



Daikin Altherma mid
temperature split
Technical Data
EPRA08-12EV



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EPRA08-12EV

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1 Features

1 - 1 EPRA08-12EV

- › Outdoor unit extracts heat from the outdoor air, even at -28°C
- › By heat pump operation only, the outdoor unit delivers a leaving water temperature of 65°C at -15°C ambient temperature
- › By -15°C ambient temperature, the outdoor unit limits heating capacity loss
- › Choosing for an R-32 product, reduces the environmental impact with 68% compared to R-410A, leads directly to lower energy consumption thanks to its high energy efficiency and has a 30% lower refrigerant charge
- › WLAN cartridge included




Guaranteed operation down to -28°C



Daikin Residential Controller (optional)

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications					ETBH12E6V + EPRA08EV3	ETBH12E6V + EPRA10EV3	ETBH12E6V + EPRA12EV3	
Indoor unit					ETBH12EF6V			
Outdoor unit					EPRA08EAV3	EPRA10EAV3	EPRA12EAV3	
Heating capacity	Min.	kW			3.44 (1)			
	Nom.	kW			6.17 (2)			
	Max.	kW			7.95 (1)	9.25 (1)	9.97 (1)	
Power input	Heating	Min.	kW			0.72 (3)		
		Nom.	kW			1.25 (2)		
		Max.	kW			1.69 (3)	2.04 (3)	2.28 (3)
COP					4.92 (2)			
Pump	Type				Grundfos UPM3LK			
	Nominal ESP unit	Heating	kPa			63.0 (4)		
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	18.3 (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			No			
		Low-temperature heat pump			No			
		Supplementary heater integrated			Yes			
	LW(A) Sound power level (according to EN14825)	Indoor			dB(A)			44.0
Outdoor			dB(A)			53.0		
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			3,542
		Other	Capacity control			Inverter		
	Pck (Crankcase heater mode)			kW			0.000	
	Poff (Off mode)			kW			0.021	
	Psb (Standby mode)			kW			0.021	
	Pto (Thermostat off)			kW			0.024	
	Integrated supplementary heater	Psup			kW			6.0
		Type of energy input			Electrical			
Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,142	5,120		
			ηs (Seasonal space heating efficiency)	%	134			
			Prated at -10°C	kW	8.5			
		Qhe Annual energy consumption (GCV)	Gj	19	18			
		SCOP		3.41	3.43			

2 Specifications

1 - 1 EPRA08-12EV

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Technical specifications				ETBH12E6V + EPRA08EV3	ETBH12E6V + EPRA10EV3	ETBH12E6V + EPRA12EV3
Space heating Average climate water outlet 55°C	General	Seasonal space heating eff. class		A++		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0		
			COPd	2.21		
			Pdh kW	7.6		
			PERd %	88.5		
			Cdh (Degradation heating)	1.0		
			COPd	3.37		
			Pdh kW	4.6		
			PERd %	134.8		
			Cdh (Degradation heating)	1.0		
		COPd	4.48			
		Pdh kW	3.0			
		PERd %	179.2			
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0		
		COPd	5.98			
		Pdh kW	3.7			
		PERd %	239.4			
		Tol (temperature operating limit)	COPd	1.93		1.97
			Pdh kW	7.0		8.3
			PERd %	77.2		78.7
	TOL °C				-10	
		WTOL °C			55	
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C) kW	1.5		0.0	
		Tbiv COPd	2.21		1.97	
		Pdh kW	7.6		8.3	
		PERd %	88.5		78.7	
		Tbiv °C	-7		-10	
Cold climate water outlet 55°C	General	Annual energy consumption kWh	7,303	7,173	7,146	
		ηs (Seasonal space heating efficiency) %	118		121	
		Prated at -22°C kW			9.0	
		Qhe Annual energy consumption (GCV) GJ			26	
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0		
			COPd	2.52		
			Pdh kW	5.2		
			PERd %	100.6		
			Cdh (Degradation heating)	1.0		
	B Condition (2°CDB/1°CWB)	COPd	3.77			

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETBH12E6V + EPRA08EV3	ETBH12E6V + EPRA10EV3	ETBH12E6V + EPRA12EV3	
Space heating Cold climate water outlet 55°C	B Condition (2°CDB/1°CWB)	Pdh	kW		3.3		
		PERd	%		151.0		
		C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)			1.0	
			COP _d			4.81	
			Pdh	kW		3.4	
			PERd	%		192.2	
		D Condition (12°CDB/11°CWB)	COP _d			6.36	
			Pdh	kW		4.2	
			PERd	%		254.2	
		Tol (temperature operating limit)	COP _d		1.43	1.49	1.54
	Pdh		kW	4.9	6.1	7.2	
	PERd		%	57.4	59.7	61.7	
	TOL		°C		-22		
	WTOL		°C		55		
	G Condition (-15°CDB/)	COP _d		1.93		1.96	
		Pdh	kW	6.0		7.2	
		PERd	%	77.2		78.4	
		Tbiv	°C			-15	
	Tbiv (bivalent temperature)	COP _d		2.17		1.96	
		Pdh	kW	6.6		7.2	
PERd		%	86.9		78.4		
Tbiv		°C			-15		
Rated heat output supplementary capacity	P _{sup} (at T _{design} -22°C)	kW	4.1	2.9	1.8		
Warm climate water outlet 55°C	General	Annual energy consumption	kWh		3,039		
		η _s (Seasonal space heating efficiency)	%		166		
		Prated at 2°C	kW		9.6		
		Q _{he} Annual energy consumption (GCV)	Gj		11		
	B Condition (2°CDB/1°CWB)	Cd _h (Degradation heating)			1.0		
		COP _d			2.57		
		Pdh	kW		8.0		
		PERd	%		102.6		
	C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)			1.0		
		COP _d			3.65		
		Pdh	kW		6.7		
		PERd	%		146.2		
	D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)			1.0		
		COP _d			5.71		
Pdh		kW		3.6			

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications					ETBH12E6V + EPRA08EV3	ETBH12E6V + EPRA10EV3	ETBH12E6V + EPRA12EV3
Space heating	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	228.3		
		Tbiv	COPd		3.02		
		(bivalent temperature)	Pdh	kW	8.4		
			PERd	%	120.9		
			Tbiv	°C	4		
	Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,659		3,637
			ηs (Seasonal space heating efficiency)	%	184		186
			Prated at -10°C	kW	8.3		
			Qhe Annual energy consumption (GCV)	Gj	13		
			SCOP		4.69		4.71
			Seasonal space heating eff. class		A+++		
		A Condition (-7°CDB/-8°CWB)	COPd		3.10		
			Pdh	kW	7.5		
			PERd	%	124.1		
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0		
COPd			4.76				
Pdh	kW		4.4				
C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0				
	COPd		6.14				
	Pdh	kW	4.3				
D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0				
	COPd		7.84				
	Pdh	kW	6.6				
Tol (temperature operating limit)	PERd	%	313.4				
			2.80		2.77		
			6.9		8.1		
	TOL	°C	112.2		110.8		
	WTOL	°C	-10				
Tbiv (bivalent temperature)	COPd		35				
			3.10		2.77		
			7.5		8.1		
	PERd	%	124.1		110.8		
			-7		-10		
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.4		0.0		
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,554	5,401	5,387	

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETBH12E6V + EPRA08EV3	ETBH12E6V + EPRA10EV3	ETBH12E6V + EPRA12EV3	
Space heating 	Cold climate water outlet 35°C	General	η_s (Seasonal space heating efficiency)	157	161	162	
			Prated at -22°C		9.0		
			Qhe Annual energy consumption (GCV)	20		19	
			A Condition COPd		3.36		
			(7°CDB/4°CWB) Pdh		5.4		
			PERd		134.5		
			B Condition CdH (Degradation heating)		1.0		
			(2°CDB/1°CWB) COPd		5.21		
			Pdh		3.6		
			PERd		208.4		
			C Condition CdH (Degradation heating)		1.0		
			(7°CDB/6°CWB) COPd		6.29		
			Pdh		5.3		
			PERd		251.7		
			D Condition CdH (Degradation heating)		1.0		
			(12°CDB/11°CWB) COPd		7.69		
			Pdh		6.6		
			PERd		307.6		
			Tol (temperature operating limit) COPd		2.04	2.07	2.09
			Pdh		4.9	5.9	6.4
			PERd		81.6	82.9	83.6
			TOL			-22	
			WTOL			35	
			G Condition COPd		2.60		2.56
(-15°CDB/) Pdh		6.0		7.0			
PERd		103.8		102.6			
Tbiv (bivalent temperature) COPd		2.86		2.56			
Pdh		6.5		7.0			
PERd		114.4		102.6			
Tbiv		-12		-15			
Rated heat output supplementary capacity Psup (at Tdesign -22°C)		4.1	3.1	2.6			
Warm climate water outlet 35°C	General	Annual energy consumption		1,992			
		η_s (Seasonal space heating efficiency)		228			
		Prated at 2°C		8.6			
		Qhe Annual energy consumption (GCV)		7			
		B Condition CdH (Degradation heating)		1.0			
		(2°CDB/1°CWB) COPd		3.95			
		Pdh		7.7			
		PERd		157.9			
		C Condition CdH (Degradation heating)		1.0			
		(7°CDB/6°CWB) COPd		5.65			
		Pdh		5.5			
		PERd		225.9			
Tbiv (bivalent temperature) COPd		4.80					
Pdh		6.9					
PERd		192.0					
Tbiv		5					
D Condition CdH (Degradation heating)		1.0					
(12°CDB/11°CWB) COPd		7.56					
Pdh		6.2					
PERd		302.6					
Space heating 	Warm climate water outlet 35°C	B Condition (2°CDB/1°CWB)	Pdh				
			PERd				
			C Condition CdH (Degradation heating)				
			(7°CDB/6°CWB) COPd				
			Pdh				
			PERd				
			Tbiv (bivalent temperature) COPd				
			Pdh				
			PERd				
			Tbiv				
			D Condition CdH (Degradation heating)				
			(12°CDB/11°CWB) COPd				
Pdh							
PERd							

(1) Capacity according to standard EN14511 and valid for heated water range $dT = 3-8^\circ\text{C}$ at $T_a 7^\circ\text{C}$ |

(2) Condition: T_a DB/WB $7^\circ\text{C}/6^\circ\text{C}$ - LWC 35°C ($DT = 5^\circ\text{C}$) |

(3) Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |

(4) DB/WB $7^\circ\text{C}/6^\circ\text{C}$ - LWC 35°C ($dT = 5^\circ\text{C}$) with pump at full speed |

Cooling: EW 12°C ; LW 7°C ; ambient conditions: 35°CDB |

Cooling: EW 23°C ; LW 18°C ; ambient conditions: 35°CDB |

Test at T_a DB/WB $7^\circ\text{C}/6^\circ\text{C}$. According to EN 16147.

2 Specifications

1 - 1 EPRA08-12EV

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Technical specifications					ETBH12E9W + EPRA08EV3	ETBH12E9W + EPRA10EV3	ETBH12E9W + EPRA12EV3	
Indoor unit					ETBH12EF9W			
Outdoor unit					EPRA08EAV3	EPRA10EAV3	EPRA12EAV3	
Heating capacity	Min.	kW			3.44 (1)			
	Nom.	kW			6.17 (2)			
	Max.	kW			7.95 (1)	9.25 (1)	9.97 (1)	
Power input	Heating	Min.	kW			0.72 (3)		
		Nom.	kW			1.25 (2)		
		Max.	kW			1.69 (3)	2.04 (3)	2.28 (3)
COP					4.92 (2)			
Pump	Type				Grundfos UPM3LK			
	Nominal ESP unit	Heating	kPa			63.0 (4)		
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	18.3 (2)			
General	Supplier/	Name and address			Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium			
	Manu- facturer details	Name or trademark			Daikin Europe N.V.			
Product descrip- tion	Air-to-water heat pump				Yes			
					No			
					No			
					No			
					Yes			
					No			
LW(A) Sound power level (according to EN14825)	Indoor	dB(A)			44.0			
		Outdoor	dB(A)			53.0		
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			3,542
		Other	Capacity control			Inverter		
	Pck (Crankcase heater mode)			kW			0.000	
	Poff (Off mode)			kW			0.021	
	Psb (Standby mode)			kW			0.021	
	Pto (Thermostat off)			kW			0.024	
	Inte- grated supple- mentary heater	Psup			kW			9.0
		Type of energy input			Electrical			
		Average climate water outlet 55°C	General	Annual energy consumption	kWh		5,142	5,120
	ηs (Seasonal space heating efficiency)			%		134		
Prated at -10°C	kW			8.5				
Qhe Annual energy consumption (GCV)	Gj			19	18			
SCOP				3.41	3.43			

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETBH12E9W + EPRA08EV3	ETBH12E9W + EPRA10EV3	ETBH12E9W + EPRA12EV3
Space heating 	Average climate water outlet 55°C	General	Seasonal space heating eff. class	A++		
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0	
		B Condition (2°CDB/-B/1°CWB)	COPd	2.21		
			Pdh kW	7.6		
			PERd %	88.5		
			Cdh (Degradation heating)	1.0		
		C Condition (7°CDB/-B/6°CWB)	COPd	3.37		
			Pdh kW	4.6		
			PERd %	134.8		
			Cdh (Degradation heating)	1.0		
		D Condition (12°CDB/11°CWB)	COPd	4.48		
			Pdh kW	3.0		
			PERd %	179.2		
			Cdh (Degradation heating)	1.0		
		Tol (temperature operating limit)	COPd	1.93	1.97	
			Pdh kW	7.0	8.3	
			PERd %	77.2	78.7	
			TOL °C	-10		
			WTOL °C	55		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C) kW	1.5	0.0	
Tbiv COPd	2.21		1.97			
Pdh kW	7.6		8.3			
PERd %	88.5		78.7			
Tbiv °C	-7		-10			
Cold climate water outlet 55°C	General	Annual energy consumption kWh	7,303	7,173	7,146	
		ηs (Seasonal space heating efficiency) %	118	121		
	Prated at -22°C kW	9.0				
	Qhe Annual energy consumption (GCV) GJ	26				
	A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0			
		COPd	2.52			
		Pdh kW	5.2			
		PERd %	100.6			
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	1.0			
		COPd	3.77			

2 Specifications

1 - 1 EPRA08-12EV

2

Technical specifications				ETBH12E9W + EPRA08EV3	ETBH12E9W + EPRA10EV3	ETBH12E9W + EPRA12EV3	
Space heating Cold climate water outlet 55°C	B Condition (2°CDB/1°CWB)	Pdh	kW		3.3		
		PERd	%		151.0		
		C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)			1.0	
			COP _d			4.81	
		D Condition (12°CDB/11°CWB)	Pdh	kW		3.4	
			PERd	%		192.2	
		Tol (temperature operating limit)	COP _d		6.36		
			Pdh	kW	4.2		
		G Condition (-15°CDB/)	PERd	%	254.2		
			COP _d		1.43	1.49	1.54
	Tbiv (bivalent temperature)	Pdh	kW	4.9	6.1	7.2	
		PERd	%	57.4	59.7	61.7	
	Rated heat output supplementary capacity	TOL	°C		-22		
		WTOL	°C		55		
	Warm climate water outlet 55°C	General	COP _d		1.93		1.96
			Pdh	kW	6.0		7.2
		Annual energy consumption η _s (Seasonal space heating efficiency)	PERd	%	77.2		78.4
			Prated at 2°C	kW			
		B Condition (2°CDB/1°CWB)	Q _{he} Annual energy consumption (GCV)	Gj			
			Cd _h (Degradation heating)			1.0	
C Condition (7°CDB/6°CWB)		COP _d			2.57		
		Pdh	kW		8.0		
D Condition (12°CDB/11°CWB)		PERd	%		102.6		
		Cd _h (Degradation heating)			1.0		
Rated heat output supplementary capacity	COP _d			3.65			
	Pdh	kW		6.7			
Annual energy consumption η _s (Seasonal space heating efficiency)	PERd	%		146.2			
	Cd _h (Degradation heating)			1.0			
Tbiv (bivalent temperature)	COP _d			5.71			
	Pdh	kW		3.6			
Rated heat output supplementary capacity	PERd	%					
	Psup (at T _{design} -22°C)	kW	4.1	2.9	1.8		
Annual energy consumption η _s (Seasonal space heating efficiency)	Annual energy consumption	kWh		3,039			
	η _s (Seasonal space heating efficiency)	%		166			

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications					ETBH12E9W + EPRA08EV3	ETBH12E9W + EPRA10EV3	ETBH12E9W + EPRA12EV3	
Space heating 	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	228.3			
		Tbiv (bivalent temperature)	COPd		3.02			
		Pdh		kW	8.4			
		PERd		%	120.9			
	Average climate water outlet 35°C	General	Tbiv		°C	4		
			Annual energy consumption		kWh	3,659		3,637
			ηs (Seasonal space heating efficiency)		%	184		186
			Prated at -10°C		kW	8.3		
			Qhe Annual energy consumption (GCV)		Gj	13		
		SCOP			4.69		4.71	
		Seasonal space heating eff. class			A+++			
		A Condition (-7°CDB/-8°CWB)	COPd			3.10		
			Pdh		kW	7.5		
			PERd		%	124.1		
	B Condition (2°CDB/1°CWB)	Cd (Degradation heating)			1.0			
		COPd			4.76			
		Pdh		kW	4.4			
	C Condition (7°CDB/6°CWB)	Cd (Degradation heating)			1.0			
		COPd			6.14			
		Pdh		kW	4.3			
D Condition (12°CDB/11°CWB)	Cd (Degradation heating)			1.0				
	COPd			7.84				
	Pdh		kW	6.6				
Tol (temperature operating limit)	PERd			%	313.4			
		COPd			2.80		2.77	
		Pdh		kW	6.9		8.1	
	TOL			112.2		110.8		
	WTOL				-10		35	
Tbiv (bivalent temperature)	PERd			%	3.10		2.77	
		COPd			7.5		8.1	
		Pdh		kW	124.1		110.8	
	Tbiv			-7		-10		
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		kW	1.4		0.0	
Cold climate water outlet 35°C	General	Annual energy consumption		kWh	5,554	5,401	5,387	

2 Specifications

1 - 1 EPRA08-12EV

2

Technical specifications				ETBH12E9W + EPRA08EV3	ETBH12E9W + EPRA10EV3	ETBH12E9W + EPRA12EV3	
Space heating	Cold climate water outlet 35°C	General	η_s (Seasonal space heating efficiency)	157	161	162	
			Prated at -22°C		9.0		
			Qhe Annual energy consumption (GCV)	20		19	
			A Condition COPd		3.36		
			(7°CDB/8°CWB) Pdh		5.4		
			PERd		134.5		
			B Condition CdH (Degradation heating)		1.0		
			(2°CDB/1°CWB) COPd		5.21		
			Pdh		3.6		
			PERd		208.4		
			C Condition CdH (Degradation heating)		1.0		
			(7°CDB/6°CWB) COPd		6.29		
			Pdh		5.3		
			PERd		251.7		
			D Condition CdH (Degradation heating)		1.0		
			(12°CDB/11°CWB) COPd		7.69		
			Pdh		6.6		
			PERd		307.6		
			Tol (temperature operating limit) COPd		2.04	2.07	2.09
			Pdh		4.9	5.9	6.4
			PERd		81.6	82.9	83.6
			TOL			-22	
			WTOL			35	
			G Condition COPd		2.60		2.56
(-15°CDB/) Pdh		6.0		7.0			
PERd		103.8		102.6			
Tbiv (bivalent temperature) COPd		2.86		2.56			
Pdh		6.5		7.0			
PERd		114.4		102.6			
Tbiv		-12		-15			
Rated heat output supplementary capacity Psup (at Tdesign -22°C)		4.1	3.1	2.6			
Warm climate water outlet 35°C	General	Annual energy consumption		1,992			
		η_s (Seasonal space heating efficiency)		228			
		Prated at 2°C		8.6			
		Qhe Annual energy consumption (GCV)		7			
		B Condition CdH (Degradation heating)		1.0			
		(2°CDB/1°CWB) COPd		3.95			
		Pdh		7.7			
		PERd		157.9			
		C Condition CdH (Degradation heating)		1.0			
		(7°CDB/6°CWB) COPd		5.65			
		Pdh		5.5			
		PERd		225.9			
Tbiv (bivalent temperature) COPd		4.80					
Pdh		6.9					
PERd		192.0					
Tbiv		5					
D Condition CdH (Degradation heating)		1.0					
(12°CDB/11°CWB) COPd		7.56					
Pdh		6.2					
PERd		302.6					
Space heating	Warm climate water outlet 35°C	B Condition	Pdh				
			(2°CDB/1°CWB) PERd				
			C Condition CdH (Degradation heating)				
			(7°CDB/6°CWB) COPd				
			Pdh				
			PERd				
			Tbiv (bivalent temperature) COPd				
			Pdh				
			PERd				
			Tbiv				
			D Condition CdH (Degradation heating)				
			(12°CDB/11°CWB) COPd				
Pdh							
PERd							

 (1) Capacity according to standard EN14511 and valid for heated water range $dT = 3-8^\circ\text{C}$ at $T_a 7^\circ\text{C}$ |

 (2) Condition: T_a DB/WB $7^\circ\text{C}/6^\circ\text{C}$ - LWC 35°C ($DT = 5^\circ\text{C}$) |

(3) Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |

 (4) DB/WB $7^\circ\text{C}/6^\circ\text{C}$ - LWC 35°C ($dT = 5^\circ\text{C}$) with pump at full speed |

 Cooling: EW 12°C ; LW 7°C ; ambient conditions: 35°CDB |

 Cooling: EW 23°C ; LW 18°C ; ambient conditions: 35°CDB |

 Test at T_a DB/WB $7^\circ\text{C}/6^\circ\text{C}$. According to EN 16147.

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications					ETBX12E6V + EPRA08EV3	ETBX12E6V + EPRA10EV3	ETBX12E6V + EPRA12EV3	
Indoor unit					ETBX12EF6V			
Outdoor unit					EPRA08EAV3	EPRA10EAV3	EPRA12EAV3	
Heating capacity	Min.			kW			3.44 (1)	
	Nom.			kW			6.17 (2)	
	Max.			kW			7.95 (1)	
Cooling capacity	Nom.			kW			6.81 (3) / 6.47 (4)	
				kW			7.97 (3) / 6.47 (4)	
Power input	Heating	Min.			kW			0.72 (5)
		Nom.			kW			1.25 (2)
		Max.			kW			1.69 (5)
	Cooling	Nom.			kW			2.15 (3) / 1.16 (4)
				kW			2.66 (3) / 1.16 (4)	
COP					4.92 (2)			
EER					3.00 (3) / 5.56 (4)			
Pump	Type				Grundfos UPM3LK			
	Nominal ESP unit	Heating			kPa			63.0 (6)
Water side Heat exchanger	Water flow rate	Heating	Nom.			l/min		18.3 (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			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)			44.0
	LW(A) Sound power level (according to EN14825)	Outdoor			dB(A)			53.0
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			3,542
		Capacity control				Inverter		
	Other	Pck (Crankcase heater mode) kW			0.000			
		Poff (Off mode) kW			0.021			
		Psb (Standby mode) kW			0.021			
		Pto (Thermostat off) kW			0.024			
	Integrated supplementary heater	Psup kW			6.0			
		Type of energy input			Electrical			
Space heating	Average climate water outlet 55°C	General	Annual energy consumption			kWh		5,065
			ηs (Seasonal space heating efficiency)			%		136

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Technical specifications				ETBX12E6V + EPRA08EV3	ETBX12E6V + EPRA10EV3	ETBX12E6V + EPRA12EV3		
Space heating	Average climate water outlet 55°C	General	Prated at -10°C	kW	8.5			
			Qhe Annual energy consumption (GCV)	Gj	18			
			SCOP		3.47		3.48	
			Seasonal space heating eff. class		A++			
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
				COPd		2.21		
				Pdh	kW	7.6		
				PERd	%	88.5		
			B Condition (2°CDB/-11°CWB)	Cdh (Degradation heating)		1.0		
				COPd		3.37		
				Pdh	kW	4.6		
				PERd	%	134.8		
			C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)		1.0		
				COPd		4.48		
				Pdh	kW	3.0		
				PERd	%	179.2		
			D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
				COPd		5.98		
				Pdh	kW	3.7		
				PERd	%	239.4		
Tol (temperature operating limit)			COPd		1.93	1.97		
			Pdh	kW	7.0	8.3		
			PERd	%	77.2	78.7		
			TOL	°C	-10			
			WTOL	°C	55			
Rated heat output supplementary capacity			Psup (at Tdesign -10°C)	kW	1.5	0.0		
			Tbiv (bivalent temperature)	COPd	2.21	1.97		
				Pdh	kW	7.6	8.3	
				PERd	%	88.5	78.7	
				Tbiv	°C	-7	-10	
Cold climate water outlet 55°C	General		Annual energy consumption	kWh	7,257	7,127		
			ηs (Seasonal space heating efficiency)	%	119	122		
			Prated at -22°C	kW	9.0			
			Qhe Annual energy consumption (GCV)	Gj	26			
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0		
				COPd		2.52		
				Pdh	kW	5.2		

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Technical specifications				ETBX12E6V + EPRA08EV3	ETBX12E6V + EPRA10EV3	ETBX12E6V + EPRA12EV3		
Space heating 	Cold climate water outlet 55°C	A Condition (7°CDB/-8°CWB)	PERd	%	100.6			
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)			1.0		
			COPd			3.77		
			Pdh	kW		3.3		
		C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)			1.0		
			COPd			4.81		
			Pdh	kW		3.4		
		D Condition (12°CDB/11°CWB)	COPd			6.36		
			Pdh	kW		4.2		
			PERd	%		254.2		
		Tol (temperature operating limit)	COPd			1.43	1.49	1.54
				Pdh	kW	4.9	6.1	7.2
			PERd	%	57.4	59.7	61.7	
			TOL	°C		-22		
			WTOL	°C		55		
	G Condition (-15°CDB/-)	COPd			1.93		1.96	
			Pdh	kW	6.0		7.2	
		PERd	%	77.2		78.4		
		Tbiv (bivalent temperature)	COPd			2.17		1.96
			Pdh	kW		6.6		7.2
	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)			4.1	2.9	1.8	
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh		2,946		
ηs (Seasonal space heating efficiency)			%		171			
Prated at 2°C			kW		9.6			
Qhe Annual energy consumption (GCV)			Gj		11			
B Condition (2°CDB/-1°CWB)		Cdh (Degradation heating)			1.0			
		COPd			2.57			
		Pdh	kW		8.0			
C Condition (7°CDB/-6°CWB)		Cdh (Degradation heating)			102.6			
		COPd			1.0			
		Pdh	kW		3.65			
	PERd			6.7				
				146.2				

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1 - 1 EPRA08-12EV

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Technical specifications				ETBX12E6V + EPRA08EV3	ETBX12E6V + EPRA10EV3	ETBX12E6V + EPRA12EV3		
Space heating	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)			1.0		
			COPd			5.71		
			Pdh kW			3.6		
		Tbiv (bivalent temperature)	°C	PERd %			228.3	
				COPd			3.02	
				Pdh kW			8.4	
		Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,582		3,560
					ηs (Seasonal space heating efficiency)	%	188	
				Prated at -10°C	kW			8.3
				Qhe Annual energy consumption (GCV)	Gj			13
SCOP				4.79		4.82		
Seasonal space heating eff. class						A+++		
A Condition (-7°CDB/-8°CWB)	°C			COPd			3.10	
				Pdh kW			7.5	
				PERd %			124.1	
B Condition (2°CDB/1°CWB)	°C			Cdh (Degradation heating)			1.0	
		COPd			4.76			
		Pdh kW			4.4			
C Condition (7°CDB/6°CWB)	°C	PERd %			190.4			
		Cdh (Degradation heating)			1.0			
		COPd			6.14			
D Condition (12°CDB/11°CWB)	°C	Pdh kW			4.3			
		PERd %			245.8			
		Cdh (Degradation heating)			1.0			
Tol (temperature operating limit)	°C	COPd		2.80		2.77		
			Pdh kW		6.9		8.1	
			PERd %		112.2		110.8	
		WTOL	TOL	°C			-10	
			°C			35		
		Tbiv (bivalent temperature)	°C	COPd		3.10		2.77
				Pdh kW		7.5		8.1
				PERd %		124.1		110.8

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Technical specifications				ETBX12E6V + EPRA08EV3	ETBX12E6V + EPRA10EV3	ETBX12E6V + EPRA12EV3
Space heating	Average climate water outlet 35°C	Tbiv (bivalent temperature)	°C	-7		-10
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C) kW	1.4		0.0
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,507	5,355	5,340
		ηs (Seasonal space heating efficiency)	%	158		163
		Prated at -22°C	kW		9.0	
	A Condition (-7°CDB/-8°CWB)	Qhe Annual energy consumption (GCV)	Gj	20		19
		COPd			3.36	
		Pdh	kW		5.4	
	B Condition (2°CDB/-1°CWB)	PERd	%		134.5	
		Cdh (Degradation heating)			1.0	
		COPd			5.21	
	C Condition (7°CDB/-6°CWB)	Pdh	kW		3.6	
		PERd	%		208.4	
		Cdh (Degradation heating)			1.0	
	D Condition (12°CDB/11°CWB)	COPd			6.29	
		Pdh	kW		5.3	
		PERd	%		251.7	
Tol (temperature operating limit)	Cdh (Degradation heating)			1.0		
	COPd			7.69		
	Pdh	kW		6.6		
	PERd	%		307.6		
	Tol	°C	2.04	2.07	2.09	
G Condition (-15°CDB/-)	Pdh	kW	4.9	5.9	6.4	
	PERd	%	81.6	82.9	83.6	
	TOL	°C		-22		
Tbiv (bivalent temperature)	WTOL	°C		35		
	COPd		2.60		2.56	
	Pdh	kW	6.0		7.0	
Rated heat output supplementary capacity	PERd	%	103.8		102.6	
	COPd		2.86		2.56	
	Pdh	kW	6.5		7.0	
Warm climate water outlet 35°C	PERd	%	114.4		102.6	
	Tbiv	°C	-12		-15	
	Rated heat output supplementary capacity	Psup (at Tdesign -22°C) kW	4.1	3.1	2.6	
General	Annual energy consumption	kWh		1,899		
	ηs (Seasonal space heating efficiency)	%		239		
	Prated at 2°C	kW		8.6		

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Technical specifications				ETBX12E6V + EPRA08EV3	ETBX12E6V + EPRA10EV3	ETBX12E6V + EPRA12EV3
Space heating 	Warm climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	7		
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	1.0		
			COPd	3.95		
			Pdh kW	7.7		
		C Condition (7°CDB/6°CWB)	PERd %	157.9		
			Cdh (Degradation heating)	1.0		
			COPd	5.65		
		Tbiv (bivalent temperature)	Pdh kW	6.9		
			PERd %	192.0		
			Tbiv °C	5		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0		
			COPd	7.56		
			Pdh kW	6.2		
				PERd %	302.6	

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |

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

(3)Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |

(4)Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB |

(5)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |



(6)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |

Test at Ta DB/WB 7°C/6°C. According to EN 16147.

