Heating
Technical Data

EGSAH-D9W, EGSAX-D9W, EGSAX-D9WG

> EGSAH06DA9W
> EGSAH10DA9W
> EGSAX06DA9W
> EGSAX10DA9W
> EGSAX06DA9WG
> EGSAX10DA9WG

TABLE OF CONTENTS

EGSAH-D9W, EGSAX-D9W, EGSAX-D9WG

1 Features

1 - 1 EGSA(H-X)-D9W(G)

- Active cooling with high efficiency (only for reversible models, EGSAX)
- Integrated stainless steel domestic hot water tank
- Cloud ready: Remote monitoring and control
- Ultra high SCOP at cold climate, 35 °C LWT
- Extremely low sound power

EGSA(H-X)-D9W

EGSAX-D9WG

Online controller

2 Specifications

2-1 Technical Specifications					EGSAH06D9W	EGSAH10D9W	EGSAX06D9W	EGSAX10D9W	EGSAX06D9WG	EGSAX10D9WG
Space heating	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	2,615	3,691	2,582	3,658	2,582	3,658
			ηs (Seasonal space heating efficiency)	%	218	219	221			
			Prated at -22°C	kW	6	9	6	9		
		A Condition (-7°CDB/-8°CWB)	COPd		5.72	5.70	5.72	5.70	5.72	5.70
			Pdh	kW	3.6	5.0	3.6	5.0	3.6	5.0
		B Condition (2°CDB/1°CWB)	COPd		5.77	5.90	5.77	5.90	5.77	5.90
			Pdh	kW	2.2	3.0	2.2	3.0	2.2	3.0
		C Condition (7°CDB/6°CWB)	COPd		6.46	6.41	6.46	6.41	6.46	6.41
			Pdh	kW	1.5	2.1	1.5	2.1	1.5	2.1
		D Condition (12°CDB/11°CWB)	COPd		5.73	5.25	5.73	5.25	5.73	5.25
			Pdh	kW	1.1	1.2	1.1	1.2	1.1	1.2
		Tol (temperature operating limit)	COPd		4.84	4.39	4.84	4.39	4.84	4.39
			Pdh	kW	5.9	8.5	5.9	8.5	5.9	8.5
			TOL	°C	-22					
		Tbiv (bivalent temperature)	COPd		4.84	4.39	4.84	4.39	4.84	4.39
			Pdh	kW	5.9	8.5	5.9	8.5	5.9	8.5
			Tbiv	°C	-22					
	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	3,563	4,773	3,530	4,740	3,530	4,740
			ηs (Seasonal space heating efficiency)	%	164	168	165	169	165	169
			Prated at -22°C	kW	6	9	6	9		
		A Condition (-7°CDB/-8°CWB)	COPd		4.01	4.05	4.01	4.05	4.01	4.05
			Pdh	kW	3.8	5.4	3.8	5.4	3.8	5.4
		B Condition (2°CDB/1°CWB)	COPd		4.68	4.87	4.68	4.87	4.68	4.87
			Pdh	kW	2.3	3.3	2.3	3.3	2.3	3.3
		C Condition (7°CDB/6°CWB)	COPd		5.20	5.23	5.20	5.23	5.20	5.23
			Pdh	kW	1.6	2.1	1.6	2.1	1.6	2.1
		D Condition (12°CDB/11°CWB)	COPd		4.76	4.56	4.76	4.56	4.76	4.56
			Pdh	kW	1.0					
		Tol (temperature operating limit)	COPd		2.95	2.89	2.95	2.89	2.95	2.89
			Pdh	kW	6.4	8.5	6.4	8.5	6.4	8.5
			TOL	°C	-22					
		Tbiv (bivalent temperature)	COPd		2.95	2.89	2.95	2.89	2.95	2.89
			Pdh	kW	6.4	8.5	6.4	8.5	6.4	8.5
			Tbiv	°C	-22					
	Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,486	2,197	1,421	2,132	1,421	2,132
			ηs (Seasonal space heating efficiency)	%	208	199	218	205	218	205
			Prated at 2°C	kW	6	9	6	9		
		B Condition (2°CDB/1°CWB)	COPd		4.84	4.39	4.84	4.39	4.84	4.39
			Pdh	kW	5.9	8.5	5.9	8.5	5.9	8.5
		C Condition (7°CDB/6°CWB)	COPd		5.45	5.43	5.45	5.43	5.45	5.43
			Pdh	kW	3.9	5.7	3.9	5.7	3.9	5.7
		D Condition (12°CDB/11°CWB)	COPd		6.10	5.99	6.10	5.99	6.10	5.99
			Pdh	kW	1.8	2.5	1.8	2.5	1.8	2.5
		Tbiv (bivalent temperature)	COPd		4.84	4.39	4.84	4.39	4.84	4.39
			Pdh	kW	5.9	8.5	5.9	8.5	5.9	8.5
			Tbiv	°C	2					

2 Specifications

2-1 Technical Specifications					EGSAH06D9W	EGSAH10D9W	EGSAX06D9W	EGSAX10D9W	EGSAX06D9WG	EGSAX10D9WG
Space heating	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,054	2,695	1,988	2,630	1,988	2,630
			ηs (Seasonal space heating efficiency)	%	153	160	159	165	159	165
			Prated at 2°C	kW	6	9		9	6	
		B Condition (2°CDB/1°CWB)	COPd		2.95	2.89	2.95	2.89	2.95	2.89
			Pdh	kW	6.4	8.5	6.4	8.5	6.4	8.5
		C Condition (7°CDB/6°CWB)	COPd		3.72	3.83	3.72	3.83	3.72	3.83
			Pdh	kW	4.1	5.3	4.1	5.3	4.1	5.3
		D Condition (12°CDB/ 11°CWB)	COPd		4.94	5.16	4.94	5.16	4.94	5.16
			Pdh	kW	1.9	2.5	1.9	2.5	1.9	2.5
		Tbiv (bivalent temperature)	COPd		-	2.89	-	2.89	-	2.89
			Pdh	kW	3.0	8.5	3.0	8.5	3.0	8.5
			PERd	%	6.4	-	6.4	-	6.4	-
			Tbiv	°C	2					
	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,237	4,179	3,183	4,125	3,183	4,125
			ηs (Seasonal space heating efficiency)	%	150	160	153	162	153	162
			Prated at -10°C	kW	6	9		9	6	
			SCOP		3.96 (1)	4.20 (1)	4.02 (1)	4.26 (1)	4.02 (1)	4.26 (1)
			Seasonal space heating eff. class		A+++					
		A Condition (-7°CDB/-8°CWB)	COPd		3.21					
			Pdh	kW	5.5	7.4	5.5	7.4	5.5	7.4
		B Condition (2°CDB/1°CWB)	COPd		4.00	4.25	4.00	4.25	4.00	4.25
			Pdh	kW	3.3	4.7	3.3	4.7	3.3	4.7
		C Condition (7°CDB/6°CWB)	COPd		4.71	4.85	4.71	4.85	4.71	4.85
			Pdh	kW	2.2	3.0	2.2	3.0	2.2	3.0
		D Condition (12°CDB/ 11°CWB)	COPd		4.32	5.32	4.32	5.32	4.32	5.32
			Pdh	kW	1.0	1.4	1.0	1.4	1.0	1.4
		Tol (temperature operating limit)	COPd		2.95	2.89	2.95	2.89	2.95	2.89
			Pdh	kW	6.4	8.5	6.4	8.5	6.4	8.5
			TOL	°C	-10					
		Tbiv (bivalent temperature)	COPd		2.95	2.89	2.95	2.89	2.95	2.89
			Pdh	kW	6.4	8.5	6.4	8.5	6.4	8.5
			Tbiv	°C	-10					

2 Specifications

2-1 Technical Specifications					EGSAH06D9W	EGSAH10D9W	EGSAX06D9W	EGSAX10D9W	EGSAX06D9WG	EGSAX10D9WG
Space heating	Average climate water outlet 35°C	General	Annual energy consumption	kWh	2,238	3,229	2,183	3,175	2,183	3,175
			ηs (Seasonal space heating efficiency)	%	214	210	219	213	219	213
			Prated at -10°C	kW	6	9	6	9	6	9
			SCOP		5.54 (1)	5.44 (1)	5.54 (1)	5.53 (1)	5.54 (1)	5.53 (1)
			Seasonal space heating eff. class		A+++					
		A Condition (-7°CDB/-8°CWB)	COPd		5.04	4.63	5.04	4.63	5.04	4.63
			Pdh	kW	5.6	7.7	5.6	7.7	5.6	7.7
		B Condition (2°CDB/1°CWB)	COPd		5.76	5.70	5.76	5.70	5.76	5.70
			Pdh	kW	3.3	4.6	3.3	4.6	3.3	4.6
		C Condition (7°CDB/6°CWB)	COPd		6.11	5.79	6.11	5.79	6.11	5.79
			Pdh	kW	2.1	2.9	2.1	2.9	2.1	2.9
		D Condition (12°CDB/ 11°CWB)	COPd		5.60	5.94	5.60	5.94	5.60	5.94
			Pdh	kW	1.0	1.4	1.0	1.4	1.0	1.4
		Tol (temperature operating limit)	COPd		4.84	4.39	4.84	4.39	4.84	4.39
			Pdh	kW	5.9	8.5	5.9	8.5	5.9	8.5
			TOL	°C	-10					
		Tbiv (bivalent temperature)	COPd		4.84	4.39	4.84	4.39	4.84	4.39
			Pdh	kW	5.9	8.5	5.9	8.5	5.9	8.5
			Tbiv	°C	-10					
Space heating general	Other	Pck (Crankcase heater mode)		kW	0.000					
		Poff (Off mode)		kW	0.015					
		Psb (Standby mode)		kW	0.015					
		Pto (Thermostat off)		kW	0.024					
Domestic hot water heating	General	Declared load profile			L					
	Average climate	AEC (Annual electricity consumption)		kWh	877					
		AFC (Annual fuel consumption)		Gj	0					
		ηwh (water heating efficiency)		%	117					
		Qelec (Daily electricity consumption)		kWh	4.140					
		Qfuel (Daily fuel consumption)		kWh	0.000					
		Water heating energy efficiency class			A+					
	Cold climate	AEC (Annual electricity consumption)		kWh	877					
		AFC (Annual fuel consumption)		Gj	0					
		ηwh (water heating efficiency)		%	117					
		Qelec (Daily electricity consumption)		kWh	4.140					
		Qfuel (Daily fuel consumption)		kWh	0.000					
	Warm climate	AEC (Annual electricity consumption)		kWh	877					
		AFC (Annual fuel consumption)		Gj	0					
		ηwh (water heating efficiency)		%	117					
		Qelec (Daily electricity consumption)		kWh	4.140					
		Qfuel (Daily fuel consumption)		kWh	0.000					
Heating capacity	Min.			kW	0.85					
	Nom.			kW	3.34	5.48	3.34	5.48	3.34	5.48
	Max.			kW	7.98	9.55	7.98	9.55	7.98	9.55
Power input	Nom.			kW	0.70	1.12	0.70	1.12	0.70	1.12
COP					4.74	4.89	4.74	4.89	4.74	4.89
Casing	Colour				White + Black				Grey + Black	
	Material				Precoated sheet metal	-	Precoated sheet metal	-		
Dimensions	Unit	Height		mm	1,891					
		Width		mm	597					
		Depth		mm	666					
	Packed unit	Height		mm	2,202					
		Width		mm	720					
		Depth		mm	775					

