

Air Conditioning
Technical Data

HXHD-A8



> HXHD125A8V1B
> HXHD200A8Y1B

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HXHD-A8

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1 Features

For efficient hot water production and space heating

- Air to water connection to VRV for applications such as bathrooms, sinks, underfloor heating, radiators and air handling units
- Leaving water temperature range from 25 to 80°C without electric heater
- "Free" heating and hot water production provided by transferring heat from areas requiring cooling to areas requiring heating or hot water
- Uses heat pump technology to produce hot water efficiently, providing up to 17% savings compared to a gas boiler
- Possibility to connect thermal solar collectors to the domestic hot water tank
- Super wide operating range for hot 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
- Various control possibilities with weather dependant set point or thermostat control
- The indoor unit and domestic hot water tank can be stacked to save space, or installed next to each other, if only limited height is available
- No gas connection or oil tank needed
- Connectable to VRV IV heat recovery



2 Specifications

2-1 Technical Specifications					HXHD125A		HXHD200A	
Heating capacity	Nom.			kW	14.0 (1)		22.4 (1)	
Casing	Colour				Metallic grey			
	Material				Precoated sheet metal			
Dimensions	Unit	Height		mm	705			
		Width		mm	600			
		Depth		mm	695			
	Packed unit	Height		mm	860			
		Width		mm	680			
		Depth		mm	800			
Weight	Unit			kg	92.0		147	
	Packed unit			kg	103		156	
Packing	Material				EPS / Cardboard / MDF / Wood (pallet) / Metal			
	Weight			kg	8.75			
Pump	Type				DC motor			
	Nr of speeds				Inverter controlled			
	Nominal ESP unit	Heating	kPa		46.6 (2)		68.8 (3)	
Expansion vessel	Volume			l	7		12	
	Max. water pressure			bar	3			
	Pre pressure			bar	1			
Operation range	Heating	Ambien t	Min.	°C	-20.0			
			Max.	°C	20 / 20 (4)			
		Water side	Min.	°C	25			
			Max.	°C	80.0			
	Domestic hot water	Ambien t	Min.	°CDB	-20.0			
			Max.	°CDB	43.0			
		Water side	Min.	°C	45			
			Max.	°C	75			
Refrigerant side heat exchanger	Type				Plate heat exchanger			
	Quantity				1			
	Plates	Quantity			66		60	
	Material				AISI 316		AISI 304	
	Insulation material				Felt type			
Water side Heat exchanger	Water flow rate	Min.		l/min	5.00		15.0	
		Heating	Nom.	l/min	40.1 (2)		50.0 (3)	
	Heating	Type			Plate heat exchanger			
		Quantity			1.00			
		Plates	Quantity		72.0		48.0	
		Material			AISI 316			
		Water volume		l	2.20		2.50	
		Insulation material			Felt type			
Cascade compressor	Quantity				1			
	Motor	Type			Hermetically sealed swing compressor		Hermetically sealed scroll compressor	
		Starting method			Direct on line			
Refrigerant	Type				R-134a			
	Charge			kg	2.00		2.60	
Refrigerant circuit	Gas side diameter			mm	12.7		15.9	
	Liquid side diameter			mm	9.52			
	High pressure side	Design pressure		bar	38			
Refrigerant oil	Charged volume			l	0.750		1.50	
	Type				FVC50K		Daphne FVC68D	
Sound power level	Nom.			dBA	55.0 (5)		60.0 (5)	
Sound pressure level	Nom.			dBA	42.0 (5) / 43.0 (6)		46.0 (5) / 46.0 (6)	
	Night quiet mode	Level 1		dBA	38 (5)		45 (5)	
Water filter	Diameter perforations			mm	1.00			
	Material				Brass			

2 Specifications

2-1 Technical Specifications					HXHD125A		HXHD200A	
Water circuit	Piping connections diameter		inch		G 1" (female)			
	Piping		inch		1"			
	Safety valve		bar		3			
	Manometer				Yes			
	Drain valve / fill valve				Yes			
	Shut off valve				Yes			
	Air purge valve				Yes			
	Heating water system	Water volume	Max.	l	200		400	
Min.			l	20				
Installation place					Indoor			
2-2 Electrical Specifications					HXHD125A		HXHD200A	
Power supply	Phase				1~		3~	
	Frequency			Hz	50			
	Voltage			V	220-240		380-415	
	Voltage range	Min.		%	-10			
		Max.		%	6			
Current	Zmax	Text		Ω	0.46 / (7) / See note 8 / See note 9		0.32 / (7) / See note 8 / See note 9	
	Minimum Ssc value			kVa	1459 / (10)		-	
	Maximum running current	Heating		A	16.5		12.5	
	Recommended fuses			A	20		16	
Multi tenant	Power supply	Voltage		V	24.0		-	
		Voltage range	Min.	%	-20.0		-	
			Max.	%	20.0		-	
	Current	Maximum running current		A	1.00		-	
		Recommended fuses		A	3.15		-	
Wiring connections- For power supply	Quantity				2G		4G	
	Type of wires				Select diameter and type according to national and local regulations			
Wiring connections- Benefit kWh rate power supply installations	Quantity				2G+2G		4G+2G	
	Type of wires				Select diameter and type according to national and local regulations			
Wiring connections- For power supply multi tenant	Quantity				2G		-	
	Remark				Select diameter and type according to national and local regulations		-	
Wiring connections- For connection with outdoor unit	Quantity				2			
	Remark				F1 + F2			
Power supply intake					Both indoor and outdoor unit			

Notes

(1) EW 40°C; LW 45°C; Dt 5°C; ambient conditions: 7°CDB/6°CWB

(2) For water Dt 5°C

(3) For water Dt 10°C

(4) Field setting

(5) Sound levels are measured at: EW 55°C; LW 65°C

(6) Sound levels are measured at: EW 70°C; LW 80°C

(7) 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 (system impedance) ≤ Zmax

(8) 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 ≤ 75A.

(9) Zsys: system impedance

(10) Short-circuit power

3 Options

3 - 1 Options

HXHD-A8

1. Options

Indoor unit

Reference	Description	Indoor unit
		HXHD125A*V1B
EKHTS200[AC]	Stainless domestic hot water tank 200l	0
EKHTS260[AC]	Stainless domestic hot water tank 260l	0
EKHTSU200[AC]	Stainless domestic hot water tank 200l (UK)	0
EKHTSU260[AC]	Stainless domestic hot water tank 260l (UK)	0
EKHWP300B	PP 300l tank	0
EKHWP500B	PP 500l tank	0
EKRP1HBAA	Digital I/O PCB	0
EKRP1AHTA	(2) Demand PCB	0
EKRUAHTB	(3) Remote user interface	0
EKRTHA	(1) Wired room thermostat	0
EKRTR1	(1) Wireless room thermostat	0
EKRTEHS	(1) Remote sensor for room thermostat	0

2. Options

Domestic hot water tank

Reference	Description	Domestic hot water tank			
		EKHTS		EKHTSU	
		200A	260A	200A	260A
EKUHWHB	Option kit for the UK EKHTSU200-260A	-	-	0	0
(4) EKFMHBT	Option kit for standalone tank	0	0	0	0

Notes

- (1) Requires demand PCB EKRP1AHTA
- (2) To be able to connect the room thermostat kit, its installation is required.
- (3) The kit contains the same user interface as is standard delivered with the indoor unit. It can be mounted next to the indoor unit's standard user interface, or on another location.
If you install two user interfaces, designate one as master and the other as slave.
- (4) Only required if the tank is NOT mounted on top of the HXHD unit.

