

# Daikin Altherma low temperature split Technical data book EHVH-E6V / EHVH-9W / EHVX-E3V / EHVX-E6V / EHVX-E6VG / EHVX-E9W

EHVH04S18E\*6V  
EHVH04S23E\*6V  
EHVH08S18E\*6V  
EHVH08S23E\*6V  
EHVH08S18E\*9W  
EHVH08S23E\*9W  
EHVX04S18E\*3V  
EHVX04S23E\*3V  
EHVX04S18E\*6V  
EHVX04S23E\*6V  
EHVX08S18E\*6V  
EHVX08S23E\*6V  
EHVX04S18EA6VG  
EHVX04S23EA6VG  
EHVX08S18EA6VG  
EHVX08S23EA6VG  
EHVX08S18E\*9W  
EHVX08S23E\*9W





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EHVX-E6VG / EHVX-E9W

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# 1 Features

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

Floor standing air to water heat pump for heating, cooling and hot water; ideal for low energy houses

**1**

- › A combined stainless steel domestic hot water tank of 180 or 230L and heat pump for easy installation
- › W-LAN Adapter connection
- › PCB board and hydraulic components are located in the front for easy access
- › Small installation footprint, similar to other household appliances
- › Integrated back-up heater choice of 3, 6, 9 kW as well as back-up heater less models are available



Daikin  
Residential  
Controller



Online  
controller

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

Technical specifications				EHVH04S18E6V	EHVH04S23E6V	EHVH08S18E6V	EHVH08S23E6V	
Heater capacity	Step 1		kW	2				
	Step 2		kW	2 or 4				
Power input	Nom.		kW	0.09				
Efficiency	Domestic hot water	Net calorific value	%	118	135	118	135	
Casing	Colour	White + Black						
	Material	Precoated sheet metal						
Dimensions	Unit	Height	mm	1,650	1,850	1,650	1,850	
		Width	mm	595				
		Depth	mm	625				
	Packed unit	Height	mm	1,820	2,020	1,820	2,020	
		Width	mm	720				
		Depth	mm	740				
Weight	Unit		kg	119	128	119	128	
	Packed unit		kg	135	144	135	144	
Packing	Material	Wood / Carton / PE wrapping foil / Metal						
	Weight		kg	16				
PED	Category	Art4.3 / See note 9						
	Most critical part	Name		Plate heat exchanger				
		Ps*V	Bar*l	37.72				
Refrigerant side heat exchanger	Type	Plate heat exchanger						
	Quantity	1						
	Plates	Quantity	42					
Pump	Nr of speeds	PWM						
	Power input		W	52				
Water side Heat exchanger	Type	Plate heat exchanger						
	Quantity	1						
	Plates	Quantity	42					
	Water volume		l	0.95				
	Water flow rate	Min.	l/min	12.0 (1)				
Expansion vessel	Volume		l	10				
	Max. water pressure		bar	3				
	Pre pressure		bar	1				
Water filter	Diameter perforations		mm	0.8				
	Material	Stainless steel / Plastic						
Tank	Name			Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	
		Water volume	l	180	230	180	230	
Tank	Material	Stainless steel (EN 1.4521)						
	Maximum water temperature		°C	70				
	Maximum water pressure		bar	10				
	Insulation	Material	Polyurethane foam					
		Heat loss		kWh/24h	1.2 (2)	1.4 (2)	1.2 (2)	1.4 (2)
	Corrosion protection	Pickling						
	Energy efficiency class	B						
	Standing heat loss		W	50	58	50	58	
Storage volume		l	181	220	181	220		
General	Supplier/Manufacturer details	Name or trademark		Daikin Europe N.V.				
		Name and address		Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium				
3-way valve	Coefficient of flow (kV)	Space heating	m <sup>3</sup> /h	8				
		Domestic hot water tank	m <sup>3</sup> /h	10				
Water circuit	Piping connections diameter		inch	G 1" (female)				
	Piping material	Cu						
	Internal piping diameter		inch	1"				
	Piping		inch	1"				
	Safety valve		bar	3				
	Manometer	Digital						
	Drain valve / fill valve	No						
	Shut off valve	Yes						
	Air purge valve	Yes						
	Total water volume		l	3.5 (3)				
	Minimum water volume in the system for cooling		l	0 (4)				
	Minimum water volume in the system for heating		l	0 (4)				
	Water circuit - Domestic hot water side	Piping material	Stainless steel					
Piping connections		Cold water in / Hot water out	inch	G 3/4" FEMALE				
		Recirculation connection	inch	G 3/4" FEMALE				

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

2

Technical specifications				EHVH04S18E6V	EHVH04S23E6V	EHVH08S18E6V	EHVH08S23E6V
Refrigerant circuit	Gas side diameter					15.9	
	Liquid side diameter					6.40	
Sound power level	Nom.					42 (5)	
Sound pressure level	Nom.					28 (6)	
Operation range	Heating	Ambient	Min.	°C	0 (7)		
			Max.	°C	0 (7)		
	Water side	Min.	°C	0 (7)			
		Max.	°C	0 (7)			
Operation range	Cooling	Ambient	Min.	°CDB	0 (7)		
			Max.	°CDB	0 (7)		
	Water side	Min.	°C	0 (7)			
		Max.	°C	0 (7)			
Domestic hot water	Water side	Min.	°C	0 (7)			
		Max.	°C	0 (7)			
Safety devices	Item	01		Thermal cut out			

Electrical specifications				EHVH04S18E6V	EHVH04S23E6V	EHVH08S18E6V	EHVH08S23E6V
Power supply	Name			See note 10			
	Voltage range	Min.	%	10			
Max.		%	10				
IP class	IP			IP X0B			
Electric heater	Power supply	Name			6V3		
		Phase			1~ / 3~		
		Frequency	Hz		50		
		Voltage	V		230		
	Current	Maximum running current	A		26.0		
		Zmax List	Ω		0.22		
Minimum Ssc value				Equipment complying with EN/IEC 61000-3-12			
Recommended fuses			A		20.000 (8)		
Wiring connections	Communication cable	Quantity			3		
		Remark			2.5 mm <sup>2</sup>		
	Electric meter	Quantity			2		
		Remark			Minimum 0.75 mm <sup>2</sup> (5VDC pulse detection)		
	Preferential kWh rate power supply	Quantity			Power: 2		
		Remark			Power 6.3A (Select diameter and type according to national and local regulations)		
	Domestic hot water pump	Quantity			2		
		Remark			Minimum 0.75 mm <sup>2</sup> (2A inrush, 1A continuous)		
	For power supply back-up heater	Quantity			Prewired		
	For connection with R6T	Quantity			2		
		Remark			Minimum 0.75 mm <sup>2</sup>		
	For connection with A3P	Quantity			Depends on thermostat type, cf. installation manual		
		Remark			Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>		
For connection with M2S	Quantity			2			
	Remark			Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>			
For connection with optional FWXV* (demand	Quantity			4			
	Remark			100 mA, minimum 0.75 mm <sup>2</sup>			

(1) Operation area is extended to lower flow rates only in case the unit operates with heat pump only. (Not in startup, no BUH operation, no defrost operation). |

(2) Based on a dT of 45 K |

(3) Including piping + PHE + back-up heater; excluding expansion vessel |

(4) Excluding the water in the unit. This minimum water volume is sufficient for most applications. During critical processes extra water may be required. |

(5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) |

(6) Sound values are measured in a semi-anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(7) Refer to operation range of the unit. |

(8) 4 pole 20 A curve 400V tripping class C (refer to wiring diagram) |

(9) PED unit category: Art3S3: excluded from scope of PED due to article 1, item 3.6 of 97/23/EC |

(10) Above mentioned power supply of the hydrobox is for the backup heater only. The switch box and the pump of the hydrobox are supplied via the outdoor unit. The optional domestic hot water tank has a separate power supply. |

2 pole 20 A curve 400V tripping class C (refer to wiring diagram)

Technical specifications				EHVH08S18E9W	EHVH08S23E9W
Heater capacity	Step 1	kW		3	
	Step 2	kW		max. 6 kW	
Power input	Nom.	kW		0.09	
Efficiency	Domestic hot water	Net calorific value	%	118	135
Casing	Colour	White + Black			
	Material	Precoated sheet metal			

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

Technical specifications				EHVH08S18E9W	EHVH08S23E9W	
Dimensions	Unit	Height	mm	1,650	1,850	
		Width	mm		595	
		Depth	mm		625	
	Packed unit	Height	mm	1,820	2,020	
		Width	mm		720	
		Depth	mm		740	
Weight	Unit		kg	119	128	
	Packed unit		kg	135	144	
Packing	Material	Wood / Carton / PE wrapping foil / Metal				
	Weight		kg	16		
PED	Category	Art4.3 / See note 9				
	Most critical part	Name		Plate heat exchanger		
		Ps*V	Bar*l	37.72		
Refrigerant side heat exchanger	Type	Plate heat exchanger				
	Quantity	1				
	Plates	Quantity	42			
Pump	Nr of speeds	PWM				
	Power input		W	52		
Water side Heat exchanger	Type	Plate heat exchanger				
	Quantity	1				
	Plates	Quantity	42			
	Water volume		l	0.95		
	Water flow rate	Min.	l/min	12.0 (1)		
Expansion vessel	Volume		l	10		
	Max. water pressure		bar	3		
	Pre pressure		bar	1		
Water filter	Diameter perforations		mm	0.8		
	Material	Stainless steel / Plastic				
Tank	Name		Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L		
	Water volume		l	180	230	
Tank	Material	Stainless steel (EN 1.4521)				
	Maximum water temperature		°C	70		
	Maximum water pressure		bar	10		
	Insulation	Material	Polyurethane foam			
		Heat loss		kWh/24h	1.2 (2)	1.4 (2)
	Corrosion protection	Pickling				
	Energy efficiency class	B				
	Standing heat loss		W	50	58	
	Storage volume		l	181	220	
	General	Supplier/Manufacturer details	Name or trademark	Daikin Europe N.V.		
		Name and address	Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium			
3-way valve	Coefficient of flow (kV)	Space heating		m <sup>3</sup> /h		
		Domestic hot water tank		m <sup>3</sup> /h		
Water circuit	Piping connections diameter		inch	G 1" (female)		
	Piping material	Cu				
	Internal piping diameter		inch	1"		
	Piping		inch	1"		
	Safety valve		bar	3		
	Manometer	Digital				
	Drain valve / fill valve	No				
	Shut off valve	Yes				
	Air purge valve	Yes				
	Total water volume		l	3.5 (3)		
	Minimum water volume in the system for cooling		l	0 (4)		
	Minimum water volume in the system for heating		l	0 (4)		
	Water circuit - Domestic hot water side	Piping material	Stainless steel			
Piping connections		Cold water in / Hot water out	inch	G 3/4" FEMALE		
		Recirculation connection	inch	G 3/4" FEMALE		
Refrigerant circuit	Gas side diameter		mm	15.9		
	Liquid side diameter		mm	6.40		
Sound power level	Nom.		dB(A)	42 (5)		
Sound pressure level	Nom.		dB(A)	28 (6)		

