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EEI ASSURANCE

№DI-132/02.05.2023

Регламент/Regulation (EU) 2015/1187

Product: Pyrolysis solid fuel boiler with manual loading
Manufacturer: „Mareli Systems” Ltd
Model: LCG 22
Requested by: „Mareli Systems” Ltd
Sofia, Lyulin district, bl. 821, ap.1

Stoking principle: manual loading
Test Fuel: Seasonal beech wood. Test report for the fuel № 10648/31.08.2022
Test procedure: EN 303 – 5:2012
Test report no: 037/28.03.2023 г.

Fixed values:

F (1)	Deduction regarding temperature controls	3 [%]
CC	Conversion coefficient for electricity consumption	2.5 [-]
BLF	Biomass label factor	1.45 [-]

Test results:

$\eta_{k \text{ nominal}}$	Efficiency at nominal heat output	91.80 [%]
$\eta_{k \text{ minimum}}$	Efficiency at minimum heat output	94.92 [%]
M	Test fuel, moisture	11.78 [%]
GCV_{mf}	Test fuel, gross calorific value, moisture free	19.66 [MJ/kg]
H_{iw}	Test fuel, net heating value, with moisture	15.96 [MJ/kg]
H_{iwf}	Test fuel, net heating value, moisture free	17.34 [MJ/kg]
el_{max}	Electricity consumption at nominal heat output	0.075 [kW]
el_{min}	Electricity consumption at minimum heat output	0.026 [kW]
P_{SB}	Electricity consumption in standby mode	0.002 [kW]
P_n	Nominal heat output	22.67 [kW]
P_p	Minimum heat output	10.79 [kW]

Calculations

η_n	Efficiency at nominal output	84.49 [%]
η_p	Efficiency at reduced output	87.37 [%]
$\eta_{el,n}$	Electrical efficiency of solid fuel cogeneration boiler	0.00 [%]
η_{son}	Seasonal space heating energy efficiency in active mode	86.94 [%]
η_s	Seasonal space heating energy efficiency	83.22 [%]
F(2)	Auxiliary electricity consumption	0.0071 n/a
F(3)	Electrical efficiency of solid fuel cogeneration boilers	0.0000 n/a

Calculation of the Energy Efficiency index:

Energy Efficiency:	122.34
Energy Efficiency class:	A+
Energy Efficiency index (EEI)	$98 \leq EEI < 125$

Изготвил:

M. Василева

Manager:

/M. Sc. L. Vasilev /