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4 Selection procedure

4 - 1 Selection Procedure

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HXHD-A8

Selection procedure for ·HXHD*· Hydrobox

Definitions of ·HXHD· Hydrobox parameters

Required Hydrobox capacity
Required capacity from outdoor unit for Hydrobox
Correction factor ·f (LWT)·

·HC· [kW]
·HCo· [kW]
·CF· [kW]
 $HCo = HC \cdot CF$

Cascade step power input
Outdoor unit power input (related to Hydrobox)

·P· [kW]
·Plo· [kW]

Total Hydrobox power input

$Plo = f(HCo)$
·Pl· [kW]
 $PI = Plo + P$

Example

→ Outdoor unit: ·VRV4· heat recovery ·16HP· with connection ratio = ·100·%; design ambient temperature = ·-7·°C.
38 Outdoor unit capacity at design point [kW] → Find this value in the applicable capacity table of ·VRV4· heat recovery.
12 Outdoor unit power input at design point [kW] → Find this value in the applicable capacity table of ·VRV4· heat recovery.
→ 14 Selection
→ 12 Result of calculation
→ 0,9 Value from table (see below)
→ 1,8 Value from table (see below)
→ 4 Capacity table of ·VRV4· heat recovery ·16HP· with connection ratio = ·100·%, design ambient temperature = ·-7·°C; proportional to ·HCo· (·12,2/37,5*12,3·).

HXHD125*:

EWT (°C)	30	40	45	55	65
LWT (°C)	35	45	55	65	75
P (kW) (*)	1,50	1,79	1,83	2,33	3,25
CF	0,89	0,87	0,87	0,83	0,77

(*) When the Hydrobox delivers ·14· kW

HXHD200*:

EWT (°C)	30	40	45	55	65
LWT (°C)	35	45	55	65	75
P (kW) (*)	1,86	2,17	2,47	3,56	4,81
CF	0,92	0,90	0,89	0,84	0,79

(*) When the Hydrobox delivers ·22,4· kW

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4 Selection procedure

4 - 1 Selection Procedure

HXHD125A8

I. Definitions

Index definition of HXHD125A8

- 1) Index for selecting the piping and calculating the refrigerant charge and the total connection ratio
→ Index = 125 (see the installation manual and technical specifications drawing 3D097616)
- 2) Index for calculating and selecting the unit capacity
→ Index depends on leaving water temperature ≠ 125 (see below for details)

Selection procedure

- Outdoor unit heating capacity (design point conditions) = HC_o [kW]
- Outdoor unit power input (design point conditions) = PI_o [kW]
- HXHD125A8 capacity calculation index = R
- VRV DX + HXY indoor unit capacity index total = S
- Total indoor unit capacity index = index of connected VRV DX + HXY indoor units + HXHD125A8 capacity calculation index = $S+R = J$
- HXHD125A8 heating capacity (design point conditions) = HC [kW]
- HXHD125A8 power input (design point conditions) = PI [kW]
- HXHD125A8 cascade step power input = P [kW]
- ▶ $HC = HC_o / J * 112$

- ▶ See the heating capacity table of the outdoor unit
- ▶ See the heating capacity table of the outdoor unit
- ▶ To be looked up (see table below)
- ▶ To be looked up (depends on the type of VRV DX indoor unit)
- ▶ To be calculated
- ▶ To be calculated
- ▶ To be calculated
- ▶ To be looked up

Information

▶ $PI = PI_o / J * R + P$

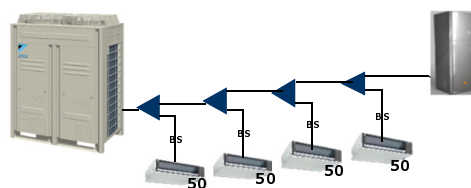
◌ Total power input required to operate the cascade system = fraction of outdoor unit power input + HXHD* cascade step power input

Ila. Cascade step power input and HXHD* capacity calculation index

EWT [°C]	30	40	45	55	65
LWT [°C]	35	45	55	65	75
P [kW]	1.50	1.79	1.83	2.33	3.25
R	103	100	100	96	88

EWT = Entering water temperature

LWT = Leaving water temperature



III. Example

A. Make clear the design point

DX indoor units: 4 * ± 5.5kW at -7°CDB/-7.6°CWB outdoor ambient conditions, and 20°C indoor ambient conditions
 Water heating: ± 12kW at -7°CDB/-7.6°CWB outdoor ambient conditions, and 65°C leaving water temperature
 Required capacity for the building: ± 34kW
 → "50"-type VRV DX indoor units
 → HXHD

Capacity	6.30	Look up the nominal point in the indoor unit capacity table
P [kW]	2.33	See table above [=f(leaving water temperature)]
HC_o [kW]	33.1	Look up in the heating capacity table [=f(T_a indoor; T_a outdoor; HP)] ~ correct with β
PI_o [kW]	9.44	Look up in the heating capacity table [=f(T_a indoor; T_a outdoor; HP)]
		→ Determine the outdoor unit HP class

A1. Calculate the total indoor unit capacity index

4* "50"-type VRV indoor units	:	S	200	S: Depends on the selection of DX indoor units
HXHD125*	:	R	96	R: See table above [=f(leaving water temperature)]
→ $J = R + S$		J	296	J: $\Sigma(S,R)$

A2. HXHD* specifications at the design point

$HC = HC_o / J * 112$	HC [kW]	12.5
$PI = PI_o / J * R + P$	PI [kW]	5.39
Heating capacity left for DX indoor units	[kW]	22.4 (=33,5*200/296)
Heating capacity left per DX indoor unit	[kW]	5.59

B. Check the connection ratio

At least one HXHD*			OK
DX connection ratio: 50% ≤ x ≤ 110%	200/350	57%	OK
HXHD connection ratio: ≤ 100%	125/350	36%	OK
Total connection ratio: 50% ≤ x ≤ 200%	296/350	93%	OK

For more information about the combination restrictions, refer to drawing 3D088013
 For more information about the allowed connection ratios, refer to drawing 3D088012

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5 Combination table

5 - 1 Combination Table

HXHD-A8

5

1. Options Indoor unit

Reference	Description	Indoor unit	
		HXHD125A*	HXHD200A*
EKHTS200[AC]	Stainless domestic hot water tank 200l	0	0
EKHTS260[AC]	Stainless domestic hot water tank 260l	0	0
EKHTSU200[AC]	Stainless domestic hot water tank 200l (UK)	0	0
EKHTSU260[AC]	Stainless domestic hot water tank 260l (UK)	0	0
EKHWP300B	PP 300l tank	0	0
EKHWP500B	PP 500l tank	0	0
EKRPIHBAA	Digital I/O PCB	0	0
EKRPIAHTA	(2) Demand PCB	0	0
EKRUAHTB	(3) Remote user interface	0	0
EKRTRA	(1) Wired room thermostat	0	0
EKRTRI	(1) Wireless room thermostat	0	0
EKRTETS	(4) Remote sensor for room thermostat	0	0

2. Options Domestic hot water tank

Reference	Description	Domestic hot water tank			
		EKHTS		EKHTSU	
		200A	260A	200A	260A
EKUHWHTB	Option kit for the UK EKHTSU200-260A	-	-	0	0
(4) EKFMHTB	Option kit for standalone tank	0	0	0	0

