



BOSCH

Invented for life

NEW



Residential Air Conditioning (RAC) solutions

About the Bosch Group

Leading global supplier

The Bosch Group is active in the fields of automotive technology, industrial technology, consumer goods, and energy and building technology. The Bosch Group has approximately 389,000 associates who generate sales of over €73.1 billion a year.

The Bosch Group comprises of Robert Bosch GmbH and has more than 440 subsidiaries and regional companies in some 60 countries. When sales and service partners are included, Bosch is represented in 150 countries worldwide.

We are a charitable foundation

92% of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation, while the majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust.

As part of the Bosch Group a percentage of the profits made is donated to charities and good causes both locally and internationally.



Robert Bosch Stiftung

Discover Bosch Commercial and Industrial

bosch-industrial.co.uk

Bosch products deliver high levels of fuel efficiency, consistent performance and have a notoriously long product life.

With our extensive history and decades of experience, you can place your trust in our custom solutions from Europe's market leader in heating and hot water systems.

All our products are subject to rigorous quality testing of each and every component, to ensure efficient, reliable and consistent performance throughout their long life and are supported by an unrivalled technical support team.

From initial consultation, system design to final commissioning and on-going, whole-life support, we offer the complete package.

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Bosch offers the best option for ensuring comfort, while caring for the environment

Our new Bosch Climate range provides high quality air conditioning which purifies the air we breathe.

The Climate range is suitable for a wide range of applications, providing a relatively low cost option for both new and retro installations in smaller commercial properties and in larger domestic properties. It is also suitable for complementing larger commercial air conditioning systems, such as the Bosch Climate 5000 VRF (see page 12), to maintain the lower temperatures required in temperature-critical computer/data rooms. Climate 5000 systems are also easy to install by a qualified refrigeration engineer.



Bosch Climate RAC inverter air conditioning units can save up to 40% over a conventional system

Energy efficiency of the range

The Bosch Climate range is compliant with the European ErP 2013 standard (EcoDesign Directive 2009/125/EC) governing air conditioning installations and air conditioning equipment.

3D DC Inverter technology and energy efficiency

Bosch Climate air conditioning units achieve a high level of energy efficiency thanks to their DC Inverter technology.

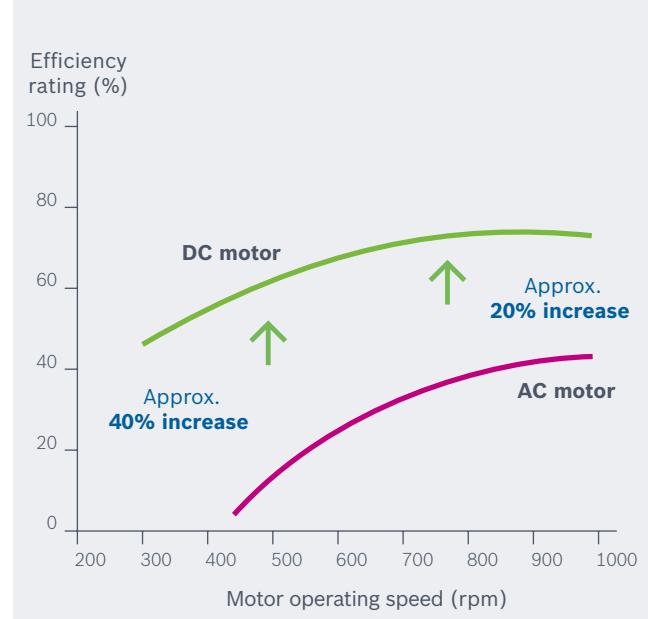
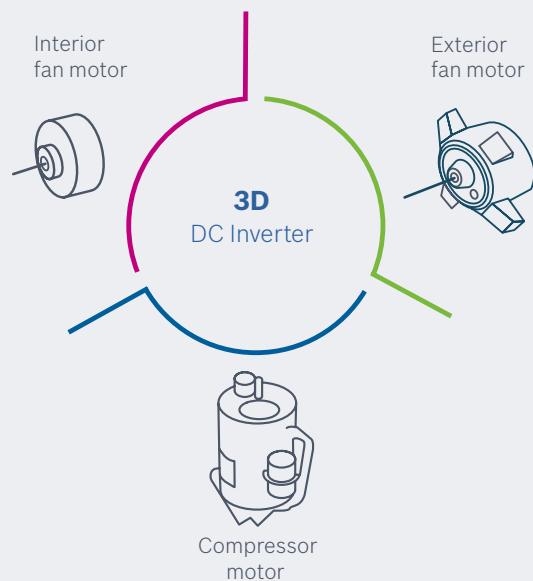
The term Inverter relates to modulation and is used in reference to units with a compressor and fan speed electronic drive that adapts the unit's ability to produce hot and cold air to meet the requirements of the property.

