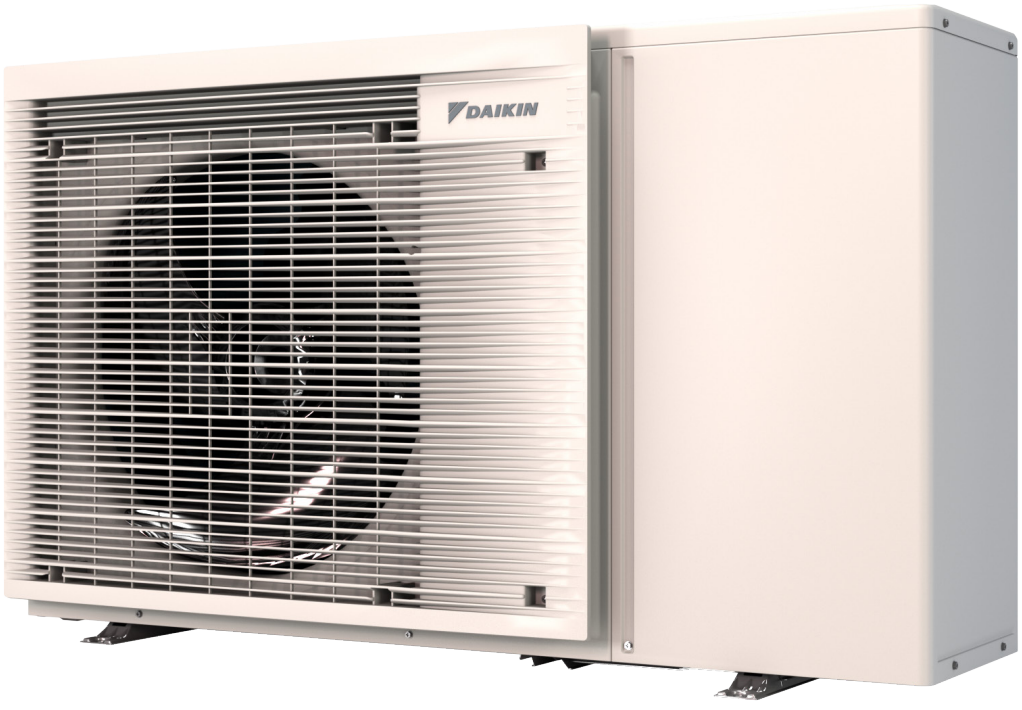
Daikin Altherma low temperature monobloc Technical Data

EBLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08EV3 / EDLA04-08E3V3



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1 Features

EBLA04-08EV3

› Monobloc all-in-one concept including hydraulic parts
› W-LAN cartridge included
› Possible to combine with domestic hot water
› Energy efficient heating and cooling system based on air to water heat pump technology
› Separate back-up heater kit

Onecta app

1 Features
EDLA04-08EV3

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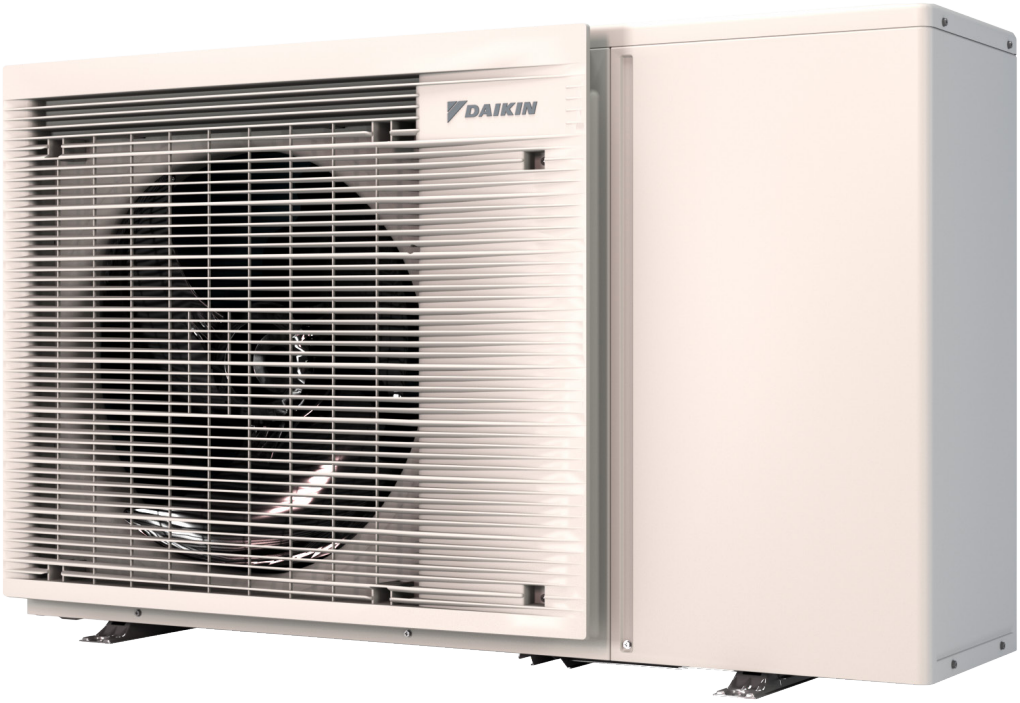
EBLA04-08E3V3

› Monobloc all-in-one concept including hydraulic parts
› W-LAN cartridge included
› Possible to combine with domestic hot water
› Energy efficient heating and cooling system based on air to water heat pump technology
› Built-in electric back-up heater as additional heating during extremely cold outdoor temperature



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EDLA04-08E3V3

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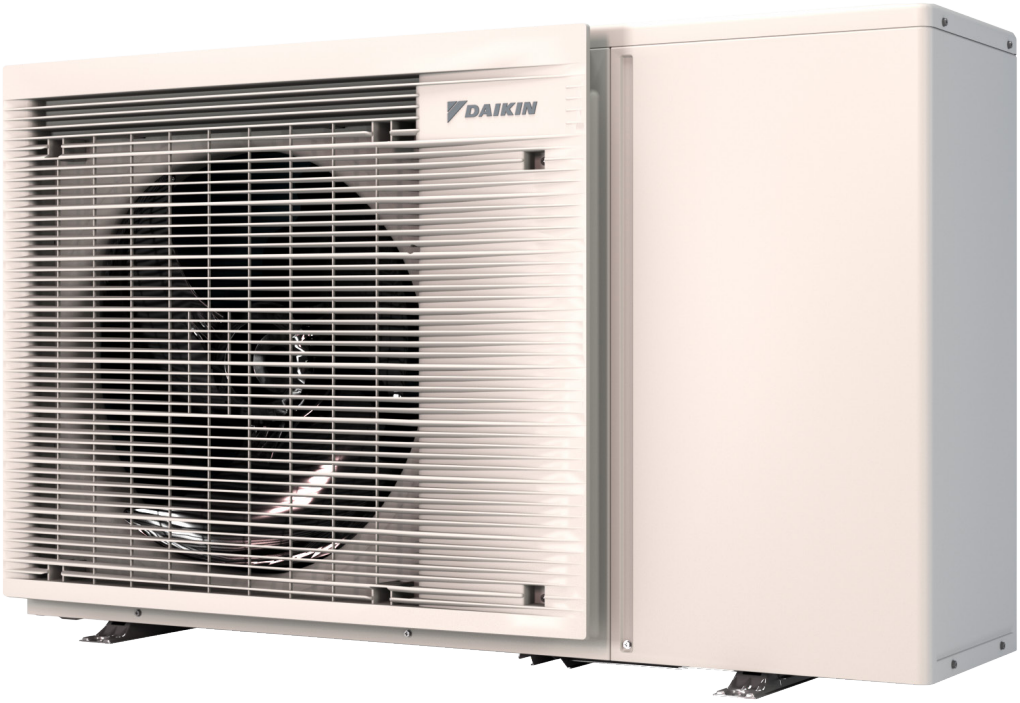

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2 Specifications

Technical specifications					EBLA04EV3	EBLA06EV3	EBLA08EV3
Heating capacity	Nom.			kW	4.30 (1) / 4.60 (2)	6.00 (1) / 5.90 (2)	7.50 (1) / 7.80 (2)
Cooling capacity	Nom.			kW	4.86 (1) / 4.52 (2)	5.83 (1) / 5.09 (2)	6.18 (1) / 5.44 (2)
Power input	Cooling	Nom.		kW	0.820 (1) / 1.36 (2)	1.08 (1) / 1.55 (2)	1.19 (1) / 1.73 (2)
	Heating	Nom.		kW	0.840 (1) / 1.26 (2)	1.24 (1) / 1.69 (2)	1.63 (1) / 2.23 (2)
COP					5.10 (1) / 3.65 (2)	4.85 (1) / 3.50 (2)	4.60 (1) / 3.50 (2)
EER					5.91 (1) / 3.32 (2)	5.40 (1) / 3.28 (2)	5.19 (1) / 3.14 (2)
Casing	Colour				Ivory white		
	Material				Zinc coated low carbon steel		
Dimensions	Unit	Height		mm	770		
		Width		mm	1,250		
		Depth		mm	362		
	Packed unit	Height		mm	920		
		Width		mm	1,350		
		Depth		mm	500		
Weight	Unit			kg	88.0		
	Packed unit			kg	95		
Packing	Material				Carton / EPS / Wood (pallet)		
Heat exchanger	Length			mm	920		
	Rows	Quantity			2		
	Fin pitch			mm	1.40		
	Face area			m^2	0.658		
	Stages	Quantity			32		
	Tube type				ø7 Hi-XD		
	Fin	Type			Waffle Hydrophilic Blue		
		Treatment			Hydrophilic		
Fan	Type				Propeller fan		
	Quantity				1		
	Discharge direction				Horizontal		
Fan motor	Quantity				1		
	Model				KFD-325-77-10A		
	Speed	Steps			10		
		Heating	Nom.	rpm	620	680	740
	Output			W	77		
Compressor	Quantity				1		
	Model				2YC71EXD#C		
	Type				Hermetically sealed swing compressor		
PED	Category				Category II		
	Most critical part	Name			Compressor		
		Ps*V		Bar*l	110		
Operation range	Heating	Ambient	Min.	°CDB	-25		
			Max.	°CDB	25 (3)		
		Water side	Min.	°C	9 (3)		
			Max.	°C	65 (3)		
	Cooling	Ambient	Min.	°CDB	10 (3)		
			Max.	°CDB	43		
		Water side	Min.	°C	5 (3)		
			Max.	°C	22		
	Domestic hot water	Ambient	Min.	°CDB	-27		
			Max.	°CDB	35		
		Water side	Min.	°C	25		
			Max.	°C	55 (3)		
Sound power level	Heating	Nom.		dBA	58.0 (1)	60.0 (1)	62.0 (1)
	Cooling	Nom.		dBA	61.0 (1)	62.0 (1)	
Sound pressure level	Heating	Nom.		dBA	44.0 (1)	47.0 (1)	49.0 (1)
	Cooling	Nom.		dBA	48.0 (1)	49.0 (1)	50.0 (1)
Refrigerant	Type				R-32		
	GWP				675.0		
	Charge			kg	1.35		
	Charge			TCO2Eq	0.910		
	Control				Expansion valve		
	Circuits	Quantity			1		
Refrigerant oil	Type				FW68DA		
	Charged volume			l	1.1		
Defrost method					Reversed cycle		
Defrost control					Sensor for outdoor heat exchanger temperature		
Capacity control	Method				Inverter controlled		
Safety devices	Item	01			High pressure switch		
Pump	Quantity				1		
	Nr of speeds				PWM		
	Power input			W	75		

2 Specifications

Technical specifications					EBLA04EV3	EBLA06EV3	EBLA08EV3
Water side Heat exchanger	Type				Plate heat exchanger		
	Quantity				1		
	Water volume			l	1.01		
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	12.3 (1) / 13.2 (2)	17.2 (1) / 16.9 (2)	21.5 (1) / 22.4 (2)
		Cooling	Nom.	l/min	13.9 (1) / 13.0 (2)	16.7 (1) / 14.6 (2)	17.7 (1) / 15.6 (2)
	Insulation material				Kaiflex		
	Heater			W	50.0		
Expansion vessel	Volume			l	7		
	Max. water pressure			bar	3		
	Pre pressure			bar	1		
	Heater			W	50		
Water circuit	Piping connections diameter			inch	G 1" (male)		
	Piping length	Max.	OU - Tank	m	10		
	Level difference	Max.		m	5		
	Safety valve			bar	3		
	Drain valve / fill valve				No		
	Air purge valve				Yes		
General	Supplier/ Manufacturer details	Name and address			Daikin Industries Czech Republic s.r.o. U Nove Hospody 1/1155, 301 00		
		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			No		
		Water-to-water heat pump			No		
LW(A) Sound power level (according to EN14825)				dB(A)	58.0	60.0	62.0
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^3/h	2,280	2,520	2,770
	Other	Capacity control			Inverter		
		Pck (Crankcase heater mode)		kW	0.000		
		Poff (Off mode)		kW	0.010		
		Psb (Standby mode)		kW	0.010		
		Pto (Thermostat off)		kW	0.010		
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,769	4,405	4,939
			ηs (Seasonal space heating efficiency)	%	129	128	131
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	14	16	18
			SCOP		3.29	3.28	3.35
			Seasonal space heating eff. class		A++		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		

2 Specifications

Technical specifications					EBLA04EV3	EBLA06EV3	EBLA08EV3
Space heating	Average climate water outlet 55°C	A Condition (-7°CDB/-8°CWB)	COPd		1.97	1.98	1.96
			Pdh	kW	5.3	5.9	6.9
			PERd	%	78.8	79.2	78.4
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.23	3.16	3.20
			Pdh	kW	3.3	3.9	4.4
			PERd	%	129.2	126.4	128.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.40	4.49	4.64
			Pdh	kW	3.0		3.3
			PERd	%	176.0	179.6	185.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.10		6.22
			Pdh	kW	3.3		4.1
			PERd	%	244.0		248.8
		Tol (temperature operating limit)	COPd		1.37	1.53	1.64
			Pdh	kW	3.99	5.36	7.05
			PERd	%	54.8	61.2	65.6
			TOL	°C	-10		
			WTOL	°C	55		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	2.01	1.64	0.95
		Tbiv (bivalent temperature)	COPd		1.97	2.12	1.90
			Pdh	kW	5.3	6.1	7.5
			PERd	%	78.8	84.8	76.0
			Tbiv	°C	-7	-6	-8
	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	4,446	5,278	6,864
			ηs (Seasonal space heating efficiency)	%	108	109	112
			Prated at -22°C	kW	5.0	6.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	16	19	25
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	1,616	1,813	2,624
			ηs (Seasonal space heating efficiency)	%	152	162	
			Prated at 2°C	kW	4.7	5.6	8.1
			Qhe Annual energy consumption (GCV)	Gj	6	7	9
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		2.11	2.15	2.09
			Pdh	kW	4.7	5.6	6.8
			PERd	%	84.4	86.0	83.6

2 Specifications

Technical specifications					EBLA04EV3	EBLA06EV3	EBLA08EV3
Space heating	Warm climate water outlet 55°C	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.28	3.45	3.42
			Pdh	kW	3.0	3.6	5.3
			PERd	%	131.2	138.0	136.8
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.13	5.48	5.52
			Pdh	kW	3.1	2.3	2.8
			PERd	%	205.2	219.2	220.8
		Tbiv (bivalent temperature)	COPd		2.11	2.15	2.66
			Pdh	kW	4.7	5.6	6.9
			PERd	%	84.4	86.0	106.4
			Tbiv	°C	2		4
	Average climate water outlet 35°C	General	Annual energy consumption	kWh	2,729	3,196	3,588
			ηs (Seasonal space heating efficiency)	%	179	178	181
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	10	12	13
			SCOP		4.54	4.52	4.61
			Seasonal space heating eff. class		A+++		
		A Condition (-7°CDB/-8°CWB)	COPd		2.90	2.86	2.77
			Pdh	kW	5.5	6.0	7.0
			PERd	%	116.0	114.4	110.8
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.33	4.25	4.35
			Pdh	kW	3.3	3.9	4.2
			PERd	%	173.2	170.0	174.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.19	6.30	6.49
			Pdh	kW	3.2		3.3
			PERd	%	247.6	252.0	259.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78		8.52
			Pdh	kW	3.3		3.9
			PERd	%	311.2		340.8
		Tol (temperature operating limit)	COPd		2.56	2.49	2.41
			Pdh	kW	5.22	6.01	6.93
			PERd	%	102.4	99.6	96.4
			TOL	°C	-10		