Technical specifications				ETBX12E9W + EPRA08EV3	ETBX12E9W + EPRA10EV3	ETBX12E9W + EPRA12EV3	
Indoor unit				ETBX12EF9W			
Outdoor unit				EPRA08EAV3	EPRA10EAV3	EPRA12EAV3	
Heating capacity	Min.		kW	3.44 (1)			
	Nom.		kW	6.17 (2)			
	Max.		kW	7.95 (1)	9.25 (1)	9.97 (1)	
Cooling capacity	Nom.		kW	6.81 (3) / 6.47 (4)	7.97 (3) / 6.47 (4)	8.62 (3) / 6.47 (4)	
Power input	Heating	Min.	kW	0.72 (5)			
		Nom.	kW	1.25 (2)			
		Max.	kW	1.69 (5)	2.04 (5)	2.28 (5)	
	Cooling	Nom.	kW	2.15 (3) / 1.16 (4)	2.66 (3) / 1.16 (4)	2.96 (3) / 1.16 (4)	
COP				4.92 (2)			
EER				3.17 (3) / 5.56 (4)	3.00 (3) / 5.56 (4)	2.91 (3) / 5.56 (4)	
Pump	Type			Grundfos UPM3LK			
	Nominal ESP unit	Heating	kPa	63.0 (6)			
Water side Heat exchanger	Water flow rate	Heating	Nom.	18.3 (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		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)	44.0		
	LW(A) Sound power level (according to EN14825)	Outdoor		dB(A)	53.0		
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825			

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETBX12E9W + EPRA08EV3	ETBX12E9W + EPRA10EV3	ETBX12E9W + EPRA12EV3
Space heating general	Air to water unit	Rated airflow (outdoor)	m ³ /h	3,542		
	Other	Capacity control		Inverter		
		Pck (Crankcase heater mode)	kW	0.000		
		Poff (Off mode)	kW	0.021		
		Psb (Standby mode)	kW	0.021		
		Pto (Thermostat off)	kW	0.024		
	Inte-grated supple-mentary heater	Psup	kW	9.0		
Type of energy input		Electrical				
Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,065	5,043
			ηs (Seasonal space heating efficiency)	%	136	
Space heating 	Average climate water outlet 55°C	General	Prated at -10°C	kW	8.5	
			Qhe Annual energy consumption (GCV)	Gj	18	
		SCOP		3.47	3.48	
		Seasonal space heating eff. class		A++		
		A Condition (-7°CDB/-8°CWB)	CdH (Degradation heating)		1.0	
			COPd		2.21	
			PdH	kW	7.6	
			PERd	%	88.5	
		B Condition (2°CDB/-1°CWB)	CdH (Degradation heating)		1.0	
			COPd		3.37	
			PdH	kW	4.6	
			PERd	%	134.8	
		C Condition (7°CDB/6°CWB)	CdH (Degradation heating)		1.0	
			COPd		4.48	
			PdH	kW	3.0	
			PERd	%	179.2	
		D Condition (12°CDB/11°CWB)	CdH (Degradation heating)		1.0	
			COPd		5.98	
			PdH	kW	3.7	
			PERd	%	239.4	
Tol (tem-perature operat-ing limit)	COPd		1.93	1.97		
	PdH	kW	7.0	8.3		
	PERd	%	77.2	78.7		
Rated heat output supple-mentary capacity	TOL		-10			
	WTOL		55			
Rated heat output supple-mentary capacity	Psup (at Tdesign -10°C)	kW	1.5	0.0		
		Tbiv (bivalent tempera-ature)	COPd	2.21	1.97	
			PdH	kW	7.6	8.3
			PERd	%	88.5	78.7
		Tbiv	°C	-7	-10	
		Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,257
ηs (Seasonal space heating efficiency)	%			119	122	
Prated at -22°C	kW			9.0		
Qhe Annual energy consumption (GCV)	Gj		26			
A Condition (-7°CDB/-8°CWB)	CdH (Degradation heating)		1.0			
	COPd		2.52			
	PdH		kW		5.2	

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Technical specifications				ETBX12E9W + EPRA08EV3	ETBX12E9W + EPRA10EV3	ETBX12E9W + EPRA12EV3
Space heating Cold climate water outlet 55°C	A Condition (7°CDB/-8°CWB)	PERd	%	100.6		
	B Condition (2°CDB- B/1°CWB)	Cd _h (Degradation heating)		1.0		
		COP _d		3.77		
		Pd _h	kW	3.3		
	C Condition (7°CDB- B/6°CWB)	PERd	%	151.0		
		Cd _h (Degradation heating)		1.0		
		COP _d		4.81		
	D Condition (12°CDB/11°CWB)	Pd _h	kW	3.4		
		PERd	%	192.2		
		COP _d		6.36		
	Tol (temperature operating limit)	Pd _h	kW	4.2		
		PERd	%	254.2		
		COP _d		1.43	1.49	1.54
		Pd _h	kW	4.9	6.1	7.2
		PERd	%	57.4	59.7	61.7
	G Condition (-15°CDB/-)	TOL	°C	-22		
		WTOL	°C	55		
		COP _d		1.93		1.96
			Pd _h	kW	6.0	
		PERd	%	77.2		78.4
Tbiv (bivalent temperature)	COP _d		2.17		1.96	
	Pd _h	kW	6.6		7.2	
	PERd	%	86.9		78.4	
	Tbiv	°C	-12		-15	
Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1	2.9	1.8	
	General	Annual energy consumption	kWh	2,946		
Warm climate water outlet 55°C		η _s (Seasonal space heating efficiency)	%	171		
		Prated at 2°C	kW	9.6		
		Q _{he} Annual energy consumption (GCV)	Gj	11		
	B Condition (2°CDB- B/1°CWB)	Cd _h (Degradation heating)		1.0		
		COP _d		2.57		
	C Condition (7°CDB- B/6°CWB)	Pd _h	kW	8.0		
		PERd	%	102.6		
	Cd _h (Degradation heating)		1.0			
	COP _d		3.65			
	Pd _h	kW	6.7			
PERd	%	146.2				

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Technical specifications				ETBX12E9W + EPRA08EV3	ETBX12E9W + EPRA10EV3	ETBX12E9W + EPRA12EV3		
Space heating 	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0			
			COPd		5.71			
			Pdh kW		3.6			
		PERd %		228.3				
		Tbiv (bivalent temperature)	COPd		3.02			
			Pdh kW		8.4			
			PERd %		120.9			
			Tbiv °C		4			
		Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,582		3,560
				ηs (Seasonal space heating efficiency)	%	188		190
	Prated at -10°C		kW			8.3		
	Qhe Annual energy consumption (GCV)		Gj			13		
	SCOP			4.79			4.82	
	Seasonal space heating eff. class					A+++		
	A Condition (7°CDB/-8°CWB)		COPd			3.10		
			Pdh kW			7.5		
			PERd %			124.1		
	B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)			1.0		
		COPd			4.76			
		Pdh kW			4.4			
PERd %			190.4					
C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)			1.0				
	COPd			6.14				
	Pdh kW			4.3				
PERd %			245.8					
D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)			1.0				
	COPd			7.84				
	Pdh kW			6.6				
PERd %			313.4					
Tol (temperature operating limit)	COPd			2.80		2.77		
		Pdh kW		6.9		8.1		
		PERd %		112.2		110.8		
	TOL °C				-10			
WTOL °C				35				
Tbiv (bivalent temperature)	COPd		3.10		2.77			
	Pdh kW		7.5		8.1			
	PERd %		124.1		110.8			

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETBX12E9W + EPRA08EV3	ETBX12E9W + EPRA10EV3	ETBX12E9W + EPRA12EV3	
Space heating	Average climate water outlet 35°C	Tbiv (bivalent temperature)	°C	-7	-10		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C) kW	1.4	0.0		
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,507	5,355	5,340	
		ηs (Seasonal space heating efficiency)	%	158	163		
		Prated at -22°C	kW	9.0			
		Qhe Annual energy consumption (GCV)	Gj	20	19		
	A Condition (7°CDB/-8°CWB)	COPd		3.36			
		Pdh	kW	5.4			
		PERd	%	134.5			
	B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)		1.0			
		COPd		5.21			
		Pdh	kW	3.6			
	C Condition (7°CDB/-6°CWB)	PERd	%	208.4			
		Cdh (Degradation heating)		1.0			
		COPd		6.29			
	D Condition (12°CDB/11°CWB)	Pdh	kW	5.3			
PERd		%	251.7				
Cdh (Degradation heating)			1.0				
Tol (temperature operating limit)	COPd		2.04	2.07	2.09		
	Pdh	kW	4.9	5.9	6.4		
	PERd	%	81.6	82.9	83.6		
	TOL	°C	-22				
G Condition (-15°CDB/)	WTOL	°C	35				
	COPd		2.60	2.56			
	Pdh	kW	6.0	7.0			
	PERd	%	103.8	102.6			
Tbiv (bivalent temperature)	COPd		2.86	2.56			
	Pdh	kW	6.5	7.0			
	PERd	%	114.4	102.6			
	Tbiv	°C	-12	-15			
Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1	3.1	2.6		
	General	Annual energy consumption	kWh	1,899			
Warm climate water outlet 35°C	ηs (Seasonal space heating efficiency)	%	239				
	Prated at 2°C	kW	8.6				

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1 - 1 EPRA08-12EV

Technical specifications				ETBX12E9W + EPRA08EV3	ETBX12E9W + EPRA10EV3	ETBX12E9W + EPRA12EV3	
Space heating Warm climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	Gj	7			
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)			1.0		
		COPd			3.95		
		Pdh kW			7.7		
	C Condition (7°CDB/6°CWB)	PERd %			157.9		
		Cdh (Degradation heating)			1.0		
		COPd			5.65		
	Tbiv (bivalent temperature)	Pdh kW			5.5		
		PERd %			225.9		
		Tbiv °C			4.80		
	D Condition (12°CDB/11°CWB)	Pdh kW			6.9		
		PERd %			192.0		
		Tbiv °C			5		
		Cdh (Degradation heating)			1.0		
COPd				7.56			
Pdh kW				6.2			
				302.6			

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |

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

(3)Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |

(4)Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB |

(5)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |

(6)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |

Test at Ta DB/WB 7°C/6°C. According to EN 16147.

Technical specifications				ETVH12S18E6V + EPRA08EV3	ETVH12S23E6V + EPRA08EV3	ETVH12S18E6V + EPRA10EV3	ETVH12S23E6V + EPRA10EV3	ETVH12S18E6V + EPRA12EV3	ETVH12S23E6V + EPRA12EV3	
Indoor unit				ETVH12S18EA6V	ETVH12S23EA6V	ETVH12S18EA6V	ETVH12S23EA6V	ETVH12S18EA6V	ETVH12S23EA6V	
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3		
Heating capacity	Min.		kW	3.44 (1)						
	Nom.		kW	6.17 (2)						
	Max.		kW	7.95 (1)		9.25 (1)		9.97 (1)		
Power input	Heating	Min.	kW	0.72 (3)						
		Nom.	kW	1.25 (2)						
		Max.	kW	1.69 (3)		2.04 (3)		2.28 (3)		
	Domestic hot water from 10°C to 50°C	Nom.	kWh	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	
Heat up time from 10°C to 50°C			hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min	
COP				4.92 (2)						
Pump	Type	Grundfos UPM3LK								
	Nominal Heating ESP unit		kPa	59.8 (5)						
Water side Heat exchanger	Water flow rate	Heating Nom.	l/min	18.3 (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)	44.0						
LW(A) Sound power level (according to EN14825)	Outdoor		dB(A)	53.0						
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Tank	Name			Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	

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Technical specifications				ETVH12S18E6V + EPRA08EV3	ETVH12S23E6V + EPRA08EV3	ETVH12S18E6V + EPRA10EV3	ETVH12S23E6V + EPRA10EV3	ETVH12S18E6V + EPRA12EV3	ETVH12S23E6V + EPRA12EV3	
Space heating general	Air to water unit	Rated airflow (outdoor)	m ³ /h	3,542						
		Other	Capacity control	Inverter						
		Pck (Crankcase heater mode)	kW	0.000						
		Poff (Off mode)	kW	0.021						
		Psb (Standby mode)	kW	0.021						
		Pto (Thermostat off)	kW	0.024						
Domestic hot water heating	General	Declared load profile		L						
Space heating general	Inte- grated supple- mentary heater	Psup	kW	6.0						
		Type of energy input		Electrical						
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	877	810	877	810	877	810	
Domestic hot water heating	Average climate	COPdhw		2.72	2.96	2.72	2.96	2.72	2.96	
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min	
		ηwh (water heating effi- ciency)	%	117	126	117	126	117	126	
		Qelec (Daily electricity consumption)	kWh	4.280	3.940	4.280	3.940	4.280	3.940	
		Reference hot water tem- perature	°C	53.0	52.0	53.0	52.0	53.0	52.0	
		Stand-by power input	W	51.7	44.8	51.7	44.8	51.7	44.8	
		Water heating energy efficiency class		A+						
		Cold climate	AEC (Annual electricity consumption)	kWh	966	891	966	891	966	891
			COPdhw		2.48	2.70	2.48	2.70	2.48	2.70
			Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min
ηwh (water heating effi- ciency)	%		106	115	106	115	106	115		
Qelec (Daily electricity consumption)	kWh		4.700	4.320	4.700	4.320	4.700	4.320		
Reference hot water tem- perature	°C		53.0	52.0	53.0	52.0	53.0	52.0		
Warm climate	Stand-by power input	W	55.4	47.7	55.4	47.7	55.4	47.7		
	AEC (Annual electricity consumption)	kWh	719	666	719	666	719	666		
	COPdhw		3.31	3.59	3.31	3.59	3.31	3.59		
	Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min		
	ηwh (water heating effi- ciency)	%	142	154	142	154	142	154		
	Qelec (Daily electricity consumption)	kWh	3.530	3.250	3.530	3.250	3.530	3.250		
	Reference hot water tem- perature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
	Stand-by power input	W	45.4	39.7	45.4	39.7	45.4	39.7		

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1 - 1 EPRA08-12EV

Technical specifications				ETVH12S18E6V + EPRA08EV3	ETVH12S23E6V + EPRA08EV3	ETVH12S18E6V + EPRA10EV3	ETVH12S23E6V + EPRA10EV3	ETVH12S18E6V + EPRA12EV3	ETVH12S23E6V + EPRA12EV3					
Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,142		5,120							
			ηs (Seasonal space heating efficiency)	%	134									
			Prated at -10°C	kW	8.5									
			Qhe Annual energy consumption (GCV)	Gj	19		18							
			SCOP		3.41		3.43							
			Seasonal space heating eff. class		A++									
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0								
				COPd		2.21								
				Pdh	kW	7.6								
				PERd	%	88.5								
			B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)		1.0								
				COPd		3.37								
				Pdh	kW	4.6								
			C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0								
				COPd		4.48								
				Pdh	kW	3.0								
			Space heating 	Average climate water outlet 55°C	C Condition (7°CDB/-6°CWB)	PERd	%	179.2						
						D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
							COPd		5.98					
							Pdh	kW	3.7					
PERd	%	239.4												
Tol (temperature operating limit)	COPd					1.93		1.97						
	Pdh	kW				7.0		8.3						
	PERd	%				77.2		78.7						
	TOL	°C				-10								
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW				1.5		0.0						
						Tbiv (bivalent temperature)	COPd		2.21		1.97			
							Pdh	kW	7.6		8.3			
			PERd	%	88.5		78.7							
			Tbiv	°C	-10									
			Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,303		7,173		7,146			
					ηs (Seasonal space heating efficiency)	%	118		121					
Prated at -22°C	kW	9.0												
Qhe Annual energy consumption (GCV)	Gj	26												
A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)				1.0									
	COPd				2.52									
	Pdh	kW			5.2									
	PERd	%			100.6									
B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)				1.0									
	COPd				3.77									
	Pdh	kW	3.3											
C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)		1.0											
	COPd		4.81											
	Pdh	kW	3.4											
D Condition (12°CDB/11°CWB)	COPd		192.2											
	Pdh	kW	6.36											
	PERd	%	254.2											
Tol (temperature operating limit)	COPd		1.43		1.49		1.54							
	Pdh	kW	4.9		6.1		7.2							

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1 - 1 EPRA08-12EV

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Technical specifications					ETVH12S18E6V + EPRA08EV3	ETVH12S23E6V + EPRA08EV3	ETVH12S18E6V + EPRA10EV3	ETVH12S23E6V + EPRA10EV3	ETVH12S18E6V + EPRA12EV3	ETVH12S23E6V + EPRA12EV3	
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	PERd	%	57.4		59.7		61.7		
			TOL	°C			-22				
			WTOL	°C			55				
	Warm climate water outlet 55°C	G Condition (-15°CDB/-)	COPd			1.93				1.96	
			Pdh	kW		6.0				7.2	
		PERd	%		77.2				78.4		
		Tbiv (bivalent temperature)	COPd			2.17				1.96	
			Pdh	kW		6.6				7.2	
			PERd	%		86.9				78.4	
		Tbiv	°C		-12				-15		
Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW		4.1		2.9		1.8			
Average climate water outlet 35°C	General	Annual energy consumption	kWh		3,659				3,637		
		ηs (Seasonal space heating efficiency)	%		184				186		
		Prated at 2°C	kW				9.6				
		Qhe Annual energy consumption (GCV)	Gj				11				
		Cdh (Degradation heating)					1.0				
	B Condition (2°CDB/1°CWB)	COPd					2.57				
		Pdh	kW				8.0				
		PERd	%				102.6				
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)					1.0				
		COPd					3.65				
		Pdh	kW				6.7				
	D Condition (12°CDB/11°CWB)	PERd	%				146.2				
		Cdh (Degradation heating)					1.0				
		COPd					5.71				
	Tbiv (bivalent temperature)	Pdh	kW				3.6				
PERd		%				228.3					
COPd						3.02					
Average climate water outlet 35°C	General	Pdh	kW				8.4				
		PERd	%				120.9				
	Tbiv	°C				4					
	Annual energy consumption	kWh		3,659				3,637			
	ηs (Seasonal space heating efficiency)	%		184				186			
General	Prated at -10°C	kW				8.3					
	Qhe Annual energy consumption (GCV)	Gj				13					
	SCOP			4.69				4.71			
Seasonal space heating eff. class							A+++				

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1 - 1 EPRA08-12EV

Technical specifications				ETVH12S18E6V + EPRA08EV3	ETVH12S23E6V + EPRA08EV3	ETVH12S18E6V + EPRA10EV3	ETVH12S23E6V + EPRA10EV3	ETVH12S18E6V + EPRA12EV3	ETVH12S23E6V + EPRA12EV3		
Space heating 	Average climate water outlet 35°C	A Condition (7°CDB/-8°CWB)	COPd						3.10		
			Pdh	kW					7.5		
			PERd	%						124.1	
		B Con- dition (2°CDB- B/1°CWB)	Cd _h (Degradation heating)							1.0	
			COPd							4.76	
			Pdh	kW						4.4	
		C Con- dition (7°CDB- B/6°CWB)	Cd _h (Degradation heating)							190.4	
			COPd							1.0	
			Pdh	kW						6.14	
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)							4.3	
			COPd							245.8	
			Pdh	kW						1.0	
		Tol (tem- perature operat- ing limit)	COPd			2.80				2.77	
			Pdh	kW		6.9				8.1	
			PERd	%		112.2				110.8	
		TOL	°C							-10	
			°C							35	
		Tbiv (bivalent tempera- ture)	COPd			3.10				2.77	
			Pdh	kW		7.5				8.1	
			PERd	%		124.1				110.8	
		Rated heat output supple- mentary capacity	Tbiv			-7				-10	
			P _{sup} (at T _{design} -10°C)		kW	1.4				0.0	
		Cold climate water outlet 35°C	General	Annual energy consumption		kWh	5,554		5,401		5,387
				η _s (Seasonal space heating efficiency)		%	157		161		162
Prated at -22°C				kW			9.0				
Q _{he} Annual energy consumption (GCV)				Gj	20			19			
A Condition (7°CDB/-8°CWB)	COPd							3.36			
	Pdh		kW						5.4		
	PERd		%						134.5		
B Con- dition (2°CDB- B/1°CWB)	Cd _h (Degradation heating)							1.0			
	COPd								5.21		
	Pdh		kW						3.6		
C Con- dition (7°CDB- B/6°CWB)	PERd							208.4			
	Cd _h (Degradation heating)							1.0			

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Technical specifications				ETVH12S18E6V + EPRA08EV3	ETVH12S23E6V + EPRA08EV3	ETVH12S18E6V + EPRA10EV3	ETVH12S23E6V + EPRA10EV3	ETVH12S18E6V + EPRA12EV3	ETVH12S23E6V + EPRA12EV3		
Space heating Cold climate water outlet 35°C	C Condition (7°CDB- B/6°CWB)	COPd					6.29				
		Pdh	kW				5.3				
		PERd	%				251.7				
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)					1.0			
			COPd					7.69			
			Pdh	kW				6.6			
		Tol (temperature operating limit)	COPd	Pdh	kW						
				PERd	%						
				TOL	°C						
				WTOL	°C						
	G Condition (-15°CDB/-)	COPd	Pdh	kW							
			PERd	%							
			Tbiv	°C							
	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)		kW							
	Warm climate water outlet 35°C	General	Annual energy consumption	kWh							
ηs (Seasonal space heating efficiency)			%								
Prated at 2°C			kW								
Qhe Annual energy consumption (GCV)			Gj								
B Condition (2°CDB- B/1°CWB)		COPd	Cdh (Degradation heating)								
			Pdh	kW							
			PERd	%							
C Condition (7°CDB- B/6°CWB)		COPd	Cdh (Degradation heating)								
			Pdh	kW							
			PERd	%							
Tbiv (bivalent temperature)	COPd	Pdh	kW								
		PERd	%								
		Tbiv	°C								
D Condition (12°CDB/11°CWB)	COPd	Pdh	kW								
		PERd	%								
Space heating Warm climate water	D Condition (12°CDB/11°CWB)	COPd									
		Pdh	kW								
		PERd	%								

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |
 (2)Condition: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) |
 (3)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |
 (4)Test at Ta DB/WB 7°C/6°C. According to EN 16147. |
 (5)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |
 Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |
 Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB

Technical specifications				ETVH12S18E9W + EPRA08EV3	ETVH12S23E9W + EPRA08EV3	ETVH12S18E9W + EPRA10EV3	ETVH12S23E9W + EPRA10EV3	ETVH12S18E9W + EPRA12EV3	ETVH12S23E9W + EPRA12EV3
Indoor unit				ETVH12S18EA9W	ETVH12S23EA9W	ETVH12S18EA9W	ETVH12S23EA9W	ETVH12S18EA9W	ETVH12S23EA9W
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Min.		kW			3.44 (1)			
	Nom.		kW			6.17 (2)			
	Max.		kW	7.95 (1)		9.25 (1)		9.97 (1)	

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Technical specifications				ETVH12S18E9W + EPRA08EV3	ETVH12S23E9W + EPRA08EV3	ETVH12S18E9W + EPRA10EV3	ETVH12S23E9W + EPRA10EV3	ETVH12S18E9W + EPRA12EV3	ETVH12S23E9W + EPRA12EV3	
Power input	Heating	Min.	kW	0.72 (3)						
		Nom.	kW	1.25 (2)						
		Max.	kW	1.69 (3)		2.04 (3)		2.28 (3)		
	Domestic hot water from 10°C to 50°C	Nom.	kWh	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	
Heat up time from 10°C to 50°C			hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min	
COP				4.92 (2)						
Pump	Type	Grundfos UPM3LK								
	Nominal ESP unit	Heating	kPa	59.8 (5)						
Water side Heat exchanger	Water flow rate	Heating Nom.	l/min	18.3 (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							
LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	44.0						
	Outdoor		dB(A)	53.0						
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Tank	Name			Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	
Space heating general	Air to water unit	Rated airflow (outdoor)	m ³ /h	3,542						
		Other	Capacity control	Inverter						
		Pck (Crankcase heater mode)	kW	0.000						
		Poff (Off mode)	kW	0.021						
		Psb (Standby mode)	kW	0.021						
		Pto (Thermostat off)	kW	0.024						
Domestic hot water heating	General	Declared load profile		L						
Space heating general	Integrated supplementary heater	Psup	kW	9.0						
		Type of energy input		Electrical						
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	877	810	877	810	877	810	

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Technical specifications			ETVH12S18E9W + EPRA08EV3	ETVH12S23E9W + EPRA08EV3	ETVH12S18E9W + EPRA10EV3	ETVH12S23E9W + EPRA10EV3	ETVH12S18E9W + EPRA12EV3	ETVH12S23E9W + EPRA12EV3		
Domestic hot water heating 	Average climate	COPdhw	2.72	2.96	2.72	2.96	2.72	2.96		
		Heat up time	1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min		
		η _{wh} (water heating efficiency) %	117	126	117	126	117	126		
		Qelec (Daily electricity consumption) kWh	4.280	3.940	4.280	3.940	4.280	3.940		
		Reference hot water temperature °C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input W	51.7	44.8	51.7	44.8	51.7	44.8		
		Water heating energy efficiency class	A+							
	Cold climate	AEC (Annual electricity consumption) kWh	966	891	966	891	966	891		
		COPdhw	2.48	2.70	2.48	2.70	2.48	2.70		
		Heat up time	1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min		
		η _{wh} (water heating efficiency) %	106	115	106	115	106	115		
		Qelec (Daily electricity consumption) kWh	4.700	4.320	4.700	4.320	4.700	4.320		
		Reference hot water temperature °C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input W	55.4	47.7	55.4	47.7	55.4	47.7		
Warm climate	AEC (Annual electricity consumption) kWh	719	666	719	666	719	666			
	COPdhw	3.31	3.59	3.31	3.59	3.31	3.59			
	Heat up time	1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min			
	η _{wh} (water heating efficiency) %	142	154	142	154	142	154			
	Qelec (Daily electricity consumption) kWh	3.530	3.250	3.530	3.250	3.530	3.250			
	Reference hot water temperature °C	53.0	52.0	53.0	52.0	53.0	52.0			
	Stand-by power input W	45.4	39.7	45.4	39.7	45.4	39.7			
Space heating 	Average climate water outlet 55°C	General Annual energy consumption kWh	5,142		5,120					
		η _s (Seasonal space heating efficiency) %	134							
		Prated at -10°C kW	8.5							
		Q _{he} Annual energy consumption (GCV) GJ	19		18					
		SCOP	3.41		3.43					
		Seasonal space heating eff. class	A++							
		A Condition (7°CDB/8°CWB)	Cdh (Degradation heating)	1.0						
			COPd	2.21						
			Pdh kW	7.6						
			PERd %	88.5						
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	1.0						
			COPd	3.37						
			Pdh kW	4.6						
C Condition (7°CDB/6°CWB)	PERd %	134.8								
	Cdh (Degradation heating)	1.0								
	COPd	4.48								