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

2

Technical specifications					EHVH08S18E9W	EHVH08S23E9W
Operation range	Heating	Ambient	Min.	°C		0 (7)
			Max.	°C		0 (7)
	Water side	Min.	°C		0 (7)	
		Max.	°C		0 (7)	
Operation range	Cooling	Ambient	Min.	°CDB		0 (7)
			Max.	°CDB		0 (7)
	Water side	Min.	°C		0 (7)	
		Max.	°C		0 (7)	
	Domestic hot water	Water side	Min.	°C		0 (7)
			Max.	°C		0 (7)
Safety devices	Item	01			Thermal cut out	

Electrical specifications					EHVH08S18E9W	EHVH08S23E9W
Power supply	Name				See note 10	
	Voltage range	Min.	%		10	
		Max.	%		10	
IP class	IP				IP X0B	
Electric heater	Power supply	Name			9W	
		Phase			3~	
		Frequency		Hz	50	
		Voltage		V	400	
	Current	Maximum running current		A	13.0	
		Zmax	List	Ω	0.22	
	Recommended fuses			A	20.000 (8)	
Wiring connections	Communication cable	Quantity			3	
		Remark			2.5 mm <sup>2</sup>	
	Electric meter	Quantity			2	
		Remark			Minimum 0.75 mm <sup>2</sup> (5VDC pulse detection)	
	Preferential kWh rate power supply	Quantity			Power: 2	
		Remark			Power 6.3A (Select diameter and type according to national and local regulations)	
	Domestic hot water pump	Quantity			2	
		Remark			Minimum 0.75 mm <sup>2</sup> (2A inrush, 1A continuous)	
	For power supply back-up heater	Quantity			Prewired	
	For connection with R6T	Quantity			2	
		Remark			Minimum 0.75 mm <sup>2</sup>	
For connection with A3P	Quantity			Depends on thermostat type, cf. installation manual		
	Remark			Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>		
For connection with M2S	Quantity			2		
	Remark			Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>		
For connection with optional FWXV* (demand	Quantity			4		
	Remark			100 mA, minimum 0.75 mm <sup>2</sup>		

(1) Operation area is extended to lower flow rates only in case the unit operates with heat pump only. (Not in startup, no BUH operation, no defrost operation). |

(2) Based on a dT of 45 K |

(3) Including piping + PHE + back-up heater; excluding expansion vessel |

(4) Excluding the water in the unit. This minimum water volume is sufficient for most applications. During critical processes extra water may be required. |

(5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) |

(6) Sound values are measured in a semi-anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(7) Refer to operation range of the unit. |

(8) 4 pole 20 A curve 400V tripping class C (refer to wiring diagram) |

(9) PED unit category: Art3S3: excluded from scope of PED due to article 1, item 3.6 of 97/23/EC |

(10) Above mentioned power supply of the hydrobox is for the backup heater only. The switch box and the pump of the hydrobox are supplied via the outdoor unit. The optional domestic hot water tank has a separate power supply. |

2 pole 20 A curve 400V tripping class C (refer to wiring diagram)

Technical specifications					EHVX04S18E3V	EHVX04S23E3V
Heater capacity	Step 1		kW		3	
Power input	Nom.		kW		0.09	
Efficiency	Domestic hot water	Net calorific value		%	118	135
Casing	Colour				White + Black	
	Material				Precoated sheet metal	
Dimensions	Unit	Height	mm	1,650		1,850
		Width	mm		595	
		Depth	mm		625	
	Packed unit	Height	mm	1,820		2,020
		Width	mm		720	
		Depth	mm		740	
Weight	Unit		kg	119		128
	Packed unit		kg	135		144



## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

Technical specifications				EHVX04S18E3V		EHVX04S23E3V		
Packing	Material			Wood / Carton / PE wrapping foil / Metal				
	Weight		kg	16				
PED	Category			Art4.3 / See note 9				
	Most critical part	Name		Plate heat exchanger				
		Ps*V	Bar*l	37.72				
Refrigerant side heat exchanger	Type			Plate heat exchanger				
	Quantity			1				
	Plates	Quantity		42				
Pump	Nr of speeds			PWM				
	Power input			W				
Water side Heat exchanger	Type			Plate heat exchanger				
	Quantity			1				
	Plates	Quantity		42				
	Water volume			l				
	Water flow rate	Min.	l/min	12.0 (1)				
Expansion vessel	Volume			l				
	Max. water pressure			bar				
	Pre pressure			bar				
Water filter	Diameter perforations			mm				
	Material			Stainless steel / Plastic				
Tank	Name			Stainless steel domestic hot water tank 180 l		Stainless steel domestic hot water tank 230 L		
	Water volume			l		180 230		
Tank	Material			Stainless steel (EN 1.4521)				
	Maximum water temperature			°C				
	Maximum water pressure			bar				
	Insulation	Material			Polyurethane foam			
		Heat loss			kWh/24h		1.2 (2) 1.4 (2)	
	Corrosion protection			Pickling				
	Energy efficiency class			B				
	Standing heat loss			W		50 58		
Storage volume			l		181 220			
General	Supplier/ Manufacturer			Name or trademark				
	Name and address details			Daikin Europe N.V. Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium				
3-way valve	Coefficient of flow (kV)	Space heating		m <sup>3</sup> /h				
		Domestic hot water tank		m <sup>3</sup> /h				
Water circuit	Piping connections diameter			inch				
	Piping material			Cu				
	Internal piping diameter			inch				
	Piping			inch				
	Safety valve			bar				
	Manometer			Digital				
	Drain valve / fill valve			No				
	Shut off valve			Yes				
	Air purge valve			Yes				
	Total water volume			l				
	Minimum water volume in the system for cooling			l				
Minimum water volume in the system for heating			l					
Water circuit - Domestic hot water side	Piping material			Stainless steel				
	Piping connections	Cold water in / Hot water out		inch				
		Recirculation connection		inch				
Refrigerant circuit	Gas side diameter			mm				
	Liquid side diameter			mm				
Sound power level	Nom.			dBA				
Sound pressure level	Nom.			dBA				
Operation range	Heating	Ambient	Min.	°C				
			Max.	°C				
		Water side	Min.	°C				
	Max.		°C					
	Cooling	Ambient	Min.	°CDB				
			Max.	°CDB				
Operation range	Cooling	Water side	Min.	°C				
			Max.	°C				
	Domestic hot water	Water side	Min.	°C				
			Max.	°C				
Safety devices	Item	01		Thermal cut out				

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

2

Electrical specifications				EHVX04S18E3V		EHVX04S23E3V		
Power supply	Name					See note 10		
	Voltage range	Min.	%			10		
IP class	IP	Max.	%			10		
						IP X0B		
Electric heater	Power supply	Name					3V3	
		Phase					1~	
		Frequency	Hz			50		
	Current	Voltage	V			230		
		Maximum running current	A			13.0		
		Zmax List	Ω			0.22		
Recommended fuses	A			20.000 (8)				
Wiring connections	Communication cable	Quantity					3	
		Remark					2.5 mm <sup>2</sup>	
	Electric meter	Quantity					2	
		Remark					Minimum 0.75 mm <sup>2</sup> (5VDC pulse detection)	
	Preferential kWh rate power supply	Quantity					Power: 2	
		Remark					Power 6.3A (Select diameter and type according to national and local regulations)	
	Domestic hot water pump	Quantity					2	
		Remark					Minimum 0.75 mm <sup>2</sup> (2A inrush, 1A continuous)	
	For power supply back-up heater	Quantity					Prewired	
	For connection with R6T	Quantity					2	
		Remark					Minimum 0.75 mm <sup>2</sup>	
	For connection with A3P	Quantity					Depends on thermostat type, cf. installation manual	
		Remark					Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>	
For connection with M2S	Quantity					2		
	Remark					Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>		
For connection with optional FWXV* (demand	Quantity					4		
	Remark					100 mA, minimum 0.75 mm <sup>2</sup>		

(1) Operation area is extended to lower flow rates only in case the unit operates with heat pump only. (Not in startup, no BUH operation, no defrost operation). |

(2) Based on a dT of 45 K |

(3) Including piping + PHE + back-up heater; excluding expansion vessel |

(4) Excluding the water in the unit. This minimum water volume is sufficient for most applications. During critical processes extra water may be required. |

(5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) |

(6) Sound values are measured in a semi-anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(7) Refer to operation range of the unit. |

(8) 2 pole 20 A curve 400V tripping class C (refer to wiring diagram) |

(9) PED unit category: Art3S3: excluded from scope of PED due to article 1, item 3.6 of 97/23/EC |

(10) Above mentioned power supply of the hydrobox is for the backup heater only. The switch box and the pump of the hydrobox are supplied via the outdoor unit. The optional domestic hot water tank has a separate power supply. |

4 pole 20 A curve 400V tripping class C (refer to wiring diagram)

Technical specifications				EHVX04S18E6V	EHVX04S23E6V	EHVX08S18E6V	EHVX08S23E6V	
Heater capacity	Step 1	kW					2	
	Step 2	kW					2 or 4	
Power input	Nom.	kW					0.09	
Efficiency	Domestic hot water	Net calorific value	%	118	135	118	135	
Casing	Colour	White + Black						
	Material	Precoated sheet metal						
Dimensions	Unit	Height	mm	1,650	1,850	1,650	1,850	
		Width	mm	595				
		Depth	mm	625				
	Packed unit	Height	mm	1,820	2,020	1,820	2,020	
		Width	mm	720				
		Depth	mm	740				
Weight	Unit	kg	119	128	119	128		
	Packed unit	kg	135	144	135	144		
Packing	Material	Wood / Carton / PE wrapping foil / Metal						
	Weight	kg	16					
PED	Category	Art4.3 / See note 9						
	Most critical part	Name					Plate heat exchanger	
		Ps*V	Bar*l					37.72
Refrigerant side heat exchanger	Type	Plate heat exchanger						
	Quantity	1						
	Plates	Quantity	42					
Pump	Nr of speeds	PWM						
	Power input	W	52					

