



# Air Conditioning Technical Data

Low temperature hydrobox for VRV



EEDEN15-204

HXY-A8



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# 1 Features

## For high efficiency space heating and cooling

- Air to water connection to VRV for applications such as underfloor, air handling units, low temperature radiators, ...
- Leaving water temperature range from 5°C to 45°C without electric heater
- Super wide operating range for hot/cold water production from -20 to +43°C ambient outdoor temperature
- Saves time on system design as all water-side components are fully integrated with direct control over leaving water temperature
- Space saving contemporary wall hung design
- No gas connection or oil tank needed
- Connectable to VRV IV heat pump and heat recovery

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## 2 Specifications

2-1 Technical Specifications				HXY080A8	HXY125A8	
Cooling capacity	Nom.		kW	8.0 (1)	12.5 (1)	
Heating capacity	Nom.		kW	9.00 (2)	14.00 (2)	
Dimensions	Unit	Height	mm	890		
		Width	mm	480		
		Depth	mm	344		
	Packed unit	Height	mm	415		
		Width	mm	650		
		Depth	mm	1,016		
Weight	Unit		kg	44		
	Packed unit		kg	47		
Packing	Material			Carton / EPS / PP (Straps)		
	Weight		kg	2.8		
Casing	Colour			White		
	Material			Precoated sheet metal		
Pump	Type			DC motor		
	Nr of speeds			Inverter controlled		
	Nominal ESP unit	Heating	kPa	85.0 (2)	65.0 (2)	
		Cooling	kPa	88.0 (1)	73.0 (1)	
	Power input		W	110	135	
Expansion vessel	Volume		l	10		
	Max. water pressure		bar	3		
	Pre pressure		bar	1		
Operation range	Heating	Ambient	Min.	°C	-20	
			Max.	°C	24	
		Water side	Min.	°C	25	
			Max.	°C	45	
	Cooling	Ambient	Min.	°CDB	10	
			Max.	°CDB	43	
		Water side	Min.	°C	5	
			Max.	°C	20	
Refrigerant	Type			R-410A		
	GWP			2,087.5		
Refrigerant circuit	Gas side diameter		mm	15.9		
	Liquid side diameter		mm	9.5		
Water circuit	Piping connections diameter		inch	G 1"1/4 (female)		
	Safety valve		bar	3		
	Shut off valve			Yes		
	flowswitch			yes		
	Air purge valve			Yes		
Water side Heat exchanger	Type			Brazed plate		
	Quantity			1		
	Water flow rate	Min.	l/min	15.0 (3)		
		Heating	Nom. l/min	25.8 (2)	40.1 (2)	
		Cooling	Nom. l/min	22.9 (1)	35.8 (1)	
Insulation material			Foamed synthetic elastomer			
Water filter	Diameter perforations		mm	1.0		
	Material			copper - brass - stainless steel		
PED	Category			Art3§3		
2-2 Electrical Specifications				HXY080A8	HXY125A8	
Power supply	Phase			1~		
	Frequency		Hz	50		
	Voltage		V	220-240		
	Voltage range	Min.	%	-10		
		Max.	%	10		
Current	Recommended fuses		A	6-16		

## 2 Specifications

2-2 Electrical Specifications			HXY080A8	HXY125A8
Wiring connections	For power supply	Quantity	3G	
		Type of wires	Wire type/size has to be selected according to applicable legislation	
	For connection with user interface	Quantity	2	

### 2

#### Notes

- (1) Tamb 35°C - LWE 18°C (DT=5°C)
- (2) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (3) Flow switch setting

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.

