Basic performance data - WAMAK AW 500 EVI HeavyDuty 2L5

Heating - EN 14511		
Heating capacity [kW]	A7 / W35	**490.9** (49.1 / 490.9)
	A2 / W35	**417.0** (41.7 / 417.0)
	A-7 / W34	**349.9** (35.0 / 349.9)
Electrical power input [kW]	A7 / W35	**113.8** (10.6 / 113.8)
	A2 / W35	**113.7** (10.6 / 113.7)
	A-7 / W34	**110.5** (10.3 / 110.5)
Heating efficiency faktor [COP]	A7 / W35	4.31
	A2 / W35	3.67
	A-7 / W34	3.17
Seasonal space heating energy efficiency - SCOP EN 14825		
Average Climate / Low Temperature [35°C]	SCOP	4.24
	η [%]	169.6
	Label	A+++
	Qhe [kWh]	192967.3
	Pdesignh [kW]	396.7
	Tbivalent [°C]	-7
Cooling		
Cooling capacity - [kW]	A35 / W23-18	484.3
	A25 / W23-18	509.0
	A35 / W12-7	363.8
	A25 / W12-7	363.8
Seasonal space cooling energy efficiency - SEER EN 14825		
[W 23 / 18°C]	SEER	4.55
	Qce [kWh]	218280.0
	ηc [%]	182.2
Sound EN 12102		
Acoustic power - Lw	dB(A)	77.1
Acoustic pressure - Lp	**1 m** dB(A)	69.1
	5 m dB(A)	55.1
	10 m dB(A)	49.1
Mechanical and operational information		
Compressor type (3~ 400/50)	SCROLL / 10 /	On/Off
Refrigerant	R410A (GWP - 2088)	10 x 9.6 kg
Operating limit temperatures heating - (min / max) [°C]		25 / **65**
Operating limit temperatures source - (min / max) [°C]		**-22** / 40
Weight		2475 kg

Main technical data - WAMAK AW 500 EVI HeavyDuty 2L5

Enclosure type		HD2L5
Basic dimensions	Height [mm]	2000
	Width [mm]	3450
	Length [mm]	1200
Weight [kg]		2475
Colour		Gray
Enclousure IP Class		IP20
Refrigeration cycle		
Compressor	Type	Scroll
	Number of stages	10
	On/Off	
	Power factor Cosϕ	0.64
	Winding resistance	0.76 Ohm
Refrigerant		R410A
	Volme	10 x 9.6 kg
	GWP	2088
	Safety class	A1
Refrigeration oil type	POE RL32-3MAF	
	Oil volume	10 x 3.38 L
Maximal pressure - refrigerant [bar]		50
	PED class	2
EVI - vapour injection with economizer		
APS System of liquid subcooling		
Reversible operation (cooling)		
Reverse defrosting with hot gas		
Plate exchanger protection HG-BYPASS		
Electrical connection data		
Line voltage [#~ V/Hz]		3~ 400/50
Current	nominal [A]	235.30
	maximal [A]	374.00
	starting [A]	57.2
Softstart		-
Main safety		C400

Control System			
Main controller	SIEMENS	RVS 21 AVS 55.199	
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

Heat energy rejection side data		
Operating limit temperatures heating	MAX [°C]	65
	MIN [°C]	25
for more see operating limits diagram		
Condenser	Port size	10 x 2 "
	Type	BPHE
	Count	10
	Material	AISI 316
Maximal operating pressure - refrigerant [bar]		50
Maximal operating pressure - Water [bar]		6
Testing pressure [bar]		70
Heat transfer medium		Water
Volume flow @ dT 5K (nom) - Water [m3/h]		8.48 ~ 84.77
Internal pressure drop - Water [kPa]		10 x 20
Temperature difference	@ 35°C (nom)	5 K
	@ 55°C	8 K
	@ 65°C	10 K
Renewable energy extraction side data		
Operating limit temperatures source	MIN [°C]	-22
	MAX [°C]	40
for more see operating limits diagram		
Evaporator	Port size	10 x (7/8" - 1.3/8") "
	Type	Cu-coil /Al-fin
	Count	10
	Material	Cu/Al
Maximal operating pressure - refrigerant [bar]		29
Heat transfer medium		Air
Volume flow - Air [m3/h]		15072 ~ 150720
Internal pressure drop - Air [kPa]		10 x 0.061
Temperature difference - Air		7 K
Possible outdoor units	5 x VOV900X2-FRAME	
	10 x VOII-1200-2LOW	
	10 x VOII-1200-2HIGH	
	10 x VOII-1200-2LOW-DUCT	
	10 x VOII-1200-2HIGH-DUCT	

Split System (compressor indoors)	
Liquid line dimension (up to 8 meters IU/OU)	10 x 7/8"
Suction line dimension (up to 8 meters IU/OU)	10 x 1.3/8"
Surcharge of refrigerant over 8 meter distance IU/OU	10 x 0.35 kg/m

air - water SPLIT heat pumps indoor units are delivered without full refrigerant charge only with residual overpressure from testing

WAMAK AW 500 EVI HeavyDuty 2L5

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

Model	**AW 500 EVI HeavyDuty 2L5**
Air-to-water heat pump	yes
Brine-to-water heat pump	no
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
Rated heat output at Tdesignh	Prated	396.7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	349.9	kW
Tj = +2 °C	Pdh	412.5	kW
Tj = +7 °C	Pdh	485.9	kW
Tj = +12 °C	Pdh	574.5	kW
Tj = bivalent temperature	Pdh	344.0	kW
Tj = operation limit temperature	Pdh	250.9	kW
Bivalent temperature	Tbiv	-7	°C
Power consumption in modes other than active mode			
Off mode	Poff	0.040	kW
Thermostat-off mode	Pto	0.010	kW
Standby mode	Psb	0.010	kW
Crankcase heater mode	Pck	0.050	kW
Other items			
Capacity control		multi-stage	
Sound power level			
indoors	Lwa	77	dB
outdoors	Lwa	82	dB
Annual energy consumption	Q_{HE}	192967.3	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	169.6	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	3.17	-
Tj = +2 °C	COPd	4.1	-
Tj = +7 °C	COPd	5.1	-
Tj = +12 °C	COPd	6.4	-
Tj = bivalent temperature	COPd	3.1	-
Tj = operation limit temperature	COPd	2.3	-
Tj = operation limit temperature	TOL	-22	°C
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	175.9	kW
Type of energy input		electricity	
For air-to-water heat pumps: Rated air flow rate, outdoors	-	15072 ~ 150720	m3/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	---	m3/h

Contact details: WAMAK, s.r.o., Orovnica 252, 96652, Orovnica, Slovakia, info@wamak.sk

WAMAK AW 500 EVI HeavyDuty 2L5

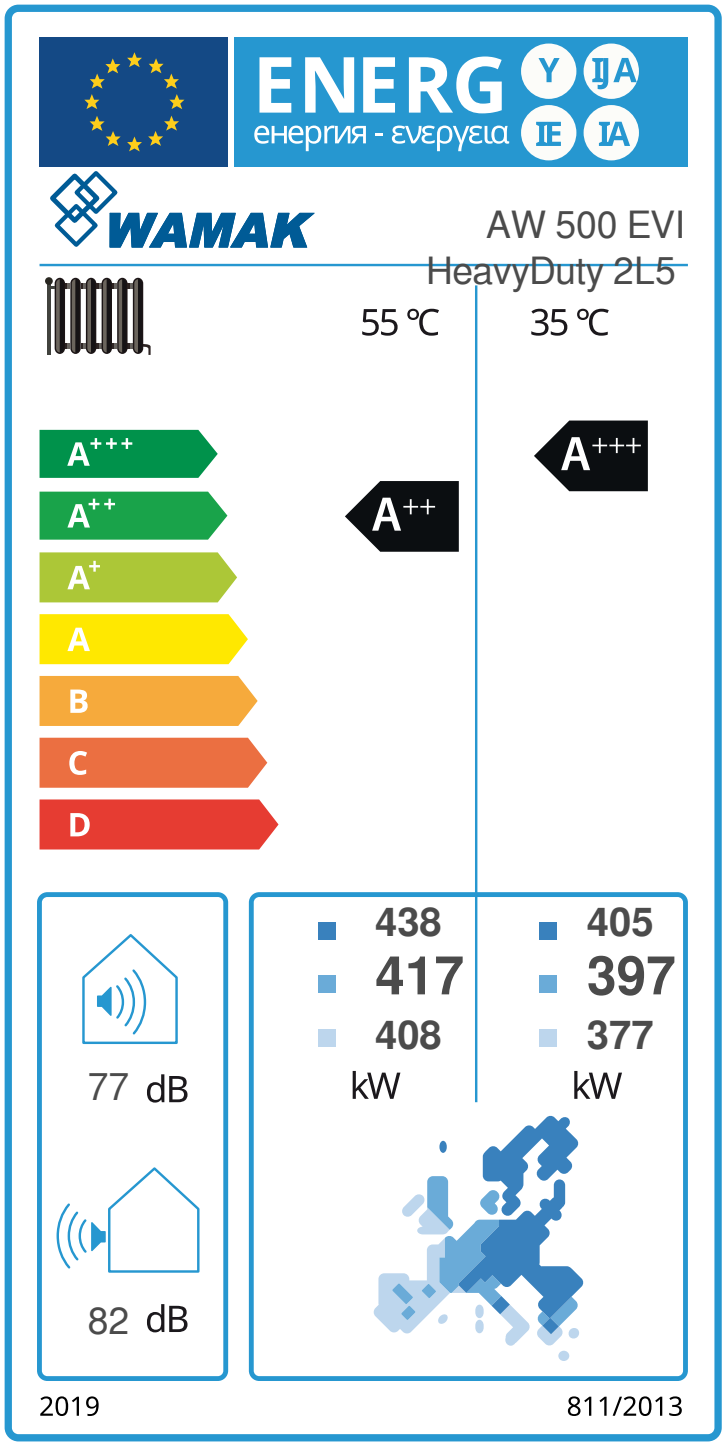
ErP (EU) No 811/2013: Technical parameters for heat pump space heaters

Model	**AW 500 EVI HeavyDuty 2L5**
Air-to-water heat pump	yes
Brine-to-water heat pump	no
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
Rated heat output at Tdesignh	Prated	416.2	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	365.7	kW
Tj = +2 °C	Pdh	422.5	kW
Tj = +7 °C	Pdh	491.4	kW
Tj = +12 °C	Pdh	575.7	kW
Tj = bivalent temperature	Pdh	361.3	kW
Tj = operation limit temperature	Pdh	264.5	kW
Bivalent temperature	Tbiv	-7	°C
Power consumption in modes other than active mode			
Off mode	Poff	0.040	kW
Thermostat-off mode	Pto	0.010	kW
Standby mode	Psb	0.010	kW
Crankcase heater mode	Pck	0.050	kW
Other items			
Capacity control		multi-stage	
Sound power level			
indoors	Lwa	77	dB
outdoors	Lwa	82	dB
Annual energy consumption	Q_{HE}	258972.7	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	132.6	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.24	-
Tj = +2 °C	COPd	3.2	-
Tj = +7 °C	COPd	4.2	-
Tj = +12 °C	COPd	5.6	-
Tj = bivalent temperature	COPd	2.1	-
Tj = operation limit temperature	COPd	1.6	-
Tj = operation limit temperature	TOL	-22	°C
Heating water operating limit temperature	WTOL	65	°C
Supplementary heater			
Rated heat output	Psup	175.9	kW
Type of energy input		electricity	
For air-to-water heat pumps: Rated air flow rate, outdoors	-	15072 ~ 150720	m3/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	---	m3/h

Contact details: WAMAK, s.r.o., Orovnica 252, 96652, Orovnica, Slovakia, info@wamak.sk



AW 500 EVI HeavyDuty 2L5		ErP Data	
		55 °C	35 °C
Energy class		A++	A+++
η	[%]	132.6	169.6
P_{rated}	[kW]	417	397
Q_{HE}	[kWh/y]	258973	192968
SCOP	[-]	3.32	4.24
$T_{bivalent}$	[°C]	-7	-7

CONTROLER

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

Heating performance data Version: v2024.010-AW

Average Climate / Low Temperature [35°C] ZHI46K1P-TWD_R410A_10_AW

	Operating conditions	Qh	P	COP
1	A7 / W30-35	490.9	113.8	4.31
2	A2 / W35	417.0	113.7	3.67
3	A-22 / W35	250.9	108.4	2.31
A	A-7 / W34	349.9	110.5	3.17
B	A2 / W30	412.5	101.6	4.06
C	A7 / W27	485.9	95.1	5.11
D	A12 / W24	574.5	89.6	6.41
E	A-10 / W35	344.0	112.8	3.05
F	A-7 / W34	349.9	110.5	3.17

SCOP DATA EN 14825:2018	
Average Climate / Low Temperature [35°C]	
SCOPon	4.25
SCOPnet	4.28
SCOP	4.24
η [%]	169.56
Label	A+++
Qh [kWh]	192967.27
Pdesignh [kW]	396.7
Tbivalent [°C]	-7.00

Average Climate / Medium Temperature [55°C]

	Operating conditions	Qh	P	COP
1	A7 / W47-55	500.9	178.5	2.81
2	A2 / W55	432.1	177.2	2.44
3	A-22 / W55	264.5	151.6	1.62
A	A-7 / W52	365.7	163.2	2.24
B	A2 / W42	422.5	132.7	3.18
C	A7 / W36	491.4	116.4	4.22
D	A12 / W30	575.7	102.1	5.64
E	A-10 / W55	361.3	173.9	2.08
F	A-7 / W55	368.2	174.4	2.11

SCOP DATA EN 14825:2018	
Average Climate / Medium Temperature [55°C]	
SCOPon	3.32
SCOPnet	3.34
SCOP	3.32
η [%]	132.61
Label	A++
Qh [kWh]	258972.74
Pdesignh [kW]	416.2
Tbivalent [°C]	-7.00

Cooling performance data

Low temperature cooling W 12 / 7°C

	Operating conditions	Qc	P	EER
A	A35 / W12-7	363.8	135.9	2.68
B	A30 / W12-7	373.9	121.7	3.07
C	A25 / W12-7	382.4	108.9	3.51
D	A20 / W12-7	389.3	97.3	4.00

SEER DATA EN 14825:2018 [W 12 / 7°C]	
SEERon	3.43
SEER	3.42
Qc [kWh]	80127.41
η [%]	136.91

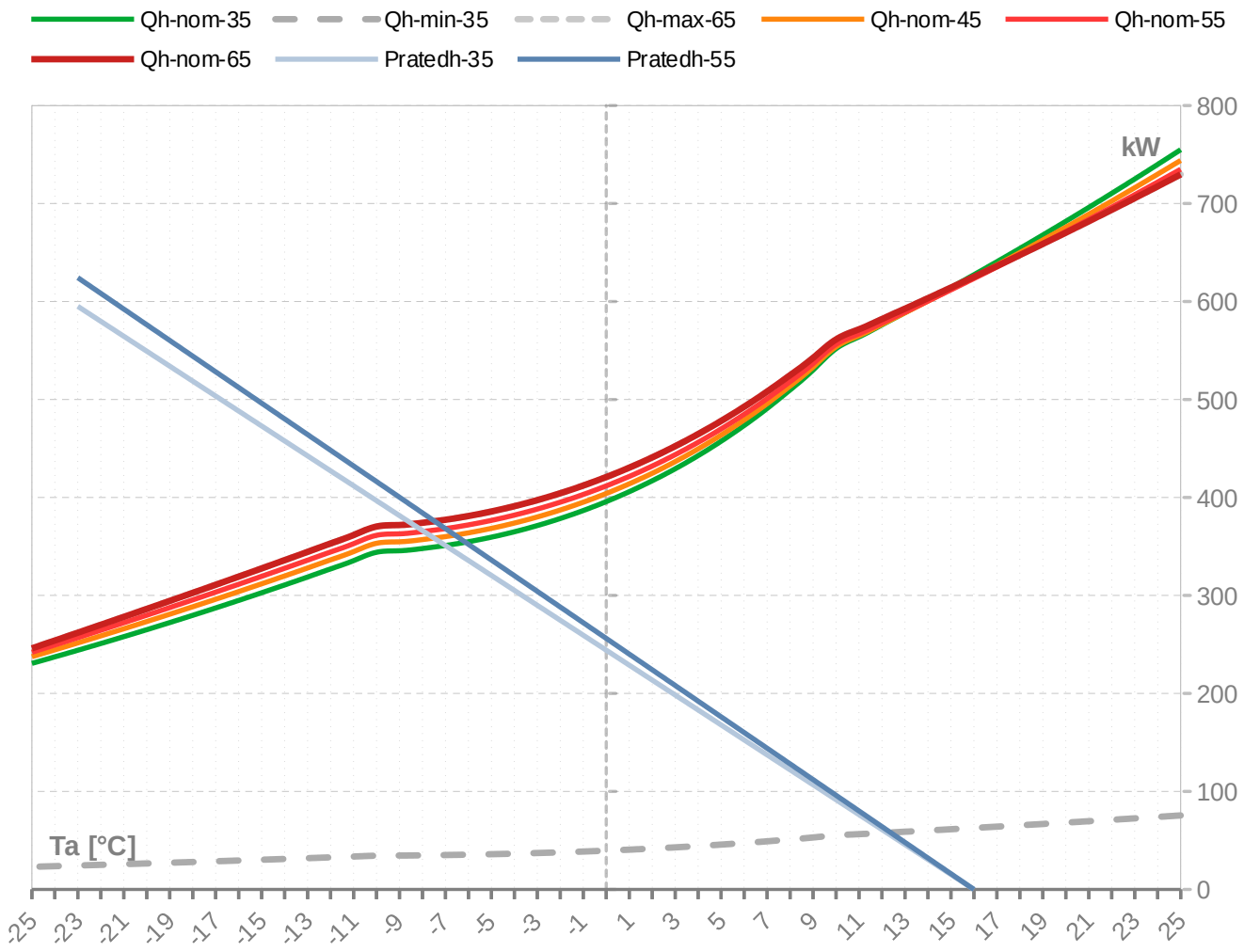
Radiant cooling W 23 / 18°C

	Operating conditions	Qc	P	EER
A	A35 / W23-18	484.3	135.9	3.56
B	A30 / W23-18	497.4	112.6	4.09
C	A25 / W23-18	509.0	101.2	4.67
D	A20 / W23-18	519.1	91.0	5.34