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

Technical specifications				EHVX04S18E6V	EHVX04S23E6V	EHVX08S18E6V	EHVX08S23E6V	
Water side Heat exchanger	Type	Plate heat exchanger						
	Quantity	1						
	Plates	Quantity	42					
	Water volume	0.95						
	Water flow rate	Min.	l/min 12.0 (1)					
Expansion vessel	Volume	l 10						
	Max. water pressure	bar 3						
	Pre pressure	bar 1						
Water filter	Diameter perforations	mm 0.8						
	Material	Stainless steel / Plastic						
Tank	Name	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L			
	Water volume	l 180	230	180	230			
Tank	Material	Stainless steel (EN 1.4521)						
	Maximum water temperature	°C 70						
	Maximum water pressure	bar 10						
	Insulation	Material	Polyurethane foam					
		Heat loss	kWh/24h 1.2 (2)	1.4 (2)	1.2 (2)	1.4 (2)		
	Corrosion protection	Pickling						
	Energy efficiency class	B						
	Standing heat loss	W 50	58	50	58			
Storage volume	l 181	220	181	220				
General	Supplier/Manufacturer details	Name or trademark	Daikin Europe N.V.					
		Name and address	Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium					
3-way valve	Coefficient of flow (kV)	Space heating	m <sup>3</sup> /h 8					
		Domestic hot water tank	m <sup>3</sup> /h 10					
Water circuit	Piping connections diameter	inch G 1" (female)						
	Piping material	Cu						
	Internal piping diameter	inch 1"						
	Piping	inch 1"						
	Safety valve	bar 3						
	Manometer	Digital						
	Drain valve / fill valve	No						
	Shut off valve	Yes						
	Air purge valve	Yes						
	Total water volume	l 3.5 (3)						
	Minimum water volume in the system for cooling	l 0 (4)						
Minimum water volume in the system for heating	l 0 (4)							
Water circuit - Domestic hot water side	Piping material	Stainless steel						
	Piping connections	Cold water in / Hot water out	inch G 3/4" FEMALE					
		Recirculation connection	inch G 3/4" FEMALE					
Refrigerant circuit	Gas side diameter	mm 15.9						
	Liquid side diameter	mm 6.40						
Sound power level	Nom.	dBA 42 (5)						
Sound pressure level	Nom.	dBA 28 (6)						
Operation range	Heating	Ambient	Min.	°C 0 (7)				
			Max.	°C 0 (7)				
		Water side	Min.	°C 0 (7)				
			Max.	°C 0 (7)				
	Cooling	Ambient	Min.	°CDB 0 (7)				
Operation range	Cooling	Ambient	Min.	°CDB 0 (7)				
			Max.	°CDB 0 (7)				
		Water side	Min.	°C 0 (7)				
			Max.	°C 0 (7)				
	Domestic hot water	Water side	Min.	°C 0 (7)				
		Max.	°C 0 (7)					
Safety devices	Item	01 Thermal cut out						
Electrical specifications				EHVX04S18E6V	EHVX04S23E6V	EHVX08S18E6V	EHVX08S23E6V	
Power supply	Name	See note 10						
	Voltage range	Min.	% 10					
		Max.	% 10					
IP class	IP	IP X0B						

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

2

Electrical specifications			EHVX04S18E6V	EHVX04S23E6V	EHVX08S18E6V	EHVX08S23E6V	
Electric heater supply	Name		6V3				
		Phase	1~ / 3~				
		Frequency	50 Hz				
	Current	Voltage		230 V			
		Maximum running current	A	26.0			
		Zmax	List	Ω			
		Minimum Ssc value		Equipment complying with EN/IEC 61000-3-12			
Recommended fuses		A	20.000 (8)				
Wiring connections	Communication cable	Quantity	3				
		Remark	2.5 mm <sup>2</sup>				
	Electric meter	Quantity	2				
		Remark	Minimum 0.75 mm <sup>2</sup> (5VDC pulse detection)				
	Preferential kWh rate power supply	Quantity	Power: 2				
		Remark	Power 6.3A (Select diameter and type according to national and local regulations)				
	Domestic hot water pump	Quantity	2				
		Remark	Minimum 0.75 mm <sup>2</sup> (2A inrush, 1A continuous)				
	For power supply back-up heater	Quantity	Prewired				
		Remark					
	For connection with R6T	Quantity	2				
		Remark	Minimum 0.75 mm <sup>2</sup>				
	For connection with A3P	Quantity	Depends on thermostat type, cf. installation manual				
		Remark	Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>				
For connection with M2S	Quantity	2					
	Remark	Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>					
For connection with optional FWXV* (demand	Quantity	4					
	Remark	100 mA, minimum 0.75 mm <sup>2</sup>					

(1) Operation area is extended to lower flow rates only in case the unit operates with heat pump only. (Not in startup, no BUH operation, no defrost operation). |

(2) Based on a dT of 45 K |

(3) Including piping + PHE + back-up heater; excluding expansion vessel |

(4) Excluding the water in the unit. This minimum water volume is sufficient for most applications. During critical processes extra water may be required. |

(5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) |

(6) Sound values are measured in a semi-anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(7) Refer to operation range of the unit. |

(8) 4 pole 20 A curve 400V tripping class C (refer to wiring diagram) |

(9) PED unit category: Art3S3: excluded from scope of PED due to article 1, item 3.6 of 97/23/EC |

(10) Above mentioned power supply of the hydrobox is for the backup heater only. The switch box and the pump of the hydrobox are supplied via the outdoor unit. The optional domestic hot water tank has a separate power supply. |

2 pole 20 A curve 400V tripping class C (refer to wiring diagram)

Technical specifications			EHVX04S18E6VG	EHVX04S23E6VG	EHVX08S18E6VG	EHVX08S23E6VG	
Heater capacity	Step 1	kW	2				
	Step 2	kW	2 or 4				
Power input	Nom.	kW	0.09				
Efficiency	Domestic hot water	Net calorific value	118	135	118	135	
		%					
Casing	Colour		Grey + Black	White + Black			
	Material		Precoated sheet metal				
Dimensions	Unit	Height	1,650	1,850	1,650	1,850	
		Width	595				
		Depth	625				
	Packed unit	Height	1,820	2,020	1,820	2,020	
		Width	720				
		Depth	740				
Weight	Unit	kg	119	128	119	128	
	Packed unit	kg	135	144	135	144	
Packing	Material		Wood / Carton / PE wrapping foil / Metal				
	Weight	kg	16				
PED	Category		Art4.3 / See note 9				
	Most critical part	Name	Plate heat exchanger				
		Ps*V	Bar*l	37.72			
Refrigerant side heat exchanger	Type		Plate heat exchanger				
	Quantity		1				
	Plates	Quantity	42				
Pump	Nr of speeds		PWM				
	Power input	W	52				
Water side Heat exchanger	Type		Plate heat exchanger				
	Quantity		1				
	Plates	Quantity	42				
	Water volume	l	0.95				
	Water flow rate	Min.	l/min	12.0 (1)			

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

Technical specifications				EHVX04S18E6VG	EHVX04S23E6VG	EHVX08S18E6VG	EHVX08S23E6VG
Expansion vessel	Volume	l		10			
	Max. water pressure	bar		3			
	Pre pressure	bar		1			
Water filter	Diameter perforations	mm		0.8			
	Material			Stainless steel / Plastic			
Tank	Name		Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	
	Water volume	l	180	230	180	230	
Tank	Material		Stainless steel (EN 1.4521)				
	Maximum water temperature	°C	70				
	Maximum water pressure	bar	10				
	Insulation Material		Polyurethane foam				
	Heat loss	kWh/24h	1.2 (2)	1.4 (2)	1.2 (2)	1.4 (2)	
	Corrosion protection		Pickling				
	Energy efficiency class		B				
	Standing heat loss	W	50	58	50	58	
General	Supplier/Manufacturer details	Name or trademark Name and address	Daikin Europe N.V. Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium				
	3-way valve	Coefficient of flow (kV)	Space heating	m <sup>3</sup> /h			
		Domestic hot water tank	m <sup>3</sup> /h				
Water circuit	Piping connections diameter	inch	G 1" (female)				
	Piping material		Cu				
	Internal piping diameter	inch	1"				
	Piping	inch	1"				
	Safety valve	bar	3				
	Manometer		Digital				
	Drain valve / fill valve		No				
	Shut off valve		Yes				
	Air purge valve		Yes				
	Total water volume	l	3.5 (3)				
	Minimum water volume in the system for cooling	l	0 (4)				
	Minimum water volume in the system for heating	l	0 (4)				
	Water circuit - Domestic hot water side	Piping material		Stainless steel			
Piping connections		Cold water in / Hot water out	inch	G 3/4" FEMALE			
Recirculation connection		inch	G 3/4" FEMALE				
Refrigerant circuit	Gas side diameter	mm	15.9				
	Liquid side diameter	mm	6.40				
Sound power level	Nom.	dBA	42 (5)				
Sound pressure level	Nom.	dBA	28 (6)				
Operation range	Heating	Ambient	Min.	°C	0 (7)		
			Max.	°C	0 (7)		
	Water side	Min.	°C	0 (7)			
		Max.	°C	0 (7)			
Operation range	Cooling	Ambient	Min.	°CDB	0 (7)		
			Max.	°CDB	0 (7)		
	Water side	Min.	°C	0 (7)			
		Max.	°C	0 (7)			
	Domestic hot water	Water side	Min.	°C	0 (7)		
			Max.	°C	0 (7)		
Safety devices	Item	01	Thermal cut out				

Electrical specifications				EHVX04S18E6VG	EHVX04S23E6VG	EHVX08S18E6VG	EHVX08S23E6VG
Power supply	Name	See note 10					
	Voltage range	Min.	10				
		Max.	10				
IP class	IP	IP X0B					
Electric heater	Power supply	Name	6V3				
		Phase	1~ / 3~				
		Frequency	Hz	50			
		Voltage	V	230			
	Current	Maximum running current	A	26.0			
		Zmax List	Ω	0.22			
		Minimum Ssc value	Equipment complying with EN/IEC 61000-3-12				
Recommended fuses	A	20.000 (8)					