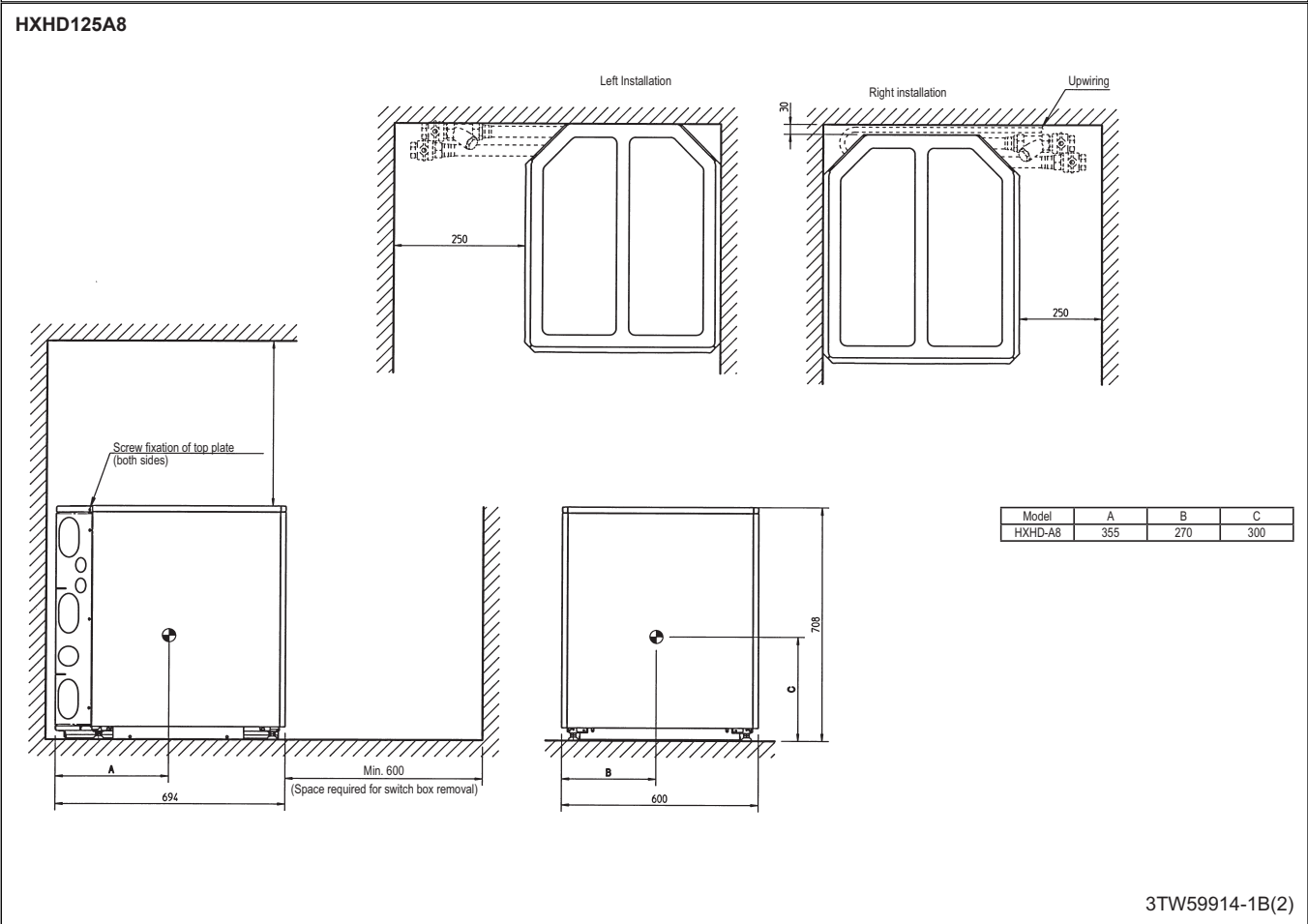
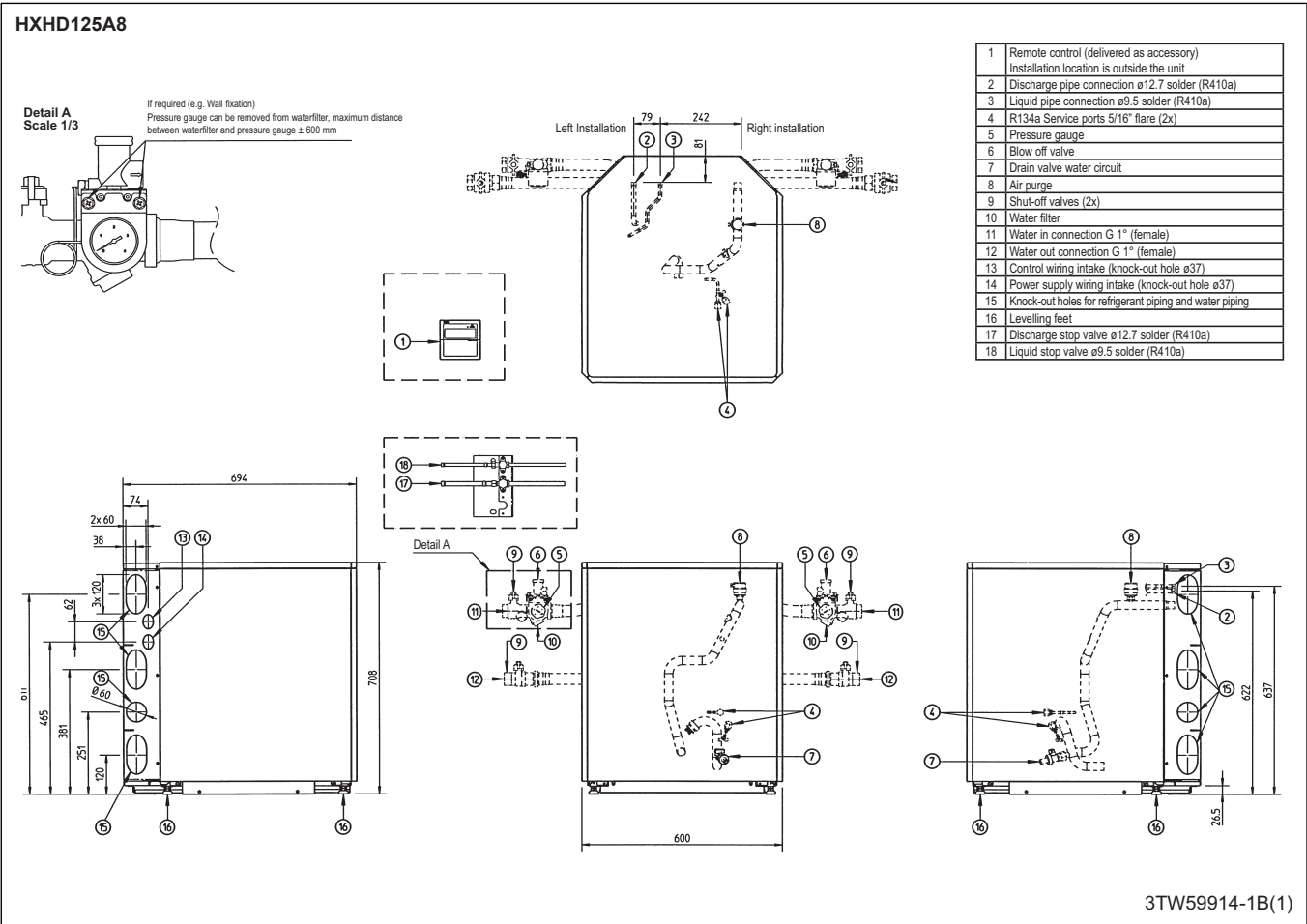
Notes

- (1) Requires demand PCB EKRPIAHTA
- (2) To be able to connect the room thermostat kit, its installation is required.
- (3) The kit contains the same user interface as is standard delivered with the indoor unit. It can be mounted next to the indoor unit's standard user interface, or on another location.
If you install two user interfaces, designate one as master and the other as slave.
- (4) Only required if the tank is NOT mounted on top of the HXHD unit.

