

# technical data



Altherma

ERYQ005-007A

EKHBH007A / EKHBX007A

EKSWW150-300

**R-410A**

9

# 9

## Altherma

### ERYQ005-007A

### EKHBH007A / EKHBX007A

### EKSWW150-300

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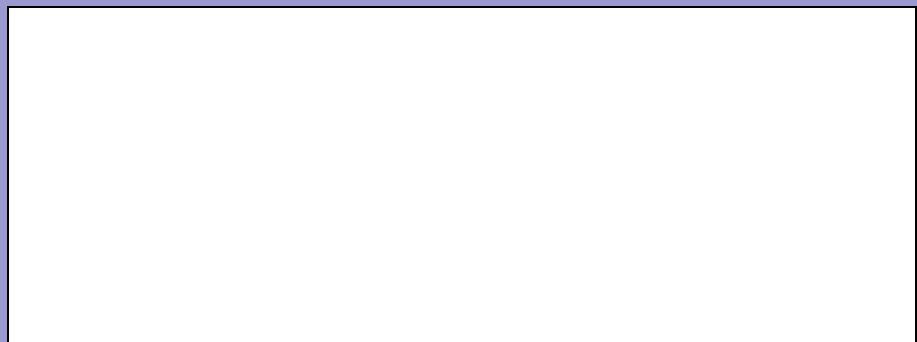
ISO14001 assures an effective environmental management system in order to help protect human health and the environment from potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin units comply with the European regulations that guarantee the safety of the product.



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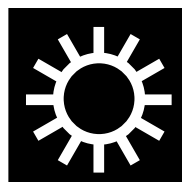
**R-410A**

9

Cooling only



Heating only



Heat pump



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# 1 Features

- Cost effective alternative to a fossil fuel boiler
- Low energy bills and low CO2 emissions
- Easy to install
- Total solution for year round comfort



## 2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				EKHBH*			EKHBX*		
				ERYQ005A	ERYQ006A	ERYQ007A	ERYQ005A	ERYQ006A	ERYQ007A
Indoor Units				EKHBH007A*	EKHBH007A*	EKHBH007A*	EKHBX007A*	EKHBX007A*	EKHBX007A*
Condition 1	Heating capacity	Minimum	kW	4.36	4.36	4.36	4.36	4.36	4.36
		Nominal	kW	5.75	6.84	8.43	5.75	6.84	8.43
		Maximum	kW	7.45	8.79	9.58	7.45	8.79	9.58
	Cooling capacity	Minimum	kW	-	-	-	3.67	3.67	3.67
		Nominal	kW	-	-	-	5.12	5.86	6.08
		Maximum	kW	-	-	-	5.12	6.13	7.10
	Heating PI	Nominal	kW	1.26	1.58	2.08	1.26	1.58	2.08
	Cooling PI	Nominal	kW	-	-	-	2.16	2.59	2.75
	COP	Nominal	-	4.56	4.34	4.05	4.56	4.34	4.05
	EER	Nominal	-	-	-	-	2.37	2.26	2.21
Condition 2	Heating	Minimum	kW	3.87	3.87	3.87	3.87	3.87	3.87
		Nominal	kW	5.03	6.10	7.64	5.03	6.10	7.64
		Maximum	kW	6.68	7.98	8.76	6.68	7.98	8.76
	Cooling	Minimum	kW	-	-	-	4.82	4.82	4.82
		Nominal	kW	-	-	-	7.20	8.16	8.37
		Maximum	kW	-	-	-	7.20	8.50	8.91
	Heating PI	Nominal	kW	1.58	1.95	2.54	1.58	1.95	2.54
	Cooling PI	Nominal	kW	-	-	-	2.16	2.59	2.75
	COP	Nominal	-	3.18	3.13	3.00	3.18	3.13	3.00
	EER	Nominal	-	-	-	-	3.33	3.15	3.04
Notes				*Condition 1 - cooling Ta 35°C - LWE 7°C - heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) *Condition 2 - cooling Ta 35°C - LWE 18°C (DT = 5°C) - heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)					

2-2 TECHNICAL SPECIFICATIONS				ERYQ005A (+ EKHBH)	ERYQ006A (+ EKHBH)	ERYQ007A (+ EKHBH)	ERYQ005A (+ EKHBX)	ERYQ006A (+ EKHBX)	ERYQ007A (+ EKHBX)
Casing	Colour			Ivory white					
	Material			Polyester painted galvanised steel					
Dimensions	Unit	Height	mm	797					
		Width	mm	960					
		Depth	mm	390					
	Packing	Height	mm	735					
		Width	mm	825					
		Depth	mm	300					
Weight	Unit		kg	56					
	Packed Unit		kg	61					
Packing	Material			EPS					
				Carton					
	Weight		kg	5					
Heat Exchanger	Dimensions	Length	mm	845					
		Nr of Rows		2					
		Fin Pitch	mm	1.8					
		Nr of Stages		32					
	Tube type			Hi-Xa(8)					
	Fin	Type		WF fin					
Treatment		Anti-corrosion treatment (PE)							
Fan	Type			Propeller					
	Quantity			1					
	Motor	Quantity		1					
		Output	W	53					
Compressor	Quantity			1					
	Motor	Model		2YC63BXD#C					
		Type		Hermetically sealed swing compressor					
	Motor	Output	W	1920					

## 2 Specifications

1  
2

2-2 TECHNICAL SPECIFICATIONS				ERYQ005A (+ EKHBH)	ERYQ006A (+ EKHBH)	ERYQ007A (+ EKHBH)	ERYQ005A (+ EKHBX)	ERYQ006A (+ EKHBX)	ERYQ007A (+ EKHBX)	
Operation Range	Heating	Min	°CWB	-20						
		Max	°CWB	25						
	Cooling	Min	°CDB					7		
		Max	°CDB					20		
	Sanitary water	Min	°CDB	-20						
		Max	°CDB	43						
Sound Level (nominal)	Heating	Sound Power	dBA	64	64	66	64	64	66	
		Sound Pressure	dBA	48	48	52	48	48	52	
	Cooling	Sound Power	dBA					63	64	66
		Sound Pressure	dBA					47	47	53
Refrigerant	Type			R-410A						
	Charge	kg		1.7						
	Control			Expansion valve(electronic type)						
	Nr of Circuits			1						
Refrigerant Oil	Type			FVC50K						
	Charged Volume	l		0.75						
Piping connections	Liquid (OD)	Type		Flare connection						
		Diameter (OD)	mm	6,35						
	Gas	Type		Flare connection						
		Diameter (OD)	mm	15,9						
	Drain	Quantity		1						
		Type		Socket						
		Diameter (OD)	mm	18						
	Piping Length	Minimum	m	3						
		Maximum	m	30						
	Additional Refrigerant Charge		kg/m	0.02 IF > 10m						
Installation height difference	Maximum	m	15							
Max. internunit level difference		m	20							
Defrost Method			Reverse cycle							
Defrost Control			Sensor for outdoor heat exchanger temperature							
Capacity Control Method			Inverter controlled							
Standard Accessories	Item		Installation manual							
	Quantity		1							
	Item		Drain plug							
	Quantity		1							



## 2 Specifications

2-3 ELECTRICAL SPECIFICATIONS			ERYQ005A (+ EKHBH)	ERYQ006A (+ EKHBH)	ERYQ007A (+ EKHBH)	ERYQ005A (+ EKHBX)	ERYQ006A (+ EKHBX)	ERYQ007A (+ EKHBX)
Power Supply	Name		V1					
	Phase		1					
	Frequency	Hz	50					
	Voltage		V					
	Voltage range	Maximum	V					
		+10%						
Current	Maximum running Current	Cooling	A					11
		Heating	A	11				
		Cooling	A					16.25
		Heating	A	18				
	Recommended fuses		A	20				
Wiring connections	For Power Supply	Quantity	3					
	For connection with indoor	Quantity	4					
		Remark	Included earth wiring					

### 3 Capacity tables

#### 3 - 1 Cooling/Heating capacity tables

1  
3

##### COOLING

Model	Tamb (°C)	20		25		30		35		40		43	
	LWE (°C)	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
005	7	6.01	1.56	5.73	1.75	5.43	1.95	5.12	2.16	4.80	2.39	4.59	2.53
	11	6.81	1.57	6.50	1.77	6.17	1.98	5.83	2.21	5.30	2.32	4.98	2.38
	13	7.23	1.57	6.90	1.78	6.56	2.00	6.20	2.23	5.56	2.28	5.18	2.30
	16	7.88	1.56	7.54	1.78	7.17	2.01	6.79	2.26	5.95	2.22	5.46	2.18
	20	8.80	1.55	8.42	1.79	8.03	2.03	7.63	2.29	6.48	2.13	5.82	1.99
006	7	7.15	2.05	6.84	2.28	6.50	2.52	6.13	2.77	5.35	2.68	4.89	2.59
	11	8.09	2.09	7.73	2.34	7.34	2.59	6.94	2.87	5.84	2.62	5.21	2.43
	13	8.57	2.11	8.20	2.36	7.79	2.63	7.36	2.91	6.09	2.59	5.36	2.34
	16	9.33	2.13	8.92	2.40	8.49	2.68	8.03	2.97	6.46	2.53	5.57	2.20
	20	10.4	2.16	9.9	2.44	9.48	2.73	8.99	3.04	6.96	2.44	5.82	1.99
007	7	8.24	2.43	7.90	2.68	7.52	2.94	7.10	3.23	5.68	2.86	4.87	2.59
	11	9.26	2.49	8.87	2.76	8.45	3.05	7.79	3.31	6.12	2.80	5.18	2.43
	13	9.79	2.52	9.38	2.80	8.93	3.10	8.14	3.36	6.34	2.77	5.33	2.35
	16	10.6	2.57	10.17	2.86	9.69	3.17	8.68	3.41	6.67	2.71	5.55	2.20
	20	11.7	2.63	11.3	2.94	10.75	3.26	9.39	3.48	7.09	2.61	5.80	1.99

##### HEATING (Peak values)

Model	LWC	30		35		40		45		50	
		HC	PI	HC	PI	HC	PI	HC	PI	HC	PI
005	-15	3.93	1.48	3.67	1.59	3.47	1.71	3.33	1.84	3.25	1.99
	-10	4.65	1.52	4.32	1.65	4.07	1.79	3.89	1.94	3.78	2.10
	-7	5.14	1.54	4.77	1.68	4.49	1.83	4.28	1.99	4.15	2.16
	-2	6.06	1.57	5.62	1.72	5.28	1.88	5.03	2.06	4.87	2.25
	2	6.89	1.57	6.38	1.74	6.00	1.91	5.72	2.11	5.53	2.31
	7	8.03	1.57	7.45	1.75	7.00	1.94	6.68	2.15	6.47	2.37
006	-15	4.87	1.82	4.62	1.94	4.43	2.08	4.30	2.23	4.24	2.40
	-10	5.67	1.88	5.34	2.02	5.09	2.18	4.92	2.36	4.82	2.55
	-7	6.21	1.91	5.83	2.07	5.55	2.24	5.35	2.42	5.23	2.63
	-2	7.23	1.95	6.77	2.13	6.42	2.32	6.17	2.52	6.02	2.75
	2	8.14	1.97	7.61	2.16	7.21	2.37	6.92	2.59	6.74	2.83
	7	9.40	1.98	8.79	2.19	8.32	2.42	7.98	2.66	7.78	2.92
007	-15	5.42	2.06	5.16	2.19	4.97	2.34	4.86	2.51	4.80	2.70
	-10	6.27	2.13	5.93	2.29	5.68	2.46	5.51	2.65	5.42	2.86
	-7	6.84	2.17	6.46	2.34	6.17	2.53	5.97	2.73	5.86	2.95
	-2	7.92	2.22	7.45	2.41	7.10	2.62	6.85	2.85	6.70	3.10
	2	8.9	2.26	8.35	2.46	7.93	2.69	7.65	2.93	7.47	3.20
	7	10.2	2.28	9.58	2.51	9.10	2.76	8.76	3.02	8.56	3.31