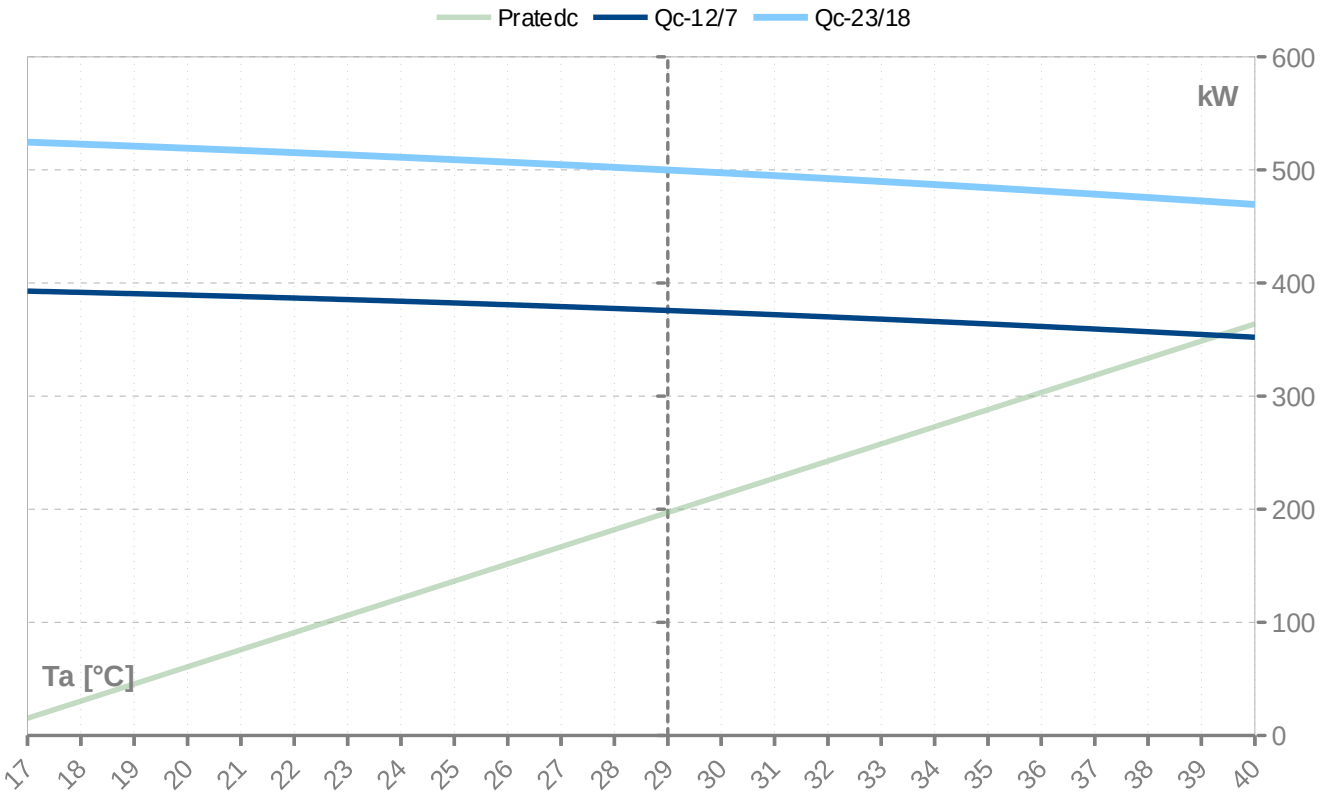
SEER DATA EN 14825:2018 [W 23 / 18°C]	
SEERon	4.57
SEER	4.55
Qc [kWh]	60178.24
η [%]	182.20

Performance lines - heating

ZHI46K1P-TWD_R410A_10_AW



Performance lines - cooling



Th [°C]	35 °C									
Ta [°C]	Qh nom [kW]	Qh min [kW]	Qh max [kW]	Pin nom [kW]	Pin-min [kW]	Pin-max [kW]	COP kW / kW	I nom [A]	I min [A]	I max [A]
25	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
24	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
23	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
22	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
21	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
20	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
19	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
18	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
17	**640.6**	64.1		**113.9**	10.6		**5.62**	232.7	23.3	
16	**627.3**	62.7	627.3	**113.9**	10.6	113.9	**5.51**	232.9	23.3	232.9
15	**614.2**	61.4	614.2	**113.8**	10.6	113.8	**5.40**	233.1	23.3	233.1
14	**601.3**	60.1	601.3	**113.8**	10.6	113.8	**5.28**	233.3	23.3	233.3
13	**588.6**	58.9	588.6	**113.8**	10.6	113.8	**5.17**	233.5	23.4	233.5
12	**576.2**	57.6	576.2	**113.8**	10.6	113.8	**5.06**	233.8	23.4	233.8
11	**563.9**	56.4	563.9	**113.8**	10.6	113.8	**4.96**	234.0	23.4	234.0
10	**551.8**	55.2	551.8	**113.8**	10.6	113.8	**4.85**	234.3	23.4	234.3
9	**530.1**	53.0	530.1	**113.8**	10.6	113.8	**4.66**	234.8	23.5	234.8
8	**509.8**	51.0	509.8	**113.8**	10.6	113.8	**4.48**	235.3	23.5	235.3
7	**490.9**	49.1	490.9	**113.8**	10.6	113.8	**4.31**	235.7	23.6	235.7
6	**473.5**	47.3	473.5	**113.8**	10.6	113.8	**4.16**	236.2	23.6	236.2
5	**457.4**	45.7	457.4	**113.8**	10.6	113.8	**4.02**	236.5	23.7	236.5
4	**442.7**	44.3	442.7	**113.8**	10.6	113.8	**3.89**	236.8	23.7	236.8
3	**429.3**	42.9	429.3	**113.8**	10.6	113.8	**3.77**	237.0	23.7	237.0
2	**417.0**	41.7	417.0	**113.7**	10.6	113.7	**3.67**	237.2	23.7	237.2
1	**405.9**	40.6	405.9	**113.6**	10.6	113.6	**3.57**	237.4	23.7	237.4
0	**395.7**	39.6	395.7	**113.6**	10.6	113.6	**3.49**	237.4	23.7	237.4
-1	**386.6**	38.7	386.6	**113.5**	10.6	113.5	**3.41**	237.5	23.7	237.5
-2	**378.5**	37.9	378.5	**113.4**	10.6	113.4	**3.34**	237.5	23.7	237.5
-3	**371.3**	37.1	371.3	**113.3**	10.6	113.3	**3.28**	237.5	23.7	237.5
-4	**364.9**	36.5	364.9	**113.2**	10.6	113.2	**3.22**	237.4	23.7	237.4
-5	**359.5**	35.9	359.5	**113.1**	10.6	113.1	**3.18**	237.4	23.7	237.4
-6	**354.8**	35.5	354.8	**113.0**	10.6	113.0	**3.14**	237.3	23.7	237.3
-7	**350.9**	35.1	350.9	**112.9**	10.6	112.9	**3.11**	237.2	23.7	237.2
-8	**347.9**	34.8	347.9	**112.9**	10.6	112.9	**3.08**	237.2	23.7	237.2
-9	**345.6**	34.6	345.6	**112.8**	10.5	112.8	**3.06**	237.1	23.7	237.1
-10	**344.0**	34.4	344.0	**112.8**	10.5	112.8	**3.05**	237.1	23.7	237.1
-11	**335.5**	33.5	335.5	**112.6**	10.5	112.6	**2.98**	236.9	23.7	236.9
-12	**327.1**	32.7	327.1	**112.3**	10.5	112.3	**2.91**	236.6	23.7	236.6
-13	**318.8**	31.9	318.8	**112.1**	10.5	112.1	**2.84**	236.2	23.6	236.2
-14	**310.7**	31.1	310.7	**111.8**	10.5	111.8	**2.78**	235.8	23.6	235.8
-15	**302.7**	30.3	302.7	**111.5**	10.4	111.5	**2.72**	235.3	23.5	235.3
-16	**294.9**	29.5	294.9	**111.1**	10.4	111.1	**2.65**	234.8	23.5	234.8
-17	**287.2**	28.7	287.2	**110.8**	10.4	110.8	**2.59**	234.2	23.4	234.2
-18	**279.7**	28.0	279.7	**110.4**	10.3	110.4	**2.53**	233.5	23.3	233.5
-19	**272.3**	27.2	272.3	**109.9**	10.3	109.9	**2.48**	232.7	23.3	232.7
-20	**265.0**	26.5	265.0	**109.4**	10.2	109.4	**2.42**	231.8	23.2	231.8
-21	**257.9**	25.8	257.9	**108.9**	10.2	108.9	**2.37**	230.9	23.1	230.9
-22	**250.9**	25.1	250.9	**108.4**	10.1	108.4	**2.31**	229.9	23.0	229.9
-23	**244.0**	24.4	244.0	**107.8**	10.1	107.8	**2.26**	228.7	22.9	228.7
-24	**237.3**	23.7	237.3	**107.2**	10.0	107.2	**2.21**	227.5	22.8	227.5
-25	**230.7**	23.1	230.7	**106.5**	10.0	106.5	**2.17**	226.2	22.6	226.2

* attention: operating limits not reflected in performance table

ZHI46K1P-TWD_R410A_10_AW

Th [°C]	**45 °C**									
Ta [°C]	**Qh nom [kW]**	**Qh min** [kW]	**Qh max** [kW]	**Pin nom [kW]**	**Pin-min** [kW]	**Pin-max** [kW]	**COP kW / kW**	**I nom** [A]	**I min** [A]	**I max** [A]
25	**744.0**	74.4	744.0	**141.1**	13.2	141.1	**5.27**	265.3	26.5	265.3
24	**729.9**	73.0	729.9	**141.1**	13.2	141.1	**5.17**	265.2	26.5	265.2
23	**716.1**	71.6	716.1	**141.2**	13.2	141.2	**5.07**	265.2	26.5	265.2
22	**702.5**	70.2	702.5	**141.2**	13.2	141.2	**4.98**	265.2	26.5	265.2
21	**689.0**	68.9	689.0	**141.2**	13.2	141.2	**4.88**	265.2	26.5	265.2
20	**675.8**	67.6	675.8	**141.3**	13.2	141.3	**4.78**	265.3	26.5	265.3
19	**662.8**	66.3	662.8	**141.4**	13.2	141.4	**4.69**	265.4	26.5	265.4
18	**649.9**	65.0	649.9	**141.4**	13.2	141.4	**4.60**	265.4	26.5	265.4
17	**637.2**	63.7	637.2	**141.5**	13.2	141.5	**4.50**	265.5	26.6	265.5
16	**624.8**	62.5	624.8	**141.6**	13.2	141.6	**4.41**	265.6	26.6	265.6
15	**612.5**	61.2	612.5	**141.6**	13.2	141.6	**4.32**	265.7	26.6	265.7
14	**600.4**	60.0	600.4	**141.7**	13.2	141.7	**4.24**	265.8	26.6	265.8
13	**588.4**	58.8	588.4	**141.8**	13.3	141.8	**4.15**	266.0	26.6	266.0
12	**576.7**	57.7	576.7	**141.8**	13.3	141.8	**4.07**	266.1	26.6	266.1
11	**565.1**	56.5	565.1	**141.9**	13.3	141.9	**3.98**	266.2	26.6	266.2
10	**553.7**	55.4	553.7	**142.0**	13.3	142.0	**3.90**	266.3	26.6	266.3
9	**533.0**	53.3	533.0	**142.1**	13.3	142.1	**3.75**	266.4	26.6	266.4
8	**513.8**	51.4	513.8	**142.1**	13.3	142.1	**3.62**	266.5	26.7	266.5
7	**495.7**	49.6	495.7	**142.1**	13.3	142.1	**3.49**	266.5	26.7	266.5
6	**479.1**	47.9	479.1	**142.1**	13.3	142.1	**3.37**	266.5	26.7	266.5
5	**463.7**	46.4	463.7	**142.1**	13.3	142.1	**3.26**	266.4	26.6	266.4
4	**449.6**	45.0	449.6	**142.0**	13.3	142.0	**3.17**	266.2	26.6	266.2
3	**436.6**	43.7	436.6	**141.9**	13.3	141.9	**3.08**	266.0	26.6	266.0
2	**424.7**	42.5	424.7	**141.7**	13.3	141.7	**3.00**	265.7	26.6	265.7
1	**413.9**	41.4	413.9	**141.6**	13.2	141.6	**2.92**	265.4	26.5	265.4
0	**404.0**	40.4	404.0	**141.4**	13.2	141.4	**2.86**	265.0	26.5	265.0
-1	**395.1**	39.5	395.1	**141.2**	13.2	141.2	**2.80**	264.7	26.5	264.7
-2	**387.2**	38.7	387.2	**141.0**	13.2	141.0	**2.74**	264.3	26.4	264.3
-3	**380.1**	38.0	380.1	**140.9**	13.2	140.9	**2.70**	263.9	26.4	263.9
-4	**373.8**	37.4	373.8	**140.7**	13.2	140.7	**2.66**	263.5	26.4	263.5
-5	**368.4**	36.8	368.4	**140.5**	13.1	140.5	**2.62**	263.1	26.3	263.1
-6	**363.8**	36.4	363.8	**140.4**	13.1	140.4	**2.59**	262.8	26.3	262.8
-7	**360.0**	36.0	360.0	**140.2**	13.1	140.2	**2.57**	262.5	26.3	262.5
-8	**357.0**	35.7	357.0	**140.1**	13.1	140.1	**2.55**	262.3	26.2	262.3
-9	**354.7**	35.5	354.7	**140.0**	13.1	140.0	**2.53**	262.1	26.2	262.1
-10	**353.2**	35.3	353.2	**140.0**	13.1	140.0	**2.52**	262.0	26.2	262.0
-11	**344.7**	34.5	344.7	**139.6**	13.1	139.6	**2.47**	261.2	26.1	261.2
-12	**336.3**	33.6	336.3	**139.2**	13.0	139.2	**2.42**	260.4	26.0	260.4
-13	**328.0**	32.8	328.0	**138.8**	13.0	138.8	**2.36**	259.5	25.9	259.5
-14	**319.9**	32.0	319.9	**138.3**	12.9	138.3	**2.31**	258.5	25.8	258.5
-15	**311.8**	31.2	311.8	**137.8**	12.9	137.8	**2.26**	257.4	25.7	257.4
-16	**303.9**	30.4	303.9	**137.2**	12.8	137.2	**2.21**	256.2	25.6	256.2
-17	**296.1**	29.6	296.1	**136.7**	12.8	136.7	**2.17**	254.9	25.5	254.9
-18	**288.4**	28.8	288.4	**136.0**	12.7	136.0	**2.12**	253.6	25.4	253.6
-19	**280.8**	28.1	280.8	**135.3**	12.7	135.3	**2.07**	252.1	25.2	252.1
-20	**273.4**	27.3	273.4	**134.6**	12.6	134.6	**2.03**	250.6	25.1	250.6
-21	**266.0**	26.6	266.0	**133.9**	12.5	133.9	**1.99**	248.9	24.9	248.9
-22	**258.7**	25.9	258.7	**133.1**	12.4	133.1	**1.94**	247.2	24.7	247.2
-23	**251.5**	25.2	251.5	**132.2**	12.4	132.2	**1.90**	245.3	24.5	245.3
-24	**244.5**	24.4	244.5	**131.3**	12.3	131.3	**1.86**	243.3	24.3	243.3
-25	**237.5**	23.7	237.5	**130.3**	12.2	130.3	**1.82**	241.2	24.1	241.2

* attention: operating limits not reflected in performance table

Th [°C]	**55 °C**									
	Qh nom	**Qh min**	**Qh max**	**Pin nom**	**Pin-min**	**Pin-max**	**COP**	**I nom**	**I min**	**I max**
Ta [°C]	**[kW]**	[kW]	[kW]	**[kW]**	[kW]	[kW]	**kW / kW**	[A]	[A]	[A]
25	**735.0**	73.5	735.0	**177.2**	16.6	177.2	**4.15**	306.5	30.7	306.5
24	**721.9**	72.2	721.9	**177.4**	16.6	177.4	**4.07**	306.6	30.7	306.6
23	**709.0**	70.9	709.0	**177.5**	16.6	177.5	**3.99**	306.7	30.7	306.7
22	**696.3**	69.6	696.3	**177.6**	16.6	177.6	**3.92**	306.8	30.7	306.8
21	**683.7**	68.4	683.7	**177.7**	16.6	177.7	**3.85**	306.9	30.7	306.9
20	**671.3**	67.1	671.3	**177.8**	16.6	177.8	**3.77**	307.0	30.7	307.0
19	**659.1**	65.9	659.1	**178.0**	16.6	178.0	**3.70**	307.1	30.7	307.1
18	**647.1**	64.7	647.1	**178.1**	16.6	178.1	**3.63**	307.2	30.7	307.2
17	**635.2**	63.5	635.2	**178.2**	16.7	178.2	**3.56**	307.3	30.7	307.3
16	**623.4**	62.3	623.4	**178.3**	16.7	178.3	**3.50**	307.4	30.7	307.4
15	**611.9**	61.2	611.9	**178.4**	16.7	178.4	**3.43**	307.5	30.8	307.5
14	**600.4**	60.0	600.4	**178.4**	16.7	178.4	**3.36**	307.6	30.8	307.6
13	**589.2**	58.9	589.2	**178.5**	16.7	178.5	**3.30**	307.7	30.8	307.7
12	**578.0**	57.8	578.0	**178.6**	16.7	178.6	**3.24**	307.7	30.8	307.7
11	**567.1**	56.7	567.1	**178.6**	16.7	178.6	**3.17**	307.7	30.8	307.7
10	**556.2**	55.6	556.2	**178.6**	16.7	178.6	**3.11**	307.7	30.8	307.7
9	**536.6**	53.7	536.6	**178.6**	16.7	178.6	**3.00**	307.6	30.8	307.6
8	**518.2**	51.8	518.2	**178.6**	16.7	178.6	**2.90**	307.5	30.7	307.5
7	**500.9**	50.1	500.9	**178.5**	16.7	178.5	**2.81**	307.2	30.7	307.2
6	**484.9**	48.5	484.9	**178.3**	16.7	178.3	**2.72**	306.8	30.7	306.8
5	**470.0**	47.0	470.0	**178.1**	16.7	178.1	**2.64**	306.4	30.6	306.4
4	**456.3**	45.6	456.3	**177.9**	16.6	177.9	**2.57**	305.8	30.6	305.8
3	**443.7**	44.4	443.7	**177.6**	16.6	177.6	**2.50**	305.2	30.5	305.2
2	**432.1**	43.2	432.1	**177.2**	16.6	177.2	**2.44**	304.6	30.5	304.6
1	**421.5**	42.1	421.5	**176.9**	16.5	176.9	**2.38**	303.9	30.4	303.9
0	**411.8**	41.2	411.8	**176.6**	16.5	176.6	**2.33**	303.2	30.3	303.2
-1	**403.0**	40.3	403.0	**176.2**	16.5	176.2	**2.29**	302.4	30.2	302.4
-2	**395.2**	39.5	395.2	**175.8**	16.4	175.8	**2.25**	301.7	30.2	301.7
-3	**388.1**	38.8	388.1	**175.5**	16.4	175.5	**2.21**	301.0	30.1	301.0
-4	**381.9**	38.2	381.9	**175.2**	16.4	175.2	**2.18**	300.3	30.0	300.3
-5	**376.6**	37.7	376.6	**174.9**	16.3	174.9	**2.15**	299.7	30.0	299.7
-6	**372.0**	37.2	372.0	**174.6**	16.3	174.6	**2.13**	299.2	29.9	299.2
-7	**368.2**	36.8	368.2	**174.4**	16.3	174.4	**2.11**	298.7	29.9	298.7
-8	**365.1**	36.5	365.1	**174.2**	16.3	174.2	**2.10**	298.3	29.8	298.3
-9	**362.9**	36.3	362.9	**174.0**	16.3	174.0	**2.09**	298.0	29.8	298.0
-10	**361.3**	36.1	361.3	**173.9**	16.3	173.9	**2.08**	297.8	29.8	297.8
-11	**352.8**	35.3	352.8	**173.3**	16.2	173.3	**2.04**	296.5	29.7	296.5
-12	**344.3**	34.4	344.3	**172.7**	16.1	172.7	**1.99**	295.2	29.5	295.2
-13	**336.0**	33.6	336.0	**172.0**	16.1	172.0	**1.95**	293.8	29.4	293.8
-14	**327.7**	32.8	327.7	**171.2**	16.0	171.2	**1.91**	292.3	29.2	292.3
-15	**319.5**	31.9	319.5	**170.5**	15.9	170.5	**1.87**	290.7	29.1	290.7
-16	**311.4**	31.1	311.4	**169.6**	15.9	169.6	**1.84**	288.9	28.9	288.9
-17	**303.4**	30.3	303.4	**168.7**	15.8	168.7	**1.80**	287.1	28.7	287.1
-18	**295.5**	29.5	295.5	**167.8**	15.7	167.8	**1.76**	285.2	28.5	285.2
-19	**287.6**	28.8	287.6	**166.8**	15.6	166.8	**1.72**	283.1	28.3	283.1
-20	**279.8**	28.0	279.8	**165.7**	15.5	165.7	**1.69**	280.9	28.1	280.9
-21	**272.1**	27.2	272.1	**164.6**	15.4	164.6	**1.65**	278.7	27.9	278.7
-22	**264.5**	26.4	264.5	**163.5**	15.3	163.5	**1.62**	276.2	27.6	276.2
-23	**256.9**	25.7	256.9	**162.2**	15.2	162.2	**1.58**	273.7	27.4	273.7
-24	**249.4**	24.9	249.4	**161.0**	15.0	161.0	**1.55**	271.0	27.1	271.0
-25	**242.0**	24.2	242.0	**159.6**	14.9	159.6	**1.52**	268.2	26.8	268.2

