



**WAMAK**

## Heat pump



# TBW 300 EVI HeavyDuty 3L2

# WAMAK TBW 300 EVI HeavyDuty 3L2

## Product description

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High-efficiency heat pump consisting of multiple modules of separate heat pumps. Each module contains one short closed refrigerant circuit with a pair of quiet Scroll compressors and robust stainless steel plate heat exchangers. Applications range from heating, cooling and domestic hot water heating of office or multi-functional buildings to cascading applications in industrial applications.

Use for demanding industrial applications. By combining the most suitable performance and application variants of heat pump modules, it is possible to tailor-make the complete system required. Each module is refrigeration, hydraulically and electrically isolated with a separate controller. The connection of the modules is cascaded, whereby each single controller can take over the function of the cascade master.

As a primary source, the thermal energy of the sun accumulated in the ground through a horizontal collector or geothermal energy through a deep borehole is used. In the collector or borehole, an antifreeze flows which takes the energy of the earth at a low temperature and the heat pump raises this temperature to a temperature usable for heating or hot water.

The EVI ( Enhanced Vapour Injection ) technology allows the heat pump to achieve higher header flow temperatures even at lower source temperatures. EVI also has a positive impact on the compressor lifespan and overall system stability because the discharge gas temperature from the compressor is lower.

The twin compressors give the system robustness and the ability to distribute the heat output according to the actual load.

## Product features

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- Scroll compressor
- EVI technology
- Asymmetric plate heat exchanger
- Multi-stage capacity control
- Phase and rotation control
- High pressure sensor - analogue
- Flow switch consumer - on/off - (with accessory)
- Flow switch source - on/off - (with accessory)
- DHW temperature sensor
- Cascade control
- Solid frame structure
- Sylomer pads under compressor unit
- Electronic expansion valve
- Two-stage capacity control
- Compressor soft starter
- High pressure switch
- Low pressure sensor - analogue
- Flow sensor consumer - analogue - (with accessory)
- Outdoor temperature sensor
- Buffer temperature sensor
- Modbus connection
- Two level frame

## Basic performance data - WAMAK TBW 300 EVI HeavyDuty 3L2

Heating - EN 14511		
<b>Heating capacity [kW]</b>	B0 / W35 (max)	<b>288.3 ( 48.1 / 288.3 )</b>
	B0 / W35 (min)	<b>48.1 ( 48.1 / 288.3 )</b>
	B0 / W34	<b>288.0 ( 48.0 / 288.0 )</b>
<b>Electrical power input [kW]</b>	B0 / W35 (max)	<b>65.1 ( 10.6 / 65.1 )</b>
	B0 / W35 (min)	<b>10.6 ( 10.6 / 65.1 )</b>
	B0 / W34	<b>63.7 ( 10.4 / 63.7 )</b>
<b>Heating efficiency faktor [COP]</b>	B0 / W35 (max)	4.43
	B0 / W35 (min)	4.53
	B0 / W34	4.52
Seasonal space heating energy efficiency - SCOP EN 14825		
Average Climate / Low Temperature [35°C]	SCOP	3.66
	η [ % ]	146.2
	Label	A++
	Qhe [ kWh ]	595627.8
	Pdesignh [ kW ]	288.3
	Tbivalent [ °C ]	-10
Cooling		
<b>Cooling capacity - [kW]</b>	A35 / W23-18	290.6
	A25 / W23-18	305.4
	A35 / W12-7	290.6
	A25 / W12-7	290.6
Seasonal space cooling energy efficiency - SEER EN 14825		
[ W 23 / 18°C ]	SEER	5.15
	Qce [ kWh ]	130980.0
	ηc [ % ]	205.8
Sound EN 12102		
<b>Acoustic power - Lw</b>	dB(A)	73
<b>Acoustic pressure - Lp</b>	<b>1 m dB(A)</b>	65
	<b>5 m dB(A)</b>	51
	<b>10 m dB(A)</b>	45
Mechanical and operational information		
<b>Compressor type (3~ 400/50)</b>	SCROLL / 6 /	On/Off
<b>Refrigerant</b>	R410A (GWP - 2088)	3 x 15.8 kg
<b>Operating limit temperatures heating - (min / max ) [ °C ]</b>	<b>25 / 65</b>	
<b>Operating limit temperatures source - (min / max ) [ °C ]</b>	<b>-10 (7) / 30</b>	
<b>Weight</b>	1590 kg	

## Main technical data - WAMAK TBW 300 EVI HeavyDuty 3L2

Enclosure type			HD2L3			
Basic dimensions	Height [mm]	2000	Operating limit temperatures heating	MAX [°C]	65	
	Width [mm]	2150		MIN [°C]	25	
	Length [mm]	1200	for more see operating limits diagram			
Weight [kg]	1590	Condenser	Port size	3 x VIC 2.1/2 "		
Colour	Gray		Type	BPHE		
Enclosure IP Class	IP20		Count	3		
Refrigeration cycle			Material	AISI 316		
Compressor	Type	Scroll	Maximal operating pressure - refrigerant [bar]	50		
	Number of stages	6	Maximal operating pressure - Water [bar]	3		
	On/Off		Testing pressure [bar]	70		
	Power factor Cosφ	0.64	Heat transfer medium	Water		
	Winding resistance	0.76 Ohm	Volume flow - Water [m3/h]	8.30 ~ 49.82		
Refrigerant	R410A		Internal pressure drop - Water [kPa]	3 x 20		
	Volme	3 x 15.8 kg	Temperature difference @ 35°C (nom)	5 K		
	GWP	2088	@ 55°C	8 K		
	Safety class	A1	@ 65°C	10 K		
Refrigeration oil type			Renewable energy extraction side data			
Refrigeration oil type	POE RL32-3MAF		Operating limit temperatures source	MIN [°C]	-10 (7)	
	Oil volume	6 x 3.38 L		MAX [°C]	30	
Maximal pressure - refrigerant [bar]			for more see operating limits diagram			
Maximal pressure - refrigerant [bar]			Evaporator	Port size	3 x VIC 2.1/2 "	
PED class				Type	BPHE	
EVI - vapour injection with economizer				Count	3	
Electrical connection data				Material	AISI 316	
Line voltage [#~ V/Hz]			Evaporator	Maximal operating pressure - refrigerant [bar]	29	
Current	nominal [A]	141.18		Heat transfer medium	Ethylenglykol	
	maximal [A]	224.40		Brine proportion [%]	29	
	starting [A]	57.2		Antifreeze to [°C]	-15	
Softstart			Evaporator	Maximal operating pressure - Ethylenglykol [bar]	3	
Main safety				Volume flow - Ethylenglykol [m3/h]	8.48 ~ 50.86	
Control System				Internal pressure drop - Ethylenglykol [kPa]	3 x 20	
Main controller	SIEMENS	RVS 61		Temperature difference - Ethylenglykol	4 K	
Extension module	AVS75.3xx	AVS75.3xx	AVS75.372			
Bus Clip-In	LPB OCI346		Modbus OCI352			
Online connection	Web server OZW672		ToSyMo			
Superheat controller	SEC61					
*** with accessory						

# WAMAK TBW 300 EVI HeavyDuty 3L2

ErP (EU) No 811/2013: Technical parameters for heat pump space heaters

Model	TBW 300 EVI HeavyDuty 3L2		
Air-to-water heat pump		no	
Brine-to-water heat pump		yes	
Water-to-water heat pump		no	
Low-temperature heat pump		no	
Equipped with a supplementary heater		no	
Heat pump combination heater		no	
Temperature application		low (35 °C - 30 °C)	
Climate conditions		average	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output at Tdesignh	Prated	288.3	kW	Seasonal space heating energy efficiency	ηs	146.2	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	288.0	kW	Tj = -7 °C	COPd	4.52	-
Tj = +2 °C	Pdh	286.4	kW	Tj = +2 °C	COPd	4.9	-
Tj = +7 °C	Pdh	47.5	kW	Tj = +7 °C	COPd	5.4	-
Tj = +12 °C	Pdh	47.3	kW	Tj = +12 °C	COPd	5.7	-
Tj = bivalent temperature	Pdh	288.3	kW	Tj = bivalent temperature	COPd	4.4	-
Tj = operation limit temperature	Pdh	---	kW	Tj = operation limit temperature	COPd	---	-
Bivalent temperature	Tbiv	-10	°C	Tj = operation limit temperature	TOL	---	°C
Power consumption in modes other than active mode				Heating water operating limit temperature	WTOL	65	°C
Off mode	Poff	0.010	kW	Supplementary heater			
Thermostat-off mode	Pto	0.010	kW	Rated heat output	Psup	55.6	kW
Standby mode	Psb	0.010	kW	Type of energy input		electricity	
Crankcase heater mode	Pck	0.000	kW	For air-to-water heat pumps: Rated air flow rate, outdoors	-	---	m3/h
Other items				For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	8.48 ~ 50.86	m3/h
Capacity control		multi-stage		Annual energy consumption	QHE	595627.8	kWh
Sound power level							
indoors	Lwa	73	dB				
outdoors	Lwa	---	dB				

