



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

EEI ASSURANCE

№DI-458/05.12.2023

Регламент/Regulation (EU) 2015/1187

Product: Solid fuel water boiler (pellets) with automatic charging
Manufacturer: Costruzioni Tecniche Meccaniche S.r.l.
Model: Magikfire Gold 25; CTMMGKGOLD252023
Requested by: Costruzioni Tecniche Meccaniche S.r.l.
Via Cese Nove, s.n.c. – Zona Industriale 82030 San Salvatore Telesino (BN) – ITALIA

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
Test report no: 053/08.09.2023 r.

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	93.67 [%]
$\eta_{k \text{ minimum}}$	Efficiency at minimum heat output	96.83 [%]
M	Test fuel, moisture	11.78 [%]
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]
$e_{l \text{ max}}$	Electricity consumption at nominal heat output	0.137 [kW]
$e_{l \text{ min}}$	Electricity consumption at minimum heat output	0.053 [kW]
P_{SB}	Electricity consumption in standby mode	0.002 [kW]
P_n	Nominal heat output	25.70 [kW]
P_p	Minimum heat output	6.46 [kW]

Calculations

η_n	Efficiency at nominal output	87.49 [%]
η_p	Efficiency at reduced output	90.44 [%]
$\eta_{el,n}$	Electrical efficiency of solid fuel cogeneration boiler	0.00 [%]
η_{son}	Seasonal space heating energy efficiency in active mode	89.99 [%]
η_s	Seasonal space heating energy efficiency	85.17 [%]
F(2)	Auxiliary electricity consumption	0.0182 n/a
F(3)	Electrical efficiency of solid fuel cogeneration boilers	0.0000 n/a

Calculation of the Energy Efficiency index:

Energy Efficiency: 125.67
Energy Efficiency class: A++
Energy Efficiency index (EEI): $125 \leq EEI < 150$

Изготвил:

M. Василева

Manager:

/M. Sc. L. Vasilev /