Contains fluorinated greenhouse gases

### 3 Options

#### 3 - 1 Options

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Option	Option kit	HXY080A*V1B	HXY125A*V1B
Drain pan	EKHBPCA2	0	0
Demand PCB	EKRP1AHTA	0	0
Remote user interface	EKRUAHTB	0	0
(1) Backup heater	EKBUHAA6(W1/V3)	0	0
(1) Wired room thermostat	EKRTWA	0	0
(1) Wireless room thermostat	EKRTR1	0	0
(2) External sensor room thermostat	EKRTETS	0	0

Notes

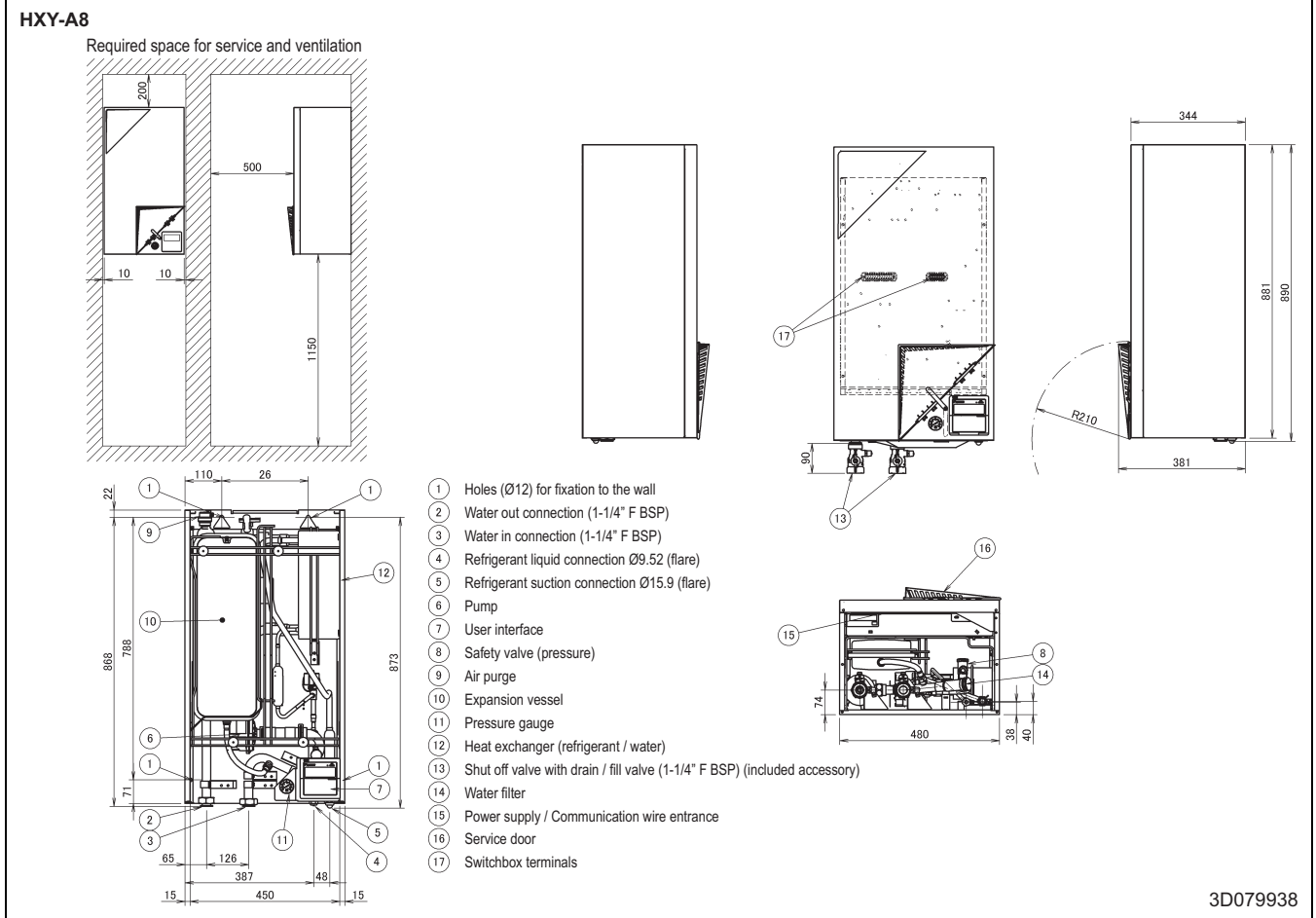
- (1) Requires demand PCB EKRP1AHTA
- (2) Can only be used in combination with wireless room thermostat EKRTR1.