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

2

Electrical specifications			EHVX04S18E6VG	EHVX04S23E6VG	EHVX08S18E6VG	EHVX08S23E6VG
Wiring connections	Communication cable	Quantity	3			
		Remark	2.5 mm <sup>2</sup>			
	Electric meter	Quantity	2			
		Remark	Minimum 0.75 mm <sup>2</sup> (5VDC pulse detection)			
	Preferential kWh rate power supply	Quantity	Power: 2			
		Remark	Power 6.3A (Select diameter and type according to national and local regulations)			
	Domestic hot water pump	Quantity	2			
		Remark	Minimum 0.75 mm <sup>2</sup> (2A inrush, 1A continuous)			
	For power supply back-up heater	Quantity	Prewired			
	For connection with R6T	Quantity	2			
		Remark	Minimum 0.75 mm <sup>2</sup>			
	For connection with A3P	Quantity	Depends on thermostat type, cf. installation manual			
		Remark	Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>			
	For connection with M2S	Quantity	2			
		Remark	Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>			
For connection with optional FWX* (demand	Quantity	4				
	Remark	100 mA, minimum 0.75 mm <sup>2</sup>				

(1) Operation area is extended to lower flow rates only in case the unit operates with heat pump only. (Not in startup, no BUH operation, no defrost operation). |

(2) Based on a dT of 45 K |

(3) Including piping + PHE + back-up heater; excluding expansion vessel |

(4) Excluding the water in the unit. This minimum water volume is sufficient for most applications. During critical processes extra water may be required. |

(5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) |

(6) Sound values are measured in a semi-anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(7) Refer to operation range of the unit. |

(8) 4 pole 20 A curve 400V tripping class C (refer to wiring diagram) |

(9) PED unit category: Art3S3: excluded from scope of PED due to article 1, item 3.6 of 97/23/EC |

(10) Above mentioned power supply of the hydrobox is for the backup heater only. The switch box and the pump of the hydrobox are supplied via the outdoor unit. The optional domestic hot water tank has a separate power supply. |

2 pole 20 A curve 400V tripping class C (refer to wiring diagram)

Technical specifications				EHVX08S18E9W	EHVX08S23E9W
Heater capacity	Step 1	kW		3	
	Step 2	kW		max. 6 kW	
Power input	Nom.	kW		0.09	
Efficiency	Domestic hot water	Net calorific value	%	118	135
Casing	Colour	White + Black			
	Material	Precoated sheet metal			
Dimensions	Unit	Height	mm	1,650	1,850
		Width	mm	595	
		Depth	mm	625	
	Packed unit	Height	mm	1,820	2,020
		Width	mm	720	
		Depth	mm	740	
Weight	Unit	kg		119	128
	Packed unit	kg		135	144
Packing	Material	Wood / Carton / PE wrapping foil / Metal			
	Weight	kg		16	
PED	Category	Art4.3 / See note 9			
	Most critical part	Name	Plate heat exchanger		
		Ps*V	Bar*l	37.72	
Refrigerant side heat exchanger	Type	Plate heat exchanger			
	Quantity	1			
	Plates	Quantity	42		
Pump	Nr of speeds	PWM			
	Power input	W		52	
Water side Heat exchanger	Type	Plate heat exchanger			
	Quantity	1			
	Plates	Quantity	42		
	Water volume	l		0.95	
	Water flow rate	Min.	l/min	12.0 (1)	
	Expansion vessel	Volume	l		10
Max. water pressure		bar		3	
Pre pressure		bar		1	
Diameter perforations		mm		0.8	
Tank	Material	Stainless steel / Plastic			
	Name	Stainless steel domestic hot water tank 180 l		Stainless steel domestic hot water tank 230 L	
	Water volume	l		180	230

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

Technical specifications				EHVX08S18E9W	EHVX08S23E9W
Tank	Material			Stainless steel (EN 1.4521)	
	Maximum water temperature	°C		70	
	Maximum water pressure	bar		10	
	Insulation Material			Polyurethane foam	
	Heat loss	kWh/24h		1.2 (2)	1.4 (2)
	Corrosion protection			Pickling	
	Energy efficiency class			B	
Standing heat loss	W		50	58	
Storage volume	l		181	220	
General	Supplier/Manufacturer details	Name or trademark Name and address		Daikin Europe N.V. Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium	
	3-way valve	Coefficient of flow (kW)	Space heating Domestic hot water tank	m <sup>3</sup> /h m <sup>3</sup> /h	8 10
Water circuit		Piping connections diameter		inch	G 1" (female)
	Piping material			Cu	
	Internal piping diameter		inch	1"	
	Piping		inch	1"	
	Safety valve		bar	3	
	Manometer			Digital	
	Drain valve / fill valve			No	
	Shut off valve			Yes	
	Air purge valve			Yes	
	Total water volume		l	3.5 (3)	
	Minimum water volume in the system for cooling		l	0 (4)	
Minimum water volume in the system for heating		l	0 (4)		
Water circuit - Domestic hot water side	Piping material			Stainless steel	
	Piping connections	Cold water in / Hot water out	inch	G 3/4" FEMALE	
	Recirculation connection		inch	G 3/4" FEMALE	
Refrigerant circuit	Gas side diameter		mm	15.9	
	Liquid side diameter		mm	6.40	
Sound power level	Nom.		dB(A)	42 (5)	
Sound pressure level	Nom.		dB(A)	28 (6)	
Operation range	Heating	Ambient	Min.	°C	0 (7)
			Max.	°C	0 (7)
	Cooling	Ambient	Min.	°C	0 (7)
			Max.	°C	0 (7)
			Max.	°CDB	0 (7)
Operation range	Cooling	Ambient	Min.	°CDB	0 (7)
			Max.	°CDB	0 (7)
	Domestic hot water	Water side	Min.	°C	0 (7)
			Max.	°C	0 (7)
			Max.	°C	0 (7)
Safety devices	Item	01		Thermal cut out	

Electrical specifications				EHVX08S18E9W	EHVX08S23E9W
Power supply	Name			See note 10	
	Voltage range	Min.	%	10	
		Max.	%	10	
IP class	IP			IP X0B	
Electric heater	Power supply	Name		9W	
		Phase		3~	
		Frequency		50 Hz	
	Current	Voltage		400 V	
		Maximum running current		13.0 A	
		Zmax	List	0.22 Ω	
		Recommended fuses		A	
				20.000 (8)	

## 2 Specifications

1 - 1 EHVX-E6VG, EHVX-E6V, EHVX-E9W, EHVH-E9W, EHVH-E6V, EHVX-E3V

2

Electrical specifications			EHVX08S18E9W	EHVX08S23E9W
Wiring connections	Communication cable	Quantity	3	
		Remark	2.5 mm <sup>2</sup>	
	Electric meter	Quantity	2	
		Remark	Minimum 0.75 mm <sup>2</sup> (5VDC pulse detection)	
	Preferential kWh rate power supply	Quantity	Power: 2	
		Remark	Power 6.3A (Select diameter and type according to national and local regulations)	
	Domestic hot water pump	Quantity	2	
		Remark	Minimum 0.75 mm <sup>2</sup> (2A inrush, 1A continuous)	
	For power supply back-up heater	Quantity	Prewired	
	For connection with R6T	Quantity	2	
		Remark	Minimum 0.75 mm <sup>2</sup>	
	For connection with A3P	Quantity	Depends on thermostat type, cf. installation manual	
		Remark	Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>	
	For connection with M2S	Quantity	2	
		Remark	Voltage: 230V / Max. current: 100mA / Min. 0.75mm <sup>2</sup>	
	For connection with optional FWXV* (demand	Quantity	4	
Remark		100 mA, minimum 0.75 mm <sup>2</sup>		

(1) Operation area is extended to lower flow rates only in case the unit operates with heat pump only. (Not in startup, no BUH operation, no defrost operation). |

(2) Based on a dT of 45 K |

(3) Including piping + PHE + back-up heater; excluding expansion vessel |

(4) Excluding the water in the unit. This minimum water volume is sufficient for most applications. During critical processes extra water may be required. |

(5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) |

(6) Sound values are measured in a semi-anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(7) Refer to operation range of the unit. |

(8) 4 pole 20 A curve 400V tripping class C (refer to wiring diagram) |

(9) PED unit category: Art3S3; excluded from scope of PED due to article 1, item 3.6 of 97/23/EC |

(10) Above mentioned power supply of the hydrobox is for the backup heater only. The switch box and the pump of the hydrobox are supplied via the outdoor unit. The optional domestic hot water tank has a separate power supply. |

2 pole 20 A curve 400V tripping class C (refer to wiring diagram)



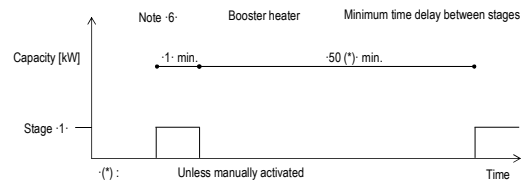
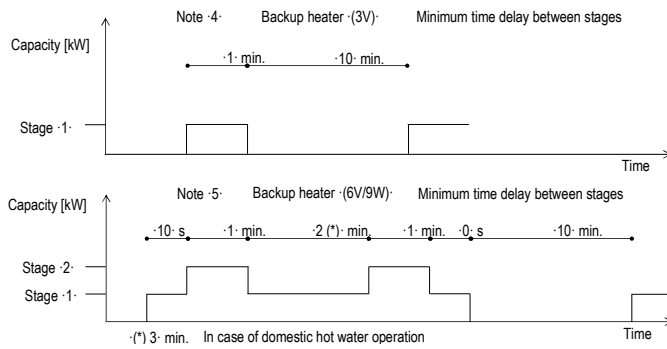
# 3 Electrical data

## 3 - 1 Electrical Data

### EHV(H-X-Z)-E(3V\_6V\_9W)(G)

Electrical specifications														
Not applicable for -EHVH(04/08)D(A/J)- models.														
Backup heater	Type		3V				6V			9W				
	Capacity setting	kW	3	2-4	2-6	4-6	-2-4 (in case of emergency: -2-6)			6	3-6	3-9	-3-6 (in case of emergency: -3-9)	
	Capacity stage -		1	2	2	2	2	2	1	2	2	2	2	
	Capacity stage -1-	kW	3	2	2	2	2	2	6	3	3	3	3	
	Capacity stage -2-	kW	-	4	6	4	4	4	6	-	6	9	6	9
	Minimum time delay between stages			Note -4-				Note -5-			Note -5-			
	Power supply (1)	Phase		1~				3~			3~			
		Frequency	Hz	50										
		Voltage	V	230 ±10%						400 ±10%				
	Current	Nominal running current	A	13	17,4	26,1	26,1	17,4	26,1	15	8,7	13	8,7	13
Zmax (backup heater) (2)		Ω	0,34	0,22	0,22	0,22	0,22	0,22	-	-	-	-	-	
Minimum Ssc value		kVA	-	(3)			(3)			-				