Contact details: WAMAK, s.r.o., Orovnička 252, 96652, Orovnička, Slovensko, info@wamak.sk

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ErP (EU) No 811/2013: Technical parameters for heat pump space heaters

Model	TBW 300 EVI HeavyDuty 3L2		
Air-to-water heat pump		no	
Brine-to-water heat pump		yes	
Water-to-water heat pump		no	
Low-temperature heat pump		no	
Equipped with a supplementary heater		no	
Heat pump combination heater		no	
Temperature application		middle (55 °C - 47 °C)	
Climate conditions		average	

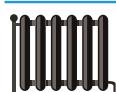
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output at Tdesignh	Prated	294.8	kW	Seasonal space heating energy efficiency	ηs	124.6	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	296.7	kW	Tj = -7 °C	COPd	3.29	-
Tj = +2 °C	Pdh	296.8	kW	Tj = +2 °C	COPd	4.1	-
Tj = +7 °C	Pdh	48.6	kW	Tj = +7 °C	COPd	4.6	-
Tj = +12 °C	Pdh	48.3	kW	Tj = +12 °C	COPd	5.0	-
Tj = bivalent temperature	Pdh	294.8	kW	Tj = bivalent temperature	COPd	2.9	-
Tj = operation limit temperature	Pdh	---	kW	Tj = operation limit temperature	COPd	---	-
Bivalent temperature	Tbiv	-10	°C	Tj = operation limit temperature	TOL	---	°C
Power consumption in modes other than active mode				Heating water operating limit temperature	WTOL	65	°C
Off mode	Poff	0.010	kW	Supplementary heater			
Thermostat-off mode	Pto	0.010	kW	Rated heat output	Psup	55.6	kW
Standby mode	Psb	0.010	kW	Type of energy input		electricity	
Crankcase heater mode	Pck	0.000	kW	For air-to-water heat pumps: Rated air flow rate, outdoors	-	---	m3/h
Other items				For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	8.48 ~ 50.86	m3/h
Capacity control		multi-stage		Annual energy consumption	QHE	609056.8	kWh
Sound power level							
indoors	Lwa	73	dB				
outdoors	Lwa	---	dB				
Annual energy consumption	QHE	609056.8	kWh				

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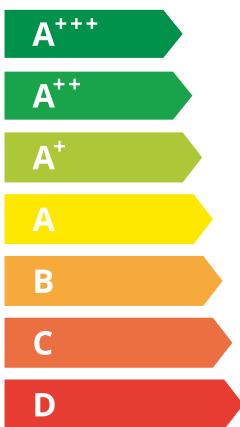
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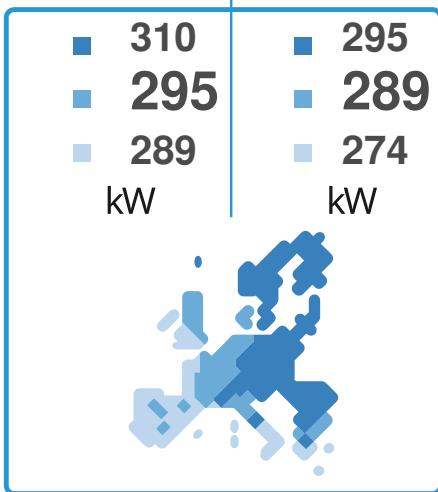
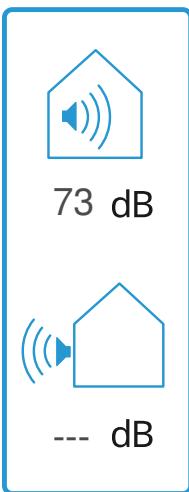
TBW 300 EVI  
HeavyDuty 3L2

55 °C

35 °C



A++



2019

811/2013

TBW 300 EVI

HeavyDuty 3L2

**ErP Data**

	55 °C	35 °C
Energy class	A+	A++
η [ % ]	124.6	146.2
P <sub>rated</sub> [ kW ]	295	289
Q <sub>HE</sub> [ kWh/y ]	609057	595628
SCOP [ - ]	3.12	3.66
T <sub>bivalent</sub> [ °C ]	-10	-10

CONTROLLER



+ QAA55/75 class **VII** 3.5% ↓  
- QAA55/75 class **III** 1.5% ↓

**Heating performance data**

Version: v202223.006-BW-WW

**Source - Brine [0°C] / Low Temperature [35°C]**

ZHI46K1P-TWD\_R410A\_6\_BWW

Operating conditions		Qh	P	COP
1	B0 / W30-35	288.3	65.1	4.43
2	B0 / W30-35 ( MIN )	48.1	10.6	4.53
A	B0 / Wxx-34	288.0	63.7	4.52
B	B0 / Wxx-30	286.4	58.2	4.92
C	B0 / Wxx-27	47.5	8.9	5.36
D	B0 / Wxx-24	47.3	8.3	5.73
E	B0 / Wxx-35	288.3	65.1	4.43
F	B0 / Wxx-35	288.3	65.1	4.43

**SCOP DATA EN 14825:2018**

Source - Brine [0°C] / Low Temperature [35°C]	
SCOPon	3.66
SCOPnet	5.49
SCOP	3.66
η [ % ]	146.22
Label	A++
Qh [ kWh ]	595628
Pdesignh [ kW ]	288.3
Tbivalent [ °C ]	-10

**Source - Brine [0°C] / Medium Temperature [55°C]**

Operating conditions		Qh	P	COP
1	B0 / W47-55	294.8	102.1	2.89
2	B0 / W47-55 ( MIN )	49.1	16.5	2.96
A	B0 / Wxx-52	296.7	93.1	3.29
B	B0 / Wxx-42	296.8	72.7	4.13
C	B0 / Wxx-36	48.6	10.5	4.63
D	B0 / Wxx-30	48.3	9.5	5.09
E	B0 / Wxx-55	294.8	102.1	2.89
F	B0 / Wxx-54	297.0	95.3	3.12

**SCOP DATA EN 14825:2018**

Source - Brine [0°C] / Medium Temperature [55°C]	
SCOPon	3.12
SCOPnet	4.37
SCOP	3.12
η [ % ]	124.63
Label	A+
Qh [ kWh ]	609057
Pdesignh [ kW ]	294.8
Tbivalent [ °C ]	-10

**Source - Water [10°C] / Low Temperature [35°C]**

Operating conditions		Qh	P	COP
1	W10 / W30-35	363.6	65.1	5.58
2	W10 / W30-35 ( MIN )	60.6	10.6	5.71
A	W10 / Wxx-34	363.6	63.7	5.70
B	W10 / Wxx-30	363.8	58.6	6.21
C	W10 / Wxx-27	60.6	8.9	6.78
D	W10 / Wxx-24	60.6	8.4	7.23
E	W10 / Wxx-35	363.6	65.1	5.58
F	W10 / Wxx-35	363.6	65.1	5.58

**SCOP DATA EN 14825:2018**

Source - Water [10°C] / Low Temperature [35°C]	
SCOPon	4.28
SCOPnet	6.92
SCOP	4.28
η [ % ]	171.13
Label	A+++
Qh [ kWh ]	751198
Pdesignh [ kW ]	363.6
Tbivalent [ °C ]	-10.00

# WAMAK TBW 300 EVI HeavyDuty 3L2

## Source - Water [10°C] / Medium Temperature [55°C]

Operating conditions		Qh	P	COP	SCOP DATA EN 14825:2018	
1	W10 / W47-55	362.7	102.1	3.55	Source - Water [10°C] / Medium Temperature [55°C]	
2	W10 / W47-55 ( MIN )	60.5	16.6	3.64	SCOPon	3.63
A	W10 / Wxx-52	366.4	92.9	3.94	SCOPnet	5.32
B	W10 / Wxx-42	367.2	72.6	5.06	SCOP	3.63
C	W10 / Wxx-36	61.3	10.5	5.84	η [ % ]	145.32
D	W10 / Wxx-30	61.3	9.5	6.43	Label	A++
E	W10 / Wxx-55	362.7	102.1	3.55	Qh [ kWh ]	749338
F	W10 / Wxx-55	362.7	102.1	3.55	Pdesignh [ kW ]	362.7
					Tbivalent [ °C ]	-10.00

