



Daikin Altherma
ground source heat
pump

Air Conditioning
Technical Data

EGSAH-D9W /
EGSAX-D9W /
EGSAX-D9WG



EGSAH06DA9W
EGSAH10DA9W
EGSAX06DA9W
EGSAX10DA9W
EGSAX06DA9WG
EGSAX10DA9WG

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EGSAH-D9W / EGSAX-D9W / EGSAX-D9WG

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1 Features

1 - 1 EGSAH-D9W

Ground source heat pump for heating & hot water

- 1 > Space heating comfort guaranteed even in the coldest winter conditions
- > 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



Online controller

1 Features

1 - 2 EGSAX-D9W, EGSAX-D9WG

Ground source heat pump for heating, cooling & hot water

- › Active cooling with high efficiency
- › 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
- › Space heating comfort guaranteed even in the coldest winter conditions

1



Online controller

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications				EGSAH06D9W		EGSAH10D9W		
Heating capacity	Min.		kW			0.85		
	Nom.		kW	3.35		5.49		
	Max.		kW	7.98		9.55		
Power input	Nom.		kW	0.74		1.17		
COP				4.51		4.70		
Casing	Colour	White + Black						
	Material	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		
Weight	Unit		kg			222		
	Packed unit		kg			237		
Packing	Material	Wood / Carton / PE wrapping foil / Metal						
	Weight		kg			15		
Compressor	Type	Hermetically sealed swing compressor						
	Model	2YC40JXD#C						
PED	Category	Category II						
	Most critical part	Name				Compressor		
		Ps*DN		bar			42	
	Ps*V		Bar*I			64		
Pump	Type	Grundfos UPM3LK						
	Nr of speeds	PWM						
	Power input		W			75		
Water side Heat exchanger	Type	Plate heat exchanger						
	Quantity	1						
	Water volume		l			1.76		
	Insulation material	Elastomeric foam						
Brine pump	Type	Grundfos UPMXL Geo						
	Power input		W			180		
Brine heat exchanger	Quantity	1						
	Brine volume		l			1.94		
Tank	Energy efficiency class	A						
	Standing heat loss		W			50		
Tank	Water volume		l			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						
	3-way valve	Coefficient of flow (kV)	Space heating	m ³ /h			10	
Domestic hot water tank			m ³ /h			8		
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	
			Diameter		mm			22
	Water circuit - Domestic hot water side	Piping connections	Cold water in / Hot water out					
Recirculation connection			inch			G 3/4" FEMALE		
Brine circuit	Piping connections diameter		mm			28		
	Safety valve		bar			3		
Space heating	Cold climate water outlet	General	SCOP	4.00 (1)		4.15 (1)		
Brine circuit	Drain valve / fill valve						Yes	
	Air purge valve						No	
	Total volume			l			5.0	
Refrigerant	Type						R-32	
	GWP						675.0	
	Charge			TCO2Eq			1.15	
	Charge			kg			1.70	
	Circuits		Quantity					1
Refrigerant oil	Type						FW68DA	
	Charged volume			l			0.7	

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

Technical specifications				EGSAH06D9W	EGSAH10D9W	
Operation range	Installation space	Min.	°C		5	
		Max.	°C		35	
	Brine side	Min.	°C		-10	
		Max.	°C		30	
Operation range	Heating	Water side Min.	°C		5	
		Water side Max.	°C		65	
	Domestic hot water	Water side Min.	°C		25	
		Max.	°C		60	
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	Indoor	dB(A)	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			
Sound power level	Range	dB(A)	From 36 to 44 (46 in boost mode), condition B0/-3 W30/35		From 36 to 47, condition B0/-3 W30/35	
Tank	Name		Stainless steel domestic hot water tank 180 l			
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 climate	Declared load profile		L		
		Average	AEC (Annual electricity consumption)	kWh	877	
			Qelec (Daily electricity consumption)	kWh	4.140	
			Qfuel (Daily fuel consumption)	kWh	0.000	
			η_{wh} (water heating efficiency)	%	117	
			Water heating energy efficiency class		A+	
	Cold climate	Average	AEC (Annual electricity consumption)	kWh	877	
			η_{wh} (water heating efficiency)	%	117	
			Qelec (Daily electricity consumption)	kWh	4.140	
			Qfuel (Daily fuel consumption)	kWh	0.000	
	Warm climate	Average	AEC (Annual electricity consumption)	kWh	877	
			η_{wh} (water heating efficiency)	%	117	
			Qelec (Daily electricity consumption)	kWh	4.140	
			Qfuel (Daily fuel consumption)	kWh	0.000	
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,447	4,393
			η_{s} (Seasonal space heating efficiency)	%	141	152
			Prated at -10°C	kW	6	9
			SCOP		3.72 (1)	4.00 (1)

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications			EGSAH06D9W	EGSAH10D9W	
Space heating	Average climate water outlet 55°C	General	Seasonal space heating eff. class	A++	A+++
	A	Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0	-
			COPd	3.13	3.15
			Pdh kW	5.5	7.5
	B	Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	1.0	
			COPd	3.81	4.09
			Pdh kW	3.3	4.7
	C	Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	1.0	
			COPd	4.33	4.54
			Pdh kW	2.2	3.0
	D	Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0	0.9
			COPd	3.65	4.59
			Pdh kW	1.0	1.4
	Tol (temperature operating limit)		COPd	2.90	2.85
			Pdh kW	6.4	8.5
			TOL °C		-10
	Tbiv (bivalent temperature)		COPd	2.90	2.85
			Pdh kW	6.4	8.5
			Tbiv °C		-10
Cold climate water outlet 55°C	General		Annual energy consumption	3,820	5,047
			η _s (Seasonal space heating efficiency) %	152	158
			Prated at -22°C kW	6	9
Cold climate water outlet	General		SCOP	5.13 (1)	5.32 (1)
Cold climate water outlet 55°C	A	Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0	
			COPd	3.84	3.92
			Pdh kW	3.8	5.4
	B	Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	1.0	
			COPd	4.32	4.58
			Pdh kW	2.3	3.3
	C	Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	0.9	1.0
			COPd	4.60	4.73
			Pdh kW	1.6	2.1
	D	Condition (12°CDB/11°CWB)	COPd	3.99	3.82
			Pdh kW		1.0
	Tol (temperature operating limit)		COPd	2.90	2.85
			Pdh kW	6.4	8.5
			TOL °C		-22

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

Technical specifications			EGSAH06D9W	EGSAH10D9W		
Space heating	Cold climate water outlet 55°C	Tbiv (bivalent temperature)	COPd	2.90	2.85	
			Pdh kW	6.4	8.5	
			Tbiv °C		-22	
	Warm climate water outlet 55°C	General	Annual energy consumption	2,189	2,837	
			η_s (Seasonal space heating efficiency) %	143	152	
			Prated at 2°C kW	6	9	
			SCOP	3.78 (1)	4.00 (1)	
			B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0
			COPd	2.90	2.85	
			Pdh kW	6.4	8.5	
			C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0
			COPd	3.58	3.72	
			Pdh kW	4.1	5.4	
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0	
		COPd	4.47	4.76		
		Pdh kW	1.9	2.5		
		Tbiv (bivalent temperature)	COPd	2.90	2.85	
			Pdh kW	6.4	8.5	
			Tbiv °C		2	
	Average climate water outlet 35°C	General	Annual energy consumption	2,447	3,428	
η_s (Seasonal space heating efficiency) %			195	197		
Prated at -10°C kW			6	9		
SCOP			5.06 (1)	5.12 (1)		
Seasonal space heating eff. class				A+++		
		A Condition (7°CDB/-8°CWB)	COPd	4.84	4.51	
			Pdh kW	5.6	7.7	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0	
			COPd	5.36	5.43	
			Pdh kW	3.4	4.6	
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0	
			COPd	5.42	5.38	
			Pdh kW	2.1	2.9	
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9	
			COPd	4.57	5.10	
		Pdh kW	1.1	1.4		
	Tol (temperature operating limit)	COPd	4.67	4.29		
		Pdh kW	6.0	8.6		

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications				EGSAH06D9W	EGSAH10D9W		
Space heating	Average climate water outlet 35°C	Tol (temperature operating limit)	TOL °C		-10		
		Tbiv (bivalent temperature)	COPd	4.67	4.29		
			Pdh kW	6.0	8.6		
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	2,884	3,938	
			η_s (Seasonal space heating efficiency)	%	197	205	
			Prated at -22°C	kW	6	9	
			SCOP		5.13 (1)	5.32 (1)	
			A Condition (-7°CDB/-8°CWB)	COPd	5.34	5.45	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd	5.18	5.49		
			Pdh kW	2.2	3.1		
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9		
			COPd	5.46	5.74		
			Pdh kW	1.5	2.1		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9		
			COPd	4.73	4.64		
			Pdh kW		1.2		
		Tol (temperature operating limit)	COPd	4.84	4.29		
	Pdh kW		5.9	8.6			
	TOL °C			-22			
Tbiv (bivalent temperature)	COPd	4.84	4.29				
	Pdh kW	5.9	8.6				
	Tbiv °C		-22				
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,683	2,244		
		η_s (Seasonal space heating efficiency)	%	183	194		
		Prated at 2°C	kW	6	9		
		SCOP		4.76 (1)	5.06 (1)		
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
	COPd		4.67	4.29			
	Pdh kW		6.0	8.6			
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0			
		COPd	5.13	5.23			
		Pdh kW	3.9	5.7			
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0			
		COPd	5.32	5.48			
		Pdh kW	1.8	2.5			
	Space heating	Warm climate water outlet 35°C	D Condition (12°CDB/11°CWB)	Tbiv (bivalent temperature)	COPd	4.67	4.29
				Pdh kW	6.0	8.6	
Tbiv °C					2		
Space cooling	Low temperature application	General	Pdesign	kW	8		
			SEER		14		
	Medium temperature application	General	Pdesign	kW	8		
			SEER		15		

