High temperature hydrobox for VRV

HXHD-A8

HXHD125A8V1B
HXHD200A8Y1B

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HXHD-A8

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1 Features

1 - 1 HXHD-A8

- 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 Specifications

Technical specifications					HXHD125A8	HXHD200A8
Heating capacity	Nom.			kW	14	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	147
	Packed unit			kg	103	156
Packing	Material				EPS / Cardboard / MDF / Wood (pallet) / Metal	
	Weight			kg	8.75	
Refrigerant side heat exchanger	Type				Plate heat exchanger	
	Quantity				1	
	Plates	Quantity			66	60
	Material				AISI 316	AISI 304
	Insulation material				Felt type	
Pump	Type				DC motor	
	Nr of speeds				Inverter controlled	
	Nominal ESP unit	Heating		kPa	46.6 (2)	68.8 (3)
Water side Heat exchanger	Water flow rate	Min.		l/min	5.00	15.0
		Heating	Nom.	l/min	40.1 (2)	50
	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	
Expansion vessel	Volume			l	7	12
	Max. water pressure			bar	3	
	Pre pressure			bar	1	
Water filter	Diameter perforations			mm	1.00	
	Material				Brass	
Cascade compressor	Quantity				1	
	Motor	Type			Hermetically sealed swing compressor	Hermetically sealed scroll compressor
Cascade compressor	Motor	Starting method			Inverter compressor	
Water circuit	inch			in	G 1" (female)	
	inch			in	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	
Refrigerant	Type				R-134a	
	Charge			kg	2	2.6
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	60
Sound pressure level	Nom.			dBA	42 /43	46 /46
	Night quiet mode	Level 1		dBA	38 (4)	45 (4)
Operation range	Heating	Ambient	Min.	°C	-20.0	
			Max.	°C	20 (5) / 20 (5)	
		Water side	Min.	°C	25	
			Max.	°C	80.0	
	Domestic hot water	Ambient	Min.	°CDB	-20.0	
			Max.	°CDB	43.0	
		Water side	Min.	°C	45	
			Max.	°C	75	
Installation place					Indoor	

2 Specifications

2 - 1 Specifications

Electrical specifications					HXHD125A8	HXHD200A8
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	0.32
	kVa			kVA	1,459 / See note 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	
	Benefit kWh rate power supply installations	Quantity			2G+2G	4G+2G
		Type of wires			Select diameter and type according to national and local regulations	
	For power supply multi tenant	Quantity			2G	-
		Remark			Select diameter and type according to national and local regulations	-
	For connection with outdoor unit	Quantity			2	
		Remark			F1 + F2	
Power supply intake					Both indoor and outdoor unit	

(1)EW 40°C; LW 45°C; Dt 5°C; ambient conditions: 7°CDB/6°CWB |
(2)For water Dt 5°C |
(3)Sound levels are measured at: EW 55°C; LW 65°C |
(4)Sound levels are measured at: EW 70°C; LW 80°C |
(5)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 |
For water Dt 10°C |
Field setting |
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. |
Zsys: system impedance |
Short-circuit power

3 Options

3 - 1 Options

HXHD-A8

1. Options
   Indoor unit

Reference		Description	Indoor unit	
			HXHD125A*	HXHD200A*
EKHTS200[AC]		Stainless domestic hot water tank 200l	O	O
EKHTS260[AC]		Stainless domestic hot water tank 260l	O	O
EKHTSU200[AC]		Stainless domestic hot water tank 200l (UK)	O	O
EKHTSU260[AC]		Stainless domestic hot water tank 260l (UK)	O	O
EKHWP300B		PP 300l tank	O	O
EKHWP500B		PP 500l tank	O	O
EKRP1HBAA		Digital I/O PCB	O	O
EKRP1AHTA	(2)	Demand PCB	O	O
EKRUAHTB	(3)	Remote user interface	O	O
EKRTWA	(1)	Wired room thermostat	O	O
EKRTR1	(1)	Wireless room thermostat	O	O
EKRTETS	(1)	Remote sensor for room thermostat	O	O

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	-	-	O	O
(4)	*EKFMAHTB*	Option kit for standalone tank	O	O	O	O

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

HXHD-A8

Selection procedure for ·HXHD*· Hydrobox

Definitions of ·HXHD· Hydrobox parameters			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.
Required Hydrobox capacity	·HC· [kW]	→ 14	Selection
Required capacity from outdoor unit for Hydrobox	·HCo· [kW]	→ 12	Result of calculation
Correction factor ·= f (LWT)·	·CF· [kW]	→ 0,9	Value from table (see below)
	HCo = HC * CF		
Cascade step power input	·P· [kW]	→ 1,8	Value from table (see below)
Outdoor unit power input (related to Hydrobox)	·PIo· [kW]	→ 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·).
	PIo = f (HCo)		
Total Hydrobox power input	·PI· [kW]	→ 5,8	
	PI = PIo + P		

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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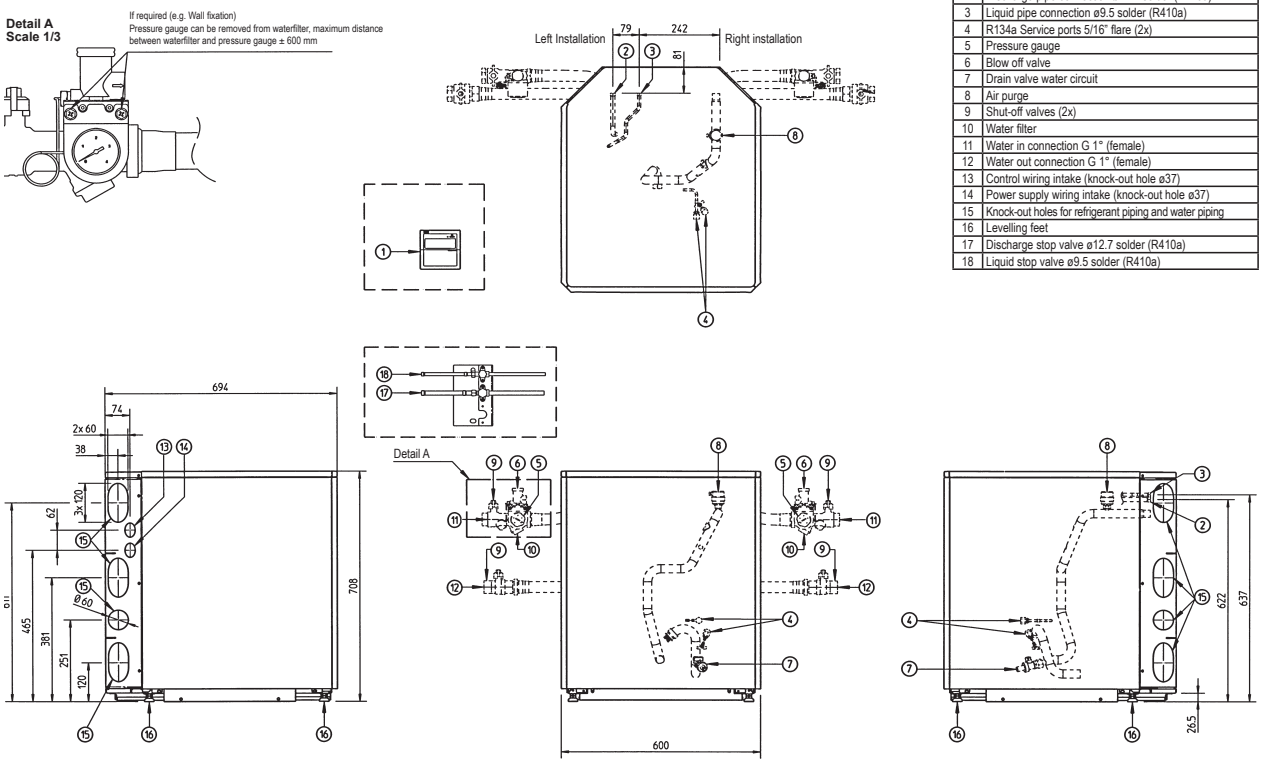
5 Dimensional drawings