* attention: operating limits not reflected in performance table

Th [°C]	T-Max @ 65 °C									
Ta [°C]	**Qh nom** **[kW]**	**Qh min** [kW]	**Qh max** [kW]	**Pin nom** **[kW]**	**Pin-min** [kW]	**Pin-max** [kW]	**COP** **kW / kW**	**I nom** [A]	**I min** [A]	**I max** [A]
25	**729.7**	73.0	729.7	**226.0**	21.1	226.0	**3.23**	361.4	36.1	361.4
24	**717.5**	71.8	717.5	**226.1**	21.1	226.1	**3.17**	361.7	36.2	361.7
23	**705.5**	70.5	705.5	**226.2**	21.2	226.2	**3.12**	361.9	36.2	361.9
22	**693.6**	69.4	693.6	**226.4**	21.2	226.4	**3.06**	362.2	36.2	362.2
21	**681.8**	68.2	681.8	**226.5**	21.2	226.5	**3.01**	362.4	36.2	362.4
20	**670.2**	67.0	670.2	**226.6**	21.2	226.6	**2.96**	362.7	36.3	362.7
19	**658.7**	65.9	658.7	**226.7**	21.2	226.7	**2.91**	362.9	36.3	362.9
18	**647.4**	64.7	647.4	**226.7**	21.2	226.7	**2.86**	363.1	36.3	363.1
17	**636.2**	63.6	636.2	**226.8**	21.2	226.8	**2.81**	363.3	36.3	363.3
16	**625.1**	62.5	625.1	**226.8**	21.2	226.8	**2.76**	363.5	36.3	363.5
15	**614.2**	61.4	614.2	**226.9**	21.2	226.9	**2.71**	363.6	36.4	363.6
14	**603.4**	60.3	603.4	**226.9**	21.2	226.9	**2.66**	363.7	36.4	363.7
13	**592.7**	59.3	592.7	**226.8**	21.2	226.8	**2.61**	363.8	36.4	363.8
12	**582.1**	58.2	582.1	**226.8**	21.2	226.8	**2.57**	363.8	36.4	363.8
11	**571.6**	57.2	571.6	**226.7**	21.2	226.7	**2.52**	363.9	36.4	363.9
10	**561.3**	56.1	561.3	**226.7**	21.2	226.7	**2.48**	363.8	36.4	363.8
9	**542.5**	54.2	542.5	**226.4**	21.2	226.4	**2.40**	363.6	36.4	363.6
8	**524.8**	52.5	524.8	**226.1**	21.1	226.1	**2.32**	363.3	36.3	363.3
7	**508.1**	50.8	508.1	**225.7**	21.1	225.7	**2.25**	362.9	36.3	362.9
6	**492.6**	49.3	492.6	**225.3**	21.1	225.3	**2.19**	362.3	36.2	362.3
5	**478.1**	47.8	478.1	**224.8**	21.0	224.8	**2.13**	361.6	36.2	361.6
4	**464.7**	46.5	464.7	**224.2**	21.0	224.2	**2.07**	360.7	36.1	360.7
3	**452.3**	45.2	452.3	**223.7**	20.9	223.7	**2.02**	359.9	36.0	359.9
2	**440.9**	44.1	440.9	**223.1**	20.9	223.1	**1.98**	358.9	35.9	358.9
1	**430.4**	43.0	430.4	**222.4**	20.8	222.4	**1.94**	357.9	35.8	357.9
0	**420.9**	42.1	420.9	**221.8**	20.7	221.8	**1.90**	356.9	35.7	356.9
-1	**412.1**	41.2	412.1	**221.2**	20.7	221.2	**1.86**	355.9	35.6	355.9
-2	**404.3**	40.4	404.3	**220.6**	20.6	220.6	**1.83**	354.9	35.5	354.9
-3	**397.3**	39.7	397.3	**220.0**	20.6	220.0	**1.81**	353.9	35.4	353.9
-4	**391.1**	39.1	391.1	**219.5**	20.5	219.5	**1.78**	353.0	35.3	353.0
-5	**385.7**	38.6	385.7	**219.0**	20.5	219.0	**1.76**	352.2	35.2	352.2
-6	**381.0**	38.1	381.0	**218.6**	20.4	218.6	**1.74**	351.5	35.1	351.5
-7	**377.2**	37.7	377.2	**218.2**	20.4	218.2	**1.73**	350.8	35.1	350.8
-8	**374.1**	37.4	374.1	**217.9**	20.4	217.9	**1.72**	350.3	35.0	350.3
-9	**371.8**	37.2	371.8	**217.7**	20.3	217.7	**1.71**	349.9	35.0	349.9
-10	**370.3**	37.0	370.3	**217.5**	20.3	217.5	**1.70**	349.6	35.0	349.6
-11	**361.6**	36.2	361.6	**216.6**	20.2	216.6	**1.67**	348.0	34.8	348.0
-12	**353.0**	35.3	353.0	**215.6**	20.2	215.6	**1.64**	346.2	34.6	346.2
-13	**344.5**	34.4	344.5	**214.6**	20.1	214.6	**1.61**	344.4	34.4	344.4
-14	**336.0**	33.6	336.0	**213.5**	20.0	213.5	**1.57**	342.4	34.2	342.4
-15	**327.6**	32.8	327.6	**212.3**	19.8	212.3	**1.54**	340.3	34.0	340.3
-16										
-17										
-18										
-19										
-20										
-21										
-22										
-23										
-24										
-25										

* attention: operating limits not reflected in performance table

Tc [°C]	W 12 / 7 °C									
	Qc nom	**Qc min**	**Qc max**	**Pin**	**Pin min**	**Pin max**	**EER**	**I nom**	**I min**	**I max**
Ta [°C]	**[kW]**	[kW]	[kW]	**[kW]**	[kW]	[kW]	**kW / kW**	[A]	[A]	[A]
40	**352.0**	352.0	352.0	**152.0**	142.1	152.0	**2.32**	277.4	277.4	277.4
39	**354.5**	354.5	354.5	**148.7**	139.0	148.7	**2.38**	273.7	273.7	273.7
38	**357.0**	357.0	357.0	**145.4**	135.9	145.4	**2.46**	270.0	270.0	270.0
37	**359.3**	359.3	359.3	**142.1**	132.9	142.1	**2.53**	266.5	266.5	266.5
36	**361.6**	361.6	361.6	**139.0**	129.9	139.0	**2.60**	263.1	263.1	263.1
35	**363.8**	363.8	363.8	**135.9**	127.1	135.9	**2.68**	259.8	259.8	259.8
34	**366.0**	366.0	366.0	**132.9**	124.3	132.9	**2.75**	256.6	256.6	256.6
33	**368.0**	368.0	368.0	**130.0**	121.5	130.0	**2.83**	253.4	253.4	253.4
32	**370.1**	370.1	370.1	**127.2**	118.9	127.2	**2.91**	250.3	250.3	250.3
31	**372.0**	372.0	372.0	**124.4**	116.3	124.4	**2.99**	247.3	247.3	247.3
30	**373.9**	373.9	373.9	**121.7**	113.7	121.7	**3.07**	244.4	244.4	244.4
29	**375.7**	375.7	375.7	**119.0**	111.2	119.0	**3.16**	241.6	241.6	241.6
28	**377.5**	377.5	377.5	**116.4**	108.8	116.4	**3.24**	238.7	238.7	238.7
27	**379.2**	379.2	379.2	**113.8**	106.4	113.8	**3.33**	236.0	236.0	236.0
26	**380.8**	380.8	380.8	**111.3**	104.1	111.3	**3.42**	233.3	233.3	233.3
25	**382.4**	382.4	382.4	**108.9**	101.8	108.9	**3.51**	230.6	230.6	230.6
24	**383.9**	383.9	383.9	**106.5**	99.6	106.5	**3.60**	228.0	228.0	228.0
23	**385.3**	385.3	385.3	**104.1**	97.3	104.1	**3.70**	225.4	225.4	225.4
22	**386.7**	386.7	386.7	**101.8**	95.2	101.8	**3.80**	222.8	222.8	222.8
21	**388.1**	388.1	388.1	**99.5**	93.0	99.5	**3.90**	220.3	220.3	220.3
20	**389.3**	389.3	389.3	**97.3**	90.9	97.3	**4.00**	217.8	217.8	217.8
19	**390.6**	390.6	390.6	**95.1**	88.9	95.1	**4.11**	215.3	215.3	215.3
18	**391.7**	391.7	391.7	**92.9**	86.8	92.9	**4.22**	212.7	212.7	212.7
17	**392.8**	392.8	392.8	**90.7**	84.8	90.7	**4.33**	210.2	210.2	210.2

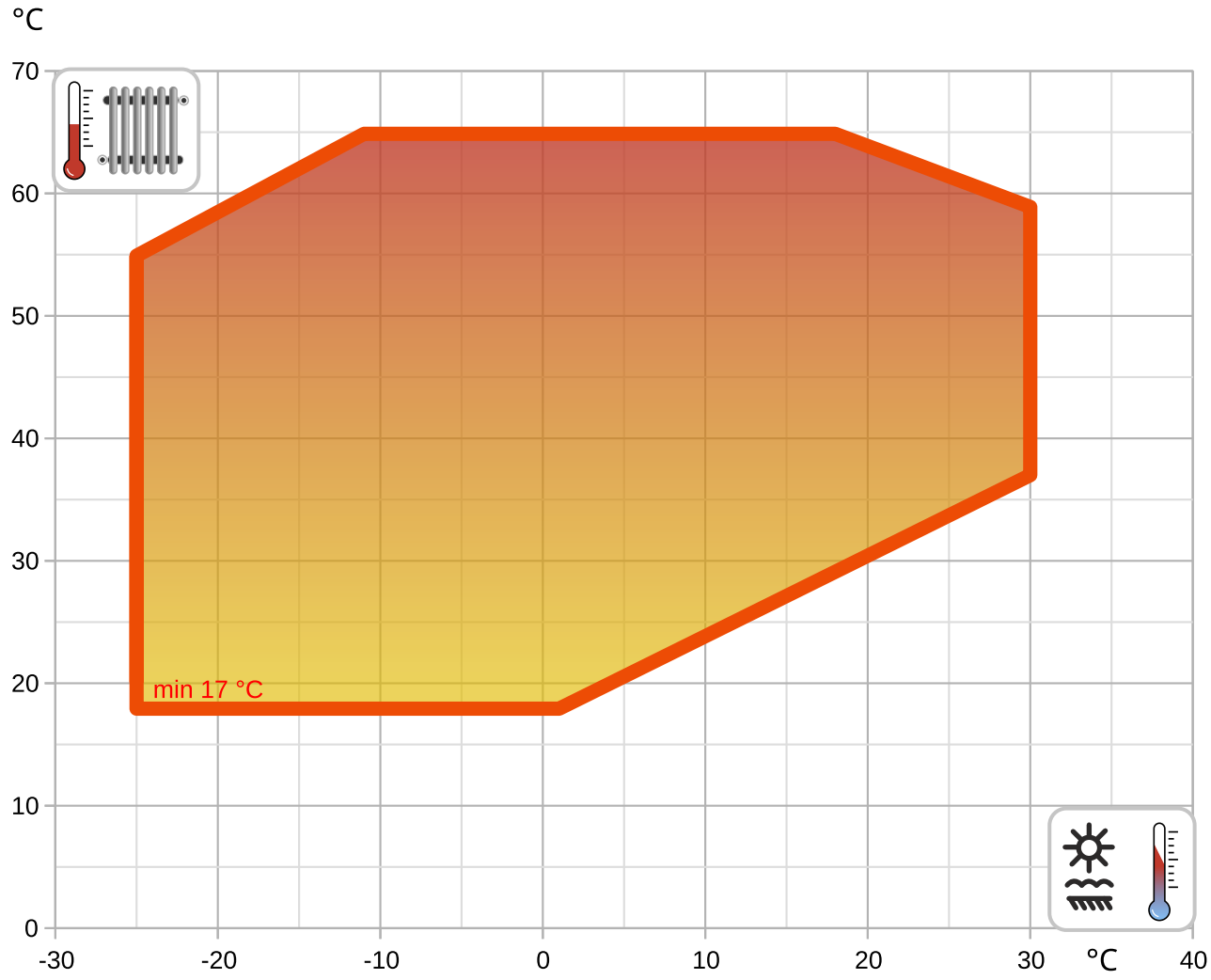
Tc [°C]	W 23 / 18 °C									
	Qc	**Qh-min**	**Qh-max**	**Pin**	**Pin-min**	**Pin-max**	**EER**	**I**	**I-min**	**I-max**
Ta [°C]	**[kW]**	[kW]	[kW]	**[kW]**	[kW]	[kW]	**kW / kW**	[A]	[A]	[A]
40	**469.4**	469.4	469.4	**152.0**	142.1	152.0	**3.09**	277.1	277.1	277.1
39	**472.5**	472.5	472.5	**148.7**	139.0	148.7	**3.18**	273.3	273.3	273.3
38	**475.6**	475.6	475.6	**145.4**	135.9	145.4	**3.27**	269.5	269.5	269.5
37	**478.5**	478.5	478.5	**142.1**	132.9	142.1	**3.37**	265.8	265.8	265.8
36	**481.4**	481.4	481.4	**139.0**	129.9	139.0	**3.46**	262.2	262.2	262.2
35	**484.3**	484.3	484.3	**135.9**	127.1	135.9	**3.56**	258.7	258.7	258.7
34	**487.0**	487.0	487.0	**132.9**	124.3	132.9	**3.66**	255.3	255.3	255.3
33	**489.7**	489.7	489.7	**130.0**	121.5	130.0	**3.77**	252.0	252.0	252.0
32	**492.4**	492.4	492.4	**127.2**	118.9	127.2	**3.87**	248.7	248.7	248.7
31	**494.9**	494.9	494.9	**124.4**	116.3	124.4	**3.98**	245.5	245.5	245.5
30	**497.4**	497.4	497.4	**121.7**	113.7	121.7	**4.09**	242.3	242.3	242.3
29	**499.9**	499.9	499.9	**119.0**	111.2	119.0	**4.20**	239.3	239.3	239.3
28	**502.3**	502.3	502.3	**116.4**	108.8	116.4	**4.32**	236.2	236.2	236.2
27	**504.6**	504.6	504.6	**113.8**	106.4	113.8	**4.43**	233.2	233.2	233.2
26	**506.8**	506.8	506.8	**111.3**	104.1	111.3	**4.55**	230.3	230.3	230.3
25	**509.0**	509.0	509.0	**108.9**	101.8	108.9	**4.67**	227.4	227.4	227.4
24	**511.2**	511.2	511.2	**106.5**	99.6	106.5	**4.80**	224.5	224.5	224.5
23	**513.3**	513.3	513.3	**104.1**	97.3	104.1	**4.93**	221.6	221.6	221.6
22	**515.3**	515.3	515.3	**101.8**	95.2	101.8	**5.06**	218.8	218.8	218.8
21	**517.2**	517.2	517.2	**99.5**	93.0	99.5	**5.20**	216.0	216.0	216.0
20	**519.1**	519.1	519.1	**97.3**	90.9	97.3	**5.34**	213.2	213.2	213.2
19	**521.0**	521.0	521.0	**95.1**	88.9	95.1	**5.48**	210.3	210.3	210.3
18	**522.8**	522.8	522.8	**92.9**	86.8	92.9	**5.63**	207.5	207.5	207.5
17	**524.5**	524.5	524.5	**90.7**	84.8	90.7	**5.78**	204.7	204.7	204.7

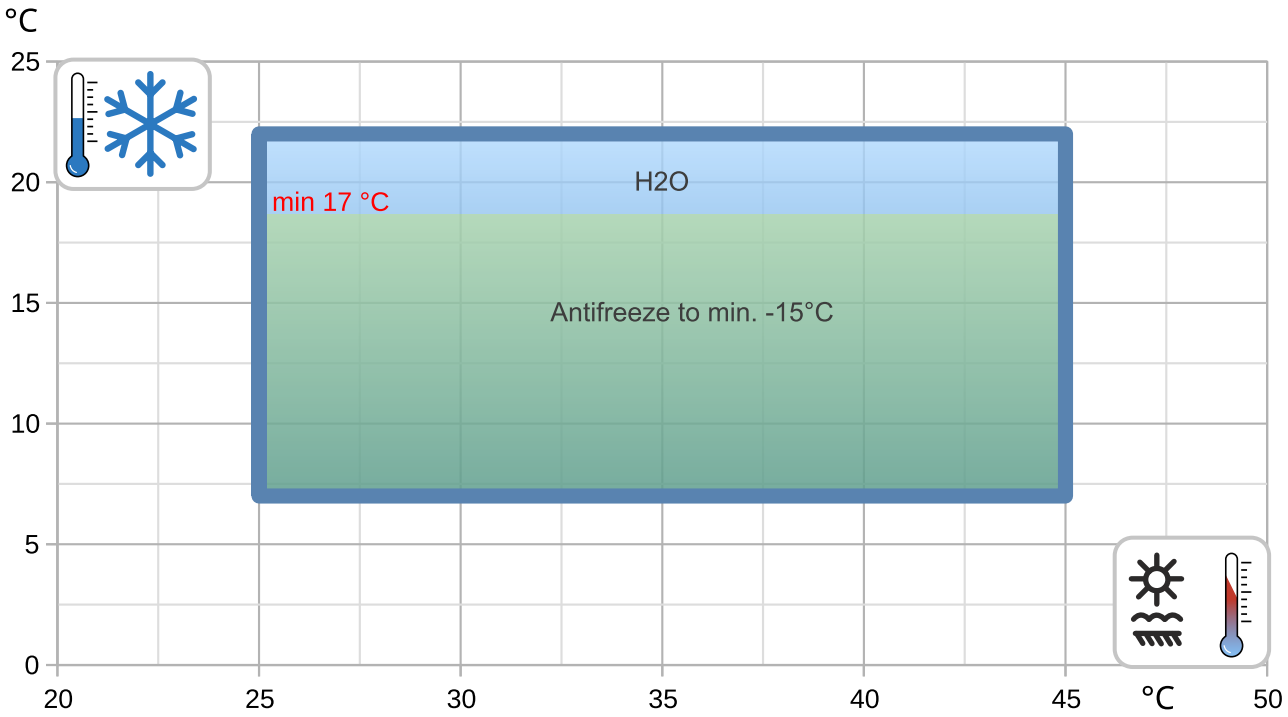
* attention: operating limits not reflected in performance table