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

(1) According to EN14825 and EN14511:2013 |

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

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

Technical specifications				EGSAX06D9W		EGSAX10D9W		
Heating capacity	Min.		kW			0.85		
	Nom.		kW	3.35		5.49		
	Max.		kW	7.98		9.55		
Power input	Nom.		kW	0.74		1.17		
COP				4.51		4.70		
Casing	Colour	White + Black						
	Material	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		
Weight	Unit		kg			222		
	Packed unit		kg			237		
Packing	Material	Wood / Carton / PE wrapping foil / Metal						
	Weight		kg			15		
Compressor	Type	Hermetically sealed swing compressor						
	Model	2YC40JXD#C						
PED	Category	Category II						
	Most critical part	Name		Compressor				
		Ps*DN	bar	42				
		Ps*V	Bar*I	64				
Pump	Type	Grundfos UPM3LK						
	Nr of speeds	PWM						
	Power input		W			75		
Water side Heat exchanger	Type	Plate heat exchanger						
	Quantity	1						
	Water volume		l			1.76		
	Insulation material	Elastomeric foam						
Brine pump	Type	Grundfos UPMXL Geo						
	Power input		W			180		
Brine heat exchanger	Quantity	1						
	Brine volume		l			1.94		
Tank	Energy efficiency class	A						
	Standing heat loss		W			50		
Tank	Storage volume		l	-		180		
	Water volume		l	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						
	3-way valve	Coefficient of flow (kV)	Space heating	m ³ /h			10	
			Domestic hot water tank	m ³ /h			8	
	Water circuit	Piping connections diameter					22	
		Safety valve					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	
Water circuit - Domestic hot water side		Piping connections	Cold water in / Hot water out	Diameter	mm			22
	Recirculation connection		inch			G 3/4" FEMALE		
Brine circuit	Piping connections diameter					28		
	Safety valve					3		
Latent cooling capacity	7/12°C	Max.	kW			8		
Space heating	Cold climate water outlet	General	SCOP	4.03 (1)		4.18 (1)		
Brine circuit	Drain valve / fill valve	Yes						
	Air purge valve	No						
	Total volume		l			5.0		
Refrigerant	Type	R-32						
	GWP	675.0						
	Charge		TCO2Eq			1.15		
	Charge		kg			1.70		
	Circuits	Quantity					1	

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications				EGSAX06D9W	EGSAX10D9W	
Refrigerant oil	Type	FW68DA				
	Charged volume	l	0.7			
Operation range	Installation space	Min.	°C	5		
		Max.	°C	35		
Operation range	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		
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		
	LW(A) Sound power level	Indoor	dB(A)	39.0		41.0
Sound condition Ecodesign and energy label						
Sound power level	Range		dB(A)	Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825		
				From 36 to 44 (46 in boost mode), condition B0/-3 W30/35	From 36 to 47, condition B0/-3 W30/35	
Tank	Name	Stainless steel domestic hot water tank 180 l				
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	
			Qelec (Daily electricity consumption)	kWh	4.140	
		Qfuel (Daily fuel consumption)	kWh	0.000		
		η _{wh} (water heating efficiency)	%	117		
		Water heating energy efficiency class		A+		
	Cold climate	AEC (Annual electricity consumption)	kWh	877		
		η _{wh} (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		
		η _{wh} (water heating efficiency)	%	117		
		Qelec (Daily electricity consumption)	kWh	4.140		
		Qfuel (Daily fuel consumption)	kWh	0.000		
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,393	4,339
			η _s (Seasonal space heating efficiency)	%	143	154

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

Technical specifications			EGSAX06D9W		EGSAX10D9W		
Space heating	Average climate water outlet 55°C	General	Prated at -10°C	kW	6	9	
			SCOP		3.77 (1)	4.05 (1)	
			Seasonal space heating eff. class		A++	A+++	
		A Condition (-7°CDB/-8°CWB)	Cd	Cdh (Degradation heating)		1.0	-
				COPd		3.13	3.15
				Pdh	kW	5.5	7.5
		B Condition (2°CDB/1°CWB)	Cd	Cdh (Degradation heating)		1.0	
				COPd		3.81	4.09
				Pdh	kW	3.3	4.7
		C Condition (7°CDB/6°CWB)	Cd	Cdh (Degradation heating)		1.0	
				COPd		4.33	4.54
				Pdh	kW	2.2	3.0
		D Condition (12°CDB/11°CWB)	Cd	Cdh (Degradation heating)		1.0	0.9
				COPd		3.65	4.59
				Pdh	kW	1.0	1.4
		Tol (temperature operating limit)	COPd			2.90	2.85
				Pdh	kW	6.4	8.5
				TOL	°C		-10
		Tbiv (bivalent temperature)	COPd			2.90	2.85
				Pdh	kW	6.4	8.5
Tbiv	°C				-10		
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	3,787	5,015		
		η_s (Seasonal space heating efficiency)	%	153	159		
		Prated at -22°C	kW	6	9		
Cold climate water outlet 55°C	General	SCOP		5.19 (1)	5.36 (1)		
		A Condition (-7°CDB/-8°CWB)	Cd	Cdh (Degradation heating)		1.0	-
COPd				3.84	3.92		
Pdh	kW			3.8	5.4		
B Condition (2°CDB/1°CWB)	Cd	Cdh (Degradation heating)		1.0			
		COPd		4.32	4.58		
		Pdh	kW	2.3	3.3		
C Condition (7°CDB/6°CWB)	Cd	Cdh (Degradation heating)		0.9	1.0		
		COPd		4.60	4.73		
		Pdh	kW	1.6	2.1		
D Condition (12°CDB/11°CWB)	Cd	COPd		3.99	3.82		
		Pdh	kW		1.0		
Tol (temperature operating limit)	COPd			2.90	2.85		

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications				EGSAX06D9W	EGSAX10D9W	
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	Pdh kW	6.4	8.5	
		TOL °C		-22		
		Tbiv (bivalent temperature)	COPd	2.90	2.85	
		Tbiv °C	Pdh kW	6.4	8.5	
	Warm climate water outlet 55°C	General	Annual energy consumption kWh		2,124	2,771
			η_s (Seasonal space heating efficiency) %		148	156
			Prated at 2°C kW		6	9
			SCOP		3.90 (1)	4.10 (1)
		B Condition (2°C CDB/1°C CWB)	Cdh (Degradation heating)		1.0	
			COPd		2.90	2.85
			Pdh kW		6.4	8.5
		C Condition (7°C CDB/6°C CWB)	Cdh (Degradation heating)		1.0	-
			COPd		3.58	3.72
			Pdh kW		4.1	5.4
		D Condition (12°C CDB/11°C CWB)	Cdh (Degradation heating)		1.0	
			COPd		4.47	4.76
	Pdh kW			1.9	2.5	
	Tbiv (bivalent temperature)		COPd	2.90	2.85	
	Average climate water outlet 35°C	General	Annual energy consumption kWh		2,393	3,373
			η_s (Seasonal space heating efficiency) %		199	200
Prated at -10°C kW				6	9	
SCOP				5.18 (1)	5.20 (1)	
Seasonal space heating eff. class			A+++			
A Condition (-7°C CDB/-8°C CWB)		COPd		4.84	4.51	
		Pdh kW		5.6	7.7	
B Condition (2°C CDB/1°C CWB)		Cdh (Degradation heating)		1.0		
		COPd		5.36	5.43	
		Pdh kW		3.4	4.6	
C Condition (7°C CDB/6°C CWB)		Cdh (Degradation heating)		1.0		
		COPd		5.42	5.38	
		Pdh kW		2.1	2.9	
D Condition (12°C CDB/11°C CWB)		Cdh (Degradation heating)		0.9		
		COPd		4.57	5.10	
		Pdh kW		1.1	1.4	

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

Technical specifications				EGSAX06D9W	EGSAX10D9W
Space heating	Average climate water outlet 35°C	Tol (temperature operating limit)	COPd	4.67	4.29
			Pdh kW	6.0	8.6
			TOL °C		-10
		Tbiv (bivalent temperature)	COPd	4.67	4.29
			Pdh kW	6.0	8.6
			Tbiv °C		-10
	Cold climate water outlet 35°C	General	Annual energy consumption kWh	2,851	3,905
			η_s (Seasonal space heating efficiency) %	199	207
			Prated at -22°C kW	6	9
			SCOP	5.19 (1)	5.36 (1)
		A Condition (-7°CDB/-8°CWB)	COPd	5.34	5.45
			Pdh kW	3.6	5.0
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0
			COPd	5.18	5.49
			Pdh kW	2.2	3.1
			C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	
		COPd		5.46	5.74
			Pdh kW	1.5	2.1
			D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	
		COPd		4.73	4.64
	Pdh kW		1.2		
	Tol (temperature operating limit)	COPd	4.67	4.29	
Pdh kW		6.0	8.6		
TOL °C			-22		
Tbiv (bivalent temperature)	COPd	4.67	4.29		
	Pdh kW	6.0	8.6		
	Tbiv °C		-22		
Warm climate water outlet 35°C	General	Annual energy consumption kWh	1,564	2,179	
		η_s (Seasonal space heating efficiency) %	197	200	
		Prated at 2°C kW	6	9	
		SCOP	5.12 (1)	5.21 (1)	
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0	
		COPd	4.67	4.29	
		Pdh kW	6.0	8.6	
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0
	COPd		5.13	5.23	
		Pdh kW	3.9	5.7	
D Condition (12°CDB/11°CWB)		Cdh (Degradation heating)	0.9	1.0	
	COPd	5.32	5.48		
	Pdh kW	1.8	2.5		
Space heating	Warm climate water outlet 35°C	Tbiv (bivalent temperature)	COPd	4.67	4.29
			Pdh kW	6.0	8.6
			Tbiv °C		2
Space cooling	Low temperature application	General	Pdesign kW	8	
			SEER	14	
	Medium temperature application	General	Pdesign kW	8	
			SEER	15	