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# 4 Dimensional drawings

## 4 - 1 Dimensional Drawings

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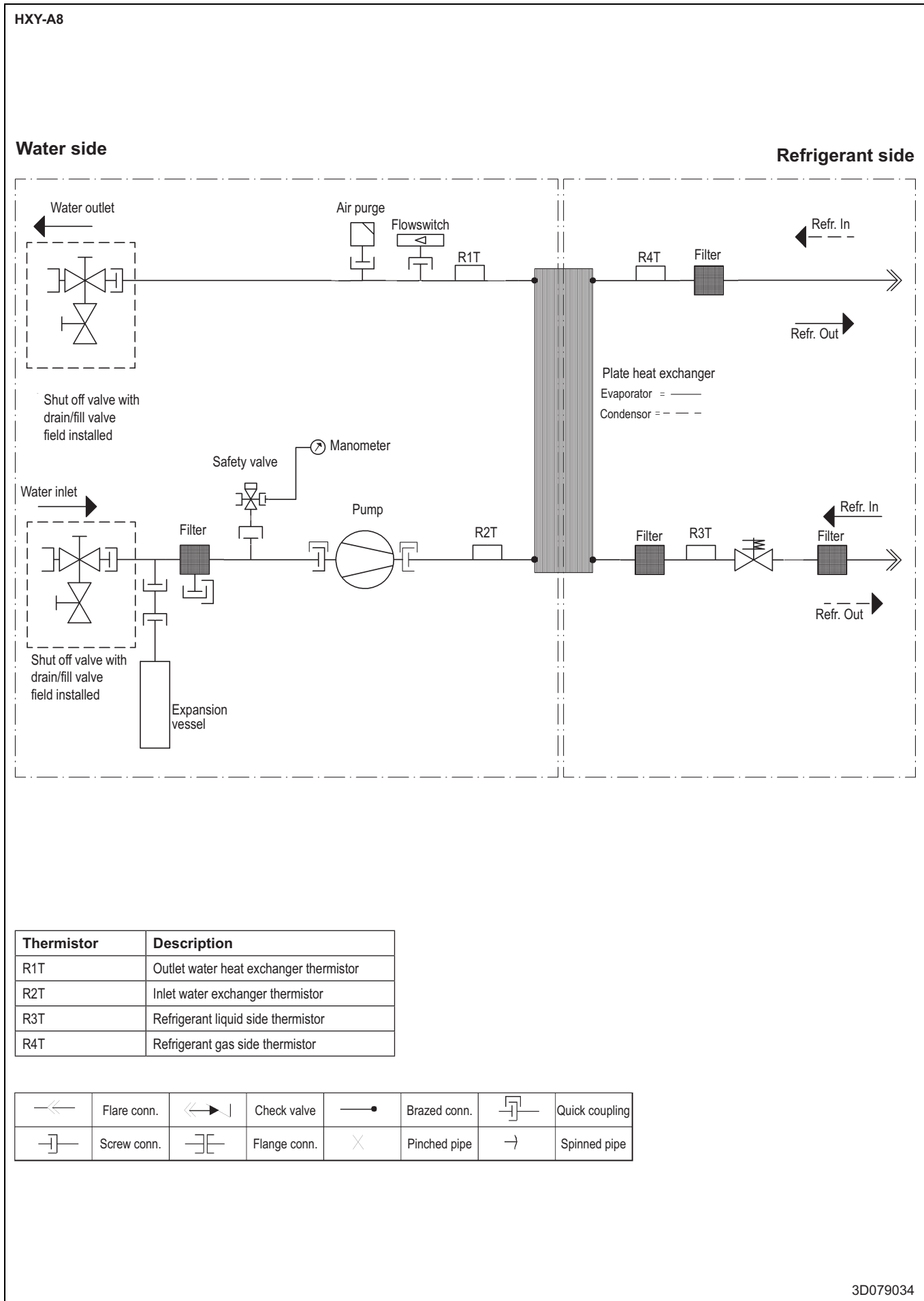