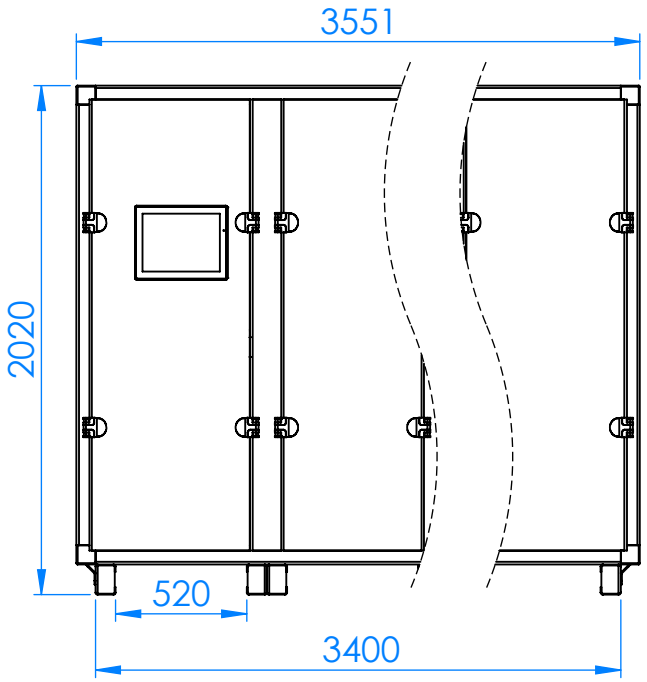
LEGENDE:

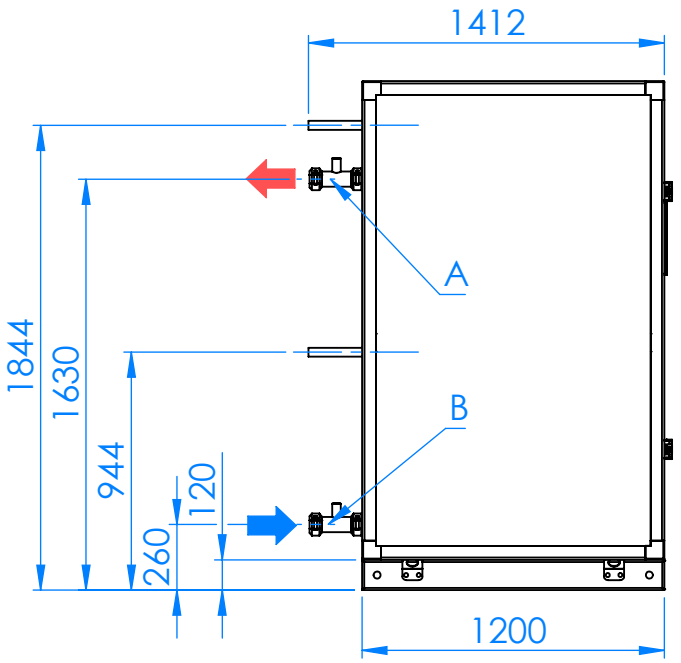
Ts-IN: Temperature renewable source - inlet [°C]
Th-OU: Temperature heating - outlet (flow) [°C]
Tc-OU: Temperature cooling - outlet (flow) [°C]
Qh nom: Heating capacity nominal
Qh min: Heating capacity minimal
Qh max: Heating capacity maximal
Pin nom: Power input at nominal heating capacity
Pin min: 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

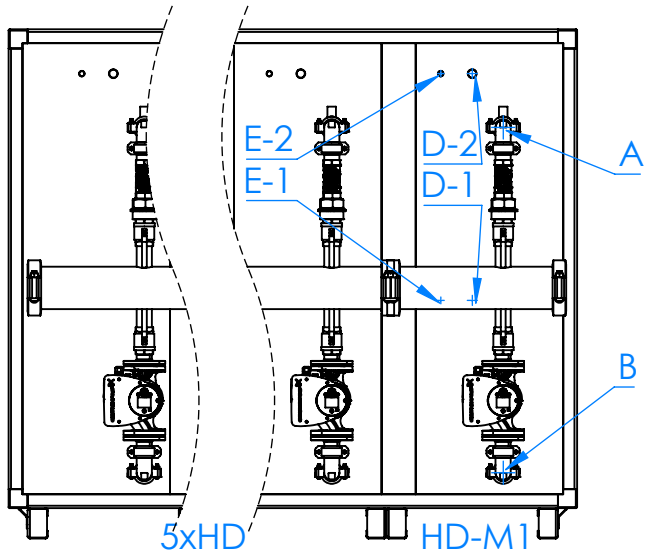
Operating limits

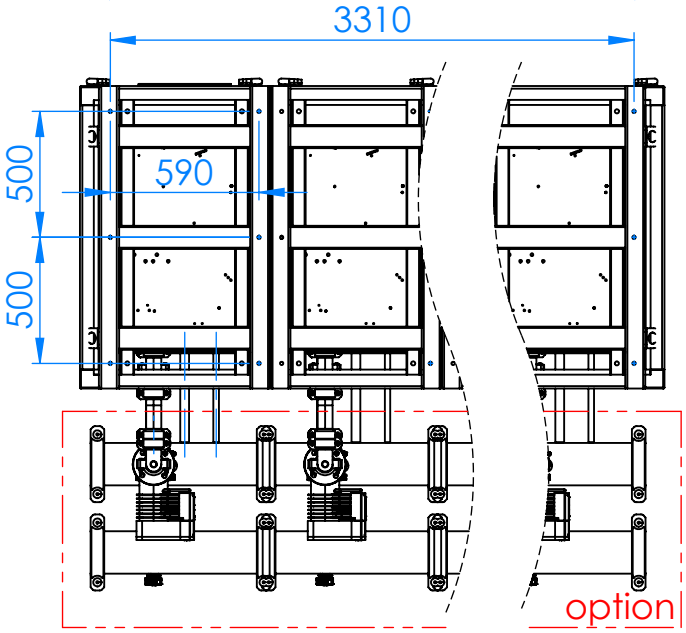


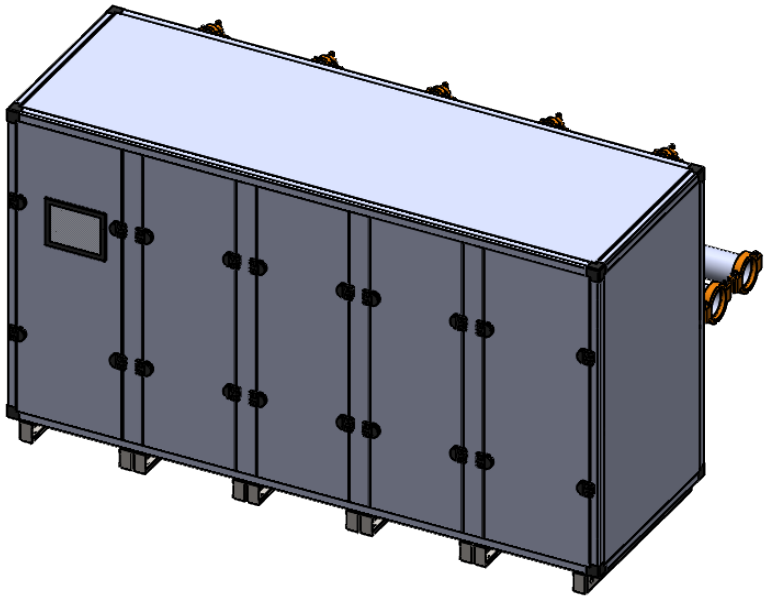


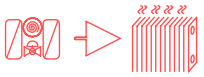








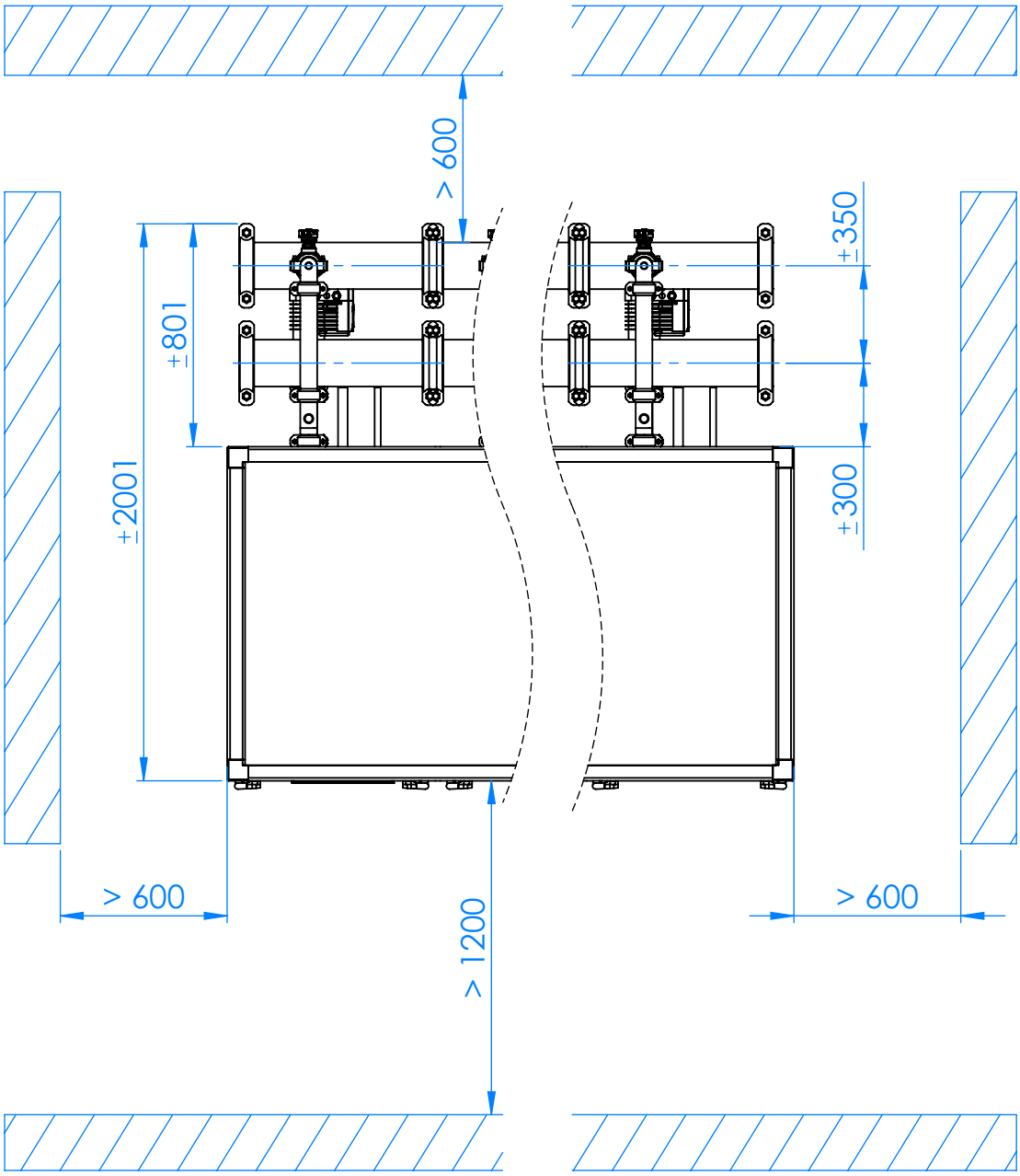


A - 

B - 

D (1,2,x) - SPLIT - FRIGO GAS
(Modul 1-2-x)

E (1,2,x) - SPLIT - FRIGO LIQUID
(Modul 1-2-x)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±2001
±350
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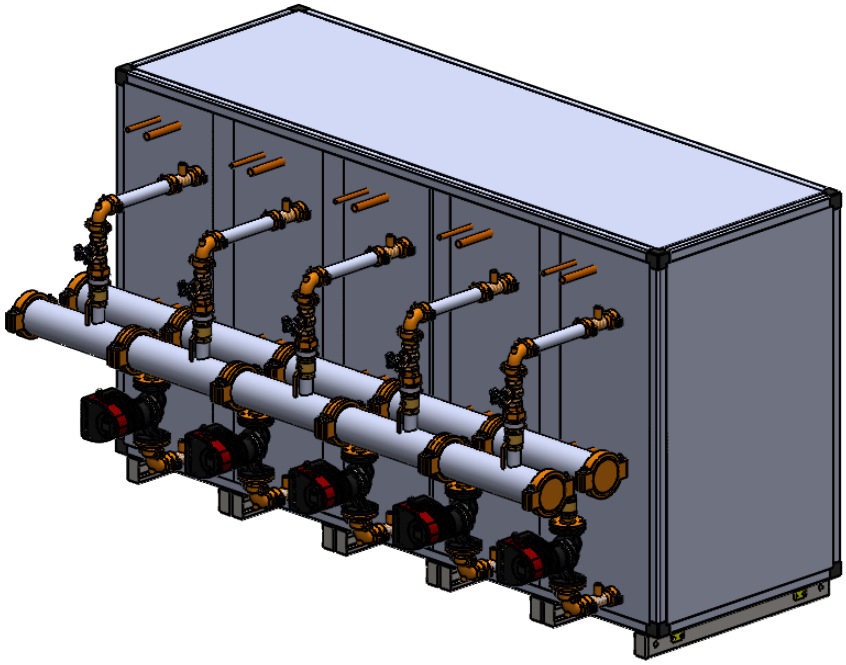
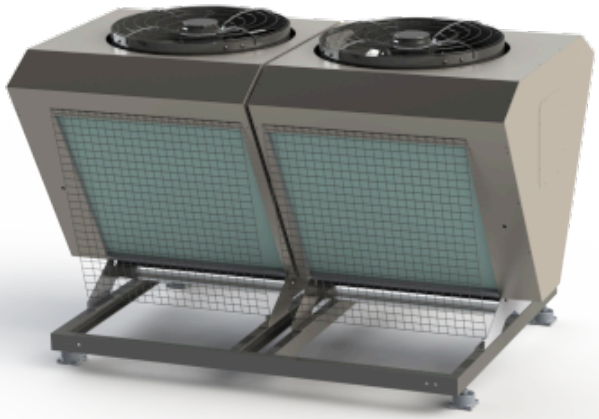


WAMAK AW 500 EVI HeavyDuty 2L5 - Split unit variant: VOV900X2-FRAME

Number of units needed

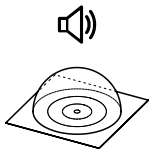
5

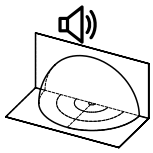


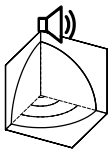
Enclosure type: VOV900X2-FRAME			**Evaporator**	
Article		WAVV2X90	Type	Cu-coil /Al-fin "
Basic dimensions	Height [mm]	1400	Port size	10 x (7/8" - 1.3/8") "
	Width [mm]	1500	Heat transfer medium	Air
	Length [mm]	2300	Volume flow - Air [m3/h]	15072 ~ 150720
Weight [kg]		430	Internal pressure drop - Air [kPa]	10 x 0.061
Colour		Inox	Temperature difference - Air	7 K
Enclousure IP Class		IP44	Expansion valve	EEV
Fan		800 mm		
Number of fans		2	Fan mounting position	Vertical axis
Fan motor type		EC	Fan type	Axial
Fan nominal current [A]		1.35	Fan power supply [V/Hz]	3~ 400/50
Minimal fan power input [Watt]		81	Maximal fan power input [Watt]	802

Acoustic power Lw

82.3 dB(A)

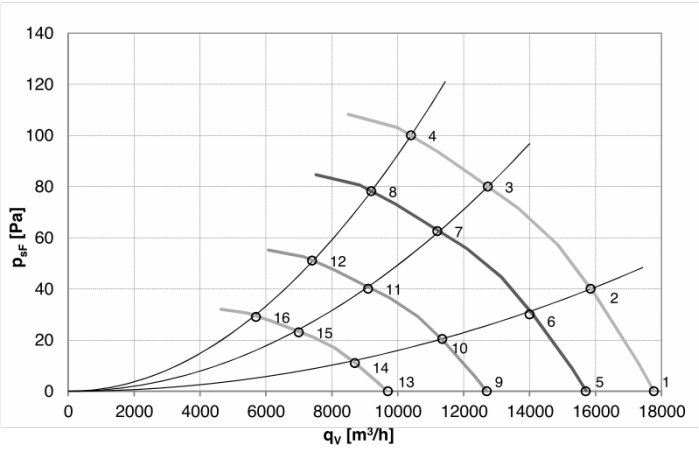




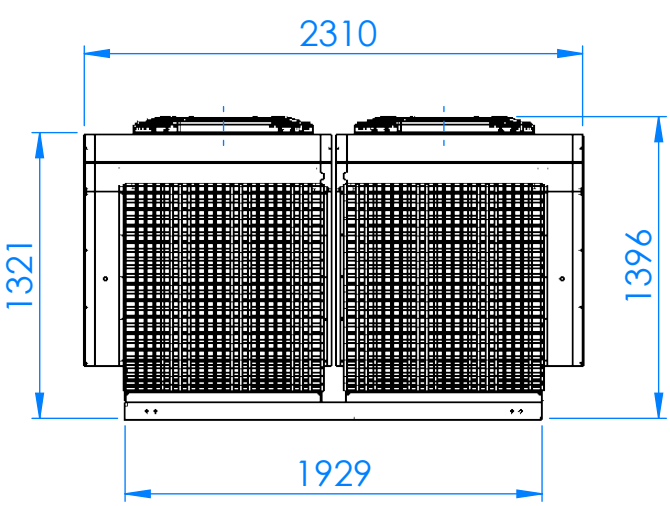


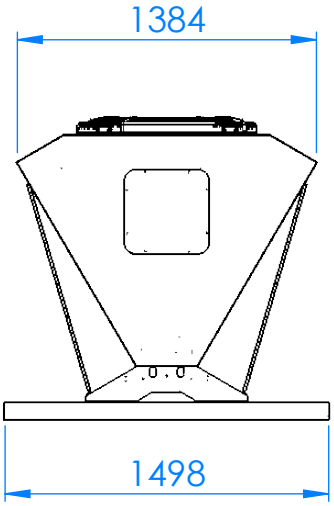
Distance [m]	1	5	10	15	1	5	10	15	1	5	10	15
Acoustic pressure Lp [dB(A)]	77.3	63.3	57.3	53.8	80.3	66.3	60.3	56.8	74.3	60.3	54.3	50.8

