





Powerful yet compact









# Table of contents

Daikin Altherma 3 Monobloc New design EDLA / EBLA	2
Hot water tanks	ç
<b>Controls</b> Daikin Online controller Madoka for Heating Modern user interface	<b>10</b> 10 11 12
Stand by me	13



# Daikin Altherma 3 Monobloc

Powerful yet compact



The Daikin Altherma 3 Monobloc is the first all-in-one Monobloc unit to be added to the third generation Daikin Altherma range, featuring the latest controls and low environmental impact R32 technology.

This new addition to the Daikin Altherma 3 range offers higher capacity monobloc units, in 9, 11, 14 and 16 class, all delivered in a market leading compact single fan casing, making it ideal for new buildings and large renovations.

#### High performance in low ambient conditions

Operation range is down to -25°C, ensuring the system delivers in the harshest of conditions. The unit also has high performance of  $60^{\circ}$ C leaving water temperature down to -7°C ambient.

The capacities vary depending on the design conditions, ambient temperature and leaving water temperature selected so please check the capacity curves in the data books available on my.daikin.co.uk, or use our Heating Solutions Navigator design tool on Stand By Me to complete your selection.

At typical design conditions of -1.8°C and 45°C leaving water temperature, the 9 and 11 class units hold or even exceed their capacity. However for the 14 and 16 class units, you will need to check the design conditions more carefully depending on the requirements of your customer.

This ability to reliably deliver higher capacities - and even perform beyond the headline capacity in some cases - really makes the Daikin Altherma 3 Monobloc a stand-out solution for all kinds of properties where space saving is also a priority.

#### A redesigned outdoor unit

The new Daikin Altherma 3 Monobloc offers a modern, single fan design, with compact dimensions and a sleek black grill, providing an unobtrusive and versatile outdoor unit suitable for a wide range of house types.

#### High performance single fan

Daikin have optimised the design of the Monobloc unit, meaning that the double fan arrangement has been replaced with a larger single fan. The new 'gull wing' fan design reduces drag to improve system air flow and create a quieter outdoor unit, with a low sound level of just 62 dBA. 870 mm 1,378 mm

#### All-in-one Monobloc unit

The Daikin Altherma 3 Monobloc is an outdoor only unit including an enclosed refrigerant circuit. It is an all-in-one concept with all key hydraulics included such as the pump, flow sensor, and water pressure sensor in the outdoor unit. The system requires no indoor unit, only a wiring centre and a stand-alone domestic hot water tank.

Because there are only water connections to the indoor heating system, you don't need F-Gas qualification to install it. The Daikin Altherma 3 Monobloc is designed for a fast and easy installation, making it ideal for heating engineers just starting out into the world of renewables, as well as experienced heat pump installers looking to increase the range of space-efficient solutions they can offer.

460 mm

VV



Daikin Altherma 3 Monobloc uses R32 refrigerant, which is more energy efficient and has a lower global warming potential (GWP) than refrigerants such as R410A. Requiring 30% less refrigerant charge than an R410A equivalent unit, the Daikin Altherma 3 Monobloc achieves 75% lower  $CO_2$  emissions than previous Monobloc units. This means that you can reduce your customers' environmental impact even further by installing a Daikin Altherma 3 Monobloc heat pump with R32.



#### Ideal where space is at a premium

The Daikin Altherma 3 Monobloc is the ideal solution for homes where indoor space is at a premium, as no additional indoor unit is required. With a reduced size casing of only 870mm height, the outdoor unit can fit right under a window to save outdoor space. With a total volume of less than 0.6m<sup>3</sup>, the unit meets permitted development rights requirements, leading to a quicker project completion time as there's no delay for planning approvals.