2 Specifications

Technical specifications					EBLA04EV3	EBLA06EV3	EBLA08EV3
Space heating	Average climate water outlet 35°C	Tol (temperature operating limit)	WTOL	°C	35		
		Tbiv (bivalent temperature)	COPd		2.90	3.07	2.66
			Pdh	kW	5.5	6.1	7.5
			PERd	%	116.0	122.8	106.4
			Tbiv	°C	-7	-6	-8
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	0.78	0.99	1.07
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	3,208	3,727	5,012
			ηs (Seasonal space heating efficiency)	%	151	156	154
			Prated at -22°C	kW	5	6	8
			Qhe Annual energy consumption (GCV)	Gj	11.5	13.4	18.0
	Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,095	1,232	1,393
			ηs (Seasonal space heating efficiency)	%	251	257	266
			Prated at 2°C	kW	5.2	6.0	7.0
			Qhe Annual energy consumption (GCV)	Gj	4		5
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.79	5.92	5.95
			Pdh	kW	3.3	3.9	4.5
			PERd	%	231.6	236.8	238.0
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78	8.00	8.57
			Pdh	kW	3.5	2.7	3.3
			PERd	%	311.2	320.0	342.8
		Tbiv (bivalent temperature)	COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
			Tbiv	°C	2		
Pump	Type				Grundfos UPM4L K 15-75 130 9 DKI		
Piping connections	High pressure side	Design pressure		bar	46		

Electrical specifications					EBLA04EV3	EBLA06EV3	EBLA08EV3
Compressor component	Main power supply	Phase			3N~		
		Voltage		V	220		
Power supply	Name				V3		
	Phase				1~		
	Frequency			Hz	50		
	Voltage			V	230 +/-10%		
Current	Maximum running current	Heating		A	19.9		24.0
	Recommended fuses			A	20		25

(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)For more details, see operation range drawing

Technical specifications			EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Heating capacity	Nom.	kW	4.30 (1) / 4.60 (2)	6.00 (1) / 5.90 (2)	7.50 (1) / 7.80 (2)
Cooling capacity	Nom.	kW	4.86 (1) / 4.52 (2)	5.83 (1) / 5.09 (2)	6.18 (1) / 5.44 (2)
Heater capacity	Step 1	kW	3		

2 Specifications

Technical specifications					EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Power input	Cooling	Nom.		kW	0.820 (1) / 1.36 (2)	1.08 (1) / 1.55 (2)	1.19 (1) / 1.73 (2)
	Heating	Nom.		kW	0.840 (1) / 1.26 (2)	1.24 (1) / 1.69 (2)	1.63 (1) / 2.23 (2)
COP					5.10 (1) / 3.65 (2)	4.85 (1) / 3.50 (2)	4.60 (1) / 3.50 (2)
EER					5.91 (1) / 3.32 (2)	5.40 (1) / 3.28 (2)	5.19 (1) / 3.14 (2)
Casing	Colour				Ivory white		
	Material				Zinc coated low carbon steel		
Dimensions	Unit	Height		mm	770		
		Width		mm	1,250		
		Depth		mm	362		
	Packed unit	Height		mm	920		
		Width		mm	1,350		
		Depth		mm	500		
Weight	Unit			kg	91.0		
	Packed unit			kg	98		
Packing	Material				Carton / EPS / Wood (pallet)		
Heat exchanger	Length			mm	920		
	Rows	Quantity			2		
	Fin pitch			mm	1.40		
	Face area			m^2	0.658		
	Stages	Quantity			32		
	Tube type				ø7 Hi-XD		
	Fin	Type			Waffle Hydrophilic Blue		
		Treatment			Hydrophilic		
Fan	Type				Propeller fan		
	Quantity				1		
	Discharge direction				Horizontal		
Fan motor	Quantity				1		
	Model				KFD-325-77-10A		
	Speed	Steps			10		
		Heating	Nom.	rpm	620	680	740
	Output			W	77		
Compressor	Quantity				1		
	Model				2YC71EXD#C		
Compressor	Type				Hermetically sealed swing compressor		
PED	Category				Category II		
	Most critical part	Name			Compressor		
		Ps*V		Bar*l	110		
Operation range	Heating	Ambient	Min.	°CDB	-25		
			Max.	°CDB	25 (3)		
		Water side	Min.	°C	15 (3)		
			Max.	°C	65 (3)		
	Cooling	Ambient	Min.	°CDB	10 (3)		
			Max.	°CDB	43		
		Water side	Min.	°C	5 (3)		
			Max.	°C	22		
	Domestic hot water	Ambient	Min.	°CDB	-27		
			Max.	°CDB	35		
		Water side	Min.	°C	25		
			Max.	°C	55 (3)		
Sound power level	Heating	Nom.		dBA	58.0 (1)	60.0 (1)	62.0 (1)
	Cooling	Nom.		dBA	61.0 (1)	62.0 (1)	
Sound pressure level	Heating	Nom.		dBA	44.0 (1)	47.0 (1)	49.0 (1)
	Cooling	Nom.		dBA	48.0 (1)	49.0 (1)	50.0 (1)
Refrigerant	Type				R-32		
	GWP				675.0		
	Charge			kg	1.35		
	Charge			TCO2Eq	0.910		
	Control				Expansion valve		
	Circuits	Quantity			1		
Refrigerant oil	Type				FW68DA		
	Charged volume			l	1.1		
Defrost method					Reversed cycle		
Defrost control					Sensor for outdoor heat exchanger temperature		
Capacity control	Method				Inverter controlled		
Safety devices	Item	01			High pressure switch		
Pump	Quantity				1		
	Nr of speeds				PWM		
	Power input			W	75		
Water side Heat exchanger	Type				Plate heat exchanger		
	Quantity				1		

2 Specifications

Technical specifications					EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Water side Heat exchanger	Water volume			l	1.01		
	Water flow rate	Heating	Nom.	l/min	12.3 (1) / 13.2 (2)	17.2 (1) / 16.9 (2)	21.5 (1) / 22.4 (2)
		Cooling	Nom.	l/min	13.9 (1) / 13.0 (2)	16.7 (1) / 14.6 (2)	17.7 (1) / 15.6 (2)
	Insulation material				Kaiflex		
	Heater			W	50.0		
Expansion vessel	Volume			l	7		
	Max. water pressure			bar	3		
	Pre pressure			bar	1		
	Heater			W	50		
Water circuit	Piping connections diameter			inch	G 1" (male)		
	Piping length	Max.	OU - Tank	m	10		
	Level difference	Max.		m	5		
	Safety valve			bar	3		
	Drain valve / fill valve				No		
	Air purge valve				Yes		
General	Supplier/ Manufacturer details	Name and address			Daikin Industries Czech Republic s.r.o. U Nove Hospody 1/1155, 301 00		
		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)				dB(A)	58.0	60.0	62.0
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^3/h	2,280	2,520	2,770
	Other	Capacity control			Inverter		
		Pck (Crankcase heater mode)		kW	0.000		
		Poff (Off mode)		kW	0.010		
		Psb (Standby mode)		kW	0.010		
		Pto (Thermostat off)		kW	0.010		
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,769	4,405	4,939
			ηs (Seasonal space heating efficiency)	%	129	128	131
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	14	16	18
			SCOP		3.29	3.28	3.35
			Seasonal space heating eff. class		A++		

2 Specifications

Technical specifications					EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Space heating	Average climate water outlet 55°C	A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.97	1.98	1.96
			Pdh	kW	5.3	5.9	6.9
			PERd	%	78.8	79.2	78.4
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.23	3.16	3.20
			Pdh	kW	3.3	3.9	4.4
			PERd	%	129.2	126.4	128.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.40	4.49	4.64
			Pdh	kW	3.0		3.3
			PERd	%	176.0	179.6	185.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.10		6.22
			Pdh	kW	3.3		4.1
			PERd	%	244.0		248.8
		Tol (temperature operating limit)	COPd		1.37	1.53	1.64
			Pdh	kW	3.99	5.36	7.05
			PERd	%	54.8	61.2	65.6
			TOL	°C	-10		
			WTOL	°C	55		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	2.01	1.64	0.95
		Tbiv (bivalent temperature)	COPd		1.97	2.12	1.90
			Pdh	kW	5.3	6.1	7.5
			PERd	%	78.8	84.8	76.0
			Tbiv	°C	-7	-6	-8
	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	4,446	5,278	6,864
			ηs (Seasonal space heating efficiency)	%	108	109	112
			Prated at -22°C	kW	5.0	6.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	16	19	25
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	1,616	1,813	2,624
			ηs (Seasonal space heating efficiency)	%	152	162	
			Prated at 2°C	kW	4.7	5.6	8.1
			Qhe Annual energy consumption (GCV)	Gj	6	7	9
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		2.11	2.15	2.09
			Pdh	kW	4.7	5.6	6.8

2 Specifications

Technical specifications					EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Space heating	Warm climate water outlet 55°C	B Condition (2°CDB/1°CWB)	PERd	%	84.4	86.0	83.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.28	3.45	3.42
			Pdh	kW	3.0	3.6	5.3
			PERd	%	131.2	138.0	136.8
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.13	5.48	5.52
			Pdh	kW	3.1	2.3	2.8
			PERd	%	205.2	219.2	220.8
		Tbiv (bivalent temperature)	COPd		2.11	2.15	2.66
			Pdh	kW	4.7	5.6	6.9
			PERd	%	84.4	86.0	106.4
			Tbiv	°C	2		4
	Average climate water outlet 35°C	General	Annual energy consumption	kWh	2,729	3,196	3,588
			ηs (Seasonal space heating efficiency)	%	179	178	181
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	10	12	13
			SCOP		4.54	4.52	4.61
			Seasonal space heating eff. class		A+++		
		A Condition (-7°CDB/-8°CWB)	COPd		2.90	2.86	2.77
			Pdh	kW	5.5	6.0	7.0
			PERd	%	116.0	114.4	110.8
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.33	4.25	4.35
			Pdh	kW	3.3	3.9	4.2
			PERd	%	173.2	170.0	174.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.19	6.30	6.49
			Pdh	kW	3.2		3.3
			PERd	%	247.6	252.0	259.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78		8.52
			Pdh	kW	3.3		3.9
			PERd	%	311.2		340.8
		Tol (temperature operating limit)	COPd		2.56	2.49	2.41
			Pdh	kW	5.22	6.01	6.93
			PERd	%	102.4	99.6	96.4

2 Specifications

Technical specifications					EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Space heating	Average climate water outlet 35°C	Tol (temperature operating limit)	TOL	°C	-10		
			WTOL	°C	35		
		Tbiv (bivalent temperature)	COPd		2.90	3.07	2.66
			Pdh	kW	5.5	6.1	7.5
			PERd	%	116.0	122.8	106.4
			Tbiv	°C	-7	-6	-8
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	0.78	0.99	1.07
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	3,208	3,727	5,012
			ηs (Seasonal space heating efficiency)	%	151	156	154
			Prated at -22°C	kW	5	6	8
			Qhe Annual energy consumption (GCV)	Gj	11.5	13.4	18.0
	Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,095	1,232	1,393
			ηs (Seasonal space heating efficiency)	%	251	257	266
			Prated at 2°C	kW	5.2	6.0	7.0
			Qhe Annual energy consumption (GCV)	Gj	4		5
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.79	5.92	5.95
			Pdh	kW	3.3	3.9	4.5
			PERd	%	231.6	236.8	238.0
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78	8.00	8.57
			Pdh	kW	3.5	2.7	3.3
			PERd	%	311.2	320.0	342.8
		Tbiv (bivalent temperature)	COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
			Tbiv	°C	2		
Pump	Type				Grundfos UPM4L K 15-75 130 9 DKI		
Piping connections	High pressure side	Design pressure		bar	46		

Electrical specifications					EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Compressor component	Main power supply	Phase			3N~		
		Voltage		V	220		
Hydraulic component	Back-up heater current	Type			3V3		
		Power supply	Phase		1~		
			Frequency	Hz	50		
			Voltage	V	230		
		Running current	Back-up heater	A	13.0		
	Voltage range	Min.		%	-10		
		Max.		%	10		
Power supply	Name				V3		
	Phase				1~		
	Frequency			Hz	50		
	Voltage			V	230 +/-10%		

2 Specifications

Electrical specifications				EBLA04E3V3	EBLA06E3V3	EBLA08E3V3
Current	Maximum running current	Heating	A	19.9		24.0
	Recommended fuses		A	20		25

(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)For more details, see operation range drawing

Technical specifications					EDLA04EV3	EDLA06EV3	EDLA08EV3
Heating capacity	Nom.			kW	4.30 (1) / 4.60 (2)	6.00 (1) / 5.90 (2)	7.50 (1) / 7.80 (2)
Power input	Heating	Nom.		kW	0.840 (1) / 1.26 (2)	1.24 (1) / 1.69 (2)	1.63 (1) / 2.23 (2)
COP					5.10 (1) / 3.65 (2)	4.85 (1) / 3.50 (2)	4.60 (1) / 3.50 (2)
Casing	Colour				Ivory white		
	Material				Zinc coated low carbon steel		
Dimensions	Unit	Height		mm	770		
		Width		mm	1,250		
		Depth		mm	362		
	Packed unit	Height		mm	920		
		Width		mm	1,350		
		Depth		mm	500		
Weight	Unit			kg	88.0		
	Packed unit			kg	95		
Packing	Material				Carton / EPS / Wood (pallet)		
Heat exchanger	Length			mm	920		
	Rows	Quantity			2		
	Fin pitch			mm	1.40		
	Face area			m^2	0.658		
	Stages	Quantity			32		
	Tube type				ø7 Hi-XD		
	Fin	Type			Waffle Hydrophilic Blue		
		Treatment			Hydrophilic		
Fan	Type				Propeller fan		
	Quantity				1		
	Discharge direction				Horizontal		
Fan motor	Quantity				1		
	Model				KFD-325-77-10A		
	Speed	Steps			10		
		Heating	Nom.	rpm	620	680	740
	Output			W	77		
Compressor	Quantity				1		
	Model				2YC71EXD#C		
	Type				Hermetically sealed swing compressor		
PED	Category				Category II		
	Most critical part	Name			Compressor		
		Ps*V		Bar*l	110		
Operation range	Heating	Ambient	Min.	°CDB	-25		
			Max.	°CDB	25 (3)		
		Water side	Min.	°C	9 (3)		
			Max.	°C	65 (3)		
	Domestic hot water	Ambient	Min.	°CDB	-27		
			Max.	°CDB	35		
		Water side	Min.	°C	25		
			Max.	°C	55 (3)		
Sound power level	Heating	Nom.		dBA	58.0 (1)	60.0 (1)	62.0 (1)
Sound pressure level	Heating	Nom.		dBA	44.0 (1)	47.0 (1)	49.0 (1)
Refrigerant	Type				R-32		
	GWP				675.0		
	Charge			kg	1.35		
	Charge			TCO2Eq	0.910		
	Control				Expansion valve		
	Circuits	Quantity			1		
Refrigerant oil	Type				FW68DA		
	Charged volume			l	1.1		
Defrost method					Reversed cycle		
Defrost control					Sensor for outdoor heat exchanger temperature		
Capacity control	Method				Inverter controlled		
Safety devices	Item	01			High pressure switch		
Pump	Quantity				1		
	Nr of speeds				PWM		
	Power input			W	75		

2 Specifications

Technical specifications					EDLA04EV3	EDLA06EV3	EDLA08EV3
Water side Heat exchanger	Type				Plate heat exchanger		
	Quantity				1		
	Water volume			l	1.01		
	Water flow rate	Heating	Nom.	l/min	12.3 (1) / 13.2 (2)	17.2 (1) / 16.9 (2)	21.5 (1) / 22.4 (2)
	Insulation material				Kaiflex		
	Heater			W	50.0		
Expansion vessel	Volume			l	7		
	Max. water pressure			bar	3		
	Pre pressure			bar	1		
	Heater			W	50		
Water circuit	Piping connections diameter			inch	G 1" (male)		
	Piping length	Max.	OU - Tank	m	10		
Water circuit	Level difference	Max.		m	5		
	Safety valve			bar	3		
	Drain valve / fill valve				No		
	Air purge valve				Yes		
General	Supplier/ Manufacturer details	Name and address			Daikin Industries Czech Republic s.r.o. U Nove Hospody 1/1155, 301 00		
		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			No		
		Water-to-water heat pump			No		
LW(A) Sound power level (according to EN14825)				dB(A)	58.0	60.0	62.0
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^3/h	2,280	2,520	2,770
	Other	Capacity control			Inverter		
		Pck (Crankcase heater mode)		kW	0.000		
		Poff (Off mode)		kW	0.010		
		Psb (Standby mode)		kW	0.010		
		Pto (Thermostat off)		kW	0.010		
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,806	4,441	4,975
			ηs (Seasonal space heating efficiency)	%	127		130
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	14	16	18
			SCOP		3.26		3.32
			Seasonal space heating eff. class		A++		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.97	1.98	1.96
			Pdh	kW	5.3	5.9	6.9
			PERd	%	78.8	79.2	78.4
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.23	3.16	3.20
			Pdh	kW	3.3	3.9	4.4
			PERd	%	129.2	126.4	128.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.40	4.49	4.64
			Pdh	kW	3.0		3.3