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

(1) According to EN14825 and EN14511:2013 |

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

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications				EGSAX06D9WG		EGSAX10D9WG		
Heating capacity	Min.		kW			0.85		
	Nom.		kW	3.35		5.49		
	Max.		kW	7.98		9.55		
Power input	Nom.		kW	0.74		1.17		
COP				4.51		4.70		
Casing	Colour			Grey + Black				
Dimensions	Unit	Height	mm	1,891				
		Width	mm	597				
		Depth	mm	666				
	Packed unit	Height	mm	2,202				
		Width	mm	720				
		Depth	mm	775				
Weight	Unit		kg	222				
	Packed unit		kg	237				
Packing	Material			Wood / Carton / PE wrapping foil / Metal				
	Weight			kg				
Compressor	Type			Hermetically sealed swing compressor				
	Model			2YC40JXD#C				
PED	Category			Category II				
	Most critical part	Name	Ps*DN	Compressor				
			bar	42				
			Bar* ^l	64				
Pump	Type			Grundfos UPM3LK				
	Nr of speeds			PWM				
	Power input			W				
Water side Heat exchanger	Type			Plate heat exchanger				
	Quantity			1				
	Water volume			l				
	Insulation material			Elastomeric foam				
Brine pump	Type			Grundfos UPMXL Geo				
	Power input			W				
Brine heat exchanger	Quantity			1				
	Brine volume			l				
Tank	Energy efficiency class			A				
	Standing heat loss			W				
	Storage volume			l				
	Water volume			l		180		
Tank	Material			Stainless steel (EN 1.4521)				
	Maximum water temperature			°C				
	Maximum water pressure			bar				
	Insulation Material			Polyurethane foam				
	Heat loss			kWh/24h				
	Corrosion protection			Pickling				
	3-way valve	Coefficient of flow (kV)	Space heating	m ³ /h	10			
			Domestic hot water tank	m ³ /h	8			
	Water circuit	Piping connections diameter			mm			
		Safety valve			bar			
Manometer			Digital					
Drain valve / fill valve			Yes					
Shut off valve			Yes					
Air purge valve			Yes					
Total water volume			l					
Heating water system		Water volume	Min.	l	20			
Water circuit - Domestic hot water side		Piping connections	Cold water in / Hot water out	Diameter	mm			
	Recirculation connection		inch	G 3/4" FEMALE				
Brine circuit	Piping connections diameter			mm				
	Safety valve			bar				
Latent cooling capacity	7/12°C	Max.	kW	8				
Space heating	Cold climate water outlet	General	SCOP	4.03 (1)		4.18 (1)		
Brine circuit	Drain valve / fill valve			Yes				
	Air purge valve			No				
	Total volume			l				
Refrigerant	Type			R-32				
	GWP			675.0				
	Charge			TCO ₂ Eq				
	Charge			kg				
	Circuits			Quantity				
Refrigerant oil	Type			FW68DA				
	Charged volume			l				

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

Technical specifications				EGSAX06D9WG	EGSAX10D9WG	
Operation range	Installation space	Min.	°C		5	
		Max.	°C		35	
	Brine side	Min.	°C		-10	
		Max.	°C		30	
Operation range	Heating	Water side Min.	°C		5	
		Max.	°C		65	
	Domestic hot water	Water side Min.	°C		25	
		Max.	°C		60	
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	
	LW(A) Sound power level	Indoor		dB(A)	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	
	Sound power level	Range		dB(A)	From 36 to 44 (46 in boost mode), condition B0/-3 W30/35	From 36 to 47, condition B0/-3 W30/35
Tank		Name		Stainless steel domestic hot water tank 180 l		
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 climate	Declared load profile		L		
		Average	AEC (Annual electricity consumption)	kWh	877	
			Qelec (Daily electricity consumption)	kWh	4.140	
			Qfuel (Daily fuel consumption)	kWh	0.000	
			η_{wh} (water heating efficiency)	%	117	
			Water heating energy efficiency class		A+	
	Cold climate	Average	AEC (Annual electricity consumption)	kWh	877	
			η_{wh} (water heating efficiency)	%	117	
			Qelec (Daily electricity consumption)	kWh	4.140	
			Qfuel (Daily fuel consumption)	kWh	0.000	
	Warm climate	Average	AEC (Annual electricity consumption)	kWh	877	
			η_{wh} (water heating efficiency)	%	117	
			Qelec (Daily electricity consumption)	kWh	4.140	
			Qfuel (Daily fuel consumption)	kWh	0.000	
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,393	
			η_{s} (Seasonal space heating efficiency)	%	143	
			Prated at -10°C	kW	6	9

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications			EGSAX06D9WG	EGSAX10D9WG	
Space heating	Average climate water outlet 55°C	General	SCOP	3.77 (1)	4.05 (1)
			Seasonal space heating eff. class	A++	A+++
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0	-
			COPd	3.13	3.15
			Pdh kW	5.5	7.5
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0
			COPd	3.81	4.09
			Pdh kW	3.3	4.7
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0
			COPd	4.33	4.54
			Pdh kW	2.2	3.0
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0	0.9
			COPd	3.65	4.59
			Pdh kW	1.0	1.4
		Tol (temperature operating limit)	COPd	2.90	2.85
			Pdh kW	6.4	8.5
			TOL °C		-10
		Tbiv (bivalent temperature)	COPd	2.90	2.85
			Pdh kW	6.4	8.5
			Tbiv °C		-10
Cold climate water outlet 55°C	General	Annual energy consumption kWh	3,787	5,015	
		ηs (Seasonal space heating efficiency) %	153	159	
		Prated at -22°C kW	6	9	
Cold climate water outlet 55°C	General	SCOP	5.19 (1)	5.36 (1)	
	A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0	-	
		COPd	3.84	3.92	
		Pdh kW	3.8	5.4	
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0	
		COPd	4.32	4.58	
		Pdh kW	2.3	3.3	
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	0.9	1.0	
		COPd	4.60	4.73	
		Pdh kW	1.6	2.1	
	D Condition (12°CDB/11°CWB)	COPd	3.99	3.82	
		Pdh kW		1.0	
	Tol (temperature operating limit)	COPd	2.90	2.85	
		Pdh kW	6.4	8.5	

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

Technical specifications				EGSAX06D9WG	EGSAX10D9WG
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	TOL °C	-22	
		Tbiv (bivalent temperature)	COPd	2.90	2.85
Warm climate water outlet 55°C	General	Pdh	kW	6.4	8.5
		Tbiv	°C	-22	
Average climate water outlet 35°C	General	Annual energy consumption	kWh	2,124	2,771
		η_s (Seasonal space heating efficiency)	%	148	156
B Condition (2°C CDB/1°C CWB)	Cdh (Degradation heating)	Prated at 2°C	kW	6	9
		SCOP		3.90 (1)	4.10 (1)
C Condition (7°C CDB/6°C CWB)	Cdh (Degradation heating)	COPd		1.0	
		COPd		2.90	2.85
D Condition (12°C CDB/11°C CWB)	Cdh (Degradation heating)	Pdh	kW	6.4	8.5
		COPd		1.0	-
Tbiv (bivalent temperature)	COPd	COPd		3.58	3.72
		Pdh	kW	4.1	5.4
Tbiv (bivalent temperature)	COPd	COPd		1.0	
		Pdh	kW	4.47	4.76
Average climate water outlet 35°C	General	Pdh	kW	1.9	2.5
		Tbiv	°C	2	
A Condition (-7°C CDB/-8°C CWB)	COPd	Annual energy consumption	kWh	2,393	3,373
		η_s (Seasonal space heating efficiency)	%	199	200
B Condition (2°C CDB/1°C CWB)	Cdh (Degradation heating)	Prated at -10°C	kW	6	9
		SCOP		5.18 (1)	5.20 (1)
C Condition (7°C CDB/6°C CWB)	Cdh (Degradation heating)	Seasonal space heating eff. class		A+++	
		COPd		4.84	4.51
D Condition (12°C CDB/11°C CWB)	Cdh (Degradation heating)	Pdh	kW	5.6	7.7
		COPd		1.0	
Tol (temperature operating limit)	COPd	COPd		5.36	5.43
		Pdh	kW	3.4	4.6
A Condition (-7°C CDB/-8°C CWB)	Cdh (Degradation heating)	COPd		1.0	
		COPd		5.42	5.38
B Condition (2°C CDB/1°C CWB)	Cdh (Degradation heating)	Pdh	kW	2.1	2.9
		COPd		0.9	
C Condition (7°C CDB/6°C CWB)	Cdh (Degradation heating)	COPd		4.57	5.10
		Pdh	kW	1.1	1.4
D Condition (12°C CDB/11°C CWB)	COPd	COPd		4.67	4.29
		Pdh	kW		

2 Specifications

1 - 2 EGSAX-D9W, EGSAX-D9WG

2

Technical specifications				EGSAX06D9WG	EGSAX10D9WG	
Space heating	Average climate water outlet 35°C	Tol (temperature operating limit)	Pdh kW	6.0	8.6	
			TOL °C	-10		
		Tbiv (bivalent temperature)	COPd	4.67	4.29	
			Pdh kW	6.0	8.6	
	Cold climate water outlet 35°C	General	Annual energy consumption kWh	2,851	3,905	
			η_s (Seasonal space heating efficiency) %	199	207	
			Prated at -22°C kW	6	9	
			SCOP	5.19 (1)	5.36 (1)	
			A Condition (-7°CDB/-8°CWB)	COPd	5.34	5.45
				Pdh kW	3.6	5.0
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0	
			COPd	5.18	5.49	
			Pdh kW	2.2	3.1	
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9	
			COPd	5.46	5.74	
			Pdh kW	1.5	2.1	
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9	
			COPd	4.73	4.64	
			Pdh kW		1.2	
		Tol (temperature operating limit)	COPd	4.67	4.29	
Pdh kW	6.0		8.6			
TOL °C			-22			
Tbiv (bivalent temperature)	COPd	4.67	4.29			
	Pdh kW	6.0	8.6			
	Tbiv °C		-22			
Warm climate water outlet 35°C	General	Annual energy consumption kWh	1,564	2,179		
		η_s (Seasonal space heating efficiency) %	197	200		
		Prated at 2°C kW	6	9		
		SCOP	5.12 (1)	5.21 (1)		
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
		COPd	4.67	4.29		
		Pdh kW	6.0	8.6		
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
		COPd	5.13	5.23		
		Pdh kW	3.9	5.7		
D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	0.9	1.0			
Space heating	Warm climate water outlet 35°C	D Condition (12°CDB/11°CWB)	COPd	5.32	5.48	
			Pdh kW	1.8	2.5	
		Tbiv (bivalent temperature)	COPd	4.67	4.29	
			Pdh kW	6.0	8.6	
			Tbiv °C		2	
Space cooling	Low temperature application	General	Pdesign kW	8		
			SEER	14		
	Medium temperature application	General	Pdesign kW	8		
			SEER	15		

Electrical specifications				EGSAX06D9WG	EGSAX10D9WG	
Power supply	Phase	Frequency	Hz	1~/3~	50	
			Voltage range	Min.	230/400	10
				Max.		10
			Electrical power consumption	Standby		
Recommended fuses	A	16/32				
Electric heater	Type			9W		