#### Additional features

- Available in heating only, reversible heating and cooling, 1-phase and 3-phase models
- Integrated electric back-up heater for total reliability
- > WLAN card inserts into the user Interface and allows connection to the wireless local area network for access to settings via smart phone
- Smart grid ready with the ability to connect to a PV system

5

R-32 BLUEVOLUTION

#### EDLA

#### Daikin Altherma 3 Monobloc

Outdoor Unit			Single	Phase		Three phase					
			EDLA09D3V3	EDLA11D3V3	EDLA14D3V3	EDLA16D3V3	EDLA09D3W1	EDLA11D3W1	EDLA14D3W1	EDLA16D3W1	
Description			Class 9, 1-phase, 230V	Class 11, 1-phase, 230V	Class 14, 1-phase, 230V	Class 16, 1-phase, 230V	Class 9, 3-phase, 400V	Class 11, 3-phase, 400V	Class 14, 3-phase, 400V	Class 16, 3-phase, 400V	
Function			Heating Only	Heating Only	Heating Only	Heating Only	Heating Only	Heating Only	Heating Only	Heating Only	
Dimensions	Height x Width x Depth	mm		870 x 13	80 x 460			870 x 13	80 x 460		
Weight		kg		1.	19			1.	49		
Nominal capacity	Heating (a/b)	kW	9.37/9.00	10.6/9.82	12.0/12.5	16.0/16.0	9.37/9.00	10.6/9.82	12.0/12.5	16.0/16.0	
	Cooling (c/d)	kW	-				-				
Nominal input	Heating (a/b)	kW	1.91/2.43	2.18/2.68	2.46/3.42	3.53/4.56	1.91/2.43	2.18/2.68	2.46/3.42	3.53/4.56	
COP	Heating (a/b)	kW	4.91/3.71	4.83/3.66	4.87/3.64	4.53/3.51	4.91/3.72	4.83/3.66	4.87/3.64	5.43/3.51	
Seasonal space	Space heating	Class	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	
heating efficiency*	(Average climate) 35°C	Efficiency	186	182	182	182	186	182	182	182	
		SCOP	4.72	4.64	4.62	4.62	4.72	4.64	4.62	4.62	
	Space heating	Class	A++	A++	A++	A++	A++	A++	A++	A++	
	(Average climate) 55°C	Efficiency	133	130	132	130	133	130	132	130	
		SCOP	3.39	3.32	3.37	3.33	3.39	3.32	3.37	3.33	
EER	Cooling (c/d)			^	-	^		·	-		
Operation range	Heating	°C		-25	~ 35			-25	~ 35		
	Cooling	°C			_				-		
	Domestic Hot water	°C		-25	~ 35			-25	~ 35		
Sound power level	Heating	dBA		6	2			6	52		
Refrigerant charge	R-32	kg		3	.8			3	.8		
Power supply				1-phase / 2	30V / 50Hz			3-Phase/4	100V/50Hz		
Recommended fuse	s	A		3	2			1	3		
Pump				Inverter	controller		Inverter controller				
Expansion vessel volume litres		litres			8		8				
Water connections (diameter) inches		inches		1″ (r	nale)		1″ (male)				
Minimum water volume litres		litres	20				20				
Minimum flow rate	Cooling/Heating above 5°C	l/min		2	0			2	20		
	Heating below -5°C	l/min		2	2			2	22		
	Hot water	l/min		2	8			2	28		
Maximum piping dis	tance to tank	m		1	0			1	0		
Maximum level diffe	rence	m			5				5		

Nominal capacity and nominal input tested according to EN 14511at the following conditions: Heating (a): Ambient air temperature 7°CDB and leaving water temperature 35°C (A7/W35). Heating (b): Ambient air temperature 7°CDB and leaving water temperature 45°C (A7/W45) Cooling (c): Ambient air temperature 35°C and leaving water temperature 18°C (A35/W18). Cooling (d): Ambient air temperature 35°C and leaving water temperature 7°C (A35/W18). Cound pressure level measured at 1m from the unit Sound pressure level measured at 1m from the unit [1] Excludes aesthetic grill