##### HEATING (integrated values\*)

Model	LWC	30		35		40		45		50	
		HC	PI	HC	PI	HC	PI	HC	PI	HC	PI
005	-15	3.50	1.40	3.27	1.51	3.09	1.62	2.97	1.75	2.89	1.89
	-10	4.14	1.45	3.85	1.56	3.62	1.70	3.46	1.84	3.36	2.00
	-7	4.52	1.45	4.20	1.58	3.95	1.72	3.77	1.87	3.65	2.03
	-2	5.27	1.46	4.89	1.60	4.59	1.75	4.38	1.92	4.24	2.10
	2	5.92	1.45	5.49	1.60	5.16	1.76	4.92	1.94	4.76	2.13
	7	8.03	1.57	7.45	1.75	7.00	1.94	6.68	2.15	6.47	2.37
006	-15	4.34	1.73	4.11	1.85	3.94	1.98	3.83	2.12	3.77	2.28
	-10	5.04	1.79	4.75	1.92	4.53	2.07	4.38	2.24	4.29	2.42
	-7	5.46	1.80	5.13	1.94	4.88	2.10	4.71	2.28	4.60	2.47
	-2	6.29	1.81	5.89	1.98	5.59	2.15	5.37	2.35	5.23	2.56
	2	7.00	1.81	6.55	1.99	6.20	2.18	5.96	2.38	5.80	2.61
	7	9.40	1.98	8.79	2.19	8.32	2.42	7.98	2.66	7.78	2.92
007	-15	4.82	1.96	4.59	2.08	4.43	2.23	4.32	2.39	4.27	2.56
	-10	5.58	2.03	5.28	2.17	5.06	2.34	4.91	2.52	4.82	2.72
	-7	6.02	2.04	5.69	2.20	5.43	2.37	5.26	2.57	5.15	2.78
	-2	6.89	2.07	6.48	2.25	6.17	2.44	5.96	2.65	5.83	2.88
	2	7.6	2.08	7.18	2.27	6.82	2.47	6.58	2.70	6.43	2.94
	7	10.2	2.28	9.58	2.51	9.10	2.76	8.76	3.02	8.56	3.31

\* The integrated heating capacity and power input, is the average heating capacity and power input during 1 cycle. (from end of defrost till end of the next defrost).

4TW56712-1A

##### SYMBOLS

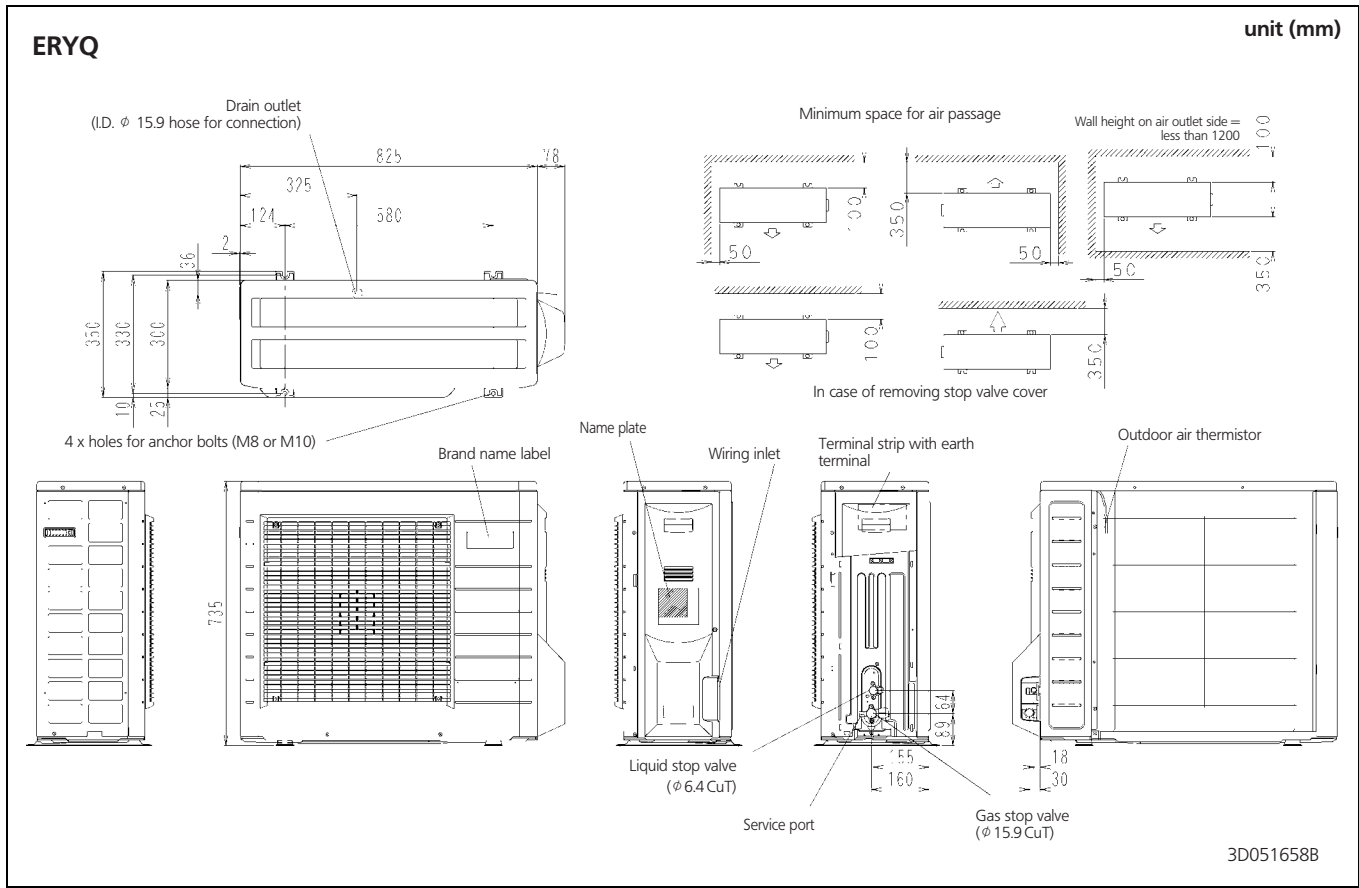
CC	: Cooling capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)
HC	: Heating capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)
PI	: Power input (kW)
LWE	: Leaving Water Evaporator temperature (°C)
LWC	: Leaving Water Condensor temperature (°C)
Tamb	: Ambient temperature (°C) RH=85%

##### NOTES

- Cooling capacity**  
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3–8°C
- Heating capacity**  
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3–8°C
- Power input**  
Power input is total input according to Eurovent rating standard 6/C/003-2006

