



Heating  
Technical Data

ERLQ-CW1





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## ERLQ-CW1

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# 1 Features

- Outdoor unit extracts heat from the outdoor air, even at -25°C
- Inverter-controlled scroll compressor



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Guaranteed operation down to -25°C



Inverter

## 2 Specifications

CONNECTABLE INDOOR UNITS				EBBH11 CB3V/ ERLQ011 CW1	EBBH11 CB9W/ ERLQ011 CW1	EBBH16 CB3V/ ERLQ014 CW1	EBBH16 CB9W/ ERLQ014 CW1	EBBH16 CB3V/ ERLQ016 CW1	EBBH16 CB9W/ ERLQ016 CW1	
<b>2-1 Capacity and Power input</b>										
Heating capacity	Nom.		kW	11.2 (1) / 11.0 (2)		14.5 (1) / 13.6 (2)		16.0 (1) / 15.2 (2)		
	Max.		kW	8.60 (3) / 8.60 (4)		10.6 (3) / 10.8 (4)		11.4 (3) / 10.9 (4)		
Power input	Heating	Nom.		kW	3.42 (1) / 4.21 (2)		3.37 (1) / 4.10 (2)		3.76 (1) / 4.66 (2)	
		Max.		kW	3.13 (3) / 4.10 (4)		4.00 (3) / 5.19 (4)		4.32 (3) / 5.22 (4)	
COP				4.60 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)		4.30 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)		4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)		
Pump	Nominal ESP unit	Heating		kPa	37.0 (5) / 39.0 (6)		49.0 (5) / 57.0 (6)		33.0 (5) / 42.0 (6)	
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	32.1 (5) / 31.5 (6)		41.6 (5) / 39.0 (6)		45.9 (5) / 43.6 (6)	
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			Yes					
		Brine-to-water heat pump			No					
		Heat pump combination heater			No					
		Low-temperature heat pump			No					
		Supplementary heater integrated			Yes					
		Water-to-water heat pump			No					
LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	41.0		44.0				
LW(A) Sound power level (according to EN14825)	Outdoor		dB(A)	64.0				66.0		
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Space heating general	Air to water unit	Rated airflow (outdoor)		m³/h	5,400					
	Other	Capacity control			Inverter					
		Cdh (Degradation heating)			1.00					
		Pck (Crankcase heater mode)		kW	0.055					
		Poff (Off mode)		kW	0.055					
		Psb (Standby mode)		kW	0.055					
		Pto (Thermostat off)		kW	0.057					
	Integrated supplementary heater	NOx emission		mg/kWh	0.00					
		Psup		kW	3.00	9.00	3.00	9.00	3.00	9.00
		Type of energy input			Electrical					

## 2 Specifications

CONNECTABLE INDOOR UNITS								
Space heating	Average climate water outlet 55°C	General	SCOP		3.09	3.16	3.06	
			Annual energy consumption	kWh	6,260	7,900	8,970	
			Annual energy consumption (GCV)	Gj	22.6	28.4	32.3	
			ηs (Seasonal space heating efficiency)	%	120	123	119	
			Prated at -10°C	kW	9.99	12.7	13.9	
		Seasonal space heating eff. class		A+				
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.00			
			COPd		1.99	1.76	1.78	
			Pdh	kW	8.83	9.97	12.2	
			PERd	%	79.6	70.4	71.2	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00			
			COPd		3.24	3.55	3.12	
			Pdh	kW	5.28	6.76	7.61	
			PERd	%	130	142	125	
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.950			
			COPd		4.31	4.22	4.40	
			Pdh	kW	4.47	4.66	4.83	
			PERd	%	172	169	176	
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.930	0.940	0.930	
			COPd		6.41	5.44	6.36	
	Pdh		kW	5.37	5.26	5.38		
	PERd		%	256	218	254		
	Tol (temperature operating limit)	COPd		1.79	1.75	1.71		
		Pdh	kW	9.08	12.2	13.3		
		PERd	%	71.6	70.0	68.4		
		TOL	°C	-10.0				
		WTOL	°C	55.0				
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	0.910	0.550	0.580	
		Tbiv (bivalent temperature)	COPd		1.99	1.92	1.78	
	Pdh		kW	8.83	11.0	12.2		
	PERd		%	79.6	76.8	71.2		
	Tbiv		°C	-7.00	-6.00	-7.00		
Cold climate water outlet 55°C	General	Annual energy consumption		kWh	6,740	7,870	8,580	
		Annual energy consumption (GCV)		Gj	24.3	28.3	30.9	
		ηs (Seasonal space heating efficiency)		%	95.0	95.5	98.3	
		Prated at -22°C		kW	6.99	8.15	9.12	
Warm climate water outlet 55°C	General	Annual energy consumption		kWh	2,630	3,270	3,420	
		Annual energy consumption (GCV)		Gj	9.47	11.8	12.3	
		ηs (Seasonal space heating efficiency)		%	125	135	136	
		Prated at 2°C		kW	7.58	9.84	10.3	

## 2 Specifications

CONNECTABLE INDOOR UNITS							
Space heating	Average climate water outlet 35°C	General	SCOP		3.98	3.90	3.80
			Annual energy consumption	kWh	5,380	7,250	8,270
			Annual energy consumption (GCV)	Gj	19.4	26.1	29.8
			ηs (Seasonal space heating efficiency)	%	156	153	149
			Prated at -10°C	kW	11.2	14.5	16.0
			Seasonal space heating eff. class		A++		A+
		A Condition (-7°CDB/-8°CWB)	COPd		2.63		2.33
			Pdh	kW	8.88	10.7	12.4
			PERd	%	105		93.2
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00		
			COPd		4.05	4.07	3.74
			Pdh	kW	6.03	7.71	8.62
			PERd	%	162	163	150
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.940	1.00	0.940
			COPd		6.77	5.71	6.77
			Pdh	kW	5.74	5.05	5.74
			PERd	%	271	228	271
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.920	0.930	0.920
			COPd		8.97	6.71	8.97
			Pdh	kW	6.50	5.16	6.50
			PERd	%	359	268	359
	Tol (temperature operating limit)	COPd		2.34	2.60	2.05	
		Pdh	kW	8.76	12.6	11.7	
		PERd	%	93.6	104	82.0	
		TOL	°C	-10.0			
		WTOL	°C	35.0			
	Tbiv (bivalent temperature)	COPd		2.82	2.83	2.56	
		Pdh	kW	9.09	11.6	12.1	
		PERd	%	113		102	
		Tbiv	°C	-5.00		-4.00	
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	2.44	1.93	4.35	
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	6,430	8,170	9,050
ηs (Seasonal space heating efficiency)			%	148	141	137	
Prated at -22°C			kW	10.3	12.3	13.3	
Qhe Annual energy consumption (GCV)			Gj	23.1	29.4	32.6	
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,950	2,350	2,480	
		Annual energy consumption (GCV)	Gj	7.02	8.46	8.92	
		ηs (Seasonal space heating efficiency)	%	192	199		
		Prated at 2°C	kW	9.06	10.9	11.4	
Domestic hot water heating	Average climate	ηwh (water heating efficiency)	%	-			
	Cold climate	ηwh (water heating efficiency)	%	-			
	Warm climate	ηwh (water heating efficiency)	%	-			

### Notes

(1) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)

(2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)

(3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C

(4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C

(5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)

(6) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

Tamb 35°C - LWE 7°C (DT=5°C)

Tamb 35°C - LWE 18°C (DT=5°C)

## 2 Specifications

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CONNECTABLE INDOOR UNITS				EHBX11 CB3V/ ERLQ011 CW1	EHBX11 CB9W/ ERLQ011 CW1	EHBX16 CB9W/ ERLQ014 CW1	EHBX16 CB3V/ ERLQ014 CW1	EHBX16 CB9W/ ERLQ016 CW1	EHBX16 CB3V/ ERLQ016 CW1	
<b>2-2 Capacity and Power input</b>										
Heating capacity	Nom.		kW	11.2 (1) / 11.0 (2)		14.5 (1) / 13.6 (2)		16.0 (1) / 15.2 (2)		
	Max.		kW	8.60 (3) / 8.60 (4)		10.6 (3) / 10.8 (4)		11.4 (3) / 10.9 (4)		
Cooling capacity	Nom.		kW	12.1 (1) / 11.7 (2)		12.7 (1) / 12.6 (2)		13.8 (1) / 13.1 (2)		
Power input	Heating	Nom.	kW	2.43 (1) / 3.10 (2)		3.37 (1) / 4.10 (2)		3.76 (1) / 4.66 (2)		
		Max.	kW	3.13 (3) / 4.10 (4)		4.00 (3) / 5.19 (4)		4.32 (3) / 5.22 (4)		
Power input	Cooling	Nom.	kW	3.05 (1) / 4.31 (2)		3.21 (1) / 5.08 (2)		3.74 (1) / 5.73 (2)		
		COP			4.60 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)		4.30 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)		4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)	
EER			3.98 (1) / 2.72 (2)		3.96 (1) / 2.47 (2)		3.69 (1) / 2.29 (2)			
Pump	Nominal ESP unit	Cooling	kPa	33.0 (5) / 3.00 (6)		64.0 (5) / 32.0 (6)		61.0 (5) / 23.0 (6)		
		Heating	kPa	37.0 (7) / 39.0 (8)		49.0 (7) / 57.0 (8)		33.0 (7) / 42.0 (8)		
Water side Heat exchanger	Water flow rate	Cooling	l/min	33.6 (5) / 43.1 (6)		36.0 (5) / 46.0 (6)		37.6 (5) / 48.0 (6)		
		Heating	l/min	32.1 (7) / 31.5 (8)		41.6 (7) / 39.0 (8)		45.9 (7) / 43.6 (8)		
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		Yes						
		Brine-to-water heat pump		No						
		Heat pump combination heater		No						
		Low-temperature heat pump		No						
		Supplementary heater integrated		Yes						
Water-to-water heat pump		No								
LW(A) Sound power level (according to EN14825)	Indoor	dB(A)	41.0		44.0					
	Outdoor	dB(A)	64.0				66.0			
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Space heating general	Air to water unit	Rated airflow (outdoor)	m <sup>3</sup> /h	5,400						
	Other	Capacity control		Inverter						
		Cdh (Degradation heating)		1.00						
		Pck (Crankcase heater mode)		kW	0.055					
		Poff (Off mode)		kW	0.055					
		Psb (Standby mode)		kW	0.055					
		Pto (Thermostat off)		kW	0.057					
	Integrated supplementary heater	NOx emission		mg/kWh	0.00					
		Psup		kW	3.00	9.00		3.00	9.00	3.00
		Type of energy input		Electrical						



## 2 Specifications

CONNECTABLE INDOOR UNITS							
Space heating	Average climate water outlet 55°C	General	SCOP		3.09	3.16	3.06
			Annual energy consumption	kWh	6,260	7,900	8,970
			Annual energy consumption (GCV)	Gj	22.6	28.4	32.3
			ηs (Seasonal space heating efficiency)	%	120	123	119
			Prated at -10°C	kW	9.99	12.7	13.9
			Seasonal space heating eff. class		A+		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.00		
			COPd		1.99	1.76	1.78
			Pdh	kW	8.83	9.97	12.2
			PERd	%	79.6	70.4	71.2
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00		
			COPd		3.24	3.55	3.12
			Pdh	kW	5.28	6.76	7.61
			PERd	%	130	142	125
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.950		1.00
			COPd		4.31	4.22	4.40
			Pdh	kW	4.47	4.66	4.83
			PERd	%	172	169	176
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.930	0.940	0.930
			COPd		6.41	5.44	6.36
	Pdh		kW	5.37	5.26	5.38	
	PERd		%	256	218	254	
	Tol (temperature operating limit)	COPd		1.79	1.75	1.71	
		Pdh	kW	9.08	12.2	13.3	
		PERd	%	71.6	70.0	68.4	
		TOL	°C	-10.0			
		WTOL	°C	55.0			
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	0.910	0.550	0.580
		Tbiv (bivalent temperature)	COPd		1.99	1.92	1.78
			Pdh	kW	8.83	11.0	12.2
			PERd	%	79.6	76.8	71.2
		Tbiv	°C	-7.00	-6.00	-7.00	
Cold climate water outlet 55°C	General	Annual energy consumption		kWh	6,740	7,870	8,580
		Annual energy consumption (GCV)		Gj	24.3	28.3	30.9
		ηs (Seasonal space heating efficiency)		%	95.0	95.5	98.3
		Prated at -22°C		kW	6.99	8.15	9.12
Warm climate water outlet 55°C	General	Annual energy consumption		kWh	2,630	3,270	3,420
		Annual energy consumption (GCV)		Gj	9.47	11.8	12.3
		ηs (Seasonal space heating efficiency)		%	125	135	136
		Prated at 2°C		kW	7.58	9.84	10.3

## 2 Specifications

CONNECTABLE INDOOR UNITS							
Space heating	Average climate water outlet 35°C	General	SCOP		3.98	3.90	3.80
			Annual energy consumption	kWh	5,380	7,250	8,270
			Annual energy consumption (GCV)	Gj	19.4	26.1	29.8
			ηs (Seasonal space heating efficiency)	%	156	153	149
			Prated at -10°C	kW	11.2	14.5	16.0
			Seasonal space heating eff. class		A++		A+
		A Condition (-7°CDB/-8°CWB)	COPd		2.63		2.33
			Pdh	kW	8.88	10.7	12.4
			PERd	%	105		93.2
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00		
			COPd		4.05	4.07	3.74
			Pdh	kW	6.03	7.71	8.62
			PERd	%	162	163	150
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.940	1.00	0.940
			COPd		6.77	5.71	6.77
	Pdh		kW	5.74	5.05	5.74	
	PERd		%	271	228	271	
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.920	0.930	0.920	
		COPd		8.97	6.71	8.97	
		Pdh	kW	6.50	5.16	6.50	
		PERd	%	359	268	359	
	Tol (temperature operating limit)	COPd		2.34	2.60	2.05	
		Pdh	kW	8.76	12.6	11.7	
		PERd	%	93.6	104	82.0	
		TOL	°C	-10.0			
		WTOL	°C	35.0			
	Tbiv (bivalent temperature)	COPd		2.82	2.83	2.56	
		Pdh	kW	9.09	11.6	12.1	
		PERd	%	113		102	
		Tbiv	°C	-5.00		-4.00	
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	2.44	1.93	4.35		
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	6,430	8,170	9,050	
		ηs (Seasonal space heating efficiency)	%	148	141	137	
		Prated at -22°C	kW	10.3	12.3	13.3	
		Qhe Annual energy consumption (GCV)	Gj	23.1	29.4	32.6	
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,950	2,350	2,480	
		Annual energy consumption (GCV)	Gj	7.02	8.46	8.92	
		ηs (Seasonal space heating efficiency)	%	192	199		
		Prated at 2°C	kW	9.06	10.9	11.4	
Domestic hot water heating	Average climate	ηwh (water heating efficiency)	%	-			
	Cold climate	ηwh (water heating efficiency)	%	-			
	Warm climate	ηwh (water heating efficiency)	%	-			

## 2 Specifications

### Notes

- (1) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C
- (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C
- (5) Tamb 35°C - LWE 7°C (DT=5°C)
- (6) Tamb 35°C - LWE 18°C (DT=5°C)
- (7) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (8) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