## Low temperature cooling W 12 / 7°C

Operating conditions		Qc	P	EER	SEER DATA EN 14825:2018 [ W 12 / 7°C ]	
A	W30-35 / W12-7	224.3	69.6	3.22	SEERon	3.86
B	W26-xx / W12-7	228.5	63.7	3.59	SEER	3.86
C	W22-xx / W12-7	232.0	58.2	3.98	Qc [ kWh ]	130980
D	W18-xx / W12-7	233.6	55.7	4.20	η [ % ]	154.50

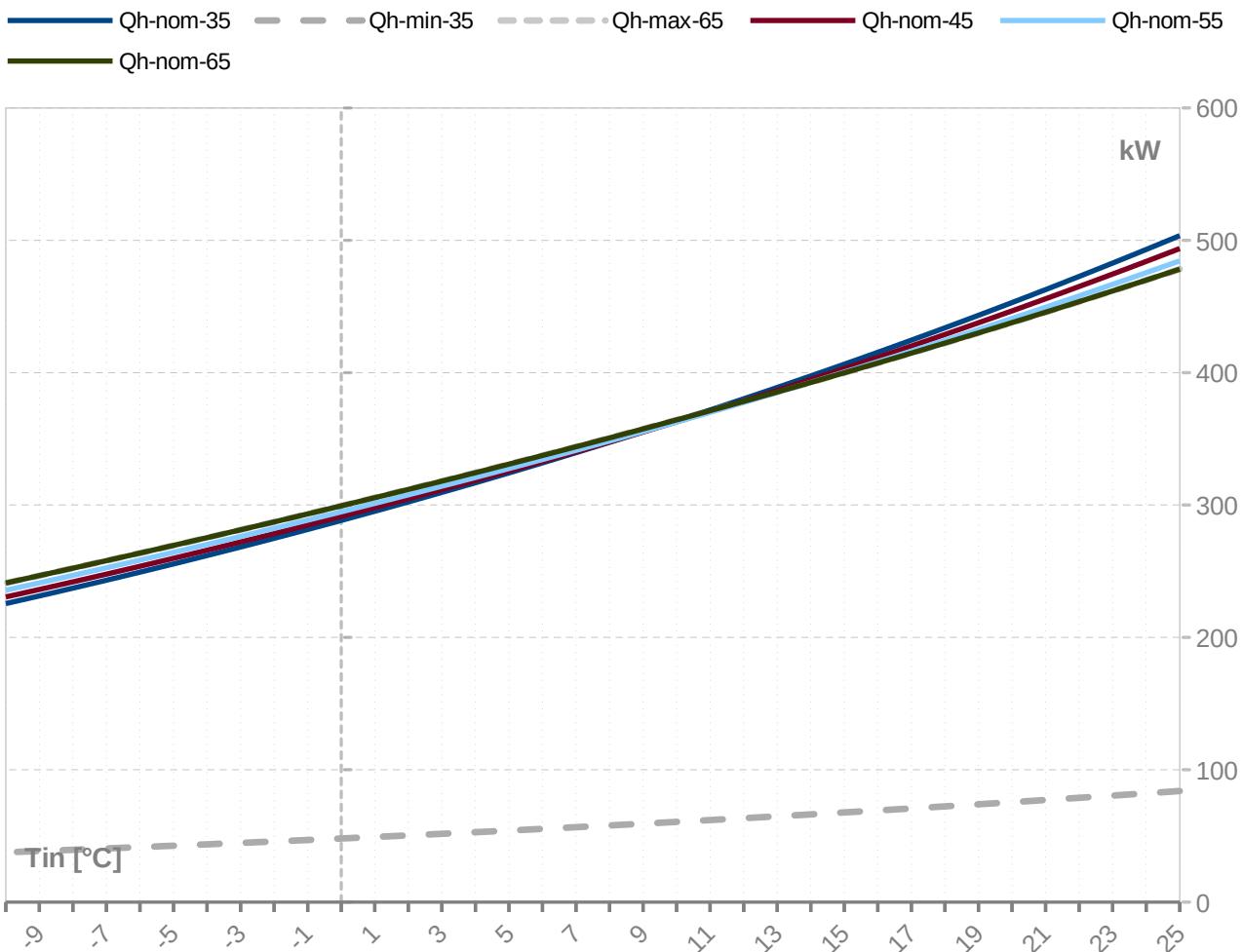
## Radiant cooling W 23 / 18°C

Operating conditions		Qc	P	EER	SEER DATA EN 14825:2018 [ W 23 / 18°C ]	
A	W50-xx / W23-18	260.6	109.4	2.38	SEERon	5.15
B	W40-xx / W23-18	281.7	87.0	3.24	SEER	5.15
C	W30-35 / W23-18	298.5	69.6	4.29	Qc [ kWh ]	130980
D	W26-xx / W23-18	304.1	63.7	4.77	η [ % ]	205.80

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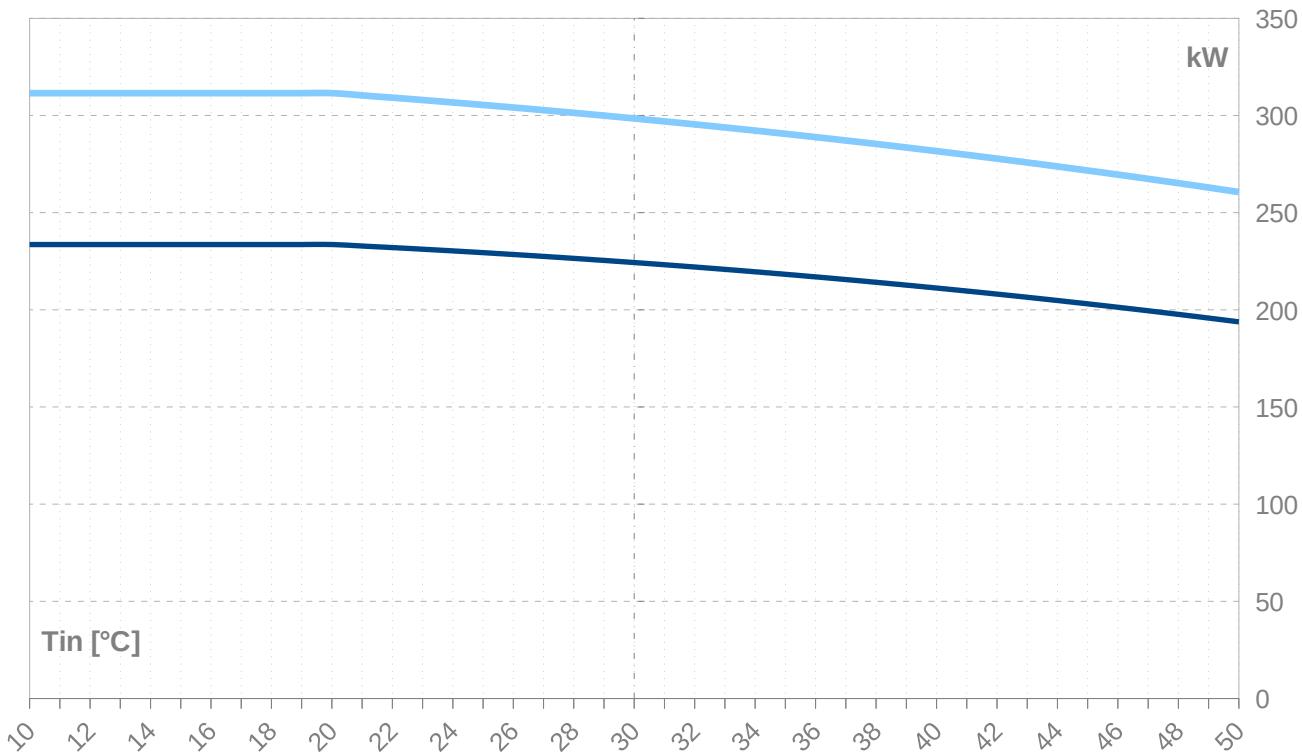
## Performance lines - heating