2 Specifications

Technical specifications					EDLA04EV3	EDLA06EV3	EDLA08EV3
Space heating	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	PERd	%	176.0	179.6	185.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.10		6.22
			Pdh	kW	3.3		4.1
			PERd	%	244.0		248.8
		Tol (temperature operating limit)	COPd		1.37	1.53	1.64
			Pdh	kW	3.99	5.36	7.05
			PERd	%	54.8	61.2	65.6
			TOL	°C	-10		
			WTOL	°C	55		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	2.01	1.64	0.95
		Tbiv (bivalent temperature)	COPd		1.97	2.12	1.90
			Pdh	kW	5.3	6.1	7.5
			PERd	%	78.8	84.8	76.0
			Tbiv	°C	-7	-6	-8
	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	4,468	5,300	6,886
			ηs (Seasonal space heating efficiency)	%	107	109	112
			Prated at -22°C	kW	5.0	6.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	16	19	25
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	1,660	1,858	2,669
			ηs (Seasonal space heating efficiency)	%	148	158	159
			Prated at 2°C	kW	4.7	5.6	8.1
			Qhe Annual energy consumption (GCV)	Gj	6	7	10
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		2.11	2.15	2.09
			Pdh	kW	4.7	5.6	6.8
			PERd	%	84.4	86.0	83.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.28	3.45	3.42
			Pdh	kW	3.0	3.6	5.3
			PERd	%	131.2	138.0	136.8
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.13	5.48	5.52
			Pdh	kW	3.1	2.3	2.8
			PERd	%	205.2	219.2	220.8
		Tbiv (bivalent temperature)	COPd		2.11	2.15	2.66
			Pdh	kW	4.7	5.6	6.9

2 Specifications

Technical specifications					EDLA04EV3	EDLA06EV3	EDLA08EV3
Space heating	Warm climate water outlet 55°C	Tbiv (bivalent temperature)	PERd	%	84.4	86.0	106.4
			Tbiv	°C	2		4
	Average climate water outlet 35°C	General	Annual energy consumption	kWh	2,766	3,233	3,625
			ηs (Seasonal space heating efficiency)	%	176		179
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	10	12	13
			SCOP		4.48	4.47	4.56
			Seasonal space heating eff. class		A+++		
		A Condition (-7°CDB/-8°CWB)	COPd		2.90	2.86	2.77
			Pdh	kW	5.5	6.0	7.0
			PERd	%	116.0	114.4	110.8
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.33	4.25	4.35
			Pdh	kW	3.3	3.9	4.2
			PERd	%	173.2	170.0	174.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.19	6.30	6.49
			Pdh	kW	3.2		3.3
			PERd	%	247.6	252.0	259.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78		8.52
			Pdh	kW	3.3		3.9
			PERd	%	311.2		340.8
		Tol (temperature operating limit)	COPd		2.56	2.49	2.41
			Pdh	kW	5.22	6.01	6.93
			PERd	%	102.4	99.6	96.4
			TOL	°C	-10		
			WTOL	°C	35		
		Tbiv (bivalent temperature)	COPd		2.90	3.07	2.66
			Pdh	kW	5.5	6.1	7.5
			PERd	%	116.0	122.8	106.4
			Tbiv	°C	-7	-6	-8
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	0.78	0.99	1.07
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	3,230	3,749	5,034
			ηs (Seasonal space heating efficiency)	%	150	155	154
			Prated at -22°C	kW	5	6	8
			Qhe Annual energy consumption (GCV)	Gj	11.6	13.5	18.1

2 Specifications

Technical specifications					EDLA04EV3	EDLA06EV3	EDLA08EV3
Space heating	Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,139	1,276	1,437
			ηs (Seasonal space heating efficiency)	%	241	249	257
			Prated at 2°C	kW	5.2	6.0	7.0
			Qhe Annual energy consumption (GCV)	Gj	4	5	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.79	5.92	5.95
			Pdh	kW	3.3	3.9	4.5
			PERd	%	231.6	236.8	238.0
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78	8.00	8.57
			Pdh	kW	3.5	2.7	3.3
			PERd	%	311.2	320.0	342.8
		Tbiv (bivalent temperature)	COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
			Tbiv	°C	2		
Pump	Type				Grundfos UPM4L K 15-75 130 9 DKI		
Piping connections	High pressure side	Design pressure		bar	46		

Electrical specifications				EDLA04EV3	EDLA06EV3	EDLA08EV3
Compressor component	Main power supply	Phase		3N~		
		Voltage	V	220		
Power supply	Name			V3		
	Phase			1~		
	Frequency		Hz	50		
	Voltage		V	230 +/-10%		
Current	Maximum running current	Heating	A	19.9		24.0
	Recommended fuses		A	20		25

(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)For more details, see operation range drawing

Technical specifications				EDLA04E3V3	EDLA06E3V3	EDLA08E3V3
Heating capacity	Nom.		kW	4.30 (1) / 4.60 (2)	6.00 (1) / 5.90 (2)	7.50 (1) / 7.80 (2)
Heater capacity	Step 1		kW	3		
Power input	Heating	Nom.	kW	0.840 (1) / 1.26 (2)	1.24 (1) / 1.69 (2)	1.63 (1) / 2.23 (2)
COP				5.10 (1) / 3.65 (2)	4.85 (1) / 3.50 (2)	4.60 (1) / 3.50 (2)
Casing	Colour			Ivory white		
	Material			Zinc coated low carbon steel		
Dimensions	Unit	Height	mm	770		
		Width	mm	1,250		
		Depth	mm	362		
	Packed unit	Height	mm	920		
		Width	mm	1,350		
		Depth	mm	500		
Weight	Unit		kg	91.0		
	Packed unit		kg	98		
Packing	Material			Carton / EPS / Wood (pallet)		
Heat exchanger	Length		mm	920		
	Rows	Quantity		2		
	Fin pitch		mm	1.40		
	Face area		m^2	0.658		
	Stages	Quantity		32		
	Tube type			ø7 Hi-XD		
	Fin	Type		Waffle Hydrophilic Blue		
		Treatment		Hydrophilic		

2 Specifications

Technical specifications					EDLA04E3V3	EDLA06E3V3	EDLA08E3V3
Fan	Type				Propeller fan		
	Quantity				1		
	Discharge direction				Horizontal		
Fan motor	Quantity				1		
	Model				KFD-325-77-10A		
	Speed	Steps			10		
		Heating	Nom.	rpm	620	680	740
	Output			W	77		
Compressor	Quantity				1		
	Model				2YC71EXD#C		
	Type				Hermetically sealed swing compressor		
PED	Category				Category II		
	Most critical part	Name			Compressor		
PED	Most critical part	Ps*V		Bar*l	110		
Operation range	Heating	Ambient	Min.	°CDB	-25		
			Max.	°CDB	25 (3)		
		Water side	Min.	°C	15 (3)		
			Max.	°C	65 (3)		
	Domestic hot water	Ambient	Min.	°CDB	-27		
			Max.	°CDB	35		
		Water side	Min.	°C	25		
			Max.	°C	55 (3)		
Sound power level	Heating	Nom.		dBA	58.0 (1)	60.0 (1)	62.0 (1)
Sound pressure level	Heating	Nom.		dBA	44.0 (1)	47.0 (1)	49.0 (1)
Refrigerant	Type				R-32		
	GWP				675.0		
	Charge			kg	1.35		
	Charge			TCO2Eq	0.910		
	Control				Expansion valve		
	Circuits	Quantity			1		
Refrigerant oil	Type				FW68DA		
	Charged volume			l	1.1		
Defrost method					Reversed cycle		
Defrost control					Sensor for outdoor heat exchanger temperature		
Capacity control	Method				Inverter controlled		
Safety devices	Item	01			High pressure switch		
Pump	Quantity				1		
	Nr of speeds				PWM		
	Power input			W	75		
Water side Heat exchanger	Type				Plate heat exchanger		
	Quantity				1		
	Water volume			l	1.01		
	Water flow rate	Heating	Nom.	l/min	12.3 (1) / 13.2 (2)	17.2 (1) / 16.9 (2)	21.5 (1) / 22.4 (2)
	Insulation material				Kaiflex		
	Heater			W	50.0		
Expansion vessel	Volume			l	7		
	Max. water pressure			bar	3		
	Pre pressure			bar	1		
	Heater			W	50		
Water circuit	Piping connections diameter			inch	G 1" (male)		
Water circuit	Piping length	Max.	OU - Tank	m	10		
	Level difference	Max.		m	5		
	Safety valve			bar	3		
	Drain valve / fill valve				No		
	Air purge valve				Yes		
General	Supplier/ Manufacturer details	Name and address			Daikin Industries Czech Republic s.r.o. U Nove Hospody 1/1155, 301 00		
		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		

2 Specifications

Technical specifications					EDLA04E3V3	EDLA06E3V3	EDLA08E3V3
LW(A) Sound power level (according to EN14825)				dB(A)	58.0	60.0	62.0
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^3/h	2,280	2,520	2,770
	Other	Capacity control			Inverter		
		Pck (Crankcase heater mode)		kW	0.000		
		Poff (Off mode)		kW	0.010		
		Psb (Standby mode)		kW	0.010		
		Pto (Thermostat off)		kW	0.010		
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	3,806	4,441	4,975
			ηs (Seasonal space heating efficiency)	%	127		130
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	14	16	18
			SCOP		3.26		3.32
			Seasonal space heating eff. class		A++		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
			COPd		1.97	1.98	1.96
			Pdh	kW	5.3	5.9	6.9
			PERd	%	78.8	79.2	78.4
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.23	3.16	3.20
			Pdh	kW	3.3	3.9	4.4
			PERd	%	129.2	126.4	128.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.40	4.49	4.64

2 Specifications

Technical specifications					EDLA04E3V3	EDLA06E3V3	EDLA08E3V3
Space heating	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	Pdh	kW	3.0		3.3
			PERd	%	176.0	179.6	185.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.10		6.22
			Pdh	kW	3.3		4.1
			PERd	%	244.0		248.8
		Tol (temperature operating limit)	COPd		1.37	1.53	1.64
			Pdh	kW	3.99	5.36	7.05
			PERd	%	54.8	61.2	65.6
			TOL	°C	-10		
			WTOL	°C	55		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	2.01	1.64	0.95
		Tbiv (bivalent temperature)	COPd		1.97	2.12	1.90
			Pdh	kW	5.3	6.1	7.5
			PERd	%	78.8	84.8	76.0
			Tbiv	°C	-7	-6	-8
	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	4,468	5,300	6,886
			ηs (Seasonal space heating efficiency)	%	107	109	112
			Prated at -22°C	kW	5.0	6.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	16	19	25
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	1,660	1,858	2,669
			ηs (Seasonal space heating efficiency)	%	148	158	159
			Prated at 2°C	kW	4.7	5.6	8.1
			Qhe Annual energy consumption (GCV)	Gj	6	7	10
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		2.11	2.15	2.09
			Pdh	kW	4.7	5.6	6.8
			PERd	%	84.4	86.0	83.6
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.28	3.45	3.42
			Pdh	kW	3.0	3.6	5.3
			PERd	%	131.2	138.0	136.8
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.13	5.48	5.52
			Pdh	kW	3.1	2.3	2.8
			PERd	%	205.2	219.2	220.8
		Tbiv (bivalent temperature)	COPd		2.11	2.15	2.66

2 Specifications

Technical specifications					EDLA04E3V3	EDLA06E3V3	EDLA08E3V3
Space heating	Warm climate water outlet 55°C	Tbiv (bivalent temperature)	Pdh	kW	4.7	5.6	6.9
			PERd	%	84.4	86.0	106.4
			Tbiv	°C	2		4
	Average climate water outlet 35°C	General	Annual energy consumption	kWh	2,766	3,233	3,625
			ηs (Seasonal space heating efficiency)	%	176		179
			Prated at -10°C	kW	6.0	7.0	8.0
			Qhe Annual energy consumption (GCV)	Gj	10	12	13
			SCOP		4.48	4.47	4.56
			Seasonal space heating eff. class		A+++		
		A Condition (-7°CDB/-8°CWB)	COPd		2.90	2.86	2.77
			Pdh	kW	5.5	6.0	7.0
			PERd	%	116.0	114.4	110.8
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.33	4.25	4.35
			Pdh	kW	3.3	3.9	4.2
			PERd	%	173.2	170.0	174.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		6.19	6.30	6.49
			Pdh	kW	3.2		3.3
			PERd	%	247.6	252.0	259.6
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78		8.52
			Pdh	kW	3.3		3.9
			PERd	%	311.2		340.8
		Tol (temperature operating limit)	COPd		2.56	2.49	2.41
			Pdh	kW	5.22	6.01	6.93
			PERd	%	102.4	99.6	96.4
			TOL	°C	-10		
			WTOL	°C	35		
		Tbiv (bivalent temperature)	COPd		2.90	3.07	2.66
			Pdh	kW	5.5	6.1	7.5
			PERd	%	116.0	122.8	106.4
			Tbiv	°C	-7	-6	-8
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	0.78	0.99	1.07
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	3,230	3,749	5,034
			ηs (Seasonal space heating efficiency)	%	150	155	154
			Prated at -22°C	kW	5	6	8

2 Specifications

Technical specifications					EDLA04E3V3	EDLA06E3V3	EDLA08E3V3
Space heating	Cold climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	Gj	11.6	13.5	18.1
	Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,139	1,276	1,437
			ηs (Seasonal space heating efficiency)	%	241	249	257
			Prated at 2°C	kW	5.2	6.0	7.0
			Qhe Annual energy consumption (GCV)	Gj	4	5	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.79	5.92	5.95
			Pdh	kW	3.3	3.9	4.5
			PERd	%	231.6	236.8	238.0
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		7.78	8.00	8.57
			Pdh	kW	3.5	2.7	3.3
			PERd	%	311.2	320.0	342.8
		Tbiv (bivalent temperature)	COPd		3.68	3.50	3.28
			Pdh	kW	5.2	6.0	7.0
			PERd	%	147.2	140.0	131.2
			Tbiv	°C	2		
Pump	Type				Grundfos UPM4L K 15-75 130 9 DKI		
Piping connections	High pressure side	Design pressure		bar	46		

Electrical specifications					EDLA04E3V3	EDLA06E3V3	EDLA08E3V3
Compressor component	Main power supply	Phase			3N~		
		Voltage		V	220		
Hydraulic component	Back-up heater current	Type			3V3		
		Power supply	Phase		1~		
			Frequency	Hz	50		
			Voltage	V	230		
		Running current	Back-up heater	A	13.0		
	Voltage range	Min.		%	-10		
		Max.		%	10		
Power supply	Name				V3		
	Phase				1~		
	Frequency			Hz	50		
	Voltage			V	230 +/-10%		
Current	Maximum running current	Heating		A	19.9		24.0
	Recommended fuses			A	20		25

(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)For more details, see operation range drawing

3 Electrical data

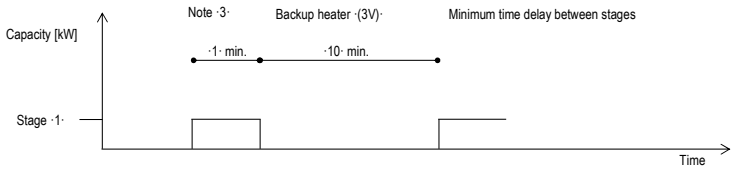
3 - 1 Electrical Data

EBLA04-08E3V3
EDLA04-08E3V3

Electrical specifications

Backup heater	Type			**3V**
	Capacity setting		kW	3
	Capacity stage · ·			1
	Capacity stage ·1·		kW	3
	Capacity stage ·2·		kW	-
	Minimum time delay between stages			Note ·3·
	Power supply (1)	Phase		1~
		Frequency	Hz	50
		Voltage	V	230 +-10%
	Current	Nominal running current	A	13
		Zmax (backup heater) (2)	Ω	-
			Complex	-
		Minimum Ssc value	kVA	-

