

Catalogue 2017-2018

# Refrigeration



A woman with curly hair, wearing a blue cardigan and jeans, is crouching next to a large glass display case in a store. She is looking at the contents of the case, which appear to be various items. The store has a tiled floor and a ceiling with recessed lighting. The background shows other display cases and shelves.

Daikin is a strong challenger in the refrigeration market. We can create the ideal solution for each customer's specific situation. As our products contain the latest technologies we ensure the highest energy efficiency. Our units are rigorously tested in order to provide you reliable operation. With the acquisition of Zanotti, we expand our refrigeration business providing a larger and more diverse product line for all aspects in the cold chain.

# Refrigeration

<b>Why choose Daikin Refrigeration?</b>	<b>4</b>	<b>Zanotti Refrigeration Range</b>	<b>32</b>
Tools & platforms	6	<b>NEW</b> Monoblock	36
Market leading controls	9	<b>NEW</b> Split units	42
Seasonal efficiency data	10	<b>NEW</b> Monoblock for wine storage	48
Why Maintenance	12	<b>NEW</b> Other product ranges	50
<b>Daikin Refrigeration Range</b>	<b>14</b>	<b>Daikin Service</b>	<b>54</b>
ZEAS condensing unit	16	Commissioning	55
Conveni-Pack	20	Maintenance	56
Booster	24	E-Parts	57
Accessories	25		
JEHCCU & JEHSCU condensing units	26		

## F-Gas Regulation

For non-pre-filled devices: the functioning relies on fluorinated greenhouse gases.

For complete / partial pre-filled devices: contains fluorinated greenhouse gases.



Inverter technology



Scroll compressor



Screw compressor



Reciprocating compressor



Swing compressor



## Why choose Daikin refrigeration?

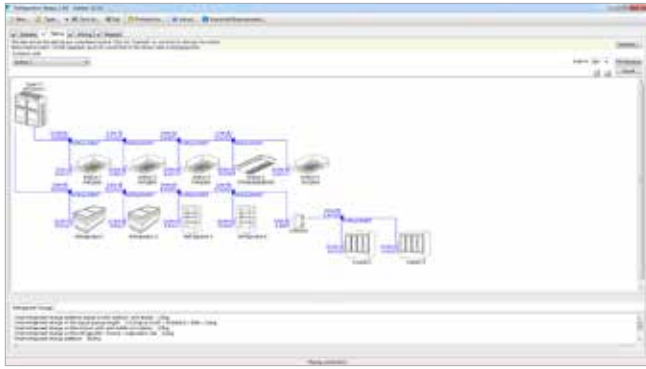
- **High efficient** solutions to match your refrigeration needs
- With the acquisition of Zanotti refrigeration group we will **extend our product range** which allows us to fulfill any refrigeration demand to guarantee the complete cold chain
- Innovative and reliable technology including heat recovery solutions:  
proven and tested for ZEAS and CONVENI-PACK
- Compliant with **new F-Gas regulation** (R-410A)
- Urban proof solutions in terms of **compact dimensions** and **low sound levels**

## Benefits for the installer/consultant

- › Plug and play solutions through monobloc and bi-bloc systems
- › Pre-charged and factory-tested
- › Compact design for restricted installation space
- › Shorter delivery time for Conveni-Pack and ZEAS as they are manufactured in Europe
- › Easy and intuitive selection of outdoor condensing units with Refrigeration Xpress
- › Wide range to match most refrigeration needs according to F-gas Regulation

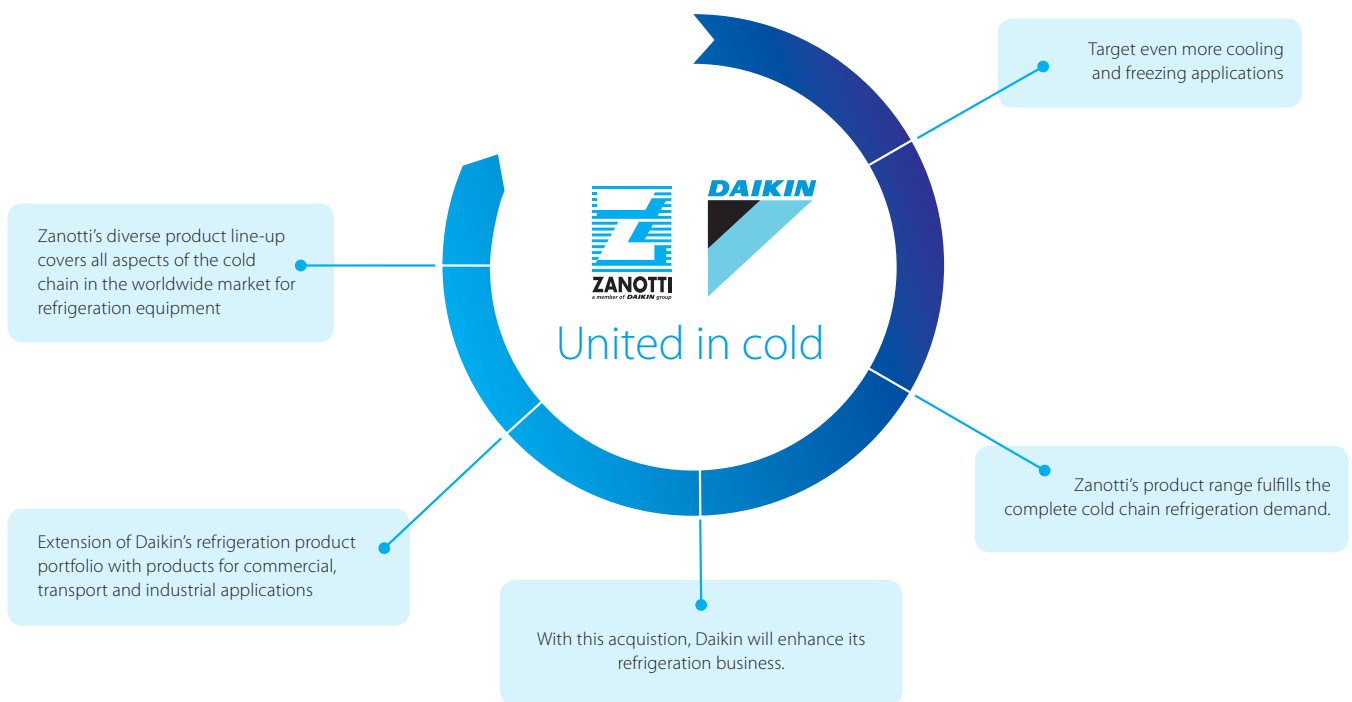
## Benefits for the end user

- › High efficiency technology for high ROI
- › Heat recovery technology on Conveni-Pack
- › Proven reliability and high performance
- › Ideal for urban applications
- › Contributing to better environment thanks to low total equivalent warming impact



## Selection software: Refrigeration Xpress

User-friendly design and selection software for Conveni-Pack, CCU/SCU, monoblocks, bi-blocks and ZEAS condensing units. Its detailed report includes a list of materials, piping and wiring diagrams, and device options.



## References



"We wanted a future-proof, energy efficient and proven technology with high reliability."  
Bakery cooperative, Germany



"With Conveni-Pack, we have a complete and totally reliable solution for all our heating and air conditioning needs, as well as for refrigerating all our fresh and frozen products."  
Food store, Austria



In a German supermarket Conveni-Pack teams up with ZEAS to supply service counters, fridges, an air curtain and indoor A/C units, a cooling storage room and deep-freeze cabinets.

# Tools and platforms

We're here to help you!

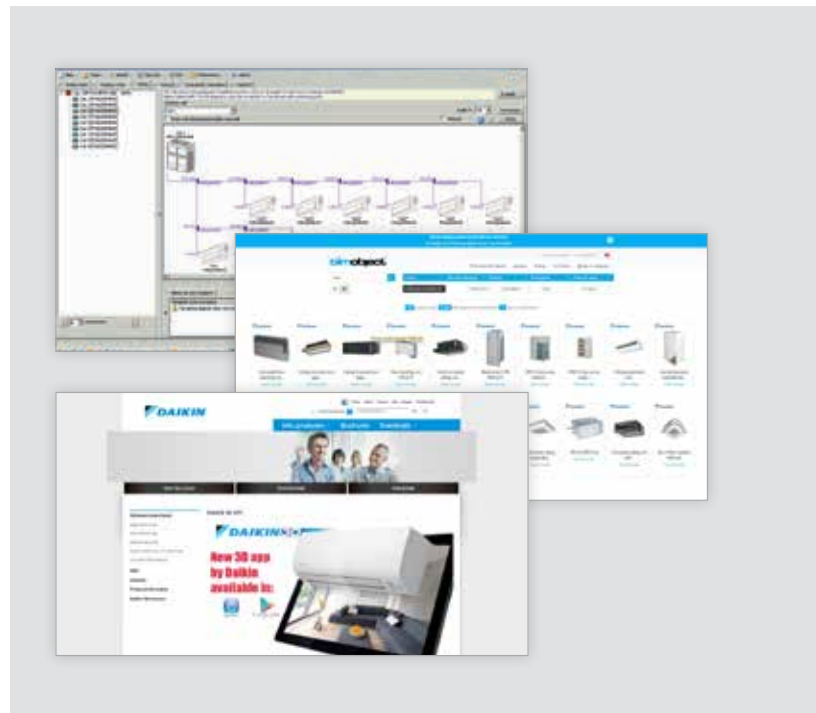
## Literature

See all the literature available (catalogues, flyers, solution guides, product profiles, product portfolios, reference book...)

- > for you
- > for your customers



[www.daikineurope.com/  
support-and-manuals/catalogues](http://www.daikineurope.com/support-and-manuals/catalogues)



## Sales supporting apps

We offer a variety of building modelling, selection, simulation and quotation software tools to support your sales.

The **Psychrometric Diagram Viewer** helps designers, consultants, students and other professionals to get more insight in our fields of activities: "the air that we condition"

[www.daikineurope.com/  
support-and-manuals/  
software-downloads](http://www.daikineurope.com/support-and-manuals/software-downloads)

Some of our most used apps:

There's an  
**app**  
for that

- > **Daikin Altherma simulator:** for appropriate heat pump selection
- > **3D app:** Allows you to choose the air conditioning and watch it at home BEFORE you buy!
- > **Error code app:** quickly know the meaning of fault codes for each product family
- > **Load calculation tool:** helps you to calculate the heat and cool load of your building
- > **Multi selection tool:** for quick calculation of multi split combinations & piping lengths
- > **Xpress:** quick quotation tool for VRV
- > **Astra:** AHU design software
- > **BIM models** for VRV units
- > ...

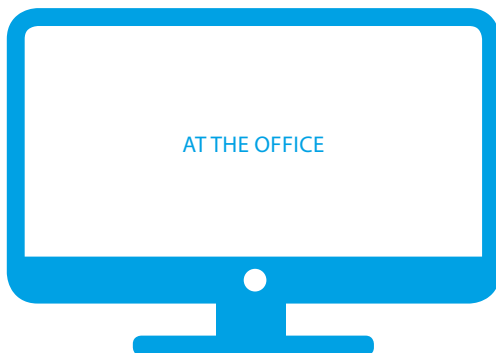


## Online support

### Business portal

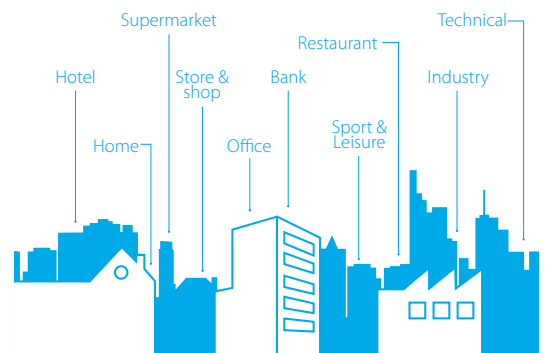
- › Experience our new extranet that thinks with you at [my.daikin.eu](http://my.daikin.eu)
- › Find information in seconds via a powerful search
- › Customise the options so you see only info relevant for you
- › Access via mobile device or desktop

[my.daikin.eu](http://my.daikin.eu)



## Internet

Find our solution for different applications:



- › Get more commercial details on our flagship products via our dedicated minisites

[www.daikineurope.com/commercial/applications](http://www.daikineurope.com/commercial/applications)

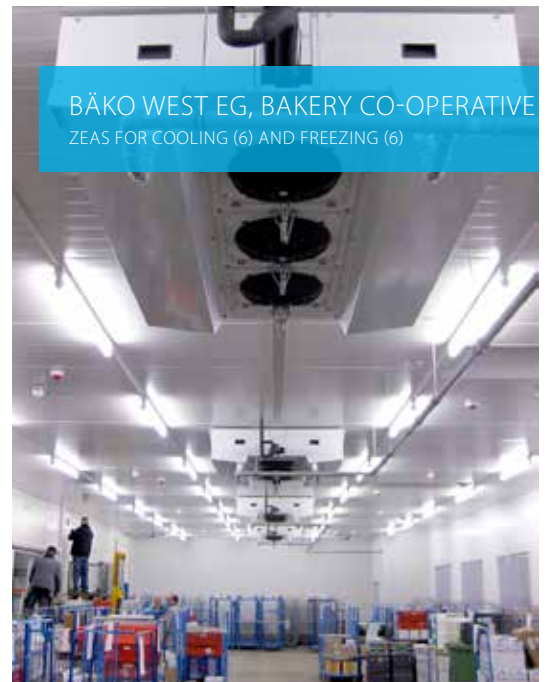
[www.daikineurope.com/industrial/applications](http://www.daikineurope.com/industrial/applications)

- › See our references



[www.daikineurope.com/references](http://www.daikineurope.com/references)

## Refrigeration



# Market leading controls

- ✓ Intuitive & user-friendly interface
- ✓ Cross pillar integration
- ✓ Cloud control
- ✓ Smart energy management
- ✓ Integration of Daikin and third party products



**Intelligent Manager**

## Mini BMS for medium to large commercial buildings

- › Price competitive mini BMS
- › Cross-pillar integration of Daikin products
- › Integration of third party equipment via WAGO or BACnet/IP
- › Connect up to 512 indoor units groups



**Intelligent Controller**

## Advanced centralised controller with Cloud connection

- › Simply control your entire building centrally
- › Total solution concept (integration of Split, Sky Air, VRV, ventilation, air curtains and hot water)
- › Stylish optional screen fits any interior
- › Cloud connection offers additional services such as online control, energy monitoring, comparison of energy consumption of multiple sites
- › Connect up to 32 indoor units

Find out more on  
<http://www.daikineurope.com/commercial/needs/controls>



# Seasonal efficiency data

Ecodesign regulation LOT1  
for refrigeration products



## Ecodesign Directive - Energy related products

The EU's Ecodesign Directive 2009/125/EC is designed to encourage the market to use more efficient products. It also helps manufacturers to agree a better definition of efficiency for remote condensing units. Since 01/07/2016 refrigeration units also need to comply with this system of minimum efficiency requirements.

In future catalogues the seasonal data will be marked with the seasonal flower. 

Find more information about the seasonal data in refrigeration on our Website [www.daikin.bg/energylabel](http://www.daikin.bg/energylabel)  
or on the Business Portal [my.daikin.eu](http://my.daikin.eu)

## Two methodologies to evaluate the unit performance

### COP methodology:

- › If the middle temperature cooling capacity is lower than 5 kW and low temperature cooling capacity is lower than 2 kW
- › COP given on 25°C ambient temperature
- › COP given on 32°C ambient temperature
- › COP given on 43°C: mandatory if ambient temperature design is higher or equal to 35°C

### Minimum efficiency (COP):

- › Middle temperature: Capacity lower or equal 1kW = 1,2  
Capacity lower or equal 5 kW = 1,4
- › Low temperature: Capacity lower or equal 1kW = 0,75  
Capacity lower or equal 2 kW = 0,85

### SEPR methodology:

- › If the middle temperature cooling capacity is higher than 5 kW and low temperature cooling capacity is higher than 2 kW
- › SEPR given on the reference climate zone of Strasbourg
- › COP given on 43°C: mandatory if ambient temperature design is higher or equal to 35°C

### Minimum efficiency (SEPR):

- › Middle temperature: Capacity lower or equal 20kW = 2,25  
Capacity lower or equal 50 kW = 2,35
- › Low temperature: Capacity lower or equal 8 kW = 1,5  
Capacity lower or equal 20 kW = 1,6

## Daikin refrigeration product portfolio and Ecodesign Directive



Model	JEHCCU	JEHSCU	ZEAS	MULTI ZEAS	CVP	BOOSTER
Medium temperature (Te = -10°C)	in scope	in scope	in scope	out of scope <sup>(1)</sup>	out of scope <sup>(2)</sup>	-
Low temperature (Te = -35°C)	in scope	in scope	in scope	out of scope <sup>(1)</sup>	-	out of scope <sup>(3)</sup>

(1) Delivered capacity of the multi Zeas units in medium and low temperature application are higher than the upper boundary (MT: Q > 50 kW; LT: Q > 20 kW) mentioned in the Ecodesign Directive

(2) The CVP can only operate when also Daikin indoor units are connected. This means that the CVP can be seen as a condensing unit with multiple condensers which is considered out of scope of the Ecodesign Directive ENTR LOT1

(3) The booster unit is not seen as a condensing unit, because the heat extracted from the evaporator side is (LT-side) discharge in the MT refrigerant line of a CVP or Zeas unit and not to the surrounding air as described in the Ecodesign Directive ENTR LOT1

## Ecodesign EN 13215: Definition of the nominal operating conditions.

Temperature application	Medium	Low
Ambient temperature	32°C	32°C
Evaporation temperature	-10°C	-35°C
Suction gas side	10 K superheat OR 20°C suction gas temperature	
Subcooling degree of the liquid	Depending on the condenser coil used in the refrigeration system	

To define the efficiency of a condensing unit the Ecodesign Directive used the EN13215 regulation. Both methodologies are allowed to define delivered cooling capacity and efficiency of a unit.