(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*			
		9W	9W	9W	9W
EGSAH*	Heating only indoor unit				
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
EKRSETS	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) -EKRTSETS- can only be used in combination with -EKRTR1-
- (7) Backup heater capacity depends on how the backup heater 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 Capacity Table Legend

4

EGSAH-D9W / EGSAX-D9W / EGSAX-D9WG

Model		EGSAH06DA9W	EGSAH10DA9W
Domestic hot water heating mode	Load profile	-	L
	η_{wh} (Water heating energy efficiency)	[%]	117
	Domestic hot water COP	-	2,82
	Heat-up time	hh:mm	1:43
	Standby power input	W	26,2
	Reference hot water temperature	[°C]	53,0
	Equivalent domestic hot water volume	[l]	238,7

Model		EGSAH06DA9W		EGSAH10DA9W		
Application		35	55	35	55	
Sound power	Measured according to ·EN12102·	[dBa]	39,0	39,0	41,0	41,0

Rated data for certification programmes - heating mode			[kW]	3,4	3,3	5,5	5,6
· according to ·EN14511:2018·	Heating capacity	[kW]	3,4	3,3	5,5	5,6	
	Power input	[kW]	0,7	1,3	1,2	2,0	
Entering brine temperature = ·0·°C	COP	-	4,5	2,5	4,7	2,9	
	Nominal water flow rate	m ³ /h					

Seasonal data - heating							
Average climate (design temperature: ·-10·°C)							
Space heating	Prated at ·-10·°C	[kW]	6,0	6,2	8,5	8,5	
	η_s (Seasonal space heating efficiency)	[%]	195	141	197	152	
	Annual energy consumption	kWh	2447	3447	3428	4393	
Colder climate (design temperature: ·-22·°C)							
Space heating	Prated at ·-22·°C	[kW]	6,0	6,2	8,5	8,5	
	η_s (Seasonal space heating efficiency)	[%]	197	152	205	158	
	Annual energy consumption	kWh	2884	3820	3938	5047	
Warmer climate (design temperature: ·2·°C)							
Space heating	Prated at ·2·°C	[kW]	6,0	6,2	8,5	8,5	
	η_s (Seasonal space heating efficiency)	[%]	183	143	194	152	
	Annual energy consumption	kWh	1683	2189	2244	2837	
Space heating - general							
Other	Capacity control method	-	Inverter				
	P _{off} (Off mode)	[kW]	0,015				
	P _{to} (Thermostat off)	[kW]	0,024				
	P _{sb} (Standby mode)	[kW]	0,015				
	P _{ck} (Crankcase heater mode)	[kW]	0,000				

Model	Application		Average climate (design temperature: ·-10·°C)				Colder climate (design temperature: ·-22·°C)				
			EGSAH06DA9W	EGSAH10DA9W	EGSAH06DA9W	EGSAH10DA9W					
·(A)· condition (·-7·°C DB / ·-8·°C WB)		P _{dh} (Declared heating capacity)	[kW]	5,57	5,46	7,67	7,45	3,57	3,75	4,97	5,43
		COP _d (Declared COP)	-	4,84	3,13	4,51	3,15	5,34	3,84	5,45	3,92
		C _{dh} (Degradation heating)	-	0,98	1	1	1	1	1	1	0,98
·(B)· condition (·-2·°C DB / ·-1·°C WB)		P _{dh} (Declared heating capacity)	[kW]	3,35	3,25	4,59	4,68	2,17	2,28	3,05	3,32
		COP _d (Declared COP)	-	5,36	3,81	5,43	4,09	5,18	4,32	5,49	4,58
		C _{dh} (Degradation heating)	-	0,96	1	1	1	1	1	1	0,97
·(C)· condition (·-7·°C DB / ·-6·°C WB)		P _{dh} (Declared heating capacity)	[kW]	2,05	2,24	2,93	2,98	1,5	1,63	2,11	2,07
		COP _d (Declared COP)	-	5,42	4,33	5,38	4,54	5,46	4,6	5,74	4,73
		C _{dh} (Degradation heating)	-	1	0,95	1	1	0,91	0,93	0,94	1
·(D)· condition (·-12·°C DB / ·-11·°C WB)		P _{dh} (Declared heating capacity)	[kW]	1,05	0,96	1,36	1,37	1,15	1,01	1,19	0,98
		COP _d (Declared COP)	-	4,57	3,65	5,1	4,59	4,73	3,99	4,64	3,82
		C _{dh} (Degradation heating)	-	0,9	1	0,91	0,92	0,9	0,91	0,91	0,91
·(E)· condition (Tol (temperature operating limit))		Tol (Temperature operating limit)	[°C]	-10	-10	-10	-10	-22	-22	-22	-22
		P _{dh} (Declared heating capacity)	[kW]	5,95	6,44	8,55	8,49	5,95	6,44	8,55	8,49
		COP _d (Declared COP)	-	4,67	2,9	4,29	2,85	4,67	2,9	4,29	2,89
		Wtol (Heating water operation limit)	[°C]	35	55	35	55	35	55	35	55
		Tbiv (Bivalent temperature)	[°C]	-10	-10	-10	-10	-22	-22	-22	-22
·(F)· condition (Tbiv (bivalent temperature))		P _{dh} (Declared heating capacity)	[kW]	5,95	6,44	8,55	8,49	5,95	6,44	8,55	8,49
		COP _d (Declared COP)	-	4,67	2,9	4,29	2,85	4,67	2,9	4,29	2,89
P _{sup} BUH (Capacity of integrated backup heater)		[kW]	9,0	9,0	9,0	9,0	9,0	9,0	9,0	9,0	
P _{sup} (Supplementary capacity at design temperature)		[kW]	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	

Remark
 ·P_{dh} (Declared Heating Capacity)· according to ·EN14511:2018·
 ·COP_{dh} (Declared COP)· according to ·EN14511:2018·

3D122777

4 Capacity tables

4 - 2 Cooling Capacity Tables

EGSAX-D9W
EGSAX-D9WG

		Maximum cooling capacity										
		7		13		15		18		22		
		LWC [°C]										
		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 $Dt = -3\sim 8\text{°C}$
Capacity values may not be extrapolated below 7°C leaving water temperature.

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4 Capacity tables

4 - 3 Heating Capacity Tables

4

EGSAX-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
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

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4 Capacity tables

4 - 4 Certification Programs

EGSAH-D9W / EGSAX-D9W / EGSAX-D9WG

Rated data for certification programmes - heating mode

EGSA(H/X)-06								
Space heating - Average climate - Part load		Low temperature						
		Entering brine temperature [°C]	Leaving water temperature [°C]	Heating capacity [kW]	COP	Cdh (Degradation heating)		
A	-7	20	35	5,1	10,29	0,96		
B	2	20	35	3,06	10,01	0,94		
C	7	20	35	1,85	9,3	0,9		
D	12	20	35	1,85	9,3	0,9		
E	-10	Tol (Temperature operating limit)		20	35	5,66	9,67	0,97
F	-10	Tbiv (Bivalent temperature)		20	35	5,66	9,67	0,97

EGSA(H/X)-10								
Space heating - Average climate - Part load		Low temperature						
		Entering brine temperature [°C]	Leaving water temperature [°C]	Heating capacity [kW]	COP	Cdh (Degradation heating)		
A	-7	20	35	9,66	9,04	0,98		
B	2	20	35	5,27	9,59	0,96		
C	7	20	35	3,49	8,94	0,95		
D	12	20	35	1,65	6,42	0,93		
E	-10	Tol (Temperature operating limit)		20	35	10,53	8,95	0,98
F	-10	Tbiv (Bivalent temperature)		20	35	10,53	8,95	0,98

EGSA(H/X)-06								
Space heating - Average climate - Part load		Medium temperature						
		Entering brine temperature [°C]	Leaving water temperature [°C]	Heating capacity [kW]	COP	Cdh (Degradation heating)		
A	-7	20	55	5,75	4,75	0,98		
B	2	20	55	3,71	3,94	0,98		
C	7	20	55	2,08	3,11	0,97		
D	12	20	55	1,52	2,7	0,97		
E	-10	Tol (Temperature operating limit)		20	55	6,51	4,81	0,99
F	-10	Tbiv (Bivalent temperature)		20	55	6,51	4,81	0,99

EGSA(H/X)-10								
Space heating - Average climate - Part load		Medium temperature						
		Entering brine temperature [°C]	Leaving water temperature [°C]	Heating capacity [kW]	COP	Cdh (Degradation heating)		
A	-7	20	55	8,77	4,94	0,99		
B	2	20	55	5,83	4,65	0,98		
C	7	20	55	3,83	4,29	0,98		
D	12	20	55	2,06	3,47	0,97		
E	-10	Tol (Temperature operating limit)		20	55	10,19	4,96	0,99
F	-10	Tbiv (Bivalent temperature)		20	55	10,19	4,96	0,99

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4 Capacity tables

4 - 4 Certification Programs

4

EGSAH-D9W / EGSAX-D9W / EGSAX-D9WG

EGSA(H/X)-06									
Heating capacity									
Minimum					Maximum				
Flow rate	Entering brine temperature [°C]	Leaving water temperature [°C]	Heating capacity [kW]	COP	Flow rate	Entering brine temperature [°C]	Leaving water temperature [°C]	Heating capacity [kW]	COP
Brine circuit [l/min]					Brine circuit [l/min]				
9	20	35	1,50	9,48	9	20	25	10,62	7,57
9	25	35	2,01	16,19	9	20	35	10,52	5,91
9	20	45	1,31	5,05	9	20	45	10,28	4,68
9	25	45	1,49	6,51	9	20	55	9,23	3,99
9	20	55	1,88	2,87	9	25	25	11,79	8,71
9	25	55	1,60	3,17	9	25	35	11,62	6,57
					9	25	45	11,38	5,16
					9	25	55	9,23	4,54

Domestic hot water operation

EGSA(H/X)-06 , -10					
Flow rate	Entering brine temperature [°C]	Domestic hot water tank temperature	Heat-up time (hh:mm:ss)	Capacity	
				Brine side	
				Maximum	Average
[l/min]				[kW]	[kW]
9	20	10 -> 55	01:16:56	7,7	5,94
9	25	10 -> 55	01:10:04	8,5	6,53
9	20	37 -> 55	00:43:58	4,6	3,67
9	25	37 -> 55	00:38:59	5,3	4,39

Installation Restrictions

Safety Valve

The safety valve which is delivered with the unit opens at 3 bar. If design pressure is higher, then this should not be used. Maximum allowed design pressure on brine side is 4 bar. The safety valve selected must open at maximum 4 bar pressure.