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Technical specifications				ETVH12S18E9W + EPRA08EV3	ETVH12S23E9W + EPRA08EV3	ETVH12S18E9W + EPRA10EV3	ETVH12S23E9W + EPRA10EV3	ETVH12S18E9W + EPRA12EV3	ETVH12S23E9W + EPRA12EV3		
Space heating	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	Pdh	kW					3.0		
			PERd	%					179.2		
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)							1.0	
			COP _d							5.98	
			Pdh	kW						3.7	
			PERd	%						239.4	
		Tol (temperature operating limit)	COP _d			1.93				1.97	
			Pdh	kW		7.0				8.3	
			PERd	%		77.2				78.7	
			TOL	°C						-10	
			WTOL	°C						55	
		Rated heat output supplementary capacity	P _{sup} (at T _{design} -10°C)			1.5				0.0	
			T _{biv}	COP _d		2.21				1.97	
			Pdh	kW		7.6				8.3	
			PERd	%		88.5				78.7	
			T _{biv}	°C		-7				-10	
		Cold climate water outlet 55°C	General	Annual energy consumption		7,303			7,173		7,146
				η _s (Seasonal space heating efficiency)	%		118				121
Prated at -22°C									9.0		
Q _{he} Annual energy consumption (GCV)	Gj								26		
A Condition (7°CDB/8°CWB)	Cd _h (Degradation heating)							1.0			
	COP _d								2.52		
	Pdh		kW						5.2		
	PERd		%						100.6		
B Condition (2°CDB/1°CWB)	Cd _h (Degradation heating)							1.0			
	COP _d								3.77		
	Pdh		kW						3.3		
C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)							151.0			
	COP _d								1.0		
D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)							4.81			
	COP _d								3.4		
	Pdh		kW						192.2		
Tol (temperature operating limit)	COP _d				1.43			1.49		1.54	
	Pdh		kW		4.9			6.1		7.2	

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Technical specifications					ETVH12S18E9W + EPRA08EV3	ETVH12S23E9W + EPRA08EV3	ETVH12S18E9W + EPRA10EV3	ETVH12S23E9W + EPRA10EV3	ETVH12S18E9W + EPRA12EV3	ETVH12S23E9W + EPRA12EV3	
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	PERd TOL WTOL	% °C °C	57.4		59.7		61.7		
		G Condition (-15°CDB/-)	COPd PdH PERd		1.93 6.0 77.2		1.96 7.2 78.4				
		Tbiv (bivalent temperature)	COPd PdH PERd Tbiv		2.17 6.6 86.9 -12		1.96 7.2 78.4 -15				
	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8			
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	3,039						
			ηs (Seasonal space heating efficiency)	%	166						
			Prated at 2°C	kW	9.6						
			Qhe Annual energy consumption (GCV)	Gj	11						
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0						
			COPd		2.57						
PdH			kW	8.0							
C Condition (7°CDB/6°CWB)		Cdh (Degradation heating)		102.6							
		COPd		1.0							
		PdH	kW	3.65							
D Condition (12°CDB/11°CWB)		Cdh (Degradation heating)		6.7							
		COPd		146.2							
		PdH	kW	1.0							
Tbiv (bivalent temperature)	COPd		5.71								
	PdH	kW	3.6								
	PERd	%	228.3								
	Tbiv	°C	3.02								
Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,659		3,637					
		ηs (Seasonal space heating efficiency)	%	184		186					
		Prated at -10°C	kW	8.3							
		Qhe Annual energy consumption (GCV)	Gj	13							
	SCOP		4.69		4.71						
	Seasonal space heating eff. class				A+++						

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Technical specifications				ETVH12S18E9W + EPRA08EV3	ETVH12S23E9W + EPRA08EV3	ETVH12S18E9W + EPRA10EV3	ETVH12S23E9W + EPRA10EV3	ETVH12S18E9W + EPRA12EV3	ETVH12S23E9W + EPRA12EV3	
Space heating 	Average climate water outlet 35°C	A Condition (7°CDB/-8°CWB)	COPd						3.10	
			Pdh	kW					7.5	
			PERd	%						124.1
		B Con- dition (2°CDB- B/1°CWB)	Cd _h (Degradation heating)							1.0
			COPd							4.76
			Pdh	kW						4.4
		C Con- dition (7°CDB- B/6°CWB)	Cd _h (Degradation heating)							190.4
			COPd							1.0
			Pdh	kW						6.14
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)							4.3
			COPd							245.8
			Pdh	kW						1.0
		Tol (tem- perature operat- ing limit)	COPd			2.80				2.77
			Pdh	kW		6.9				8.1
			PERd	%		112.2				110.8
		TOL	°C							-10
			°C							35
		Tbiv (bivalent tempera- ture)	COPd			3.10				2.77
			Pdh	kW		7.5				8.1
			PERd	%		124.1				110.8
		Rated heat output supple- mentary capacity	Tbiv			-7				-10
			P _{sup} (at T _{design} -10°C)		kW	1.4				0.0
		Cold climate water outlet 35°C	General	Annual energy consumption		kWh	5,554		5,401	
η _s (Seasonal space heating efficiency)				%	157		161		162	
Prated at -22°C				kW			9.0			
Q _{he} Annual energy consumption (GCV)				Gj	20			19		
A Condition (7°CDB/-8°CWB)	COPd							3.36		
	Pdh		kW						5.4	
	PERd		%						134.5	
B Con- dition (2°CDB- B/1°CWB)	Cd _h (Degradation heating)							1.0		
	COPd								5.21	
	Pdh		kW						3.6	
C Con- dition (7°CDB- B/6°CWB)	PERd							208.4		
	Cd _h (Degradation heating)							1.0		

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Technical specifications				ETVH12S18E9W + EPRA08EV3	ETVH12S23E9W + EPRA08EV3	ETVH12S18E9W + EPRA10EV3	ETVH12S23E9W + EPRA10EV3	ETVH12S18E9W + EPRA12EV3	ETVH12S23E9W + EPRA12EV3	
Space heating Cold climate water outlet 35°C	C Condition (7°CDB- B/6°CWB)	COPd							6.29	
		Pdh	kW						5.3	
		PERd	%							251.7
	D Condition (12°CDB/11°CWB)	CdH (Degradation heating)								1.0
		COPd								7.69
		Pdh	kW							6.6
		PERd	%							307.6
	Tol (temperature operating limit)	COPd			2.04			2.07		2.09
		Pdh	kW		4.9			5.9		6.4
		PERd	%		81.6			82.9		83.6
		TOL	°C							-22
		WTOL	°C							35
	G Condition (-15°CDB/-)	COPd			2.60			2.56		
		Pdh	kW		6.0			7.0		
		PERd	%		103.8			102.6		
	Tbiv (bivalent temperature)	COPd			2.86			2.56		
		Pdh	kW		6.5			7.0		
		PERd	%		114.4			102.6		
		Tbiv	°C		-12			-15		
	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)		kW	4.1		3.1		2.6	
General		Annual energy consumption	kWh					1,992		
Warm climate water outlet 35°C			ηs (Seasonal space heating efficiency)	%					228	
			Prated at 2°C	kW					8.6	
			Qhe Annual energy consumption (GCV)	Gj					7	
	B Condition (2°CDB- B/1°CWB)	CdH (Degradation heating)								1.0
		COPd								3.95
		Pdh	kW							7.7
	C Condition (7°CDB- B/6°CWB)	CdH (Degradation heating)								1.0
		COPd								5.65
		Pdh	kW							5.5
	Tbiv (bivalent temperature)	PERd		%						225.9
COPd									4.80	
Pdh		kW							6.9	
PERd		%							192.0	
D Condition (12°CDB/11°CWB)	Tbiv		°C						5	
	CdH (Degradation heating)								1.0	
Space heating Warm climate water	D Condition (12°CDB/11°CWB)	COPd							7.56	
		Pdh	kW						6.2	
		PERd	%							302.6

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |
 (2)Condition: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) |
 (3)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |
 (4)Test at Ta DB/WB 7°C/6°C. According to EN 16147. |
 (5)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |
 Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |
 Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB

Technical specifications				ETVX12S18E6V + EPRA08EV3	ETVX12S23E6V + EPRA08EV3	ETVX12S18E6V + EPRA10EV3	ETVX12S23E6V + EPRA10EV3	ETVX12S18E6V + EPRA12EV3	ETVX12S23E6V + EPRA12EV3
Indoor unit				ETVX12S18EA6V	ETVX12S23EA6V	ETVX12S18EA6V	ETVX12S23EA6V	ETVX12S18EA6V	ETVX12S23EA6V
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Min.		kW				3.44 (1)		
	Nom.		kW				6.17 (2)		
	Max.		kW	7.95 (1)		9.25 (1)		9.97 (1)	
Cooling capacity	Nom.		kW	6.81 (3) / 6.47 (4)		7.97 (3) / 6.47 (4)		8.62 (3) / 6.47 (4)	

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Technical specifications				ETVX12S18E6V + EPRA08EV3	ETVX12S23E6V + EPRA08EV3	ETVX12S18E6V + EPRA10EV3	ETVX12S23E6V + EPRA10EV3	ETVX12S18E6V + EPRA12EV3	ETVX12S23E6V + EPRA12EV3		
Power input	Heating	Min.	kW	0.72 (5)							
		Nom.	kW	1.25 (2)							
		Max.	kW	1.69 (5)		2.04 (5)		2.28 (5)			
	Cooling	Nom.	kW	2.15 (3) / 1.16 (4)		2.66 (3) / 1.16 (4)		2.96 (3) / 1.16 (4)			
Domestic hot water from 10°C to 50°C	Dom.	kWh		2.63 (6)	3.19 (6)	2.63 (6)	3.19 (6)	2.63 (6)	3.19 (6)		
				1h 51min		2h 10min		1h 51min		2h 10min	
Heat up time from 10°C to 50°C			hr	1h 51min		2h 10min		1h 51min		2h 10min	
COP				4.92 (2)							
EER				3.17 (3) / 5.56 (4)		3.00 (3) / 5.56 (4)		2.91 (3) / 5.56 (4)			
Pump	Type	Grundfos UPM3LK									
	Nominal Heating ESP unit	kPa	59.8 (7)								
Water side Heat exchanger	Water flow rate	Heating	Nom.	18.3 (2)							
		General			Supplier/ Name and address Manu- Name or trademark facturer details Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium Product Air-to-water heat pump description Brine-to-water heat pump Heat pump combination heater Low-temperature heat pump Supplementary heater integrated Water-to-water heat pump LW(A) Sound power level (according to EN14825) Indoor dB(A)						
LW(A) Sound power level (according to EN14825)			Outdoor	dB(A)						53.0	
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825							
Tank	Name	Stainless steel domestic hot water tank 180 l		Stainless steel domestic hot water tank 230 L		Stainless steel domestic hot water tank 180 l		Stainless steel domestic hot water tank 230 L			
		Space heating general		Air to water unit		Rated airflow (outdoor) m ³ /h		3,542			
Domestic hot water heating	General	Declared load profile		L							
		Integrated supplementary heater	Psup	kW	6.0						
			Type of energy input		Electrical						
			Capacity control		Inverter						
			Pck (Crankcase heater mode)	kW	0.000						
Poff (Off mode)	kW	0.021									
Psb (Standby mode)	kW	0.021									
Pto (Thermostat off)	kW	0.024									

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Technical specifications				ETVX12S18E6V + EPRA08EV3	ETVX12S23E6V + EPRA08EV3	ETVX12S18E6V + EPRA10EV3	ETVX12S23E6V + EPRA10EV3	ETVX12S18E6V + EPRA12EV3	ETVX12S23E6V + EPRA12EV3		
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	877	810	877	810	877	810		
		COPdhw		2.72	2.96	2.72	2.96	2.72	2.96		
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min		
		η _{wh} (water heating efficiency)	%	117	126	117	126	117	126		
		Qelec (Daily electricity consumption)	kWh	4.280	3.940	4.280	3.940	4.280	3.940		
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input	W	51.7	44.8	51.7	44.8	51.7	44.8		
		Water heating energy efficiency class		A+							
		Cold climate	AEC (Annual electricity consumption)	kWh	966	891	966	891	966	891	
			COPdhw		2.48	2.70	2.48	2.70	2.48	2.70	
			Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min	
			η _{wh} (water heating efficiency)	%	106	115	106	115	106	115	
			Qelec (Daily electricity consumption)	kWh	4.700	4.320	4.700	4.320	4.700	4.320	
Reference hot water temperature	°C		53.0	52.0	53.0	52.0	53.0	52.0			
Stand-by power input	W		55.4	47.7	55.4	47.7	55.4	47.7			
Warm climate	AEC (Annual electricity consumption)	kWh	719	666	719	666	719	666			
	COPdhw		3.31	3.59	3.31	3.59	3.31	3.59			
	Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min			
	η _{wh} (water heating efficiency)	%	142	154	142	154	142	154			
	Qelec (Daily electricity consumption)	kWh	3.530	3.250	3.530	3.250	3.530	3.250			
	Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0			
	Stand-by power input	W	45.4	39.7	45.4	39.7	45.4	39.7			
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,065		5,043				
			η _s (Seasonal space heating efficiency)	%	136						
		Prated at -10°C	Q _{he} Annual energy consumption (GCV)	Gj	18						
			SCOP		3.47		3.48				
		Seasonal space heating eff. class			A++						
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0					
		A Condition (-7°CDB/-8°CWB)		COPd		2.21					
				Pdh	kW	7.6					
				PERd	%	88.5					
		B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)		1.0					
				COPd		3.37					
				Pdh	kW	4.6					

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Technical specifications				ETVX12S18E6V + EPRA08EV3	ETVX12S23E6V + EPRA08EV3	ETVX12S18E6V + EPRA10EV3	ETVX12S23E6V + EPRA10EV3	ETVX12S18E6V + EPRA12EV3	ETVX12S23E6V + EPRA12EV3	
Space heating 	Average climate water outlet 55°C	B Condition (2°CDB/1°CWB)	PERd %	134.8						
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.48					
			Pdh kW		3.0					
			PERd %		179.2					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		5.98					
			Pdh kW		3.7					
			PERd %		239.4					
		Tol (temperature operating limit)	COPd		1.93					1.97
	Pdh kW			7.0					8.3	
	PERd %			77.2					78.7	
	TOL °C			-10						
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.5					0.0	
			Tbiv (bivalent temperature)	°C	-7				-10	
		COPd		2.21					1.97	
			Pdh kW		7.6				8.3	
		PERd %		88.5					78.7	
			Tbiv °C		-7				-10	
		Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,257		7,127		7,100
ηs (Seasonal space heating efficiency)				%	119				122	
Prated at -22°C	kW			9.0						
Qhe Annual energy consumption (GCV)	Gj			26						
A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)			1.0						
	COPd			2.52						
	Pdh kW			5.2						
	PERd %			100.6						
B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)			1.0						
	COPd			3.77						
	Pdh kW		3.3							
C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0							
	COPd		4.81							
	Pdh kW		3.4							
D Condition (12°CDB/11°CWB)	COPd		6.36							
	Pdh kW		4.2							

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Technical specifications					ETVX12S18E6V + EPRA08EV3	ETVX12S23E6V + EPRA08EV3	ETVX12S18E6V + EPRA10EV3	ETVX12S23E6V + EPRA10EV3	ETVX12S18E6V + EPRA12EV3	ETVX12S23E6V + EPRA12EV3
Space heating Cold climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	254.2						
		Tol (temper- ature	COPd		1.43		1.49		1.54	
		Pdh	kW	4.9		6.1		7.2		
	operat- ing limit)	PERd	%	57.4		59.7		61.7		
		TOL	°C			-22				
		WTOL	°C			55				
	G Con- dition (-15°CDB/-)	COPd		1.93				1.96		
		Pdh	kW	6.0				7.2		
		PERd	%	77.2				78.4		
	Tbiv (bivalent tempera- ture)	COPd		2.17				1.96		
		Pdh	kW	6.6				7.2		
		PERd	%	86.9				78.4		
	Rated heat output supple- mentary capacity	Tbiv	°C	-12				-15		
		Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8		
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,946						
		ηs (Seasonal space heating efficiency)	%	171						
		Prated at 2°C	kW	9.6						
		Qhe Annual ener- gy consumption (GCV)	Gj	11						
	B Con- dition (2°CDB/ B/1°CWB)	Cdh (Degradation heating)		1.0						
		COPd		2.57						
		Pdh	kW	8.0						
	C Con- dition (7°CDB/ B/6°CWB)	PERd	%	102.6						
		Cdh (Degradation heating)		1.0						
		COPd		3.65						
	D Condition (12°CDB/11°CWB)	Pdh	kW	6.7						
		PERd	%	146.2						
		Cdh (Degradation heating)		1.0						
	Tbiv (bivalent tempera- ture)	COPd		5.71						
		Pdh	kW	3.6						
PERd		%	228.3							
Average climate water outlet 35°C	Tbiv	°C	3.02							
	Pdh	kW	8.4							
	PERd	%	120.9							
General	Tbiv	°C	4							
	Annual energy consumption	kWh	3,582		3,560					
	ηs (Seasonal space heating efficiency)	%	188		190					
	Prated at -10°C	kW	8.3							

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Technical specifications				ETVX12S18E6V + EPRA08EV3	ETVX12S23E6V + EPRA08EV3	ETVX12S18E6V + EPRA10EV3	ETVX12S23E6V + EPRA10EV3	ETVX12S18E6V + EPRA12EV3	ETVX12S23E6V + EPRA12EV3	
Space heating 	Average climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	13						
			SCOP	4.79		4.82				
			Seasonal space heating eff. class	A+++						
		A Condition (-7°CDB/-8°CWB)	COPd	3.10						
			Pdh kW	7.5						
			PERd %	124.1						
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	1.0						
			COPd	4.76						
			Pdh kW	4.4						
			PERd %	190.4						
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	1.0						
			COPd	6.14						
			Pdh kW	4.3						
			PERd %	245.8						
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0						
			COPd	7.84						
			Pdh kW	6.6						
			PERd %	313.4						
		Tol (temperature operating limit)	COPd	2.80		2.77				
			Pdh kW	6.9		8.1				
			PERd %	112.2		110.8				
			TOL °C	-10						
			WTOL °C	35						
Tbiv (bivalent temperature)	COPd	3.10		2.77						
	Pdh kW	7.5		8.1						
	PERd %	124.1		110.8						
	Tbiv °C	-7		-10						
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	1.4		0.0						
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,507		5,355		5,340		
		ηs (Seasonal space heating efficiency)	%	158		163				
		Prated at -22°C	kW	9.0						
		Qhe Annual energy consumption (GCV)	Gj	20		19				
	A Condition (-7°CDB/-8°CWB)	COPd	3.36							
		Pdh kW	5.4							
		PERd %	134.5							
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	1.0							
		COPd	5.21							

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Technical specifications				ETVX12S18E6V + EPRA08EV3	ETVX12S23E6V + EPRA08EV3	ETVX12S18E6V + EPRA10EV3	ETVX12S23E6V + EPRA10EV3	ETVX12S18E6V + EPRA12EV3	ETVX12S23E6V + EPRA12EV3	
Space heating 	Cold climate water outlet 35°C	B Condition (2°CDB/1°CWB)	Pdh	kW						3.6
			PERd	%						208.4
			Cd _h (Degradation heating)							1.0
		C Condition (7°CDB/6°CWB)	COP _d							6.29
			Pdh	kW						5.3
			PERd	%						251.7
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)							1.0
			COP _d							7.69
			Pdh	kW						6.6
		Tol (temperature operating limit)	PERd	%						307.6
			COP _d		2.04		2.07		2.09	
			Pdh	kW	4.9		5.9		6.4	
		G Condition (-15°CDB/)	PERd	%	81.6		82.9		83.6	
			TOL	°C						-22
			WTOL	°C						35
	Tbiv (bivalent temperature)	COP _d		2.60		2.56		2.56		
		Pdh	kW	6.0		7.0		7.0		
		PERd	%	103.8		102.6		102.6		
	Rated heat output supplementary capacity	Tbiv	°C	2.86		2.56		2.56		
		Pdh	kW	6.5		7.0		7.0		
		PERd	%	114.4		102.6		102.6		
Warm climate water outlet 35°C	Tbiv	°C	-12		-15		-15			
	Psup (at Tdesign -22°C)	kW	4.1		3.1		2.6			
	General	Annual energy consumption	kWh						1,899	
Space heating 	Warm climate water outlet 35°C	B Condition (2°CDB/1°CWB)	η _s (Seasonal space heating efficiency)	%						239
			Prated at 2°C	kW						8.6
			Q _{he} Annual energy consumption (GCV)	Gj						7
		C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)							1.0
			COP _d							3.95
			Pdh	kW						7.7
		D Condition (12°CDB/11°CWB)	PERd	%						157.9
			Cd _h (Degradation heating)							1.0
			COP _d							5.65
		Tbiv (bivalent temperature)	Pdh	kW						5.5
			PERd	%						225.9
			Tbiv	°C	4.80		4.80		4.80	
		Tbiv (bivalent temperature)	Pdh	kW	6.9		6.9		6.9	
			PERd	%	192.0		192.0		192.0	
			Tbiv	°C	5		5		5	
D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)							1.0		
	COP _d							7.56		
	Pdh	kW						6.2		
D Condition (12°CDB/11°CWB)	PERd	%						302.6		

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |
 (2)Condition: Ta DB/WB 7°C/6°C - LWC 35°C. (DT = 5°C) |
 (3)Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |
 (4)Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB |
 (5)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |
 (6)Test at Ta DB/WB 7°C/6°C. According to EN 16147. |
 (7)DB/WB 7°C/6°C - LWC 35°C. (dT=5°C) with pump at full speed

Technical specifications				ETVX12S18E9W + EPRA08EV3	ETVX12S23E9W + EPRA08EV3	ETVX12S18E9W + EPRA10EV3	ETVX12S23E9W + EPRA10EV3	ETVX12S18E9W + EPRA12EV3	ETVX12S23E9W + EPRA12EV3
Indoor unit				ETVX12S18EA9W	ETVX12S23EA9W	ETVH12S23EA9W	ETVX12S23EA9W	ETVX12S18EA9W	ETVX12S23EA9W
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Min.	kW	3.44 (1)						
	Nom.	kW	6.17 (2)						
	Max.	kW	7.95 (1)					9.25 (1)	9.97 (1)

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Technical specifications				ETVX12S18E9W + EPRA08EV3	ETVX12S23E9W + EPRA08EV3	ETVX12S18E9W + EPRA10EV3	ETVX12S23E9W + EPRA10EV3	ETVX12S18E9W + EPRA12EV3	ETVX12S23E9W + EPRA12EV3	
Cooling capacity	Nom.		kW	6.81 (3) / 6.47 (4)		7.97 (3) / 6.47 (4)		8.62 (3) / 6.47 (4)		
Power input	Heating	Min.	kW	0.72 (5)						
		Nom.	kW	1.25 (2)						
		Max.	kW	1.69 (5)		2.04 (5)		2.28 (5)		
Cooling	Domestic hot water from 10°C to 50°C	Nom.	kW	2.15 (3) / 1.16 (4)		2.66 (3) / 1.16 (4)		2.96 (3) / 1.16 (4)		
		Nom.	kWh	2.63 (6)	3.19 (6)	2.63 (6)	3.19 (6)	2.63 (6)	3.19 (6)	
			hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min	
COP				4.92 (2)						
EER				3.17 (3) / 5.56 (4)		3.00 (3) / 5.56 (4)		2.91 (3) / 5.56 (4)		
Pump	Type	Grundfos UPM3LK								
	Nominal ESP unit	Heating	kPa	59.8 (7)						
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min						
General	Supplier/Manu- facturer 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)		44.0					
	LW(A) Sound power level (according to EN14825)	Outdoor	dB(A)		53.0					
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Tank	Name	Stainless steel domestic hot water tank 180 l		Stainless steel domestic hot water tank 230 L		Stainless steel domestic hot water tank 180 l		Stainless steel domestic hot water tank 230 L		
		Rated airflow (outdoor)		m ³ /h		3,542				
Space heating general	Air to water unit	Capacity control		Inverter						
		Pck (Crankcase heater mode)		kW		0.000				
		Poff (Off mode)		kW		0.021				
		Psb (Standby mode)		kW		0.021				
		Pto (Thermostat off)		kW		0.024				
Domestic hot water heating	General	Declared load profile		L						
Space heating general	Inte- grated supple- mentary heater	Psup		kW		9.0				
		Type of energy input		Electrical						

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Technical specifications				ETVX12S18E9W + EPRA08EV3	ETVX12S23E9W + EPRA08EV3	ETVX12S18E9W + EPRA10EV3	ETVX12S23E9W + EPRA10EV3	ETVX12S18E9W + EPRA12EV3	ETVX12S23E9W + EPRA12EV3		
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	877	810	877	810	877	810		
		COPdhw		2.72	2.96	2.72	2.96	2.72	2.96		
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min		
		ηwh (water heating efficiency)	%	117	126	117	126	117	126		
		Qelec (Daily electricity consumption)	kWh	4.280	3.940	4.280	3.940	4.280	3.940		
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input	W	51.7	44.8	51.7	44.8	51.7	44.8		
		Water heating energy efficiency class		A+							
		Cold climate	Average climate	AEC (Annual electricity consumption)	kWh	966	891	966	891	966	891
				COPdhw		2.48	2.70	2.48	2.70	2.48	2.70
				Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min
				ηwh (water heating efficiency)	%	106	115	106	115	106	115
Qelec (Daily electricity consumption)	kWh			4.700	4.320	4.700	4.320	4.700	4.320		
Reference hot water temperature	°C			53.0	52.0	53.0	52.0	53.0	52.0		
Stand-by power input	W			55.4	47.7	55.4	47.7	55.4	47.7		
Warm climate	Average climate			AEC (Annual electricity consumption)	kWh	719	666	719	666	719	666
		COPdhw		3.31	3.59	3.31	3.59	3.31	3.59		
		Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min		
		ηwh (water heating efficiency)	%	142	154	142	154	142	154		
		Qelec (Daily electricity consumption)	kWh	3.530	3.250	3.530	3.250	3.530	3.250		
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input	W	45.4	39.7	45.4	39.7	45.4	39.7		
		Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,065		5,043		
ηs (Seasonal space heating efficiency)	%				136						
Prated at -10°C	Qhe Annual energy consumption (GCV)			Gj	18						
	SCOP				3.47		3.48				
Seasonal space heating eff. class					A++						
	A Condition (-7°CDB/-8°CWB)			Cdh (Degradation heating)		1.0					
A Condition (-7°CDB/-8°CWB)				COPd		2.21					
				Pdh	kW	7.6					
				PERd	%	88.5					
B Condition (2°CDB/1°CWB)				Cdh (Degradation heating)		1.0					
				COPd		3.37					
				Pdh	kW	4.6					