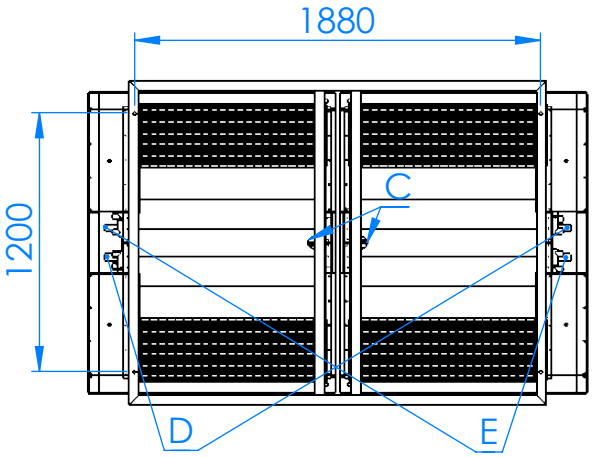
EC Fan 800mm



	U [V]	f [Hz]	n [RPM]	q_v [m³/h]	p_{sF} [Pa]	P_e [W]	I [A]	$L_{wA\ out}$ [dB (A)]	$T_{a\ max}$ [℃]
1	400	50	735	17770	0	503	0,85	70	60
2	400	50	735	15850	40	612	1,02	66	60
3	400	50	735	12730	80	735	1,18	65	60
4	400	50	735	10400	100	802	1,36	68	60
5	400	50	650	15700	0	348	0,68	67	60
6	400	50	650	14000	30	421	0,80	63	60
7	400	50	650	11200	63	510	0,92	62	60
8	400	50	650	9200	78	554	0,93	65	60
9	400	50	525	12700	0	183	0,38	63	60
10	400	50	525	11350	20	225	0,35	59	60
11	400	50	525	9100	40	265	0,53	58	60
12	400	50	525	7400	51	292	0,57	61	60
13	400	50	400	9700	0	81	0,21	57	60
14	400	50	400	8700	11	97	0,24	53	60
15	400	50	400	7000	23	117	0,27	52	60
16	400	50	400	5700	29	128	0,28	55	60



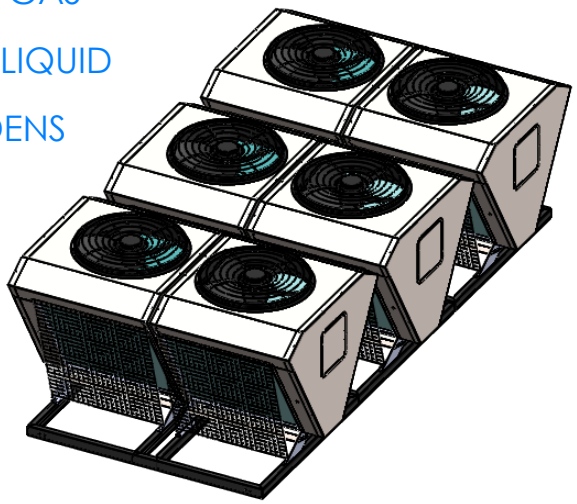


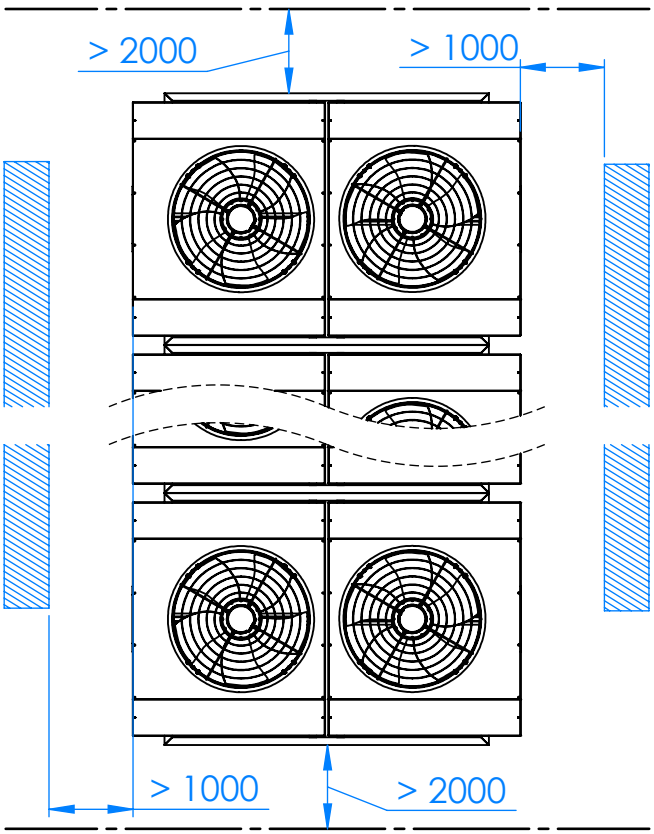


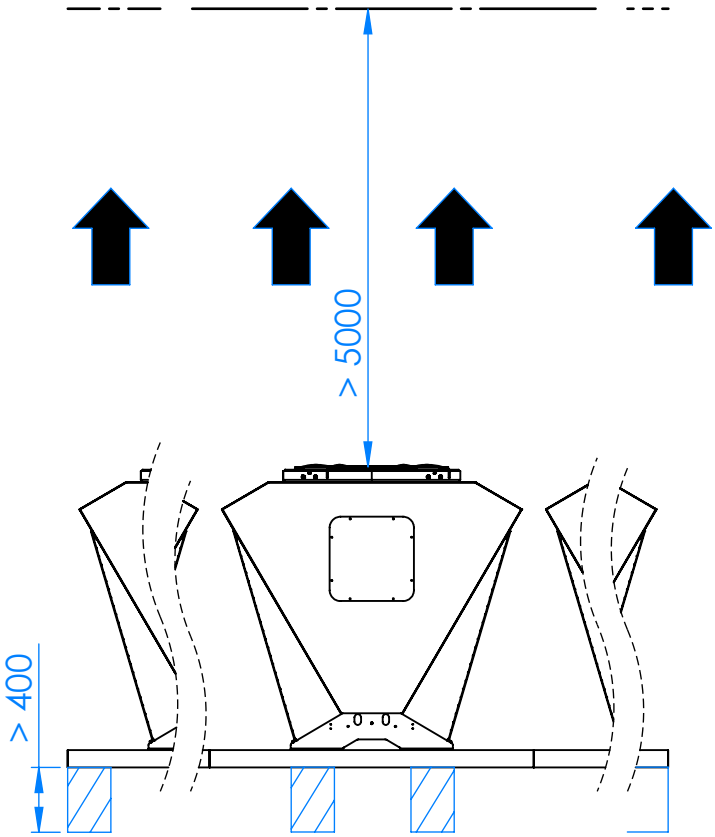
D - FRIGO GAS

E - FRIGO LIQUID

C - CONDENS



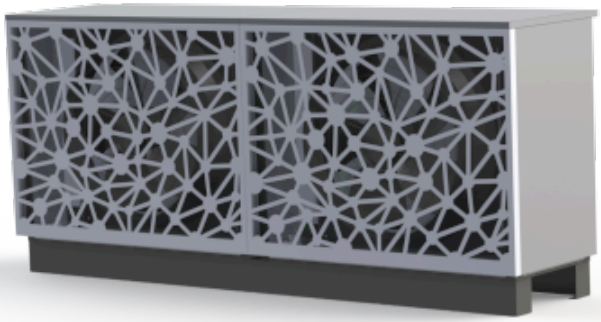




WAMAK AW 500 EVI HeavyDuty 2L5 - Split unit variant: VOII-1200-2LOW

Number of units needed

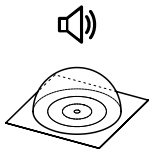
10

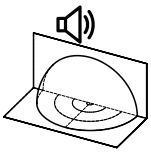


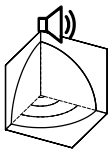
Enclosure type: VOII-1200-2LOW			**Evaporator**	
Article		WAVII12L	Type	Cu-coil /Al-fin "
Basic dimensions	Height [mm]	1240	Port size	10 x (7/8" - 1.3/8") "
	Width [mm]	2850	Heat transfer medium	Air
	Length [mm]	710	Volume flow - Air [m3/h]	15072 ~ 150720
Weight [kg]		300	Internal pressure drop - Air [kPa]	10 x 0.061
Colour		Gray	Temperature difference - Air	7 K
Enclousure IP Class		IP44	Expansion valve	EEV
Fan		800 mm		
Number of fans		2	Fan mounting position	Horizontal axis
Fan motor type		EC	Fan type	Axial
Fan nominal current [A]		1.35	Fan power supply [V/Hz]	3~ 400/50
Minimal fan power input [Watt]		81	Maximal fan power input [Watt]	802

Acoustic power Lw

78.8 dB(A)

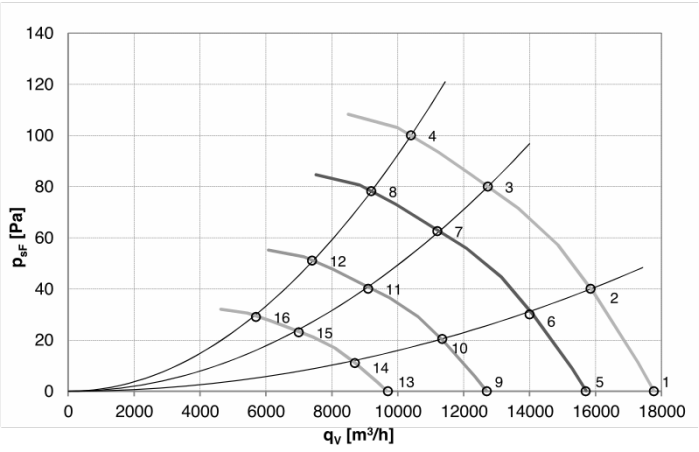




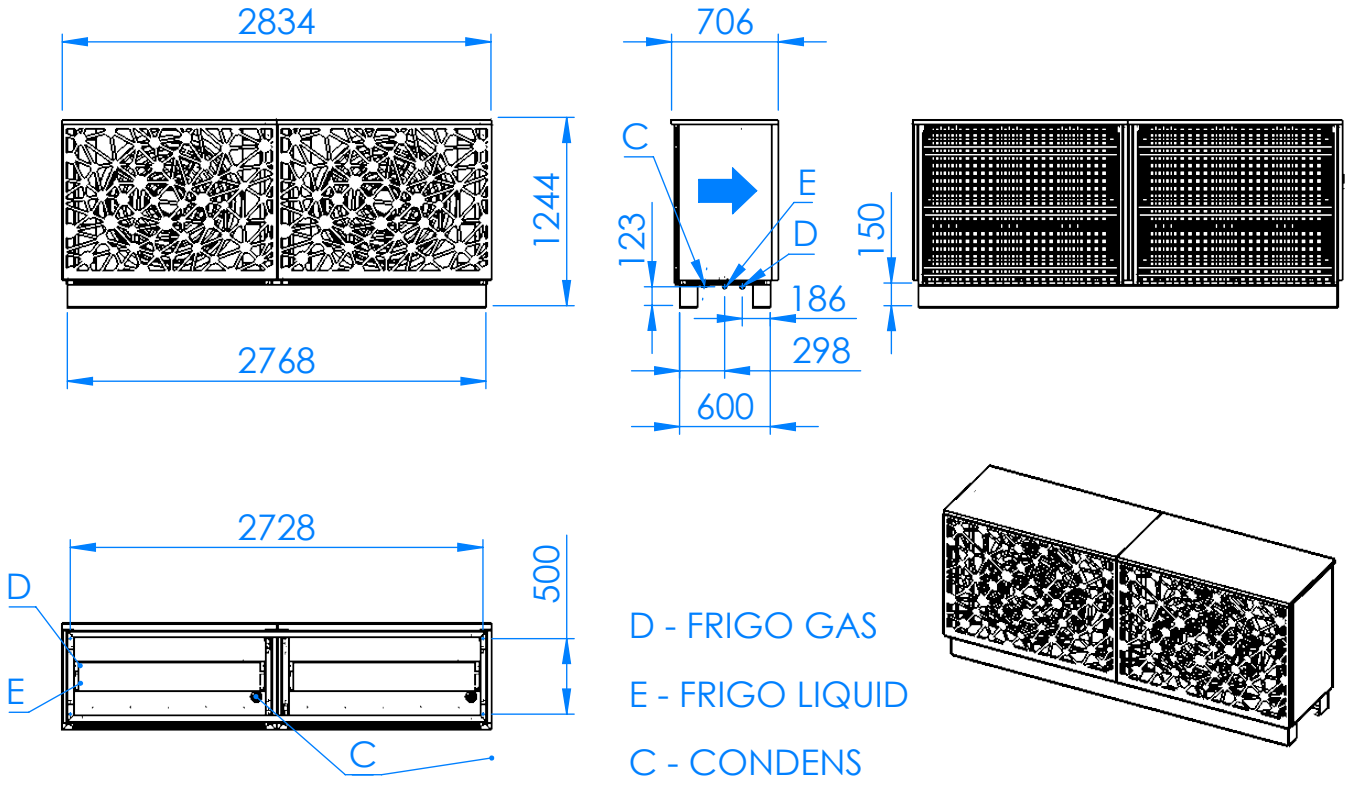


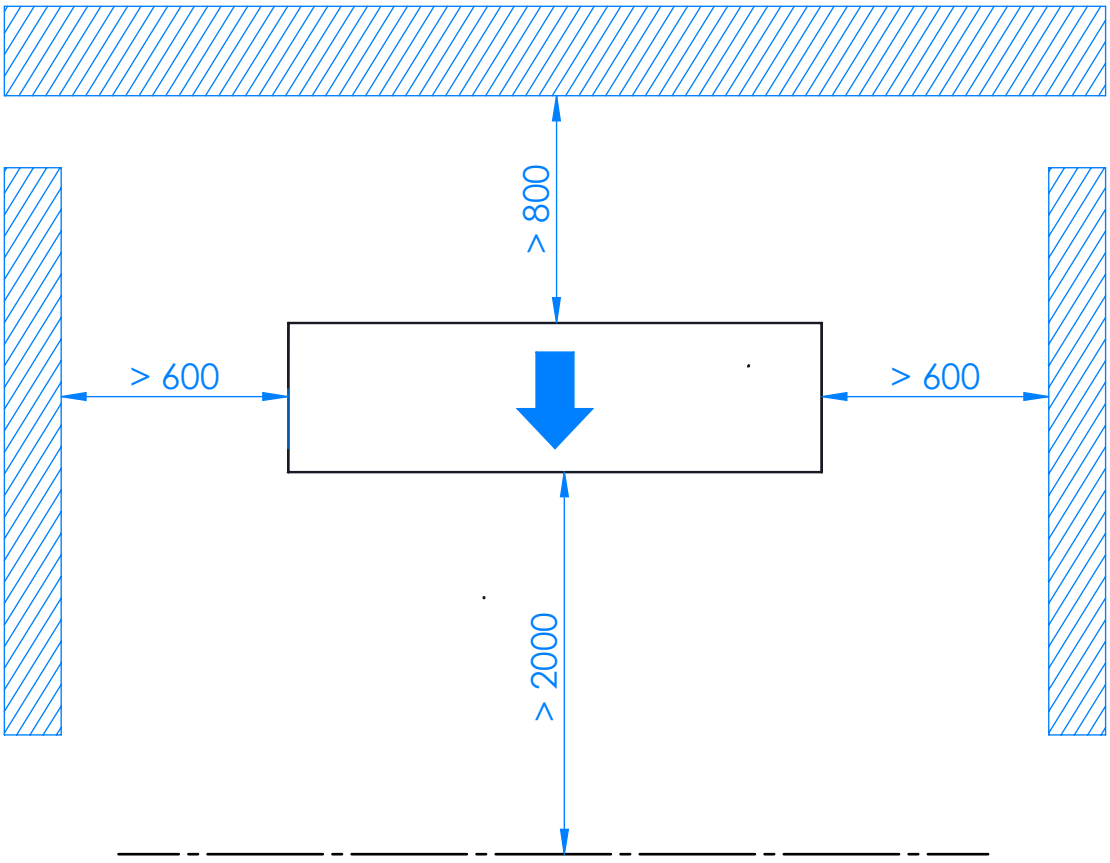
Distance [m]	1	5	10	15	1	5	10	15	1	5	10	15
Acoustic pressure Lp [dB(A)]	73.8	59.8	53.8	50.3	76.8	62.8	56.8	53.3	70.8	56.8	50.8	47.3

EC Fan 800mm



	U [V]	f [Hz]	n [RPM]	q_v [m³/h]	p_{sF} [Pa]	P_e [W]	I [A]	$L_{wA\ out}$ [dB (A)]	$T_{a\ max}$ [℃]
1	400	50	735	17770	0	503	0,85	70	60
2	400	50	735	15850	40	612	1,02	66	60
3	400	50	735	12730	80	735	1,18	65	60
4	400	50	735	10400	100	802	1,36	68	60
5	400	50	650	15700	0	348	0,68	67	60
6	400	50	650	14000	30	421	0,80	63	60
7	400	50	650	11200	63	510	0,92	62	60
8	400	50	650	9200	78	554	0,93	65	60
9	400	50	525	12700	0	183	0,38	63	60
10	400	50	525	11350	20	225	0,35	59	60
11	400	50	525	9100	40	265	0,53	58	60
12	400	50	525	7400	51	292	0,57	61	60
13	400	50	400	9700	0	81	0,21	57	60
14	400	50	400	8700	11	97	0,24	53	60
15	400	50	400	7000	23	117	0,27	52	60
16	400	50	400	5700	29	128	0,28	55	60

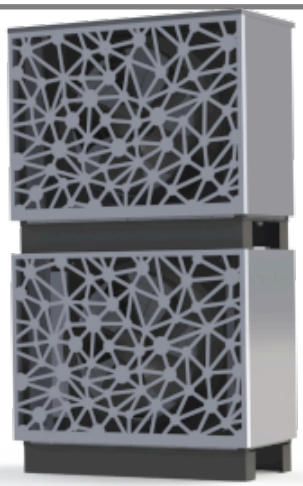

2834
706
1244
C
E
D
123
150
186
298
2768
600
2728
500
D
E
C
D - FRIGO GAS
E - FRIGO LIQUID
C - CONDENS


> 800
> 600
> 600
> 2000

WAMAK AW 500 EVI HeavyDuty 2L5 - Split unit variant: VOII-1200-2HIGH

Number of units needed

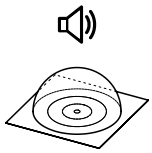
10

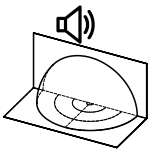


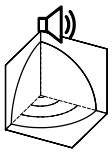
Enclosure type: VOII-1200-2HIGH			**Evaporator**	
Article		WAVII12H	Type	Cu-coil /Al-fin "
Basic dimensions	Height [mm]	2450	Port size	10 x (7/8" - 1.3/8") "
	Width [mm]	1420	Heat transfer medium	Air
	Length [mm]	710	Volume flow - Air [m3/h]	15072 ~ 150720
Weight [kg]		300	Internal pressure drop - Air [kPa]	10 x 0.061
Colour		Gray	Temperature difference - Air	7 K
Enclousure IP Class		IP44	Expansion valve	EEV
Fan		800 mm		
Number of fans		2	Fan mounting position	Horizontal axis
Fan motor type		EC	Fan type	Axial
Fan nominal current [A]		1.35	Fan power supply [V/Hz]	3~ 400/50
Minimal fan power input [Watt]		81	Maximal fan power input [Watt]	802

Acoustic power Lw

78.8 dB(A)

