

Daikin Altherma mid
temperature split
Technical Data
EPRA08-12EW



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EPRA08-12EW

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1 Features

1 - 1 EPRA08-12EW

- › 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 EPRA08-12EW

Technical specifications					ETBH12E6V + EPRA08EW1		ETBH12E6V + EPRA10EW1		ETBH12E6V + EPRA12EW1			
Indoor unit					ETBH12EF6V							
Outdoor unit					EPRA08EAW1		EPRA10EAW1		EPRA12EAW1			
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			0.70 (3)						
		Nom.	kW			1.21 (2)						
		Max.	kW			1.63 (3)		1.98 (3)		2.21 (3)		
COP					5.10 (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/ 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			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)			m³/h			3,542				
	Other	Capacity control			Inverter							
		Pck (Crankcase heater mode) kW			0.000							
		Poff (Off mode) kW			0.027							
		Psb (Standby mode) kW			0.027							
		Pto (Thermostat off) kW			0.024							
		Inte- grated supple- mentary heater	Psup kW			6.0						
	Type of energy input			Electrical								
Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,993		4,970					
			ηs (Seasonal space heating efficiency)	%	138							
			Prated at -10°C	kW	8.5							
			Qhe Annual energy consumption (GCV)	Gj	18							
			SCOP	3.52		3.53						

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETBH12E6V + EPRA08EW1		ETBH12E6V + EPRA10EW1		ETBH12E6V + EPRA12EW1		
Space heating  Average climate water outlet 55°C	General	Seasonal space heating eff. class	A++							
		A Condition (-7°CDB/-8°CWB)	Cd _h (Degradation heating)							
			COP _d							
			Pd _h	kW	7.6					
			PER _d	%	91.9					
		B Condition (2°CDB/-1°CWB)	Cd _h (Degradation heating)							
			COP _d							
			Pd _h	kW	4.6					
			PER _d	%	140.0					
		C Condition (7°CDB/-6°CWB)	Cd _h (Degradation heating)							
			COP _d							
			Pd _h	kW	3.0					
			PER _d	%	184.2					
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)							
			COP _d							
			Pd _h	kW	3.7					
			PER _d	%	246.4					
		Tol (temperature operating limit)	COP _d		2.01				2.05	
			Pd _h	kW	7.0				8.3	
			PER _d	%	80.2				82.1	
			TOL	°C	-10					
			WTOL	°C	55					
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.5				0.0	
		Tbiv (bivalent temperature)	COP _d		2.30				2.05	
			Pd _h	kW	7.6				8.3	
			PER _d	%	91.9				82.1	
			Tbiv	°C	-7				-10	
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,088		6,950		6,921		
		η _s (Seasonal space heating efficiency)	%	122				125		
		Prated at -22°C	kW	9.0						
		Qhe Annual energy consumption (GCV)	Gj	26				25		
	A Condition (-7°CDB/-8°CWB)	Cd _h (Degradation heating)								
		COP _d								
		Pd _h	kW	5.2						
		PER _d	%	104.2				104.4		
	B Condition (2°CDB/1°CWB)	Cd _h (Degradation heating)								
		COP _d								

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBH12E6V + EPRA08EW1	ETBH12E6V + EPRA10EW1	ETBH12E6V + EPRA12EW1
	Space heating Cold climate water outlet 55°C	B Condition (2°CDB/11°CWB)	Pdh	kW	3.3		
			PERd	%	156.0		
			Cdh (Degradation heating)		1.0		
			COPd		4.96		
			Pdh	kW	3.4		
			PERd	%	198.3		
			D Condition (12°CDB/11°CWB)		6.56		
			COPd		4.2		
			Pdh	kW	262.5		
			PERd	%	1.49		
			Tol (temperature operating limit)		1.56		
			COPd		1.62		
			Pdh	kW	4.9		
			PERd	%	6.1		
			TOL		59.6		
			WTOL		62.3		
			G Condition (-15°CDB/-)		-22		
			COPd		55		
			Pdh	kW	2.00		
			PERd	%	6.0		
			Tbiv (bivalent temperature)		80.0		
			COPd		2.25		
			Pdh	kW	2.03		
			PERd	%	6.6		
			Tbiv		7.2		
			Psup (at Tdesign -22°C)		90.0		
			Rated heat output supplementary capacity		81.2		
			Tbiv		-12		
			Psup (at Tdesign -22°C)		-15		
			Rated heat output supplementary capacity		4.1		
			Psup (at Tdesign -22°C)		2.9		
			Rated heat output supplementary capacity		1.8		
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,972		
			ηs (Seasonal space heating efficiency)	%	170		
			Prated at 2°C	kW	9.6		
			Qhe Annual energy consumption (GCV)	Gj	11		
		B Condition (2°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		2.66		
			Pdh	kW	8.0		
			PERd	%	106.5		
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.79		
			Pdh	kW	6.7		
			PERd	%	151.5		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0		
			COPd		5.87		
			Pdh	kW	3.6		
			COPd		3.6		
			Pdh		3.6		

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBH12E6V + EPRA08EW1		ETBH12E6V + EPRA10EW1		ETBH12E6V + EPRA12EW1	
 Space heating	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	234.9					
		Tbiv (bivalent temperature)	COPd		3.13					
			Pdh	kW	8.4					
			PERd	%	125.4					
			Tbiv	°C	4					
	Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,561		3,539			
			ηs (Seasonal space heating efficiency)	%	190		191			
			Prated at -10°C	kW	8.3					
			Qhe Annual energy consumption (GCV)	Gj	13					
			SCOP		4.81		4.84			
			Seasonal space heating eff. class		A+++					
		A Condition (-7°CDB/-8°CWB)	COPd		3.20					
			Pdh	kW	7.5					
			PERd	%	128.0					
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.93					
			Pdh	kW	4.4					
		C Condition (7°CDB/6°CWB)	PERd	%	197.2					
			Cdh (Degradation heating)		1.0					
			COPd		6.37					
		D Condition (12°CDB/11°CWB)	Pdh	kW	4.3					
			PERd	%	254.8					
			Cdh (Degradation heating)		1.0					
		Tol (temperature operating limit)	COPd		8.13					
			Pdh	kW	6.6					
			PERd	%	325.2					
	Tbiv (bivalent temperature)	COPd		2.90		2.86				
		Pdh	kW	6.9		8.1				
		PERd	%	116.0		114.4				
		TOL	°C	-10						
		WTOL	°C	35						
	Rated heat output supplementary capacity	Tbiv (bivalent temperature)	COPd		3.20		2.86			
			Pdh	kW	7.5		8.1			
			PERd	%	128.0		114.4			
			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	5,394		5,239		5,224	

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBH12E6V + EPRA08EW1	ETBH12E6V + EPRA10EW1	ETBH12E6V + EPRA12EW1
	Cold climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	162	166	167
			Prated at -22°C	kW		9.0	
			Qhe Annual energy consumption (GCV)	Gj		19	
			A Condition COPd			3.48	
			(-7°CDB/-8°CWB) Pdh	kW		5.4	
			PERd	%		139.2	
			B Condition Cdhd (Degradation heating)			1.0	
			(2°CDB/-B/1°CWB) COPd			5.40	
			Pdh	kW		3.6	
			PERd	%		216.0	
			C Condition Cdhd (Degradation heating)			1.0	
			(7°CDB/-B/6°CWB) COPd			6.53	
			Pdh	kW		5.3	
			PERd	%		261.2	
			D Condition Cdhd (Degradation heating)			1.0	
			(12°CDB/11°CWB) COPd			7.98	
			Pdh	kW		6.6	
			PERd	%	319.0	319.2	
			Tol (temperature operating limit) COPd		2.11	2.14	2.16
			Pdh	kW	4.9	5.9	6.5
			PERd	%	84.3	85.6	86.4
			TOL	°C		-22	
			WTOL	°C		35	
	Warm climate water outlet 35°C	General	G Condition COPd		2.68	2.64	
			(-15°CDB/-) Pdh	kW	6.0	7.0	
			PERd	%	107.1	105.6	
			Tbiv COPd		2.95	2.64	
			(bivalent temperature) Pdh	kW	6.5	7.0	
			PERd	%	118.1	105.6	
			Tbiv	°C	-12	-15	
			Rated heat output supplementary capacity Psup (at Tdesign -22°C)	kW	4.1	3.1	2.6
			Annual energy consumption	kWh		1,954	
			ηs (Seasonal space heating efficiency)	%		232	
			Prated at 2°C	kW		8.6	
			Qhe Annual energy consumption (GCV)	Gj		7	
			B Condition Cdhd (Degradation heating)			1.0	
			(2°CDB/-B/1°CWB) COPd			4.07	
			Pdh	kW		7.7	
			PERd	%		162.9	
			C Condition Cdhd (Degradation heating)			1.0	
			(7°CDB/-B/6°CWB) COPd			5.85	
			Pdh	kW		5.5	
			PERd	%		234.1	
			Tbiv COPd			4.97	
			(bivalent temperature) Pdh	kW		6.9	
			PERd	%		198.9	
			Tbiv	°C		5	
			D Condition Cdhd (Degradation heating)			1.0	
			(12°CDB/11°CWB) COPd			7.85	
			Pdh	kW		6.2	
			PERd	%		313.9	

(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) 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 |

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

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications					ETBH12E9W + EPRA08EW1	ETBH12E9W + EPRA10EW1	ETBH12E9W + EPRA12EW1		
Indoor unit					ETBH12EF9W				
Outdoor unit					EPRA08EAW1	EPRA10EAW1	EPRA12EAW1		
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			0.70 (3)			
		Nom.	kW			1.21 (2)			
		Max.	kW			1.63 (3)	1.98 (3)	2.21 (3)	
COP					5.10 (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				
		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 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)			m³/h				
					3,542				
	Other	Capacity control			Inverter				
		Pck (Crankcase heater mode) kW			0.000				
		Poff (Off mode) kW			0.027				
		Psb (Standby mode) kW			0.027				
		Pto (Thermostat off) kW			0.024				
		Psup kW			9.0				
	Inte- grated supple- mentary heater	Type of energy input			Electrical				
 Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,993	4,970			
			ηs (Seasonal space heating efficiency)	%	138				
			Prated at -10°C	kW	8.5				
			Qhe Annual ener- gy consumption (GCV)	Gj	18				
			SCOP				3.52	3.53	

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETBH12E9W + EPRA08EW1		ETBH12E9W + EPRA10EW1		ETBH12E9W + EPRA12EW1				
 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		2.30							
			Pdh	kW	7.6							
			PERd		91.9							
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0							
			COPd		3.50							
			Pdh	kW	4.6							
			PERd		140.0							
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)		1.0							
			COPd		4.61							
			Pdh	kW	3.0							
			PERd		184.2							
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0							
			COPd		6.16							
			Pdh	kW	3.7							
			PERd		246.4							
		Tol (tem- perature operat- ing limit)	COPd		2.01				2.05			
			Pdh		7.0				8.3			
			PERd		80.2				82.1			
			TOL		°C				-10			
			WTOL		°C				55			
		Rated heat output supple- mentary capacity	Psup (at Tdesign -10°C)		kW		1.5				0.0	
			Tbiv		COPd		2.30				2.05	
			(bivalent tempera- ture)		Pdh		kW		7.6		8.3	
					PERd		%		91.9		82.1	
		Cold climate water outlet 55°C	General	Tbiv		°C		-7				-10
Annual energy consumption				kWh		7,088		6,950		6,921		
ηs (Seasonal space heating efficiency)				%		122				125		
Prated at -22°C				kW				9.0				
	Qhe Annual energy consumption (GCV)		Gj		26				25			
A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0									
	COPd		2.61									
	Pdh		kW		5.2							
	PERd		%		104.2				104.4			
B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0									
	COPd		3.90									

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBH12E9W + EPRA08EW1	ETBH12E9W + EPRA10EW1	ETBH12E9W + EPRA12EW1
2 Space heating Cold climate water outlet 55°C	B Con- dition (2°CDB- B/1°CWB) Cd_h (Degradation heating) COP_d Pd_h PER_d	C Con- dition (7°CDB- B/6°CWB) Cd_h (Degradation heating) COP_d Pd_h PER_d	D Condition (12°CDB/11°CWB) COP_d Pd_h PER_d	Tol (tem- perature operat- ing limit) COP_d Pd_h PER_d TOL WTOL	3.3		
					156.0		
					1.0		
					4.96		
					3.4		
					198.3		
					6.56		
					4.2		
					262.5		
					1.49	1.56	1.62
					4.9	6.1	7.2
					59.6	62.3	64.7
					-22		
					55		
					2.00	2.03	
					6.0	7.2	
					80.0	81.2	
					2.25	2.03	
					6.6	7.2	
					90.0	81.2	
					-12	-15	
					4.1	2.9	1.8
					2,972		
					170		
					9.6		
					11		
Warm climate water outlet 55°C	General	Annual energy consumption	η_s (Seasonal space heating efficiency)	Prated at 2°C	2,972		
					170		
					9.6		
					11		
					1.0		
					2.66		
					8.0		
					106.5		
					1.0		
					3.79		
	C Con- dition (7°CDB- B/6°CWB)	Cd_h (Degradation heating)	COP_d	Pd_h	6.7		
					151.5		
					1.0		
					5.87		
	D Condition (12°CDB/11°CWB)	Cd_h (Degradation heating)	COP_d	Pd_h	3.6		

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBH12E9W + EPRA08EW1		ETBH12E9W + EPRA10EW1		ETBH12E9W + EPRA12EW1	
 Space heating	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	234.9					
		Tbiv	COPd	3.13						
		(bivalent temperature)	Pdh	kW	8.4					
			PERd	%	125.4					
			Tbiv	°C	4					
		Average climate water outlet 35°C	General	Annual energy consumption	kWh	3,561		3,539		
	ηs (Seasonal space heating efficiency)			%	190		191			
	Prated at -10°C			kW	8.3					
	Qhe Annual energy consumption (GCV)			Gj	13					
	SCOP			4.81		4.84				
	Seasonal space heating eff. class			A+++						
	A Condition (-7°CDB/-8°CWB)			COPd	3.20					
			Pdh	kW	7.5					
			PERd	%	128.0					
	B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)		1.0					
			COPd	4.93						
			Pdh	kW	4.4					
	C Condition (7°CDB/6°CWB)		PERd	%	197.2					
			Cdh (Degradation heating)		1.0					
			COPd	6.37						
	D Condition (12°CDB/11°CWB)		Pdh	kW	4.3					
			PERd	%	254.8					
			Cdh (Degradation heating)		1.0					
	Tol (temperature operating limit)		COPd	8.13						
			Pdh	kW	6.6					
			PERd	%	325.2					
			COPd	2.90		2.86				
			Pdh	kW	6.9		8.1			
	Tbiv (bivalent temperature)		PERd	%	116.0		114.4			
			TOL	°C	-10					
			WTOL	°C	35					
	Rated heat output supplementary capacity		General	COPd	3.20		2.86			
				Pdh	kW	7.5				
		PERd		%	128.0					
		Tbiv		°C	-7					
		Psup (at Tdesign -10°C)	kW	1.4		0.0				
	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,394		5,239		5,224	

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBH12E9W + EPRA08EW1	ETBH12E9W + EPRA10EW1	ETBH12E9W + EPRA12EW1
Space heating	Cold climate water outlet 35°C	General	η _s (Seasonal space heating efficiency)	%	162	166	167
			Prated at -22°C	kW		9.0	
			Q _{he} Annual energy consumption (GCV)	Gj		19	
			A Condition COPd			3.48	
			(-7°CDB/-8°CWB) Pdh	kW		5.4	
			PERd	%		139.2	
			B Condition Cd _h (Degradation heating)			1.0	
			(2°CDB/-B/1°CWB) COPd			5.40	
			Pdh	kW		3.6	
			PERd	%		216.0	
			C Condition Cd _h (Degradation heating)			1.0	
			(7°CDB/-B/6°CWB) COPd			6.53	
			Pdh	kW		5.3	
			PERd	%		261.2	
			D Condition Cd _h (Degradation heating)			1.0	
			(12°CDB/11°CWB) COPd			7.98	
			Pdh	kW		6.6	
			PERd	%	319.0	319.2	
			Tol (temperature operating limit) COPd		2.11	2.14	2.16
			Pdh	kW	4.9	5.9	6.5
			PERd	%	84.3	85.6	86.4
			TOL	°C		-22	
			WTOL	°C		35	
			G Condition COPd		2.68	2.64	
			(-15°CDB/-B/6°CWB) Pdh	kW	6.0	7.0	
			PERd	%	107.1	105.6	
Space heating	Warm climate water outlet 35°C	General	Tbiv (bivalent temperature) COPd		2.95	2.64	
			Pdh	kW	6.5	7.0	
			PERd	%	118.1	105.6	
			Tbiv	°C	-12	-15	
			Rated heat output supplementary capacity P _{sup} (at T _{design} -22°C)	kW	4.1	3.1	2.6
			Annual energy consumption	kWh		1,954	
			η _s (Seasonal space heating efficiency)	%		232	
			Prated at 2°C	kW		8.6	
			Q _{he} Annual energy consumption (GCV)	Gj		7	
			B Condition Cd _h (Degradation heating)			1.0	
			(2°CDB/-B/1°CWB) COPd			4.07	
			Pdh	kW		7.7	
			PERd	%		162.9	
			C Condition Cd _h (Degradation heating)			1.0	
			(7°CDB/-B/6°CWB) COPd			5.85	
			Pdh	kW		5.5	
			PERd	%		234.1	
			Tbiv (bivalent temperature) COPd			4.97	
			Pdh	kW		6.9	
			PERd	%		198.9	
			Tbiv	°C		5	
			D Condition Cd _h (Degradation heating)			1.0	
			(12°CDB/11°CWB) COPd			7.85	
			Pdh	kW		6.2	
			PERd	%		313.9	

(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) 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 |

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

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBX12E6V + EPRA08EW1	ETBX12E6V + EPRA10EW1	ETBX12E6V + EPRA12EW1
Indoor unit					ETBX12EF6V		
Outdoor unit					EPRA08EAW1	EPRA10EAW1	EPRA12EAW1
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			0.70 (5)	
		Nom.	kW			1.21 (2)	
		Max.	kW			1.63 (5)	1.98 (5)
	Cooling	Nom.	kW			2.08 (3) / 1.13 (4)	2.57 (3) / 1.13 (4)
COP					5.10 (2)		
EER					3.28 (3) / 5.75 (4)	3.10 (3) / 5.75 (4)	3.01 (3) / 5.75 (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/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			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)			m³/h		
					3,542		
	Other	Capacity control			Inverter		
		Pck (Crankcase heater mode) kW			0.000		
		Poff (Off mode) kW			0.027		
		Psb (Standby mode) kW			0.027		
		Pto (Thermostat off) kW			0.024		
		Inte- grated supple- mentary heater	Psup kW			6.0	
	Type of energy input			Electrical			
	Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,894	4,871
ηs (Seasonal space heating efficiency)				%	141		

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBX12E6V + EPRA08EW1		ETBX12E6V + EPRA10EW1		ETBX12E6V + EPRA12EW1	
2 Space heating	Average climate water outlet 55°C	General	Prated at -10°C	kW	8.5					
			Qhe Annual energy consumption (GCV)	GJ	18					
			SCOP		3.59		3.60			
		Seasonal space heating eff. class		A++						
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0					
			COPd		2.30					
			Pdh	kW	7.6					
			PERd	%	91.9					
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		3.50					
			Pdh	kW	4.6					
			PERd	%	140.0					
		C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.61					
			Pdh	kW	3.0					
			PERd	%	184.2					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		6.16					
			Pdh	kW	3.7					
			PERd	%	246.4					
		Tol (temperature operating limit)	COPd		2.01		2.05			
			Pdh	kW	7.0		8.3			
			PERd	%	80.2		82.1			
			TOL	°C	-10					
			WTOL	°C	55					
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.5		0.0			
			Tbiv	COPd	2.30		2.05			
			Pdh	kW	7.6		8.3			
			PERd	%	91.9		82.1			
		Cold climate water outlet 55°C	General	Tbiv	°C	-7		-10		
Annual energy consumption	kWh			7,028		6,890		6,861		
ηs (Seasonal space heating efficiency)	%			123		126				
Prated at -22°C	kW			9.0						
	Qhe Annual energy consumption (GCV)	GJ	25							
A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0							
	COPd		2.61							
	Pdh	kW	5.2							

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETBX12E6V + EPRA08EW1	ETBX12E6V + EPRA10EW1	ETBX12E6V + EPRA12EW1		
Space heating	Cold climate water outlet 55°C	A Condition (-7°CDB/-8°CWB)	PERd	%	104.2		104.4		
		B Con- dition (2°CDB- B/1°CWB)	CdH (Degradation heating)		1.0				
			COPd		3.90				
			PdH		3.3				
			PERd		156.0				
		C Con- dition (7°CDB- B/6°CWB)	CdH (Degradation heating)		1.0				
			COPd		4.96				
			PdH		3.4				
			PERd		198.3				
		D Condition (12°CDB/11°CWB)	COPd		6.56				
			PdH		4.2				
			PERd		262.5				
		Tol (tem- perature operat- ing limit)	COPd		1.49		1.56		1.62
			PdH		4.9		6.1		7.2
			PERd		59.6		62.3		64.7
			TOL		-22				
		WTOL		55					
		G Con- dition (-15°CDB/-)	COPd		2.00		2.03		
			PdH		6.0		7.2		
			PERd		80.0		81.2		
		Tbiv (bivalent tempera- ture)	COPd		2.25		2.03		
			PdH		6.6		7.2		
			PERd		90.0		81.2		
			Tbiv		-12		-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	2,853					
		ηs (Seasonal space heating efficiency)	%	177					
		Prated at 2°C	kW	9.6					
		Qhe Annual ener- gy consumption (GCV)	Gj	10					
		B Con- dition (2°CDB- B/1°CWB)	CdH (Degradation heating)		1.0				
	COPd		2.66						
	PdH		8.0						
	PERd		106.5						
	C Con- dition (7°CDB- B/6°CWB)	CdH (Degradation heating)		1.0					
		COPd		3.79					
		PdH		6.7					
		PERd		151.5					

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1 - 1 EPRA08-12EW

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Technical specifications				ETBX12E6V + EPRA08EW1	ETBX12E6V + EPRA10EW1	ETBX12E6V + EPRA12EW1
Space heating	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0	
			COPd		5.87	
			Pdh kW		3.6	
			PERd %		234.9	
		Tbiv (bivalent temperature)	COPd		3.13	
			Pdh kW		8.4	
			PERd %		125.4	
			Tbiv °C		4	
		Average climate water outlet 35°C	General Annual energy consumption kWh	3,462		3,440
			ηs (Seasonal space heating efficiency) %	195		196
			Prated at -10°C kW		8.3	
			Qhe Annual energy consumption (GCV) GJ		12	
			SCOP	4.95		4.98
			Seasonal space heating eff. class		A+++	
			A Condition COPd		3.20	
			Pdh kW		7.5	
			PERd %		128.0	
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)	COPd		1.0	
			COPd		4.93	
		Pdh kW	Pdh kW		4.4	
			PERd %		197.2	
	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	COPd		1.0	
			COPd		6.37	
		Pdh kW	Pdh kW		4.3	
			PERd %		254.8	
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	COPd		1.0	
			COPd		8.13	
		Pdh kW	Pdh kW		6.6	
			PERd %		325.2	
	Tol (temperature operating limit)	COPd	COPd	2.90		2.86
			Pdh kW	6.9		8.1
		PERd %	PERd %	116.0		114.4
			TOL °C		-10	
	Tbiv (bivalent temperature)	WTOL °C	WTOL °C		35	
			COPd	3.20		2.86
		Pdh kW	Pdh kW	7.5		8.1
			PERd %	128.0		114.4