#### EBLA Daikin Altherma 3 Monobloc

Outdoor Unit			Single	Phase			Three	phase		
			EBLA09D3V3	EBLA11D3V3	EBLA14D3V3	EBLA16D3V3	EBLA09D3W1	EBLA11D3W1	EBLA14D3W1	EBLA16D3W1
Description			Class 9, 1-phase, 230V	Class 11, 1-phase, 230V	Class 14, 1-phase, 230V	Class 16, 1-phase, 230V	Class 9, 3-phase, 400V	Class 11, 3-phase, 400V	Class 14, 3-phase, 400V	Class 16, 3-phase, 400V
Function			Reversible	Reversible	Reversible	Reversible	Reversible	Reversible	Reversible	Reversible
Dimensions	Height x Width x Depth	mm		870 x 13	80 x 460			870 x 13	80 x 460	
Weight		kg		1-	49			1.	49	
Nominal capacity	Heating (a/b)	kW	9.37/9.00	10.6/9.82	12.0/12.5	16.0/16.0	9.37/9.00	10.6/9.82	12.0/12.5	16.0/16.0
	Cooling (c/d)	kW	9.35/9.1	11.6/11.5	12.8/12.7	14.0/15.3	9.35/9.04	11.6/11.5	12.8/12.7	14.0/15.3
Nominal input	Heating (a/b)	kW	1.91/2.43	2.18/2.68	2.46/3.42	3.53/4.56	1.91/2.43	2.18/2.68	2.46/3.42	3.53/4.56
COP	Heating (a/b)	kW	4.91/3.71	4.83/3.66	4.87/3.64	4.53/3.51	4.91/3.72	4.83/3.66	4.87/3.64	5.43/3.51
Seasonal space	Space heating	Class	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
heating efficiency*	(Average climate) 35°C	Efficiency	190	186	185	185	190	186	185	185
		SCOP	4.82	4.73	4.70	4.69	4.82	4.73	4.70	4.69
	Space heating	Class	A++	A++	A++	A++	A++	A++	A++	A++
	(Average climate) 55°C	Efficiency	135	132	134	132	135	132	134	132
		SCOP	3.44	3.37	3.42	3.37	3.44	3.37	3.42	3.37
EER	Cooling (c/d)		3.35/5.34	3.26/5.31	3.16/5.04	3.06/4.74	3.35/3.34	3.26/5.31	3.16/5.04	3.06/4.74
Operation range	Heating	°C		-25	~ 35			-25	~ 35	
	Cooling	°C		10	~ 43			10 -	~ 43	
	Domestic Hot water	°C		-25	~ 35			-25	~ 35	
Sound power level	Heating	dBA		6	52			6	52	
Refrigerant charge	R-32	kg		3	.8			3	.8	
Power supply				1-phase / 2	230V / 50Hz			3-Phase/4	400V/50Hz	
Recommended fuse	s	A		3	32			1	3	
Pump				Inverter	controller			Inverter	controller	
Expansion vessel volume litres		litres			8				8	
Water connections (diameter) inches		inches		1″ (r	nale)		1" (male)			
Minimum water volume litres		20				20				
Minimum flow rate	Cooling/Heating above 5°C	l/min		2	20			2	20	
	Heating below -5°C	l/min		2	22			2	2	
	Hot water	l/min		2	28			2	8	
Maximum piping dis	stance to tank	m		1	0			1	0	
Maximum level diffe	rence	m			5				5	

Nominal capacity and nominal input tested according to EN 14511at the following conditions: Heating (a): Ambient air temperature 7°CDB and leaving water temperature 35°C (A7/W35). Heating (b): Ambient air temperature 7°CDB and leaving water temperature 45°C (A7/W45) Cooling (c): Ambient air temperature 35°C and leaving water temperature 18°C (A35/W18). Cooling (d): Ambient air temperature 35°C and leaving water temperature 7°C (A35/W18). Sound pressure level measured at 1m from the unit [1] Excludes aesthetic grill