# 4 Dimensional drawing & centre of gravity

## 4 - 1 Dimensional drawing

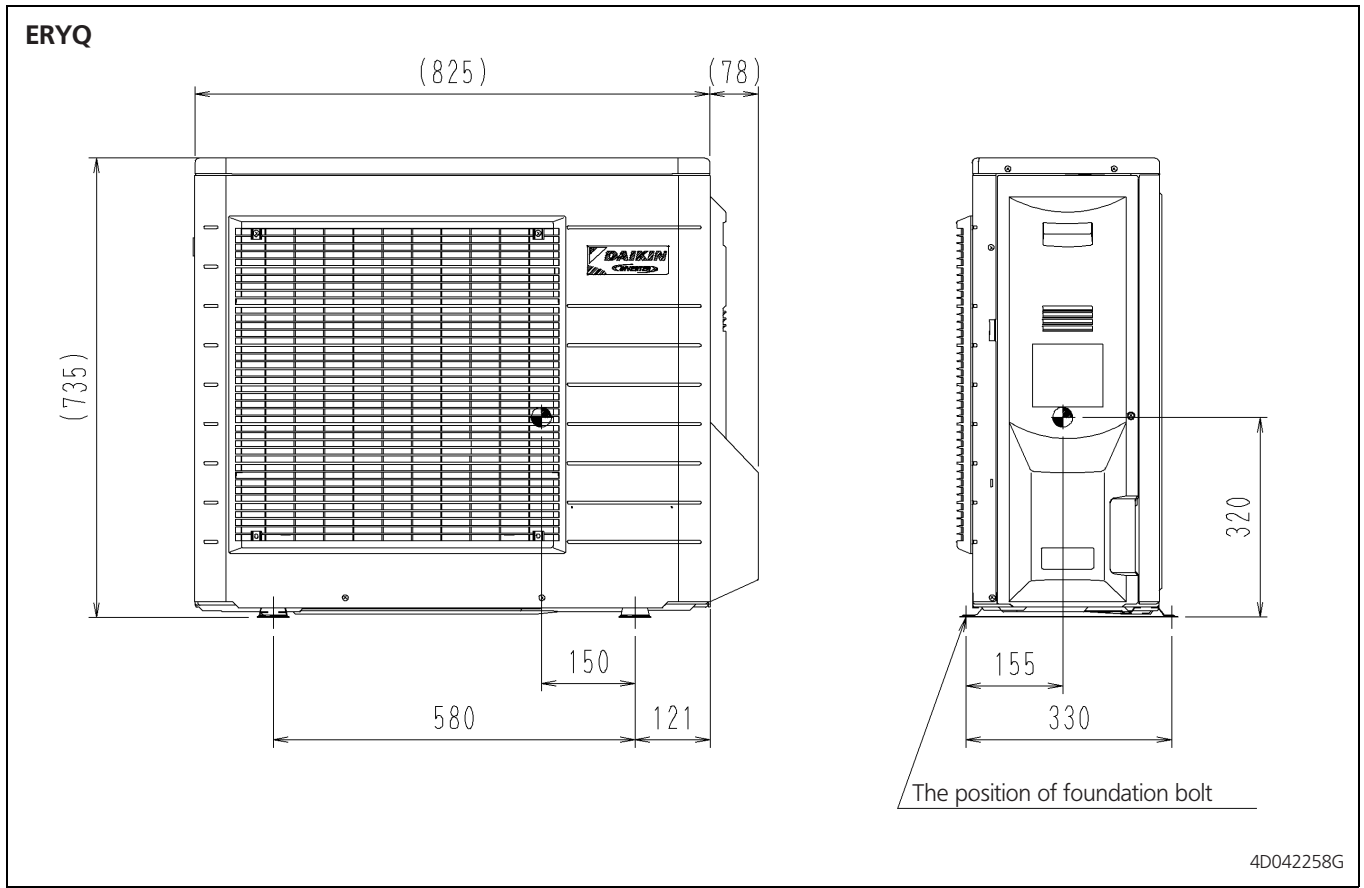


## 4 Dimensional drawing & centre of gravity

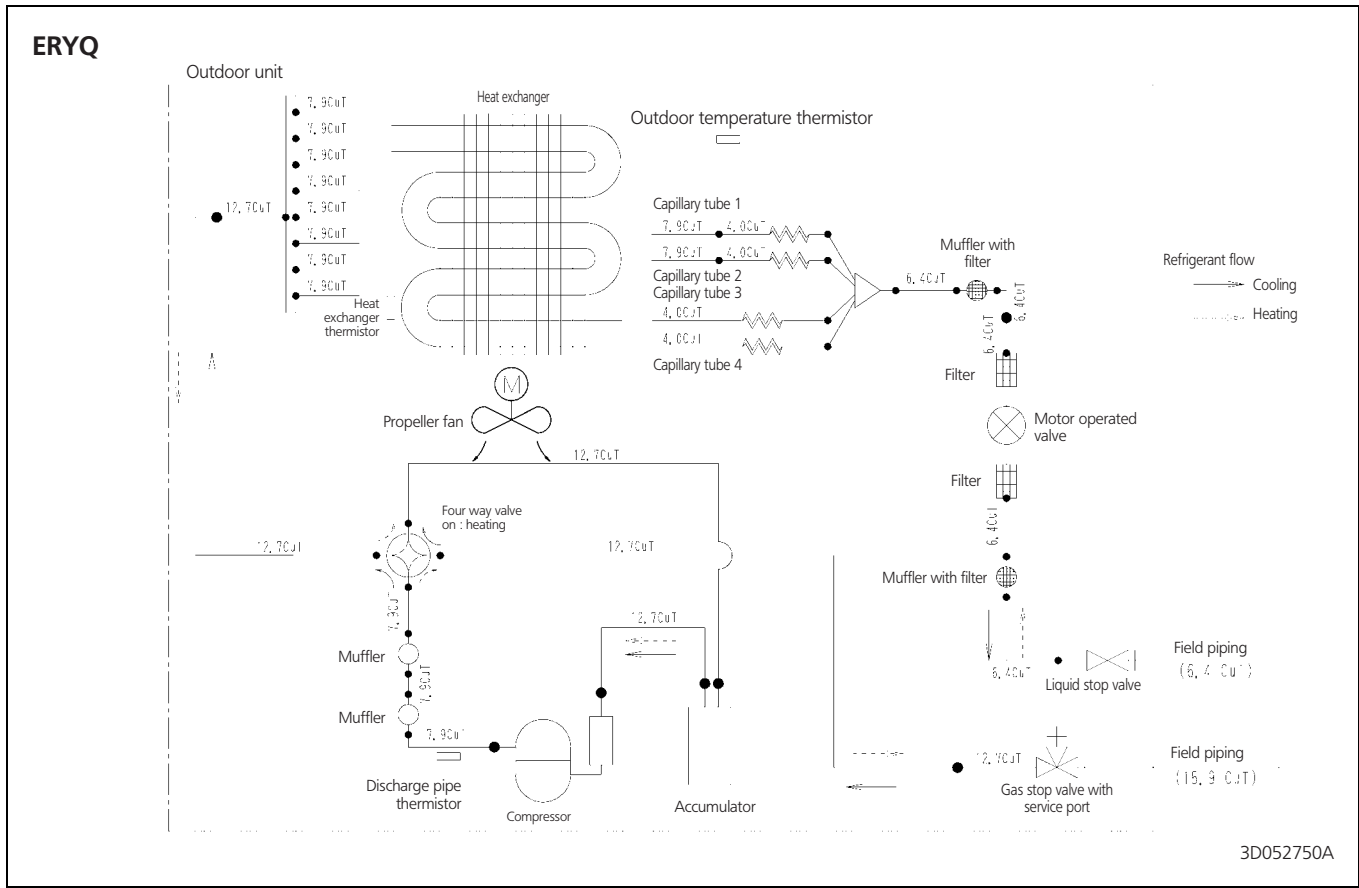
### 4 - 2 Centre of gravity

1

4



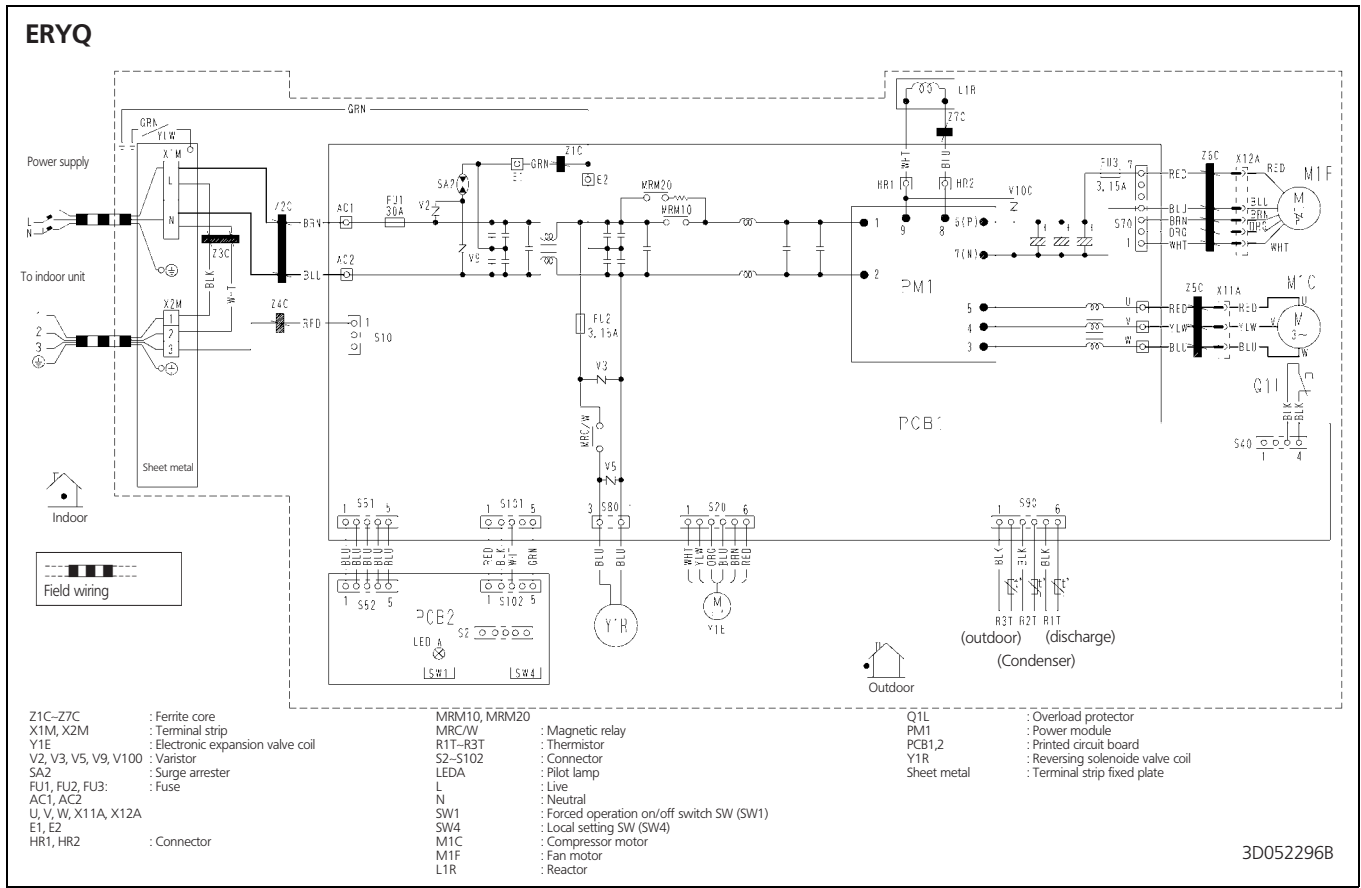
# 5 Piping diagram



# 6 Wiring diagram

## 6 - 1 Wiring diagram

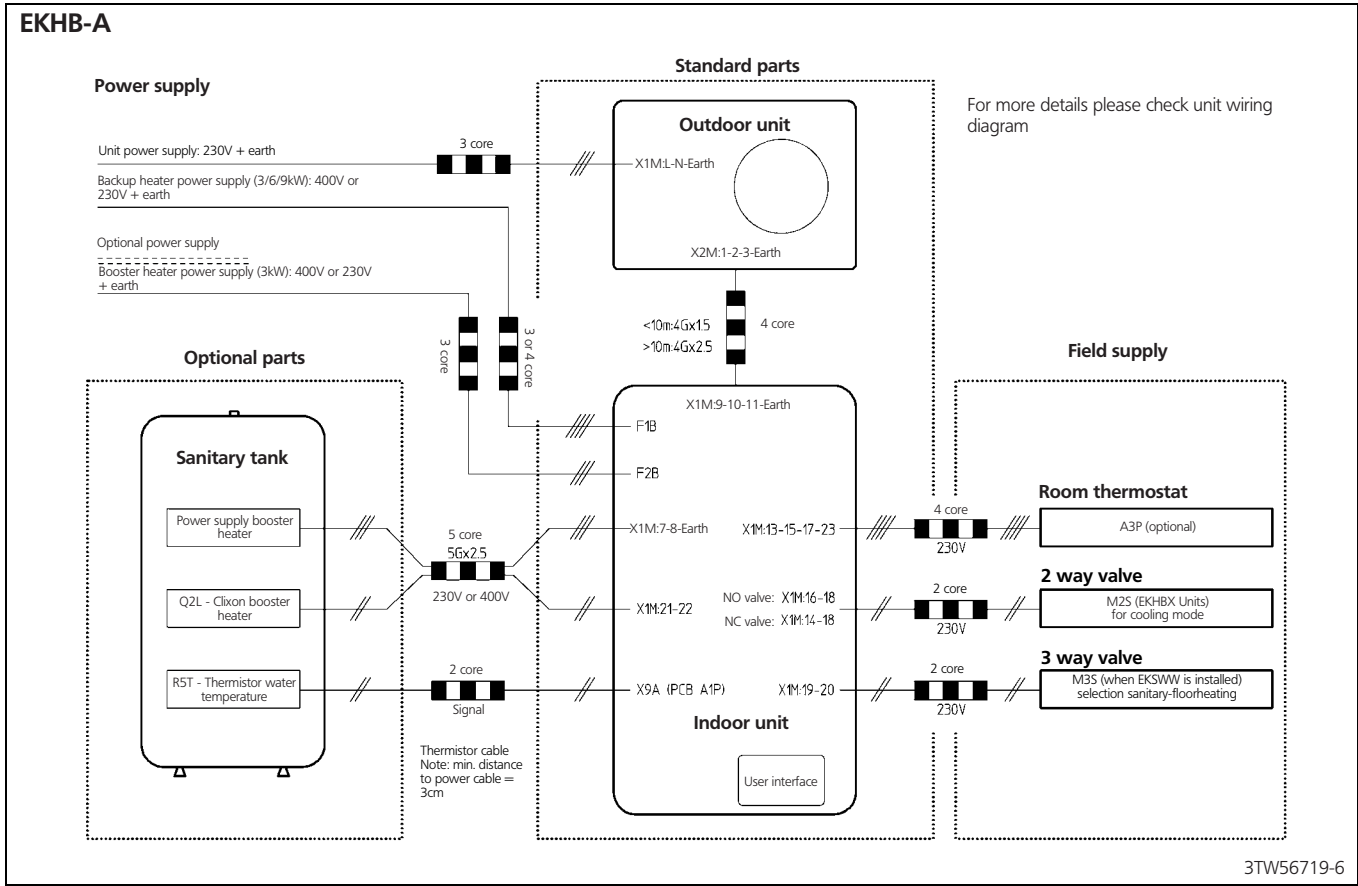
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# 6 Wiring diagram