→ This has also an impact on the SEPR AND COP value.

# Why Maintenance?



## Peace of mind

Daikin Service and our Service Partner Network teams strive to develop smart services & solutions to exceed your expectations. Ensuring that your Refrigeration Systems are maintained by professionals gives you peace of mind!

## Improved Safety

When a Refrigeration System doesn't operate in optimal condition, it creates many hazards, unsafe working conditions and even emergency situations where workers are injured. Regular maintenance improves the safety of the Refrigeration System and therefore the safety of company workers resulting in fewer on the job injuries and accidents.

## Cost Savings

In the long run, maintenance is always cheaper than ad-hoc service interventions. Preventive maintenance allows you and Daikin to plan ahead and avoid rushed interventions. Our specialists will come prepared, thus avoiding repeated visits and extra interruptions. Another benefit is the clear and transparent costs which can easily be budgeted, as well as clear and well-founded lifecycle reports which indicate future needs and requirements to be considered well in advance. Over time this reduces the Total Cost of Ownership (TCO) and related operational costs.

## Full Legal Compliance

Knowing that your Refrigeration System is maintained and serviced gives you the assurance all relevant legal requirements (e.g. F-gas regulation) are fulfilled.

**REGULATION (EU) No 517/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006.**

## Minimized System Downtime

Scheduled care visits are transparent and easy to plan which gives sufficient time to find suitable dates for visits to avoid impact on production or comfort. A well-maintained Refrigeration System is less likely to fail during high season. Keeping a unit up-to-date on all inspections and maintenance checks means less worry that the unit will break down when it is needed the most.

## Increased System Efficiency

Regular maintenance of a Refrigeration System ensures that electricity costs and performance are not jeopardized, and that the safety features and the integrity of the Refrigeration System are in line with the latest standards and regulations.

Routine maintenance such as inspections, oil and fluid changes, part replacements and other little fixes can help your Refrigeration System to run much more efficiently. In turn, your company will benefit from fuel and energy savings because the Refrigeration System will be running at peak performance.



### Emergency Call-out

In case your Refrigeration System should still break down, all Daikin Care packages include access to a Hotline number for emergency call-out. Preventive and Extended Care also include Emergency Service Hotline access outside of regular office hours.

### Genuine Spare Parts, Tools and Equipment

The spare parts used by Daikin Service or our Service Partner Network are all certified by Daikin, which means that the risk of failure and disturbances can be reduced while ensuring that the warranty is valid. In case opening, overhaul or repair is needed, Daikin as an OEM manufacturer has all the original tools, casts and equipment to ensure the repair is carried out according to factory recommendations and will keep your equipment up and running. Daikin uses advanced service tools when we care for our Refrigeration Systems. These tools are not found on the open market and they facilitate advanced troubleshooting and reporting to be done to ensure that the Refrigeration System is optimized and parametrised correctly as well as verifying the integrity of the Refrigeration System.

### Attractive Retrofit solutions

Daikin also offers attractive Retrofit solutions for a range of older Refrigeration Systems. Core parts of the Refrigeration System will be replaced to ensure it can run for many more years. Using Daikin certified retrofit solutions from Daikin or Daikin Certified partners allow you to enjoy the benefits of reduced operating costs, no need to refurbish or reinstall and will include an attractive warranty policy if performed under a care agreement.










# Daikin Refrigeration Range

## Product range overview - Daikin 15

ZEAS condensing unit	16
LREQ-BY1	18
Mini-ZEAS condensing unit	19
LRMEQ-BY1	19
Conveni-Pack	20
LRYEQ-AY	22
Indoor units and Biddle air curtains for connection to Conveni-Pack	23
Booster unit	24
LCBKQ-AV1	24
Accessories for ZEAS and Conveni-Pack	25
Commercial condensing units	26
Product overview - condensing units	27
JEHCCU-CM1/3	28
JEHSCU-CM1/3	29
JEHCCU-CL1/JEHSCU-CL3	30

# Product range overview - Daikin

Model	Product name	Capacity (kW)	0	2	5	10	25	50	100	150	300	450
Small inverter condensing unit for commercial refrigeration	Mini-ZEAS LRMEQ-BY1				Chilling							
Inverter condensing unit for commercial refrigeration	ZEAS LREQ-BY1				Chilling	Freezing						
	Multi ZEAS LREQ-BY1R						Chilling					
Integrated solution for chilling, freezing and comfort cooling and heating	Conveni-Pack LRYEQ-AY			Freezing		Chilling	Air conditioning	Heating				
Booster unit to allow both ZEAS and Conveni-Pack freezing applications	Booster unit LCBKQ-AV1			Freezing								
Commercial condensing units with reciprocating technology	CCU JEHCCU-M1/M3/L1/L3 JEHCCU-CM1/CM3		Chilling	Freezing								
	SCU JEHSCU-M1/M3/L3 JEHSCU-CM1/CM3			Freezing	Chilling							



## ZEAS condensing unit for refrigeration

### Why choose ZEAS?

#### High energy efficiency

- › Daikin inverter scroll compressor with economizer technology
- › DC inverter fan technology
- › Eco-design compliant
- › F-Gas regulation (R-410A) compliant

#### Reliable operation

- › ZEAS condensing units are rigorously tested on the assembly line
- › Proven inverter scroll technology
- › Anti-corrosion treatment on the housing ensures long life even in extreme conditions

#### Small foot print and low weight

- › Extremely compact design
- › Easy to install, even in the smallest spaces
- › Indoor installation possible
- › Best surface to capacity ratio on the market
- › Low weight thanks to the compact design

#### Comfort

- › Quiet operation, unobtrusive for customers and neighbours
  - High grade sound insulation on panels and compressors
  - Condenser fans designed to limit noise
  - 4 low noise operation settings including night mode
- › Wide temperature range allows multiple cabinet, freezer and cold room combinations

#### Intelligent control

- › Unit can be connected to a 3rd party monitoring system
- › Remote control of target evaporation temperature, reset errors and other functions
- › Refrigeration unit can be controlled remotely through a powerful interface

### Benefits for installers

- › Reduced delivery time thanks to European manufacturing plant
- › Reduced piping requirements and installation time
- › Integrated electrical & control box
- › Unit already pre-charged with refrigerant

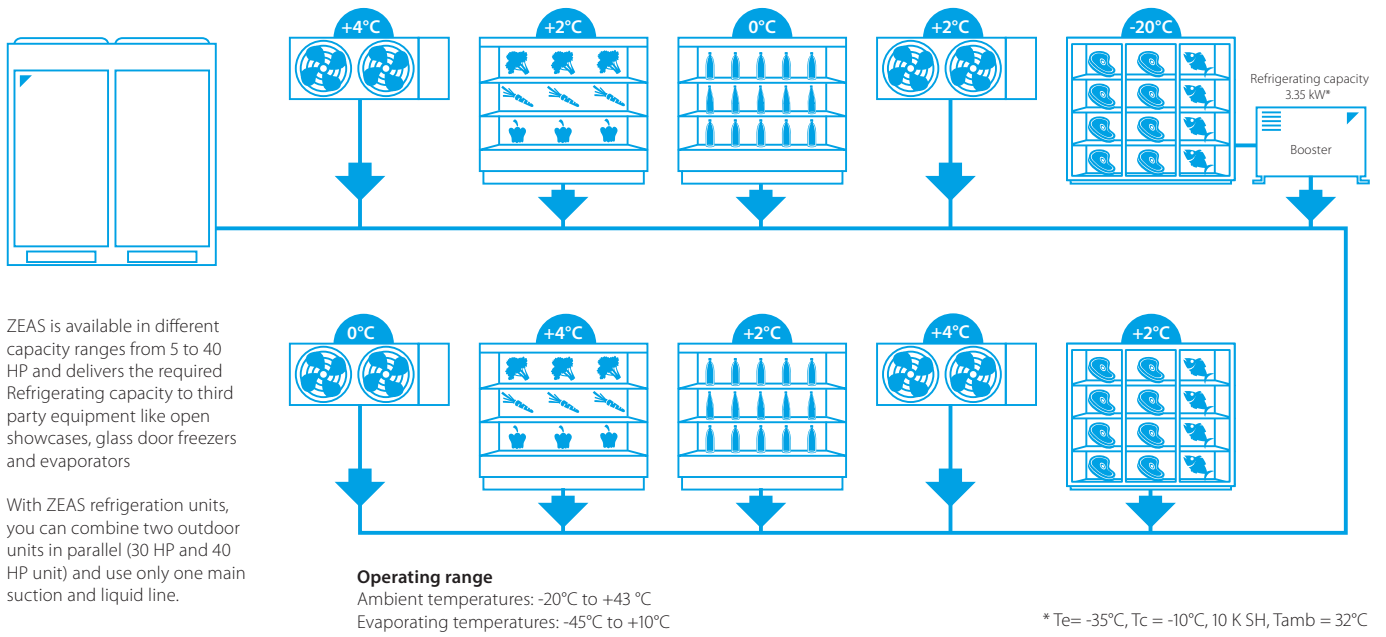
### Benefits for consultants

- › One model can cover for most refrigeration needs in the market
- › Wide capacity range
- › High modularity of the refrigeration system
- › Suitable to indoor installations through the use of high ESP fans

### Benefits for end users

- › Energy consumption is cut by 10 to 35% compared to traditional refrigeration equipment
- › Small footprint and low weight requiring only light weight supporting structures
- › A neighbourhood-friendly choice with its special night operation mode

# ZEAS, the smart choice for medium and low temperature refrigeration



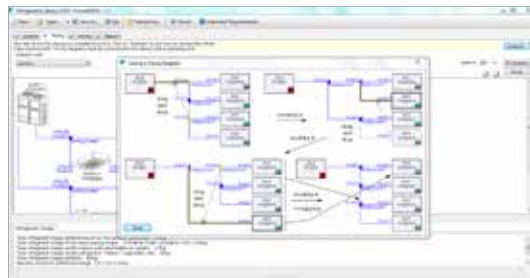
## Marketing tools

- › See how transportation is simulated and vibrations are tested on our shaker (search: vibration ZEAS)
- › Watch why a Dutch culture and entertainment venue chose ZEAS for its beverage cooling (search: Energiehuis ZEAS) [www.youtube.com/DaikinEurope](http://www.youtube.com/DaikinEurope)



## Refrigeration Xpress selection software

- › User-friendly design and selection software for Conveni-Pack, CCU/SCU, monoblocks, bi-blocks and ZEAS condensing units. Its detailed report includes a list of materials, piping and wiring diagrams, and device options.



# ZEAS condensing unit for commercial refrigeration with scroll technology

Refrigeration solution for medium to large capacity applications featuring proven VRV technology

- › One model for all applications from -45°C to 10°C evaporating temperature
- › Perfect solution for all cooling and freezing applications with variable load conditions and high energy efficiency requirements. In particular used in supermarkets, cold storage, blast coolers and freezers etc.
- › DC inverter scroll compressor with economiser function results in high energy efficiency and reliable performance
- › Reduced CO2 emissions thanks to the use of R-410A refrigerant and low energy consumption
- › Factory tested and pre-programmed for quick and easy installation and commissioning
- › VRV (Variable Refrigerant Volume) technology for flexible application range
- › Increased installation flexibility thanks to limited dimensions
- › Low sound level including „night mode“ operation
- › For small freezing capacity, single ZEAS units can be connected to a booster unit
- › Dedicated unit to allow multi combination of 2 x 15 HP or 2 x 20 HP resulting in less pipework or installation time



LREQ-BY1(R)

		LREQ-BY1		5	6	8	10	12	15	20			
Refrigerating capacity	Low temperature	Nom.	kW	5,51 (1)	6,51 (1)	8,33 (1)	10,0 (1)	10,7 (1)	13,9 (1)	15,4 (1)			
	Medium temperature	Nom.	kW	12,5 (2)	15,2 (2)	19,8 (2)	23,8 (2)	26,5 (2)	33,9 (2)	37,9 (2)			
Power input	Low temperature	Nom.	kW	4,65 (1)	5,88 (1)	7,72 (1)	9,27 (1)	9,89 (1)	12,8 (1)	14,1 (1)			
	Medium temperature	Nom.	kW	5,10 (2)	6,56 (2)	8,76 (2)	10,6 (2)	12,0 (2)	15,2 (2)	17,0 (2)			
Seasonal energy performance ratio SEPR	R-410A	Te -10°C		3,86	3,79	3,64	3,42	3,51	3,38	3,23			
		Te -35°C		1,61	1,65	1,71	1,69	1,67	1,60	1,61			
Annual electricity consumption Q	R-410A	Te -10°C	kWh/a	19.907	24.681	33.483	42.794	46.377	61.683	72.030			
		Te -35°C	kWh/a	25.547	29.366	36.361	44.054	47.872	64.822	71.162			
Parameters at full load and ambient temp. 32°C (Point A)	R-410A	Te -10°C	Rated COP (COPA)	2,45	2,32	2,26	2,25	2,21	2,23				
		Te -35°C	Rated COP (COPA)	1,18	1,11		1,08		1,09				
Parameters at full load and ambient temp. 43°C	R-410A	Te -10°C	Declared COP (COP3)	1,54	1,57	1,40	1,46	1,47	1,46	1,51			
		Te -35°C	Declared COP (COP3)	0,76	0,74	0,68	0,70	0,71		0,74			
Dimensions	Unit	Height	mm				1.680						
		Width	mm	635			930	1.240					
		Depth	mm				765						
Weight	Unit	kg	166			242	331			337			
Heat exchanger	Type	Cross fin coil											
Compressor	Type	Hermetically sealed scroll compressor											
	Output	W	2.600	3.200	2.100	3.000	3.400	2.600	3.400				
	Piston displacement	m³/h	11,18	13,85	19,68	23,36	25,27	32,24	35,8				
	Speed	rpm	5.280	6.540	4.320	6.060	6.960	5.280	6.960				
	Starting method	Direct on line (inverter driven)											
Compressor 2	Output	W	-			3.600							
	Speed	rpm	-			2.900							
Compressor 3	Output	W	-			-			3.600				
	Speed	rpm	-			-			2.900				
Fan	Type	Propeller fan											
	Quantity				1				2				
Fan motor	Air flow rate	Cooling	Nom.	m³/min	95	102	171	179	191	230	240		
	Output	W	350			750			750				
Fan motor 2	Drive	Direct drive											
	Output	W	-			-			350			750	
Sound pressure level	Nom.	dBA	55,0 (3)	56,0 (3)	57,0 (3)	59,0 (3)	61,0 (3)	62,0 (3)	63,0 (3)				
Operation range	Evaporator	Cooling	Max.-Min.	°CDB	10--45								
Refrigerant	Type / GWP	R-410A / 2.087,5											
	Charge	kg	5,2			7,9			11,5				
		TCO <sub>2eq</sub>	10,9			16,5			24,0				
Power supply	Control	Electronic expansion valve											
	Phase/Frequency/Voltage	Hz/V	3~/50/380-415										
		LREQ-BY1		30				40					
System	Outdoor unit module 1					LREQ15BY1R				LREQ20BY1R			
	Outdoor unit module 2					LREQ15BY1R				LREQ20BY1R			
Refrigerating capacity	Medium temperature	Nom.	kW	67,8 (1)				75,8 (1)					
	Low temperature	Nom.	kW	27,8				29,6					
Power input	Medium temperature	Nom.	kW	30,4				34,0					
	Low temperature	Nom.	kW	25,6				27,6					
Sound pressure level	Nom.	dBA	65,0				66,0						
Piping connections	Liquid	ø 19,05											
	Gas	ø 41,28											

(1) Cooling: evaporating temp. -10°C; outdoor temp. 32°C; suction SH10°C (2) Cooling: evaporating temp. -35°C; outdoor temp. 32°C; suction SH10°C (3) Sound pressure data: measured at 1m in front of unit, at 1.5m height | RLA is based on following conditions: outdoor temp. 32°CDB; suction SH 10°C; saturated temperature equivalent to suction pressure -10°C

# LRMEQ-BY1

## Mini-ZEAS



Plug and play system  
reduces installation time and cost

Two models available

F-Gas compliant (R-410A)

Very low operating  
sound level (in line with  
the most stringent urban  
sound legislations)

Small footprint  
(up to 60% smaller than  
equivalent products in  
the market)

High efficiency  
reducing energy costs

Ideal solution  
for multiple smaller refrigerati-  
on applications (butcher shops,  
bakeries, restaurants,...)