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Technical specifications				ETVX12S18E9W + EPRA08EV3	ETVX12S23E9W + EPRA08EV3	ETVX12S18E9W + EPRA10EV3	ETVX12S23E9W + EPRA10EV3	ETVX12S18E9W + EPRA12EV3	ETVX12S23E9W + EPRA12EV3		
Space heating 	Average climate water outlet 55°C	B Condition (2°CDB/1°CWB)	PERd %	134.8							
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0						
			COPd		4.48						
			Pdh kW		3.0						
			PERd %		179.2						
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0						
			COPd		5.98						
			Pdh kW		3.7						
			PERd %		239.4						
		Tol (temperature operating limit)	COPd		1.93					1.97	
	Pdh kW			7.0					8.3		
	PERd %			77.2					78.7		
	TOL °C			-10							
	Rated heat output supplementary capacity	Tbiv (bivalent temperature)	COPd		2.21				1.97		
			Pdh kW		7.6				8.3		
		PERd %		88.5				78.7			
		Tbiv °C		-7				-10			
		General	Annual energy consumption	kWh	7,257			7,127			7,100
			ηs (Seasonal space heating efficiency)	%	119				122		
			Prated at -22°C	kW	9.0						
Qhe Annual energy consumption (GCV)			Gj	26							
A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0								
	COPd		2.52								
	Pdh kW		5.2								
	PERd %		100.6								
B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0								
	COPd		3.77								
	Pdh kW		3.3								
C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0								
	COPd		4.81								
	Pdh kW		3.4								
D Condition (12°CDB/11°CWB)	COPd		6.36								
	Pdh kW		4.2								

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Technical specifications				ETVX12S18E9W + EPRA08EV3	ETVX12S23E9W + EPRA08EV3	ETVX12S18E9W + EPRA10EV3	ETVX12S23E9W + EPRA10EV3	ETVX12S18E9W + EPRA12EV3	ETVX12S23E9W + EPRA12EV3	
Space heating Cold climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	254.2						
		Tol (tem- perature operat- ing limit)	COPd Pdh PERd TOL WTOL	% kW % °C °C			1.43 4.9 57.4	1.49 6.1 59.7		1.54 7.2 61.7
	G Con- dition (-15°CDB/-)	COPd			1.93			1.96		
		Pdh PERd	kW %		6.0 77.2			7.2 78.4		
	Tbiv (bivalent tempera- ture)	COPd			2.17			1.96		
		Pdh PERd Tbiv	kW % °C		6.6 86.9 -12			7.2 78.4 -15		
	Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)	kW		4.1	2.9				1.8
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,946					
			ηs (Seasonal space heating efficiency)	%	171					
			Prated at 2°C	kW	9.6					
			Qhe Annual ener- gy consumption (GCV)	Gj	11					
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd Pdh PERd	 kW %	2.57 8.0 102.6					
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd Pdh PERd	 kW %	3.65 6.7 146.2					
D Condition (12°CDB/11°CWB)		Cdh (Degradation heating)		1.0						
		COPd Pdh PERd	 kW %	5.71 3.6 228.3						
		Tbiv (bivalent tempera- ture)	COPd Pdh PERd Tbiv	 kW % °C	3.02 8.4 120.9 4					
Average climate water outlet 35°C		General	Annual energy consumption	kWh	3,582		3,560			
			ηs (Seasonal space heating efficiency)	%	188		190			
		Prated at -10°C	kW	8.3						

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Technical specifications				ETVX12S18E9W + EPRA08EV3	ETVX12S23E9W + EPRA08EV3	ETVX12S18E9W + EPRA10EV3	ETVX12S23E9W + EPRA10EV3	ETVX12S18E9W + EPRA12EV3	ETVX12S23E9W + EPRA12EV3	
Space heating 	Average climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	13						
			SCOP	4.79		4.82				
			Seasonal space heating eff. class	A+++						
		A Condition (-7°CDB/-8°CWB)	COPd		3.10					
			Pdh	kW	7.5					
			PERd	%	124.1					
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.76					
			Pdh	kW	4.4					
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		6.14					
			Pdh	kW	4.3					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		7.84					
			Pdh	kW	6.6					
		Tol (temperature operating limit)	PERd	%	313.4					
			COPd		2.80		2.77			
			Pdh	kW	6.9		8.1			
		TOL	PERd	%	112.2		110.8			
			WTOL	°C	-10					
		Tbiv (bivalent temperature)	WTOL	°C	35					
			COPd		3.10		2.77			
			Pdh	kW	7.5		8.1			
Rated heat output supplementary capacity	PERd	%	124.1		110.8					
	Tbiv	°C	-7		-10					
Cold climate water outlet 35°C	General	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	1.4		0.0				
		Annual energy consumption	kWh	5,507		5,355		5,340		
		ηs (Seasonal space heating efficiency)	%	158		163				
		Prated at -22°C	kW	9.0						
		Qhe Annual energy consumption (GCV)	Gj	20		19				
		A Condition (-7°CDB/-8°CWB)	COPd		3.36					
			Pdh	kW	5.4					
			PERd	%	134.5					
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		5.21					

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Technical specifications				ETVX12S18E9W + EPRA08EV3	ETVX12S23E9W + EPRA08EV3	ETVX12S18E9W + EPRA10EV3	ETVX12S23E9W + EPRA10EV3	ETVX12S18E9W + EPRA12EV3	ETVX12S23E9W + EPRA12EV3			
Space heating 	Cold climate water outlet 35°C	B Condition (2°CDB- B/1°CWB)	Pdh	kW						3.6		
			PERd	%						208.4		
		C Condition (7°CDB- B/6°CWB)	CdH (Degradation heating)									1.0
			COPd									6.29
			Pdh	kW								5.3
			PERd	%								251.7
		D Condition (12°CDB/11°CWB)	CdH (Degradation heating)									1.0
			COPd									7.69
			Pdh	kW								6.6
			PERd	%								307.6
	Tol (temperature operating limit)	COPd		2.04					2.07	2.09		
		Pdh		4.9					5.9	6.4		
		PERd		81.6					82.9	83.6		
		TOL		°C								-22
	WTOL		°C								35	
	G Condition (-15°CDB/-)	COPd		2.60					2.56			
		Pdh		6.0					7.0			
		PERd		103.8					102.6			
		Tbiv (bivalent temperature)	COPd		2.86					2.56		
			Pdh		6.5					7.0		
Rated heat output supplementary capacity		PERd		114.4					102.6			
		Tbiv		°C	-12					-15		
Psup (at Tdesign -22°C)		kW	4.1					3.1	2.6			
Warm climate water outlet 35°C	General	Annual energy consumption							1,899			
		ηs (Seasonal space heating efficiency)							239			
		Prated at 2°C							8.6			
		Qhe Annual energy consumption (GCV)							7			
	B Condition (2°CDB- B/1°CWB)	CdH (Degradation heating)									1.0	
		COPd									3.95	
		Pdh	kW								7.7	
		PERd	%								157.9	
	C Condition (7°CDB- B/6°CWB)	CdH (Degradation heating)									1.0	
		COPd									5.65	
		Pdh	kW								5.5	
		PERd	%								225.9	
Tbiv (bivalent temperature)	COPd									4.80		
	Pdh									6.9		
Space heating 	Warm climate water outlet 35°C	Tbiv (bivalent temperature)	PERd	%						192.0		
			Tbiv	°C						5		
		D Condition (12°CDB/11°CWB)	CdH (Degradation heating)									1.0
			COPd									7.56
Pdh		kW								6.2		
PERd		%								302.6		

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |
(2)Condition: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) |
(3)Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |
(4)Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB |
(5)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |
(6)Test at Ta DB/WB 7°C/6°C. According to EN 16147. |
(7)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed

Technical specifications				ETVZ12S18E6V + EPRA08EV3	ETVZ12S23E6V + EPRA08EV3	ETVZ12S18E6V + EPRA10EV3	ETVZ12S23E6V + EPRA10EV3	ETVZ12S18E6V + EPRA12EV3	ETVZ12S23E6V + EPRA12EV3
Indoor unit				ETVZ12S18EA6V	ETVZ12S23EA6V	ETVZ12S18EA6V	ETVZ12S23EA6V	ETVZ12S18EA6V	ETVZ12S23EA6V
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Min.	kW				3.44 (1)			
	Nom.	kW				6.17 (2)			
	Max.	kW		7.95 (1)		9.25 (1)		9.97 (1)	

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Technical specifications				ETVZ12S18E6V + EPRA08EV3	ETVZ12S23E6V + EPRA08EV3	ETVZ12S18E6V + EPRA10EV3	ETVZ12S23E6V + EPRA10EV3	ETVZ12S18E6V + EPRA12EV3	ETVZ12S23E6V + EPRA12EV3	
Power input	Heating	Min.	kW	0.72 (3)						
		Nom.	kW	1.25 (2)						
		Max.	kW	1.69 (3)		2.04 (3)		2.28 (3)		
	Domestic hot water from 10°C to 50°C	Nom.	kWh	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	
Heat up time from 10°C to 50°C			hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min	
COP				4.92 (2)						
Pump	Type			Grundfos UPM3 K						
Pump Additional Zone	Nominal ESP unit	Heating	kPa	44.9 (5)						
Pump Main Zone	Nominal ESP unit	Heating	kPa	50.0 (5)						
Water side Heat exchanger	Water flow rate	Heating	Nom. l/min	18.3 (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)	44.0						
LW(A) Sound power level (according to EN14825)	Outdoor		dB(A)	53.0						
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Tank	Name			Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	
Space heating general	Air to water unit	Rated airflow (outdoor)	m ³ /h	3,542						
	Other	Capacity control			Inverter					
		Pck (Crankcase heater mode)		kW	0.000					
		Poff (Off mode)		kW	0.021					
		Psb (Standby mode)		kW	0.021					
		Pto (Thermostat off)		kW	0.024					
Domestic hot water heating	General	Declared load profile		L						
Space heating general	Integrated supplementary heater	Psup		kW						
		Type of energy input		Electrical						

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Technical specifications				ETVZ12S18E6V + EPRA08EV3	ETVZ12S23E6V + EPRA08EV3	ETVZ12S18E6V + EPRA10EV3	ETVZ12S23E6V + EPRA10EV3	ETVZ12S18E6V + EPRA12EV3	ETVZ12S23E6V + EPRA12EV3		
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	877	810	877	810	877	810		
		COPdhw		2.72	2.96	2.72	2.96	2.72	2.96		
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min		
		η _{wh} (water heating efficiency)	%	117	126	117	126	117	126		
		Qelec (Daily electricity consumption)	kWh	4.280	3.940	4.280	3.940	4.280	3.940		
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input	W	51.7	44.8	51.7	44.8	51.7	44.8		
		Water heating energy efficiency class		A+							
		Cold climate	Average climate	AEC (Annual electricity consumption)	kWh	966	891	966	891	966	891
				COPdhw		2.48	2.70	2.48	2.70	2.48	2.70
Heat up time				1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min		
η _{wh} (water heating efficiency)	%			106	115	106	115	106	115		
Qelec (Daily electricity consumption)	kWh			4.700	4.320	4.700	4.320	4.700	4.320		
Reference hot water temperature	°C			53.0	52.0	53.0	52.0	53.0	52.0		
Stand-by power input	W			55.4	47.7	55.4	47.7	55.4	47.7		
Warm climate	Average climate			AEC (Annual electricity consumption)	kWh	719	666	719	666	719	666
		COPdhw		3.31	3.59	3.31	3.59	3.31	3.59		
		Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min		
		η _{wh} (water heating efficiency)	%	142	154	142	154	142	154		
		Qelec (Daily electricity consumption)	kWh	3.530	3.250	3.530	3.250	3.530	3.250		
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input	W	45.4	39.7	45.4	39.7	45.4	39.7		
		Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,142		5,120		
η _s (Seasonal space heating efficiency)	%				134						
Prated at -10°C	Q _{he} Annual energy consumption (GCV)			Gj	19		18				
	SCOP				3.41		3.43				
Seasonal space heating eff. class					A++						
	A Condition (7°CDB/-8°CWB)			Cdh (Degradation heating)		1.0					
A Condition (7°CDB/-8°CWB)				COPd	2.21						
				Pdh	7.6						
				PERd	88.5						
B Condition (2°CDB/-1°CWB)				Cdh (Degradation heating)	1.0						
				COPd	3.37						
				Pdh	4.6						
B Condition (2°CDB/-1°CWB)				PERd	134.8						
				Cdh (Degradation heating)	1.0						
C Condition (7°CDB/-6°CWB)				Cdh (Degradation heating)	1.0						
		COPd	2.21								

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Technical specifications				ETVZ12S18E6V + EPRA08EV3	ETVZ12S23E6V + EPRA08EV3	ETVZ12S18E6V + EPRA10EV3	ETVZ12S23E6V + EPRA10EV3	ETVZ12S18E6V + EPRA12EV3	ETVZ12S23E6V + EPRA12EV3	
Space heating 	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	COPd						4.48	
			Pdh	kW					3.0	
			PERd	%						179.2
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)							1.0
			COPd							5.98
			Pdh	kW						3.7
		Tol (temperature operating limit)	PERd	%						239.4
			COPd		1.93					1.97
			Pdh	kW	7.0					8.3
		Rated heat output supplementary capacity	Tol (temperature operating limit)	PERd	%	77.2				78.7
	TOL			°C					-10	
	Cold climate water outlet 55°C	Rated heat output supplementary capacity	WTOL	°C					55	
			Psup (at Tdesign -10°C)	kW	1.5				0.0	
		Tbiv (bivalent temperature)	COPd			2.21				1.97
				Pdh	kW	7.6				8.3
			PERd	%	88.5					78.7
				Tbiv	°C	-7				-10
		General	Annual energy consumption			7,303		7,173		7,146
				ηs (Seasonal space heating efficiency)	%	118			121	
			Prated at -22°C	kW					9.0	
Qhe Annual energy consumption (GCV)			Gj					26		
A Condition (7°CDB/8°CWB)	Cdh (Degradation heating)								1.0	
			COPd						2.52	
	Pdh	kW						5.2		
		PERd	%					100.6		
B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)							1.0		
		COPd						3.77		
	Pdh	kW						3.3		
C Condition (7°CDB/6°CWB)	PERd	%						151.0		
		Cdh (Degradation heating)						1.0		
D Condition (12°CDB/11°CWB)	COPd							4.81		
		Pdh	kW					3.4		
	PERd	%						192.2		
Tol (temperature operating limit)	COPd							6.36		
		Pdh	kW					4.2		
	PERd	%						254.2		
Tol (temperature operating limit)	COPd			1.43		1.49		1.54		

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Technical specifications				ETVZ12S18E6V + EPRA08EV3	ETVZ12S23E6V + EPRA08EV3	ETVZ12S18E6V + EPRA10EV3	ETVZ12S23E6V + EPRA10EV3	ETVZ12S18E6V + EPRA12EV3	ETVZ12S23E6V + EPRA12EV3	
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	Pdh	kW	4.9		6.1		7.2	
			PERd	%	57.4		59.7		61.7	
			TOL	°C			-22			
			WTOL	°C			55			
		G Condition (-15°CDB/-)	COPd			1.93			1.96	
			Pdh	kW		6.0			7.2	
			PERd	%		77.2			78.4	
		Tbiv (bivalent temperature)	COPd			2.17			1.96	
			Pdh	kW		6.6			7.2	
			PERd	%		86.9			78.4	
	Tbiv	°C		-12			-15			
	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8		
Warm climate water outlet 55°C	General	Annual energy consumption	kWh			3,039				
		ηs (Seasonal space heating efficiency)	%			166				
		Prated at 2°C	kW			9.6				
		Qhe Annual energy consumption (GCV)	Gj			11				
	B Condition (2°CDB/B/1°CWB)	Cdh (Degradation heating)				1.0				
		COPd				2.57				
		Pdh	kW			8.0				
	C Condition (7°CDB/B/6°CWB)	Cdh (Degradation heating)				1.0				
		COPd				3.65				
		Pdh	kW			6.7				
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0				
		COPd				5.71				
		Pdh	kW			3.6				
	Tbiv (bivalent temperature)	PERd	%			228.3				
COPd					3.02					
Pdh		kW			8.4					
	PERd	%			120.9					
	Tbiv	°C			4					
Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,659			3,637			
		ηs (Seasonal space heating efficiency)	%	184			186			
		Prated at -10°C	kW			8.3				
		Qhe Annual energy consumption (GCV)	Gj			13				
		SCOP			4.69			4.71		

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Technical specifications				ETVZ12S18E6V + EPRA08EV3	ETVZ12S23E6V + EPRA08EV3	ETVZ12S18E6V + EPRA10EV3	ETVZ12S23E6V + EPRA10EV3	ETVZ12S18E6V + EPRA12EV3	ETVZ12S23E6V + EPRA12EV3			
Space heating 	Average climate water outlet 35°C	General	Seasonal space heating eff. class	A+++								
		A Condition (7°CDB/-8°CWB)	COPd	3.10								
			Pdh	kW	7.5							
			PERd	%	124.1							
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)	1.0								
			COPd	4.76								
			Pdh	kW	4.4							
			PERd	%	190.4							
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	1.0								
			COPd	6.14								
			Pdh	kW	4.3							
			PERd	%	245.8							
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0								
			COPd	7.84								
			Pdh	kW	6.6							
			PERd	%	313.4							
		Tol (temperature operating limit)	COPd			2.80			2.77			
			Pdh	kW			6.9			8.1		
			PERd	%			112.2			110.8		
			TOL	°C	-10							
	WTOL	°C	35									
Tbiv (bivalent temperature)	COPd			3.10			2.77					
	Pdh	kW			7.5			8.1				
	PERd	%			124.1			110.8				
	Tbiv	°C	-7									
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW			1.4			0.0				
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,554		5,401		5,387				
		ηs (Seasonal space heating efficiency)	%	157		161		162				
		Prated at -22°C	kW	9.0								
		Qhe Annual energy consumption (GCV)	Gj	20		19						
		A Condition (7°CDB/-8°CWB)	COPd	3.36								
			Pdh	kW	5.4							
			PERd	%	134.5							
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)	1.0								
			COPd	5.21								
			Pdh	kW	3.6							
	PERd	%	208.4									

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1 - 1 EPRA08-12EV

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Technical specifications				ETVZ12S18E6V + EPRA08EV3	ETVZ12S23E6V + EPRA08EV3	ETVZ12S18E6V + EPRA10EV3	ETVZ12S23E6V + EPRA10EV3	ETVZ12S18E6V + EPRA12EV3	ETVZ12S23E6V + EPRA12EV3	
Space heating 	Cold climate water outlet 35°C	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)						1.0	
			COPd						6.29	
			Pdh kW						5.3	
		PERd %						251.7		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)							1.0
			COPd							7.69
			Pdh kW							6.6
		Tol (temperature operating limit)	PERd %							307.6
			COPd		2.04			2.07		2.09
			Pdh kW		4.9			5.9		6.4
	G Condition (-15°CDB/-)	PERd %		81.6			82.9		83.6	
		TOL °C							-22	
		WTOL °C							35	
	Tbiv (bivalent temperature)	COPd							2.56	
		Pdh kW							7.0	
		PERd %							102.6	
	Rated heat output supplementary capacity	Tbiv °C							-15	
		Psup (at Tdesign -22°C) kW		4.1			3.1		2.6	
	Warm climate water outlet 35°C	General	Annual energy consumption kWh							1,992
ηs (Seasonal space heating efficiency) %									228	
Prated at 2°C kW									8.6	
Qhe Annual energy consumption (GCV) GJ									7	
B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)							1.0	
		COPd							3.95	
		Pdh kW							7.7	
C Condition (7°CDB/6°CWB)		PERd %							157.9	
		Cdh (Degradation heating)							1.0	
		COPd							5.65	
Tbiv (bivalent temperature)		Pdh kW							5.5	
		PERd %							225.9	
		Tbiv °C							4.80	
D Condition (12°CDB/11°CWB)		COPd							6.9	
	Pdh kW							192.0		
	PERd %							5		
Space heating 	Warm climate water outlet	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)						1.0	
			COPd						7.56	
			Pdh kW						6.2	
			PERd %						302.6	

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |

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

(3)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |

(4)Test at Ta DB/WB 7°C/6°C. According to EN 16147. |

(5)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |

Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |

Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB

Technical specifications				ETVZ12S18E9W + EPRA08EV3	ETVZ12S23E9W + EPRA08EV3	ETVZ12S18E9W + EPRA10EV3	ETVZ12S23E9W + EPRA10EV3	ETVZ12S18E9W + EPRA12EV3	ETVZ12S23E9W + EPRA12EV3
Indoor unit				ETVZ12S18EA9W	ETVZ12S23EA9W	ETVZ12S18EA9W	ETVZ12S23EA9W	ETVZ12S18EA9W	ETVZ12S23EA9W
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Min.	kW				3.44 (1)			
	Nom.	kW				6.17 (2)			
	Max.	kW		7.95 (1)		9.25 (1)			9.97 (1)

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1 - 1 EPRA08-12EV

Technical specifications				ETVZ12S18E9W + EPRA08EV3	ETVZ12S23E9W + EPRA08EV3	ETVZ12S18E9W + EPRA10EV3	ETVZ12S23E9W + EPRA10EV3	ETVZ12S18E9W + EPRA12EV3	ETVZ12S23E9W + EPRA12EV3	
Power input	Heating	Min.	kW	0.72 (3)						
		Nom.	kW	1.25 (2)						
		Max.	kW	1.69 (3)		2.04 (3)		2.28 (3)		
	Domestic hot water from 10°C to 50°C	Nom.	kWh	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	2.63 (4)	3.19 (4)	
Heat up time from 10°C to 50°C			hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min	
COP				4.92 (2)						
Pump	Type			Grundfos UPM3 K						
Pump Additional Zone	Nominal ESP unit	Heating	kPa	44.9 (5)						
Pump Main Zone	Nominal ESP unit	Heating	kPa	50.0 (5)						
Water side Heat exchanger	Water flow rate	Heating	Nom. l/min	18.3 (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)	44.0						
LW(A) Sound power level (according to EN14825)	Outdoor		dB(A)	53.0						
Sound condition Ecodesign and energy label				Sound power in heating mode, measured according to the EN12102 under conditions of the EN14825						
Tank	Name			Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	Stainless steel domestic hot water tank 180 l	Stainless steel domestic hot water tank 230 L	
Space heating general	Air to water unit	Rated airflow (outdoor)	m ³ /h	3,542						
	Other	Capacity control			Inverter					
		Pck (Crankcase heater mode)		kW	0.000					
		Poff (Off mode)		kW	0.021					
		Psb (Standby mode)		kW	0.021					
Pto (Thermostat off)		kW	0.024							
Domestic hot water heating	General	Declared load profile		L						
Space heating general	Integrated supplementary heater	Psup		kW						
		Type of energy input		Electrical						

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Technical specifications				ETVZ12S18E9W + EPRA08EV3	ETVZ12S23E9W + EPRA08EV3	ETVZ12S18E9W + EPRA10EV3	ETVZ12S23E9W + EPRA10EV3	ETVZ12S18E9W + EPRA12EV3	ETVZ12S23E9W + EPRA12EV3		
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	877	810	877	810	877	810		
		COPdhw		2.72	2.96	2.72	2.96	2.72	2.96		
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min		
		η _{wh} (water heating efficiency)	%	117	126	117	126	117	126		
		Qelec (Daily electricity consumption)	kWh	4.280	3.940	4.280	3.940	4.280	3.940		
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input	W	51.7	44.8	51.7	44.8	51.7	44.8		
		Water heating energy efficiency class		A+							
		Cold climate	Average climate	AEC (Annual electricity consumption)	kWh	966	891	966	891	966	891
				COPdhw		2.48	2.70	2.48	2.70	2.48	2.70
Heat up time				1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min		
η _{wh} (water heating efficiency)	%			106	115	106	115	106	115		
Qelec (Daily electricity consumption)	kWh			4.700	4.320	4.700	4.320	4.700	4.320		
Reference hot water temperature	°C			53.0	52.0	53.0	52.0	53.0	52.0		
Stand-by power input	W			55.4	47.7	55.4	47.7	55.4	47.7		
Warm climate	Average climate			AEC (Annual electricity consumption)	kWh	719	666	719	666	719	666
		COPdhw		3.31	3.59	3.31	3.59	3.31	3.59		
		Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min		
		η _{wh} (water heating efficiency)	%	142	154	142	154	142	154		
		Qelec (Daily electricity consumption)	kWh	3.530	3.250	3.530	3.250	3.530	3.250		
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
		Stand-by power input	W	45.4	39.7	45.4	39.7	45.4	39.7		
		Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,142		5,120		
η _s (Seasonal space heating efficiency)	%				134						
Prated at -10°C	Q _{he} Annual energy consumption (GCV)			Gj	19		18				
	SCOP				3.41		3.43				
A Condition (7°CDB/-8°CWB)	Seasonal space heating eff. class				A++						
	Cdh (Degradation heating)				1.0						
	COPd				2.21						
B Condition (2°CDB/-1°CWB)	Pdh			kW	7.6						
	PERd			%	88.5						
	Cdh (Degradation heating)				1.0						
C Condition (7°CDB/-6°CWB)	COPd				3.37						
	Pdh			kW	4.6						
	PERd			%	134.8						
Cdh (Degradation heating)		1.0									

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Technical specifications				ETVZ12S18E9W + EPRA08EV3	ETVZ12S23E9W + EPRA08EV3	ETVZ12S18E9W + EPRA10EV3	ETVZ12S23E9W + EPRA10EV3	ETVZ12S18E9W + EPRA12EV3	ETVZ12S23E9W + EPRA12EV3	
Space heating 	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	COPd						4.48	
			Pdh	kW					3.0	
			PERd	%						179.2
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)							1.0
			COPd							5.98
			Pdh	kW						3.7
		Tol (temperature operating limit)	PERd	%						239.4
			COPd		1.93					1.97
			Pdh	kW	7.0					8.3
		Rated heat output supplementary capacity	Tol (temperature operating limit)	PERd	%	77.2				78.7
	TOL			°C					-10	
	Cold climate water outlet 55°C	Rated heat output supplementary capacity	WTOL	°C					55	
			Psup (at Tdesign -10°C)	kW	1.5				0.0	
		Tbiv (bivalent temperature)	COPd			2.21				1.97
				Pdh	kW	7.6				8.3
			PERd			88.5				78.7
				Tbiv	°C	-7				-10
		General	Annual energy consumption			7,303		7,173		7,146
				ηs (Seasonal space heating efficiency)	%	118			121	
			Prated at -22°C	kW					9.0	
Qhe Annual energy consumption (GCV)			Gj					26		
A Condition (7°CDB/8°CWB)	Cdh (Degradation heating)								1.0	
			COPd						2.52	
		Pdh	kW					5.2		
B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	PERd	%					100.6		
		COPd						1.0		
		Pdh	kW					3.77		
C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	Pdh	kW					3.3		
		COPd						151.0		
		PERd	%					1.0		
D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	COPd						4.81		
		Pdh	kW					3.4		
		PERd	%					192.2		
Tol (temperature operating limit)	COPd			1.43		1.49		1.54		
		Pdh	kW					6.36		
		PERd	%					4.2		

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Technical specifications				ETVZ12S18E9W + EPRA08EV3	ETVZ12S23E9W + EPRA08EV3	ETVZ12S18E9W + EPRA10EV3	ETVZ12S23E9W + EPRA10EV3	ETVZ12S18E9W + EPRA12EV3	ETVZ12S23E9W + EPRA12EV3	
Space heating Cold climate water outlet 55°C	Tol (temperature operating limit)	Pdh	kW	4.9		6.1		7.2		
		PERd	%	57.4		59.7		61.7		
		TOL	°C			-22				
		WTOL	°C			55				
	G Condition (-15°CDB/-)	COPd		1.93			1.96			
		Pdh	kW	6.0			7.2			
		PERd	%	77.2			78.4			
		Tbiv	COPd		2.17			1.96		
	(bivalent temperature)	Pdh	kW	6.6			7.2			
		PERd	%	86.9			78.4			
		Tbiv	°C	-12			-15			
		Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8	
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh			3,039			
			ηs (Seasonal space heating efficiency)	%			166			
Prated at 2°C			kW			9.6				
Qhe Annual energy consumption (GCV)			Gj			11				
B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)				1.0				
		COPd				2.57				
		Pdh	kW			8.0				
C Condition (7°CDB/6°CWB)		PERd	%			102.6				
		Cdh (Degradation heating)				1.0				
		COPd				3.65				
D Condition (12°CDB/11°CWB)		Pdh	kW			6.7				
		PERd	%			146.2				
		Cdh (Degradation heating)				1.0				
Tbiv (bivalent temperature)		COPd				5.71				
	Pdh	kW			3.6					
	PERd	%			228.3					
	Tbiv	°C			4					
Average climate water outlet 35°C	General	COPd			3.02					
		Pdh	kW			8.4				
		PERd	%			120.9				
		Tbiv	°C			4				
	Annual energy consumption	kWh	3,659			3,637				
ηs (Seasonal space heating efficiency)	%	184			186					
Prated at -10°C	kW			8.3						
Qhe Annual energy consumption (GCV)	Gj			13						
SCOP			4.69			4.71				