#### Accessories:

Accessory Ref	Description
BRC1HHDW	Madoka Heating - White
BRC1HHDS	Madoka Heating - Silver
BRC1HHDK	Madoka Heating - Black
BRP069A71	Smart comfort controller – Wi-fi module
EKRELSG	Smart grid relay kit (high voltage)
EKPCCAB4	PC cable – to upload field settings from PC to unit
AFVALVE1	Anti-freeze free valves
EKFLSW1	Optional flow switch (See note)
EKRSC1	Optional remote temperature sensor for outdoor unit (See note)
KRCS01-1	Optional remote temperature sensor for indoor unit (See note)
EKRP1HBA	Optional PCB kit for remote alarm monitoring, fault indication, solar interlock and bivalent operation
EKRP1AHT	Optional PCB kit for demand control, power consumption control and power limitation
UK.FF600S3A	Three flexi feet to mount the outdoor unit
UK.CWBXL3A	3 Arm Wall bracket (250kg, 660mm long)
UK.DT3	Condensir Drain tray 1300 x 550 x 50
K.FF600ASN	Pair of flexi-feet for mounting outdoor unit
K.HOSE750	Pair of flexible hoses
K.HOSE750EL	Pair of flexible hoses with elbow
K.FERNOXTF1	Fernox magnetic filter 1"
K.FERNOXTF1FL	Fernox magnetic filter 1" and F1 inhibitor fluid (500ml)
EKEPRHLT5H	Thermal store (500l) connection kit – For heating only models
EKEPRHLT5X	Thermal store (500I) connecting kit – For reversible models
EKEPRHLT3HX	Thermal store (300l) connection kit – For heating only and reversible models
EKUMBPART	3rd party tank connection kit - Dry pocket sensor
K.ELECMETV	Electric meter for domestic RHI - Single-phase (Metering for performance compliant)
K.ELECMETW	Electric meter for domestic RHI - Three-phase (Metering for performance compliant)
K.ELECMETV	Electric meter for domestic RHI - Single-phase (Metering for performance compliant)
	MID Class A electric meter to measure the electricity consumption of the Daikin Altherma heat pump
K.ELECMETW	Electric meter for domestic RHI - Three-phase (Metering for performance compliant)
	MID Class A electric meter to measure the electricity consumption of the Daikin Altherma heat pump

#### Features:

- > WLAN cartridge connection (optional)
- Possible to combine with domestic hot water tanks
- Reversible or heating only air-to-water heat pump
- Monobloc all-in-one concept including all hydraulic parts
- An optional built-in 3kW electric back-up heater or a separate back-up heater kit are available for additional heating
- > Available in one phase and three phase

Up to

Δ

011-1W0423 426

2



**B-32** 

7

#### Fully connected

The true power of the Daikin Altherma 3 Monobloc is in its integration as part of a Daikin Altherma total solution, including smart controls, heat collectors and heat emitters.



#### Heating and cooling emitters

As a low temperature heat pump, the Daikin Altherma 3 Monobloc works perfectly with various emitters, including fan coils, underfloor heating and heat pump convectors.

#### Domestic hot water production

The Daikin Altherma 3 Monobloc can be combined with a stainless steel tank (EKHWSU-D), thermal store and solar panels (EKHWP) to provide a fast and efficient supply of domestic hot water.

# Domestic hot water tank Hot water heating installation options



#### Domestic hot water tank



#### Comfort

> Available in 150, 180, 200, 250 and 300 litres in stainless steel EKHWSU-D

#### Efficiency

- > High-quality insulation keeps heat loss to a minimum
- Efficient temperature heating: from 10°C to 50°C in only 60 minutes

#### Reliability

> At necessary intervals, the unit can heat up water up to  $60^{\circ}$ C to prevent the risk of bacteria growth