Coming:  
**October  
2017**

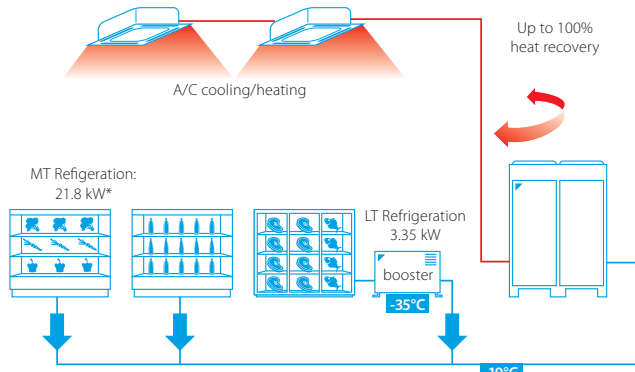
# Conveni-Pack, integrated solution for refrigeration, heating and air conditioning



## Why choose Conveni-Pack?

### High energy efficiency

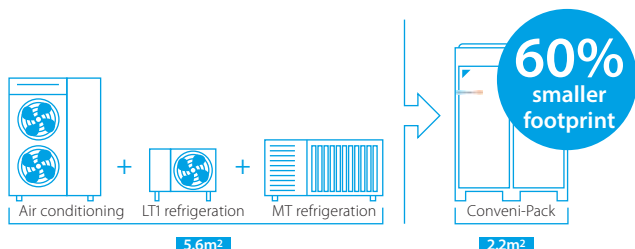
- > Conveni-Pack recovers up to 100% of the heat extracted from supermarket refrigeration cases and re-uses it to heat the retail space at no additional cost
- > Savings of up to 50% on energy costs
- > Daikin inverter scroll compressor with economizer technology



\*maximum available Refrigerating capacity when no booster units are connected

### Very compact design

- > Easy to install, even in small spaces
- > Small footprint (up to 60% smaller footprint than conventional systems) and low weight
- > Reduced piping requirements



### Unique combination

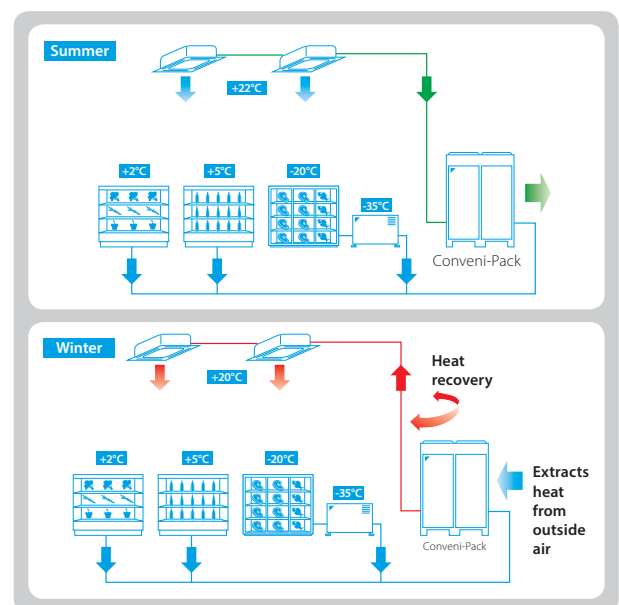
- > First mass-produced, whole-building system to combine refrigeration, heating, air conditioning in one circuit

### Reliable operation

- > Error-proof component selection
- > Factory leak-tested and pre-charged

### Year-round climate comfort

- > Quiet operation : Improved acoustics thanks to night operation mode, inverter control and inverter driven fans with optimised blades and grills
- > High grade sound insulation on both panels and compressors
- > Specially designed fan blades to limit sound emissions
- > 4 low sound operation settings including night mode
- > The heat recovered from refrigerated and freezer display cabinets can be used to provide heating for the shop.



## Internationally awarded

Since the introduction Conveni-Pack was recognized as innovative and environmentally – proof of which are the below mentioned German and Irish awards:

- › Winner of 2014 Institute of Refrigeration Ireland (IRI) Environmental award
- › Environmental Friendliness category of the Top Retail Product Awards 2014 in Germany



## Reference

### Edeka Buschkühle supermarket (Germany)

2 Conveni-Pack systems supply 32 meters of service counters, 12.5 meters of convenience fridges, one cooling storage room for fruit, an air curtain and 5 indoor units; the ZEAS system supplies two deep-freeze cabinets with a total capacity of 5 kW.



Discover more references on [www.daikineurope.com/references](http://www.daikineurope.com/references)

## Benefits for installers/consultants

- › Integrated electrical & control box
- › Unit already pre-charged with refrigerant
- › Established VRV technology ensuring optimised installation and maintenance
- › Reduced delivery time thanks to European manufacturing plant
- › Flexible system for multiple applications
- › Connectable to all grocery refrigeration applications and supplied with a wide range of air conditioning indoor units to meet shop requirements
- › Outdoor units can be positioned up to 35m above or 10m below the indoor units
- › Piping length possible up to 130m
- › Suitable for indoor installation through the use of high ESP fans

## Benefits for shop owners

- › Thought design for supermarkets and smaller retail outlets
- › Maximised retail sales space available as
- › Conveni-Pack has a footprint up to 60% smaller than conventional grocery refrigeration systems
- › Reduced energy consumption by up to 50% through heat recovery
- › Quiet operation, thus ideal for densely populated urban areas

## Marketing tools

### Refrigeration Xpress

User-friendly design software for Conveni-Pack, CCU, SCU and ZEAS condensing units. Its detailed report includes a list of materials, piping and wiring diagrams, and device options.



### Short videos

- › Watch a short animation on the unique refrigeration solution Conveni-Pack
- › Discover why a Belgian petrol station owner chose Daikin for its shop comfort and refrigeration needs. [www.youtube.com/DaikinEurope](http://www.youtube.com/DaikinEurope)



# Conveni-Pack refrigeration system with heat recovery

Refrigeration solution for food retailers featuring award winning technology for heat recovery

- › Integrates high and low temperature refrigeration and air conditioning (including heating) into one system
- › By using heat recovery, optimised controls and state of the art compressor technology, Conveni-pack can reduce annual energy consumption up to 50% or more, compared to conventional systems
- › Lower associated CO<sub>2</sub> emissions thanks to the heat pump technology
- › Conveni-pack's modular design allows it to be used for smaller as well as larger shops
- › The modularity of the Conveni-pack system maximises installation flexibility. Outdoor units can be grouped into blocks or rows, or distributed around the building, to meet individual installation constraints
- › The heat extracted from the refrigeration showcases or evaporators can be re-used for comfort heating of the shop at no extra cost
- › Low sound level including „night mode“ operation



LRYEQ16AY

Medium Temperature Refrigeration				LRYEQ-AY	16	
Cooling capacity	Air conditioning	Nom.	kW	14,0 (1)		
	Refrigeration	Nom.	kW	21,8 (2)		
Heating capacity	Air conditioning	Nom.	kW	27,0 (3)		
	Refrigeration	Nom.	kW	21,8 (4)		
Dimensions	Unit	Height	mm	1.680		
		Width	mm	1.240		
		Depth	mm	765		
Weight	Unit		kg	370		
Heat exchanger	Type			Cross fin coil		
Compressor	Type			Hermetically sealed scroll compressor		
	Piston displacement		m <sup>3</sup> /h	13,34		
	Speed		rpm	6.300		
	Output		W	2.500		
	Starting method				Direct on line (inverter driven)	
	Frequency ON/OFF				Less than 6 times/hour	
Compressor 2	Speed		rpm	2.900		
	Output		W	3.600		
Compressor 3	Speed		rpm	2.900		
	Output		W	4.500		
Fan	Type			Propeller fan		
	Quantity			2		
	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	230	
Fan motor	Output		W	750		
	Drive			Direct drive		
Sound pressure level	Nom.		dB(A)	62,0		
Operation range	Evaporator	Cooling	Min.-Max.	°CDB	-20~10	
		Cooling	Ambient	Min.-Max.	°CDB	-5~43
		Heating	Ambient	Min.-Max.	°CDB	-15~21
Refrigerant	Type			R-410A		
	GWP			2.087,5		
	Charge		kg	11,5		
			TCO <sub>2</sub> eq	24,0		
Power supply	Control			Electronic expansion valve		
		Phase/Frequency/Voltage	Hz/V	3~/50/380-415		

(1) Cooling priority mode: indoor temp. 27°CDB, 19°CWB; outdoor temp. 32°CDB; piping length: 7.5m; level difference: 0m (2) Cooling priority mode: evaporating temp. -10°C; outdoor temp. 32°CDB; Suction SH: 10°C (3) Heat recovery 100% mode: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; refrigeration load 18kW; piping length: 7.5m; level difference: 0m (4) Saturated temperature equivalent to suction pressure (refrigeration side): -10°C (under chilled condition); connection capacity for indoor air conditioner: 10HP, when heat recovery is 100%




# Indoor units and Biddle air curtains for connection to Conveni-Pack

To respond to all shop requirements for comfort cooling and heating, a wide range of AC indoor units and Biddle air curtains are available.

Capacity class (kW)

Model	Product name		50	63	71	80	100	125	140	200	250
Cooling capacity (kW) <sup>1</sup>			5,6	7,1	8,0	9,0	11,2	14,0	16,0	22,4	28,0
Heating capacity (kW) <sup>2</sup>			6,3	8,0	9,0	10,0	12,5	16,0	18,0	25,0	31,5
Round flow cassette	FXFQ-A		•	•		•	•	•			
2-way blow ceiling mounted cassette	FXCQ-A		•	•		•		•			
Ceiling mounted corner cassette	FXKQ-MA			•							
Concealed ceiling unit with inverter driven fan	FXSQ-A		•	•		•	•	•			
Concealed ceiling unit with inverter driven fan	FXMQ-P7		•	•		•	•	•			
Large concealed ceiling unit	FXMQ-MB									•	•
Ceiling suspended unit	FXHQ-A			•			•				
4-way blow ceiling suspended unit	FXUQ-A				•		•				
Floor standing unit	FXLQ-P		•	•							
Concealed floor standing unit	FXNQ-A		•	•							

Capacity class (kW)

Model	Product Name		80	100	125	140	200	250
Heating capacity (kW) <sup>2</sup>			7,4 - 9,2	11,6 - 13,4	15,6	16,2 - 19,9	29,4	29,4 - 31,1
Biddle air curtain free hanging	CYVS-DK		•	•	•	•	•	•
Biddle air curtain cassette	CYVM-DK		•	•	•	•	•	•
Biddle air curtain recessed	CYVL-DK		•	•	•	•	•	•

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB / 19°CWB, outdoor temperature: 35°CDB, piping length: 7,5m, level difference: 0m

<sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB / 6°CWB, piping length: 7,5m, level difference: 0m

# Booster unit

- › A booster unit allows to connect freezer showcases / rooms to ZEAS and Conveni-Pack outdoor units
- › Reduced piping requirements, from 4 to 2 pipes, compared to a conventional system
- › Low sound mode available reducing sound emissions significantly without giving in on Refrigerating capacity



LCBKQ3AV1

Low Temperature Refrigeration				LCBKQ-AV1	3
Refrigerating capacity	Low temperature	Nom.		kW	3,35 (1)
Dimensions	Unit	Height		mm	480
		Width		mm	680
		Depth		mm	310
				kg	47
Compressor	Type	Hermetically sealed swing compressor			
	Piston displacement			m <sup>3</sup> /h	10,16
	Number of revolutions			rpm	6.540
	Output			W	1.300
	Starting method	Direct on line (inverter driven)			
Fan	Frequency ON/OFF	Less than 6 times/hour			
	Type	Propeller fan			
	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	1,6
Operation range	Evaporator	Cooling	Min.-Max.	°CDB	-45~-20
	Ambient temperature	Min.-Max.		°C	-15~43
Refrigerant	Type	R-410A			
	GWP	2.087,5			
	Control	Electronic expansion valve			
Piping connections	For outdoor unit	Liquid	OD	mm	6,35
	To indoor unit	Liquid	OD	mm	6,35
	For indoor unit	Gas	OD	mm	15,9
	To outdoor unit	Gas	OD	mm	9,5
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240

(1) Evaporating temp. -35°C; outdoor temp. 32°C; suction SH 10K; saturated temp. to discharge pressure of booster unit -10°C

## Options - Refrigeration

	Conveni-Pack	ZEAS						Multi-ZEAS		
	LRYEQ16AY	LREQ5BY1	LREQ6BY1	LREQ8BY1	LREQ10BY1	LREQ12BY1	LREQ15BY1	LREQ20BY1	LREQ15BY1Rx2	LREQ20BY1Rx2
Digital pressure gauge kit		BHGP26A1								
Pressure gauge kit	-	KHGP26B140								
(a+b+c+d) kit	KPS26C504	KPS26C160		KPS26C280			KPS26C504			
a. Air outlet	KPS26C504T	KPS26C160T		KPS26C280T			KPS26C504T			
Snowbreak hood*	b. Air inlet (left)	KPS26C504L								
	c. Air inlet (right)	KPS26C504R								
d. Air inlet (rear)	KPS26C504B	KPS26C160B		KPS26C280B			KPS26C504B			
Central drain pan kit	KWC26C450**	KWC26C160		KPS26C280			KPS26C450		KPS26C450*** x2	
Communication box		BRR9A1V1								
Booster unit		LCBKQ3AV19								
Suction branch pipe for multi	-								EKHRQZM*****	
Refnet header	KHRQM22M29H8									
	KHRQ22M64H8									
	KHRQM22M75H8									
	KHRQ22M20TA8									
Refnet joint	KHRQ22M29T9									
	KHRQ22M64T8									
	KHRQ22M75T8									
	DSC601C51									
	DCM601A51									

\* Snowbreak hoods are field-supplied. For technical drawings and more information, contact your dealer. It is recommended to install a snowbreak hood when regular snowfall occurs.

\*\* In cold areas, provide a drain pan heater (field supply) to prevent drained water from freezing up in the drain pan \*\*\* required for each module

\*\*\*\* software update required (to be executed during commissioning) \*\*\*\*\* mandatory

# Accessories

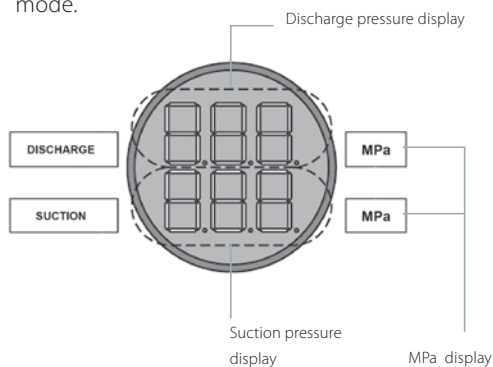
## for ZEAS and Conveni-Pack

### Digital pressure gauge kit

#### BHGP26A1

The digital measurement display allows you to diagnose a unit at a glance and it can be used with all ZEAS units and Conveni-Pack systems.

- › Digital measurement display for fixed installation or service applications.
- › Displays high and low pressure.
- › Displays error codes in the event of a fault.
- › Displays up to 32 operating parameters.
- › Displays error code history (last three).
- › Scrolls and stores output values.
- › Automatically returns to normal operating display mode.