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Technical specifications				ETVZ12S18E9W + EPRA08EV3	ETVZ12S23E9W + EPRA08EV3	ETVZ12S18E9W + EPRA10EV3	ETVZ12S23E9W + EPRA10EV3	ETVZ12S18E9W + EPRA12EV3	ETVZ12S23E9W + EPRA12EV3			
Space heating 	Average climate water outlet 35°C	General	Seasonal space heating eff. class	A+++								
		A Condition (7°CDB/-8°CWB)	COPd	3.10								
			Pdh	kW	7.5							
			PERd	%	124.1							
		B Condition (2°CDB/-8°CWB)	Cdh (Degradation heating)	1.0								
			COPd	4.76								
			Pdh	kW	4.4							
			PERd	%	190.4							
		C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)	1.0								
			COPd	6.14								
			Pdh	kW	4.3							
			PERd	%	245.8							
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0								
			COPd	7.84								
			Pdh	kW	6.6							
			PERd	%	313.4							
		Tol (temperature operating limit)	COPd			2.80			2.77			
			Pdh	kW			6.9			8.1		
			PERd	%			112.2			110.8		
			TOL	°C	-10							
	WTOL	°C	35									
Tbiv (bivalent temperature)	COPd			3.10			2.77					
	Pdh	kW			7.5			8.1				
	PERd	%			124.1			110.8				
	Tbiv	°C	-7									
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW			1.4			0.0				
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,554		5,401		5,387				
		ηs (Seasonal space heating efficiency)	%	157		161		162				
		Prated at -22°C	kW	9.0								
		Qhe Annual energy consumption (GCV)	Gj	20		19						
		A Condition (7°CDB/-8°CWB)	COPd	3.36								
			Pdh	kW	5.4							
			PERd	%	134.5							
		B Condition (2°CDB/-8°CWB)	Cdh (Degradation heating)	1.0								
			COPd	5.21								
			Pdh	kW	3.6							
	PERd	%	208.4									

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Technical specifications				ETVZ12S18E9W + EPRA08EV3	ETVZ12S23E9W + EPRA08EV3	ETVZ12S18E9W + EPRA10EV3	ETVZ12S23E9W + EPRA10EV3	ETVZ12S18E9W + EPRA12EV3	ETVZ12S23E9W + EPRA12EV3	
Space heating	Cold climate water outlet 35°C	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)						1.0	
			COPd						6.29	
			Pdh kW						5.3	
		PERd %						251.7		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)							1.0
			COPd							7.69
			Pdh kW							6.6
		PERd %							307.6	
		Tol (temperature operating limit)	TOL °C	COPd		2.04		2.07		2.09
				Pdh kW		4.9		5.9		6.4
	PERd %				81.6		82.9		83.6	
	WTOL °C									-22
	G Condition (-15°CDB/-)	Tbiv (bivalent temperature)	COPd		2.60		2.56		2.56	
			Pdh kW		6.0		7.0		7.0	
			PERd %		103.8		102.6		102.6	
		Rated heat output supplementary capacity	Psup (at Tdesign -22°C) kW			4.1		3.1		2.6
	Warm climate water outlet 35°C	General	Annual energy consumption	kWh						1,992
				ηs (Seasonal space heating efficiency) %						228
Prated at 2°C kW									8.6	
Qhe Annual energy consumption (GCV) GJ									7	
B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)	COPd						1.0	
			COPd						3.95	
			Pdh kW						7.7	
C Condition (7°CDB/6°CWB)		Cdh (Degradation heating)	COPd						1.0	
			COPd						5.65	
			Pdh kW						5.5	
Tbiv (bivalent temperature)		Tbiv °C	PERd %						225.9	
			COPd						4.80	
			Pdh kW						6.9	
			PERd %						192.0	
Space heating	Warm climate water outlet	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)						1.0	
			COPd						7.56	
			Pdh kW						6.2	
		PERd %							302.6	

(1)Capacity according to standard EN14511 and valid for heated water range dT = 3~8°C at Ta 7°C |
 (2)Condition: Ta DB/WB 7°C/6°C - LWC 35°C. (DT = 5°C) |
 (3)Power input is total input of indoor and outdoor units, including the circulation pump; according to EN14511 |
 (4)Test at Ta DB/WB 7°C/6°C. According to EN 16147. |
 (5)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |
 Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB |
 Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB

Technical specifications				ETSH12P30E + EPRA08EV3	ETSH12P50E + EPRA08EV3	ETSH12P30E + EPRA10EV3	ETSH12P50E + EPRA10EV3	ETSH12P30E + EPRA12EV3	ETSH12P50E + EPRA12EV3
Indoor unit				ETSH12P30EF	ETSH12P50EF	ETSH12P30EF	ETSH12P50EF	ETSH12P30EF	ETSH12P50EF
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Nom.		kW	6.17 (1)					
Power input	Heating	Nom.	kW	1.25 (1)					
COP				4.92 (2)					
Pump	Type	Grundfos UPM3L K 20-75 CHBL AZA 3 RT							
	Nominal Heating ESP unit		kPa	53.5 (3)					
Water side Heat exchanger	Water flow rate	Heating	Nom.	17.7 (1)					

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Technical specifications			ETSH12P30E + EPRA08EV3	ETSH12P50E + EPRA08EV3	ETSH12P30E + EPRA10EV3	ETSH12P50E + EPRA10EV3	ETSH12P30E + EPRA12EV3	ETSH12P50E + EPRA12EV3			
General	Supplier/Manu- facturer details	Name and address	Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium								
		Name or trademark	Daikin Europe N.V.								
	Product descrip- tion	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							
	LW(A) Sound power level (according to EN14825)	Indoor	dB(A)	47.3							
		Outdoor	dB(A)	53.0							
	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 3,542								
	Other	Capacity control	Inverter								
		Pck (Crankcase heater mode) kW	0.000								
		Poff (Off mode) kW	0.021								
		Psb (Standby mode) kW	0.021								
		Pto (Thermostat off) kW	0.024								
Domestic hot water heating 	General	Declared load profile	L								
		Function to fix water heating during off peak hours	No								
	Average climate	AEC (Annual electricity consumption)	kWh	885	1,311	885	1,311	885	1,311		
		COPdhw		2.75	3.10	2.75	3.10	2.75	3.10		
		Heat up time		2h 29min	3h 13min	2h 29min	3h 13min	2h 29min	3h 13min		
		Mixed water at 40°C	l	194.0	246.0	194.0	246.0	194.0	246.0		
		η _{wh} (water heating efficiency)	%	116	128	116	128	116	128		
		Qelec (Daily electricity consumption)	kWh	4.241	6.149	4.241	6.149	4.241	6.149		
		Reference hot water temperature	°C	47.2	44.5	47.2	44.5	47.2	44.5		
		Stand-by power input	W	38.1	32.7	38.1	32.7	38.1	32.7		
		Water heating energy efficiency class		A+							
		Domestic hot water heating 	Cold climate	AEC (Annual electricity consumption)	kWh	1,183	1,521	1,183	1,521	1,183	1,521
				COPdhw		2.07	2.67	2.07	2.67	2.07	2.67
				Heat up time		2h 23min	3h 36min	2h 23min	3h 36min	2h 23min	3h 36min
Mixed water at 40°C	l			175.0	246.0	175.0	246.0	175.0	246.0		
η _{wh} (water heating efficiency)	%			87	110	87	110	87	110		
Qelec (Daily electricity consumption)	kWh			5.641	7.130	5.641	7.130	5.641	7.130		
Warm climate	Reference hot water temperature		°C	46.3	44.5	46.3	44.5	46.3	44.5		
	Stand-by power input		W	46.4	36.7	46.4	36.7	46.4	36.7		
	AEC (Annual electricity consumption)		kWh	782	1,133	782	1,133	782	1,133		
	COPdhw			3.10	3.58	3.10	3.58	3.10	3.58		
	Heat up time			2h 19min	3h 24min	2h 19min	3h 24min	2h 19min	3h 24min		
	Mixed water at 40°C		l	194.0	246.0	194.0	246.0	194.0	246.0		
	η _{wh} (water heating efficiency)		%	131	148	131	148	131	148		
	Qelec (Daily electricity consumption)		kWh	3.760	5.332	3.760	5.332	3.760	5.332		
Reference hot water temperature	°C	47.2	44.5	47.2	44.5	47.2	44.5				
Stand-by power input	W	35.8	31.2	35.8	31.2	35.8	31.2				

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Technical specifications				ETSH12P30E + EPRA08EV3	ETSH12P50E + EPRA08EV3	ETSH12P30E + EPRA10EV3	ETSH12P50E + EPRA10EV3	ETSH12P30E + EPRA12EV3	ETSH12P50E + EPRA12EV3	
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	5,142		5,120				
			ηs (Seasonal space heating efficiency)			134				
				Prated at -10°C			9			
				Qhe Annual energy consumption (GCV)	19		18			
				SCOP	3.41		3.43			
				Seasonal space heating eff. class			A++			
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)			1.0			
				COPd			2.21			
				Pdh kW			7.6			
				PERd %			88.4			
			B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)			1.0			
				COPd			3.37			
				Pdh kW			4.6			
				PERd %			134.8			
			C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)			1.0			
				COPd			4.48			
				Pdh kW			3.0			
				PERd %			179.2			
			D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)			1.0			
				COPd			5.98			
			Pdh kW			3.7				

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Technical specifications				ETSH12P30E + EPRA08EV3	ETSH12P50E + EPRA08EV3	ETSH12P30E + EPRA10EV3	ETSH12P50E + EPRA10EV3	ETSH12P30E + EPRA12EV3	ETSH12P50E + EPRA12EV3	
Space heating 	Average climate	D Condition (12°CDB/11°CWB)	PERd	%	239.2					
		Tol (temperature operating limit)	COPd		1.93				1.97	
	water outlet 55°C		Pdh	kW	7.0				8.3	
			PERd	%	77.2				78.8	
			TOL	°C				-10		
			WTOL	°C				55		
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.5				0.0	
		Tbiv (bivalent temperature)	COPd		2.21				1.97	
			Pdh	kW	7.6				8.3	
			PERd	%	88.4				78.8	
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,303		7,173		7,146		
		ηs (Seasonal space heating efficiency)	%	119				121		
		Prated at -22°C	kW			9				
		Qhe Annual energy consumption (GCV)	Gj			26				
	A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)				1.0				
		COPd				2.52				
		Pdh	kW			5.3				
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)				1.0				
		COPd				3.77				
		Pdh	kW			3.3				
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)				1.0				
		COPd				4.81				
		Pdh	kW			3.5				
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0				
		COPd				6.36				
		Pdh	kW			4.2				
Tol (temperature operating limit)		PERd	%			254.4				
		COPd		1.43		1.49		1.54		
		Pdh	kW	4.9		6.1		7.2		
		PERd	%	57.2		59.6		61.6		
		TOL	°C			-22				
		WTOL	°C			55				
G Condition (-15°CDB/-)		COPd		1.93				1.96		
		Pdh	kW	6.1				7.2		

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Technical specifications				ETSH12P30E + EPRA08EV3	ETSH12P50E + EPRA08EV3	ETSH12P30E + EPRA10EV3	ETSH12P50E + EPRA10EV3	ETSH12P30E + EPRA12EV3	ETSH12P50E + EPRA12EV3			
Space heating Cold climate water outlet 55°C	G Con- dition (-15°CDB/-)	PERd	%	77.2		78.4						
		Tbiv	COPd	2.17		1.96						
		(bivalent tempera- ture)	Pdh	kW	6.6		7.2					
			PERd	%	86.8		78.4					
			Tbiv	°C	-12		-15					
	Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)		kW	4.1		3.0		1.8			
			Warm climate water outlet 55°C									
			General	Annual energy consumption	kWh			3,039				
				ηs (Seasonal space heating efficiency)	%			166				
				Prated at 2°C	kW			10				
Average climate water outlet 35°C	B Con- dition (2°CDB/ B/1°CWB)	CdH (Degradation heating)					1.0					
				COPd				2.57				
				Pdh	kW			8.0				
				PERd	%			102.8				
				CdH (Degradation heating)				1.0				
	C Con- dition (7°CDB/ B/6°CWB)	COPd					3.65					
				Pdh	kW			6.7				
				PERd	%			146.0				
			D Condition (12°CDB/11°CWB)	CdH (Degradation heating)					1.0			
						COPd				5.71		
	Pdh	kW					3.6					
	PERd	%					228.4					
	Tbiv	°C					4					
Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,659				3,637				
			ηs (Seasonal space heating efficiency)	%	184				186			
			Prated at -10°C	kW			8					
			Qhe Annual ener- gy consumption (GCV)	Gj			13					
			SCOP		4.69				4.71			
	A Condition (7°CDB/-8°CWB)	Seasonal space heating eff. class					A+++					
				COPd				3.10				
				Pdh	kW			7.5				
				PERd	%			124.0				
			B Condition (2°CDB/1°CWB)	CdH (Degradation heating)					1.0			
	COPd						4.76					

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETSH12P30E + EPRA08EV3	ETSH12P50E + EPRA08EV3	ETSH12P30E + EPRA10EV3	ETSH12P50E + EPRA10EV3	ETSH12P30E + EPRA12EV3	ETSH12P50E + EPRA12EV3	
Space heating 	Average climate water outlet 35°C	B Condition (2°CDB/1°CWB)	Pdh	kW					4.4	
			PERd	%					190.4	
		C Condition (7°CDB/6°CWB)	Cdhd (Degradation heating)							1.0
			COPd							6.14
			Pdh	kW						4.3
			PERd	%						245.6
		D Condition (12°CDB/11°CWB)	Cdhd (Degradation heating)							1.0
			COPd							7.84
			Pdh	kW						6.6
		Tol (temperature operating limit)	COPd			2.80				2.77
	Pdh		kW	6.9				8.1		
	PERd		%	112.0				110.8		
	TOL		°C						-10	
	Tbiv (bivalent temperature)	WTOL		°C						35
		COPd			3.10				2.77	
		Pdh		kW	7.5				8.1	
		PERd		%	124.0				110.8	
	Rated heat output supplementary capacity	Tbiv		°C	-7				-10	
		Psup (at Tdesign -10°C)		kW	1.4				0.0	
	Cold climate water outlet 35°C	General	Annual energy consumption		kWh	5,554		5,401		5,387
ηs (Seasonal space heating efficiency)			%	157		161		162		
Prated at -22°C			kW				9			
Qhe Annual energy consumption (GCV)			Gj	20			19			
A Condition (-7°CDB/-8°CWB)		COPd							3.36	
		Pdh		kW					5.4	
		PERd		%					134.4	
B Condition (2°CDB/1°CWB)		Cdhd (Degradation heating)							1.0	
		COPd							5.21	
		Pdh	kW						3.6	
C Condition (7°CDB/6°CWB)	PERd		%					208.4		
	Cdhd (Degradation heating)							1.0		
	COPd							6.29		
D Condition (12°CDB/11°CWB)	Pdh		kW					5.3		
	PERd		%					251.6		
	Cdhd (Degradation heating)							1.0		
COPd							7.69			

2 Specifications

1 - 1 EPRA08-12EV

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Technical specifications				ETSH12P30E + EPRA08EV3	ETSH12P50E + EPRA08EV3	ETSH12P30E + EPRA10EV3	ETSH12P50E + EPRA10EV3	ETSH12P30E + EPRA12EV3	ETSH12P50E + EPRA12EV3
Space heating Cold climate water outlet 35°C	D Condition (12°CDB/11°CWB)	Pdh	kW	6.6					
		PERd	%	307.6					
		Tol (temperature)	COPd	2.04	2.07		2.09		
	operating limit)	Pdh	kW	4.9					
		PERd	%	81.6					
		TOL	°C	-22					
	G Con- dition (-15°CDB/-)	WTOL	°C	35					
		COPd		2.60		2.56			
		Pdh	kW	6.0		7.0			
	Tbiv (bivalent tempera- ture)	PERd	%	104.0		102.4			
		COPd		2.86		2.56			
		Pdh	kW	6.5		7.0			
	Rated heat output supple- mentary capacity	PERd	%	114.4		102.4			
		Tbiv	°C	-12		-15			
		Psup (at Tdesign -22°C)	kW	4.1		3.1		2.6	
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,992					
		ηs (Seasonal space heating efficiency)	%	228					
		Prated at 2°C	kW	9					
		Qhe Annual energy consumption (GCV)	Gj	7					
	B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0					
		COPd		3.95					
Pdh		kW	7.7						
C Con- dition (7°CDB- B/6°CWB)	PERd	%	158.0						
	Cdh (Degradation heating)		1.0						
	COPd		5.65						
Tbiv (bivalent tempera- ture)	Pdh	kW	5.5						
	PERd	%	226.0						
	Tbiv	°C	4.80						
D Condition (12°CDB/11°CWB)	COPd		6.9						
	Cdh (Degradation heating)		192.0						
	PERd	%	5						
	COPd		1.0						
	Pdh	kW	7.56						
	PERd	%	6.2						
				302.4					

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



(3)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |

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)

Technical specifications				ETSHB12P30E + EPRA08EV3	ETSHB12P50E + EPRA08EV3	ETSHB12P30E + EPRA10EV3	ETSHB12P50E + EPRA10EV3	ETSHB12P30E + EPRA12EV3	ETSHB12P50E + EPRA12EV3
Indoor unit				ETSHB12P30EF	ETSHB12P50EF	ETSHB12P30EF	ETSHB12P50EF	ETSHB12P30EF	ETSHB12P50EF
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Nom.		kW	6.17 (1)					
Power input	Heating	Nom.	kW	1.25 (1)					
COP				4.92 (2)					
Pump	Type	Grundfos UPM3L K 20-75 CHBL AZA 3 RT							
	Nominal ESP unit	Heating	kPa	53.5 (3)					
Water side Heat exchanger	Water flow rate	Heating	Nom.	17.7 (1)					

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications			ETSHB12P30E + EPRA08EV3	ETSHB12P50E + EPRA08EV3	ETSHB12P30E + EPRA10EV3	ETSHB12P50E + EPRA10EV3	ETSHB12P30E + EPRA12EV3	ETSHB12P50E + EPRA12EV3			
General	Supplier/Manu- facturer details	Name and address	Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium								
		Name or trademark	Daikin Europe N.V.								
	Product descrip- tion	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)	47.3							
	LW(A) Sound pow- er level (according to EN14825)	Outdoor	dB(A)	53.0							
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		3,542						
	Other	Capacity control	Inverter								
		Pck (Crankcase heater mode) kW	0.000								
		Poff (Off mode) kW	0.021								
		Psb (Standby mode) kW	0.021								
		Pto (Thermostat off) kW	0.024								
Domestic hot water heating 	General	Declared load profile	L								
		Function to fix water heating during off peak hours	No								
	Average climate	AEC (Annual electricity consumption)	kWh	885	1,311	885	1,311	885	1,311		
		COPdhw		2.75	3.10	2.75	3.10	2.75	3.10		
		Heat up time		2h 29min	3h 13min	2h 29min	3h 13min	2h 29min	3h 13min		
		Mixed water at 40°C	l	194.0	246.0	194.0	246.0	194.0	246.0		
		η _{wh} (water heating effi- ciency)	%	116	128	116	128	116	128		
		Qelec (Daily electricity consumption)	kWh	4.241	6.149	4.241	6.149	4.241	6.149		
		Reference hot water tem- perature	°C	47.2	44.5	47.2	44.5	47.2	44.5		
		Stand-by power input	W	38.1	32.7	38.1	32.7	38.1	32.7		
		Water heating energy efficiency class		A+							
		Domestic hot water heating 	Cold climate	AEC (Annual electricity consumption)	kWh	1,183	1,521	1,183	1,521	1,183	1,521
				COPdhw		2.07	2.67	2.07	2.67	2.07	2.67
				Heat up time		2h 23min	3h 36min	2h 23min	3h 36min	2h 23min	3h 36min
Mixed water at 40°C	l			175.0	246.0	175.0	246.0	175.0	246.0		
η _{wh} (water heating effi- ciency)	%			87	110	87	110	87	110		
Qelec (Daily electricity consumption)	kWh			5.641	7.130	5.641	7.130	5.641	7.130		
Reference hot water tem- perature	°C		46.3	44.5	46.3	44.5	46.3	44.5			
Stand-by power input	W		46.4	36.7	46.4	36.7	46.4	36.7			
Warm climate	AEC (Annual electricity consumption)		kWh	782	1,133	782	1,133	782	1,133		
	COPdhw			3.10	3.58	3.10	3.58	3.10	3.58		
	Heat up time			2h 19min	3h 24min	2h 19min	3h 24min	2h 19min	3h 24min		
	Mixed water at 40°C		l	194.0	246.0	194.0	246.0	194.0	246.0		
	η _{wh} (water heating effi- ciency)	%	131	148	131	148	131	148			
	Qelec (Daily electricity consumption)	kWh	3.760	5.332	3.760	5.332	3.760	5.332			
Reference hot water tem- perature	°C	47.2	44.5	47.2	44.5	47.2	44.5				
Stand-by power input	W	35.8	31.2	35.8	31.2	35.8	31.2				

2 Specifications

1 - 1 EPRA08-12EV

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Technical specifications				ETSHB12P30E + EPRA08EV3	ETSHB12P50E + EPRA08EV3	ETSHB12P30E + EPRA10EV3	ETSHB12P50E + EPRA10EV3	ETSHB12P30E + EPRA12EV3	ETSHB12P50E + EPRA12EV3
Space heating	Average climate water outlet 55°C	General	Annual energy consumption kWh	5,142		5,120			
			ηs (Seasonal space heating efficiency) %	134					
			Prated at -10°C kW	9					
			Qhe Annual energy consumption (GCV) GJ	19		18			
			SCOP	3.41		3.43			
			Seasonal space heating eff. class	A++					
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0					
			COPd	2.21					
			Pdh kW	7.6					
			PERd %	88.4					
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)	1.0					
			COPd	3.37					
			Pdh kW	4.6					
			PERd %	134.8					
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	1.0					
			COPd	4.48					
			Pdh kW	3.0					
			PERd %	179.2					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0					
			COPd	5.98					
			Pdh kW	3.7					

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETSHB12P30E + EPRA08EV3	ETSHB12P50E + EPRA08EV3	ETSHB12P30E + EPRA10EV3	ETSHB12P50E + EPRA10EV3	ETSHB12P30E + EPRA12EV3	ETSHB12P50E + EPRA12EV3	
Space heating 	Average climate	D Condition (12°CDB/11°CWB)	PERd	%	239.2					
		Tol (temperature operating limit)	COPd		1.93				1.97	
	water outlet 55°C		Pdh	kW	7.0				8.3	
			PERd	%	77.2				78.8	
			TOL	°C				-10		
			WTOL	°C				55		
	Rated heat output supplementary capacity		Psup (at Tdesign -10°C)	kW	1.5				0.0	
			Tbiv (bivalent temperature)	COPd		2.21				1.97
			Pdh	kW	7.6				8.3	
			PERd	%	88.4				78.8	
Cold climate water outlet 55°C	General	Tbiv	°C	-7				-10		
		Annual energy consumption	kWh	7,303		7,173			7,146	
		ηs (Seasonal space heating efficiency)	%	119				121		
		Prated at -22°C	kW			9				
		Qhe Annual energy consumption (GCV)	Gj			26				
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)			1.0				
		COPd				2.52				
		Pdh	kW			5.3				
		PERd	%			100.8				
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)			1.0				
		COPd				3.77				
		Pdh	kW			3.3				
		PERd	%			150.8				
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)			1.0				
		COPd				4.81				
		Pdh	kW			3.5				
		PERd	%			192.4				
		D Condition (12°CDB/11°CWB)	COPd			6.36				
		Pdh	kW			4.2				
		PERd	%			254.4				
Tol (temperature operating limit)		COPd		1.43		1.49		1.54		
		Pdh	kW	4.9		6.1		7.2		
		PERd	%	57.2		59.6		61.6		
		TOL	°C			-22				
		WTOL	°C			55				
		G Condition (-15°CDB/-)	COPd		1.93			1.96		
		Pdh	kW	6.1				7.2		

2 Specifications

1 - 1 EPRA08-12EV

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Technical specifications				ETSHB12P30E + EPRA08EV3	ETSHB12P50E + EPRA08EV3	ETSHB12P30E + EPRA10EV3	ETSHB12P50E + EPRA10EV3	ETSHB12P30E + EPRA12EV3	ETSHB12P50E + EPRA12EV3		
Space heating Cold climate water outlet 55°C	G Condition (-15°CDB/-)	PERd	%	77.2		78.4					
		Tbiv	COPd	2.17		1.96					
	(bivalent tempera- ture)	Pdh	kW	6.6		7.2					
		PERd	%	86.8		78.4					
	Tbiv	°C	-12		-15						
	Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)	kW	4.1		3.0		1.8			
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh			3,039				
			ηs (Seasonal space heating efficiency)	%			166				
			Prated at 2°C	kW			10				
Qhe Annual energy consumption (GCV)			Gj			11					
B Condition (2°CDB- B/1°CWB)		CdH (Degradation heating)	COPd			1.0					
				Pdh	kW			8.0			
				PERd	%			102.8			
C Condition (7°CDB- B/6°CWB)		CdH (Degradation heating)	COPd			1.0					
				Pdh	kW			3.65			
				PERd	%			146.0			
D Condition (12°CDB/11°CWB)		CdH (Degradation heating)	COPd			1.0					
				Pdh	kW			3.6			
				PERd	%			228.4			
(bivalent tempera- ture)		Tbiv	COPd			3.02					
				Pdh	kW			8.4			
				PERd	%			120.8			
Average climate water outlet 35°C		General	Annual energy consumption	kWh	3,659		3,637				
			ηs (Seasonal space heating efficiency)	%	184		186				
	Prated at -10°C		kW			8					
	Qhe Annual energy consumption (GCV)		Gj			13					
	Seasonal space heating eff. class	SCOP			4.69		4.71				
							A+++				
	A Condition (7°CDB/-8°CWB)	CdH (Degradation heating)	COPd			3.10					
				Pdh	kW			7.5			
				PERd	%			124.0			
	B Condition (2°CDB/1°CWB)	CdH (Degradation heating)	COPd			1.0					
				4.76							

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETSHB12P30E + EPRA08EV3	ETSHB12P50E + EPRA08EV3	ETSHB12P30E + EPRA10EV3	ETSHB12P50E + EPRA10EV3	ETSHB12P30E + EPRA12EV3	ETSHB12P50E + EPRA12EV3	
Space heating 	Average climate water outlet 35°C	B Condition (2°CDB/1°CWB)	Pdh	kW					4.4	
			PERd	%					190.4	
		C Condition (7°CDB/6°CWB)	Cdhd (Degradation heating)							1.0
			COPd							6.14
			Pdh	kW						4.3
			PERd	%						245.6
		D Condition (12°CDB/11°CWB)	Cdhd (Degradation heating)							1.0
			COPd							7.84
			Pdh	kW						6.6
		Tol (temperature operating limit)	COPd			2.80				2.77
	Pdh			kW	6.9				8.1	
	PERd		%	112.0				110.8		
	TOL		°C						-10	
	Tbiv (bivalent temperature)	COPd			3.10				2.77	
			Pdh	kW	7.5				8.1	
		PERd	%	124.0				110.8		
		Tbiv	°C	-7					-10	
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW		1.4				0.0	
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,554			5,401		5,387
			ηs (Seasonal space heating efficiency)	%	157			161		162
Prated at -22°C			kW					9		
Qhe Annual energy consumption (GCV)			Gj	20				19		
A Condition (-7°CDB/-8°CWB)		COPd							3.36	
		Pdh	kW						5.4	
		PERd	%						134.4	
B Condition (2°CDB/1°CWB)		Cdhd (Degradation heating)							1.0	
		COPd							5.21	
		Pdh	kW						3.6	
C Condition (7°CDB/6°CWB)	PERd	%						208.4		
	Cdhd (Degradation heating)							1.0		
D Condition (12°CDB/11°CWB)	COPd							6.29		
	Pdh	kW						5.3		
	PERd	%						251.6		
D Condition (12°CDB/11°CWB)	Cdhd (Degradation heating)							1.0		
	COPd							7.69		