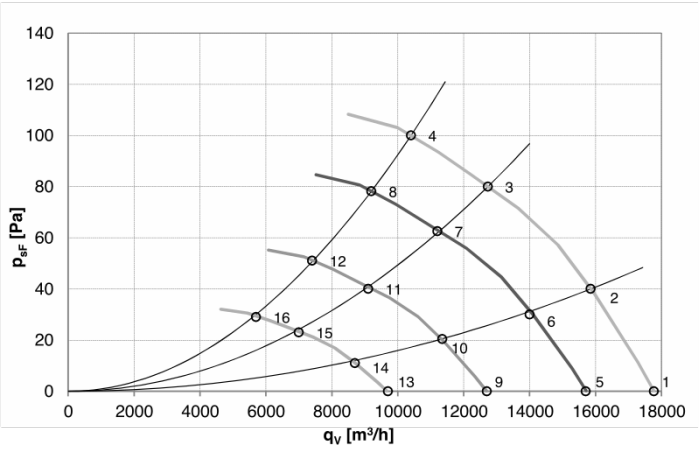




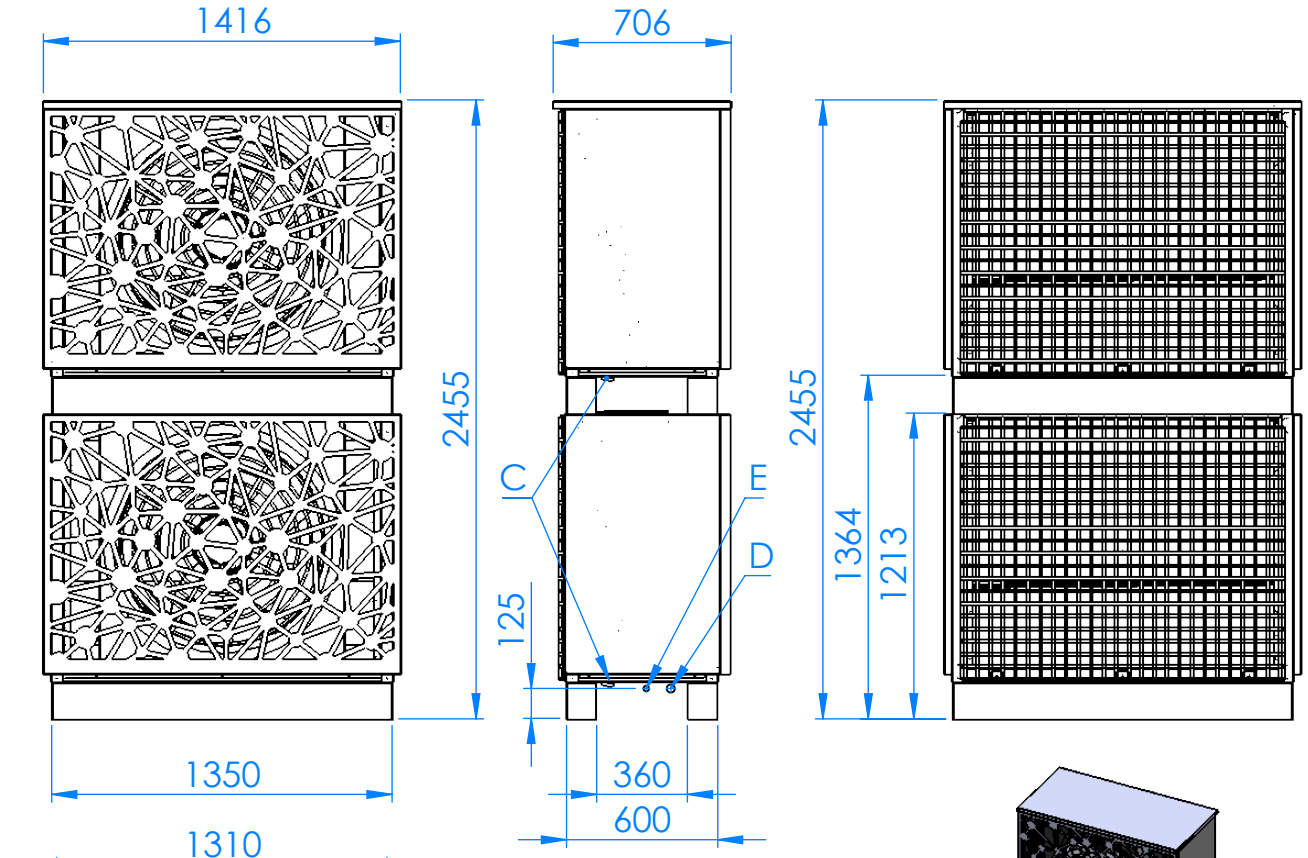


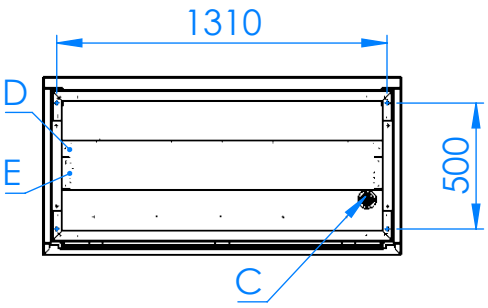
Distance [m]	1	5	10	15	1	5	10	15	1	5	10	15
Acoustic pressure Lp [dB(A)]	73.8	59.8	53.8	50.3	76.8	62.8	56.8	53.3	70.8	56.8	50.8	47.3

EC Fan 800mm



	U [V]	f [Hz]	n [RPM]	q_v [m³/h]	p_{sF} [Pa]	P_e [W]	I [A]	$L_{wA\ out}$ [dB (A)]	$T_{a\ max}$ [℃]
1	400	50	735	17770	0	503	0,85	70	60
2	400	50	735	15850	40	612	1,02	66	60
3	400	50	735	12730	80	735	1,18	65	60
4	400	50	735	10400	100	802	1,36	68	60
5	400	50	650	15700	0	348	0,68	67	60
6	400	50	650	14000	30	421	0,80	63	60
7	400	50	650	11200	63	510	0,92	62	60
8	400	50	650	9200	78	554	0,93	65	60
9	400	50	525	12700	0	183	0,38	63	60
10	400	50	525	11350	20	225	0,35	59	60
11	400	50	525	9100	40	265	0,53	58	60
12	400	50	525	7400	51	292	0,57	61	60
13	400	50	400	9700	0	81	0,21	57	60
14	400	50	400	8700	11	97	0,24	53	60
15	400	50	400	7000	23	117	0,27	52	60
16	400	50	400	5700	29	128	0,28	55	60

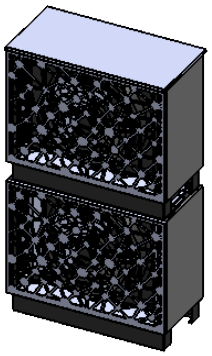


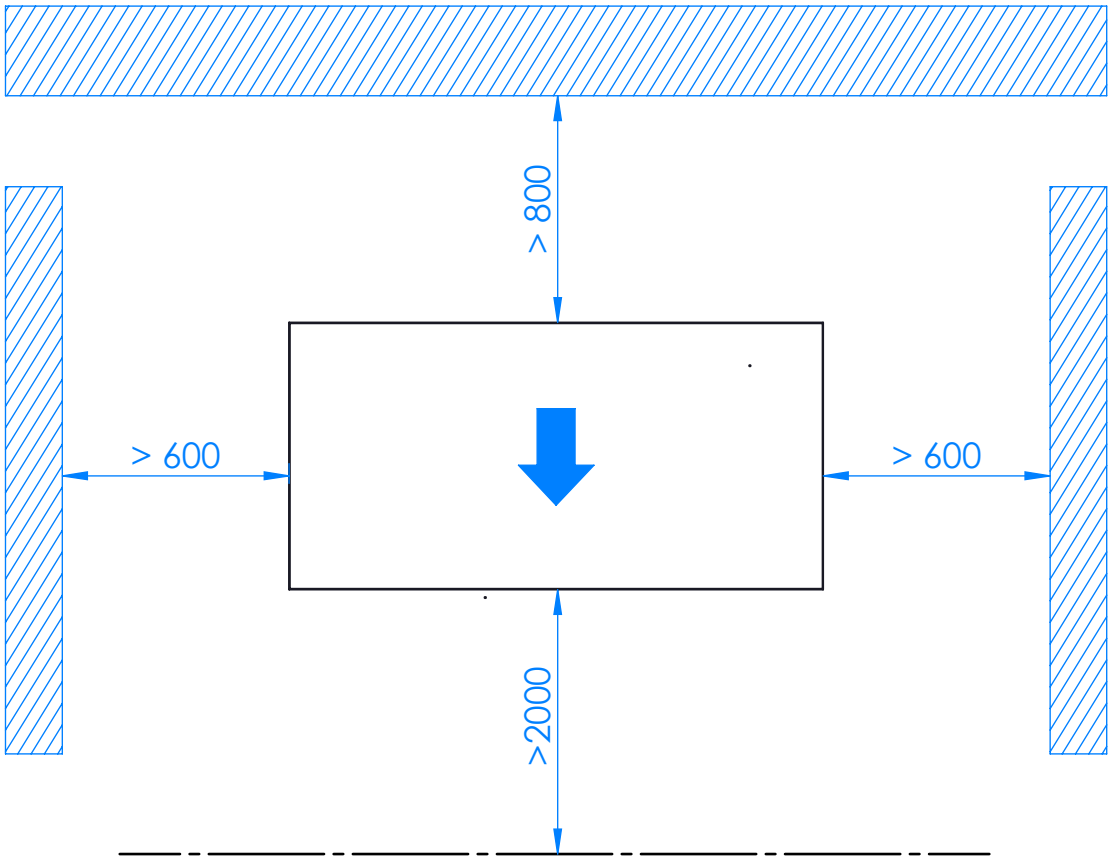


D - FRIGO GAS

E - FRIGO LIQUID

C - CONDENS

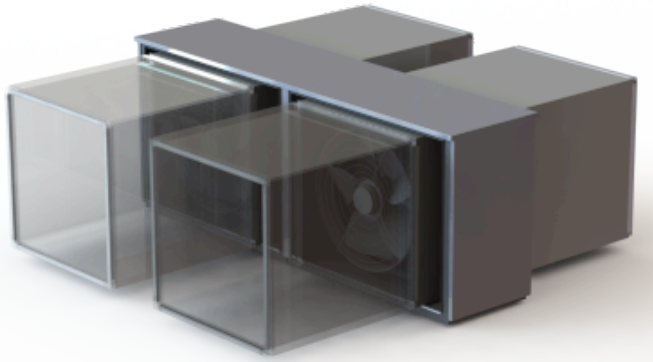




WAMAK AW 500 EVI HeavyDuty 2L5 - Split unit variant: VOII-1200-2LOW-DUCT

Number of units needed

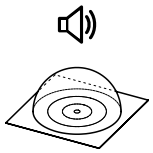
10

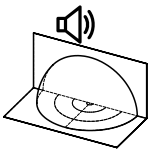


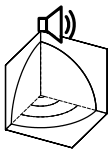
Enclosure type: VOII-1200-2LOW-DUCT			**Evaporator**	
Article		WAVID12L	Type	Cu-coil /Al-fin "
Basic dimensions	Height [mm]	1240	Port size	10 x (7/8" - 1.3/8") "
	Width [mm]	2850	Heat transfer medium	Air
	Length [mm]	710	Volume flow - Air [m3/h]	15072 ~ 150720
Weight [kg]		300	Internal pressure drop - Air [kPa]	10 x 0.061
Colour		Gray	Temperature difference - Air	7 K
Enclousure IP Class		IP44	Expansion valve	EEV
Fan		800 mm		
Number of fans		2	Fan mounting position	Horizontal axis
Fan motor type		EC	Fan type	Axial
Fan nominal current [A]		1.35	Fan power supply [V/Hz]	3~ 400/50
Minimal fan power input [Watt]		81	Maximal fan power input [Watt]	802

Acoustic power Lw

78.8 dB(A)

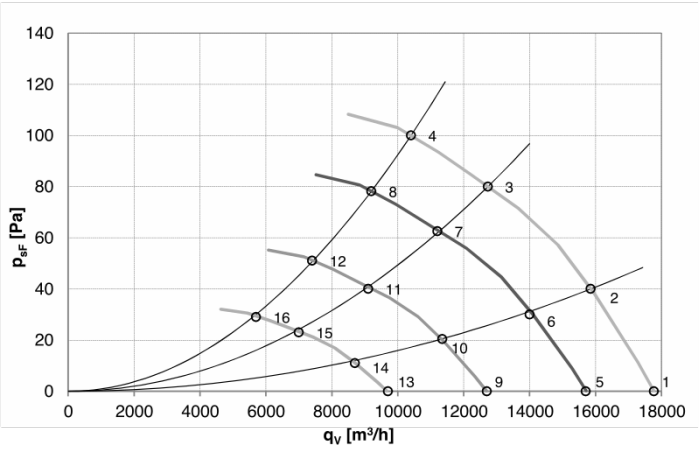






Distance [m]	1	5	10	15	1	5	10	15	1	5	10	15
Acoustic pressure Lp [dB(A)]	73.8	59.8	53.8	50.3	76.8	62.8	56.8	53.3	70.8	56.8	50.8	47.3

EC Fan 800mm

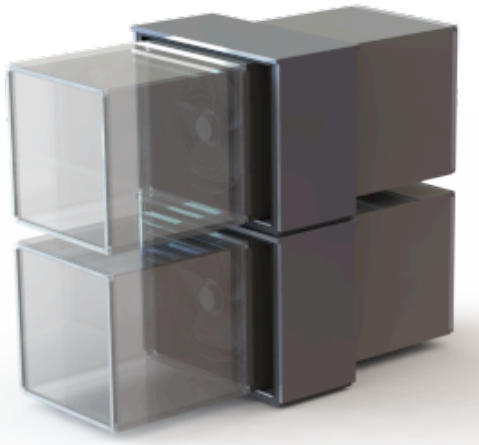


	U [V]	f [Hz]	n [RPM]	q_v [m³/h]	p_{sF} [Pa]	P_e [W]	I [A]	$L_{wA\ out}$ [dB (A)]	$T_{a\ max}$ [℃]
1	400	50	735	17770	0	503	0,85	70	60
2	400	50	735	15850	40	612	1,02	66	60
3	400	50	735	12730	80	735	1,18	65	60
4	400	50	735	10400	100	802	1,36	68	60
5	400	50	650	15700	0	348	0,68	67	60
6	400	50	650	14000	30	421	0,80	63	60
7	400	50	650	11200	63	510	0,92	62	60
8	400	50	650	9200	78	554	0,93	65	60
9	400	50	525	12700	0	183	0,38	63	60
10	400	50	525	11350	20	225	0,35	59	60
11	400	50	525	9100	40	265	0,53	58	60
12	400	50	525	7400	51	292	0,57	61	60
13	400	50	400	9700	0	81	0,21	57	60
14	400	50	400	8700	11	97	0,24	53	60
15	400	50	400	7000	23	117	0,27	52	60
16	400	50	400	5700	29	128	0,28	55	60

WAMAK AW 500 EVI HeavyDuty 2L5 - Split unit variant: VOII-1200-2HIGH-DUCT

Number of units needed

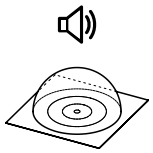
10

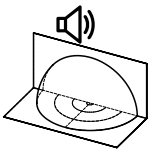


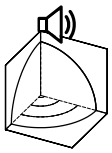
Enclosure type: VOII-1200-2HIGH-DUCT			**Evaporator**	
Article		WAVID12H	Type	Cu-coil /Al-fin "
Basic dimensions	Height [mm]	2450	Port size	10 x (7/8" - 1.3/8") "
	Width [mm]	1420	Heat transfer medium	Air
	Length [mm]	710	Volume flow - Air [m3/h]	15072 ~ 150720
Weight [kg]		300	Internal pressure drop - Air [kPa]	10 x 0.061
Colour		Gray	Temperature difference - Air	7 K
Enclousure IP Class		IP44	Expansion valve	EEV
Fan		800 mm		
Number of fans		2	Fan mounting position	Horizontal axis
Fan motor type		EC	Fan type	Axial
Fan nominal current [A]		1.35	Fan power supply [V/Hz]	3~ 400/50
Minimal fan power input [Watt]		81	Maximal fan power input [Watt]	802

Acoustic power Lw

78.8 dB(A)

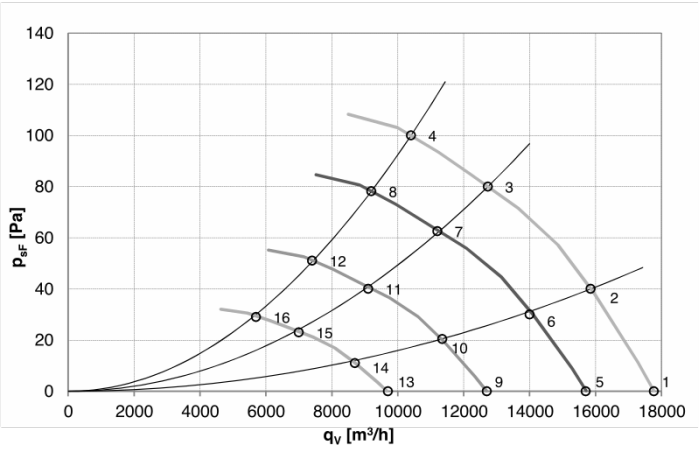




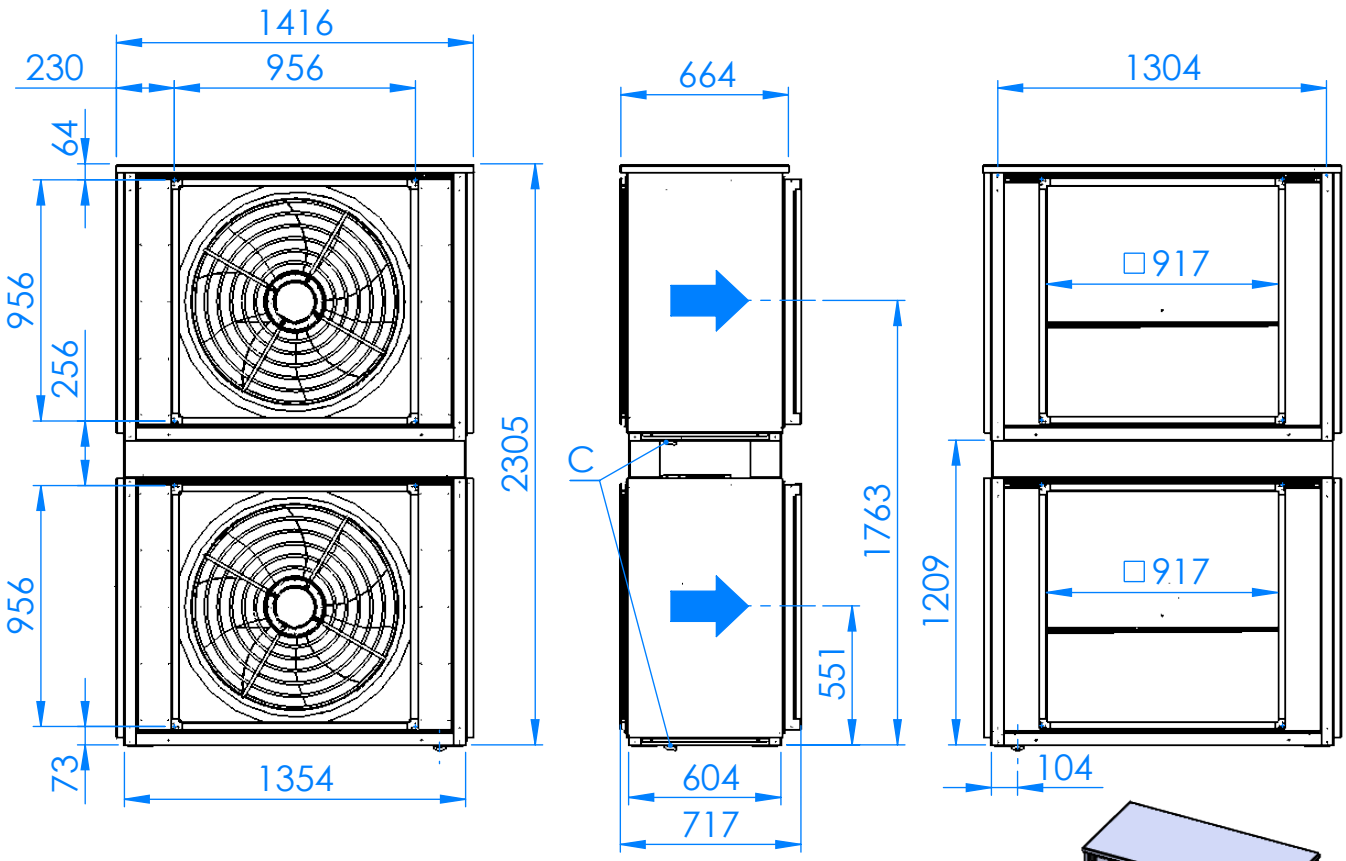


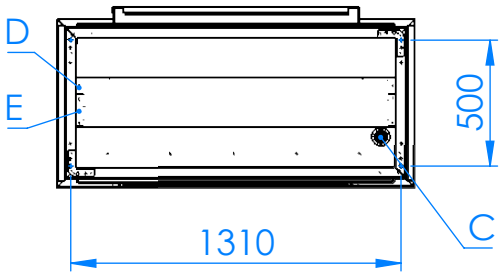
Distance [m]	1	5	10	15	1	5	10	15	1	5	10	15
Acoustic pressure Lp [dB(A)]	73.8	59.8	53.8	50.3	76.8	62.8	56.8	53.3	70.8	56.8	50.8	47.3