2 Specifications

2-1 Technical Specifications					EGSAH06D9W	EGSAH10D9W	EGSAX06D9W	EGSAX10D9W	EGSAX06D9WG	EGSAX10D9WG
Weight	Unit			kg	222					
	Packed unit			kg	237					
Packing	Material				Wood / Carton / PE wrapping foil / Metal					
	Weight			kg	15					
Tank	Energy efficiency class				A					
	Standing heat loss			W	50					
	Storage volume			l	-			180	-	180
	Water volume			l	180			-	180	-
	Material				Stainless steel (EN 1.4521)					
	Maximum water temperature			°C	60.0					
	Maximum water pressure			bar	10					
	Insulation	Material			Polyurethane foam					
		Heat loss		kWh/24h	1.2					
	Corrosion protection				Pickling					
	Name				Stainless steel domestic hot water tank 180 l					
3-way valve	Coefficient of flow (kV)	Space heating		m^3/h	10					
		Domestic hot water tank		m^3/h	8					
Pump	Type				Grundfos UPM3LK					
	Nr of speeds				PWM					
	Power input			W	75					
Compressor	Type				Hermetically sealed swing compressor					
	Model				2YC40JXD#C					
Operation range	Installation space	Min.		°C	5					
		Max.		°C	35					
	Brine side	Min.		°C	-10					
		Max.		°C	30					
	Heating	Water side	Min.	°C	5					
			Max.	°C	65					
	Domestic hot water	Water side	Min.	°C	25					
			Max.	°C	60					
Water side Heat exchanger	Type				Plate heat exchanger					
	Quantity				1					
	Water volume			l	1.76					
	Insulation material				Elastomeric foam					
Refrigerant	Type				R-32					
	GWP				675.0					
	Charge			TCO_2eq	1.15					
				kg	1.70					
	Circuits	Quantity			1					
Water circuit - Domestic hot water side	Piping connections	Cold water in / Hot water out	Diameter	mm	22					
		Recirculation connection		inch	G 3/4" FEMALE					
Refrigerant oil	Type				FW68DA					
	Charged volume			l	0.7					
Water circuit	Piping connections diameter			mm	22					
	Safety valve			bar	3					
	Manometer				Digital					
	Drain valve / fill valve				Yes					
	Shut off valve				Yes					
	Air purge valve				Yes					
	Total water volume			l	5.1					
	Heating water system	Water volume	Min.	l	20					

2 Specifications

2-1 Technical Specifications				EGSAH06D9W	EGSAH10D9W	EGSAX06D9W	EGSAX10D9W	EGSAX06D9WG	EGSAX10D9WG
PED	Category			Category II					
	Most critical part	Name		Compressor					
		Ps*DN	bar	42					
		Ps*V	Bar*l	64					
General	Supplier/ Manufacturer details	Name and address		Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium					
		Name or trademark		Daikin Europe N.V.					
	Product description	Air-to-water heat pump		No					
		Brine-to-water heat pump		Yes					
		Heat pump combination heater		No					
		Low-temperature heat pump		No					
		Supplementary heater integrated		Yes					
		Water-to-water heat pump		Yes					
	LW(A) Sound power level (according to EN14825)	Indoor	dB(A)	39.0	41.0	39.0	41.0	39.0	41.0
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825					
Brine pump	Type			Grundfos UPMXL Geo					
	Power input		W	180					
Brine heat exchanger	Quantity			1					
	Brine volume		l	1.94					
Brine circuit	Piping connections diameter		mm	28					
	Safety valve		bar	3					
	Drain valve / fill valve			Yes					
	Air purge valve			No					
	Total volume		l	5.0					

2-2 Electrical Specifications				EGSAH06D9W	EGSAH10D9W	EGSAX06D9W	EGSAX10D9W	EGSAX06D9WG	EGSAX10D9WG
Power supply	Phase			1~/3~					
	Frequency		Hz	50					
	Voltage		V	230/400					
	Voltage range	Min.	%	10					
		Max.	%	10					
Electric heater	Type			9W					
Electrical power consumption	Standby		W	15					
Current	Recommended fuses		A	16/32					

Notes

(1) According to EN14825 and EN14511:2013

See operation range drawing: range increase by support booster heater or backup heater

3 Options

3 - 1 Options

EGSAH-D9W

EGSAX-D9W

EGSAX-D9WG

Factory-mounted equipment for ·EGSA(H/X)06DA##·

Description		EGSA(H/X)06DA##
Heating only model ·EGSAH*·		9W
Reversible model ·EGSAX*·		9W
Backup heater ·3kW 1N~230V·	(7) (8)	o
Backup heater ·6kW 3N~400V·	(7) (9)	o
Domestic hot water tank ·180L·		o

Factory-mounted equipment for ·EGSA(H/X)10DA##·

Description		EGSA(H/X)10DA##
Heating only model ·EGSAH*·		9W
Reversible model ·EGSAX*·		9W
Backup heater ·3kW 1N~230V·	(7) (8)	o
Backup heater ·6kW 3N~400V·	(7) (9)	o
Domestic hot water tank ·180L·		o

Kit availability

Reference	Description		EGSA*DA*			
EGSAH*	Heating only indoor unit		9W		9W	
EGSAX*	Reversible indoor unit			9W		9W
EKRP1HBAA	Digital I/O PCB	(1) (2)	o	o	o	o
EKRP1AHTA	Demand PCB	(3)	o	o	o	o
BRC1HHDA*	Remote user interface		o	o	o	o
EKCC8-W	Universal centralised user interface		o	o	o	o
KRCS01-1	Remote indoor sensor		o	o	o	o
EKPCCAB4	PC cable kit	(4)	o	o	o	o
FWXV15AVEB	Heat pump convector		o	o (5)	o	o (5)
FWXV20AVEB	Heat pump convector		o	o (5)	o	o (5)
EKRTWA	Wired room thermostat		o	o	o	o
EKRTR1	Wireless room thermostat		o	o	o	o
EKRTETS	External room thermostat	(6)	o	o	o	o
KGSFILL2	Fill kit		o	o	o	o
K.FERNOXTF1	Magnetic filter / dirt separator		o	o	o	o
K.FERNOXTF1FL	Magnetic filter / dirt separator		o	o	o	o
EKCSENS	Current sensor		o	o	o	o
EKGSHYDMOD	Hydro module		o	o	o	o
EKGSPOWCAB	Power cable with connector for Germany		o	o	o	o

(1) PCB that provides additional output connections: · ·
- (a) Control external heat source (bivalent operation).
- (b) Output remote ON/OFF signal space heating/cooling
- (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
(4) Data cable for connection with PC.
(5) The valve kit is mandatory if a heat pump convector is installed on a reversible model (not mandatory for heating only models).
(6) ·EKRTETS· can only be used in combination with ·EKRTR1·
(7) Backup heat r capacity depends on how th backup heat r is connected to the grid.
(8) ·1··phase ·3·kW (normal operation) / ·6·kW (emergency operation/ "HP forced off" mode)
(9) ·3··phase ·6·kW (normal operation) / ·9·kW (emergency operation/ "HP forced off" mode)