2 Specifications

1 - 1 EPRA08-12EV

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Technical specifications				ETSHB12P30E + EPRA08EV3	ETSHB12P50E + EPRA08EV3	ETSHB12P30E + EPRA10EV3	ETSHB12P50E + EPRA10EV3	ETSHB12P30E + EPRA12EV3	ETSHB12P50E + EPRA12EV3	
Space heating	Cold climate water outlet 35°C	D Condition (12°CDB/11°CWB)	Pdh	kW	6.6					
			PERd	%	307.6					
		Tol (temperature operating limit)	COPd		2.04		2.07			2.09
			Pdh	kW	4.9		5.9			6.5
			PERd	%	81.6		82.8			83.6
			TOL	°C	-22					
			WTOL	°C	35					
		G Condition (-15°CDB/-)	COPd		2.60				2.56	
			Pdh	kW	6.0				7.0	
			PERd	%	104.0				102.4	
	Warm climate water outlet 35°C	General	Tbiv (bivalent temperature)	COPd		2.86			2.56	
				Pdh	kW	6.5			7.0	
				PERd	%	114.4			102.4	
				Tbiv	°C	-12				
				Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		3.1	
		B Condition (2°CDB/B/1°CWB)	Annual energy consumption	kWh	1,992					
			ηs (Seasonal space heating efficiency)	%	228					
			Prated at 2°C	kW	9					
			Qhe Annual energy consumption (GCV)	Gj	7					
			Cd (Degradation heating)		1.0					
C Condition (7°CDB/B/6°CWB)	Cd (Degradation heating)		1.0							
	COPd		5.65							
	Pdh	kW	5.5							
	PERd	%	226.0							
	Tbiv (bivalent temperature)	COPd		4.80						
D Condition (12°CDB/11°CWB)	Pdh	kW	6.9							
	PERd	%	192.0							
	Tbiv	°C	5							
	Cd (Degradation heating)		1.0							
	COPd		7.56							
	Pdh	kW	6.2							
	PERd	%	302.4							

(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: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) |
 (3)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed |
 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)

Technical specifications				ETSHX12P30E + EPRA08EV3	ETSHX12P50E + EPRA08EV3	ETSHX12P30E + EPRA10EV3	ETSHX12P50E + EPRA10EV3	ETSHX12P30E + EPRA12EV3	ETSHX12P50E + EPRA12EV3
Indoor unit				ETSHX12P30EF	ETSHX12P50EF	ETSHX12P30EF	ETSHX12P50EF	ETSHX12P30EF	ETSHX12P50EF
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Nom.		kW	6.17 (1)		7.97 (2)		8.62 (2)	
Cooling capacity	Nom.		kW	6.81 (2)		7.97 (2)		8.62 (2)	
Power input	Heating	Nom.	kW	2.15 (2)		2.66 (2)		2.96 (2)	
	Cooling	Nom.	kW	2.15 (2)		2.66 (2)		2.96 (2)	
COP				4.92 (3)		3.00 (2)		2.91 (2)	
EER				3.17 (2)		3.00 (2)		2.91 (2)	
Pump	Type				Grundfos UPM3L K 20-75 CHBL AZA 3 RT				
	Nominal ESP unit	Heating	kPa	53.5 (4)					
Water side Heat exchanger	Water flow rate	Cooling	Nom.	l/min	19.5 (2)	22.9 (2)	24.7 (2)		
		Heating	Nom.	l/min		17.7 (1)			

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Technical specifications			ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E		
			+	+	+	+	+	+		
			EPRA08EV3	EPRA08EV3	EPRA10EV3	EPRA10EV3	EPRA12EV3	EPRA12EV3		
General	Supplier/	Name and address	Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium							
	Manu- facturer details	Name or trademark	Daikin Europe N.V.							
	Product descrip- tion	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						
	LW(A) Sound power level (according to EN14825)	Indoor	dB(A)	47.3						
		Outdoor	dB(A)	53.0						
	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 3,542							
	Other	Capacity control	Inverter							
		Pck (Crankcase heater mode)	kW	0.000						
		Poff (Off mode)	kW	0.021						
		Psb (Standby mode)	kW	0.021						
		Pto (Thermostat off)	kW	0.024						
Domestic hot water heating 	General	Declared load profile	L							
		Function to fix water heating during off peak hours	No							
	Average climate	AEC (Annual electricity consumption)	kWh	885	1,311	885	1,311	885	1,311	
		COPdhw		2.75	3.10	2.75	3.10	2.75	3.10	
		Heat up time		2h 29min	3h 13min	2h 29min	3h 13min	2h 29min	3h 13min	
		Mixed water at 40°C	l	194.0	246.0	194.0	246.0	194.0	246.0	
		η _{wh} (water heating efficiency)	%	116	128	116	128	116	128	
	Domestic hot water heating 	Average climate	Qelec (Daily electricity consumption)	kWh	4.241	6.149	4.241	6.149	4.241	6.149
			Reference hot water temperature	°C	47.2	44.5	47.2	44.5	47.2	44.5
			Stand-by power input	W	38.1	32.7	38.1	32.7	38.1	32.7
Water heating energy efficiency class				A+						
Cold climate		AEC (Annual electricity consumption)	kWh	1,183	1,521	1,183	1,521	1,183	1,521	
		COPdhw		2.07	2.67	2.07	2.67	2.07	2.67	
		Heat up time		2h 23min	3h 36min	2h 23min	3h 36min	2h 23min	3h 36min	
		Mixed water at 40°C	l	175.0	246.0	175.0	246.0	175.0	246.0	
		η _{wh} (water heating efficiency)	%	87	110	87	110	87	110	
		Qelec (Daily electricity consumption)	kWh	5.641	7.130	5.641	7.130	5.641	7.130	
	Reference hot water temperature	°C	46.3	44.5	46.3	44.5	46.3	44.5		
Warm climate	Stand-by power input	W	46.4	36.7	46.4	36.7	46.4	36.7		
	AEC (Annual electricity consumption)	kWh	782	1,133	782	1,133	782	1,133		
	COPdhw		3.10	3.58	3.10	3.58	3.10	3.58		
	Heat up time		2h 19min	3h 24min	2h 19min	3h 24min	2h 19min	3h 24min		
	Mixed water at 40°C	l	194.0	246.0	194.0	246.0	194.0	246.0		
	η _{wh} (water heating efficiency)	%	131	148	131	148	131	148		
	Qelec (Daily electricity consumption)	kWh	3.760	5.332	3.760	5.332	3.760	5.332		
	Reference hot water temperature	°C	47.2	44.5	47.2	44.5	47.2	44.5		
Stand-by power input	W	35.8	31.2	35.8	31.2	35.8	31.2			

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Technical specifications				ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	
				+	+	+	+	+	+	
				EPRA08EV3	EPRA08EV3	EPRA10EV3	EPRA10EV3	EPRA12EV3	EPRA12EV3	
Space heating Average climate water outlet 55°C	General	Annual energy consumption	kWh	5,065		5,043				
		ηs (Seasonal space heating efficiency)	%	136						
		Prated at -10°C	kW	9						
		Qhe Annual energy consumption (GCV)	Gj	18						
		SCOP		3.47		3.48				
		Seasonal space heating eff. class		A++						
		A Condition (7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0					
			COPd		2.21					
			Pdh	kW	7.6					
			PERd	%	88.4					
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		3.37					
			Pdh	kW	4.6					
		C Condition (7°CDB/6°CWB)	PERd	%	134.8					
			Cdh (Degradation heating)		1.0					
			COPd		4.48					
			Pdh	kW	3.0					


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Technical specifications				ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E		
				+	+	+	+	+	+		
				EPRA08EV3	EPRA08EV3	EPRA10EV3	EPRA10EV3	EPRA12EV3	EPRA12EV3		
Space heating	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	PERd	%	179.2						
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)			1.0					
			COPd			5.98					
			Pdh	kW		3.7					
			PERd	%		239.2					
		Tol (temperature operating limit)	COPd			1.93				1.97	
			Pdh	kW		7.0				8.3	
			PERd	%		77.2				78.8	
			TOL	°C						-10	
		Cold climate water outlet 55°C	Rated heat output supplementary capacity	Tsup (at Tdesign -10°C)	Psup	kW	1.5				0.0
Tbiv	COPd					2.21			1.97		
(bivalent temperature)	Pdh			kW		7.6			8.3		
	PERd			%		88.4			78.8		
	Tbiv			°C		-7			-10		
General	Annual energy consumption			kWh		7,257		7,127		7,100	
	ηs (Seasonal space heating efficiency)			%		119			122		
	Prated at -22°C			kW				9			
	Qhe Annual energy consumption (GCV)			Gj				26			
A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)			COPd						1.0	
		Pdh	kW					5.3			
		PERd	%					100.8			
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)						1.0		
COPd							3.77				
Pdh	kW						3.3				
C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	PERd	%					150.8			
		COPd						1.0			
		Pdh	kW					4.81			
D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	Pdh	kW					3.5			
		PERd	%					192.4			
		COPd						6.36			
Tol (temperature operating limit)	D Condition (12°CDB/11°CWB)	Pdh	kW					4.2			
		PERd	%					254.4			
		COPd				1.43		1.49	1.54		
		Pdh	kW			4.9		6.1	7.2		
				57.2		59.6		61.6			

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Technical specifications				ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E
				+	+	+	+	+	+
				EPRA08EV3	EPRA08EV3	EPRA10EV3	EPRA10EV3	EPRA12EV3	EPRA12EV3
Space heating 	Cold climate water outlet 55°C	Tol (temperature operating limit)	TOL °C	-22					
			WTOL °C	55					
	G Condition (-15°CDB/-)	COPd		1.93		1.96			
		Pdh kW		6.1		7.2			
	Tbiv (bivalent temperature)	PERd %		77.2		78.4			
		COPd		2.17		1.96			
		Pdh kW		6.6		7.2			
		PERd %		86.8		78.4			
	Rated heat output supplementary capacity	Tbiv °C		-12		-15			
		Psup (at Tdesign -22°C) kW		4.1		3.0		1.8	
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,946					
		ηs (Seasonal space heating efficiency)	%	171					
		Prated at 2°C	kW	10					
		Qhe Annual energy consumption (GCV)	Gj	11					
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0				
	C Condition (7°CDB/6°CWB)	COPd		2.57					
		Pdh kW		8.0					
		PERd %		102.8					
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
		COPd		3.65					
		Pdh kW		6.7					
	Tbiv (bivalent temperature)	PERd %		146.0					
		Cdh (Degradation heating)		1.0					
		COPd		5.71					
	Average climate water outlet 35°C	General	Pdh kW		3.6				
PERd %				228.4					
Tbiv °C				3.02					
Average climate water outlet 35°C	General	Pdh kW		3,582		3,560			
		ηs (Seasonal space heating efficiency)	%	189		190			
		Prated at -10°C	kW	8					
		Qhe Annual energy consumption (GCV)	Gj	13					
		SCOP		4.79		4.82			
A Condition (-7°CDB/-8°CWB)	Seasonal space heating eff. class			A+++					
		COPd		3.10					

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Technical specifications				ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	
				+	+	+	+	+	+	
				EPRA08EV3	EPRA08EV3	EPRA10EV3	EPRA10EV3	EPRA12EV3	EPRA12EV3	
Space heating 	Average climate water outlet 35°C	A Condition (-7°CDB/-8°CWB)	Pdh	kW				7.5		
			PERd	%				124.0		
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)					1.0		
			COPd					4.76		
			Pdh	kW				4.4		
			PERd	%				190.4		
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)					1.0		
			COPd					6.14		
			Pdh	kW				4.3		
			PERd	%				245.6		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)					1.0		
			COPd					7.84		
			Pdh	kW				6.6		
			PERd	%				313.6		
		Tol (temperature operating limit)	COPd			2.80			2.77	
			Pdh	kW		6.9			8.1	
			PERd	%		112.0			110.8	
			TOL	°C					-10	
			WTOL	°C					35	
		Tbiv (bivalent temperature)	COPd			3.10			2.77	
			Pdh	kW		7.5			8.1	
			PERd	%		124.0			110.8	
			Tbiv	°C		-7			-10	
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW		1.4			0.0	
Cold climate water outlet 35°C	General	Annual energy consumption	kWh		5,507		5,355		5,340	
		ηs (Seasonal space heating efficiency)	%		158			163		
		Prated at -22°C	kW					9		
		Qhe Annual energy consumption (GCV)	Gj		20			19		
	A Condition (-7°CDB/-8°CWB)	COPd						3.36		
		Pdh	kW					5.4		
		PERd	%					134.4		
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)						1.0		
		COPd						5.21		
		Pdh	kW					3.6		
	PERd	%					208.4			
C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)						1.0			
	COPd						6.29			

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Technical specifications				ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E		
				+	+	+	+	+	+		
				EPRA08EV3	EPRA08EV3	EPRA10EV3	EPRA10EV3	EPRA12EV3	EPRA12EV3		
Space heating 	Cold climate water outlet 35°C	C Condition (7°CDB/6°CWB)	Pdh	kW	5.3						
			PERd	%	251.6						
		D Condition (12°CDB/11°CWB)	Cd (Degradation heating)		1.0						
			COPd		7.69						
			Pdh	kW	6.6						
			PERd	%	307.6						
		Tol (temperature operating limit)	COPd		2.04		2.07		2.09		
			Pdh	kW	4.9		5.9		6.5		
			PERd	%	81.6		82.8		83.6		
			TOL	°C	-22						
		WTOL	°C	35							
		G Condition (-15°CDB/-)	COPd		2.60		2.56				
	Pdh		kW	6.0		7.0					
		PERd	%	104.0		102.4					
		Tbiv (bivalent temperature)	COPd		2.86		2.56				
	Pdh		kW	6.5		7.0					
		PERd	%	114.4		102.4					
		Tbiv	°C	-12		-15					
	Rated heat output supplementary capacity	General	Psup (at Tdesign -22°C)	kW	4.1		3.1		2.6		
			Annual energy consumption	kWh	1,899						
	Warm climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	239						
			Prated at 2°C	kW	9						
			Qhe Annual energy consumption (GCV)	Gj	7						
B Condition (2°CDB/1°CWB)		Cd (Degradation heating)		1.0							
		COPd		3.95							
		Pdh	kW	7.7							
		PERd	%	158.0							
C Condition (7°CDB/6°CWB)		Cd (Degradation heating)		1.0							
		COPd		5.65							
	Pdh	kW	5.5								
	PERd	%	226.0								
Tbiv (bivalent temperature)	COPd		4.80								
	Pdh	kW	6.9								
	PERd	%	192.0								
	Tbiv	°C	5								
D Condition (12°CDB/11°CWB)	Cd (Degradation heating)		1.0								
	COPd		7.56								
Space heating 	Warm climate water	D Condition (12°CDB/11°CWB)	Pdh	kW	6.2						
			PERd	%	302.4						

(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: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) |
 (4)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed

Technical specifications				ETSXB12P30E +	ETSXB12P50E +	ETSXB12P30E +	ETSXB12P50E +	ETSXB12P30E +	ETSXB12P50E +
				EPRA08EV3	EPRA08EV3	EPRA10EV3	EPRA10EV3	EPRA12EV3	EPRA12EV3
Indoor unit				ETSXB12P30EF	ETSXB12P50EF	ETSXB12P30EF	ETSXB12P50EF	ETSXB12P30EF	ETSXB12P50EF
Outdoor unit				EPRA08EAV3		EPRA10EAV3		EPRA12EAV3	
Heating capacity	Nom.		kW	6.17 (1)					
Cooling capacity	Nom.		kW	6.81 (2)	7.97 (2)		8.62 (2)		
Power input	Heating	Nom.	kW	1.25 (1)					
	Cooling	Nom.	kW	2.15 (2)	2.66 (2)		2.96 (2)		
COP				4.92 (3)					
EER				3.17 (2)	3.00 (2)		2.91 (2)		
Pump	Type			Grundfos UPM3L K 20-75 CHBL AZA 3 RT					
	Nominal	Heating	ESP unit	kPa					
				53.5 (4)					

2 Specifications

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Technical specifications					ETSB12P30E + EPRA08EV3	ETSB12P50E + EPRA08EV3	ETSB12P30E + EPRA10EV3	ETSB12P50E + EPRA10EV3	ETSB12P30E + EPRA12EV3	ETSB12P50E + EPRA12EV3				
Water side Heat exchanger	Water flow rate	Cooling	Nom.	l/min	19.5 (2)		22.9 (2)		24.7 (2)					
		Heating	Nom.	l/min	17.7 (1)									
General	Supplier/Manu-facturer details	Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium												
		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	No								
						Water-to-water heat pump	No							
LW(A) Sound power level (according to EN14825)	Indoor						dB(A)	47.3						
LW(A) Sound power level (according to EN14825)	Outdoor	dB(A)					53.0							
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			3,542							
		Other	Capacity control		Inverter									
	Pck (Crankcase heater mode) kW		0.000											
	Poff (Off mode) kW		0.021											
	Psb (Standby mode) kW		0.021											
	Pto (Thermostat off) kW		0.024											
Domestic hot water heating 	General	Declared load profile		L										
		Function to fix water heating during off peak hours		No										
	Average climate	AEC (Annual electricity consumption)		kWh	885	1,311	885	1,311	885	1,311				
		COPdhw			2.75	3.10	2.75	3.10	2.75	3.10				
		Heat up time			2h 29min	3h 13min	2h 29min	3h 13min	2h 29min	3h 13min				
		Mixed water at 40°C		l	194.0	246.0	194.0	246.0	194.0	246.0				
ηwh (water heating efficiency)		%	116	128	116	128	116	128						
Domestic hot water heating 	Average climate	Qelec (Daily electricity consumption)		kWh	4.241	6.149	4.241	6.149	4.241	6.149				
		Reference hot water temperature		°C	47.2	44.5	47.2	44.5	47.2	44.5				
		Stand-by power input		W	38.1	32.7	38.1	32.7	38.1	32.7				
	Water heating energy efficiency class		A+											
	Cold climate	AEC (Annual electricity consumption)		kWh	1,183	1,521	1,183	1,521	1,183	1,521				
		COPdhw			2.07	2.67	2.07	2.67	2.07	2.67				
Heat up time			2h 23min	3h 36min	2h 23min	3h 36min	2h 23min	3h 36min						
Mixed water at 40°C		l	175.0	246.0	175.0	246.0	175.0	246.0						
ηwh (water heating efficiency)		%	87	110	87	110	87	110						
Warm climate	Average climate	Qelec (Daily electricity consumption)		kWh	5.641	7.130	5.641	7.130	5.641	7.130				
		Reference hot water temperature		°C	46.3	44.5	46.3	44.5	46.3	44.5				
		Stand-by power input		W	46.4	36.7	46.4	36.7	46.4	36.7				
	Warm climate	AEC (Annual electricity consumption)		kWh	782	1,133	782	1,133	782	1,133				
		COPdhw			3.10	3.58	3.10	3.58	3.10	3.58				
		Heat up time			2h 19min	3h 24min	2h 19min	3h 24min	2h 19min	3h 24min				
		Mixed water at 40°C		l	194.0	246.0	194.0	246.0	194.0	246.0				
		ηwh (water heating efficiency)		%	131	148	131	148	131	148				
Warm climate	Qelec (Daily electricity consumption)		kWh	3.760	5.332	3.760	5.332	3.760	5.332					
	Reference hot water temperature		°C	47.2	44.5	47.2	44.5	47.2	44.5					
Stand-by power input		W	35.8	31.2	35.8	31.2	35.8	31.2						

2 Specifications

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Technical specifications				ETSB12P30E + EPRA08EV3	ETSB12P50E + EPRA08EV3	ETSB12P30E + EPRA10EV3	ETSB12P50E + EPRA10EV3	ETSB12P30E + EPRA12EV3	ETSB12P50E + EPRA12EV3
Space heating	Average climate water outlet 55°C	General	Annual energy consumption kWh	5,065		5,043			
			ηs (Seasonal space heating efficiency) %	136					
			Prated at -10°C kW	9					
			Qhe Annual energy consumption (GCV) GJ	18					
			SCOP	3.47		3.48			
			Seasonal space heating eff. class	A++					
	A Condition (-7°CDB/-8°CWB)		Cdh (Degradation heating)	1.0					
			COPd	2.21					
			Pdh kW	7.6					
			PERd %	88.4					
	B Condition (2°CDB/-1°CWB)		Cdh (Degradation heating)	1.0					
			COPd	3.37					
			Pdh kW	4.6					
			PERd %	134.8					
	C Condition (7°CDB/6°CWB)		Cdh (Degradation heating)	1.0					
			COPd	4.48					
			Pdh kW	3.0					

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETSXB12P30E + EPRA08EV3	ETSXB12P50E + EPRA08EV3	ETSXB12P30E + EPRA10EV3	ETSXB12P50E + EPRA10EV3	ETSXB12P30E + EPRA12EV3	ETSXB12P50E + EPRA12EV3		
Space heating 	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	PERd	%	179.2						
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)			1.0					
			COP _d			5.98					
			Pd _h		kW	3.7					
			PER _d		%	239.2					
		Tol (temperature operating limit)	COP _d			1.93				1.97	
			Pd _h		kW	7.0				8.3	
			PER _d		%	77.2				78.8	
			TOL		°C					-10	
		Rated heat output supplementary capacity	P _{sup} (at T _{design} -10°C)		kW	1.5				0.0	
			T _{biv} (bivalent temperature)	COP _d			2.21			1.97	
				Pd _h		kW	7.6			8.3	
				PER _d		%	88.4			78.8	
		Cold climate water outlet 55°C	General	Annual energy consumption		kWh	7,257		7,127		7,100
				η _s (Seasonal space heating efficiency)		%	119			122	
				Prated at -22°C		kW				9	
				Q _{he} Annual energy consumption (GCV)		Gj				26	
			A Condition (7°CDB/8°CWB)	Cd _h (Degradation heating)			1.0				
COP _d					2.52						
Pd _h				kW	5.3						
PER _d				%	100.8						
B Condition (2°CDB/1°CWB)	Cd _h (Degradation heating)			1.0							
	COP _d			3.77							
	Pd _h		kW	3.3							
C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)			1.0							
	COP _d			4.81							
	Pd _h		kW	3.5							
D Condition (12°CDB/11°CWB)	COP _d			6.36							
	Pd _h		kW	4.2							
	PER _d		%	254.4							
Tol (temperature operating limit)	COP _d			1.43		1.49		1.54			
	Pd _h		kW	4.9		6.1		7.2			
	PER _d		%	57.2		59.6		61.6			

2 Specifications

1 - 1 EPRA08-12EV

2

Technical specifications				ETSB12P30E + EPRA08EV3	ETSB12P50E + EPRA08EV3	ETSB12P30E + EPRA10EV3	ETSB12P50E + EPRA10EV3	ETSB12P30E + EPRA12EV3	ETSB12P50E + EPRA12EV3	
Space heating Cold climate water outlet 55°C	Tol (tem- perature operat- ing limit)	TOL	°C	-22						
		WTOL	°C	55						
	G Con- dition (-15°CDB/-)	COPd		1.93		1.96				
		Pdh	kW	6.1		7.2				
		PERd	%	77.2		78.4				
	Tbiv (bivalent tempera- ture)	COPd		2.17		1.96				
		Pdh	kW	6.6		7.2				
		PERd	%	86.8		78.4				
	Rated heat output supple- mentary capacity	Tbiv	°C	-12		-15				
		Psup (at Tdesign -22°C)	kW	4.1		3.0		1.8		
Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,946						
		ηs (Seasonal space heating efficiency)	%	171						
		Prated at 2°C	kW	10						
		Qhe Annual ener- gy consumption (GCV)	Gj	11						
	B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0						
		COPd		2.57						
	C Con- dition (7°CDB- B/6°CWB)	Pdh	kW	8.0						
		PERd	%	102.8						
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0						
		COPd		5.71						
	Tbiv (bivalent tempera- ture)	Pdh	kW	3.6						
		PERd	%	228.4						
	Average climate water outlet 35°C	General	COPd		3.02		3.560			
			Pdh	kW	8.4		120.8			
	Average climate water outlet 35°C	General	Tbiv	°C	4					
			Annual energy consumption	kWh	3,582		3,560			
ηs (Seasonal space heating efficiency)			%	189		190				
Prated at -10°C			kW	8						
Qhe Annual ener- gy consumption (GCV)			Gj	13						
SCOP				4.79		4.82				
A Condition (-7°CDB/-8°CWB)	Seasonal space heating eff. class			A+++						
		COPd		3.10						

2 Specifications

1 - 1 EPRA08-12EV

Technical specifications				ETSXB12P30E + EPRA08EV3	ETSXB12P50E + EPRA08EV3	ETSXB12P30E + EPRA10EV3	ETSXB12P50E + EPRA10EV3	ETSXB12P30E + EPRA12EV3	ETSXB12P50E + EPRA12EV3	
Space heating 	Average climate water outlet 35°C	A Condition (7°CDB/-8°CWB)	Pdh	kW					7.5	
			PERd	%					124.0	
		B Condition (2°CDB/-1°CWB)	Cdhd (Degradation heating)							1.0
			COPd							4.76
		Pdh	kW							4.4
			PERd	%						190.4
		C Condition (7°CDB/-6°CWB)	Cdhd (Degradation heating)							1.0
			COPd							6.14
		Pdh	kW							4.3
			PERd	%						245.6
	D Condition (12°CDB/11°CWB)	Cdhd (Degradation heating)							1.0	
		COPd							7.84	
		Pdh	kW						6.6	
	Tol (temperature operating limit)	COPd			2.80				2.77	
			Pdh	kW	6.9				8.1	
		PERd	%	112.0				110.8		
		TOL	°C						-10	
	WTOL	°C							35	
		Tbiv (bivalent temperature)	COPd		3.10				2.77	
	Pdh		kW		7.5				8.1	
PERd	%			124.0				110.8		
	Tbiv	°C		-7				-10		
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW		1.4				0.0		
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,507		5,355		5,340		
		ηs (Seasonal space heating efficiency)	%	158			163			
		Prated at -22°C	kW				9			
		Qhe Annual energy consumption (GCV)	Gj	20			19			
	A Condition (7°CDB/-8°CWB)	COPd							3.36	
		Pdh	kW						5.4	
		PERd	%						134.4	
	B Condition (2°CDB/-1°CWB)	Cdhd (Degradation heating)							1.0	
		COPd							5.21	
	Pdh	kW							3.6	
PERd		%						208.4		
C Condition (7°CDB/-6°CWB)	Cdhd (Degradation heating)							1.0		
	COPd							6.29		

2 Specifications

1 - 1 EPRA08-12EV

2

Technical specifications				ETSXB12P30E + EPRA08EV3	ETSXB12P50E + EPRA08EV3	ETSXB12P30E + EPRA10EV3	ETSXB12P50E + EPRA10EV3	ETSXB12P30E + EPRA12EV3	ETSXB12P50E + EPRA12EV3			
Space heating Cold climate water outlet 35°C	C Condition (7°CDB/ B/6°CWB)	Pd _h	kW	5.3								
			PER _d	%	251.6							
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)	1.0								
				COP _d	7.69							
			Pd _h	kW	6.6							
				PER _d	%	307.6						
		Tol (tem- perature operat- ing limit)	COP _d			2.04		2.07		2.09		
				Pd _h	kW	4.9		5.9		6.5		
			PER _d			81.6		82.8		83.6		
				TOL	°C	-22						
			WTOL	°C								
				35								
		G Con- dition (-15°CDB/-)	COP _d			2.60		2.56				
				Pd _h	kW	6.0		7.0				
			PER _d			104.0		102.4				
				Tb _{iv}	COP _d	2.86		2.56				
		(bivalent tempera- ture)	Pd _h			6.5		7.0				
				PER _d	%	114.4		102.4				
		Rated heat output supple- mentary capacity	Tb _{iv}			-12		-15				
				Ps _{up} (at T _{design} -22°C)	kW	4.1		3.1		2.6		
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,899								
			η _s (Seasonal space heating efficiency)	%	239							
			Prated at 2°C	kW	9							
			Q _{he} Annual ener- gy consumption (GCV)	Gj	7							
			B Con- dition (2°CDB- B/1°CWB)	Cd _h (Degradation heating)	1.0							
					COP _d	3.95						
				Pd _h	kW	7.7						
					PER _d	%	158.0					
			C Con- dition (7°CDB- B/6°CWB)	Cd _h (Degradation heating)	1.0							
					COP _d	5.65						
	Pd _h	kW	5.5									
		PER _d	%	226.0								
Tb _{iv} (bivalent tempera- ture)	COP _d	4.80										
		Pd _h	kW	6.9								
	PER _d			192.0		192.0						
		Tb _{iv}	°C	5								
D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)	1.0										
		COP _d	7.56									
Space heating Warm climate water	D Condition (12°CDB/11°CWB)	Pd _h	kW	6.2								
			PER _d	%	302.4							

