



Number	97343/04	Replaces	97343/03
Issue date	02-10-2018		
Report number	170201428/3	Contract number	E 8090
PIN	0063CS3428	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 **Central Heating Boilers**, types:

VC 656/5 - 5 (H-INT I) ecoTEC plus	VC 486/5 - 5 (H-INT I) ecoTEC plus
VU 656/5 - 5 (H-CZ) ecoTEC plus	VU 486/5 - 5 (H-CZ) ecoTEC plus
VU 656/5 - 5 (H-FR) ecoTEC plus	VU 486/5 - 5 (H-FR) ecoTEC plus
VU 606/5 - 5 (H-GB) ecoTEC plus	VU 446/5 - 5 (H-GB) ecoTEC plus
VM 656/5 - 5 (H-IT/ES) ecoTEC plus	VM 486/5 - 5 (H-IT/ES) ecoTEC plus
VU 656/5 - 5 (H-INT II) ecoTEC plus	VU 486/5 - 5 (H-INT II) ecoTEC plus
VU 656/5 - 5 (H-INT IV) ecoTEC plus	VU 486/5 - 5 (H-INT IV) ecoTEC plus
VU 656/5 - 5 (H-INT III) ecoTEC plus	VU 486/5 - 5 (H-INT III) ecoTEC plus
VU 656/5 - 5 (H-TR) ecoTEC plus	VU 486/5 - 5 (H-TR) ecoTEC plus
VC 656/5 - 5 (E-BE) ecoTEC plus	VC 486/5 - 5 (E-BE) ecoTEC plus
VC 636/5 - 5 (E-DE) ecoTEC plus	VC 406/5 - 5 (E-DE) ecoTEC plus
VC 636/5 - 5 (LL-DE) ecoTEC plus	VC 406/5 - 5 (LL-DE) ecoTEC plus
VU 596/5 - 5 (H-PL) ecoTEC plus	VC 476/5 - 5 (E-DE) ecoTEC plus
VHR 45/5-5 (EK-NL) ecoTEC plus	VC 476/5 - 5 (LL-DE) ecoTEC plus
VHR 65/5-5 (EK-NL) ecoTEC plus	VU 486/5 - 5 (H-PL) ecoTEC plus
VC 506/5 - 5 (H-CH) ecoTEC plus	

Manufacturer **Vaillant GmbH**  
Remscheid, Germany

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**.

This is based upon the measured values as given in the table in the appendice.

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**GASTEC**

Luc Leroy, Kiwa

**CE**  
0063





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## APPENDIX TO EC TYPE EXAMINATION CERTIFICATE (BED/R813)

**Brand name: Vaillant**

Specifications:

Models:

VU 446/5 - 5 (H-GB) ecoTEC plus,	VC 486/5 - 5 (H-INT I) ecoTEC plus
VC 486/5 - 5 (E-BE) ecoTEC plus,	VU 486/5 - 5 (H-CZ) ecoTEC plus
VU 486/5 - 5 (H-FR) ecoTEC plus,	VM 486/5 - 5 (H-IT/ES) ecoTEC plus
VU 486/5 - 5 (H-INT II) ecoTEC plus,	VU 486/5 - 5 (H-INT III) ecoTEC plus
VU 486/5 - 5 (H-TR) ecoTEC plus,	VC 476/5 - 5 (E-DE) ecoTEC plus
VC 476/5 - 5 (LL-DE) ecoTEC plus,	VU 486/5 - 5 (H-PL) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G20

	Symbol	Value	Unit
Useful heat output			
At rated heat output and high-temperature regime (*)	P <sub>4</sub>	44,1	kW
At 30 % of rated heat output and low-temperature regime (**)	P <sub>1</sub>	14,8	kW
Useful efficiencies			
At rated heat output and high-temperature regime (*)	η <sub>4</sub>	88,4	
At 30 % of rated heat output and low-temperature regime (**)	η <sub>1</sub>	98,3	

(\*) 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)

**Brand name: Vaillant**

Specifications:

Models:

VU 486/5 - 5 (H-FR) ecoTEC plus,	VM 486/5 - 5 (H-IT/ES) ecoTEC plus
VU 486/5 - 5 (H-INT II) ecoTEC plus,	VU 486/5 - 5 (H-INT III) ecoTEC plus
VU 486/5 - 5 (H-TR) ecoTEC plus,	VC 476/5 - 5 (E-DE) ecoTEC plus
VC 476/5 - 5 (LL-DE) ecoTEC plus,	VU 486/5 - 5 (H-PL) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G31

	Symbol	Value	Unit
Useful heat output			
At rated heat output and high-temperature regime (*)	P <sub>4</sub>	44,0	kW
At 30 % of rated heat output and low-temperature regime (**)	P <sub>1</sub>	14,3	kW
Useful efficiencies			
At rated heat output and high-temperature regime (*)	η <sub>4</sub>	89,8	
At 30 % of rated heat output and low-temperature regime (**)	η <sub>1</sub>	98,5	

(\*) 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)

**Brand name: Vaillant**

Specifications:

Models:

