

COMMERCIAL

## ECOMOD Commercial heat pumps

FROM THE UK'S LEADING HEATING MANUFACTURER





Visit our website for more details idealheating.com/commercial-heat-pumps

## CONTENTS



ECOMOD 50 & 70kW

BUFFFD TANKS

## IDEAL HEATING IS THE UK'S MARKET LEADER OF HIGH EFFICIENCY COMMERCIAL HEATING SOLUTIONS

OPERATING FROM ITS HULL MANUFACTURING PLANT AND OFFICES SINCE 1906, IDEAL IS ONE OF THE FEW TRUE BRITISH MANUFACTURERS LEFT IN THE HEATING INDUSTRY. We have led the way in commercial heating by ensuring our heating products are at the forefront of technology, quality and design by delivering both high efficiency and low running costs in line with the key market trends and legislation.

In 2015, we led the transition from atmospheric boilers to exclusively condensing products under the ErP Directive. This saw the end for the traditional non-condensing boilers

## JOIN THE NET ZERO-JOURNEY-

Ideal Heating Commercial

and a new era for commercial heating, with our condensing portfolio products rising to the challenge of a changing market.

More recently, we are at the forefront of product development in line with government strategy, legislation and the UK's Pathway to Net Zero by 2050. Decarbonisation of the UK heating grid is at the forefront of this effort and the UK Government have identified heat pumps as a core technology of the future.



## JOIN THE NET ZERO JOURNEY

THE DESIRE TO ACHIEVE **NET ZERO TARGETS ARE BASED AROUND THE UK'S ENVIRONMENTAL** COMMITMENTS, **CONSUMER AWARENESS** AND PUBLIC OPINION.

Building regulations, increasing consumer awareness and future energy policy are key drivers in the uptake of renewable technologies such as heat pumps.

UK home owners. social housing associations and local authorities are collectively seeking robust solutions to minimise their carbon emissions and reduce the environmental impact of residential energy use.

We have the knowledge, experience and skills to play our part in ensuring the nation achieves its Net Zero targets and so our customers have the best and most advanced solutions for heating and hot water, whatever their needs and requirements.

## HOW A HEAT PUMP WORKS

## THE TECHNOLOGY: HEAT PUMP CYCLE



why heat pumps a	ile a good low carbon solution:
Heat pumps	- Heat pumps produces zero local carbon emissions.
on fossil fuels	- Heat pump technology can be up to 400% more efficient than traditional boilers.
	<ul> <li>Fossil fuels combustion contributes towards carbon emissions and global warming; not environmentally friendly.</li> </ul>
Heat pumps produce renewable heat	<ul> <li>A heat pump utilises the free energy in the air to heat water.</li> <li>When heat pumps are partnered with a renewable electricity supplier, heat generation is 100% carbon neutral.</li> </ul>
Refrigerant vs. Natural Gas	<ul> <li>The refrigerant in the heat pump is maintained within the unit and constantly recycled for the lifetime of the appliance.</li> </ul>

## "At Ideal we are not just boiler experts, we are Heating Experts."

## 1

### CAPTURE

The fan passes ambient air over extremely cold liquid refrigerant. The refrigerant captures the heat from the ambient air and becomes a warm vapour.

## 3

### EXCHANGE

The heat in the hot refrigerant is then transferred to the heating and hot water through a heat exchange.

2

### COMPRESS

The warm refrigerant vapour passes through a compressor which produces hot refrigerant and usable heat.



### **EXPAND**

As the heat is transferred the refrigerant passes through an expansion valve which reduces its temperature, making it really cold again and enabling it to capture heat from the ambient air, continuing the cycle.

## THE ECOMOD HEAT PUMPS

THE NEW ECOMOD **HEAT PUMPS HAVE BEEN DESIGNED WITH COMMERCIAL BUILDINGS IN MIND AND WILL DELIVER THE NEXT GENERATION OF HEATING SOLUTIONS.** 

These monobloc air source heat pumps have been built to meet the changing commercial heating market needs and offer highly efficient COP performance with low environmental impact, by using R32 refrigerant.

With 7 models in the range, these high-performance heat pumps can be used alongside our full portfolio of commercial heating products - cascaded for high output - and meet the growing needs of commercial buildings. Our new heat pumps are an integral part of any low carbon heating solution.