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

(4)DB/WB 7°C/6°C - LWC 35°C (dT=5°C) with pump at full speed

Technical Specifications				EPRA08EV3	EPRA10EV3	EPRA12EV3
Casing	Colour	Silver / Black				
	Material	Polyester painted galvanised steel plate				
Dimensions	Unit	Height	mm	1,003		
		Width	mm	1,270		
		Depth	mm	533		
	Packed unit	Height	mm	1,340		
		Width	mm	1,440		
		Depth	mm	690		
Weight	Unit	kg	118			
	Packed unit	kg	150			
Packing	Material	Carton / Wood (pallet) / PE (Straps) / Metal				
	Weight	kg	28			

2 Specifications

1 - 1 EPRA08-12EV

Technical Specifications				EPRA08EV3	EPRA10EV3	EPRA12EV3	
Heat exchanger	Length	mm		1,200			
	Rows	Quantity		2			
	Fin pitch	mm		2.00			
	Passes	Quantity		10			
	Face area	m ²		1.19			
	Stages	Quantity		44			
	Tube type			ø7 Hi-XSL			
	Fin	Type			WF fin		
		Treatment		Anti-corrosion treatment (PE)			
Fan	Type			Propeller fan			
	Quantity			1			
	Air flow rate	Heating	Nom.	m ³ /min	59.0		
			High	m ³ /min	80.1		
		Cooling	Nom.	m ³ /min	80		
			High	m ³ /min	80.1		
Discharge direction			Horizontal				
Fan motor	Quantity			1			
	Model			Brushless DC motor			
	Output	W		183			
	Drive			Direct drive			
	Speed	Steps			6		
		Heating	Nom.	rpm	390		
		Cooling	Nom.	rpm	520		
Compressor	Quantity			1			
Compressor	Model			2Y260BPDXP#C			
	Type			Hermetically sealed swing compressor			
	Starting method			Inverter driven			
PED	Category			Category II			
Operation range	Heating	Min.	°CDB	-28.0			
		Max.	°CDB	25			
	Cooling	Min.	°CDB	10			
		Max.	°CDB	43			
	Domestic hot water	Max.	°CDB	35			
		Min.	°CDB	-28			
PED	Most critical part	Name		Accumulator			
		P _s *V	Bar*I	109			
Piping connections	Water inlet heat exchanger diameter	inch		G1" (male)			
	Water outlet heat exchanger diameter	inch		G1" (male)			
Sound power level	Heating	Nom.	dB(A)	54.0 (1)			
	Cooling	Nom.	dB(A)	60.1 (2)	60.6 (2)	61.5 (2)	
Sound pressure level	Heating	Nom.	dB(A)	40.6 (3)			
	Cooling	Nom.	dB(A)	47.0 (4)	47.4 (4)	48.5 (4)	
	Night quiet mode	Heating		dB(A)	43.2 (3)		
		Cooling		dB(A)	43.7 (4)		
Refrigerant	Type			R-32			
	GWP			675.0			
	Charge	TCO ₂ Eq		2.19			
	Charge	kg		3.25			
	Control			Expansion valve			
	Circuits	Quantity			1		
Refrigerant oil	Type			FW68DE			
	Charged volume	l		1.1			
Piping connections	Piping length	OU - IU	Max.	m	50		
		High pressure side	Design pressure	bar	46		
	Level difference	IU - OU	Max.	m	10.0		
	Water circuit	Filter ball valve			Yes		
	Defrost control			Sensor for outdoor heat exchanger temperature			
Capacity control	Method			Inverter controlled			
Safety devices	Item	01			High pressure switch		
		02			High pressure switch		
		03			Thermal protector for compressor		
Safety devices	Item	04			Fuse		
Defrost method			Reversed cycle				

2 Specifications

1 - 1 EPRA08-12EV

2

Electrical Specifications			EPRA08EV3	EPRA10EV3	EPRA12EV3	
Power supply	Name		V3			
	Phase		1~			
	Frequency	Hz	50			
	Voltage	V	230			
	Voltage range	Min.	%	-10		
		cos phi	Nom.	0.95		
			Max.	0.98		
	Max.	%	10			
Current	Minimum Ssc value	kVa	Equipment complying with EN / IEC 61000-3-12			
	Recommended fuses	A	32			
	Inverter modulation	Min.	%	44	37	35
Wiring connections	For power supply	Remark	See installation manual outdoor unit			
	For connection with indoor	Remark	See installation manual indoor unit			

(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)Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

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

3 Electrical data

3 - 1 Electrical Data

EPRA08-12EV
EPRA08-12EW

* Electrical meter specification

- Pulse meter type/voltage-free contact for 5 V DC detection by PCB.
- Possible number of pulses
 - 0.1· pulse/kWh
 - 1· pulse/kWh
 - 10· pulse/kWh
 - 100· pulse/kWh
 - 1000· pulse/kWh
- Pulse duration
 - minimum On time: ·40ms·
 - Minimum OFF time: ·100ms·
- Measurement type (depending on installation)
 - Single-phase AC meter
 - Three-phase AC meter

Balanced loads

 - Three-phase AC meter

Unbalanced loads

* Electrical meter installation guideline

- It is the responsibility of the installer to cover the complete power consumption with electrical meters (combination of estimation and metering is not allowed).
- Required number of electrical meters

Outdoor unit type		EPRA(08/10/12)EA*					
Indoor unit type		ETB(H/X)12EF*			ETV(H/X/Z)12S(U)*EA*		
	Backup heater type	6V		9W	6V		9W
	Backup heater power supply	1~ 230V	3~ 230V	3~ 400V	1~ 230V	3~ 230V	3~ 400V
	Backup heater configuration	2 / 4 / 6 kW	6 kW	3 / 6 / 9 kW	2 / 4 / 6 kW	6 kW	3 / 6 / 9 kW
Normal kWh rate power supply							
Electrical meter type	1~	1	-	-	1	-	-
	3~ balanced	-	-	-	-	-	-
	3~ unbalanced	-	1	1	-	1	1
Preferential kWh rate power supply							
Electrical meter type	1~	2	1	1	2	1	1
	3~ balanced	-	-	-	-	-	-
	3~ unbalanced	-	1	1	-	1	1

4D133788

3 Electrical data

3 - 1 Electrical Data

3

EPRA08-12EV
EPRA08-12EW

- * Electrical meter specification
 - Pulse meter type/voltage-free contact for 5 V DC detection by PCB.
 - Possible number of pulses
 - 0.1· pulse/kWh
 - 1· pulse/kWh
 - 10· pulse/kWh
 - 100· pulse/kWh
 - 1000· pulse/kWh
 - Pulse duration
 - minimum On time: ·40ms·
 - Minimum OFF time: ·100ms·
 - Measurement type (depending on installation)
 - Single-phase AC meter
 - Three-phase AC meter
 - Balanced loads
 - Unbalanced loads
- * Electrical meter installation guideline
 - It is the responsibility of the installer to cover the complete power consumption with electrical meters (combination of estimation and metering is not allowed).
 - Required number of electrical meters

Outdoor unit type		EPRA(08/10/12)EA*		
Indoor unit type		ETS(H/X)12EF*		
	Backup heater type (optional)	EKECBU*3V	EKECBU*6V	EKECBU*9W
	Backup heater power supply	1~230V	1~230V	3~400V
	Backup heater configuration	1/2/3 kW	2 / 4 / 6 kW	3 / 6 / 9 kW
Normal kWh rate power supply				
Electrical meter type	1~	1	1	-
	3~ balanced	-	-	-
	3~ unbalanced	-	-	1
Preferential kWh rate power supply				
Electrical meter type	1~	2	2	1
	3~ balanced	-	-	-
	3~ unbalanced	-	-	1

4D136059

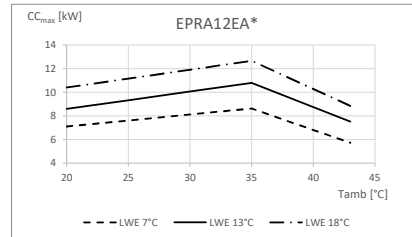
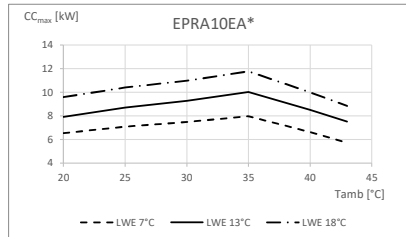
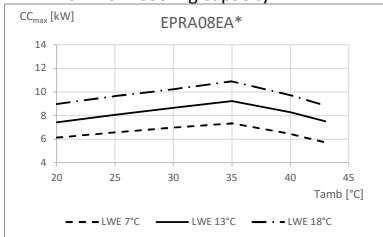
4 Capacity graphs

4 - 1 Cooling Capacity Graphs

EPRA08-12EV

EPRA08-12EW

Maximum cooling capacity



Symbols

CC_{max} Cooling capacity at maximum operating frequency, measured according to EN 14511.

LWE Leaving water evaporator temperature [°C]

Tamb Ambient temperature [°C DB]

Conditions

Cooling capacity

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

Notes

The capacity and power input is valid for ·V3· models at ·230·V and for ·W1· models at ·400·V.

The capacity and the power input are at maximum operation.

4D133539

4 Capacity graphs

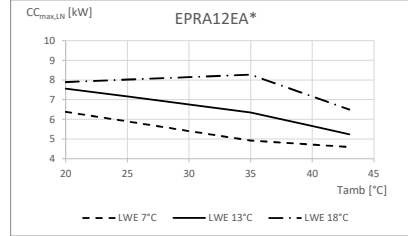
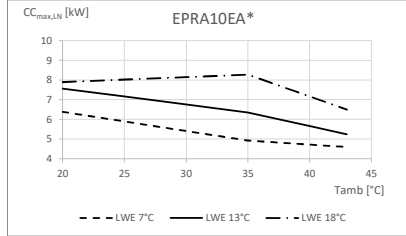
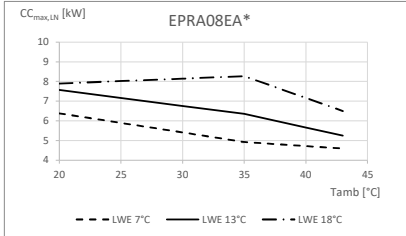
4 - 2 Cooling Capacity Graphs - quiet mode

EPRA08-12EV

EPRA08-12EW

4

Maximum cooling capacity



Symbols

CC_{maxLN} Cooling capacity at maximum operating frequency, measured according to EN 14511.

LWE Leaving water evaporator temperature [°C]

Tamb Ambient temperature [°C DB]

Conditions

Cooling capacity

Capacity according to standard EN 14511 and valid for chilled water range ΔT = 3-8°C.

Notes

The capacity and power input is valid for -V3- models at -230-V and for -W1- models at -400-V.

Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

Low noise level -1-

4D133540

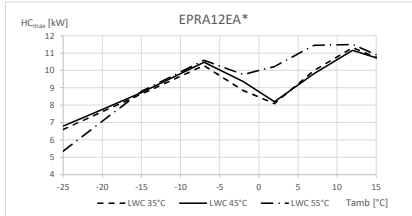
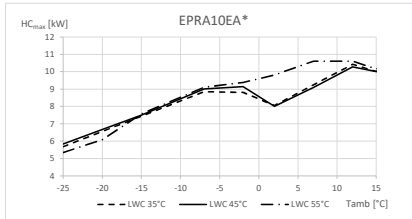
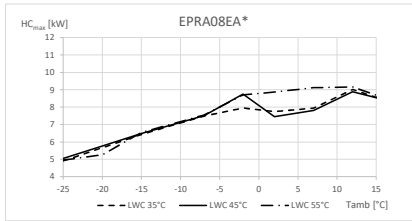
4 Capacity graphs

4 - 3 Heating Capacity Graphs

EPRA08-12EV

EPRA08-12EW

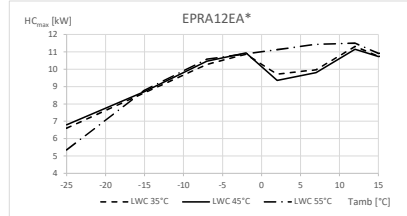
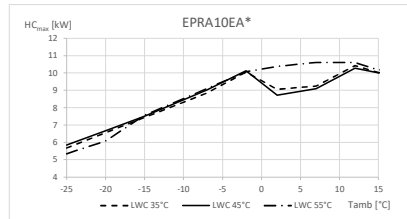
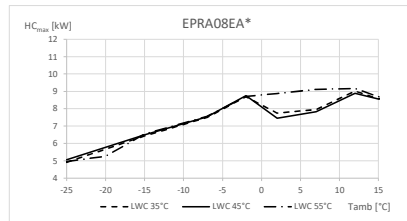
Maximum heating capacity - integrated value



Symbols
 HC_{max} Heating capacity for maximum load, measured according to EN 14511

LWC Leaving water condensor temperature [°C]
 Tamb Ambient temperature [°C DB]

Maximum heating capacity - peak values



Heating capacity
 Capacity according to standard EN 14511 and valid for heated water range $\Delta T = 3^{\circ}\text{--}8^{\circ}\text{C}$.

Notes
 The capacity and power input is valid for -V3- models at -230-V and for -W1- models at -400-V.
 The capacity and the power input are at maximum operation.

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4 Capacity graphs

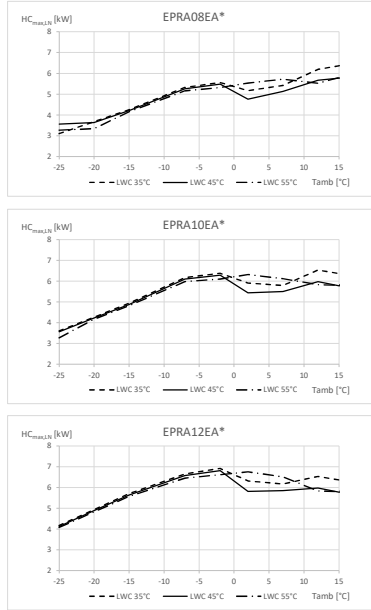
4 - 4 Heating Capacity Graphs - quiet mode

4

EPRA08-12EV

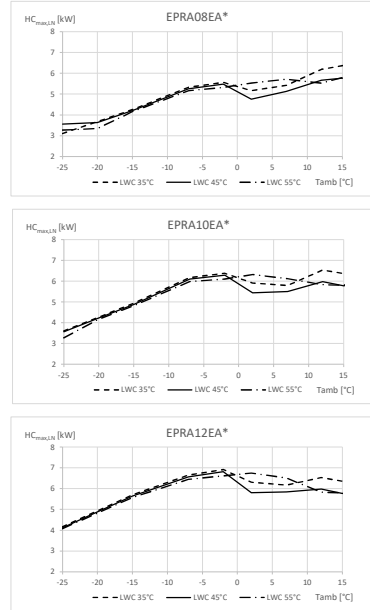
EPRA08-12EW

Maximum heating capacity - integrated value



Symbols
 $HC_{max,12}$ Heating capacity for maximum load, measured according to EN 14511
 LWC Leaving water condenser temperature [°C]
 T_{amb} Ambient temperature [°C DB]

Maximum heating capacity - peak values



Conditions
Heating capacity
 Capacity according to standard EN 14511 and valid for heated water range $\Delta T = 3-8^{\circ}C$.

Notes
 The capacity and power input is valid for -V3- models at -230-V and for for -W1- models at -400-V.
 Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

Low noise level -1-

4D133538

5 Capacity tables

5 - 1 Certification Programs

5

EPRA08-12EV EPRA08-12EW

Rated data for certification programmes - heating mode

Tamb [°C]	EWC [°C]	LWC [°C]	EPRA08EAV3 HC [kW]	COP	EPRA10EAV3 HC [kW]	COP	EPRA12EAV3 HC [kW]	COP	EPRA08EAW1 HC [kW]	COP	EPRA10EAW1 HC [kW]	COP	EPRA12EAW1 HC [kW]	COP	Used for:
7/6	30	35	6,17	4,92	6,17	4,92	6,17	4,92	6,17	5,10	6,17	5,10	6,17	5,10	Keymark, EHPA
2/1	(30)	35	5,74	4,08	5,74	4,08	5,74	4,08	5,74	4,23	5,74	4,23	5,74	4,23	EHPA
-7/-8	(30)	35	7,49	3,04	7,49	3,04	7,49	3,04	7,49	3,14	7,49	3,14	7,49	3,14	General
7/6	40	45	7,73	3,57	7,73	3,57	7,73	3,57	7,73	3,70	7,73	3,70	7,73	3,70	General
-2/-3	(40)	45	8,58	2,83	8,66	2,59	9,36	2,54	8,58	2,91	8,66	2,69	9,36	2,64	MCS
7/6	47	55	7,72	2,94	7,72	2,94	7,72	2,94	7,72	3,05	7,72	3,05	7,72	3,05	Keymark, EHPA
-7/-8	47	55	7,55	2,05	9,02	2,11	9,02	2,11	7,55	2,13	9,02	2,19	9,02	2,19	GET

Rated data for certification programmes - cooling mode

Nominal cooling capacity

Tamb [°C]	EWE [°C]	LWE [°C]	EPRA08EAV3 CC [kW]	EER	EPRA10EAV3 CC [kW]	EER	EPRA12EAV3 CC [kW]	EER	EPRA08EAW1 CC [kW]	EER	EPRA10EAW1 CC [kW]	EER	EPRA12EAW1 CC [kW]	EER	Used for:
35	23	18	6,47	5,56	6,47	5,56	6,47	5,56	6,47	5,75	6,47	5,75	6,47	5,75	General
35	12	7	6,81	3,17	7,97	3,00	8,62	2,91	6,81	3,28	7,97	3,10	8,62	3,01	DAPT General

Seasonal data - cooling

LWE 7°C

Low temperature Application

	EPRA08EAV3	EPRA10EAV3	EPRA12EAV3	EPRA08EAW1	EPRA10EAW1	EPRA12EAW1
Pdes [kW]	6,5	7,5	8,5	6,5	7,5	8,5
SEER [-]	5,38	5,34	5,31	5,42	5,41	5,41
ηs,c [%]	212	211	209	214	214	213
QCE [kWh/annum]	725	843	961	719	831	943

Rated data for certification programmes - domestic hot water performance

Indoor unit	ETV*12S(U)-J18EA*	ETV*12S(U)-J23EA*	ETS(X)(H)(B)-J12P30EF	ETS(X)(H)(B)-J12P50EF	Used for:	
Outdoor unit	EPRA*EAV3	EPRA*EAW1	EPRA*EAV3	EPRA*EAW1	EPRA*EAV3	EPRA*EAW1
Application	Average climate				Keymark	
Domestic hot water tank volume [l]	180		294		477	
Tapping pattern	L		L		XL	
Heat-up time (hh:mm:ss)	01:57:00		02:14:00		02:29:00	
θ _{wh} [°C]	52,5		47,2		44,5	
P _{es} [W]	51,7	50,7	44,8	43,9	38,1	37,4
V _{eq40} [l]	240		298		194,0	
η _{wh} [%]	116,7	120,3	126,4	130	116	119
COP _{DHW}	2,72	2,8	2,96	3,05	2,75	2,83

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]

θ_{wh} Reference Domestic hot water temperature [°C]

According to EN16147.

P_{es} Standby power input

According to EN16147.

V_{eq40} Equivalent domestic hot water volume [l]

According to EN16147.

η_{wh} Efficiency [%] Domestic hot water heating mode

According to EN16147.

COP_{DHW} Domestic hot water COP

Rated data for certification programmes - heating mode

Measured according to UNI/TS 11300

Condition	Tamb [°C]	LWC [°C]	PLR [%]	EPRA08EAV3 HC [kW]	COP	EPRA10EAV3 HC [kW]	COP	EPRA12EAV3 HC [kW]	COP	EPRA08EAW1 HC [kW]	COP	EPRA10EAW1 HC [kW]	COP	EPRA12EAW1 HC [kW]	COP
A	-7/-8	34	100	7,49	3,10	8,73	3,02	10,22	2,93	7,49	3,20	8,73	3,12	10,22	3,03
B	2/1	30	100	7,62	4,30	8,15	4,01	8,41	3,86	7,62	4,42	8,15	4,13	8,41	3,98
C	7/6	27	100	8,44	5,60	9,84	5,42	10,61	5,32	8,44	5,78	9,84	5,59	10,61	5,48
D	12/11	24	100	9,27	7,52	10,70	7,35	11,59	7,24	9,27	7,77	10,70	7,58	11,59	7,46
A	-7/-8	52	100	7,54	2,20	8,91	2,21	10,55	2,22	7,54	2,28	8,91	2,29	10,55	2,30
B	2/1	42	100	7,81	3,47	8,04	3,21	8,16	3,08	7,81	3,58	8,04	3,31	8,16	3,18
C	7/6	36	100	8,16	4,43	9,54	4,42	10,31	4,41	8,16	4,57	9,54	4,56	10,31	4,55
D	12/11	30	100	9,04	6,16	10,49	6,21	11,39	6,24	9,04	6,35	10,49	6,40	11,39	6,43

Rated data for certification programmes - cooling mode

Measured according to UNI/TS 11300

Condition	Tamb [°C]	LWE [°C]	PLR [%]	EPRA08EAV3 CC [kW]	EER	EPRA10EAV3 CC [kW]	EER	EPRA12EAV3 CC [kW]	EER	EPRA08EAW1 CC [kW]	EER	EPRA10EAW1 CC [kW]	EER	EPRA12EAW1 CC [kW]	EER
A	35	18	100	10,89	4,35	11,77	4,11	12,66	3,87	10,89	4,51	11,77	4,26	12,66	4,01
B	30	18	75	7,96	6,05	8,73	5,98	9,51	5,90	7,96	6,26	8,73	6,19	9,51	6,11
C	25	18	50	5,51	8,83	5,90	8,36	6,28	7,88	5,51	9,04	5,90	8,60	6,28	8,17
D	20	18	25	3,47	12,42	3,47	12,42	3,47	12,42	3,47	12,29	3,47	12,29	3,47	12,29
A	35	7	100	7,33	3,09	7,97	3,00	8,62	2,91	7,33	3,20	7,97	3,10	8,62	3,01
B	30	7	75	5,34	4,06	5,86	4,01	6,38	3,96	5,34	4,20	5,86	4,15	6,38	4,10
C	25	7	50	3,66	5,21	3,95	5,22	4,24	5,23	3,66	5,36	3,95	5,39	4,24	5,42
D	20	7	25	2,19	6,20	2,19	6,20	2,19	6,20	2,19	6,17	2,19	6,17	2,19	6,17

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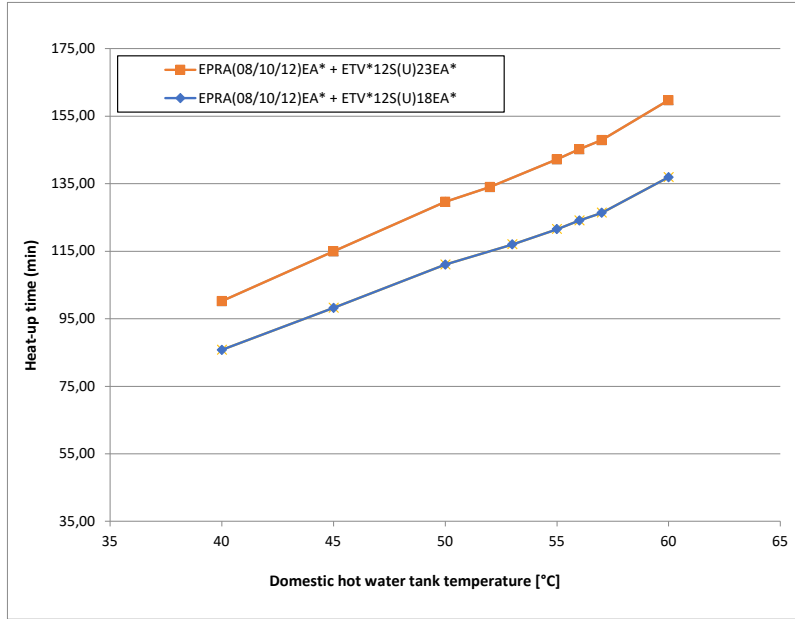
5 Capacity tables

5 - 2 Domestic Hot Water performance

5

EPRA08-12EV
EPRA08-12EW

Heat-up times



Notes

1. Time the indoor unit (heat pump only operation) requires to heat up the domestic hot water tank from 10°C to the indicated temperature.
See the operation range for maximum domestic hot water tank temperature during heat pump only operation.

Model name	Heat-up time domestic hot water tank until 45°C
EPRA(08/10/12)EA* + ETV*12S(U)18EA*	~98 min.
EPRA(08/10/12)EA* + ETV*12S(U)23EA*	~115 min.

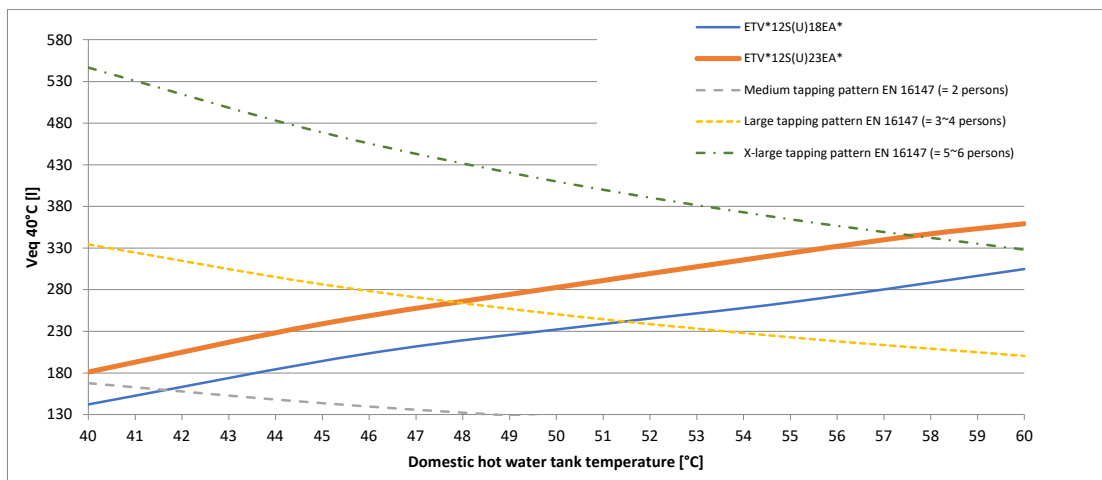
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EPRA08-12EV
EPRA08-12EW

Selection guide for the domestic hot water tank volume

(1)

Ve_q 40°C = the amount of water with a temperature of 40°C that can be tapped when the domestic hot water tank is heated to a certain temperature, and the temperature of the cold inlet water is 10°C.



If a higher daily Ve_q 40°C is required, then additional heat-up cycles are required within 24 hours.
See the operation manual for more information.

Notes

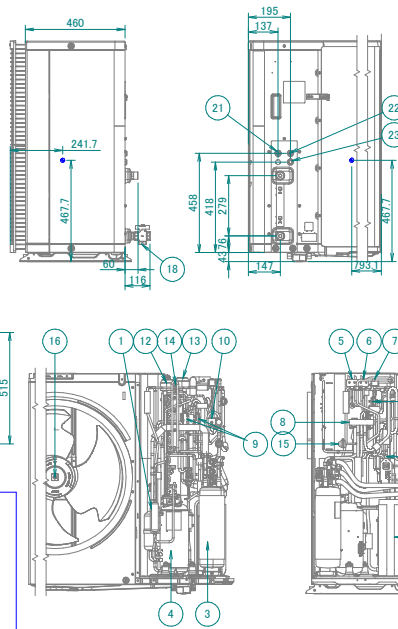
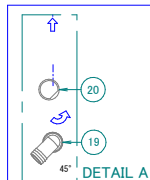
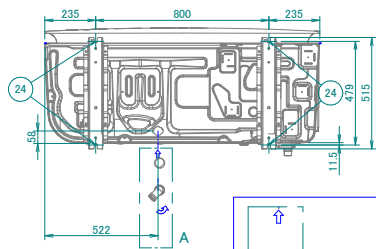
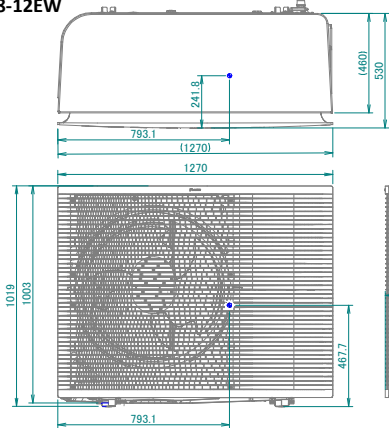
- (1) According to EN16147.

