ENERGY
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–weishaupt–

WBB 20-B-RMD-AI

	55 °C	35 °C
A+++		A+++
A++	A++	
A+		
A		
B		
C		
D		

44 dB

54 dB

■	21	20
■	17	16
■	18	17
	kW	kW

2019

811/2013

Produktdaten

Anbieter: **Max Weishaupt GmbH**
Max-Weishaupt-Straße
D-88475 Schwendi

Produkt: **Wärmeerzeuger** **WBB 20-B-RMD-AI**

Die EU-Konformitätserklärung und die Anleitung (manual) liegen dem Produkt bei.

Nachstehende Produktdaten wurden auf Basis folgender Prüfgrundlagen ermittelt:
811/2013/EU, 813/2013/EU, EN 12102:2017, EN 14511:2018, EN 14825:2018

	Temperaturanwendung		
	35°C	55°C	
Wärmeerzeuger	WBB 20-B-RMD-AI		
Klasse für die jahreszeitbedingte Raumheizungs-Energieeffizienz (A+++ - D)	A+++	A++	
Wärmenennleistung bei durchschnittlichen Klimaverhältnissen	16	17	kW
Jahreszeitbedingte Raumheizungs-Energieeffizienz bei durchschnittlichen Klimaverhältnissen	186	148	%
Jährlicher Energieverbrauch als Endenergie für Raumheizung bei durchschnittlichen Klimaverhältnissen	6912	9254	kWh
Schallleistungspegel im Gebäude, LWA	44		dB(A)
Besondere Vorkehrungen bei der Installation	siehe manual		
Wärmenennleistung bei kälteren Klimaverhältnissen	20	21	kW
Wärmenennleistung bei wärmeren Klimaverhältnissen	17	18	kW
Jahreszeitbedingte Raumheizungs-Energieeffizienz bei kälteren Klimaverhältnissen	154	130	%
Jahreszeitbedingte Raumheizungs-Energieeffizienz bei wärmeren Klimaverhältnissen	216	172	%
Jährlicher Energieverbrauch für Raumheizung als Endenergie bei kälteren Klimaverhältnissen	12.251	15.231	kWh
Jährlicher Energieverbrauch für Raumheizung als Endenergie bei wärmeren Klimaverhältnissen	4052	5451	kWh
Schallleistungspegel im Freien, LWA	54		dB(A)

Technical parameters

- weishaupt -

Manufacturer:	Max Weishaupt GmbH
Model:	WBB 20-B-RMD-AI
	Air-to-water heat pump
Low-temperature heat pump:	No
Equipped with a supplementary heater:	Yes
Heat pump combination heater:	No
Application:	low
Climate:	average

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	Pdh	14,5	kW
T_j = +2°C	Pdh	8,6	kW
T_j = +7°C	Pdh	5,4	kW
T_j = +12°C	Pdh	6,4	kW
T_j = bivalent temperature	Pdh	14,5	kW
T_j = operation limit temperature	Pdh	13,0	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh		kW
Bivalent temperature	T_{biv}	-7	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	186	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	COPd	3,12	
T_j = +2°C	COPd	4,75	
T_j = +7°C	COPd	5,79	
T_j = +12°C	COPd	6,88	
T_j = bivalent temperature	COPd	3,12	
T_j = operation limit temperature	COPd	2,85	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd		
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Heating water operating limit temperature	WTOL	65	°C

Item	Symbol	Value
Degradation co-efficient (**)	Cdh	
T_j = -7°C	Cdh	1,00
T_j = +2°C	Cdh	1,00
T_j = +7°C	Cdh	1,00
T_j = +12°C	Cdh	0,99
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Cdh	

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,017	kW
Thermostat-off mode	P_{TO}	0,010	kW
Standby mode	P_{SB}	0,017	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	2,86	kW
Type of energy input		electricity	

Other items

Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	44 / 54	dB
Annual energy consumption	Q_{HE}	6.912	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--	3.888	m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--		m^3/h

For heat combination heater:

Declared load profile			
Daily electricity consumption	Qelec		kWh

Water heating energy efficiency	ηwh		%
Annual electricity consumption	AEC		kWh

Contact details: Max Weishaupt GmbH, Max-Weishaupt-Straße 14, 88475 Schwendi, Tel. 07353/83-0