CONNECTABLE INDOOR UNITS				EHVH11 S18CB3V / ERLQ011 CW1	EHVH11 S26CB9 W/ ERLQ011 CW1	EHVH16 S18CB3V / ERLQ014 CW1	EHVH16 S26CB9 W/ ERLQ014 CW1	EHVH16 S18CB3V / ERLQ016 CW1	EHVH16 S26CB9 W/ ERLQ016 CW1		
<b>2-3 Capacity and Power input</b>											
Heating capacity	Nom.		kW	11.2 (1) / 11.0 (2)		14.5 (1) / 13.6 (2)		16.0 (1) / 15.2 (2)			
	Max.		kW	8.60 (3) / 8.60 (4)		10.6 (3) / 10.8 (4)		11.4 (3) / 10.9 (4)			
Power input	Heating	Nom.	kW	3.42 (1) / 4.21 (2)		3.37 (1) / 4.10 (2)		3.76 (1) / 4.66 (2)			
		Max.	kW	3.13 (3) / 4.10 (4)		4.00 (3) / 5.19 (4)		4.32 (3) / 5.22 (4)			
COP				4.60 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)		4.30 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)		4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)			
Tank	Name			Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 260 l	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 260 l	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 260 l		
Pump	Nominal ESP unit	Heating		kPa	34.2 (5) / 35.9 (6)		43.2 (5) / 51.2 (6)		26.8 (5) / 36.3 (6)		
Water side Heat exchanger	Water flow rate	Heating		Nom.	l/min	32.1 (5) / 31.5 (6)		41.6 (5) / 39.0 (6)		45.9 (5) / 43.6 (6)	
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			Yes						
		Brine-to-water heat pump			No						
		Heat pump combination heater			Yes						
		Low-temperature heat pump			No						
		Supplementary heater integrated			Yes						
Water-to-water heat pump			No								
LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	42.0		44.0					
LW(A) Sound power level (according to EN14825)	Outdoor		dB(A)	64.0				66.0			
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825							
Space heating general	Air to water unit	Rated airflow (outdoor)		m³/h	5,400						
	Other	Capacity control			Inverter						
		Cdh (Degradation heating)			1.00						
		Pck (Crankcase heater mode)			kW	0.055					
		Poff (Off mode)			kW	0.055					
		Psb (Standby mode)			kW	0.055					
		Pto (Thermostat off)			kW	0.057					
	Integrated supplementary heater	NOx emission			mg/kWh	0.00					
		Psup			kW	3.00	9.00	3.00	9.00	3.00	9.00
Type of energy input			Electrical								

## 2 Specifications

2

CONNECTABLE INDOOR UNITS							
Space heating	Average climate water outlet 55°C	General	SCOP		3.09	3.16	3.06
			Annual energy consumption	kWh	6,260	7,900	8,970
			Annual energy consumption (GCV)	Gj	22.6	28.4	32.3
			ηs (Seasonal space heating efficiency)	%	120	123	119
			Prated at -10°C	kW	9.99	12.7	13.9
			Seasonal space heating eff. class		A+		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.00		
			COPd		1.99	1.76	1.78
			Pdh	kW	8.83	9.97	12.2
			PERd	%	79.6	70.4	71.2
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00		
			COPd		3.24	3.55	3.12
			Pdh	kW	5.28	6.76	7.61
			PERd	%	130	142	125
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.950		1.00
			COPd		4.31	4.22	4.40
			Pdh	kW	4.47	4.66	4.83
			PERd	%	172	169	176
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.930	0.940	0.930
			COPd		6.41	5.44	6.36
			Pdh	kW	5.37	5.26	5.38
			PERd	%	256	218	254
		Tol (temperature operating limit)	COPd		1.79	1.75	1.71
			Pdh	kW	9.08	12.2	13.3
			PERd	%	71.6	70.0	68.4
			TOL	°C	-10.0		
			WTOL	°C	55.0		
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	0.910	0.550	0.580
		Tbiv (bivalent temperature)	COPd		1.99	1.92	1.78
			Pdh	kW	8.83	11.0	12.2
			PERd	%	79.6	76.8	71.2
			Tbiv	°C	-7.00	-6.00	-7.00
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	6,740	7,870	8,580	
		Annual energy consumption (GCV)	Gj	24.3	28.3	30.9	
		ηs (Seasonal space heating efficiency)	%	95.0	95.5	98.3	
		Prated at -22°C	kW	6.99	8.15	9.12	
		Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,630	3,270
Annual energy consumption (GCV)	Gj			9.47	11.8	12.3	
ηs (Seasonal space heating efficiency)	%			125	135	136	
Prated at 2°C	kW			7.58	9.84	10.3	

## 2 Specifications

CONNECTABLE INDOOR UNITS							
Space heating	Average climate water outlet 35°C	General	SCOP		3.98	3.90	3.80
			Annual energy consumption	kWh	5,380	7,250	8,270
			Annual energy consumption (GCV)	Gj	19.4	26.1	29.8
			ηs (Seasonal space heating efficiency)	%	156	153	149
			Prated at -10°C	kW	11.2	14.5	16.0
			Seasonal space heating eff. class		A++		A+
		A Condition (-7°CDB/-8°CWB)	COPd		2.63		2.33
			Pdh	kW	8.88	10.7	12.4
			PERd	%	105		93.2
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00		
			COPd		4.05	4.07	3.74
			Pdh	kW	6.03	7.71	8.62
			PERd	%	162	163	150
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.940	1.00	0.940
			COPd		6.77	5.71	6.77
			Pdh	kW	5.74	5.05	5.74
			PERd	%	271	228	271
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.920	0.930	0.920
			COPd		8.97	6.71	8.97
			Pdh	kW	6.50	5.16	6.50
			PERd	%	359	268	359
		Tol (temperature operating limit)	COPd		2.34	2.60	2.05
			Pdh	kW	8.76	12.6	11.7
			PERd	%	93.6	104	82.0
			TOL	°C	-10.0		
	WTOL		°C	35.0			
	Tbiv (bivalent temperature)	COPd		2.82	2.83	2.56	
		Pdh	kW	9.09	11.6	12.1	
		PERd	%	113		102	
		Tbiv	°C	-5.00		-4.00	
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		2.44	1.93	4.35	
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	6,430	8,170	9,050	
		ηs (Seasonal space heating efficiency)	%	148	141	137	
		Prated at -22°C	kW	10.3	12.3	13.3	
		Qhe Annual energy consumption (GCV)	Gj	23.1	29.4	32.6	
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,950	2,350	2,480	
		Annual energy consumption (GCV)	Gj	7.02	8.46	8.92	
		ηs (Seasonal space heating efficiency)	%	192	199		
		Prated at 2°C	kW	9.06	10.9	11.4	

## 2 Specifications

2

CONNECTABLE INDOOR UNITS			L	XL	L	XL	L	XL	
Domestic hot water heating	General	Declared load profile							
		Function to fix water heating during off peak hours	Yes						
	Average climate	AEC (Annual electricity consumption)	kWh	1,170	1,720	1,170	1,720	1,170	1,720
		AFC (Annual fuel consumption)	Gj	0.00					
		$\eta_{wh}$ (water heating efficiency)	%	87.4	97.7	87.4	97.7	87.4	97.7
		Qelec (Daily electricity consumption)	kWh	5.32	7.83	5.32	7.83	5.32	7.83
		Qfuel (Daily fuel consumption)	kWh	0.00					
		Water heating energy efficiency class		A					
	Cold climate	AEC (Annual electricity consumption)	kWh	1,340	1,980	1,340	1,980	1,340	1,980
		AFC (Annual fuel consumption)	Gj	0.00					
		$\eta_{wh}$ (water heating efficiency)	%	76.6	85.1	76.6	85.1	76.6	85.1
		Qelec (Daily electricity consumption)	kWh	6.08	8.99	6.08	8.99	6.08	8.99
		Qfuel (Daily fuel consumption)	kWh	0.00					
	Warm climate	AEC (Annual electricity consumption)	kWh	1,110	1,630	1,110	1,630	1,110	1,630
		AFC (Annual fuel consumption)	Gj	0.00					
		$\eta_{wh}$ (water heating efficiency)	%	92.3	103	92.3	103	92.3	103
		Qelec (Daily electricity consumption)	kWh	5.04	7.40	5.04	7.40	5.04	7.40
		Qfuel (Daily fuel consumption)	kWh	0.00					

### Notes

- (1) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C
- (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C
- (5) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (6) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)
- Tamb 35°C - LWE 7°C (DT=5°C)
- Tamb 35°C - LWE 18°C (DT=5°C)

CONNECTABLE INDOOR UNITS			EHVX11 S18CB3 V/ ERLQ01 1CW1	EHVX11 S26CB9 W/ ERLQ01 1CW1	EHVX16 S18CB3 V/ ERLQ01 4CW1	EHVX16 S26CB9 W/ ERLQ01 4CW1	EHVX16 S18CB3 V/ ERLQ01 6CW1	EHVX16 S26CB9 W/ ERLQ01 6CW1
<b>2-4 Capacity and Power input</b>								
Heating capacity	Nom.	kW	11.2 (1) / 11.0 (2)	14.5 (1) / 13.6 (2)	16.0 (1) / 15.2 (2)			
	Max.	kW	8.60 (3) / 8.60 (4)	10.6 (3) / 10.8 (4)	11.4 (3) / 10.9 (4)			
Cooling capacity	Nom.	kW	12.1 (1) / 11.7 (2)	12.7 (1) / 12.6 (2)	13.8 (1) / 13.1 (2)			
Power input	Heating	Nom.	kW	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)		
		Max.	kW	3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)		
	Cooling	Nom.	kW	3.05 (1) / 4.31 (2)	3.21 (1) / 5.08 (2)	3.74 (1) / 5.73 (2)		
COP			4.60 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.30 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)			
EER			3.98 (1) / 2.72 (2)	3.96 (1) / 2.47 (2)	3.69 (1) / 2.29 (2)			
Tank	Name		Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 260 l	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 260 l	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 260 l
Pump	Nominal ESP unit	Cooling	kPa	29.8 (5) / 1.30 (6)	59.2 (5) / 27.2 (6)	55.0 (5) / 18.8 (6)		
		Heating	kPa	34.2 (7) / 35.9 (8)	43.2 (7) / 51.2 (8)	26.8 (7) / 36.3 (8)		
Water side Heat exchanger	Water flow rate	Cooling	Nom.	l/min	33.6 (5) / 43.1 (6)	36.0 (5) / 46.0 (6)	37.6 (5) / 48.0 (6)	37.6 (5) / 51.0 (6)
		Heating	Nom.	l/min	32.1 (7) / 31.5 (8)	41.6 (7) / 39.0 (8)	45.9 (7) / 43.6 (8)	

## 2 Specifications

CONNECTABLE INDOOR UNITS										
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			Yes					
		Brine-to-water heat pump			No					
		Heat pump combination heater			Yes					
		Low-temperature heat pump			No					
		Supplementary heater integrated			Yes					
		Water-to-water heat pump			No					
LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	42.0	44.0					
	Outdoor		dB(A)	64.0			66.0			
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Space heating general	Air to water unit	Rated airflow (outdoor)		m <sup>3</sup> /h	5,400					
	Other	Capacity control			Inverter					
		Cdh (Degradation heating)			1.00					
		Pck (Crankcase heater mode)		kW	0.055					
		Poff (Off mode)		kW	0.055					
		Psb (Standby mode)		kW	0.055					
		Pto (Thermostat off)		kW	0.057					
	Integrated supplementary heater	NOx emission		mg/kWh	0.00					
		Psup		kW	3.00	9.00	3.00	9.00	3.00	9.00
Type of energy input			Electrical							

## 2 Specifications

CONNECTABLE INDOOR UNITS							
Space heating	Average climate water outlet 55°C	General	SCOP		3.09	3.16	3.06
			Annual energy consumption	kWh	6,260	7,900	8,970
			Annual energy consumption (GCV)	Gj	22.6	28.4	32.3
			ηs (Seasonal space heating efficiency)	%	120	123	119
			Prated at -10°C	kW	9.99	12.7	13.9
			Seasonal space heating eff. class		A+		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.00		
			COPd		1.99	1.76	1.78
			Pdh	kW	8.83	9.97	12.2
			PERd	%	79.6	70.4	71.2
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00		
			COPd		3.24	3.55	3.12
			Pdh	kW	5.28	6.76	7.61
			PERd	%	130	142	125
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.950		1.00
			COPd		4.31	4.22	4.40
			Pdh	kW	4.47	4.66	4.83
			PERd	%	172	169	176
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.930	0.940	0.930
			COPd		6.41	5.44	6.36
			Pdh	kW	5.37	5.26	5.38
			PERd	%	256	218	254
		Tol (temperature operating limit)	COPd		1.79	1.75	1.71
			Pdh	kW	9.08	12.2	13.3
	PERd		%	71.6	70.0	68.4	
	TOL		°C	-10.0			
	WTOL		°C	55.0			
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	0.910	0.550	0.580
		Tbiv (bivalent temperature)	COPd		1.99	1.92	1.78
			Pdh	kW	8.83	11.0	12.2
			PERd	%	79.6	76.8	71.2
	Tbiv		°C	-7.00	-6.00	-7.00	
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	6,740	7,870	8,580	
		Annual energy consumption (GCV)	Gj	24.3	28.3	30.9	
		ηs (Seasonal space heating efficiency)	%	95.0	95.5	98.3	
		Prated at -22°C	kW	6.99	8.15	9.12	
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,630	3,270	3,420	
		Annual energy consumption (GCV)	Gj	9.47	11.8	12.3	
		ηs (Seasonal space heating efficiency)	%	125	135	136	
		Prated at 2°C	kW	7.58	9.84	10.3	



## 2 Specifications

CONNECTABLE INDOOR UNITS								
Space heating	Average climate water outlet 35°C	General	SCOP		3.98	3.90	3.80	
			Annual energy consumption	kWh	5,380	7,250	8,270	
			Annual energy consumption (GCV)	Gj	19.4	26.1	29.8	
			ηs (Seasonal space heating efficiency)	%	156	153	149	
			Prated at -10°C	kW	11.2	14.5	16.0	
			Seasonal space heating eff. class	A++		A+		
		A Condition (-7°CDB/-8°CWB)	COPd		2.63		2.33	
			Pdh	kW	8.88	10.7	12.4	
			PERd	%	105		93.2	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00			
			COPd		4.05	4.07	3.74	
			Pdh	kW	6.03	7.71	8.62	
			PERd	%	162	163	150	
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.940	1.00	0.940	
			COPd		6.77	5.71	6.77	
			Pdh	kW	5.74	5.05	5.74	
			PERd	%	271	228	271	
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.920	0.930	0.920	
			COPd		8.97	6.71	8.97	
			Pdh	kW	6.50	5.16	6.50	
			PERd	%	359	268	359	
		Tol (temperature operating limit)	COPd		2.34	2.60	2.05	
			Pdh	kW	8.76	12.6	11.7	
			PERd	%	93.6	104	82.0	
	TOL		°C	-10.0				
	WTOL		°C	35.0				
	Tbiv (bivalent temperature)	COPd		2.82	2.83	2.56		
		Pdh	kW	9.09	11.6	12.1		
		PERd	%	113		102		
		Tbiv	°C	-5.00		-4.00		
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	2.44	1.93	4.35	
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	6,430	8,170	9,050	
ηs (Seasonal space heating efficiency)			%	148	141	137		
Prated at -22°C			kW	10.3	12.3	13.3		
Qhe Annual energy consumption (GCV)			Gj	23.1	29.4	32.6		
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,950	2,350	2,480		
		Annual energy consumption (GCV)	Gj	7.02	8.46	8.92		
		ηs (Seasonal space heating efficiency)	%	192	199			
		Prated at 2°C	kW	9.06	10.9	11.4		