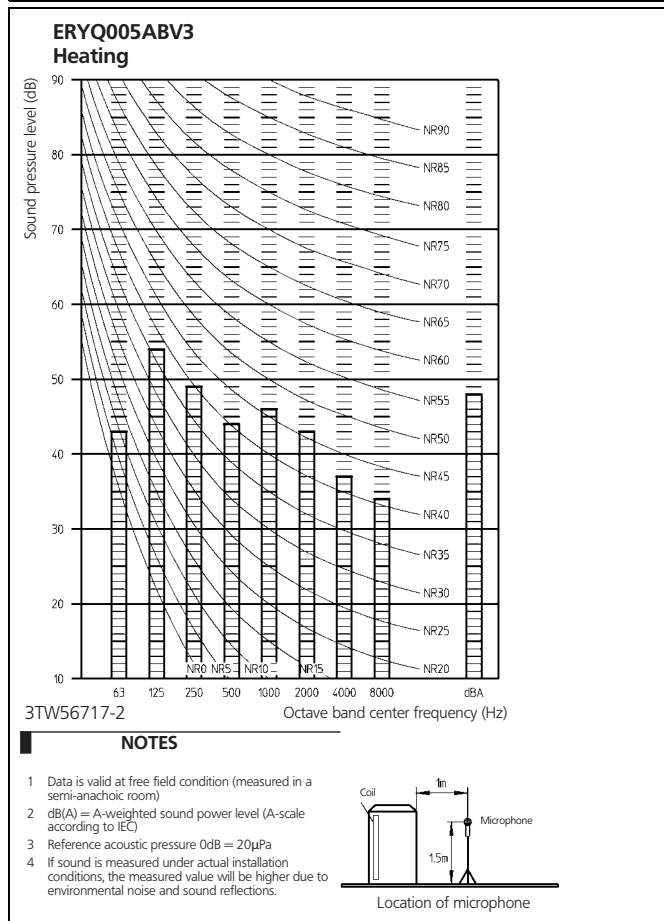
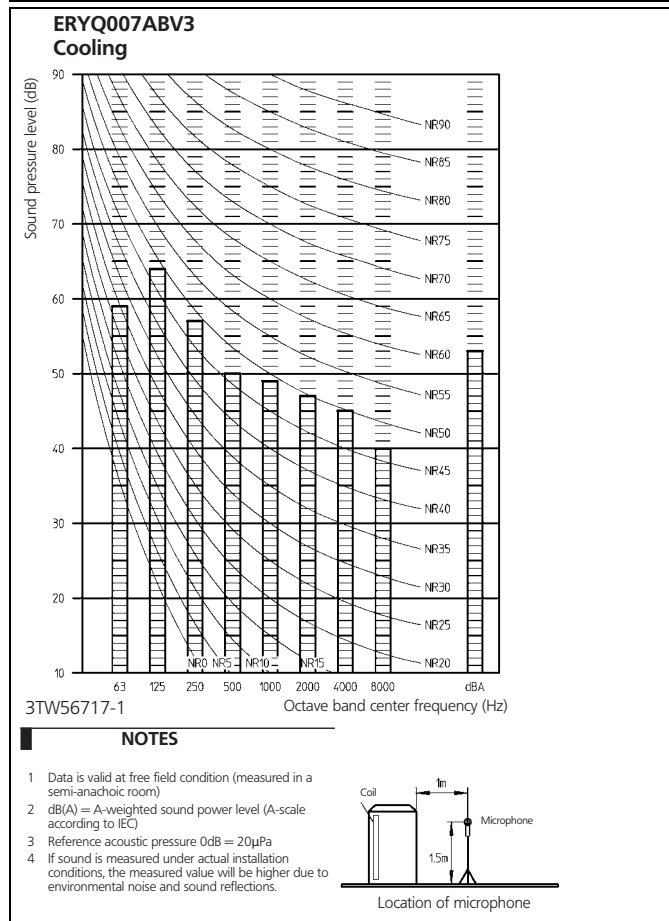
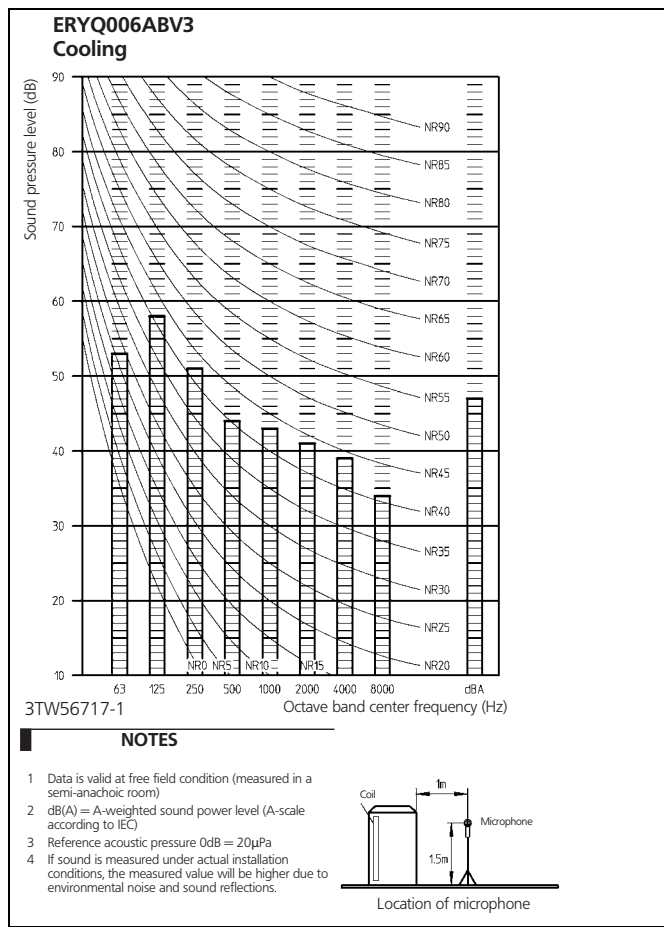
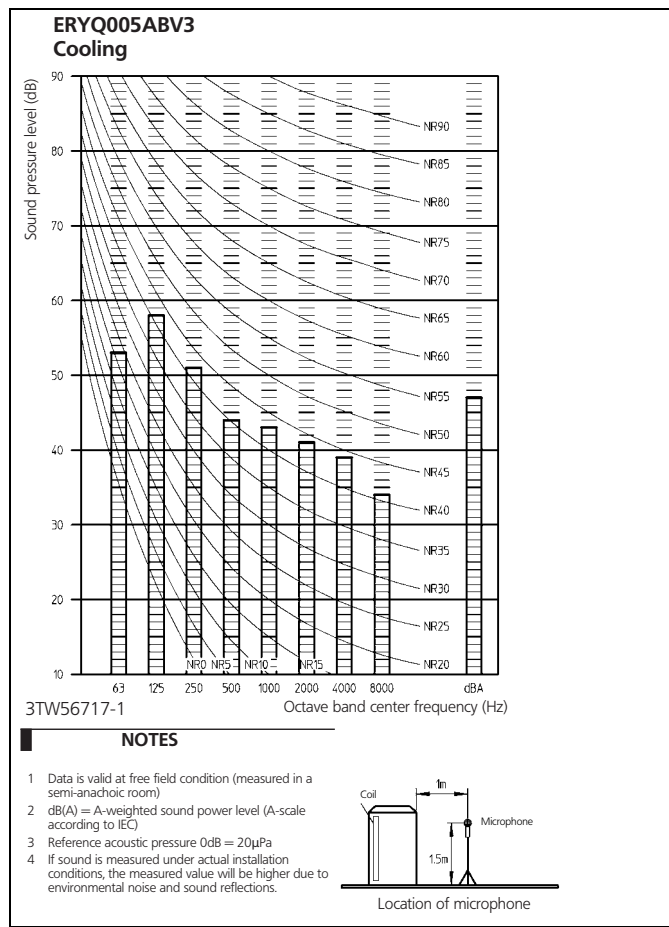
## 6 - 2 External connection diagram



# 7 Sound data

## 7 - 1 Sound pressure spectrum

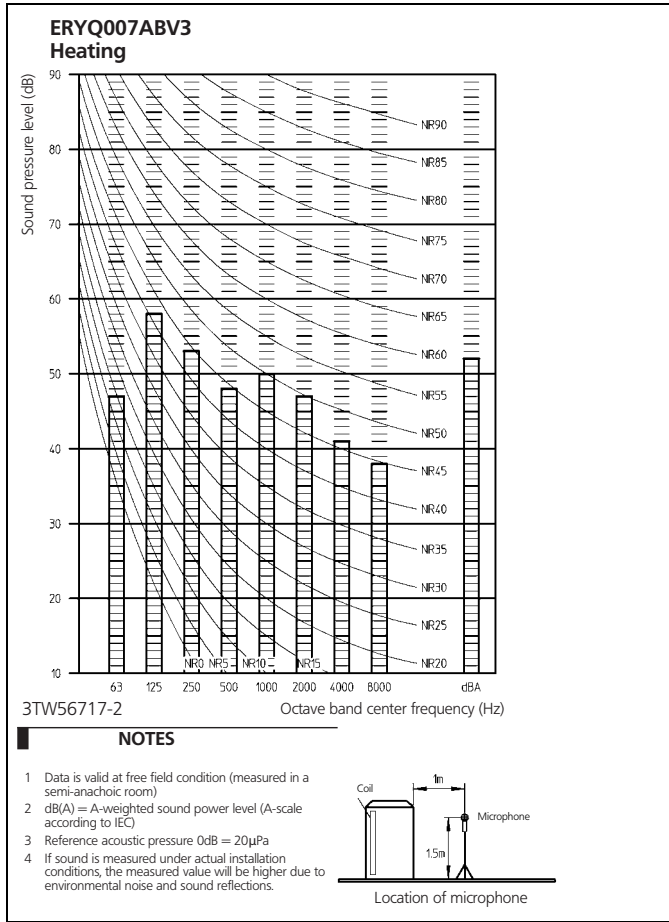
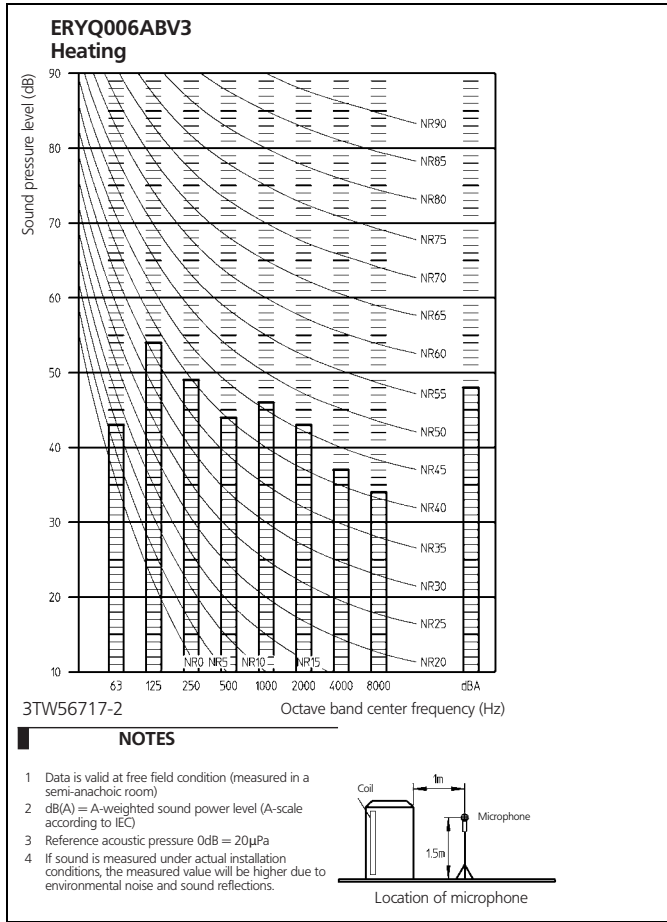
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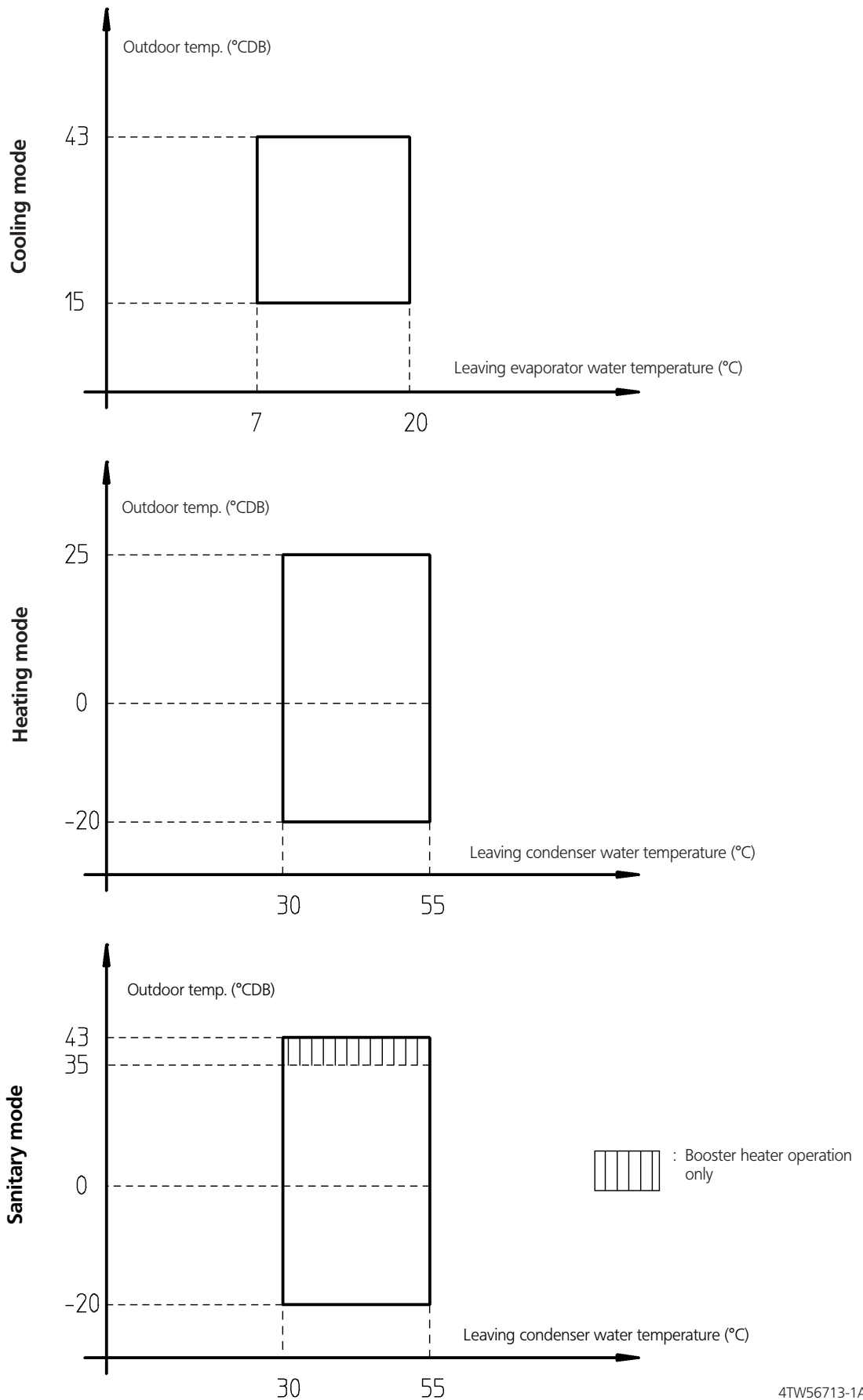
# 7 Sound data