### Modbus communication kit

#### BRR9A1V1

The Daikin Modbus Communication Interface lets you fully integrate Daikin ZEAS and Daikin Conveni-Pack systems with building control automation networks and other monitoring systems.

The interface allows you to read all the operational parameters and control important values using the Modbus protocol. This unifying component transforms ZEAS and Conveni-Pack into a transparent, customisable refrigeration unit and means that you can create object-specific and energy-optimised shop concepts, including remote monitoring application.

Pro interfaces can be used to connect up to 32 ZEAS units, and are also suitable for use with Conveni-Pack systems and the Booster.

#### Control values

- › Target evaporation temperature
- › Low pressure level for on and off points
- › Forced stop
- › Error messages can be cancelled remotely



#### Display values

- › Model information and operating status
- › Refrigerant operating pressure and temperatures
- › Electrical operating data and temperatures for components
- › Target values
- › Fan stage and compressor frequency, operating hours
- › Warning and error messages as well as system safety functions



## JEHCCU and JEHSCU Plug-in condensing units



### Why Daikin condensing units?

- › Daikin JEHCCU and JEHSCU series plug-in condensing units are the perfect solution for those looking for compact and economically priced solutions with high energy efficiency.
- › Daikin condensing kits are suitable for refrigerants R-407F, R-407A, R-404A and R-134A
- › Carefully designed details: the whole range utilizes proven and specially optimized components for Daikin.
- › Fast assembly, easy handling and an energy-optimized design ensure low investment and operating costs



		 Scroll compressor	 Reciprocating compressor	230 V current	400 V current	Refrigeration capacity (kW)															
MT cooling						<1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
JEHCCU 0040 CM1			•	•		◆															
JEHCCU 0051 CM1			•	•		◆															
JEHCCU 0063 CM1			•	•		◆															
JEHCCU 0077 CM1			•	•			◆														
JEHCCU 0095 CM1			•	•			◆														
JEHCCU 0050 CM1			•	•		●	▲	■													
JEHCCU 0067 CM1			•	•		■	●	▲													
JEHCCU 0100 CM1			•	•			▲	■													
JEHCCU 0113 CM1			•	•			●	▲	■												
JEHCCU 0140 CM1/3			•	•			■	●	▲												
JEHSCU 0200 CM1/3	•		•	•				◆	▲	■											
JEHSCU 0250 CM1/3	•		•	•				◆	▲	●	■										
JEHSCU 0300 CM1/3	•		•	•				◆	▲	■	●										
JEHSCU 0350 CM3	•			•				◆	▲	●	■										
JEHSCU 0400 CM3	•			•					◆		■	●	▲								
JEHSCU 0500 CM3	•			•						◆			●	▲	■						
JEHSCU 0600 CM3	•			•						◆			●	■	▲						
JEHSCU 0680 CM3	•			•						◆				●	■	▲					
JEHSCU 0800 CM3	•			•							◆					▲	■	●			
JEHSCU 1000 CM3	•			•										◆					■	●	▲
LT cooling						<1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
JEHCCU 0115 CL1			•	•		●	■														
JEHSCU 0200 CL3	•			•			●	■													
JEHSCU 0300 CL3	•			•			●	■													
JEHSCU 0400 CL3	•			•				■	●												
JEHSCU 0500 CL3	•			•				■	●												
JEHSCU 0600 CL3	•			•					■	●											
JEHSCU 0750 CL3	•			•						■	●										

MT: Evaporation temperature -10°C, ambient temperature 32°C  
 LT: Evaporation temperature -35°C, ambient temperature 32°C

● = R404A    ▲ = R-407F    ■ = R-407A    ◆ = R-134a

# Condensing unit for commercial refrigeration with reciprocating technology

## Refrigeration solution for small food retailers

- › Designed specifically for small capacity refrigeration applications in small food stores (eg. in bakeries and butchers), cold rooms, bottle coolers and display cabinets
- › Compact and lightweight for even the smallest of city centre locations
- › All components can be accessed, making maintenance quick and easy
- › Ideal for urban applications: sound proofing and low operating sound levels mean the unit is quiet
- › The optimised compressor range and increased condenser surface deliver high levels of energy efficiency and reliability is ensured by using high quality components and production processes
- › Micro channel heat exchanger technology reduces the amount of refrigerant used in the system, lowering environmental impact



JEHCCU-CM1/CM3

Medium Temperature Refrigeration				JEHCCU-CM1/CM3		0040 CM1	0050 CM1	0051 CM1	0063 CM1	0067 CM1	0077 CM1	0095 CM1	0100 CM1	0113 CM1	0140 CM1	0140 CM3				
Refrigerating capacity	Medium temperature	R-134a	Nom	kW	0,55 (1)	-	0,83 (1)	0,99 (1)	-	-	1,20 (1)	1,49 (1)	-	-	-	-	-			
		R-404A	Nom	kW	-	0,91 (1)	-	-	1,23 (1)	-	-	-	-	1,50 (1)	1,76 (1)	2,19 (1)	2,22 (1)			
		R-407A	Nom	kW	-	0,72 (1)	-	-	0,97 (1)	-	-	-	-	1,19 (1)	1,49 (1)	1,73 (1)	1,74 (1)			
		R-407F	Nom	kW	-	0,78 (1)	-	-	1,03 (1)	-	-	-	-	1,26 (1)	1,55 (1)	1,87 (1)	1,88 (1)			
Power input	Medium temperature	R-134a	Nom	kW	0,43 (1)	-	0,54 (1)	0,64 (1)	-	-	0,74 (1)	0,90 (1)	-	-	-	-	-			
		R-404A	Nom	kW	-	0,63 (1)	-	-	0,76 (1)	-	-	-	-	0,93 (1)	1,10 (1)	1,18 (1)	1,24 (1)			
		R-407A	Nom	kW	-	0,54 (1)	-	-	0,70 (1)	-	-	-	-	0,84 (1)	0,98 (1)	1,11 (1)	1,16 (1)			
		R-407F	Nom	kW	-	0,53 (1)	-	-	0,69 (1)	-	-	-	-	0,83 (1)	0,98 (1)	1,07 (1)	1,12 (1)			
Parameters at full load and ambient temp. 25°C	R-134a	Te -10°C	Declared COP (COP2)	1,55	-	1,75	1,80	-	-	1,96	2,05	-	-	-	-	-	-			
	R-404A	Te -10°C	Declared COP (COP2)	-	1,88	-	-	1,92	-	-	-	-	1,87	1,95	1,96	2,02	-			
	R-407A	Te -10°C	Declared COP (COP2)	-	1,39	-	-	1,45	-	-	-	-	1,50	1,65	1,58	1,58	-			
	R-407F	Te -10°C	Declared COP (COP2)	-	1,62	-	-	1,66	-	-	-	-	1,68	1,78	1,95	1,87	-			
Parameters at full load and ambient temp. 32°C (Point A)	R-134a	Te -10°C	Rated COP (COPA)	1,28	-	1,53	1,55	-	-	1,63	1,65	-	-	-	-	-	-			
	R-404A	Te -10°C	Rated COP (COPA)	-	1,45	-	-	1,61	-	-	-	-	1,61	1,60	1,68	1,80	-			
	R-407A	Te -10°C	Rated COP (COPA)	-	1,33	-	-	1,37	-	-	-	-	1,42	1,52	1,57	1,50	-			
	R-407F	Te -10°C	Rated COP (COPA)	-	1,47	-	-	1,49	-	-	-	-	1,51	1,58	1,75	1,67	-			
Parameters at full load and ambient temp. 43°C	R-134a	Te -10°C	Declared COP (COP3)	1,18	-	1,20	1,21	-	-	1,30	1,32	-	-	-	-	-	-			
	R-404A	Te -10°C	Declared COP (COP3)	-	1,10	-	-	1,18	-	-	-	-	1,21	1,20	1,26	1,31	-			
	R-407A	Te -10°C	Declared COP (COP3)	-	1,16	-	-	-	-	-	-	-	-	-	1,38	1,30	-			
	R-407F	Te -10°C	Declared COP (COP3)	-	1,20	-	-	-	-	-	-	-	-	-	1,39	1,32	-			
Dimensions	Unit	Height	mm													607			662	
		Width	mm													876			1.101	
		Depth	mm													420			444	
Weight	Unit		kg	45		53				54				55			68			
Compressor	Type	Reciprocating compressor																		
	Model	AE4440Y-FZ1A AE4460Z-FZ1C CAJ4461Y CAJ4476Y CAJ9480Z CAJ4492Y CAJ4511Y CAJ9510Z CAJ9513Z CAJ4517Z TAJ4517Z																		
	Oil	Charged volume	l	0,3													0,9			-
	Oil Type	Uniqema Emkarate RL32CF																		
Fan	Piston displacement	m³/h	1,80	3,18	3,79	2,64	4,51	5,69	3,18	4,21	4,52									
	Type	Axial																		
Sound pressure level	Air flow rate	Cooling	Nom	m³/h	1.300												2.700			
	Nom.			dB(A)	29 (2)					28 (2)	29 (2)		28 (2)		34 (2)					
Refrigerant	Type				R-134a	R-404A	R-134a	R-404A	R-134a											
	Type 2				-	R-407A	-	R-407A	-	R-404A										
	Type 3				-	R-407F	-	R-407F	-	R-407A										
	GWP				1.430,0	3.921,6	1.430,0	3.921,6	1.430,0	3.921,6										
	GWP Type 2				-	2.107	-	2.107	-	2.107										
	GWP Type 3				-	1.825	-	1.825	-	1.825										
Piping connections	Liquid line connection	inch	1/4"					3/8"												
	Suction line connection	inch	3/8"					1/2"					5/8							
Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/230												3~/50/400					

(1) Refer to condition: Outside ambient temperature = 32°C, Evaporation temperature = -10°C and 10K superheat (medium temperature application)

(2) Average sound pressure level is measured at 10m in anechoic room

# Condensing unit for commercial refrigeration with scroll technology

## Refrigeration solution for small food retailers

- › Designed specifically for small capacity refrigeration applications in small food stores (eg. in bakeries and butchers), cold rooms, bottle coolers and display cabinets
- › Compact and lightweight for even the smallest of city centre locations
- › All components can be accessed, making maintenance quick and easy
- › Ideal for urban applications: sound proofing and low operating sound levels mean the unit is quiet
- › The optimised compressor range and increased condenser surface deliver high levels of energy efficiency and reliability is ensured by using high quality components and production processes
- › Micro channel heat exchanger technology reduces the amount of refrigerant used in the system, lowering environmental impact



Medium Temperature Refrigeration				JEHSCU-CM1/CM3		0200 CM1	0250 CM1	0300 CM1	0200 CM3	0250 CM3	0300 CM3	0350 CM3	0400 CM3	0500 CM3	0600 CM3	0680 CM3	0800 CM3	1000 CM3				
Refrigerating capacity	Medium temperature	R-134a	Nom	kW	2,05 (1)	2,59 (1)	3,09 (1)	2,17 (1)	2,48 (1)	3,06 (1)	3,48 (1)	4,24 (1)	5,24 (1)	6,16 (1)	6,89 (1)	7,95 (1)	10,40 (1)					
		R-404A	Nom	kW	3,54 (1)	3,99 (1)	4,92 (1)	3,49 (1)	4,21 (1)	4,89 (1)	5,50 (1)	6,70 (1)	8,03 (1)	9,45 (1)	10,15 (1)	12,95 (1)	16,45 (1)					
		R-407A	Nom	kW	3,39 (1)	3,98 (1)	4,65 (1)	3,36 (1)	3,94 (1)	4,54 (1)	-	6,57 (1)	8,03 (1)	9,24 (1)	10,35 (1)	12,55 (1)	14,75 (1)					
		R-407F	Nom	kW	3,26 (1)	3,73 (1)	4,50 (1)	3,22 (1)	3,85 (1)	4,45 (1)	-	6,62 (1)	7,99 (1)	9,36 (1)	10,40 (1)	12,65 (1)	15,95 (1)					
Power input	Medium temperature	R-134a	Nom	kW	1,11 (1)	1,21 (1)	1,45 (1)	1,03 (1)	1,17 (1)	1,46 (1)	1,68 (1)	1,85 (1)	2,30 (1)	2,70 (1)	3,15 (1)	3,74 (1)	4,86 (1)					
		R-404A	Nom	kW	1,57 (1)	2,00 (1)	2,62 (1)	1,70 (1)	2,04 (1)	2,52 (1)	3,04 (1)	3,33 (1)	4,39 (1)	4,92 (1)	5,53 (1)	5,96 (1)	8,62 (1)					
		R-407A	Nom	kW	1,60 (1)	1,99 (1)	2,47 (1)	1,63 (1)	2,03 (1)	2,45 (1)	-	2,97 (1)	3,93 (1)	4,62 (1)	5,54 (1)	6,24 (1)	8,41 (1)					
		R-407F	Nom	kW	1,74 (1)	2,09 (1)	2,66 (1)	1,78 (1)	2,16 (1)	2,71 (1)	-	3,21 (1)	4,36 (1)	5,03 (1)	5,98 (1)	6,13 (1)	8,84 (1)					
Seasonal energy performance ratio SEPR	R-134a	Te -10°C												2,69	2,63	2,57	2,92	2,88				
		Te -10°C													2,61	2,77	2,64	2,72	2,65	2,90	2,57	
		Te -10°C														3,09	2,81	2,75	2,65	2,88	2,35	
		Te -10°C														2,83	2,60	2,69	2,59	2,83	2,53	
Annual electricity consumption Q	R-134a	Te -10°C		kWh/a											11,969	14,381	16,491	16,741	22,226			
		Te -10°C		kWh/a												12,939	14,881	18,673	21,344	23,536	27,407	39,372
		Te -10°C		kWh/a													13,054	17,546	20,622	24,031	26,747	38,515
		Te -10°C		kWh/a													14,365	18,883	21,395	24,655	27,475	38,831
Parameters at full load and ambient temp. 25°C	R-134a	Te -10°C	Declared COP (COP2)	2,15	2,54	2,50	2,55		2,52		2,46	2,83										
		Te -10°C	Declared COP (COP2)	2,65	2,54	2,24	2,44	2,41	2,26													
		Te -10°C	Declared COP (COP2)	2,55	2,38	2,21	2,50	2,32	2,20													
		Te -10°C	Declared COP (COP2)	2,43	2,31	2,16	2,35	2,25	2,10													
Parameters at full load and ambient temp. 32°C (Point A)	R-134a	Te -10°C	Rated COP (COPA)	1,85	2,14	2,13	2,12	2,13	2,10	2,08	2,29		2,28		2,19	2,13	2,14					
		Te -10°C	Rated COP (COPA)	2,25	2,00	1,88	2,06	2,07	1,94	1,81	2,01	1,83	1,92	1,84	2,17	1,91						
		Te -10°C	Rated COP (COPA)	2,13	2,01	1,89	2,07	1,95	1,86	-	2,21	2,04	2,00	1,87	2,01	1,75						
		Te -10°C	Rated COP (COPA)	1,88	1,79	1,69	1,81	1,79	1,65	-	2,06	1,83	1,86	1,74	2,06	1,80						
Parameters at full load and ambient temp. 43°C	R-134a	Te -10°C	Declared COP (COP3)	1,35		1,53			1,57		1,52	1,55	1,56	1,59	1,53		1,52					
		Te -10°C	Declared COP (COP3)	1,53	1,33		1,25		1,36	1,28	1,11	1,28	1,15	1,27	1,22	1,47	1,18					
		Te -10°C	Declared COP (COP3)				1,48	1,45	1,38	-	1,43	1,39	1,43	-	1,38	-						
		Te -10°C	Declared COP (COP3)													1,52	-					
Dimensions	Unit	Height	mm	662								872				1,727						
		Width	mm	1,101								1,353				1,348						
		Depth	mm	444								575				641						
Weight	Unit	kg	70	72	74	70	72	74			119	123	125	126	218							
Compressor	Type	Scroll compressor																				
	Model	ZB15KQE-PFJ	ZB19KQE-PFJ	ZB21KQE-PFJ	ZB15KQE-TFD	ZB19KQE-TFD	ZB21KQE-TFD	ZB26KQE-TFD	ZB29KQE-TFD	ZB38KQE-TFD	ZB45KQE-TFD	ZB48KQE-TFD	ZB58KQE-TFD	ZB76KQE-TFD								
	Oil	Charged volume																				
	Oil Type	Polyester oil (Copeland Ultra 22 CC, 32 CC and 32-3MAF, Mobil EAL™ Arctic 22 CC, Uniqem Emkarate RL32CF)																				
	Piston displacement	m³/h	5,90	6,80	8,60	5,90	6,80	8,60	9,90	11,40	14,40	17,10	18,80	22,10	29,10							
Fan	Type	Axial																				
	Air flow rate	Cooling	Nom	m³/h	2,700								-				8,500					
Sound pressure level	Nom.	dB(A)	33 (2)	34 (2)	36 (2)	33 (2)	34 (2)	36 (2)	39 (2)	37 (2)	38 (2)	40 (2)			43 (2)							
Refrigerant	Type	R-134a																				
	Type 2	R-404A																				
	Type 3	R-407A								-												
	Type 4	R-407F								-												
	GWP	1,430																				
	GWP Type 2	3,921,6																				
	GWP Type 3	2,107								-												
GWP Type 4	1,825								-													
Piping connections	Liquid line connection	inch	3/8"								1/2"				3/4"							
	Suction line connection	inch	3/4"								7/8"				1 1/8"	3/8"						
Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/230								3~/50/400											