Notes	(1)	The above-mentioned power supply of the hydrobox is for the backup heater only.
	(2)	In accordance with EN/IEC 61000-3-11, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Zsys ≤ Zmax.
	EN/IEC 61000-3-11	European/International Technical Standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current ≤ 75 A.
	EN/IEC 61000-3-12	European/International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase.
	Zsys	System impedance



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4 Combination table

4 - 1 Combination Table

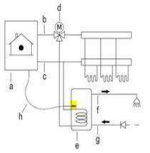
EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3

Kit availability for -E(B/D)LA*E*-

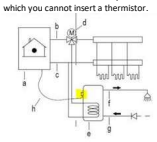
Reference	Description	Notes	E(B/D)LA(04/06/08)E*			
			No backup heater		Backup heater	
			Heating only	Reversible	Heating only	Reversible
			EDLA(04/06/08) E2V3	EBLA(04/06/08) E2V3	EDLA(04/06/08) E23V3	EBLA(04/06/08) E23V3
EKRP1HBAA	Digital I/O PCB	(1)	o	o	o	o
EKRP1AHTA	Demand PCB		o	o	o	o
BRC1HHDA*	Remote user interface		o	o	o	o
BRP069A61	LAN adapter		o	o	o	o
BRP069A62	LAN adapter and solar connectivity		o	o	o	o
BRP069A71	WLAN module	(2)	o	o	o	o
EKRELSG	Relay for Smart Grid		o	o	o	o
KRCS01-1	Remote indoor sensor	(3)	o	o	o	o
EKRSCA1	Remote sensor for outdoor	(3)	o	o	o	o
EKPCCAB4	PC cable kit		o	o	o	o
EKCCB-W	Universal centralised user interface		o	o	o	o
EKHY3PART	Third-party tank connection kit for thermistor pocket	(4) (6)	o	o	o	o
EKHY3PART2	Third-party tank connection kit for thermostat contact	(5) (6)	o	o	o	o
EKLBUHCB6W	Backup heater kit	(7)	o	o	-	-
EKMBHBP1	Valve kit	(7)	-	o	-	-
EKFLSW2	Flow switch	(8)	o	o	o	o
AFVALVE1	Freeze protection valve		o	o	o	o
FWXV10-15-20ABTV3*	Heat pump convector Floor standing unit		o	o	o	o
FWXT10-15-20ABTV3*	Heat pump convector Wall mounted type		o	o	o	o
FWXM10-15-20ATV3*	Heat pump convector Conceiled ceiling		o	o	o	o
EKHWS150D3V3	Domestic hot water tank -LT 150 | 1~230V-		o	o	o	o
EKHWS180D3V3	Domestic hot water tank -LT 180 | 1~230V-		o	o	o	o
EKHWS200D3V3	Domestic hot water tank -LT 200 | 1~230V-		o	o	o	o
EKHWS250D3V3	Domestic hot water tank -LT 250 | 1~230V-		o	o	o	o
EKHWS300D3V3	Domestic hot water tank -LT 300 | 1~230V-		o	o	o	o
EKHWSU150D3V3	Domestic hot water tank -LT 150 | 1~230V-	(only for UK) (9)	o	o	o	o
EKHWSU180D3V3	Domestic hot water tank -LT 180 | 1~230V-	(only for UK) (9)	o	o	o	o
EKHWSU200D3V3	Domestic hot water tank -LT 200 | 1~230V-	(only for UK) (9)	o	o	o	o
EKHWSU250D3V3	Domestic hot water tank -LT 250 | 1~230V-	(only for UK) (9)	o	o	o	o
EKHWSU300D3V3	Domestic hot water tank -LT 300 | 1~230V-	(only for UK) (9)	o	o	o	o
EKHWP300B	Domestic hot water tank -HT 300-	(10) (11) (12)	o	o	o	o
EKHWP500B	Domestic hot water tank -HT 500-	(10) (11) (12)	o	o	o	o
EKHWP300PB	Domestic hot water tank -HT 300-	(10) (11) (12)	o	o	o	o
EKHWP500PB	Domestic hot water tank -HT 500-	(10) (11) (12)	o	o	o	o
EKMIKPOAF	Mixing kit - PCB only		o	o	o	o
EKMIKPHAF	Mixing kit - PCB with hydraulics		o	o	o	o
EKMIKHMAF	Hydraulics - mixed pump ground	(13)	o	o	o	o
EKMIKHUAF	Hydraulics - unmixed pump ground	(13)	o	o	o	o
EKMIKBVAF	Balancing vessel		o	o	o	o
EKMIKDIAF	Distributor for balancing vessel	(14)	o	o	o	o
EKRTWA	Wired room thermostat		o	o	o	o
EKRTR1, EKRTRB	Wireless room thermostat		o	o	o	o
EKRTETS	External temperature sensor option kit	(15)	o	o	o	o
EKTESE1	Temperature sensor DHW	(16)	o	o	o	o
EKTESE2	Temperature sensor DHW	(17)	o	o	o	o
EKWUFHTA1V3	Multi zoning kit		o	o	o	o

Notes

(4) -EKHY3PART- can be used if you have a tank in which you can insert a thermistor.



(5) -EKHY3PART2- can be used if you have a tank in which you cannot insert a thermistor.



(6) Conditions for third-party tank

Third-party with identical specifications as -EKHWS*-
Coil surface >-1.05-m² and <-3.7-m²
Tank thermistor and booster heater above heat pump coil.

Notes

(1) Additional relays to allow bivalent control in combination with an external room thermostat are field-supplied.
(2) The WLAN cartridge is supplied in the accessory bag of the unit and is meant to be plugged into the SD card slot on the MMI-2. In case of bad signal reception, the WLAN cartridge can be removed and replaced by the WLAN module.
(3) Only 1 remote sensor can be connected: indoor OR outdoor sensor.
(7) Necessity to install a bypass kit -EKMBHBP1- to avoid sweat on the BUH, when the BUH is installed in combination with a reversible model.
(8) -EKFLSW2- is obligatory for Monoblock & Mini-chiller in case Glycol is used.
(9) Only possible in combination with -EKEXPVES-
(10) Domestic hot water tank with solar connection. Dedicated connection kit available. Other options EKRSP4A* Solar pump station
For the combination with -EKHWP*-, refer to the combination table of -EKHWP*-.
(11) The installation of -EKBH3S*- is mandatory. As backup or for tank preheating. For details, see the installer reference guide.
(12) The installation of -EKEPRHLT*- is mandatory.
(13) Only possible in combination with -EKMIKPOAF-
(14) Only possible in combination with -EKMIKBVAF- and -EKMIKPHAF- or -EKMIKHUAF-
(15) Can only be used in combination with the wireless room thermostat.
(16) Only in combination with -EKHWS*-
(17) Only in combination with -EKHWP*-

Remark
Other combinations than mentioned in this combination table are prohibited.

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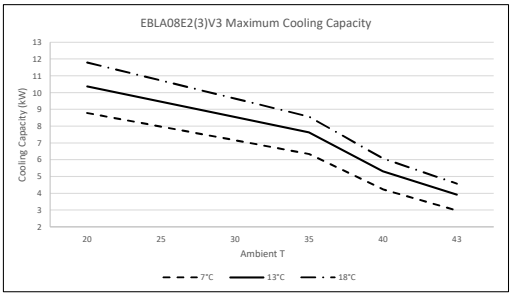
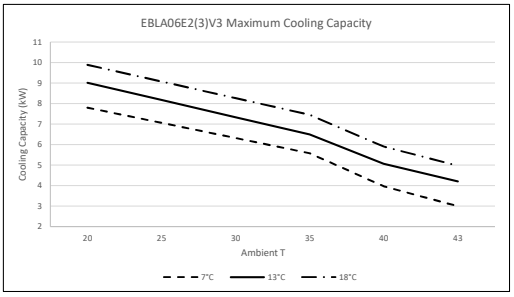
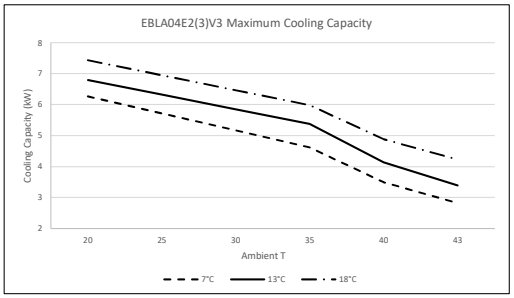
5 Capacity graphs

5 - 1 Cooling Capacity Graphs

EBLA04-08EV3
EBLA04-08E3V3







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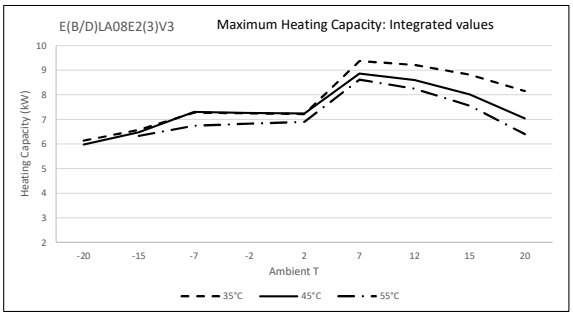
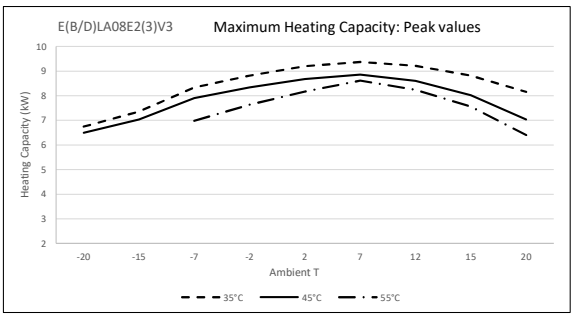
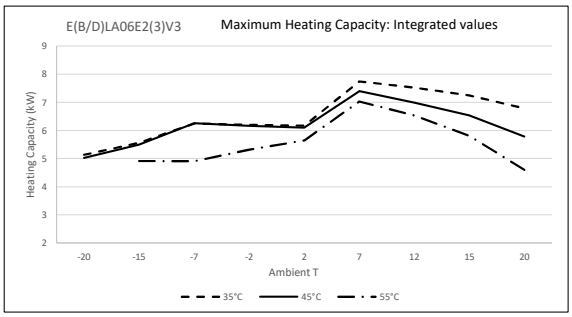
5 Capacity graphs

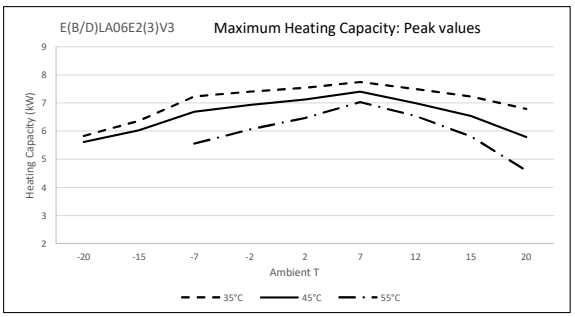
5 - 2 Heating Capacity Graphs

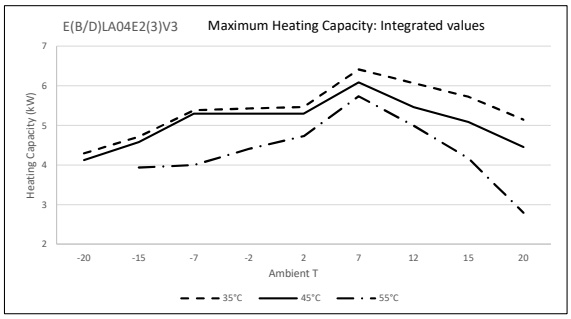
EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3

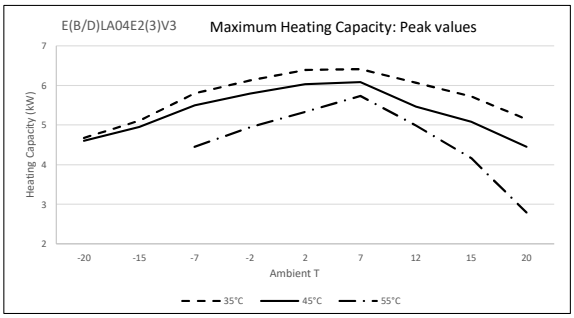












Symbols

CC	Cooling capacity at maximum operating frequency, measured according to EN 14511.
HC	Heating capacity at maximum operating frequency, measured according to EN 14511
PI	Power input is the total input of indoor and outdoor units, including the circulation pump; according to EN 14511.
LWE	Leaving water evaporator temperature [°C]
LWC	Leaving water condensor temperature [°C]
Tamb	Ambient temperature; RH (heating) = 85%

Conditions

Cooling capacity
Capacity according to standard EN 14511 and valid for chilled water range ΔT = 3~8°C.
Capacity values may not be extrapolated below 7°C leaving water temperature.

Heating capacity
Capacity according to standard EN 14511 and valid for heated water range ΔT = 3~8°C.

Power input
Power input is the total input of indoor and outdoor units, including the circulation pump; according to EN 14511.

Notes

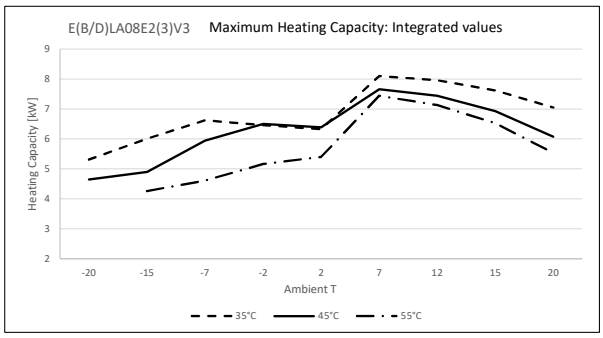
The capacity and the power input are valid for V3 models at 230 V.
The capacity and the power input are at maximum operation.

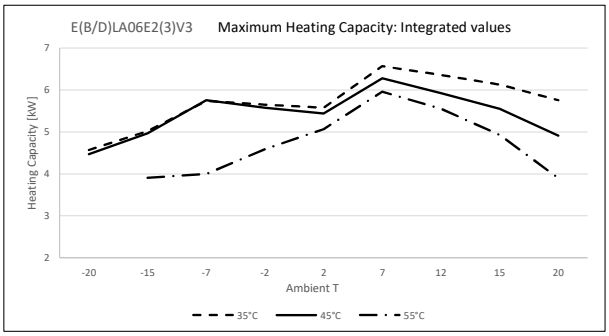
3D139362

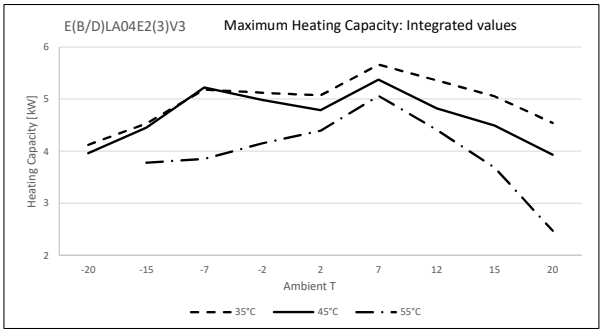
5 Capacity graphs

5 - 3 Heating Capacity Graphs - more quiet mode

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3







Symbols

CC	Cooling capacity at maximum operating frequency, measured according to EN 14511.
HC	Heating capacity at maximum operating frequency, measured according to EN 14511
PI	Power input is the total input of indoor and outdoor units, including the circulation pump; according to EN 14511.
LWE	Leaving water evaporator temperature [°C]
LWC	Leaving water condensor temperature [°C]
Tamb	Ambient temperature; RH (heating) = 85%

Conditions

Cooling capacity
Capacity according to standard EN 14511 and valid for chilled water range ΔT = 3~8°C.
Capacity values may not be extrapolated below 7°C leaving water temperature.

Heating capacity
Capacity according to standard EN 14511 and valid for heated water range ΔT = 3~8°C.

Power input
Power input is the total input of indoor and outdoor units, including the circulation pump; according to EN 14511.

Notes

The capacity and the power input are valid for V3 models at 230 V.
The capacity and the power input are at maximum operation.