Balancing Valve/ Regulating Valve

A balancing valve must be installed on the inlet or outlet brine pipe to limit maximum flow. Without such a valve, brine pump cannot operate correctly and operation of unit cannot be guaranteed. The recommended value for maximum flow rate is 9 l/min.

Hydraulic Separator

A Hydraulic Separator must be installed to separate primary flow circuit (chiller) from secondary flow circuit (EGSA unit)

Expansion Vessel

The brine level vessel delivered with the unit is only meant for single application, not collective application. An expansion vessel must be installed to avoid issues with pump cavitation and to compensate for change in volume of medium as a result of temperature fluctuation.

Freeze Temperature Setting

If water is used as medium, field setting A-04 must be changed to value 0 to avoid break-down.

Check Valve

A check valve must be installed on brine outlet pipe.

Pipe Sizing

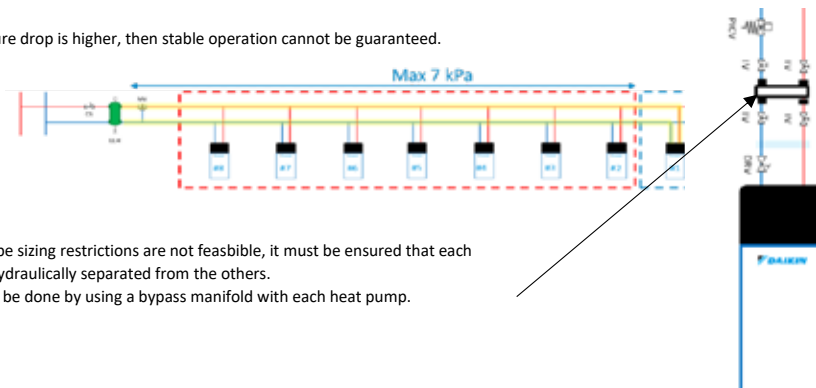
Pressure Drop Restrictions

When the units are installed in a parallel circuit, the maximum allowed pressure drop for the brine pump which is furthest away from the balancing bottle is 7 kPa. (illustrated below)

This pressure drop is calculated at a flow 8 l/min less than the design flow of the common pipe.

For example, if number of units = N and design flow for each apartment = 9 l/min , then 7 kPa is maximum pressure drop at a flow of (9N-8) l/min

If pressure drop is higher, then stable operation cannot be guaranteed.



If the pipe sizing restrictions are not feasible, it must be ensured that each unit is hydraulically separated from the others. This can be done by using a bypass manifold with each heat pump.

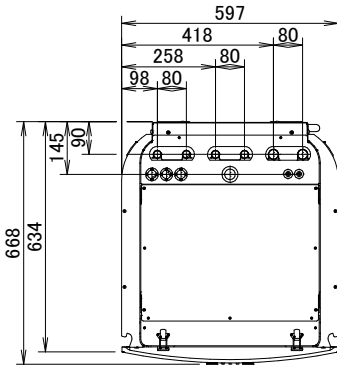
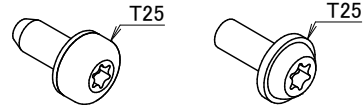
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5 Dimensional drawings

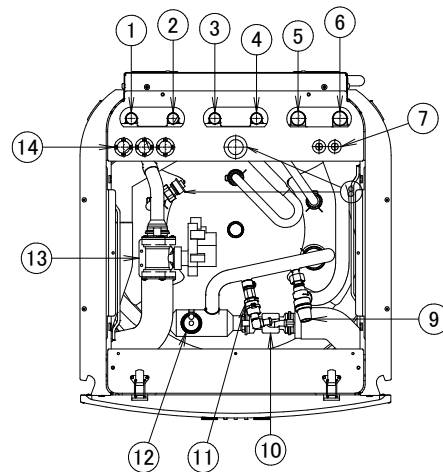
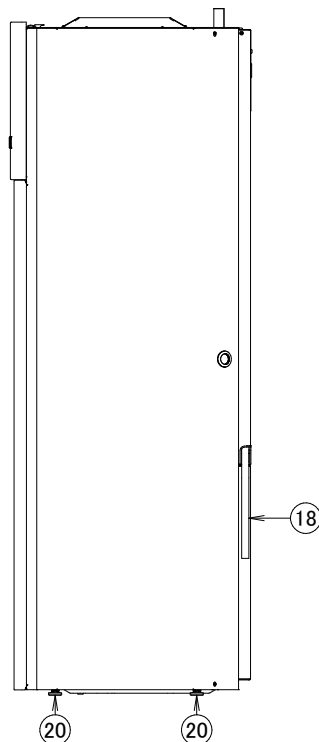
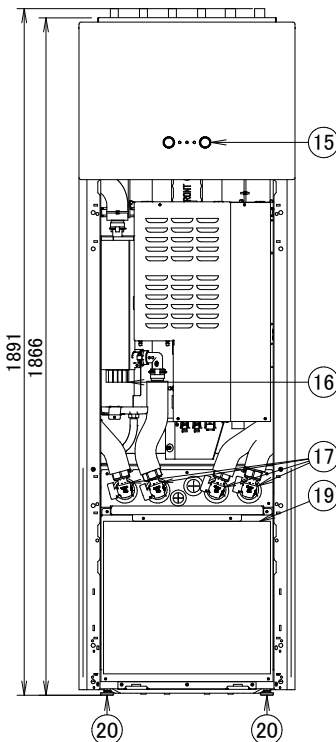
5 - 1 Dimensional Drawings

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.

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5 Dimensional drawings

5 - 1 Dimensional Drawings

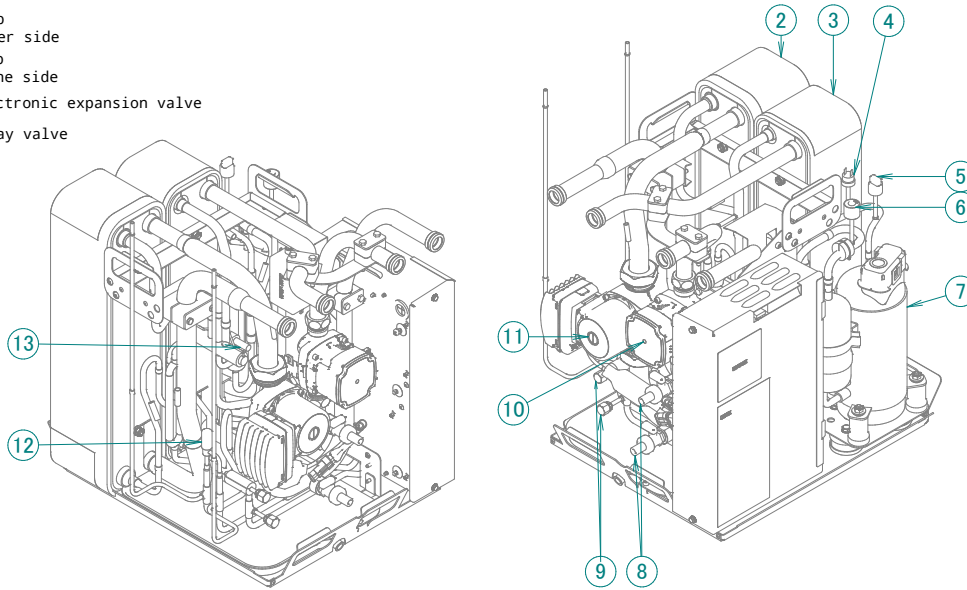
5

EGSAH-D9W / EGSAX-D9W / EGSAX-D9WG

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

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

For examples, refer to the installer reference guide.