(1) Refer to condition: Outside ambient temperature = 32°C, Evaporation temperature = -10°C and 10K superheat (medium temperature application)  
 (2) Average sound pressure level is measured at 10m in anechoic room

# Condensing unit for commercial refrigeration with scroll / reciprocating technology

## Refrigeration solution for small food retailers

- › Designed specifically for small capacity refrigeration applications in small food stores (eg. in bakeries and butchers), cold rooms, bottle coolers and display cabinets
- › Compact and lightweight for even the smallest of city centre locations
- › All components can be accessed, making maintenance quick and easy
- › Ideal for urban applications: sound proofing and low operating sound levels mean the unit is quiet
- › The optimised compressor range and increased condenser surface deliver high levels of energy efficiency and reliability is ensured by using high quality components and production processes
- › Micro channel heat exchanger technology reduces the amount of refrigerant used in the system, lowering environmental impact



Low Temperature Refrigeration				JEHCCU-CL1/JEHSCU-CL3		JEHCCU0115CL1	JEHSCU0200CL3	JEHSCU0300CL3	JEHSCU0400CL3	JEHSCU0500CL3	JEHSCU0600CL3	JEHSCU0750CL3
Refrigerating capacity	Low temperature	R-404A	Nom	kW	0,69 (1)	1,42 (1)	1,98 (1)	2,91 (1)	3,53 (1)	4,13 (1)	5,29 (1)	
		R-407A	Nom	kW	-	1,16 (1)	1,51 (1)	2,29 (1)	2,77 (1)	3,31 (1)	4,29 (1)	
Power input	Low temperature	R-404A	Nom	kW	0,72 (1)	1,46 (1)	1,81 (1)	2,38 (1)	3,10 (1)	3,69 (1)	3,88 (1)	
		R-407A	Nom	kW	-	1,31 (1)	1,77 (1)	2,33 (1)	2,85 (1)	3,57 (1)	4,17 (1)	
Seasonal energy performance ratio SEPR		R-404A	Te -35°C		-	-	-	1,88	1,79	1,80	1,82	
		R-407A	Te -35°C		-	-	-	1,67	1,52	1,51		
Annual electricity consumption Q		R-404A	Te -35°C	kWh/a	-	-	-	11.555	14.732	17.107	21.649	
		R-407A	Te -35°C	kWh/a	-	-	-	10.212	12.364	16.220	21.146	
Parameters at full load and ambient temp. 25°C		R-404A	Te -35°C	Declared COP (COP2)	1,11	1,16	1,40	-	-	-	-	
		R-407A	Te -35°C	Declared COP (COP2)	-	1,12	1,08	-	-	-	-	
Parameters at full load and ambient temp. 32°C (Point A)		R-404A	Te -35°C	Rated COP (COPA)	0,96	0,97	1,09	1,22	1,14	1,06	1,36	
		R-407A	Te -35°C	Rated COP (COPA)	-	0,89	0,85	0,98	0,97	0,93	1,03	
Parameters at full load and ambient temp. 43°C		R-404A	Te -35°C	Declared COP (COP3)	0,69	0,60	0,70	0,86	0,79	0,64	0,98	
		R-407A	Te -35°C	Declared COP (COP3)	-	0,55	-	0,67	0,66	0,64	0,73	
Dimensions	Unit	Height	mm	607	662	872	1.727					
		Width	mm	876	1.101	1.353	1.348					
		Depth	mm	420	444	575	605					
Weight	Unit			kg	55	76	77	132	133	203		
		Compressor	Type	Reciprocating compressor		Scroll compressor						
		Model	CAJ2446Z		ZF06K4E-TFD	ZF09K4E-TFD	ZF13K4E-TFD	ZF15K4E-TFD	ZF18K4E-TFD	ZF25K5E-TFD		
		Oil	Charged volume	l	0,9	-	-	-	1,90	-		
		Oil Type	Uniqema Emkarate RL32CF		Polyester oil (Copeland Ultra 22 CC, 32 CC and 32-3MAF, Mobil EAL™ Arctic 22 CC, Uniqem Emkarate RL32CF)							
		Piston displacement	m³/h		4,55	5,90	8,00	11,80	14,50	17,10	21,40	
Fan	Type			Axial								
		Air flow rate	Cooling	Nom	m³/h	1.300	2.700	-	5.750			
Sound pressure level	Nom.			dBA	31 (2)	32 (2)	33 (2)	37 (2)	39 (2)	41 (2)		
		Refrigerant	Type	R-404A		R-407A						
		Type 2			3.921,6							
		GWP			2.107,0							
		GWP Type 2										
Piping connections	Liquid line connection			inch	3/8"	1/2"		1 1/8"				
		Suction line connection			inch	1/2"	3/4"	7/8"		1 1/8"		
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/230	3~/50/400						

(1) SRG 20°C, Ta=32°C, Te=-35°C (2) Average sound pressure level is measured at 10m in anechoic room





and



# United in cold

## About the Zanotti acquisition

With the acquisition of Zanotti, Daikin can now provide a diverse product line up for all aspects of the cold chain that extend from those used in food production and transportation (overland shipping) to those found at retailers.

## About the Zanotti product range

Zanotti's commercial range contains a large range of units used for refrigeration of restaurants, supermarkets and distribution centers.

Special air treatment systems are available for maturing of salamis and cheeses, wine conservation and refinement, silos cooling for grain and seeds.

Next to the commercial product range, Zanotti has a complete range for **transport refrigeration** and **industrial refrigeration** for applications as the food industry, clean rooms, ice skating rinks,...





The largest range of stationary commercial cooling solutions for the food industry

Zanotti manufactures a wide range of stationary refrigeration systems. This includes solutions in monoblock and split designs for any capacity, condensing units and racks for single or multiple users. These systems are used in restaurants, super- and hypermarkets, grocery stores, distribution centers and fresh food processing plants.

Zanotti offers special air treatment systems and temperature control solutions for small scale traditional food processing, such as cheese and salami maturing, and for wine preservation and refinement. The portfolio is completed by refrigeration systems for grain and seed silos.



# **NEW** Zanotti Refrigeration Range

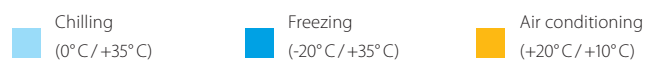
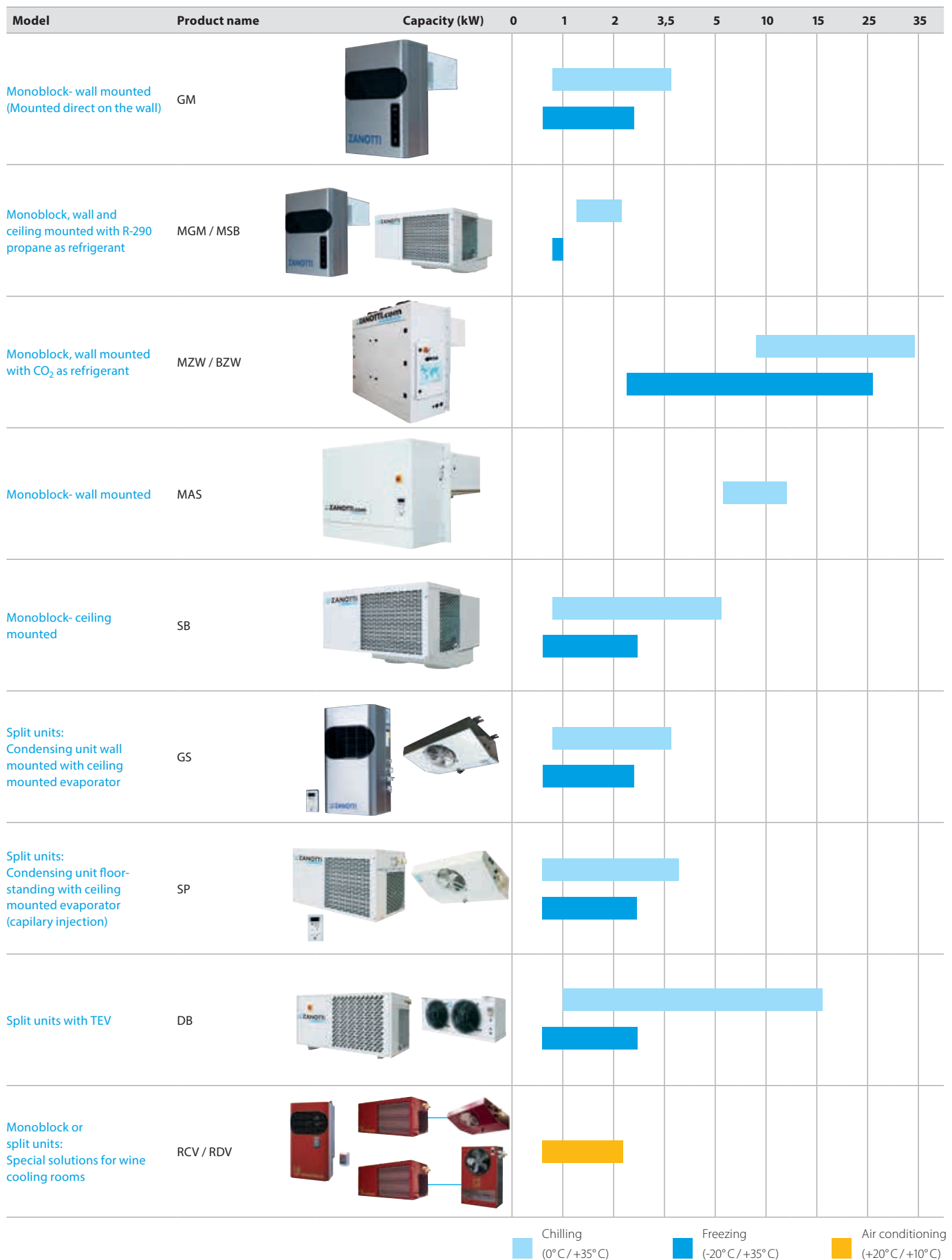
## Product range overview - Zanotti 35

Monoblock	36
GM - Monoblock wall mounted	36
GM/SB - Monoblock propane wall- or ceiling-mounted	37
MZW/BZW - Monoblock CO <sub>2</sub>	38
MAS - Monoblock unit for wall mounting	39
SB - Monoblock for mounting on the cooling room wall	40
Split units	42
GS - Wall mounted condensing unit and ceiling mounted evaporator	42
SP - Floor standing condenser and ceiling mounted evaporator with capillary injection	44
DB - Split unit with TEV	46
RCV/RDV - Monoblock for wine storage	48
Other product ranges	50
Multi-compressor racks	50
Transport range	50
Industrial range	50
Compressor racks with air cooled condensing unit	51
Compressor racks without condenser	52

More information on ordering Zanotti units?  
Questions on the Zanotti range?

Please contact the refrigeration department at Daikin  
Central Europe or your local refrigeration product  
manager.

# Product range overview - Zanotti



# Monoblock wall mounted

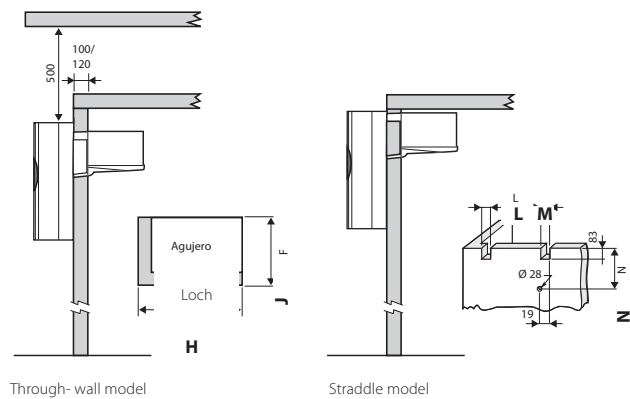
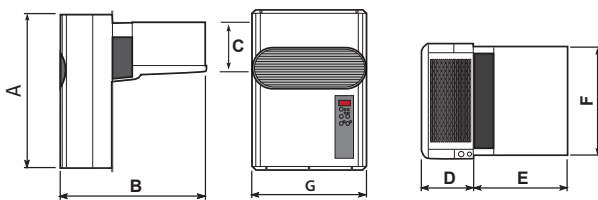
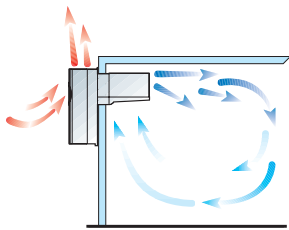
Wall mounted or alternatively through wall by using mounting kit

- › For small to mid size cold rooms
- › Fast assembly / mounting
- › Excellent space requirement vs. performance ratio
- › Automatic warning upon condenser pollution
- › New generation control panel: connection with classic remote management systems or Modbus system
- › Equipped with HP and LP pressure switch (standard)
- › Low sound level due to acoustic insulation of the compressor chamber (optional)
- › Two models: straddle or through wall
- › Units available on stock
- › Discharge gas defrosting



MGM-E / BGM-D

## Installation type and dimensions



Through-wall model

Straddle model

(in mm)	A	B	C	D	E	F	G	H	J	L	M	N
GM1	735	850	264	280	570	368	400	375	335	288	43	316
GM2	830	850	264	280	570	585	620	590	335	503	43	316
GM3	830	920	364	350	570	585	620	590	440	503	43	410

<b>MT cooling</b>		<b>MGM-E</b>	<b>10326</b>	<b>10526</b>	<b>10626</b>	<b>10726</b>	<b>11026</b>	<b>21126</b>	<b>21227</b>	<b>21327</b>	<b>31527</b>	<b>32027</b>
Refrigerating capacity	Ambient temp.+5°C	kW	0,962	1,103	1,248	1,453	1,507	2,030	2,334	2,484	3,491	3,774
	Recommended room volume	m <sup>3</sup>	6,9	8,5	10	13	19	24	26	41	46	
	Ambient temp.0°C	kW	0,815	0,914	1,047	1,237	1,283	1,705	1,927	2,074	2,964	3,210
	Recommended room volume	m <sup>3</sup>	5,4	6,4	7,9	10	11	16	17	20	33	37
Power input		kW	0,3	0,4	0,5	0,6	0,7	0,7	0,9	1,1	1,1	1,5
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	600	600	600	600	1.200	1.200	1.200	1.500	1.500
	Evaporator	m <sup>3</sup> /h	600	600	600	600	600	1.200	1.200	1.200	1.800	1.800
Defrosting			Discharge gas									
Sound pressure level <sup>(2)</sup>	At 10m distance	dB(A)	38	38	39	40	40	39	40	41	47	47
Refrigerant	Type/GWP		R-134a/1.430									
Insulation		mm	100									
Power supply			230 V / 1 ~ / 50 Hz					400 V / 3 ~ / 50 Hz				

<b>LT cooling</b>		<b>BGM-D</b>	<b>11026</b>	<b>11226</b>	<b>11726</b>	<b>21826</b>	<b>22027</b>	<b>33027</b>	
Refrigerating capacity	Ambient temp.-15°C	kW	0,768	0,974	1,169	1,492	1,834	2,653	
	Recommended room volume	m <sup>3</sup>	4	6	8.2	12	17	31	
	Ambient temp.-20°C	kW	0,624	0,820	1,010	1,249	1,567	2,160	
	Recommended room volume	m <sup>3</sup>	2,8	4,5	6,4	9,2	13	22	
Power input		kW	0,7	0,9	1,3	1,3	1,5	2,2	
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	600	600	1.200	1.200	1.500	
	Evaporator	m <sup>3</sup> /h	600	600	600	1.200	1.200	1.800	
Defrosting			Discharge gas						
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	40	42	42	41	41	47	
Refrigerant	Type/GWP		R-452A/ 2.141						
Insulation		mm	120						
Power supply			230 V / 1 ~ / 50 Hz				400 V / 3 ~ / 50 Hz		