3D139433

6 Capacity tables

6 - 1 Certification Programs

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3

Rated data for certification programmes - heating mode

Tamb [°C]	EWC [°C]	LWC [°C]	E(B/D)LA04E2(3)V3 HC [kW]	COP	E(B/D)LA06E2(3)V3 HC [kW]	COP	E(B/D)LA08E2(3)V3 HC [kW]	COP
10/8	30	35	5,17	5,42	6,17	5,12	7,72	4,72
7/6	30	35	4,30	5,10	6,00	4,85	7,50	4,60
2/1	30	35	3,50	4,10	4,80	3,75	5,60	3,65
-7/-8	30	35	4,50	3,10	5,50	2,90	6,00	2,70
7/6	40	45	4,60	3,65	5,90	3,50	7,80	3,50
2/1	40	45	4,20	2,80	5,00	2,80	6,00	2,75
-7/-8	40	45	4,35	2,40	5,00	2,35	6,10	2,21
7/6	47	55	4,90	2,65	5,80	2,70	7,50	2,70
-7/-8	47	55	4,20	1,60	5,00	1,65	5,50	1,70

Rated data for certification programmes - cooling mode

Tamb [°C]	EWE [°C]	LWE [°C]	EBLA04E2(3)V3 CC [kW]	EER	EBLA06E2(3)V3 CC [kW]	EER	EBLA08E2(3)V3 CC [kW]	EER
35	23	18	4,86	5,91	5,83	5,4	6,18	5,19
35	12	7	4,52	3,32	5,09	3,28	5,44	3,14

Seasonal data - cooling

Low temperature Application

LWE 7°C

		EBLA04E2(3)V3	EBLA06E2(3)V3	EBLA08E2(3)V3
SEER	[-]	5,25	5,31	5,36
Pdes	[kW]	4,5	5,1	5,4
$\eta_{s,c}$	[-]	210%	212%	215%
Q_{CE}	[kWh/annum]	518	576	609

Rated data for sound GET database

Standard sound model		E(B/D)LA04E2(3)V3	E(B/D)LA06E2(3)V3	E(B/D)LA08E2(3)V3
Maximum sound day	Sound power [dBA]	60	62	65
Maximum sound night	Sound power [dBA]	54	54	54

Low sound model		E(B/D)LA04E2(3)V3	E(B/D)LA06E2(3)V3	E(B/D)LA08E2(3)V3
Maximum sound day	Sound power [dBA]	59	61	63
Maximum sound night	Sound power [dBA]	52	52	52

Symbols

HC	Heating capacity measured according to EN 14511
CC	Cooling capacity, measured according to -EN 14511-.
COP/EER	Coefficient of Performance/Energy efficiency ratio according to EN 14511.
EWC	Entering water condenser temperature [°C]
LWC	Leaving water condenser temperature [°C]
EWE	Entering water evaporator temperature [°C]
LWE	Leaving water evaporator temperature [°C]
Tamb	Ambient temperature [°C DB/WB]
Pdes	Nominal capacity value at design temperature [kW]
$\eta_{s,c}$	Seasonal space cooling energy efficiency according to -EN14825-
SEER	Seasonal energy efficiency ratio according to -EN14825-
Q_{CE}	Annual energy consumption for cooling according to -EN14825-

Rated data for certification programmes - domestic hot water performance

Outdoor unit		E(B/D)LA04/06/08E2(3)V3													
Domestic hot water tank		EKHWS150D3V3	EKHWS180D3V3	EKHWS200D3V3	EKHWS250D3V3	EKHWS300D3V3	EKHWSU150D3V3	EKHWSU180D3V3	EKHWSU200D3V3	EKHWSU250D3V3	EKHWSU300D3V3	EKHWP300B	EKHWP500B	EKHWP300PB	EKHWP500PB
Tapping pattern		L	L	L	XL	XL	L	L	L	XL	XL	L	XL	L	XL
Application		Average climate (design temperature: -7 °C)													
COP_{DHW}	[]	2,02	2,65	2,91	2,77	2,77	2,02	2,65	2,91	2,77	2,77	2,28	2,60	2,28	2,63
η_{wh}	[%]	84,1%	110,3%	121,1%	117,1%	114,3%	84,1%	110,3%	121,1%	117,1%	114,3%	94,7%	107,4%	94,7%	108,7%
AEC	[kWh]	1217	928	845	1430	1466	1217	928	845	1430	1466	1081	1560	1081	1541
Application		Colder climate (design temperature: -2 °C)													
COP_{DHW}	[]	1,66	2,16	2,36	2,34	2,33	1,66	2,16	2,36	2,34	2,33	2,02	2,12	2,02	2,15
η_{wh}	[%]	68,8%	89,6%	98,1%	98,9%	96,2%	68,8%	89,6%	98,1%	98,9%	96,2%	83,7%	87,3%	83,7%	88,3%
AEC	[kWh]	1487	1142	1042	1694	1742	1487	1142	1042	1694	1742	1223	1918	1223	1896
Application		Warmer climate (design temperature: -14 °C)													
COP_{DHW}	[]	2,38	3,01	3,31	3,22	3,23	2,38	3,01	3,31	3,22	3,23	2,50	3,18	2,50	3,21
η_{wh}	[%]	99,8%	126,2%	138,6%	136,7%	133,3%	99,8%	126,2%	138,6%	136,7%	133,3%	103,9%	132,0%	103,9%	133,4%
AEC	[kWh]	1025	811	738	1225	1256	1025	811	738	1225	1256	985	1269	985	1256

Symbols

COP_{DHW}	Domestic hot water COP According to EN16147.
η_{wh}	ηwh (Water heating energy efficiency)
AEC	Annual energy consumption [kWh]

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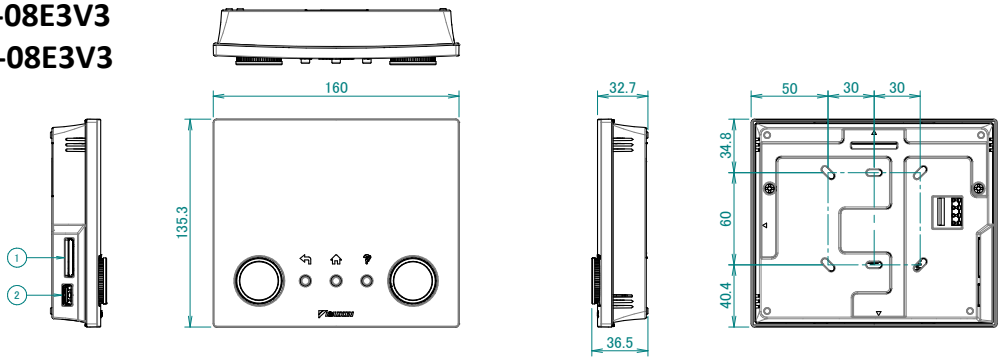
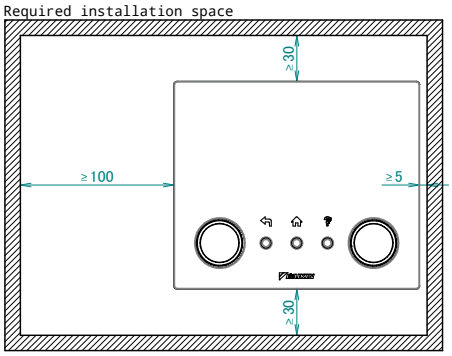
7 Dimensional drawings

7 - 1 Dimensional Drawings

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3



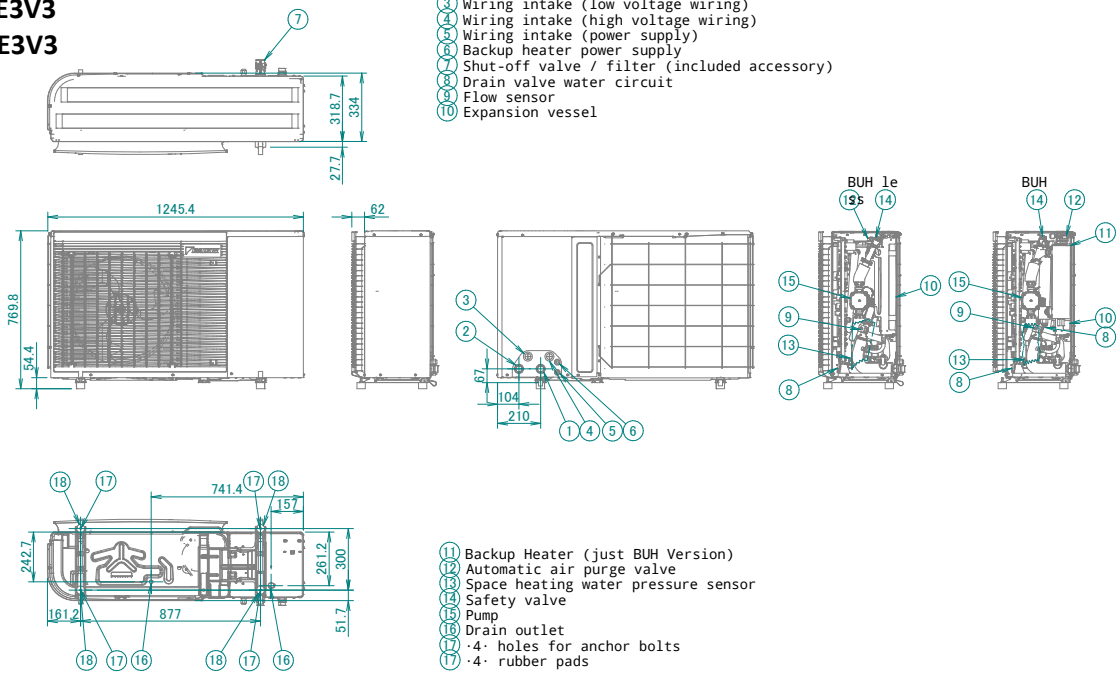


1 USB Connector
2 WLAN cartridge

3D132732

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3

1 Water in connection ·1"M·
2 Water out connection ·1"M·
3 Wiring intake (low voltage wiring)
4 Wiring intake (high voltage wiring)
5 Wiring intake (power supply)
6 Backup heater power supply
7 Shut-off valve / filter (included accessory)
8 Drain valve water circuit
9 Flow sensor
10 Expansion vessel



11 Backup Heater (just BUH Version)
12 Automatic air purge valve
13 Space heating water pressure sensor
14 Safety valve
15 Pump
16 Drain outlet
17 ·4· holes for anchor bolts
17 ·4· rubber pads

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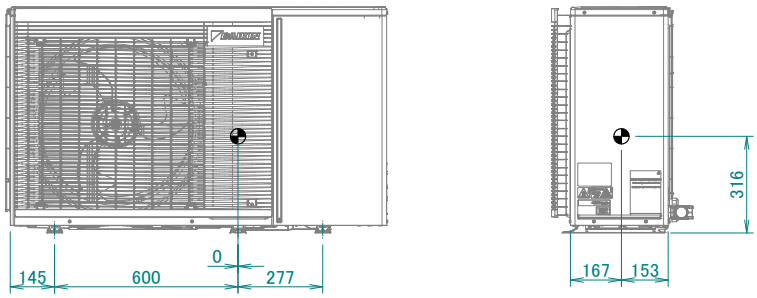
8 Centre of gravity

8 - 1 Centre of Gravity

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3



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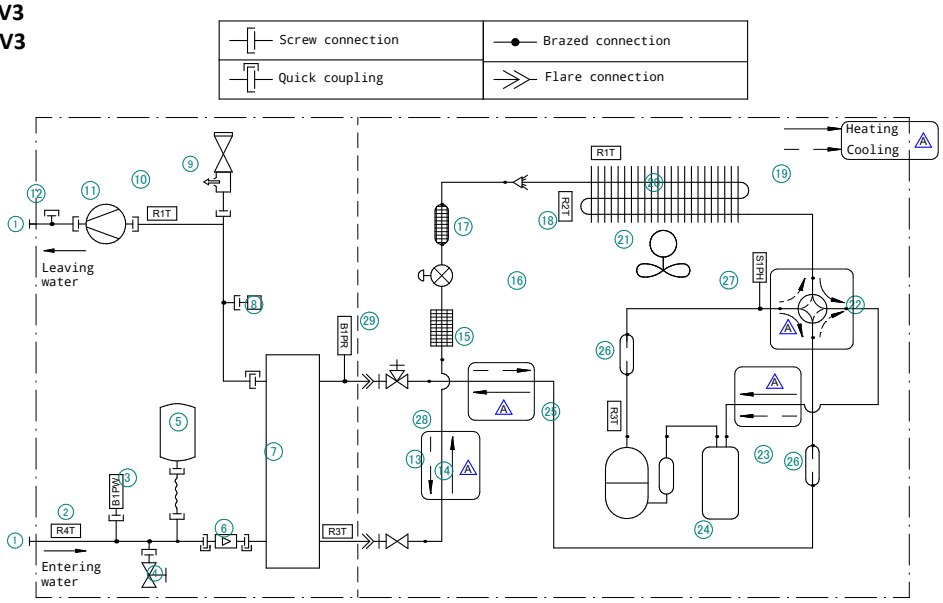
9 Piping diagrams

9 - 1 Piping Diagrams

EBLA04-08EV3
EDLA04-08EV3



1. Screw connection ·1"M·
2. R4T - Inlet water thermistor
3. Space heating water pressure sensor
4. Drain valve water circuit
5. Expansion vessel
6. Flow sensor
7. Plate heat exchanger
8. Automatic air purge valve
9. Safety valve
10. R1T - Outlet water heat exchanger thermistor
11. Pump
12. Connection for optional flow switch
13. R3T - Refrigerant liquid side thermistor
14. Liquid stop valve
15. Filter
16. Electronic expansion valve
17. Muffler with filter
18. Distributor
19. Heat exchanger
20. R1T - Thermistor (outdoor air)
21. R2T - Thermistor (heat exchanger)
22. 4-way valve
23. Accumulator
24. Compressor
25. R3T - Thermistor (discharge)
26. Muffler
27. High pressure switch
28. Gas stop valve with service port
29. Refrigerant pressure sensor

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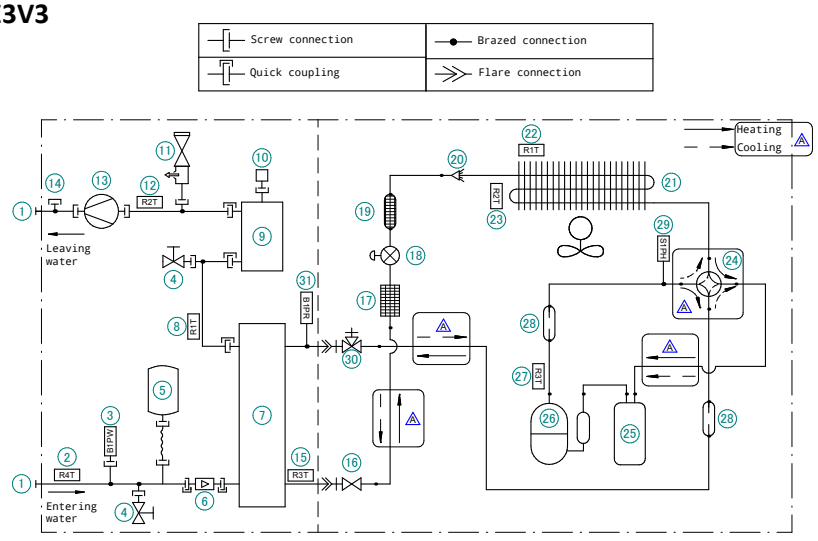
EBLA04-08E3V3
EDLA04-08E3V3



1. Screw connection ·1"M·
2. R4T - Inlet water thermistor
3. Space heating water pressure sensor
4. Drain valve water circuit
5. Expansion vessel
6. Flow sensor
7. Plate heat exchanger
8. R1T - Outlet water heat exchanger thermistor
9. Backup heater
10. Automatic air purge valve
11. Safety valve
12. R2T - Outlet water backup heater thermistor
13. Pump
14. Connection for optional flow switch
15. R3T - Refrigerant liquid side thermistor
16. Liquid stop valve
17. Filter
18. Electronic expansion valve
19. Muffler with filter
20. Distributor
21. Heat exchanger
22. R1T - Thermistor (outdoor air)
23. R2T - Thermistor (heat exchanger)
24. 4-way valve
25. Accumulator
26. Compressor
27. R3T - Thermistor (discharge)
28. Muffler
29. High pressure switch
30. Gas stop valve with service port
31. Refrigerant pressure sensor