VU 606/5 - 5 (H-GB) ecoTEC plus,	VC 656/5 - 5 (H-INT I) ecoTEC plus
VC 656/5 - 5 (E-BE) ecoTEC plus,	VU 656/5 - 5 (H-CZ) ecoTEC plus
VU 656/5 - 5 (H-FR) ecoTEC plus,	VM 656/5 - 5 (H-IT/ES) ecoTEC plus
VU 656/5 - 5 (H-INT II) ecoTEC plus,	VU 656/5 - 5 (H-INT III) ecoTEC plus
VU 656/5 - 5 (H-TR) ecoTEC plus,	VC 636/5 - 5 (E-DE) ecoTEC plus
VC 636/5 - 5 (LL-DE) ecoTEC plus,	VHR 65/5-5 (EK-NL) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G20

	Symbol	Value	Unit
Useful heat output			
At rated heat output and high-temperature regime (*)	P <sub>4</sub>	58,7	kW
At 30 % of rated heat output and low-temperature regime (**)	P <sub>1</sub>	19,7	kW
Useful efficiencies			
At rated heat output and high-temperature regime (*)	η <sub>4</sub>	88,4	
At 30 % of rated heat output and low-temperature regime (**)	η <sub>1</sub>	98,5	

(\*) 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)

**Brand name: Vaillant**

Specifications:

Models:

VU 606/5 - 5 (H-GB) ecoTEC plus,	VC 656/5 - 5 (H-INT I) ecoTEC plus
VC 656/5 - 5 (E-BE) ecoTEC plus,	VU 656/5 - 5 (H-CZ) ecoTEC plus
VU 656/5 - 5 (H-FR) ecoTEC plus,	VM 656/5 - 5 (H-IT/ES) ecoTEC plus
VU 656/5 - 5 (H-INT II) ecoTEC plus,	VU 656/5 - 5 (H-INT III) ecoTEC plus
VU 656/5 - 5 (H-TR) ecoTEC plus,	VC 636/5 - 5 (E-DE) ecoTEC plus
VC 636/5 - 5 (LL-DE) ecoTEC plus,	VHR 65/5-5 (EK-NL) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G31

	Symbol	Value	Unit
Useful heat output			
At rated heat output and high-temperature regime (*)	P <sub>4</sub>	58,4	kW
At 30 % of rated heat output and low-temperature regime (**)	P <sub>1</sub>	19,2	kW
Useful efficiencies			
At rated heat output and high-temperature regime (*)	η <sub>4</sub>	89,8	
At 30 % of rated heat output and low-temperature regime (**)	η <sub>1</sub>	98,1	

(\*) 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)

**Brand name: Vaillant**

Specifications:

Models:

VC 406/5 - 5 (E-DE) ecoTEC plus

VC 406/5 - 5 (LL-DE) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G20

	Symbol	Value	Unit
Useful heat output			
At rated heat output and high-temperature regime (*)	P <sub>4</sub>	37,3	kW
At 30 % of rated heat output and low-temperature regime (**)	P <sub>1</sub>	12,4	kW
Useful efficiencies			
At rated heat output and high-temperature regime (*)	η <sub>4</sub>	88,5	
At 30 % of rated heat output and low-temperature regime (**)	η <sub>1</sub>	98,2	

(\*) 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)

**Brand name: Vaillant**

Specifications:

Model:

VU 596/5 - 5 (H-PL) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G20

Useful heat output

At rated heat output and high-temperature regime (\*)

At 30 % of rated heat output and low-temperature regime (\*\*)

Useful efficiencies

At rated heat output and high-temperature regime (\*)

At 30 % of rated heat output and low-temperature regime (\*\*)

Symbol	Value	Unit
P <sub>4</sub>	53,8	kW
P <sub>1</sub>	18,0	kW
η <sub>4</sub>	88,5	
η <sub>1</sub>	98,6	

(\*) 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)

**Brand name: Vaillant**

Specifications:

Model:

VHR 45/5-5 (EK-NL) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G20

Useful heat output

At rated heat output and high-temperature regime (\*)

At 30 % of rated heat output and low-temperature regime (\*\*)

Useful efficiencies

At rated heat output and high-temperature regime (\*)

At 30 % of rated heat output and low-temperature regime (\*\*)

Symbol	Value	Unit
P <sub>4</sub>	41,0	kW
P <sub>1</sub>	13,7	kW
η <sub>4</sub>	88,1	
η <sub>1</sub>	97,0	

(\*) 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).

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)

**Brand name: Vaillant**

Specifications:

Model:

VC 506/5 - 5 (H-CH) ecoTEC plus

Condensing boiler:	yes
Range rated:	yes
Low-temperature (**) boiler:	yes
B1 boiler:	no
Combination heater:	no
Gas type :	G20

Useful heat output

At rated heat output and high-temperature regime (\*)

At 30 % of rated heat output and low-temperature regime (\*\*)

Symbol	Value	Unit
P <sub>4</sub>	45,9	kW
P <sub>1</sub>	15,4	kW

Useful efficiencies

At rated heat output and high-temperature regime (\*)

At 30 % of rated heat output and low-temperature regime (\*\*)

η <sub>4</sub>	88,8
η <sub>1</sub>	97,8

(\*) 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)