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6 Dimensional drawings

6 - 1 Dimensional Drawings



6 - 1 Dimensional Drawings

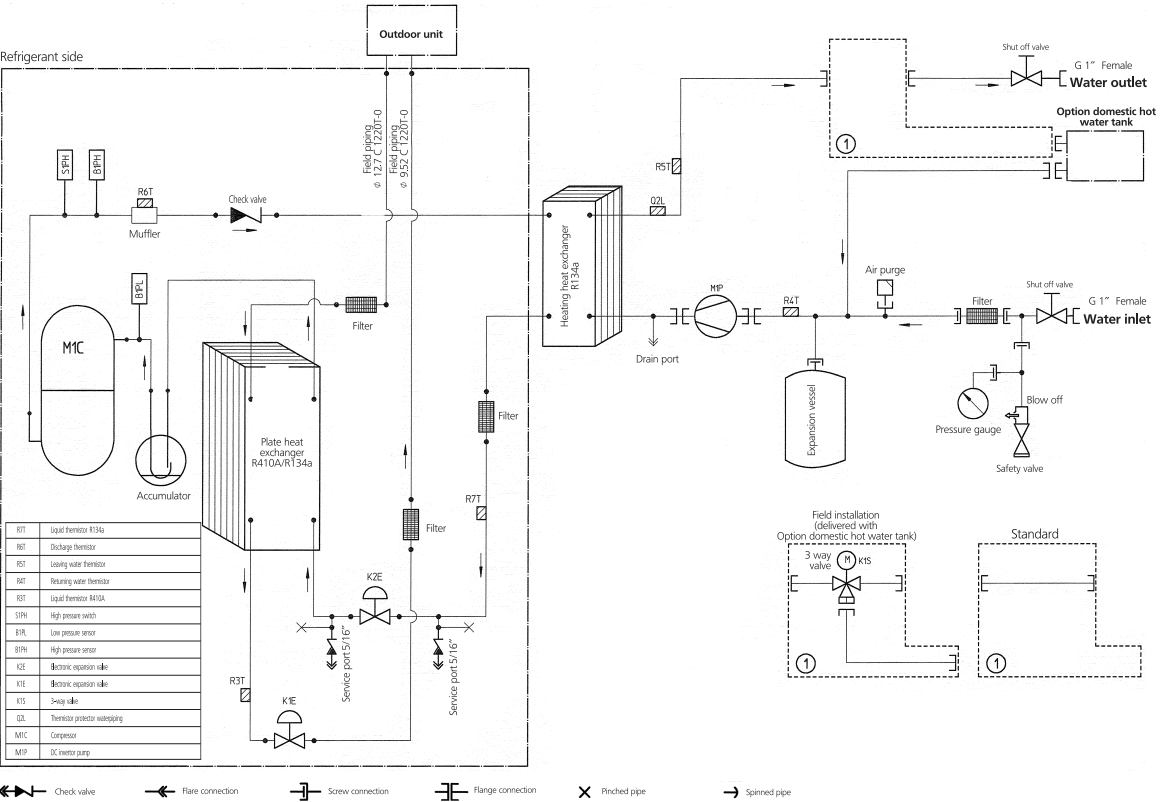
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7 Piping diagrams