ZHI46K1P-TWD\_R410A\_6\_BWW



## Performance lines - cooling

Qc-nom-12-7    Qc-nom-23-18



Th -OU	[°C]		35									
Ts -IN [°C]	Qh nom [kW]	Qh min [kW]	Qh max [kW]	Pin nom [kW]	Pin min [kW]	Pin max [kW]	COP nom kw / kW	Qc nom [kW]	Qc min [kW]	Qc max [kW]	I nom [A]	
25	<b>503.5</b>	83.9	503.5	<b>66.3</b>	10.8	66.3	<b>7.59</b>	441.6	73.6	441.6	140.4	
24	<b>493.1</b>	82.2	493.1	<b>66.2</b>	10.8	66.2	<b>7.45</b>	431.3	71.9	431.3	140.2	
23	<b>482.8</b>	80.5	482.8	<b>66.0</b>	10.8	66.0	<b>7.31</b>	421.2	70.2	421.2	139.9	
22	<b>472.7</b>	78.8	472.7	<b>65.9</b>	10.7	65.9	<b>7.18</b>	411.2	68.5	411.2	139.8	
21	<b>462.8</b>	77.1	462.8	<b>65.8</b>	10.7	65.8	<b>7.04</b>	401.4	66.9	401.4	139.6	
20	<b>453.0</b>	75.5	453.0	<b>65.6</b>	10.7	65.6	<b>6.90</b>	391.7	65.3	391.7	139.5	
19	<b>443.3</b>	73.9	443.3	<b>65.5</b>	10.7	65.5	<b>6.76</b>	382.1	63.7	382.1	139.4	
18	<b>433.9</b>	72.3	433.9	<b>65.5</b>	10.7	65.5	<b>6.63</b>	372.8	62.1	372.8	139.4	
17	<b>424.6</b>	70.8	424.6	<b>65.4</b>	10.6	65.4	<b>6.49</b>	363.5	60.6	363.5	139.4	
16	<b>415.4</b>	69.2	415.4	<b>65.3</b>	10.6	65.3	<b>6.36</b>	354.4	59.1	354.4	139.4	
15	<b>406.4</b>	67.7	406.4	<b>65.3</b>	10.6	65.3	<b>6.23</b>	345.4	57.6	345.4	139.4	
14	<b>397.5</b>	66.3	397.5	<b>65.2</b>	10.6	65.2	<b>6.10</b>	336.6	56.1	336.6	139.5	
13	<b>388.8</b>	64.8	388.8	<b>65.2</b>	10.6	65.2	<b>5.96</b>	327.9	54.7	327.9	139.6	
12	<b>380.3</b>	63.4	380.3	<b>65.2</b>	10.6	65.2	<b>5.84</b>	319.4	53.2	319.4	139.7	
11	<b>371.8</b>	62.0	371.8	<b>65.1</b>	10.6	65.1	<b>5.71</b>	311.0	51.8	311.0	139.8	
10	<b>363.6</b>	60.6	363.6	<b>65.1</b>	10.6	65.1	<b>5.58</b>	302.8	50.5	302.8	139.9	
9	<b>355.4</b>	59.2	355.4	<b>65.1</b>	10.6	65.1	<b>5.46</b>	294.6	49.1	294.6	140.1	
8	<b>347.4</b>	57.9	347.4	<b>65.1</b>	10.6	65.1	<b>5.34</b>	286.6	47.8	286.6	140.2	
7	<b>339.6</b>	56.6	339.6	<b>65.1</b>	10.6	65.1	<b>5.22</b>	278.8	46.5	278.8	140.4	
6	<b>331.9</b>	55.3	331.9	<b>65.1</b>	10.6	65.1	<b>5.10</b>	271.1	45.2	271.1	140.6	
5	<b>324.3</b>	54.0	324.3	<b>65.1</b>	10.6	65.1	<b>4.98</b>	263.5	43.9	263.5	140.7	
4	<b>316.8</b>	52.8	316.8	<b>65.1</b>	10.6	65.1	<b>4.87</b>	256.0	42.7	256.0	140.9	
3	<b>309.5</b>	51.6	309.5	<b>65.1</b>	10.6	65.1	<b>4.75</b>	248.7	41.4	248.7	141.1	
2	<b>302.3</b>	50.4	302.3	<b>65.1</b>	10.6	65.1	<b>4.64</b>	241.5	40.3	241.5	141.3	
1	<b>295.3</b>	49.2	295.3	<b>65.1</b>	10.6	65.1	<b>4.53</b>	234.4	39.1	234.4	141.4	
0	<b>288.3</b>	48.1	288.3	<b>65.1</b>	10.6	65.1	<b>4.43</b>	227.5	37.9	227.5	141.6	
-1	<b>281.5</b>	46.9	281.5	<b>65.1</b>	10.6	65.1	<b>4.32</b>	220.7	36.8	220.7	141.8	
-2	<b>274.8</b>	45.8	274.8	<b>65.1</b>	10.6	65.1	<b>4.22</b>	214.0	35.7	214.0	141.9	
-3	<b>268.3</b>	44.7	268.3	<b>65.1</b>	10.6	65.1	<b>4.12</b>	207.5	34.6	207.5	142.0	
-4	<b>261.8</b>	43.6	261.8	<b>65.1</b>	10.6	65.1	<b>4.02</b>	201.0	33.5	201.0	142.2	
-5	<b>255.5</b>	42.6	255.5	<b>65.1</b>	10.6	65.1	<b>3.93</b>	194.7	32.5	194.7	142.3	
-6	<b>249.3</b>	41.5	249.3	<b>65.1</b>	10.6	65.1	<b>3.83</b>	188.5	31.4	188.5	142.4	
-7	<b>243.2</b>	40.5	243.2	<b>65.0</b>	10.6	65.0	<b>3.74</b>	182.5	30.4	182.5	142.4	
-8	<b>237.2</b>	39.5	237.2	<b>65.0</b>	10.6	65.0	<b>3.65</b>	176.5	29.4	176.5	142.5	
-9	<b>231.3</b>	38.6	231.3	<b>64.9</b>	10.6	64.9	<b>3.56</b>	170.7	28.4	170.7	142.5	
-10	<b>225.5</b>	37.6	225.5	<b>64.8</b>	10.6	64.8	<b>3.48</b>	165.0	27.5	165.0	142.5	
-11	<b>219.9</b>	36.6	219.9	<b>64.8</b>	10.5	64.8	<b>3.39</b>	159.4	26.6	159.4	142.5	
-12	<b>214.3</b>	35.7	214.3	<b>64.7</b>	10.5	64.7	<b>3.31</b>	153.9	25.7	153.9	142.4	
-13	<b>208.9</b>	34.8	208.9	<b>64.6</b>	10.5	64.6	<b>3.23</b>	148.6	24.8	148.6	142.3	
-14	<b>203.5</b>	33.9	203.5	<b>64.5</b>	10.5	64.5	<b>3.16</b>	143.3	23.9	143.3	142.2	
-15	<b>198.3</b>	33.0	198.3	<b>64.3</b>	10.5	64.3	<b>3.08</b>	138.2	23.0	138.2	142.0	

