SMC

Expertise – Passion – Automation

Give yourself peace of mind

SMC temperature control solutions

Are you getting overheated about the poor performance of your temperature control equipment? Maybe you've just not been introduced to the most efficient working partner.

SMC Chillers embody technological excellence and a commitment to sustainability, offering customers a comprehensive solution for their cooling requirements. Beyond superior performance, investing in SMC Chillers brings about tangible benefits, positively impacting the bottom line, and contributing to a more sustainable and responsible industrial landscape.

Our temperature control solutions prioritize **energy efficiency**, delivering optimal cooling performance with minimal energy consumption. This not only aligns with **cost-effectiveness** but also underscores a commitment to **environmental sustainability**. The incorporation of advanced technology, including precision control systems and adaptive cooling mechanisms, ensures consistent and intelligent temperature management.

A standout feature of SMC chillers is their remote monitoring and control capabilities, enabling users to manage operations from anywhere.

This promotes convenience, facilitates proactive maintenance, and **minimises downtime**, contributing to a seamless operational experience for businesses. SMC chillers have built a reputation for superb reliability in the most demanding applications.

Environment responsibility is a key factor in SMC chiller development, evident in the use of **refrigerants with lower GWP**. This not only complies with ecological standards but also aligns with **global initiatives for a greener future**, emphasizing the importance of responsible corporate practices.

- **SMC innovation for European F-Gas**
- **Current generation chillers**
- **Industry applications**

SMC innovation for European F-Gas

Don’t get left out in the cold

All traditional refrigerants for use in industrial chillers have issues of concern, whether it’s high Global Warming Potential (GWP) or problems with flammability or toxicity. The regulatory bodies are cracking down on this issue in an aim to protect the environment by making it difficult for you to continue using traditional refrigerants. But there’s some good news: SMC has been working hard on this challenge for the past few years and will shortly be unveiling an industry-changing solution.

Stepping on the gas

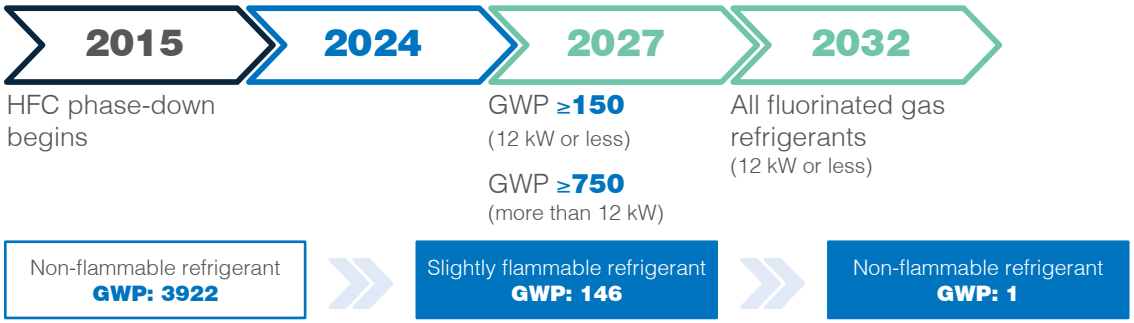
The F-gas regulation is the reference text regarding the use of industrial refrigerants. With this regulation, the EU is aiming to achieve another milestone in its European Green Deal, driving the continent closer to attaining its 55 % emissions reduction target for 2030 and its 2050 climate neutrality goal.

⊕ Check more information about F-Gas here.

Refrigerant regulations for chillers

Below, you’ll find the European & UK legislation as it’s the most restrictive one (compared to the California and US regulation) and it’s the one that SMC decided to follow.

EU and UK



R454C as chiller refrigerant

The GWP of R454C is 146 making it a perfectly legal chiller refrigerant after 1 January 2027. R454C is flammable, albeit in a low flammability category.

SMC challenged itself to come up with a non-flammable refrigerant solution that carries a GWP of less than or equal to 1. The outcome?

CO_2 as chiller refrigerant

NATURAL REFRIGERANT

- **GWP of CO_2 is 1.**
- **Non-flammable and non-toxic**
- **Transportable by air.**

The use of CO_2 as a refrigerant gas involves a completely new design of chiller featuring a number of technology innovations, SMC has a chiller range that uses CO_2 gas, taking advantage of its ultra-low GWP.

SMC innovation for European F-Gas
CO_2 chillers

Ready to embrace sustainable cooling? Check out SMC CO_2 refrigerant chillers for an eco-conscious and efficient solution.