## JOIN THE **NET ZERO** JOURNEY

Free	5 year warranty	Cascade for higher output	Suitable for commercial properties	Low environmental impact	<b>COP</b> Highly efficient COP rating

### **ECOMOD RANGE OF COMMERCIAL HEAT PUMPS**

## AVAILABLE IN 6 OUTPUTS AND 7 MODELS: 14kW (SINGLE PHASE), 14kW, 18kW, 26kW, 32kW, 50kW AND 70kW.

- Single unit with the refrigeration cycle contained within the outdoor unit
- Inverter controlled compressor to accurately match the heat demand
- Low global warming potential due to the use of R32 refrigerant
- Highly efficient with coefficiency of performance (COP) rating
- Light and compact unit for ease of installation and delivery<sup>†</sup>

Terms and conditions apply.\* 2 year warranty extended to 5 years if commissioned by Ideal Heating \*\*The dB(A) rated sound pressure levels refer to a fully loaded unit at standard nominal conditions according to EN 12/02-12/013. \*\* Efficiency Co-efficient of Performance (COP) rated at EN14825 test conditions Water 35°C, Air 7°C. T. Refers to 14kW, 18kW, 26kW & 32 kW models. Every effort has been taken to ensure the details are accurate. Ideal Heating does not, however, guarantee the accuracy or completeness of any information nor does it accept liability for any errors or omissions in the information. Ideal Heating reserves the right to make changes and improvements which may necessitate alteration to product specification without prior notice.



- Suited to larger installations - cascade systems to achieve higher output
- 2 year warranty (extended to 5 years if commissioned by Ideal Heating)
- 14kW single phase unit available - suitable for sites without access to 3 phase electricity, e.g.: care homes, community halls, etc
- Combine with Ideal industry leading boilers for a hybrid heating system

## ECOMOD HEAT PUMP

## 14 & 18kW



## ACCESSORIES AND OPTIONS

	Required	Optional extras
Control unit (available for cascade and additional heating circuits, and are optional where no BMS is present)		<b>~</b>
Flexible hoses		$\checkmark$
Anti-vibration rubber feet		$\checkmark$
Anti-corrosion (for installations close to the sea)		<b>~</b>



## \* 2 year warranty extended to 5 years if commissioned by Ideal Heating. \*\* 66dB(A) is the rated sound pressure level of the Ecomod 14kW-18kW, the sound levels refer to a fully loaded unit at standard nominal conditions according to EN 12102-1:2013. \*\* Efficiency Co-efficient of Performance (COP) rated at EN14825 test conditions Water 35°C, Air 7°C.

## FEATURES AND SPECIFICATIONS

and delivery

- Monobloc air source heat pump
- Single unit with the refrigeration cycle contained within the outdoor unit
- Inverter controlled compressor to accurately match the heat demand
- Low global warming potential due to the use of R32 refrigerant
- Highly efficient with co-efficiency of performance (COP) rating up to 4.85





E: Electrical Connection

- 156 <u>634</u>

**Note:** All dimensions in mm unless otherwise stated.

### **INSTALLATION CLEARANCES:**

FRONT	REAR	LEFT	RIGHT	ТОР
1500	400	400	500	500

Side clearance of 1000mm when used in cascade. The outdoor unit must be raised by at least 50mm from the ground.

409

dealheating.com

7

 Suited to larger installations
 cascade systems to achieve higher output.

• Light and compact unit for ease of installation

 2-year warranty (extended to 5 years if commissioned by Ideal Heating)

• Gold Fin anti-corrosion coating as standard

 Combine with Ideal industry leading boilers for a hybrid heating system







50



BIM objects available to download at: idealcommercialboilers.com/bim





Suited to larger installations - cascade systems to achieve higher output.

## ECOMOD HEAT PUMP

## 26 & 32kW



## ACCESSORIES AND OPTIONS

	Required	Optional extras
Control unit (available for cascade and additional heating circuits, and are optional where no BMS is present)		<b>~</b>
Flexible hoses		$\checkmark$
Anti-vibration rubber feet		$\checkmark$
Anti-corrosion (for installations close to the sea)		<b>~</b>



## FEATURES AND SPECIFICATIONS

- Monobloc air source heat pump
- Single unit with the refrigeration cycle contained within the outdoor unit
- Inverter controlled compressor to accurately match the heat demand
- Low global warming potential due to the use of R32 refrigerant
- Highly efficient with coefficiency of performance (COP) rating up to 4.09

- Suited to larger installations - cascade systems to achieve higher output.
- Light and compact unit for ease of installation and delivery
- · 2-year warranty (extended to 5 years if commissioned by Ideal Heating)
- Blue Fin anti-corrosion coating as standard
- · Combine with Ideal industry leading boilers for a hybrid heating system



Note: All dimensions in mm unless otherwise stated.