3D122775

4 Capacity tables

4 - 1 Heating Capacity Tables

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

Maximum heating capacity

	LWC [°C]	25		35		45		55		60	
	EBT [°C]	HC [kW]	PI [kW]	HC [kW]	PI [kW]	HC [kW]	PI [kW]	HC [kW]	PI [kW]	HC [kW]	PI [kW]
EGSAH(X)10DA9W(G)	-10	7,36	1,64	7,04	1,91	6,51	2,35	5,98	2,79	5,06	2,75
	-5	8,51	1,59	8,15	2,05	7,70	2,47	7,24	2,89	5,87	2,72
	0	9,65	1,55	9,55	2,20	8,88	2,59	8,49	2,98	6,68	2,70
	5	11,29	1,63	10,83	2,18	10,07	2,52	9,31	2,86	7,70	2,72
	10	12,93	1,72	12,40	2,16	11,26	2,45	10,12	2,74	8,72	2,75
	15	14,19	1,63	13,98	2,14	12,43	2,34	10,89	2,55	9,52	2,58
	20	15,46	1,55	15,56	2,12	13,61	2,24	11,66	2,37	10,31	2,41
	25	16,72	1,47	17,14	2,10	14,78	2,14	12,43	2,18	11,11	2,25
	30	17,98	1,38	18,71	2,08	15,96	2,04	13,20	2,00	11,90	2,08
EGSAH(X)06DA9W(G)	-10	6,08	1,42	5,84	1,64	5,36	1,99	4,88	2,34	4,41	2,50
	-5	7,14	1,37	6,86	1,72	6,45	2,08	5,99	2,44	5,54	2,60
	0	8,20	1,33	7,98	1,79	7,54	2,16	7,10	2,54	6,68	2,70
	5	9,60	1,40	9,30	1,83	8,81	2,21	8,33	2,60	7,70	2,72
	10	11,00	1,48	10,62	1,86	10,09	2,26	9,55	2,66	8,72	2,75
	15	12,13	1,40	12,05	1,84	11,26	2,17	10,46	2,49	9,52	2,58
	20	13,26	1,31	13,49	1,82	12,43	2,07	11,38	2,33	10,31	2,41
	25	14,39	1,22	14,92	1,79	13,61	1,98	12,29	2,16	11,11	2,25
	30	15,53	1,14	16,36	1,77	14,78	1,88	13,20	2,00	11,90	2,08

Legend

LWC: Leaving water temperature [°C]
EBT: Entering brine temperature [°C]
HC: Heating capacity at maximum operating frequency, measured according to ·EN14511:2018·.
PI: Power input at maximum operating frequency (including the controller and the pumps), measured according to ·EN14511:2018·.

Conditions

Heating capacity

3D123293

4 Capacity tables

4 - 2 Cooling Capacity Tables

EGSAX-D9W
EGSAX-D9WG

Maximum cooling capacity

	LWC [°C]	7		13		15		18		22	
	EBT [°C]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]
EGSAH(X)10DA9W(G)	-5			8,12	0,57	8,12	0,57	8,12	0,57	8,12	0,57
	0			11,27	1,28	11,27	1,27	11,28	1,25	11,29	1,24
	5	11,76	1,43	11,94	1,50	12,00	1,50	12,10	1,50	12,24	1,49
	10	11,85	1,61	12,61	1,65	12,73	1,65	12,92	1,66	13,18	1,66
	15	11,17	1,68	12,10	1,73	12,35	1,72	12,74	1,71	13,25	1,69
	20	10,49	1,76	11,59	1,81	11,97	1,79	12,56	1,76	13,33	1,72
	25	9,82	1,84	11,08	1,89	11,59	1,86	12,37	1,81	13,41	1,74
	30	9,14	1,92	10,57	1,98	11,21	1,93	12,19	1,86	13,49	1,77
EGSAH(X)06DA9W(G)	-5			8,12	0,57	8,12	0,57	8,12	0,57	8,12	0,57
	0			9,73	1,00	9,73	1,00	9,73	0,99	9,73	0,97
	5	10,04	1,11	10,31	1,16	10,40	1,15	10,52	1,14	10,68	1,12
	10	10,13	1,22	10,90	1,25	11,06	1,24	11,30	1,23	11,62	1,22
	15	9,80	1,38	10,74	1,42	11,04	1,40	11,49	1,38	12,09	1,36
	20	9,46	1,55	10,57	1,59	11,01	1,57	11,67	1,54	12,56	1,49
	25	9,13	1,71	10,41	1,76	10,99	1,73	11,86	1,69	13,02	1,63
	30	8,79	1,87	10,24	1,93	10,96	1,90	12,04	1,84	13,49	1,77

Legend

LWC: Leaving water temperature [°C]
EBT: Entering brine temperature [°C]
CC: Cooling capacity at maximum operating frequency, measured according to ·EN14511:2018·.

PI: Power input at maximum operating frequency (including the controller and the pumps), measured according to ·EN14511:2018·.

Conditions

Cooling capacity

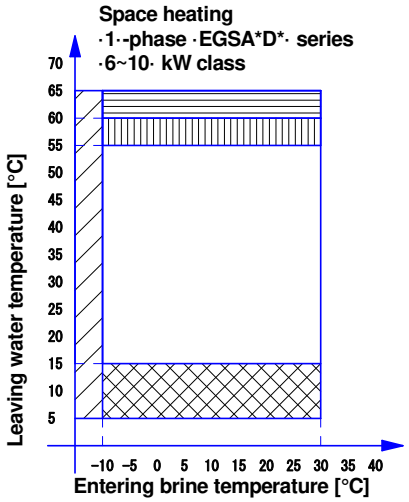
The capacity is according to ·EN14511:2018· and valid for chilled water range Dt = ·3~8·°C
Capacity values may not be extrapolated below 7°C leaving water temperature.

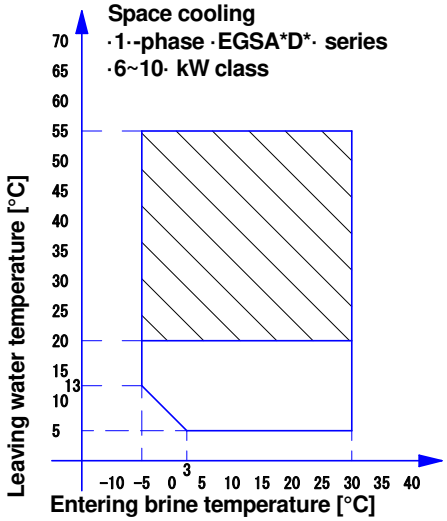
3D124144

5 Operation range

5 - 1 Operation Range

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG





Legend

- Backup heater only operation
  Entering brine temperature = ·<-10·°C
- Heat pump operation
- Heat pump operation
  Heat pump operation if setpoint >·55·°C and ΔT = ·8·°C (ΔT = outlet temperature – inlet temperature)
- Heat pump + backup heater operation
- Pull-down area
- Heat pump operation
  Heating setpoint: ·>= 15·°C

Prevent the system from freezing by adding antifre eze to the brine side (see note).

For more information, refer to the installation manual.

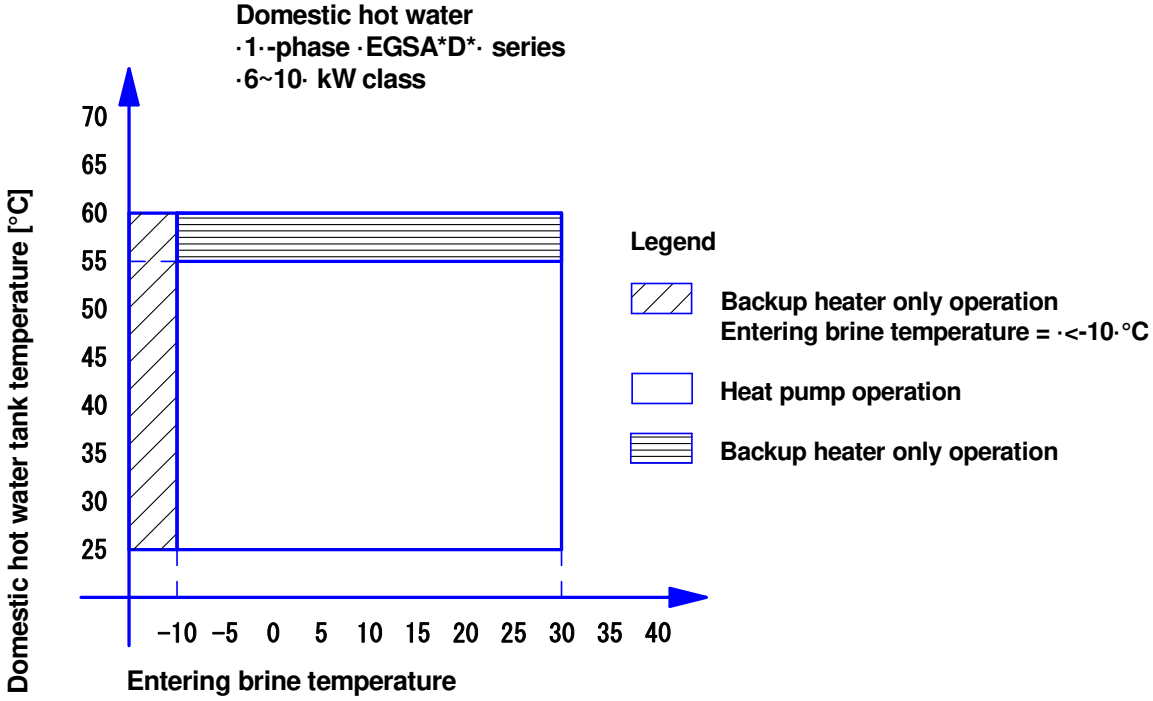
In restricted power supply mode, the outdoor unit and backup heater can only operate separately.

3D122772

5 Operation range

5 - 1 Operation Range

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



Prevent the system from freezing by adding antifreeze to the brine side (see note).

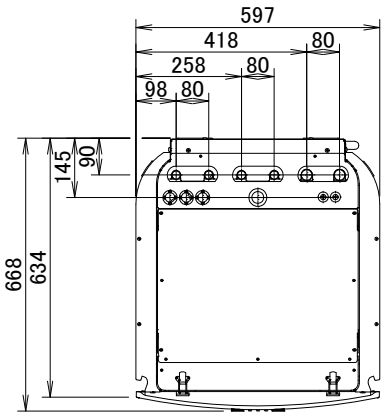
For more information, refer to the installation manual.