## 2 Specifications

2

CONNECTABLE INDOOR UNITS				L	XL	L	XL	L	XL	
Domestic hot water heating	General	Declared load profile								
		Function to fix water heating during off peak hours		Yes						
	Average climate	AEC (Annual electricity consumption)		kWh	1,170	1,720	1,170	1,720	1,170	1,720
		AFC (Annual fuel consumption)		Gj	0.00					
		η <sub>wh</sub> (water heating efficiency)		%	87.4	97.7	87.4	97.7	87.4	97.7
		Qelec (Daily electricity consumption)		kWh	5.32	7.83	5.32	7.83	5.32	7.83
		Qfuel (Daily fuel consumption)		kWh	0.00					
		Water heating energy efficiency class			A					
	Cold climate	AEC (Annual electricity consumption)		kWh	1,340	1,980	1,340	1,980	1,340	1,980
		AFC (Annual fuel consumption)		Gj	0.00					
		η <sub>wh</sub> (water heating efficiency)		%	76.6	85.1	76.6	85.1	76.6	85.1
		Qelec (Daily electricity consumption)		kWh	6.08	8.99	6.08	8.99	6.08	8.99
		Qfuel (Daily fuel consumption)		kWh	0.00					
	Warm climate	AEC (Annual electricity consumption)		kWh	1,110	1,630	1,110	1,630	1,110	1,630
		AFC (Annual fuel consumption)		Gj	0.00					
		η <sub>wh</sub> (water heating efficiency)		%	92.3	103	92.3	103	92.3	103
		Qelec (Daily electricity consumption)		kWh	5.04	7.40	5.04	7.40	5.04	7.40
		Qfuel (Daily fuel consumption)		kWh	0.00					

### Notes

- (1) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C
- (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C
- (5) Tamb 35°C - LWE 7°C (DT=5°C)
- (6) Tamb 35°C - LWE 18°C (DT=5°C)
- (7) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (8) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

CONNECTABLE INDOOR UNITS				EHVZ16S18CB3V/ ERLQ011CW1			EHVZ16S18CB3V/ ERLQ014CW1			EHVZ16S18CB3V/ ERLQ016CW1			
<b>2-5 Capacity and Power input</b>													
Heating capacity	Nom.		kW	11.2 (1) / 11.0 (2)			14.4 (1) / 13.5 (2)			15.9 (1) / 15.1 (2)			
	Max.		kW	8.60 (3) / 8.60 (4)			10.5 (3) / 10.7 (4)			11.3 (3) / 10.8 (4)			
Power input	Heating	Nom.		kW	2.43 (1) / 3.10 (2)			3.39 (1) / 4.12 (2)			3.77 (1) / 4.67 (2)		
		Max.		kW	3.13 (3) / 4.10 (4)			4.02 (3) / 5.21 (4)			4.33 (3) / 5.22 (4)		
COP				4.60 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)			4.24 (1) / 2.61 (3) / 3.28 (2) / 2.05 (4)			4.22 (1) / 2.61 (3) / 3.23 (2) / 2.07 (4)			
Tank	Name			Stainless steel domestic hot water tank 180 l									
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	32.1 (1) / 31.5 (1)			41.3 (1) / 38.7 (2)			45.6 (1) / 43.3 (2)		
		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		Yes							
				Brine-to-water heat pump		No							
				Heat pump combination heater		Yes							
				Low-temperature heat pump		No							
				Supplementary heater integrated		Yes							
				Water-to-water heat pump		No							
		LW(A) Sound power level (according to EN14825)	Indoor	dB(A)	47.0								
		LW(A) Sound power level (according to EN14825)	Outdoor	dB(A)	64.0			66.0					
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825									

## 2 Specifications

CONNECTABLE INDOOR UNITS					
Space heating general	Air to water unit	Rated airflow (outdoor)	m <sup>3</sup> /h	5,400	
	Brine/water to water unit	Rated water/brine flow	m <sup>3</sup> /h	0.00	
	Other	Capacity control			Inverter
		Cdh (Degradation heating)			1.00
		Pck (Crankcase heater mode)	kW		0.055
		Poff (Off mode)	kW		0.055
		Psb (Standby mode)	kW		0.055
		Pto (Thermostat off)	kW		0.057
	Integrated supplementary heater	NOx emission		mg/kWh	0.00
		Psup		kW	3.00
		Type of energy input			Electrical

## 2 Specifications

2

CONNECTABLE INDOOR UNITS							
Space heating	Average climate water outlet 55°C	General	SCOP		3.09	3.16	3.06
			Annual energy consumption	kWh	6,260	7,900	8,970
			Annual energy consumption (GCV)	Gj	22.6	28.4	32.3
			ηs (Seasonal space heating efficiency)	%	120	123	119
			Prated at -10°C	kW	9.99	12.7	13.9
			Seasonal space heating eff. class		A+		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.00		
			COPd		1.99	1.76	1.78
			Pdh	kW	8.83	9.97	12.2
			PERd	%	79.6	70.4	71.2
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.00		
			COPd		3.24	3.55	3.12
			Pdh	kW	5.28	6.76	7.61
			PERd	%	130	142	125
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.950		1.00
			COPd		4.31	4.22	4.40
			Pdh	kW	4.47	4.66	4.83
			PERd	%	172	169	176
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.930	0.940	0.930
			COPd		6.41	5.44	6.36
			Pdh	kW	5.37	5.26	5.38
			PERd	%	256	218	254
		Tol (temperature operating limit)	COPd		1.79	1.75	1.71
			Pdh	kW	9.08	12.2	13.3
			PERd	%	71.6	70.0	68.4
			TOL		°C -10.0		
			WTOL		°C 55.0		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	0.910	0.550
Tbiv (bivalent temperature)	COPd		1.99	1.92	1.78		
	Pdh		kW	8.83	11.0	12.2	
	PERd		%	79.6	76.8	71.2	
	Tbiv	°C		-7.00	-6.00	-7.00	
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	6,740	7,870	8,580	
		Annual energy consumption (GCV)	Gj	24.3	28.3	30.9	
		ηs (Seasonal space heating efficiency)	%	95.0	95.5	98.3	
		Prated at -22°C	kW	6.99	8.15	9.12	
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,630	3,270	3,420	
		Annual energy consumption (GCV)	Gj	9.47	11.8	12.3	
		ηs (Seasonal space heating efficiency)	%	125	135	136	
		Prated at 2°C	kW	7.58	9.84	1,030	
Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-			
Cold climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-			
		Qhe Annual energy consumption (GCV)	Gj	-			
Warm climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-			
Pump Additional Zone	Nominal ESP unit (*RLQ*°C)	Heating	kPa	26.2 (1) / 28.3 (2)		25.0 (5)	
Pump Main Zone	Nominal ESP unit (*RLQ*°C)	Heating	kPa	18.2 (1) / 20.7 (2)		25.0 (5)	

## 2 Specifications

CONNECTABLE INDOOR UNITS				
Domestic hot water heating	General	Declared load profile		L
		Function to fix water heating during off peak hours		Yes
	Average climate	AEC (Annual electricity consumption)	kWh	1,170
		AFC (Annual fuel consumption)	Gj	0.00
		η <sub>wh</sub> (water heating efficiency)	%	87.4
		Qelec (Daily electricity consumption)	kWh	5.32
		Qfuel (Daily fuel consumption)	kWh	0.00
		Water heating energy efficiency class		A
	Cold climate	AEC (Annual electricity consumption)	kWh	1,340
		AFC (Annual fuel consumption)	Gj	0.00
		η <sub>wh</sub> (water heating efficiency)	%	76.6
		Qelec (Daily electricity consumption)	kWh	6.08
		Qfuel (Daily fuel consumption)	kWh	0.00
	Warm climate	AEC (Annual electricity consumption)	kWh	1,110
		AFC (Annual fuel consumption)	Gj	0.00
		η <sub>wh</sub> (water heating efficiency)	%	92.3
		Qelec (Daily electricity consumption)	kWh	5.04
		Qfuel (Daily fuel consumption)	kWh	0.00

### Notes

- (1) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C
- (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C
- (5) Capacity must be split up over the additional and main zone. Refer to ESP-data for more details on available head (kPa).  
DB/WB 7°C/6°C - LWC 35°C (DT=5°C)  
DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

CONNECTABLE INDOOR UNITS				EHSXB16P50B/ ERLQ011CW1	EHSXB16P50B/ ERLQ014CW1	EHSXB16P50B/ ERLQ016CW1	
<b>2-6 Capacity and Power input</b>							
Indoor unit				EHSXB16P50BA			
Outdoor unit				ERLQ011CAW1	ERLQ014CAW1	ERLQ016CAW1	
Heating capacity	Nom.	kW	5.95 (1) / 7.74 (2) / 11.80 (3) / 10.40 (4)	8.28 (1) / 9.57 (2) / 14.81 (3) / 13.73 (4)	8.04 (1) / 10.05 (2) / 15.34 (3) / 14.86 (4)		
	Max.	kW	11.38 (3) / 11.00 (4)	14.55 (3) / 13.59 (4)	16.10 (3) / 15.22 (4)		
Cooling capacity	Min.	kW	2.5 (5) / 2.6 (6)			-	
	Nom.	kW	15.1 (5) / 11.7 (6)	16.1 (5) / 12.6 (6)	16.8 (5) / 13.1 (6)		
	Max.	kW	15.1 (5) / 11.7 (6)	16.1 (5) / 12.6 (6)	16.8 (5) / 13.1 (6)		
Power input	Heating	Nom.	2.57 (5) / 3.13 (6) / 2.43 (1) / 2.35 (2)	3.42 (5) / 4.07 (6) / 3.17 (1) / 2.93 (2)			
		Max.	2.64 (5) / 3.25 (6)	3.43 (5) / 4.22 (6)	3.83 (5) / 4.71 (6)		
	Cooling	Nom.	4.55 (5) / 4.30 (6)	5.44 (5) / 5.10 (6)	6.18 (5) / 5.72 (6)		
		Max.	4.53 (5) / 4.31 (6)	5.42 (5) / 5.09 (6)	6.15 (5) / 5.74 (6)		
COP				4.38 (5) / 3.32 (6) / 2.45 (1) / 3.29 (2)	4.27 (5) / 3.34 (6) / 2.58 (1) / 3.22 (2)	4.10 (5) / 3.22 (6) / 2.44 (1) / 3.15 (2)	
EER				3.32 (5) / 2.72 (6)	2.96 (5) / 2.47 (6)	2.72 (5) / 2.29 (6)	
Pump	Type	Grundfos UPM3 25-75 CHBL					
Water side Heat exchanger	Water flow rate	Cooling	Nom.	l/min	43.3 (7) / 33.5 (8)	46.0 (7) / 36.1 (8)	48.1 (7) / 37.5 (8)
		Heating	Nom.	l/min	33.8 (9) / 29.8 (10)	42.4 (9) / 39.4 (10)	44.0 (9) / 42.6 (10)

## 2 Specifications

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CONNECTABLE INDOOR UNITS							
General	Product description	Air-to-water heat pump		Yes			
		Brine-to-water heat pump		No			
		Heat pump combination heater		Yes			
		Low-temperature heat pump		No			
		Supplementary heater integrated		No			
	Water-to-water heat pump		No				
LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	39			
	Outdoor		dB(A)	64	66		
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825			
Space heating general	Other	Capacity control		Inverter			
		Cdh (Degradation heating)		0.9			
		Pck (Crankcase heater mode)	kW	0.000			
		Poff (Off mode)	kW	0.050			
		Psb (Standby mode)	kW	0.050			
		Pto (Thermostat off)	kW	0.105			
	Integrated supplementary heater	Psup	kW	9.0			
Type of energy input		Electrical					
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	6,345	7,654	8,978
			ηs (Seasonal space heating efficiency)	%	128	130	127
			Prated at -10°C	kW	10	12	14
			Seasonal space heating eff. class		A++		
		A Condition (-7°CDB/8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.94	1.92	1.85
			Pdh	kW	9.0	10.9	12.6
			PERd	%	77.6	76.8	74.0
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.30		3.19
			Pdh	kW	5.4	6.6	7.8
			PERd	%	132.0		127.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9	1.0	
			COPd		4.26	4.34	4.47
			Pdh	kW	4.6		4.9
			PERd	%	170.4	173.6	178.8
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9		
			COPd		6.30	6.45	6.52
			Pdh	kW	5.5		5.4
			PERd	%	252.0	258.0	260.8
		Tol (temperature operating limit)	COPd		1.78	1.63	1.57
			Pdh	kW	9.1	9.8	11.2
			PERd	%	71.2	65.2	62.8
			TOL	°C	-10		
			WTOL	°C	55		
		Rated heat output supplementary capacity	Psup (at Tdesign - 10°C)	kW	1.0	2.5	3.0
		Tbiv (bivalent temperature)	COPd		1.94	1.92	1.84
Pdh	kW		9.0	10.9	12.6		
PERd	%		77.6	76.8	73.6		
Tbiv	°C		-7				

## 2 Specifications

CONNECTABLE INDOOR UNITS							
Space heating	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	8,185	9,676	10,405
			ηs (Seasonal space heating efficiency)	%	101		
			Prated at -22°C	kW	9	10	11
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.98	2.04	2.05
			Pdh	kW	5.2	6.2	6.6
			PERd	%	79.2	81.6	82.0
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.25	3.20	3.19
			Pdh	kW	3.2	3.8	4.0
			PERd	%	130.0	128.0	127.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9		
			COPd		5.50		
			Pdh	kW	5.2		
			PERd	%	220.0		
		D Condition (12°CDB/11°CWB)	COPd		7.56		
			Pdh	kW	6.1		
			PERd	%	302.4		
		Tol (temperature operating limit)	COPd		1.22	1.13	1.08
			Pdh	kW	5.7	6.4	6.8
			PERd	%	48.8	45.2	43.2
	TOL		°C	-20			
	WTOL		°C	55			
	G Condition (-15°CDB/-)	COPd		1.51	1.50	1.42	
		Pdh	kW	7.1	8.4	8.9	
		PERd	%	60.4	60.0	56.8	
	Tbiv (bivalent temperature)	COPd		1.51	1.50	1.42	
		Pdh	kW	7.1	8.4	8.9	
		PERd	%	60.4	60.0	56.8	
		Tbiv	°C	-15			
	Rated heat output supplementary capacity	Psup (at Tdesign - 22°C)		kW	3.4	4.6	4.9
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,637	3,282	3,429
			ηs (Seasonal space heating efficiency)	%	146	153	154
Prated at 2°C			kW	8	10		
B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)		1.0			
		COPd		1.82	1.90	1.78	
		Pdh	kW	7.6	9.8	10.3	
		PERd	%	72.8	76.0	71.2	
C Condition (7°CDB/6°CWB)		Cdh (Degradation heating)		1.0			
		COPd		3.07	3.22	3.25	
		Pdh	kW	4.9	6.3	6.6	
		PERd	%	122.8	128.8	130.0	
D Condition (12°CDB/11°CWB)		Cdh (Degradation heating)		0.9			
		COPd		5.88			
		Pdh	kW	5.4			
		PERd	%	235.2			
Tbiv (bivalent temperature)		COPd		1.82	1.90	1.78	
		Pdh	kW	7.6	9.8	10.3	
		PERd	%	72.8	76.0	71.2	
		Tbiv	°C	2			
Average climate water outlet 35°C		General	ηs (Seasonal space heating efficiency)	%	-		