In addition to the compressor motor, the interior and exterior fan motors are also of the DC type and are brushless. As a result, 3D DC Inverter units are both quieter in operation and more efficient, which helps to save energy.

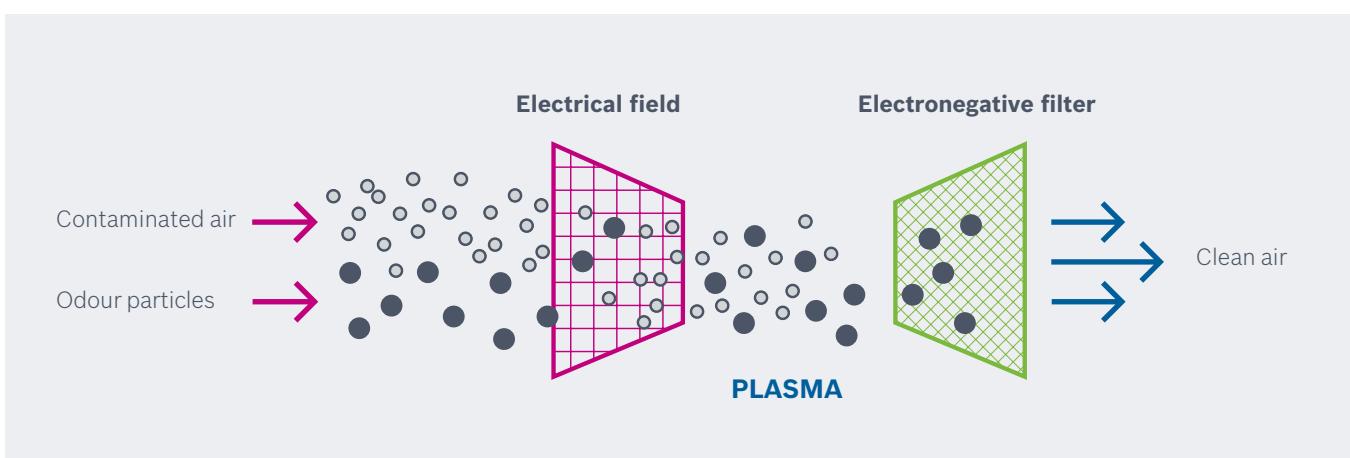
The benefits of DC inverter technology

Inverter air conditioning units offer many advantages over those of the no inverter type:

- ▶ Rapid cooling and heating to achieve the required temperature
- ▶ Maintain a constant temperature with minimal fluctuations
- ▶ Power output adjusts to match the demand to avoid frequent compressor start-up/shut down and to increase energy efficiency
- ▶ Operate at low frequency with the highest SEER efficiency rating over the majority of the operating time which significantly reduces energy consumption
- ▶ The powerful DC inverter compressor and the exterior fan motor are used to adjust the air flow and volume, resulting in a more extensive and efficient range of operation
- ▶ There are no voltage peaks in the inverter compressor; the inverter start-up current is much lower than that of a unit without an Inverter.



