



E.C.A. PROTEUS PREMIX

Combi Boilers

Technical Design Properties

- 107,5% efficiency
- Minimal dimensions to fit in (678mm x 410mm x 288 mm)
- 24-28-30-35 kW capacities
- ErP A energy efficiency class
- Silent operation (49 db)
- Usage ability with natural gas and LPG
- Low NOx and CO emissions
- 1/4 modulation rate
- Protection of the fitting and combi boiler by the help of the automatic by-pass system.
- Protection against freezing
- Eco and Comfort modes for the Central Heating
- Control availability with iOS and Android applications via the smart room thermostat.
- TSE and CE Certificates
- ErP regulation compatible
- Plated exchanger in order to get hot water at a high comfort level.
- High combustion efficiency with stainless steel burner and low waste gas emission.
- Feed forward feature of potable water and ability to get water at constant temperature via the turbine system.
- Protection of the fitting and combi boiler by the help of the automatic by-pass system.
- With the help of a 3 cycled automatic purger equipped circulation pump, less energy consumption and compatibility with every space.
- Ability to connect room thermostat, external weather temperature sensor and timer
- "Pump over-run" feature that prevents thermal piling up within the fitting.
- 2 functions in 1 electrode (ignition - ionization)
- Pressured System Solar Energy Support (Optional)
- Large display, white LCD illumination integrated with ergonomically designed electronic card.
- Compact Full Hermetic Structure
- Ergonomic control panel design
- The rear cover of the control panel is flexible; thus, intervention without completely removing the cover is possible.
- Saving in terms of space thanks to its minimal sizes of 678 mm x 410mm x 288 mm.
- Design that facilitates servicing and maintenance.
- Single body for 60/100 mm and 80/125 chimneys.



CAPACITY	24 kW, 28 kW, 30 Kw, 35 kW
	Combi Boiler (HM)
MODELS	CH Only (HCH)
	System Boiler (HST)
FLUE TYPE	C and B Types
GAS TYPE	Natural Gas/LPG

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SUPERIOR SAFETY SYSTEMS



Environment-Friendly System with Low Emission Values

1. High Water Pressure (3 bars) safety unit protects both the central heating system and the combi boiler against overpressure
2. Low Water Pressure (0,4 bar) safety unit switches the combi boiler off when the water pressure is low
3. Expansion Tank (8 l) compensates expansion of the hot water circulating within the central heating system
4. Flame Loss Protection
5. Pump Blockage unit protects the pump against blockage risk after it remains idle for a long time
6. 3-Way Blockage Protection unit for monothermic models
7. Automatic Air Purger for the pump, Manual Air Purger for the expansion tank
8. Over Heating Protection Unit For DHW (71 °C)
9. Over Heating Safety unit For CH (95 °C)
10. Low Voltage Safety Unit (170 VAC)
11. Over Heating Protection For Flue Gas (95 °C)
12. Internal By-Pass System
13. Anti-Freeze Protection
14. Hall Effect Flow Sensor Detection
15. Ingress of Water Protection From Air Inlet Side Of Chimney
16. Annual Maintenance Reminding System