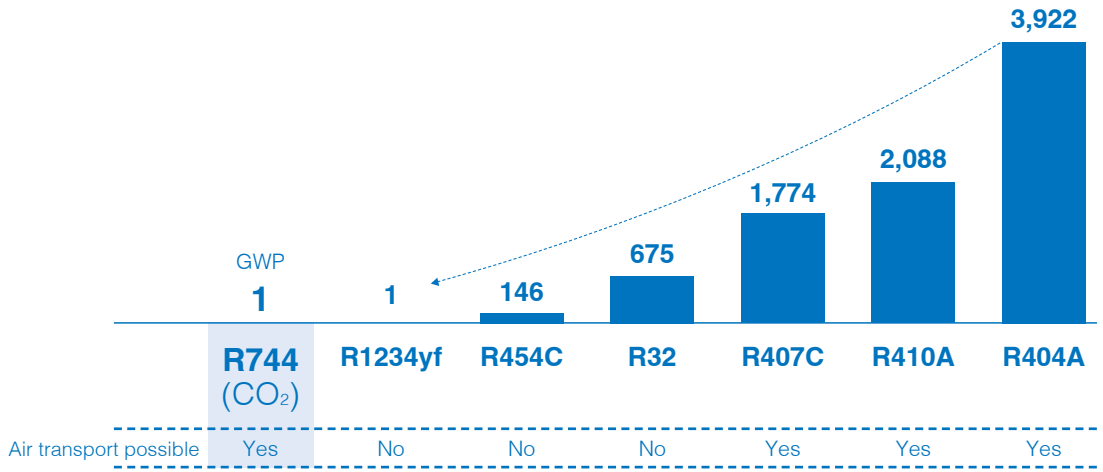
Don't miss the opportunity SMC is giving you.

The future is NOW!

R744
NATURAL REFRIGERANT

SMC's CO_2 refrigerant chillers offer a compelling alternative to the traditional options. By using CO_2 (R744), they boast a near-zero global warming potential (GWP), avoiding harmful CFCs and making them an environmentally-friendly choice. SMC chillers are a future-proof investment. Stringent regulations are phasing out traditional refrigerants. By choosing CO2, you gain peace of mind knowing your chiller complies both with current and upcoming environmental standards.

Don't be fooled by their green credentials – these chillers pack a punch. With efficient designs and variable options, they can perform at the same level as the current generation chillers.



GWP = 1 Compliant with each country's refrigerant regulations

As of the end of September 2024

EU refrigerant regulations : GWP150 or more
US refrigerant regulations : GWP700 or more
California, US refrigerant regulations: GWP750 or more

* "GWP" indicates the global warming potential. The values are based on the IPCC AR4.

Non F-Gas standard type chiller

General industry

SMC's HRSC natural refrigerant chillers are designed to provide efficient and environmentally-friendly cooling solutions. Using natural refrigerants, these chillers offer a sustainable alternative to traditional systems, significantly reducing the environmental impact. They also come with advanced features such as precise temperature control and energy-efficient operation.

Cooling capacity range

<=4.2 kW

5.1 to 5.9 kW

9.5 to 11 kW

10.5 to 11.5 kW

DC inverter compressor

The inverter efficiently controls the motor speed of the refrigeration compressor.

R744
NATURAL REFRIGERANT

Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
1.3 to 4.2 kW	Air cooled and water cooled	±0.1 °C	5 to 40 °C

Non F-Gas standard type chiller

General industry

SMC's HRSC natural refrigerant chillers are designed to provide efficient and environmentally-friendly cooling solutions. Using natural refrigerants, these chillers offer a sustainable alternative to traditional systems, significantly reducing the environmental impact. They also come with advanced features such as precise temperature control and energy-efficient operation.

Cooling capacity range

<=4.2 kW

5.1 to 5.9 kW

9.5 to 11 kW

10.5 to 11.5 kW

DC inverter compressor

The inverter efficiently controls the motor speed of the refrigeration compressor.

R744
NATURAL REFRIGERANT

Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
5.1 to 5.9 kW	**Air cooled and water cooled**	**±0.1 °C**	**5 to 40 °C**

Non F-Gas standard type chiller

General industry

SMC's HRSC natural refrigerant chillers are designed to provide efficient and environmentally-friendly cooling solutions. Using natural refrigerants, these chillers offer a sustainable alternative to traditional systems, significantly reducing the environmental impact. They also come with advanced features such as precise temperature control and energy-efficient operation.

