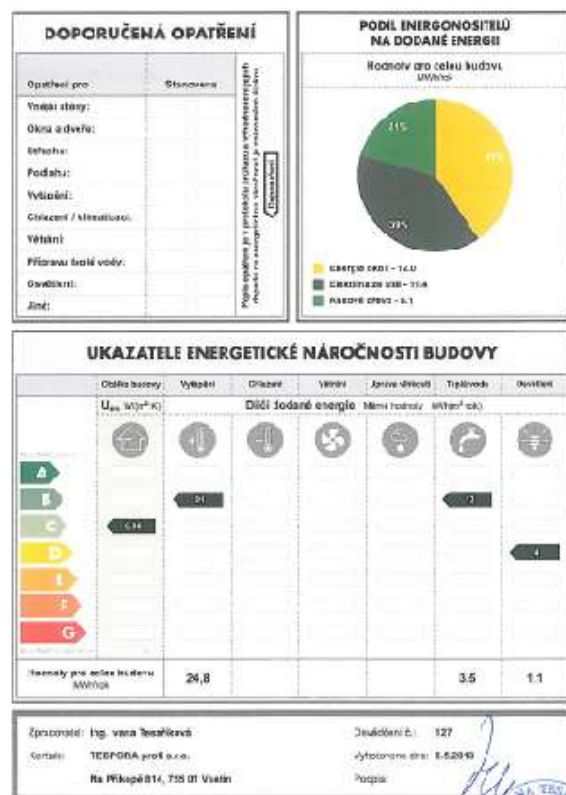
FOTOVOLTAIKA
 2 kW MAXIMÁLNY TEPELNÝ VÝKON
 ČISTÁ ENERGIJA

Schéma využití DC v domě



Příklad nového domu v energetické skupině B

Použitím 4kW FV zdroje (2kW ohřev vody + 2kW topení + ohřev vody) se dům dostal do kategorie A.



Panelák Košice

150 dvoupokojových bytů

+příkon topení 2kW/byt

+1kW FV DC

+LX ACDC/M 125

+kategorie A

-centrální kotelna

-rozvody TUV a topení

-tepelné ztráty

-poměrové rozpočítání tepla

*celková úspora cca 300.000 EUR

*energetické náklady/byt = cca 59 eur/měsíc



Všetín LX 1000 + 50kW WOLF vchod = 12 bytů



Certifikát CE + TÜV



Patent:

+ 43 krajin sveta



CERTIFICATE OF GRANT STANDARD PATENT

2012261605

I, Fatima Beattie, the Commissioner of Patents, certify that the following are the particulars of this patent appearing in the Register of Patents.

Name and Address of Patentee(s):

Daniel Lako

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Name of Actual Inventor(s):

Lako, Daniel

Title of Invention:

Equipment for redirection of electric power in a boiler during regulated water heating by use of direct current gained by photovoltaic panels

Term of Patent:

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Priority Details

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26-2012

Date
8 February 2012

Filed with
SK



Dated this 16th day of January 2014



Fatima Beattie
Commissioner of Patents



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(71) Applicant number: 114889143

(72) Date of filing: 18.06.2011

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(74) Representative: Matzek, Jiri, Karda, Srdzak, Simons, Miroslav s.r.o., 803 68 Olomouc (CZ)

(30) Priority: 26.06.2010 SK 822919 U, 01.10.2010 SK 1422919 U

(84) Device for regulated water heating using the energy gained by photovoltaic cells

(81) The device for regulated water heating using the energy gained by photovoltaic cells, which consists of terminals (X1, X2, X3, X4, X5), where to the terminal (X1) is brought a protective earth (PE), which is then brought to a thermostat (T2), whereas to the terminal (X2) is brought a line conductor (L1) of the alternating current, which is then brought to a normally closed contact (C1) of a thermal fuse (F1) and then the line conductor (L1) is brought to a normally closed contact of a thermostat (T2) and then the line conductor (L1) is brought to a terminal (A1) of a contact (S1), whereas to the terminal (X3) is brought a neutral conductor (N), which is then brought to a normally closed contact (C2) of the thermal fuse (F1) and then the neutral conductor (N) is connected to terminal (A2) of the contact (S1), whereas to the terminal (X4) is brought a conductor (L2) of the direct current, which is then brought to a terminal (1) of a switch of the contact (S1) and then the conductor (L2) is brought from a terminal (B) of a switch of the contact (S1) to an inlet terminal of a heating coil (H2), whereas to the terminal (X5) is brought a conductor (L3) of the direct current, which is then brought to a second inlet terminal of the heating coil (H2).