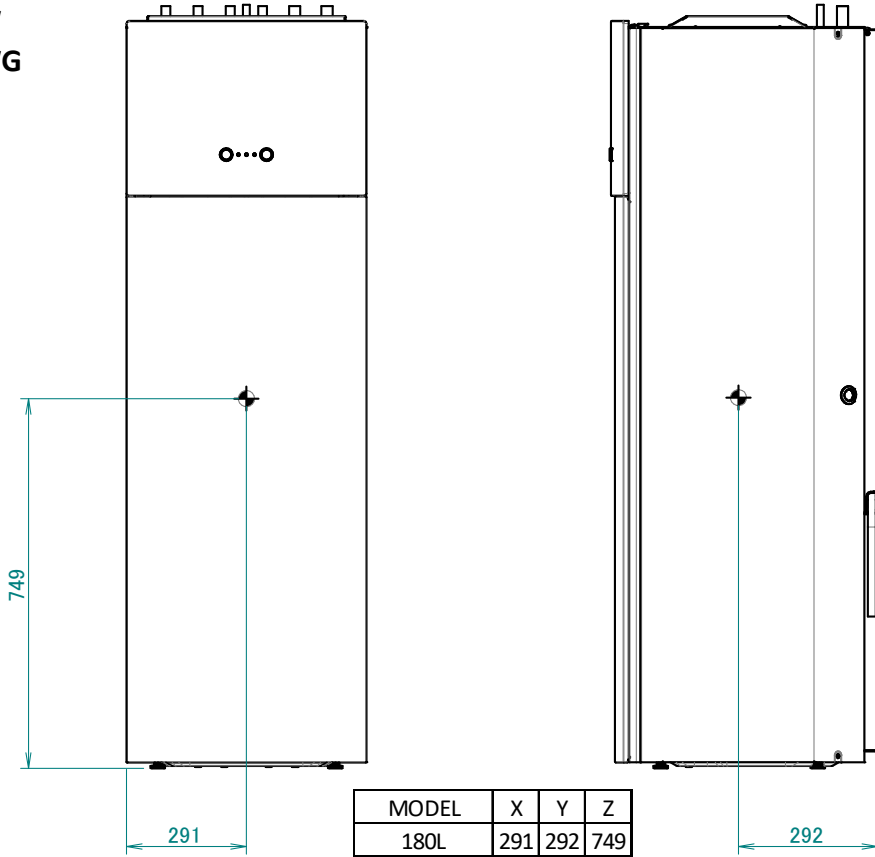


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6 Centre of gravity

6 - 1 Centre of Gravity

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



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7 Piping diagrams

7 - 1 Piping Diagrams

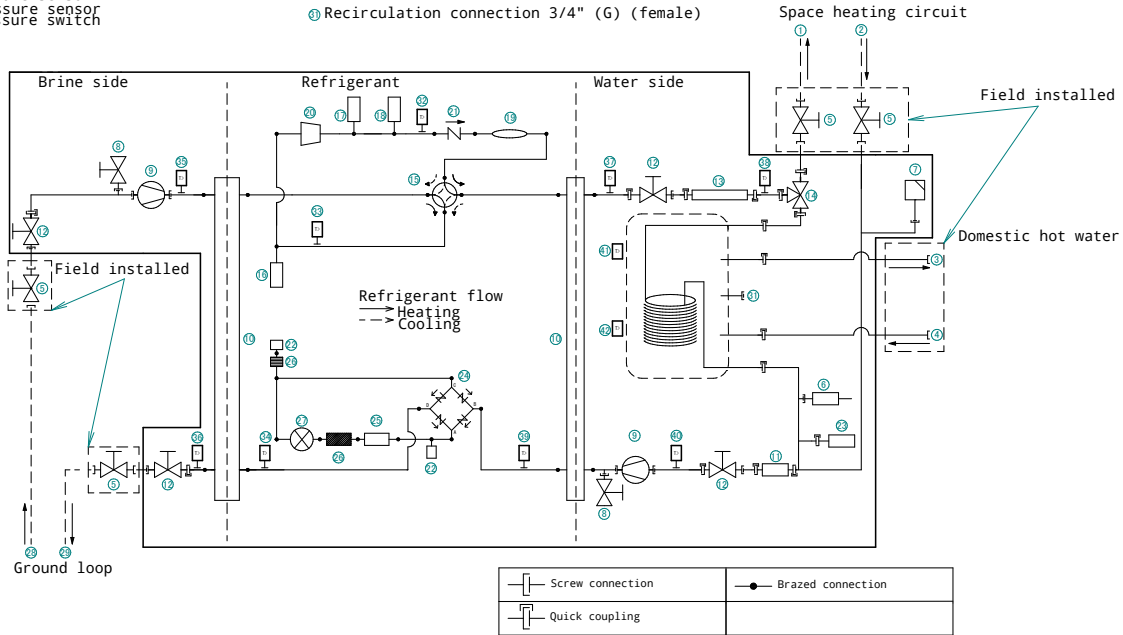
7

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

- ① Muffler
- ② Compressor
- ③ Check valve
- ④ Service port
- ⑤ Space heating water pressure sensor
- ⑥ Rectifier
- ⑦ Heat sink
- ⑧ Filter
- ⑨ Electronic expansion valve
- ⑩ Brine in connection ø 28mm
- ⑪ Brine out connection ø 28mm
- ⑫ Recirculation connection 3/4" (G) (female)

- ① Thermistor (discharge)
- ② Thermistor (suction compressor)
- ③ 2-phase sensor (Tx)
- ④ Entering brine temperature
- ⑤ Leaving brine temperature
- ⑥ Outlet water heat exchanger thermistor
- ⑦ Outlet water backup heater thermistor
- ⑧ Refrigerant temperature sensor (liquid)
- ⑨ Inlet water thermistor
- ⑩ Tank thermistor



3D121963B

8 Wiring diagrams

8 - 1 Notes & Legend

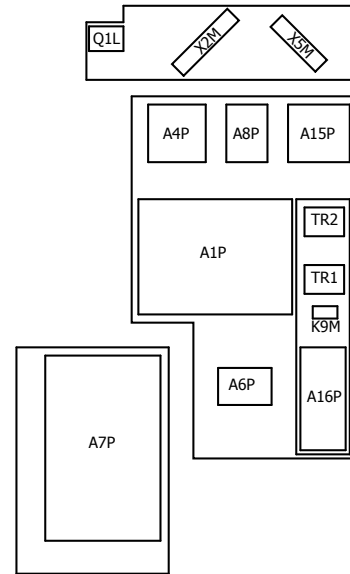
EGSAH-D9W / EGSAX-D9W / EGSAX-D9WG

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
- 15 : Wire number 15
- - - - - : 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

- Backup heater power supply 1N~, 230V, 3/6 kW
- 3N~, 4000V, 6/9 kW
- User installed options: Remote user interface
- Ext. indoor thermistor
- Digital I/O PCB
- Demand PCB
- Brine low pressure switch
- ON/OFF thermostat (wired)
- ON/OFF thermostat (wireless)
 - Ext. thermistor
- Heat pump convector ON/OFF thermostat (wired)
- ON/OFF thermostat (wireless)
 - Ext. thermistor
- Heat pump convector Heat pump convector

POSITION IN SWITCH BOX



LEGEND

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

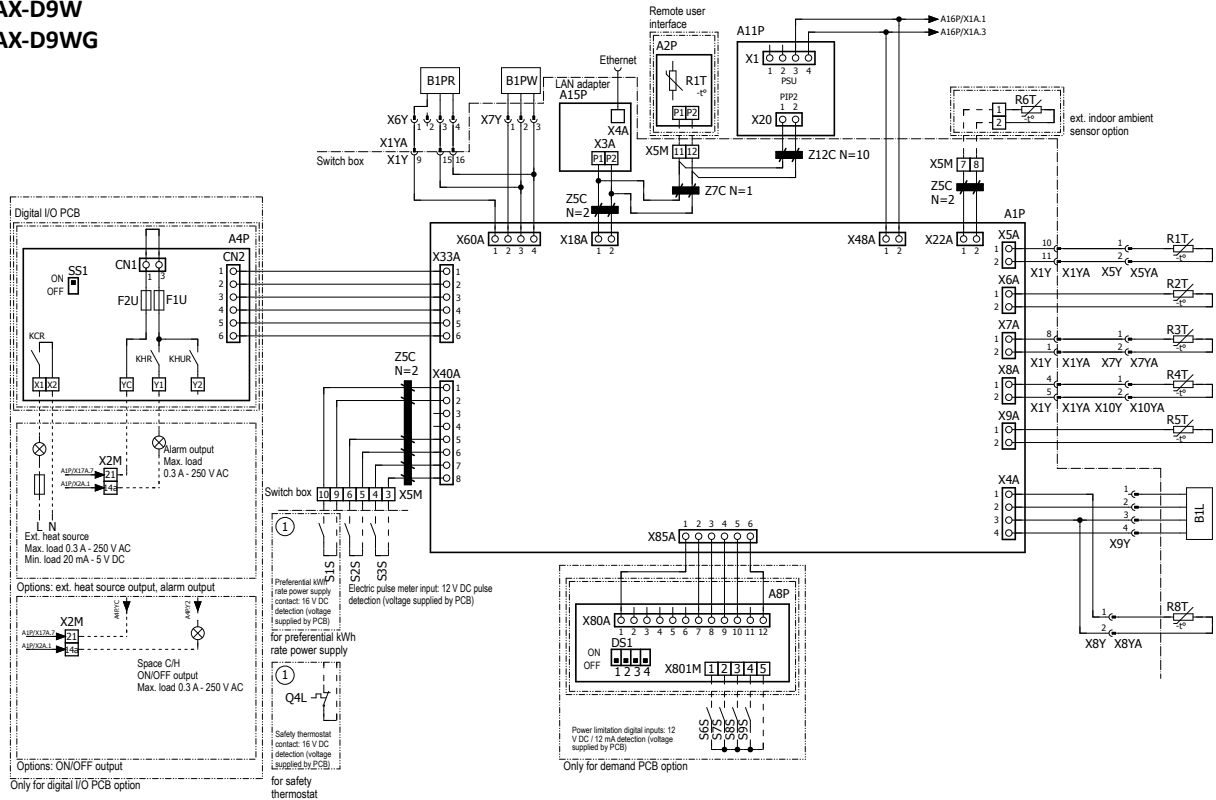
* : optional
: field supply

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8 Wiring diagrams

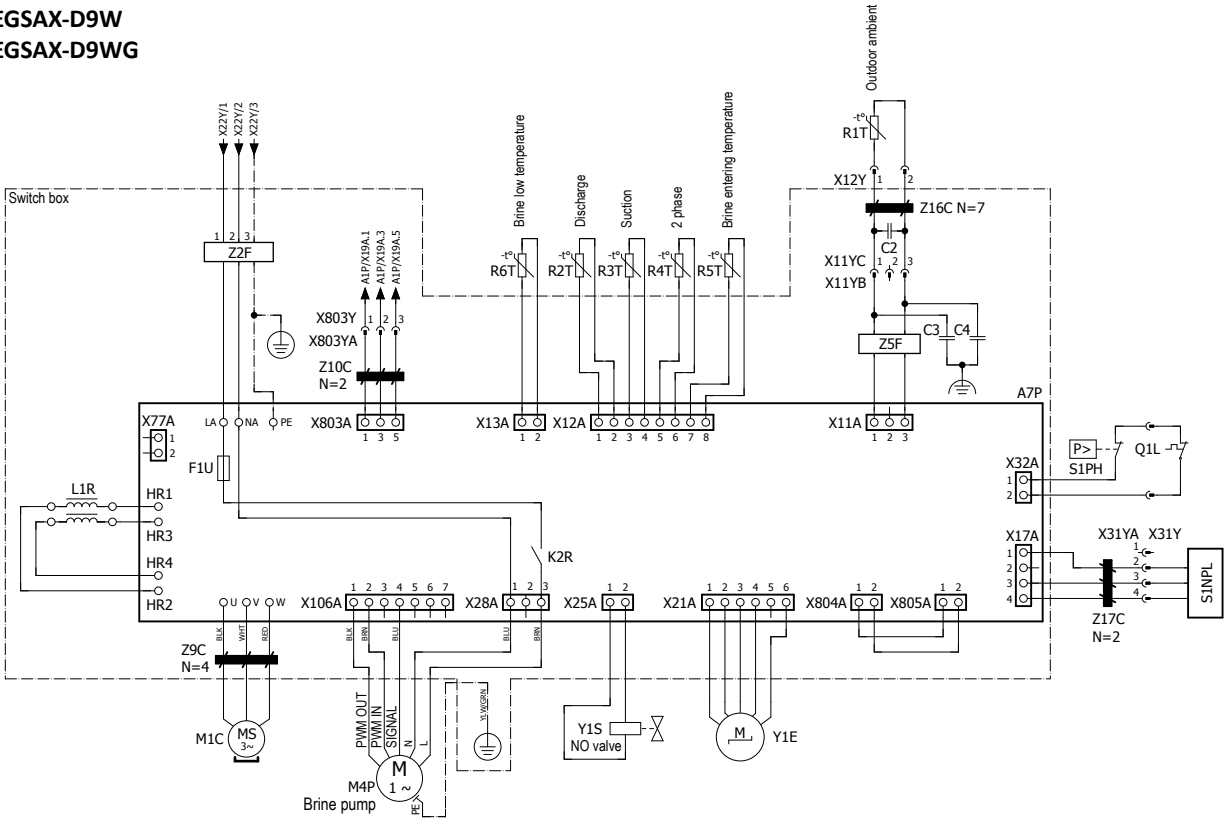
8 - 2 Control Circuit

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



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EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



