12 ENERGY CLASSIFICATION

12.1 TECHNICAL PARAMETERS FOR MIXED BOILERS (IN COMPLIANCE WITH REGULATION 813/2013)

The values in the following tables refer to the maximum heating output.

Model(s):			CD 13R				
Condensing boiler:			YES				
Low-temperature boiler:			NO				
B1 boiler:			NO				
Cogeneration space heater:			NO	Equipped with a supplementary heater:			NO
Combination heater:			NO				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	P_n	12	kW	Seasonal space heating energy efficiency	η_s	90	%
For boiler space heaters and boiler combination heaters: useful heat output				For boiler space heaters and boiler combination heaters: Useful efficiency			
At rated heat output and high temperature regime (*)	P_4	12.0	kW	At rated heat output and high temperature regime (*)	η_4	87.7	%
At 30% of rated heat output and low temperature regime (**)	P_1	3.6	kW	At 30% of rated heat output and low temperature regime (**)	η_1	96.4	%
Auxiliary electricity consumption				Other items			
At full load	el_{max}	0.025	kW	Standby heat loss	P_{stby}	0.050	kW
At part load	el_{min}	0.021	kW	Ignition burner power consumption	P_{ign}	0.000	kW
In standby mode	P_{SB}	0.007	kW	Emissions of nitrogen oxides	NO_X	31	mg / kWh
For combination heaters:							
Declared load profile				Water heating energy efficiency	η_{WH}		%
Daily electricity consumption	Q_{elec}		kWh	Daily fuel consumption	Q_{fuel}		kWh
Contact details	Alpha Therm Ltd., Nepicar House, Wrotham Heath, Kent. TN15 7RS						

(*) 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.

Model(s):			CD 18R				
Condensing boiler:			YES				
Low-temperature boiler:			NO				
B1 boiler:			NO				
Cogeneration space heater:			NO	Equipped with a supplementary heater:			NO
Combination heater:			NO				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	P_n	18	kW	Seasonal space heating energy efficiency	η_s	90	%
For boiler space heaters and boiler combination heaters: useful heat output				For boiler space heaters and boiler combination heaters: Useful efficiency			
At rated heat output and high temperature regime (*)	P_4	18.0	kW	At rated heat output and high temperature regime (*)	η_4	88.3	%
At 30% of rated heat output and low temperature regime (**)	P_1	5.4	kW	At 30% of rated heat output and low temperature regime (**)	η_1	95.9	%
Auxiliary electricity consumption				Other items			
At full load	el_{max}	0.033	kW	Standby heat loss	P_{stby}	0.090	kW
At part load	el_{min}	0.022	kW	Ignition burner power consumption	P_{ign}	0.000	kW
In standby mode	P_{SB}	0.007	kW	Emissions of nitrogen oxides	NO_X	33	mg / kWh
For combination heaters:							
Declared load profile				Water heating energy efficiency	η_{WH}		%
Daily electricity consumption	Q_{elec}		kWh	Daily fuel consumption	Q_{fuel}		kWh
Contact details	Alpha Therm Ltd., Nepicar House, Wrotham Heath, Kent. TN15 7RS						

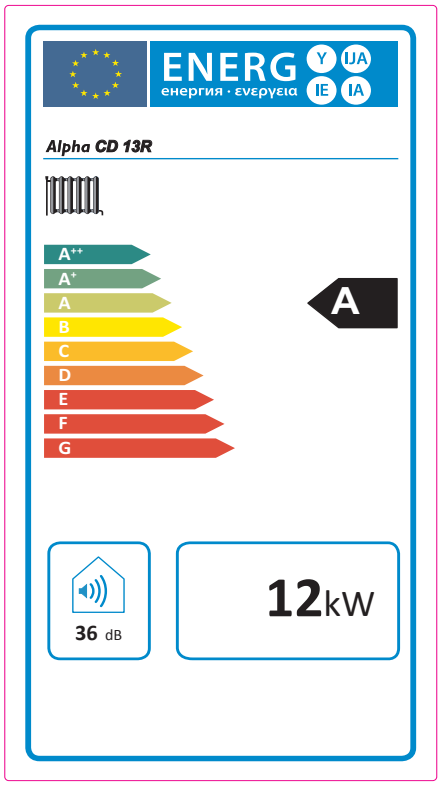
(*) High temperature regime means 60°C return temperature at heater inlet and 80°C feed temperature at heater outlet.
(**) Low temperature means for condensing boilers 30°C, for low-temperature boilers 37°C and for other heaters 50°C return temperature.