5 - 1 Dimensional Drawings

HXHD125A8



1	Remote control (delivered as accessory) Installation location is outside the unit
2	Discharge pipe connection ø12.7 solder (R410a)
3	Liquid pipe connection ø9.5 solder (R410a)
4	R134a Service ports 5/16" flare (2x)
5	Pressure gauge
6	Blow off valve
7	Drain valve water circuit
8	Air purge
9	Shut-off valves (2x)
10	Water filter
11	Water in connection G 1" (female)
12	Water out connection G 1" (female)
13	Control wiring intake (knock-out hole ø37)
14	Power supply wiring intake (knock-out hole ø37)
15	Knock-out holes for refrigerant piping and water piping
16	Levelling feet
17	Discharge stop valve ø12.7 solder (R410a)
18	Liquid stop valve ø9.5 solder (R410a)

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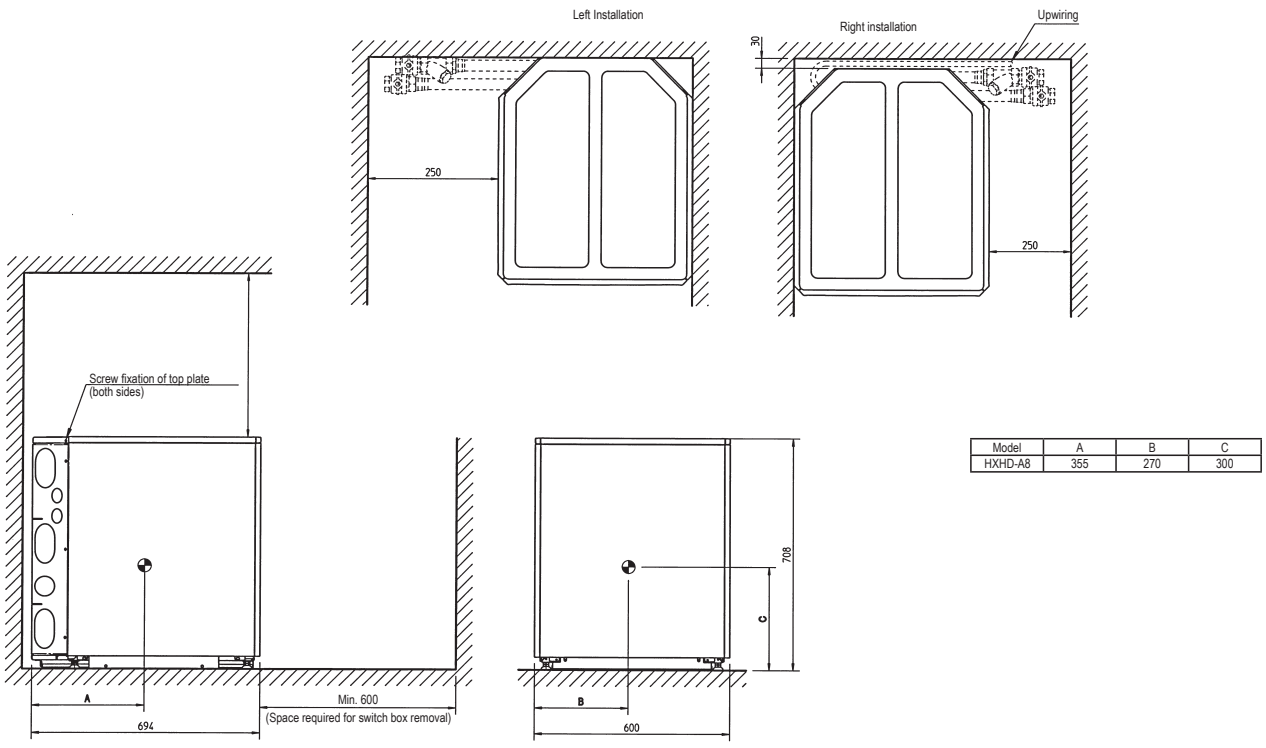
HXHD125A8



Model	A	B	C
HXHD-A8	355	270	300

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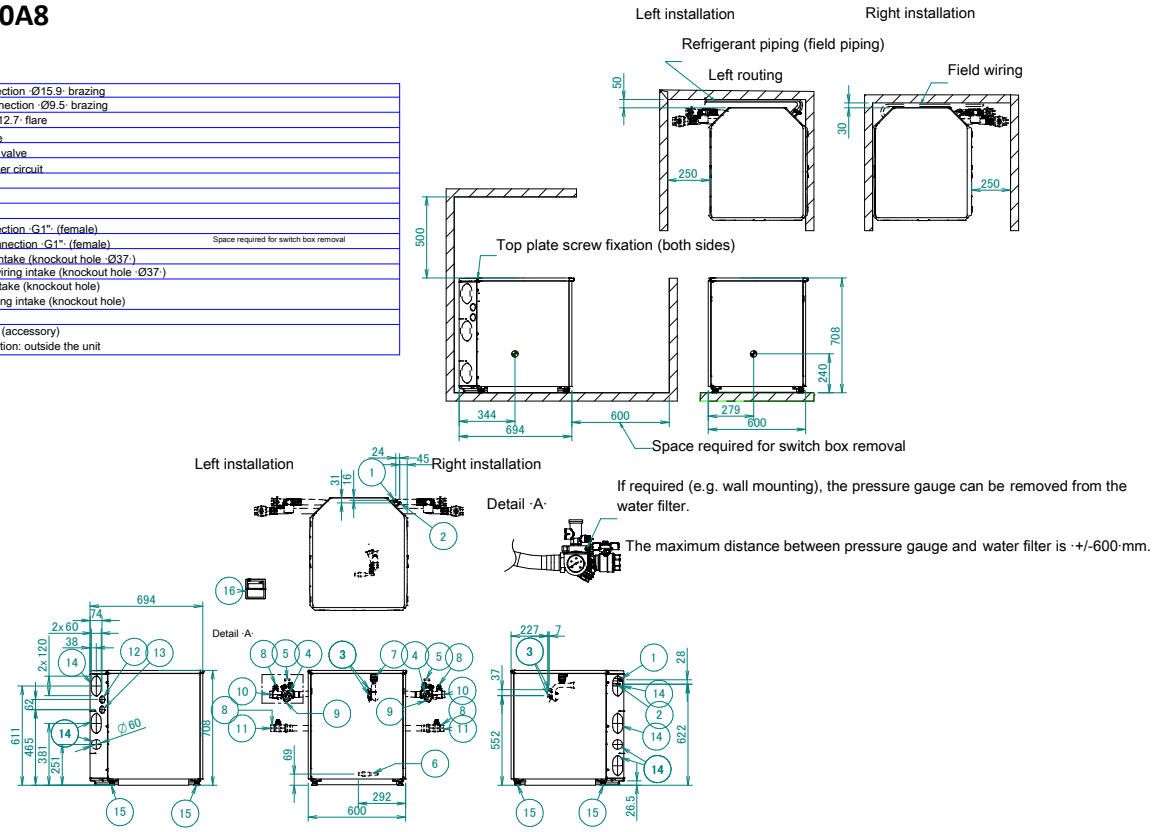
5 Dimensional drawings