Cooling capacity range

<=4.2 kW

5.1 to 5.9 kW

9.5 to 11 kW

10.5 to 11.5 kW

1. DC inverter **compressor**
2. DC inverter **fan**
3. Inverter **pump**

The inverter efficiently controls the motor speed of the refrigeration compressor, cooling fan and circulation pump depending on the load applied by the user's equipment.

R744
NATURAL REFRIGERANT

Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
9.5 to 11 kW	**Air cooled and water cooled**	**±0.1 °C**	**5 to 40 °C**

Non F-Gas standard type chiller

General industry

SMC's HRSC natural refrigerant chillers are designed to provide efficient and environmentally-friendly cooling solutions. Using natural refrigerants, these chillers offer a sustainable alternative to traditional systems, significantly reducing the environmental impact. They also come with advanced features such as precise temperature control and energy-efficient operation.

Cooling capacity range

<=4.2 kW

5.1 to 5.9 kW

9.5 to 11 kW

10.5 to 11.5 kW

1. DC inverter **compressor**
2. DC inverter **fan**
3. Inverter **pump**

The inverter efficiently controls the motor speed of the refrigeration compressor, cooling fan and circulation pump depending on the load applied by the user's equipment.

R744
NATURAL REFRIGERANT

Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
Air-cooled: 10.5 kW **Water-cooled: 11.5 kW**	**Air cooled and water cooled**	**±0.1 °C**	**5 to 35 °C**

Non F-Gas standard type chiller

Semiconductor

SMC semiconductor chillers are precision-engineered machines that provide consistent, reliable and energy-efficient cooling for critical semiconductor manufacturing processes.

Eco-friendly refrigerant, efficient performance

Decrease administration time and costs – CO_2 requires no import or usage quotas under the F-Gas regulation
Simplify transportation – CO_2, unlike many traditional refrigerants, is not subject to international air transport restrictions
Use it in the semiconductor industry – Compliant with the SEMI S2, S8, F47
Reduce your costs – Compressor and pump inverter for energy-efficient performance.

⊕ Temperature control specifications

COOLING CAPACITY

10 kW

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

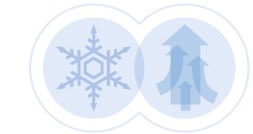
-20 to 90 °C

OTHER FEATURES

Energy saving design
The inverter efficiently controls the motor speed of the refrigeration compressor and circulation pump depending on the load applied by the user's equipment.

COOLING METHODS

Water cooled



1. DC inverter **compressor**
2. Inverter **pump**

R744
NATURAL REFRIGERANT

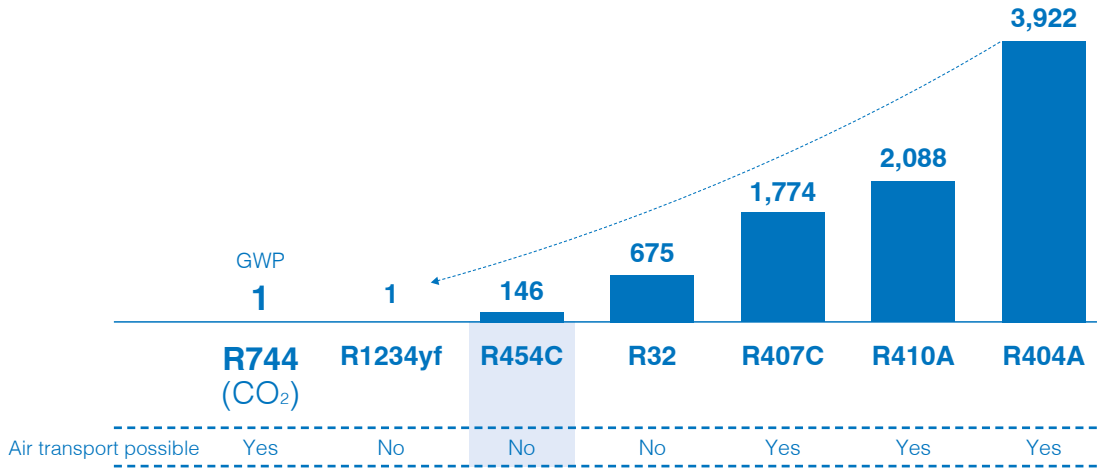
SMC innovation for European F-Gas
Low GWP refrigerant chiller

Discover the next generation of environmentally-responsible cooling solutions with SMC's innovative chillers featuring R454C refrigerant.

Designed to meet upcoming environmental regulations while delivering exceptional performance, our chillers offer a sustainable and efficient cooling solution for diverse industrial applications. Achieve the perfect balance of reliability, energy efficiency, and environmental stewardship with SMC's R454C refrigerant chillers, paving the way towards a greener future in industrial cooling.