-- attention: operating limits not reflected in performance table

ZHI46K1P-TWD\_R410A\_6\_BWW

**WAMAK TBW 300 EVI HeavyDuty 3L2**

Th -OU	45											
	Ts -IN	Qh nom	Qh min	Qh max	Pin nom	Pin min	Pin max	COP nom	Qc nom	Qc min	Qc max	I nom
[°C]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW / kW]	[kW]	[kW]	[kW]	[kW]	[A]
25	<b>493.8</b>	82.3	493.8	<b>79.9</b>	13.0	79.9	<b>6.18</b>	419.1	69.9	419.1	158.6	
24	<b>484.1</b>	80.7	484.1	<b>79.9</b>	13.0	79.9	<b>6.06</b>	409.5	68.2	409.5	158.5	
23	<b>474.5</b>	79.1	474.5	<b>79.9</b>	13.0	79.9	<b>5.94</b>	399.9	66.7	399.9	158.3	
22	<b>465.1</b>	77.5	465.1	<b>79.9</b>	13.0	79.9	<b>5.82</b>	390.5	65.1	390.5	158.2	
21	<b>455.8</b>	76.0	455.8	<b>79.9</b>	13.0	79.9	<b>5.71</b>	381.3	63.5	381.3	158.2	
20	<b>446.7</b>	74.4	446.7	<b>79.9</b>	13.0	79.9	<b>5.59</b>	372.1	62.0	372.1	158.1	
19	<b>437.7</b>	73.0	437.7	<b>79.9</b>	13.0	79.9	<b>5.48</b>	363.1	60.5	363.1	158.1	
18	<b>428.9</b>	71.5	428.9	<b>79.9</b>	13.0	79.9	<b>5.37</b>	354.3	59.0	354.3	158.0	
17	<b>420.1</b>	70.0	420.1	<b>79.9</b>	13.0	79.9	<b>5.26</b>	345.5	57.6	345.5	158.0	
16	<b>411.6</b>	68.6	411.6	<b>79.9</b>	13.0	79.9	<b>5.15</b>	336.9	56.2	336.9	158.1	
15	<b>403.1</b>	67.2	403.1	<b>80.0</b>	13.0	80.0	<b>5.04</b>	328.5	54.7	328.5	158.1	
14	<b>394.8</b>	65.8	394.8	<b>80.0</b>	13.0	80.0	<b>4.94</b>	320.1	53.4	320.1	158.1	
13	<b>386.6</b>	64.4	386.6	<b>80.0</b>	13.0	80.0	<b>4.83</b>	311.9	52.0	311.9	158.2	
12	<b>378.6</b>	63.1	378.6	<b>80.1</b>	13.0	80.1	<b>4.73</b>	303.8	50.6	303.8	158.3	
11	<b>370.7</b>	61.8	370.7	<b>80.1</b>	13.1	80.1	<b>4.63</b>	295.8	49.3	295.8	158.3	
10	<b>362.9</b>	60.5	362.9	<b>80.2</b>	13.1	80.2	<b>4.53</b>	288.0	48.0	288.0	158.4	
9	<b>355.2</b>	59.2	355.2	<b>80.2</b>	13.1	80.2	<b>4.43</b>	280.3	46.7	280.3	158.5	
8	<b>347.6</b>	57.9	347.6	<b>80.2</b>	13.1	80.2	<b>4.33</b>	272.7	45.4	272.7	158.5	
7	<b>340.2</b>	56.7	340.2	<b>80.3</b>	13.1	80.3	<b>4.24</b>	265.2	44.2	265.2	158.6	
6	<b>332.9</b>	55.5	332.9	<b>80.3</b>	13.1	80.3	<b>4.14</b>	257.9	43.0	257.9	158.7	
5	<b>325.7</b>	54.3	325.7	<b>80.4</b>	13.1	80.4	<b>4.05</b>	250.6	41.8	250.6	158.7	
4	<b>318.6</b>	53.1	318.6	<b>80.4</b>	13.1	80.4	<b>3.96</b>	243.5	40.6	243.5	158.8	
3	<b>311.6</b>	51.9	311.6	<b>80.4</b>	13.1	80.4	<b>3.88</b>	236.5	39.4	236.5	158.8	
2	<b>304.8</b>	50.8	304.8	<b>80.4</b>	13.1	80.4	<b>3.79</b>	229.7	38.3	229.7	158.9	
1	<b>298.0</b>	49.7	298.0	<b>80.4</b>	13.1	80.4	<b>3.71</b>	222.9	37.2	222.9	158.9	
0	<b>291.4</b>	48.6	291.4	<b>80.4</b>	13.1	80.4	<b>3.62</b>	216.3	36.0	216.3	158.9	
-1	<b>284.8</b>	47.5	284.8	<b>80.4</b>	13.1	80.4	<b>3.54</b>	209.7	35.0	209.7	158.9	
-2	<b>278.4</b>	46.4	278.4	<b>80.4</b>	13.1	80.4	<b>3.46</b>	203.3	33.9	203.3	158.8	
-3	<b>272.1</b>	45.3	272.1	<b>80.4</b>	13.1	80.4	<b>3.39</b>	197.0	32.8	197.0	158.8	
-4	<b>265.9</b>	44.3	265.9	<b>80.3</b>	13.1	80.3	<b>3.31</b>	190.8	31.8	190.8	158.7	
-5	<b>259.7</b>	43.3	259.7	<b>80.3</b>	13.1	80.3	<b>3.24</b>	184.8	30.8	184.8	158.6	
-6	<b>253.7</b>	42.3	253.7	<b>80.2</b>	13.1	80.2	<b>3.16</b>	178.8	29.8	178.8	158.4	
-7	<b>247.8</b>	41.3	247.8	<b>80.1</b>	13.1	80.1	<b>3.09</b>	172.9	28.8	172.9	158.3	
-8	<b>241.9</b>	40.3	241.9	<b>80.0</b>	13.0	80.0	<b>3.02</b>	167.2	27.9	167.2	158.1	
-9	<b>236.2</b>	39.4	236.2	<b>79.9</b>	13.0	79.9	<b>2.96</b>	161.5	26.9	161.5	157.8	
-10	<b>230.5</b>	38.4	230.5	<b>79.8</b>	13.0	79.8	<b>2.89</b>	156.0	26.0	156.0	157.6	
-11	<b>225.0</b>	37.5	225.0	<b>79.6</b>	13.0	79.6	<b>2.82</b>	150.6	25.1	150.6	157.2	
-12	<b>219.5</b>	36.6	219.5	<b>79.5</b>	12.9	79.5	<b>2.76</b>	145.3	24.2	145.3	156.9	
-13	<b>214.1</b>	35.7	214.1	<b>79.3</b>	12.9	79.3	<b>2.70</b>	140.0	23.3	140.0	156.5	
-14	<b>208.8</b>	34.8	208.8	<b>79.1</b>	12.9	79.1	<b>2.64</b>	134.9	22.5	134.9	156.1	
-15	<b>203.6</b>	33.9	203.6	<b>78.9</b>	12.9	78.9	<b>2.58</b>	129.9	21.6	129.9	155.6	