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1 - 1 EPRA08-12EW

Technical specifications					ETBX12E6V + EPRA08EW1		ETBX12E6V + EPRA10EW1		ETBX12E6V + EPRA12EW1		
Space heating	Average climate water outlet 35°C	Tbiv (bivalent temperature)	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		5,334		5,180		5,165		
		ηs (Seasonal space heating efficiency)	%		163		168		169		
	Prated at -22°C	Qhe Annual energy consumption (GCV)	Gj		19						
		A Condition (-7°CDB/-8°CWB)	COPd		3.48						
	Pd	Pdh	kW		5.4						
		PERd	%		139.2						
	B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)			1.0						
		COPd			5.40						
	Pd	Pdh	kW		3.6						
		PERd	%		216.0						
	C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)			1.0						
		COPd			6.53						
	Pd	Pdh	kW		5.3						
		PERd	%		261.2						
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)			1.0						
		COPd			7.98						
	Pd	Pdh	kW		6.6						
		PERd	%		319.0		319.2				
	Tol (temperature operating limit)	COPd			2.11		2.14		2.16		
		Pdh	kW		4.9		5.9		6.5		
	PERd	PERd	%		84.3		85.6		86.4		
TOL		°C		-22							
WTOL	WTOL	°C		35							
	G Condition (-15°CDB/-)	COPd		2.68		2.64					
Pd	Pdh	kW		6.0		7.0					
	PERd	%		107.1		105.6					
Tbiv (bivalent temperature)	COPd			2.95		2.64					
	Pdh	kW		6.5		7.0					
PERd	PERd	%		118.1		105.6					
	Tbiv	°C		-12		-15					
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	1,835							
		ηs (Seasonal space heating efficiency)	%	247							
		Prated at 2°C	kW	8.6							

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1 - 1 EPRA08-12EW

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Technical specifications					ETBX12E6V + EPRA08EW1	ETBX12E6V + EPRA10EW1	ETBX12E6V + EPRA12EW1
Space heating	Warm climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	Gj	7	-	7
		B Condition (2°CDB- B/1°CWB)	Cdh (Degradation heating)			1.0	
			COPd			4.07	
			Pdh	kW		7.7	
		C Condition (7°CDB- B/6°CWB)	PERd	%		162.9	
			Cdh (Degradation heating)			1.0	
			COPd			5.85	
			Pdh	kW		5.5	
		Tbiv (bivalent temperature)	PERd	%		234.1	
			COPd			4.97	
			Pdh	kW		6.9	
		D Condition (12°CDB/11°CWB)	PERd	%		198.9	
			Tbiv	°C		5	
			Cdh (Degradation heating)			1.0	
			COPd			7.85	
			Pdh	kW		6.2	
			PERd	%		313.9	

(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 + EPRA08EW1	ETBX12E9W + EPRA10EW1	ETBX12E9W + EPRA12EW1
Indoor unit					ETBX12EF9W		
Outdoor unit					EPRA08EAW1	EPRA10EAW1	EPRA12EAW1
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	0.70 (5)		
		Nom.		kW	1.21 (2)		
		Max.		kW	1.63 (5)	1.98 (5)	2.21 (5)
	Cooling	Nom.		kW	2.08 (3) / 1.13 (4)	2.57 (3) / 1.13 (4)	2.86 (3) / 1.13 (4)
COP					5.10 (2)		
EER					3.28 (3) / 5.75 (4)	3.10 (3) / 5.75 (4)	3.01 (3) / 5.75 (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		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 EPRA08-12EW

Technical specifications					ETBX12E9W + EPRA08EW1		ETBX12E9W + EPRA10EW1		ETBX12E9W + EPRA12EW1				
Space heating general	Air to water unit	Rated airflow (outdoor)	m³/h		3,542								
	Other	Capacity control			Inverter								
		Pck (Crankcase heater mode) kW			0.000								
		Poff (Off mode) kW			0.027								
		Psb (Standby mode) kW			0.027								
		Pto (Thermostat off) kW			0.024								
	Inte-grated supplementary heater	Psup kW		9.0									
		Type of energy input			Electrical								
Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,894		4,871						
			ηs (Seasonal space heating efficiency)	%	141								
Space heating 	Average climate water outlet 55°C	General	Prated at -10°C	kW	8.5								
			Qhe Annual energy consumption (GCV)	Gj	18								
			SCOP		3.59		3.60						
			Seasonal space heating eff. class			A++							
			A Condition (-7°CDB/-8°CWB)	Cd _h (Degradation heating)			1.0						
				COP _d			2.30						
				Pd _h kW			7.6						
				PER _d %			91.9						
			B Con-dition (2°CDB/-8°CWB)	Cd _h (Degradation heating)			1.0						
				COP _d			3.50						
				Pd _h kW			4.6						
				PER _d %			140.0						
			C Con-dition (7°CDB/-8°CWB)	Cd _h (Degradation heating)			1.0						
				COP _d			4.61						
				Pd _h kW			3.0						
				PER _d %			184.2						
			D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)			1.0						
				COP _d			6.16						
				Pd _h kW			3.7						
				PER _d %			246.4						
			Tol (temperature operating limit)	COP _d			2.01		2.05				
				Pd _h kW			7.0		8.3				
				PER _d %			80.2		82.1				
				TOL °C			-10						
			WTOL °C			55							
			Rated heat output supplementary capacity	P _{sup} (at T _{design} -10°C) kW			1.5		0.0				
				T _{biv} (bivalent temperature)	COP _d			2.30		2.05			
					Pd _h kW			7.6		8.3			
					PER _d %			91.9		82.1			
			T _{biv} °C			-7		-10					
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,028		6,890		6,861					
		ηs (Seasonal space heating efficiency)	%	123		126							
		Prated at -22°C	kW	9.0									
		Qhe Annual energy consumption (GCV)	Gj	25									
		A Condition (-7°CDB/-8°CWB)	Cd _h (Degradation heating)			1.0							
			COP _d			2.61							
Pd _h kW			5.2										

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications					ETBX12E9W + EPRA08EW1	ETBX12E9W + EPRA10EW1	ETBX12E9W + EPRA12EW1
Space heating	Cold climate water outlet 55°C	A Condition (-7°CDB/-8°CWB)	PERd	%	104.2	104.4	
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0		
			COPd		3.90		
			Pdh kW		3.3		
			PERd %		156.0		
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)		1.0		
			COPd		4.96		
			Pdh kW		3.4		
			PERd %		198.3		
		D Condition (12°CDB/11°CWB)	COPd		6.56		
			Pdh kW		4.2		
			PERd %		262.5		
		Tol (tem- perature operat- ing limit)	COPd		1.49	1.56	1.62
			Pdh kW		4.9	6.1	7.2
			PERd %		59.6	62.3	64.7
			TOL °C		-22		
		WTOL °C		55			
		G Con- dition (-15°CDB/-)	COPd		2.00	2.03	
			Pdh kW		6.0	7.2	
			PERd %		80.0	81.2	
		Tbiv (bivalent tempera- ture)	COPd		2.25	2.03	
			Pdh kW		6.6	7.2	
			PERd %		90.0	81.2	
			Tbiv °C		-12	-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	2,853			
		ηs (Seasonal space heating efficiency)	%	177			
		Prated at 2°C	kW	9.6			
		Qhe Annual energy consumption (GCV)	Gj	10			
	B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0			
		COPd		2.66			
		Pdh kW		8.0			
		PERd %		106.5			
	C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)		1.0			
		COPd		3.79			
		Pdh kW		6.7			
		PERd %		151.5			

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETBX12E9W + EPRA08EW1	ETBX12E9W + EPRA10EW1	ETBX12E9W + EPRA12EW1
Space heating	Warm climate water outlet 55°C	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0	
			COPd		5.87	
			Pdh kW		3.6	
			PERd %		234.9	
		Tbiv (bivalent temperature)	COPd		3.13	
			Pdh kW		8.4	
			PERd %		125.4	
			Tbiv °C		4	
		Average climate water outlet 35°C	General Annual energy consumption kWh	3,462		3,440
			ηs (Seasonal space heating efficiency) %	195		196
			Prated at -10°C kW		8.3	
			Qhe Annual energy consumption (GCV) GJ		12	
			SCOP	4.95		4.98
			Seasonal space heating eff. class		A+++	
			A Condition COPd		3.20	
			Pdh kW		7.5	
			PERd %		128.0	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0	
			COPd		4.93	
			Pdh kW		4.4	
		C Condition (7°CDB/6°CWB)	PERd %		197.2	
			Cdh (Degradation heating)		1.0	
			COPd		6.37	
		D Condition (12°CDB/11°CWB)	Pdh kW		4.3	
			PERd %		254.8	
			Cdh (Degradation heating)		1.0	
		Tol (temperature operating limit)	COPd		8.13	
			Pdh kW		6.6	
			PERd %		325.2	
		Tbiv (bivalent temperature)	COPd	2.90		2.86
			Pdh kW	6.9		8.1
			PERd %	116.0		114.4
			TOL °C		-10	
			WTOL °C		35	
			COPd	3.20		2.86
			Pdh kW	7.5		8.1
			PERd %	128.0		114.4

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications					ETBX12E9W + EPRA08EW1	ETBX12E9W + EPRA10EW1	ETBX12E9W + EPRA12EW1
Space heating	Average climate water outlet 35°C	Tbiv	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		5,334	5,180	5,165
		ηs (Seasonal space heating efficiency)	%		163	168	169
	Prated at -22°C	Qhe Annual energy consumption (GCV)	Gj		19		
	A Condition (7°CDB/-8°CWB)	COPd			3.48		
		Pdh	kW		5.4		
		PERd	%		139.2		
	B Condition (2°CDB/-11°CWB)	Cdh (Degradation heating)			1.0		
		COPd			5.40		
		Pdh	kW		3.6		
	C Condition (7°CDB/-11°CWB)	PERd	%		216.0		
		Cdh (Degradation heating)			1.0		
		COPd			6.53		
	D Condition (12°CDB/11°CWB)	Pdh	kW		5.3		
		PERd	%		261.2		
		Cdh (Degradation heating)			1.0		
	Tol (temperature operating limit)	COPd			7.98		
		Pdh	kW		6.6		
		PERd	%		319.0	319.2	
	G Condition (-15°CDB/-15°CWB)	COPd			2.11	2.14	2.16
		Pdh	kW		4.9	5.9	6.5
		PERd	%		84.3	85.6	86.4
	Tbiv (bivalent temperature)	TOL	°C		-22		
		WTOL	°C		35		
		COPd			2.68	2.64	
	Rated heat output supplementary capacity	Pdh	kW		6.0	7.0	
		PERd	%		107.1	105.6	
		Tbiv	°C		2.95	2.64	
Warm climate water outlet 35°C	General	Pdh	kW		6.5	7.0	
		PERd	%		118.1	105.6	
		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	kWh		1,835		
		ηs (Seasonal space heating efficiency)	%		247		
		Prated at 2°C	kW		8.6		

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1 - 1 EPRA08-12EW

Technical specifications				ETBX12E9W + EPRA08EW1	ETBX12E9W + EPRA10EW1	ETBX12E9W + EPRA12EW1
	Space heating Warm climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	7	-	7
		B Condition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0	
			COPd		4.07	
			Pdh kW		7.7	
		C Condition (7°CDB- B/6°CWB)	PERd %		162.9	
			Cdh (Degradation heating)		1.0	
			COPd		5.85	
			Pdh kW		5.5	
		Tbiv (bivalent temperature)	PERd %		234.1	
			COPd		4.97	
			Pdh kW		6.9	
		D Condition (12°CDB/11°CWB)	PERd %		198.9	
			Tbiv °C		5	
			Cdh (Degradation heating)		1.0	
			COPd		7.85	
			Pdh kW		6.2	
			PERd %		313.9	

(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 + EPRA08EW1	ETVH12S23E6V + EPRA08EW1	ETVH12S18E6V + EPRA10EW1	ETVH12S23E6V + EPRA10EW1	ETVH12S18E6V + EPRA12EW1	ETVH12S23E6V + EPRA12EW1	
Indoor unit					ETVH12S18EA6V	ETVH12S23EA6V	ETVH12S18EA6V	ETVH12S23EA6V	ETVH12S18EA6V	ETVH12S23EA6V	
Outdoor unit					EPRA08EAW1		EPRA10EAW1		EPRA12EAW1		
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			0.70 (3)					
		Nom.	kW			1.21 (2)					
		Max.	kW			1.63 (3)		1.98 (3)		2.21 (3)	
	Domestic hot water from 10°C to 50°C	Nom.	kWh			2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)
Heat up time from 10°C to 50°C					hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min
COP					5.10 (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						
		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	

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications				ETVH12S18E6V + EPRA08EW1	ETVH12S23E6V + EPRA08EW1	ETVH12S18E6V + EPRA10EW1	ETVH12S23E6V + EPRA10EW1	ETVH12S18E6V + EPRA12EW1	ETVH12S23E6V + EPRA12EW1
Space heating general	Air to water unit	Rated airflow (outdoor)	m³/h	3,542					
	Other	Capacity control		Inverter					
		Pck (Crankcase heater mode) kW		0.000					
		Poff (Off mode) kW		0.027					
		Psb (Standby mode) kW		0.027					
		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	851	787	851	787	851	787
Domestic hot water heating	Average climate	COPdhw		2.80	3.05	2.80	3.05	2.80	3.05
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min
		ηwh (water heating effi- ciency)	%	120	130	120	130	120	130
		Qelec (Daily electricity consumption)	kWh	4.160	3.830	4.160	3.830	4.160	3.830
		Reference hot water tem- perature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	50.7	43.9	50.7	43.9	50.7	43.9
		Water heating energy efficiency class		A+					
	Cold climate	AEC (Annual electricity consumption)	kWh	937	866	937	866	937	866
		COPdhw		2.55	2.77	2.55	2.77	2.55	2.77
		Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min
		ηwh (water heating effi- ciency)	%	109	118	109	118	109	118
		Qelec (Daily electricity consumption)	kWh	4.570	4.200	4.570	4.200	4.570	4.200
		Reference hot water tem- perature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	54.3	46.7	54.3	46.7	54.3	46.7
	Warm climate	AEC (Annual electricity consumption)	kWh	699	648	699	648	699	648
		COPdhw		3.40	3.68	3.40	3.68	3.40	3.68
		Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min
		ηwh (water heating effi- ciency)	%	147	158	147	158	147	158
		Qelec (Daily electricity consumption)	kWh	3.430	3.160	3.430	3.160	3.430	3.160
		Reference hot water tem- perature	°C	53.0	52.0	53.0	52.0	53.0	52.0
Stand-by power input		W	44.6	39.0	44.6	39.0	44.6	39.0	

2 Specifications

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Technical specifications				ETVH12S18E6V + EPRA08EW1	ETVH12S23E6V + EPRA08EW1	ETVH12S18E6V + EPRA10EW1	ETVH12S23E6V + EPRA10EW1	ETVH12S18E6V + EPRA12EW1	ETVH12S23E6V + EPRA12EW1			
 Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,993		4,970					
			ηs (Seasonal space heating efficiency)	%	138							
			Prated at -10°C	kW	8.5							
			Qhe Annual energy consumption (GCV)	Gj	18							
			SCOP		3.52		3.53					
			Seasonal space heating eff. class		A++							
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0						
				COPd		2.30						
				Pdh	kW	7.6						
				PERd	%	91.9						
			B Condition (2°CDB/-B/1°CWB)	Cdh (Degradation heating)		1.0						
				COPd		3.50						
				Pdh	kW	4.6						
			C Condition (7°CDB/6°CWB)	PERd	%	140.0						
				Cdh (Degradation heating)		1.0						
			 Space heating	Average climate water outlet 55°C	C Condition (7°CDB/-B/6°CWB)	COPd		4.61				
						Pdh	kW	3.0				
						PERd	%	184.2				
Cdh (Degradation heating)		1.0										
D Condition (12°CDB/11°CWB)	COPd				6.16							
	Pdh	kW			3.7							
	PERd	%			246.4							
	Cdh (Degradation heating)				2.01		2.05					
Tol (temperature operating limit)	Pdh	kW			7.0		8.3					
	PERd	%			80.2		82.1					
	TOL	°C			-10							
	WTOL	°C			55							
Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW			1.5		0.0					
	Tbiv				2.30		2.05					
	Pdh	kW			7.6		8.3					
	PERd	%			91.9		82.1					
 Cold climate water outlet 55°C		General			Tbiv	°C	-7		-10			
					Annual energy consumption	kWh	7,088		6,950		6,921	
			ηs (Seasonal space heating efficiency)	%	122		125					
			Prated at -22°C	kW	9.0							
			Qhe Annual energy consumption (GCV)	Gj	26		25					
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0						
				COPd		2.61						
				Pdh	kW	5.2						
		PERd		%	104.2		104.4					
		B Condition (2°CDB/-B/1°CWB)	Cdh (Degradation heating)		1.0							
			COPd		3.90							
			Pdh	kW	3.3							
		C Condition (7°CDB/-B/6°CWB)	PERd	%	156.0							
			Cdh (Degradation heating)		1.0							
		D Condition (12°CDB/11°CWB)	COPd		4.96							
			Pdh	kW	3.4							
			PERd	%	198.3							
			COPd		6.56							
Tol (temperature operating limit)	Pdh	kW	4.2									
	PERd	%	262.5									
	COPd		1.49		1.56		1.62					
	Pdh	kW	4.9		6.1		7.2					

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1 - 1 EPRA08-12EW

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Technical specifications					ETVH12S18E6V + EPRA08EW1	ETVH12S23E6V + EPRA08EW1	ETVH12S18E6V + EPRA10EW1	ETVH12S23E6V + EPRA10EW1	ETVH12S18E6V + EPRA12EW1	ETVH12S23E6V + EPRA12EW1
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	PERd	%	59.6		62.3		64.7	
			TOL	°C			-22			
			WTOL	°C			55			
		G Condition (-15°CDB/-)	COPd		2.00		2.03			
			Pdh	kW	6.0		7.2			
			PERd	%	80.0		81.2			
		Tbiv (bivalent temperature)	COPd		2.25		2.03			
			Pdh	kW	6.6		7.2			
			PERd	%	90.0		81.2			
			Tbiv	°C	-12		-15			
	Warm climate water outlet 55°C	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8	
		General	Annual energy consumption	kWh			2,972			
			ηs (Seasonal space heating efficiency)	%			170			
			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				2.66			
			Pdh	kW			8.0			
			PERd	%			106.5			
		C Condition (7°CDB-B/6°CWB)	Cdh (Degradation heating)				1.0			
			COPd				3.79			
			Pdh	kW			6.7			
			PERd	%			151.5			
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0			
			COPd				5.87			
			Pdh	kW			3.6			
			PERd	%			234.9			
		Tbiv (bivalent temperature)	COPd				3.13			
			Pdh	kW			8.4			
			PERd	%			125.4			
			Tbiv	°C			4			
Average climate water outlet 35°C	General	Annual energy consumption	kWh		3,561				3,539	
		ηs (Seasonal space heating efficiency)	%		190				191	
		Prated at -10°C	kW				8.3			
		Qhe Annual energy consumption (GCV)	Gj				13			
		SCOP			4.81				4.84	
		Seasonal space heating eff. class					A+++			

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2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications				ETVH12S18E6V + EPRA08EW1	ETVH12S23E6V + EPRA08EW1	ETVH12S18E6V + EPRA10EW1	ETVH12S23E6V + EPRA10EW1	ETVH12S18E6V + EPRA12EW1	ETVH12S23E6V + EPRA12EW1
Space heating 	Cold climate water outlet 35°C	C Con- dition (7°CDB- B/6°CWB)	COPd				6.53		
			Pdh kW				5.3		
			PERd %				261.2		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0		
			COPd				7.98		
			Pdh kW				6.6		
			PERd %		319.0		319.2		
		Tol (tem- perature operat- ing limit)	COPd		2.11		2.14		2.16
			Pdh kW		4.9		5.9		6.5
			PERd %		84.3		85.6		86.4
			TOL °C				-22		
			WTOL °C				35		
	Warm climate water outlet 35°C	G Con- dition (-15°CDB/-)	COPd		2.68		2.64		
			Pdh kW		6.0		7.0		
			PERd %		107.1		105.6		
		Tbiv (bivalent tempera- ture)	COPd		2.95		2.64		
			Pdh kW		6.5		7.0		
			PERd %		118.1		105.6		
			Tbiv °C		-12		-15		
		Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)		4.1		3.1		2.6
		General	Annual energy consumption kWh				1,954		
			ηs (Seasonal space heating efficiency) %				232		
			Prated at 2°C kW				8.6		
		B Con- dition (2°CDB- B/1°CWB)	Qhe Annual ener- gy consumption (GCV) GJ				7		
			Cdh (Degradation heating)				1.0		
			COPd				4.07		
		C Con- dition (7°CDB- B/6°CWB)	Pdh kW				7.7		
			PERd %				162.9		
			Cdh (Degradation heating)				1.0		
	Space heating 	D Condition (12°CDB/11°CWB)	COPd				7.85		
			Pdh kW				6.2		
			PERd %				313.9		

(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 + EPRA08EW1	ETVH12S23E9W + EPRA08EW1	ETVH12S18E9W + EPRA10EW1	ETVH12S23E9W + EPRA10EW1	ETVH12S18E9W + EPRA12EW1	ETVH12S23E9W + EPRA12EW1
Indoor unit				ETVH12S18EA9W	ETVH12S23EA9W	ETVH12S18EA9W	ETVH12S23EA9W	ETVH12S18EA9W	ETVH12S23EA9W
Outdoor unit				EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
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 EPRA08-12EW

Technical specifications				ETVH12S18E9W + EPRA08EW1	ETVH12S23E9W + EPRA08EW1	ETVH12S18E9W + EPRA10EW1	ETVH12S23E9W + EPRA10EW1	ETVH12S18E9W + EPRA12EW1	ETVH12S23E9W + EPRA12EW1
Power input	Heating	Min.	kW	0.70 (3)					
		Nom.	kW	1.21 (2)					
		Max.	kW	1.63 (3)		1.98 (3)		2.21 (3)	
	Domestic hot water from 10°C to 50°C	Nom.	kWh	2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)
Heat up time from 10°C to 50°C			hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min
COP				5.10 (2)					
Pump	Type	Grundfos UPM3LK							
	Nominal ESP unit	Heating	kPa	59.8 (5)					
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min					
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)	m³/h	3,542					
	Other	Capacity control		Inverter					
		Pck (Crankcase heater mode) kW		0.000					
		Poff (Off mode) kW		0.027					
		Psb (Standby mode) kW		0.027					
		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	851	787	851	787	851	787