The future is NOW!

SMC's R454C refrigerated chillers, including the HRSF, HRRF, and HRLF series, are designed to provide efficient and environmentally-friendly cooling solutions. These chillers use the low Global Warming Potential (GWP) refrigerant R454C, which significantly reduces environmental impact. The series offers high performance and reliability, making them suitable for various industrial applications. With features such as precise temperature control, space-saving designs, and easy maintenance, SMC's R454C chillers ensure optimal performance while also adhering to stringent environmental regulations.



GWP = 146 Compliant with each country's refrigerant regulations

As of the end of September 2024

EU refrigerant regulations : GWP150 or more
US refrigerant regulations : GWP700 or more
California, US refrigerant regulations : GWP750 or more

* "GWP" indicates the global warming potential. The values are based on the IPCC AR4.

Low GWP refrigerant standard type chiller

General industry

The HRSF series uses the environmentally friendly R454C refrigerant, which has a low Global Warming Potential (GWP) of 146. Focussing on high performance and energy efficiency, the HRSF series ensures precise temperature control and consistent operation. Ideal for both indoor and outdoor installations, these chillers are built to meet stringent environmental regulations while also delivering optimal cooling solutions for various industries.

Cooling capacity range

<=5.9 kW

15.7 to 20.5 kW

R454C

Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
1.3 to 5.9 kW	Air cooled and water cooled	±0.1 °C	5 to 40 °C

Low GWP refrigerant standard type chiller

General industry

The HRSF series uses the environmentally friendly R454C refrigerant, which has a low Global Warming Potential (GWP) of 146. Focussing on high performance and energy efficiency, the HRSF series ensures precise temperature control and consistent operation. Ideal for both indoor and outdoor installations, these chillers are built to meet stringent environmental regulations while also delivering optimal cooling solutions for various industries.

Cooling capacity range

<=5.9 kW

15.7 to 20.5 kW

R454C

Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
15.7 to 20.5 kW	Air cooled and water cooled	±0.1 °C	5 to 35 °C

Low GWP refrigerant rack mounted chiller

Laser industry

SMC's HRRF series chillers are designed to provide efficient and reliable cooling solutions for various industrial applications. These chillers use the environmentally-friendly R454C refrigerant, which has a low Global Warming Potential (GWP) of 146. The HRRF series is known for its space-saving design, allowing multiple units to be mounted onto a 19-inch rack. With features such as precise temperature control and easy maintenance, these chillers ensure optimal performance while also adhering to stringent environmental regulations. Ideal for applications requiring consistent and stable cooling, the HRRF series is a versatile and eco-friendly choice.

R454C

Temperature control specifications

COOLING CAPACITY

1 to 1.8 kW

COOLING METHODS

Air cooled and water cooled

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

5 to 35 °C

Low GWP refrigerant dual channel chiller

Laser industry

SMC's HRLF series chillers are designed to provide efficient and reliable cooling for laser processing systems. These chillers have two independent cooling channels, allowing for the precise temperature control of both the optical head and the oscillator. Using the environmentally-friendly R454C refrigerant, which has a low Global Warming Potential (GWP) of 146, the HRLF series significantly reduces environmental impact. With a space-saving design and user-friendly touch panel interface, these chillers offer optimal performance and easy maintenance, making them an excellent choice for various industrial applications.

R454C

Temperature control specifications

COOLING CAPACITY

Air-cooled:	**CH1: 19 kW**
	CH2: 1 kW
Water-cooled:	**CH1: 21.5 kW**
	CH2: 1 kW

SET TEMPERATURE RANGE

CH1: 5 to 35 °C; CH2: 10 to 40 °C

TEMPERATURE STABILITY

CH1: ±0.1 °C; CH2: ±0.5 °C

OTHER FEATURES

- **Triple inverter control**
  The inverter efficiently controls the motor speed of the refrigeration compressor, cooling fan and circulation pump depending on the load applied by the user's equipment

Low GWP refrigerant dual channel chiller

Semiconductor

SMC's HRZF series chillers are specifically designed for the semiconductor manufacturing process, providing efficient and reliable cooling solutions while minimising environmental impact. These chillers use the environmentally friendly R454C refrigerant, which has a low Global Warming Potential (GWP) of 146. The HRZF series features advanced energy-saving technologies, including a DC inverter compressor and an inverter pump, which adjust motor rotations based on the load, ensuring optimal performance and energy efficiency. With precise temperature control and easy maintenance, these chillers are an ideal choice for the demanding requirements of semiconductor manufacturing.