3D139436A

10 Wiring diagrams

10 - 1 Notes & Legend

EKHVET-BV3

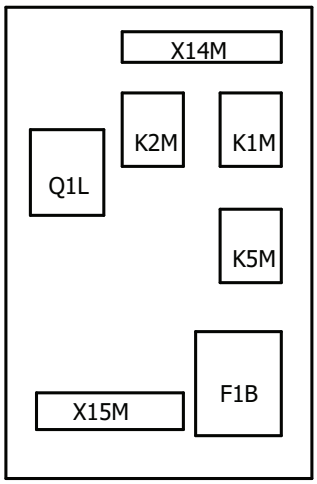
(2) NOTES

X14M, X15M	: Main terminal
———	: Earth wiring
15	: Wire number 15
- - - - - -	: Field supply
①	: Several wiring possibilities
	: Option
	: Wiring depending on model
	: Not mounted in switch box
	: PCB

Optional backup heater configuration :
(only for EKLBUHCB6W1)

☐ 1N~, 230V, 3kW or 6kW
☐ 3N~, 400V, 6kW or 9kW

(3) BUH kit switch box



EKLBUHCB6W1

(4) Legend

Part n°		Description
E1H		BUH element (1 kW)
E2H		BUH element (2 kW)
F1B		Overcurrent fuse BUH
F1T		Thermal fuse BUH
F1U		Fuse
K1M		Contactor BUH (Step 1)
K2M		Contactor BUH (Step 2)
K5M		Safety contactor BUH
Q3DI	#	Earth leakage circuit breaker
Q1L		Thermal protector BUH
R2T		Outlet BUH thermistor
X*M		Terminal strip

#: field supply

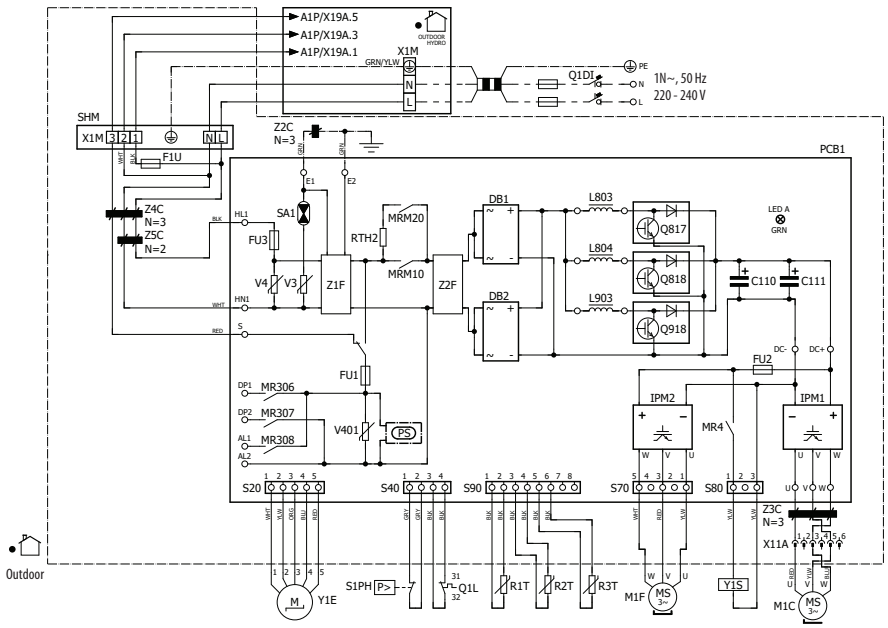
4D139355B

10 Wiring diagrams

10 - 2 Compressor - Single phase

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3

(1) Connection diagram



(2) Notes

: Connection
X1M : Main terminal
: Earth wiring
: Field supply
: Option
: switch box
: PCB
: Wiring depending on model
: Protective earth
: Field wire

(3) Legend

*: optional #: field supply

Part n°		Description
A1P		Hydro kit main PCB
AL*		Connector
C*		Capacitor
DB*		Rectifier bridge
DC*		Connector
DP*		Connector
E*		Connector
F1U		Fuse T 6,3 A 250 V
FU1, FU2		Fuse T 3,15 A 250 V
FU3		Fuse T 30 A 250 V
H*		Connector
IPM*		Intelligent power module
L		Connector
LED A		Pilot lamp
L*		Reactor
M1C		Compressor motor
M1F		Fan motor
MR*		Magnetic relay
N		Connector
PCB1		Printed circuit board (main)
PS		Switching power supply
Q1L		Thermal protector
Q1DI	#	Earth leakage circuit breaker
Q*		Insulated gate bipolar transistor (IGBT)
R1T		Thermistor (air)
R2T		Thermistor (heat exchanger)
R3T		Thermistor (discharge)
RTH2		Resistor
S		Connector
S1PH		High pressure switch
S2~80		Connector
SA1		Surge arrestor
SHM		Terminal strip fixed plate
U, V, W		Connector
V3, V4, V401		Varistor
X*A		Connector
X*M		Terminal strip
Y1E		Electronic expansion valve
Y1S		Solenoid valve (4-way valve)
Z*C		Noise filter (ferrite core)
Z*F		Noise filter

NOTES

1. When operating, do not short-circuit protection device(s) S1PH and Q1L.
2. Colours: BLK:black; RED:red; BLU:blue; WHT:white; GRN:green; YLW:yellow

4D139355B

10 Wiring diagrams

10 - 3 Hydro Module - Notes & Legend

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3

NOTES to go through before starting the unit

X1M : Main terminal
X2M : Field wiring terminal for AC
X3M : External backup heater terminal
X4M : Booster heater power supply terminal
X5M : Field wiring terminal for DC
X9M : Internal backup heater power supply terminal
X10M : Smartgrid terminal
—— —— —— : Earth wiring
– – – – – – : Field supply

① : Several wiring possibilities
: Option
: Wiring depending on model
: Not mounted in switch box
: PCB

NOTES

1. Connection point of the power supply for the backup heater & booster heater should be foreseen outside the unit.

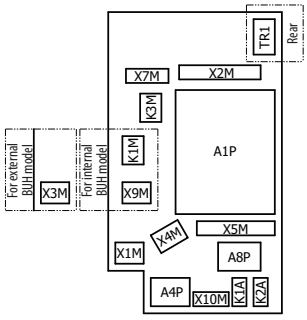
Backup heater power supply
☐ 3V (1N~, 230V, 3kW)

User installed options:
☐ Domestic hot water tank
☐ External backup heater
☐ Booster heater
☐ Remote user interface
☐ Ext. indoor thermistor
☐ Ext. outdoor thermistor
☐ Digital I/O PCB
☐ Demand PCB
☐ Smart grid
☐ WLAN cartridge
☐ Bypass kit
☐ LAN adapter

Main LWT:
☐ ON/OFF thermostat (wired)
☐ ON/OFF thermostat (wireless)
☐ Ext. thermistor
☐ Heat pump convector

Add LWT:
☐ ON/OFF thermostat (wired)
☐ ON/OFF thermostat (wireless)
☐ Ext. thermistor
☐ Heat pump convector

POSITION IN SWITCH BOX



LEGEND

Part n°		Description
A1P		main PCB
A2P	*	ON/OFF thermostat (PC=power circuit)
A3P	*	heat pump convector
A4P	*	digital I/O PCB
A8P	*	demand PCB
A11P		MMI main PCB
A13P	*	LAN adapter
A14P	*	user interface PCB
A15P	*	receiver PCB (wireless ON/OFF thermostat)
B1L		flow sensor
B1PR		refrigerant pressure sensor
B1PW		water pressure sensor
CN* (A4P)	*	connector
DS1 (A8P)	*	dipswitch
E3H		backup heater element (3 kW)
E5H	*	booster heater element (2,4 kW)
E6H		PHE heater (50 W)
E9H		expansion vessel heater (50 W)
E10H		expansion vessel flex heater (15,6 W)
E11H, E12H		PHE heater IN/OUT (33 W)
E*P (A9P)		indication LED
F1B	#	overcurrent fuse backup heater
F1T		thermal fuse backup heater
F2B	#	overcurrent fuse booster heater
F2T		thermal fuse booster heater
F1U, F2U (A4P)	*	fuse 5 A 250 V for digital I/O PCB
FU1 (A1P)		fuse T 5 A 250 V for PCB
K1A, K2A	*	high voltage smartgrid relay
K1M		contactor backup heater
K3M	*	contactor booster heater
K*R (A1P-A4P)		relay on PCB
M1P		main supply pump
M2P	#	domestic hot water pump
M2S	#	2 way valve for cooling mode
M3S	*	3 way valve for floorheating/ domestic hot water
M4S	*	valve kit
P1M		MMI display

Part n°		Description
PC (A15P)	*	power circuit
PHC1 (A4P)	*	optocoupler input circuit
Q1L		thermal protector backup heater
Q2L	*	thermal protector booster heater
Q4L	#	safety thermostat
Q*DI	#	earth leakage circuit breaker
R1H (A2P)	*	humidity sensor
R1T (A1P)		outlet water heat exchanger thermistor
R1T (A2P)	*	ambient sensor ON/OFF thermostat
R1T (A14P)	*	ambient sensor user interface
R2T (A1P)		internal BUH sensor
R2T (A2P)	*	external sensor (floor or ambient)
R3T		refrigerant liquid side thermistor
R4T		inlet water thermistor
R5T	*	domestic hot water thermistor
R6T	*	external indoor or outdoor ambient thermistor
S1L	*	flow switch
S1S	#	preferential kWh rate PS contact
S*T		thermostat
S2S	#	electrical meter pulse input 1
S3S	#	electrical meter pulse input 2
S4S	#	smart grid feed-in
S6S-S9S	*	digital power limitation inputs
S10S-S11S	#	low voltage smartgrid contact
SS1 (A4P)	*	selector switch
SW1~2 (A11P)		turn buttons
SW3~5 (A11P)		push button
TR1		power supply transformer
X4M	*	booster heater power supply terminal strip
X6M, X8M	#	power supply terminal strip client
X9M		backup heater power supply terminal strip
X10M	*	smartgrid power supply terminal strip
X*, X*A, X*Y		connector
X*M		terminal strip

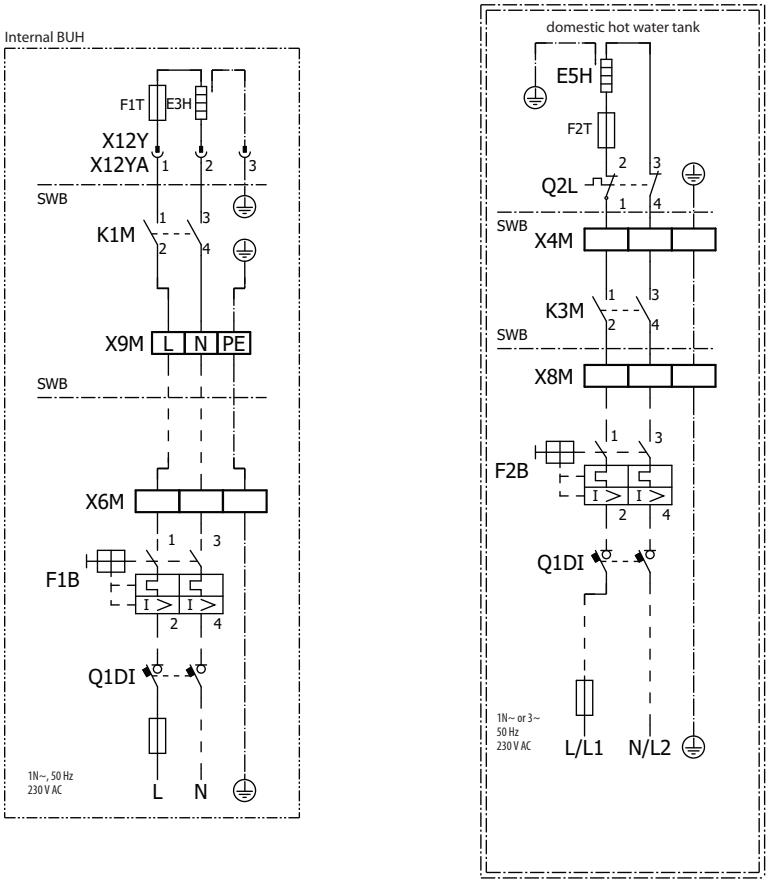
* : optional #: field supply

4D139355B

10 Wiring diagrams

10 - 4 Hydro Module - Power Supply, Back-up Heater

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3



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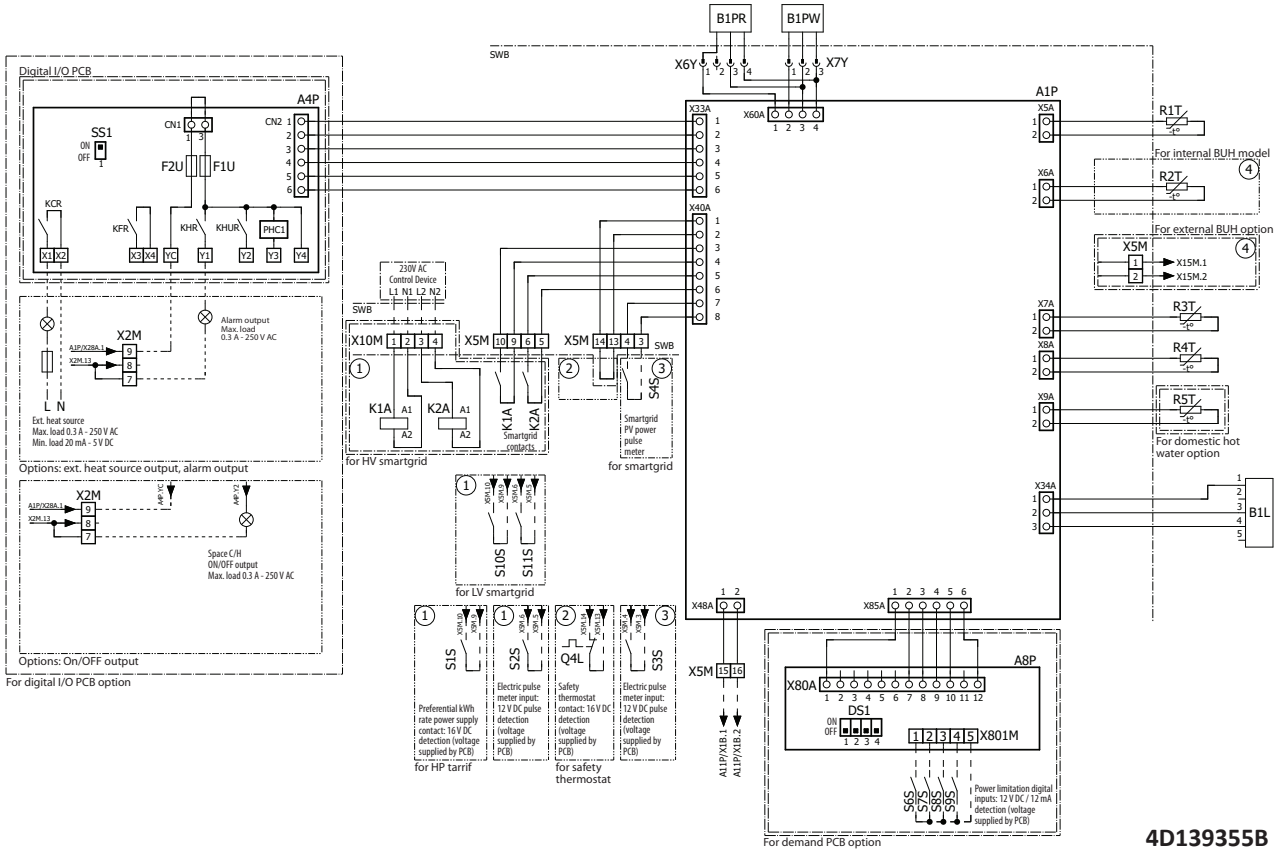
10 Wiring diagrams