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Technical specifications				ETVH12S18E9W + EPRA08EW1	ETVH12S23E9W + EPRA08EW1	ETVH12S18E9W + EPRA10EW1	ETVH12S23E9W + EPRA10EW1	ETVH12S18E9W + EPRA12EW1	ETVH12S23E9W + EPRA12EW1	
 Domestic hot water heating	Average climate	COPdhw		2.80	3.05	2.80	3.05	2.80	3.05	
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min	
		ηwh (water heating efficiency)	%	120	130	120	130	120	130	
		Qelec (Daily electricity consumption)	kWh	4.160	3.830	4.160	3.830	4.160	3.830	
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0	
		Stand-by power input	W	50.7	43.9	50.7	43.9	50.7	43.9	
		Water heating energy efficiency class		A+						
	Cold climate	AEC (Annual electricity consumption)	kWh	937	866	937	866	937	866	
		COPdhw		2.55	2.77	2.55	2.77	2.55	2.77	
		Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min	
		ηwh (water heating efficiency)	%	109	118	109	118	109	118	
		Qelec (Daily electricity consumption)	kWh	4.570	4.200	4.570	4.200	4.570	4.200	
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0	
		Stand-by power input	W	54.3	46.7	54.3	46.7	54.3	46.7	
Warm climate	AEC (Annual electricity consumption)	kWh	699	648	699	648	699	648		
	COPdhw		3.40	3.68	3.40	3.68	3.40	3.68		
	Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min		
	ηwh (water heating efficiency)	%	147	158	147	158	147	158		
	Qelec (Daily electricity consumption)	kWh	3.430	3.160	3.430	3.160	3.430	3.160		
	Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
	Stand-by power input	W	44.6	39.0	44.6	39.0	44.6	39.0		
 Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,993		4,970			
			ηs (Seasonal space heating efficiency)	%	138					
			Prated at -10°C	kW	8.5					
			Qhe Annual energy consumption (GCV)	Gj	18					
			SCOP		3.52		3.53			
			Seasonal space heating eff. class		A++					
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0					
			COPd		2.30					
			Pdh	kW	7.6					
			PERd		91.9					
		B Condition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		3.50					
			Pdh	kW	4.6					
			PERd		140.0					
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.61					

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Technical specifications					ETVH12S18E9W + EPRA08EW1	ETVH12S23E9W + EPRA08EW1	ETVH12S18E9W + EPRA10EW1	ETVH12S23E9W + EPRA10EW1	ETVH12S18E9W + EPRA12EW1	ETVH12S23E9W + EPRA12EW1	
Space heating 	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	Pdh	kW	3.0						
			PERd	%	184.2						
		D Condition (12°CDB/11°CWB)	CdH (Degradation heating)			1.0					
			COPd			6.16					
			Pdh	kW	3.7						
			PERd	%	246.4						
		Tol (temperature operating limit)	COPd			2.01		2.05			
			Pdh			7.0		8.3			
			PERd			80.2		82.1			
			TOL			°C		-10			
		WTOL			°C		55				
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)			1.5		0.0			
			Tbiv			COPd		2.30		2.05	
			Pdh			kW		7.6		8.3	
	PERd			%		91.9		82.1			
	Cold climate water outlet 55°C	General	Annual energy consumption			7,088		6,950		6,921	
			ηs (Seasonal space heating efficiency)			122		125			
			Prated at -22°C			kW		9.0			
			Qhe Annual energy consumption (GCV)			Gj		26		25	
A Condition (-7°CDB/-8°CWB)		CdH (Degradation heating)			1.0						
		COPd			2.61						
		Pdh			kW		5.2				
		PERd			%		104.2		104.4		
B Condition (2°CDB/1°CWB)		CdH (Degradation heating)			1.0						
		COPd			3.90						
		Pdh			kW		3.3				
		PERd			%		156.0				
C Condition (7°CDB/6°CWB)		CdH (Degradation heating)			1.0						
		COPd			4.96						
		Pdh			kW		3.4				
	PERd			%		198.3					
D Condition (12°CDB/11°CWB)	COPd			6.56							
	Pdh			kW		4.2					
	PERd			%		262.5					
	Tol (temperature operating limit)	COPd			1.49		1.56		1.62		
Pdh			kW		4.9		6.1		7.2		

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Technical specifications					ETVH12S18E9W + EPRA08EW1	ETVH12S23E9W + EPRA08EW1	ETVH12S18E9W + EPRA10EW1	ETVH12S23E9W + EPRA10EW1	ETVH12S18E9W + EPRA12EW1	ETVH12S23E9W + EPRA12EW1
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	PERd	%	59.6		62.3		64.7	
			TOL	°C			-22			
			WTOL	°C			55			
		G Condition (-15°CDB/-)	COPd		2.00		2.03			
			Pdh	kW	6.0		7.2			
			PERd	%	80.0		81.2			
		Tbiv (bivalent temperature)	COPd		2.25		2.03			
			Pdh	kW	6.6		7.2			
			PERd	%	90.0		81.2			
		Rated heat output supplementary 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			2,972			
			ηs (Seasonal space heating efficiency)	%			170			
			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				2.66			
			Pdh	kW			8.0			
	C Condition (7°CDB-B/6°CWB)	CdH (Degradation heating)	PERd	%			106.5			
			COPd				3.79			
			Pdh	kW			6.7			
	D Condition (12°CDB/11°CWB)	CdH (Degradation heating)	PERd	%			151.5			
			COPd				1.0			
			Pdh	kW			5.87			
	Tbiv (bivalent temperature)	CdH (Degradation heating)	PERd	%			3.6			
			COPd				234.9			
			Pdh	kW			3.13			
Average climate water outlet 35°C	General	Annual energy consumption	PERd	%			8.4			
			Tbiv	°C			125.4			
							4			
			Annual energy consumption	kWh	3,561		3,539			
			ηs (Seasonal space heating efficiency)	%	190		191			
			Prated at -10°C	kW			8.3			
Average climate water outlet 35°C	General	Annual energy consumption	Qhe Annual energy consumption (GCV)	Gj			13			
			SCOP		4.81		4.84			
			Seasonal space heating eff. class				A+++			

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Technical specifications				ETVH12S18E9W + EPRA08EW1	ETVH12S23E9W + EPRA08EW1	ETVH12S18E9W + EPRA10EW1	ETVH12S23E9W + EPRA10EW1	ETVH12S18E9W + EPRA12EW1	ETVH12S23E9W + EPRA12EW1
Space heating 	Cold climate water outlet 35°C	C Con- dition (7°CDB- B/6°CWB)	COPd				6.53		
			Pdh kW				5.3		
			PERd %				261.2		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0		
			COPd				7.98		
			Pdh kW				6.6		
			PERd %		319.0		319.2		
		Tol (tem- perature operat- ing limit)	COPd	2.11		2.14		2.16	
			Pdh kW	4.9		5.9		6.5	
			PERd %	84.3		85.6		86.4	
			TOL °C			-22			
			WTOL °C			35			
	Warm climate water outlet 35°C	G Con- dition (-15°CDB/-)	COPd	2.68			2.64		
			Pdh kW	6.0			7.0		
			PERd %	107.1			105.6		
		Tbiv (bivalent tempera- ture)	COPd	2.95			2.64		
			Pdh kW	6.5			7.0		
			PERd %	118.1			105.6		
			Tbiv °C	-12			-15		
		Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)	4.1		3.1		2.6	
		General	Annual energy consumption kWh				1,954		
			ηs (Seasonal space heating efficiency) %				232		
			Prated at 2°C kW				8.6		
		B Con- dition (2°CDB- B/1°CWB)	Qhe Annual ener- gy consumption (GCV) GJ				7		
			Cdh (Degradation heating)				1.0		
			COPd				4.07		
		C Con- dition (7°CDB- B/6°CWB)	Pdh kW				7.7		
			PERd %				162.9		
			Cdh (Degradation heating)				1.0		
		Tbiv (bivalent tempera- ture)	COPd				5.85		
			Pdh kW				5.5		
			PERd %				234.1		
		D Condition (12°CDB/11°CWB)	Tbiv °C				4.97		
			Pdh kW				6.9		
			PERd %				198.9		
		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				7.85		
			Pdh kW				6.2		
			PERd %				313.9		

(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 + EPRA08EW1	ETVX12S23E6V + EPRA08EW1	ETVX12S18E6V + EPRA10EW1	ETVX12S23E6V + EPRA10EW1	ETVX12S18E6V + EPRA12EW1	ETVX12S23E6V + EPRA12EW1
Indoor unit			ETVX12S18EA6V	ETVX12S23EA6V	ETVX12S18EA6V	ETVX12S23EA6V	ETVX12S18EA6V	ETVX12S23EA6V
Outdoor unit			EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
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 + EPRA08EW1	ETVX12S23E6V + EPRA08EW1	ETVX12S18E6V + EPRA10EW1	ETVX12S23E6V + EPRA10EW1	ETVX12S18E6V + EPRA12EW1	ETVX12S23E6V + EPRA12EW1
Power input	Heating	Min.		kW	0.70 (5)					
		Nom.		kW	1.21 (2)					
		Max.		kW	1.63 (5)		1.98 (5)		2.21 (5)	
	Cooling	Nom.		kW	2.08 (3) / 1.13 (4)		2.57 (3) / 1.13 (4)		2.86 (3) / 1.13 (4)	
	Domestic hot water from 10°C to 50°C	Nom.		kWh	2.54 (6)	3.09 (6)	2.54 (6)	3.09 (6)	2.54 (6)	3.09 (6)
Heat up time from 10°C to 50°C				hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min
COP					5.10 (2)					
EER					3.28 (3) / 5.75 (4)		3.10 (3) / 5.75 (4)		3.01 (3) / 5.75 (4)	
Pump	Type				Grundfos UPM3LK					
	Nominal ESP unit	Heating		kPa	59.8 (7)					
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	18.3 (2)					
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			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)			3,542					
		Other	Capacity control			Inverter				
	Pck (Crankcase heater mode) kW			0.000						
	Poff (Off mode) kW			0.027						
	Psb (Standby mode) kW			0.027						
	Pto (Thermostat off) kW			0.024						
	Declared load profile			L						
Domestic hot water heating	General									
Space heating general	Inte- grated supple- mentary heater	Psup kW			6.0					
		Type of energy input			Electrical					

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Technical specifications				ETVX12S18E6V + EPRA08EW1	ETVX12S23E6V + EPRA08EW1	ETVX12S18E6V + EPRA10EW1	ETVX12S23E6V + EPRA10EW1	ETVX12S18E6V + EPRA12EW1	ETVX12S23E6V + EPRA12EW1
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	851	787	851	787	851	787
		COPdhw		2.80	3.05	2.80	3.05	2.80	3.05
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min
		η _{wh} (water heating efficiency)	%	120	130	120	130	120	130
		Qelec (Daily electricity consumption)	kWh	4.160	3.830	4.160	3.830	4.160	3.830
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	50.7	43.9	50.7	43.9	50.7	43.9
		Water heating energy efficiency class							
		A+							
	Cold climate	AEC (Annual electricity consumption)	kWh	937	866	937	866	937	866
		COPdhw		2.55	2.77	2.55	2.77	2.55	2.77
		Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min
		η _{wh} (water heating efficiency)	%	109	118	109	118	109	118
		Qelec (Daily electricity consumption)	kWh	4.570	4.200	4.570	4.200	4.570	4.200
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	54.3	46.7	54.3	46.7	54.3	46.7
Space heating	Average climate water outlet 55°C	General	AEC (Annual electricity consumption)	kWh	699	648	699	648	648
			COPdhw		3.40	3.68	3.40	3.68	3.68
			Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	2h 06min
			η _{wh} (water heating efficiency)	%	147	158	147	158	158
			Qelec (Daily electricity consumption)	kWh	3.430	3.160	3.430	3.160	3.160
			Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0
			Stand-by power input	W	44.6	39.0	44.6	39.0	44.6
			Annual energy consumption	kWh	4,894		4,871		
			η _s (Seasonal space heating efficiency)	%			141		
			Prated at -10°C	kW			8.5		
			Q _{he} Annual energy consumption (GCV)	Gj			18		
			SCOP		3.59		3.60		
		Seasonal space heating eff. class							
		A++							
	A Condition (7°CDB/-8°CWB)	Cd _h (Degradation heating)					1.0		
		COP _d					2.30		
		Pd _h					7.6		
		PER _d					91.9		
	B Condition (2°CDB/1°CWB)	Cd _h (Degradation heating)					1.0		
		COP _d					3.50		
		Pd _h					4.6		

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Technical specifications					ETVX12S18E6V + EPRA08EW1	ETVX12S23E6V + EPRA08EW1	ETVX12S18E6V + EPRA10EW1	ETVX12S23E6V + EPRA10EW1	ETVX12S18E6V + EPRA12EW1	ETVX12S23E6V + EPRA12EW1
Space heating 	Average climate water outlet 55°C	B Condition (2°CDB/1°CWB)	PERd	%	140.0					
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.61					
			Pdh	kW	3.0					
			PERd	%	184.2					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		6.16					
			Pdh	kW	3.7					
			PERd	%	246.4					
		Tol (temperature operating limit)	COPd		2.01			2.05		
			Pdh	kW	7.0			8.3		
			PERd	%	80.2			82.1		
			TOL	°C	-10					
			WTOL	°C	55					
	Cold climate water outlet 55°C	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.5			0.0		
		Tbiv (bivalent temperature)	COPd		2.30			2.05		
			Pdh	kW	7.6			8.3		
			PERd	%	91.9			82.1		
			Tbiv	°C	-7			-10		
		General	Annual energy consumption	kWh	7,028		6,890		6,861	
			ηs (Seasonal space heating efficiency)	%	123			126		
			Prated at -22°C	kW	9.0					
			Qhe Annual energy consumption (GCV)	Gj	25					
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0					
			COPd		2.61					
			Pdh	kW	5.2					
			PERd	%	104.2			104.4		
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		3.90					
			Pdh	kW	3.3					
			PERd	%	156.0					
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.96					
			Pdh	kW	3.4					
			PERd	%	198.3					
		D Condition (12°CDB/11°CWB)	COPd		6.56					
			Pdh	kW	4.2					

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Technical specifications					ETVX12S18E6V + EPRA08EW1	ETVX12S23E6V + EPRA08EW1	ETVX12S18E6V + EPRA10EW1	ETVX12S23E6V + EPRA10EW1	ETVX12S18E6V + EPRA12EW1	ETVX12S23E6V + EPRA12EW1
Space heating	Cold climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	262.5					
		Tol (tem- perature	COPd		1.49		1.56		1.62	
		operat- ing limit)	Pdh	kW	4.9		6.1		7.2	
			PERd	%	59.6		62.3		64.7	
			TOL	°C			-22			
			WTOL	°C			55			
		G Con- dition	COPd		2.00		2.03			
			Pdh	kW	6.0		7.2			
		(-15°CDB/-)	PERd	%	80.0		81.2			
		Tbiv	COPd		2.25		2.03			
	Warm climate water outlet 55°C	(bivalent tempera- ture)	Pdh	kW	6.6		7.2			
			PERd	%	90.0		81.2			
			Tbiv	°C	-12		-15			
		Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8	
		General	Annual energy consumption	kWh	2,853					
			ηs (Seasonal space heating efficiency)	%	177					
			Prated at 2°C	kW	9.6					
			Qhe Annual ener- gy consumption (GCV)	Gj	10					
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		2.66					
			Pdh	kW	8.0					
			PERd	%	106.5					
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		3.79					
			Pdh	kW	6.7					
			PERd	%	151.5					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		5.87					
			Pdh	kW	3.6					
			PERd	%	234.9					
		Tbiv	COPd		3.13					
		(bivalent tempera- ture)	Pdh	kW	8.4					
			PERd	%	125.4					
			Tbiv	°C	4					
Average climate water outlet 35°C	General	Annual energy consumption	kWh		3,462		3,440			
		ηs (Seasonal space heating efficiency)	%		195		196			
		Prated at -10°C	kW		8.3					

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETVX12S18E6V + EPRA08EW1	ETVX12S23E6V + EPRA08EW1	ETVX12S18E6V + EPRA10EW1	ETVX12S23E6V + EPRA10EW1	ETVX12S18E6V + EPRA12EW1	ETVX12S23E6V + EPRA12EW1
Space heating Average climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	Gj	12					
		SCOP		4.95			4.98		
		Seasonal space heating eff. class		A+++					
		A Condition (-7°CDB/-8°CWB)		3.20					
		Pdh	kW	7.5					
		PERd	%	128.0					
		B Condition (2°CDB/-1°CWB)		1.0					
		Cdh (Degradation heating)		4.93					
		COPd		4.4					
		Pdh	kW	197.2					
		PERd	%	1.0					
		Cdh (Degradation heating)		6.37					
		COPd		4.3					
		Pdh	kW	254.8					
		PERd	%	1.0					
		Cdh (Degradation heating)		8.13					
		COPd		6.6					
		Pdh	kW	325.2					
		PERd	%	2.90			2.86		
		Tol (temperature operating limit)		6.9			8.1		
		PERd	%	116.0			114.4		
		TOL	°C				-10		
		WTOL	°C				35		
		Tbiv (bivalent temperature)		3.20			2.86		
		COPd		7.5			8.1		
		Pdh	kW	128.0			114.4		
		PERd	%						
		Tbiv	°C	-7			-10		
		Rated heat output supplementary capacity		1.4			0.0		
		Psup (at Tdesign -10°C)	kW						
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,334		5,180		5,165	
		ηs (Seasonal space heating efficiency)	%	163		168		169	
		Prated at -22°C	kW	9.0					
		Qhe Annual energy consumption (GCV)	Gj	19					
		A Condition (-7°CDB/-8°CWB)		3.48					
		COPd		5.4					
		Pdh	kW	139.2					
		PERd	%	1.0					
		Cdh (Degradation heating)		5.40					
		COPd							

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications					ETVX12S18E6V + EPRA08EW1	ETVX12S23E6V + EPRA08EW1	ETVX12S18E6V + EPRA10EW1	ETVX12S23E6V + EPRA10EW1	ETVX12S18E6V + EPRA12EW1	ETVX12S23E6V + EPRA12EW1		
Space heating	Cold climate water outlet 35°C	B Con- dition (2°CDB- B/1°CWB)	Pdh	kW	3.6							
			PERd	%	216.0							
			C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)			1.0					
				COPd			6.53					
				Pdh	kW	5.3						
				PERd	%	261.2						
			D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)			1.0					
				COPd			7.98					
				Pdh	kW	6.6						
				PERd	%	319.0		319.2				
		Tol (tem- perature operat- ing limit)	COPd	2.11		2.14		2.16				
			Pdh	kW	4.9		5.9		6.5			
			PERd	%	84.3		85.6		86.4			
			TOL	°C	-22							
			WTOL	°C	35							
		G Con- dition (-15°CDB/-)	COPd	2.68		2.64						
			Pdh	kW	6.0		7.0					
			PERd	%	107.1		105.6					
			Tbiv	COPd	2.95		2.64					
		(bivalent tempera- ture)	Pdh	kW	6.5		7.0					
			PERd	%	118.1		105.6					
			Tbiv	°C	-12		-15					
		Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)	kW	4.1		3.1		2.6			
Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,835								
		ηs (Seasonal space heating efficiency)	%	247								
		Prated at 2°C	kW	8.6								
		Qhe Annual ener- gy consumption (GCV)	Gj	7		-		7				
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)			1.0						
			COPd			4.07						
			Pdh	kW	7.7							
			PERd	%	162.9							
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)			1.0						
			COPd			5.85						
			Pdh	kW	5.5							
			PERd	%	234.1							
		Tbiv	COPd	4.97								
		(bivalent	Pdh	kW	6.9							
		Space heating	Warm climate water outlet 35°C	Tbiv (bivalent tempera- ture)	PERd	%	198.9					
Tbiv	°C				5							
D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)			1.0								
	COPd			7.85								
	Pdh			kW	6.2							
	PERd	%	313.9									

(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 + EPRA08EW1	ETVX12S23E9W + EPRA08EW1	ETVX12S18E9W + EPRA10EW1	ETVX12S23E9W + EPRA10EW1	ETVX12S18E9W + EPRA12EW1	ETVX12S23E9W + EPRA12EW1
Indoor unit				ETVX12S18EA9W	ETVX12S23EA9W	ETVX12S18EA9W	ETVX12S23EA9W	ETVX12S18EA9W	ETVX12S23EA9W
Outdoor unit				EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
Heating capacity	Min.		kW			3.44 (1)			
	Nom.		kW			6.17 (2)			
	Max.		kW	7.95 (1)		9.25 (1)		9.97 (1)	

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETVX12S18E9W + EPRA08EW1	ETVX12S23E9W + EPRA08EW1	ETVX12S18E9W + EPRA10EW1	ETVX12S23E9W + EPRA10EW1	ETVX12S18E9W + EPRA12EW1	ETVX12S23E9W + EPRA12EW1
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		0.70 (5)					
		Nom.	kW		1.21 (2)					
		Max.	kW		1.63 (5)		1.98 (5)		2.21 (5)	
	Cooling	Nom.	kW		2.08 (3) / 1.13 (4)		2.57 (3) / 1.13 (4)		2.86 (3) / 1.13 (4)	
	Domestic hot water from 10°C to 50°C	Nom.	kWh		2.54 (6)	3.09 (6)	2.54 (6)	3.09 (6)	2.54 (6)	3.09 (6)
Heat up time from 10°C to 50°C			hr	1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min	
COP				5.10 (2)						
EER				3.28 (3) / 5.75 (4)		3.10 (3) / 5.75 (4)		3.01 (3) / 5.75 (4)		
Pump	Type				Grundfos UPM3LK					
	Nominal ESP unit	Heating	kPa		59.8 (7)					
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	18.3 (2)					
General	Supplier/Manu- facturer details	Name and address Name or trademark			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			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)		m³/h	3,542					
		Other	Capacity control			Inverter				
	Pck (Crankcase heater mode)		kW	0.000						
	Poff (Off mode)		kW	0.027						
	Psb (Standby mode)		kW	0.027						
	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 + EPRA08EW1	ETVX12S23E9W + EPRA08EW1	ETVX12S18E9W + EPRA10EW1	ETVX12S23E9W + EPRA10EW1	ETVX12S18E9W + EPRA12EW1	ETVX12S23E9W + EPRA12EW1
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	851	787	851	787	851	787
		COPdhw		2.80	3.05	2.80	3.05	2.80	3.05
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min
		η _{wh} (water heating efficiency)	%	120	130	120	130	120	130
		Qelec (Daily electricity consumption)	kWh	4.160	3.830	4.160	3.830	4.160	3.830
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	50.7	43.9	50.7	43.9	50.7	43.9
		Water heating energy efficiency class							
		A+							
	Cold climate	AEC (Annual electricity consumption)	kWh	937	866	937	866	937	866
		COPdhw		2.55	2.77	2.55	2.77	2.55	2.77
		Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min
		η _{wh} (water heating efficiency)	%	109	118	109	118	109	118
		Qelec (Daily electricity consumption)	kWh	4.570	4.200	4.570	4.200	4.570	4.200
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	54.3	46.7	54.3	46.7	54.3	46.7
Space heating	Average climate water outlet 55°C	General	AEC (Annual electricity consumption)	kWh	699	648	699	648	648
			COPdhw		3.40	3.68	3.40	3.68	3.68
			Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	2h 06min
			η _{wh} (water heating efficiency)	%	147	158	147	158	158
			Qelec (Daily electricity consumption)	kWh	3.430	3.160	3.430	3.160	3.160
			Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0
			Stand-by power input	W	44.6	39.0	44.6	39.0	44.6
			Annual energy consumption	kWh	4,894		4,871		
			η _s (Seasonal space heating efficiency)	%			141		
			Prated at -10°C	kW			8.5		
			Q _{he} Annual energy consumption (GCV)	Gj			18		
			SCOP		3.59		3.60		
		Seasonal space heating eff. class							
		A++							
	A Condition (-7°CDB/-8°CWB)	Cd _h (Degradation heating)					1.0		
		COP _d					2.30		
		Pd _h					7.6		
		PER _d					91.9		
	B Condition (2°CDB/1°CWB)	Cd _h (Degradation heating)					1.0		
		COP _d					3.50		
		Pd _h					4.6		