3D122773

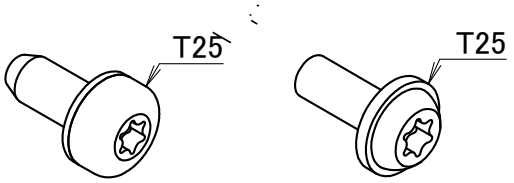
6 Dimensional drawings

6 - 1 Dimensional Drawings

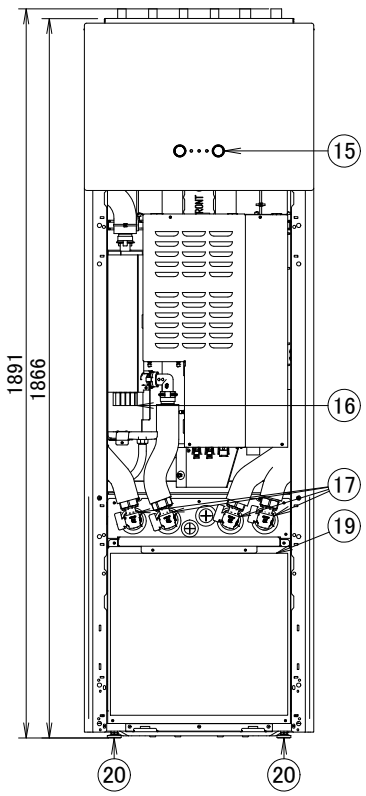
EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

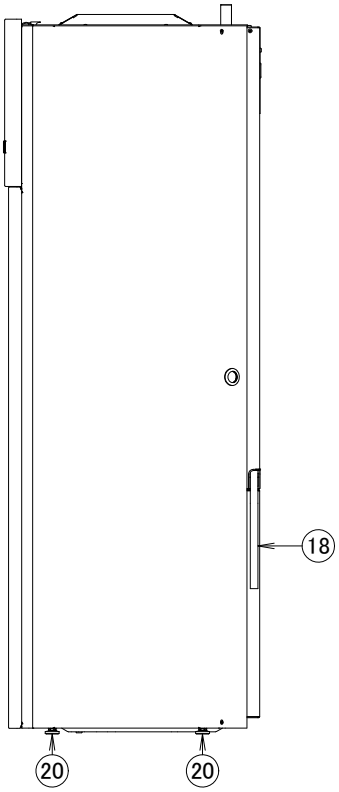


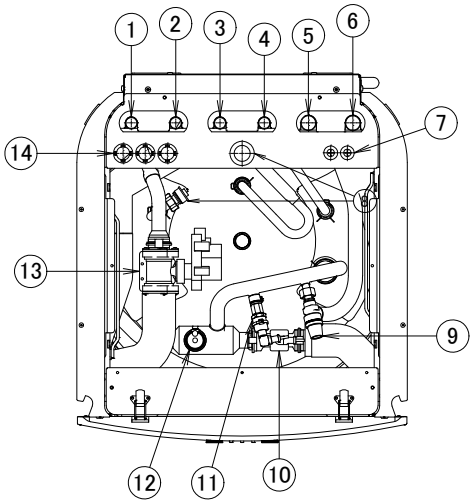
Screws used in this unit:



① Water out connection Ø22mm straight
② Water in connection Ø22mm straight
③ Tank out connection Ø22mm straight
④ Tank in connection Ø22mm straight
⑤ Brine out connection Ø28mm straight
⑥ Brine in connection Ø28mm straight
⑦ Low voltage wiring intake Ø13.5mm
⑧ Recirculation connection G3/4" (female)
⑨ Safety valve
⑩ Flow sensor
⑪ Space heating water pressure sensor
⑫ Air purge
⑬ 3-way valve
⑭ High voltage wiring intake Ø24mm
⑮ User interface
⑯ Backup heater
⑰ Shut-off valves
⑱ Drain outlet (unit + safety valve)
⑲ Hydrobox unit
⑳ Levelling feet







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

For examples, refer to the installer reference guide.

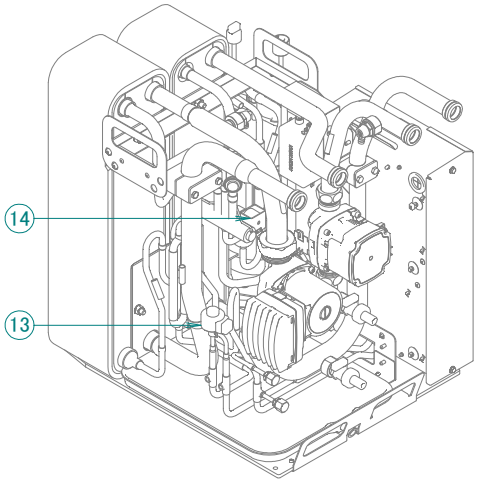
3D122284

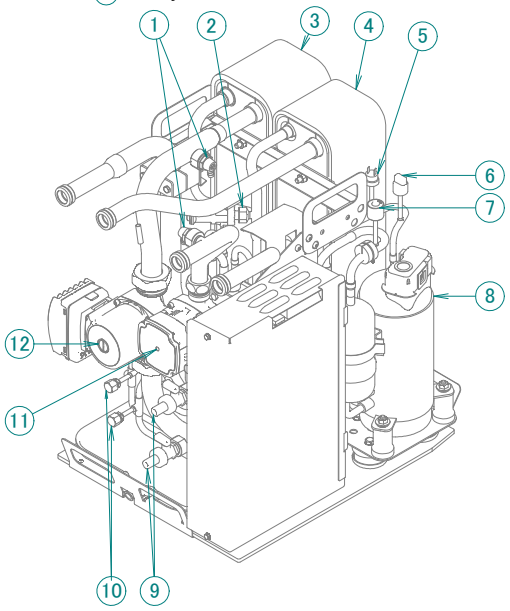
6 Dimensional drawings

6 - 1 Dimensional Drawings

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

1. Manual air purge valve
2. Refrigerant pressure relief valve
3. Plate heat exchanger
   Brine side
4. Plate heat exchanger
   Water side
5. High pressure switch
6. Refrigerant pressure sensor
7. Low pressure sensor
8. Compressor
9. Drain valve
10. Service port ·5/16"· flare
11. Pump
    Water side
12. Pump
    Brine side
13. Electronic expansion valve
14. 4-way valve





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

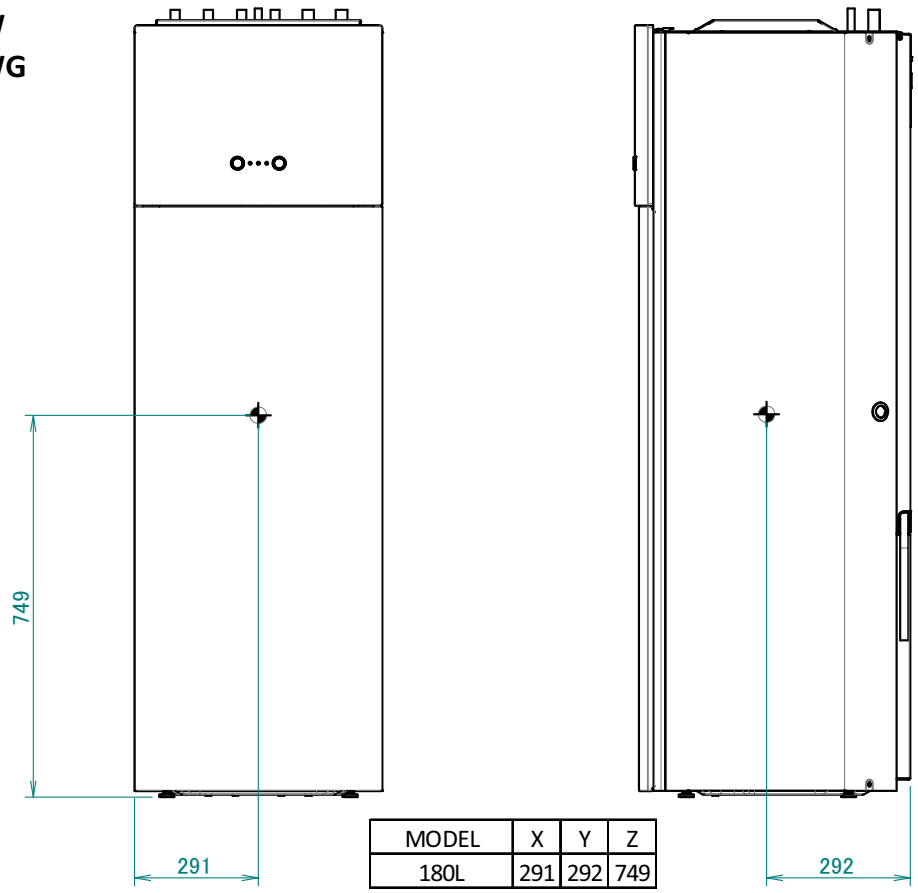
For examples, refer to the installer reference guide.