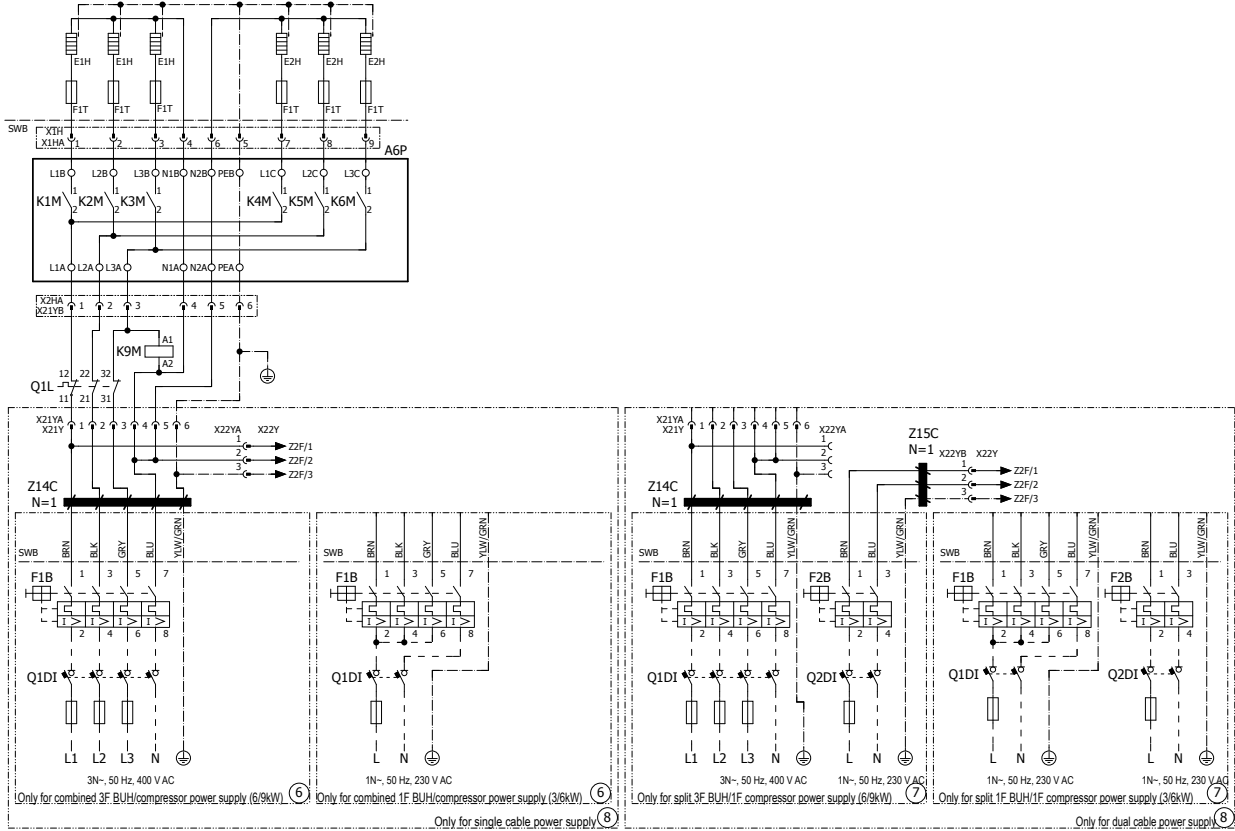
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8 Wiring diagrams

8 - 3 Power Supply, Back-up Heater

8

EGSAH-D9W / EGSAX-D9W / EGSAX-D9WG



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9 External connection diagrams

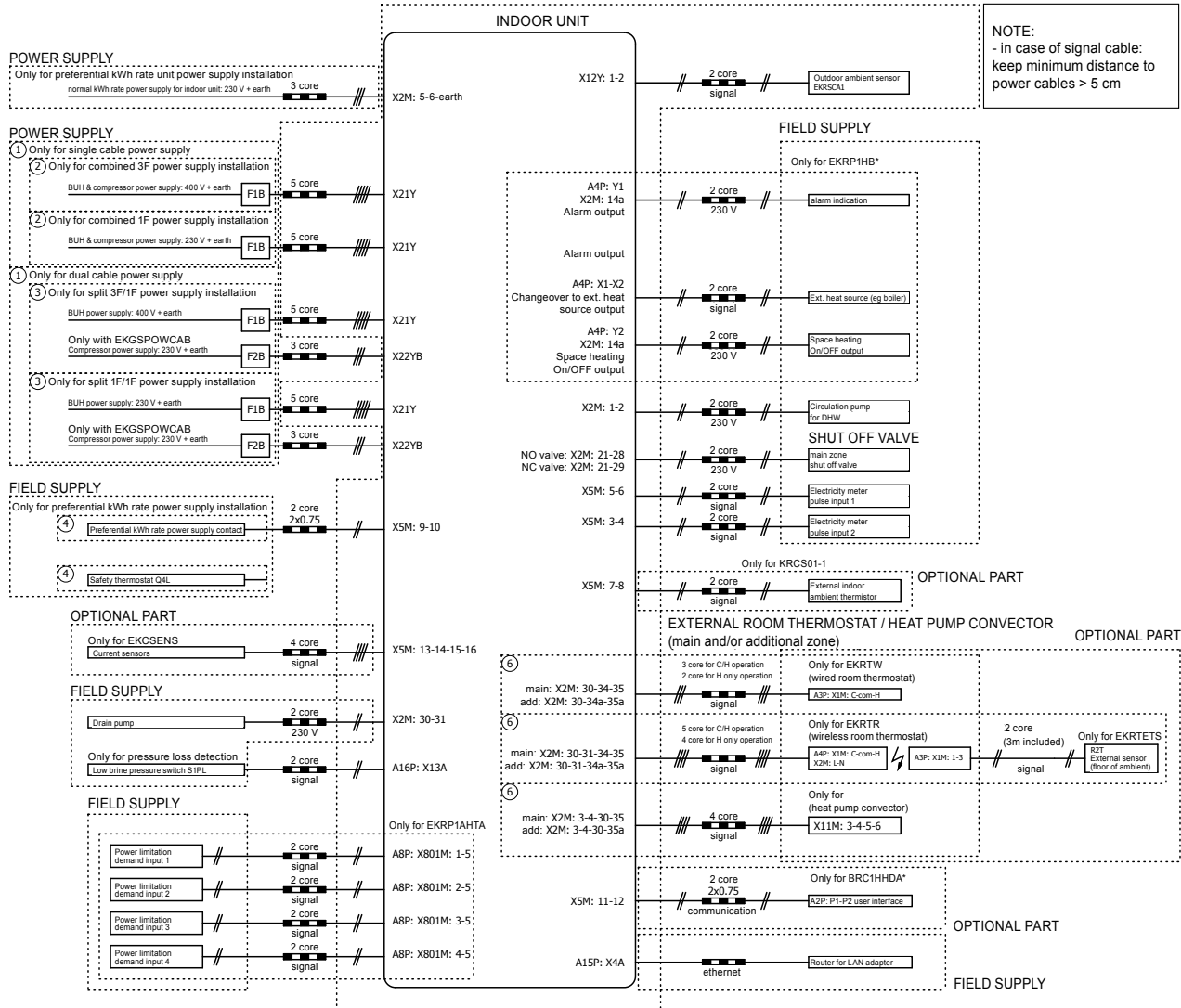
9 - 1 External Connection Diagrams

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

Electrical connection diagram Daikin Altherma Ground Source

For more details: please check unit wiring

Standard parts



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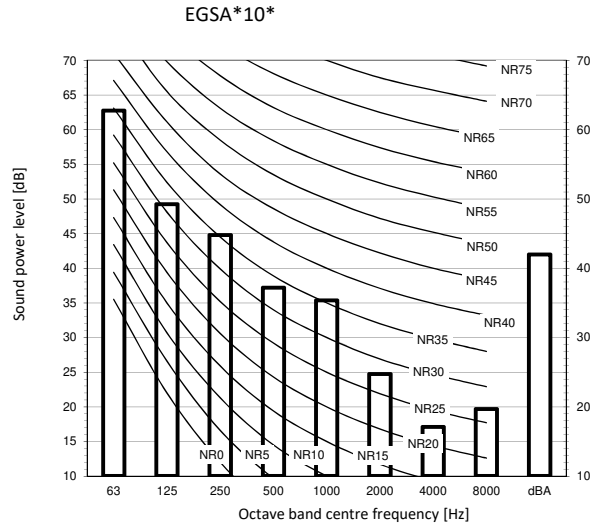
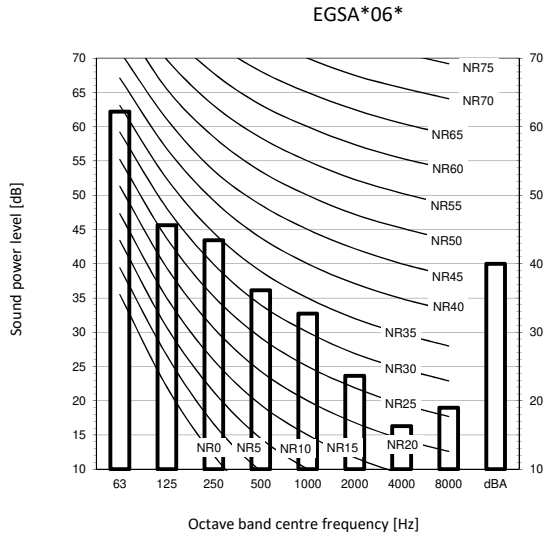
10 Sound data

10 - 1 Sound Power Spectrum

10

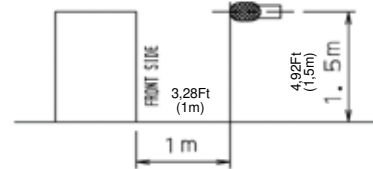
EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

Heating



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.