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1 - 1 EPRA08-12EW

Technical specifications					ETVX12S18E9W + EPRA08EW1	ETVX12S23E9W + EPRA08EW1	ETVX12S18E9W + EPRA10EW1	ETVX12S23E9W + EPRA10EW1	ETVX12S18E9W + EPRA12EW1	ETVX12S23E9W + EPRA12EW1
Space heating 	Average climate water outlet 55°C	B Condition (2°CDB/1°CWB)	PERd	%	140.0					
		C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)		1.0					
			COP _d		4.61					
			Pd _h		3.0					
			PERd		184.2					
		D Condition (12°CDB/11°CWB)	Cd _h (Degradation heating)		1.0					
			COP _d		6.16					
			Pd _h		3.7					
			PERd		246.4					
		Tol (temperature operating limit)	COP _d		2.01		2.05			
			Pd _h		7.0		8.3			
			PERd		80.2		82.1			
			TOL		°C		-10			
			WTOL		°C		55			
		Rated heat output supplementary capacity	Psup (at Tdesign -10°C)	kW	1.5		0.0			
	Cold climate water outlet 55°C	Tbiv (bivalent temperature)	COP _d		2.30		2.05			
			Pd _h		7.6		8.3			
			PERd		91.9		82.1			
			Tbiv		°C		-10			
		General	Annual energy consumption		7,028		6,890		6,861	
η _s (Seasonal space heating efficiency)			123		126					
Prated at -22°C			kW		9.0					
Qhe Annual energy consumption (GCV)			Gj		25					
A Condition (-7°CDB/-8°CWB)	Cd _h (Degradation heating)		1.0							
	COP _d		2.61							
	Pd _h		5.2							
	PERd		104.2		104.4					
B Condition (2°CDB/1°CWB)	Cd _h (Degradation heating)		1.0							
	COP _d		3.90							
	Pd _h		3.3							
	PERd		156.0							
C Condition (7°CDB/6°CWB)	Cd _h (Degradation heating)		1.0							
	COP _d		4.96							
	Pd _h		3.4							
	PERd		198.3							
D Condition (12°CDB/11°CWB)	COP _d		6.56							
	Pd _h		4.2							

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1 - 1 EPRA08-12EW

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Technical specifications					ETVX12S18E9W + EPRA08EW1	ETVX12S23E9W + EPRA08EW1	ETVX12S18E9W + EPRA10EW1	ETVX12S23E9W + EPRA10EW1	ETVX12S18E9W + EPRA12EW1	ETVX12S23E9W + EPRA12EW1
Space heating	Cold climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	262.5					
		Tol (tem- perature	COPd		1.49		1.56		1.62	
		operat- ing limit)	Pdh	kW	4.9		6.1		7.2	
			PERd	%	59.6		62.3		64.7	
			TOL	°C			-22			
			WTOL	°C			55			
		G Con- dition	COPd		2.00		2.03			
			Pdh	kW	6.0		7.2			
		(-15°CDB/-)	PERd	%	80.0		81.2			
		Tbiv	COPd		2.25		2.03			
	Warm climate water outlet 55°C	(bivalent tempera- ture)	Pdh	kW	6.6		7.2			
			PERd	%	90.0		81.2			
			Tbiv	°C	-12		-15			
		Rated heat output supple- mentary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8	
		General	Annual energy consumption	kWh	2,853					
			ηs (Seasonal space heating efficiency)	%	177					
			Prated at 2°C	kW	9.6					
			Qhe Annual ener- gy consumption (GCV)	Gj	10					
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		2.66					
			Pdh	kW	8.0					
			PERd	%	106.5					
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		3.79					
			Pdh	kW	6.7					
			PERd	%	151.5					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		5.87					
			Pdh	kW	3.6					
			PERd	%	234.9					
		Tbiv	COPd		3.13					
		(bivalent tempera- ture)	Pdh	kW	8.4					
			PERd	%	125.4					
			Tbiv	°C	4					
Average climate water outlet 35°C	General	Annual energy consumption	kWh		3,462		3,440			
		ηs (Seasonal space heating efficiency)	%		195		196			
		Prated at -10°C	kW		8.3					

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETVX12S18E9W + EPRA08EW1	ETVX12S23E9W + EPRA08EW1	ETVX12S18E9W + EPRA10EW1	ETVX12S23E9W + EPRA10EW1	ETVX12S18E9W + EPRA12EW1	ETVX12S23E9W + EPRA12EW1
Space heating Average climate water outlet 35°C	General	Qhe Annual energy consumption (GCV)	Gj	12					
		SCOP		4.95			4.98		
		Seasonal space heating eff. class		A+++					
		A Condition (-7°CDB/-8°CWB)		3.20					
		Pdh	kW	7.5					
		PERd	%	128.0					
		B Condition (2°CDB/-1°CWB)		1.0					
		Cdh (Degradation heating)		4.93					
		COPd		4.4					
		Pdh	kW	197.2					
		PERd	%	1.0					
		Cdh (Degradation heating)		6.37					
		COPd		4.3					
		Pdh	kW	254.8					
		PERd	%	1.0					
		D Condition (12°CDB/11°CWB)		8.13					
		Cdh (Degradation heating)		6.6					
		COPd		325.2					
		Pdh	kW	2.90				2.86	
		PERd	%	6.9				8.1	
		WTOL	°C	116.0				114.4	
		TOL	°C	-10				-10	
		WTOL	°C	35					
		Tbiv (bivalent temperature)		3.20				2.86	
		COPd		7.5				8.1	
		Pdh	kW	128.0				114.4	
		PERd	%	-7				-10	
		Tbiv	°C						
		Rated heat output supplementary capacity	kW	1.4				0.0	
		Psup (at Tdesign -10°C)							
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,334		5,180		5,165	
		ηs (Seasonal space heating efficiency)	%	163		168		169	
		Prated at -22°C	kW	9.0					
		Qhe Annual energy consumption (GCV)	Gj	19					
		A Condition (-7°CDB/-8°CWB)		3.48					
		COPd		5.4					
		Pdh	kW	139.2					
		PERd	%	1.0					
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		5.40					
		COPd							

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications					ETVX12S18E9W + EPRA08EW1	ETVX12S23E9W + EPRA08EW1	ETVX12S18E9W + EPRA10EW1	ETVX12S23E9W + EPRA10EW1	ETVX12S18E9W + EPRA12EW1	ETVX12S23E9W + EPRA12EW1		
Space heating	Cold climate water outlet 35°C	B Condition (2°CDB/1°CWB)	Pdh	kW	3.6							
			PERd	%	216.0							
			C Condition (7°CDB/6°CWB)	CdH (Degradation heating)			1.0					
				COPd			6.53					
			D Condition (12°CDB/11°CWB)	Pdh	kW	5.3						
				PERd	%	261.2						
			Tol (temperature operating limit)	CdH (Degradation heating)			1.0					
				COPd			7.98					
			G Condition (-15°CDB/-)	Pdh	kW	6.6						
				PERd	%	319.0			319.2			
			Tbiv (bivalent temperature)	COPd	2.11			2.14			2.16	
				Pdh	kW	4.9			5.9			6.5
		Rated heat output supplementary capacity	PERd	%	84.3			85.6			86.4	
			TOL	°C	-22							
		WTOL	°C	35								
		G Condition (-15°CDB/-)	COPd	2.68			2.64					
			Pdh	kW	6.0			7.0				
		Tbiv (bivalent temperature)	PERd	%	107.1			105.6				
			COPd	2.95			2.64					
		Rated heat output supplementary capacity	Pdh	kW	6.5			7.0				
			PERd	%	118.1			105.6				
		Tbiv	°C	-12			-15					
		Psup (at Tdesign -22°C)	kW	4.1			3.1		2.6			
		Space heating	Warm climate water outlet 35°C	General	Annual energy consumption	kWh	1,835					
ηs (Seasonal space heating efficiency)	%				247							
Prated at 2°C	kW				8.6							
Qhe Annual energy consumption (GCV)	Gj				7		-		7			
B Condition (2°CDB/1°CWB)	CdH (Degradation heating)			1.0								
	COPd			4.07								
C Condition (7°CDB/6°CWB)	Pdh			kW	7.7							
	PERd			%	162.9							
Tbiv (bivalent temperature)	CdH (Degradation heating)			1.0								
	COPd			5.85								
Rated heat output supplementary capacity	Pdh			kW	5.5							
	PERd			%	234.1							
D Condition (12°CDB/11°CWB)	COPd			4.97			6.9					
	Pdh			kW	198.9			5				
Tbiv (bivalent temperature)	PERd			%	198.9							
	Tbiv			°C	5							
G Condition (-12°CDB/11°CWB)	CdH (Degradation heating)			1.0								
	COPd			7.85								
Tbiv (bivalent temperature)	Pdh			kW	6.2							
	PERd			%	313.9							

(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 + EPRA08EW1	ETVZ12S23E6V + EPRA08EW1	ETVZ12S18E6V + EPRA10EW1	ETVZ12S23E6V + EPRA10EW1	ETVZ12S18E6V + EPRA12EW1	ETVZ12S23E6V + EPRA12EW1
Indoor unit				ETVZ12S18EA6V	ETVZ12S23EA6V	ETVZ12S18EA6V	ETVZ12S23EA6V	ETVZ12S18EA6V	ETVZ12S23EA6V
Outdoor unit				EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
Heating capacity	Min.	kW	3.44 (1)						
	Nom.	kW	6.17 (2)						
	Max.	kW	7.95 (1)		9.25 (1)		9.97 (1)		

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETVZ12S18E6V + EPRA08EW1	ETVZ12S23E6V + EPRA08EW1	ETVZ12S18E6V + EPRA10EW1	ETVZ12S23E6V + EPRA10EW1	ETVZ12S18E6V + EPRA12EW1	ETVZ12S23E6V + EPRA12EW1
Power input	Heating	Min.	kW	0.70 (3)					
		Nom.	kW	1.21 (2)					
		Max.	kW	1.63 (3)		1.98 (3)		2.21 (3)	
	Domestic hot water from 10°C to 50°C	Nom.	kWh	2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)
Heat up time from 10°C to 50°C				1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min
COP				5.10 (2)					
Pump	Type			Grundfos UPM3 K					
Pump Additional Zone	Nominal	Heating	kPa	44.9 (5)					
Pump Main Zone	Nominal	Heating	kPa	50.0 (5)					
Water side Heat exchanger	Water flow rate	Heating	Nom. l/min	18.3 (2)					
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)				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)	m³/h	3,542					
		Other	Capacity control	Inverter					
		Pck (Crankcase heater mode)	kW	0.000					
		Poff (Off mode)	kW	0.027					
		Psb (Standby mode)	kW	0.027					
		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					

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications				ETVZ12S18E6V + EPRA08EW1	ETVZ12S23E6V + EPRA08EW1	ETVZ12S18E6V + EPRA10EW1	ETVZ12S23E6V + EPRA10EW1	ETVZ12S18E6V + EPRA12EW1	ETVZ12S23E6V + EPRA12EW1
Domestic hot water heating	Average climate	AEC (Annual electricity consumption)	kWh	851	787	851	787	851	787
		COPdhw		2.80	3.05	2.80	3.05	2.80	3.05
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min
		η _{wh} (water heating efficiency)	%	120	130	120	130	120	130
		Qelec (Daily electricity consumption)	kWh	4.160	3.830	4.160	3.830	4.160	3.830
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	50.7	43.9	50.7	43.9	50.7	43.9
		Water heating energy efficiency class							
		A+							
	Cold climate	AEC (Annual electricity consumption)	kWh	937	866	937	866	937	866
		COPdhw		2.55	2.77	2.55	2.77	2.55	2.77
		Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min
		η _{wh} (water heating efficiency)	%	109	118	109	118	109	118
		Qelec (Daily electricity consumption)	kWh	4.570	4.200	4.570	4.200	4.570	4.200
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0
		Stand-by power input	W	54.3	46.7	54.3	46.7	54.3	46.7
Space heating	Average climate water outlet 55°C	General	AEC (Annual electricity consumption)	kWh	699	648	699	648	699
			COPdhw		3.40	3.68	3.40	3.68	3.68
			Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	2h 06min
			η _{wh} (water heating efficiency)	%	147	158	147	158	158
			Qelec (Daily electricity consumption)	kWh	3.430	3.160	3.430	3.160	3.160
			Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0
			Stand-by power input	W	44.6	39.0	44.6	39.0	44.6
			Annual energy consumption	kWh	4,993		4,970		
			η _s (Seasonal space heating efficiency)	%			138		
			Prated at -10°C	kW			8.5		
			Qhe Annual energy consumption (GCV)	Gj			18		
			SCOP		3.52		3.53		
		Seasonal space heating eff. class							
		A++							
		A Condition (7°CDB/-8°CWB)	Cdh (Degradation heating)				1.0		
			COPd				2.30		
			Pdh	kW			7.6		
			PERd	%			91.9		
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)				1.0		
			COPd				3.50		
			Pdh	kW			4.6		
			PERd	%			140.0		
		C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)				1.0		

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETVZ12S18E6V + EPRA08EW1	ETVZ12S23E6V + EPRA08EW1	ETVZ12S18E6V + EPRA10EW1	ETVZ12S23E6V + EPRA10EW1	ETVZ12S18E6V + EPRA12EW1	ETVZ12S23E6V + EPRA12EW1
	Space heating	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	COPd	4.61				
				Pdh kW	3.0				
				PERd %	184.2				
			D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0				
				COPd	6.16				
				Pdh kW	3.7				
				PERd %	246.4				
			Tol (temperature operating limit)	COPd	2.01		2.05		
				Pdh kW	7.0		8.3		
				PERd %	80.2		82.1		
				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	2.30		2.05		
				Pdh kW	7.6		8.3		
				PERd %	91.9		82.1		
				Tbiv °C	-7		-10		
	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,088		6,950		6,921
			ηs (Seasonal space heating efficiency)	%	122		125		
			Prated at -22°C	kW	9.0				
			Qhe Annual energy consumption (GCV)	Gj	26		25		
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0				
		B Condition (2°CDB/1°CWB)		COPd	2.61				
				Pdh kW	5.2				
				PERd %	104.2		104.4		
				Cdh (Degradation heating)	1.0				
				COPd	3.90				
				Pdh kW	3.3				
				PERd %	156.0				
		C Condition (7°CDB/6°CWB)		Cdh (Degradation heating)	1.0				
				COPd	4.96				
				Pdh kW	3.4				
				PERd %	198.3				
			D Condition (12°CDB/11°CWB)	COPd	6.56				
		Tol (temperature operating limit)		Pdh kW	4.2				
				PERd %	262.5				
				COPd	1.49		1.56		1.62

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications					ETVZ12S18E6V + EPRA08EW1	ETVZ12S23E6V + EPRA08EW1	ETVZ12S18E6V + EPRA10EW1	ETVZ12S23E6V + EPRA10EW1	ETVZ12S18E6V + EPRA12EW1	ETVZ12S23E6V + EPRA12EW1
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	Pdh	kW	4.9		6.1		7.2	
			PERd	%	59.6		62.3		64.7	
			TOL	°C			-22			
			WTOL	°C			55			
		G Condition	COPd		2.00		2.03			
			Pdh	kW	6.0		7.2			
		(-15°CDB/-)	PERd	%	80.0		81.2			
		Tbiv	COPd		2.25		2.03			
		(bivalent temperature)	Pdh	kW	6.6		7.2			
			PERd	%	90.0		81.2			
			Tbiv	°C	-12		-15			
	Warm climate water outlet 55°C	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8	
		General	Annual energy consumption	kWh			2,972			
			ηs (Seasonal space heating efficiency)	%			170			
			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				2.66			
			Pdh	kW			8.0			
			PERd	%			106.5			
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)				1.0			
			COPd				3.79			
			Pdh	kW			6.7			
			PERd	%			151.5			
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0			
			COPd				5.87			
			Pdh	kW			3.6			
			PERd	%			234.9			
		Tbiv (bivalent temperature)	COPd				3.13			
			Pdh	kW			8.4			
			PERd	%			125.4			
			Tbiv	°C			4			
Average climate water outlet 35°C	General	Annual energy consumption	kWh		3,561		3,539			
		ηs (Seasonal space heating efficiency)	%		190		191			
		Prated at -10°C	kW				8.3			
		Qhe Annual energy consumption (GCV)	Gj				13			
		SCOP			4.81		4.84			

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETVZ12S18E6V + EPRA08EW1	ETVZ12S23E6V + EPRA08EW1	ETVZ12S18E6V + EPRA10EW1	ETVZ12S23E6V + EPRA10EW1	ETVZ12S18E6V + EPRA12EW1	ETVZ12S23E6V + EPRA12EW1
 Space heating	Average climate water outlet 35°C	General	Seasonal space heating eff. class		A+++					
		A Condition	COPd		3.20					
		(7°CDB/-8°CWB)	Pdh kW		7.5					
			PERd %		128.0					
			B Con- dition	Cdh (Degradation heating)		1.0				
		(2°CDB- B/1°CWB)	COPd		4.93					
			Pdh kW		4.4					
			PERd %		197.2					
		C Con- dition	Cdh (Degradation heating)		1.0					
		(7°CDB- B/6°CWB)	COPd		6.37					
			Pdh kW		4.3					
			PERd %		254.8					
		D Condition	Cdh (Degradation heating)		1.0					
		(12°CDB/11°CWB)	COPd		8.13					
			Pdh kW		6.6					
			PERd %		325.2					
		Tol (tem- perature operat- ing limit)	COPd		2.90		2.86			
			Pdh kW		6.9		8.1			
			PERd %		116.0		114.4			
		Tbiv	TOL °C		-10					
			WTOL °C		35					
			COPd		3.20		2.86			
		(bivalent tempera- ture)	Pdh kW		7.5		8.1			
			PERd %		128.0		114.4			
			Tbiv °C		-7		-10			
		Rated heat output supple- mentary capacity	Psup (at Tdesign -10°C) kW		1.4		0.0			
Cold climate water outlet 35°C	General	Annual energy consumption kWh		5,394		5,239		5,224		
		ηs (Seasonal space heating efficiency) %		162		166		167		
		Prated at -22°C kW		9.0						
		Qhe Annual ener- gy consumption (GCV) GJ		19						
		COPd		3.48						
	(7°CDB/-8°CWB)	Pdh kW		5.4						
		PERd %		139.2						
		B Con- dition	Cdh (Degradation heating)		1.0					
	(2°CDB- B/1°CWB)	COPd		5.40						
		Pdh kW		3.6						
		PERd %		216.0						

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications				ETVZ12S18E6V + EPRA08EW1	ETVZ12S23E6V + EPRA08EW1	ETVZ12S18E6V + EPRA10EW1	ETVZ12S23E6V + EPRA10EW1	ETVZ12S18E6V + EPRA12EW1	ETVZ12S23E6V + EPRA12EW1
Space heating	Cold climate water outlet 35°C	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)						
			COPd						1.0
			Pdh kW						6.53
			PERd %						5.3
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)						261.2
			COPd						1.0
			Pdh kW						7.98
			PERd %						6.6
		Tol (temperature operating limit)	COPd		319.0		319.2		
			Pdh kW		2.11		2.14		2.16
			PERd %		4.9		5.9		6.5
			Tbiv °C		84.3		85.6		86.4
	Warm climate water outlet 35°C	G Condition (-15°CDB/-)	COPd						-22
			Pdh kW						35
			PERd %		2.68		2.64		
			Tbiv °C		6.0		7.0		
		B Condition (2°CDB/1°CWB)	COPd		107.1		105.6		
			Pdh kW		2.95		2.64		
			PERd %		6.5		7.0		
			Tbiv °C		118.1		105.6		
		Rated heat output supplementary capacity	COPd		-12		-15		
			Pdh kW		4.1	3.1		2.6	
			PERd %						
			Tbiv °C						
Space heating	Warm climate water outlet 35°C	General	Annual energy consumption kWh						1,954
			ηs (Seasonal space heating efficiency) %						232
			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						4.07
			Pdh kW						7.7
			PERd %						162.9
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)						1.0
			COPd						5.85
			Pdh kW						5.5
			PERd %						234.1
	Warm climate water outlet 35°C	Tbiv (bivalent temperature)	COPd						4.97
			Pdh kW						6.9
			PERd %						198.9
			Tbiv °C						5
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)						1.0
			COPd						7.85
			Pdh kW						6.2
			PERd %						313.9

(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 + EPRA08EW1	ETVZ12S23E9W + EPRA08EW1	ETVZ12S18E9W + EPRA10EW1	ETVZ12S23E9W + EPRA10EW1	ETVZ12S18E9W + EPRA12EW1	ETVZ12S23E9W + EPRA12EW1
Indoor unit				ETVZ12S18EA9W	ETVZ12S23EA9W	ETVZ12S18EA9W	ETVZ12S23EA9W	ETVZ12S18EA9W	ETVZ12S23EA9W
Outdoor unit				EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
Heating capacity	Min.	kW				3.44 (1)			
	Nom.	kW				6.17 (2)			
	Max.	kW		7.95 (1)		9.25 (1)		9.97 (1)	

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETVZ12S18E9W + EPRA08EW1	ETVZ12S23E9W + EPRA08EW1	ETVZ12S18E9W + EPRA10EW1	ETVZ12S23E9W + EPRA10EW1	ETVZ12S18E9W + EPRA12EW1	ETVZ12S23E9W + EPRA12EW1
Power input	Heating	Min.	kW	0.70 (3)					
		Nom.	kW	1.21 (2)					
		Max.	kW	1.63 (3)		1.98 (3)		2.21 (3)	
	Domestic hot water from 10°C to 50°C	Nom.	kWh	2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)	2.54 (4)	3.09 (4)
Heat up time from 10°C to 50°C				1h 51min	2h 10min	1h 51min	2h 10min	1h 51min	2h 10min
COP				5.10 (2)					
Pump	Type			Grundfos UPM3 K					
Pump Additional Zone	Nominal	Heating ESP unit	kPa	44.9 (5)					
Pump Main Zone	Nominal	Heating ESP unit	kPa	50.0 (5)					
Water side Heat exchanger	Water flow rate	Heating Nom.	l/min	18.3 (2)					
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)				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)	m³/h	3,542					
		Capacity control		Inverter					
	Other	Pck (Crankcase heater mode)	kW	0.000					
		Poff (Off mode)	kW	0.027					
		Psb (Standby mode)	kW	0.027					
		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					

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications				ETVZ12S18E9W + EPRA08EW1	ETVZ12S23E9W + EPRA08EW1	ETVZ12S18E9W + EPRA10EW1	ETVZ12S23E9W + EPRA10EW1	ETVZ12S18E9W + EPRA12EW1	ETVZ12S23E9W + EPRA12EW1	
Domestic hot water heating 	Average climate	AEC (Annual electricity consumption)	kWh	851	787	851	787	851	787	
		COPdhw		2.80	3.05	2.80	3.05	2.80	3.05	
		Heat up time		1h 57min	2h 14min	1h 57min	2h 14min	1h 57min	2h 14min	
		ηwh (water heating efficiency)	%	120	130	120	130	120	130	
		Qelec (Daily electricity consumption)	kWh	4.160	3.830	4.160	3.830	4.160	3.830	
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0	
		Stand-by power input	W	50.7	43.9	50.7	43.9	50.7	43.9	
		Water heating energy efficiency class		A+						
	Cold climate	AEC (Annual electricity consumption)	kWh	937	866	937	866	937	866	
		COPdhw		2.55	2.77	2.55	2.77	2.55	2.77	
		Heat up time		1h 55min	2h 02min	1h 55min	2h 02min	1h 55min	2h 02min	
		ηwh (water heating efficiency)	%	109	118	109	118	109	118	
		Qelec (Daily electricity consumption)	kWh	4.570	4.200	4.570	4.200	4.570	4.200	
		Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0	
		Stand-by power input	W	54.3	46.7	54.3	46.7	54.3	46.7	
Warm climate	AEC (Annual electricity consumption)	kWh	699	648	699	648	699	648		
	COPdhw		3.40	3.68	3.40	3.68	3.40	3.68		
	Heat up time		1h 54min	2h 06min	1h 54min	2h 06min	1h 54min	2h 06min		
	ηwh (water heating efficiency)	%	147	158	147	158	147	158		
	Qelec (Daily electricity consumption)	kWh	3.430	3.160	3.430	3.160	3.430	3.160		
	Reference hot water temperature	°C	53.0	52.0	53.0	52.0	53.0	52.0		
	Stand-by power input	W	44.6	39.0	44.6	39.0	44.6	39.0		
	Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,993		4,970		
ηs (Seasonal space heating efficiency)				%	138					
Prated at -10°C				kW	8.5					
Qhe Annual energy consumption (GCV)				Gj	18					
SCOP					3.52		3.53			
Seasonal space heating eff. class					A++					
A Condition (-7°CDB/-8°CWB)				Cdh (Degradation heating)		1.0				
			COPd		2.30					
			Pdh	kW	7.6					
			PERd	%	91.9					
B Condition (2°CDB/-1°CWB)			Cdh (Degradation heating)		1.0					
			COPd		3.50					
			Pdh	kW	4.6					
PERd			%	140.0						
C Condition (7°CDB/-6°CWB)			Cdh (Degradation heating)		1.0					