R454C

Temperature control specifications

COOLING CAPACITY

10 kW

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

-20 to 90 °C

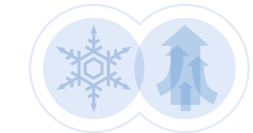
OTHER FEATURES

Energy saving design

The inverter efficiently controls the motor speed of the refrigeration compressor and circulation pump depending on the load applied by the user's equipment.

COOLING METHODS

Water cooled



1. DC inverter **compressor**
2. Inverter **pump**

Current generation chillers
Keep it cool

SMC's current generation chillers use refrigerants such as R407C and R410A, which have GWPs below 2500. These refrigerants have been widely used due to their effective cooling properties. However, from January 1, 2025, the production or import of F-gases with a GWP of 2500 or above will be prohibited. Refrigerants with GWPs below 2500 will still be allowed for maintenance, but the regulations will progressively tighten.

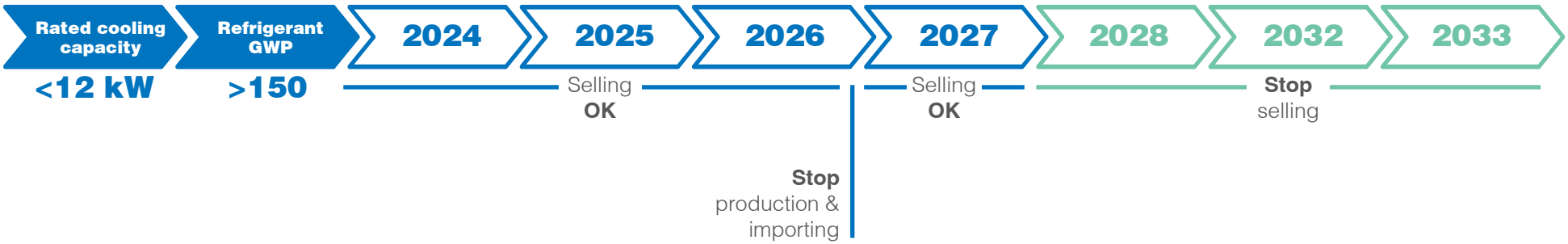
Key deadlines and changes

- **January 1, 2027:** customs clearance in the EU and UK will be banned for temperature control equipment using refrigerants with a GWP value of 150 or over for equipment of 12 kW or less, and 750 or more for equipment over 12 kW.
- **January 1, 2028:** sales of current generation chillers will be banned, pushing the industry towards adopting more environmentally-friendly alternatives.

Refrigerant regulations for chillers

Below, you'll find the European & UK legislation as it's the most restrictive one (compared to the California and US regulation) and it's the one that SMC decided to follow.

EU and UK



Rack mounted chiller

Laser industry

Easy and space saving way to install temperature control equipment in industrial areas. Operable without the need to remove the unit from the rack. SMC offers a wide variety of possibilities that will match your needs.

Simplify your temperature control

Save space – Mount multiple equipment units together in a rack
Ease your control, service and maintenance – Filters and drainage accessible via front panel
Facilitate installation – Built-in filters, flow sensors and bypass piping.

Power supply specification

Single phase 100 VAC (50/60 Hz)

Single phase 200 to 230 VAC (50/60 Hz)

3-phase 380 to 415 VAC (50/60 Hz)

⊕ Temperature control specifications

COOLING CAPACITY

0.72 to 1.6 kW

COOLING METHODS

Air cooled and water cooled

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

15 to 35 °C for 0.72 kW
5 to 35 °C for 1 to 1.6 kW

Rack mounted chiller

Laser industry

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Facilitate installation – Built-in filters, flow sensors and bypass piping.

Power supply specification

Single phase 100 VAC (50/60 Hz)

Single phase 200 to 230 VAC (50/60 Hz)

3-phase 380 to 415 VAC (50/60 Hz)

⊕ Temperature control specifications

COOLING CAPACITY

0.95 to 5 kW

COOLING METHODS

Air cooled and water cooled

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

15 to 35 °C for 0.95 kW
5 to 35 °C for 1 to 5 kW

Rack mounted chiller

Laser industry

Easy and space saving way to install temperature control equipment in industrial areas. Operable without the need to remove the unit from the rack. SMC offers a wide variety of possibilities that will match your needs.

Simplify your temperature control

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Ease your control, service and maintenance – Filters and drainage accessible via front panel
Facilitate installation – Built-in filters, flow sensors and bypass piping.