Efficient, effective and environmentally friendly



Energy efficiency ratings of up to A++

Bosch Climate RAC air conditioning units are high quality products with A++ or A+ energy efficiency ratings (model dependant), ranking them in the most efficient rating band for high levels of energy saving.

Cold/Heat

Ideal for providing comfort throughout the year from the same source, representing the perfect combination of technology and quality with the added benefit of a leading brand.

Quiet and compact

Thanks to their low noise levels and pleasing aesthetics, Bosch Climate RAC units offer the best of both worlds – a light and attractive modern design plus all the benefits of a comfortable living environment.

Purifying filter

The anti-dust filter captures dust particles, providing a cleaner air flow and maintaining a pleasant environment. The purifying filter can eliminate up to 95% of dust particles, smoke and pollen.

R410A environmentally friendly refrigerant

More efficient, high operating pressures of up to 60% greater than that of other refrigerants, as well as being environmentally friendly and non-flammable.

Simple to install and operate

Installation is made easier using the mounting template for the interior unit. The units have various integrated functions and there is an option to use remote controls.

Support from a leading brand

Bosch air conditioning products offer the support of the Bosch Group, a market leader in technology and innovation.





Bosch Climate 5000 and 8000 RAC Split operating modes

All Bosch Climate 5000 and 8000 Split air conditioning systems have five operating modes, which function according to the application and comfort requirements, resulting in the best performance and efficiency.



Auto mode

The system switches automatically between heat and cold modes if the ambient temperature is respectively below or above the temperature setting value.



Cold mode

The fan speed may be selected to obtain the required temperature.



Heat mode

The fan speed may be selected to obtain the required temperature.



Ventilation mode

The fan speed may be selected without starting up the exterior unit.



Dehumidifier mode

This mode adapts the ambient humidity to the optimum level for the time of year.

Bosch Climate 5000 RAC standard Split range

- ▶ Split 1x1 type air conditioning unit.
- ▶ 2.6kW, 3.5kW, 5.3kW and 7kW models.
- ▶ DC inverter technology.
- ▶ Purifying filter.
- ▶ Compact and quiet.
- ▶ Remote control included.
- ▶ Timer.
- ▶ Simple to install and maintain with integral mounting.
- ▶ Automatic reset. In the event of a power cut, the unit resets itself resuming operation at the same settings as before it shut down.
- ▶ Turbo mode. This function increases ventilation speed to reach the required temperature more quickly.
- ▶ Sleep function. Controls ambient temperature during the night. Auto-modulation improves comfort.
- ▶ Temperature compensation.