#### EKHWSU-D

#### **Hot Water Cylinder**

Domestic hot water cylinder			SB.EKHWSU150/EKEXP	SB.EKHWSU180/EKEXP	SB.EKHWSU200/EKEXP	SB.EKHWSU250/EKEXP	SB.EKHWSU300/EKEXP		
Description			150L unvented cylinder (Including EKEXPVES)	180L unvented cylinder (Including EKEXPVES)	200L unvented cylinder (Including EKEXPVES)	250L unvented cylinder (Including EKEXPVES)	300L unvented cylinder (Including EKEXPVES)		
Suitable for				R32	2 Split and Monobloc syst	ems			
Energy efficiency class					В				
Standing heat loss (ErP)		W	45	50	55	60	68		
Storage volume		L	145	174	192	242	292		
Standing heat loss		kWh/24h	1.1	1.2	1.3	1.4	1.6		
Max water temperature		°C			75				
Booster heater capacity		kW			3				
Power supply					1-phase / 230V / 50Hz				
Recommended fuses		A			20				
Height		mm	1015	1175	1283	1553	1763		
Diameter		mm			595				
Empty weight		kg	45	50	53	58	63		
Material inside cylinder					Stainless steel (EN 1.4521	)			
Piping connections (diameter)	Water inlet H/E	inch	3/4 (female)						
	Water outlet H/E	inch	3/4 (female)						
	Cold water in	inch			3/4 (female)				
	Hot water out	inch			3/4 (female)				

#### Features:

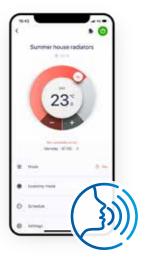
> This stainless steel unvented cylinder is the ideal partner for Daikin Altherma R32 Split and Low temperature monobloc systems

> Fitted with a 3kW immersion heater as standard

> Quick and easy installation with semi pre-plumbed G3 safety kit included

> Supplied with 3-way valve

# Always in control





#### Schedule

Set up a programme outlining when the system should operate, and create up to six actions per day.

 Schedule room temperature and operation mode
Enable holiday mode to save costs

#### NEW

#### Voice control

To provide even more comfort and ease, the Daikin Residential Controller App now offers voice control. This hands-free feature cuts down on clicks to manage units faster than ever before.

Cross-functional and multilingual, voice control pairs well with any smart device, including Google Assistant and Amazon Alexa.

works with the Google Assistant

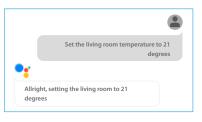
🔿 amazon alexa



#### Monitor

Receive a thorough overview of how the system is performing and how much energy it consumes.

- Check the status of the heating system
- Access energy consumption graphs (day, week, month)



Alexa, set the room temperature on 20 °C"
"The room temperature is set on 20 °C"

Example of using the voice control via Amazon Alexa



#### Control

Customise the system to fit your lifestyle and year-round comfort levels.

- Change room and domestic hot water temperature
- Turn on powerful mode to boost hot water production

Function availability depends on the system type, configuration and operation mode. The app functionality is only available if both the Daikin system and the app have a reliable internet connection.





Scan the QR code to download the app now





# Madoka for Heating



# The beauty of simplicity





Silver RAL 9006 (metallic) BRC1HHDS



RAL 9005 (matt) BRC1HHDK



White RAL9003 (glossy) BRC1HHDW

# User-friendly wired remote controller with premium design

### Intuitive control with a premium design:

The smooth curves of the Madoka for Heating controller offer a sleek, refined shape which is distinguished by its striking blue circular display. Presenting a clear visual reference with large easy to read numbers, the controller features are accessed through three touch buttons, which combine intuitive control with easy adjustability for an enhanced user experience.

### Three colours to match any interior design:

Madoka for Heating will complement perfectly any interior design scheme. Silver gives an additional touch to stand out in any interior or application, while Black is an ideal match for darker, stylish interiors and White offers a sleek, modern look.

### Easily-set operation parameters:

Setting and fine-tuning your controller is simple and helps attain higher energy savings and more comfort. The system enables you to select the space operation mode (heating, cooling or automatic), set the desired room teperature and control the domestic hot water temperature.

#### Easy Update via Bluetooth:

It is strongly recommended that the user interface has the latest software version. To update the software or check if updates are available, you need a mobile device and the Madoka Assistant app. This app is available from Google Play and the Apple Store



Google Play





www.daikin.co.uk/madoka

# Modern user interface

### Man Machine Interface (MMI2)

Inspired by the award-winning design of the Daikin Altherma 3 indoor units, Daikin has also upgraded the controller to deliver an even more user-friendly interface.

## The new controller is now a consistent design across the Daikin Altherma 3 product range, providing a man-machine interface with a high resolution colour display, which allows the system to be configured easily and quickly.