Model(s):			CD 24R				
Condensing boiler:			YES				
Low-temperature boiler:			NO				
B1 boiler:			NO				
Cogeneration space heater:			NO	Equipped with a supplementary heater:			NO
Combination heater:			NO				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	P_n	24	kW	Seasonal space heating energy efficiency	η_s	91	%
For boiler space heaters and boiler combination heaters: useful heat output				For boiler space heaters and boiler combination heaters: Useful efficiency			
At rated heat output and high temperature regime (*)	P_4	23.5	kW	At rated heat output and high temperature regime (*)	η_4	88.2	%
At 30% of rated heat output and low temperature regime (**)	P_1	7.1	kW	At 30% of rated heat output and low temperature regime (**)	η_1	96.4	%
Auxiliary electricity consumption				Other items			
At full load	el_{max}	0.040	kW	Standby heat loss	P_{stby}	0.090	kW
At part load	el_{min}	0.023	kW	Ignition burner power consumption	P_{ign}	0.000	kW
In standby mode	P_{SB}	0.007	kW	Emissions of nitrogen oxides	NO_x	29	mg / kWh
For combination heaters:							
Declared load profile				Water heating energy efficiency	η_{WH}		%
Daily electricity consumption	Q_{elec}		kWh	Daily fuel consumption	Q_{fuel}		kWh
Contact details	Alpha Therm Ltd., Nepicar House, Wrotham Heath, Kent. TN15 7RS						

(*) 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.

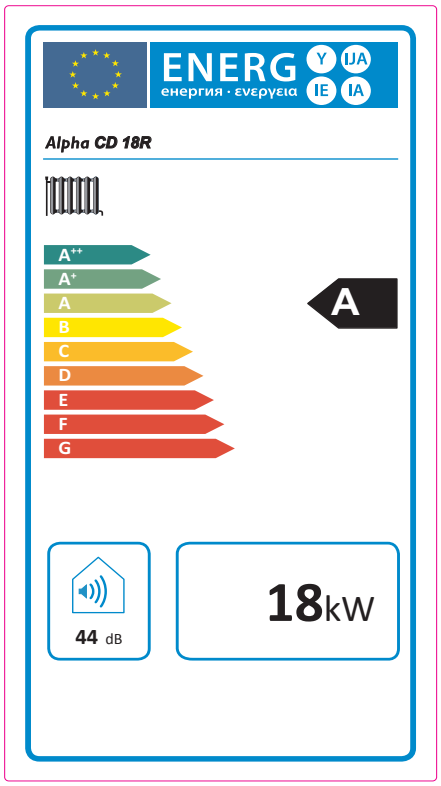
12.2 PRODUCT DATA SHEET (IN COMPLIANCE WITH REGULATION 811/2013)

CD 13R



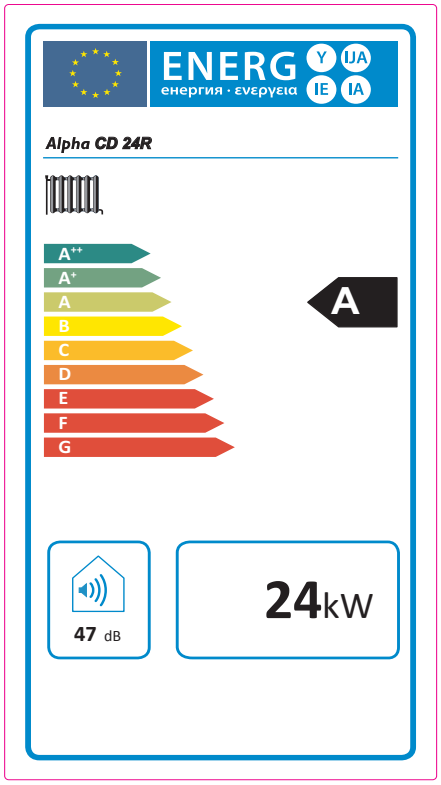
Parameter	Value
Yearly energy consumption for the heating function (QHE)	38.4 GJ
Yearly electricity consumption for the domestic hot water function (AEC)	-
Yearly fuel consumption for the domestic hot water function (AFC)	-
Seasonal room heating yield (ηs)	90 %
Domestic hot water production yield (ηwh)	-

CD 18R



Parameter	Value
Yearly energy consumption for the heating function (QHE)	57.3 GJ
Yearly electricity consumption for the domestic hot water function (AEC)	-
Yearly fuel consumption for the domestic hot water function (AFC)	-
Seasonal room heating yield (ηs)	90 %
Domestic hot water production yield (ηwh)	-

CD 24R



Parameter	Value
Yearly energy consumption for the heating function (QHE)	74.3 GJ
Yearly electricity consumption for the domestic hot water function (AEC)	-
Yearly fuel consumption for the domestic hot water function (AFC)	-
Seasonal room heating yield (ηs)	91 %
Domestic hot water production yield (ηwh)	-