3D122355

7 Centre of gravity

7 - 1 Centre of Gravity

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



MODEL	X	Y	Z
180L	291	292	749

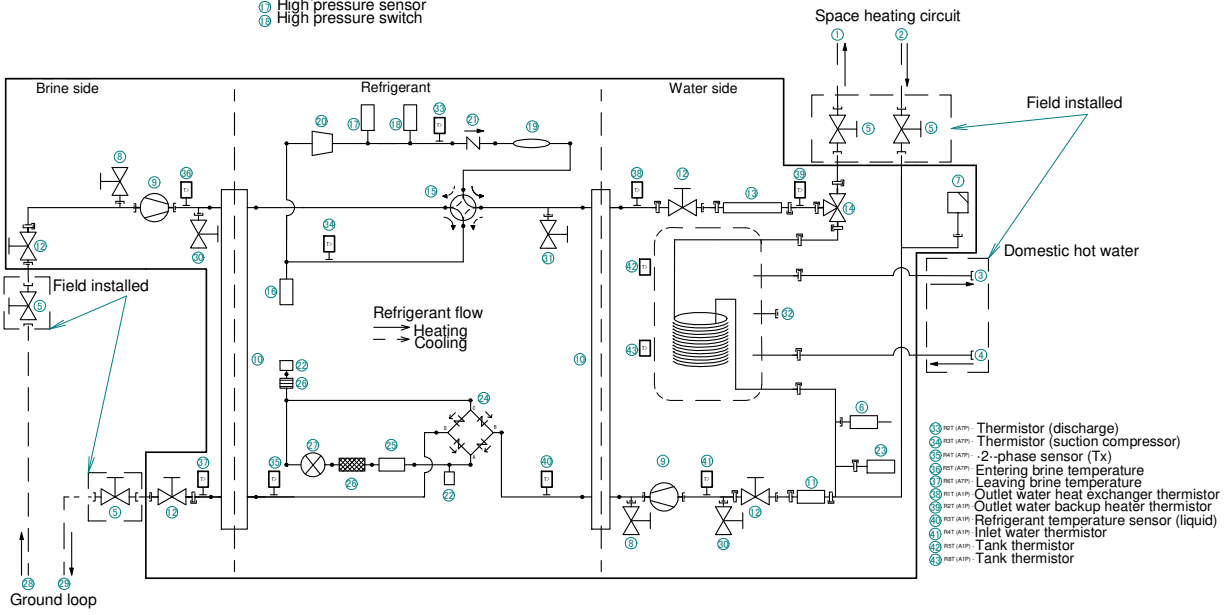
3D122238

8 Piping diagrams

8 - 1 Piping Diagrams

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

① Water out connection ·ø 22mm·
② Water in connection ·ø 22mm·
③ Tank out connection ·ø 22mm·
④ Tank in connection ·ø 22mm·
⑤ Shut-off valve
⑥ Safety valve
⑦ Automatic air purge valve
⑧ Drain valve
⑨ Pump
⑩ Plate heat exchanger
⑪ Flow sensor
⑫ Shut-off valve
⑬ Backup heater
⑭ 3-way valve
⑮ 4-way valve
⑯ Low pressure sensor
⑰ High pressure sensor
⑱ High pressure switch
⑲ Muffler
⑳ Compressor
㉑ Check valve
㉒ Service port
㉓ Space heating water pressure sensor
㉔ Rectifier
㉕ Heat sink
㉖ Filter
㉗ Electronic expansion valve
㉘ Brine in connection ·ø 28mm·
㉙ Brine out connection ·ø 28mm·
㉚ Manual air purge valve
㉛ Refrigerant pressure relief valve
㉜ Recirculation connection ·3/4" (G)· (female)



㉝ RDT (A7P) · Thermistor (discharge)
㉞ RDT (A7P) · Thermistor (suction compressor)
㉟ RHT (A7P) · ·2··phase sensor (Tx)
㊱ RWT (A7P) · Entering brine temperature
㊲ RET (A7P) · Leaving brine temperature
㊳ RWT (A1P) · Outlet water heat exchanger thermistor
㊴ RBT (A1P) · Outlet water backup heater thermistor
㊵ RGT (A1P) · Refrigerant temperature sensor (liquid)
㊶ RWT (A1P) · Inlet water thermistor
㊷ RST (A1P) · Tank thermistor
㊸ RST (A1P) · Tank thermistor

Screw connection	Brazed connection
Quick coupling	

3D121963

9 Wiring diagrams

9 - 1 Wiring Diagrams - Notes & Legend

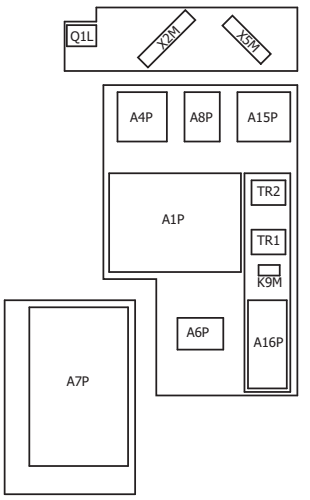
EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

NOTES to go through before starting the unit

X1M : Main terminal
X2M : Field wiring terminal for AC
X5M : Field wiring terminal for DC

: Earth wiring
: Field supply
15 : Wire number 15
→ **/12.2 : Connection ** contnues on page 12 colomn 2
① : Several wiring possibilities
: Option
: Mounted in switch box
: Wiring depending on model
: PCB

POSITION IN SWITCH BOX



LEGEND

∗ : optional # : field supply

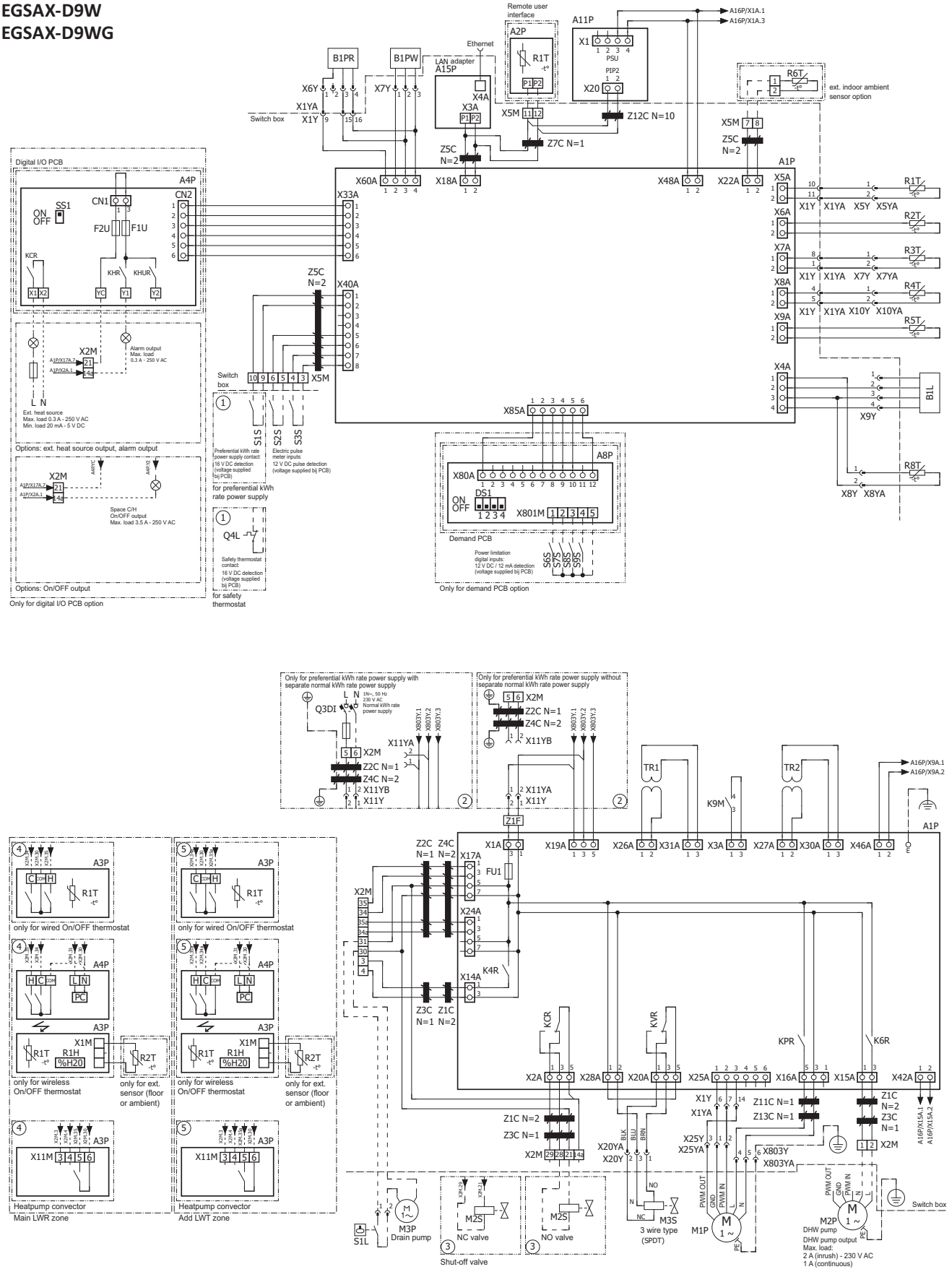
Part n°		Description
A1P		main PCB (hydro)
A2P	∗	user interface PCB
A3P	∗	On/OFF thermostat
A3P	∗	heat pump convector
A4P	∗	digital I/O PCB
A4P	∗	receiver PCB (wireless On/OFF thermostat, PC=power circuit)
A6P		BUH cotrol PCB
A7P		inverter PCB
A8P	∗	demand PCB
A11P		MMI main PCB
A15P		LAN adapter
A16P		ACS digital I/O PCB
B1L		flow sensor
B1PR		refrigerant pressure sensor
B1PW		water pressure sensor
C2~C8		capacitor
CN* (A4P)	∗	connector
CT*	∗	current sensor
DS1 (A8P)	∗	dipswitch
E1H		backup heater element (1 kW)
E2H		backup heater element (2 kW)
F1B	#	overcurrent fuse
F1T		thermal fuse backup heater
F1~2U (A4P)	∗	fuse (5 A, 250 V)
F1U (A16P)		fuse (T, 1.5 A, 250 V)
F2B	#	overcurrent fuse compressor
F6U (A7P)		fuse (T, 3.15 A, 250 V)
FU1 (A1P)		fuse (T, 6.3 A, 250 V)
K*R (A1/4/7/16P)		relay on PCB
K1~6M (A6P)		BUH relay
K9M		thermal protector BUH relay
L1R		reactor
M1C		motor (compressor)
M1P		main water supply pump
M2P	#	domestic hot water pump
M2S	#	shut off valve
M3P	#	drain pump
M4P		brine pump
M3S		3 way valve for floorheating / domestic hot water
Q*DI	#	earth leakage circuit breaker
Q1L		thermal protector backup heater
Q1L (A7P)		thermal protector compressor
Q4L	#	safety thermostat
R1T (A1P)		outlet water heat temperature sensor (LWC)
R1T (A2P)	∗	ambient sensor user interface
R1T (A3P)	∗	ambient sensor On/OFF thermostat
R1T (A7P)		thermistor (outdoor ambient)
R2T (A1P)		after BUH temperature sensor
R2T (A3P)	∗	external sensor (floor or ambient)
R2T (A7P)		thermistor (discharge)
R3T (A1P)		refrigerant liquid temperature sensor
R3T (A7P)		thermistor (suction)
R4T (A1P)		inlet water temperature sensor (EWC)
R4T (A7P)		thermistor (2 phase)
R5T (A1P)		DHW tank temperature sensor
R5T (A7P)		thermistor (brine entering temperature)
R6T (A1P)	∗	external indoor ambient thermistor
R6T (A7P)		thermistor (brine low temperature)
R8T (A1P)		DHW tank temperature sensor
R1H (A3P)	∗	humidity sensor
S1L	#	low level switch
S1NPL		low pressure sensor (refrigerant)
S1PH		high pressure switch
S1PL	#	low brine pressure switch
S1S	#	preferential kWh rate PS contact
S2S	#	electrical meter pulse input 1
S3S	#	electrical meter pulse input 2
S6~9S	#	digital power limitation inputs
SS1 (A4P)	∗	selector switch
TR1,TR2		power supply transformer
V1~6D (A6P)		diode
X*H*		backup heater connector
X*M		terminal strip
X*Y*		connector
Y1E		electronic expansion valve
Y1S		Solenoid valve (4-way valve)
Z*C		noise filter (ferrite core)
Z*F (A16P)		noise filter