## 2 Specifications

2

CONNECTABLE INDOOR UNITS					
Space heating	Cold climate water outlet 35°C	General	η <sub>s</sub> (Seasonal space heating efficiency)	%	-
			Q <sub>he</sub> Annual energy consumption (GCV)	Gj	-
	Warm climate water outlet 35°C	General	η <sub>s</sub> (Seasonal space heating efficiency)	%	-
Domestic hot water heating	General	Declared load profile			XL
		Function to fix water heating during off peak hours			Yes
	Average climate	AEC (Annual electricity consumption)		kWh	2,158
		η <sub>wh</sub> (water heating efficiency)		%	84
		Qelec (Daily electricity consumption)		kWh	9.681
		Water heating energy efficiency class			A
	Cold climate	AEC (Annual electricity consumption)		kWh	2,394
		η <sub>wh</sub> (water heating efficiency)		%	76
		Qelec (Daily electricity consumption)		kWh	10.755
	Warm climate	AEC (Annual electricity consumption)		kWh	1,921
η <sub>wh</sub> (water heating efficiency)		%	95		
Qelec (Daily electricity consumption)		kWh	8.600		

### Notes

- (1) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB
- (2) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB
- (3) EW 30°C; LW 35°C; ambient conditions: 7°CDB/6°CWB
- (4) EW 40°C; LW 45°C; ambient conditions: 7°CDB/6°CWB
- (5) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (6) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (7) Tamb 35°C - LWE 18°C (DT=5°C)
- (8) Tamb 35°C - LWE 7°C (DT=5°C)
- (9) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (10) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

CONNECTABLE INDOOR UNITS						EHS16P50B/ ERLQ011CW1	EHS16P50B/ ERLQ014CW1	EHS16P50B/ ERLQ016CW1	
<b>2-7 Capacity and Power input</b>									
Indoor unit						EHS16P50BA			
Outdoor unit						ERLQ011CAW1	ERLQ014CAW1	ERLQ016CAW1	
Heating capacity	Nom.		kW	5.95 (1) / 7.74 (2) / 11.80 (3) / 10.40 (4)		8.28 (1) / 9.57 (2) / 14.81 (3) / 13.73 (4)		8.04 (1) / 10.05 (2) / 15.34 (3) / 14.86 (4)	
	Max.		kW	11.38 (3) / 11.00 (4)		14.55 (3) / 13.59 (4)		16.10 (3) / 15.22 (4)	
Power input	Heating	Nom.		kW	2.57 (5) / 3.13 (6) / 2.43 (1) / 2.35 (2)		3.42 (5) / 4.07 (6) / 3.17 (1) / 2.93 (2)		
		Max.		kW	2.64 (5) / 3.25 (6)		3.43 (5) / 4.22 (6) / 3.83 (5) / 4.71 (6)		
COP						4.38 (5) / 3.32 (6) / 2.45 (1) / 3.29 (2)		4.27 (5) / 3.34 (6) / 2.58 (1) / 3.22 (2)	4.10 (5) / 3.22 (6) / 2.44 (1) / 3.15 (2)
Pump	Type					Grundfos UPM3 25-75 CHBL			
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	33.8 (7) / 29.8 (8)		42.4 (7) / 39.4 (8) / 44.0 (7) / 42.6 (8)		
General	Product description	Air-to-water heat pump			Yes				
		Brine-to-water heat pump			No				
		Heat pump combination heater			Yes				
		Low-temperature heat pump			No				
		Supplementary heater integrated			No				
	Water-to-water heat pump			No					
	LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	39				



## 2 Specifications

CONNECTABLE INDOOR UNITS								
LW(A) Sound power level (according to EN14825)	Outdoor	dB(A)		64		66		
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825				
Space heating general	Other	Capacity control		Inverter				
		Cdh (Degradation heating)		0.9				
		Pck (Crankcase heater mode)	kW	0.000				
		Poff (Off mode)	kW	0.050				
		Psb (Standby mode)	kW	0.050				
		Pto (Thermostat off)	kW	0.105				
	Integrated supplementary heater	Psup		9.0				
		Type of energy input		Electrical				
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	6,345	7,654	8,978	
			ηs (Seasonal space heating efficiency)	%	125	126	125	
			Prated at -10°C	kW	10	12	14	
			Seasonal space heating eff. class		A++			
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0			
			COPd		1.94	1.92	1.85	
			Pdh	kW	9.0	10.9	12.6	
			PERd	%	77.6	76.8	74.0	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0			
			COPd		3.30		3.19	
			Pdh	kW	5.4	6.6	7.8	
			PERd	%	132.0		127.6	
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9	1.0		
			COPd		4.26	4.34	4.47	
			Pdh	kW	4.6		4.9	
			PERd	%	170.4	173.6	178.8	
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9			
			COPd		6.30	6.45	6.52	
			Pdh	kW	5.5		5.4	
			PERd	%	252.0	258.0	260.8	
		Tol (temperature operating limit)	COPd		1.78	1.63	1.57	
			Pdh	kW	9.1	9.8	11.2	
			PERd	%	71.2	65.2	62.8	
			TOL	°C	-10			
			WTOL	°C	55			
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	1.0	2.5	3.0
		Tbiv (bivalent temperature)	COPd		1.94	1.92	1.84	
			Pdh	kW	9.0	10.9	12.6	
PERd	%		77.6	76.8	73.6			
Tbiv	°C		-7					

## 2 Specifications

2

CONNECTABLE INDOOR UNITS							
Space heating	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	8,185	9,676	10,405
			ηs (Seasonal space heating efficiency)	%	100		
			Prated at -22°C	kW	9	10	11
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.98	2.04	2.05
			Pdh	kW	5.2	6.2	6.6
			PERd	%	79.2	81.6	82.0
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.25	3.20	3.19
			Pdh	kW	3.2	3.8	4.0
			PERd	%	130.0	128.0	127.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9		
			COPd		5.50		
			Pdh	kW	5.2		
			PERd	%	220.0		
		D Condition (12°CDB/11°CWB)	COPd		7.56		
			Pdh	kW	6.1		
			PERd	%	302.4		
	Tol (temperature operating limit)	COPd		1.22	1.13	1.08	
		Pdh	kW	5.7	6.4	6.8	
		PERd	%	48.8	45.2	43.2	
		TOL	°C	-20			
		WTOL	°C	55			
	G Condition (-15°CDB/-)	COPd		1.51	1.50	1.42	
		Pdh	kW	7.1	8.4	8.9	
		PERd	%	60.4	60.0	56.8	
	Tbiv (bivalent temperature)	COPd		1.51	1.50	1.42	
Pdh		kW	7.1	8.4	8.9		
PERd		%	60.4	60.0	56.8		
Tbiv		°C	-15				
Rated heat output supplementary capacity	Psup (at Tdesign -22°C)		kW	3.4	4.6	4.9	
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,637	3,282	3,429	
		ηs (Seasonal space heating efficiency)	%	135	144	145	
		Prated at 2°C	kW	8	10		
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0			
		COPd		1.82	1.90	1.78	
		Pdh	kW	7.6	9.8	10.3	
		PERd	%	72.8	76.0	71.2	
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0			
		COPd		3.07	3.22	3.25	
		Pdh	kW	4.9	6.3	6.6	
		PERd	%	122.8	128.8	130.0	
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9			
		COPd		5.88			
		Pdh	kW	5.4			
		PERd	%	235.2			
	Tbiv (bivalent temperature)	COPd		1.82	1.90	1.78	
		Pdh	kW	7.6	9.8	10.3	
		PERd	%	72.8	76.0	71.2	
		Tbiv	°C	2			
Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-			

## 2 Specifications

CONNECTABLE INDOOR UNITS					
Space heating	Cold climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-
			Qhe Annual energy consumption (GCV)	Gj	-
	Warm climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-
Domestic hot water heating	General	Declared load profile			XL
		Function to fix water heating during off peak hours			Yes
	Average climate	AEC (Annual electricity consumption)		kWh	2,187
		ηwh (water heating efficiency)		%	83
		Qelec (Daily electricity consumption)		kWh	9.811
		Water heating energy efficiency class			A
	Cold climate	AEC (Annual electricity consumption)		kWh	2,435
		ηwh (water heating efficiency)		%	74
		Qelec (Daily electricity consumption)		kWh	10.938
	Warm climate	AEC (Annual electricity consumption)		kWh	1,956
ηwh (water heating efficiency)		%	93		
Qelec (Daily electricity consumption)		kWh	8.760		

### Notes

- (1) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB
- (2) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB
- (3) EW 30°C; LW 35°C; ambient conditions: 7°CDB/6°CWB
- (4) EW 40°C; LW 45°C; ambient conditions: 7°CDB/6°CWB
- (5) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (6) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (7) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (8) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

CONNECTABLE INDOOR UNITS					
<b>2-8 Capacity and Power input</b>					
Indoor unit					
Outdoor unit					
EHSB16P50B/ ERLQ011CW1    EHSB16P50B/ ERLQ014CW1    EHSB16P50B/ ERLQ016CW1					
EHSB16P50BA					
ERLQ011CAW1    ERLQ014CAW1    ERLQ016CAW1					
Heating capacity	Nom.	kW	5.95 (1) / 7.74 (2) / 11.80 (3) / 10.40 (4)		
			8.28 (1) / 9.57 (2) / 14.81 (3) / 13.73 (4)		
Power input	Heating	Nom.	8.04 (1) / 10.05 (2) / 15.34 (3) / 14.86 (4)		
			11.38 (3) / 11.00 (4)		
Power input	Max.	kW	14.55 (3) / 13.59 (4)		
			16.10 (3) / 15.22 (4)		
COP	Heating	Nom.	2.57 (5) / 3.13 (6) / 2.43 (1) / 2.35 (2)		
			3.42 (5) / 4.07 (6) / 3.17 (1) / 2.93 (2)		
COP	Max.	kW	2.64 (5) / 3.25 (6)		
			3.43 (5) / 4.22 (6)    3.83 (5) / 4.71 (6)		
Grundfos UPM3 25-75 CHBL					
Pump	Type	Grundfos UPM3 25-75 CHBL			
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	33.8 (7) / 29.8 (8)
		42.4 (7) / 39.4 (8)    44.0 (7) / 42.6 (8)			
General	Product description	Air-to-water heat pump			Yes
		Brine-to-water heat pump			No
		Heat pump combination heater			Yes
		Low-temperature heat pump			No
		Supplementary heater integrated			No
		Water-to-water heat pump			No
LW(A) Sound power level (according to EN14825)	Indoor	dB(A)			39
		Outdoor			
LW(A) Sound power level (according to EN14825)	Outdoor	dB(A)			64    66

## 2 Specifications

CONNECTABLE INDOOR UNITS				Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825			
Space heating general	Other	Capacity control		Inverter							
		Cdh (Degradation heating)		0.9							
		Pck (Crankcase heater mode)	kW	0.000							
		Poff (Off mode)	kW	0.050							
		Psb (Standby mode)	kW	0.050							
		Pto (Thermostat off)	kW	0.105							
	Integrated supplementary heater	Psup	kW	9.0							
		Type of energy input		Electrical							
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	6,345	7,654	8,978				
			ηs (Seasonal space heating efficiency)	%	125	126	125				
			Prated at -10°C	kW	10	12	14				
			Seasonal space heating eff. class		A++						
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0						
			COPd		1.94	1.92	1.85				
			Pdh	kW	9.0	10.9	12.6				
			PERd	%	77.6	76.8	74.0				
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0						
			COPd		3.30			3.19			
			Pdh	kW	5.4	6.6	7.8				
			PERd	%	132.0			127.6			
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9	1.0					
			COPd		4.26	4.34	4.47				
			Pdh	kW	4.6			4.9			
			PERd	%	170.4	173.6	178.8				
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9						
			COPd		6.30	6.45	6.52				
			Pdh	kW	5.5			5.4			
			PERd	%	252.0	258.0	260.8				
		Tol (temperature operating limit)	COPd		1.78	1.63	1.57				
			Pdh	kW	9.1	9.8	11.2				
			PERd	%	71.2	65.2	62.8				
			TOL	°C	-10						
			WTOL	°C	55						
		Rated heat output supplementary capacity		Psup (at Tdesign -10°C)	kW	1.0	2.5	3.0			
		Tbiv (bivalent temperature)	COPd		1.94	1.92	1.84				
			Pdh	kW	9.0	10.9	12.6				
			PERd	%	77.6	76.8	73.6				
			Tbiv	°C	-7						

## 2 Specifications

CONNECTABLE INDOOR UNITS								
Space heating	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	8,185	9,676	10,405	
			ηs (Seasonal space heating efficiency)	%	101	100		
			Prated at -22°C	kW	9	10	11	
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0			
			COPd		1.98	2.04	2.05	
			Pdh	kW	5.2	6.2	6.6	
			PERd	%	79.2	81.6	82.0	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0			
			COPd		3.25	3.20	3.19	
			Pdh	kW	3.2	3.8	4.0	
			PERd	%	130.0	128.0	127.6	
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9			
			COPd		5.50			
			Pdh	kW	5.2			
			PERd	%	220.0			
		D Condition (12°CDB/11°CWB)	COPd		7.56			
			Pdh	kW	6.1			
			PERd	%	302.4			
		Tol (temperature operating limit)	COPd		1.22	1.13	1.08	
	Pdh		kW	5.7	6.4	6.8		
	PERd		%	48.8	45.2	43.2		
	TOL		°C	-20				
	WTOL		°C	55				
	G Condition (-15°CDB/-)	COPd		1.51	1.50	1.42		
		Pdh	kW	7.1	8.4	8.9		
		PERd	%	60.4	60.0	56.8		
	Tbiv (bivalent temperature)	COPd		1.51	1.50	1.42		
Pdh		kW	7.1	8.4	8.9			
PERd		%	60.4	60.0	56.8			
Tbiv		°C	-15					
Rated heat output supplementary capacity	Psup (at Tdesign -22°C)		kW	3.4	4.6	4.9		
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,637	3,282	3,429		
		ηs (Seasonal space heating efficiency)	%	146	144	145		
		Prated at 2°C	kW	8	10			
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0				
		COPd		1.82	1.90	1.78		
		Pdh	kW	7.6	9.8	10.3		
		PERd	%	72.8	76.0	71.2		
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0				
		COPd		3.07	3.22	3.25		
		Pdh	kW	4.9	6.3	6.6		
		PERd	%	122.8	128.8	130.0		
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9				
		COPd		5.88				
		Pdh	kW	5.4				
		PERd	%	235.2				
	Tbiv (bivalent temperature)	COPd		1.82	1.90	1.78		
		Pdh	kW	7.6	9.8	10.3		
		PERd	%	72.8	76.0	71.2		
Tbiv		°C	2					
Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-				
Cold climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-				
		Qhe Annual energy consumption (GCV)	Gj	-				