#### $\checkmark$

Quick configuration

After logging in, you'll be able to configure the unit with the new controller in less than 10 steps. You can even check if the unit is ready to use by running test cycles.



The new interface features two navigational dials to help you quickly set the room temperature and control units.



NEW





#### Remote commissioning

Commissioning can be done quickly and efficiently by loading pre-set commissioning parameters from Stand By Me via a USB. So you can even configure the system from the comfort of your office and then upload it into the system via the port in the user interface when you get to site.



#### Easy operation

The interface features an intuitive design. The high contrasted colour screen delivers stunning and practical visuals for both installers and service engineers.

$\mathbf{V}$	۱
· ·	

#### WLAN cartridge connection

The wireless LAN card inserts directly into the room controller and allows connection to the wireless local area network for access via the Residential Controller app and to set items such as holiday schedules.



#### Small dimensions for a discreet unit

Height 136mm Width160mm Depth 37 mm

# Stand By Me

## A complete customer after-care solution.

With your customer's new Daikin installation and Stand By Me warranty and maintenance options, you can rest assured they are benefiting from the best comfort, energy efficiency, usability and service available on the market. Stand By Me provides an easy way to hand over the system to your customer. Simply complete the commissioning details on standbyme.daikin.co.uk, add your customer's email address and they will receive a code so they can create an account on Stand By Me and select their warranty and maintenance options.

#### Installation database

**Stand By Me** provides a live dashboard of your project leads and, once the system is commissioned, your existing installations. So you can review and manage which products were installed, where and when.



#### Installation database



Hand over couldn't be simpler either. Simply complete the commissioning details, add your customer's email address and they will receive a code so they can create an account on **Stand By Me** and select their warranty and maintenance options.

#### End user warranty registration

Warranty registration (previously on KEY) is now all done on **Stand By Me.** Once you've commissioned the system and emailed the code to your customer, your database will show you if the end-user has completed the warranty registration and the length of time remaining on their warranty\*.

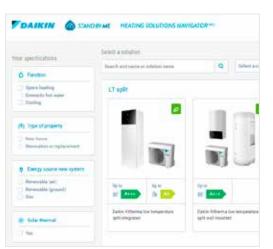
**Stand By Me** means that social housing providers no longer need physical access to properties in order to read meters for RHI reports. Remote monitoring of meters on **Stand By Me** provides a daily summary of the energy produced, consumed and the system efficiency, which can be submitted to Ofgem for RHI reporting. The Daikin remote metering cloud has been designed specifically for Daikin Altherma Hybrid systems and connects with your installed meters to provide all the information needed for quarterly RHI reporting.

### Heating Solutions Navigator

The Heating Solutions Navigator is a versatile toolkit on Stand By Me, which brings together all the tools required to complete the design and selection of a system and allows you to to showcase Daikin heating solutions to your customers.

The Heating Solutions Navigator helps you to:

- > Quickly see the wide array of Daikin Heating Solutions available
- > Check all the options specifically for your installation
- > Link easily to the installation specific literature
- Estimate the required heat load from a simple snapshot to a detailed room-by-room calculation
- > Use the embedded Pipe Sizing tool to calculate the maximum hydronic piping length from the indoor unit to the outdoor unit



- > Create custom made piping & wiring diagrams
- > Use the flue gas selection tool for gas based solutions
- > Set the configuration of your installation
- Compare economic and environmental benefits of the Daikin system versus a conventional heating installation
- > Store all your leads on you Stand By Me account
- > Track projects from lead, installation and commissioning to inviting your customers to select after-sales services





#### daikin.co.uk Heating installer line: 01932 879070

Dedicated homeowner support line: 01932 879271 The present leaflet is drawn up by way of information only and does not constitute an offer binding upon Daikin UK. Daikin UK has compiled the content of this leaflet to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin UK explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this leaflet. All content is copyrighted by Daikin UK.



ECPEN21 - 760UK / 02.21 / Copyright 2021 Daikin Printed in the UK on FSC certified paper from responsible sources.

FSC