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# 5 Piping diagrams

## 5 - 1 Piping Diagrams



# 6 Wiring diagrams

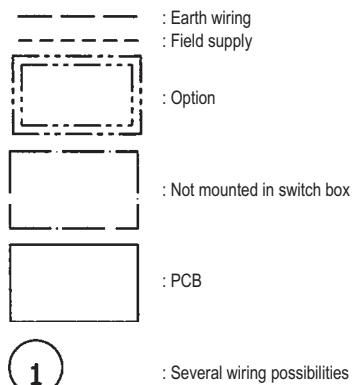
## 6 - 1 Wiring Diagrams - Single Phase

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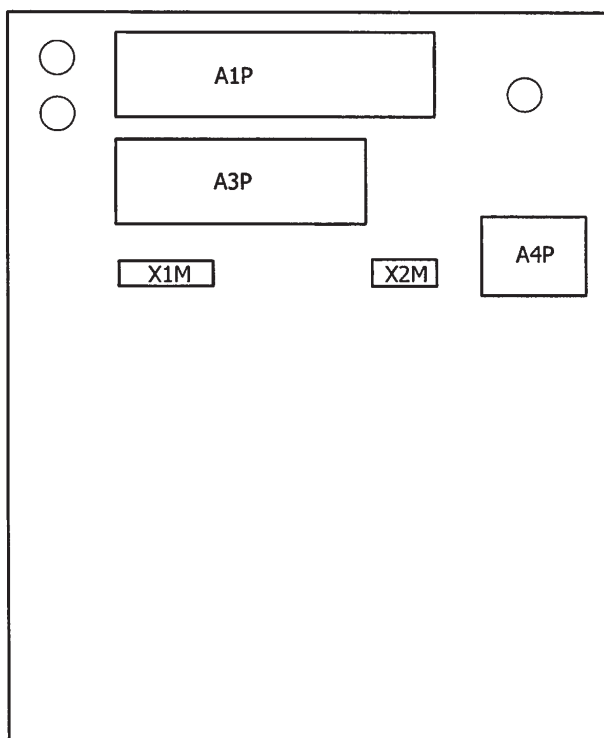
### NOTES TO GO THROUGH BEFORE STARTING THE UNIT:

X1M: Field wiring terminal for high voltage  
X2M: Field wiring terminal for low voltage



- User installed options:
- EKRUHT\* = Remote user interface
  - EKRP1AHT\* = Demand PCB
  - EKBUH\* = External back-up heater
  - EKRTW\* = Room thermostat (wired)
  - EKRTTR\* = Room thermostat (wireless)
  - EKRTETS = External temperature sensor for EKRTTR\*