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Technical specifications				ETVZ12S18E9W + EPRA08EW1	ETVZ12S23E9W + EPRA08EW1	ETVZ12S18E9W + EPRA10EW1	ETVZ12S23E9W + EPRA10EW1	ETVZ12S18E9W + EPRA12EW1	ETVZ12S23E9W + EPRA12EW1
	Space heating	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	COPd					4.61
				Pdh	kW				3.0
				PERd	%				184.2
			D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)					1.0
				COPd					6.16
				Pdh	kW				3.7
				PERd	%				246.4
			Tol (temperature operating limit)	COPd		2.01		2.05	
				Pdh	kW	7.0		8.3	
				PERd	%	80.2		82.1	
				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		2.30		2.05	
				Pdh	kW	7.6		8.3	
				PERd	%	91.9		82.1	
				Tbiv	°C	-7		-10	
	Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,088		6,950		6,921
			ηs (Seasonal space heating efficiency)	%	122		125		
			Prated at -22°C	kW			9.0		
			Qhe Annual energy consumption (GCV)	Gj	26		25		
		A Condition (7°CDB/8°CWB)	Cdh (Degradation heating)						1.0
				COPd					2.61
				Pdh	kW				5.2
				PERd	%	104.2		104.4	
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)						1.0
				COPd					3.90
				Pdh	kW				3.3
				PERd	%				156.0
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)						1.0
				COPd					4.96
				Pdh	kW				3.4
				PERd	%				198.3
		D Condition (12°CDB/11°CWB)	COPd						6.56
				Pdh	kW				4.2
				PERd	%				262.5
		Tol (temperature operating limit)	COPd		1.49		1.56		1.62

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Technical specifications					ETVZ12S18E9W + EPRA08EW1	ETVZ12S23E9W + EPRA08EW1	ETVZ12S18E9W + EPRA10EW1	ETVZ12S23E9W + EPRA10EW1	ETVZ12S18E9W + EPRA12EW1	ETVZ12S23E9W + EPRA12EW1
Space heating	Cold climate water outlet 55°C	Tol (temperature operating limit)	Pdh	kW	4.9		6.1		7.2	
			PERd	%	59.6		62.3		64.7	
			TOL	°C			-22			
			WTOL	°C			55			
		G Condition (-15°CDB/-)	COPd		2.00		2.03			
			Pdh	kW	6.0		7.2			
			PERd	%	80.0		81.2			
		Tbiv (bivalent temperature)	COPd		2.25		2.03			
			Pdh	kW	6.6		7.2			
			PERd	%	90.0		81.2			
			Tbiv	°C	-12		-15			
	Warm climate water outlet 55°C	Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		2.9		1.8	
		General	Annual energy consumption	kWh			2,972			
			ηs (Seasonal space heating efficiency)	%			170			
			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				2.66			
			Pdh	kW			8.0			
			PERd	%			106.5			
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)				1.0			
			COPd				3.79			
			Pdh	kW			6.7			
			PERd	%			151.5			
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0			
			COPd				5.87			
			Pdh	kW			3.6			
			PERd	%			234.9			
		Tbiv (bivalent temperature)	COPd				3.13			
			Pdh	kW			8.4			
			PERd	%			125.4			
			Tbiv	°C			4			
Average climate water outlet 35°C	General	Annual energy consumption	kWh		3,561		3,539			
		ηs (Seasonal space heating efficiency)	%		190		191			
		Prated at -10°C	kW				8.3			
		Qhe Annual energy consumption (GCV)	Gj				13			
		SCOP			4.81		4.84			

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Technical specifications				ETVZ12S18E9W + EPRA08EW1	ETVZ12S23E9W + EPRA08EW1	ETVZ12S18E9W + EPRA10EW1	ETVZ12S23E9W + EPRA10EW1	ETVZ12S18E9W + EPRA12EW1	ETVZ12S23E9W + EPRA12EW1	
 Space heating	Average climate water outlet 35°C	General	Seasonal space heating eff. class	A+++						
		A Condition (-7°CDB/-8°CWB)	COPd	3.20						
			Pdh kW	7.5						
			PERd %	128.0						
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)	1.0						
			COPd	4.93						
			Pdh kW	4.4						
			PERd %	197.2						
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)	1.0						
			COPd	6.37						
			Pdh kW	4.3						
			PERd %	254.8						
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)	1.0						
			COPd	8.13						
			Pdh kW	6.6						
			PERd %	325.2						
		Tol (tem- perature operat- ing limit)	COPd	2.90		2.86				
			Pdh kW	6.9		8.1				
			PERd %	116.0		114.4				
			TOL °C			-10				
			WTOL °C			35				
		Tbiv (bivalent tempera- ture)	COPd	3.20		2.86				
			Pdh kW	7.5		8.1				
			PERd %	128.0		114.4				
			Tbiv °C	-7		-10				
		Rated heat output supple- mentary capacity	Psup (at Tdesign -10°C)	kW	1.4		0.0			
		Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,394		5,239		5,224
	ηs (Seasonal space heating efficiency)			%	162		166		167	
	Prated at -22°C			kW	9.0					
	Qhe Annual energy consumption (GCV)			Gj	19					
	A Condition (-7°CDB/-8°CWB)		COPd		3.48					
			Pdh kW		5.4					
			PERd %		139.2					
	B Con- dition (2°CDB- B/1°CWB)		Cdh (Degradation heating)		1.0					
			COPd		5.40					
			Pdh kW		3.6					
		PERd %		216.0						

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Technical specifications				ETVZ12S18E9W + EPRA08EW1	ETVZ12S23E9W + EPRA08EW1	ETVZ12S18E9W + EPRA10EW1	ETVZ12S23E9W + EPRA10EW1	ETVZ12S18E9W + EPRA12EW1	ETVZ12S23E9W + EPRA12EW1
Space heating	Cold climate water outlet 35°C	C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)						
			COPd						1.0
			Pdh kW						6.53
			PERd %						5.3
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)						261.2
			COPd						1.0
			Pdh kW						7.98
			PERd %						6.6
		Tol (temperature operating limit)	COPd		319.0		319.2		
			Pdh kW		2.11		2.14		2.16
			PERd %		4.9		5.9		6.5
			TOL °C		84.3		85.6		86.4
		G Condition (-15°CDB/-)	WTOL °C						-22
			COPd						35
			Pdh kW		2.68		2.64		
			PERd %		6.0		7.0		
	Warm climate water outlet 35°C	Tbiv (bivalent temperature)			107.1		105.6		
			COPd		2.95		2.64		
			Pdh kW		6.5		7.0		
			PERd %		118.1		105.6		
		Rated heat output supplementary capacity	Tbiv °C		-12		-15		
			Psup (at Tdesign -22°C) kW		4.1	3.1		2.6	
			Annual energy consumption kWh						1,954
			ηs (Seasonal space heating efficiency) %						232
		B Condition (2°CDB/1°CWB)	Prated at 2°C kW						8.6
			Qhe Annual energy consumption (GCV) GJ						7
			Cdh (Degradation heating)						1.0
			COPd						4.07
		C Condition (7°CDB/6°CWB)	Pdh kW						7.7
			PERd %						162.9
			Cdh (Degradation heating)						1.0
			COPd						5.85
		Tbiv (bivalent temperature)	Pdh kW						5.5
			PERd %						234.1
			Tbiv °C						4.97
									6.9
									198.9
									5
Space heating	Warm climate water outlet 35°C	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)						1.0
			COPd						7.85
			Pdh kW						6.2
			PERd %						313.9

(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 + EPRA08EW1	ETSH12P50E + EPRA08EW1	ETSH12P30E + EPRA10EW1	ETSH12P50E + EPRA10EW1	ETSH12P30E + EPRA12EW1	ETSH12P50E + EPRA12EW1
Indoor unit					ETSH12P30EF	ETSH12P50EF	ETSH12P30EF	ETSH12P50EF	ETSH12P30EF	ETSH12P50EF
Outdoor unit					EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
Heating capacity	Nom.	kW			6.17 (1)					
Power input	Heating	Nom.	kW			1.21 (1)				
COP					5.10 (1)					
Pump	Type				Grundfos UPM3L K 20-75 CHBL AZA 3 RT					
	Nominal ESP unit	Heating	kPa			53.5 (2)				
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	17.7 (1)					

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Technical specifications			ETSH12P30E + EPRA08EW1	ETSH12P50E + EPRA08EW1	ETSH12P30E + EPRA10EW1	ETSH12P50E + EPRA10EW1	ETSH12P30E + EPRA12EW1	ETSH12P50E + EPRA12EW1
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	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) m³/h	3,542					
		Other	Inverter					
	Other	Capacity control						
		Pck (Crankcase heater mode) kW	0.000					
		Poff (Off mode) kW	0.027					
		Psb (Standby mode) kW	0.027					
Domestic hot water heating 	General	Pto (Thermostat off) kW	0.024					
		Declared load profile	L					
	Average climate	Function to fix water heating during off peak hours	No					
		AEC (Annual electricity consumption) kWh	858	1,281	858	1,281	858	1,281
		COPdhw	2.83	3.17	2.83	3.17	2.83	3.17
		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) %	119	131	119	131	119	131
		Qelec (Daily electricity consumption) kWh	4.116	6.008	4.116	6.008	4.116	6.008
		Reference hot water temperature °C	47.2	44.5	47.2	44.5	47.2	44.5
		Stand-by power input W	37.4	32.1	37.4	32.1	37.4	32.1
		Water heating energy efficiency class	A+					
Domestic hot water heating 	Cold climate	AEC (Annual electricity consumption) kWh	1,152	1,485	1,152	1,485	1,152	1,485
		COPdhw	2.12	2.74	2.12	2.74	2.12	2.74
		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) %	89	113	89	113	89	113
		Qelec (Daily electricity consumption) kWh	5.498	6.961	5.498	6.961	5.498	6.961
		Reference hot water temperature °C	46.3	44.5	46.3	44.5	46.3	44.5
		Stand-by power input W	45.5	35.9	45.5	35.9	45.5	35.9
	Warm climate	AEC (Annual electricity consumption) kWh	759	1,109	759	1,109	759	1,109
		COPdhw	3.19	3.65	3.19	3.65	3.19	3.65
		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) %	135	151	135	151	135	151
		Qelec (Daily electricity consumption) kWh	3.652	5.219	3.652	5.219	3.652	5.219
		Reference hot water temperature °C	47.2	44.5	47.2	44.5	47.2	44.5
		Stand-by power input W	35.2	30.7	35.2	30.7	35.2	30.7

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Technical specifications				ETSH12P30E + EPRA08EW1	ETSH12P50E + EPRA08EW1	ETSH12P30E + EPRA10EW1	ETSH12P50E + EPRA10EW1	ETSH12P30E + EPRA12EW1	ETSH12P50E + EPRA12EW1
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,993			4,970	
			ηs (Seasonal space heating efficiency)	%			138		
			Prated at -10°C	kW			9		
			Qhe Annual energy consumption (GCV)	Gj			18		
			SCOP		3.52			3.53	
			Seasonal space heating eff. class				A++		
		A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)				1.0		
			COPd				2.30		
			Pdh	kW			7.6		
			PERd	%			92.0		
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)				1.0		
			COPd				3.50		
			Pdh	kW			4.6		
			PERd	%			140.0		
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)				1.0		
			COPd				4.61		
			Pdh	kW			3.0		
			PERd	%			184.4		
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0		
			COPd				6.16		
			Pdh	kW			3.7		

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Technical specifications					ETSH12P30E + EPRA08EW1	ETSH12P50E + EPRA08EW1	ETSH12P30E + EPRA10EW1	ETSH12P50E + EPRA10EW1	ETSH12P30E + EPRA12EW1	ETSH12P50E + EPRA12EW1
Space heating 	Average climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	246.4					
		Tol (temperature operating limit)	COPd		2.01			2.05		
			Pdh	kW	7.0			8.3		
			PERd	%	80.4			82.0		
			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		2.30			2.05		
			Pdh	kW	7.6			8.3		
			PERd	%	92.0			82.0		
Cold climate water outlet 55°C			Tbiv	°C	-7			-10		
		General	Annual energy consumption	kWh	7,088		6,950		6,921	
			ηs (Seasonal space heating efficiency)	%	122			125		
			Prated at -22°C	kW			9			
			Qhe Annual energy consumption (GCV)	Gj	26			25		
		A Condition (7°CDB/-8°CWB)	Cdh (Degradation heating)				1.0			
			COPd				2.61			
			Pdh	kW			5.3			
			PERd	%			104.4			
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)				1.0			
			COPd				3.90			
			Pdh	kW			3.3			
			PERd	%			156.0			
		C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)				1.0			
			COPd				4.96			
			Pdh	kW			3.5			
			PERd	%			198.4			
		D Condition (12°CDB/11°CWB)	COPd				6.56			
			Pdh	kW			4.2			
			PERd	%			262.4			
		Tol (temperature operating limit)	COPd		1.49		1.56		1.62	
			Pdh	kW	4.9		6.1		7.2	
			PERd	%	59.6		62.4		64.8	
			TOL	°C			-22			
			WTOL	°C			55			
		G Condition (-15°CDB/-)	COPd		2.00			2.03		
			Pdh	kW	6.1			7.2		

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Technical specifications					ETSH12P30E + EPRA08EW1	ETSH12P50E + EPRA08EW1	ETSH12P30E + EPRA10EW1	ETSH12P50E + EPRA10EW1	ETSH12P30E + EPRA12EW1	ETSH12P50E + EPRA12EW1		
Space heating	Cold climate water outlet 55°C	G Condition (-15°CDB/-)	PERd	%	80.0		81.2					
		Tbiv	COPd		2.25		2.03					
		(bivalent tempera- ture)	Pdh	kW	6.6		7.2					
			PERd	%	90.0		81.2					
			Tbiv	°C	-12		-15					
		Rated heat output supplementary capacity	Psup (at Tdesign -22°C)	kW	4.1		3.0		1.8			
	Warm climate water outlet 55°C	General	Annual energy consumption	kWh	2,972							
			ηs (Seasonal space heating efficiency)	%	170							
			Prated at 2°C	kW	10							
			Qhe Annual energy consumption (GCV)	Gj	11							
		B Condition (2°CDB-B/1°CWB)	Cdh (Degradation heating)		1.0							
			COPd		2.66							
			Pdh	kW	8.0							
		C Condition (7°CDB-B/6°CWB)	PERd	%	106.4							
			Cdh (Degradation heating)		1.0							
			COPd		3.79							
		D Condition (12°CDB/11°CWB)	Pdh	kW	6.7							
			PERd	%	151.6							
			Cdh (Degradation heating)		1.0							
		Tbiv (bivalent temperature)	COPd		5.87							
			Pdh	kW	3.6							
			PERd	%	234.8							
		Tbiv (bivalent temperature)	COPd		3.13							
			Pdh	kW	8.4							
			PERd	%	125.2							
		Average climate water outlet 35°C	General	Tbiv	°C	4						
Annual energy consumption	kWh			3,561		3,539						
ηs (Seasonal space heating efficiency)	%			190		191						
Prated at -10°C	kW			8								
Qhe Annual energy consumption (GCV)	Gj			13								
SCOP			4.81		4.84							
Seasonal space heating eff. class			A+++									
A Condition (-7°CDB/-8°CWB)	COPd			3.20								
	Pdh		kW	7.5								
	PERd	%	128.0									
B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0									
	COPd		4.93									

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETSH12P30E + EPRA08EW1	ETSH12P50E + EPRA08EW1	ETSH12P30E + EPRA10EW1	ETSH12P50E + EPRA10EW1	ETSH12P30E + EPRA12EW1	ETSH12P50E + EPRA12EW1
 Space heating	Average climate water outlet 35°C	B Con- dition (2°CDB- B/1°CWB)	Pdh	kW	4.4					
			PERd	%	197.2					
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		6.37					
			Pdh	kW	4.3					
			PERd	%	254.8					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		8.13					
			Pdh	kW	6.6					
			PERd	%	325.2					
		Tol (tem- perature operat- ing limit)	COPd		2.90		2.86			
			Pdh		6.9		8.1			
			PERd		116.0		114.4			
			TOL		°C		-10			
		WTOL		°C		35				
		Tbiv (bivalent tempera- ture)	COPd		3.20		2.86			
			Pdh		kW		8.1			
			PERd		%		114.4			
	Tbiv		°C		-10					
	Rated heat output supple- mentary capacity	Psup (at Tdesign -10°C)		kW		1.4		0.0		
Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,394		5,239		5,224		
		ηs (Seasonal space heating efficiency)	%	162		166		167		
		Prated at -22°C	kW	9						
		Qhe Annual ener- gy consumption (GCV)	Gj	19						
	A Condition (-7°CDB/-8°CWB)	COPd		3.48						
		Pdh		kW						
		PERd		%						
	B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)		1.0						
		COPd		5.40						
		Pdh		kW						
	C Con- dition (7°CDB- B/6°CWB)	PERd		%						
		Cdh (Degradation heating)		1.0						
COPd		6.53								
D Condition (12°CDB/11°CWB)	Pdh		kW							
	PERd		%							
	Cdh (Degradation heating)		1.0							
COPd		7.98								

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications					ETSH12P30E + EPRA08EW1	ETSH12P50E + EPRA08EW1	ETSH12P30E + EPRA10EW1	ETSH12P50E + EPRA10EW1	ETSH12P30E + EPRA12EW1	ETSH12P50E + EPRA12EW1
Space heating	Cold climate water outlet 35°C	D Condition (12°CDB/11°CWB)	Pdh	kW	6.6					
			PERd	%	319.2					
		Tol (temperature operating limit)	COPd		2.11		2.14		2.16	
			Pdh	kW	4.9		5.9		6.5	
			PERd	%	84.4		85.6		86.4	
			TOL	°C	-22					
			WTOL	°C	35					
			G Con- COPd		2.68		2.64			
		(-15°CDB/-)	Pdh	kW	6.0		7.0			
			PERd	%	107.2		105.6			
	Warm climate water outlet 35°C	Tbiv (bivalent temperature)	COPd		2.95		2.64			
			Pdh	kW	6.5		7.0			
			PERd	%	118.0		105.6			
			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	1,954					
			ηs (Seasonal space heating efficiency)	%	232					
			Prated at 2°C	kW	9					
			Qhe Annual energy consumption (GCV)	Gj	7					
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.07					
			Pdh	kW	7.7					
		C Condition (7°CDB/6°CWB)	PERd	%	162.8					
			Cdh (Degradation heating)		1.0					
			COPd		5.85					
		Tbiv (bivalent temperature)	Pdh	kW	5.5					
			PERd	%	234.0					
			COPd		4.97					
		D Condition (12°CDB/11°CWB)	Pdh	kW	6.9					
			PERd	%	198.8					
			Tbiv	°C	5					
			Cdh (Degradation heating)		1.0					
			COPd		7.85					
			Pdh	kW	6.2					
			PERd	%	314.0					

(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)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) |

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

Technical specifications					ETSHB12P30E + EPRA08EW1	ETSHB12P50E + EPRA08EW1	ETSHB12P30E + EPRA10EW1	ETSHB12P50E + EPRA10EW1	ETSHB12P30E + EPRA12EW1	ETSHB12P50E + EPRA12EW1
Indoor unit					ETSHB12P30EF	ETSHB12P50EF	ETSHB12P30EF	ETSHB12P50EF	ETSHB12P30EF	ETSHB12P50EF
Outdoor unit					EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
Heating capacity	Nom.		kW		6.17 (1)					
Power input	Heating	Nom.		kW	1.21 (1)					
COP					5.10 (1)					
Pump	Type				Grundfos UPM3L K 20-75 CHBL AZA 3 RT					
	Nominal ESP unit	Heating	kPa		53.5 (2)					
Water side Heat exchanger	Water flow rate	Heating	Nom.	l/min	17.7 (1)					

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications			ETSHB12P30E + EPRA08EW1	ETSHB12P50E + EPRA08EW1	ETSHB12P30E + EPRA10EW1	ETSHB12P50E + EPRA10EW1	ETSHB12P30E + EPRA12EW1	ETSHB12P50E + EPRA12EW1
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	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	Inverter					
	Other	Capacity control						
		Pck (Crankcase heater mode) kW	0.000					
		Poff (Off mode) kW	0.027					
		Psb (Standby mode) kW	0.027					
Domestic hot water heating 	General	Pto (Thermostat off) kW	0.024					
		Declared load profile	L					
	Average climate	Function to fix water heating during off peak hours	No					
		AEC (Annual electricity consumption) kWh	858	1,281	858	1,281	858	1,281
		COPdhw	2.83	3.17	2.83	3.17	2.83	3.17
		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) %	119	131	119	131	119	131
		Qelec (Daily electricity consumption) kWh	4.116	6.008	4.116	6.008	4.116	6.008
		Reference hot water temperature °C	47.2	44.5	47.2	44.5	47.2	44.5
		Stand-by power input W	37.4	32.1	37.4	32.1	37.4	32.1
		Water heating energy efficiency class	A+					
Domestic hot water heating 	Cold climate	AEC (Annual electricity consumption) kWh	1,152	1,485	1,152	1,485	1,152	1,485
		COPdhw	2.12	2.74	2.12	2.74	2.12	2.74
		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) %	89	113	89	113	89	113
		Qelec (Daily electricity consumption) kWh	5.498	6.961	5.498	6.961	5.498	6.961
		Reference hot water temperature °C	46.3	44.5	46.3	44.5	46.3	44.5
		Stand-by power input W	45.5	35.9	45.5	35.9	45.5	35.9
	Warm climate	AEC (Annual electricity consumption) kWh	759	1,109	759	1,109	759	1,109
		COPdhw	3.19	3.65	3.19	3.65	3.19	3.65
		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) %	135	151	135	151	135	151
		Qelec (Daily electricity consumption) kWh	3.652	5.219	3.652	5.219	3.652	5.219
		Reference hot water temperature °C	47.2	44.5	47.2	44.5	47.2	44.5
		Stand-by power input W	35.2	30.7	35.2	30.7	35.2	30.7