Power supply specification

- Single phase 100 VAC (50/60 Hz)
- Single phase 200 to 230 VAC (50/60 Hz)
- **3-phase 380 to 415 VAC (50/60 Hz)**

⊕ Temperature control specifications

COOLING CAPACITY
4.85 to 5.5 kW

COOLING METHODS
Air cooled and water cooled

TEMPERATURE STABILITY
±0.1 °C

SET TEMPERATURE RANGE
5 to 35 °C

Dual channel chiller

Laser industry

SMC solution for the simultaneous control of two different heat sources with only a single device. See what SMC dual channel thermo chillers have to offer for your applications.

One instead of two

Ease your cooling – 2 fluid channels can be controlled by one single thermo-chiller thus having smaller footprint & wiring
Expand your range of applications – Water cooling options available, usable in secondary battery manufacturing
Use it outdoors – Water splash-resistant, IPX4 compliant
Cut your costs – Reduced power consumption, only one refrigerator, fan and pump. No heater needed.

Cooling capacity range

4.8 to 11 kW

10 to 38 kW

⊕ Temperature control specifications

COOLING CAPACITY

Air-cooled: **CH1 + CH2: 4.8 to 9.5 kW**
Water-cooled: **CH1 + CH2: 4.8 to 11 kW**
Small capacity option (5 kW): CH1+CH2: 4.8 kW

TEMPERATURE STABILITY

CH1: ±0.1 °C; CH2: ±0.5 °C

SET TEMPERATURE RANGE

CH1: 15 to 25 °C; CH2: 15 to 40 °C

Dual channel chiller

Laser industry

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Use it outdoors – Water splash-resistant, IPX4 compliant
Cut your costs – Reduced power consumption, only one refrigerator, fan and pump. No heater needed.

Cooling capacity range

4.8 to 11 kW

10 to 38 kW

⊕ Temperature control specifications

COOLING CAPACITY

Air-cooled: CH1: 9 kW to 37 kW
CH2: 1 a 1.5 kW
Water-cooled: CH1: 10 to 21.5 kW
CH2: 1 a 1.5 kW

TEMPERATURE STABILITY

CH1: ±0.1 °C; CH2: ±0.5 °C

SET TEMPERATURE RANGE

CH1: 5 to 35 °C; CH2: 10 to 40 °C

OTHER FEATURES

- **Triple inverter control**
  The inverter efficiently controls the motor speed of the refrigeration compressor, cooling fan and circulation pump depending on the load applied by the user's equipment

Rack mounted Peltier chiller

See the SMC solution that is the pinnacle of high-efficiency, reliable and sustainable temperature control solutions.

Laser industry

Medical & Life science

Semiconductor

Great temperature stability for standard mounting

Obtain a quieter working environment – Its design with fewer moving parts makes it less prone to vibrate
Save space and installation time – Mount multiple equipment units together in a rack
Increase your productivity and maximise your machine performance – Great temperature stability
Get that smart solution that will give you proactive control – Anticipate any changes.

Cooling methods

Air cooled

Water cooled

⊕ Temperature control specifications

COOLING CAPACITY

0.2 to 1 kW

TEMPERATURE STABILITY

0.01 to 0.03 °C

SET TEMPERATURE RANGE

10 to 60 °C

OTHER FEATURES

- **Refrigerant free design**
- **Low-noise design, as low as 48 dB**
- **Compressor-less structured.**

Rack mounted Peltier chiller

See the SMC solution that is the pinnacle of high-efficiency, reliable and sustainable temperature control solutions.

Laser industry

Medical & Life science

Semiconductor

Great temperature stability for standard mounting

Obtain a quieter working environment – Its design with fewer moving parts makes it less prone to vibrate
Save space and installation time – Mount multiple equipment units together in a rack
Increase your productivity and maximise your machine performance – Great temperature stability
Get that smart solution that will give you proactive control – Anticipate any changes.

Cooling methods

Air cooled

Water cooled

⊕ Temperature control specifications

COOLING CAPACITY

0.8 to 1.2 kW

TEMPERATURE STABILITY

0.01 to 0.03 °C

SET TEMPERATURE RANGE

10 to 60 °C

OTHER FEATURES

- **Refrigerant free design**
- **Low-noise design, as low as 48 dB**
- **Compressor-less structured.**

Compact Peltier chiller

Medical & Life science

Make the most of your working space. See what SMC's most compact solution can offer. Ideal for vibration demanding environments.