## 2 Specifications

2

CONNECTABLE INDOOR UNITS					
Space heating	Warm climate water outlet 35°C	General	$\eta_s$ (Seasonal space heating efficiency)	%	-
Domestic hot water heating	General	Declared load profile			XL
		Function to fix water heating during off peak hours			Yes
	Average climate	AEC (Annual electricity consumption)		kWh	2,158
		$\eta_{wh}$ (water heating efficiency)		%	84
		Qelec (Daily electricity consumption)		kWh	9.681
		Water heating energy efficiency class			A
	Cold climate	AEC (Annual electricity consumption)		kWh	2,394
		$\eta_{wh}$ (water heating efficiency)		%	76
		Qelec (Daily electricity consumption)		kWh	10.755
	Warm climate	AEC (Annual electricity consumption)		kWh	1,921
$\eta_{wh}$ (water heating efficiency)		%	95		
Qelec (Daily electricity consumption)		kWh	8.600		

### Notes

- (1) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB
- (2) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB
- (3) EW 30°C; LW 35°C; ambient conditions: 7°CDB/6°CWB
- (4) EW 40°C; LW 45°C; ambient conditions: 7°CDB/6°CWB
- (5) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (6) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (7) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (8) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

CONNECTABLE INDOOR UNITS					EHSX16P50B/ ERLQ011CW1	EHSH16P50B/ ERLQ014CW1	EHSH16P50B/ ERLQ016CW1
<b>2-9 Capacity and Power input</b>							
Indoor unit					EHSX16P50BA		
Outdoor unit					ERLQ011CAW1	ERLQ014CAW1	ERLQ016CAW1
Heating capacity	Nom.		kW	5.95 (1) / 7.74 (2) / 11.80 (3) / 10.40 (4)	8.28 (1) / 9.57 (2) / 14.81 (3) / 13.73 (4)	8.04 (1) / 10.05 (2) / 15.34 (3) / 14.86 (4)	
	Max.		kW	11.38 (3) / 11.00 (4)	14.55 (3) / 13.59 (4)	16.10 (3) / 15.22 (4)	
Cooling capacity	Min.		kW	2.5 (5) / 2.6 (6)		-	
	Nom.		kW	15.1 (5) / 11.7 (6)	16.1 (5) / 12.6 (6)	16.8 (5) / 13.1 (6)	
	Max.		kW	15.1 (5) / 11.7 (6)	16.1 (5) / 12.6 (6)	16.8 (5) / 13.1 (6)	
Power input	Heating	Nom.	kW	2.57 (5) / 3.13 (6) / 2.43 (1) / 2.35 (2)			
		Max.	kW	2.64 (5) / 3.25 (6)			
	Cooling	Nom.	kW	4.55 (5) / 4.30 (6)			
		Max.	kW	4.53 (5) / 4.31 (6)			
COP					4.38 (5) / 3.32 (6) / 2.45 (1) / 3.29 (2)	4.27 (5) / 3.34 (6) / 2.58 (1) / 3.22 (2)	4.10 (5) / 3.22 (6) / 2.44 (1) / 3.15 (2)
EER					3.32 (5) / 2.72 (6)	2.96 (5) / 2.47 (6)	2.72 (5) / 2.29 (6)
Pump	Type				Grundfos UPM3 25-75 CHBL		
Water side Heat exchanger	Water flow rate	Cooling	Nom.	l/min	43.3 (7) / 33.5 (8)	46.0 (7) / 36.1 (8)	48.1 (7) / 37.5 (8)
		Heating	Nom.	l/min	33.8 (9) / 29.8 (10)	42.4 (9) / 39.4 (10)	44.0 (9) / 42.6 (10)
General	Product description	Air-to-water heat pump			Yes		
		Brine-to-water heat pump			No		
		Heat pump combination heater			Yes		
		Low-temperature heat pump			No		
		Supplementary heater integrated			No		
	Water-to-water heat pump			No			
	LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	39		

## 2 Specifications

CONNECTABLE INDOOR UNITS							
LW(A) Sound power level (according to EN14825)	Outdoor		dB(A)	64	66		
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825			
Space heating general	Other	Capacity control		Inverter			
		Cdh (Degradation heating)		0.9			
		Pck (Crankcase heater mode)	kW	0.000			
		Poff (Off mode)	kW	0.050			
		Psb (Standby mode)	kW	0.050			
		Pto (Thermostat off)	kW	0.105			
	Integrated supplementary heater	Psup	kW	9.0			
	Type of energy input		Electrical				
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	6,345	7,654	8,978
			ηs (Seasonal space heating efficiency)	%	128	130	127
			Prated at -10°C	kW	10	12	14
			Seasonal space heating eff. class		A++		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.94	1.92	1.85
			Pdh	kW	9.0	10.9	12.6
			PERd	%	77.6	76.8	74.0
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.30		3.19
			Pdh	kW	5.4	6.6	7.8
			PERd	%	132.0		127.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9	1.0	
			COPd		4.26	4.34	4.47
			Pdh	kW	4.6		
			PERd	%	170.4	173.6	178.8
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9		
			COPd		6.30	6.45	6.52
			Pdh	kW	5.5		
			PERd	%	252.0	258.0	260.8
		Tol (temperature operating limit)	COPd		1.78	1.63	1.57
			Pdh	kW	9.1	9.8	11.2
			PERd	%	71.2	65.2	62.8
			TOL	°C	-10		
			WTOL	°C	55		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.0	2.5	3.0
		Tbiv (bivalent temperature)	COPd		1.94	1.92	1.84
Pdh	kW		9.0	10.9	12.6		
PERd	%		77.6	76.8	73.6		
Tbiv	°C		-7				

## 2 Specifications

CONNECTABLE INDOOR UNITS							
Space heating	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	8,185	9,676	10,405
			ηs (Seasonal space heating efficiency)	%	100	101	
			Prated at -22°C	kW	9	10	11
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.98	2.04	2.05
			Pdh	kW	5.2	6.2	6.6
			PERd	%	79.2	81.6	82.0
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.25	3.20	3.19
			Pdh	kW	3.2	3.8	4.0
			PERd	%	130.0	128.0	127.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		0.9		
			COPd		5.50		
			Pdh	kW	5.2		
			PERd	%	220.0		
		D Condition (12°CDB/11°CWB)	COPd		7.56		
			Pdh	kW	6.1		
			PERd	%	302.4		
		Tol (temperature operating limit)	COPd		1.22	1.13	1.08
			Pdh	kW	5.7	6.4	6.8
	PERd		%	48.8	45.2	43.2	
	TOL		°C	-20			
	WTOL		°C	55			
	G Condition (-15°CDB/-)	COPd		1.51	1.50	1.42	
		Pdh	kW	7.1	8.4	8.9	
		PERd	%	60.4	60.0	56.8	
	Tbiv (bivalent temperature)	COPd		1.51	1.50	1.42	
		Pdh	kW	7.1	8.4	8.9	
		PERd	%	60.4	60.0	56.8	
		Tbiv	°C	-15			
Rated heat output supplementary capacity	Psup (at Tdesign -22°C)		kW	3.4	4.6	4.9	
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,637	3,282	3,429	
		ηs (Seasonal space heating efficiency)	%	135	153	154	
		Prated at 2°C	kW	8	10		
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0			
		COPd		1.82	1.90	1.78	
		Pdh	kW	7.6	9.8	10.3	
		PERd	%	72.8	76.0	71.2	
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0			
		COPd		3.07	3.22	3.25	
		Pdh	kW	4.9	6.3	6.6	
		PERd	%	122.8	128.8	130.0	
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		0.9			
		COPd		5.88			
		Pdh	kW	5.4			
		PERd	%	235.2			
	Tbiv (bivalent temperature)	COPd		1.82	1.90	1.78	
		Pdh	kW	7.6	9.8	10.3	
		PERd	%	72.8	76.0	71.2	
		Tbiv	°C	2			
	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-		



## 2 Specifications

CONNECTABLE INDOOR UNITS					
Space heating	Cold climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-
			Qhe Annual energy consumption (GCV)	Gj	-
	Warm climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	-
Domestic hot water heating	General	Declared load profile			XL
		Function to fix water heating during off peak hours			Yes
	Average climate	AEC (Annual electricity consumption)		kWh	2,187
		ηwh (water heating efficiency)		%	83
		Qelec (Daily electricity consumption)		kWh	9.811
		Water heating energy efficiency class			A
	Cold climate	AEC (Annual electricity consumption)		kWh	2,435
		ηwh (water heating efficiency)		%	74
		Qelec (Daily electricity consumption)		kWh	10.938
	Warm climate	AEC (Annual electricity consumption)		kWh	1,956
ηwh (water heating efficiency)		%	93		
Qelec (Daily electricity consumption)		kWh	8.760		

### Notes

- (1) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB
- (2) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB
- (3) EW 30°C; LW 35°C; ambient conditions: 7°CDB/6°CWB
- (4) EW 40°C; LW 45°C; ambient conditions: 7°CDB/6°CWB
- (5) Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
- (6) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
- (7) Tamb 35°C - LWE 18°C (DT=5°C)
- (8) Tamb 35°C - LWE 7°C (DT=5°C)
- (9) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)
- (10) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

2-10 Technical Specifications				ERLQ011CW1	ERLQ014CW1	ERLQ016CW1
Capacity control	Method			Inverter controlled		
Casing	Colour			Ivory white		
	Material			Painted galvanized steel plate		
Dimensions	Unit	Height	mm	1,345		
		Width	mm	900		
		Depth	mm	320		
	Packed unit	Height	mm	1,524		
		Width	mm	980		
		Depth	mm	420		
Weight	Unit		kg	114		
	Packed unit		kg	129		
Packing	Material			Wood / EPS / Carton / PE (Straps)		
	Weight		kg	15		
Heat exchanger	Length		mm	857		
	Rows	Quantity		2		
	Fin pitch		mm	1.40		
	Passes	Quantity		7		
	Face area		m²	1.131		
	Stages	Quantity		60		
	Empty tubeplate hole	Quantity		0		
	Tube type			ø8 Hi-XSS		
	Fin	Type		WF fin		
		Treatment		Anti-corrosion treatment (PE)		

## 2 Specifications

2-10 Technical Specifications					ERLQ011CW1	ERLQ014CW1	ERLQ016CW1	
Fan	Type				Propeller fan			
	Quantity				2			
	Discharge direction				Horizontal			
Fan motor	Quantity				2			
	Model				Brushless DC motor			
	Output	W			70.00			
	Drive				Direct drive			
	Speed	Steps				8		
		Heating	Nom.	rpm	740	750	760	
	Cooling	Nom.	rpm	780				
Compressor	Quantity				1			
	Model				JT1G-VDYR@B2			
	Type				Hermetically sealed scroll compressor			
	Output	W			2,200.0			
	Starting method				Inverter driven			
	Motor	Crankcase heater	Quantity			1		
Output			W		33			
Operation range	Heating	Min.	°CDB		-25 (1)			
		Max.	°CDB		35			
	Cooling	Min.	°CDB		10.0			
		Max.	°CDB		46.0			
	Domestic hot water	Min.	°CDB		-20 (2)			
		Max.	°CDB		35 (2)			
Refrigerant	Type				R-410A			
	GWP				2,087.5			
	Charge			TCO <sub>2</sub> eq	7.1			
				kg	3.4			
	Control				Expansion valve (electronic type)			
	Circuits	Quantity				1		
Refrigerant oil	Type				Daphne FVC68D			
	Charged volume	l		1.5				
Piping connections	Liquid	Quantity		1				
		Type		Flare connection				
		OD	mm		9.52			
	Gas	Quantity		1				
		Type		Flare connection				
		OD	mm		15.90			
	Drain	Quantity		3				
		Type		Hole				
		OD	mm		26			
	Drain 2	Quantity		1				
		Type		Hole				
		OD	mm		18			
	Piping length	OU - IU	Min.	m		3		
			Max.	m		50		
		System	Equivalent	m		70		
			Chargeless	m		10		
Additional refrigerant charge	kg/m		See installation manual					
Level difference	IU - OU	Max.	m		30.0			
Heat insulation				Both liquid and gas pipes				
Sound power level	Heating	Nom.	dBA		64 (3)		66 (3)	
	Cooling	Nom.	dBA		64 (4)	66 (4)	69 (4)	
Sound pressure level	Heating	Nom.	dBA		51 (5)		52 (5)	
	Cooling	Nom.	dBA		50 (5)	52 (5)	54 (5)	
	Night quiet mode	Heating	dBA		42 (5)		43 (5)	
		Cooling	dBA		45 (5)		46 (5)	

## 2 Specifications

2-10 Technical Specifications			ERLQ011CW1	ERLQ014CW1	ERLQ016CW1
Defrost method			Reversed cycle		
Defrost control			Sensor for outdoor heat exchanger temperature		
Safety devices	Item	01	High pressure switch		
		02	Fan motor thermal protection		
		03	Fuse		
PED	Category	Category I / Excluded from scope of PED due to article 1, item 3.6 of 97/23/EC			

2-11 Electrical Specifications				ERLQ011CW1	ERLQ014CW1	ERLQ016CW1
Power supply	Name		W1			
	Phase		3N~			
	Frequency		Hz	50		
	Voltage		V	400		
	Voltage range	Min.	%	-10		
		Max.	%	10		
Current	Minimum Ssc value		kVa	Equipment complying with EN / IEC 61000-3-12		
	Maximum running current	Cooling	A	16.3		
		Recommended fuses		A	20	
Wiring connections	For power supply	Remark		See installation manual outdoor unit		
	For connection with indoor	Remark		See installation manual outdoor unit		
Power supply intake				Outdoor unit only		

### Notes

(1) Operation range heating (outdoor unit): range increase by support back-up heater. See separate drawing for operation range.

(2) Operation range domestic hot water (outdoor unit): range increase by support booster heater or backup heater. See separate drawing for operation range.

(3) Condition: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)

(4) Condition: Ta 35°C - LWE 7°C (DT = 5°C)

(5) The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.