Technical data

			5000 RAC 2.6	5000 RAC 3.5	5000 RAC 5.3	5000 RAC 7.0
INDOOR UNIT			RAC 2.6-2 IBW 7739834579	RAC 3.5-2 IBW 7739834581	5000 RAC 5.3-2 IBW 7739834583	5000 RAC 7-2 IBW 7739834584
OUTDOOR UNIT			RAC 2.6-2 OU 7739834580	RAC 3.5-2 OU 7739834582	RAC 5.3-2 OU 7739832085	RAC 7-2 OU 7739834585
Power supply			V/Hz/Ph	220–240/~50/1		
Maximum power consumption			W	2075	2200	2550
Maximum operating current			A	9.5	10	11.5
Cooling	Capacity	Nominal	kW	2.6	3.5	5.3
	Power consumption	Nominal (min–max)	W	774 (100-1240)	1252 (100-1580)	1643 (140-2360)
	Operating current	Nominal (min–max)	A	3.36 (0.4-5.4)	5.44 (0.4-6.9)	7.15 (0.6-10.3)
	EER		W/W	3.41	2.81	3.21
	SEER		W/W	6.2	6.1	6.4
	ErP energy class			A++		
Heating	Annual power consumption		kWh/year	147	201	290
	Capacity	Nominal	kW	2.9	3.8	5.6
	Power consumption	Nominal (min–max)	W	769 (120-1200)	1187 (130-1510)	1633 (200-2410)
	Operating current	Nominal (min–max)	A	3.34 (0.5-5.2)	5.16 (0.6-6.6)	7.10 (0.9-10.5)
	COP		W/W	3.81	3.21	3.41
	SCOP		W/W	4.0		
Indoor unit	ErP energy class			A+		
	Annual power consumption		kWh/year	770	805	1470
	Dimensions	W x D x H	mm	715x194x285	805x194x285	957x213x302
	Packing	W x D x H	mm	780x270x360	870x270x360	1035x295x380
	Ground	Net/gross	kg	6.8/8.9	7.2/9.6	9.5/12.5
	Fan	Speed (H/M/L)	RPM	1130/900/800	1130/900/800	1130/900/800
Outdoor unit	Airflow rate	(H/M/L)	m³/h	420/320/270	570/470/370	840/680/540
	Sound pressure level	(H/M/L/Night)	dB(A)	40/34/29/25	41/36/28/23	47/40/35/25
	Sound power level	High	dB(A)	52	53	56
	Dimensions	W x D x H	mm	770x300x555		800x333x554
	Ground	Net/gross	kg	26.4/28.9	26.5/28.8	37/39.9
	Compressor	Type		Rotary		
Installation	Operating current (nominal)	A		2.2		7.3
	Fan	Speed (H/M/L)	r/min	810/710/520		810/700/550
	Airflow rate		m³/h	1800		2100
	Sound pressure level		dB(A)	55.5	56	56
	Sound power level		dB(A)	60	59	63
	Type			R410A		
Refrigerant	Heating potential	GWP		2088		
	Factory charging	kg		0.8		1.48
	Filling amount (above 5m)	g/m		15		30
	Liquid / Gas	mm (inch)		Ø6.35/Ø9.52 (1/4"/3/8")	Ø6.35/Ø12.7 (1/4"/1/2")	Ø9.52/Ø15.9 (3/8"/5/8")
Piping connections	Max installation length	m		25		30
	Max level difference	m		10		20
	Outdoor unit	mm²		3x1.5		3x2.5
Flow (to outdoor unit)	Indoor unit (with communication)	mm²		5x1.5		5x2.5
	Protection	A	10	16		20
Controller type				Standard wireless		
Optimum operating range	Cooling	°C		-15-50		
	Heating	°C		-15~30		

Provided efficiencies calculated using the following parameters:

cooling: indoor temperature 27°C (DB) / 19°C (WB); outdoor temperature 35°C (DB) / 24°C (WB); heating: indoor temperature 20°C (DB) / 15°C (WB); outdoor temperature 7°C (DB) / 6°C (WB); Length of piping installation for combined units 7.5m. Height difference between indoor and outdoor units 0m.

Dimensions, technical data and functions may change due to product improvement. Units contain R410A fluorinated greenhouse gases.

Bosch Climate 8000 RAC premium Split range

- ▶ Split 1x1 type air conditioning unit.
- ▶ 2.6kW, 3.5kW, 5.3kW and 7kW models.
- ▶ DC inverter technology.
- ▶ Purifying filter.
- ▶ Compact and silent.
- ▶ Remote control included (wired control available soon).
- ▶ Intuitive display.
- ▶ Simple to install and maintain with integral mounting.
- ▶ Low energy consumption in stand-by mode.
- ▶ ECO function – energy savings of up to 60%.
- ▶ Automatic reset – in the event of a power failure, the unit resets itself resuming operation at the same settings as before it shut down.
- ▶ Intelligent anti-icing protection leverages unit operation in heat mode and increases it, resulting in a significant energy consumption saving.
- ▶ Swing function allows better distribution of air.
- ▶ Sleep function – controls ambient temperature during the night.
- ▶ Fault diagnostics function indicates the error code on the display.
- ▶ Can be connected to central control systems to form part of a VRF solution.