Your compact, silent, and rapid responsive solution

Make the most of your machine and/or desktop space – W130 x D150 x H210 mm size, 3.5 kg weight
Increase your productivity and maximise your machine performance – Only 41s to lower temperature by 10 °C
Work in a quiet, low vibration environment – Low noise design, as low as 37 dBA
Be environmentally friendly – Refrigerant-free design.

⊕ Temperature control specifications

COOLING CAPACITY

Up to 220 W
Heating capacity up to 500 W

COOLING METHODS

Air cooled

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

10 to 60 °C

OTHER FEATURES

- **Refrigerant free design**
- **Low-noise design, as low as 37 dB**
- **Compact design.**

High capacity chiller

Medical & Life science

Check what SMC has to offer with a standard model for temperature control that can offer you a wide range of variations for your application.

General industry

Improve the performance & reliability of your machine

Optimise the quality of your process – Great temperature stability, up to ±0.1 °C
Get that smart solution that will give you proactive control – Remote control to manage any anomalies or incidents
Get worldwide support
Keep yourself informed – Advanced control functions.

⊕ Temperature control specifications

COOLING CAPACITY
38 kW

COOLING METHODS
Air cooled

TEMPERATURE STABILITY
±0.1 °C

SET TEMPERATURE RANGE
5 to 35 °C

Standard type chiller

General industry

Unleash precision temperature control, energy efficiency, and adaptability, redefining the standard for reliable and sustainable cooling solutions in the modern industrial landscape with SMC's Chillers.

SMC's standard chillers offer a versatile range of cooling capacities, catering to diverse industrial requirements. This flexibility ensures that the chillers can be tailored to specific applications.

Cooling capacity range

<4.9 kW

5 to 9 kW

10 to 17 kW

38 kW

⊕ Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
1.1 to 4.9 kW	Air cooled and water cooled	±0.1 °C	-10 to 40 °C

Standard type chiller

General industry

Unleash precision temperature control, energy efficiency, and adaptability, redefining the standard for reliable and sustainable cooling solutions in the modern industrial landscape with SMC's Chillers.

SMC's standard chillers offer a versatile range of cooling capacities, catering to diverse industrial requirements. This flexibility ensures that the chillers can be tailored to specific applications.

Cooling capacity range

<4.9 kW

5 to 9 kW

10 to 17 kW

38 kW

⊕ Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
5 to 9 kW	Air cooled and water cooled	±0.5 °C	5 to 35 °C

Standard type chiller

General industry

Unleash precision temperature control, energy efficiency, and adaptability, redefining the standard for reliable and sustainable cooling solutions in the modern industrial landscape with SMC's Chillers.

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Cooling capacity range

<4.9 kW

5 to 9 kW

10 to 17 kW

38 kW

- 13 kW
- 14.5 kW
- 17 kW

Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
10 to 17.5 kW	Air cooled and water cooled	±1 °C	5 to 35 °C

Standard type chiller

General industry

Unleash precision temperature control, energy efficiency, and adaptability, redefining the standard for reliable and sustainable cooling solutions in the modern industrial landscape with SMC's Chillers.

SMC's standard chillers offer a versatile range of cooling capacities, catering to diverse industrial requirements. This flexibility ensures that the chillers can be tailored to specific applications.

Cooling capacity range

<4.9 kW

5 to 9 kW

10 to 17 kW

38 kW

⊕ Temperature control specifications

COOLING CAPACITY	COOLING METHODS	TEMPERATURE STABILITY	SET TEMPERATURE RANGE
38 kW	Air cooled	±0.1 °C	5 to 35 °C

Basic chiller

General industry

See what SMC's basic type chiller has to offer. Easy to use, compact and cost effective solution for your application.

Improve the performance & reliability of your machine

Energy saving by triple control
Self-diagnosis through the 12 different alarms
Simple operation in only 2 steps
No fluid leakage – maintenance free and cost saving when using the magnet pump
Usable in quiet environments – low noise design.

⊕ Temperature control specifications

COOLING CAPACITY

1 to 1.9 kW

TEMPERATURE STABILITY

±2 °C

SET TEMPERATURE RANGE

10 to 30 °C

OTHER FEATURES

Basic control functionality

Energy efficient chiller

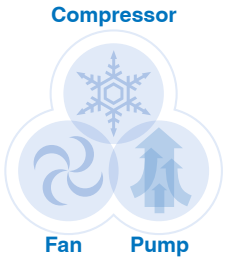
General industry

Laser industry

Check out what SMC's energy efficient chillers have to offer.

Triple savings at the right temperature

Cost savings with energy savings in high cooling capacities due to triple inverter control
Temperature stability adjustment regardless of set point – Possible to raise the process temperature despite having no heater
Reduced labour and maintenance time – Advanced control functions with easy operation
Outdoor installation – Splashproof type IPX4.