EC Fan 800mm



	U [V]	f [Hz]	n [RPM]	q_v [m³/h]	p_{sF} [Pa]	P_e [W]	I [A]	$L_{wA\ out}$ [dB (A)]	$T_{a\ max}$ [℃]
1	400	50	735	17770	0	503	0,85	70	60
2	400	50	735	15850	40	612	1,02	66	60
3	400	50	735	12730	80	735	1,18	65	60
4	400	50	735	10400	100	802	1,36	68	60
5	400	50	650	15700	0	348	0,68	67	60
6	400	50	650	14000	30	421	0,80	63	60
7	400	50	650	11200	63	510	0,92	62	60
8	400	50	650	9200	78	554	0,93	65	60
9	400	50	525	12700	0	183	0,38	63	60
10	400	50	525	11350	20	225	0,35	59	60
11	400	50	525	9100	40	265	0,53	58	60
12	400	50	525	7400	51	292	0,57	61	60
13	400	50	400	9700	0	81	0,21	57	60
14	400	50	400	8700	11	97	0,24	53	60
15	400	50	400	7000	23	117	0,27	52	60
16	400	50	400	5700	29	128	0,28	55	60

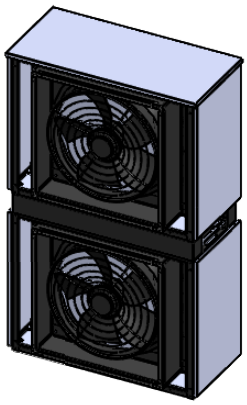


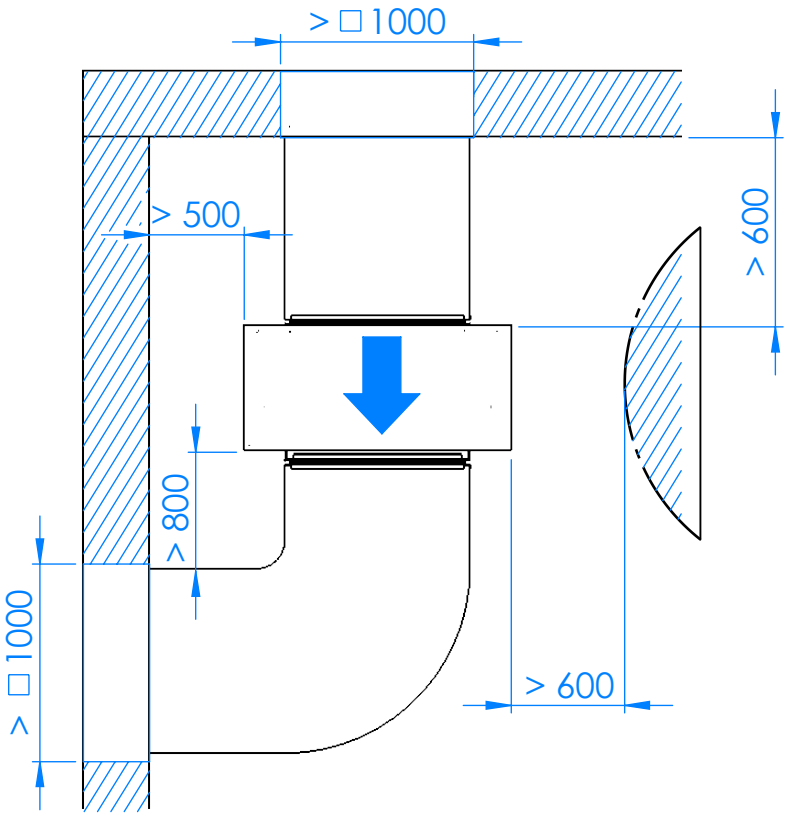


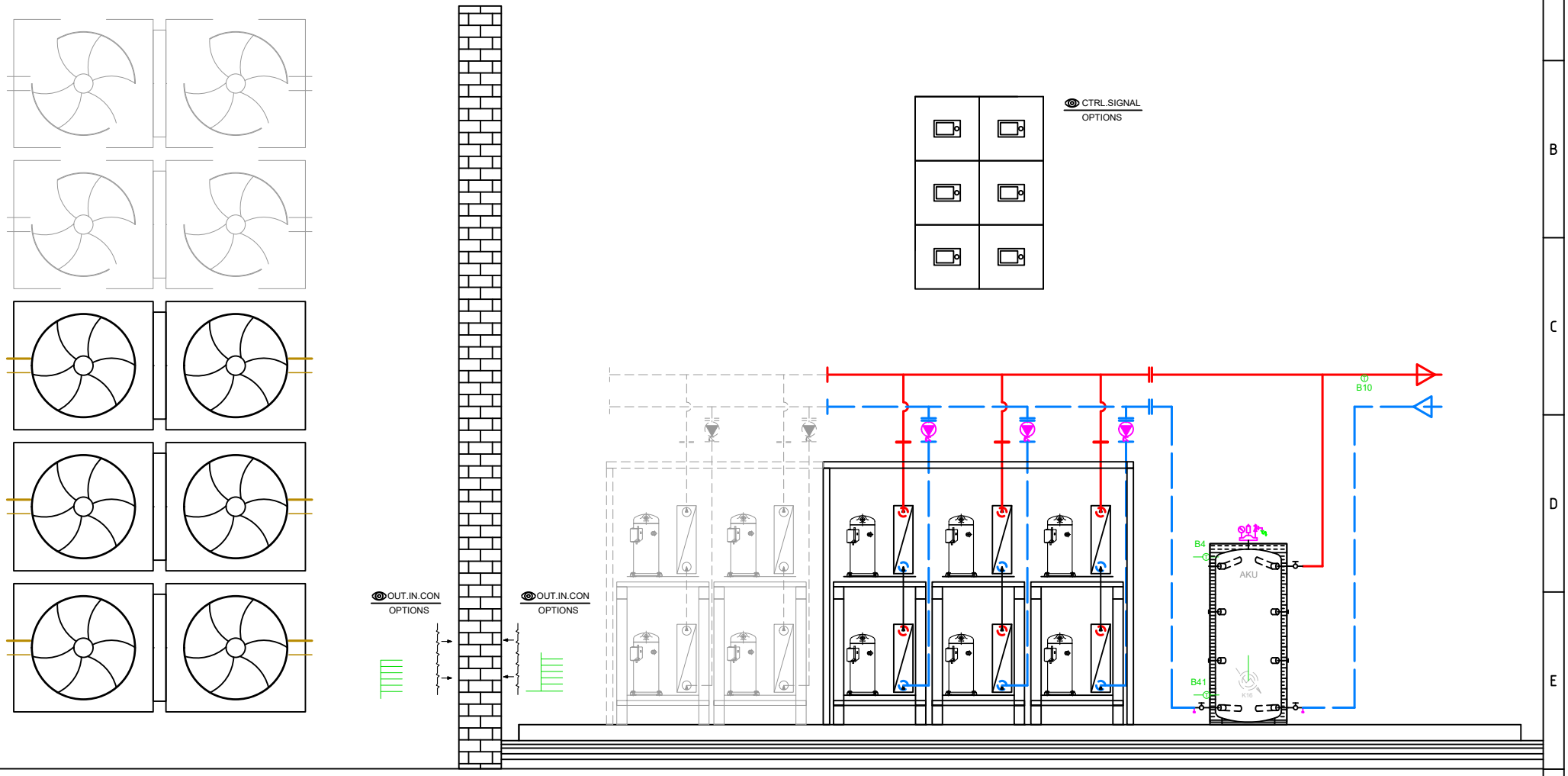
D - FRIGO GAS

E - FRIGO LIQUID

C - CONDENS







FACTORY SETTINGS

AiWa - AWK v052024 Config FactorySet v24.9.1

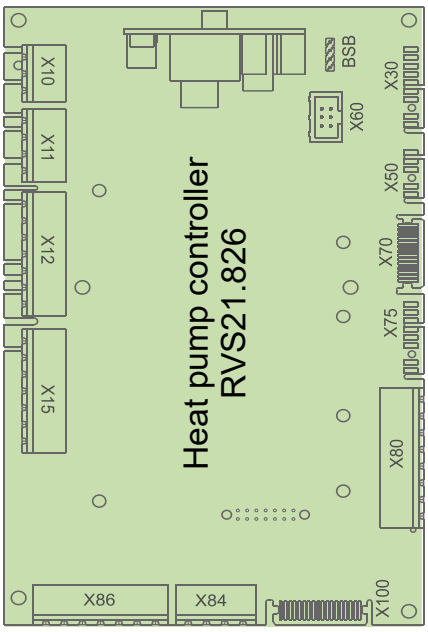
Heat pump controller preconfiguration and standard wiring of inputs and outputs

EN

Main power supply 230V / 50 Hz
Ground
Neutral conductor

	X10	1	L
			PE
			N
E10	X11	1	EX1
E11			EX2
E14			EX3
E24			EX4
K82	X12	1	QX1
			N
K40			QX2
			QX2i
			N
L			FX3
K1			QX3
Y22	X15	1	QX4
			QX4i
			N
Q9			QX5
			N
			ZX6
			N
	X86	1	GX1
			H3
			M
			H1
			G+
			M
			BSB

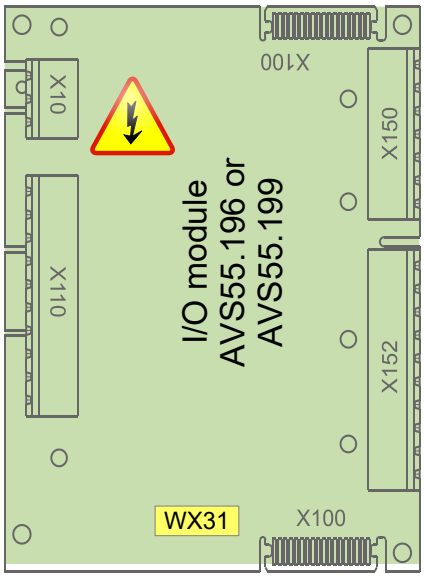
Total: max 6A
1 x QX..: max 2A



	BSB		Connection service tool (OCI700)
	X30		Operating unit (HMI) AVS37.xxx
	X60		Modbus clip-in OCI351.01
	X50		Extension module AVS75.xxx
	X70		LPB clip-in
	D1		D1 Digital output 1 Heating
	D2		D2 Digital output 2 Cooling
	D3		D3 Digital output 3 HP On/Off
	UX3		
	M	X75	
	DI6		DI6 Digital input 6 Defrosting
	DI7		DI7 Digital input 7 Alarm
	M	1	
	BX1		B91 Source inlet sensor B91
	M		
	BX2		B84 Source outl sens B92/B84
	M		
	UX1	X80	K19 Fan K19
	M		0..10 V Signal
	UX2		Q9 Condenser pump Q9
	M	1	PWM Signal
	BX3		B71 HP return sensor B71
	M		
	BX4	X84	B9 Outside sensor B9
	M	1	

Main power supply 230V / 50 Hz
Ground
Neutral conductor

	X10	1	L
			PE
			N
	X110	1	QX31
			QX32
			N
			QX33
			N
			ZX34
			N
K10	X115	1	QX35
			QX35i
			N
V81	WX31		



	BSB		
	M		
	G+	X150	5 V/12 V for active sensors
	H31		Flow measurement 10V
	M		
	H32		Low pressure 0..10V
	GX1	1	5 V/12 V for active sensors
	H33		High pressure 0..10V
	M		
	BX31		B21 HP flow sensor B21
	M		
	BX32	X152	B81 Hot-gas sensor B81
	M		
	BX33		B85 Suction gas sensor B85
	M		
	BX34		B83 Refrig sensor liquid B83
	M	1	

AiWa - AWK v052024 Config FactorySet v24.9.1

Heat pump controller preconfiguration and standard wiring of inputs and outputs

EN

AVS75.390
AVS75.391
AVS75.370

Main power supply 230V / 50 Hz
Ground
Neutral conductor

L
PE
N
T QX21
N
PE
QX22
S N
PE
QX23
C L
FX23
EX21

X50
X50
CL+ b
CL-
G+
UX21 e
M
UX22
BX21 e
M
BX22
GX21 g
H21
H22
M

Operating unit (HMI) AVS37.xxx
Extension module AVS75.xxx
Room unit QAA...
Room unit QAA...

Main power supply 230V / 50 Hz
Ground
Neutral conductor

L
PE
N
T QX21
N
PE
QX22
S N
PE
QX23
C L
FX23
EX21

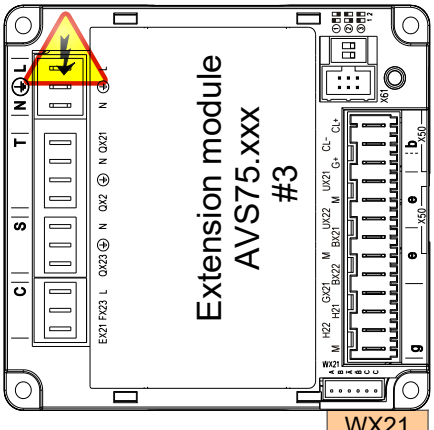
X50
X50
CL+ b
CL-
G+
UX21 e
M
UX22
BX21 e
M
BX22
GX21 g
H21
WX21
H22
M

Operating unit (HMI) AVS37.xxx
Extension module AVS75.xxx
Room unit QAA...
Room unit QAA...

Multifunktional

Main power supply 230V / 50 Hz
Ground
Neutral conductor

L
PE
N
T QX21
N
PE
QX22
S N
PE
QX23
C L
FX23
EX21



X50
X50
CL+ b
CL-
G+
UX21 e
M
UX22
BX21 e
M
BX22
GX21 g
H21
H22
M

Operating unit (HMI) AVS37.xxx
Extension module AVS75.xxx
Room unit QAA...
Room unit QAA...