4D116863D

9 Wiring diagrams

9 - 2 Wiring Diagrams - Control Circuit

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

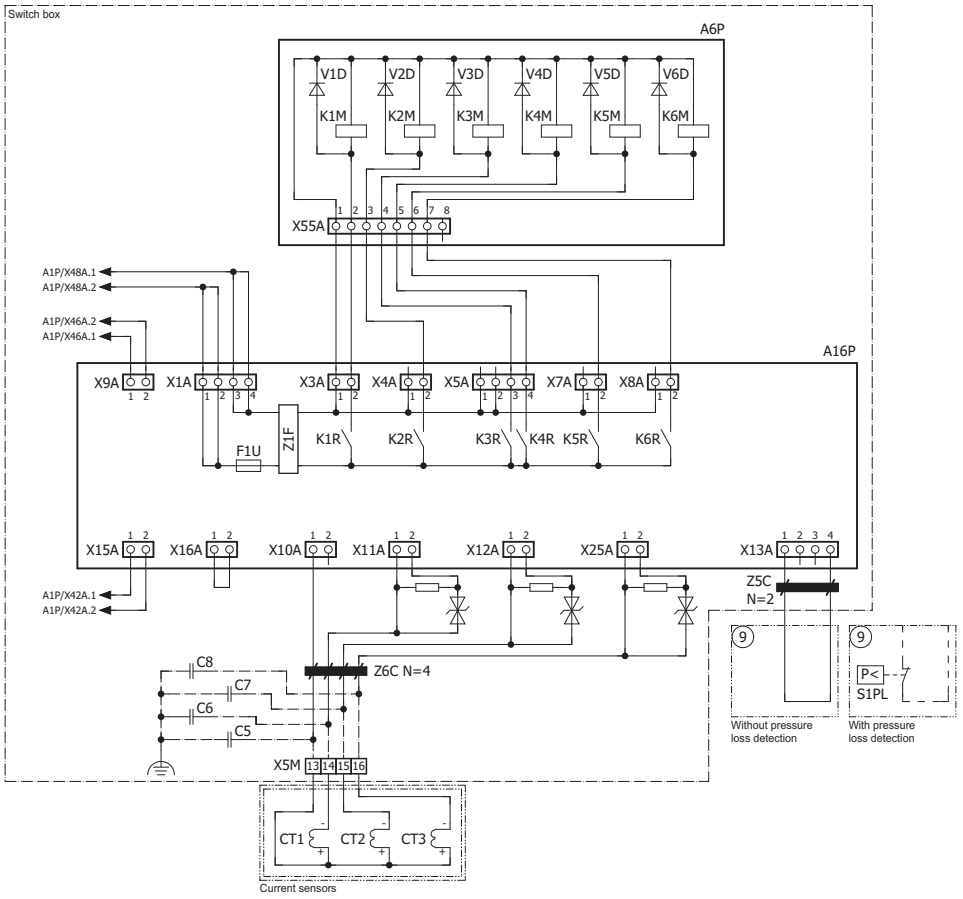


4D116863D

9 Wiring diagrams

9 - 2 Wiring Diagrams - Control Circuit

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

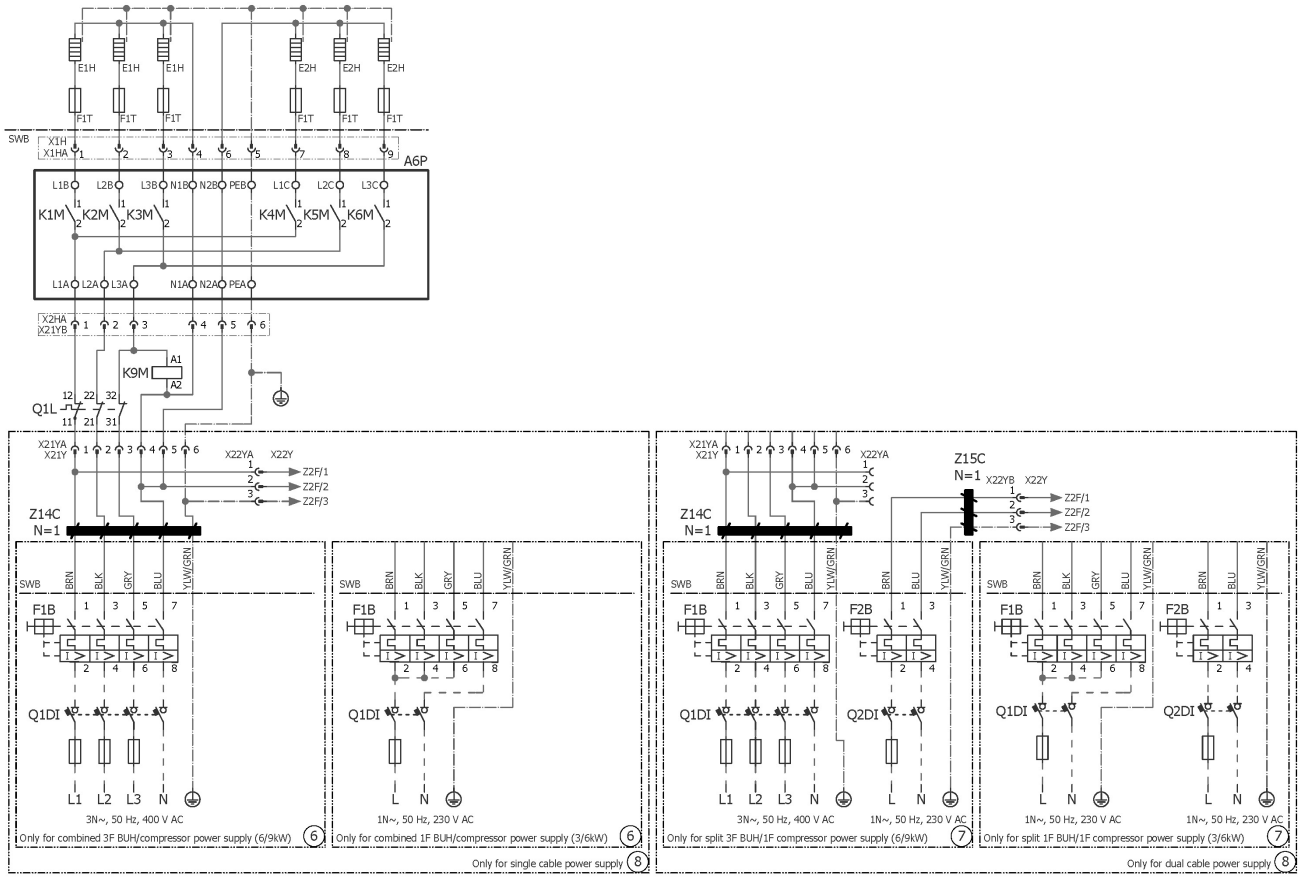


4D116863D

9 Wiring diagrams

9 - 3 Wiring Diagrams - Power Supply, Back-up Heater

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

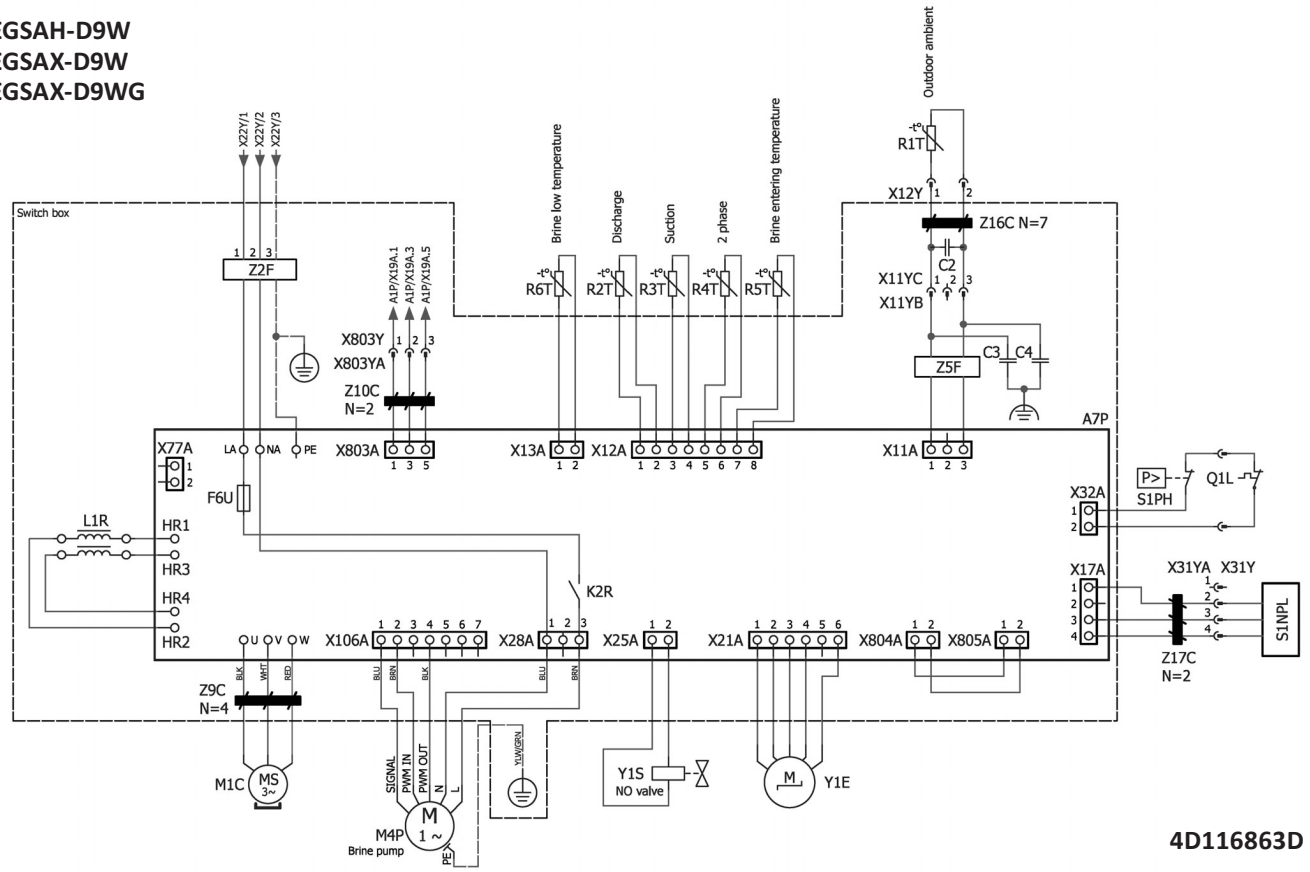


4D116863D

9 Wiring diagrams

9 - 4 Wiring Diagrams - Control Circuit, Inverter

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



10 External connection diagrams

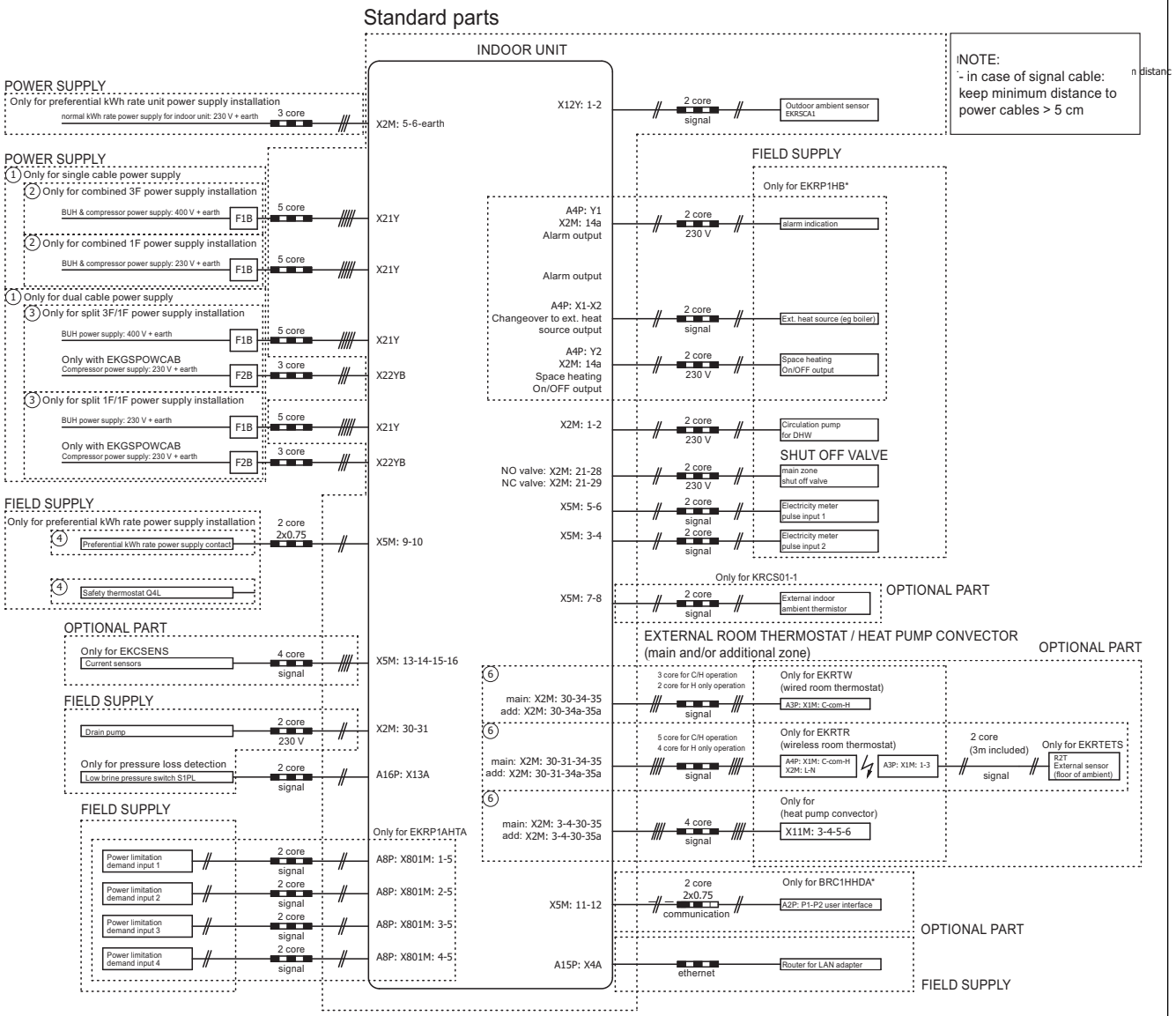
10 - 1 External Connection Diagrams