Notes	
(1)	The above-mentioned power supply of the hydrobox is for the backup heater only.
(2)	Booster heater power supply In accordance with EN/IEC 61000-3-11, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Zsys ≤ Zmax.
(3)	The equipment complies with EN/IEC 61000-3-12.
EN/IEC 61000-3-11 European/International Technical Standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current ≤ 75 A.	
EN/IEC 61000-3-12 European/International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase.	
Zsys System impedance	



4D111982B

### 3 Electrical data

3 - 1 Electrical Data

3

EHVX-E3V  
EHV(H-X-Z)-E6V  
EHV(H-X-Z)-E9W  
EHVX-E6VG

\* Electrical meter specification

- Pulse meter type/voltage-free contact for 5 V DC detection by PCB.
- Possible number of pulses
  - 0.1· pulse/kWh    ·100· pulse/kWh    ·10· pulse/kWh
  - 1· pulse/kWh    ·1000· pulse/kWh
- Pulse duration
  - Minimum On time: ·40ms·    Minimum OFF time: ·100ms·
- Measurement type (depending on installation)
  - Single-phase AC meter
  - Three-phase AC meter
    - Balanced loads
    - Unbalanced loads

\* Electrical meter installation guideline

- It is the responsibility of the installer to cover the complete power consumption with electrical meters (combination of estimation and
- Required number of electrical meters

Outdoor unit type		ERGA(04/06/08)(D/E)AV3						ERLA03DAV3	
Indoor unit type		*HB(H/X)(04/08)(D/E)A*			*HV(H/X)(04/08)(D/E)(A/J)*			EHF*03S18DJ3V	
	Backup heater type	6V		9W	3V	6V		9W	3V
	Backup heater power supply	1~230V	3~230V	3~400V	1~230V	1~230V	3~230V	3~400V	1~230V
	Backup heater configuration	2/4/6kW	6kW	3/6/9kW	3kW	2/4/6kW	6kW	3/6/9kW	3kW
Normal kWh rate power supply									
Electrical meter type	1~	1	-	-	1	1	-	-	1
	3~ balanced	-	-	-	-	-	-	-	-
	3~ unbalanced	-	1	1	-	-	1	1	-
Preferential kWh rate power supply									
Electrical meter type	1~	2	1	1	2	2	1	1	2
	3~ balanced	-	-	-	-	-	-	-	-
	3~ unbalanced	-	1	1	-	-	1	1	-

Immersion heater (no backup heater)

Outdoor unit type		ERGA(04/06/08)DAV3	
Indoor unit type		*HV(H/X)(04/08)D(A/J)V	
	Backup heater type	Booster heater (·2.4· kW)	
	Immersion heater power supply	1~	
		230V	
Normal kWh rate power supply			
Electrical meter type	1~	1	
	3~ balanced	-	
	3~ unbalanced	-	
Unit preferential kWh rate power supply			
Electrical meter type	1~	2	
	3~ balanced	-	
	3~ unbalanced	-	

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# 4 Combination table

## 4 - 1 Combination Table

**EHVX-E3V**  
**EHV(H-X-Z)-E6V**  
**EHV(H-X-Z)-E9W**  
**EHVX-E6VG**

**Factory-mounted equipment for ·EHV(H/X/Z)045\*E(A/J)\*·**

Description	EHV(H/X/Z)045*E(A/J)*		
	18 - 3V	18 - 6V (9)	23 - 6V (9)
Heating only model ·EHVH*·	-	18 - 6V (9)	23 - 6V (9)
Reversible model ·EHVX*·	18 - 3V	18 - 6V (9)	23 - 6V (9)
(Integrated Bizone)	-	18 - 6V (9)	-
Heating only indoor unit for the UK	-	18 - 6V (9)	23 - 6V (9)
Backup heater ·3kW 1N*230 V·	o	-	o
Backup heater ·2-4-6kW 1N*230 V·	-	o	-
Backup heater ·2-4-6kW 3*230 V·	-	o	-
Backup heater ·3-6-9kW 3N*400 V·	-	-	-
Domestic hot water tank ·180L·	o	o	-
Domestic hot water tank ·230L·	-	-	o

**Factory-mounted equipment for ·EHV(H/X/Z)085\*E(A/J)\*·**

Description	EHV(H/X/Z)085*E(A/J)*			
	18 - 6V (9)	18 - 9W (9)	23 - 6V (9)	23 - 9W (9)
Heating only model ·EHVH*·	-	18 - 9W (9)	23 - 6V (9)	23 - 9W (9)
Reversible model ·EHVX*·	18 - 6V (9)	18 - 9W (9)	23 - 6V (9)	23 - 9W (9)
(Integrated Bizone)	-	18 - 9W (9)	23 - 6V (9)	23 - 9W (9)
Heating only indoor unit for the UK	-	18 - 9W (9)	23 - 6V (9)	-
Backup heater ·3kW 1N*230 V·	o	-	-	-
Backup heater ·2-4-6kW 1N*230 V·	-	-	o	-
Backup heater ·2-4-6kW 3*230 V·	-	-	o	-
Backup heater ·3-6-9kW 3N*400 V·	-	o	-	o
Domestic hot water tank ·180L·	o	o	-	-
Domestic hot water tank ·230L·	-	-	o	o

**Outdoor combination table for ·EHV(H/X/Z)(04/08)S(U)(18/23)E(A/J)\*·**

		ERGA04EAV3	ERGA06EAV3	ERGA08EAV3	ERGA04EAV3A	ERGA06EAV3A	ERGA08EAV3A	ERGA04EAV37
EHVH04S(18/23)E(A/J)*	Heating only indoor unit	o	---	---	o	---	---	o
EHVX04S(18/23)E(A/J)*	Reversible indoor unit	o	---	---	o	---	---	o
EHVZ04S(18/23)E(A/J)*	(Integrated Bizone)	o	---	---	o	---	---	o
EHVH04SU(18/23)E(A/J)*	Heating only indoor unit for the UK	o	---	---	o	---	---	o
EHVH08S(18/23)E(A/J)*	Heating only indoor unit	---	o	o	---	o	o	---
EHVX08S(18/23)E(A/J)*	Reversible indoor unit	---	o	o	---	o	o	---
EHVZ08S(18/23)E(A/J)*	(Integrated Bizone)	---	o	o	---	o	o	---
EHVH08SU(18/23)E(A/J)*	Heating only indoor unit for the UK	---	o	o	---	o	o	---

**Kit availability**

Reference	Description	EHV*(04/08)S*E(A/J)*						EHVH(04/08)SU*E(A/J)*	
		18 - 3V	18 - 6V	18 - 9W	23 - 3V	23 - 6V	23 - 9W	18 - 6V	23 - 6V
EHVH*	Heating only indoor unit	---	18 - 6V	18 - 9W	---	23 - 6V	23 - 9W		
EHVX*	Reversible indoor unit	18 - 3V	18 - 6V	18 - 9W	23 - 3V	23 - 6V	23 - 9W		
EHVZ*	(Integrated Bizone)	---	18 - 6V	18 - 9W	---	23 - 6V	23 - 9W		
EHVH*U*	Heating only indoor unit for the UK							18 - 6V	23 - 6V
EKRP1HBAA	Digital I/O PCB	*(1) (2)	o	o	o	o	o	o	o
EKRP1AHTA	Demand PCB	*(3)	o	o	o	o	o	o	o
EKPCAB4	PC cable	*(4)	o	o	o	o	o	o	o
KRCS01-1	Remote indoor sensor	*(5)	o	o	o	o	o	o	o
EKRSCA1	Remote sensor for outdoor	*(5)	o	o	o	o	o	o	o
EKHVTC	Corner pipe bend kit								
EKHVCONV4	Conversion kit: heating only to reversible.		o	o	o	o	o	o	o
EKUHWG3D	·G3· kit							o (6)	o (6)
BRP069A71	WLAN module	*(7)	o	o	o	o	o	o	o
BRC1HH*	HCI (Human Comfort Interface)		o	o	o	o	o	o	o
EKRELSG	Relay for Smart Grid								
FWXV10ATV3	Heat pump convector		o	o	o	o	o	o	o
FWXV15ATV3	Heat pump convector		o	o	o	o	o	o	o
FWXV20ATV3	Heat pump convector		o	o	o	o	o	o	o
EKRTWA	Wired room thermostat		o	o	o	o	o	o	o
EKRTR1	Wireless room thermostat		o	o	o	o	o	o	o
EKRTE5	External sensor room thermostat	*(8)	o	o	o	o	o	o	o

Reference	Description	EHVH*	EHVX*
BZKA7V3	Only applicable for ·EHVH*· & ·EHVX*· models Bizone kit	o	o

**Notes**

- (1) PCB that provides additional output connections: ··
  - (a) Control external heat source (bivalent operation).
  - (b) Output remote ON/OFF signal space heating/cooling OR bottom plate heater ·\*KBPH16\*· control.
  - (c) Remote alarm output
- (2) Additional relays to allow bivalent control in combination with an external room thermostat are field-supplied.
- (3) PCB to receive up to 4 digital inputs for power limitation, only for ·EHV(H/X/Z)(04/08)E(A/J)\*·.
- (4) Data cable for connection with PC.
- (5) Only 1 remote sensor can be connected: indoor OR outdoor sensor.
- (6) This kit is mandatory for the UK models.
- (7) The WLAN cartridge is supplied in the accessory bag of the unit and is meant to be plugged into the SD card slot on the MMI-2. In case of bad signal reception, the WLAN cartridge can be removed and replaced by the WLAN module.
- (8) Can only be used in combination with wireless room thermostat ·EKTR1·.
- (9) The backup heater capacity depends on a user interface setting.

**Remark**

Other combinations than mentioned in this combination table are prohibited.