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

- weishaupt -

Manufacturer:	Max Weishaupt GmbH
Model:	WBB 20-B-RMD-AI
	Air-to-water heat pump
Low-temperature heat pump:	No
Equipped with a supplementary heater:	Yes
Heat pump combination heater:	No
Application:	medium
Climate:	average

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	17	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	Pdh	14,2	kW
T_j = +2°C	Pdh	9,2	kW
T_j = +7°C	Pdh	5,9	kW
T_j = +12°C	Pdh	4,9	kW
T_j = bivalent temperature	Pdh	14,2	kW
T_j = operation limit temperature	Pdh	13,9	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh		kW
Bivalent temperature	T_{biv}	-7	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	148	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	COPd	2,54	
T_j = +2°C	COPd	3,84	
T_j = +7°C	COPd	4,59	
T_j = +12°C	COPd	5,32	
T_j = bivalent temperature	COPd	2,54	
T_j = operation limit temperature	COPd	2,29	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd		
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Heating water operating limit temperature	WTOL	65	°C

Item	Symbol	Value
Degradation co-efficient (**)	Cdh	
T_j = -7°C	Cdh	1,00
T_j = +2°C	Cdh	1,00
T_j = +7°C	Cdh	1,00
T_j = +12°C	Cdh	0,90
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Cdh	

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,017	kW
Thermostat-off mode	P_{TO}	0,010	kW
Standby mode	P_{SB}	0,017	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	3,09	kW
Type of energy input		electricity	

Other items

Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	44 / 54	dB
Annual energy consumption	Q_{HE}	9.254	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--	3.888	m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--		m^3/h

For heat combination heater:

Declared load profile			
Daily electricity consumption	Qelec		kWh

Water heating energy efficiency	ηwh		%
Annual electricity consumption	AEC		kWh

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

- weishaupt -

Manufacturer:	Max Weishaupt GmbH
Model:	WBB 20-B-RMD-AI
	Air-to-water heat pump
Low-temperature heat pump:	No
Equipped with a supplementary heater:	Yes
Heat pump combination heater:	No
Application:	low
Climate:	colder

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	20	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	Pdh	12,2	kW
T_j = +2°C	Pdh	7,3	kW
T_j = +7°C	Pdh	5,0	kW
T_j = +12°C	Pdh	4,9	kW
T_j = bivalent temperature	Pdh	13,4	kW
T_j = operation limit temperature	Pdh	10,5	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh	11,5	kW
Bivalent temperature	T_{biv}	-10	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	154	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	COPd	3,62	
T_j = +2°C	COPd	4,90	
T_j = +7°C	COPd	6,25	
T_j = +12°C	COPd	5,72	
T_j = bivalent temperature	COPd	3,17	
T_j = operation limit temperature	COPd	2,19	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd	2,79	
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Heating water operating limit temperature	WTOL	65	°C

Item	Symbol	Value
Degradation co-efficient (**)	Cdh	
T_j = -7°C	Cdh	1,00
T_j = +2°C	Cdh	1,00
T_j = +7°C	Cdh	1,00
T_j = +12°C	Cdh	0,90
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Cdh	1,00

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,017	kW
Thermostat-off mode	P_{TO}	0,010	kW
Standby mode	P_{SB}	0,017	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	9,10	kW
Type of energy input		electricity	

Other items

Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	44 / 54	dB
Annual energy consumption	Q_{HE}	12.251	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--	3.888	m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--		m^3/h

For heat combination heater:

Declared load profile			
Daily electricity consumption	Qelec		kWh

Water heating energy efficiency	ηwh		%
Annual electricity consumption	AEC		kWh

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

- weishaupt -

Manufacturer:	Max Weishaupt GmbH
Model:	WBB 20-B-RMD-AI
	Air-to-water heat pump
Low-temperature heat pump:	No
Equipped with a supplementary heater:	Yes
Heat pump combination heater:	No
Application:	medium
Climate:	colder

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	21	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	Pdh	12,5	kW
T_j = +2°C	Pdh	7,7	kW
T_j = +7°C	Pdh	5,0	kW
T_j = +12°C	Pdh	4,9	kW
T_j = bivalent temperature	Pdh	14,1	kW
T_j = operation limit temperature	Pdh	10,3	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh	12,0	kW
Bivalent temperature	T_{biv}	-10	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	130	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	COPd	2,92	
T_j = +2°C	COPd	4,21	
T_j = +7°C	COPd	5,00	
T_j = +12°C	COPd	5,32	
T_j = bivalent temperature	COPd	2,66	
T_j = operation limit temperature	COPd	1,20	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd	2,32	
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Heating water operating limit temperature	WTOL	65	°C