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

10

Electrical connection diagram Daikin Altherma Ground Source

For more details: please check unit wiring



4D121919

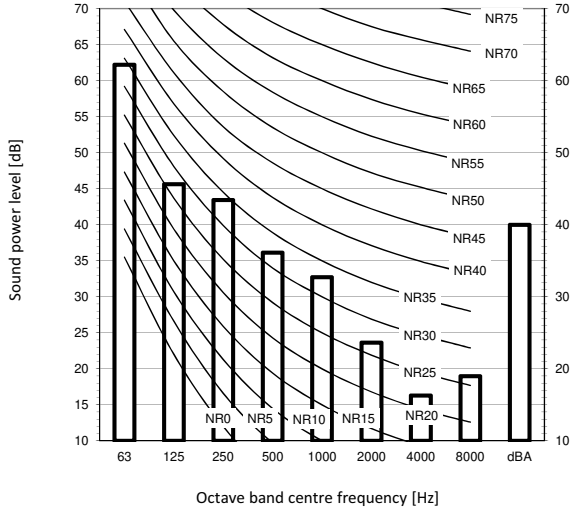
11 Sound data

11 - 1 Sound Power Spectrum

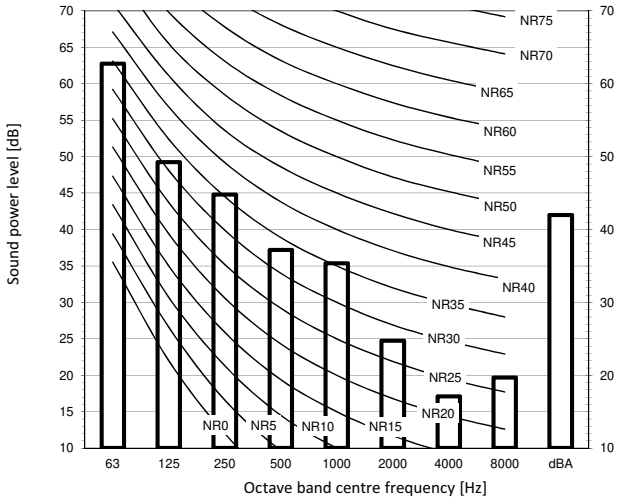
EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

Heating

EGSA*06*

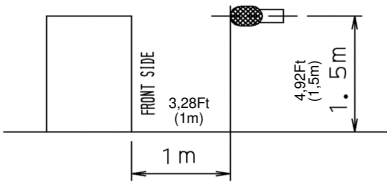


EGSA*10*



Notes

1. Data is valid at free field condition.
   Measured in a semi-anechoic chamber
2. Data is valid at nominal operation condition.
3. dBA = A-weighted sound pressure level (A scale according to IEC).
4. Reference acoustic pressure 0 dB = 20 µPa
5. If the sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