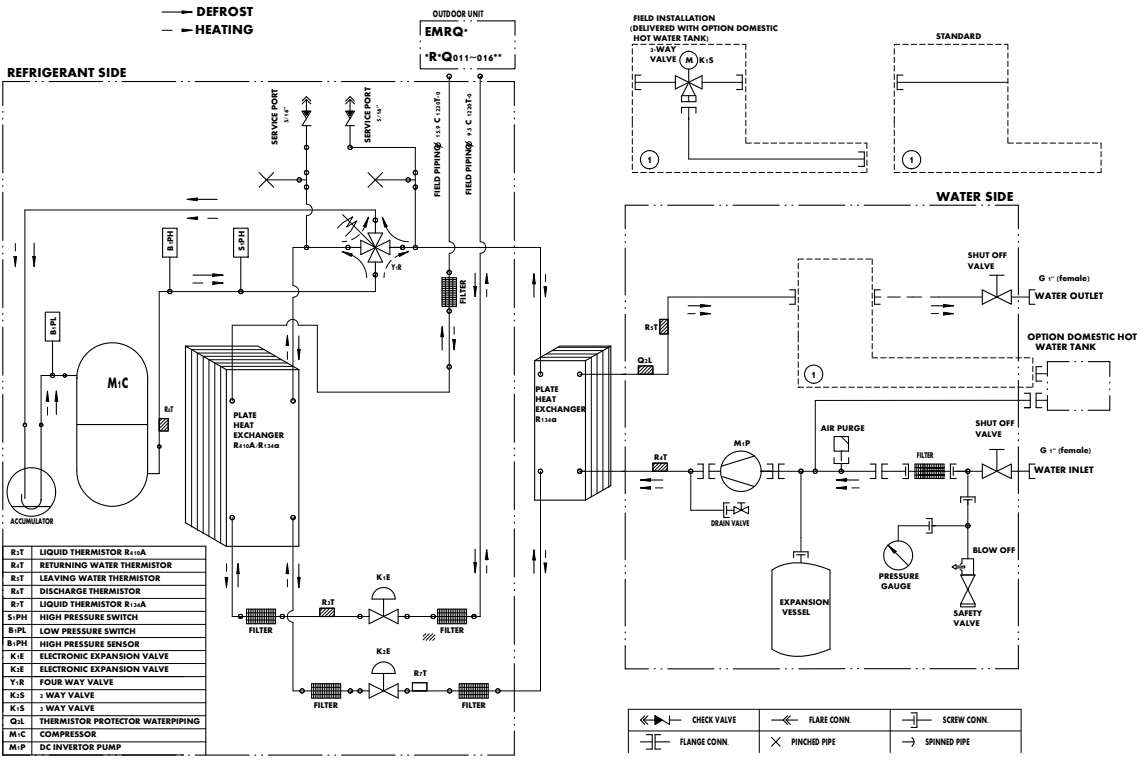
7 - 1 Piping Diagrams

HXHD125A8



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HXHD200A8

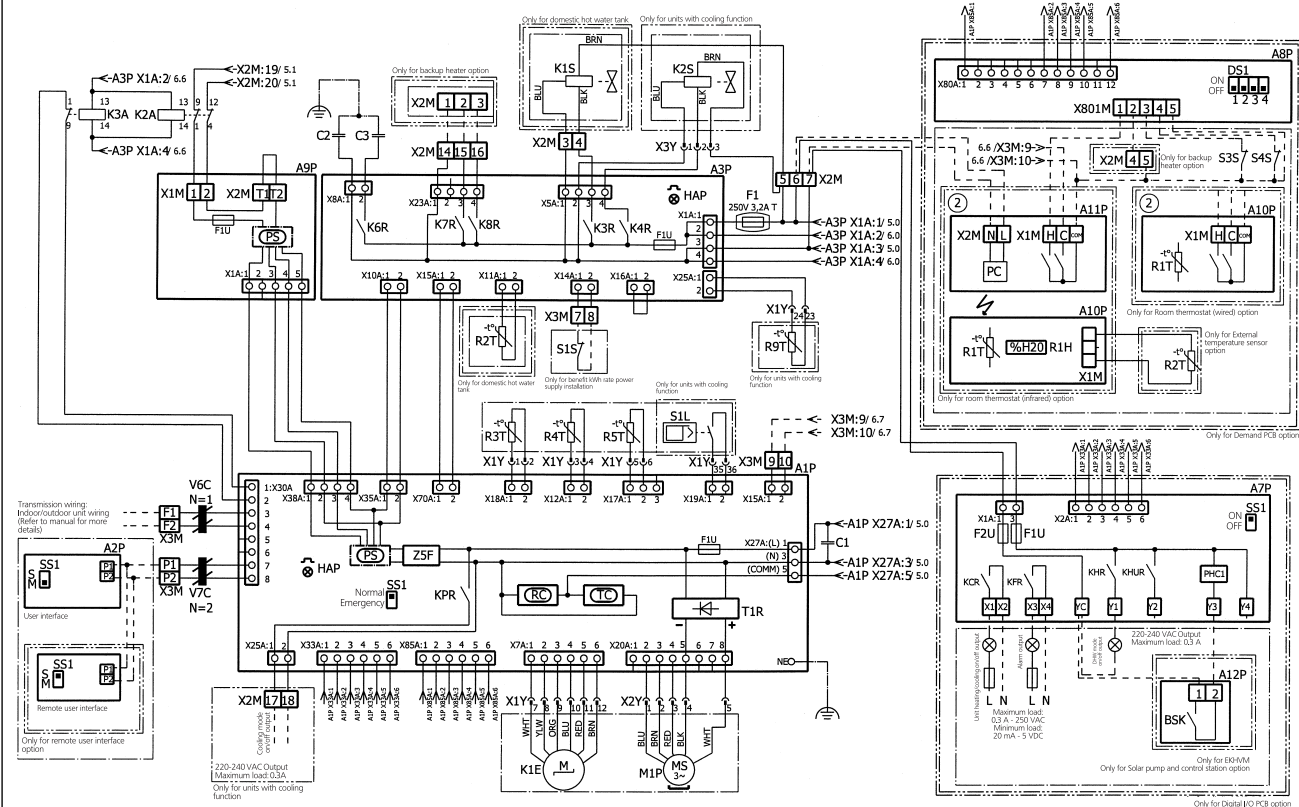


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8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

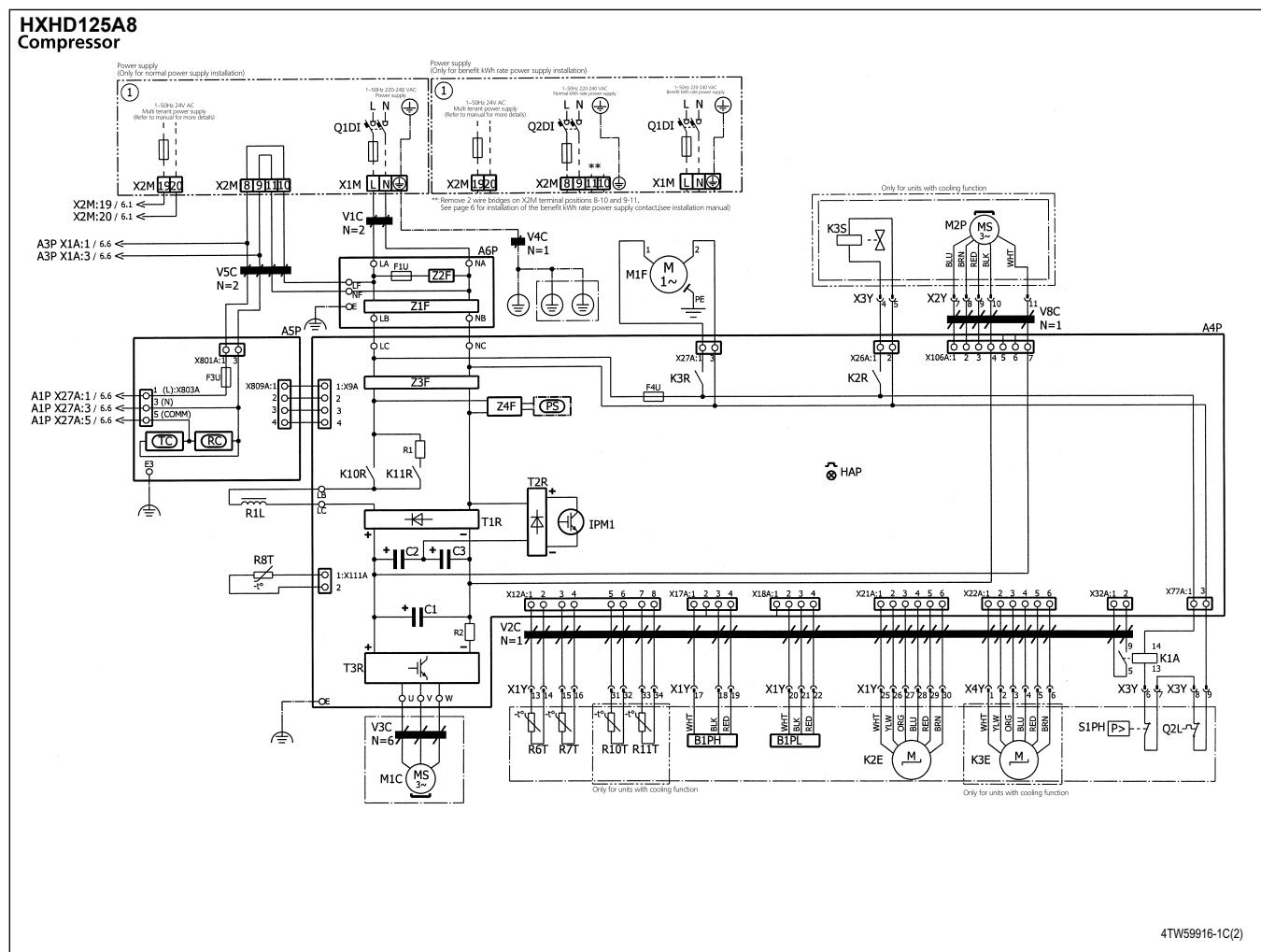
HXHD125A8
Control



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8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase



8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

8

NOTES TO GO THROUGH BEFORE STARTING THE UNIT

X1M : Main terminal
X2M : Field wiring terminal for high voltage
X3M : Field wiring terminal for low voltage

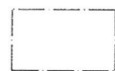
— — — — : Earth wiring
- - - - - : Field supply



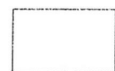
: Option



: Wiring depending on model



: Not mounted in switchbox



: PCB

—**/12.2 : Connection ** continues on page 12 column 2



: Several wiring possibilities

User installed options:

- ☐ Backup heater (includes wiring diagram of option)
- ☐ Domestic hot water tank
- ☐ Domestic hot water tank with solar connection (Only for EKHVM)
- ☐ Room thermostat (Wired)
- ☐ Room thermostat (Wireless)
- ☐ External temperature sensor
- ☐ Remote user interface
- ☐ Digital I/O PCB
- ☐ Demand PCB
- ☐ Solar pump and control station (Only for EKHVM)