Item	Symbol	Value
Degradation co-efficient (**)	Cdh	
T_j = -7°C	Cdh	1,00
T_j = +2°C	Cdh	1,00
T_j = +7°C	Cdh	1,00
T_j = +12°C	Cdh	0,90
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Cdh	1,00

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,017	kW
Thermostat-off mode	P_{TO}	0,010	kW
Standby mode	P_{SB}	0,017	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	10,30	kW
Type of energy input		electricity	

Other items

Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	44 / 54	dB
Annual energy consumption	Q_{HE}	15.231	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--	3.888	m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--		m^3/h

For heat combination heater:

Declared load profile			
Daily electricity consumption	Qelec		kWh

Water heating energy efficiency	ηwh		%
Annual electricity consumption	AEC		kWh

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

- weishaupt -

Manufacturer:	Max Weishaupt GmbH
Model:	WBB 20-B-RMD-AI
	Air-to-water heat pump
Low-temperature heat pump:	No
Equipped with a supplementary heater:	Yes
Heat pump combination heater:	No
Application:	low
Climate:	warmer

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	17	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	Pdh		kW
T_j = +2°C	Pdh	16,6	kW
T_j = +7°C	Pdh	10,9	kW
T_j = +12°C	Pdh	4,9	kW
T_j = bivalent temperature	Pdh	16,6	kW
T_j = operation limit temperature	Pdh	16,6	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh		kW
Bivalent temperature	T_{biv}	2	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	216	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	COPd		
T_j = +2°C	COPd	4,36	
T_j = +7°C	COPd	5,42	
T_j = +12°C	COPd	5,72	
T_j = bivalent temperature	COPd	4,36	
T_j = operation limit temperature	COPd	4,36	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd		
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Heating water operating limit temperature	WTOL	65	°C

Item	Symbol	Value
Degradation co-efficient (**)	Cdh	
T_j = -7°C	Cdh	
T_j = +2°C	Cdh	1,00
T_j = +7°C	Cdh	1,00
T_j = +12°C	Cdh	1,00
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Cdh	

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,017	kW
Thermostat-off mode	P_{TO}	0,010	kW
Standby mode	P_{SB}	0,017	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	0,00	kW
Type of energy input		electricity	

Other items

Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	44 / 54	dB
Annual energy consumption	Q_{HE}	4.052	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--	3.888	m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--		m^3/h

For heat combination heater:

Declared load profile			
Daily electricity consumption	Qelec		kWh

Water heating energy efficiency	ηwh		%
Annual electricity consumption	AEC		kWh

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

- weishaupt -

Manufacturer:	Max Weishaupt GmbH
Model:	WBB 20-B-RMD-AI
	Air-to-water heat pump
Low-temperature heat pump:	No
Equipped with a supplementary heater:	Yes
Heat pump combination heater:	No
Application:	medium
Climate:	warmer

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	Pdh		kW
T_j = +2°C	Pdh	17,9	kW
T_j = +7°C	Pdh	11,5	kW
T_j = +12°C	Pdh	5,2	kW
T_j = bivalent temperature	Pdh	17,9	kW
T_j = operation limit temperature	Pdh	17,9	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh		kW
Bivalent temperature	T_{biv}	2	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	172	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T_j			
T_j = -7°C	COPd		
T_j = +2°C	COPd	3,02	
T_j = +7°C	COPd	3,86	
T_j = +12°C	COPd	5,17	
T_j = bivalent temperature	COPd	3,02	
T_j = operation limit temperature	COPd	3,02	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd		
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Heating water operating limit temperature	WTOL	65	°C

Item	Symbol	Value
Degradation co-efficient (**)	Cdh	
T_j = -7°C	Cdh	
T_j = +2°C	Cdh	1,00
T_j = +7°C	Cdh	1,00
T_j = +12°C	Cdh	1,00
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Cdh	

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,017	kW
Thermostat-off mode	P_{TO}	0,010	kW
Standby mode	P_{SB}	0,017	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	0,00	kW
Type of energy input		electricity	

Other items

Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	44 / 54	dB
Annual energy consumption	Q_{HE}	5.451	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--	3.888	m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--		m^3/h

For heat combination heater:

Declared load profile			
Daily electricity consumption	Qelec		kWh

Water heating energy efficiency	ηwh		%
Annual electricity consumption	AEC		kWh

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.