-- attention: operating limits not reflected in performance table

Th -OU	[°C]										
Ts -IN	Qh nom	Qh min	Qh max	Pin nom	Pin min	Pin max	COP nom	Qc nom	Qc min	Qc max	I nom
[°C]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	kW / kW	[kW]	[kW]	[kW]	[A]
25	<b>484.5</b>	80.8	484.5	<b>101.1</b>	16.5	101.1	<b>4.79</b>	390.1	65.0	390.1	183.9
24	<b>475.5</b>	79.3	475.5	<b>101.1</b>	16.5	101.1	<b>4.70</b>	381.1	63.5	381.1	183.8
23	<b>466.7</b>	77.8	466.7	<b>101.2</b>	16.5	101.2	<b>4.61</b>	372.2	62.0	372.2	183.8
22	<b>458.0</b>	76.3	458.0	<b>101.3</b>	16.5	101.3	<b>4.52</b>	363.5	60.6	363.5	183.9
21	<b>449.4</b>	74.9	449.4	<b>101.3</b>	16.5	101.3	<b>4.44</b>	354.8	59.1	354.8	183.9
20	<b>441.0</b>	73.5	441.0	<b>101.4</b>	16.5	101.4	<b>4.35</b>	346.3	57.7	346.3	183.9
19	<b>432.6</b>	72.1	432.6	<b>101.5</b>	16.5	101.5	<b>4.26</b>	337.9	56.3	337.9	184.0
18	<b>424.4</b>	70.7	424.4	<b>101.6</b>	16.5	101.6	<b>4.18</b>	329.6	54.9	329.6	184.0
17	<b>416.3</b>	69.4	416.3	<b>101.6</b>	16.6	101.6	<b>4.10</b>	321.4	53.6	321.4	184.1
16	<b>408.3</b>	68.1	408.3	<b>101.7</b>	16.6	101.7	<b>4.01</b>	313.3	52.2	313.3	184.2
15	<b>400.5</b>	66.7	400.5	<b>101.8</b>	16.6	101.8	<b>3.93</b>	305.4	50.9	305.4	184.2
14	<b>392.7</b>	65.4	392.7	<b>101.9</b>	16.6	101.9	<b>3.86</b>	297.6	49.6	297.6	184.3
13	<b>385.0</b>	64.2	385.0	<b>101.9</b>	16.6	101.9	<b>3.78</b>	289.9	48.3	289.9	184.4
12	<b>377.5</b>	62.9	377.5	<b>102.0</b>	16.6	102.0	<b>3.70</b>	282.3	47.0	282.3	184.4
11	<b>370.1</b>	61.7	370.1	<b>102.0</b>	16.6	102.0	<b>3.63</b>	274.8	45.8	274.8	184.5
10	<b>362.7</b>	60.5	362.7	<b>102.1</b>	16.6	102.1	<b>3.55</b>	267.4	44.6	267.4	184.5
9	<b>355.5</b>	59.3	355.5	<b>102.1</b>	16.6	102.1	<b>3.48</b>	260.1	43.4	260.1	184.6
8	<b>348.4</b>	58.1	348.4	<b>102.2</b>	16.6	102.2	<b>3.41</b>	253.0	42.2	253.0	184.6
7	<b>341.4</b>	56.9	341.4	<b>102.2</b>	16.6	102.2	<b>3.34</b>	245.9	41.0	245.9	184.6
6	<b>334.4</b>	55.7	334.4	<b>102.2</b>	16.6	102.2	<b>3.27</b>	239.0	39.8	239.0	184.6
5	<b>327.6</b>	54.6	327.6	<b>102.2</b>	16.6	102.2	<b>3.20</b>	232.1	38.7	232.1	184.6
4	<b>320.9</b>	53.5	320.9	<b>102.2</b>	16.6	102.2	<b>3.14</b>	225.4	37.6	225.4	184.6
3	<b>314.2</b>	52.4	314.2	<b>102.2</b>	16.6	102.2	<b>3.07</b>	218.8	36.5	218.8	184.5
2	<b>307.7</b>	51.3	307.7	<b>102.2</b>	16.6	102.2	<b>3.01</b>	212.3	35.4	212.3	184.4
1	<b>301.2</b>	50.2	301.2	<b>102.1</b>	16.6	102.1	<b>2.95</b>	205.8	34.3	205.8	184.3
0	<b>294.8</b>	49.1	294.8	<b>102.1</b>	16.6	102.1	<b>2.89</b>	199.5	33.3	199.5	184.2
-1	<b>288.6</b>	48.1	288.6	<b>102.0</b>	16.6	102.0	<b>2.83</b>	193.3	32.2	193.3	184.0
-2	<b>282.4</b>	47.1	282.4	<b>101.9</b>	16.6	101.9	<b>2.77</b>	187.2	31.2	187.2	183.8
-3	<b>276.2</b>	46.0	276.2	<b>101.8</b>	16.6	101.8	<b>2.71</b>	181.2	30.2	181.2	183.6
-4	<b>270.2</b>	45.0	270.2	<b>101.7</b>	16.6	101.7	<b>2.66</b>	175.2	29.2	175.2	183.3
-5	<b>264.2</b>	44.0	264.2	<b>101.6</b>	16.5	101.6	<b>2.60</b>	169.4	28.2	169.4	183.0
-6	<b>258.4</b>	43.1	258.4	<b>101.4</b>	16.5	101.4	<b>2.55</b>	163.7	27.3	163.7	182.7
-7	<b>252.6</b>	42.1	252.6	<b>101.2</b>	16.5	101.2	<b>2.50</b>	158.0	26.3	158.0	182.3
-8	<b>246.8</b>	41.1	246.8	<b>101.0</b>	16.5	101.0	<b>2.44</b>	152.5	25.4	152.5	181.9
-9	<b>241.2</b>	40.2	241.2	<b>100.8</b>	16.4	100.8	<b>2.39</b>	147.0	24.5	147.0	181.4
-10	<b>235.6</b>	39.3	235.6	<b>100.5</b>	16.4	100.5	<b>2.34</b>	141.7	23.6	141.7	180.9
-11	<b>230.1</b>	38.3	230.1	<b>100.3</b>	16.3	100.3	<b>2.29</b>	136.4	22.7	136.4	180.3
-12	<b>224.6</b>	37.4	224.6	<b>100.0</b>	16.3	100.0	<b>2.25</b>	131.2	21.9	131.2	179.7
-13	<b>219.2</b>	36.5	219.2	<b>99.7</b>	16.2	99.7	<b>2.20</b>	126.2	21.0	126.2	179.0
-14	<b>213.9</b>	35.7	213.9	<b>99.3</b>	16.2	99.3	<b>2.15</b>	121.2	20.2	121.2	178.3
-15	<b>208.7</b>	34.8	208.7	<b>99.0</b>	16.1	99.0	<b>2.11</b>	116.2	19.4	116.2	177.5

-- attention: operating limits not reflected in performance table

# WAMAK TBW 300 EVI HeavyDuty 3L2

Th -OU	65 (T-max)											
	Ts -IN	Qh nom	Qh min	Qh max	Pin nom	Pin min	Pin max	COP nom	Qc nom	Qc min	Qc max	I nom
[°C]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	[kW]	kW / kW	[kW]	[kW]	[kW]	[A]
25	<b>478.2</b>	79.7	478.2	<b>128.8</b>	21.0	128.8	<b>3.71</b>	358.0	59.7	358.0	216.0	
24	<b>469.9</b>	78.3	469.9	<b>128.9</b>	21.0	128.9	<b>3.65</b>	349.6	58.3	349.6	216.1	
23	<b>461.7</b>	77.0	461.7	<b>129.0</b>	21.0	129.0	<b>3.58</b>	341.3	56.9	341.3	216.3	
22	<b>453.7</b>	75.6	453.7	<b>129.1</b>	21.0	129.1	<b>3.51</b>	333.1	55.5	333.1	216.5	
21	<b>445.7</b>	74.3	445.7	<b>129.2</b>	21.0	129.2	<b>3.45</b>	325.0	54.2	325.0	216.7	
20	<b>437.8</b>	73.0	437.8	<b>129.3</b>	21.1	129.3	<b>3.39</b>	317.1	52.8	317.1	216.8	
19	<b>430.0</b>	71.7	430.0	<b>129.4</b>	21.1	129.4	<b>3.32</b>	309.2	51.5	309.2	217.0	
18	<b>422.4</b>	70.4	422.4	<b>129.5</b>	21.1	129.5	<b>3.26</b>	301.5	50.2	301.5	217.2	
17	<b>414.8</b>	69.1	414.8	<b>129.5</b>	21.1	129.5	<b>3.20</b>	293.8	49.0	293.8	217.3	
16	<b>407.3</b>	67.9	407.3	<b>129.6</b>	21.1	129.6	<b>3.14</b>	286.3	47.7	286.3	217.5	
15	<b>399.9</b>	66.7	399.9	<b>129.7</b>	21.1	129.7	<b>3.08</b>	278.8	46.5	278.8	217.7	
14	<b>392.6</b>	65.4	392.6	<b>129.7</b>	21.1	129.7	<b>3.03</b>	271.5	45.3	271.5	217.8	
13	<b>385.4</b>	64.2	385.4	<b>129.8</b>	21.1	129.8	<b>2.97</b>	264.3	44.0	264.3	217.9	
12	<b>378.3</b>	63.1	378.3	<b>129.8</b>	21.1	129.8	<b>2.92</b>	257.1	42.9	257.1	218.0	
11	<b>371.3</b>	61.9	371.3	<b>129.8</b>	21.1	129.8	<b>2.86</b>	250.1	41.7	250.1	218.1	
10	<b>364.4</b>	60.7	364.4	<b>129.8</b>	21.1	129.8	<b>2.81</b>	243.1	40.5	243.1	218.2	
9	<b>357.5</b>	59.6	357.5	<b>129.8</b>	21.1	129.8	<b>2.75</b>	236.3	39.4	236.3	218.3	
8	<b>350.7</b>	58.5	350.7	<b>129.8</b>	21.1	129.8	<b>2.70</b>	229.5	38.3	229.5	218.3	
7	<b>344.0</b>	57.3	344.0	<b>129.7</b>	21.1	129.7	<b>2.65</b>	222.9	37.1	222.9	218.3	
6	<b>337.4</b>	56.2	337.4	<b>129.7</b>	21.1	129.7	<b>2.60</b>	216.3	36.1	216.3	218.3	
5	<b>330.9</b>	55.2	330.9	<b>129.6</b>	21.1	129.6	<b>2.55</b>	209.9	35.0	209.9	218.3	
4	<b>324.4</b>	54.1	324.4	<b>129.5</b>	21.1	129.5	<b>2.50</b>	203.5	33.9	203.5	218.2	
3	<b>318.1</b>	53.0	318.1	<b>129.4</b>	21.1	129.4	<b>2.46</b>	197.2	32.9	197.2	218.1	
2	<b>311.8</b>	52.0	311.8	<b>129.3</b>	21.1	129.3	<b>2.41</b>	191.0	31.8	191.0	217.9	
1	<b>305.5</b>	50.9	305.5	<b>129.2</b>	21.0	129.2	<b>2.37</b>	184.9	30.8	184.9	217.7	
0	<b>299.3</b>	49.9	299.3	<b>129.0</b>	21.0	129.0	<b>2.32</b>	178.9	29.8	178.9	217.5	
-1	<b>293.2</b>	48.9	293.2	<b>128.8</b>	21.0	128.8	<b>2.28</b>	172.9	28.8	172.9	217.3	
-2	<b>287.2</b>	47.9	287.2	<b>128.6</b>	21.0	128.6	<b>2.23</b>	167.1	27.8	167.1	217.0	
-3	<b>281.2</b>	46.9	281.2	<b>128.4</b>	20.9	128.4	<b>2.19</b>	161.3	26.9	161.3	216.6	
-4	<b>275.3</b>	45.9	275.3	<b>128.2</b>	20.9	128.2	<b>2.15</b>	155.6	25.9	155.6	216.2	
-5	<b>269.5</b>	44.9	269.5	<b>127.9</b>	20.8	127.9	<b>2.11</b>	150.0	25.0	150.0	215.8	
-6	<b>263.7</b>	43.9	263.7	<b>127.6</b>	20.8	127.6	<b>2.07</b>	144.5	24.1	144.5	215.3	
-7	<b>257.9</b>	43.0	257.9	<b>127.3</b>	20.7	127.3	<b>2.03</b>	139.1	23.2	139.1	214.7	
-8	<b>252.3</b>	42.0	252.3	<b>126.9</b>	20.7	126.9	<b>1.99</b>	133.8	22.3	133.8	214.1	
-9	<b>246.6</b>	41.1	246.6	<b>126.5</b>	20.6	126.5	<b>1.95</b>	128.5	21.4	128.5	213.5	
-10	<b>241.1</b>	40.2	241.1	<b>126.1</b>	20.5	126.1	<b>1.91</b>	123.3	20.5	123.3	212.7	
-11	<b>235.5</b>	39.3	235.5	<b>125.7</b>	20.5	125.7	<b>1.87</b>	118.2	19.7	118.2	211.9	
-12	<b>230.1</b>	38.3	230.1	<b>125.2</b>	20.4	125.2	<b>1.84</b>	113.1	18.9	113.1	211.1	
-13	<b>224.6</b>	37.4	224.6	<b>124.7</b>	20.3	124.7	<b>1.80</b>	108.2	18.0	108.2	210.2	
-14	<b>219.2</b>	36.5	219.2	<b>124.2</b>	20.2	124.2	<b>1.77</b>	103.3	17.2	103.3	209.2	
-15	<b>213.9</b>	35.6	213.9	<b>123.6</b>	20.1	123.6	<b>1.73</b>	98.5	16.4	98.5	208.2	