Chilling: charged goods 250 kg / m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
Freezing: charged goods 250 kg / m<sup>3</sup>, handling 10%, material input temperature -5 °C, specific heat of the product 0,44 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C

(2) Sound pressure data: measured at 10 meters distance according to ISO 3746/79\*

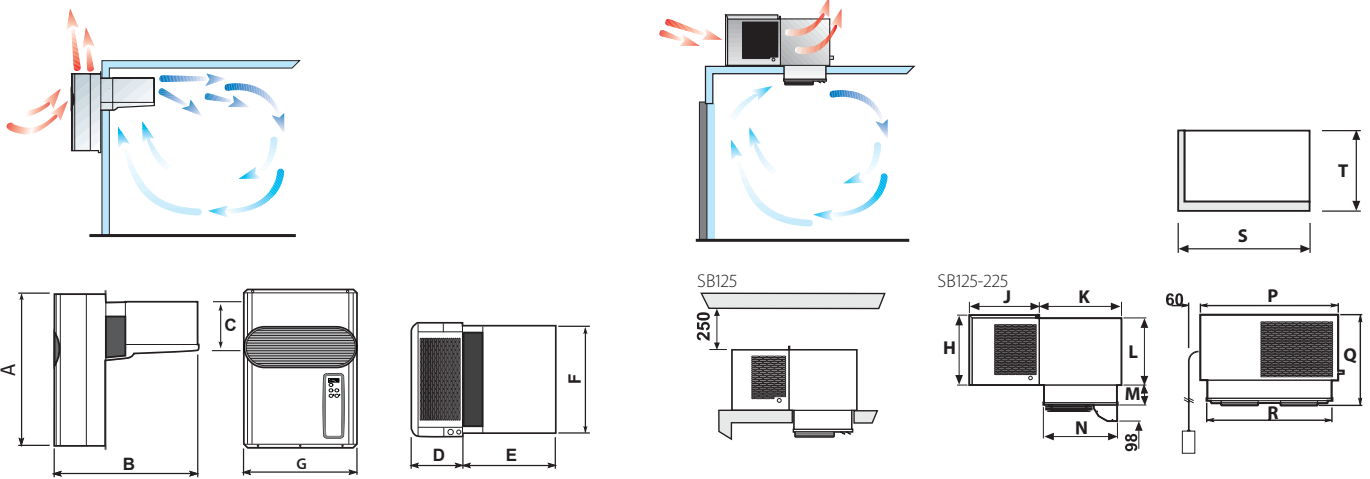
# Monoblock propane wall- or ceiling-mounted

The flexible solution with especially environmentally friendly refrigerant

- › For small to mid size cold rooms (Cooling or deep freezing)
- › Lowering of refrigerant volume in the the system by approx. 50%
- › Environmentally friendly equipment through the use of hydrocarbons such as R-290 (propane) as refrigerant
- › Compliant with F-Gas Regulation 2024
- › Energy savings through low consumption
- › Factory tested
- › Plug and play solution
- › Units available on stock
- › Discharge gas defrosting



## Installation type and dimensions



(in mm)	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
GM1 / GM2	735	800	264	290	510	368	400	-	-	-	-	-	-	-	-	-	-	-
SB125	-	-	-	-	-	-	-	357	337	382	340	150	332	620	506	545	550	337
SB225	-	-	-	-	-	-	-	390	427	382	360	150	332	820	540	745	750	337

MT cooling			MGM 10702 Y		MGM 21202 Y		MSB 125T02 Y		MSB 225T02 Y	
			Wall mounted unit		Wall mounted unit		Ceiling mounted unit		Ceiling mounted unit	
Refrigerating capacity	Ambient temp.+5°C	kW	1,274	2,255	1,33	2,26				
	Recommended room volume	m <sup>3</sup>	10	22	9,9	20				
	Ambient temp.0°C	kW	1,122	1,96	1,161	2,03				
	Recommended room volume	m <sup>3</sup>	8,7	18	8	17				
Power input		kW	0,56	0,9	0,6	0,9				
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	1.200	750	1.200				
	Evaporator	m <sup>3</sup> /h	600	1.200	550	1.300				
Defrosting			Discharge gas							
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	-							
Refrigerant	Type/GWP		R-290/3							
Insulation		mm	100							
Power supply			230 V / 1 ~ / 50 Hz							

LT cooling			BGM 11202 Y		BSB 11202 Y	
			Wall mounted unit		Ceiling mounted unit	
Refrigerating capacity	Ambient temp.-15°C	kW	1			
	Recommended room volume	m <sup>3</sup>	6,3			
	Ambient temp.-20°C	kW	0,83			
	Recommended room volume	m <sup>3</sup>	4,6			
Power input		kW	0,9			
Air flow rate	Condensing unit	m <sup>3</sup> /h	600			
	Evaporator	m <sup>3</sup> /h	600			
Defrosting			Discharge gas			
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	-			
Refrigerant	Type/GWP		R-290/3			
Insulation		mm	120			
Power supply			230 V / 1 ~ / 50 Hz			

Chilling: charged goods 250 kg / m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 Freezing: charged goods 250 kg / m<sup>3</sup>, handling 10%, material input temperature -5 °C, specific heat of the product 0,44 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 (1) Sound pressure data: measured at 10 meters distance according to ISO 3746/79"

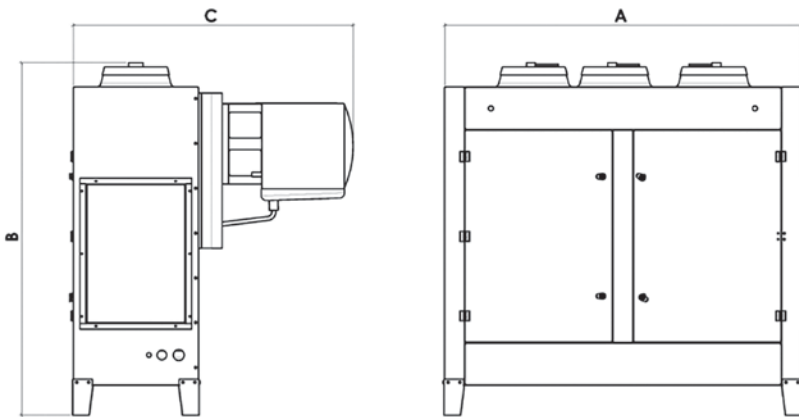
# Monoblock CO<sub>2</sub>

Environmentally friendly solution with natural refrigerant for medium and low temperature cooling

- › Suitable for medium to large size rooms
- › Transcritical monoblock with CO<sub>2</sub> refrigerant
- › Lowest GWP (GWP=1)
- › Compliant with F-Gas Regulation 2024
- › Factory tested
- › Plug and play solution- no additional adjustment necessary
- › Fast assembly / mounting
- › Excellent space requirement vs. performance ratio
- › Equipped with HP and LP pressure switch (standard)
- › Electrical defrosting
- › Regulation panel as standard
- › Low sound level due to acoustic insulation of the compressor chamber (optional)
- › Units available on stock



## Installation type and dimensions



(in mm)	A	B	C	kg
MZW401001X	2.200	1.400	1.460	550
MZW602501X	3.105	1.650	1.860	950
BZW100301X	1.480	1.400	1.350	350
BZW301201X	2.450	1.400	1.460	570
BZW301501X	1.900	1.650	1.460	570
BZW503501X	3.900	1.650	1.660	950

<b>MT cooling</b>		<b>MZW-X</b>	<b>401001</b>	<b>602501</b>		
Refrigerating capacity	Ambient temp.+5°C	kW	12,21	34,42		
	Recommended room volume	m <sup>3</sup>	216	730		
	Ambient temp.-5°C	kW	8,98	25,89		
	Recommended room volume	m <sup>3</sup>	149	531		
Power input		kW	11,27	28,23		
Air flow rate	Condenser	m <sup>3</sup> /h	6.950	19.690		
	Evaporator	m <sup>3</sup> /h	7.700	14.800		
Defrosting			E- Heater			
Sound <sup>(1)</sup>	At 10 m distance	dB(A)	-			
Refrigerant	Type/ GWP		R-744/1			
Insulation		mm	-			
Power supply			400 V / 3 ~ / 50 Hz			
<b>LT cooling</b>		<b>BZW-X</b>	<b>100301</b>	<b>301201</b>	<b>301501</b>	<b>503501</b>
Refrigerating capacity	Ambient temp.-15°C	kW	3,12	9,72	11,62	26,05
	Recommended room volume	m <sup>3</sup>	43	230	294	863
	Ambient temp.-25° C	kW	2,39	7,47	8,9	20,02
	Recommended room volume	m <sup>3</sup>	28	158	203	624
Power input		kW	3,73	10,64	13,57	28,01
Air flow rate	Condenser	m <sup>3</sup> /h	1.120	4.010	3.100	7.930
	Evaporator	m <sup>3</sup> /h	3.100	8.900	5.000	21.200
Defrosting			E- Heater			
Sound <sup>(1)</sup>	At 10 m distance	dB(A)	-			
Refrigerant	Type/GWP		R-744/1			
Insulation		mm	-			
Power supply			400 V / 3 ~ / 50 Hz			

Chilling: charged goods 250 kg / m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C\*  
 Freezing: charged goods 250 kg / m<sup>3</sup>, handling 10%, material input temperature -5 °C, specific heat of the product 0,44 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C\*

(1) Sound pressure data: measured at 10 meters distance according to ISO 3746/79\*

# Monoblock unit for wall mounting

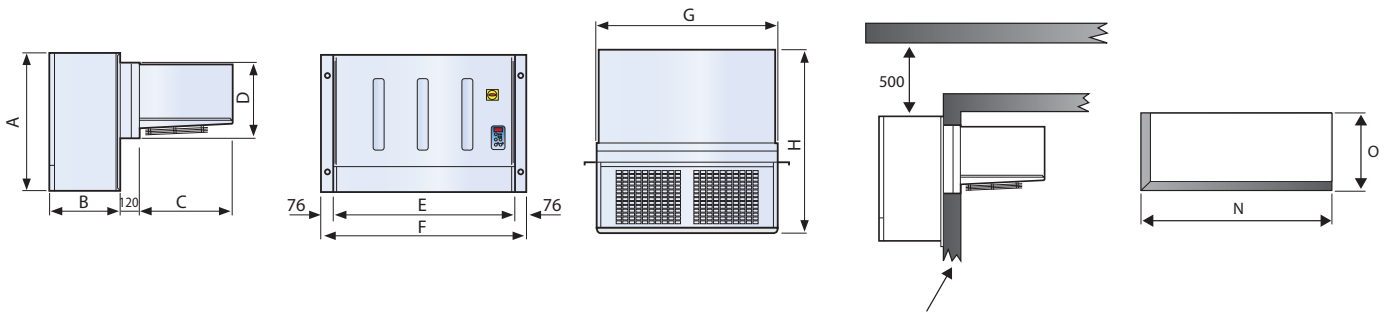
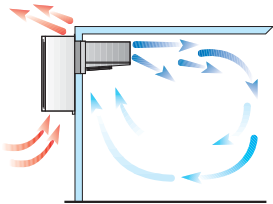
## Wall mounted solution

- › For small to mid size cold rooms
- › Fast assembly / mounting
- › Excellent space requirement vs. performance ratio
- › Automatic warning upon condenser pollution
- › New generation control panel : connection with classic remote management systems or Modbus system
- › Equipped with HP and LP pressure switch (standard)
- › Low sound level due to acoustic insulation of the compressor chamber (optional)
- › Units available on stock
- › Discharge gas defrosting



MAS-E

## Installation type and dimensions



Drain pan connection: Ø 18 (AS235), Ø 22 (AS335-AS340)

(in mm)	A	B	C	D	E	F	G	H	N	O
MAS 235	857	440	580	470	1.128	1.280	1.120	1.140	1.130	480
MAS 335	857	440	580	470	1.598	1.750	1.590	1.140	1.600	480
MAS 340	857	490	630	570	1.638	1.790	1.630	1.240	1.640	580

MT cooling		MAS-E	235T02	335N02	335T02	340T02
Refrigerating capacity	Ambient temp.+5 °C	kW	5,768	8,192	9,504	12,073
	Recommended room volume	m <sup>3</sup>	77	118	141	186
	Ambient temp.0 °C	kW	4,699	6,637	7,805	10,103
	Recommended room volume	m <sup>3</sup>	60	92	111	151
Power input		kW	3,7	4,8	6,3	7,4
Air flow rate	Condensing unit	m <sup>3</sup> /h	2.700	4.000	4.000	5.600
	Evaporator	m <sup>3</sup> /h	3.900	5.600	5.600	8.000
Defrosting			Discharge gas			
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	39	43	44	45
Refrigerant	Type/GWP		R-134a/1.430			
Insulation		mm	100			
Power supply			400 V / 3 ~ / 50 Hz			

Chilling: charged goods 250 kg /m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C

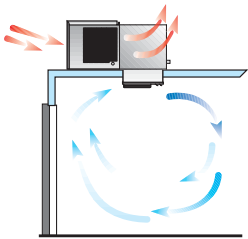
(1) Sound pressure data: measured at 10 meters distance according to ISO 3746/79\*

# Monoblock for mounting on the cooling room wall

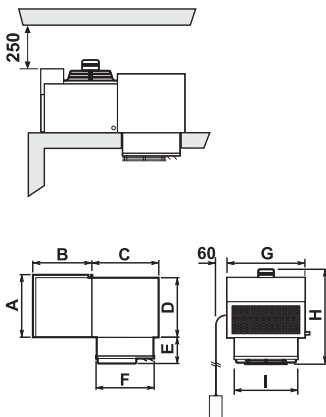
The interior of the cooling room remains unaffected

- › For small to mid size cold rooms
- › Fast assembly / mounting
- › Excellent space requirement vs. performance ratio
- › Automatic warning upon condenser pollution
- › New generation control panel: connection with classic remote management systems or Modbus system
- › Low sound level due to acoustic insulation of the compressor chamber (optional)
- › Units available on stock
- › Discharge gas defrosting

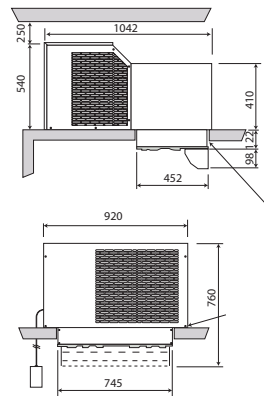
## Installation type and dimensions



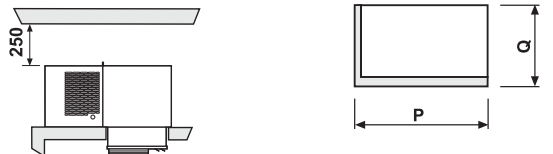
SB120



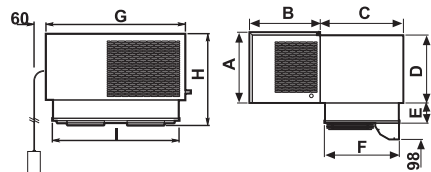
SB140



SB125-235



SB125-225-135-140-235



(in mm)	A	B	C	D	E	F	G	H	I	P	Q
SB120	378	470	301	307	147	301	430	525	350	355	306
SB125	357	337	382	340	150	332	620	506	545	550	337
SB225	390	427	382	360	150	332	820	540	745	750	337
SB135	427	427	502	410	220	452	820	645	745	750	458
SB140	540	540	502	410	122	452	920	760	745	750	458
SB235	542	542	502	520	220	452	1075	785	1.000	1.015	458



<b>MT cooling</b>		<b>MSB-E</b>	<b>120TO261</b>	<b>125N261</b>	<b>125T261</b>	<b>225N261</b>	<b>225T38</b>	<b>135N38</b>	<b>135T38</b>	<b>140T38</b>	<b>235T38</b>
Refrigerating capacity	Ambient temp.+5°C	kW	0,944	1,233	1,449	1,997	2,315	3,679	3,947	4,348	5,647
	Recommended room volume	m <sup>3</sup>	5,8	8,8	11	17	21	40	44	51	69
	Ambient temp.0°C	kW	0,806	1,046	1,248	1,704	1,919	3,1	3,383	3,526	4,578
	Recommended room volume	m <sup>3</sup>	4,4	6,7	8,9	13	16	31	36	38	52
Power input		kW	0,4	0,4	0,5	0,8	0,9	1,1	1,5	1,9	2,2
Air flow rate	Condensing unit	m <sup>3</sup> /h	400	750	750	1.400	1.400	1.500	1.500	3.100	3.200
	Evaporator	m <sup>3</sup> /h	500	550	550	1.100	1.100	2.300	2.300	2.300	3.450
Defrosting			Discharge gas								
Sound pressure level <sup>(2)</sup>	At 10m distance	dB(A)	36	40	41	41	41	44	44	-	-
Refrigerant	Type/GWP		R-134a/1.430								
Insulation		mm	100								
Power supply			230 V / 1 ~ / 50 Hz				400 V / 3 ~ / 50 Hz				