## 7 - 1 Sound pressure spectrum



# 8 Operation range

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4TW56713-1A

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# 1 Features

- Cost effective alternative to a fossil fuel boiler
- Low energy bills and low CO2 emissions
- Easy to install
- Total solution for year round comfort

2

1



## 2 Specifications

2-1 TECHNICAL SPECIFICATIONS				EKHBH007A (+ERYQ005A)	EKHBH007A (+ERYQ006A)	EKHBH007A (+ERYQ007A)	EKHBX007A (+ERYQ005A)	EKHBX007A (+ERYQ006A)	EKHBX007A (+ERYQ007A)	
Outdoor units				ERYQ005A	ERYQ006A	ERYQ007A	ERYQ005A	ERYQ006A	ERYQ007A	
Nominal input (Indoor only)			W	230						
Casing	Colour			RAL9010						
	Material			Polyester painted galvanised steel						
Dimensions	Packing	Height	mm	1225						
		Width	mm	660						
		Depth	mm	595						
	Unit	Height	mm	895			936			
		Width	mm	487			487			
		Depth	mm	361			461			
Weight	Unit		kg	55			65			
	Packed Unit		kg	65			75			
Packing	Material			EPS						
				Wood						
				Carton						
				PS(straps)						
Weight			kg	10						
Main components	Pump	Type		Water cooled						
		Nr. of speed		3						
Pump	Nominal ESP unit	Cooling	kPa				49.9	46.5	44.4	
		Heating	kPa	46.5	40.1	29.0	46.5	40.1	29.0	
Main components	Pump	Power input	W	130						
		Water side Heat exchanger	Type		Brazed plate					
	Qty		1							
	Water volume		l	0.67						
	Water flow rate Min.		l/min	12						
Water side Heat exchanger	Water flow rate Nom.	Cooling	l/min				14.7	16.5	17.6	
		Heating	l/min	16.5	19.6	24.2	16.5	19.6	24.2	
Main components	Water side Heat exchanger	Insulation material			Polyurethane foam					
		Expansion vessel	Volume	l	10					
	Max. water pressure		bar	3						
	Pre pressure		bar	1						
	Water filter	Diameter perforations	mm	1						
Material			Brass							
Water circuit	Piping connections diameter		inch	1"MBSP						
	Piping		inch	1"MBSP						
	Safety valve		bar	3						
	Manometer			Yes						
	Drain valve / Fill valve			Yes						
	Shut off valve			Yes						
	Air purge valve			Yes						

## 2 Specifications

2-1 TECHNICAL SPECIFICATIONS			EKHBH007A (+ERYQ005A)	EKHBH007A (+ERYQ006A)	EKHBH007A (+ERYQ007A)	EKHBX007A (+ERYQ005A)	EKHBX007A (+ERYQ006A)	EKHBX007A (+ERYQ007A)
Refrigerant Circuit	Gas side diameter	mm	15,9					
	Liquid side diameter	mm	(2)					
Sound Level	Sound Pressure	dBA	27					
Operation range	Waterside	Cooling	°C	7 ~ 20				
		Heating	°C	30 ~ 55				
Notes			The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment.					
			ERYQ = 6.35 mm EKHB = 9.52 mm (flare connection)					

2

2

## 2 Specifications

2-2 ELECTRICAL SPECIFICATIONS				EKHBH007A (+ERYQ005A)	EKHBH007A (+ERYQ006A)	EKHBH007A (+ERYQ007A)	EKHBX007A (+ERYQ005A)	EKHBX007A (+ERYQ006A)	EKHBX007A (+ERYQ007A)	
Electric heater	Type			3V3						
	Power Supply	Phase			1					
		Frequency	Hz		50					
		Voltage	V		230					
	Current	Running Current	A		13					
Electric heater	Type			6V3						
	Power Supply	Phase			1					
		Frequency	Hz		50					
		Voltage	V		230					
	Current	Running Current	A		26					
Electric heater	Type			6W1						
	Power Supply	Phase			3N					
		Frequency	Hz		50					
		Voltage	V		400					
	Current	Running Current	A		8.6					
Electric heater	Type			6T1						
	Power Supply	Phase			3					
		Frequency	Hz		50					
		Voltage	V		230					
	Current	Running Current	A		15					
Electric heater	Type			9W1						
	Power Supply	Phase			3N					
		Frequency	Hz		50					
		Voltage	V		400					
	Current	Running Current	A		13					
Electric heater	Type			9T1						
	Power Supply	Phase			3					
		Frequency	Hz		50					
		Voltage	V		230					
	Current	Running Current	A		23					

### 3 Options

2

3

Optional equipment for EKHB(H/X)007*							Availability
Reference	Description	Number					Availability
	Heating only model Reversible model	EKHBH007A3V3 EKHBX007A3V3	EKHBH007A6V3 EKHBX007A6V3	EKHBH007A6W1 EKHBX007A6W1	EKHBH007A6T1 EKHBX007A6T1	EKHBH007A9W1 EKHBX007A9W1	EKHBH007A9T1 EKHBX007A9T1
	<b>Available options</b>						
3V3	Back up heater 3kW 1~230 V	○	—	—	—	—	—
6V3	Back up heater 6kW 1~230 V	—	○	—	—	—	—
6W1	Back up heater 6kW 3~400 V + N	—	—	○	—	—	—
6T1	Back up heater 6kW 3~230 V	—	—	—	○	—	—
9W1	Back up heater 9kW 3~400 V + N	—	—	—	—	○	—
9T1	Back up heater 9kW 3~230 V	—	—	—	—	—	○
	<b>Available kits</b>						
EKSWW150V3	Sanitary warm water tank 150   230 V	○	○	○	○	○	○
EKSWW200V3	Sanitary warm water tank 200   230 V	○	○	○	○	○	○
EKSWW300V3	Sanitary warm water tank 300   230 V	○	○	○	○	○	○
EKSWW200Z2	Sanitary warm water tank 200   400 V	—	—	○	—	○	—
EKSWW300Z2	Sanitary warm water tank 300   400 V	—	—	○	—	○	—
EKWSWW150	Wall bracket for EKSWW150V3						

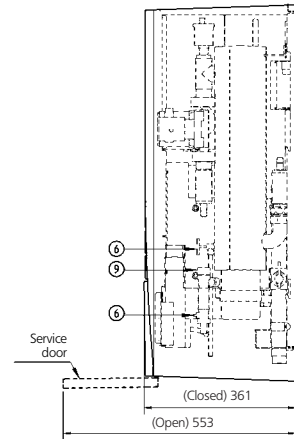
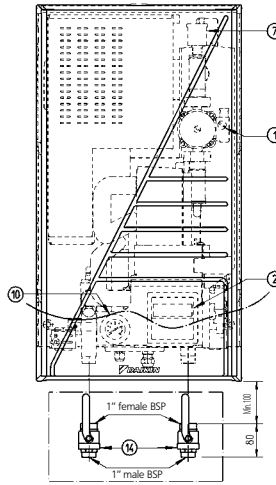
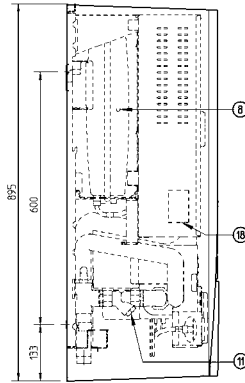
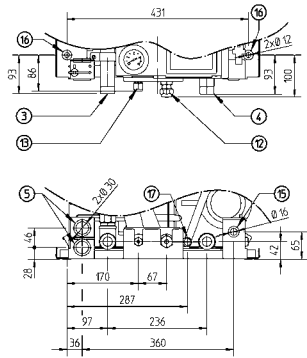
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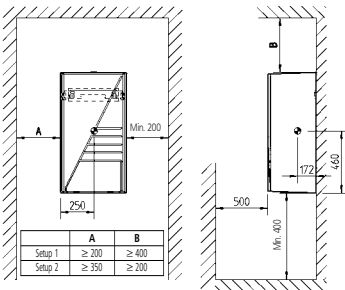
# 4 Dimensional drawing & centre of gravity

## 4 - 1 Dimensional drawing

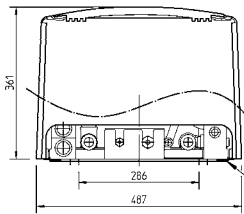
### EKHBH-A



Minimum space for service & ventilation

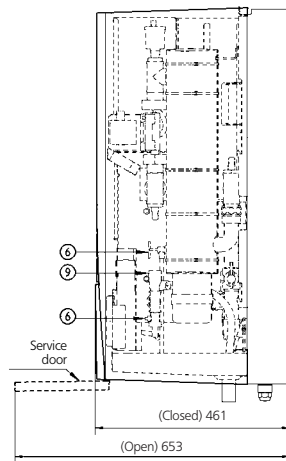
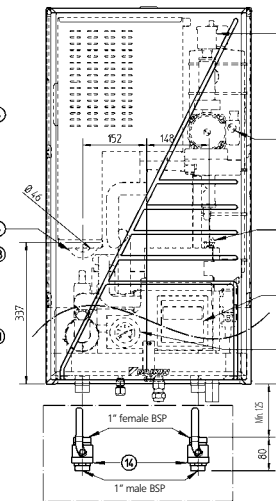
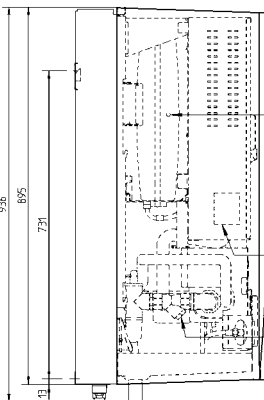
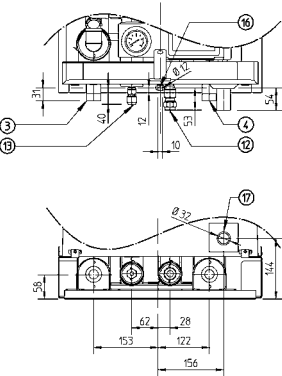


- Center of gravity
- ① Pump + switch for speed setting
- ② Remocon
- ③ Water IN connection 1" M BSP
- ④ Water OUT connection 1" M BSP
- ⑤ Power supply intake (+ sanitary warm water tank)
- ⑥ Drain / fill valve
- ⑦ Air purge
- ⑧ Expansion vessel + nipple
- ⑨ Blow off valve
- ⑩ Pressure gauge
- ⑪ Water filter
- ⑫ Suction pipe connection  $\phi$  15.9 flare connection
- ⑬ Liquid pipe connection  $\phi$  9.52 flare connection
- ⑭ Shut off valves (delivered with unit)
- ⑮ Thermistor connection (+ sanitary warm water tank)
- ⑯ Holes for fixation
- ⑰ Blow off drain
- ⑱ Switchbox connection terminals
- ⑲ Wallbracket

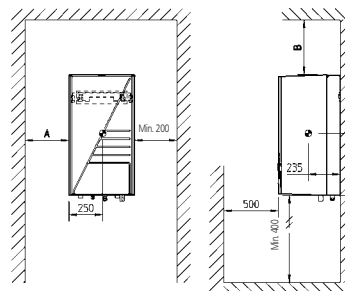


3TW56714-1A

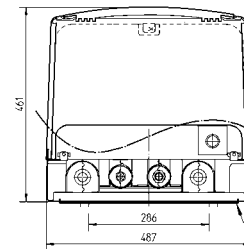
### EKHBX-A



Minimum space for service & ventilation



- Center of gravity
- ① Pump + switch for speed setting
- ② Remocon
- ③ Water IN connection 1" M BSP
- ④ Water OUT connection 1" M BSP
- ⑤ Power supply intake (+ sanitary warm water tank)
- ⑥ Drain / fill valve
- ⑦ Air purge
- ⑧ Expansion vessel + nipple
- ⑨ Blow off valve
- ⑩ Pressure gauge
- ⑪ Water filter
- ⑫ Suction pipe connection  $\phi$  15.9 flare connection
- ⑬ Liquid pipe connection  $\phi$  9.52 flare connection
- ⑭ Shut off valves (delivered with unit)
- ⑮ Thermistor connection (+ sanitary warm water tank)
- ⑯ Holes for fixation
- ⑰ Blow off drain / drain of drainpan
- ⑱ Switchbox connection terminals
- ⑲ Wallbracket