-- attention: operating limits not reflected in performance table

# WAMAK TBW 300 EVI HeavyDuty 3L2

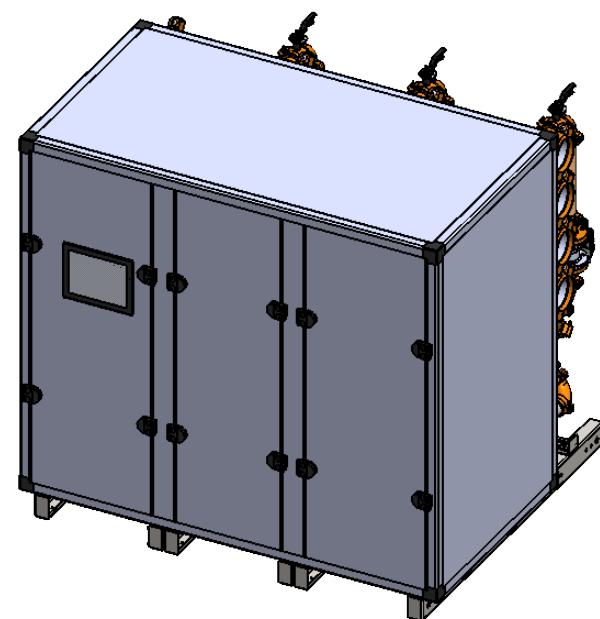
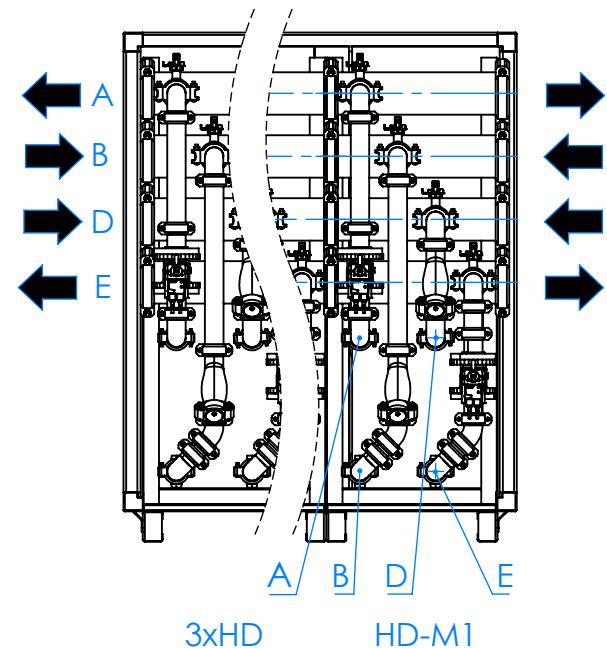
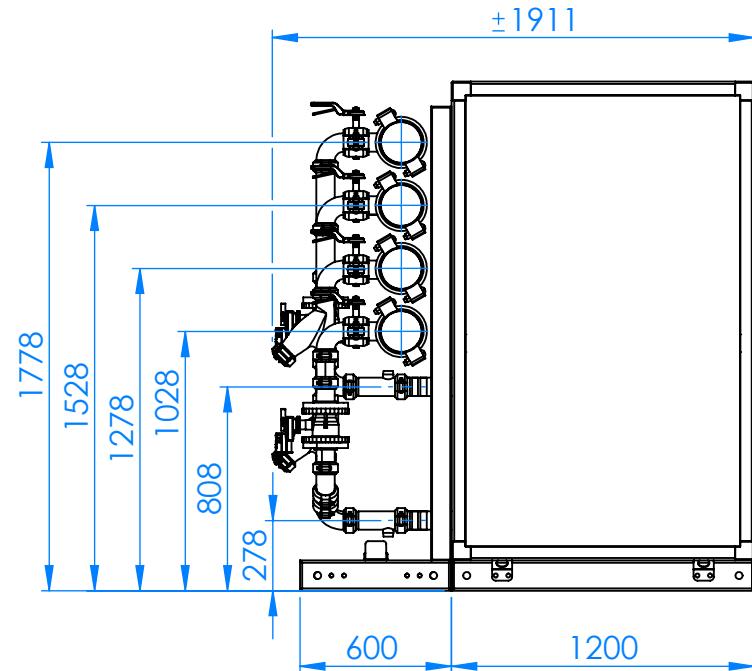
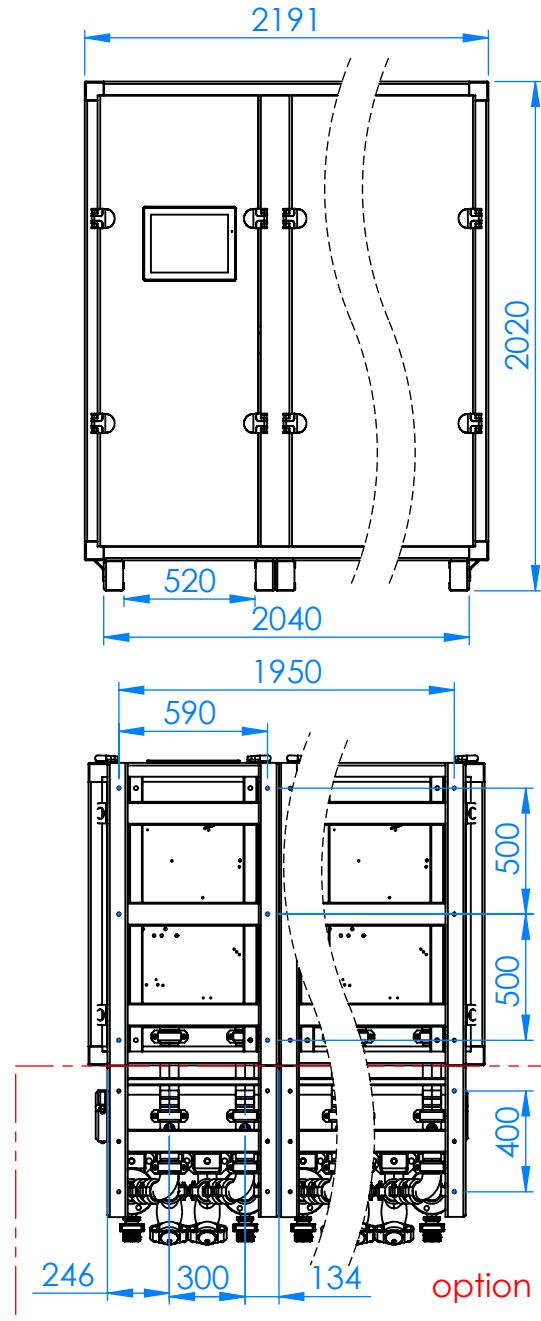
Tc -OU		W 12 / 7 °C										
Ts -IN [°C]	Qc nom [kW]	Qc min [kW]	Qc max [kW]	Pin nom [kW]	Pin min [kW]	Pin max [kW]	EER kW / kW	Qh nom [kW]	Qh min [kW]	Qh max [kW]	I nom [A]	
40	<b>211.2</b>	35.2	211.2	<b>87.0</b>	14.2	87.0	<b>2.43</b>	292.5	48.7	292.5	166.4	
39	<b>212.7</b>	35.5	212.7	<b>85.1</b>	13.9	85.1	<b>2.50</b>	292.1	48.7	292.1	164.2	
38	<b>214.2</b>	35.7	214.2	<b>83.2</b>	13.5	83.2	<b>2.58</b>	291.8	48.6	291.8	162.0	
37	<b>215.6</b>	35.9	215.6	<b>81.3</b>	13.2	81.3	<b>2.65</b>	291.5	48.6	291.5	159.9	
36	<b>217.0</b>	36.2	217.0	<b>79.5</b>	13.0	79.5	<b>2.73</b>	291.2	48.5	291.2	157.9	
35	<b>218.3</b>	36.4	218.3	<b>77.8</b>	12.7	77.8	<b>2.81</b>	290.9	48.5	290.9	155.9	
34	<b>219.6</b>	36.6	219.6	<b>76.1</b>	12.4	76.1	<b>2.89</b>	290.6	48.4	290.6	153.9	
33	<b>220.8</b>	36.8	220.8	<b>74.4</b>	12.1	74.4	<b>2.97</b>	290.3	48.4	290.3	152.0	
32	<b>222.0</b>	37.0	222.0	<b>72.8</b>	11.9	72.8	<b>3.05</b>	290.0	48.3	290.0	150.2	
31	<b>223.2</b>	37.2	223.2	<b>71.2</b>	11.6	71.2	<b>3.14</b>	289.7	48.3	289.7	148.4	
30	<b>224.3</b>	37.4	224.3	<b>69.6</b>	11.3	69.6	<b>3.22</b>	289.3	48.2	289.3	146.7	
29	<b>225.4</b>	37.6	225.4	<b>68.1</b>	11.1	68.1	<b>3.31</b>	289.0	48.2	289.0	144.9	
28	<b>226.5</b>	37.7	226.5	<b>66.6</b>	10.8	66.6	<b>3.40</b>	288.7	48.1	288.7	143.2	
27	<b>227.5</b>	37.9	227.5	<b>65.1</b>	10.6	65.1	<b>3.49</b>	288.3	48.1	288.3	141.6	
26	<b>228.5</b>	38.1	228.5	<b>63.7</b>	10.4	63.7	<b>3.59</b>	288.0	48.0	288.0	140.0	
25	<b>229.4</b>	38.2	229.4	<b>62.3</b>	10.1	62.3	<b>3.68</b>	287.6	47.9	287.6	138.4	
24	<b>230.3</b>	38.4	230.3	<b>60.9</b>	9.9	60.9	<b>3.78</b>	287.2	47.9	287.2	136.8	
23	<b>231.2</b>	38.5	231.2	<b>59.6</b>	9.7	59.6	<b>3.88</b>	286.8	47.8	286.8	135.2	
22	<b>232.0</b>	38.7	232.0	<b>58.2</b>	9.5	58.2	<b>3.98</b>	286.4	47.7	286.4	133.7	
21	<b>232.8</b>	38.8	232.8	<b>56.9</b>	9.3	56.9	<b>4.09</b>	286.0	47.7	286.0	132.2	
20	<b>233.6</b>	38.9	233.6	<b>55.7</b>	9.1	55.7	<b>4.20</b>	285.6	47.6	285.6	130.7	