B86 Suction gas sensor EVI B86

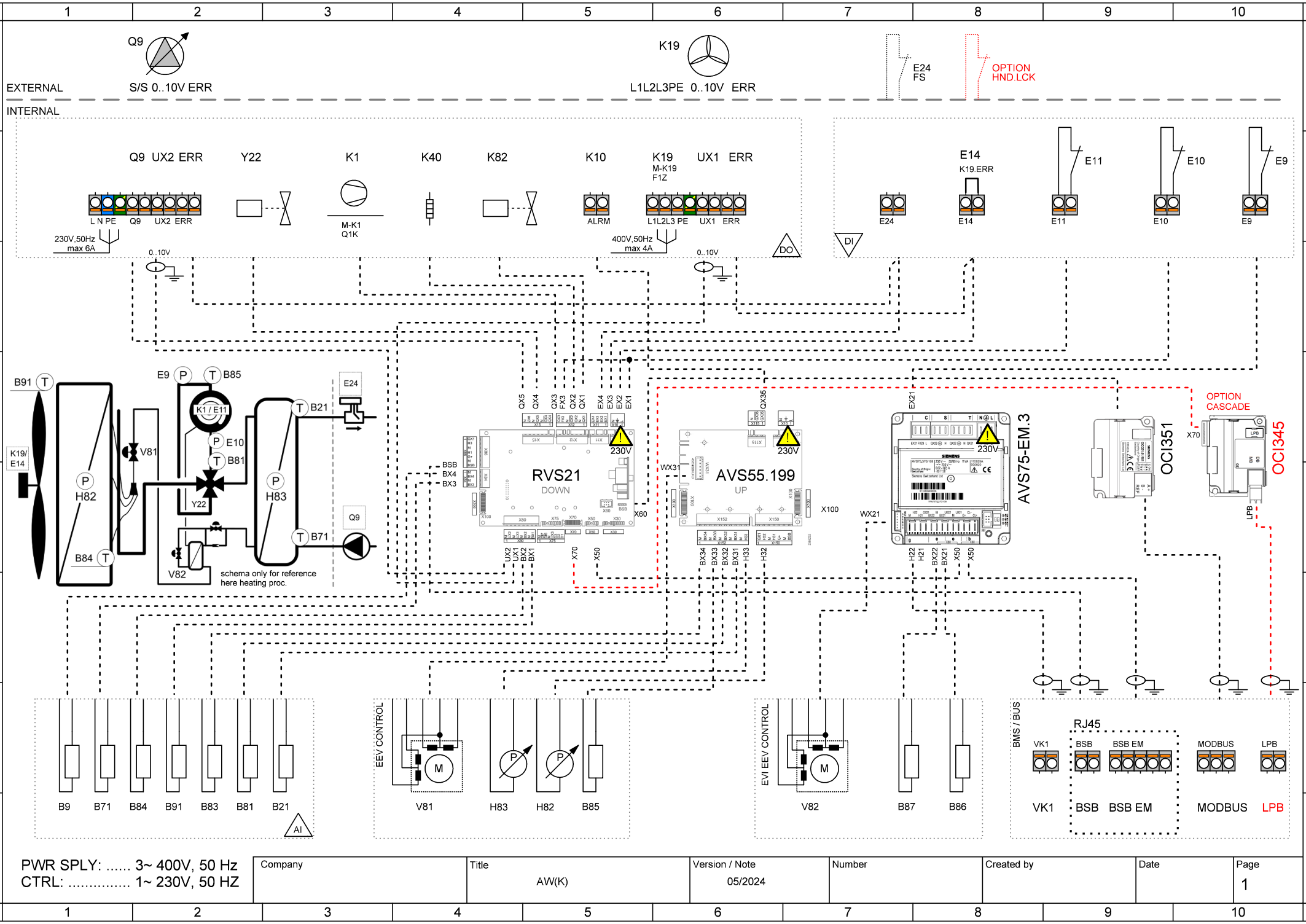
B87 Evaporation sensor EVI B87

E9 Low-pressure switch E9

V82 EEV EVI V82

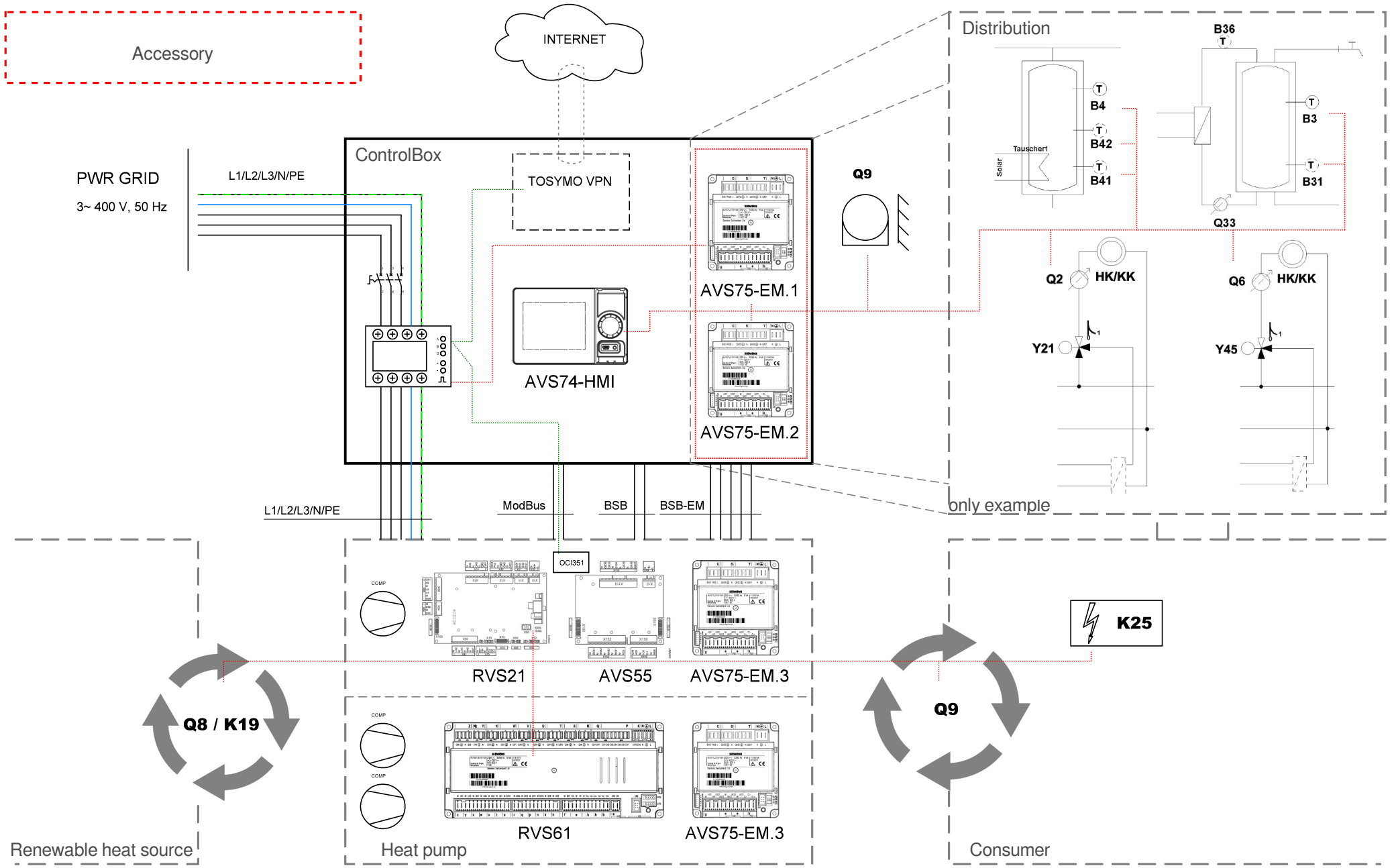
WX21

WX21

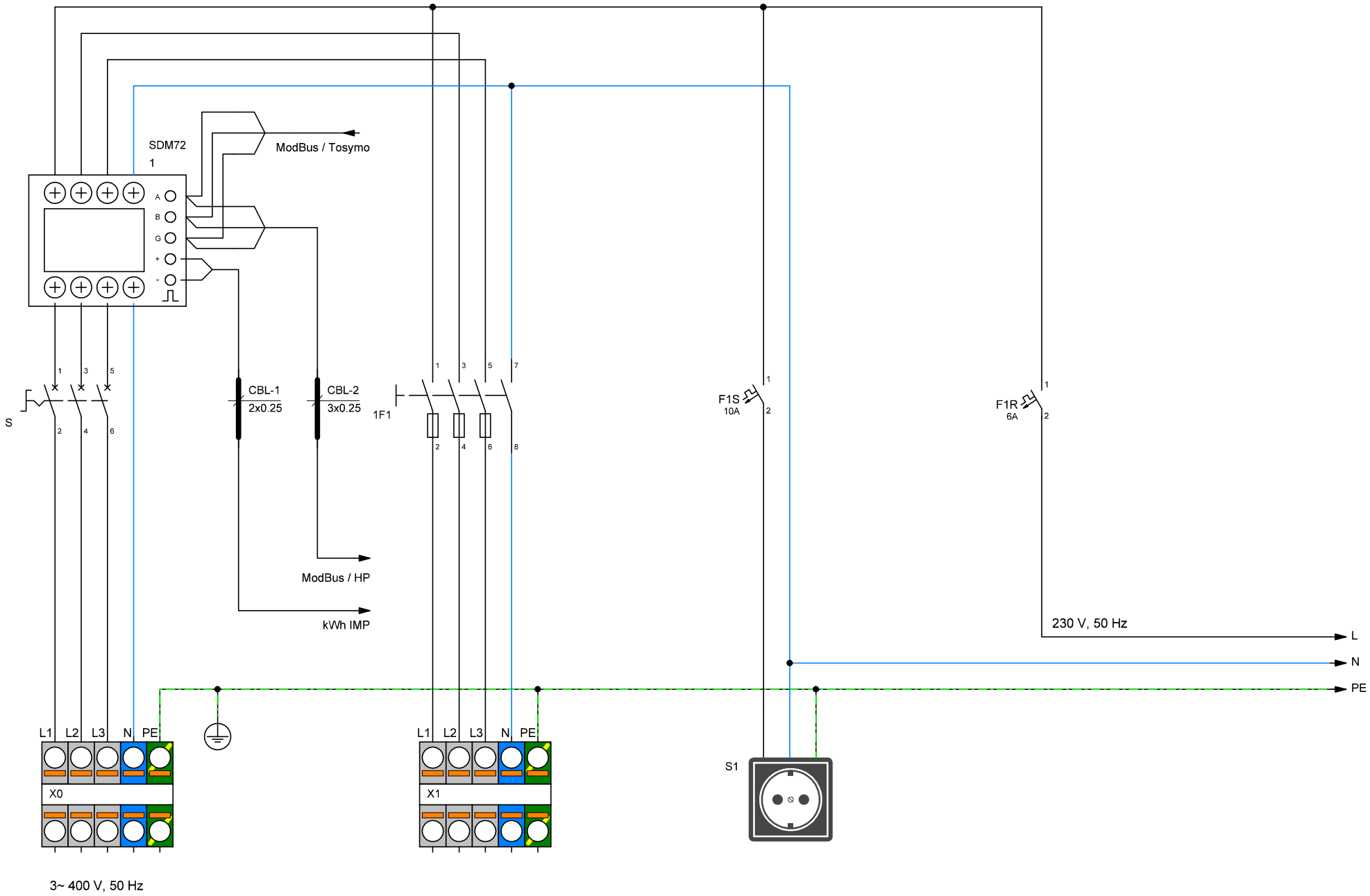


PWR SPLY: ..... 3~ 400V, 50 Hz
CTRL: ..... 1~ 230V, 50 HZ

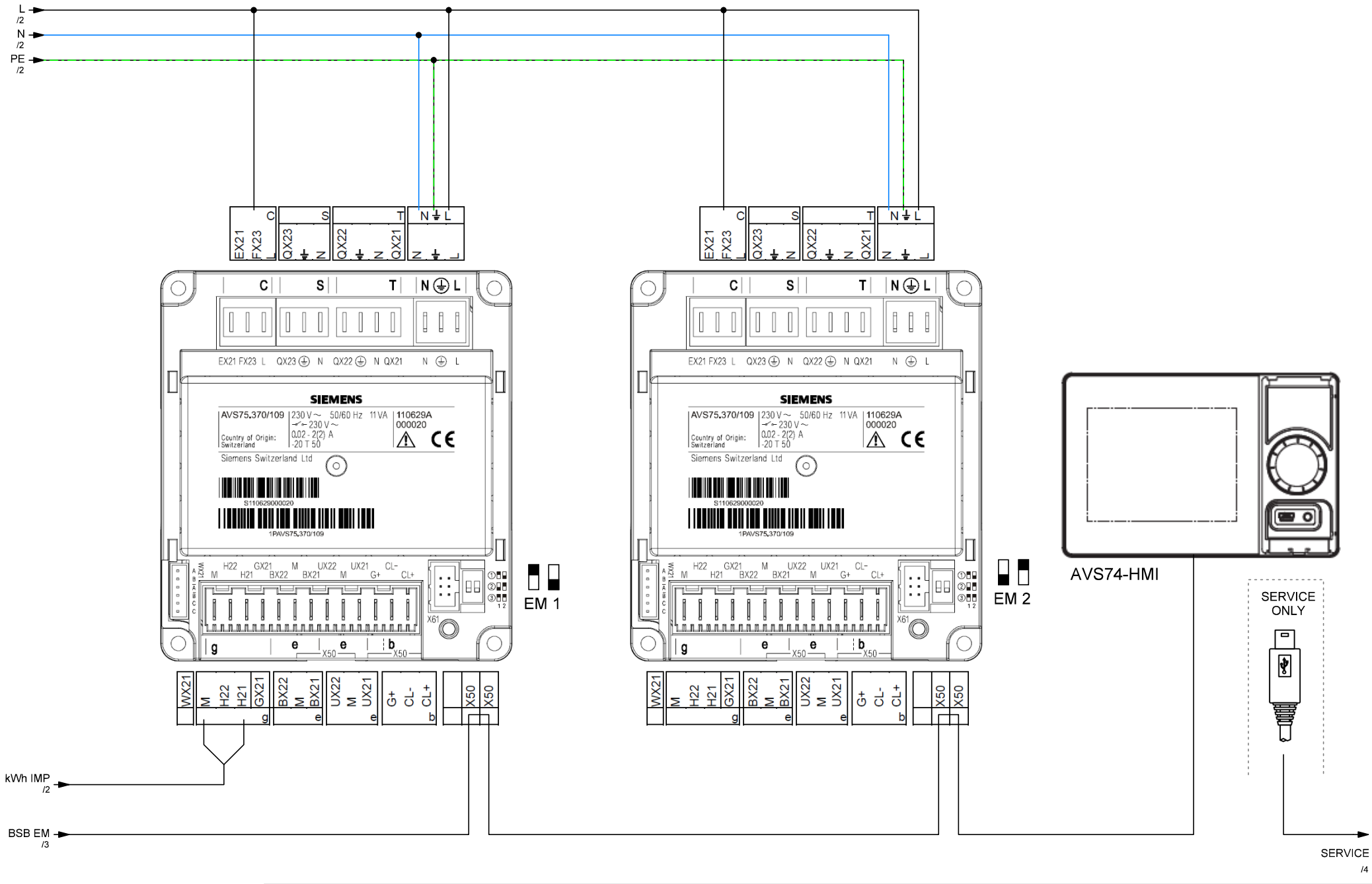
Company	Title	Version / Note	Number	Created by	Date	Page
	AW(K)	05/2024				1



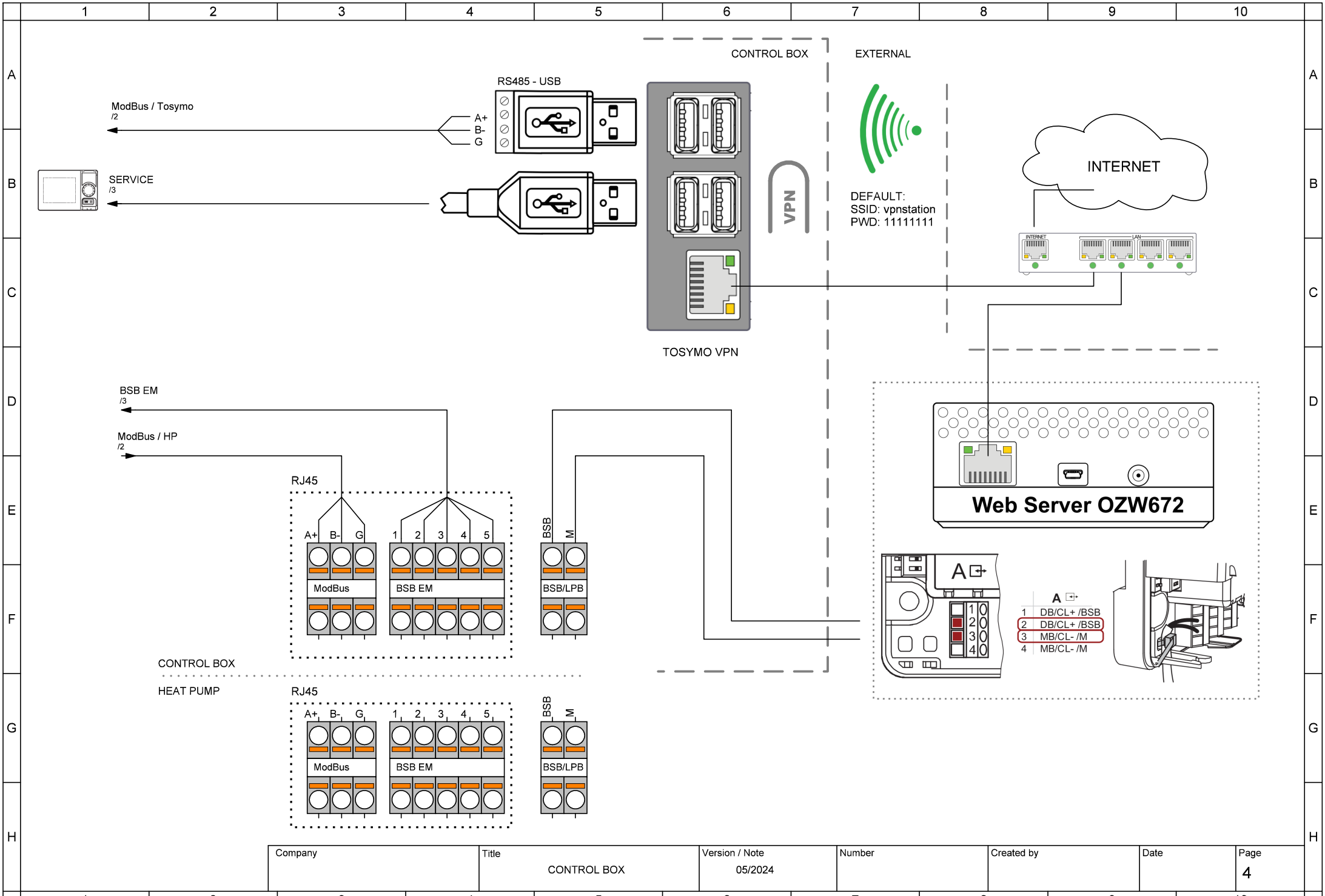
Company	Title	Version / Note	Number	Created by	Date	Page
	CONTROL BOX	05/2024				1



Company	Title	Version / Note	Number	Created by	Date	Page
	CONTROL BOX	05/2024				2



Company	Title	Version / Note	Number	Created by	Date	Page
	CONTROL BOX	05/2024				3



Company	Title	Version / Note	Number	Created by	Date	Page
	CONTROL BOX	05/2024				4

ControlBox v052024

Extension modules preconfiguration and standard wiring of inputs and outputs

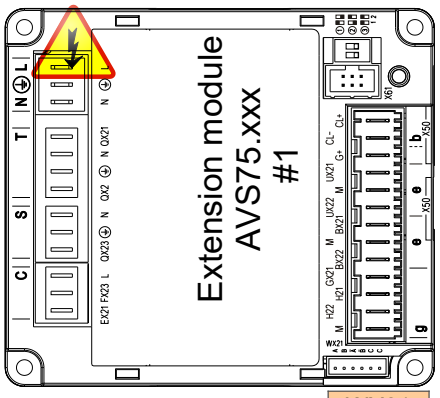
EN

AVS75.390
AVS75.391
AVS75.370

AVS75.370

Main power supply 230V / 50 Hz
Ground
Neutral conductor
Y1 Mixing valve Open
Y2 Mixing valve Close
Q2 Heat circuit pump HC1 Q2
L Phase 230V
E61 Smart grid E61

Heizkreis 1 par. 7300

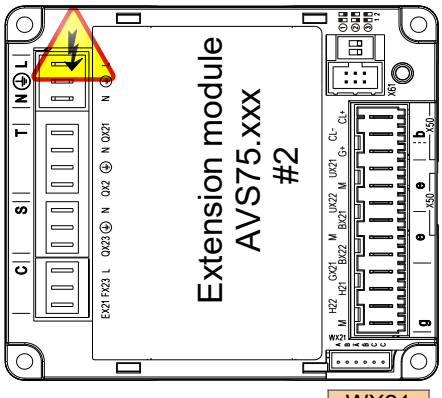


Extension module AVS75.xxx
Room unit QAA...
Room unit QAA...
B1 Flow sensor 1
Pulse count

AVS75.370

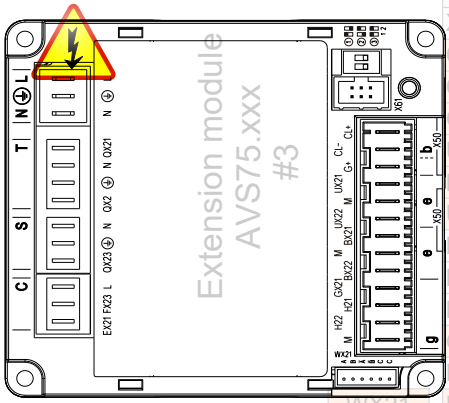
Main power supply 230V / 50 Hz
Ground
Neutral conductor
Q3 DHW ctrl elem Q3
K6 El imm heater DHW K6
Q6 Heat circuit pump HC2 Q6
L Phase 230V
E62 Smart grid E62

Multifunktional par. 7375



Operating unit (HMI) AVS37.xxx
Extension module AVS75.xxx
Room unit QAA...
Room unit QAA...
B3 DHW sensor B3
B4 Buffer sensor B4

Main power supply 230V / 50 Hz
Ground
Neutral conductor



Operating unit (HMI) AVS37.xxx
Extension module AVS75.xxx
Room unit QAA...
Room unit QAA...

Attention: Extension module 3 is inside the heat pump

Control connection options

1 ControlBox

ControlBox, with two built-in extension modules, enables numerous options for application control on the consumer side behind the heat pump. For more, see the ControlBox schematic and the application diagrams sheet.

2 Fix flow temperature setpoint - On / Off dry (potential free) contact

2 wire shielded cable 2 x 0.5 mm2 - Setpoint = 45°C (editable by param. 1859)

Connection terminal - see wiring diagram

3 Analog 0..10V flow temperature setpoint control

2 wire shielded cable 2 x 0.5 mm2 - Setpoint: 0V = 16°C ~ 10V = 60°C (editable in parameter set)

Connection terminal - see wiring diagram

4 ModBus RTU communication command

3 wire shielded cable min. 3 x 0.25mm2

For ModBus mapping table conntact technical support

5 MQTT IoT communication protocol

For more information contact technical support