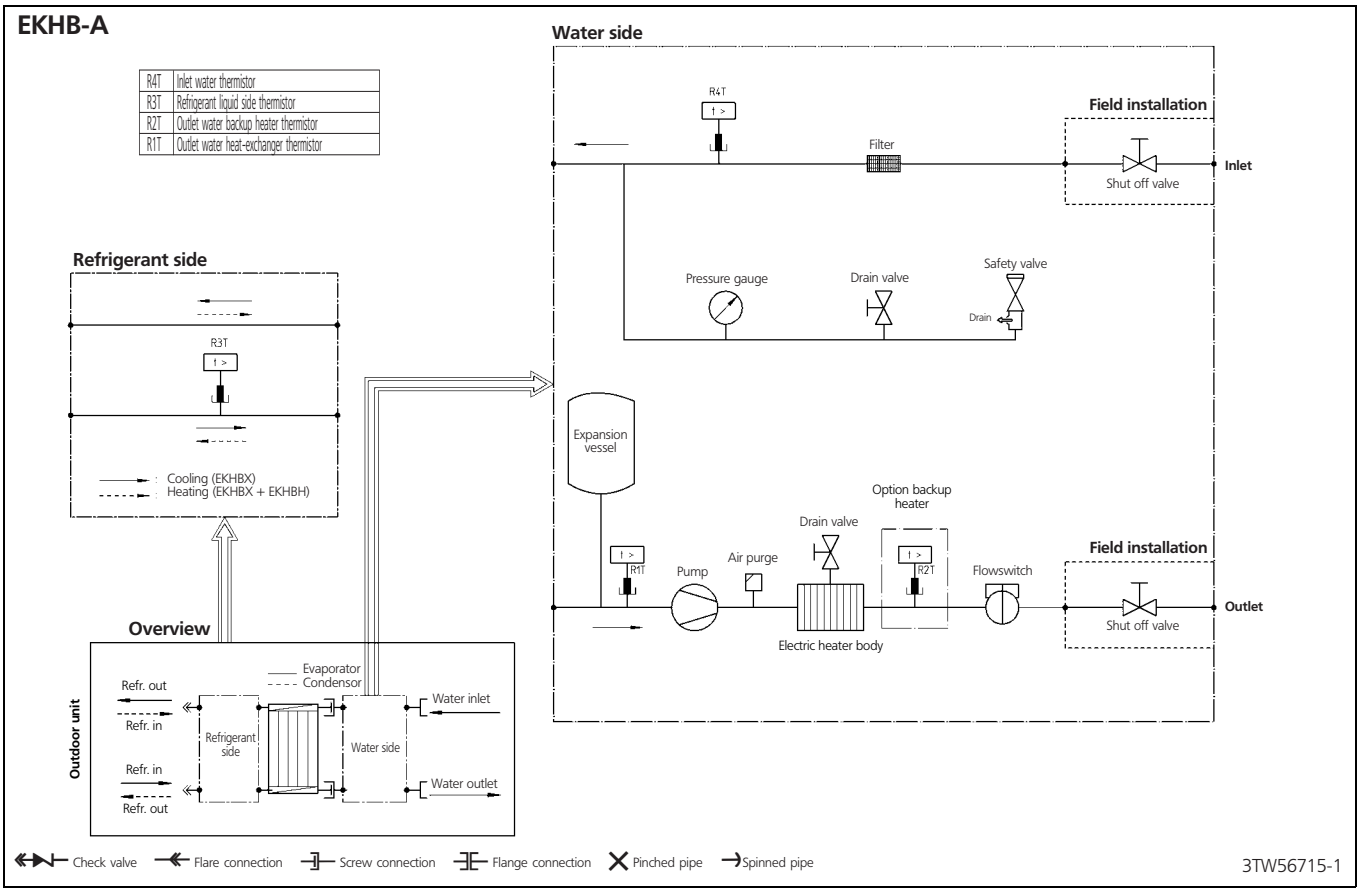
Dimensions wallbracket



3TW56724-1A

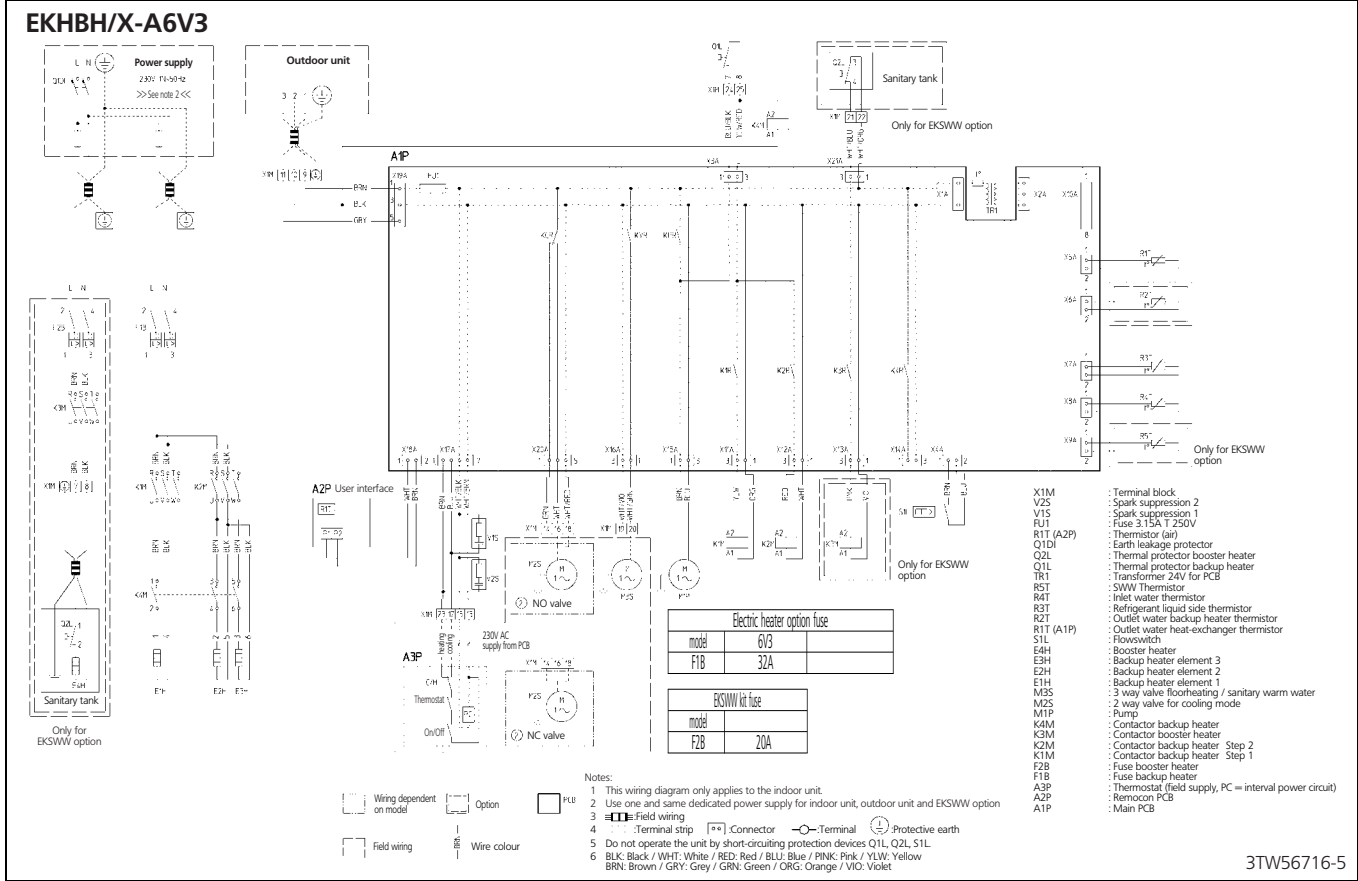
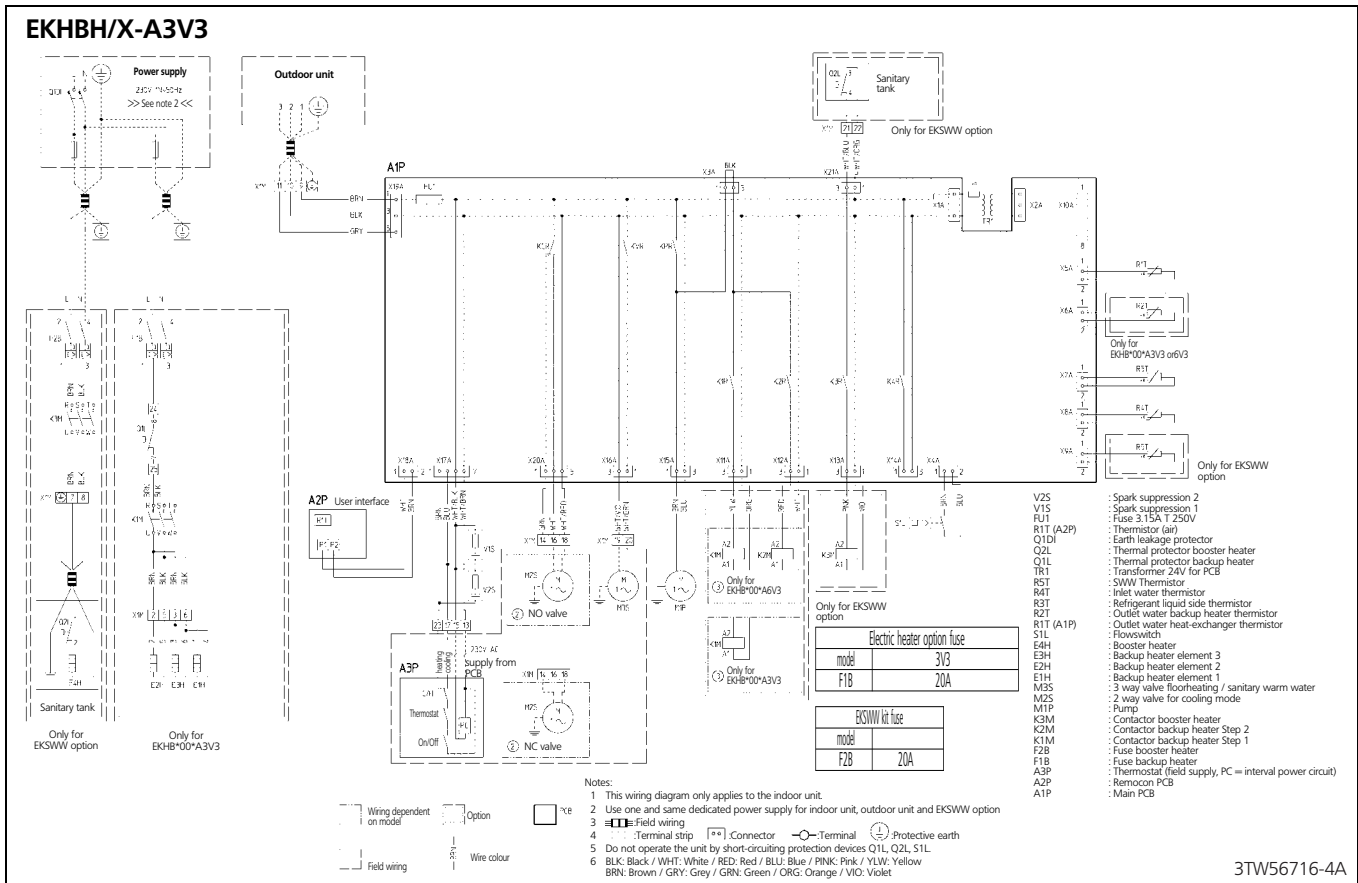
# 5 Piping diagram