Technical data

			8000 RAC 2.6	8000 RAC 3.5	8000 RAC 5.3	8000 RAC 7.0
INDOOR UNIT			RAC 2.6-1 IPW 7739832080	RAC 3.5-1 IPW 7739832082	RAC 5.3-1 IPW 7739832084	RAC 7-1 IPW 7739832086
OUTDOOR UNIT			RAC 2.6-1 OU 7739832901	RAC 3.5-1 OU 7739832083	RAC 5.3-2 OU 7739832085	RAC 7-1 OU 7739832087
Power supply			V/Hz/Ph	220–240~/~50/1		
Maximum power consumption			W	2075		2550
Maximum operating current			A	9.5		11.5
Cooling	Capacity	Nominal	kW	2.7	3.5	5.3
	Power consumption	Nominal (min–max)	W	750 (90–1270)	1088 (100–1740)	1547 (150–2380)
	Operating current	Nominal (min–max)	A	3.3 (0.4–5.5)	4.7 (0.4–7.5)	6.7 (0.7–10.3)
	EER		W/W	3.51	3.23	3.41
	SEER		W/W	7.4	6.8	6.8
	ErP energy class			A++		
	Annual power consumption		kWh/year	128	180	273
Heating	Capacity	Nominal	kW	2.9	3.8	5.6
	Power consumption	Nominal (min–max)	W	770 (140–1340)	1025 (170–1760)	1500 (220–2430)
	Operating current	Nominal (min–max)	A	3.4 (0.6–5.8)	4.5 (0.7–7.6)	6.5 (1.0–10.6)
	COP		W/W	3.81	3.71	3.71
	SCOP		W/W	4.2		4.0
	ErP energy class			A+		
	Annual power consumption		kWh/year	867	933	1470
Indoor unit	Dimensions	W x D x H	mm	722x187x290	802x189x297	965x215x319
	Packing	W x D x H	mm	790x270x370	875x285x375	1045x305x405
	Ground	Net/gross	kg	7.4/9.6	8.2/10.7	10.7/14
	Fan	Speed (H/M/L)	RPM	1050/850/650	1100/1000/700	1100/800/700
	Airflow rate	(H/M/L)	m³/h	420/310/240	520/460/270	750/500/420
	Sound pressure level	(H/M/L/Night)	dB(A)	37/33/23/22	39/35/24/22	42/34/29/22
	Sound power level	High	dB(A)	53	52	57
Outdoor unit	Dimensions	W x D x H	mm	770x300x555	800x333x554	800x333x554
	Ground	Net/gross	kg	26.6/29	29.1/31.9	37.8/40.5
	Compressor	Type		Rotary		
		Operating current (nominal)	A	5.35		7.32
	Fan	Speed (H/M/L)	r/min	810/710/520		810/700/550
	Airflow rate		m³/h	1900	2000	2100
	Sound pressure level		dB(A)	55	53	55
Installation	Sound power level		dB(A)	58	60	62
	Refrigerant	Type		R410A		
		Heating potential	GWP	2088		
		Factory charging	kg	0.8	0.95	1.48
		Filling amount (above 5m)	g/m	15		
	Piping connections	Liquid / Gas	mm (inch)	Ø6.35/Ø9.52 (1/4"/3/8")		Ø6.35/Ø12.7 (1/4"/1/2")
		Max installation length	m	25		30
		Max level difference	m	10		20
	Flow (to outdoor unit)	Outdoor unit	mm²	3x1.5		3x2.5
		Indoor unit (with communication)	mm²	5x1.5		5x2.5
		Protection	A	10	16	20
	Controller type			Standard wireless		
	Optimum operating range	Cooling	°C	-15~50		
		Heating	°C	-15~30		

Provided efficiencies calculated using the following parameters:

cooling: indoor temperature 27°C (DB) / 19°C (WB); outdoor temperature 35°C (DB) / 24°C (WB); heating: indoor temperature 20°C (DB) / 15°C (WB); outdoor temperature 7°C (DB) / 6°C (WB); Length of piping installation for combined units 7.5m. Height difference between indoor and outdoor units 0m.