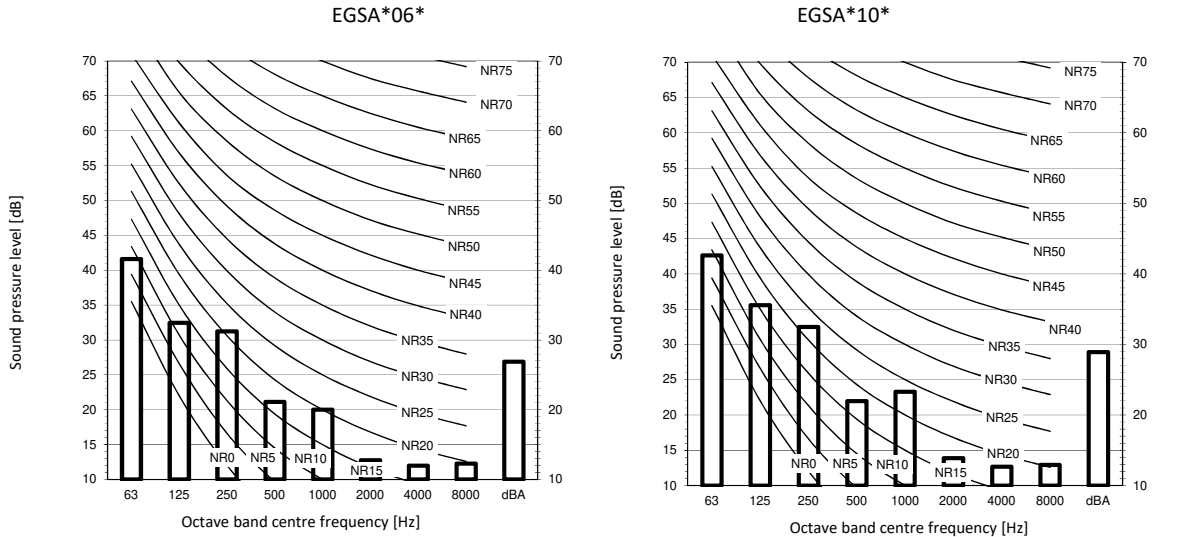
3D122374

10 Sound data

10 - 2 Sound Pressure Spectrum - Heating

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

Heating



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.



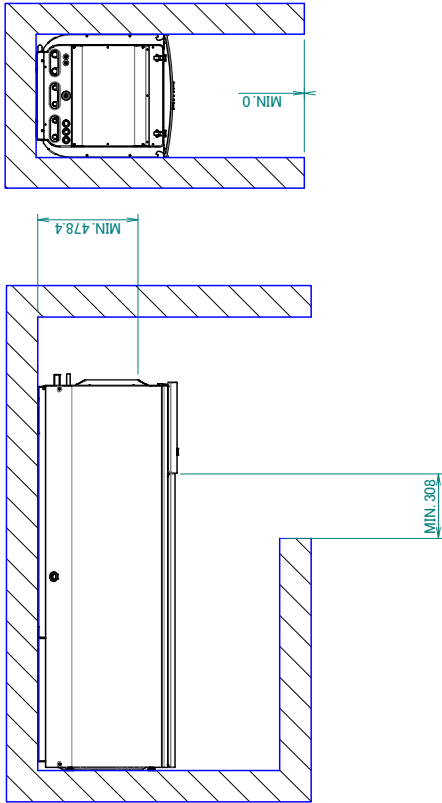
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11 Installation

11 - 1 Installation Method

11

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

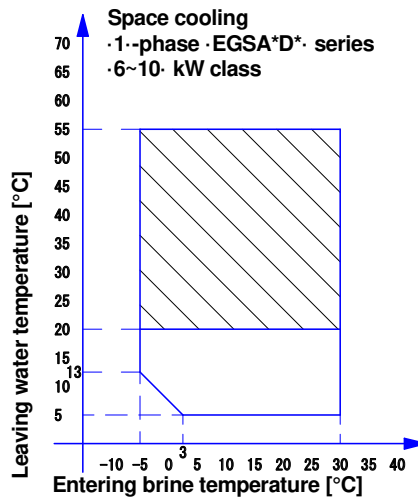
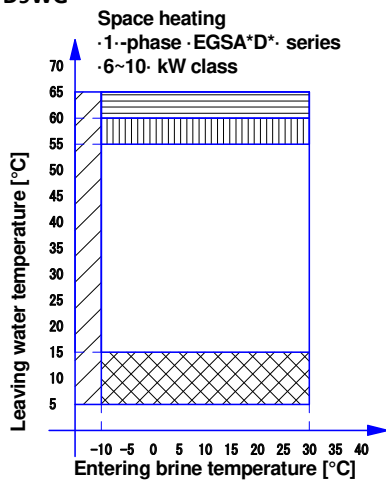


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12 Operation range

12 - 1 Operation Range

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



Legend

- Backup heater only operation
Entering brine temperature = $\cdot < -10 \cdot ^\circ\text{C}$
- Heat pump operation
- Heat pump operation
Heat pump operation if setpoint $> 55 \cdot ^\circ\text{C}$ and $\Delta T = 8 \cdot ^\circ\text{C}$ ($\Delta T = \text{outlet temperature} - \text{inlet temperature}$)
- Heat pump + backup heater operation
- Pull-down area
- Heat pump operation
Heating setpoint: $\cdot \geq 15 \cdot ^\circ\text{C}$

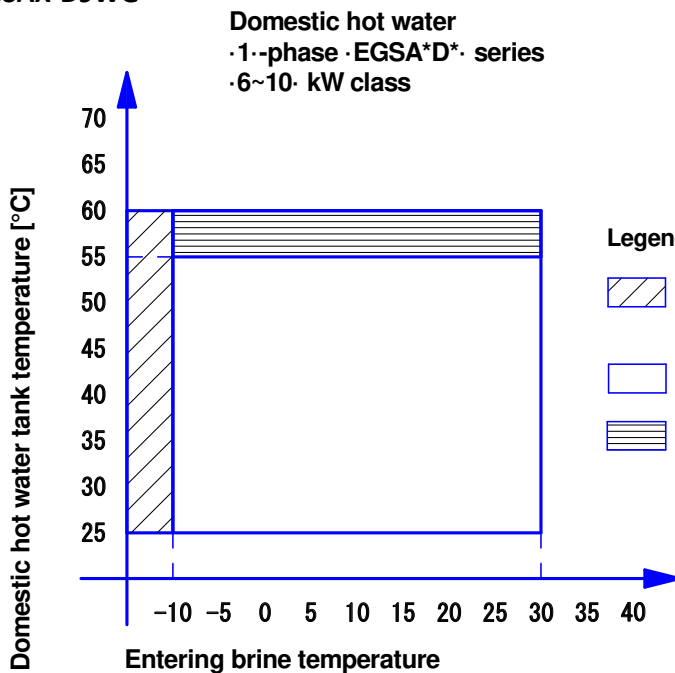
Prevent the system from freezing by adding antifreeze to the brine side (see note).

For more information, refer to the installation manual.

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

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EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG



Legend

- Backup heater only operation
Entering brine temperature = $\cdot < -10 \cdot ^\circ\text{C}$
- Heat pump operation
- Backup heater only operation

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

For more information, refer to the installation manual.

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13 Hydraulic performance

13 - 1 Static Pressure Drop Unit

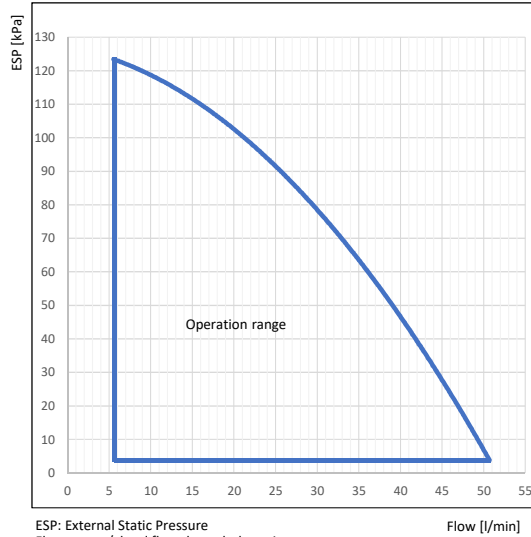
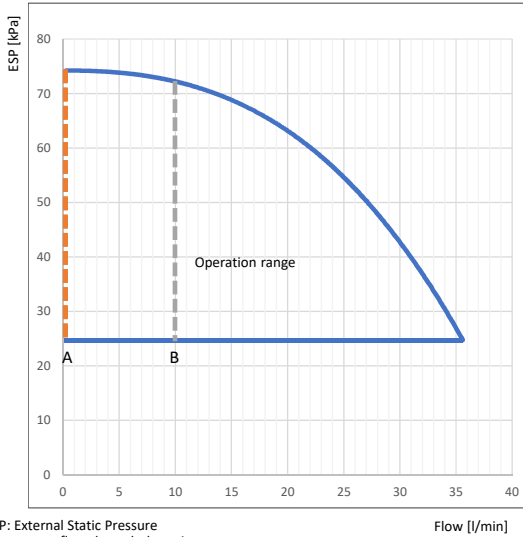
13

EGSAH-D9W
EGSAX-D9W
EGSAX-D9WG

Space heating/cooling circuit

Brine circuit

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



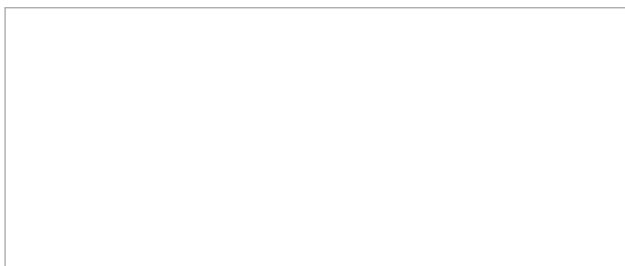
ESP: External Static Pressure
Flow: water flow through the unit

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

- 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.

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