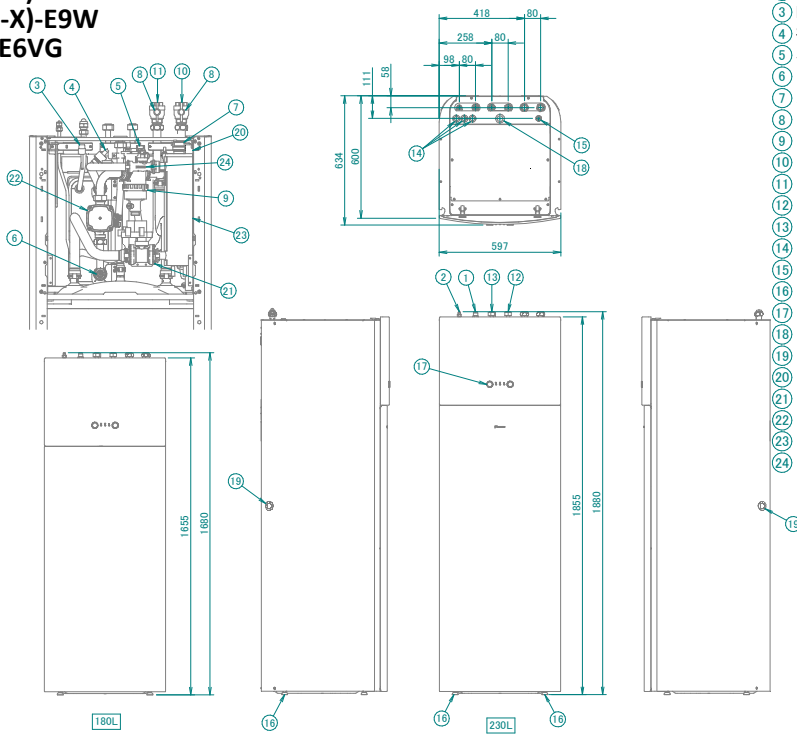
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# 5 Dimensional drawings

## 5 - 1 Dimensional Drawings

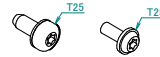
5

**EHVX-E3V**  
**EHV(H-X)-E6V**  
**EHV(H-X)-E9W**  
**EHVX-E6VG**



- ① Gas pipe connection ·Ø 15.90mm· flare
- ② Liquid pipe connection ·Ø 6.35mm· flare
- ③ Refrigerant pressure sensor
- ④ Space heating water pressure sensor
- ⑤ Safety valve
- ⑥ Drain valve water circuit
- ⑦ Air purge
- ⑧ Shut-off valve
- ⑨ Magnetic filter / dirt separator
- ⑩ Water in connection ·1" F BSP·
- ⑪ Water out connection ·1" F BSP·
- ⑫ Domestic hot water: cold water in ·3/4" F BSP·
- ⑬ Domestic hot water: hot water out ·3/4" F BSP·
- ⑭ High voltage wiring intake ·Ø 24mm·
- ⑮ Low voltage wiring intake ·Ø 15mm·
- ⑯ Levelling feet
- ⑰ User interface
- ⑱ Recirculation connection ·G 3/4"· (female)
- ⑲ Drain outlet (unit + safety valve)
- ⑳ Expansion vessel
- ㉑ 3-way valve
- ㉒ Pump
- ㉓ Backup heater
- ㉔ Flow sensor

Screws used in this unit:



The typical field installation has to be done according to the applicable legislation.

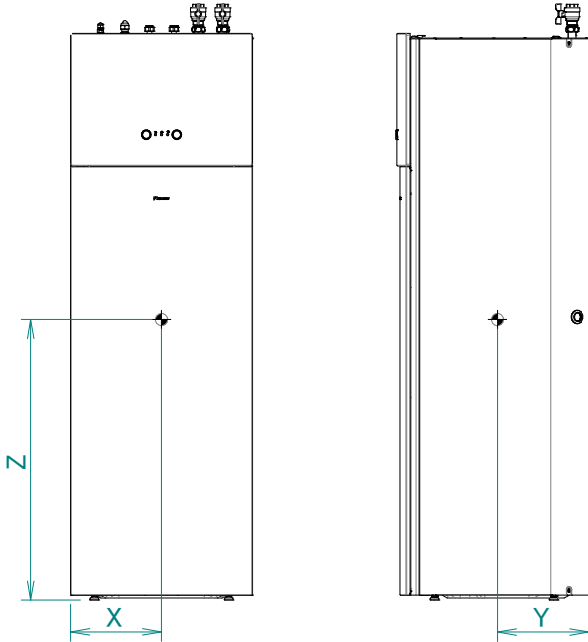
For examples, refer to the installer reference guide.

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# 6 Centre of gravity

## 6 - 1 Centre of Gravity

EHVX-E3V  
 EHV(H-X-Z)-E6V  
 EHV(H-X-Z)-E9W  
 EHVX-E6VG



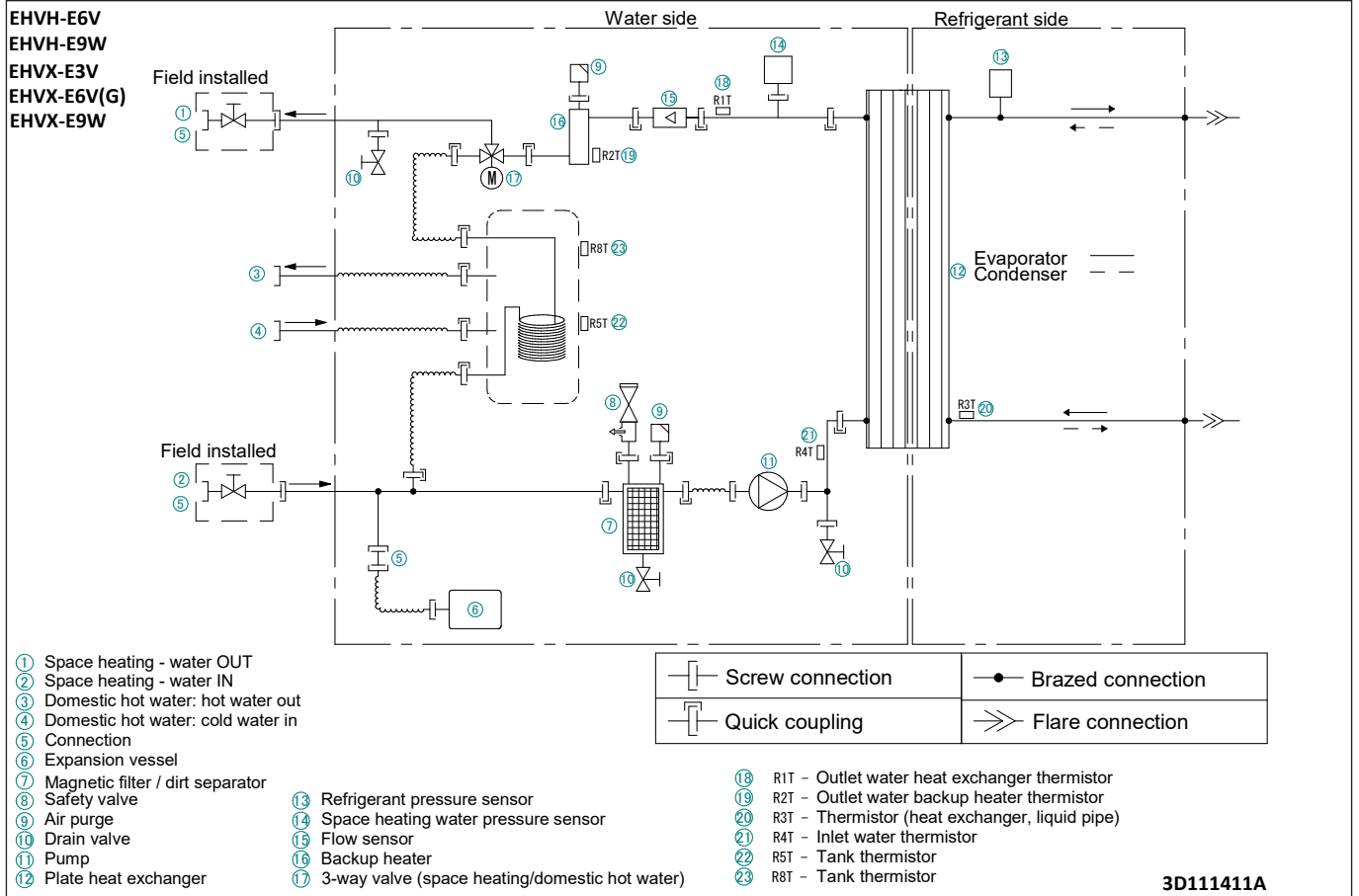
MODEL	X	Y	Z
180L	297.5	299	718
230L	297.5	299	858

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# 7 Piping diagrams

## 7 - 1 Piping Diagrams

7



# 8 Wiring diagrams

## 8 - 1 Notes & Legend

EHVH-E6V  
EHVH-E9W  
EHVX-E3V  
EHVX-E6V(G)  
EHVX-E9W

**NOTES to go through before starting the unit**

- X1M : Main terminal
- X2M : Field wiring terminal for AC
- X5M : Field wiring terminal for DC
- X6M : BUH Power supply terminal
- X10M : Smartgrid terminal
- : Earth wiring
- : Field supply

① : Several wiring possibilities



: Option



: Wiring depending on model



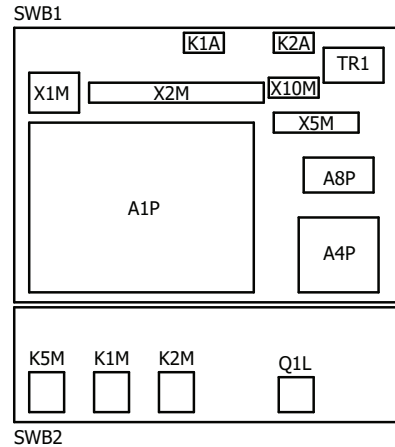
: Not mounted in switch box



: PCB

- Backup heater power supply
  - 3V (1N~, 230V, 3kW)
  - 6T1 (3~, 230V, 6kW)
  - 6V3 (1N~, 230V, 6kW)
  - 6WN/9WN (3N~, 400V, 6/9kW)
- User installed options:
  - LAN adapter
  - Remote user interface
  - Ext. indoor thermistor
  - Ext. outdoor thermistor
  - Digital I/O PCB
  - Demand PCB
  - Safety thermostat
  - Smartgrid
  - WLAN adapter module
  - WLAN cartridge
- Main LWT:
  - ON/OFF thermostat (wired)
  - ON/OFF thermostat (wireless)
- Add LWT:
  - Ext. thermistor
  - Heat pump convector