Contains fluorinated greenhouse gases

### 3 Options

#### 3 - 1 Options

3

#### ERLQ011-016C

#### Kit availability for \*RLQ011-016C\*

		*RLQ011C*V3	*RLQ014C*V3	*RLQ016C*V3	*RLQ011C*W1	*RLQ014C*W1	*RLQ016C*W1
*K016SNC (1)	Snow cover	●	●	●	●	●	●
KRP58M51 (2)	Demand PCB	●	●	●	-	-	-
KRP58M51 (2)	Demand PCB	-	-	-	●	●	●

#### NOTES

- 1 It is very important to select an installation site where the snow will not affect the unit.  
If lateral snowfall is possible, snow cover is recommended or make sure that the heat exchanger coil is not affected by the snow.  
(See 'Installation service space' and 'Installation guideline/precaution outdoor')
- 2 This demand PCB option is only applicable for the 'Setting of demand running'

3TW60339-4

# 4 Capacity tables

## 4 - 1 Cooling Capacity Tables

### ERLQ-CW1

#### Maximum cooling capacity

Tamb [°C]		20		25		30		35		40		45	
LWE [°C]		CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]
*RLQ011*	7	12,99	3,26	12,88	3,57	12,44	3,92	11,72	4,31	10,74	4,74	9,54	5,22
	10	13,79	3,29	13,67	3,61	13,20	3,97	12,44	4,37	11,40	4,81	10,14	5,30
	13	15,16	3,33	15,02	3,65	14,51	4,02	13,67	4,43	12,54	4,88	11,00	5,54
	15	16,10	3,35	15,95	3,68	15,41	4,05	14,52	4,47	13,33	4,92	11,40	5,41
	18	17,77	3,38	17,18	3,72	16,26	4,11	15,05	4,53	13,61	4,99	11,54	5,00
22	19,82	3,43	19,17	3,78	18,16	4,18	16,83	4,61	15,23	5,08	12,10	4,47	
*RLQ014*	7	13,92	3,88	13,81	4,23	13,34	4,63	12,55	5,09	11,13	4,88	9,85	5,37
	10	14,98	3,94	14,85	4,30	14,34	4,71	13,49	5,18	11,97	4,96	10,61	5,46
	13	16,45	4,01	16,30	4,38	15,74	4,79	14,81	5,27	13,15	5,05	11,00	5,54
	15	17,46	4,05	17,30	4,43	16,71	4,85	15,73	5,33	13,97	5,11	11,40	5,41
	18	19,00	4,12	18,36	4,50	17,37	4,94	16,06	5,42	14,05	5,19	11,54	5,00
22	21,16	4,21	20,45	4,61	19,36	5,06	17,93	5,55	15,71	5,31	12,10	4,47	
*RLQ016*	7	14,55	4,39	14,46	4,79	13,98	5,24	13,12	5,74	11,59	5,48	9,85	5,37
	10	15,67	4,48	15,56	4,89	15,02	5,34	14,09	5,85	12,45	5,58	10,61	5,46
	13	17,22	4,57	17,08	4,99	16,48	5,45	15,47	5,96	13,67	5,68	11,00	5,54
	15	18,29	4,63	18,13	5,06	17,49	5,52	16,42	6,04	14,52	5,75	11,40	5,41
	18	19,91	4,73	19,23	5,16	18,17	5,63	16,76	6,15	14,60	5,85	11,54	5,00
22	22,18	4,86	21,42	5,30	20,25	5,79	18,69	6,31	16,31	5,99	12,10	4,47	

**Symbols:**

CC Cooling capacity at maximum operating frequency, measured acc. EN14511  
 PI Power input, measured acc. EN14511  
 LWE Leaving Water Evaporator temperature  
 LWC Leaving Water Condensator temperature  
 Tamb Ambient temperature; RH (heating) = 85%

**Notes:**

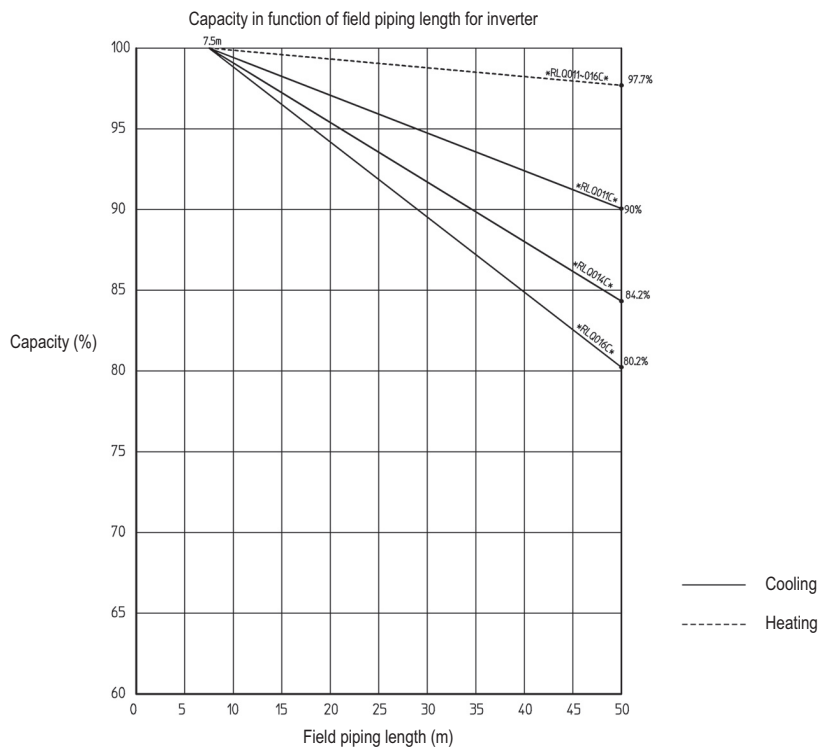
- The bottom plate heater is controlled by outdoor unit (linked at defrost operation) and power input is included
- The capacity and power input is valid for V3-models at 230V or W1-models at 400V
- The capacity and power input for Ta ≤ 7°C is at maximum operation and power input 100%
- The capacity and power input for Ta > 7°C is at nominal operation (nominal = maximum)



# 4 Capacity tables

## 4 - 2 Heating Capacity Tables

ERLQ011-016C



**NOTE**

Capacity drop is at nominal capacity

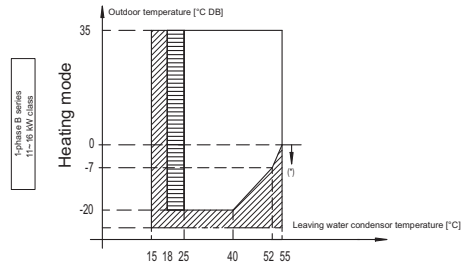
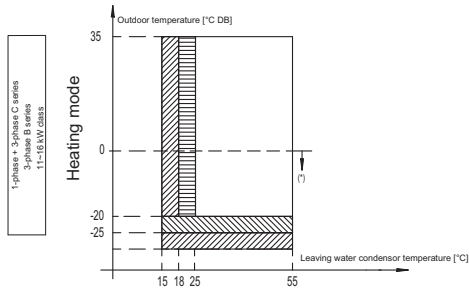
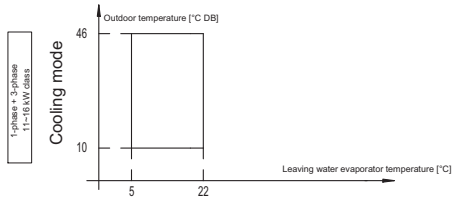
3TW60332-5A

# 4 Capacity tables

## 4 - 3 Cooling/Heating Capacity Tables

4

### ERLQ-CW1



**Legend**

- Backup heater only operation  
No outdoor unit operation
- Outdoor unit operation if setpoint  $\geq 25^{\circ}\text{C}$
- Operation of outdoor unit possible, but with possible capacity reduction.  
If the outdoor temperature  $< -25^{\circ}\text{C}$ , the outdoor unit will stop.  
Indoor unit and backup heater operation will continue.
- Pull-down area

**Remark**

In restricted power supply mode, the outdoor unit, booster heater and backup heater can only operate separately.  
 (\*) RLCQ units include special equipment (insulation, heater sheet, ...) to ensure proper operation in areas with low ambient temperatures and high humidity conditions.  
 In such conditions, the \*RHQ models may experience problems with severe ice buildup on the air-cooled coil.  
 If such conditions are expected, the \*RLQ must be installed instead.  
 These models contain countermeasures (insulation, heater sheet, ...) to prevent freeze-up.

3TW60343-1C



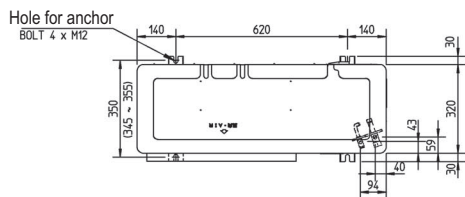


# 5 Dimensional drawings

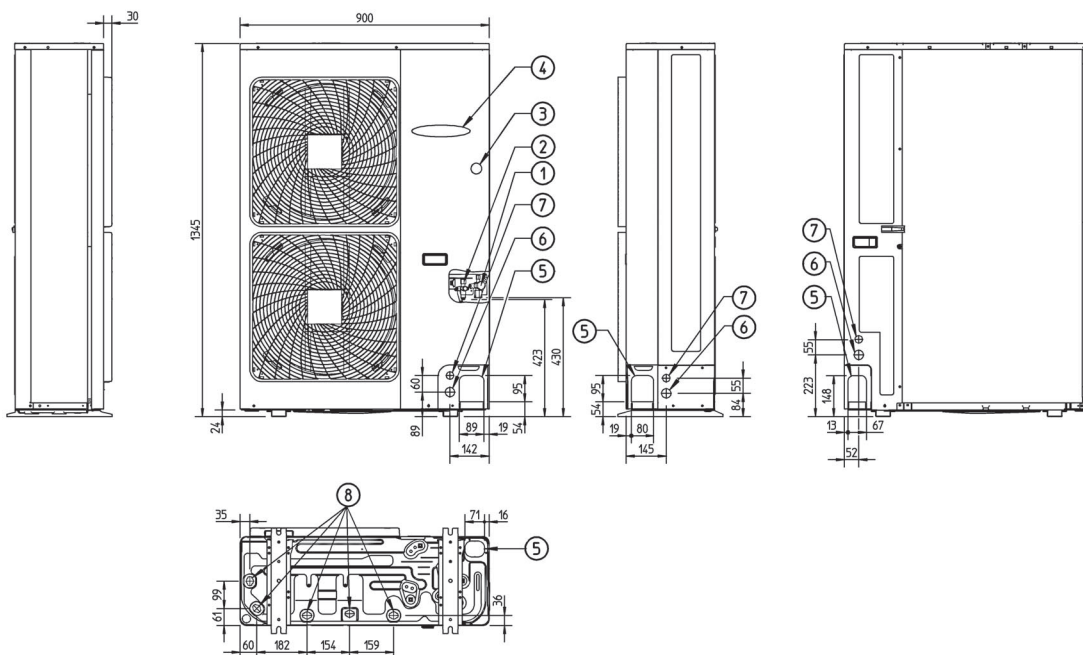
## 5 - 1 Dimensional Drawings

5

ERLQ011-016CW1



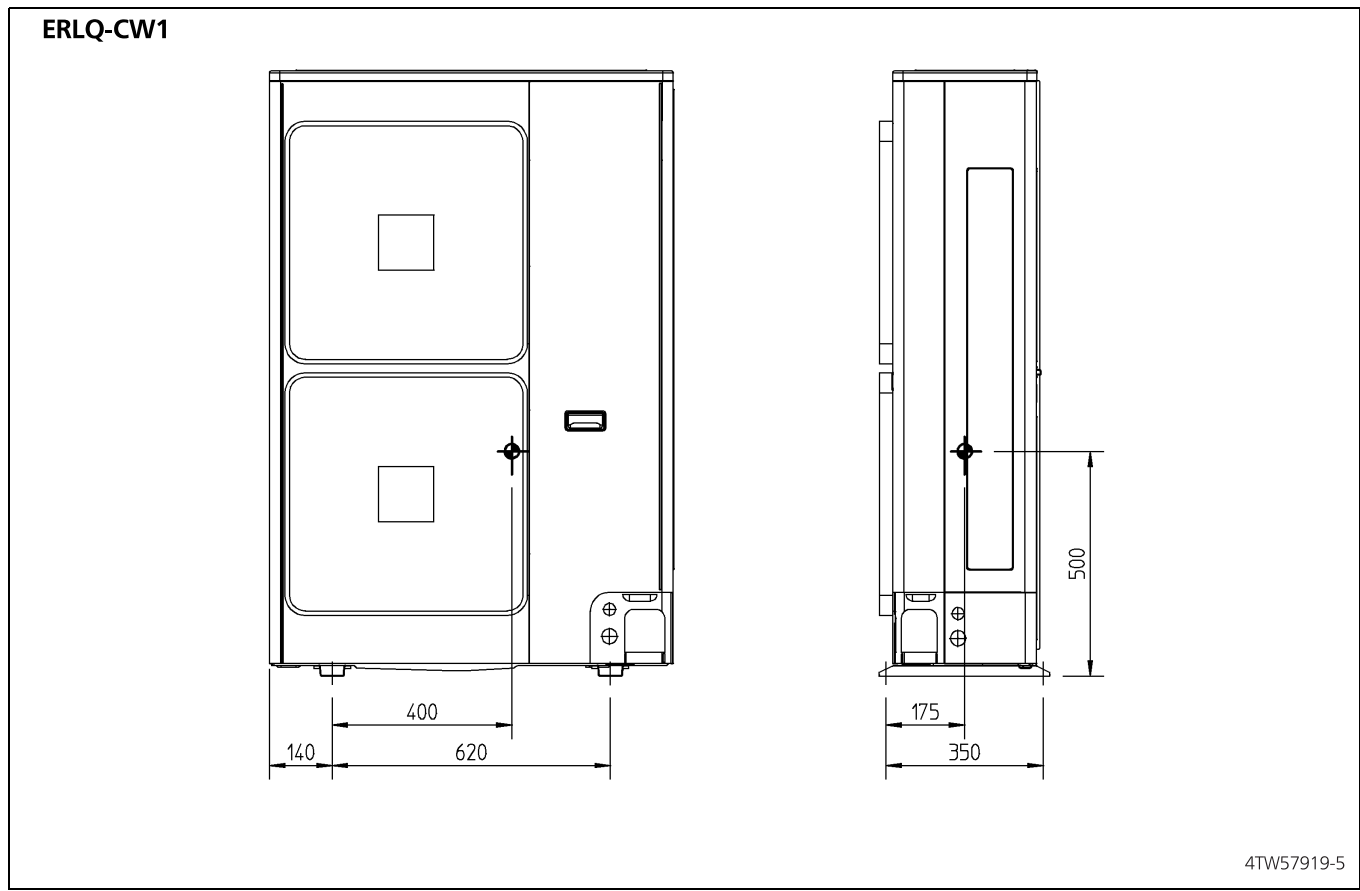
1	Gas pipe connection Ø15.9 flare
2	Liquid connection pipe Ø9.5 flare
3	Service port (in the unit)
4	Electronic connection and grounding terminal M5 (in switchbox)
5	Refrigerant piping intake
6	Power supply wiring intake (knock hole Ø34)
7	Control wiring intake (knock hole Ø27)
8	Drain outlet