## **INSTALLATION CLEARANCES:**

FRONT	REAR	LEFT	RIGHT	ТОР
1500	400	400	700	500

Side clearance of 700mm when used in cascade. The outdoor unit must be raised by at least 50mm from the ground.

\* 2 year warranty extended to 5 years if commissioned by Ideal Heating. \*\* 74dB(A) is the rated sound pressure level of the Ecomod 26kW, Ecomod 32kW is rated at 76dB(A), the sound levels refer to a fully loaded unit at standard nominal conditions according to EN 12102-1:2013. \*\*\* Efficiency Co-efficient of Performance (COP) rated at EN14825 test conditions Water 35°C, Air 7°C.



Suited to larger installations - cascade systems to achieve higher output.



### BOTTOM

50



BIM objects available to download at: idealcommercialboilers.com/bim

## ECOMOD HEAT PUMP

## 50 & 70kW



## FEATURES AND SPECIFICATIONS

as standard

- Monobloc air source heat pump
- Single unit with the refrigeration cycle contained within the outdoor unit
- Inverter controlled compressor to accurately match the heat demand
- Low global warming potential due to the use of R32 refrigerant
- Suited to larger installations - cascade systems to achieve higher output.



Note: All dimensions in mm unless otherwise stated.

### **INSTALLATION CLEARANCES:**

FRONT	REAR	LEFT	RIGHT	ТОР
1500	1500	1200	1000	1500

Side clearance of 2200mm when used in cascade. The outdoor unit must be raised by at least 50mm from the ground.

idealheating.com

 Highly efficient with coefficiency of performance (COP) rating up to 4.11

· 2-year warranty (extended to 5 years if commissioned by Ideal Heating)

• Blue Fin anti-corrosion coating

 Combine with Ideal industry leading boilers for a hybrid heating system





Suited to larger installations - cascade systems to achieve higher output.





E: Electrical Connection





BIM objects available to download at: idealcommercialboilers.com/bim

## ECOMOD HEAT PUMP **TECHNICAL SPECIFICATIONS**

		14kW (1 Phase)	14kW (3 Phase)	18kW	26kW	32kW	50kW	70kW
Heat Pump Space	ErP rating	A+++	A+++	A+++	A++	A++	A++	A++
Heating [35°C]	SCOP	4.48	4.48	4.46	4.55	4.81	4.16	3.94
Heat Pump Space	ErP rating	A++	A++	A++	A+	A+	A+	A+
Heating [55°C]	SCOP	3.31	3.31	3.36	3.14	3.14	3.08	3.04
	Capacity (kW)	14.1	14.1	17.96	26	32.1	50.2	66.8
Heating (A7/W35)	Power Input (kW)	2.91	2.91	4.07	6.44	7.84	12.2	16.3
	COP***	4.85	4.85	4.4	4.04	4.09	4.11	4.1
Air Temperature Range	Min/Max (°C)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)
Sound Data Outdoor Unit	Power Level dB(A)**	68	68	68	74	76	82	83
	Heating Flow (")	1	1	1	1	1 1/4	1 1/2	1 1/2
Pipework Connection Sizes	Heating Return (")	1	1	1	1	1 1/4	1 1/2	1 1/2
	Width (mm)	1044	1044	1044	1600	1600	1920	1920
Dimensions Outdoor Unit	Depth (mm)	455	455	455	680	680	1110	1110
	Height (mm)	1409	1409	1409	1315	1315	1920	1920
Weight	kg	121	136	141	240	255	535	595
	Electrical Supply (v)	240	415	415	415	415	415	415
	Phase	Single	Three	Three	Three	Three	Three	Three
Electrical Data	Max Running Current (Amp)	29.2	9.7	12.2	23.3	27.1	54	70
	Fuse Rating (Amp)	32	25	25	25	32	63	100
Refrigerant Charge	R32 (kg)	3.2	3.2	3.5	4.3	5.1	8.5	12