Legend

* : included in option kit
: field supplied

A1P : Main PCB
A2P : User interface PCB
A3P : control PCB
A4P : Inverter PCB
A5P : QA PCB
A6P : Filter PCB
A7P * : Digital I/O PCB
A8P * : Demand PCB
A9P : Multi tenant PCB
A10P * : Thermostat PCB
A11P * : Receiver PCB
A12P * : Solar pump station PCB
B1PH : High pressure sensor
B1PL : Low pressure sensor
BSK * : Solar pump station relay
C1-C3 : Filter capacitor
C1-C3 (A4P) : PCB Capacitor
DS1 (A*P) : Dipswitch
F1U : Fuse (T, 3.2A, 250V)
F1U (A1P/A3P/A9P) : Fuse (T, 3.15A, 250V)
F1U (A6P) : Fuse (T, 6.3A, 250V)
F1U-F2U (A7P) * : Fuse (5A, 250V)
F3U-F4U (A*P) : Fuse (T, 6.3A, 250V)
HAP (A*P) : PCB LED
IPM1 : Integrated power module
K1A-K3A : Interface relay
K1E-K3E : Electronic expansion valve
K*R (A*P) : PCB Relay
K1S * : 3 way valve
K2S : 3 way valve
K3S : 2 way valve
K4S # : 2 way valve
M1C : Compressor
M1F : Switchbox cooling fan
M1P-M2P : DC inverter pump
PC (A11P) * : Power circuit
PHC1 (A7P) * : Optocoupler input circuit
PS (A*P) : Switching power supply
Q1DI-Q2DI # : Earth leakage protector
Q2L : Thermal protector water piping
R1-R2 (A4P) : Resistance
R1L : Reactor
R1H (A10P) * : Humidity sensor
R1T (A10P) * : Ambient sensor
R2T * : Domestic hot water tank Thermistor
R2T * : External sensor (floor or ambient)
R3T : Liquid thermistor R410A
R4T : Returning water thermistor
R5T : Leaving water thermistor (heating)
R6T : Discharge thermistor
R7T : Liquid thermistor R134a
R8T : Fin thermistor
R9T : Leaving water thermistor (cooling)
R10T : Liquid thermistor (cooling)
R11T : Suction thermistor (cooling)
RC (A*P) : Receiver circuit
S1PH : High pressure switch
S1S # : benefit kWh rate power supply contact
S3S # : Input multiple setpoint 1
S4S # : Input multiple setpoint 2
SS1 (A1P) : Selector switch (Emergency)
SS1 (A2P) : Selector switch (master slave)
SS1 (A7P) * : Selector switch
TC (A*P) : Transmitter circuit
T1R-T2R (A*P) : Diode bridge
T3R : Power module
V1C-V8C : Ferrite core noise filter
X1M-X3M : Terminal strip
X*M (A*P) * : PCB terminal strip
X1Y-X4Y : Connector
Z1F-Z5F (A*P) : Noise filter

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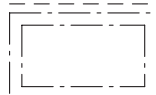
8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

HXHD200A8

NOTES to go through before starting the unit

X1M : Main terminal
X2M : Field wiring terminal for high voltage
X3M : Field wiring terminal for low voltage
— : Earth wiring
— : Field supply



: Option



: Wiring depending on model



: Not mounted in switch box



: PCB

→ **/12.2 : Connection ** continues on page 12 column

2

①

: Several wiring possibilities

User installed options:

- ☐ Bottom plate heater
- ☐ Backup heater
- ☐ Domestic hot water tank
- ☐ Domestic hot water tank with solar connection
- ☐ Room thermostat (wired)
- ☐ Room thermostat (wireless)
- ☐ External temperature sensor
- ☐ Remote user interface
- ☐ Digital I/O PCB
- ☐ Demand PCB
- ☐ Solar pump and control station

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HXHD200A8

LEGEND

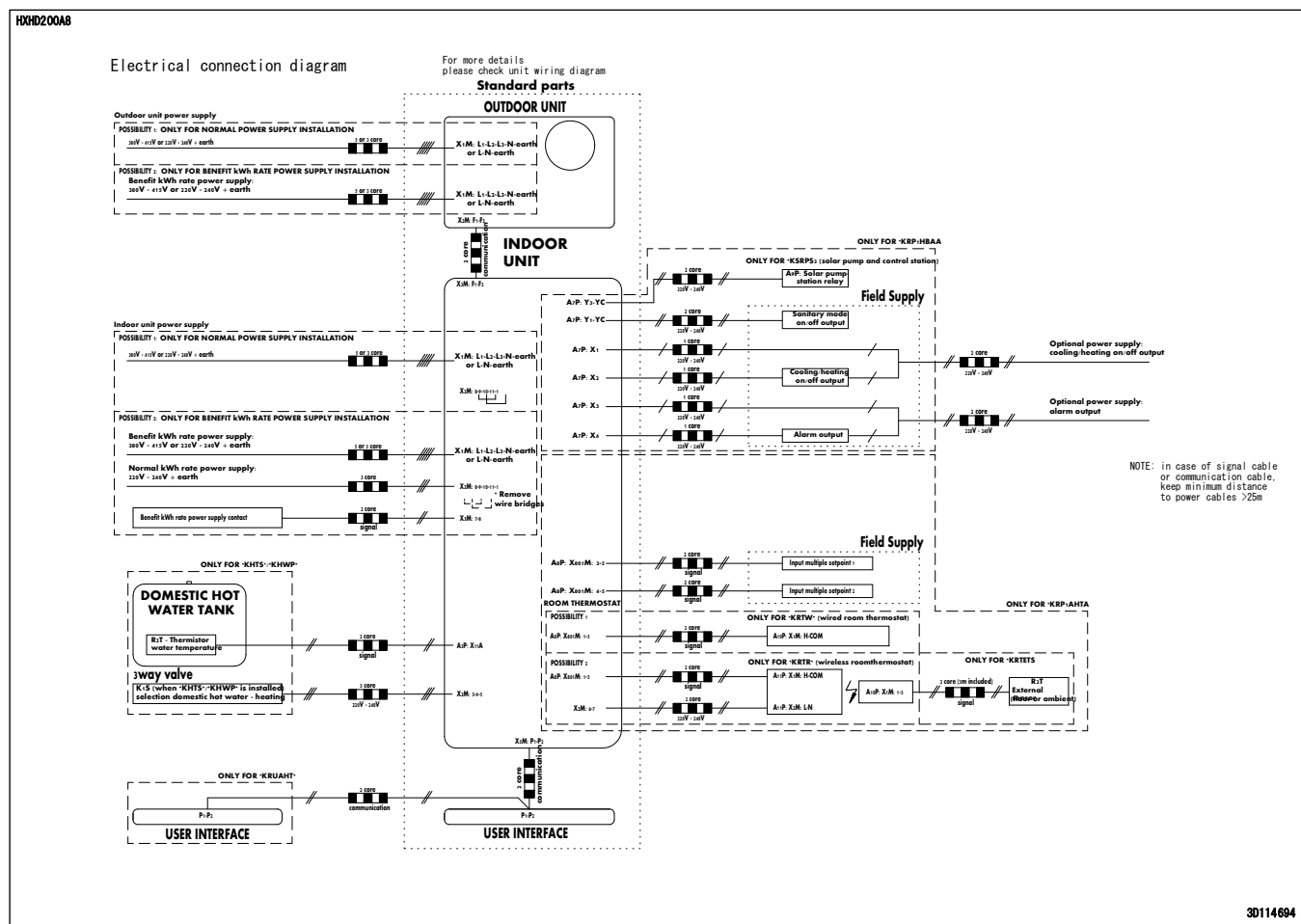
Part n°	Description	Part n°	Description	Part n°	Description
A1P	Main PCB	K1A	Interface relay	R8T	Fin thermistor
A2P	User interface PCB	K1E	Electronic expansion valve	RC (A*P)	Receiver circuit
A3P	Control PCB	K2E	Electronic expansion valve	S1PH	High pressure switch
A4P	Inverter control PCB	K1M - K2M	PCB contactor	S1S	# Benefit kWh rate power supply contact
A5P	Inverter PCB	K*R (A*P)	PCB relay	S3S	# Input multiple setpoint 1
A6P	Filter PCB	K1S	* 3 way valve	S4S	# Input multiple setpoint 2
A7P	* Digital I/O PCB	M1C	Compressor	SS1 (A1P)	Selector switch (emergency)
A8P	* Demand PCB	M1F	Switch box cooling fan	SS1 (A2P)	Selector switch (master slave)
A9P	* Solar pumstation PCB	M2P	DC inverter pump	SS1 (A7P)	* Selector switch
A10P	* Thermostat PCB	PC (A11P)	* Power circuit	TC (A*P)	Transmitter circuit
A11P	* Receiver PCB	P1, P2 (A2P)	PHC1 Optocoupler input circuit	T1R - T2R (A*P)	Diode bridge
B1PH	High pressure sensor	PS (A2P)	PS (A*P) Switching power supply	V1C - V12C	Ferrite core noise filter
B1PL	Low pressure sensor	Q1DI	# Q1DI - Q2DI Earth leakage circuit breaker	X1M - X3M	Terminal strip
BSK	* Solar pumpstation relay	Q2L	Thermal protector water piping	X*M (A*P)	* PCB terminal strip
C1 - C2	Filter capacitor	R1 (A5P)	Resistance	X5Y	Connector
C1 - C2 (A5P)	PCB capacitor	R3T	R1L - R3L Reactor	Y1R	4 way valve
DS1 (A*P)	Dip switch	R4T	* R1H (A10P) Humidity sensor	Z1F - Z5F (A*P)	Noise filter
E7H	* Bottom plate heater	R5T	* R1T (A10P) Ambient sensor		
F1 - F2	Inline fuse	R6T	* R2T Domestic hot water tank thermistor		
F1U (A1P, A3P)	Fuse (T, 3.15A, 250V)	R2T	* External sensor (floor or ambient)		
F1U - F2U (A4P)	Fuse (3.15A, 500V)	R3T	Liquid thermistor R410a		
F3U - F5U (A4P)	Fuse (6.3A, 250V)	R4T	Returning water thermistor		
F1U - F2U (A7P)	* Fuse (5A, 250V)	R5T	Leaving water thermistor		
H1P - H7P (A4P)	PCB LED	S1PH	R6T Discharge thermistor		
HAP (A*P)	PCB LED	R7T	Liquid thermistor R134a		