3TW60334-1

## 6 Centre of gravity

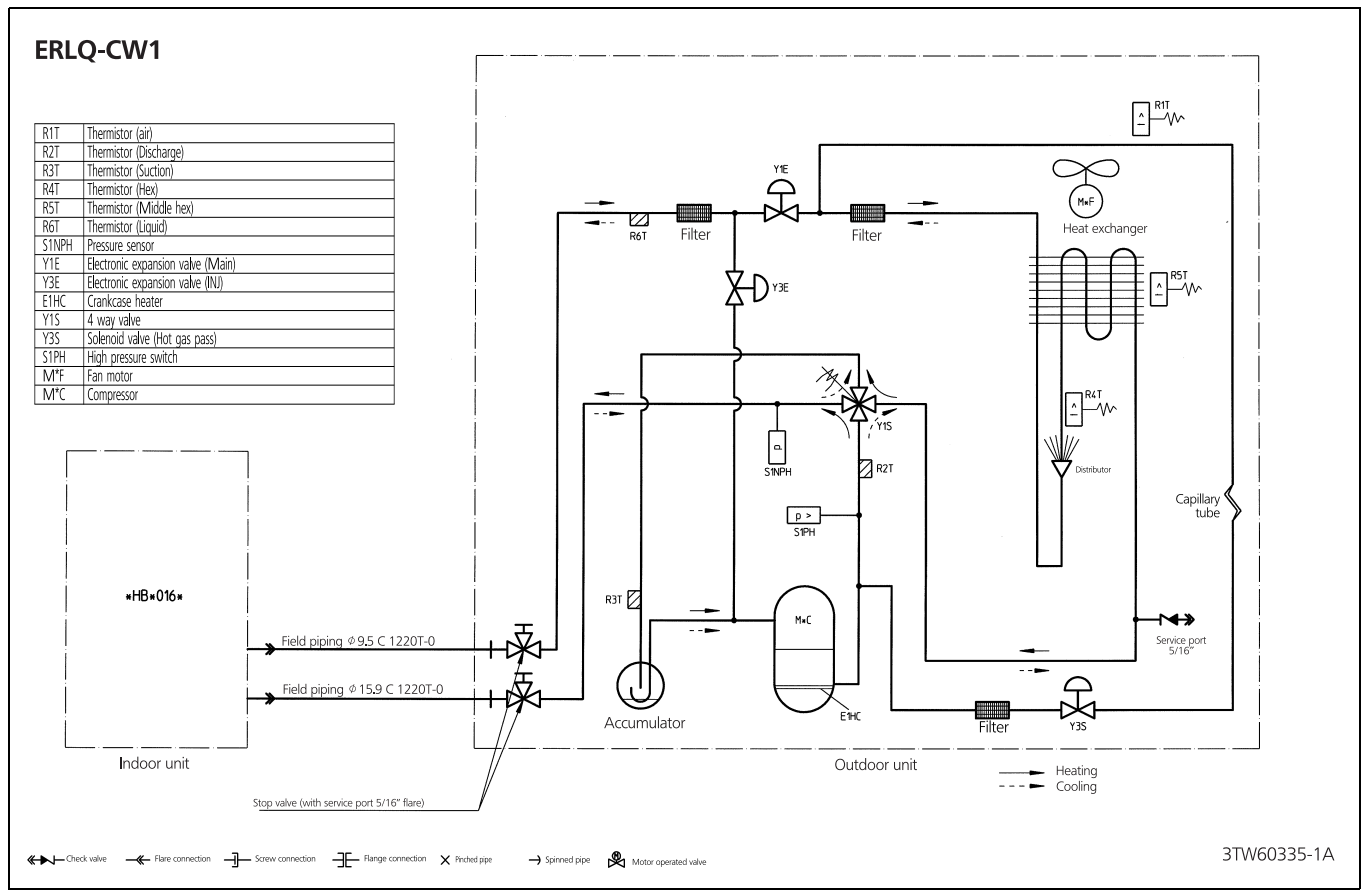
### 6 - 1 Centre of Gravity



# 7 Piping diagrams

## 7 - 1 Piping Diagrams

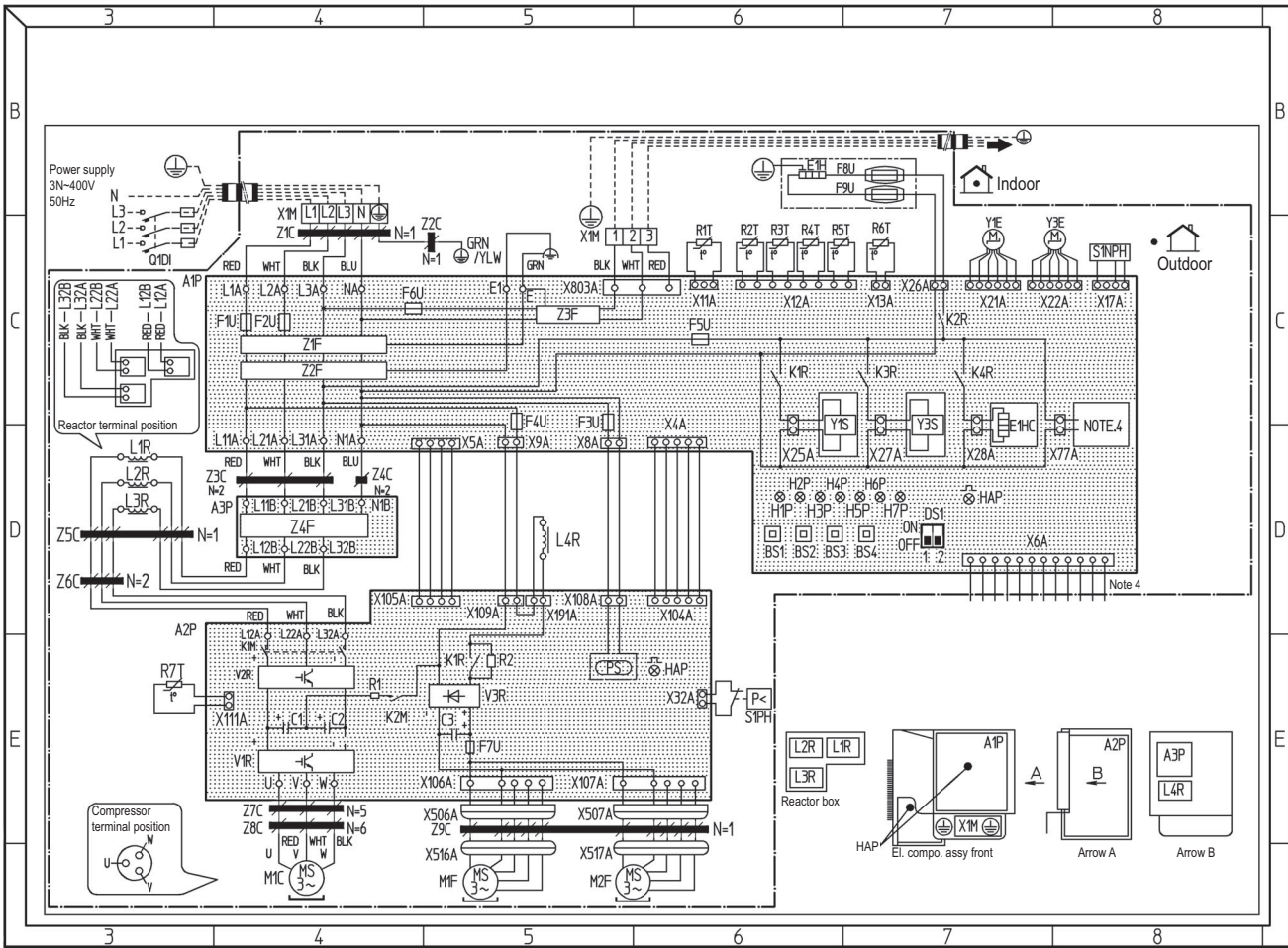
7



# 8 Wiring diagrams

## 8 - 1 Wiring Diagrams - Three Phase

ERLQ011-016CW1



A1P	Printed circuit board (control)	H1P~7P (A1P)	Pilot lamp (service monitor-orange)	R5T	Thermistor (heat exchanger middle)
A2P	Printed circuit board (inv)	K1M-K2M	Magnetic contactor (main - upload)	R6T	Thermistor (liquid)
A3P	Printed circuit board (noise filter)	K1R (A1P)	Magnetic relay (Y1S)	R7T	Thermistor (fin)
BS1~BS4	Push button switch	K2R (A1P)	Magnetic relay (upload)	S1NPH	Pressure sensor
C1~C4	Capacitor	K3R (A1P)	Magnetic relay (E1H)	SPH	Pressure switch (high)
DS1	Dip switch	K4R (A1P)	Magnetic relay (Y3S)	V1R,V2R	Power module
E1HC	Crankcase heater	L1R~L3R	Magnetic relay (E1HC)	V3R	Diode module
E1H	Bottomplate heater	L4R	Reactor	X1M	Terminal strip
F1U	Fuse (31.5A 500V)	M1C	Reactor (for outdoor fan motor)	Y1E	Electronic expansion valve (main)
F2U	Fuse (31.5A 500V)	M1F	Motor (compressor)	Y3E	Electronic expansion valve (inj)
F3U	Fuse (T 6.3A / 250V)	M2F	Motor (fan) (upper)	Y1S	Solenoid valve (4 way valve)
F4U	Fuse (T 6.3A / 250V)	PS	Motor (fan) (lower)	Y3S	Solenoid valve (hot gas pass)
F5U	Fuse (T 6.3A / 250V)	R1~R4	Switching power supply	Z1C~Z3C	Noise filter
F6U	Fuse (T 6.3A / 250V)	R1T	Resistor	Z1F~Z4F	Noise filter
F7U	Fuse (T 5.0A / 250V)	R2T	Thermistor (air)	Q1DI	Earth leakage circuit breaker
F8U,F9U	Fuse (F 1.0A / 250V)	R3T	Thermistor (discharge)		Optional connector
HAP (A1P)	Pilot lamp (service monitor-green)	R4T	Thermistor (suction)	X6A	Connector
HAP (A2P)	Pilot lamp (service monitor-green)		Thermistor (heat exchanger)	X77A	Connector

2TW60336-1

### NOTES

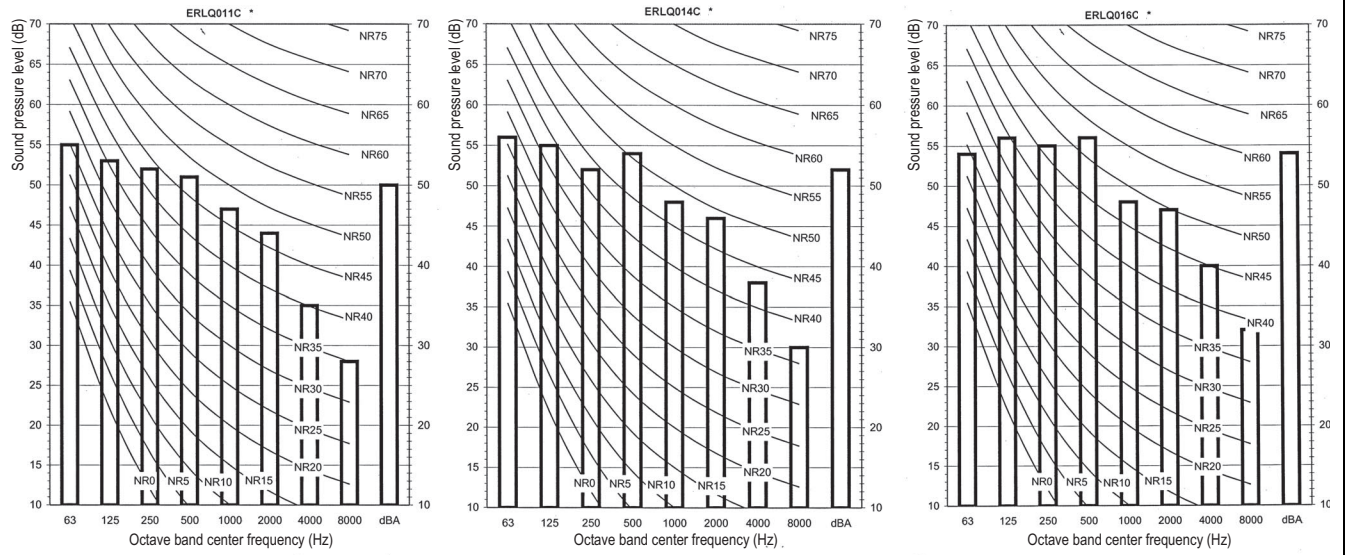
- This wiring diagram only applies to the outdoor unit
- L: live, N: neutral, : field wiring
- : terminal strip, : connector, : connection, : protective earth (screw), : connector, : noiseless earth, : terminal
- Refer to the option manual, for connecting wiring to X6A and X77A.
- Refer to the 'wiring diagram sticker' (on back of front plate) on how to use BS1~BS4 and DS1 switch
- Do not operate the unit by short-circuiting protection device S1PH
- Colors: BLU= blue, BRN= brown, GRN= green, RED= red, WHT= white, YLW= yellow, ORG= orange, BLK= black
- Confirm the method of setting the selector switches (DS1) by service manual; Factory setting of all switches: "off"
- : option, : wiring dependent on model

# 9 Sound data

## 9 - 1 Sound Pressure Spectrum - Cooling

9

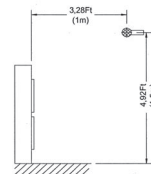
Cooling



### NOTES

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

Measuring location (discharge side):

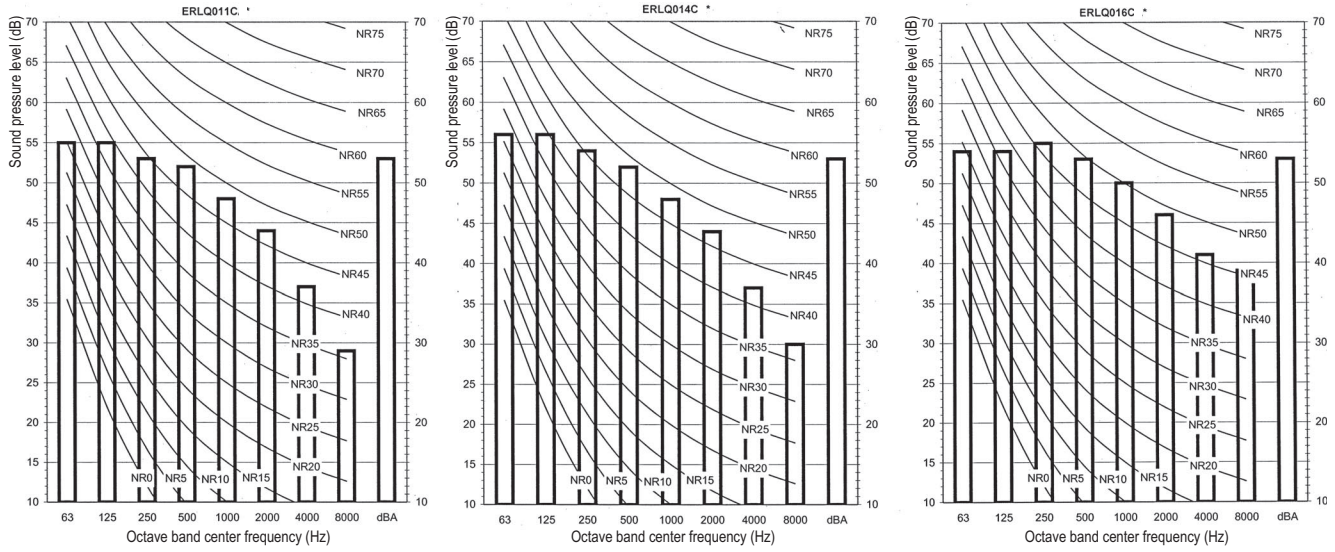


3TW60337-1

# 9 Sound data

## 9 - 2 Sound Pressure Spectrum - Heating

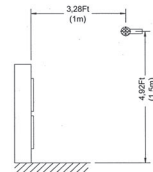
Heating



### NOTES

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

Measuring location (discharge side):