### SWITCHBOX LAYOUT:



### LEGEND:

\*: Field installed option  
#: Field supplied

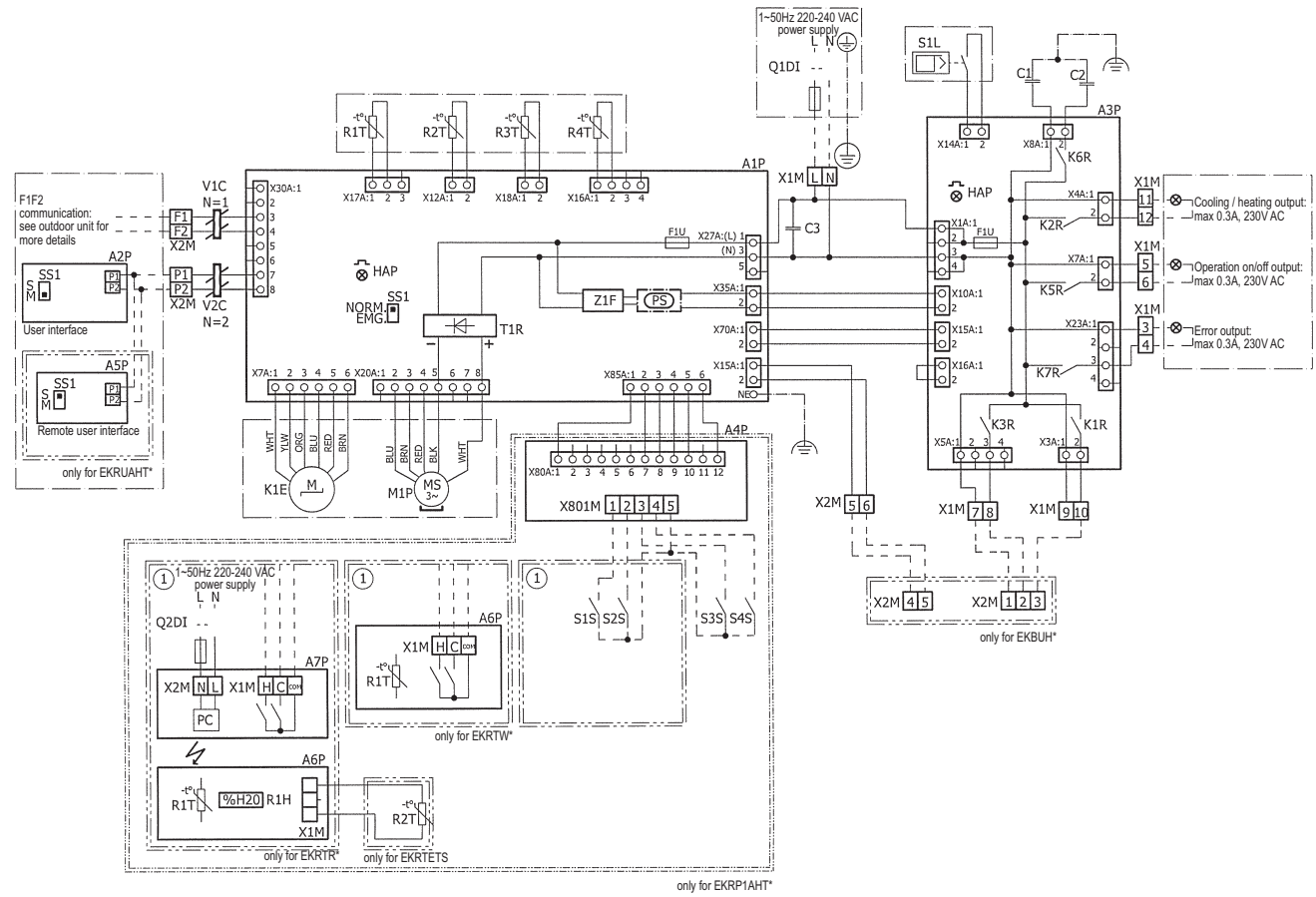
Part number	Description
A1P	Main PCB (master)
A2P	User interface PCB
A3P	Control PCB
A4P	* Demand PCB
A5P	* Remote user interface PCB
A6P	* Thermostat PCB
A7P	* Receiver PCB
C1-C3	Filter capacitor
F1U (A*P)	Fuse (T, 3.15A, 250V)
HAP (A*P)	PCB LED
K1E	Electronic expansion valve
K*R (A3P)	PCB relay
M1P	Pump
PC (A7P)	* Power circuit
PS (A1P)	Switching power supply
Q*DI	# Earth leakage circuit breaker
R1H (A6P)	* Humidity sensor
R1T	Leaving water thermistor
R1T (A6P)	* Ambient sensor
R2T	Returning water thermistor
R2T	* External sensor (floor or ambient)
R3T	Refrigerant liquid thermistor
R4T	Refrigerant gas thermistor
S1L	Flow switch
S1S	# Thermostat input 1
S2S	# Thermostat input 2
S3S	# Operation ON input
S4S	# Operation OFF input
SS1 (A1P)	Selector switch (emergency)
SS1 (A2P)	Selector switch (main/sub)
SS1 (A5P)	* Selector switch (main/sub)
T1R	Diode bridge
V1C - V2C	Ferrite core noise filter
X1M - X2M	Terminal strip
X*A (A*P)	PCB corrector
X*M (A*P)	* PCB terminal strip
Z1F (A1P)	Noise filter