Terms and conditions apply. \* 2 year warranty extended to 5 years if commissioned by Ideal Heating \*\*The dB(A) rated sound pressure levels refer to a fully loaded unit at standard nominal conditions according to EN 12102-1:2013. \*\*\* Efficiency coefficient of performance (COP) rated at EN14825 test conditions Water 35°C, Air 7°C. <sup>+</sup> Gold Fin anti-corrosion coating standard on 14kW. 8 18kW models, anti-corrosion coating on other models available, as optional extra. <sup>++</sup> Refers to 14kW, 18kW, 26kW & 32 kW models. Every effort has been taken to ensure the details are accurate. Ideal Heating does not, however, guarantee the accuracy or completeness of any information nor does it accept liability for any errors or omissions in the information. Ideal Heating reserves the right to make changes and improvements which may necessitate alteration to product specification without prior notice.

## **PRODUCT APPROVALS**

Heat Pump Keymark Certification

Includes EN 14825 & EN 42511



Certification for heat pumps.

Demonstrates compliance with product requirements for heat pumps and efficiency requirements as set by Ecodesign.

UKCA & CE Approved



UNDERSTANDING REFRIGERANTS

The lower the Global Warming Potential (GWP) - the more eco-friendly it is and therefore better for the environment.

### ECOMOD heat pumps use R32 refrigerant

REFRIGERANT NAME	TRADE NAME	CHEMICAL NAME	OZONE DEPLETION POTENTIAL	GLOBAL WARMING POTENTIAL	DIFFERENCES
R744	Carbon Dioxide	CO <sub>2</sub>	0	1	Natural Refrigerant
R290	Propane	Propane	0	3	Very low GWP [3], very eco-friendly, highly flammable, higher costs and not yet commonly used.
R32	HFC-32	Difluoromethane	0	675	Lower GWP [675], Eco-friendly, mildly flammable, lower cost, most popular refrigerant choice.
R134a	HFC-134a	1,1,1,2-Tetrafluoroethane	0	1430	Being phased out as of January 2022.
R407c	Klea 66	R32/R125/R134a	0	1774	Still used but will be phased out in 2025 in systems with less than 3kg charge.
R410a	Puron, AZ-20	R-32/R-125 (50/50)	0	2088	Slowly being phased out, higher GWP [2088], worse for environment, non-flammable, higher costs.

The production of refrigerants R134a, R407C, R407F and R410A is being phased out step-by-step. In 2020, the total production of synthetic refrigerants will be reduced by around 40%. In 2030, only 20% of the currently produced synthetic refrigerants may still be marketed



## COP AND SCOP MEASURES OF EFFICIENCY



### **COP - COEFFICIENT OF** PERFORMANCE

The coefficient of performance (COP) refers to the efficiency of a heat pump and directly relates to the energy the output from a heat pump. It is the ratio of heat produced, relative to each unit of electricity consumed in the heat pump.

See page 17 for COP graphs

Heat output COP = **Electrical Input** 

### **SCOP - SEASONAL COEFFICIENT OF PERFORMANCE**

The seasonal coefficient of performance (SCOP) is the average COP carried over the annual heating season (the full vear).



THE LEVELS OF NOISE THAT A HEAT PUMP EMITS IS REPRESENTED AS A SOUND POWER AND SOUND PRESSURE LEVEL

### SOUND POWER

Sound power is a property of the product components under laboratory testing. The sound power is the sound waves emitted from a source (heat pump is the source in this case), it is measured in decibels (dB). The sound power is the total sound emitted from the source.



## SOUND PRESSURE

The sound pressure is sometimes referred to as the 'noise level'. This describes the disturbance of sound and what we realistically hear.



## ECOMOD COEFFICIENT OF PERFORMANCE (COP) GRAPHS



Efficiency coefficient of performance (COP) rated at EN14825 test conditions Water 35°C, Air 7°C.

Ideal Heating Commercial

idealheating.com

Efficiency coefficient of performance (COP) rated at EN14825 test conditions Water 35°C, Air 7°C.