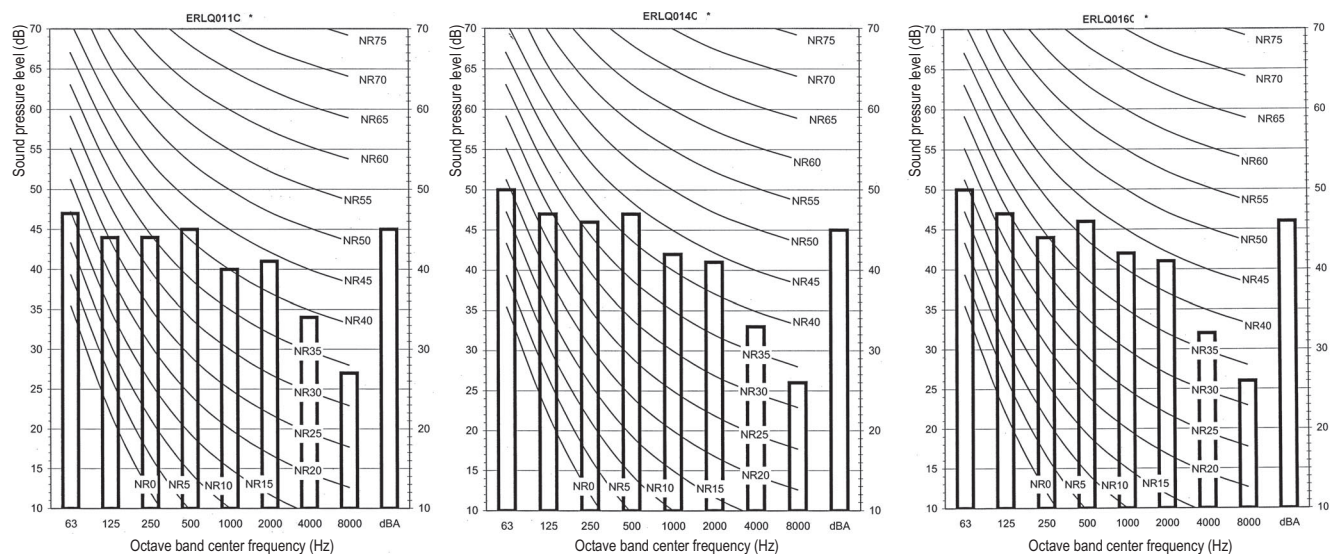
3TW60337-2

# 9 Sound data

## 9 - 3 Sound Pressure Spectrum Quiet Mode

9

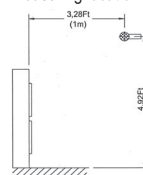
### Cooling



#### NOTES

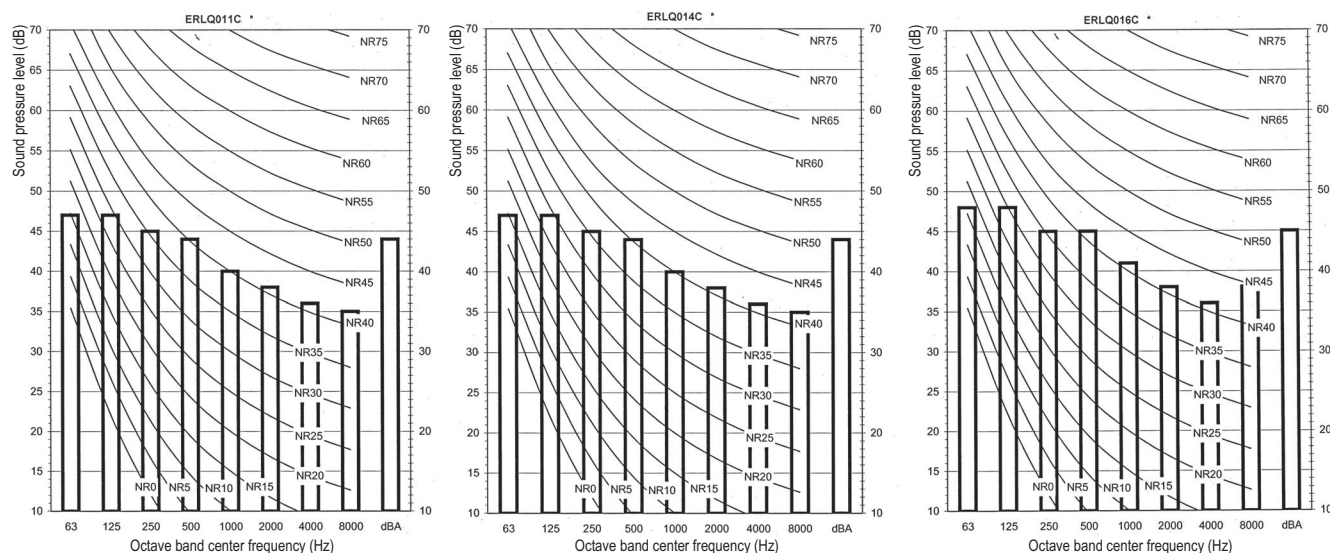
- 1 Data is valid at free field condition (measured in a semi-anechoic room).
- 2 dBA = A-weighted sound pressure level. (A-scale according to IEC)
- 3 Reference acoustic pressure 0dB = 20μPa.
- 4 If the sound is measured under actual installation conditions, the measured value will be higher due to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

Measuring location (discharge side):



3TW60337-3

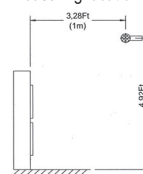
### Heating



#### NOTES

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

Measuring location (discharge side):



3TW60337-4

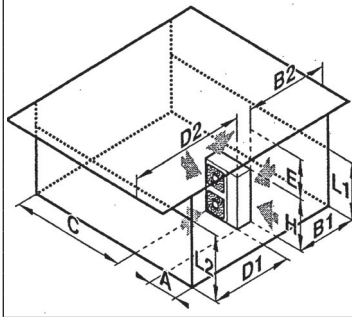


# 10 Installation

## 10 - 1 Installation Method

ERLQ011-016C

### Installation servicing space



←	↖	↗	→	↘	↓	A	B1	B2	C	D1	D2	E	L1/L2	
✓							≥200							
✓	✓	✓				≥200	≥200		≥200					
✓			✓	✓			≥200				≥500	≥1000		
✓	✓	✓	✓	✓		≥300	≥300		≥300		≥500	≥1000	1	
	✓									≥500				
	✓			✓				≥500		≥500		≥1000		
✓	✓					L1<L2	≥200			≥500				
						L2<L1	≥200			≥500				
✓				✓		L1<L2	≥350	≥500		≥750	≥1000	≥1000	0<L1≤1/2H	
					H<L1	≥1000				0<L1≤1/2H				
✓	✓					L2<L1	≥200			L1≤H	≥1000	≥500	≥1000	0<L2≤1/2H
						H<L2	≥300			L2≤H			1/2H<L2≤H	
													2	

### NOTES

Legend (Unit: mm)

- ← Suction side obstacle
- ↖ Discharge side obstacle
- ↗ Left side obstacle
- Right side obstacle
- ↘ Top side obstacle
- ✓ Obstacle is present
- ☐ This situation is not allowed

- 1 Recommended installation set-up for the ERLQ011-016\*  
(to prevent exposure to wind or that the heat exchanger coil is affected by snow)
- 2 In these cases, close bottom of the installation frame to prevent discharged air from being bypassed

3TW60339-1

# 10 Installation

## 10 - 1 Installation Method

ERLQ011-016C

### Installation guidelines / precautions Daikin Altherma

#### Outdoor unit

##### Installation location (general)

Select an installation site that meets the following requirements:

- The foundation must be strong enough to support the weight of the unit. The floor is flat to prevent vibrations and noise generation and to have sufficient stability.
- The space around the unit is adequate for maintenance/servicing and allows for sufficient air circulation. (Refer to "Installation and service space" information sheet)
- There is no danger of fire due to leakage of inflammable gas.
- The equipment is not intended for use in a potentially explosive atmosphere.
- Select the location of the unit in such a way that the sound and discharged cold/hot air generated by the unit does not disturb anyone, and the location is selected according the applicable legislation.
- All piping lengths and distances have been taken into consideration (refer to "Technical specification" information sheet).
- Take care that in the event of a water leak, water cannot cause any damage to the installation space and surroundings.
- Install units, power cords and inter-unit cables at least 3 m away from television and radio sets. This is to prevent interference to images and sounds.
- Depending on radio wave conditions, electromagnetic interference may still occur even if installed more than 3 m away.

Do not install in the following locations:

- Locations where sulphurous acids and other corrosive gases may be present in the atmosphere.
- Locations where a mineral oil mist, spray or vapour may be present in the atmosphere.
- Locations where flammable gases may leak, where thinner, gasoline and other volatile substances are handled, or where carbon dust and other incendiary substances are found in the atmosphere.
- In areas where the air contains high levels of salt such as that near the ocean.
- To prevent exposure to wind, install the outdoor unit with its suction side facing the wall.
- Never install the outdoor unit at a site where the suction side (left and back) may be exposed directly to wind, snow. (See "Installation and Service space" information sheet and figure 1)

##### Installation location (in cold climates)

- To prevent exposure to wind, install a baffle plate on the air discharge side of the outdoor unit.
- Unit should be installed in a way that a minimum of 10 cm free space is assured below the unit's bottom plate at all conditions (prevent burying in snow), e.g.: heavy snowfall (if necessary construct a pedestal).
- In heavy snowfall areas it is very important to select an installation site where the snow will not affect the unit. Make sure that the heat exchanger coil (left and back side) is not affected by the snow (if necessary construct a lateral canopy and baffle plate on the air side).
- Recommended installation set-up. (See "Installation and Service space" information sheet and figure 2)

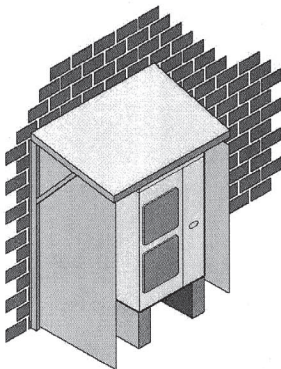


Figure 1: construction to prevent exposure to wind and snow

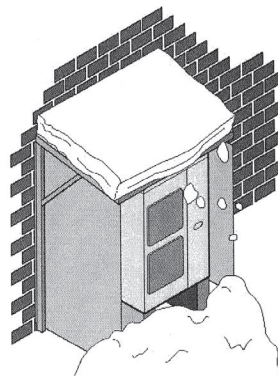
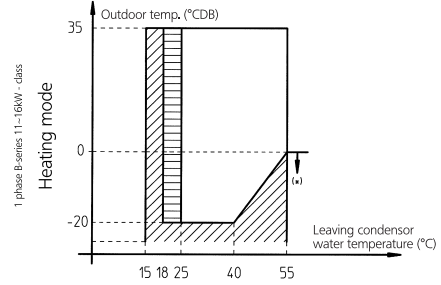
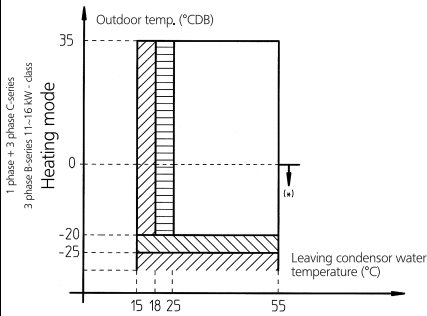
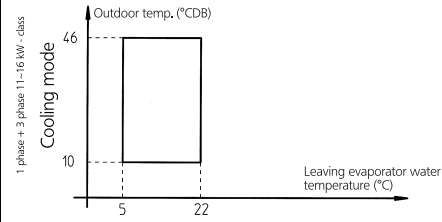


Figure 2: construction to prevent affect of snow to the unit

# 11 Operation range

## 11 - 1 Operation Range

### ERLQ-CW1



LEGEND:

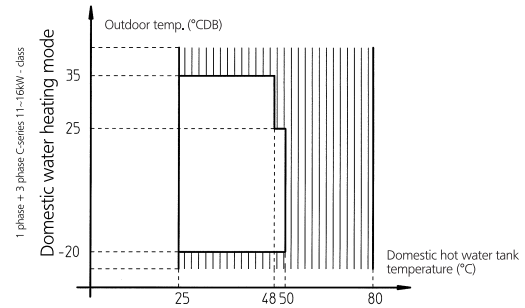
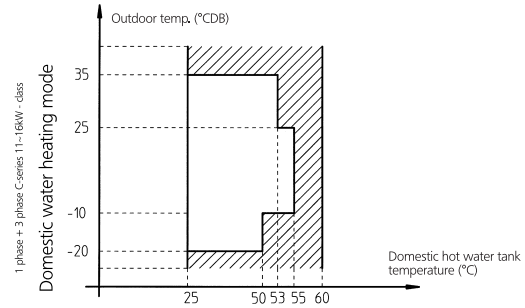
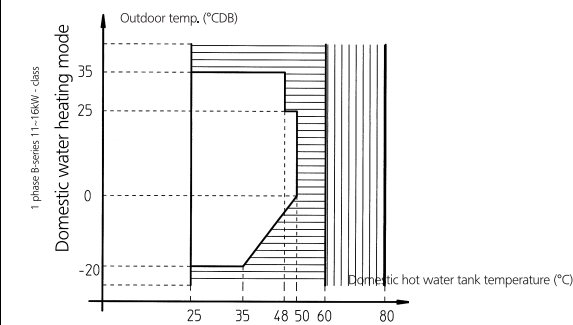
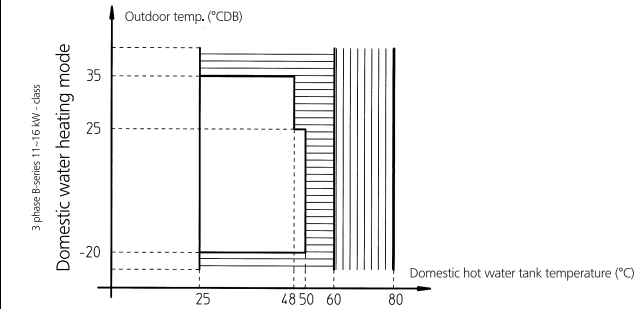
- : Only backup heater operation (no outdoor unit operation)
- : Outdoor unit operation if setpoint  $25^{\circ}\text{C} \geq$
- : Operation of outdoor unit possible, but no guarantee of capacity (if outdoor temperature  $< -20^{\circ}\text{C}$  or  $< -25^{\circ}\text{C}$  outdoor unit will stop) (indoor unit and backup heater operation will continue)
- : Pull down area

Remark: for restricted power supply condition mode outdoor unit, booster heater and back-up heater can only operate separately.

(\*) \*RLQ units include special equipment (insulation, heater sheet, ...) to ensure good operation in areas where low ambient temperature can occur together with high humidity conditions. In such conditions the \*RHQ models may experience problems with severe ice build up on the aircooled coil. In case such conditions are expected, the \*RLQ must be installed instead. These models contain countermeasures (insulation, heater sheet, ...) to prevent freeze up.

3TW60343-1B

### ERLQ-CW1



LEGEND:

- : Only booster heater operation (EK-HW\* only)
- : Only backup heater operation (EK-HTS\* only)
- : Only booster heater operation (EK-HW\* only)  
Only backup heater operation (EK-HTS\* only)

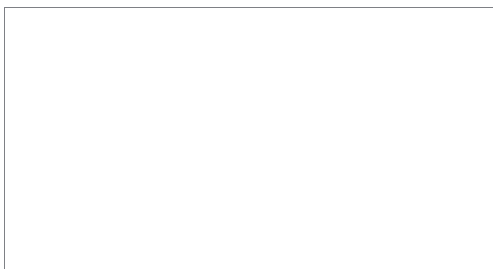
Remark: for restricted power supply condition mode (EK-HW\* only) outdoor unit, booster heater and back-up heater can only operate separately.

3TW60343-2B





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