5 - 1 Dimensional Drawings

HXHD200A8

1	Gas pipe connection ·Ø15.9· brazing
2	Liquid pipe connection ·Ø9.5· brazing
3	Service port ·Ø12.7· flare
4	Pressure gauge
5	Safety blow-off valve
6	Drain valve water circuit
7	Air purge
8	Shut-off valve
9	Water filter
10	Water IN connection ·G1"· (female)
11	Water OUT connection ·G1"· (female)
12	Control wiring intake (knockout hole ·Ø37·)
13	Power supply wiring intake (knockout hole ·Ø37·)
14	Water piping intake (knockout hole) Refrigerant piping intake (knockout hole)
15	Levelling feet
16	Remote control (accessory) Installation location: outside the unit



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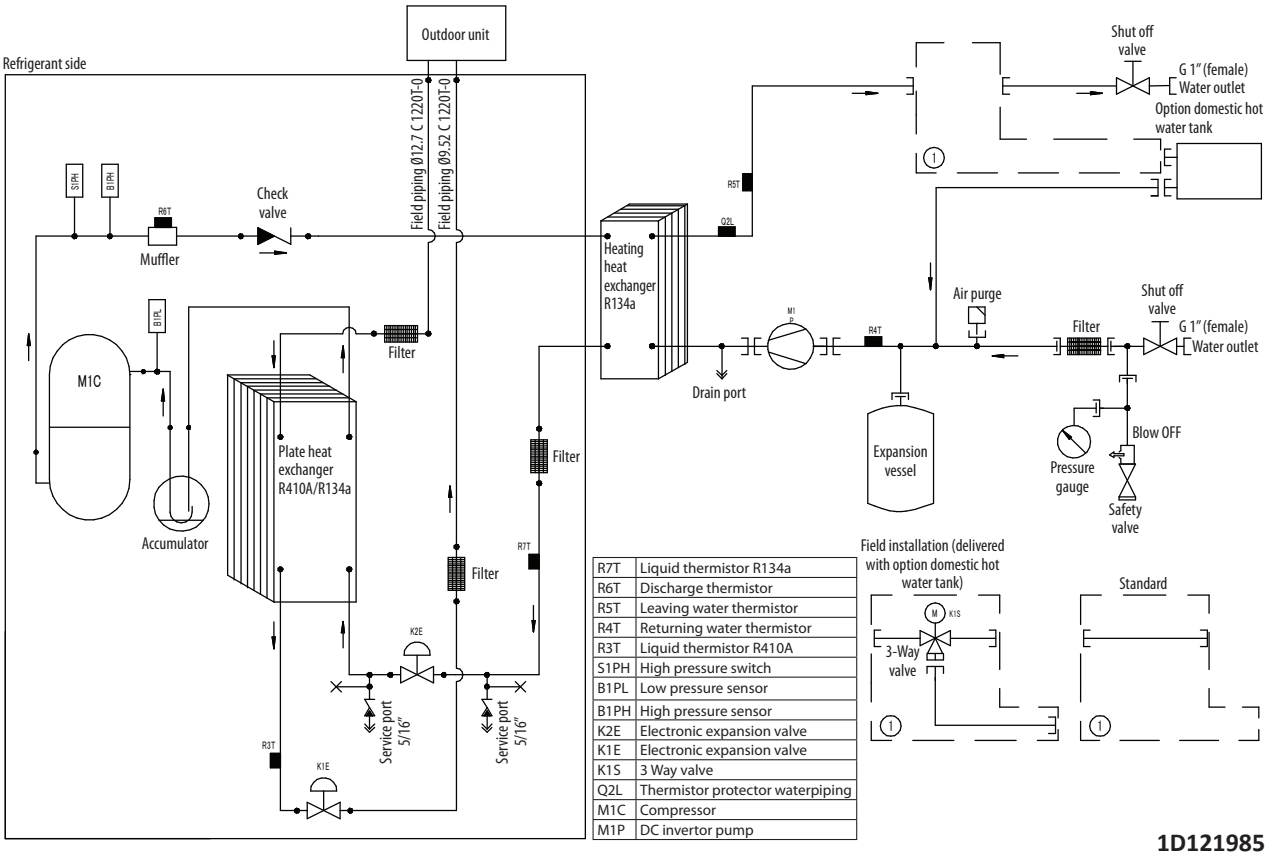
6 Piping diagrams

6 - 1 Piping Diagrams

HXHD125A8



R7T	Liquid thermistor R134a
R6T	Discharge thermistor
R5T	Leaving water thermistor
R4T	Returning water thermistor
R3T	Liquid thermistor R410A
S1PH	High pressure switch
B1PL	Low pressure sensor
B1PH	High pressure sensor
K2E	Electronic expansion valve
K1E	Electronic expansion valve
K1S	3 Way valve
Q2L	Thermistor protector waterpiping
M1C	Compressor
M1P	DC invertor pump

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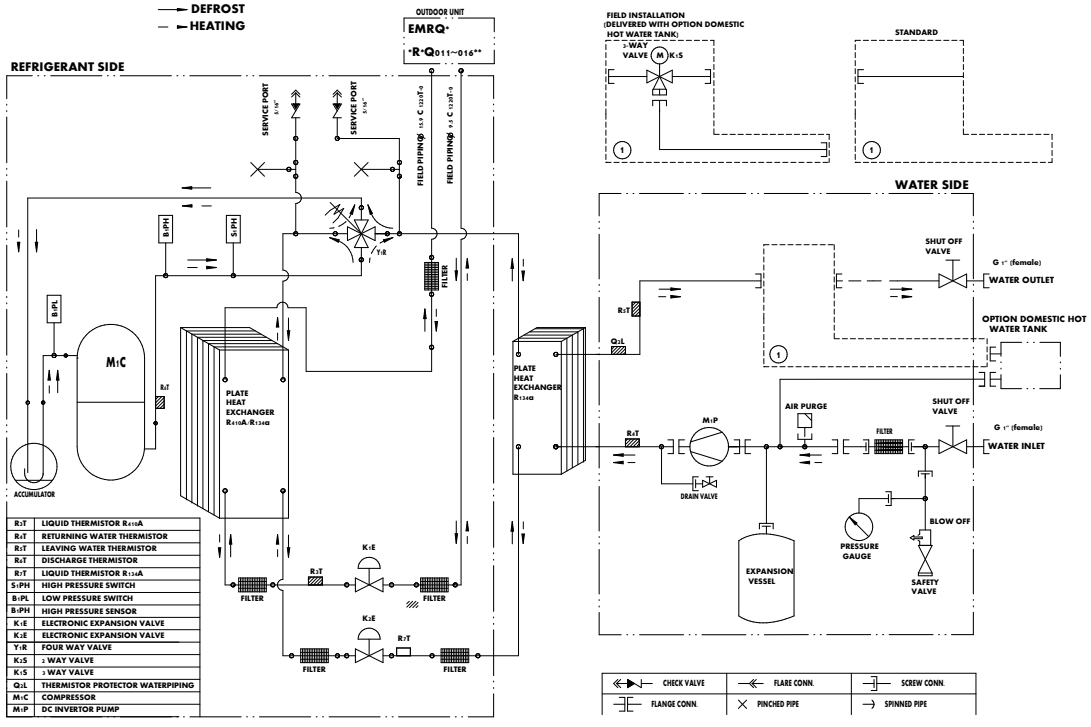

R1T	LIQUID THERMISTOR R410A
R2T	RETURNING WATER THERMISTOR
R3T	LEAVING WATER THERMISTOR
R4T	DISCHARGE THERMISTOR
R7T	LIQUID THERMISTOR R134A
S1PH	HIGH PRESSURE SWITCH
B1PL	LOW PRESSURE SWITCH
B1PH	HIGH PRESSURE SENSOR
K1E	ELECTRONIC EXPANSION VALVE
K2E	ELECTRONIC EXPANSION VALVE
Y1R	FOUR WAY VALVE
K2S	2 WAY VALVE
K1S	3 WAY VALVE
Q2L	THERMISTOR PROTECTOR WATERPIPING
M1C	COMPRESSOR
M1P	DC INVERTOR PUMP