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6 Dimensional drawings

6 - 1 Dimensional Drawings

EPRA08-12EV
EPRA08-12EW



- 1 Muffer
- 2 High pressure switch ·41.7 bar·
- 3 Accumulator
- 4 Compressor
- 5 Solenoid valve (low pressure bypass)
- 6 Solenoid valve (hot gas pass)
- 7 Solenoid valve (liquid)
- 8 4-way valve
- 9 Capillary tube
- 10 4-way valve
- Coil
- 11 Plate heat exchanger
- 12 Electronic expansion valve (main)
- 13 Electronic expansion valve (injection)
- 14 High pressure switch ·46 bar·
- 15 Pressure sensor
- 16 Fan
- 17 Service port ·5/16"· flare
- 18 Shut-off valve / filter (included accessory)
- 19 Drain elbow (included accessory)
- 20 Sealing (included accessory)
- 21 Drain tube heater cable intake
- 17 22 Interconnection cable intake
- 23 Power supply cable intake
- 24 4 holes for anchor bolts
- 11 26 M12
- 25 Outlet ·1"G·
- 26 Inlet ·1"G·

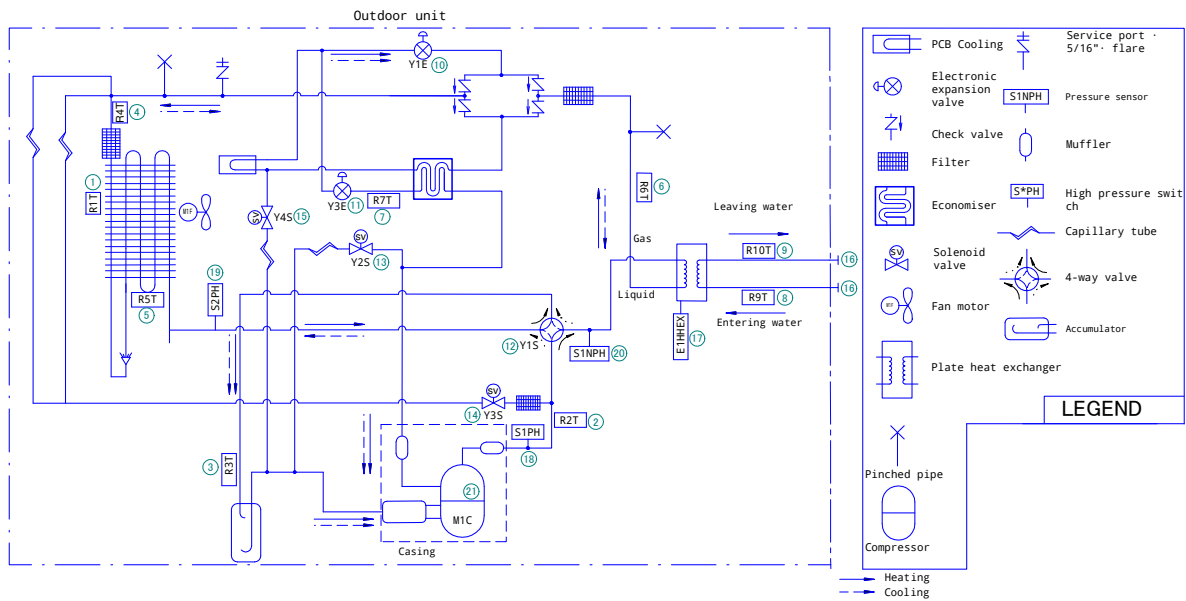
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7 Piping diagrams

7 - 1 Piping Diagrams

7

EPRA08-12EV
EPRA08-12EW



- ① R1T: Ambient thermistor
- ② R2T: Thermistor (discharge)
- ③ R3T: Thermistor (suction)
- ④ R4T: Thermistor (heat exchanger, liquid pipe)
- ⑤ R5T: Thermistor (heat exchanger middle)
- ⑥ R6T: Thermistor (liquid)
- ⑦ R7T: Thermistor (injection)

- ⑧ R9T: Inlet water thermistor
- ⑨ R10T: Outlet water thermistor
- ⑩ Y1E: Electronic expansion valve (main)
- ⑪ Y3E: Electronic expansion valve (injection)
- ⑫ Y1S: Solenoid valve (4-way valve)
- ⑬ Y2S: Solenoid valve (low pressure bypass)
- ⑭ Y3S: Solenoid valve (hot gas pass)

- ⑮ Y4S: Solenoid valve (liquid injection)
- ⑯ Screw connection ·1"·M·
- ⑰ E1HHEX: Plate heat exchanger Heater
- ⑱ S1PH: High pressure switch ·4.6MPa·
- ⑲ S2PH: High pressure switch ·4.17MPa·
- ⑳ S1NPH: High pressure sensor
- ㉑ Q1E Overload

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8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

EPRA08-12EV

Electronic component assembly
Position of elements

Front side view

Rear side view

A1P	Printed circuit board (main)	R10T	Thermistor (outlet water)
A2P	Printed circuit board (noise filter)	R11T	Thermistor (fin)
A4P	Printed circuit board (ACS)	RC (A2P)	Signal receiver circuit
A5P	Printed circuit board (flash)	S1NPH	High pressure sensor
BS1~BS4 (A1P)	Push -button switch	S1PH~S2PH	High pressure switch
C1~C4 (A1P, A2P)	Capacitor	TC (A2P)	Signal transmission circuit
DS1 (A1P)	DIP switch	V1D~V4D (A1P)	Diode
E1H	Drain tube heater (field supply)	V1R (A1P)	IGBT power module
E1HHEX	PHE heater	V2R (A1P)	Diode module
F1U	Field fuse (supply supply)	V1T~V3T (A1P)	Insulated Gate Bipolar Transistor (IGBT)
F1U~F4U (A2P)	Fuse (T 6.3A / 250V)	X1M~X2M	Terminal strip
F6U (A1P)	Fuse (T 5.0A / 250V)	Y1E	Electronic expansion valve (main - black)
H1P~H7P (A1P)	Light-emitting diode (service monitor is orange)	Y3E	Electronic expansion valve (injection - blue)
HAP (A1P)	Light-emitting diode (service monitor is green)	Y1S	Solenoid valve (4-way valve)
K1R (A1P)	Magnetic relay (Y1S)	Y2S	Solenoid valve (low pressure bypass)
K1R (A4P)	Magnetic relay (E1HHEX)	Y3S	Solenoid valve (hot gas bypass)
K2R (A1P)	Magnetic relay (Y2S)	Y4S	Solenoid valve (liquid injection)
K2R (A4P)	Magnetic relay (E1H)	Z1C~Z11C	Noise filter (ferrite core)
K3R (A1P)	Magnetic relay (Y3S)	Z1F~Z6F (A1P, A2P)	Noise filter
K10R (A1P)	Magnetic relay		
K11M (A1P)	Magnetic contactor		
K13R~K15R (A1P, A2P)	Magnetic relay		
L1R~L3R (A1P)	Reactor		
M1C	Motor (compressor)		
M1F	Motor (fan)		
PS (A1P)	Switching power supply		
Q1DI	Earth leakage circuit breaker (30mA) (field supply)		
Q1	Thermal overcurrent protector		
R1~R5 (A1P, A2P)	Resistor		
R1T	Thermistor (ambient)		
R2T	Thermistor (discharge)		
R3T	Thermistor (suction)		
R4T	Thermistor (heat exchanger liquid pipe)		
R5T	Thermistor (heat exchanger middle)		
R6T	Thermistor (refrigerant liquid)		
R7T	Thermistor (injection)		
R9T	Thermistor (inlet water)		

NOTES

- L : Live
⊕ : Protective earth
⊕ : Noiseless earth
⊕ : Field wiring
□ : Terminal strip
□ : Connector
- Colours: BLK: black, RED: red, BLU: bleu, WHT: white, GRN: green, YLW: yellow, PNK: pink, ORG: orange, GRY: grey, BRN: brown
- This wiring diagram applies only to the outdoor unit.
- When operating, do not short-circuit protection device Q1, S1PH and S2PH.
- Refer to the combination table and the option manual for how to connect the wiring to X41A and X2M.
- The factory setting of all switches is OFF, do not change the setting of the selector switch (DS1).

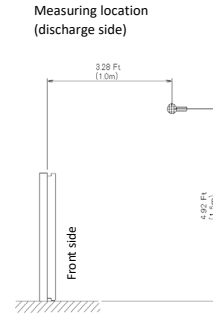
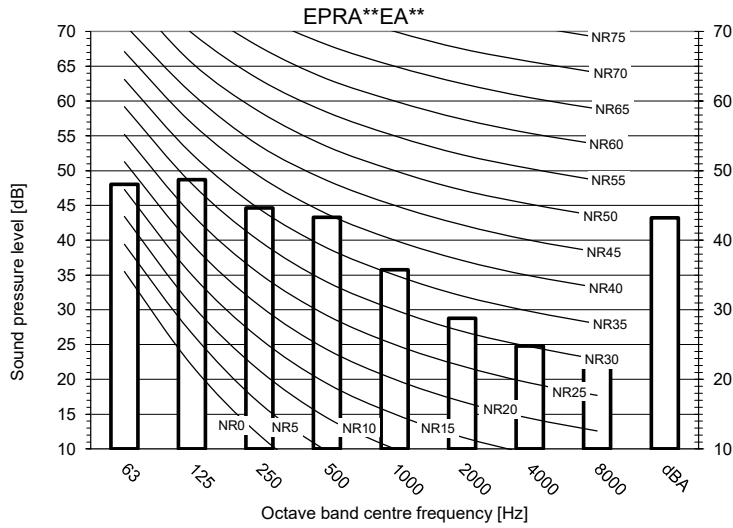
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9 Sound data

9 - 1 Sound Pressure Spectrum

9

EPRA08-12EV
EPRA08-12EW



Maximum sound day	Maximum sound night	Maximum sound day Sound Power Level [dBA]			Maximum sound night Sound Power Level [dBA]		
		EPRA08EA*	EPRA10EA*	EPRA12EA*	EPRA08EA*	EPRA10EA*	EPRA12EA*
Default	Low noise level -1-	62	62	62	58,5	58,5	58,5
Low noise level -2-	Low noise level -3-	53	53	53	49,8	49,8	49,8

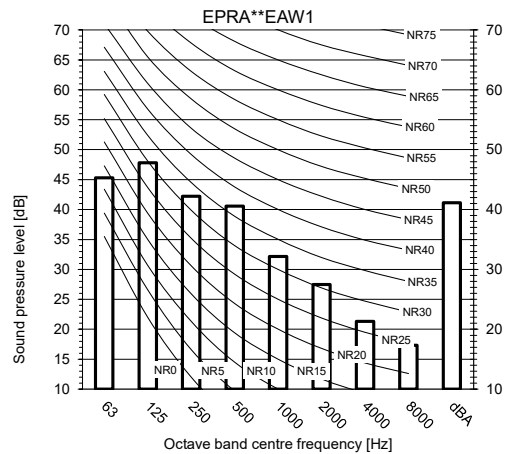
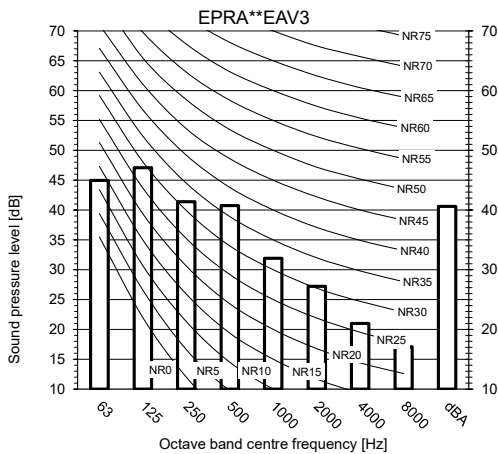
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- Conditions: Ta DB/WB -7/-6 °C - LWC -55 °C
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa
- If the sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

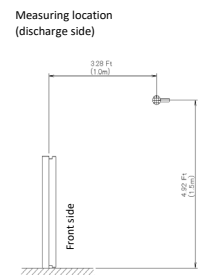
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EPRA08-12EV
EPRA08-12EW



Maximum sound day	Maximum sound night	Maximum sound day Sound Power Level [dBA]			Maximum sound night Sound Power Level [dBA]		
		EPRA08EA*	EPRA10EA*	EPRA12EA*	EPRA08EA*	EPRA10EA*	EPRA12EA*
Default	Low noise level -1-	62	62	62	58,5	58,5	58,5
Low noise level -2-	Low noise level -3-	53	53	53	49,8	49,8	49,8

Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- Conditions: Ta DB/WB -7/-6 °C - LWC -35 °C
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa
- If the sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

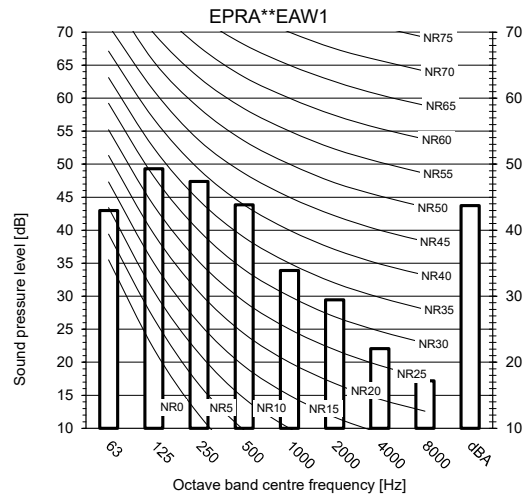
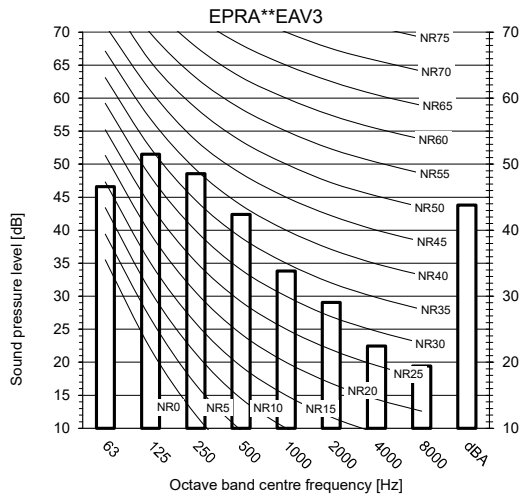
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9 Sound data

9 - 1 Sound Pressure Spectrum

EPRA08-12EV

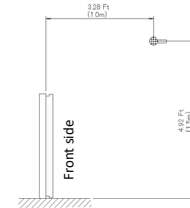
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Notes

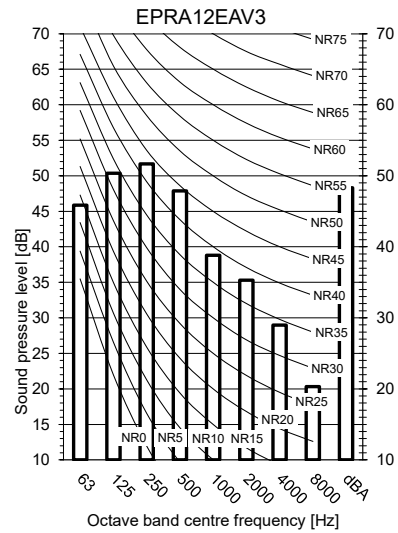
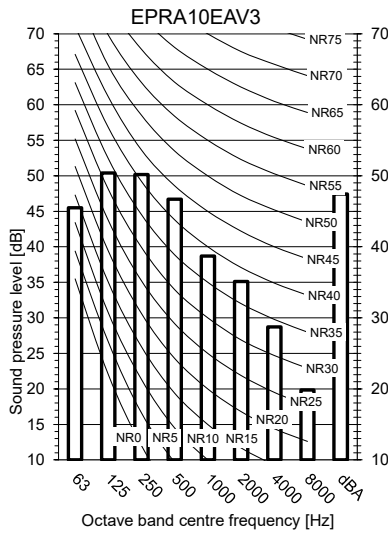
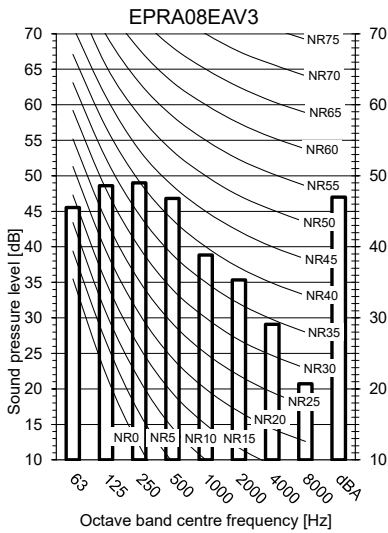
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa
- If the sound is measured under actual installation conditions, the measured value will be higher due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

Measuring location (discharge side)



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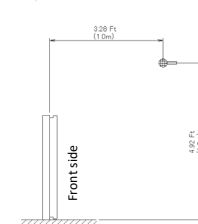
EPRA08-12EV



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa
- 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)



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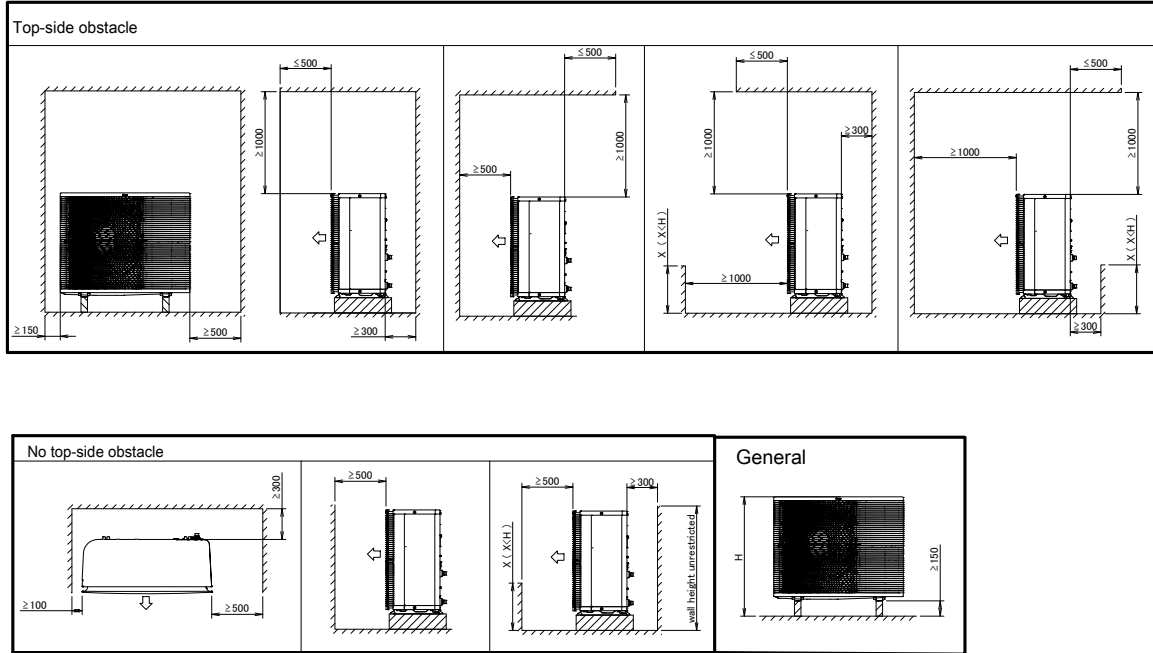
10 Installation

10 - 1 Installation Method

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EPRA08-12EV
EPRA08-12EW

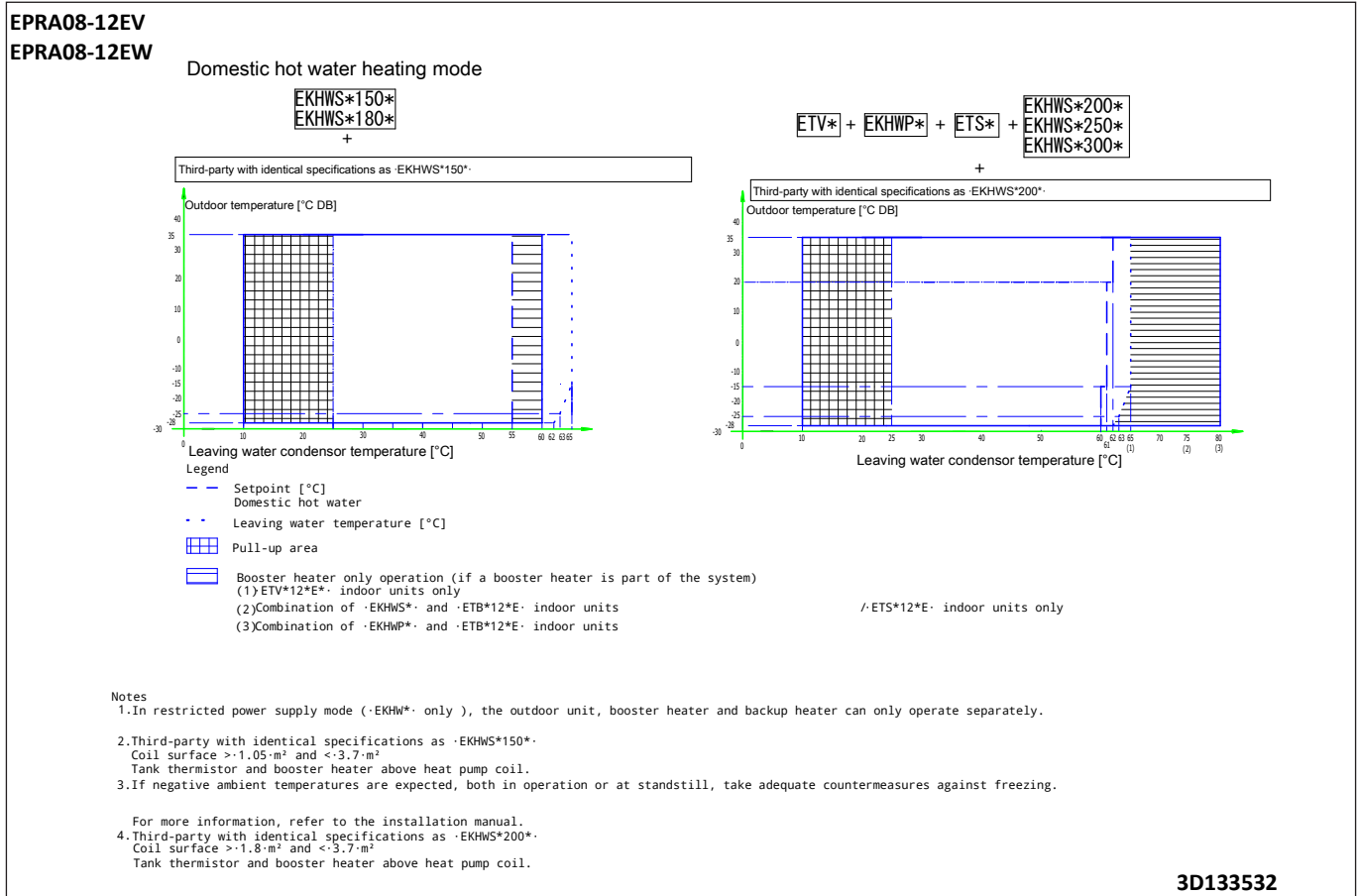
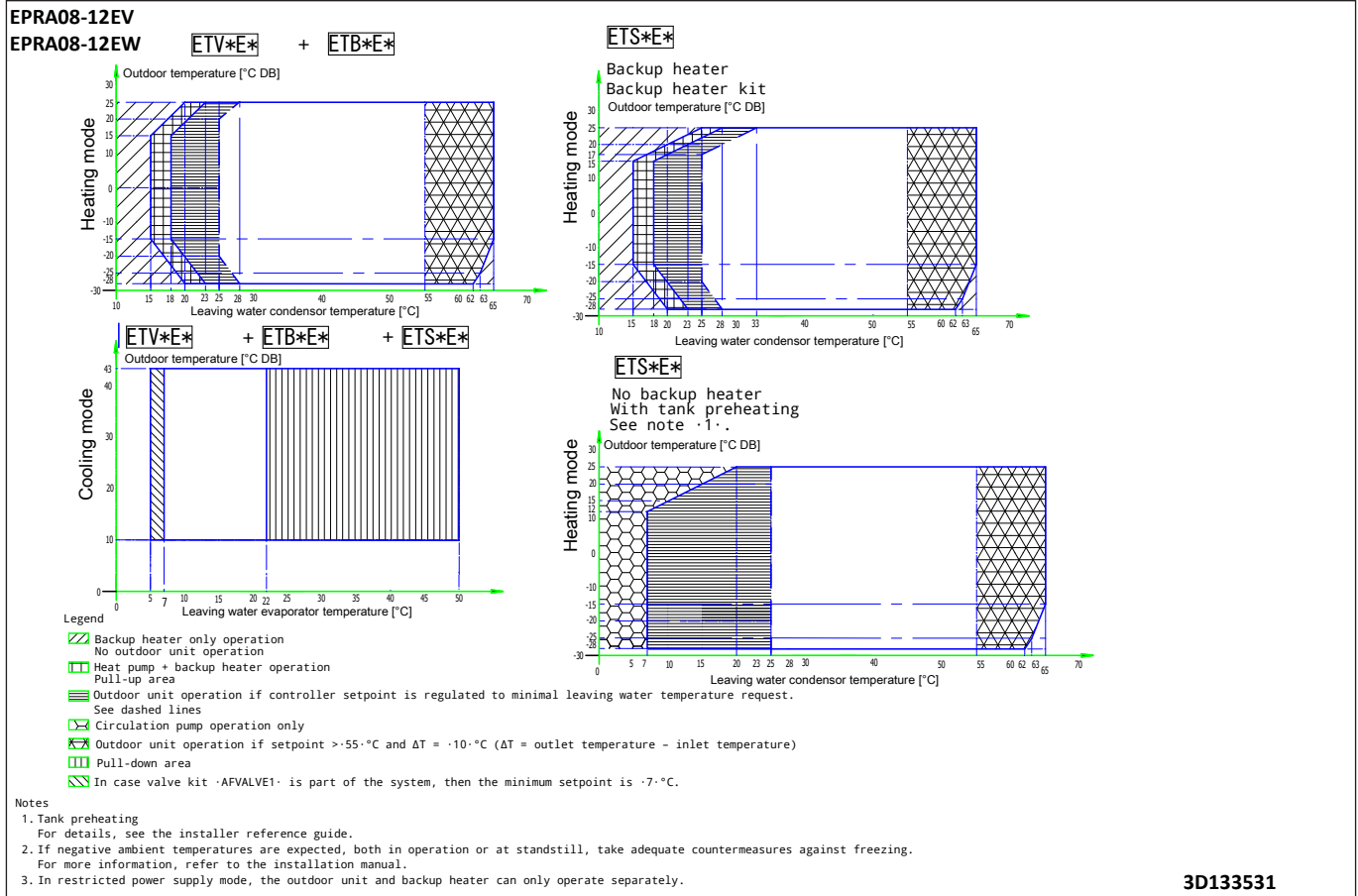
Minimum space for air passage

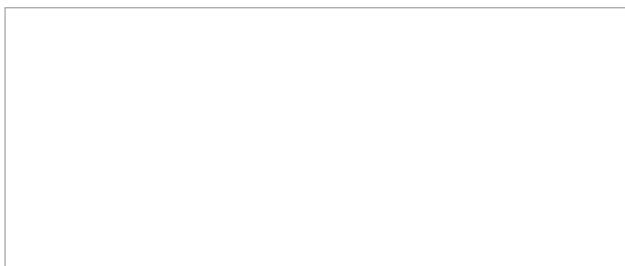


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11 Operation range

11 - 1 Operation Range





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