* : optional
: field supply

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9 External connection diagrams

9 - 1 External Connection Diagrams



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10 Sound data

10 - 1 Sound Power Spectrum

HXHD125A8

	Sound power level (Lw) per octave band [dB]							Total dBA
	125	250	500	1000	2000	4000	8000	LwA
HXHD125A*V1B	39	50	51	45	45	43	41	55

Notes

Measured according to ISO 3744

Reference acoustic pressure 0 dB = 10e-6μW/m²

dBA = A-weighted sound power level (A scale according to IEC).

Conditions

Ambient temperature: 7/6 °C

Heating setpoint: 55/65 °C

Maximum compressor frequency

If the sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

Choose the installation location carefully and do not install in a sound sensitive environment (e.g living room, bed room, ...)

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10 Sound data

10 - 1 Sound Power Spectrum

HXHD200A8

10

	Sound power level (L _w) per octave band [dB]							Total dBA
	125	250	500	1000	2000	4000	8000	L _{wA}
EKHBRD011AAV1	53	61	61	49	43	39	34	59
EKHBRD014AAV1	73	61	61	51	43	42	38	60
EKHBRD016AAV1	72	61	60	49	44	43	39	60
HXHD200A*	72	61	60	49	44	43	39	60

Notes

Measured according to ISO 3744

Reference acoustic pressure 0 dB = 10e-6μW/m²

dBA = A-weighted sound power level (A scale according to IEC).

Conditions

Ambient temperature: 7/6°C

Heating setpoint: 55/65°C

Maximum compressor frequency

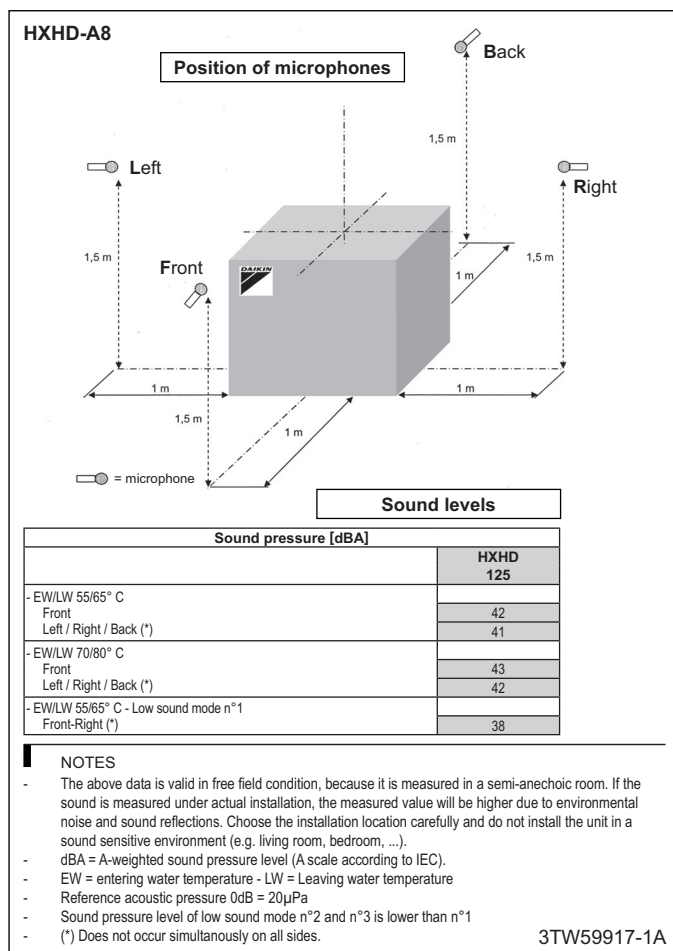
If the sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

Choose the installation location carefully and do not install in a sound sensitive environment (e.g living room, bed room, ...)