## **BUFFER TANKS**

## **TECHNICAL FEATURES AND PERFORMANCE CAPABILITIES**

FEATURES	PRIMARY TANK MODELS			
	500 0B*	500 3B*	900 2B*	1500 2B*
Useful capacity (L)	517	517	904	1425
Passage width (mm)	680	680	795	1015
Min. room height for installation (mm)	2100	2100	2415	2415
Tilting dimension (mm)(1)	1980	1980	2240	2270
Empty tank weight (kg)	72	72	140	180
Thermal losses(2) Ua (W/K). Flexible M1	1.38	1.657	2.231	2.778

(1) Risers not mounted. (2) Storage at 65°C - Ambient temperature at 20°C. Values supported per RT2012.

### DIMENSIONS

### 500 L





Front view





Front view

H

130

0

0

e

Top view

Tank Ø

REFERENCES	DESCRIPTION	UNITS		PRIMARY TANK MODELS		
			500 0B*	500 3B*	900 2B*	1500
Tank Ø	Tank diameter without insulation	mm	650	650	790	1000
НТ	Tank overall height (height without riser)	mm	1950	1950	2215	2215
н	Height with risers	mm	1950	1950	2265	2265
A	Lower connection	mm	440	440	430	500
В	Upper connection	mm	1510	1510	1645	1460
B'	Intermediate connection	mm	-	825	920	915
C1	Lower clamp height	mm	-	470	-	-
C2	Intermediate clamp height	mm	-	970	1200	1077
C3	Upper clamp height	mm	-	1370	1705	1630
F	Drainage height	mm	110	110	60	60
R	Riser height	mm	-	-	50	50
1	Temperature probe branch pipe			F15/21 Th	rough type	
2	Thermometer branch pipe			F15/21 Th	rough type	
3	Branch pipe connection		F	66/76	F 8	30/90
4	Purge		M 40/49			M 50/60
5	Drain			F	33/42	
100.01						

\* OB - O flange connection 2B - 2 flange connection 3B - 3 Flange connection











24



## FUNCTIONAL DIAGRAM



FUNC	TIONAL DIAGRAM KEY		
Code	Description	RS/RD	Suction / D
мс	Compressor	H/CS	Plant water
CO/EV	Condenser	H/CR	Plant water
EV/CO	Evaporator	PEH TC	High pressu
EEV	Electronic expansion valve in heat pump mode	PED TR	Low pressu
YISV	Inversion valve	TE	Air tempera
LR	Liquid receiver	TE SD	Suction ten
F	Filter drier	TE DT	Discharge t
sv	Service valve	PSH C	High pressu manual res
нс	Crankcase heater	TE IE	Temperatu plant returr
MAF	Axial fan	TE OE	Temperatu plant delive
MF	Muffler	DV	Drain valve
LS	Suction separator	RV	Safety valve
RS	Sunction line	FL	Flow switch
RD	Discharge line	Р	Water pum
RL	Liquid line	AV	Air vent val
RD/RS	Discharge / Suction line	SM	Service slee

- ischarge line
- out supply
- r in return
- ure transducer
- ure transducer
- ature probe
- mperature probe
- temperature probe
- sure switch set
- ure probe in -
- 1
- ure probe out -⁄ery

- ar
- ve
- eve



THE UK'S LEADING HEATING MANUFACTURER

COMMERCIAL

# 

## **ECOMOD HEAT PUMPS** WITH OUR RANGE OF COMMERCIAL CONDENSING **BOILERS TO BUILD** THE OPTIMUM LOW CARBON HYBRID **HEATING SYSTEM**

## COMMERCIAL CONDENSING BOILERS



## **EVOMAX 2**

- Wall Hung
- Aluminium Alloy Heat Exchanger
- 30 150kW
- 30 120kW LPG

## **IMAX XTRA 2**

- Floor Standing Aluminium Alloy Heat Exchanger
- 80 280kW







### **IMAX XTRA EL**

- Floor Standing
- Aluminium Alloy Heat Exchanger
- 320 1240kW

### • Floor Standing

**EVOMOD** 

- Stainless Steel Heat Exchanger
- Modular
- · 250 1000kW



## **EVOJET**

- Floor Standing
- Stainless Steel Heat Exchanger
- 150 1450kW
- Condensing Pressure Jet
- Natural Gas, LPG, Oil or Dual Fuel

## TRAINING AND AFTERSALES SUPPORT

WE ARE COMMITTED TO DELIVERING THE HIGHEST LEVEL OF CUSTOMER SERVICE. WITH MORE THAN 100 YEARS' EXPERIENCE IN THE HEATING INDUSTRY WE ARE TRUSTED BY CUSTOMERS ACROSS THE UK.