2 Specifications

1 - 1 EPRA08-12EW

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Technical specifications					ETSHB12P30E + EPRA08EW1	ETSHB12P50E + EPRA08EW1	ETSHB12P30E + EPRA10EW1	ETSHB12P50E + EPRA10EW1	ETSHB12P30E + EPRA12EW1	ETSHB12P50E + EPRA12EW1
Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,993		4,970			
			ηs (Seasonal space heating efficiency)	%	138					
			Prated at -10°C	kW	9					
			Qhe Annual energy consumption (GCV)	Gj	18					
			SCOP		3.52	3.53				
			Seasonal space heating eff. class		A++					
			A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0				
		COPd			2.30					
		Pdh		kW	7.6					
		PERd		%	92.0					
		B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		3.50					
			Pdh	kW	4.6					
			PERd	%	140.0					
		C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.61					
			Pdh	kW	3.0					
			PERd	%	184.4					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		6.16					
Pdh	kW		3.7							

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1 - 1 EPRA08-12EW

Technical specifications					ETSHB12P30E + EPRA08EW1	ETSHB12P50E + EPRA08EW1	ETSHB12P30E + EPRA10EW1	ETSHB12P50E + EPRA10EW1	ETSHB12P30E + EPRA12EW1	ETSHB12P50E + EPRA12EW1
Space heating 	Average climate water outlet 55°C	D Condition (12°CDB/11°CWB)	PERd	%	246.4					
		Tol (tem- perature operat- ing limit)	COPd		2.01			2.05		
			Pdh	kW	7.0			8.3		
			PERd	%	80.4			82.0		
			TOL	°C				-10		
			WTOL	°C				55		
		Rated heat output supple- mentary capacity	Psup (at Tdesign -10°C)	kW	1.5			0.0		
		Tbiv	COPd		2.30			2.05		
		(bivalent tempera- ture)	Pdh	kW	7.6			8.3		
			PERd	%	92.0			82.0		
Cold climate water outlet 55°C		General	Tbiv	°C	-7			-10		
			Annual energy consumption	kWh	7,088		6,950		6,921	
			ηs (Seasonal space heating efficiency)	%	122			125		
			Prated at -22°C	kW			9			
			Qhe Annual ener- gy consumption (GCV)	Gj	26			25		
			A Condition (7°CDB/-8°CWB)	Cdh (Degradation heating)			1.0			
				COPd			2.61			
				Pdh	kW		5.3			
				PERd	%		104.4			
			B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)			1.0			
				COPd			3.90			
				Pdh	kW		3.3			
				PERd	%		156.0			
			C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)			1.0			
				COPd			4.96			
				Pdh	kW		3.5			
				PERd	%		198.4			
			D Condition (12°CDB/11°CWB)	COPd			6.56			
				Pdh	kW		4.2			
				PERd	%		262.4			
		Tol (tem- perature operat- ing limit)	COPd		1.49		1.56		1.62	
			Pdh	kW	4.9		6.1		7.2	
			PERd	%	59.6		62.4		64.8	
			TOL	°C			-22			
		G Condition (-15°CDB/-)		WTOL	°C		55			
			COPd		2.00		2.03			
			Pdh	kW	6.1		7.2			

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications					ETSHB12P30E + EPRA08EW1	ETSHB12P50E + EPRA08EW1	ETSHB12P30E + EPRA10EW1	ETSHB12P50E + EPRA10EW1	ETSHB12P30E + EPRA12EW1	ETSHB12P50E + EPRA12EW1		
Space heating 	Cold climate water outlet 55°C	G Con- dition (-15°CDB/-)	PERd	%	80.0		81.2					
		Tbiv	COPd		2.25		2.03					
		(bivalent	Pdh	kW	6.6		7.2					
		tempera- ture)	PERd	%	90.0		81.2					
			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	2,972							
			ηs (Seasonal space heating efficiency)	%	170							
			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		2.66							
			Pdh		8.0							
		C Con- dition (7°CDB- B/6°CWB)	PERd		106.4							
			Cdh (Degradation heating)		1.0							
			COPd		3.79							
		D Condition (12°CDB/11°CWB)	Pdh		6.7							
			PERd		151.6							
			Cdh (Degradation heating)		1.0							
		Tbiv (bivalent tempera- ture)	COPd		5.87							
			Pdh		3.6							
			PERd		234.8							
			COPd		3.13							
		Average climate water outlet 35°C	General	Pdh		8.4						
				PERd		125.2						
				Tbiv		4						
Annual energy consumption				kWh	3,561		3,539					
ηs (Seasonal space heating efficiency)				%	190		191					
Prated at -10°C				kW	8							
A Condition (-7°CDB/-8°CWB)	Qhe Annual ener- gy consumption (GCV)		Gj	13								
	SCOP			4.81		4.84						
	Seasonal space heating eff. class		A+++									
	COPd		3.20									
	Pdh		7.5									
	PERd		128.0									
B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0									
	COPd		4.93									

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications					ETSHB12P30E + EPRA08EW1	ETSHB12P50E + EPRA08EW1	ETSHB12P30E + EPRA10EW1	ETSHB12P50E + EPRA10EW1	ETSHB12P30E + EPRA12EW1	ETSHB12P50E + EPRA12EW1		
Space heating	Average climate water outlet 35°C	B Con- dition (2°CDB- B/1°CWB)	Pdh	kW	4.4							
			PERd	%	197.2							
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)				1.0					
			COPd				6.37					
			Pdh	kW	4.3							
			PERd	%	254.8							
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0					
			COPd				8.13					
			Pdh	kW	6.6							
			PERd	%	325.2							
		Tol (tem- perature operat- ing limit)	COPd		2.90		2.86					
			Pdh		kW		6.9		8.1			
			PERd		%		116.0		114.4			
			TOL		°C		-10					
		WTOL		°C		35						
		Tbiv (bivalent tempera- ture)	COPd		3.20		2.86					
			Pdh		kW		7.5		8.1			
			PERd		%		128.0		114.4			
			Tbiv		°C		-7		-10			
		Rated heat output supple- mentary capacity	Psup (at Tdesign -10°C)		kW		1.4		0.0			
Cold climate water outlet 35°C	Cold climate water outlet 35°C	General	Annual energy consumption	kWh	5,394		5,239		5,224			
			ηs (Seasonal space heating efficiency)	%	162		166		167			
		Prated at -22°C		kW		9						
		Qhe Annual energy consumption (GCV)		Gj		19						
		A Condition (-7°CDB/-8°CWB)	COPd		3.48							
			Pdh		kW		5.4					
			PERd		%		139.2					
		B Con- dition (2°CDB- B/1°CWB)	Cdh (Degradation heating)				1.0					
			COPd				5.40					
			Pdh		kW		3.6					
			PERd		%		216.0					
		C Con- dition (7°CDB- B/6°CWB)	Cdh (Degradation heating)				1.0					
			COPd				6.53					
			Pdh		kW		5.3					
			PERd		%		261.2					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0					
			COPd				7.98					

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications					ETSHB12P30E + EPRA08EW1	ETSHB12P50E + EPRA08EW1	ETSHB12P30E + EPRA10EW1	ETSHB12P50E + EPRA10EW1	ETSHB12P30E + EPRA12EW1	ETSHB12P50E + EPRA12EW1
Space heating	Cold climate water outlet 35°C	D Condition (12°CDB/11°CWB)	Pdh	kW	6.6					
			PERd	%	319.2					
		Tol (temperature operating limit)	COPd		2.11		2.14		2.16	
			Pdh	kW	4.9		5.9		6.5	
			PERd	%	84.4		85.6		86.4	
			TOL	°C	-22					
			WTOL	°C	35					
			G Con- dition	COPd	2.68		2.64			
		(-15°CDB/-)	Pdh	kW	6.0		7.0			
			PERd	%	107.2		105.6			
	Warm climate water outlet 35°C	Tbiv (bivalent temperature)	COPd		2.95		2.64			
			Pdh	kW	6.5		7.0			
			PERd	%	118.0		105.6			
			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	1,954					
			ηs (Seasonal space heating efficiency)	%	232					
			Prated at 2°C	kW	9					
			Qhe Annual energy consumption (GCV)	Gj	7					
		B Con- dition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.07					
			Pdh	kW	7.7					
		C Con- dition (7°CDB/6°CWB)	PERd	%	162.8					
			Cdh (Degradation heating)		1.0					
			COPd		5.85					
		Tbiv (bivalent temperature)	Pdh	kW	5.5					
			PERd	%	234.0					
			Tbiv	°C	4.97					
		D Condition (12°CDB/11°CWB)	Pdh	kW	6.9					
			PERd	%	198.8					
			Tbiv	°C	5					
			Cdh (Degradation heating)		1.0					
			COPd		7.85					
			Pdh	kW	6.2					
			PERd	%	314.0					

(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)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) |

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

Technical specifications					ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E
					+	+	+	+	+	+
					EPRA08EW1	EPRA08EW1	EPRA10EW1	EPRA10EW1	EPRA12EW1	EPRA12EW1
Indoor unit					ETSX12P30EF	ETSX12P50EF	ETSX12P30EF	ETSX12P50EF	ETSX12P30EF	ETSX12P50EF
Outdoor unit					EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
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				1.21 (1)			
	Cooling	Nom.	kW		2.08 (2)		2.57 (2)		2.86 (2)	
COP							5.10 (1)			
EER					3.28 (2)		3.10 (2)		3.01 (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	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 + EPRA08EW1	ETSX12P50E + EPRA08EW1	ETSX12P30E + EPRA10EW1	ETSX12P50E + EPRA10EW1	ETSX12P30E + EPRA12EW1	ETSX12P50E + EPRA12EW1
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	0.027					
		Psb (Standby mode) kW	0.027					
		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	858	1,281	858	1,281	858	1,281
		COPdhw	2.83	3.17	2.83	3.17	2.83	3.17
		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 effi- ciency) %	119	131	119	131	119	131
Domestic hot water heating	Average climate	Qelec (Daily electricity consumption) kWh	4.116	6.008	4.116	6.008	4.116	6.008
		Reference hot water tem- perature °C	47.2	44.5	47.2	44.5	47.2	44.5
		Stand-by power input W	37.4	32.1	37.4	32.1	37.4	32.1
		Water heating energy efficiency class	A+					
	Cold climate	AEC (Annual electricity consumption) kWh	1,152	1,485	1,152	1,485	1,152	1,485
		COPdhw	2.12	2.74	2.12	2.74	2.12	2.74
		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 effi- ciency) %	89	113	89	113	89	113
		Qelec (Daily electricity consumption) kWh	5.498	6.961	5.498	6.961	5.498	6.961
		Reference hot water tem- perature °C	46.3	44.5	46.3	44.5	46.3	44.5
		Stand-by power input W	45.5	35.9	45.5	35.9	45.5	35.9
	Warm climate	AEC (Annual electricity consumption) kWh	759	1,109	759	1,109	759	1,109
		COPdhw	3.19	3.65	3.19	3.65	3.19	3.65
		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 effi- ciency) %	135	151	135	151	135	151
		Qelec (Daily electricity consumption) kWh	3.652	5.219	3.652	5.219	3.652	5.219
		Reference hot water tem- perature °C	47.2	44.5	47.2	44.5	47.2	44.5
		Stand-by power input W	35.2	30.7	35.2	30.7	35.2	30.7

2 Specifications

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Technical specifications					ET SX12P30E +	ET SX12P50E +	ET SX12P30E +	ET SX12P50E +	ET SX12P30E +	ET SX12P50E +
					EPRA08EW1	EPRA08EW1	EPRA10EW1	EPRA10EW1	EPRA12EW1	EPRA12EW1
Space heating	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,894		4,871			
			η _s (Seasonal space heating efficiency)	%	141					
			Prated at -10°C	kW	9					
			Q _{he} Annual energy consumption (GCV)	Gj	18					
			SCOP		3.59		3.60			
			Seasonal space heating eff. class		A++					
			A Condition (7°CDB/-8°CWB)	Cdh (Degradation heating)	1.0					
				COPd	2.30					
				Pdh	7.6					
				PERd	92.0					
			B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating)	1.0					
				COPd	3.50					
				Pdh	4.6					
				PERd	140.0					
			C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)	1.0					
				COPd	4.61					
				Pdh	3.0					

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Technical specifications					ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E		
					+	+	+	+	+	+		
					EPRA08EW1	EPRA08EW1	EPRA10EW1	EPRA10EW1	EPRA12EW1	EPRA12EW1		
Space heating 	Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	PERd	%	184.4							
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0							
			COPd		6.16							
			Pdh		3.7							
			PERd		246.4							
		Tol (temperature operating limit)	COPd		2.01		2.05					
			Pdh		7.0		8.3					
			PERd		80.4		82.0					
			TOL		-10							
		WTOL		55								
	Rated heat output supplementary capacity	Psup (at Tdesign -10°C)		1.5		0.0						
		Tbiv		COPd		2.30		2.05				
		Pdh		7.6		8.3						
		PERd		92.0		82.0						
	Cold climate water outlet 55°C	General	Tbiv		°C		-7		-10			
			General		Annual energy consumption		7,028		6,890		6,861	
			ηs (Seasonal space heating efficiency)		%		123		126			
Prated at -22°C			kW		9							
Qhe Annual energy consumption (GCV)		Gj		25								
A Condition (-7°CDB/-8°CWB)		Cdh (Degradation heating)		1.0								
		COPd		2.61								
		Pdh		5.3								
		PERd		104.4								
B Condition (2°CDB/1°CWB)		Cdh (Degradation heating)		1.0								
		COPd		3.90								
		Pdh		3.3								
C Condition (7°CDB/6°CWB)		PERd		156.0								
		Cdh (Degradation heating)		1.0								
		COPd		4.96								
D Condition (12°CDB/11°CWB)		Pdh		3.5								
		PERd		198.4								
	COPd		6.56									
Tol (temperature operating limit)	Pdh		4.2									
	PERd		262.4									
	COPd		1.49		1.56		1.62					
	Pdh		4.9		6.1		7.2					
	PERd		59.6		62.4		64.8					

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Technical specifications					ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P50E
					+	+	+	+	+
					EPRA08EW1	EPRA08EW1	EPRA10EW1	EPRA10EW1	EPRA12EW1
Space heating 	Cold climate water outlet 55°C	Tol (temperature operating limit)	TOL	°C	-22				
			WTOL	°C	55				
G Condition (-15°CDB/-)		COPd		2.00		2.03			
		Pdh	kW	6.1		7.2			
		PERd	%	80.0		81.2			
Tbiv (bivalent temperature)		COPd		2.25		2.03			
		Pdh	kW	6.6		7.2			
		PERd	%	90.0		81.2			
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	2,853					
		ηs (Seasonal space heating efficiency)	%	177					
		Prated at 2°C	kW	10					
		Qhe Annual energy consumption (GCV)	Gj	10					
		B Condition (2°CDB/-)	Cdh (Degradation heating)		1.0				
	C Condition (7°CDB/-)	COPd		2.66					
		Pdh	kW	8.0					
		PERd	%	106.4					
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
		COPd		3.79					
		Pdh	kW	6.7					
	Tbiv (bivalent temperature)	PERd	%	151.6					
		Cdh (Degradation heating)		1.0					
		COPd		5.87					
	Average climate water outlet 35°C	Pdh	kW	3.6					
		PERd	%	234.8					
		Tbiv	°C	4					
	General	Annual energy consumption	kWh	3,462		3,440			
		ηs (Seasonal space heating efficiency)	%	195		196			
		Prated at -10°C	kW	8					
		Qhe Annual energy consumption (GCV)	Gj	12					
		SCOP		4.95		4.98			
		Seasonal space heating eff. class		A+++					
		A Condition (-7°CDB/-8°CWB)	COPd		3.20				

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Technical specifications					ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	
					+	+	+	+	+	+	
					EPRA08EW1	EPRA08EW1	EPRA10EW1	EPRA10EW1	EPRA12EW1	EPRA12EW1	
Space heating  Average climate water outlet 35°C	A Condition (-7°CDB/-8°CWB)	Pdh	kW	7.5							
		PERd	%	128.0							
		B Con- dition (2°CDB-B/1°CWB)	Cd h (Degradation heating)			1.0					
			COPd		4.93						
		Pdh	kW	4.4							
			PERd	%	197.2						
		C Con- dition (7°CDB-B/6°CWB)	Cd h (Degradation heating)			1.0					
			COPd		6.37						
		Pdh	kW	4.3							
			PERd	%	254.8						
	D Condition (12°CDB/11°CWB)	Cd h (Degradation heating)			1.0						
		COPd		8.13							
		Pdh	kW	6.6							
		PERd	%	325.2							
	Tol (tem- perature operat- ing limit)	COPd		2.90		2.86					
		Pdh	kW	6.9		8.1					
		PERd	%	116.0		114.4					
		TOL	°C	-10							
	WTOL	°C	35								
		Tbiv	COPd	3.20		2.86					
	(bivalent tempera- ture)	Pdh	kW	7.5		8.1					
		PERd	%	128.0		114.4					
		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	5,334		5,180		5,165		
ηs (Seasonal space heating efficiency)			%	161		168		169			
Prated at -22°C			kW	9							
Qhe Annual energy consumption (GCV)			Gj	19							
A Condition (-7°CDB/-8°CWB)		COPd		3.48							
		Pdh	kW	5.4							
		PERd	%	139.2							
B Con- dition (2°CDB-B/1°CWB)		Cd h (Degradation heating)			1.0						
		COPd		5.40							
		Pdh	kW	3.6							
		PERd	%	216.0							
C Condition (7°CDB/6°CWB)		Cd h (Degradation heating)			1.0						
		COPd		6.53							

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Technical specifications					ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E	ETSX12P30E	ETSX12P50E		
					+	+	+	+	+	+		
					EPRA08EW1	EPRA08EW1	EPRA10EW1	EPRA10EW1	EPRA12EW1	EPRA12EW1		
Space heating 	Cold climate water outlet 35°C	C Condition (7°CDB/6°CWB)	Pdh	kW	5.3							
			PERd	%	261.2							
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0					
			COPd				7.98					
			Pdh	kW	6.6							
			PERd	%	319.2							
		Tol (temperature operating limit)	COPd				2.11		2.14		2.16	
			Pdh	kW	4.9		5.9		6.5			
			PERd	%	84.4		85.6		86.4			
			TOL				-22					
		WTOL				35						
		G Condition (-15°CDB/-)	COPd				2.68		2.64			
			Pdh	kW	6.0		7.0					
			PERd	%	107.2		105.6					
			Tbiv (bivalent temperature)	COPd				2.95				
		Pdh		kW	6.5		2.64					
			PERd	%	118.0		7.0					
			Tbiv	°C	-12		105.6					
		Rated heat output supplementary capacity	Psup (at Tdesign -22°C)				4.1		3.1		-15	
											2.6	
	Warm climate water outlet 35°C	General	Annual energy consumption			1,835						
			ηs (Seasonal space heating efficiency)			247						
			Prated at 2°C			9						
			Qhe Annual energy consumption (GCV)			7						
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)				1.0					
			COPd				4.07					
			Pdh	kW	7.7							
			PERd	%	162.8							
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)				1.0					
			COPd				5.85					
			Pdh	kW	5.5							
			PERd	%	234.0							
Tbiv (bivalent temperature)	COPd				4.97							
	Pdh	kW	6.9									
	PERd	%	198.8									
	Tbiv	°C	5									
D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)				1.0							
	COPd				7.85							
Space heating 	Warm climate water	D Condition (12°CDB/11°CWB)	Pdh	kW	6.2							
			PERd	%	314.0							

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

Technical specifications				ETSB12P30E + EPRA08EW1	ETSB12P50E + EPRA08EW1	ETSB12P30E + EPRA10EW1	ETSB12P50E + EPRA10EW1	ETSB12P30E + EPRA12EW1	ETSB12P50E + EPRA12EW1
Indoor unit				ETSB12P30EF	ETSB12P50EF	ETSB12P30EF	ETSB12P50EF	ETSB12P30EF	ETSB12P50EF
Outdoor unit				EPRA08EAW1		EPRA10EAW1		EPRA12EAW1	
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			1.21 (1)			
	Cooling	Nom.	kW	2.08 (2)		2.57 (2)		2.86 (2)	
COP						5.10 (1)			
EER				3.28 (2)		3.10 (2)		3.01 (2)	
Pump	Type			Grundfos UPM3L K 20-75 CHBL AZA 3 RT					
	Nominal	Heating	kPa						
	ESP unit			53.5 (3)					

2 Specifications

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Technical specifications					ETSB12P30E + EPRA08EW1	ETSB12P50E + EPRA08EW1	ETSB12P30E + EPRA10EW1	ETSB12P50E + EPRA10EW1	ETSB12P30E + EPRA12EW1	ETSB12P50E + EPRA12EW1
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	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			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)		m³/h	3,542					
	Other	Capacity control			Inverter					
		Pck (Crankcase heater mode) kW			0.000					
		Poff (Off mode) kW			0.027					
		Psb (Standby mode) kW			0.027					
		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	858	1,281	858	1,281	858	1,281	
		COPdhw		2.83	3.17	2.83	3.17	2.83	3.17	
		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)	%	119	131	119	131	119	131	
		Domestic hot water heating	Average climate	Qelec (Daily electricity consumption)	kWh	4.116	6.008	4.116	6.008	4.116
Reference hot water temperature	°C			47.2	44.5	47.2	44.5	47.2	44.5	
Stand-by power input	W			37.4	32.1	37.4	32.1	37.4	32.1	
Water heating energy efficiency class				A+						
Cold climate	AEC (Annual electricity consumption)		kWh	1,152	1,485	1,152	1,485	1,152	1,485	
	COPdhw		2.12	2.74	2.12	2.74	2.12	2.74		
	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)		%	89	113	89	113	89	113	
	Qelec (Daily electricity consumption)		kWh	5.498	6.961	5.498	6.961	5.498	6.961	
	Reference hot water temperature		°C	46.3	44.5	46.3	44.5	46.3	44.5	
	Stand-by power input		W	45.5	35.9	45.5	35.9	45.5	35.9	
Warm climate	AEC (Annual electricity consumption)		kWh	759	1,109	759	1,109	759	1,109	
	COPdhw		3.19	3.65	3.19	3.65	3.19	3.65		
	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)		%	135	151	135	151	135	151	
	Qelec (Daily electricity consumption)		kWh	3.652	5.219	3.652	5.219	3.652	5.219	
	Reference hot water temperature	°C	47.2	44.5	47.2	44.5	47.2	44.5		
	Stand-by power input	W	35.2	30.7	35.2	30.7	35.2	30.7		

2 Specifications

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Technical specifications					ETSB12P30E + EPRA08EW1	ETSB12P50E + EPRA08EW1	ETSB12P30E + EPRA10EW1	ETSB12P50E + EPRA10EW1	ETSB12P30E + EPRA12EW1	ETSB12P50E + EPRA12EW1
Space heating 	Average climate water outlet 55°C	General	Annual energy consumption	kWh	4,894		4,871			
			ηs (Seasonal space heating efficiency)	%	141					
			Prated at -10°C	kW	9					
			Qhe Annual energy consumption (GCV)	Gj	18					
			SCOP		3.59		3.60			
			Seasonal space heating eff. class		A++					
		A Condition (-7°CDB/-8°CWB)	Cd _h (Degradation heating)		1.0					
			COP _d		2.30					
			Pd _h	kW	7.6					
			PER _d	%	92.0					
		B Con- dition (2°CDB/- B/1°CWB)	Cd _h (Degradation heating)		1.0					
			COP _d		3.50					
			Pd _h	kW	4.6					
		C Condition (7°CDB/6°CWB)	PER _d		140.0					
			Cd _h (Degradation heating)		1.0					
			COP _d		4.61					
			Pd _h	kW	3.0					