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# 6 Wiring diagram

## 6 - 1 Wiring diagram

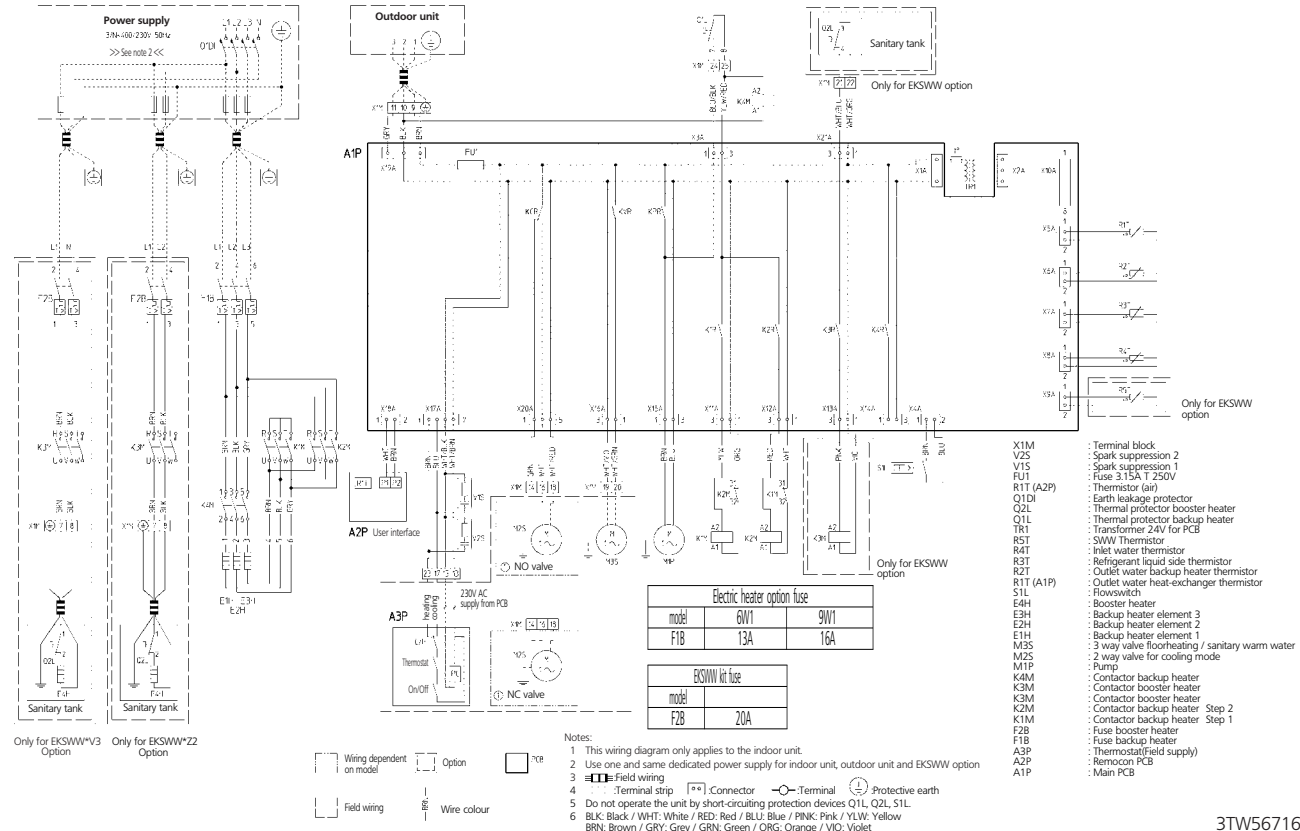


# 6 Wiring diagram

## 6 - 1 Wiring diagram

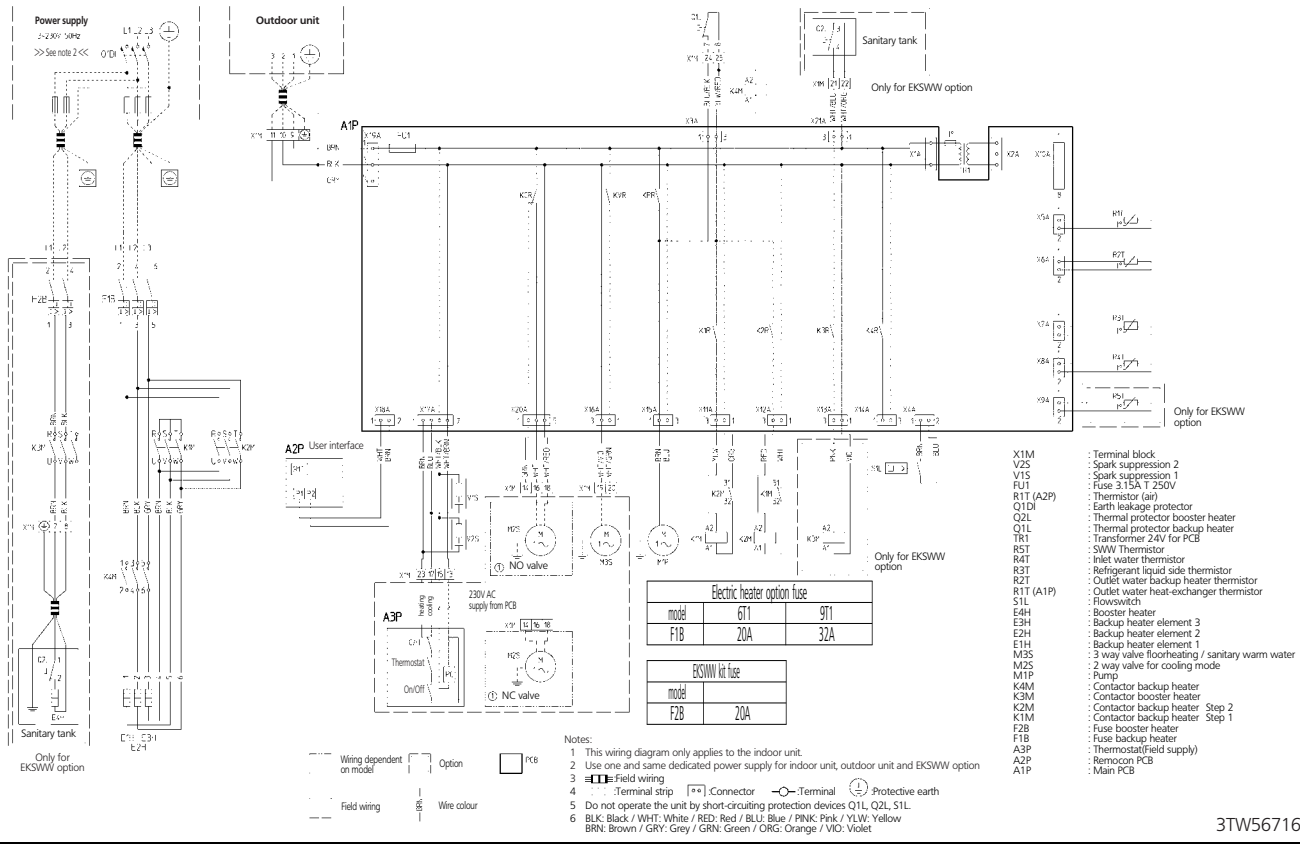
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### EKHBH/X-A6W1/9W1