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7 Wiring diagrams

7 - 1 Wiring Diagrams - Single Phase

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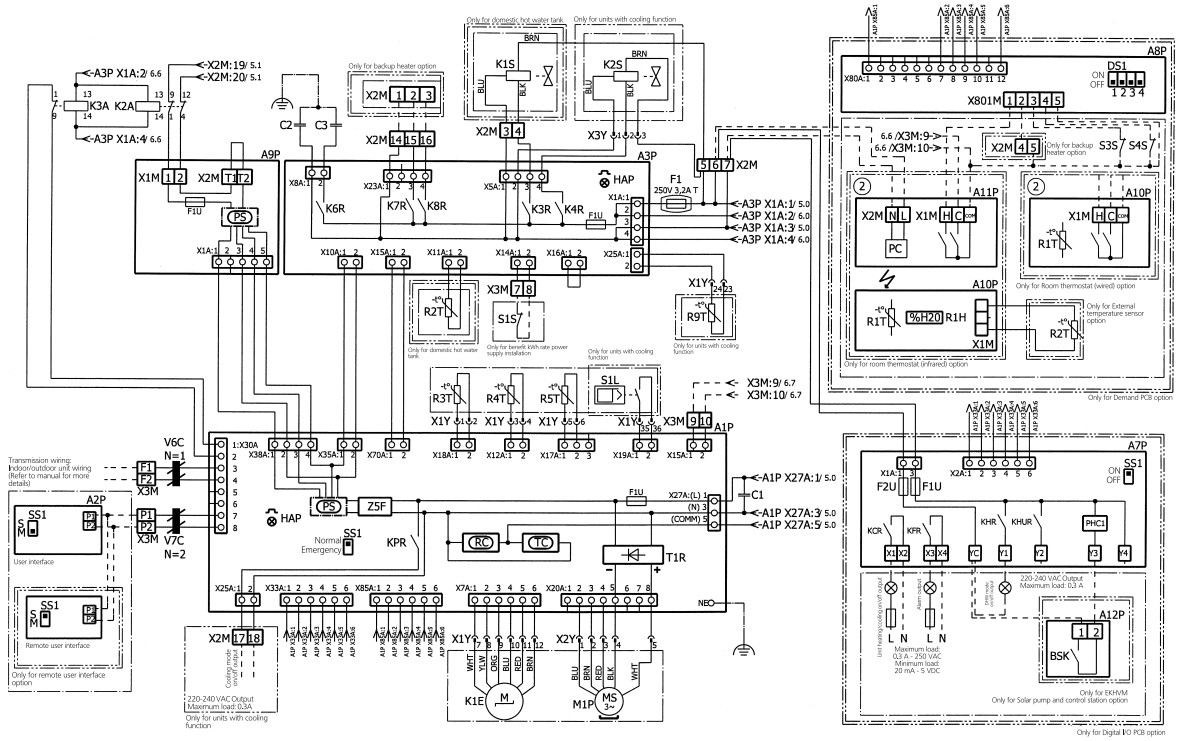
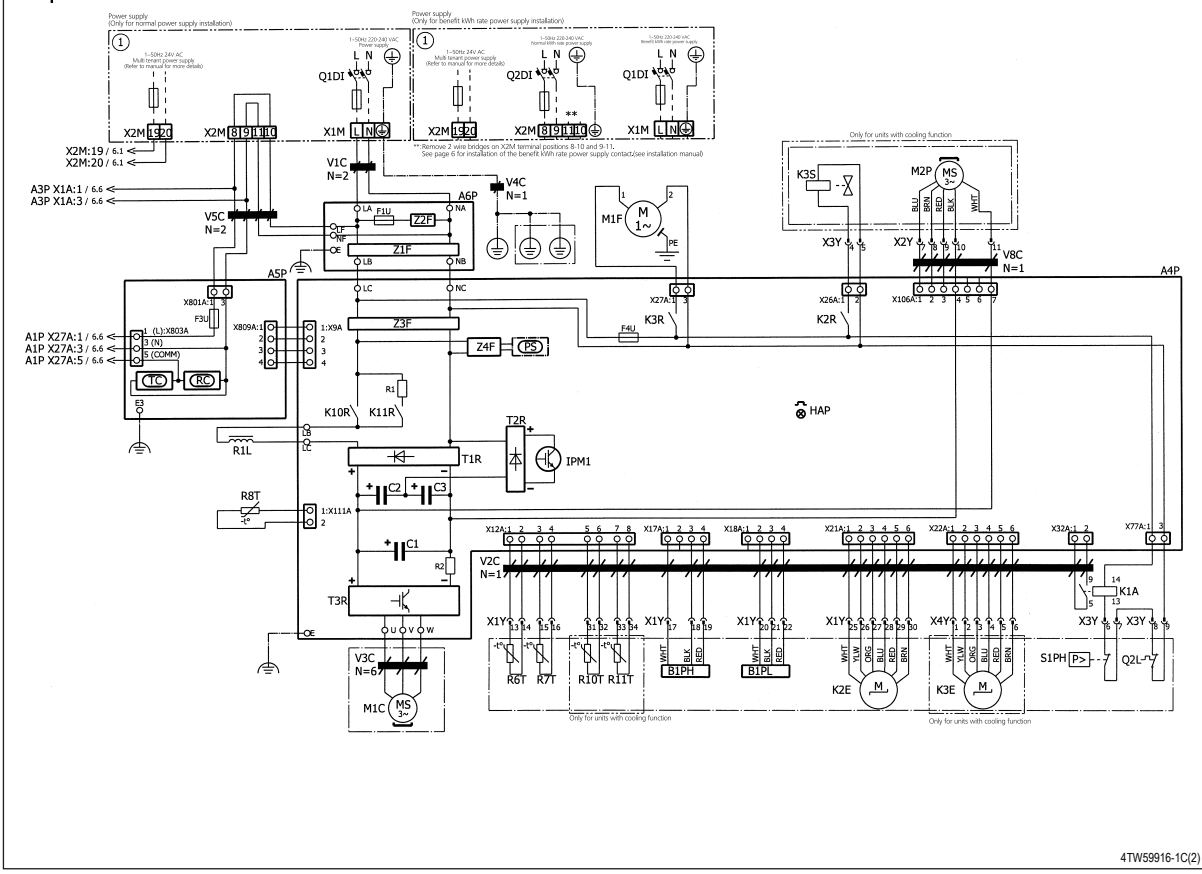
Control