### Dedicated support and years of experience

Ideal Heating lead the way in commercial applications, by ensuring our heating products stay at the forefront of technology, delivering both high efficiency solutions and low running costs, in line with the key market trends and legislation.

At the centre of this trust is the support and unrivalled heating experience

### Free commissioning and extended warranty

Our free commissioning service, by an Ideal Heating commercial engineer is available on all ECOMOD products.

This innovative offer will greatly assist specifiers, merchants and installers, as it not only reduces customer costs it also ensures that the heat pumps are

operating correctly and activates the extended warranty.

provided by our dedicated technical

The UK contact centre is open 364 days

person by fully trained members of staff.

a year, with calls answered directly in

They can assist with enquiries or help

to diagnose and resolve queries over the telephone. Engineer visits are also

available for complex projects.

and service engineering team.

The ECOMOD range are supplied with a comprehensive 2 year warranty included as standard, increasing to 5 year once commissioned by Ideal Heating.

### Get skilled with our expertise?

All Ideal Heating engineers have years of expertise across the full range of heating solutions and are fully trained to the highest possible standards, including all being Gas Safe registered. The only UK Heating manufacturer accredited to deliver in-house F-Gas training and

\* 2 year warranty extended to 5 years if commissioned by Ideal Heating. \*\* As far as we are aware.

accreditations\*\*, we have been delivering Heat Pump training and qualifications since 2021 and offer the best value courses in the industry at the lowest possible prices. We are registered members of Refcom.

## Investment in state-of-the-art training centres

Ideal Heating commercial customers are further supported with the availability of high-level training. Delivered at state-of the-art Centres of Excellence, including a new flagship training venue with over £1m of investment at Bridgehead, Hull in Fast Yorkshire.

## **TRAINING LOCATIONS**

## Our training centres are accredited for BPEC and City and Guilds.

Since 2012 we have invested over £10m on providing free or low-cost training to heating installers across the UK and Ireland.



The training team also operate from a further 15 locations in the UK, backed-up by our unique mobile roadshow events our full-time expert training managers offer a wide range of comprehensive courses, which can be customised for individual installation and servicing companies.





### COMMERCIAL

		14kW (1 Phase)	14kW (3 Phase)	18kW	26kW	32kW	50kW	70kW
Heat Pump Space Heating	ErP rating	A+++	A+++	A+++	A++	A++	A++	A++
[35°C]	SCOP	4.48	4.48	4.46	4.55	4.81	4.16	3.94
Heat Pump Space Heating	ErP rating	A++	A++	A++	A+	A+	A+	A+
[55°C]	SCOP	3.31	3.31	3.36	3.14	3.14	3.08	3.04
	Capacity (kW)	14.1	14.1	17.96	26	32.1	50.2	66.8
Heating (A7/W35)	Power Input (kW)	2.91	2.91	4.07	6.44	7.84	12.2	16.3
	COP***	4.85	4.85	4.4	4.04	4.09	4.11	4.1
Air Temperature Range	Min/Max (°C)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)	(-20 +40)
Sound Data Outdoor Unit	Power Level dB(A)**	68	68	68	74	76	82	83
Dinowork Connection Sizes	Heating Flow (")	1	1	1	1	11/4	1 1/2	1 1/2
Pipework Connection Sizes	Heating Return (")	1	1	1	1	11/4	1 1/2	1 1/2
	Width (mm)	1044	1044	1044	1600	1600	1920	1920
Dimensions Outdoor Unit	Depth (mm)	455	455	455	680	680	1110	1110
	Height (mm)	1409	1409	1409	1315	1315	1920	1920
Weight	kg	121	136	141	240	255	535	595
	Electrical Supply (v)	240	415	415	415	415	415	415
	Phase	Single	Three	Three	Three	Three	Three	Three
Electrical Data	Max Running Current (Amp)	29.2	9.7	12.2	23.3	27.1	54	70
	Fuse Rating (Amp)	32	25	25	25	32	63	100
Refrigerant Charge	R32 (kg)	3.2	3.2	3.5	4.3	5.1	8.5	12

### Commercial products:

Sales, orders, availability, literature and pricing

0844 543 6060

commercial@idealheating.com

Technical and customer service: 01482 498 376

commercial.services@idealheating.com

### **Spares:**

Sales, orders, availability and pricing

01482 498 665