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETSB12P30E + EPRA08EW1	ETSB12P50E + EPRA08EW1	ETSB12P30E + EPRA10EW1	ETSB12P50E + EPRA10EW1	ETSB12P30E + EPRA12EW1	ETSB12P50E + EPRA12EW1
 Space heating Average climate water outlet 55°C	C Condition (7°CDB/6°CWB)	PERd	%	184.4					
	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
		COPd		6.16					
		Pdh	kW	3.7					
		PERd	%	246.4					
	Tol (temperature operating limit)	COPd		2.01		2.05			
		Pdh	kW	7.0		8.3			
		PERd	%	80.4		82.0			
		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		2.30		2.05			
		Pdh	kW	7.6		8.3			
		PERd	%	92.0		82.0			
		Tbiv	°C	-7		-10			
Cold climate water outlet 55°C	General	Annual energy consumption	kWh	7,028		6,890		6,861	
		ηs (Seasonal space heating efficiency)	%	123		126			
		Prated at -22°C	kW	9					
		Qhe Annual energy consumption (GCV)	Gj	25					
	A Condition (-7°CDB/-8°CWB)	Cdh (Degradation heating)		1.0					
		COPd		2.61					
		Pdh	kW	5.3					
		PERd	%	104.4					
	B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
		COPd		3.90					
		Pdh	kW	3.3					
	C Condition (7°CDB/6°CWB)	PERd	%	156.0					
		Cdh (Degradation heating)		1.0					
		COPd		4.96					
	D Condition (12°CDB/11°CWB)	Pdh	kW	3.5					
		PERd	%	198.4					
		COPd		6.56					
	Tol (temperature operating limit)	Pdh	kW	4.2					
		PERd	%	262.4					
		COPd		1.49		1.56		1.62	
		Pdh	kW	4.9		6.1		7.2	
		PERd	%	59.6		62.4		64.8	

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications				ETSB12P30E + EPRA08EW1	ETSB12P50E + EPRA08EW1	ETSB12P30E + EPRA10EW1	ETSB12P50E + EPRA10EW1	ETSB12P30E + EPRA12EW1	ETSB12P50E + EPRA12EW1
Space heating	Cold climate water outlet 55°C	Tol (tem-	TOL	°C					
		perature	WTOL	°C					
		operat-							
		ing limit)							
		G Con-	COPd		2.00		2.03		
		dition	Pdh	kW	6.1		7.2		
		(-15°CDB/-	PERd	%	80.0		81.2		
		)							
		Tbiv	COPd		2.25		2.03		
		(bivalent	Pdh	kW	6.6		7.2		
		tempera-	PERd	%	90.0		81.2		
		ture)	Tbiv	°C	-12		-15		
		Rated heat	Psup (at Tdesign	kW	4.1	3.0		1.8	
		output	-22°C)						
		supple-							
		mentary							
		capacity							
Warm climate water outlet 55°C	General	Annual energy	consumption	kWh	2,853				
		ηs (Seasonal	space heating	%	177				
		efficiency)							
		Prated at 2°C		kW	10				
		Qhe Annual ener-	gy consumption	Gj	10				
		(GCV)							
		B Con-	Cdh (Degradation heating)		1.0				
		dition	COPd		2.66				
		(2°CDB-	Pdh	kW	8.0				
		B/1°CWB)	PERd	%	106.4				
		C Con-	Cdh (Degradation heating)		1.0				
		dition	COPd		3.79				
		(7°CDB-	Pdh	kW	6.7				
		B/6°CWB)	PERd	%	151.6				
		D Condition	Cdh (Degradation heating)		1.0				
		(12°CDB/11°CWB)	COPd		5.87				
			Pdh	kW	3.6				
			PERd	%	234.8				
		Tbiv	COPd		3.13				
		(bivalent	Pdh	kW	8.4				
		tempera-	PERd	%	125.2				
		ture)	Tbiv	°C	4				
Average climate water outlet 35°C	General	Annual energy	consumption	kWh	3,462		3,440		
		ηs (Seasonal	space heating	%	195		196		
		efficiency)							
		Prated at -10°C		kW	8				
		Qhe Annual ener-	gy consumption	Gj	12				
		(GCV)							
		SCOP			4.95		4.98		
		Seasonal space heating	eff. class		A+++				
	A Condition	COPd			3.20				
		(-7°CDB/-8°CWB)							

2 Specifications

1 - 1 EPRA08-12EW

Technical specifications				ETSB12P30E + EPRA08EW1	ETSB12P50E + EPRA08EW1	ETSB12P30E + EPRA10EW1	ETSB12P50E + EPRA10EW1	ETSB12P30E + EPRA12EW1	ETSB12P50E + EPRA12EW1
	Space heating	Average climate water outlet 35°C	A Condition (-7°CDB/-8°CWB)	Pdh kW					7.5
			PERd %						128.0
			B Condition (2°CDB/-1°CWB)	Cdh (Degradation heating) COPd					1.0
				Pdh kW					4.93
				PERd %					4.4
									197.2
			C Condition (7°CDB/-6°CWB)	Cdh (Degradation heating) COPd					1.0
				Pdh kW					6.37
				PERd %					4.3
									254.8
			D Condition (12°CDB/11°CWB)	Cdh (Degradation heating) COPd					1.0
				Pdh kW					8.13
				PERd %					6.6
									325.2
			Tol (temperature operating limit)	COPd	2.90			2.86	
				Pdh kW	6.9			8.1	
				PERd %	116.0			114.4	
				TOL °C				-10	
				WTOL °C				35	
			Tbiv (bivalent temperature)	COPd	3.20			2.86	
				Pdh kW	7.5			8.1	
				PERd %	128.0			114.4	
				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	5,334		5,180		5,165
			ηs (Seasonal space heating efficiency)	%	161		168		169
			Prated at -22°C	kW					9
			Qhe Annual energy consumption (GCV)	Gj					19
			A Condition (-7°CDB/-8°CWB)	COPd					3.48
		B Condition (2°CDB/-1°CWB)		Pdh kW					5.4
				PERd %					139.2
			Cdh (Degradation heating) COPd						1.0
				Pdh kW					5.40
				PERd %					3.6
		C Condition (7°CDB/6°CWB)							216.0
			Cdh (Degradation heating) COPd						1.0
									6.53

2 Specifications

1 - 1 EPRA08-12EW

2

Technical specifications					ETSB12P30E + EPRA08EW1	ETSB12P50E + EPRA08EW1	ETSB12P30E + EPRA10EW1	ETSB12P50E + EPRA10EW1	ETSB12P30E + EPRA12EW1	ETSB12P50E + EPRA12EW1
Space heating	Cold climate water outlet 35°C	C Condition (7°CDB/6°CWB)	Pdh	kW	5.3					
			PERd	%	261.2					
		D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		7.98					
			Pdh	kW	6.6					
			PERd	%	319.2					
		Tol (temperature operating limit)	COPd		2.11		2.14		2.16	
			Pdh	kW	4.9		5.9		6.5	
			PERd	%	84.4		85.6		86.4	
			TOL	°C	-22					
	Warm climate water outlet 35°C	G Condition (-15°CDB/-)	COPd		2.68			2.64		
			Pdh	kW	6.0			7.0		
			PERd	%	107.2			105.6		
			Tbiv	°C	2.95			2.64		
		(bivalent temperature)	Pdh	kW	6.5			7.0		
			PERd	%	118.0			105.6		
			Tbiv	°C	-12			-15		
			Rated heat output supplementary capacity	kW	4.1		3.1		2.6	
		General	Annual energy consumption	kWh	1,835					
			ηs (Seasonal space heating efficiency)	%	247					
			Prated at 2°C	kW	9					
			Qhe Annual energy consumption (GCV)	Gj	7					
		B Condition (2°CDB/1°CWB)	Cdh (Degradation heating)		1.0					
			COPd		4.07					
			Pdh	kW	7.7					
			PERd	%	162.8					
		C Condition (7°CDB/6°CWB)	Cdh (Degradation heating)		1.0					
			COPd		5.85					
			Pdh	kW	5.5					
			PERd	%	234.0					
		Tbiv (bivalent temperature)	COPd		4.97					
			Pdh	kW	6.9					
			PERd	%	198.8					
			Tbiv	°C	5					
Space heating	Warm climate water	D Condition (12°CDB/11°CWB)	Cdh (Degradation heating)		1.0					
			COPd		7.85					
			Pdh	kW	6.2					
			PERd	%	314.0					

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

Technical Specifications				EPRA08EW1	EPRA10EW1	EPRA12EW1
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 EPRA08-12EW

Technical Specifications					EPRA08EW1	EPRA10EW1	EPRA12EW1
Heat exchanger	Length		mm		1,200		
	Rows	Quantity		2			
	Fin pitch		mm		2.00		
	Passes	Quantity		10			
	Face area		m²		1.19		
	Stages	Quantity		44			
	Tube type		ø7 Hi-XSL				
	Fin	Type		WF fin			
					Anti-corrosion treatment (PE)		
Fan	Type				Propeller fan		
	Quantity				1		
	Air flow rate	Heating	Nom.	m³/min	59.0		
			High	m³/min	80.1		
		Cooling	Nom.	m³/min	80		
			High	m³/min	80.1		
	Discharge direction				Horizontal		
Fan motor	Quantity				1		
	Model				Brushless DC motor		
	Output				234		
	Drive				Direct drive		
	Speed	Steps		6			
		Heating	Nom.	rpm	390		
		Cooling	Nom.	rpm	520		
Compressor	Quantity				1		
Compressor	Model				2Y260BPDY1P#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		
		Ps*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.		dBA	55.6 (1)		
	Cooling	Nom.		dBA	61.2 (2)	61.4 (2)	60.9 (2)
Sound pressure level	Heating	Nom.		dBA	41.1 (3)		
	Cooling	Nom.		dBA	47.1 (4)		47.2 (4)
	Night quiet mode	Heating	dBA		43.2 (3)		
		Cooling	dBA		44.0 (4)		
Refrigerant	Type				R-32		
	GWP				675.0		
	Charge				TCO2Eq		
	Charge				kg		
	Control				3.25		
	Circuits				Expansion valve		
Refrigerant oil	Quantity		1				
	Type				FW68DE		
Charged volume				l			
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 EPRA08-12EW

2

Electrical Specifications				EPRA08EW1	EPRA10EW1	EPRA12EW1
Power supply	Name			W1		
	Phase			3~		
	Frequency			50		
	Voltage			400		
	Voltage range	Min.		-10		
		cos phi	Nom.	0.72		
			Max.	0.93		
Current	Max.			10		
	Minimum Ssc value			Equipment complying with EN / IEC 61000-3-12		
	Recommended fuses			16		
	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
- 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

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

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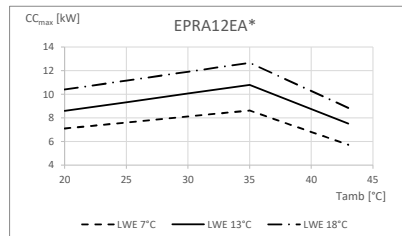
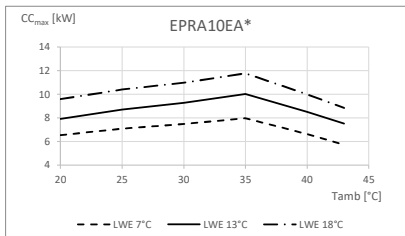
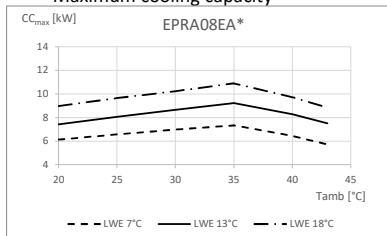
4 Capacity graphs

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]

T_{amb} Ambient temperature [°C DB]

Conditions

Cooling capacity

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

Notes

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

The capacity and the power input are at maximum operation.

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4 Capacity graphs

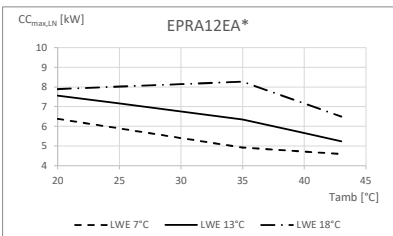
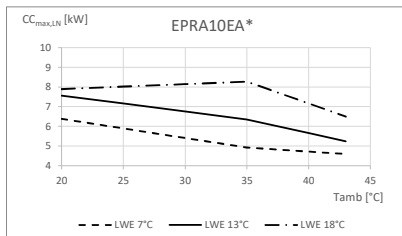
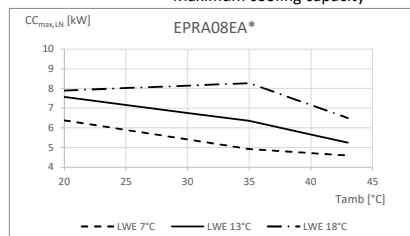
4 - 2 Cooling Capacity Graphs - quiet mode

EPRA08-12EV

EPRA08-12EW

4

Maximum cooling capacity



Symbols

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

LWE Leaving water evaporator temperature [°C]

T_{amb} Ambient temperature [°C DB]

Conditions

Cooling capacity

Capacity according to standard EN 14511 and valid for chilled water range $\Delta T = 3^{\circ}\text{C}$ – 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

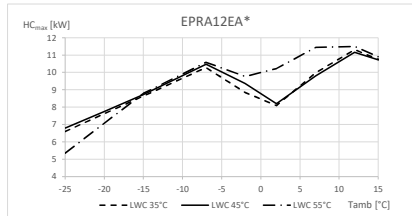
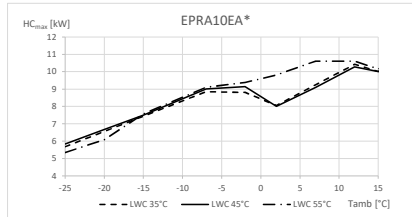
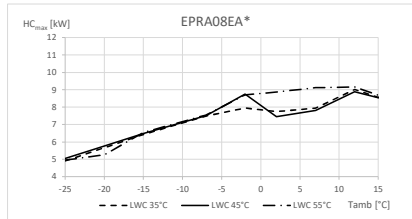
4 Capacity graphs

4 - 3 Heating Capacity Graphs

EPRA08-12EV

EPRA08-12EW

Maximum heating capacity - integrated value



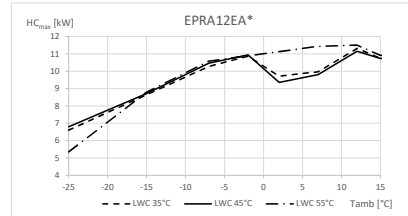
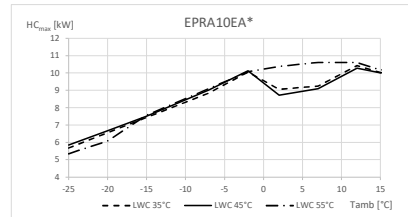
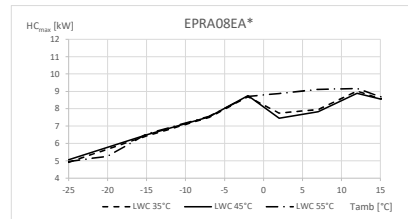
Symbols

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

LWC Leaving water condensor temperature [°C]

T_{amb} Ambient temperature [°C DB]

Maximum heating capacity - peak values



Heating capacity

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

Notes

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

The capacity and the power input are at maximum operation.

4D133537A

4 Capacity graphs

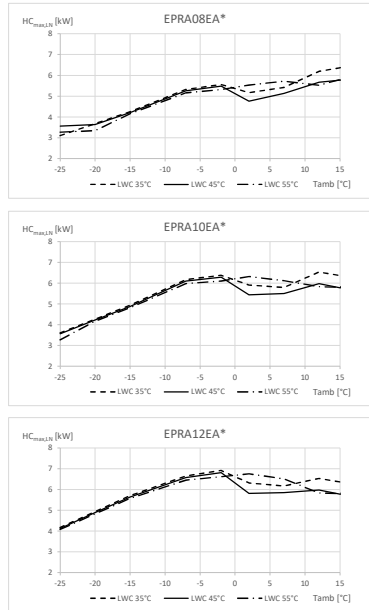
4 - 4 Heating Capacity Graphs - quiet mode

EPRA08-12EV

EPRA08-12EW

4

Maximum heating capacity - integrated value

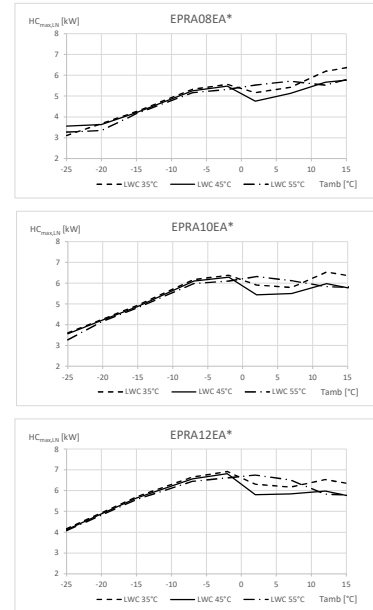


Symbols

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

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

Maximum heating capacity - peak values



Conditions

Heating capacity

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

4D133538

5 Capacity tables

5 - 1 Certification Programs

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	MCS
-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	General
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/-)18EA*		ETV*12S(U/-)23EA*		ETS(X/H)(B/-)12P30EF		ETS(X/H)(B/-)12P50EF		Used for
Outdoor unit	EPRA*EAV3	EPRA*EAW1	EPRA*EAV3	EPRA*EAW1	EPRA*EAV3	EPRA*EAW1	EPRA*EAV3	EPRA*EAW1	
Application	Average climate		Average climate		Average climate		Average climate		
Domestic hot water tank volume [l]	180		230		294		477		
Tapping pattern	L		L		L		XL		
Heat-up time (hh:mm:ss)	01:57:00		02:14:00		02:29:00		03:13:00		
θ _{wh} [°C]	52,5		52,5		47,2		44,5		Keymark
P _{es} [W]	51,7	50,7	44,8	43,9	38,1	37,4	32,7	32,1	
V ₄₀ [l]	240		298		194,0		246,0		
η _{wh} [%]	116,7	120,3	126,4	130	116	119	128	131	
COP _{DHW} []	2,72	2,8	2,96	3,05	2,75	2,83	3,1	3,17	

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 condensor 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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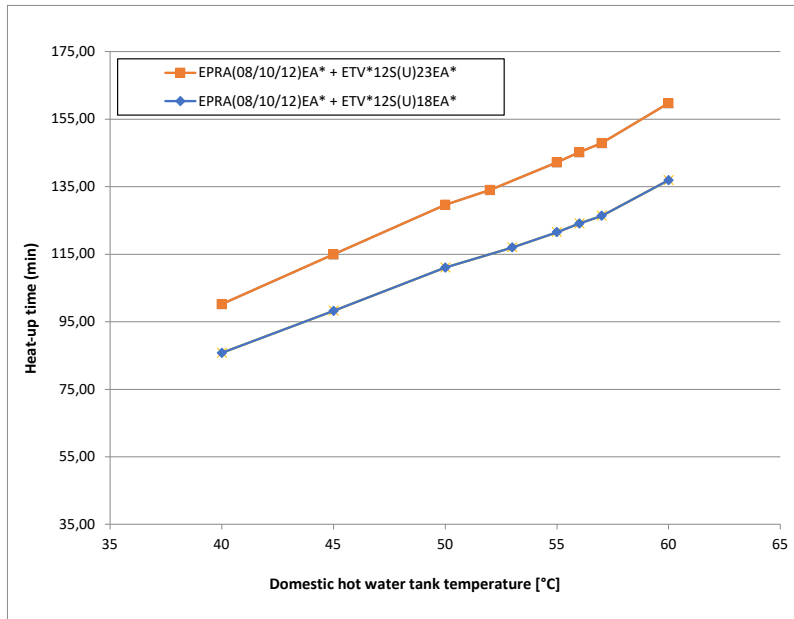
5 Capacity tables

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.

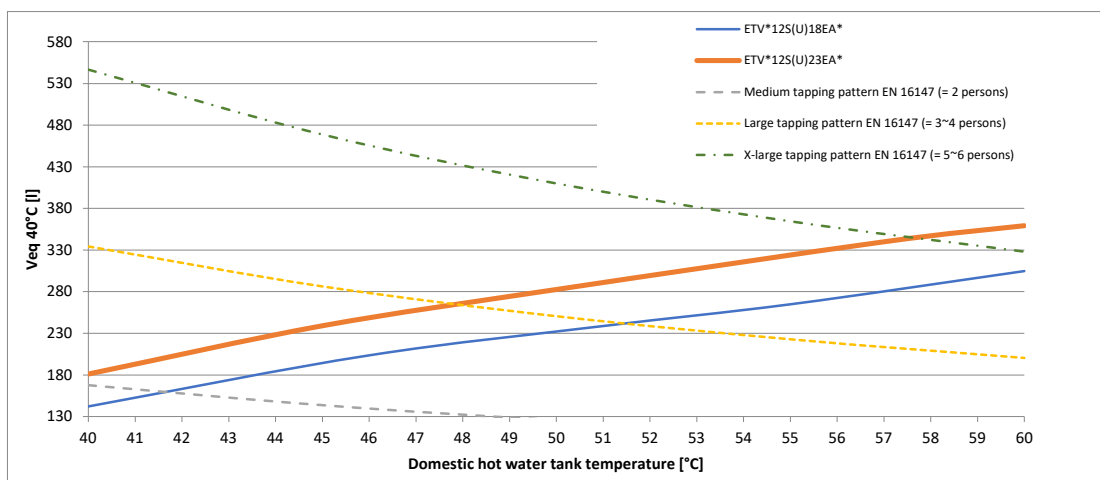
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EPRA08-12EV
EPRA08-12EW

Selection guide for the domestic hot water tank volume

(1)

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

Notes

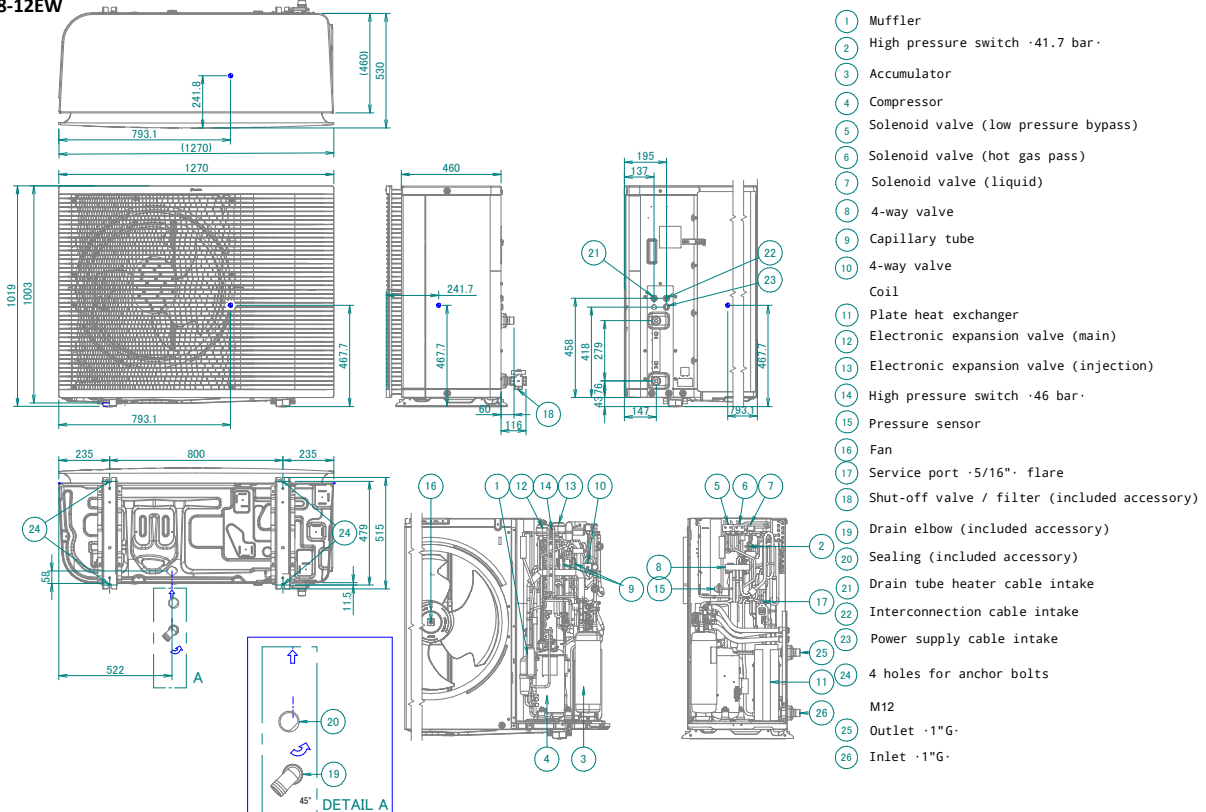
- (1) According to EN16147.