HXHD125A8
Compressor



7 Wiring diagrams

7 - 1 Wiring Diagrams - Single Phase

HXHD125A8

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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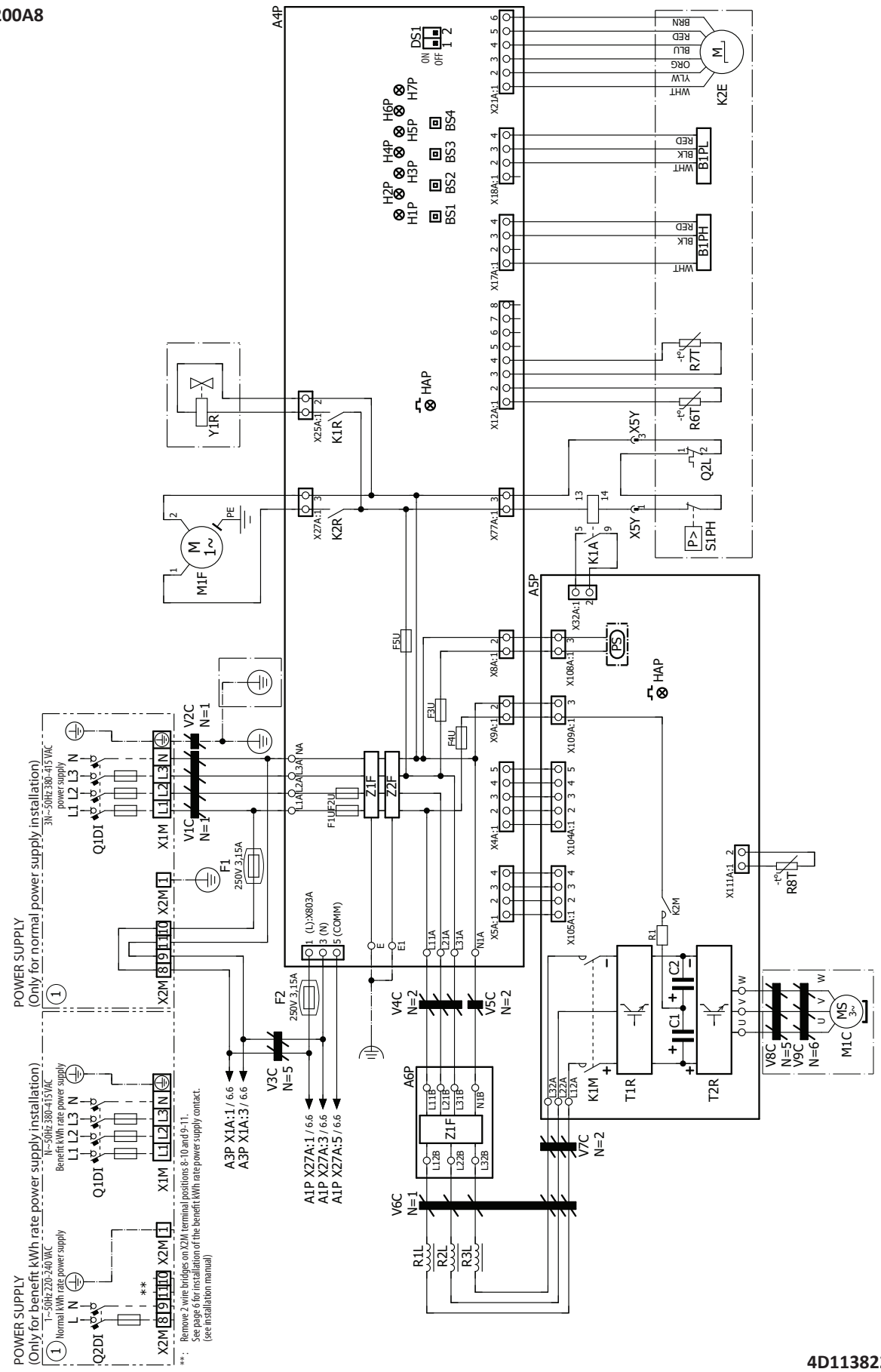
7 Wiring diagrams

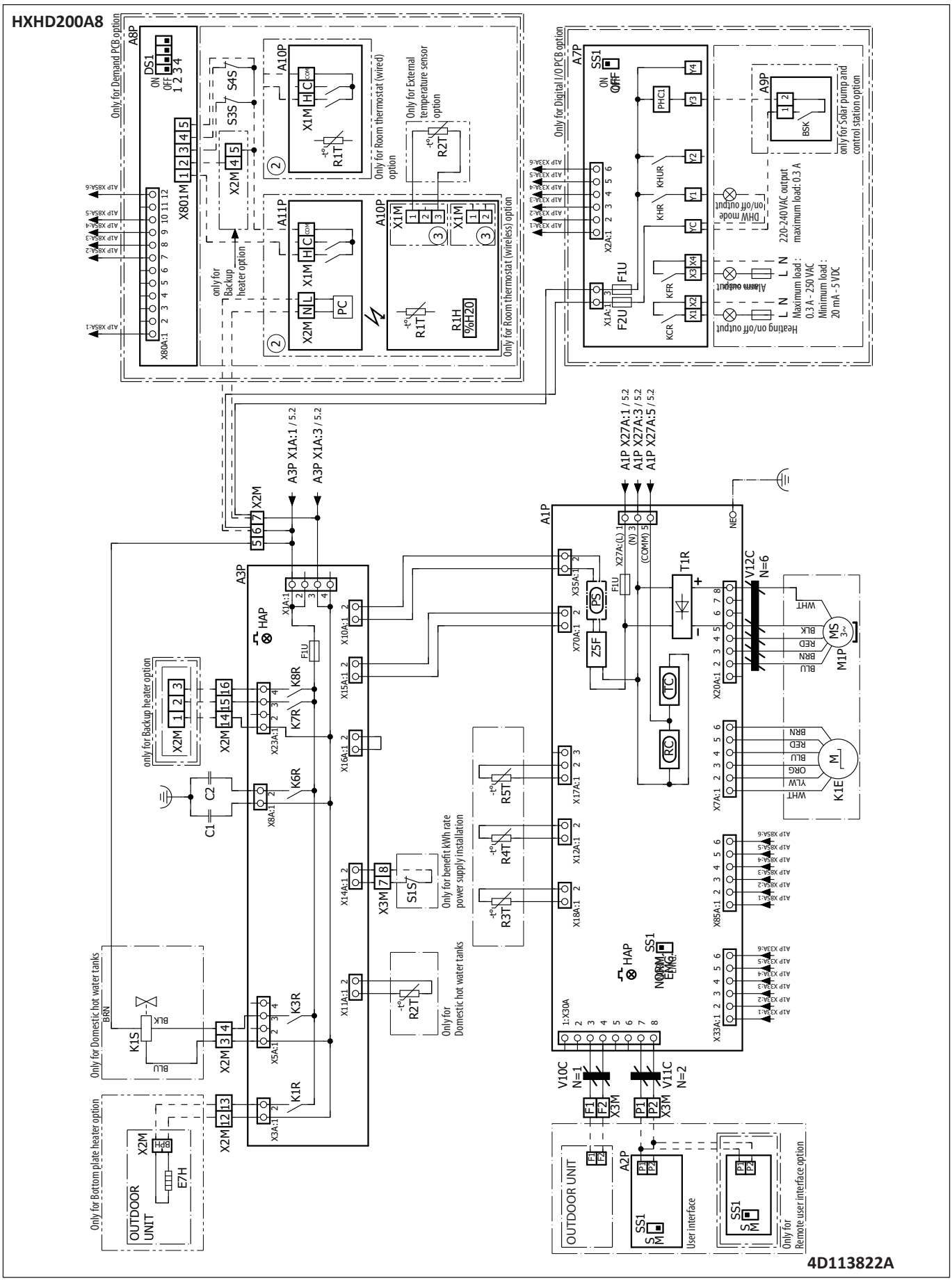
7 - 1 Wiring Diagrams - Single Phase

HXHD200A8



7 Wiring diagrams

7 - 1 Wiring Diagrams - Single Phase



7 Wiring diagrams

7 - 1 Wiring Diagrams - Single Phase

HXHD200A8

NOTES to go through before starting the unit

7

X1M : Main terminal
X2M : Field wiring terminal for high voltage
X3M : Field wiring terminal for low voltage
: Earth wiring
: Field supply
→ **/12.2 : Connection ** continues on page 12 column 2
(1) : Several wiring possibilities
: Option
: Wiring depending on model
: Not mounted in switch box
: PCB