<b>LT cooling</b>		<b>BSB-D</b>	<b>120NO261</b>	<b>125T261</b>	<b>225T38</b>	<b>135T38</b>
Refrigerating capacity	Ambient temp.-15°C	kW	0,687	1,113	1,861	2,720
	Recommended room volume	m <sup>3</sup>	2,5	6,3	15	27
	Ambient temp.-20°C	kW	0,583	0,951	1,569	2,272
	Recommended room volume	m <sup>3</sup>	1,7	4,6	11	18
Power input		kW	0,6	1,3	1,5	2,2
Air flow rate	Condensing unit	m <sup>3</sup> /h	400	750	1.400	1.500
	Evaporator	m <sup>3</sup> /h	500	550	1.100	2.300
Defrosting			Discharge gas-			
Sound pressure level <sup>(2)</sup>	At 10m distance	dB(A)	36	41	40	44
Refrigerant	Type/GWP		R-452A/2.141			
Insulation		mm	120			
Power supply			230 V / 1 ~ / 50 Hz		400 V / 3 ~ / 50 Hz	

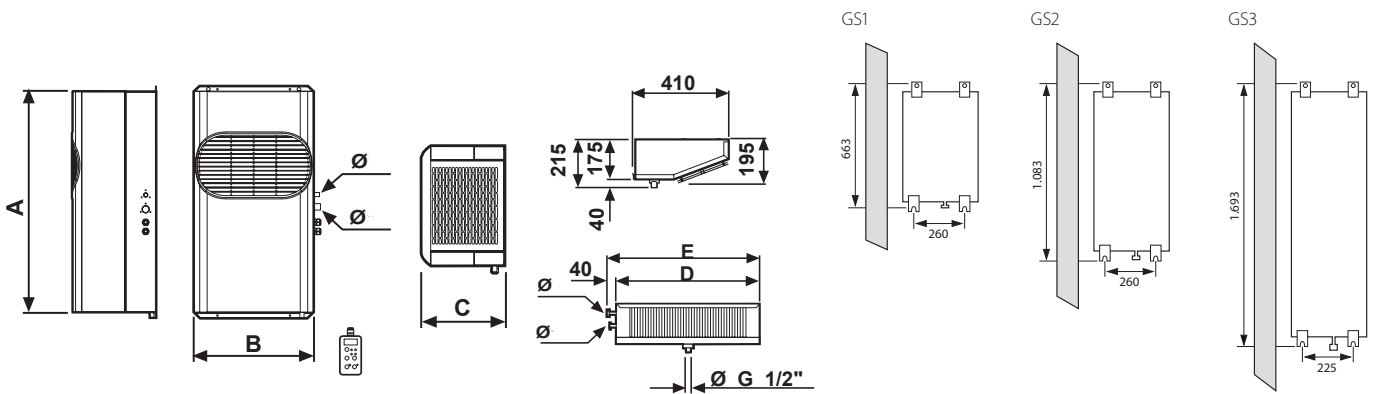
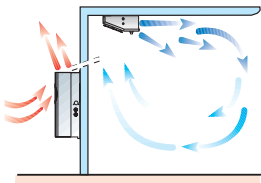
Chilling: charged goods 250 kg /m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 Freezing: charged goods 250 kg/m<sup>3</sup>, handling 10%, material input temperature -5 °C, specific heat of the product 0,44 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 (2) Sound pressure data: measured at 10 meters distance according to ISO 3746/79"

# Split unit: Wall mounted condensing unit and ceiling mounted evaporator

## Space saving split unit solution

- › For small to mid size cold rooms
- › Fast assembly / mounting
- › Low space evaporator can be ceiling mounted
- › Wall condenser can be installed up to 10 meters away
- › Excellent space requirement vs. performance ratio
- › Automatic warning for contamination of condenser
- › New generation control panel: connection with classic remote management systems or Modbus system
- › Discharge gas defrosting
- › Cable connection for door switch
- › Cable for door frame heating
- › Filter dryer
- › 5m connection cable
- › 2,5m insulated refrigeration piping ready pre-charged with refrigerant
- › Low sound level due to acoustic insulation of the compressor chamber (optional)
- › Units available on stock

## Installation type and dimensions



(in mm)	A	B	C	D	E
GS1	735	400	290	614	654
GS2	830	620	290	1.034	1.074
GS3	830	620	360	1.614	1.654



<b>MT cooling</b>		<b>SB.MGS-E</b>	<b>10326</b>	<b>10526</b>	<b>10626</b>	<b>10726</b>	<b>11026</b>	<b>21126</b>	<b>21227</b>	<b>21327</b>	<b>31527</b>	<b>32027</b>
Refrigerating capacity	Ambient temp.+5°C	kW	0,962	1,103	1,248	1,543	1,507	2,03	2,334	2,484	3,491	3,774
	Recommended room volume	m <sup>3</sup>	6,9	8,5	10	13	13	19	24	26	41	46
	Ambient temp.0°C	kW	0,815	0,914	1,047	1,237	1,283	1,705	1,927	2,074	2,964	3,21
	Recommended room volume	m <sup>3</sup>	5,4	6,4	7,9	10	11	16	17	20	33	37
Power input		kW	0,4	0,5	0,4	0,7	0,9	0,9	1,7	2	2,2	2,6
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	600	600	600	600	1.200	1.200	1.200	1.500	1.500
	Evaporator	m <sup>3</sup> /h	600	600	600	600	600	1.200	1.200	1.200	1.800	1.800
Defrosting			Discharge gas									
Sound pressure level <sup>(2)</sup>	At 10m distance	dB(A)	36	36	37	38	38	37	38	39	44	44
Refrigerant	Type/GWP		R-134a/1.430									
Piping length	AG – IG Maximum	m	10									
Insulation		mm	100									
Power supply			230 V / 1 ~ / 50 Hz					400 V / 3 ~ / 50 Hz				
<b>LT cooling</b>		<b>SB.BGS-DA</b>	<b>11026</b>	<b>11226</b>	<b>11726</b>	<b>21826</b>	<b>22027</b>	<b>33027</b>				
Refrigerating capacity	Ambient temp.-15°C	kW	0,768	0,974	1,169	1,492	1,834	2,653				
	Recommended room volume	m <sup>3</sup>	4	6	8,2	12	17	31				
	Ambient temp.-20°C	kW	0,624	0,82	1,01	1,249	1,567	2,16				
	Recommended room volume	m <sup>3</sup>	2,8	4,5	6,4	9,2	13	22				
Power input		kW	0,7	0,9	1,3	1,3	1,5	2,2				
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	600	600	1.200	1.200	1.500				
	Evaporator	m <sup>3</sup> /h	600	600	600	1.200	1.200	1.800				
Defrosting			Discharge gas									
Sound pressure level <sup>(2)</sup>	At 10m distance	dB(A)	38	40	40	39	39	44				
Refrigerant	Type/GWP		R-452A/2.141									
Piping length	AG – IG Maximum	m	10									
Insulation		mm	120									
Power supply			230 V / 1 ~ / 50 Hz					400 V / 3 ~ / 50 Hz				

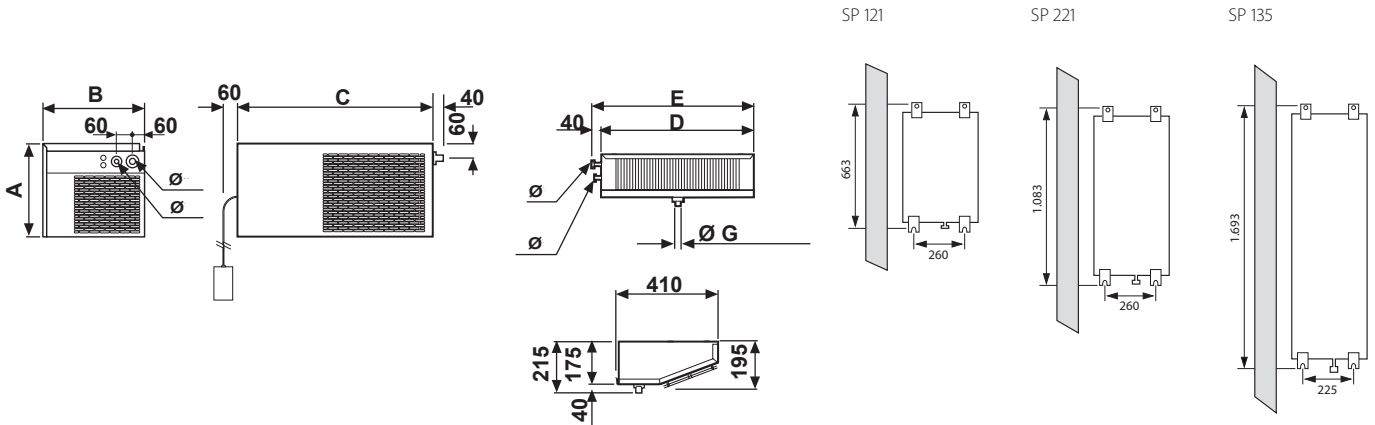
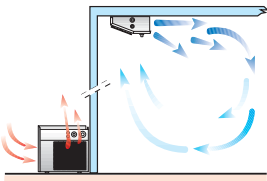
Chilling: charged goods 250 kg /m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 Freezing: charged goods 250 kg/m<sup>3</sup>, handling 10%, material input temperature -5 °C, specific heat of the product 0,44 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 (1) Sound pressure data: measured at 10 meters distance according to ISO 3746/79"

# Split unit: Floor standing condenser and ceiling mounted evaporator with capillary injection

## Space saving split solution with floor standing condenser

- › For small to mid size cold rooms
- › Fast installation due to quick connectors
- › Low space evaporator can be ceiling mounted
- › Wall condenser can be installed up to 10 meters away
- › Less installation effort (time and cost)
- › Excellent space requirement vs. performance ratio
- › Discharge gas defrosting
- › Connection cable for door switch
- › Cable for door frame heating
- › Filter dryer
- › 5m connection cable
- › 2,5m length insulated refrigeration piping, ready pre-charged with refrigerant
- › Units available on stock

## Installation type and dimensions



(in mm)	A	B	C	D	E
SP121/123	357	337	620	614	654
SP221	390	427	820	1.034	1.074
SP135	427	427	820	1.614	1.654



<b>MT cooling</b>		<b>SB.MSP-E</b>	<b>121TO488</b>	<b>123TO488</b>	<b>221NO488</b>	<b>221TO479</b>	<b>135NO479</b>	<b>135TO479</b>	
Refrigerating capacity	Ambient temp.+5 °C	kW	1,281	1,604	2,061	2,395	3,635	3,924	
	Recommended room volume	m <sup>3</sup>	11	14	19	25	44	48	
	Ambient temp.0 °C	kW	1,073	1,339	1,702	1,942	3,045	3,34	
	Recommended room volume	m <sup>3</sup>	8,1	11	16	18	34	39	
Power input		kW	0,4	0,7	0,9	1,7	2,2	2,6	
Air flow rate	Condensing unit	m <sup>3</sup> /h	750	750	1.400	1.400	1.500	1.500	
	Evaporator	m <sup>3</sup> /h	600	600	1.200	1.200	1.800	1.800	
Defrosting			Discharge gas						
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	41	41	41	41	41	44	
Refrigerant	Type/GWP		R-134a/1.430						
Piping length	AG – IG	Maximum	10						
Insulation		mm	100						
Power supply			230 V / 1 ~ / 50 Hz				400 V / 3 ~ / 50 Hz		

<b>LT cooling</b>		<b>SB.BSP-D</b>	<b>121NO488</b>	<b>121TO488</b>	<b>123TO488</b>	<b>221NO488</b>	<b>221TO479</b>	<b>135TO479</b>	
Refrigerating capacity	Ambient temp.-15 °C	kW	0,758	1,00	1,203	1,499	1,918	2,773	
	Recommended room volume	m <sup>3</sup>	3,9	6,3	8,7	12	17	33	
	Ambient temp.-20 °C	kW	0,599	0,831	0,991	1,239	1,571	2,167	
	Recommended room volume	m <sup>3</sup>	2,6	4,6	6,2	9,1	13	22	
Power input		kW	0,7	1,1	1,3	1,3	1,5	2,2	
Air flow rate	Condensing unit	m <sup>3</sup> /h	750	750	750	1.400	1.400	1.500	
	Evaporator	m <sup>3</sup> /h	600	600	600	1.200	1.200	1.800	
Defrosting			Discharge gas						
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	41	41	41	42	40	44	
Refrigerant	Type/GWP		R-452A/2.141						
Piping length	AG – IG	Maximum	10						
Insulation		mm	120						
Power supply			230 V / 1 ~ / 50 Hz				400 V / 3 ~ / 50 Hz		

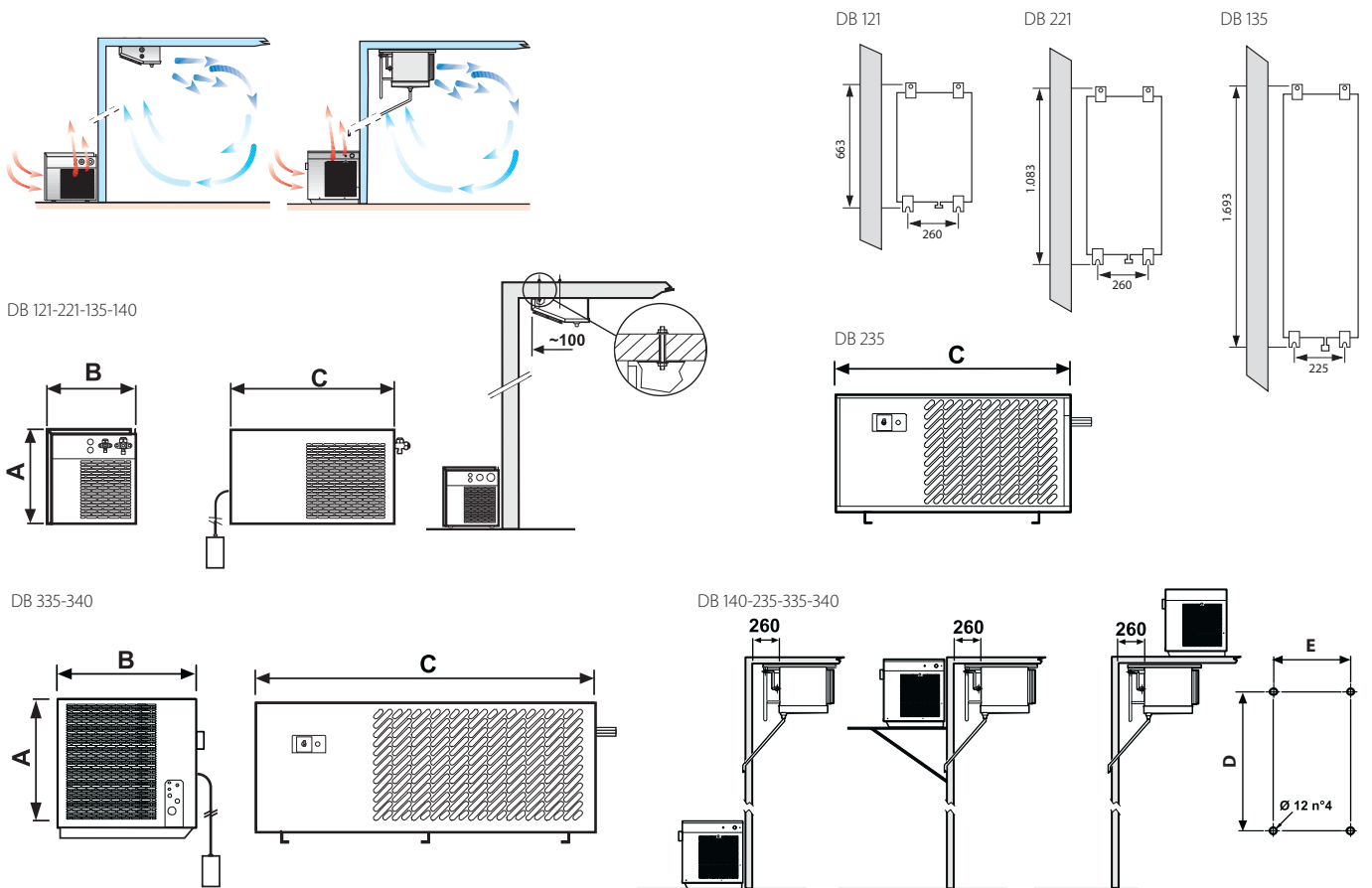
Chilling: charged goods 250 kg /m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 Freezing: charged goods 250 kg/m<sup>3</sup>, handling 10%, material input temperature -5 °C, specific heat of the product 0,44 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C  
 (1) Sound pressure data: measured at 10 meters distance according to ISO 3746/79"