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6 Dimensional drawings

6 - 1 Dimensional Drawings

EPRA08-12EV
EPRA08-12EW

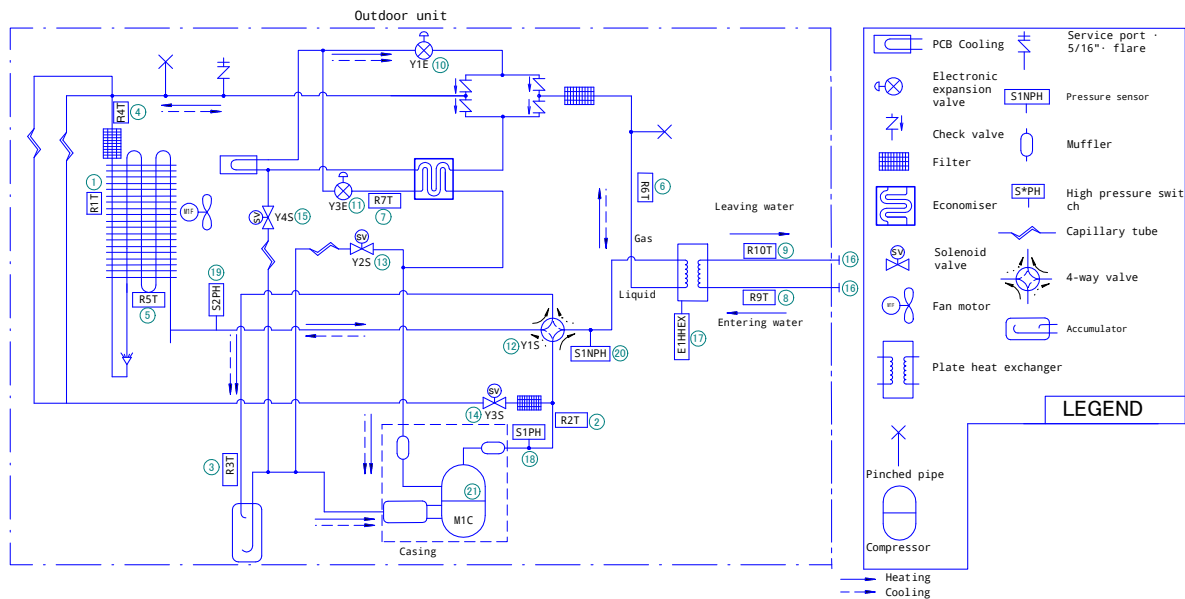


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7 Piping diagrams

7 - 1 Piping Diagrams

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)

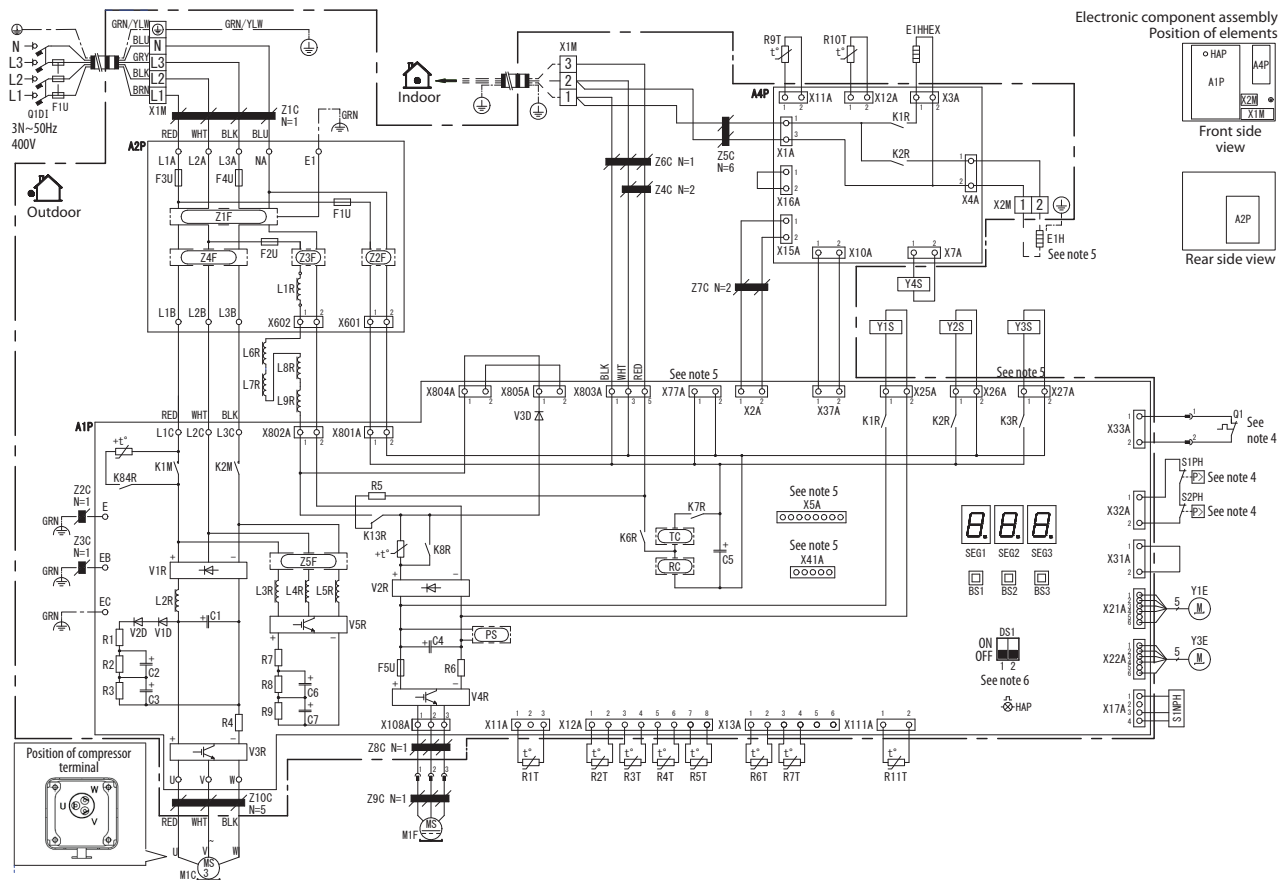
- ⑮ Y4S: Solenoid valve (liquid injection)
- ⑯ Screw connection ·1"·
- ⑰ E1HHEX: Plate heat exchanger
- ⑱ S1PH: High pressure switch ·4.6MPa·
- ⑲ S2PH: High pressure switch ·4.17MPa·
- ⑳ S1NPH: High pressure sensor
- ㉑ Q1E Overload

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8 Wiring diagrams

8 - 1 Wiring Diagrams - Three Phase

EPRA08-12EW



A1P	Printed circuit board (main)
A2P	Printed circuit board (noise filter)
A4P	Printed circuit board (ACS)
BS1~BS3 (A1P)	Push-button switch
C1 ~ C7 (A1P)	Capacitor
DS1 (A1P)	DIP switch
E1H	Drain tube heater (field supply)
E1HHEX	PHE heater
F1U	Field fuse (field supply)
F1U~F4U (A2P)	Fuse (T 6.3A / 250V)
F5U (A1P)	Fuse (T 5.0A / 250V)
HAP (A1P)	Light-emitting diode (service monitor is green)
K1R (A1P)	Magnetic relay (Y1S)
K1R (A4P)	Magnetic relay (E1HHEX)
K2R (A1P)	Magnetic relay (Y2S)
K2R (A4P)	Magnetic relay (E1H)
K3R (A1P)	Magnetic relay (Y3S)
K6R ~ K84R (A1P)	Magnetic relay
K1M ~ K2M (A1P)	Magnetic contactor
L1R ~ L9R (A1P, A2P)	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 ~ R9 (A1P)	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)
R10T	Thermistor (outlet water)
R11T	Thermistor (fin)
RC (A1P)	Signal receiver circuit
S1NPH	High pressure sensor
S1PH~S2PH	High pressure switch
SEG* (A1P)	7-segment display

TC (A1P)	Signal transmission circuit
V1D ~ V3D (A1P)	Diode
V1R ~ V2R (A1P)	Diode module
V3R ~ V5R (A1P)	IGBT power module
X1M ~ X2M	Terminal strip
Y1E	Electronic expansion valve (main - black)
Y3E	Electronic expansion valve (injection - blue)
Y1S	Solenoid valve (4-way valve)
Y2S	Solenoid valve (low pressure bypass)
Y3S	Solenoid valve (hot gas bypass)
Y4S	Solenoid valve (liquid injection)
Z1C ~ Z10C	Noise filter (ferrite core)
Z1F ~ Z5F (A1P, A2P)	Noise filter

NOTES

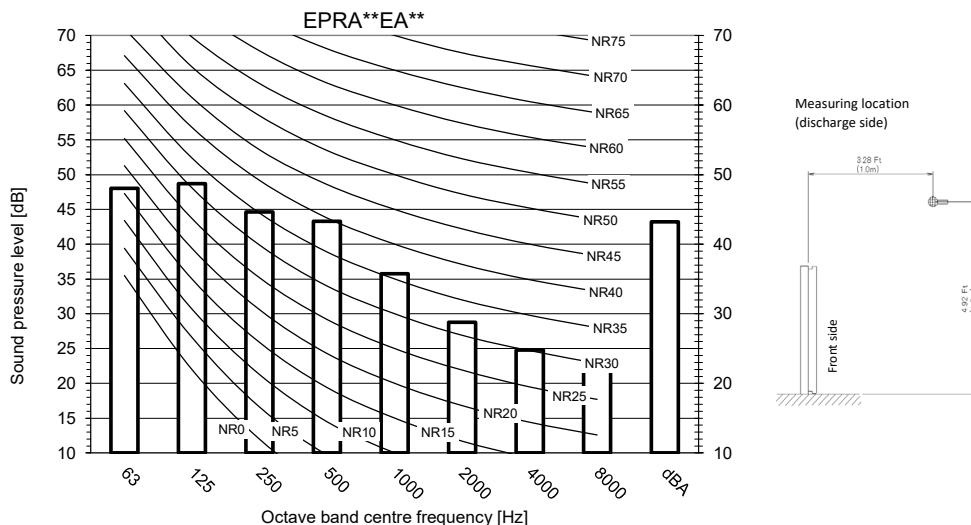
1. L : Live
N : Neutral
⊕ : Protective earth
⚡ : Noiseless earth
[] : Field wiring
[] : Terminal strip
[] : Connector
2. Colours: BLK: black, RED: red, BLU: bleu, WHT: white, GRN: green, YLW: yellow, PNK: pink, ORG: orange, GRY: grey, BRN: brown
3. This wiring diagram applies only to the outdoor unit.
4. When operating, do not short-circuit protection device Q1, S1PH and S2PH.
5. Refer to the combination table and the option manual for how to connect the wiring to X5A, X77A, X41A and X2M.
6. 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

EPRA08-12EV
EPRA08-12EW



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

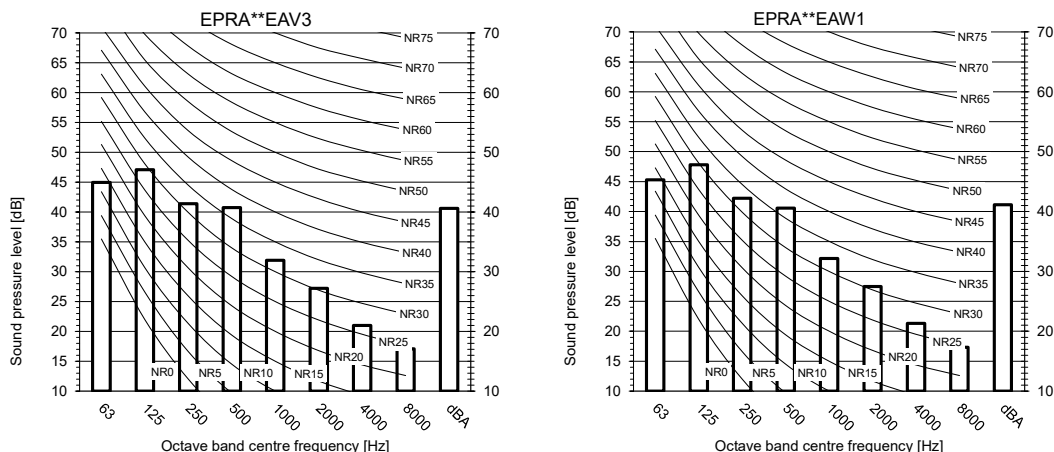
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

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

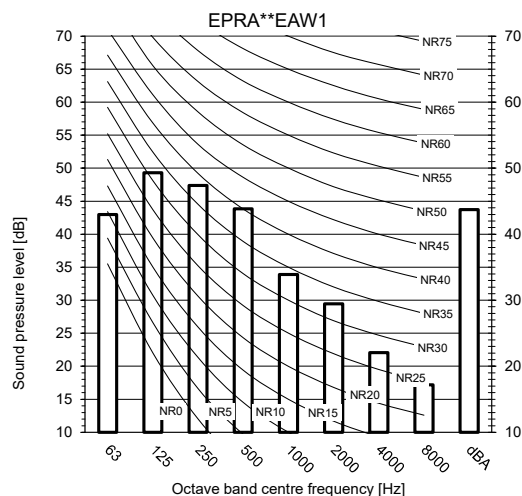
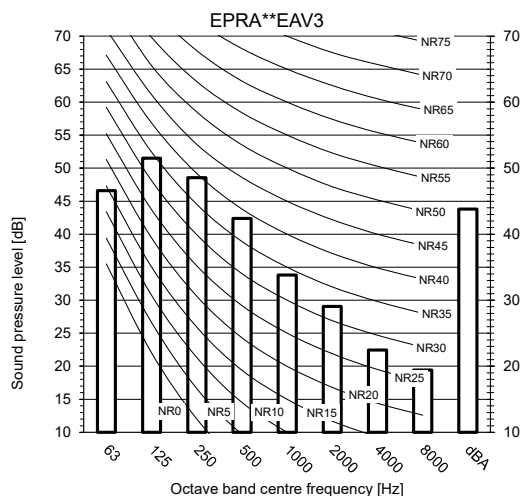
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9 Sound data

9 - 1 Sound Pressure Spectrum

EPRA08-12EV

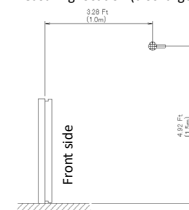
EPRA08-12EW



Notes

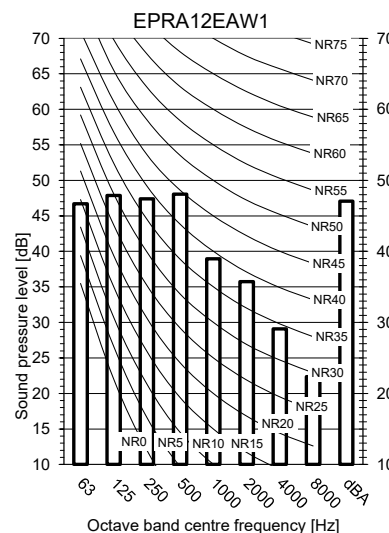
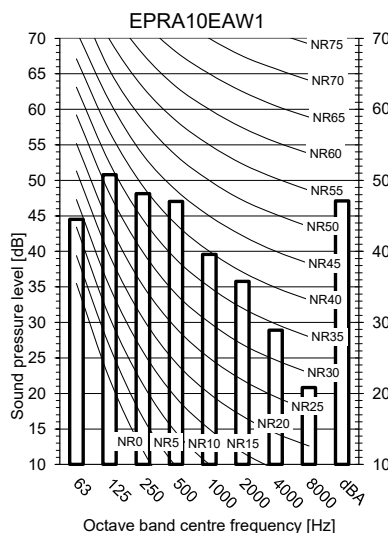
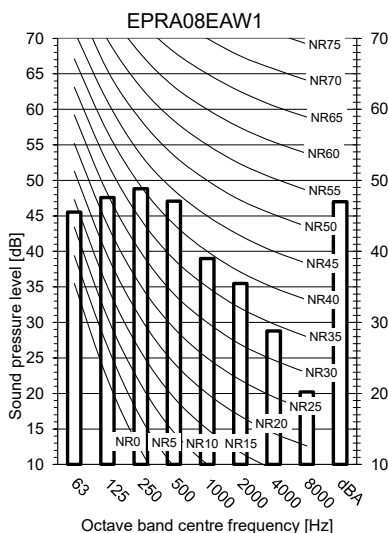
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa
- If the sound is measured under actual installation conditions, the measured value will be higher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

Measuring location (discharge side)



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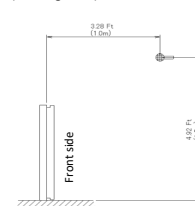
EPRA08-12EW



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 μ Pa
- 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)



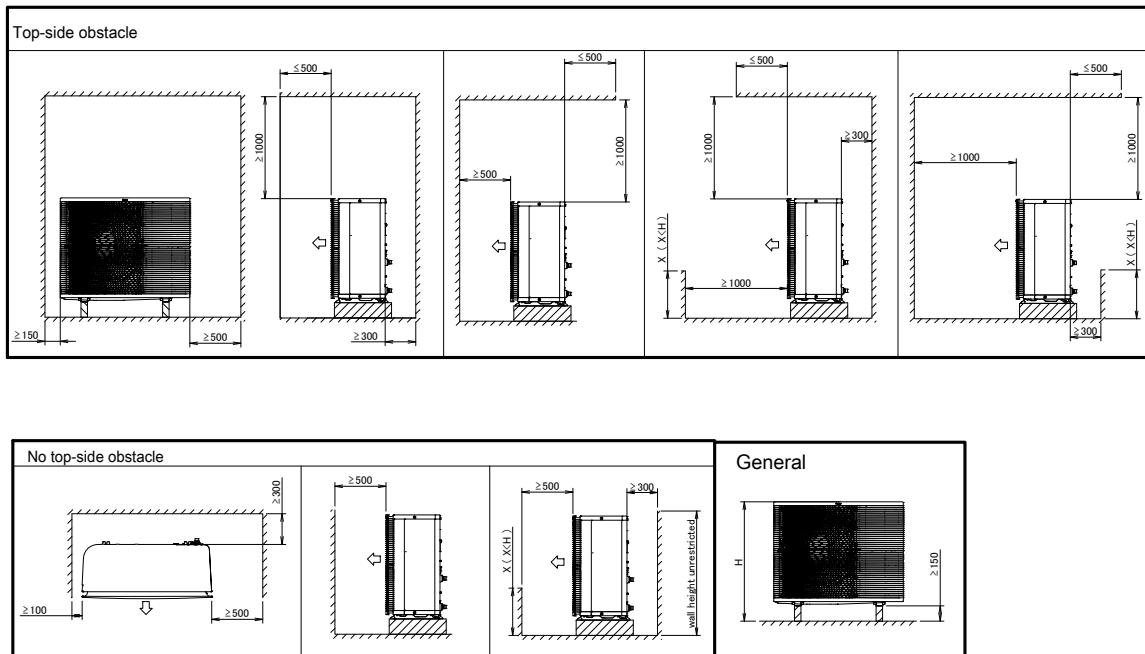
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10 Installation

10 - 1 Installation Method

EPRA08-12EV
EPRA08-12EW

Minimum space for air passage



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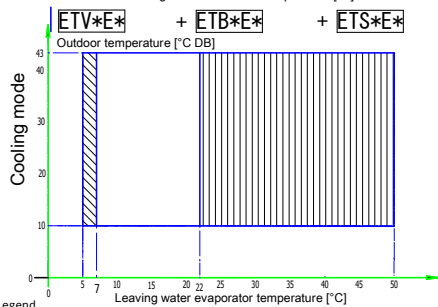
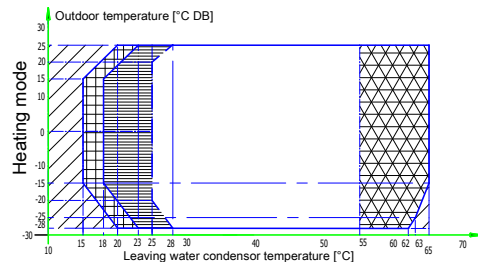
11 Operation range

11 - 1 Operation Range

EPRA08-12EV

EPRA08-12EW

ETV*E* + ETB*E*



- Legend
- Backup heater only operation
 - No outdoor unit operation
 - Heat pump + backup heater operation
 - Pull-up area
 - Outdoor unit operation if controller setpoint is regulated to minimal leaving water temperature request.
 - See dashed lines
 - Circulation pump operation only
 - Outdoor unit operation if setpoint > 55°C and $\Delta T = -10^\circ\text{C}$ ($\Delta T = \text{outlet temperature} - \text{inlet temperature}$)
 - Pull-down area
 - In case valve kit 'AFVALVE1' is part of the system, then the minimum setpoint is -7°C .

Notes

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

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EPRA08-12EV

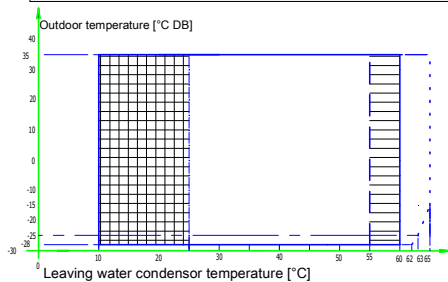
EPRA08-12EW

Domestic hot water heating mode

EKHWS*150*
EKHWS*180*

+

Third-party with identical specifications as 'EKHWS*150*'

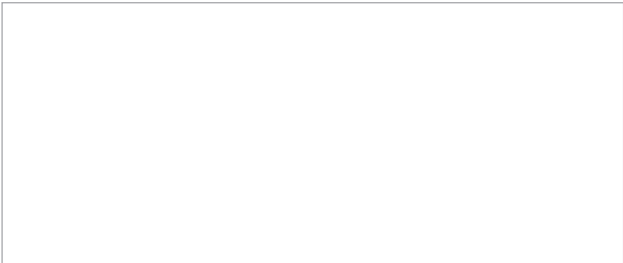


- Legend
- Setpoint [°C]
Domestic hot water
 - Leaving water temperature [°C]
 - Pull-up area
 - Booster heater only operation (if a booster heater is part of the system)
 - (1) ETV*12*E* indoor units only
 - (2) Combination of 'EKHWS*' and 'ETB*12*E' indoor units
 - (3) Combination of 'EKHWP*' and 'ETB*12*E' indoor units

Notes

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

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