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

LEGEND

Part n°		Description
A1P		Main PCB
A2P		User interface PCB
A3P		Control PCB
A4P		Inverter control PCB
A5P		Inverter PCB
A6P		Filter PCB
A7P	*	Digital I/O PCB
A8P	*	Demand PCB
A9P	*	Solar pumpstation PCB
A10P	*	Thermostat PCB
A11P	*	Receiver PCB
B1PH		High pressure sensor
B1PL		Low pressure sensor
BS1 - BS4 (A4P)		Push button
BSK	*	Solar pumpstation relay
C1 - C2		Filter capacitor
C1 - C2 (A5P)		PCB capacitor
DS1 (A*P)		Dip switch
E7H	*	Bottom plate heater
F1 - F2		Inline fuse
F1U (A1P, A3P)		Fuse (T, 3.15A, 250V)
F1U - F2U (A4P)		Fuse (3.15A, 500V)
F3U - F5U (A4P)		Fuse (6.3A, 250V)
F1U - F2U (A7P)	*	Fuse (5A, 250V)
H1P - H7P (A4P)		PCB LED
HAP (A*P)		PCB LED
K1A		Interface relay
K1E		Electronic expansion valve
K2E		Electronic expansion valve
K1M - K2M		PCB contactor
K*R (A*P)		PCB relay
K1S	*	3 way valve
M1C		Compressor
M1F		Switch box cooling fan
M1P		DC inverter pump
PC (A11P)	*	Power circuit
PHC1		Optocoupler input circuit
PS (A*P)		Switching power supply
Q1DI - Q2DI	#	Earth leakage circuit breaker
Q2L		Thermal protector water piping
R1 (A5P)		Resistance
R1L - R3L		Reactor

Part n°		Description
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
R6T		Discharge thermistor
R7T		Liquid thermistor R134a
R8T		Fin thermistor
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
V1C - V12C		Ferrite core noise filter
X1M - X3M		Terminal strip
X*M (A*P)	*	PCB terminal strip
X5Y		Connector
Y1R		4 way valve
Z1F - Z5F (A*P)		Noise filter

* : optional #: field supply

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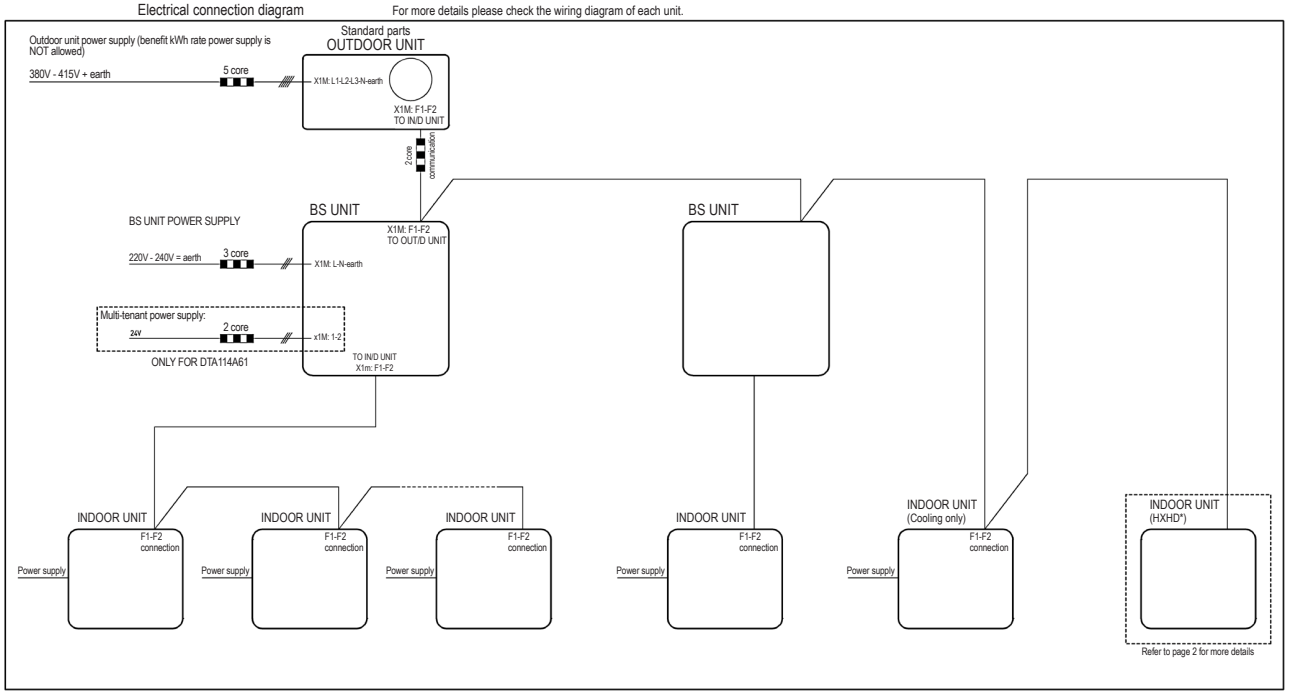
8 External connection diagrams

8 - 1 External Connection Diagrams

HXHD125A8

Electrical connection diagram

For more details please check the wiring diagram of each unit.

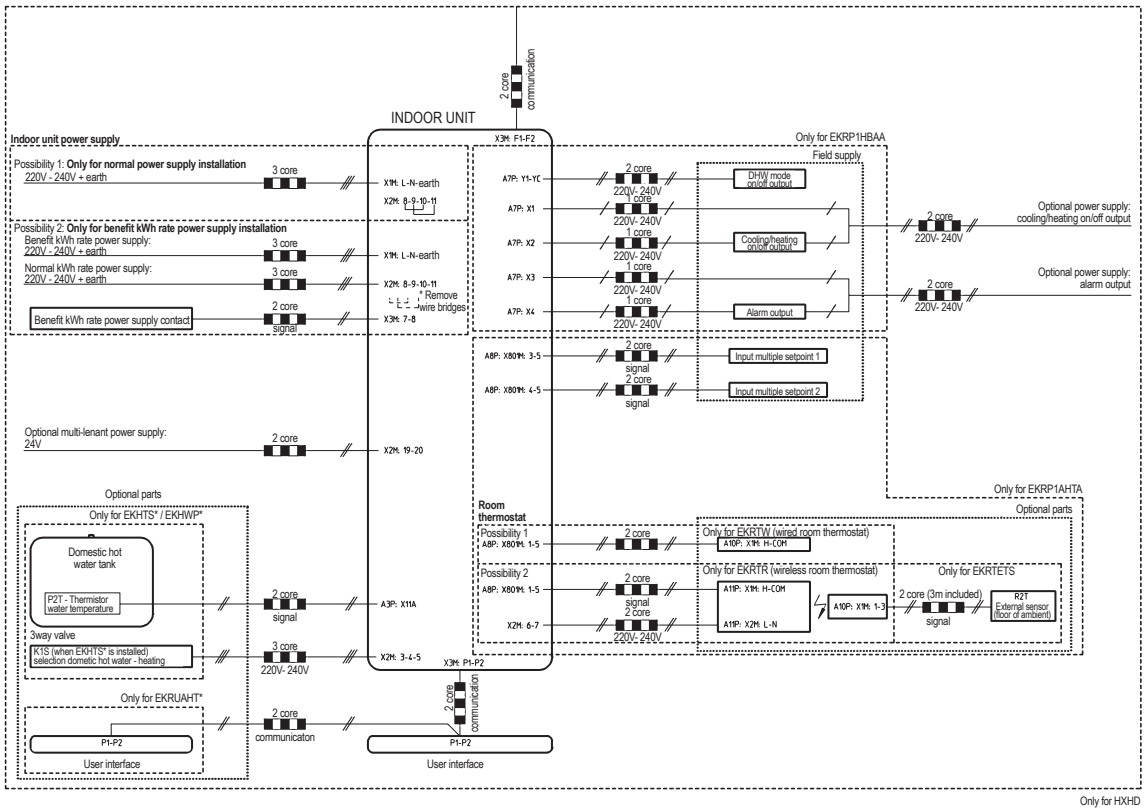


NOTES

In case of signal cable or communication cable. Keep minimum distance to power cables > 25mm.