Dimensions, technical data and functions may change due to product improvement. Units contain R410A fluorinated greenhouse gases.

Bosch Climate 5000 VRF MDCI mini range



The Bosch Climate 5000 VRF range incorporates a host of advanced technologies to deliver exceptional performance for the end user, combined with ease of installation, commissioning and maintenance for the air conditioning engineer.

Thanks to variable refrigerant flow technology, Bosch VRF air conditioning systems are convenient and save valuable energy at the same time.

The systems consist of outdoor units and several indoor units and can be utilised for both cooling and heating. These new solutions from Bosch therefore play a decisive role in ensuring that people in all areas of large buildings can enjoy a comfortable climate, independent of the seasons of the year.

All Bosch Climate 5000 VRF systems incorporate sophisticated technologies to deliver improved performance over and above that of less advanced systems.

The Bosch Climate 5000 VRF family comprises three key models, each available in a range of variants to suit the precise needs of each project.

Indoor units

The Bosch Climate 5000 range offers a wide selection of indoor units for all applications, with options for wall, ceiling and floor mounting in addition to cassette and duct type units.

VRF Controller options

Controller options include individual infrared remote controls and wired remote controls as well as centralised remote controllers which are able to control up to 64 indoor units.

EU F-Gas Regulation 517/2014 data – Bosch Climate 5000 VRF models

MDCI Series – Technical data

MODEL	MDCI8-1	MDCI10-1	MDCI12-1/ MDCI12-3	MDCI14-1/ MDCI14-3	MDCI16-1/ MDCI16-3	MDCI18-3	MDCI20-3	MDCI22-3	MDCI26-3	
Data related to EU F-Gas Regulation 517/2014										
	Environmental impact	Contains fluorinated gases								
	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant	Global Warming Potential	kgCO ₂ -eq	2,088	2,088	2,088	2,088	2,088	2,088	2,088	2,088
	Amount of refrigerant	kg	2.8	2.95	3.3	3.9	4.5	4.8	6.2	6.2
	Amount of refrigerant	toCO ₂ -eq	5.846	6.160	6.890	8.143	8.143	9.396	10.022	12.946

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Piping length is 5m, level difference is zero.

Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1m above the floor.



Overview of our complete product range

With our extensive product range of energy-efficient products we can provide the complete heating, hot water and cooling solution for every type of educational facility whatever its age or size.

- ▶ Gas- or oil-fired boilers with individual outputs from 50kW to 38,000kW and standard efficiencies of up to 109%.
- ▶ Multi-fuel boilers with outputs from 650kW to 19,200kW.
- ▶ Dual Fuel, Biogas and LPG boilers with outputs from 420kW to 1,850kW.
- ▶ Compact condensing multi-boiler cascade systems of wall-mounted boilers with outputs of up to 800kW in a variety of configurations.
- ▶ Compact condensing multi-water heater cascade systems of up to 600kW.
- ▶ Combined Heat and Power (CHP) modules with outputs ranging from 12kWe to 2MWe.



- ▶ High performance RAC air conditioning systems and heat recovery VRF systems.
- ▶ High efficiency Heat Interface Units (HIU) proving centralised heating and hot water solutions for multi-residential accommodation.
- ▶ Highly efficient, low NOx gas absorption heat pumps.
- ▶ Large scale high-performance solar thermal systems for efficient hot water supply.
- ▶ Modular control systems and intelligent web-enabled cross-platform controls for large-scale plants.

For more information please call 0330 123 3004 or visit bosch-industrial.co.uk

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