



Daikin Altherma 3 WS For Collective Housing

EWSA(H/X)-D9W

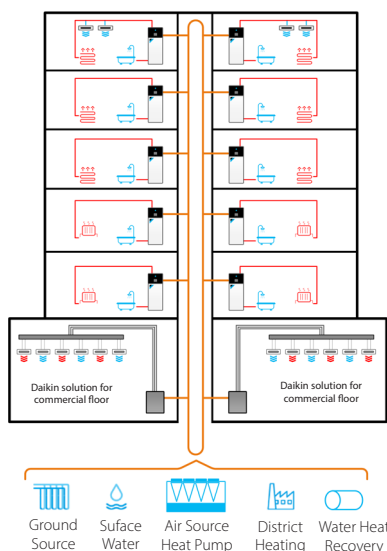


Daikin Altherma 3 WS for Collective Housing is a highly efficient, communal heat pump system for entire apartment buildings.

The Daikin Altherma 3 WS for Collective Housing is a highly efficient heat pump system, which can provide economical heating, hot water and optional cooling for an entire apartment building at relatively low ambient water temperatures. The system consists of a network of in-apartment water-to-water heat pumps with integrated DHW tank, connected to a common central water loop to form a communal system.

By distributing energy throughout the building using near ambient water temperatures, heat losses are reduced by more than 90% compared with high temperature distribution alternatives. The central water loop can be warmed and/or cooled via several different means:

- Ground or air source heat pump
- Shared ground array, borehole or thermal piles
- Surface water source such as a river, canal or seawater
- District heat network
- Waste heat recovery



Key system advantages:

- Utilises renewable (or recovered) energy
- Low carbon heat pump solution delivers significant CO₂ reductions over traditional combined heat & power/boiler/heat interface unit systems
- Low carbon solution reduces carbon offset payments
- Energy centre not required, saving valuable space
- Heating, hot water & cooling via a 2 pipe network offers capital savings over a traditional 4 pipe solution
- Intuitive user controls and internet connectivity as standard
- In-apartment heat pump has integrated back up heater, so heating & hot water is maintained in any eventuality
- Simplified connection with water loop thanks to the embedded pressure independent control, for automatic flow control from the heat pump
- Pressure rating of 16 bar (water loop side) to simplify installation in high rise buildings: no need of pressure brakers up to 20 floors

Modern design



EWSA(H/X)-D9W

Madoka - Elegant remote controller



BRC1HHDW/S/K

Intuitive control

High resolution screen for quick status check



Onecta App

Built-in LAN adapter for connection to Onecta App



Indoor Unit				EWSA	H06D9W	X06D9W
B0/W35	Heating capacity	Nom.	kW		6.44	
	Power input	Max.	kW		1.67	
	COP				3.85	
W10/W35	Heating capacity	Nom.	kW		6.13	
	Power input	Nom.	kW		1.15	
	COP				5.33	
W10/W55	Heating capacity	Nom.	kW		5.61	
	Power input	Nom.	kW		1.72	
	COP				3.27	
W20 / W35	Heating capacity	Nom.	kW		6.17	
	Power input	Nom.	kW		0.82	
	COP				7.49	
W20 / W55	Heating capacity	Nom.	kW		6.30	
	Power input	Nom.	kW		1.48	
	COP				4.26	
W25 / W35	Heating capacity	Nom.	kW		5.80	
	Power input	Nom.	kW		0.6	
	COP				9.62	
W25 / W55	Heating capacity	Nom.	kW		6.36	
	Power input	Nom.	kW		1.35	
	COP				4.71	
Space heating according to EN14825 and EN14511:2018	Average climate Water in 10°C Water out 55°C	ηs (Seasonal space heating efficiency) Efficiency class	%	158	A+++	162
	Average climate Water in 10°C Water out 35°C	ηs (Seasonal space heating efficiency) Efficiency class	%	253	A+++	260
Space heating according to real application conditions	Average climate water in 20°C water out 35 °C (fixed)	Average space heating efficiency	%		360.4	
		Average COP	%		9.21	
Space cooling W30 / W7	Cooling capacity	Nom.	kW	-		5.81
	Power input	Nom.	kW	-		1.38
	EER			-		4.21
Space cooling W30 / W18	Cooling capacity	Nom.	kW	-		6.11
	Power input	Nom.	kW	-		1.21
	EER			-		5.07
Domestic hot water	General	Declared load profile			L	
	Average climate	ηwh	%		115	
			Efficiency class		A+	
Casing	Colour					White + Black
	Material					Precoated sheet metal
Dimensions	Unit	Height x Width x Depth	mm	1,891 x 597 x 666		
Weight	Unit			222 kg		
Hot water tank	Material					Stainless steel (EN 14521)
	Water volume			180 l		
	Insulation	Heat loss	kWh/24h	1.2		
	Corrosion protection					Pickling
Operation range	Installation space	Min.~Max.	°C	5 / 35		
	Water inlet	Min.~Max.	°C	-10 / +30		
	Heating	Water side	Min.~Max.	°C 5 / 65		
	Domestic hot water	Water side	Min.~Max.	°C 25 / 60		
Refrigerant	Type					R-32
	GWP					675
	Charge			kg 1.70		
	Charge			TCO ₂ Eq 1.15		
Water loop side	Pressure rating			bar 16		
Design flow rate	Independent control valve			l/min 9.6		
Sound power level	Nom.			dBA 39.0		
Sound pressure level at 1 meter	Nom.			dBA 27.0		
Power supply	Name/Phase/Frequency/Voltage			Hz/V 3~/50/400 or 1~/50/230		
Current	Recommended fuses			A 3P 16A or 1P 32A		

Accessories

Type	Description	Product name	Note
Controller	Madoka wired room thermostat	BRC1HHDK/S/W	
	Wireless room thermostat	EKRTR1	
	NEW wireless room thermostat	EKRTR1B	
	Wired digital thermostat	EKRTWA	
	LAN Adapter	BRP069A61	Equivalent of BRP069A61 built-in.
	Daikin Altherma Modbus Gateway	DCOM-LT/MB-IO	
Sensors	Remote indoor sensor	KRCS01-1	
	External sensor for EKTRTR	EKRTETS	Can only be used in combination with the wireless room thermostat EKTRTR1
	Dew sensor for underfloor cooling applications	EKRTETSB	Can only be used in combination with the wireless room thermostat EKTRTRB
	Current sensor	EKCSSENS	
Heat pump convector	Floor standing / wall mounted / concealed	FWXV/T/M*	Multi combination (quantity, depends on capacity class). EKVKHPC needs to be installed mandatory on heat pump convector (exception: LT - H/O)
Other options	Digital I/O PCB	EKRP1HBAA	Additional relays to allow bivalent control in combination with external room thermostat are field supply.
	Demand PCB	EKRP1AHTA	
	Power cable for back-up heater	EKGSPWCAB	
	Fernox magnetic filter 1"	K.FERNOXTF1	
	Fernox magnetic filter 1" and F1 inhibitor fluid (500ml)	K.FERNOXTF1FL	
	G3 kit 8 liter	EKUHWG3DS	For UK, mandatory combination. Recommended option.
G3 kit 18 liter	EKUHWG3D	For UK, mandatory combination. Alternative to EKUHWG3DS.	

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