2TW60656-1(1)

HXHD125A8



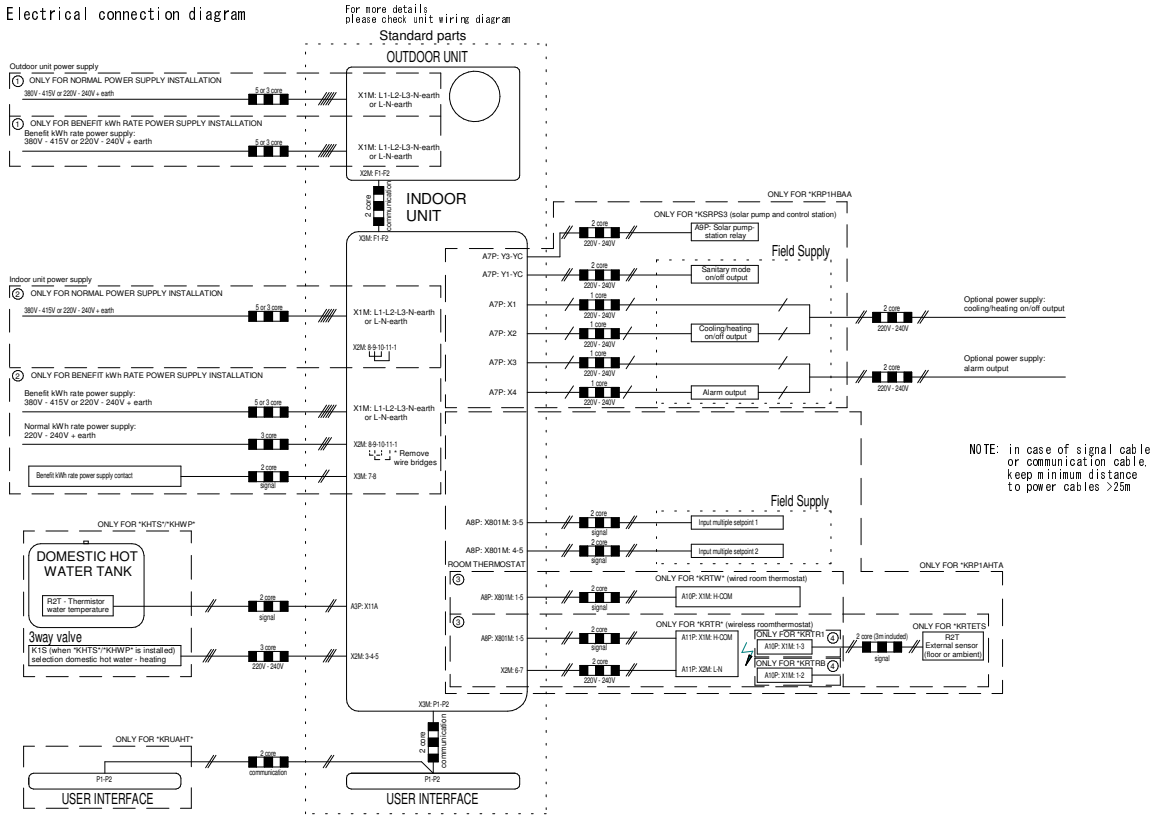
2TW60656-1(2)

8 External connection diagrams

8 - 1 External Connection Diagrams

HXHD200A8

Electrical connection diagram



9 Sound data

9 - 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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9 Sound data

9 - 1 Sound Power Spectrum

HXHD200A8

	Sound power level (Lw) per octave band [dB]							Total dBA
	125	250	500	1000	2000	4000	8000	LwA
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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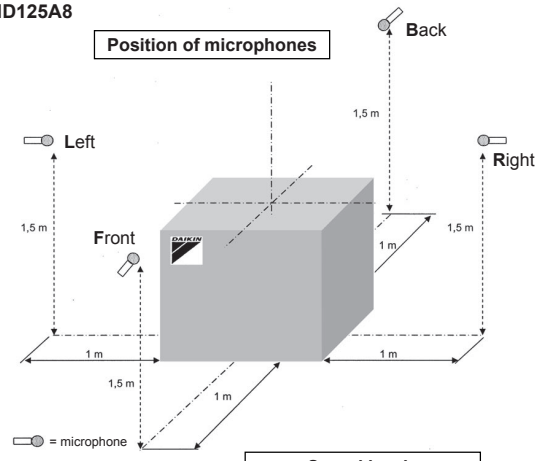
9 Sound data

9 - 2 Sound Pressure Spectrum

HXHD125A8

Position of microphones



Sound levels

Sound pressure [dBA]	HXHD 125
- EW/LW 55/65° C	
Front	42
Left / Right / Back (*)	41
- EW/LW 70/80° C	
Front	43
Left / Right / Back (*)	42
- EW/LW 55/65° C - Low sound mode n°1	
Front-Right (*)	38

NOTES

- The above data is valid in free field condition, because it is measured in a semi-anechoic room. If the sound is measured under actual installation, the measured value will be higher due to environmental noise and sound reflections. Choose the installation location carefully and do not install the unit in a sound sensitive environment (e.g. living room, bedroom, ...).
- dBA = A-weighted sound pressure level (A scale according to IEC).
- EW = entering water temperature - LW = Leaving water temperature
- Reference acoustic pressure 0dB = 20µPa
- Sound pressure level of low sound mode n°2 and n°3 is lower than n°1
- (*) Does not occur simultanously on all sides.

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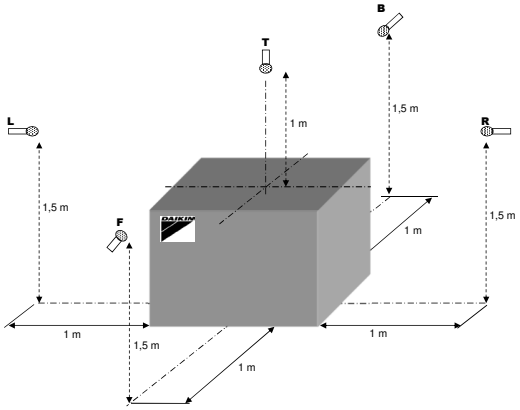
HXHD200A8



Sound pressure [dBa] ·EKHBRD*· heat pump + tank (integrated)	11(V*/Y*)	14(V*/Y*)	16(V*/Y*)
-[EW/LW 55/56°C]			
F	38	39	42
L/ R/ B/ T (#)	41	44	45
-[EW/LW 70/80°C]			
F	43	43	43
L/ R/ B/ T (#)	46	46	46
-[EW/LW 70/80°C] Low noise level ·1·			
F	37	38	39
L/ R/ B/ T (#)	40	41	44

Sound pressure [dBa] ·EKHBRD*· heat pump (no tank)	11(V*/Y*)	14(V*/Y*)	16(V*/Y*)	HXHD200 16
-[EW/LW 55/56°C]				
F	40	43	46	46
L/ R/ B/ T (#)	43	45	46	46
-[EW/LW 70/80°C]				
F	46	46	46	46
L/ R/ B/ T (#)	46	46	46	46
-[EW/LW 70/80°C] Low noise level ·1·				
F	39	40	43	43
L/ R/ B/ T (#)	40	43	45	45

Notes

1. Data is valid at free field condition.
   Measured in a semi-anechoic chamber
   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, ...)
2. dBA = A-weighted sound pressure level (A scale according to IEC).
3. Entering water temperature — Leaving water temperature
4. Reference acoustic pressure 0 dB = 20 µPa
5. The sound pressure level of low noise levels ·2· and ·3· is lower than that of low noise level ·1·.

(#) Maximum value that was measured. This value does not occur simultaneously on all sides.