3TW56716-2B

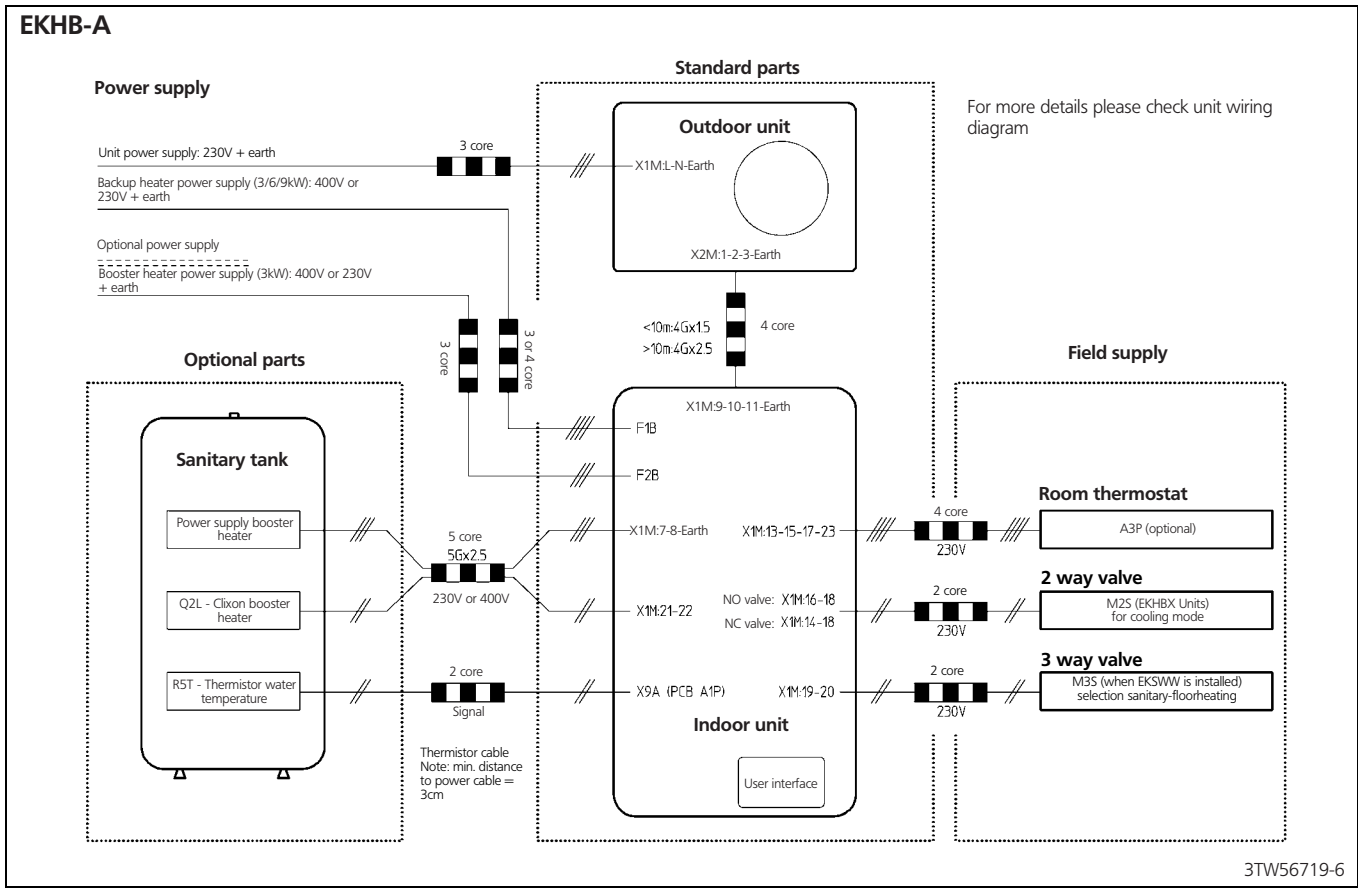
### EKHBH/X-A6T1/9T1



3TW56716-3B

# 6 Wiring diagram

## 6 - 2 External connection diagram

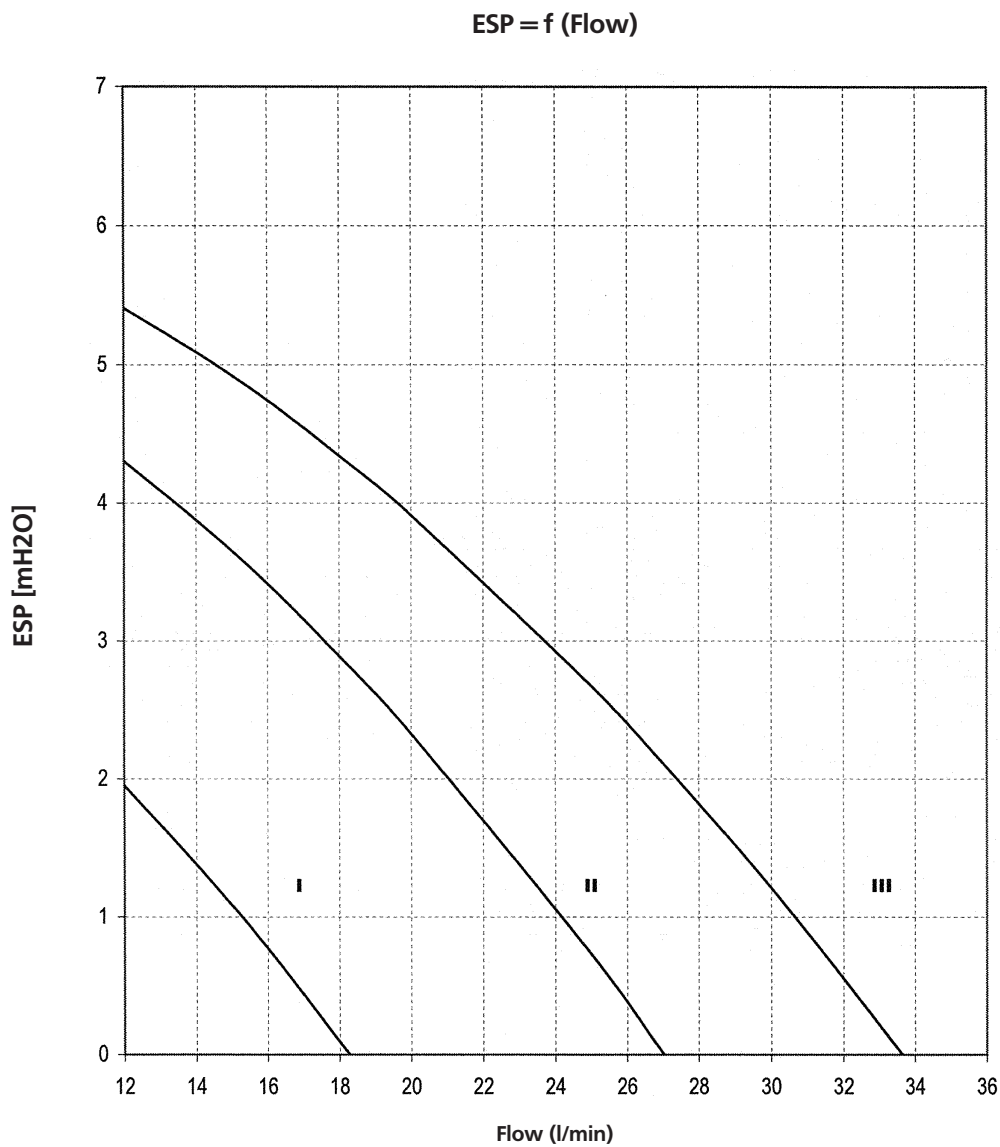


## 7 Hydraulic performance

### 7 - 1 Static pressure drop unit

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- I: low speed setting pump
- II: medium speed setting pump
- III: high speed setting pump

ESP: External static pressure  
Flow: waterflow trough the unit

**Warning:** Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW56749-2

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# 1 Features

- Cost effective alternative to a fossil fuel boiler
- Low energy bills and low CO2 emissions
- Easy to install
- Total solution for year round comfort

3

1





## 2 Specifications

2-1 TECHNICAL SPECIFICATIONS				EKSWW150V3	EKSWW200V3	EKSWW300V3	EKSWW200Z2	EKSWW300Z2	
Casing	Colour			Neutral white					
	Material			Epoxy-coated mild steel					
Dimensions	Packing	Height	mm	950	1200	1650	1200	1650	
		Width	mm	600	600	600	600	600	
		Depth	mm	600	600	600	600	600	
	Unit	Height	mm	900	1150	1600	1150	1600	
		Width	mm	580	580	580	580	580	
		Depth	mm	580	580	580	580	580	
Weight	Unit		kg	37	45	59	45	59	
	Packed Unit		kg	40	49	64	49	64	
Packing	Material			EPS					
	Weight			Carton					
Main components	Tank	Water volume	l	150	200	300	200	300	
		Material			Stainless steel (DIN 1.4521)				
		Max. temperature	°C	85					
		Max. water pressure	bar	10					
Tank	Insulation	Material			Polyurethane foam				
		Min. thickness	mm	40					
Main components	Heat exchanger	Quantity			1				
		Material			Stainless steel (DIN 1.4401)				
	Booster heater	Quantity			1				
		Capacity	kW		3				
Temperature sensor	Cable length		m		12				
Piping connections	Water inlet H/E Diameter		inch		3/4" FBSP				
	Water outlet H/E Diameter		inch		3/4" FBSP				
	Cold water in Diameter		inch		3/4" FBSP				
	Hot water out Diameter		inch		3/4" FBSP				

2-2 ELECTRICAL SPECIFICATIONS				EKSWW150V3	EKSWW200V3	EKSWW300V3	EKSWW200Z2	EKSWW300Z2		
Unit	Power Supply	Phase		1				2		
		Frequency	Hz	50				50		
		Voltage	V	230				400		
	Nominal running current		A		13				7.5	
	Fuse	Size		A		20				20
		Phase				1				2

### 3 Capacity tables

#### 3 - 1 Cooling capacity tables

The ALTHERMA by Daikin heat-pump in combination with the optional sanitary tank provide hot water for household usage. The below mentioned data allow a proper selection of the sanitary tank size for maximum comfort and efficiency.

##### (1) Sanitary hot water volume:

The volume of hot water available for domestic sanitary usage depends on the physical volume of the sanitary tank, on the sanitary water setpoint temperature and on the temperature spreading in the tank. Therefor we define the equivalent hot water volume (EHVV).

**Definition:**

EHVV = The volume of hot water available for domestic sanitary usage at a temperature of 40°C. 40°C is considered a comfortable sanitary hot water temperature.

Tank	Setpoint temp. (°C)	EHVV (l)	Usage pattern		
			Modest	Medium	High
150L	55	110	-	-	-
	65	150	+	-	-
	75	175	++	+	-
200L	55	160	+	-	-
	65	200	++	+	-
	75	240	++	++	-
300L	55	295	++	++	-
	65	385	++	++	+
	75	435	++	++	++

Grade ++ Excessive availability of sanitary hot water.  
 + Sufficient availability of sanitary hot water.  
 - Temporary shortage of sanitary hot water can occur.

**Usage pattern**  
**Modest** Daily demand up to 220 l -> typical 2-persons usage pattern.  
**Medium** Daily demand up to 325 l -> typical 3 to 4 persons usage pattern.  
**High** Daily demand up to 550 l -> 4 to 6 persons usage pattern.

##### (2) Heat-up time:

**Definition:**

Heat-up time The time required to reheat the sanitary tank to 55°C after tapping a certain volume of hot water at 40°C. note: changing the field settings (see installation manual) can influence the heat-up time.

Tank	Setpoint temp. (°C)	Heat-up time for 150 L (bath) <min>	Heat-up time for 50 L (shower) <min>
150L	55	60	45
200L	55	60	40
300L	55	50	30

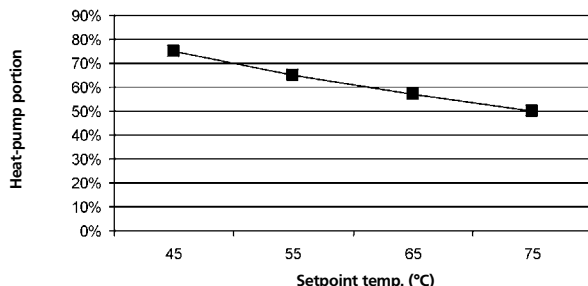
Conditions for testing: Ta = 7°CDB / 6°CWB, Troom = 20°C, Tstart = 10°C, outdoor unit type: ERYQ007

##### (3) Efficiency of sanitary hot water production:

In the ALTHERMA by Daikin system both the heat-pump and the electric booster heater supply the energy to produce sanitary hot water. The higher the portion of energy supplied by the heat-pump, the more energy efficient the system is. Lowering the setpoint temperature increases the portion of energy supplied by the heat-pump and thus the efficiency of the system.

**Definition:**

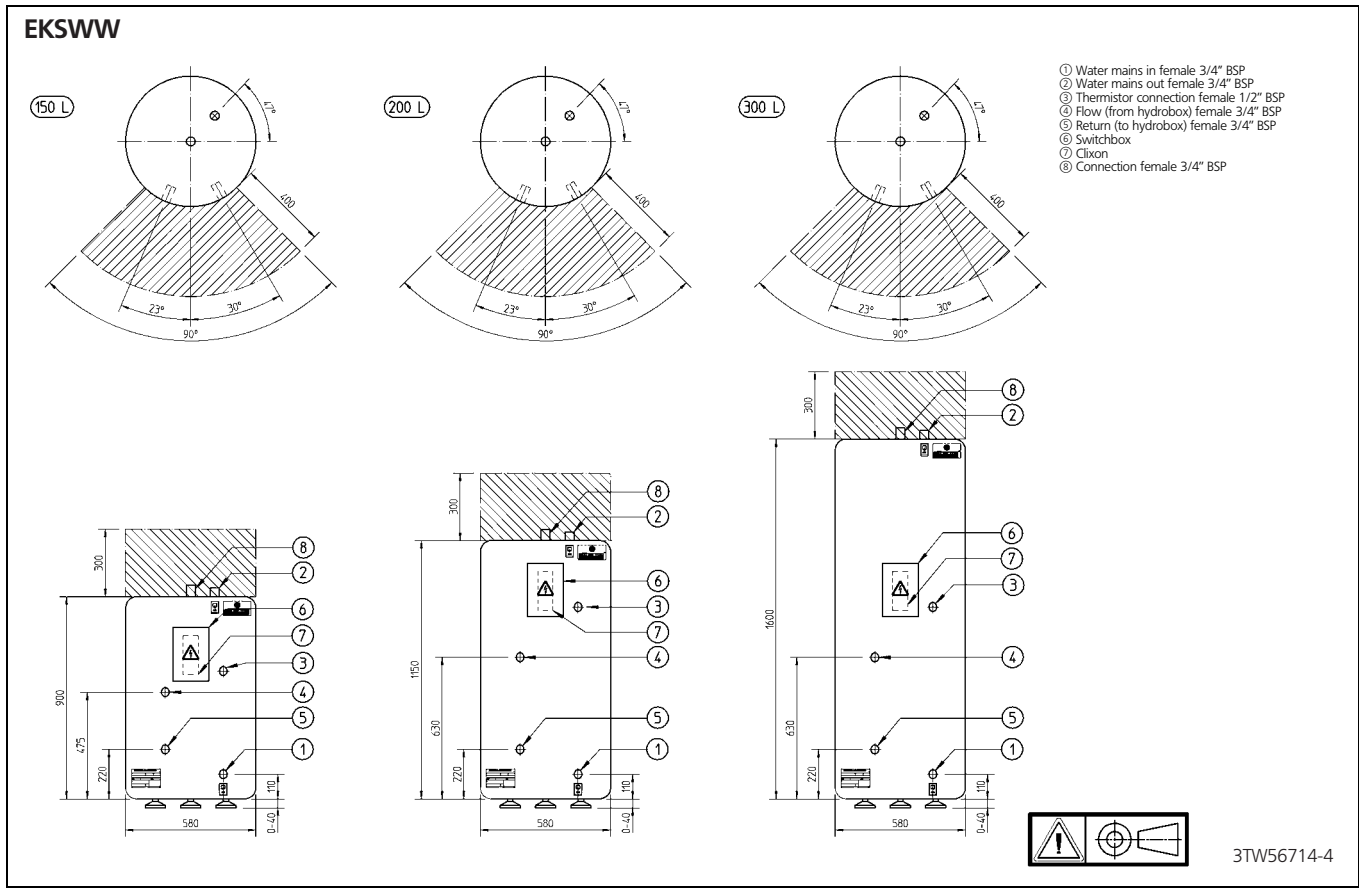
Heat-pump portion Percentage of energy supplied by the heat-pump in the total energy need for sanitary hot water.



Conditions: Real life condition Simulation of a daily usage based upon 'medium' usage pattern.  
 Outdoor temperature 7°CDB / 6°CWB  
 Room temperature 20°CDB  
 Outdoor unit type ERYQ007  
 Tank type 200l  
 Field settings Default field settings (see installation manual).

# 4 Dimensional drawing & centre of gravity

## 4 - 1 Dimensional drawing



# 5 Wiring diagram

## 5 - 1 External connection diagram

3  
5