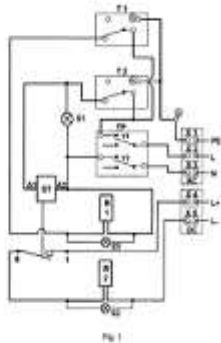


Fig. 1

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(71) Applicant: LAKO, Daniel (SK); Applicant: PUCHOV, 820 81 Puchov (SK)

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Published with international search report and as to designated state except of the applicant (Rule 41.2(a))

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THE FIGURE PRESENTS EQUIPMENT FOR REGULATED WATER HEATING USING DIRECT CURRENT FROM PHOTOVOLTAIC PANELS

(81) Abstract: Direct-current equipment for boiler used water heating using direct current from photovoltaic panels consists of two contacts (C1, C2), a thermal fuse (F1), thermostat (T2), heating element (H1), two signal devices (S1, S2) and wiring system (X1, X2, X3, X4, X5, X6, X7). The equipment can be used as well as alternating (AC) current. The positive ends of the direct-current power source (DC) is directed to the main terminals of the thermostat (T1, T2). Connected ends are used to connect the direct current (DC) between distributors (S1, S2). Signal ends are provided by thermostat (AC) which power through the thermostat (C1) and the thermal fuse (C2) before reaching the coils.



US008536495B2

(12) United States Patent Lako

(10) Patent No.: US 8,536,495 B2 (43) Date of Patent: Sep. 17, 2013

(54) DEVICE FOR REGULATED WATER HEATING USING THE ENERGY GAINED BY PHOTOVOLTAIC CELLS

(76) Inventor: Daniel Lako, Puchov (SK)

(71) Applicant: Lako, Daniel (SK); Applicant: PUCHOV, 820 81 Puchov (SK)

(21) Appl. No.: 13/172,057 (22) Filed: Jun. 29, 2011

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(58) Field of Classification Search: CPC: 219/494, 497, 501, 505, 507, 508, 502/498, 497

See application file for complete search history.

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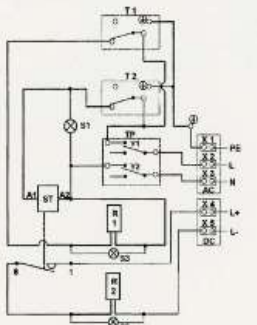
References Cited: U.S. PATENT DOCUMENTS: 7,736,671 B1 * 4/2010 Brown 8,215,987 B2 * 8/2012 Hernandez et al. 2003/0066491 A1 * 3/2003 Kolyer et al. 2010/032258 A1 * 6/2010 Firoa 2012/0187106 A1 * 7/2012 Ashksay

Primary Examiner: Mark Paschall (74) Attorney, Agent, or Firm: Blank Rome LLP

(57) ABSTRACT

Direct current power gained by photovoltaic cells can be used for heating water in a boiler. Simple installation allows use for domestic or industrial purposes, with a minimal impact to building construction. At the time of lack of sunlight intensity, water heating is provided by gas, or other heating source, or by use of a heating coil supplied by alternating current for the heating. When sunlight intensity is high, the photovoltaic cells of the present invention can be used alone. However, the source of the direct current has to be properly dimensioned in accordance with the volume of the boiler. An output (1 kWh) of the source of the direct current gained by photovoltaic cells can be used to heat water of a volume of 100 L.

5 Claims, 1 Drawing Sheet



Děkujeme za pozornost