



"ITEM Consult" Ltd. Sofia 1220,
8 Istoria Slavianobulgarska Blvd

EEI ASSURANCE

№DI-201/08.04.2024

Регламент/Regulation (EU) 2015/1187

Product: Boiler for local heating with a pellet burner
Manufacturer: „Mareli Systems“ Ltd
Model: SBN 8
Reseller: FERROLI POLAND SP. Z.O.O.
Address: Al. W. Korfantego 138, 40-156 Katowice, POLAND
Trade name: BIOPELLET PRO 8 kW
Stoking principle: automatic charging
Test Fuel: pellets Ø 6, cl. A. Test report for the fuel № 14124/26.04.2023
Test procedure: EN 303-5:2021+A1:2022
Test report no: 068/19.02.2024 r. Rev.1 No DI-197/08.04.24

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	93.81 [%]
$\eta_{k \text{ minimum}}$	Efficiency at minimum heat output	95.77 [%]
M	Test fuel, moisture	3.76 [%]
GCV _{mf}	Test fuel, gross calorific value, moisture free	20.61 [MJ/kg]
H _{iw}	Test fuel, net heating value, with moisture	18.53 [MJ/kg]
H _{iwf}	Test fuel, net heating value, moisture free	19.84 [MJ/kg]
e _{l max}	Electricity consumption at nominal heat output	0.06 [kW]
e _{l min}	Electricity consumption at minimum heat output	0.025 [kW]
P _{SB}	Electricity consumption in standby mode	0.001 [kW]
P _n	Nominal heat output	8.15 [kW]
P _p	Minimum heat output	2.38 [kW]

Calculations

η_n	Efficiency at nominal output	87.62 [%]
η_p	Efficiency at reduced output	89.45 [%]
$\eta_{el,n}$	Electrical efficiency of solid fuel cogeneration boiler	0.00 [%]
$\eta_{s,act}$	Seasonal space heating energy efficiency in active mode	89.17 [%]
η_s	Seasonal space heating energy efficiency	83.74 [%]
F(2)	Auxiliary electricity consumption	0.0243 n/a
F(3)	Electrical efficiency of solid fuel cogeneration boilers	0.0000 n/a

Calculation of the Energy Efficiency index:

Energy Efficiency:	123.87
Energy Efficiency class:	A+
Energy Efficiency index (EEI)	98 ≤ EEI < 125

Prepared by:

M. Vasileva

Manager:

/M. Sc. L. Vasilev /

