



# „ITEM Consult”Ltd

Sofia 1220, 8, Istorica Slavianobulgarska Blvd., Bulgaria

CERTIFICATION, TESTING, SUPERVISION OF DEVICES WITH INCREASED RISK

## ECODESIGN REQUIREMENTS FOR SOLID FUEL BOILERS ACCORDING TO COMMISSION REGULATION (EU) 2015/1189 IMPLEMENTING DIRECTIVE 2009/125/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

№DI-143/02.05.2023

<b>Trade mark:</b>	<b>Mareli Systems Ltd</b>
<b>Model:</b>	<b>LCG 50</b>
<b>Stoking mode:</b>	<b>Pyrolysis solid fuel boiler with manual loading</b>
<b>Condensing boiler:</b>	<b>No</b>
<b>Solid fuel cogeneration boiler:</b>	<b>Combination boiler:</b>

Fuel	Preferred fuel (only one)	Other suitable fuel(s)	$\eta_s$ (%)	Seasonal space heating emissions			
				PM	OGC	CO	NO <sub>x</sub>
				mg/m <sup>3</sup> at 10% O <sub>2</sub>			
Log wood, moisture content ≤25%	yes	no	84	16	5	200	156
Chipped wood, moisture content 15-35%	no	no					
Chipped wood, moisture content >35%	no	no					
Compressed wood in the form of pellets or briquettes	no	no					
Sawdust, moisture content ≤50%	no	no					
Non-woody biomass	no	no					
Bituminous coal	no	no					
Brown coal (including briquettes)	no	no					
Coke	no	no					
Anthracite	no	no					
Blended fossil fuel briquettes	no	no					
Other fossil fuel	no	no					
Blended biomass (30-70%) fossil fuel briquettes	no	no					
Other blend of biomass and fossil fuel	no	no					



# „ITEM Consult”Ltd

Sofia 1220, 8, Istoria Slavianobulgarska Blvd., Bulgaria

CERTIFICATION, TESTING, SUPERVISION OF DEVICES WITH INCREASED RISK

## Characteristics when operating with the preferred fuel only:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Useful heat output				Useful efficiency			
At rated heat output	$P_n$	49.52	kW	At rated heat output	$\eta_n$	84.65	%
At (50%) of rated heat output if it's applicable	$P_p$	23.34	kW	At (50%) of rated output if applicable	$\eta_p$	87.61	%
For solid fuel cogeneration boilers: Electrical efficiency				<b>Auxiliary electricity consumption</b>			
At rated heat output	$\eta_{el,n}$	N.A.	%	At rated heat output	$e_{l,max}$	0.0915	kW
				At (50%) of rated output if applicable	$e_{l,min}$	0.0433	kW
				Of incorporated secondary emission abatement equipment, if applicable		N.A.	kW
				In standby mode	$P_{SB}$	0.003	kW

### CONCLUSION:

Pyrolysis solid fuel boiler with manual loading „LCG 50” MEET THE REQUIREMENTS OF Annex II „Ecodesign Requirements” of REGULATION (EU) 2015/1189

Contact details	Name and address of the manufacturer or its authorised representative
Telephone: +359 888 406 956	“Mareli Systems”Ltd Address: Sofia, Bulgaria, Lyulin district, bl. 821, ap. 1 Telephone: +359 888 406 956

Prepared by:   
/M. Vasileva/

Manager: 

/M. Sc. L. Vasilev/