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# 6 Wiring diagrams

## 6 - 1 Wiring Diagrams - Single Phase

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- ⊗ Cooling / heating output: max 0.3A, 230V AC
- ⊗ Operation on/off output: max 0.3A, 230V AC
- ⊗ Error output: max 0.3A, 230V AC

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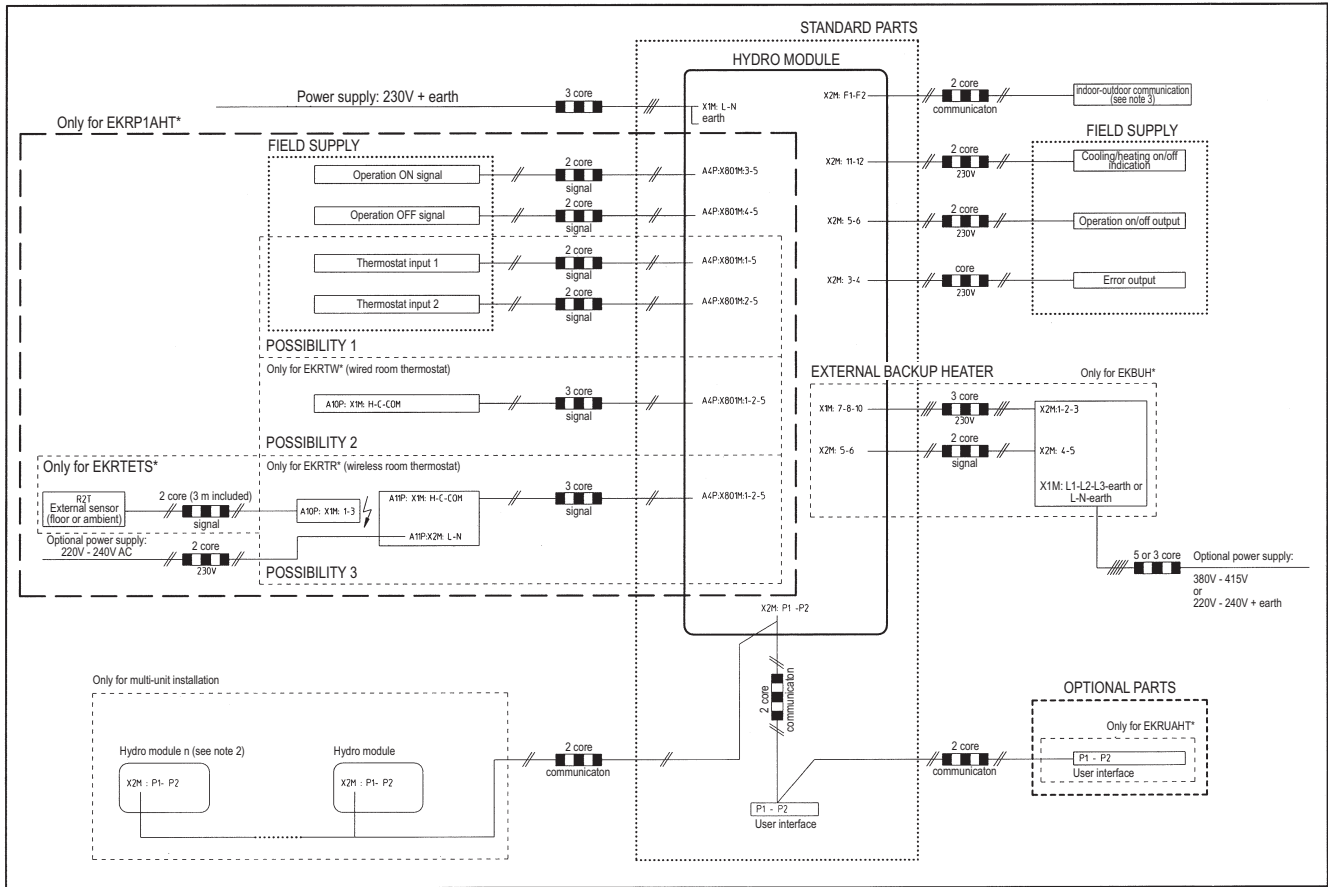
# 7 External connection diagrams