Tc [°C]		W 23 / 18 °C										
0 [°C]	Qc nom [kW]	Qc min [kW]	Qc max [kW]	Pin nom [kW]	Pin min [kW]	Pin max [kW]	EER kW / kW	Qh nom [kW]	Qh min [kW]	Qh max [kW]	I nom [A]	
40	<b>281.7</b>	46.9	281.7	<b>87.0</b>	14.2	87.0	<b>3.24</b>	362.7	60.4	363.0	166.3	
39	<b>283.5</b>	47.3	283.5	<b>85.1</b>	13.9	85.1	<b>3.33</b>	362.7	60.5	362.9	164.0	
38	<b>285.3</b>	47.6	285.3	<b>83.2</b>	13.5	83.2	<b>3.43</b>	362.8	60.5	362.8	161.7	
37	<b>287.1</b>	47.9	287.1	<b>81.3</b>	13.2	81.3	<b>3.53</b>	362.8	60.5	362.7	159.5	
36	<b>288.9</b>	48.1	288.9	<b>79.5</b>	13.0	79.5	<b>3.63</b>	362.9	60.5	362.7	157.3	
35	<b>290.6</b>	48.4	290.6	<b>77.8</b>	12.7	77.8	<b>3.74</b>	363.0	60.5	362.7	155.2	
34	<b>292.2</b>	48.7	292.2	<b>76.1</b>	12.4	76.1	<b>3.84</b>	363.0	60.5	362.6	153.2	
33	<b>293.8</b>	49.0	293.8	<b>74.4</b>	12.1	74.4	<b>3.95</b>	363.1	60.5	362.6	151.2	
32	<b>295.4</b>	49.2	295.4	<b>72.8</b>	11.9	72.8	<b>4.06</b>	363.2	60.5	362.6	149.2	
31	<b>297.0</b>	49.5	297.0	<b>71.2</b>	11.6	71.2	<b>4.17</b>	363.3	60.5	362.7	147.3	
30	<b>298.5</b>	49.7	298.5	<b>69.6</b>	11.3	69.6	<b>4.29</b>	363.3	60.6	362.7	145.4	
29	<b>299.9</b>	50.0	299.9	<b>68.1</b>	11.1	68.1	<b>4.41</b>	363.4	60.6	362.7	143.6	
28	<b>301.4</b>	50.2	301.4	<b>66.6</b>	10.8	66.6	<b>4.53</b>	363.5	60.6	362.8	141.7	
27	<b>302.8</b>	50.5	302.8	<b>65.1</b>	10.6	65.1	<b>4.65</b>	363.6	60.6	362.8	139.9	
26	<b>304.1</b>	50.7	304.1	<b>63.7</b>	10.4	63.7	<b>4.77</b>	363.6	60.6	362.9	138.2	
25	<b>305.4</b>	50.9	305.4	<b>62.3</b>	10.1	62.3	<b>4.90</b>	363.7	60.6	363.0	136.4	
24	<b>306.7</b>	51.1	306.7	<b>60.9</b>	9.9	60.9	<b>5.03</b>	363.8	60.6	363.0	134.7	
23	<b>308.0</b>	51.3	308.0	<b>59.6</b>	9.7	59.6	<b>5.17</b>	363.8	60.6	363.1	133.0	
22	<b>309.2</b>	51.5	309.2	<b>58.2</b>	9.5	58.2	<b>5.31</b>	363.8	60.6	363.2	131.3	
21	<b>310.3</b>	51.7	310.3	<b>56.9</b>	9.3	56.9	<b>5.45</b>	363.9	60.6	363.3	129.6	
20	<b>311.5</b>	51.9	311.5	<b>55.7</b>	9.1	55.7	<b>5.60</b>	363.9	60.6	363.3	127.9	

-- attention: operating limits not reflected in performance table

LEGEND:

Ts-IN: Temperature renewable source - inlet [°C]  
Th-OU: Temperature heating - outlet (flow) [°C]  
Tc-OU: Temperature cooling - outlet (flow) [°C]  
Qh nom: Heating capacity nominal  
Qh min: Heating capacity minimal  
Qh max: Heating capacity maximal  
Pin nom: Power input at nominal heating capacity  
Pin min: Power input at minimal heating capacity  
Pin max: Power input at maximal heating capacity  
COP nom: coefficient of performance at nominal heating capacity  
Qc nom: cooling / heat extraction capacity at nominal heating capacity  
Qc min: cooling / heat extraction at minimal heating capacity  
Qc max: cooling / heat extraction at maximal heating capacity  
I nom: Current at nominal heating capacity  
EER: energy efficiency ratio at nominal cooling capacity



- |     |  |
|-----|--|
| A - |  |
| B - |  |
| D - |  |
| E - |  |

# WAMAK TBW 300 EVI HeavyDuty 3L2