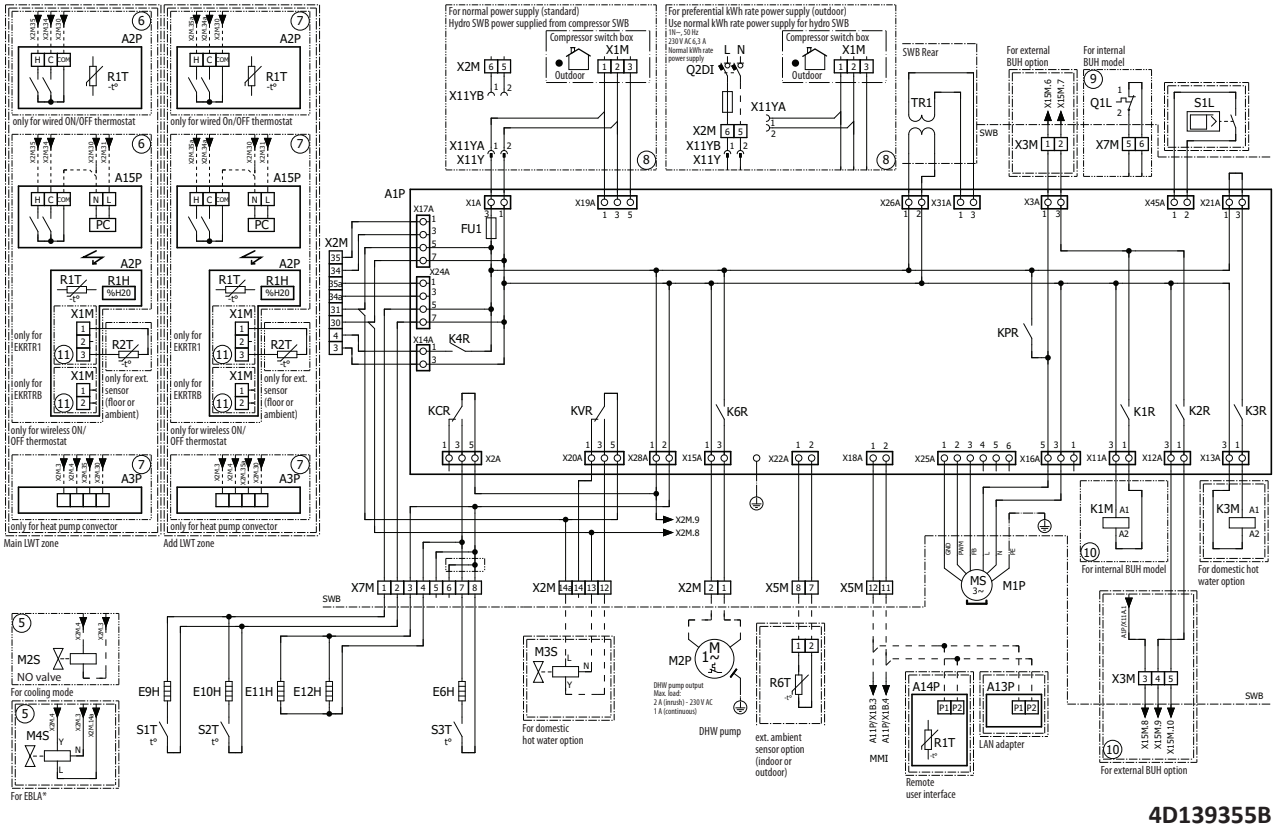
10 - 5 Hydro Module - Control Circuit

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3



4D139355B

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3

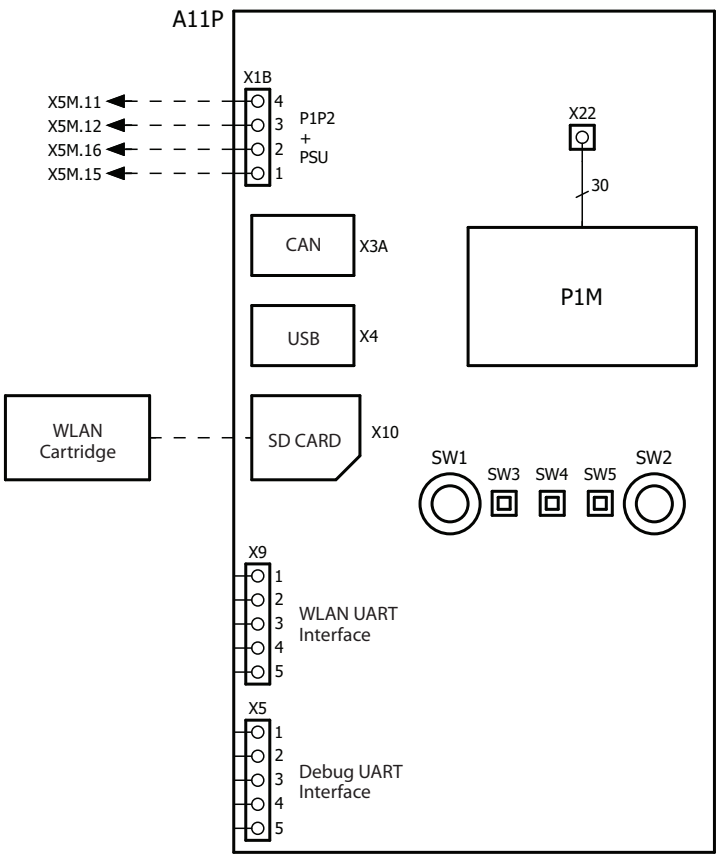


4D139355B

10 Wiring diagrams

10 - 5 Hydro Module - Control Circuit

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3



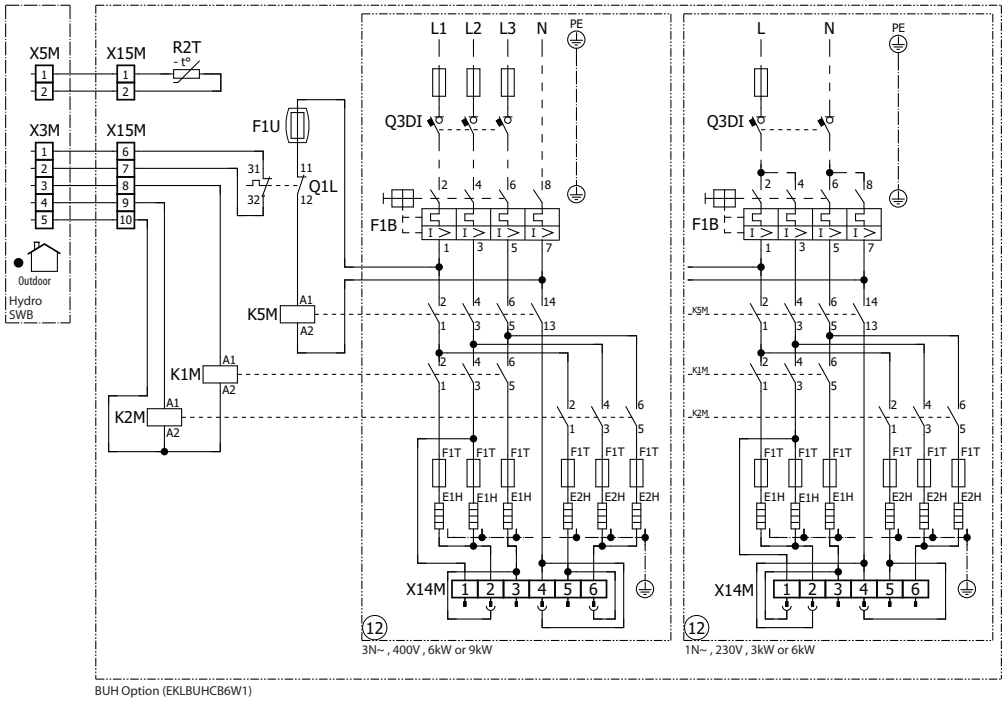
4D139355B

10 Wiring diagrams

10 - 6 External back-up heater - Option Circuit

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3

(1) Connection diagram



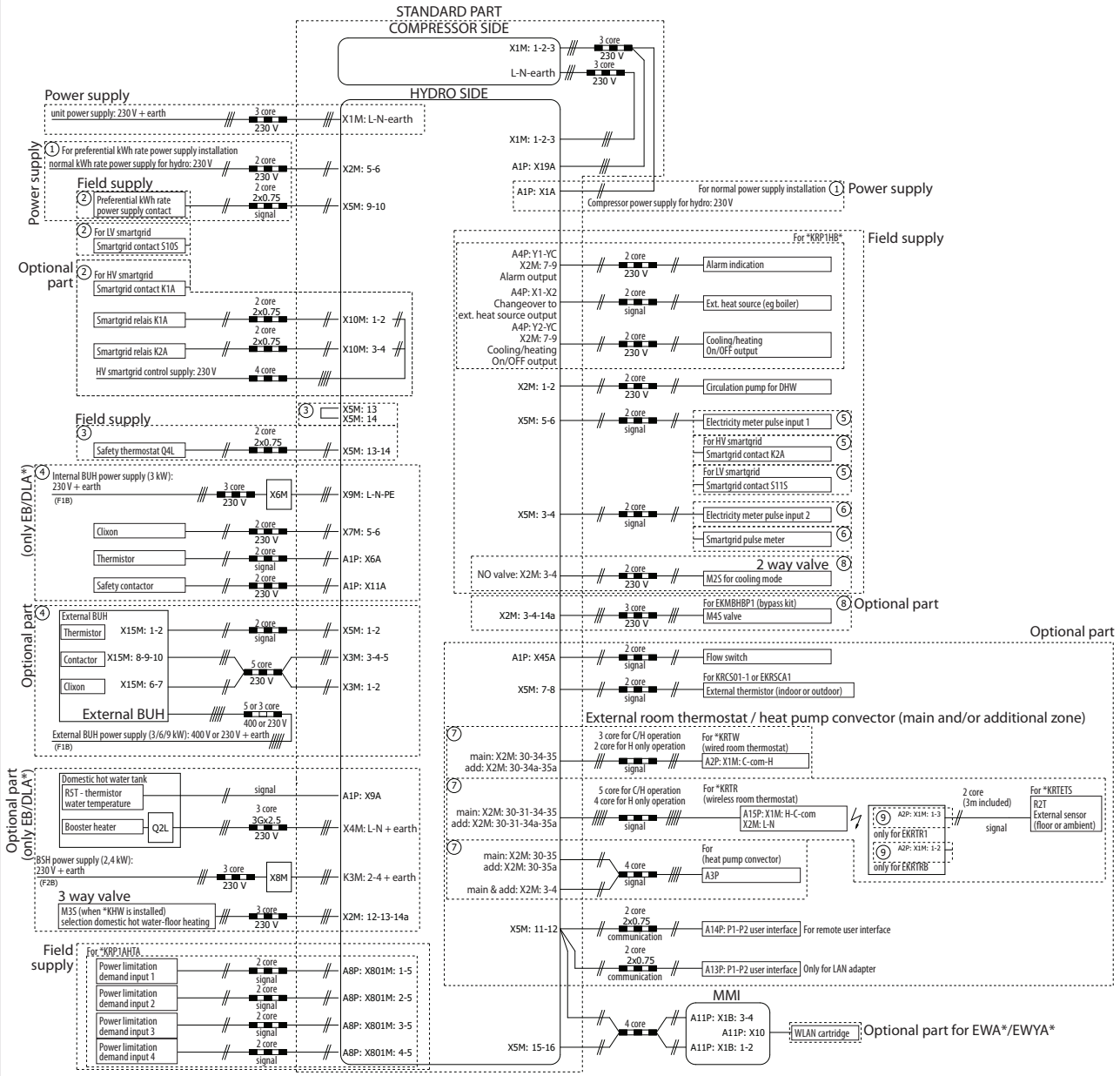
4D139355B

11 External connection diagrams

11 - 1 External Connection Diagrams

EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3

Electrical connection diagram Daikin Monobloc/Minichiller BML



NOTE

- In case of signal cable: keep minimum distance to power cables > 5 cm

For more details please check unit wiring

4D139354A

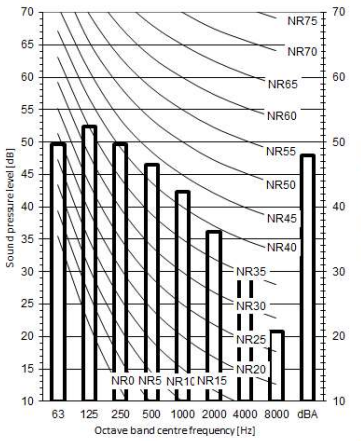
12 Sound data

12 - 1 Sound Pressure Spectrum - Cooling

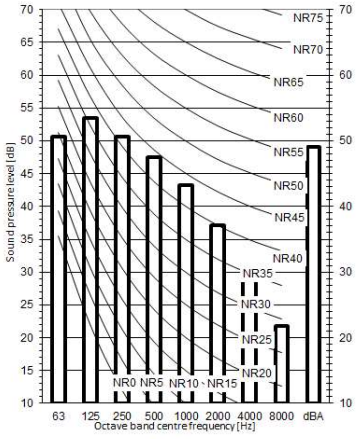
EBLA04-08EV3
EBLA04-08E3V3

Cooling

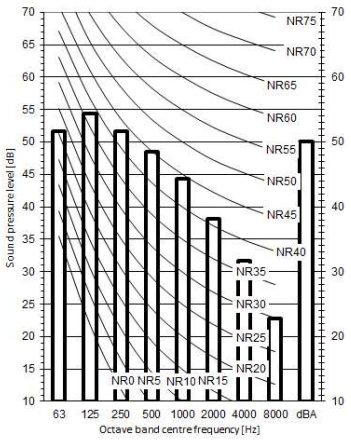
EBLA04E*
EW(Y/A)A004D*



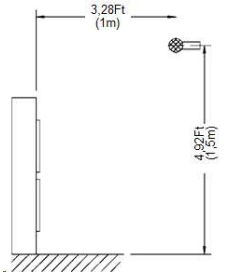
EBLA06E*
EW(Y/A)A006D*



EBLA08E*
EW(Y/A)A008D*



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.



Measuring location (discharge side)

3D140608

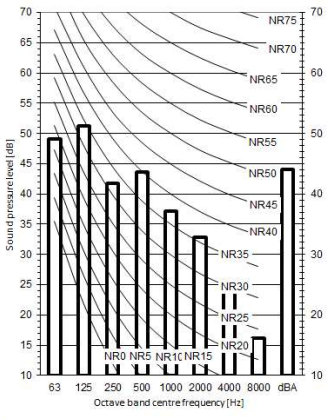
12 Sound data

12 - 2 Sound Pressure Spectrum - Heating

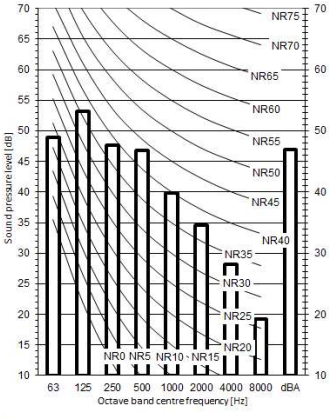
EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3

Heating

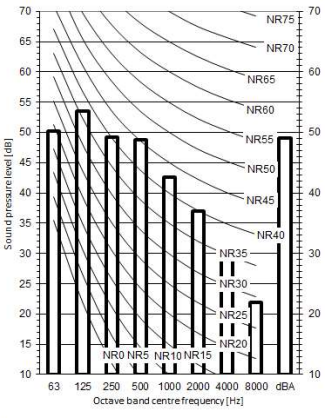
E(B/D)LA04E*
EWYA004D*



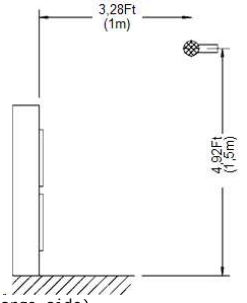
E(B/D)LA06E*
EWYA006D*



E(B/D)LA08E*
EWYA008D*



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.



Measuring location (discharge side)

3D140605

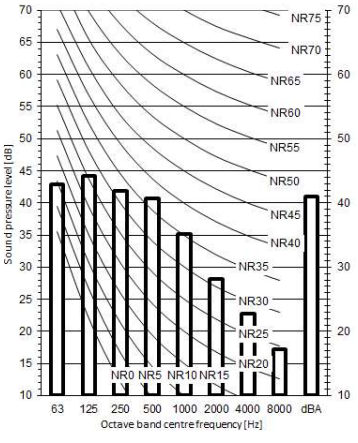
12 Sound data

12 - 3 Sound Pressure Spectrum Quiet Mode

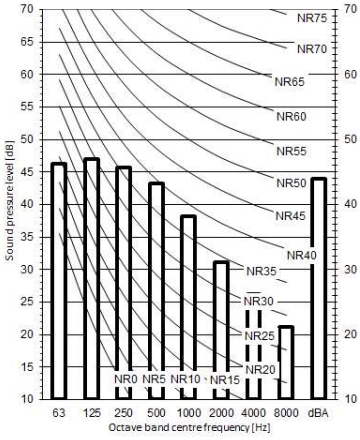
EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3

Heating more quiet mode

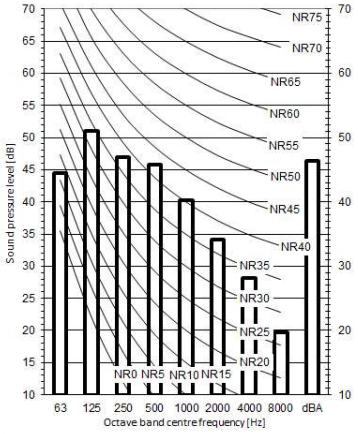
E(B/D)LA04E*
EWYA004D*



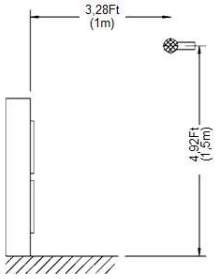
E(B/D)LA06E*
EWYA006D*



E(B/D)LA08E*
EWYA008D*



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.