## 7 - 1 External Connection Diagrams

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Electrical connection diagram

For more details please check unit wiring diagram



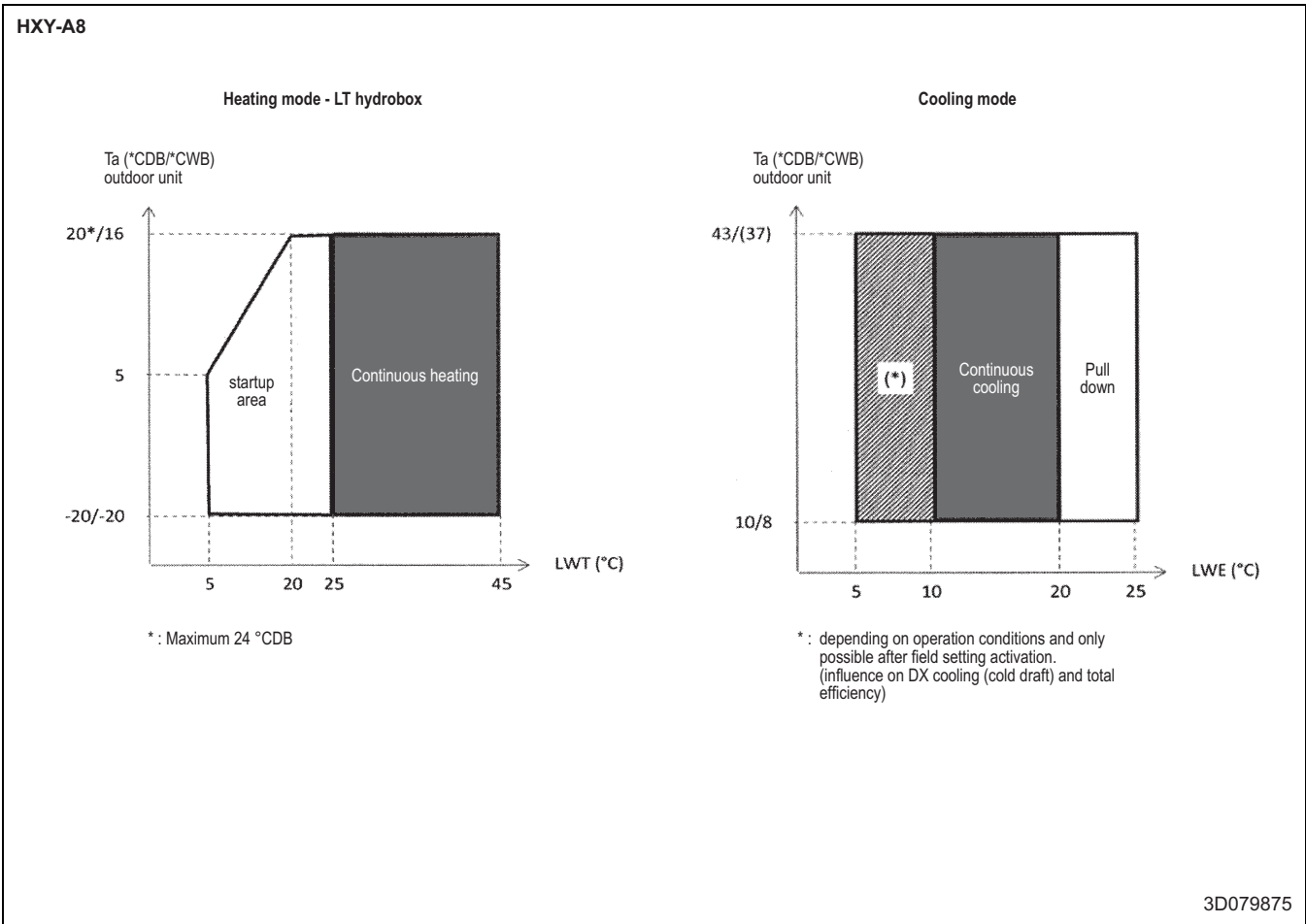
**NOTES**

1. In case of signal cable keep minimum distance to power cables > 5 cm.
2. Max. of 16 hydromodules can be connected.
3. For indoor-outdoor communication: refer to information of the outdoor unit for details.