**POSITION IN SWITCH BOX**



**NOTES**

1. Connection point of the power supply for the BUH should be foreseen outside the unit.

**LEGEND**

Part n°	Description	Part n°	Description
A1P	main PCB	Q1L	thermal protector backup heater
A2P	* ON/OFF thermostat (PC=power circuit)	Q4L	# safety thermostat
A3P	* heat pump convector	Q*DI	# earth leakage circuit breaker
A4P	* digital I/O PCB	R1H (A2P)	* humidity sensor
A8P	* demand PCB	R1T (A1P)	outlet water heat exchanger thermistor
A9P	status indicator	R1T (A2P)	* ambient sensor ON/OFF thermostat
A11P	MMI main PCB	R1T (A14P)	* ambient sensor user interface
A13P	* LAN adapter	R2T (A1P)	outlet backup heater thermistor
A14P	* user interface PCB	R2T (A2P)	* external sensor (floor or ambient)
A15P	* receiver PCB (wireless ON/OFF thermostat)	R3T	refrigerant liquid side thermistor
A20P	* WLAN module	R4T	inlet water thermistor
B2L	flow sensor	R5T, R8T	domestic hot water thermistor
B1PR	refrigerant pressure sensor	R6T	* external indoor or outdoor ambient thermistor
B1PW	water pressure sensor	S1S	# preferential kWh rate PS contact
CN* (A4P)	* connector	S2S	# electrical meter pulse input 1
DS1 (A8P)	* dipswitch	S3S	# electrical meter pulse input 2
E1H	backup heater element (1 kW)	S4S	# smartgrid feed-in
E2H	backup heater element (2 kW)	S6S-S9S	* digital power limitation inputs
E*P (A9P)	indication LED	S10S-S11S	# low voltage smartgrid contact
F1B	# overcurrent fuse backup heater	SS1 (A4P)	* selector switch
F1T	thermal fuse backup heater	SW1~2 (A12P)	turn buttons
F1U, F2U (A4P)	* fuse 5 A 250 V for digital I/O PCB	SW3~5 (A12P)	push button
FU1 (A1P)	fuse T 5 A 250 V for PCB	TR1	power supply transformer
K1A, K2A	* high voltage smartgrid relay	X6M	# BUH power supply terminal strip
K1M, K2M	contactor backup heater	X10M	* smartgrid power supply terminal strip
K5M	safety contactor BUH	X*, X*A, X*H*, X*Y	connector
K*R(A1P-A4P)	relay on PCB	X*M	terminal strip
M1P	main supply pump		
M2P	# domestic hot water pump		
M2S	# 2 way valve for cooling mode		
M3S	3 way valve for space heating / domestic hot water		
P1M	MMI display		
PC (A15P)	* power circuit		
PHC1 (A4P)	* optocoupler input circuit		

\* : optional  
# : field supply

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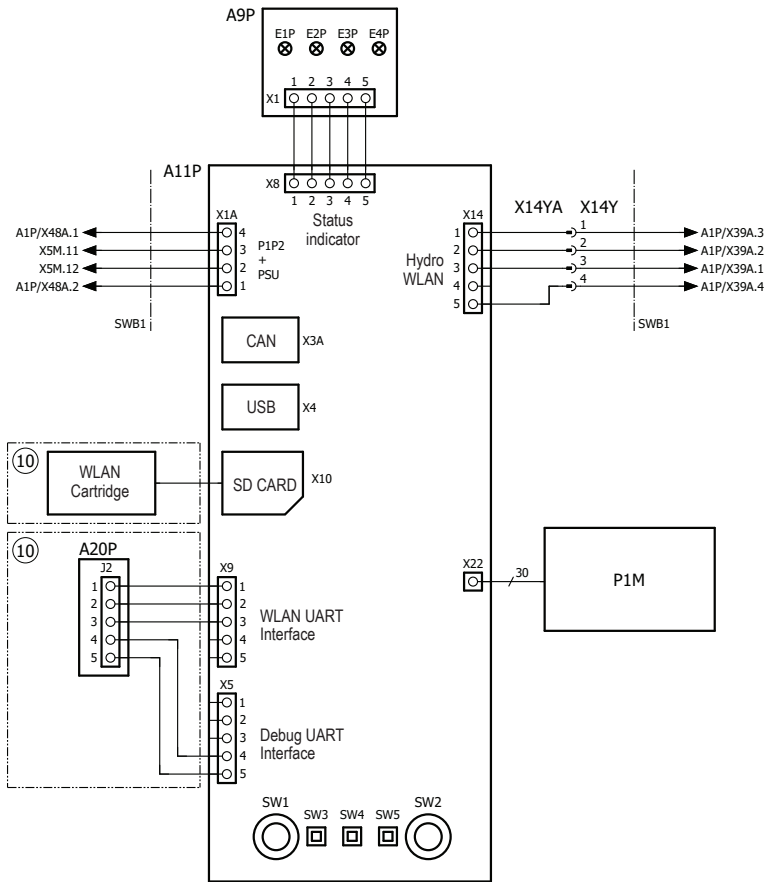




# 8 Wiring diagrams

## 8 - 2 Control Circuit

EHVH-E6V  
 EHVH-E9W  
 EHVX-E3V  
 EHVX-E6V(G)  
 EHVX-E9W



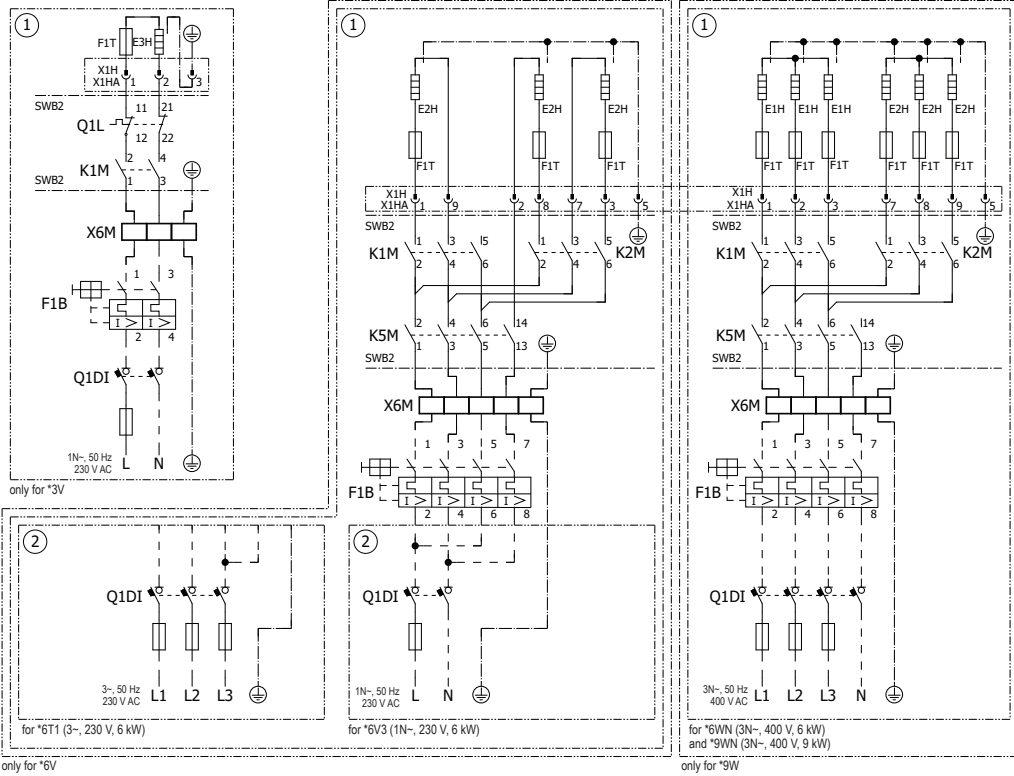
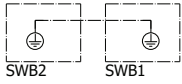
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# 8 Wiring diagrams

## 8 - 3 Power Supply, Back-up Heater

8

EHVH-E6V  
EHVH-E9W  
EHVX-E3V  
EHVX-E6V(G)  
EHVX-E9W



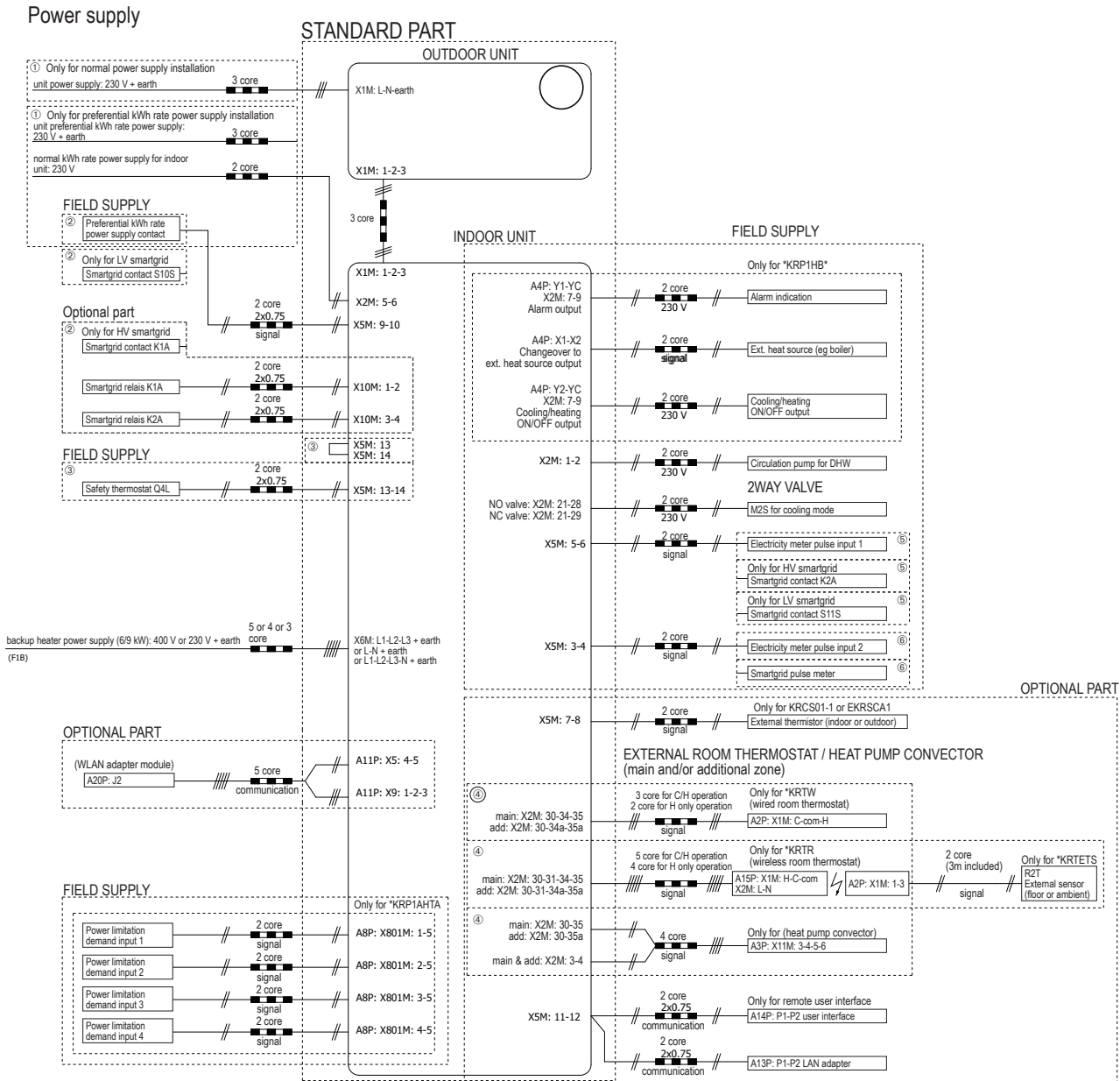
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# 9 External connection diagrams

