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–weishaupt–

WWP W 45 ID

	55 °C	35 °C
	A+++	A+++

A+++
A++
A+
A
B
C
D

58 dB

0 dB

	45	49
	43	46
	43	46
	kW	kW

2019

811/2013

Produktdaten

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

Produkt: **Wärmeerzeuger** **WWP W 45 ID**

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 12102:2008, EN 14511-1:2011, EN 14511-2:2011, EN 14511-3:2011, EN 14511-4:2011, EN 14825:2013

	Temperaturanwendung		
	35°C	55°C	
Wärmeerzeuger	WWP W 45 ID		
Klasse für die jahreszeitbedingte Raumheizungs-Energieeffizienz (A+++ - D)	A+++	A+++	
Wärmenennleistung bei durchschnittlichen Klimaverhältnissen	46	43	kW
Jahreszeitbedingte Raumheizungs-Energieeffizienz bei durchschnittlichen Klimaverhältnissen	243	172	%
Jährlicher Energieverbrauch als Endenergie für Raumheizung bei durchschnittlichen Klimaverhältnissen	15220	19459	kWh
Schallleistungspegel im Gebäude, LWA	58		dB(A)
Besondere Vorkehrungen bei der Installation	siehe manual		
Wärmenennleistung bei kälteren Klimaverhältnissen	49	45	kW
Wärmenennleistung bei wärmeren Klimaverhältnissen	46	43	kW
Jahreszeitbedingte Raumheizungs-Energieeffizienz bei kälteren Klimaverhältnissen	250	177	%
Jahreszeitbedingte Raumheizungs-Energieeffizienz bei wärmeren Klimaverhältnissen	245	173	%
Jährlicher Energieverbrauch für Raumheizung als Endenergie bei kälteren Klimaverhältnissen	18.692	24.051	kWh
Jährlicher Energieverbrauch für Raumheizung als Endenergie bei wärmeren Klimaverhältnissen	9754	12.524	kWh
Schallleistungspegel im Freien, LWA	0		dB(A)

Technical parameters

- weishaupt -

Manufacturer:	Max Weishaupt GmbH
Model:	WWP W 45 ID
	Water-to-water heat pump
Low-temperature heat pump:	Nein
Equipped with a supplementary heater:	Nein
Heat pump combination heater:	
Application:	low
Climate:	average

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	46	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	Pdh	46,3	kW
T_j = +2°C	Pdh	46,7	kW
T_j = +7°C	Pdh	47,1	kW
T_j = +12°C	Pdh	47,4	kW
T_j = bivalent temperature	Pdh	46,2	kW
T_j = operation limit temperature	Pdh	46,2	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh		kW
Bivalent temperature	T_{biv}	-10	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	243	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	COPd	5,86	
T_j = +2°C	COPd	6,22	
T_j = +7°C	COPd	6,58	
T_j = +12°C	COPd	6,97	
T_j = bivalent temperature	COPd	5,80	
T_j = operation limit temperature	COPd	5,80	
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	62	°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	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}	0,015	kW
Thermostat-off mode	P_{TO}	0,020	kW
Standby mode	P_{SB}	0,015	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		fixed	
Sound power level, indoors/outdoors	L_{WA}	58 / 0	dB
Annual energy consumption	Q_{HE}	15.220	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--		m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--	10,00	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:	WWP W 45 ID
	Water-to-water heat pump
Low-temperature heat pump:	Nein
Equipped with a supplementary heater:	Nein
Heat pump combination heater:	
Application:	medium
Climate:	average

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	43	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	Pdh	42,9	kW
T_j = +2°C	Pdh	44,2	kW
T_j = +7°C	Pdh	45,0	kW
T_j = +12°C	Pdh	45,8	kW
T_j = bivalent temperature	Pdh	42,5	kW
T_j = operation limit temperature	Pdh	42,5	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh		kW
Bivalent temperature	T_{biv}	-10	°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 Tj			
T_j = -7°C	COPd	3,85	
T_j = +2°C	COPd	4,46	
T_j = +7°C	COPd	4,91	
T_j = +12°C	COPd	5,45	
T_j = bivalent temperature	COPd	3,70	
T_j = operation limit temperature	COPd	3,70	
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	62	°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	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}	0,015	kW
Thermostat-off mode	P_{TO}	0,020	kW
Standby mode	P_{SB}	0,015	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		fixed	
Sound power level, indoors/outdoors	L_{WA}	58 / 0	dB
Annual energy consumption	Q_{HE}	19.459	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--		m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--	10,00	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:	WWP W 45 ID
	Water-to-water heat pump
Low-temperature heat pump:	Nein
Equipped with a supplementary heater:	Nein
Heat pump combination heater:	
Application:	low
Climate:	colder