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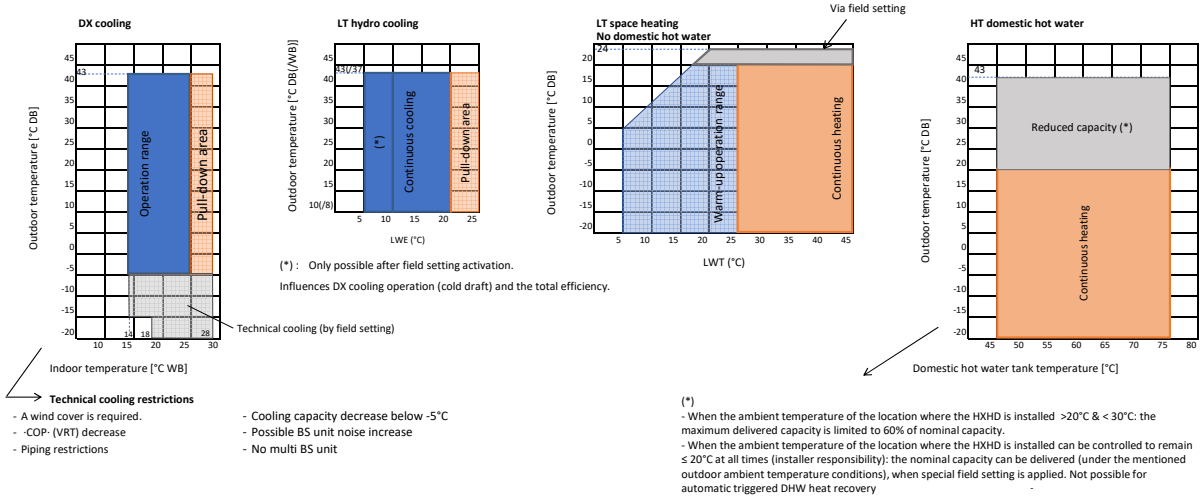
10 Operation range

10 - 1 Operation Range

HXHD-A8



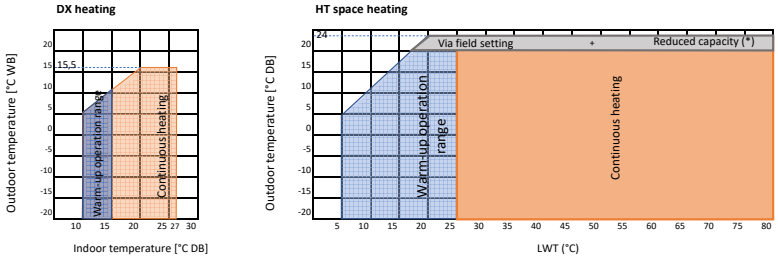
(*) : Only possible after field setting activation.

Influences DX cooling operation (cold draft) and the total efficiency.

Technical cooling restrictions

- A wind cover is required.
- ·COP· (VRT) decrease
- Piping restrictions
- Cooling capacity decrease below -5°C
- Possible BS unit noise increase
- No multi BS unit

(*)
- When the ambient temperature of the location where the HXHD is installed >20°C & < 30°C: the maximum delivered capacity is limited to 60% of nominal capacity.
- When the ambient temperature of the location where the HXHD is installed can be controlled to remain ≤ 20°C at all times (installer responsibility): the nominal capacity can be delivered (under the mentioned outdoor ambient temperature conditions), when special field setting is applied. Not possible for automatic triggered DHW heat recovery



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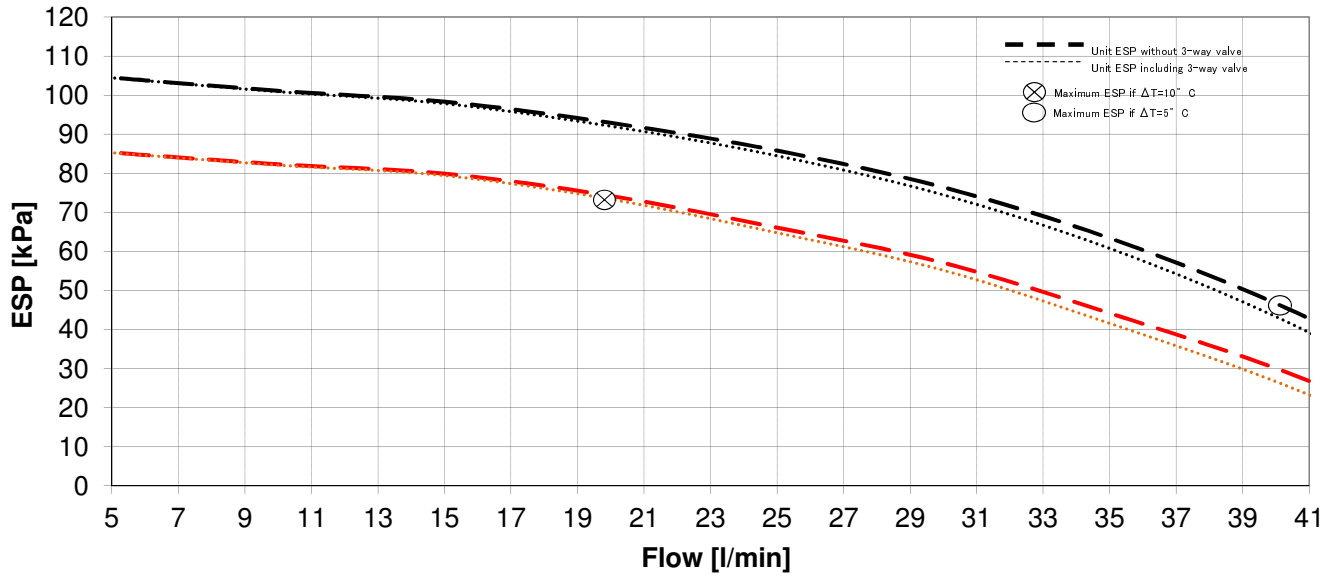
11 Hydraulic performance

11 - 1 Static Pressure Drop Unit

HXHD-A8



Notes
1. The ESP curves are the maximum ESP curves for different ΔT types (pump rpm=4200 for ΔT=5°C; pump rpm=3800 for ΔT=10°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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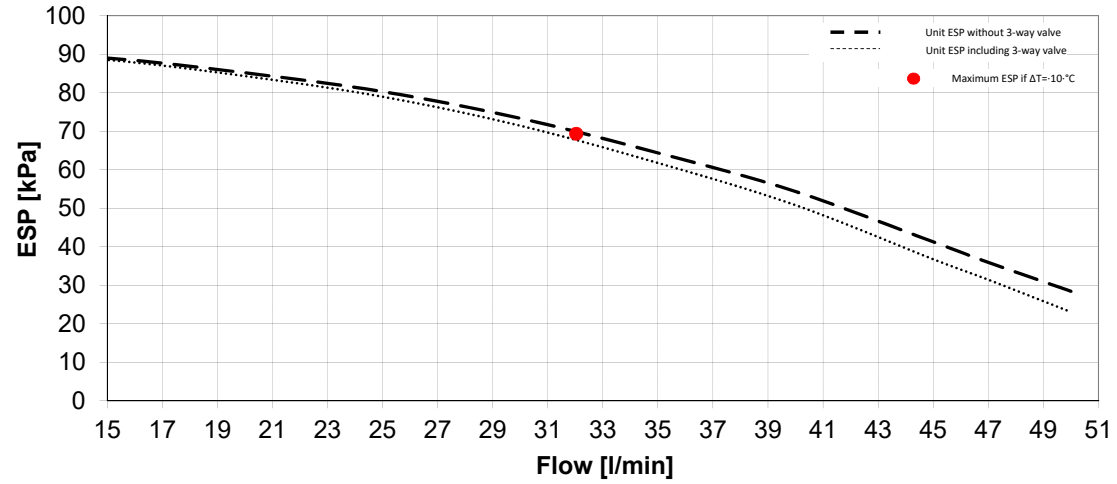
HXHD200A8

HXHD200A* Indoor unit ESP curve



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.

3D113718

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EEDEN24 10/2024

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