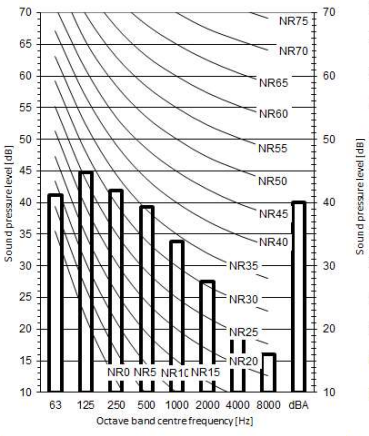
Measuring location (discharge side)

3D140606

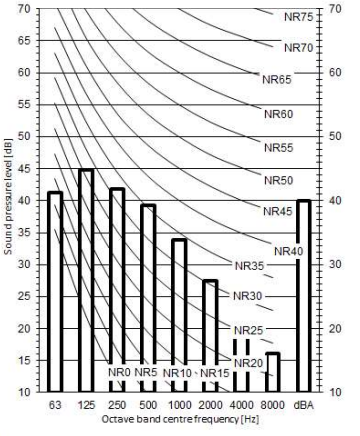
EBLA04-08EV3
EDLA04-08EV3
EBLA04-08E3V3
EDLA04-08E3V3

Heating most quiet mode

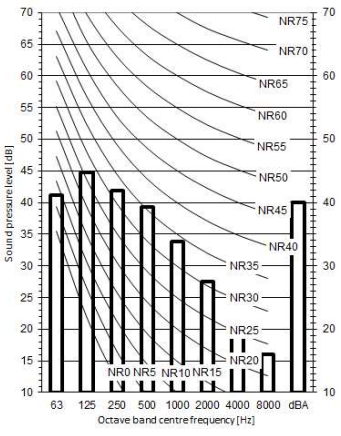
E(B/D)LA04E*
EWYA004D*



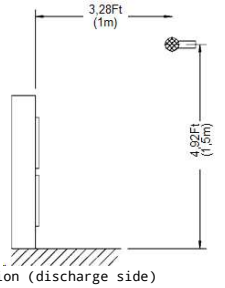
E(B/D)LA06E*
EWYA006D*



E(B/D)LA08E*
EWYA008D*



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.



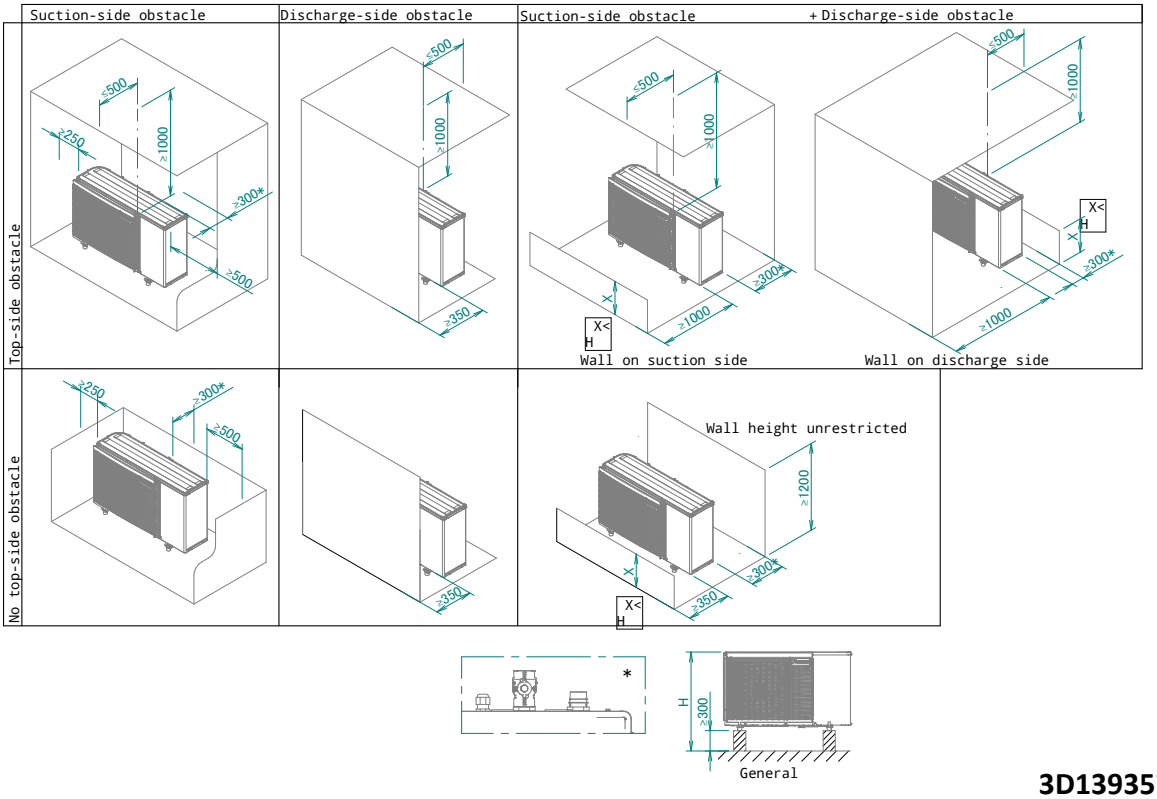
Measuring location (discharge side)

3D140607

13 Installation

13 - 1 Installation Method

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3



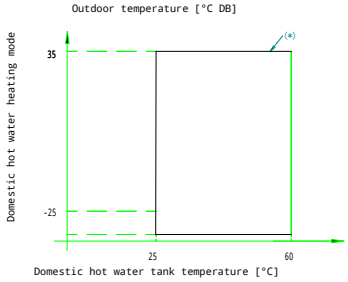
3D139357

14 Operation range

14 - 1 Operation Range

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3

EKHWS*150*
EKHWS*180* + Third-party with identical specifications as ·EKHWS*150*·



Legend

(*) System operation: the system consists of an outdoor unit and indoor unit, and depending on the system, a booster heater and/or a backup heater.

Remark

If the outdoor temperature ·<-20·°C, then outdoor unit operation is possible, but with a possible capacity reduction.

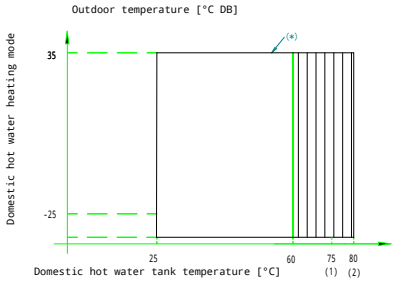
If the outdoor temperature < -25°C, the outdoor unit will stop.

Indoor unit and backup heater operation will continue.

Notes

1. In restricted power supply mode (·EKHW*· only), the outdoor unit, booster heater and backup heater can only operate separately.
2. Third-party with identical specifications as ·EKHWS*150*·
   Coil surface >·1.05·m² and <·3.7·m²
   Tank thermistor and booster heater above heat pump coil.
3. If negative ambient temperatures are expected, both in operation or at standstill, take adequate countermeasures against freezing.
   For more information, refer to the installation manual.
4. Third-party with identical specifications as ·EKHWS*200*·
   Coil surface >·1.8·m² and <·3.7·m²
   Tank thermistor and booster heater above heat pump coil.

EKHWP* + EKHWS*200*
EKHWS*250*
EKHWS*300* + Third-party with identical specifications as ·EKHWS*200*·



Legend

Booster heater only operation (if a booster heater is part of the system)
(1) Combination of EKHWS*
(2) Combination of EKHWP*

(*) System operation: the system consists of an outdoor unit and indoor unit, and depending on the system, a booster heater and/or a backup heater.

Remark

If the outdoor temperature ·<-20·°C, then outdoor unit operation is possible, but with a possible capacity reduction.

If the outdoor temperature < -25°C, the outdoor unit will stop.

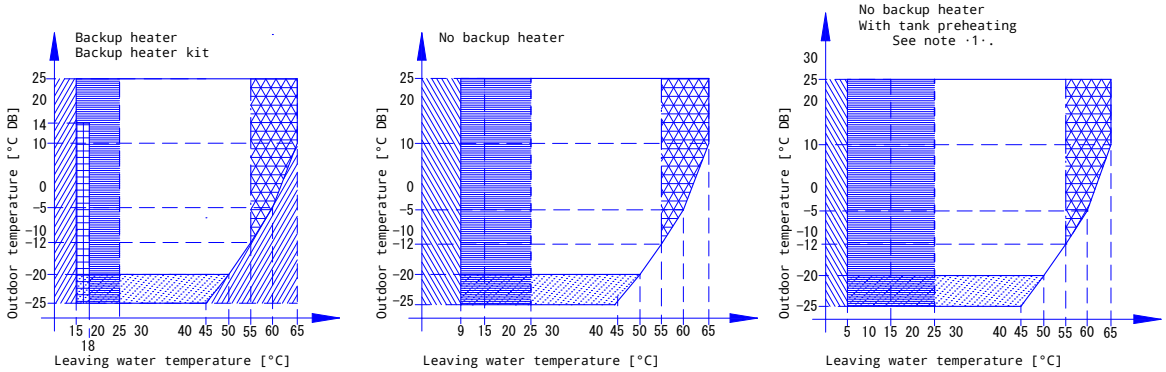
Indoor unit and backup heater operation will continue.

Notes

1. In restricted power supply mode (·EKHW*· only), the outdoor unit, booster heater and backup heater can only operate separately.
2. Third-party with identical specifications as ·EKHWS*150*·
   Coil surface >·1.05·m² and <·3.7·m²
   Tank thermistor and booster heater above heat pump coil.
3. If negative ambient temperatures are expected, both in operation or at standstill, take adequate countermeasures against freezing.
   For more information, refer to the installation manual.
4. Third-party with identical specifications as ·EKHWS*200*·
   Coil surface >·1.8·m² and <·3.7·m²
   Tank thermistor and booster heater above heat pump coil.

3D139360

EBLA04-08EV3 / EDLA04-08EV3 / EBLA04-08E3V3 / EDLA04-08E3V3



Legend

- Backup heater only operation
  No outdoor unit operation
- Heat pump + backup heater operation
  Pull-up area
- Outdoor unit operation if controller setpoint is regulated to minimal leaving water temperature request.
  See dashed lines
- Operation of outdoor unit possible, but with possible capacity reduction.
- Circulation pump operation only
- Outdoor unit operation if setpoint >·55·°C and ΔT = ·10·°C (ΔT = outlet temperature – inlet temperature)

Notes

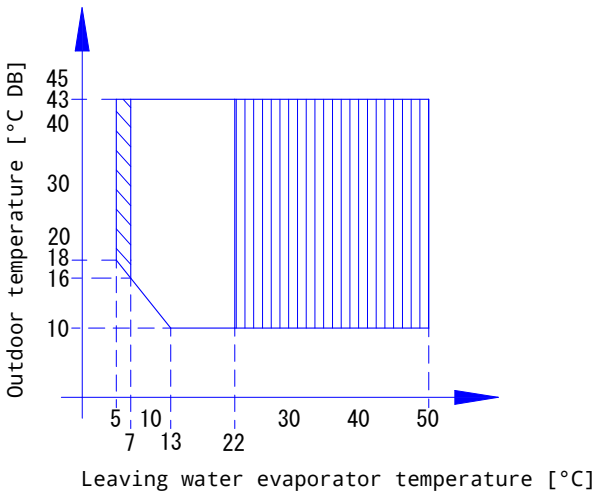
1. Tank preheating
   For details, see the installer reference guide.
2. If negative ambient temperatures are expected, both in operation or at standstill, take adequate countermeasures against freezing.
   For more information, refer to the installation manual.
3. In restricted power supply mode, the outdoor unit and backup heater can only operate separately.

3D139428

14 Operation range

14 - 1 Operation Range

EBLA04-08EV3
EBLA04-08E3V3



Legend

In case valve kit ·AFVALVE 1· is part of the system, then the minimum setpoint is ·7·°C.

Pull-down area

Notes
1.If negative ambient temperatures are expected, both in operation or at standstill, take adequate countermeasures against freezing.

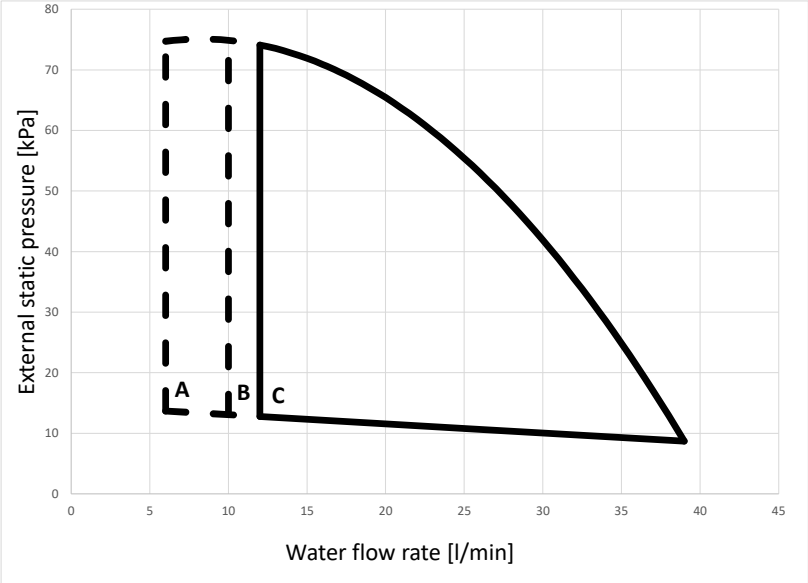
For more information, refer to the installation manual.

3D139430

15 Hydraulic performance

15 - 1 Static Pressure Drop Unit

EBLA04-08EV3
EDLA04-08EV3



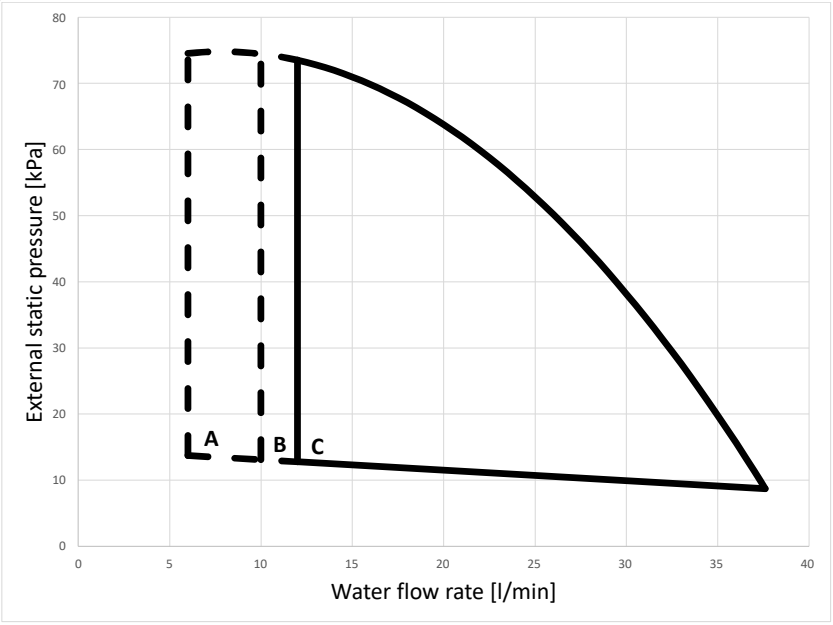
A = Minimum water flow rate during normal operation
B = Minimum water flow rate during Cooling operation
C = Minimum water flow rate during Defrost and Backup heater operation

Notes

1. Selecting a flow outside the operating area can damage the unit or cause the unit to malfunction. See also the minimum and maximum allowed water flow range in the technical specifications.
2. Water quality must be according to EU directive 2020/2184

4D139364

EBLA04-08E3V3
EDLA04-08E3V3



A = Minimum water flow rate during normal operation
B = Minimum water flow rate during Cooling operation
C = Minimum water flow rate during Defrost and Backup heater operation

Notes

1. Selecting a flow outside the operating area can damage the unit or cause the unit to malfunction. See also the minimum and maximum allowed water flow range in the technical specifications.
2. Water quality must be according to EU directive 2020/2184

4D139365

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