



Number	19BE0034/00	Replaces	--
Issue date	06-06-2019	Contract number	E8090
Report number	180800005	Module	B (Type testing)
PIN	0063CU3005	Scope	Art. 4 of No. 813/2013 (2-8-2013) and/or 92/42/EEC (21-05-1992)

EC TYPE EXAMINATION CERTIFICATE (BED/R813)

Kiwa, notified body for council Directive 92/42/EC, hereby declares that the condensing central heating boilers, type(s):

**Puma Condens 18/24 MKV-AS/1 (H-ES),
Puma Condens 24/28 MKV-AS/1 (H-ES)**

Manufacturer

**Protherm Production s.r.o.
Skalica, Slovakia**

meet the requirements regarding useful efficiencies according to **article 4 of commission regulation (EU) No. 813/2013** and/or as described in the **Directive 92/42/EEC on efficiency requirements**.

Reference standard: EN 15502-1:2012+A1:2015 and EN 15502-2-1-2012+A1:2016

This certificate is only valid in combination with the appendix to this certificate, where specific information and/or conditions are given.

CERTIFICATE

Ronald Karel, Kiwa



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APPENDIX TO EC TYPE EXAMINATION CERTIFICATE (BED/R813)

Protherm

Specifications:

Model(s):

Puma Condens 18/24 MKV-AS/1 (H-ES)

Condensing boiler:	yes/∅
Range rated:	yes/∅
Low-temperature (**) boiler:	yes/∅
B1 boiler:	yes/no
Combination heater:	yes/∅

	Symbol	Value	Unit
Useful heat output			
At rated heat output and high-temperature regime (*)	P ₄	18,3	kW
At 30 % of rated heat output and low-temperature regime (**)	P ₁	6,1	kW
Useful efficiencies			
At rated heat output and high-temperature regime (*)	η ₄	87,3	%
At 30 % of rated heat output and low-temperature regime (**)	η ₁	97,1	%

(*) 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).

Calculated values are based on gross calorific value (reference conditions: 15 °C, 1013,25 mbar)



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APPENDIX TO EC TYPE EXAMINATION CERTIFICATE (BED/R813)

Protherm

Specifications:

Model(s):

Puma Condens 24/28 MKV-AS/1 (H-ES)

Condensing boiler:	yes/∅
Range rated:	yes/∅
Low-temperature (**) boiler:	yes/∅
B1 boiler:	yes/no
Combination heater:	yes/∅

	Symbol	Value	Unit
Useful heat output			
At rated heat output and high-temperature regime (*)	P ₄	23,9	kW
At 30 % of rated heat output and low-temperature regime (**)	P ₁	8,0	kW
Useful efficiencies			
At rated heat output and high-temperature regime (*)	η ₄	88,0	%
At 30 % of rated heat output and low-temperature regime (**)	η ₁	97,4	%

(*) 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).

Calculated values are based on gross calorific value (reference conditions: 15 °C, 1013,25 mbar)