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# 8 Operation range

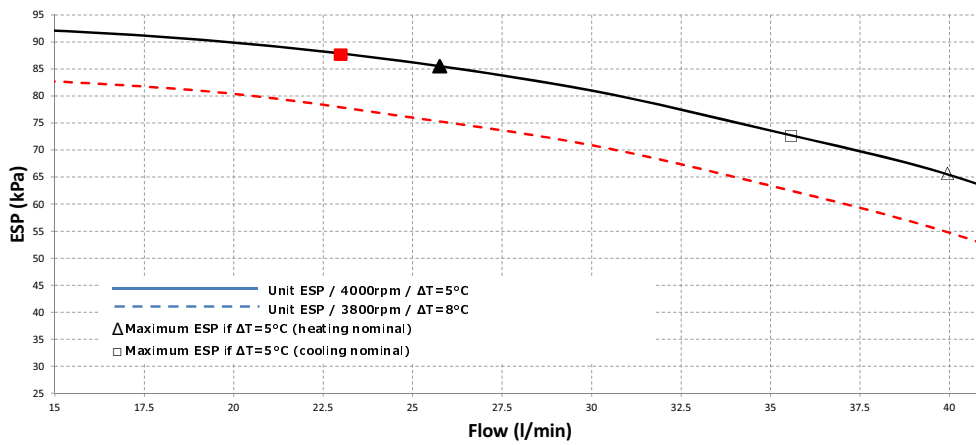
## 8 - 1 Operation Range



# 9 Hydraulic performance

## 9 - 1 Static Pressure Drop Unit

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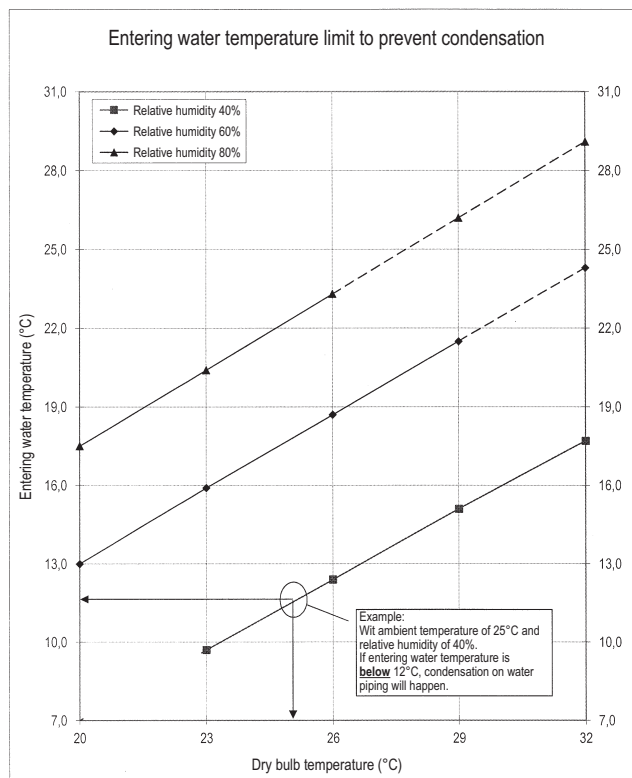
ESP: External Static Pressure  
Flow: Water flow through the unit

**Notes**

1. 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.
2. Water quality must be according to EU directive 98/83 EC.

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**NOTES**

1. Refer to psychometric chart for more information.
2. If condensation is expected, installation of EKHBDFCA2 - drainpan kit must be considered.

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