Technical Specifications

Product Type	Proteus Premix 24 HM-HCH-HST	Proteus Premix 28 HM-HCH-HST	Proteus Premix 30 HM-HCH-HST	Proteus Premix 35 HM-HCH-HST	Unit
Gas Category	$I_{2H}, I_{3P}, I_{2E}, I_{2E(S)}, II_{2L3P}, II_{2L3B/P}, II_{2H3P}, II_{2H3B/P}, II_{2ELL3B/P}, II_{2Ei3P}$				
Type	$C_{13}(X), C_{33}(X), C_{43}(X), C_{53}(X), C_{63}(X), C_{83}(X), B_{23}, B_{33}$				
Gas Input Pressure (Natural Gas G20)	20				mbar
Gas Input Pressure (LPG-G31)	37/50				mbar
Gas Input Pressure (LPG-G30)	30				mbar
Capacity-Efficiency					
Min. Heating power (Thermal Power) - (60°C min)	5,6	6,4	6,9	8,0	kW
Max. Heating power (Thermal Power) - 80/60°C	24,5	28	30	35	kW
Min. Heating power (Thermal Power) - (30°C min)	6,7	7,7	8,3	9,6	kW
Max. Heating power (Thermal Power) - 50/30°C	26	29,6	31,7	37,0	kW
Min. Thermal Load (min)	6,2	7,2	7,7	9,0	kW
Max. Thermal Load (max)	25,2	28,7	30,8	35,9	kW
Seasonal Space Heating Energy Efficiency Class	A				
Water Heating Energy Efficiency Class/Load Profile	A/XL				
Efficiency (80°/60° C Max)	97,50%				
Efficiency (30°C Return)	107,50%				
Gas Consumption					
Natural Gas (At Min-Max Power)	0,65-2,65	0,75-3,03	0,81-3,25	0,94-3,79	m³/h
Propan (at Min-Max Power)	0,51-1,98	0,59-2,29	0,63-2,46	0,74-2,87	kg/h
Nox Class	6				
Central Heating					
Min. Water Pressure	0,4				bar
Max. Water Pressure	3				bar
Hot Water Range (Radiator Heating)	30-80				°C
Hot Water Range (Floor Heating)	30-45				°C
Maximum Limit Temperature	> 90				
Hot Utilization Water					
Minimum activation flow rate	$2_{(\pm 10\%)}$				l/min
Minimum closing flow	$1,5_{(\pm 10\%)}$				l/min
Max. Flow Rate	$10_{\pm 15\% (\Delta T = 34,7^{\circ}C)}$	$12_{\pm 15\% (\Delta T = 33,5^{\circ}C)}$	$12_{\pm 15\% (\Delta T = 35,8^{\circ}C)}$	$14_{\pm 15\% (\Delta T = 35,8^{\circ}C)}$	l/min
Min. Water Pressure	0,4				bar
Max. Water Pressure	10				bar
Hot Water Range	30-65				°C
Maximum Limit Temperature	≥ 71				°C
General					
Electrical Supply	230 VAC-50 Hz				V AC-Hz
Electric Consumption (Max-Standard Pump)	135	155	170	190	Watt
Electric Consumption (Max-Energy Efficient Pump)	80	110	130	165	Watt
Protection Class	IPX4D				
Expansion Tank	8				lt
Weight (Net)	28,5	30	30	32	kg
Dimensions (HxWxD)	678*410*288				mm
Flue Lengths					
C13 – 60/100 Max.	10				m
C13 – 80/125 Max.	20				m
C33 – 60/100 Max.	10				m
C33 – 80/125 Max.	20				m
C43 – 60/100 Max.	10				m
C53 – 60/100 Max.	10				m
C83 – 80/80 Max.	28				m
C83 – 80/80 Min.	3				m
B23 – ÇAP 80 Max.	28				m
B33- 60/100 Max.	10				
Emission Values					
CO emission @max capacity (G20)	<250		<300		ppm
CO emission @min capacity (G20)	<50				ppm
CO ₂ ratio @max- (G20)	9,5 ± 0,2				%
CO ₂ ratio @min-(G20)	8,9 ± 0,2				%
CO ₂ ratio @max-(G31)	10,6 ± 0,2				%
CO ₂ ratio @min-(G31)	9,9 ± 0,2				
Boiler Circuit (only valid for HST)					
Operation Range	30-65				°C
Max. Limit temperature	≥ 85				°C



Proteus Premix presents a high level of energy saving thanks to its condensing technology. Besides, its compact dimensions, elegant appearance and ergonomically designed control panel makes it a product of high attractiveness.

Proteus Premix combi boiler provides a more fuel saving usage via its ECO mode and a more comfortable service via its COMFORT mode.

Proteus Premix accommodates modern combi technologies with quietness and energy efficiency compatibility.

Feed Forward & Turbine system for potable Water inlet. High Combustion efficiency with stainless steel burner Low waste gas emission Less power consumption due to high efficiency pump ($EEL \leq 0,20$) with automatic air vent

Optional Smart Combi Boiler Kit



Smart Combi Boilers or combi-air conditioner room thermostats give you an ability for remote control where you can manage to set your home temperature via your handy phone and to make saving as well as getting a high level of comfort.



Optional Control Accessories



E.C.A. Smart Combi-Air Conditioner Room Thermostat
7006907804



E.C.A. Smart Combi Boiler Room Thermostat
7006907531



On/Off Room Thermostat
7006901312



Digital On/Off Room Thermostat
7006902502



E.C.A. On/Off Cordless Room Thermostat
7006907522
Cord Room Thermostat
7006907519



E.C.A. Cordless Programmable Digital Room Thermostat
7006901313
Cordless
7006902501



E.C.A. Cordless Programmable Digital Room Thermostat
7006902046



E.C.A. Programmable Room Thermostat
7006902518

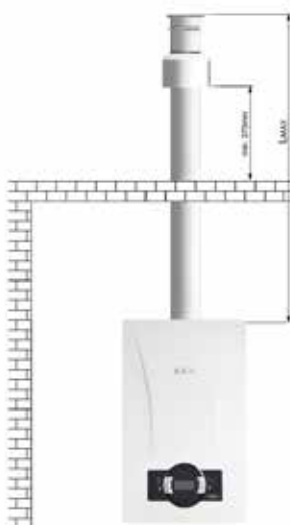
Chimney Applications

Horizontal & Vertical Applications



Horizontal Hermetic Flue Application

L max. distance with single elbow: 10 m, Ø60/100
L max. distance with single elbow: 20 m, Ø80/125



Vertical Hermetic Flue Application

L max. distance without elbow: 10 m, Ø60/100
L max. distance without elbow: 20 m, Ø80/125

