

ErP Data - EU 813/2013

Supplier name: Italtherm		Model(s):		City Class 25 K	City Class 30 K
Contact details: Italtherm Srl – Via Salvo D'Acquisto, 10 – 29010 Pontenure (PC) – Italy					
ErP Data - EU 813/2013		Symbol	Unit	Value	Value
Condensing boiler		Yes/No	SI	SI	
Combination heater		Yes/No	SI	SI	
B1 boiler		Yes/No	NO	NO	
Cogeneration space heater:		Yes/No	NO	NO	
Low-temperature (***) boiler		Yes/No	NO	NO	
ErP space heating	Rated heat output	P_{rated}	kW	19	
	Useful heat output at rated heat output and high-temperature regime (*)	P_4	kW	19.4	
	Useful heat output at 30% at rated heat output and low-temperature regime (**)	P_1	kW	6.4	
	Seasonal space heating energy efficiency (GCV)	η_S	%	91	
	Useful efficiency at rated heat output and high-temperature regime (*) (GCV)	η_4	%	86.5	
Useful efficiency at 30% of rated heat output and low-temperature regime (**)		η_1	%	95.8	
ErP DHW	Declared load profile				XL
	Water heating energy efficiency (GCV)	η_{wh}	%	83	
	Daily electricity consumption	Q_{elec}	kWh	0.161	
	Daily fuel consumption	Q_{fuel}	kWh	23.5	
Auxiliary electricity consumption	At full load	el_{max}	kW	0.027	
	At part load	el_{min}	kW	0.012	
	In standby mode	P_{SB}	kW	0.005	
Other items	Standby heat loss	P_{stby}	kW	0.053	
	Ignition burner power consumption	P_{ign}	kW	0.000	
	Sound power level, indoors	L_{WA}	dB	54	
	Emissions of nitrogen oxides	NO_x	mg/kWh	32.0	
(*) 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).					
GCV = Gross Calorific Value (=Hs)					

Product fiche - EU 811/2013

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Product fiche - EU 811/2013		Symbol	Unit	Value	Value
Declared load profile DHW					XL
Seasonal energy efficiency for space heating					A
Energy efficiency for water heating					A
Rated heat output		P_{rated}	kW	19	
Annual energy consumption		Q_{HE}	GJ	34	
Annual electricity consumption		AEC	kWh	35	
Annual fuel consumption		AFC	GJ	18	
Seasonal space heating energy efficiency (GCV)		η_S	%	91	
Water heating energy efficiency (GCV)		η_{wh}	%	83	
Sound power level, indoors		L_{WA}	dB	54	
GCV = Gross Calorific Value (=Hs)					

Technical data

TECHNICAL DATA	U.M.	City Class 25 K		City Class 30 K	
		G20	G31	G20	G31

CE certification		0476 CS 1134		0476 CS 1134	
Class		II ₂ H3P		II ₂ H3P	
Type		B23 - B23P - C13 - C33 - C43 - C53 - C63 - C83 - C93			
Working temperature range (min÷max)	°C	0 ÷ +60		0 ÷ +60	

Max heat input Q _n	kW	25.0	25.0		
Max heat input in heating mode	kW	20.0	20.0		
Min heat input Q _r	kW	2.5	2.5		
Max heat output 60°/80°C *	kW	19.4	19.4		
Min heat output 60°/80°C *	kW	2.4	2.4		
Max heat output 30°/50°C *	kW	21.0	21.0		
Min heat output 30°/50°C *	kW	2.7	2.7		
NO _x Class		5	5		
CO at 0% O ₂ (Q _n)	ppm	157.8	157.2		
CO ₂ at nominal input	%	8.90	10.02		
Condense quantity at Q _n (30°/50°C *)	l/h	2.5	2.5		
Condense quantity at Q _r (30°/50°C *)	l/h	0.3	2.5		
Condense acidity	pH	2.8	2.8		
Flue temperature (60/80°C, Q _r)	°C	61.5	61.5		
Flue mass flow rate (60/80°C, Q _n)	kg/h	41.11	41.86		

EFFICIENCY

Nominal efficiency at 60°/80°C *	%	96.1	
Nominal efficiency at 30°/50°C *	%	105.1	
Efficiency at 30% load at 30°/50°C *	%	106.4	

* system return / flow water temperature; NCV = Net Calorific Value (=Hi)
Remark: data have been measured with horizontal coaxial flue, length = 1 m.

HEATING

Temperature selection range (min÷max) <i>Main heating circuit, normal range / low temp. range</i>	°C	35÷80 / 20÷45	
Temperature selection range (min÷max) <i>Secondary heating circuit</i>	°C	20÷80	
Characteristics of the heating system water (or filling liquid) (* = if aluminium parts are present along the system)	°f pH	5 ÷ 15 °f pH 7.5 ÷ 9.5 (7.5 ÷ 8.5 *)	
Expansion vessel	l	8	8
Expansion vessel pre-loading pressure	bar	1	1

(follows)

TECHNICAL DATA (cont'd)		U.M.	City Class 25 K		City Class 30 K	
Gas type			G20	G31	G20	G31
Loss of water pressure switch off / on pressure		bar	0.4 / 0.9 (±0.2)		0.4 / 0.9 (±0.2)	
			<i>To allow the correct system filling, the pressure of the domestic water should be higher than the ON value of the pressure switch.</i>			
Max working pressure		bar	3		3	
Max system temperature		°C	90		90	
Anti-freezing function temperature on / off		°C	5 / 30		5 / 30	
HOT WATER						
Flow rate at 25°C temp. rise		l/min	14.8			
Flow rate at 30°C temp. rise		l/min	12.0			
Min water flow <i>(for the DHW function activation)</i>		l/min	2.8		2.8	
Min supply pressure <i>(for the DHW function activation)</i>		bar	0.2		0.2	
Max supply pressure		bar	6		6	
Temperature selection range (min÷max)		°C	30÷55		30÷55	
ELECTRICAL DATA						
Voltage / frequency (nominal voltage)		V / Hz	220÷240 / 50 (230V)		220÷240 / 50 (230V)	
Power consumption		W	73			
Level of protection			IP X5D		IP X5D	
DIMENSIONS						
Width - Height - Depth		mm	<i>see "Dimensions and connections" on page 13</i>			
Weight		kg	27.5			
CONNECTIONS						
Hydraulic and gas connections			<i>see "Dimensions and connections" on page 13</i>			
Flue: types, lengths and diameters			<i>see "Flue systems" on page 20</i>			
Fan head loss		Pa	20 ÷ 130			
GAS SUPPLY PRESSURE						
Nominal pressure		mbar	20	37	20	37
Inlet pressure (min÷max)		mbar	17 ÷ 25	35÷40	17 ÷ 25	35÷40
GAS CONSUMPTION						
Q _{max}	m ³ /h	2.64				
	kg/h		1.94			
Q _{min}	m ³ /h	0.26				
	kg/h		0.19			