3D122374

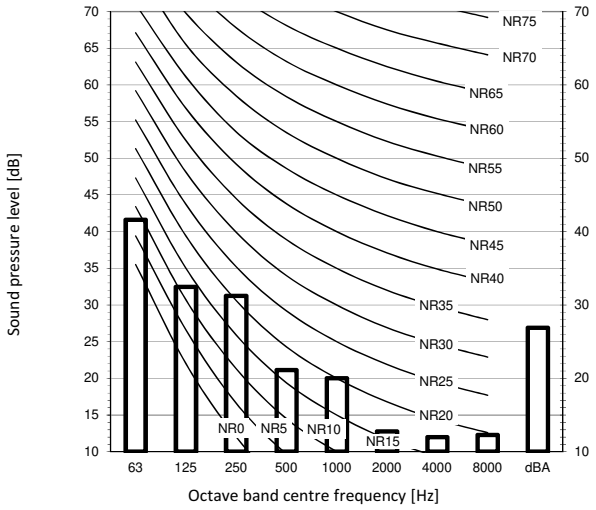
11 Sound data

11 - 2 Sound Pressure Spectrum - Heating

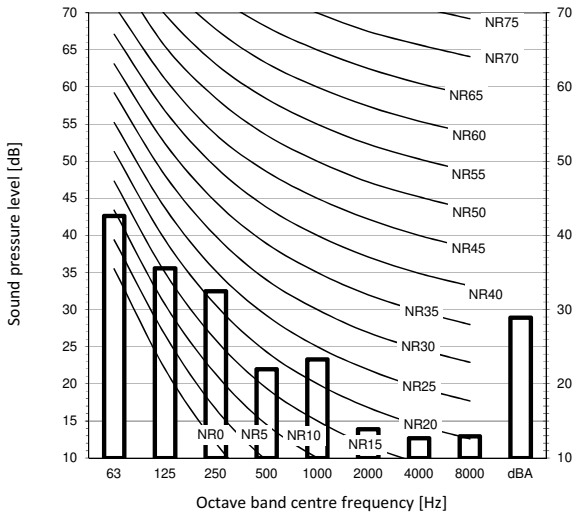
EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

Heating

EGSA*06*

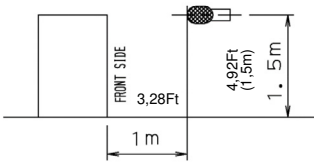


EGSA*10*



Notes

1. Data is valid at free field condition.
   Measured in a semi-anechoic chamber
2. Data is valid at nominal operation condition.
3. dBA = A-weighted sound pressure level (A scale according to IEC).
4. Reference acoustic pressure 0 dB = 20 µPa
5. If the sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

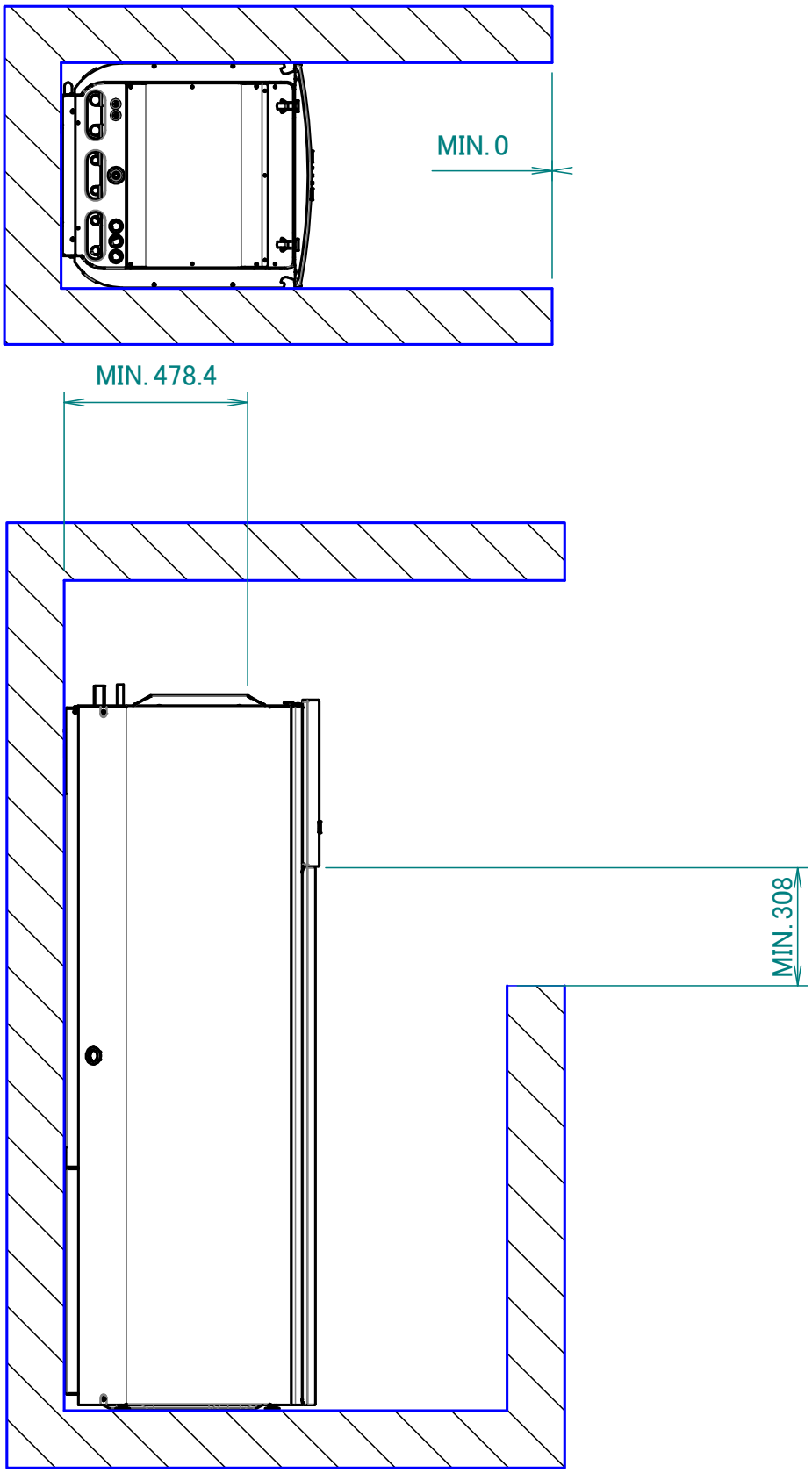


3D122375

12 Installation

12 - 1 Installation Method

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



3D122277

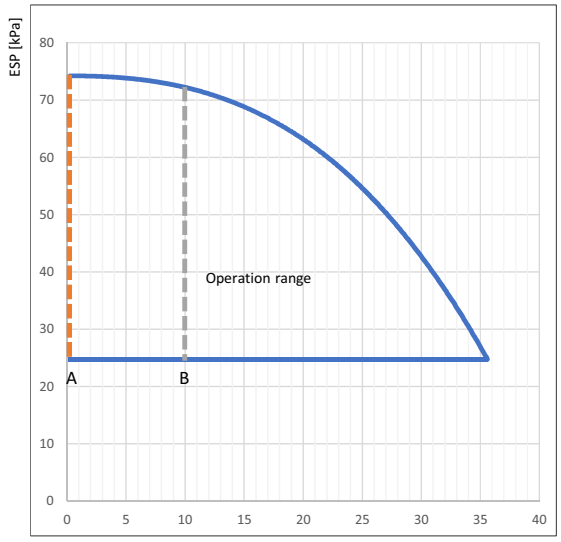
13 External static pressure

13 - 1 External static pressure - curves

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

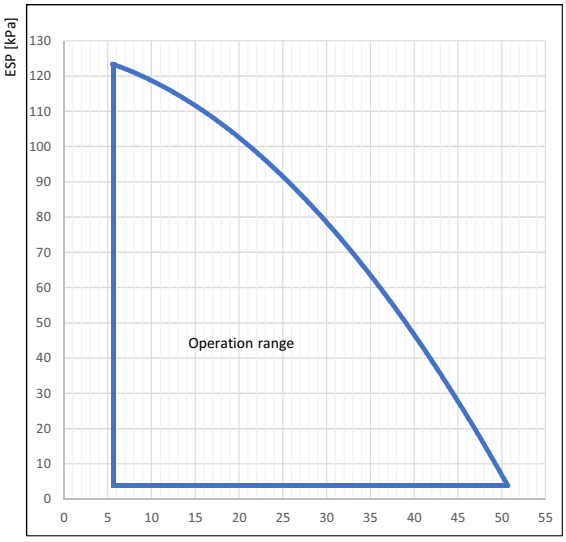
13

Space heating/cooling circuit



ESP: External Static Pressure
Flow: water flow through the unit
Flow [l/min]

Brine circuit
Mixture of water and propylene glycol (30V%) at an entering brine temperature of -3°C



ESP: External Static Pressure
Flow: water/glycol flow through the unit
Flow [l/min]

A: Minimum water flow rate during heat pump operation

B: Minimum water flow rate during cooling operation

Selecting a flow outside the operating area can damage the unit or cause the unit to malfunction.

3D122776A

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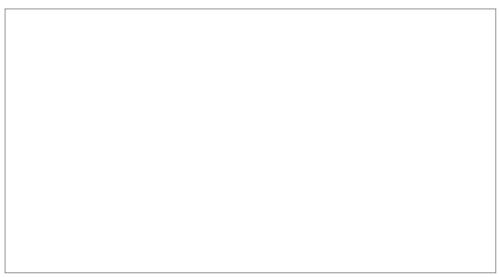

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