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	49	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	Pdh	46,8	kW
T_j = +2°C	Pdh	47,1	kW
T_j = +7°C	Pdh	47,3	kW
T_j = +12°C	Pdh	47,4	kW
T_j = bivalent temperature	Pdh	46,4	kW
T_j = operation limit temperature	Pdh	46,2	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh	46,6	kW
Bivalent temperature	T_{biv}	-20	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	250	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	COPd	6,31	
T_j = +2°C	COPd	6,62	
T_j = +7°C	COPd	6,87	
T_j = +12°C	COPd	6,93	
T_j = bivalent temperature	COPd	5,93	
T_j = operation limit temperature	COPd	5,80	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd	6,16	
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Heating water operating limit temperature	WTOL	62	°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	1,00
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}	0,015	kW
Thermostat-off mode	P_{TO}	0,020	kW
Standby mode	P_{SB}	0,015	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	2,73	kW
Type of energy input	electricity		

Other items

Capacity control		fixed	
Sound power level, indoors/outdoors	L_{WA}	58 / 0	dB
Annual energy consumption	Q_{HE}	18.692	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--		m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--	10,00	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:	WWP W 45 ID
	Water-to-water heat pump
Low-temperature heat pump:	Nein
Equipped with a supplementary heater:	Nein
Heat pump combination heater:	
Application:	medium
Climate:	colder

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	45	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	Pdh	44,0	kW
T_j = +2°C	Pdh	44,8	kW
T_j = +7°C	Pdh	45,5	kW
T_j = +12°C	Pdh	46,1	kW
T_j = bivalent temperature	Pdh	42,8	kW
T_j = operation limit temperature	Pdh	42,5	kW
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	Pdh	43,4	kW
Bivalent temperature	T_{biv}	-20	°C

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	177	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	COPd	4,35	
T_j = +2°C	COPd	4,85	
T_j = +7°C	COPd	5,30	
T_j = +12°C	COPd	5,68	
T_j = bivalent temperature	COPd	3,83	
T_j = operation limit temperature	COPd	3,70	
For air-to-water heat pumps: T_j = -15°C (if TOL <-20°C)	COPd	4,07	
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Heating water operating limit temperature	WTOL	62	°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	1,00
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}	0,015	kW
Thermostat-off mode	P_{TO}	0,020	kW
Standby mode	P_{SB}	0,015	kW
Crankcase heater mode	P_{CK}	0,000	kW

Supplementary heater

Rated heat output (*)	Psup	2,70	kW
Type of energy input	electricity		

Other items

Capacity control		fixed	
Sound power level, indoors/outdoors	L_{WA}	58 / 0	dB
Annual energy consumption	Q_{HE}	24.051	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--		m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--	10,00	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:	WWP W 45 ID
	Water-to-water heat pump
Low-temperature heat pump:	Nein
Equipped with a supplementary heater:	Nein
Heat pump combination heater:	
Application:	low
Climate:	warmer

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	46	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	Pdh		kW
T_j = +2°C	Pdh	46,2	kW
T_j = +7°C	Pdh	46,6	kW
T_j = +12°C	Pdh	47,2	kW
T_j = bivalent temperature	Pdh	46,2	kW
T_j = operation limit temperature	Pdh	46,2	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	245	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	COPd		
T_j = +2°C	COPd	5,80	
T_j = +7°C	COPd	6,14	
T_j = +12°C	COPd	6,71	
T_j = bivalent temperature	COPd	5,80	
T_j = operation limit temperature	COPd	5,80	
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	62	°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}	0,015	kW
Thermostat-off mode	P_{TO}	0,020	kW
Standby mode	P_{SB}	0,015	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		fixed	
Sound power level, indoors/outdoors	L_{WA}	58 / 0	dB
Annual energy consumption	Q_{HE}	9.754	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--		m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--	10,00	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:	WWP W 45 ID
	Water-to-water heat pump
Low-temperature heat pump:	Nein
Equipped with a supplementary heater:	Nein
Heat pump combination heater:	
Application:	medium
Climate:	warmer

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	43	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	Pdh		kW
T_j = +2°C	Pdh	42,5	kW
T_j = +7°C	Pdh	43,6	kW
T_j = +12°C	Pdh	45,2	kW
T_j = bivalent temperature	Pdh	42,5	kW
T_j = operation limit temperature	Pdh	42,5	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	173	**%**
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
T_j = -7°C	COPd		
T_j = +2°C	COPd	3,70	
T_j = +7°C	COPd	4,17	
T_j = +12°C	COPd	5,09	
T_j = bivalent temperature	COPd	3,70	
T_j = operation limit temperature	COPd	3,70	
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	62	°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}	0,015	kW
Thermostat-off mode	P_{TO}	0,020	kW
Standby mode	P_{SB}	0,015	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		fixed	
Sound power level, indoors/outdoors	L_{WA}	58 / 0	dB
Annual energy consumption	Q_{HE}	12.524	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	--		m^3/h
For water-/brine-to water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	--	10,00	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.