1. DC inverter **compressor**
2. DC inverter **fan**
3. Inverter **pump**

Outstanding energy saving effect with the triple inverter
The inverter efficiently controls the motor speed of the refrigeration compressor, cooling fan and circulation pump depending on the load applied by the user's equipment.

⊕ Temperature control specifications

COOLING CAPACITY

9.5 to 28 kW
Heating capacity up to 7.5 kW

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

5 to 35 °C

COOLING METHODS

Air cooled and water cooled

Semiconductor chiller

Semiconductor

SMC semiconductor chillers are precision-engineered machines that provide consistent, reliable and energy efficient cooling for critical semiconductor manufacturing processes.

A lot more than reliable

Fit it in your semiconductor application – The most reliable chiller for it
Achieve cost reductions – Energy savings of up to 65% thanks to the use of an inverter compressor and pump
Minimise maintenance – The pump housing and heat exchanger are located inside the tank
Maximise the performance of your machine – Great temperature stability ±0.1 °C and set temperature range from -20 to 90 °C.

⊕ Temperature control specifications

COOLING CAPACITY

2 to 15 kW

TEMPERATURE STABILITY

±0.1 °C

SET TEMPERATURE RANGE

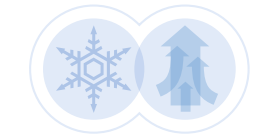
-20 to 90 °C

OTHER FEATURES

Energy saving design
The inverter efficiently controls the motor speed of the refrigeration compressor and circulation pump depending on the load applied by the user's equipment.

COOLING METHODS

Water cooled



1. DC inverter **compressor**
2. Inverter **pump**

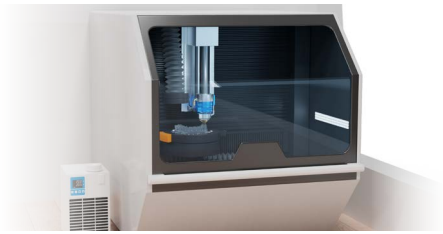
Industry applications

Laser industry | Medical & Life science | General industry | Semiconductor

Laser machining

Laser cutting

Laser marking

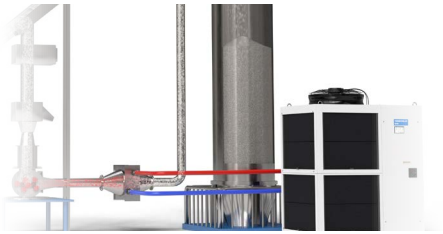


Dental industry

Cryogenic chillers

Electronic microscope

Welding



Bulk handling

Industry applications

Laser industry | Medical & Life science | General industry | Semiconductor

Thermoforming

Printing

CPM (Chemical Mechanical Processing)

Coaters/Developers

Etching

Cleaning machines

Testers

CPM (Chemical Mechanical Processing)

SMC Business Continuity Plan

Discover more on SMC Business Continuity Plan

Sustainable growth also means ensuring uninterrupted operations

We are committed to ensuring that SMC is prepared for any emergency and that our business activities will not stop in the event of such circumstances. SMC aims to fulfil our product supply responsibilities and maintain our customers' trust by contributing to both sustainable growth and the expansion of technological innovations.

SMC, as a comprehensive manufacturer of automatic control equipment that supports automation, is able to promptly provide products that meet our customers' needs anywhere in the world.

Finance BCP

Safe & Solid financial base

In the event of an emergency, SMC can provide a safe and solid financial base (with cash, deposits, and equity capital) that will sufficiently cover the working capital and funds needed to rebuild buildings and the equipment required for business continuity. This is done to provide peace of mind to our customers and workers alike.

Information security BCP

Vital data kept safe

Strengthen information security for protection against computer viruses and cyberattacks, plus the installation of data centres to establish a disaster recovery system. Your information is safe with us.

Sales BCP

Consistent sales support

7,000 sales engineers worldwide ready to recommend the best solution for you.
Over 80 global locations to make sure that wherever you are, we are there too.

Production BCP

Ensure customer order fulfilment

Reliable delivery for you thanks to our 9 global logistic centres and production sites in 38 countries, 10 of which are located in Europe. Moreover, flexibility to rapidly respond to any sudden change in the manufacturing environment.

Aiming to gain your trust
Sustainability through reliability

Engineering BCP

Consistent technical support

2,100 engineers at our 5 technical centres around the globe (2 in Europe – Germany and UK).

Expertise – Passion – Automation

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