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10 Sound data

10 - 2 Sound Pressure Spectrum

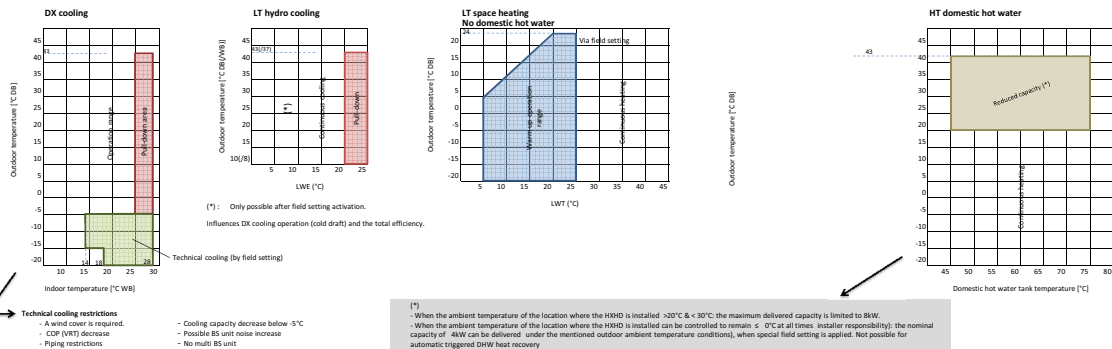


11 Operation range

11 - 1 Operation Range

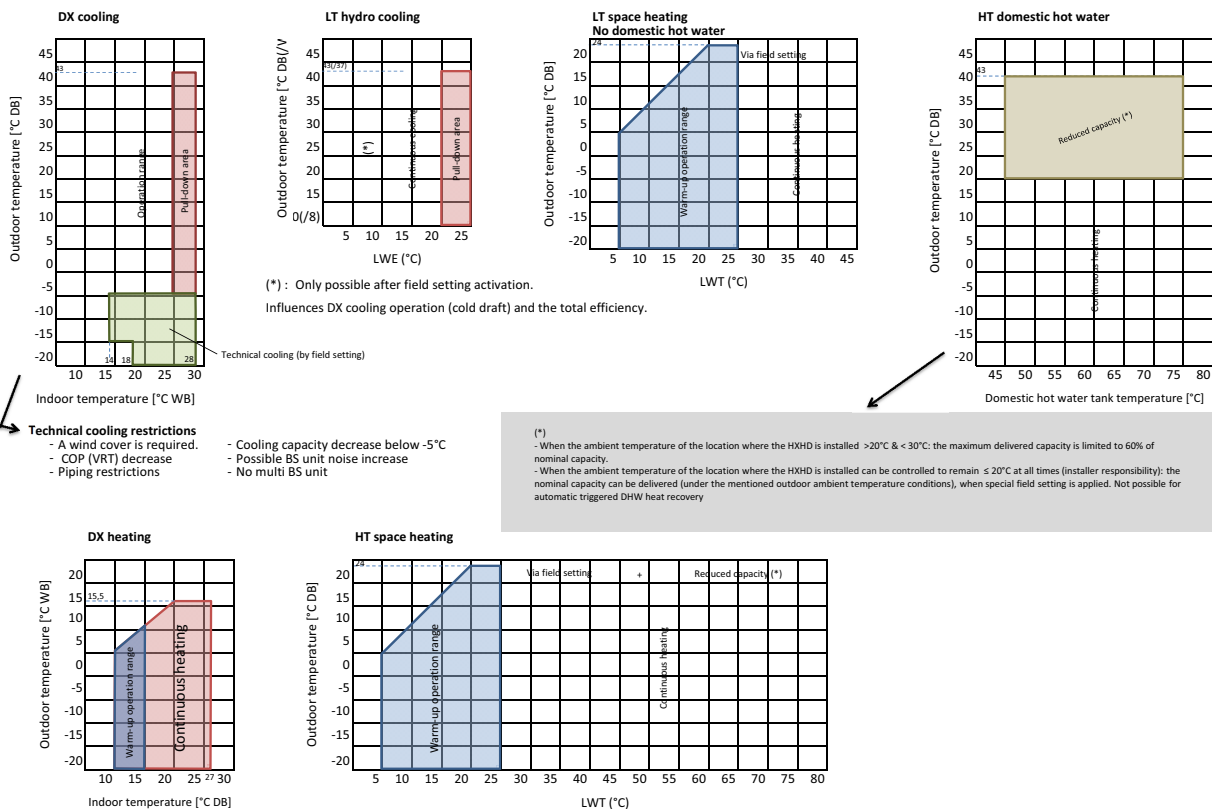
11

HXHD125A8



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HXHD200A8



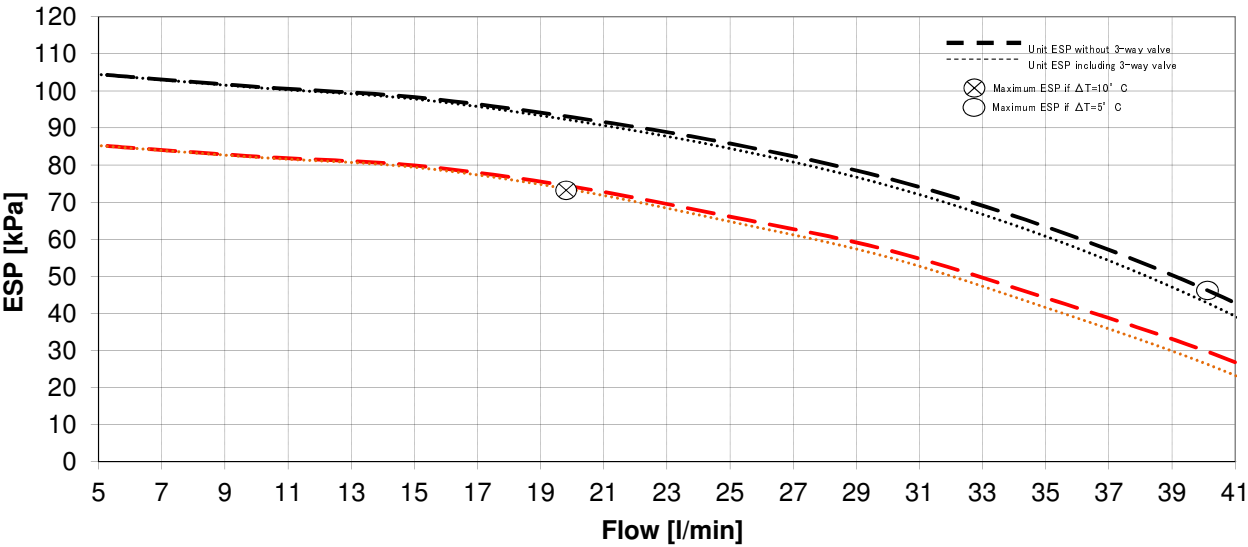
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12 Hydraulic performance

12 - 1 Static Pressure Drop Unit

HXHD125A8



Notes

1. The ESP curves are the maximum ESP curves for different ΔT types (pump rpm=4200 for $\Delta T=5^{\circ}\text{C}$; pump rpm=3800 for $\Delta T=10^{\circ}\text{C}$). The pump of the indoor unit is inverter-controlled and functions to have a fixed ΔT between the return water temperature and the leaving water temperature.
2. In case of installing a domestic hot water tank, there is an additional pressure drop over the 3-way valve (delivered as an accessory with the tank).

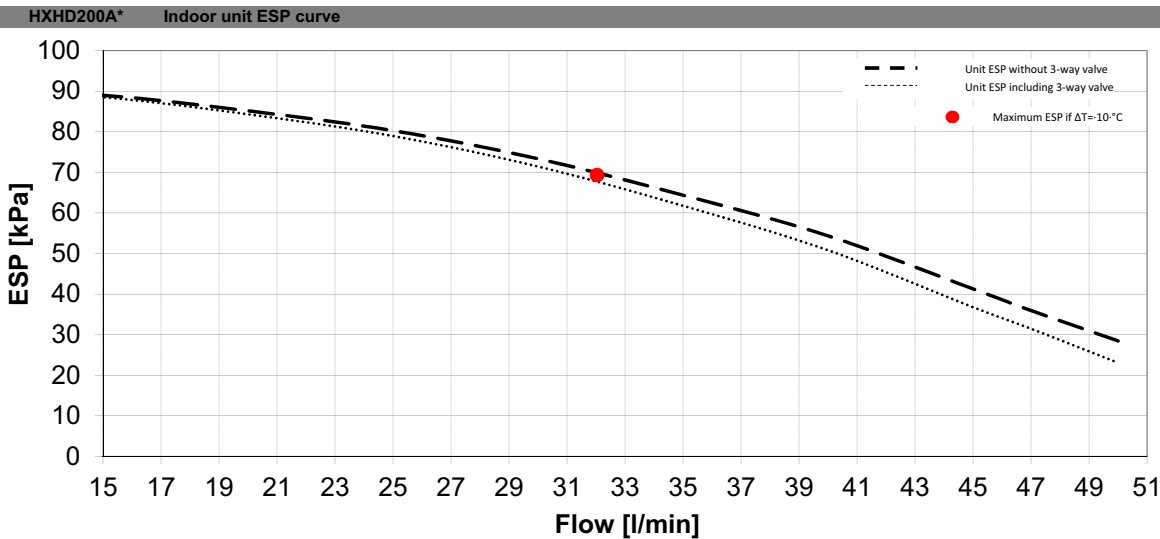
ESP: External Static Pressure
Flow: water flow through the unit

Warning

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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HXHD200A8



Notes

1. The ESP curves are the maximum ESP curves, with and without domestic hot water tank installed on top of the indoor unit (pump rpm: 4000). The pump of the indoor unit is inverter-controlled and functions to have a fixed ΔT between the return water temperature and the leaving water temperature.
2. In case of installing a domestic hot water tank, there is an additional pressure drop over the 3-way valve (delivered as an accessory with the tank).

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

Warning

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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Daikin Europe N.V. Naamloze Vennootschap - Zandvoordestraat 300, B-8400 Oostende - Belgium - www.daikin.eu - BE 0412 120 336 - RPR Oostende



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