## 9 - 1 External Connection Diagrams

**EHVH-E6V**  
**EHVH-E9W**  
**EHVX-E3V**  
**EHVX-E6V(G)**  
**EHVX-E9W**

Electrical connection diagram Altherma BML FS - E-series



**NOTE**

- In case of signal cable: keep minimum distance to power cables > 5 cm
- For more details please check unit wiring

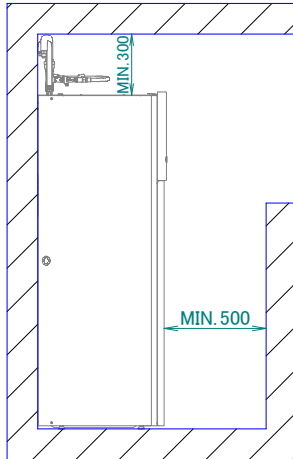
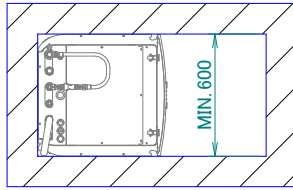
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# 10 Installation

## 10 - 1 Installation Method

10

EHVH-E6V  
EHVH-E9W  
EHVX-E3V  
EHVX-E6V(G)  
EHVX-E9W



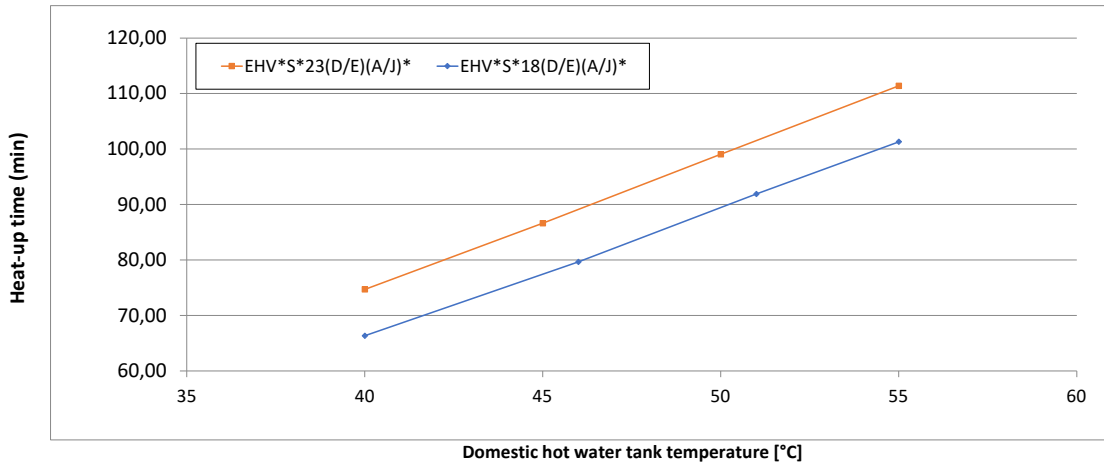
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# 11 Operation range

## 11 - 1 Operation Range

EHVX-E3V  
EHV(H-X-Z)-E6V  
EHV(H-X-Z)-E9W  
EHVX-E6VG

### Heat-up times



Heat-up time domestic hot water tank until 45°C	
EHV*04S*18(D/E)(A/J)*	·79· min.
EHV*08S*23(D/E)(A/J)*	·87· min.

### Notes

1. Time the indoor unit (**heat pump only operation**) requires to heat up the domestic hot water tank from 10°C to the indicated temperature.  
See the operation range for maximum domestic hot water tank temperature during heat pump only operation.

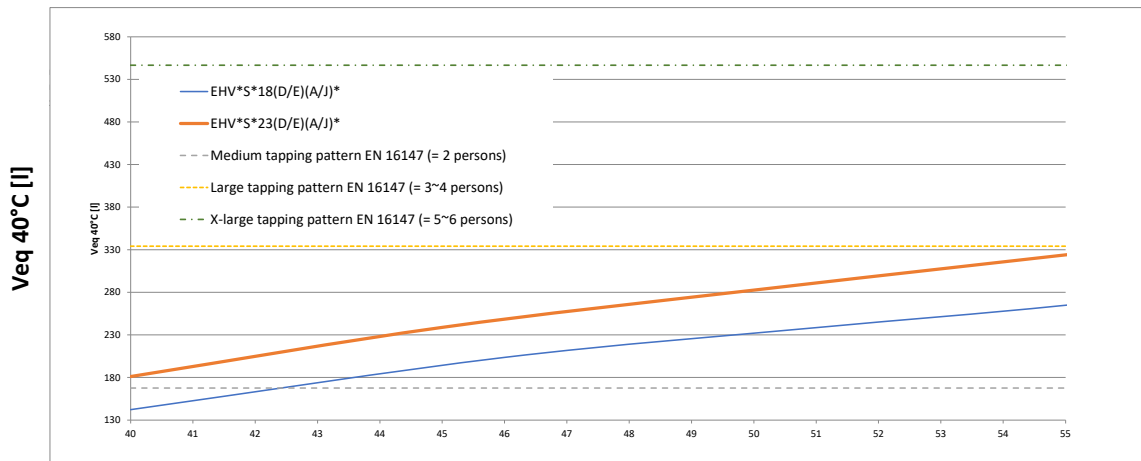
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EHVX-E3V  
EHV(H-X-Z)-E6V  
EHV(H-X-Z)-E9W  
EHVX-E6VG

### Selection guide for the domestic hot water tank volume

#### (1)

Veq 40°C = the amount of water with a temperature of 40°C that can be tapped when the domestic hot water tank is heated to a certain temperature, and the temperature of the cold inlet water is 10°C.



If a higher daily Veq 40°C is required, then additional heat-up cycles are required within 24 hours.

See the operation manual for more information.

### Notes

- (1) According to EN16147.

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# 12 Hydraulic performance

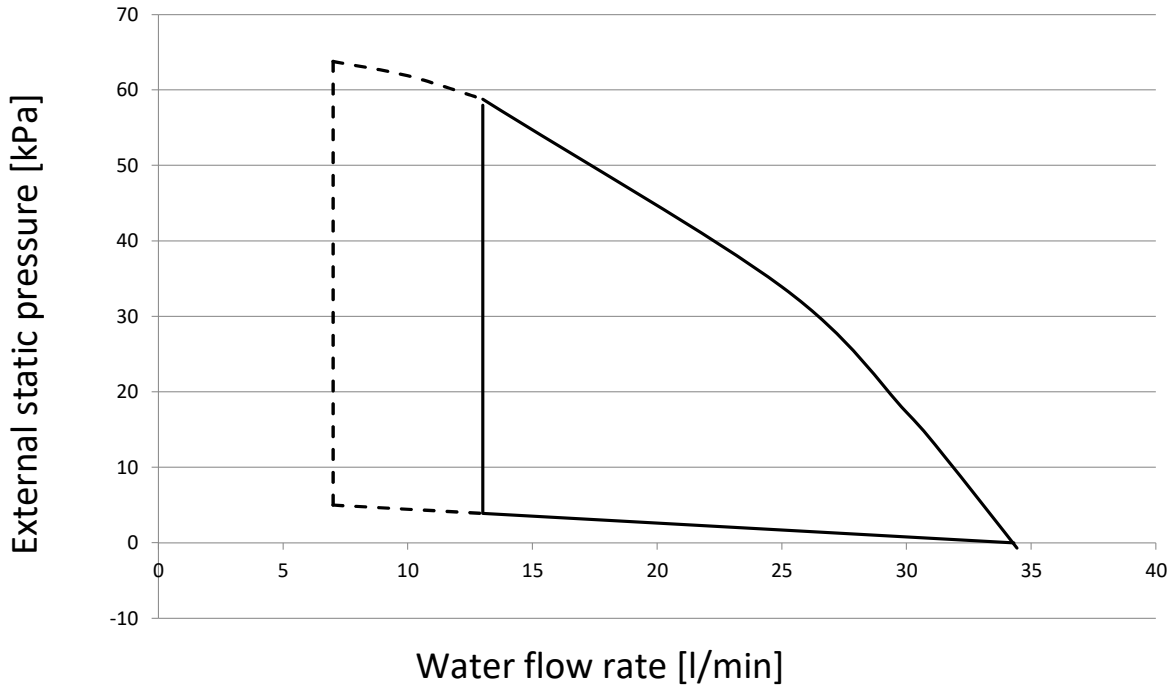
## 12 - 1 Static Pressure Drop Unit

12

EHVH-E6V  
 EHVH-E9W  
 EHVX-E3V  
 EHVX-E6V(G)  
 EHVX-E9W

**EHV(H/X)(04/08)\*(D/E)(A/J)\***

Operation area



Operation area is extended to lower flow rates only in case the unit operates with heat pump only.  
 (Not in startup, no BUH operation, no defrost operation.)

See dashed lines

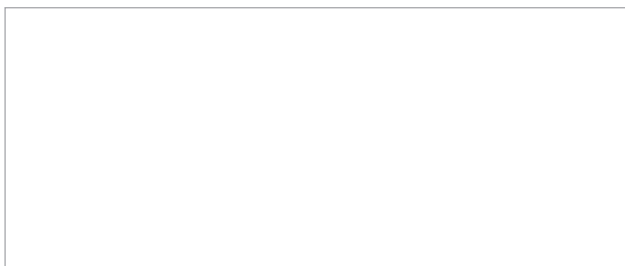
Notes

<sup>1</sup> Selecting a flow outside the operating area can damage the unit or cause the unit to malfunction.

See also the minimum and maximum allowed water flow range in the technical specifications.

<sup>2</sup> Water quality must be according to EU directive 98/83 EC.

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