

## 12 ENERGY CLASSIFICATION

### 12.1 TECHNICAL PARAMETERS FOR MIXED BOILERS (IN COMPLIANCE WITH REGULATION 811/2013)

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

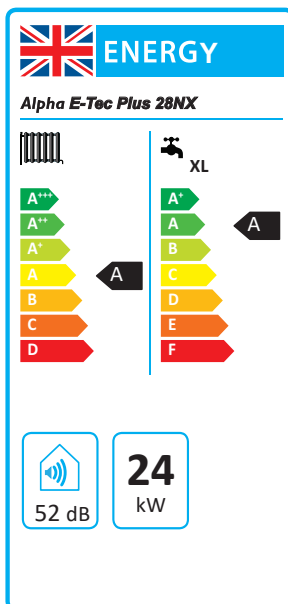
Model(s):				E-Tec Plus 28NX				
Condensing boiler:				YES				
Low-temperature boiler:				NO				
B1 boiler:				NO				
Cogeneration space heater:				NO		Equipped with a supplementary heater:		NO
Combination heater:				YES				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output	$P_n$	24	kW	Seasonal space heating energy efficiency	$\eta_s$	94	%	
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 (*)	$P_4$	24.0	kW	At rated heat output and high temperature regime (*)	$\eta_4$	87.8	%	
At 30% of rated heat output and low temperature regime (**)	$P_1$	8.0	kW	At 30% of rated heat output and low temperature regime (**)	$\eta_1$	98.7	%	
Auxiliary electricity consumption				Other items				
At full load	$el_{max}$	0.012	kW	Standby heat loss	$P_{stby}$	0.054	kW	
At part load	$el_{min}$	0.006	kW	Ignition burner power consumption	$P_{ign}$	0.000	kW	
In standby mode	$P_{SB}$	0.002	kW	Emissions of nitrogen oxides	$NO_x$	35	mg / kWh	
For combination heaters:								
Declared load profile	XL			Water heating energy efficiency	$\eta_{WH}$	87	%	
Daily electricity consumption	$Q_{elec}$	0.109	kWh	Daily fuel consumption	$Q_{fuel}$	22.5	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):				E-Tec Plus 33NX				
Condensing boiler:				YES				
Low-temperature boiler:				NO				
B1 boiler:				NO				
Cogeneration space heater:				NO		Equipped with a supplementary heater:		NO
Combination heater:				YES				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output	$P_n$	28	kW	Seasonal space heating energy efficiency	$\eta_s$	94	%	
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 (*)	$P_4$	28.0	kW	At rated heat output and high temperature regime (*)	$\eta_4$	87.9	%	
At 30% of rated heat output and low temperature regime (**)	$P_1$	9.4	kW	At 30% of rated heat output and low temperature regime (**)	$\eta_1$	98.8	%	
Auxiliary electricity consumption				Other items				
At full load	$el_{max}$	0.013	kW	Standby heat loss	$P_{stby}$	0.054	kW	
At part load	$el_{min}$	0.006	kW	Ignition burner power consumption	$P_{ign}$	0.000	kW	
In standby mode	$P_{SB}$	0.002	kW	Emissions of nitrogen oxides	$NO_x$	31	mg / kWh	
For combination heaters:								
Declared load profile	XL			Water heating energy efficiency	$\eta_{WH}$	87	%	
Daily electricity consumption	$Q_{elec}$	0.120	kWh	Daily fuel consumption	$Q_{fuel}$	22.5	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.								

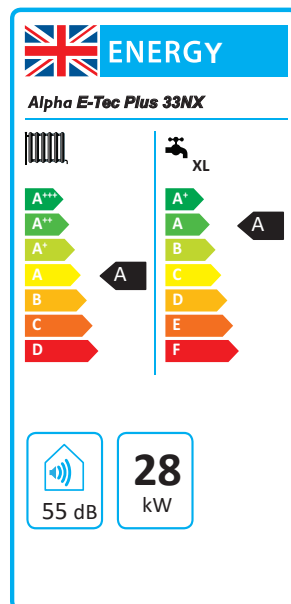
Model(s):			E-Tec Plus 38NX				
Condensing boiler:			YES				
Low-temperature boiler:			NO				
B1 boiler:			NO				
Cogeneration space heater:			NO		Equipped with a supplementary heater:		NO
Combination heater:			YES				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	$P_n$	32	kW	Seasonal space heating energy efficiency	$\eta_s$	94	%
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 (*)	$P_4$	32.0	kW	At rated heat output and high temperature regime (*)	$\eta_4$	87.9	%
At 30% of rated heat output and low temperature regime (**)	$P_1$	10.8	kW	At 30% of rated heat output and low temperature regime (**)	$\eta_1$	98.5	%
Auxiliary electricity consumption				Other items			
At full load	$e_{l_{max}}$	0.020	kW	Standby heat loss	$P_{stby}$	0.054	kW
At part load	$e_{l_{min}}$	0.010	kW	Ignition burner power consumption	$P_{ign}$	0.000	kW
In standby mode	$P_{SB}$	0.002	kW	Emissions of nitrogen oxides	$NO_x$	25	mg / kWh
For combination heaters:							
Declared load profile			XXL		Water heating energy efficiency		$\eta_{WH}$ 85 %
Daily electricity consumption			$Q_{elec}$ 0.184 kWh	Daily fuel consumption		$Q_{fuel}$ 28.4 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)

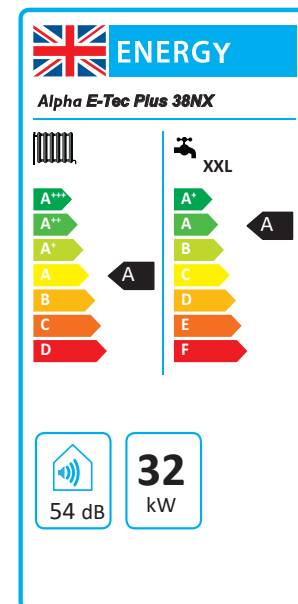
**E-Tec Plus 28NX**



**E-Tec Plus 33NX**



**E-Tec Plus 38NX**



Parameter	Value		
	E-Tec Plus 28NX	E-Tec Plus 33NX	E-Tec Plus 38NX
Yearly energy consumption for the heating function (QHE)	43 GJ	50 GJ	58 GJ
Yearly electricity consumption for the domestic hot water function (AEC)	24 kWh	26 kWh	41 kWh
Yearly fuel consumption for the domestic hot water function (AFC)	18 GJ	18 GJ	23 GJ
Seasonal room heating yield ( $\eta_s$ )	94 %	94 %	94 %
Domestic hot water production yield ( $\eta_{wh}$ )	87 %	87 %	85 %