

Information for boiler space heaters, boiler combination heaters and cogeneration space heaters

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Model(s):	CTC EcoZenith i350 3x400V				
Condensing boiler:	No	Built in DHW:	NA	Eff class:	D
Low-temperature (***) boiler:	No	Built in DHW:	NA	Controller:	VII
B1 boiler:	No	Built in DHW:	NA	Contribution:	3,5 %
Cogeneration space heater:	No	If yes, equipped with a supplementary heater:	NA	Package η_s :	40%
Electrical boiler	Yes	Built in DHW:	Yes	Package class:	D

Item	Symbol	Value	Unit
Rated heat output	P_{rated}	12	kW
Annual energy consumption	Q_{HE}	22655	kWh
For boiler space heaters and boiler combination heaters: Useful heat output			
At rated heat output and high-temperature regime (*)	P_4	12	kW
At 30 % of rated heat output and low-temperature regime (**)	P_1	NA	kW
For cogeneration space heaters: Useful heat output			
At rated heat output of cogeneration space heater with supplementary heater enabled	$P_{CHP100 + Sup0}$	NA	kW
At rated heat output of cogeneration space heater with supplementary heater enabled	$P_{CHP100 + Sup100}$	NA	kW
For cogeneration space heaters: Electrical efficiency			
At rated heat output of cogeneration space heater with supplementary heater disabled	$\eta_{el,CHP100 + Sup0}$	NA	%
At rated heat output of cogeneration space heater with supplementary heater enabled	$\eta_{el,CHP100 + Sup100}$	NA	%
Auxiliary electricity consumption			
At full load	el_{max}	NA	kW
At part load	el_{min}	NA	kW
In standby mode	P_{SB}	0,011	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	37	%
For boiler space heaters and boiler combination heaters: Useful efficiency			
At rated heat output and high-temperature regime (*)	η_4	39,9	%
At 30 % of rated heat output and low-temperature regime (**)	η_1	NA	%
For cogeneration space heaters: Useful efficiency			
At rated heat output of cogeneration space heater with supplementary heater disabled	$\eta_{CHP100 + Sup0}$	NA	%
At rated heat output of cogeneration space heater with supplementary heater enabled	$\eta_{CHP100 + Sup100}$	NA	%
Supplementary heater			
Rated heat output	P_{sup}	NA	kW
Type of energy input		NA	
Other items			
Standby heat loss	P_{stby}	0,014	kW
Ignition burner power consumption	P_{ign}	NA	kW
Emissions of nitrogen oxides	NO_x	NA	mg/kWh

For combination heaters:			
Declared load profile	XL		
Daily electricity consumption	Q_{elec}	21,248	1,0 kWh
Water heating energy efficiency/Class	$\eta_{wh/Class}$	36/D	%/-
Daily fuel consumption	Q_{fuel}	NA	1,0 kWh

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(*) High-temperature regime means 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet. (**) Low temperature means for condensing boilers 30 °C, for low-temperature boilers 37 °C and for other heaters 50 °C return temperature (at heater inlet).