# Split unit with TEV

Unit for outdoor installation with wide range of standard equipment

- › For small to mid size cold rooms
- › Fast installation due to quick connectors
- › Less installation effort (time and cost)
- › Excellent space requirement vs. performance ratio
- › Equipped with HP switch, filter dryer and sight glas (standard)
- › Discharge gas defrosting
- › Low temperature operation switch
- › Electronic refrigeration controller with 5m cable connection for control and parameter set-up
- › Units available on stock

## Installation type and dimensions



(in mm)	A	B	C	D	E
121	357	337	620	-	-
123	357	337	620	-	-
221	390	427	820	-	-
135	427	427	820	-	-
140	540	540	920	605	540
B235T	654	642	1.575	965	540
335	654	642	1.575	1.370	540
340	885	742	1.725	1.520	545



<b>MT cooling</b>		<b>SB.MDB-E</b>	<b>121TO118</b>	<b>123TO118</b>	<b>221NO118</b>	<b>221TO50</b>	<b>135NO50</b>	<b>135TO50</b>	<b>140TO50</b>	<b>235TO02</b>	<b>335NO02</b>	<b>335TO02</b>	<b>340NO02</b>	<b>340TO02</b>
Refrigerating capacity	Ambient temp.+5°C	kW	1,281	1,604	2,061	2,395	3,635	3,924	4,181	5,924	8,403	10,174	12,701	16,265
	Recommended room volume	m <sup>3</sup>	11	14	19	25	44	48	52	98	151	191	250	336
	Ambient temp.0°C	kW	1,073	1,339	1,702	1,942	3,045	3,340	3,394	4,755	6,843	8,229	10,314	13,419
	Recommended room volume	m <sup>3</sup>	8,1	11	16	18	34	39	40	75	117	147	194	267
Power input		kW	0,4	0,7	0,9	1,7	2,2	2,6	2,94	3,7	4,8	6,3	7,4	9,555
Air flow rate	Condensing unit	m <sup>3</sup> /h	750	750	1.400	1.400	1.500	1.500	3.150	3.200	5.500	7.000	8.100	8.100
	Evaporator	m <sup>3</sup> /h	600	600	1.200	1.200	1.800	1.800	2.300	4.600	6.800	6.400	8.400	8.000
Defrosting			Discharge gas											
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	41	41	41	41	44	44	45	45	47	49	51	53
Refrigerant	Type/GWP		R-134a/1.430											
Piping length	AG – IG	Maximum	10											
Insulation		mm	100											
Power supply			230 V / 1 ~ / 50 Hz						400 V / 3 ~ / 50 Hz					

<b>LT cooling</b>		<b>SB.BDB-D</b>	<b>121NO118</b>	<b>121TO118</b>	<b>123TO118</b>	<b>221NO118</b>	<b>221TO50</b>	<b>135NO50</b>	<b>135TO50</b>		
Refrigerating capacity	Ambient temp.-15°C	kW	0,758	1,000	1,203	1,499	1,918	2,502	2,773		
	Recommended room volume	m <sup>3</sup>	3,9	6,3	8,7	12	17	26	33		
	Ambient temp.-20°C	kW	0,599	0,831	0,991	1,239	1,571	1,850	2,167		
	Recommended room volume	m <sup>3</sup>	2,6	4,6	6,2	9,1	13	17	22		
Power input		kW	0,7	1,1	1,3	1,3	1,5	1,5	2,2		
Air flow rate	Condensing unit	m <sup>3</sup> /h	750	750	750	1.400	1.400	1.500	1.500		
	Evaporator	m <sup>3</sup> /h	600	600	600	1.200	1.200	1.800	1.800		
Defrosting			Discharge gas								
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	41	41	41	42	42	44	44		
Refrigerant	Type/GWP		R-452A/2.141								
Piping length	AG – IG	Maximum	10								
Insulation		mm	120								
Power supply			230 V / 1 ~ / 50 Hz					400 V / 3 ~ / 50 Hz			

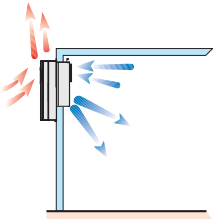
Chilling: charged goods 250 kg /m<sup>3</sup>, handling 10%, material input temperature 25 °C, specific heat of the product 0,77 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C\*  
 Freezing: charged goods 250 kg/m<sup>3</sup>, handling 10%, material input temperature -5 °C, specific heat of the product 0,44 kcal / (kg · K), 18 compressor running hours, outdoor temperature 35 °C\*  
 (1) Sound pressure data: measured at 10 meters distance according to ISO 3746/79\*

# Monoblock unit for wine storage rooms

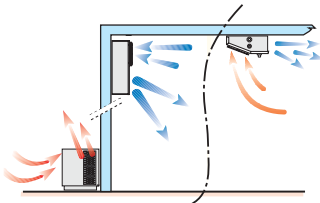
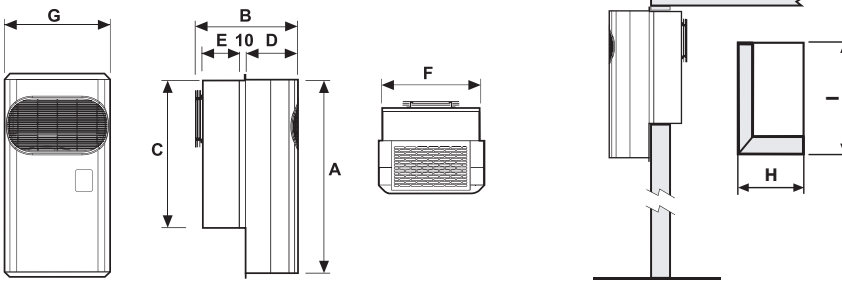
Ensures optimal conditions for wine conservation and refinement

- › Alternatively with or without humidification (carbon filter needed for humidification)
- › Suitable for small to medium sized rooms
- › Ensuring optimal temperature
- › Optimal humidity through humidification and / or permanent air circulation
- › Silent and economical operation
- › TEV
- › Discharge gas defrosting
- › HP and LP switch (standard)
- › Units available on stock
- › Equipped with filter dryer and sight glas (for RDV units)
- › The user-friendly, pre-programmed electronic control unit regulates temperature as well as humidity (for RDV units)

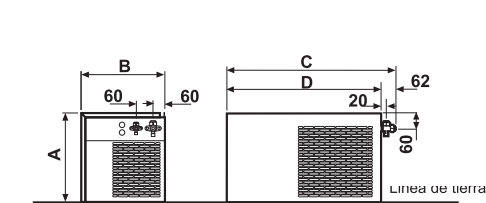
## Installation type and dimensions



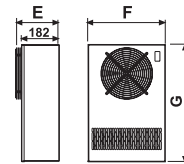
(in mm)	A	B	C	D	E	F	G	H	I
RCV1	735	435	570	215	182	375	400	380	575
RCV2	735	435	570	215	182	595	620	600	575



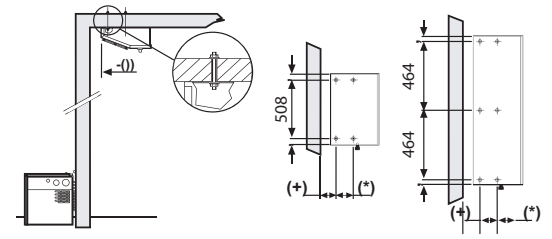
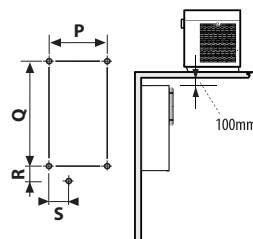
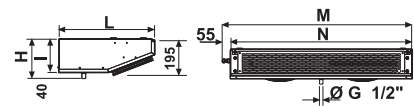
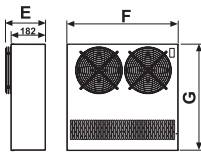
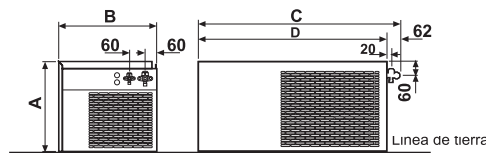
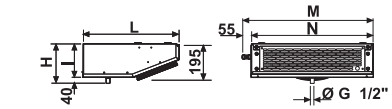
(in mm)	A	B	C	D	E	F	G	H	I	L	M	N	P	Q	R	S
RDV1	357	337	682	620	210	375	570	215	175	490	669	614	330	420	21	47
RDV2	390	427	882	820	210	595	570	215	175	490	1.089	1.034	550	420	21	47



Wall evaporator



Ceiling evaporator





MT cooling		RCV-E	101001	102001	201001	202001	101002	102002	201002	202002
			Without humidification				With humidification			
Refrigerating capacity	Ambient temp.+14 °C	kW	0,60	1,00	1,40	2,30	0,60	1,00	1,40	2,30
	Recommended room volume	m <sup>3</sup>	25	45	60	100	25	45	60	100
Power input		kW	0,25	0,37	0,46	0,55	0,25	0,37	0,46	0,55
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	600	1.200	1.200	600	600	1.200	1.200
	Evaporator	m <sup>3</sup> /h	600	600	1.200	1.200	600	600	1.200	1.200
Defrosting			Discharge gas							
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	39	39	40	40	39	39	40	40
Refrigerant	Type		R-134a							
	GWP		1.430							
Insulation		mm	100							
Power supply			230 V / 1 ~ / 50 Hz							

MT cooling		RDV-E	101001	102001	201001	202001	101002	102002	201002	202002
			Wall evaporator without humidification				Wall evaporator with humidification			
Refrigerating capacity	Ambient temp.+14 °C	kW	0,60	1,00	1,40	2,30	0,60	1,00	1,40	2,30
	Recommended room volume	m <sup>3</sup>	25	45	60	100	25	45	60	100
Power input		kW	0,25	0,37	0,46	0,55	0,25	0,37	0,46	0,55
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	600	1.200	1.200	600	600	1.200	1.200
	Evaporator	m <sup>3</sup> /h	600	600	1.200	1.200	600	600	1.200	1.200
Defrosting			Discharge gas				Discharge gas			
Sound pressure level <sup>(2)</sup>	At 10m distance	dB(A)	39	39	40	40	39	39	40	40
Refrigerant	Type/GWP		R-134a/1.430				R-134a/1.430			
Piping length	AG – IG Maximum	m	10				10			
Insulation		mm	100				100			
Power supply			230 V / 1 ~ / 50 Hz				230 V / 1 ~ / 50 Hz			

MT cooling		RDV-E	101021	102021	201021	202021	101022	102022	201022	202022
			Ceiling evaporator without humidification				Ceiling evaporator with humidification			
Refrigerating capacity	Ambient temp.+14 °C	kW	0,60	1,00	1,40	2,30	0,60	1,00	1,40	2,30
	Recommended room volume	m <sup>3</sup>	25	45	60	100	25	45	60	100
Power input		kW	0,25	0,37	0,46	0,55	0,25	0,37	0,46	0,55
Air flow rate	Condensing unit	m <sup>3</sup> /h	600	600	1.100	1.100	600	600	1.100	1.100
	Evaporator	m <sup>3</sup> /h	400	400	800	800	400	400	800	800
Defrosting			Discharge gas				Discharge gas			
Sound pressure level <sup>(1)</sup>	At 10m distance	dB(A)	39	39	40	40	39	39	40	40
Refrigerant	Type/GWP		R-134a/1.430				R-134a/1.430			
Piping length	AG – IG Maximum	m	10				10			
Insulation		mm	100				100			
Power supply			230 V / 1 ~ / 50 Hz				230 V / 1 ~ / 50 Hz			

(1) Sound pressure data: measured at 10 meters distance according to ISO 3746/79

# Other Products

## Multi compressor racks

Zanotti multi compressor racks are designed and manufactured to meet the specific needs of customers in the refrigeration sector.

The systems are suitable for all cooling and freezing applications.

The systems can be used selectively with refrigerants R-404A, R-134a and R-407F. Upon request CO<sub>2</sub> (R-744) and propane (R-290) can be used for certain models.



## Transportation refrigeration

Zanotti offers various systems for the refrigerated transport of fresh and frozen foods in small and medium sized vehicles.

For refrigerated transport with large vehicles Zanotti manufactures monoblock and panel-mounted diesel units (Un0° series).



## Industrial range

Zanotti's core business in the industrial sector includes large cooling systems for logistics centers and cold storage solutions in the food, catering and petrochemical industries.

Many sports and leisure facilities, such as ice skating rinks or indoor winter sports halls use Zanotti freezing technology.



# Compressor racks with air cooled condensing unit - outdoor installation

Description	Description
<b>CM-H-Compact Hermetic</b>  <b>CM-E-Compact Scroll</b>  <b>CM-B-Compact Bitzer</b>  <b>CM-D-Compact Dorin</b>  <b>CM-C Compact Copeland Stream</b>  <b>CM-R Compact Frascold</b>	<b>Compressor racks with hermetic compressors (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 10,924 to 98,384 kW</li> <li>› Freezing from 6,504 to 37,679 kW</li> </ul>
	<b>Compressor racks with scroll compressors (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 10,540 to 98,529 kW</li> <li>› Freezing from 7,119 to 47,262 kW</li> </ul>
	<b>Compressor racks with semi hermetic reciprocating compressors (Bitzer) (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 50,021 to 179,108 kW</li> <li>› Freezing from 7,119 to 88,805 kW</li> </ul>
	<b>Compressor racks with semi hermetic reciprocating compressors (Dorin) (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 48,651 to 150,750 kW</li> <li>› Freezing from 20,904 to 85,482 kW</li> </ul>
	<b>Compressor racks with semi hermetic COPELAND STREAM-compressors (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 95,025 to 180,415 kW</li> <li>› Freezing from 35,976 to 98,435 kW</li> </ul>
	<b>Compressor racks with semi hermetic reciprocating compressors (Frascold) (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 48,651 to 150,750 kW</li> <li>› Freezing from 20,904 to 85,482 kW</li> </ul>
<b>CL-H-Compact Hermetic</b>  <b>CL-E-Compact Scroll</b>  <b>CL-B-Compact Bitzer</b>  <b>CL-D-Compact Dorin</b>  <b>CL-C Compact Copeland Stream</b>  <b>CL-R Compact Frascold</b>	<b>Compressor racks with hermetic compressors (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 15,562 to 97,740 kW</li> <li>› Freezing from 10,247 to 36,082 kW</li> </ul>
	<b>Compressor racks with scroll compressors (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 18,506 to 99,932 kW</li> <li>› Freezing from 15,187 to 50,570 kW</li> </ul>
	<b>Compressor racks with semi hermetic reciprocating compressors (Bitzer) (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 50,244 to 136,440 kW</li> <li>› Freezing from 20,166 to 88,596 kW</li> </ul>
	<b>Compressor racks with semi hermetic reciprocating compressors (Dorin) (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 50,244 to 129,095 kW</li> <li>› Freezing from 20,374 to 85,294 kW</li> </ul>
	<b>Compressor racks with semi hermetic COPELAND STREAM-compressors (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 96,369 to 135,319 kW</li> </ul>
	<b>Compressor racks with semi hermetic reciprocating compressors (Frascold) (R-404A)</b> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› With air cooled condenser</li> <li>› Chilling from 50,244 to 129,095 kW</li> <li>› Freezing from 20,374 to 85,294 kW</li> </ul>



# Compressor racks without condenser

## Indoor and outdoor installation is possible

Description	Description
<p><b>CC-H</b> Multicompressors Hermetic</p> 	<p><b>Compressor racks with hermetic compressors (R-404A or R-134a)</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 9,138 to 69,258 kW</li> <li>› Freezing from 3,438 to 22,959 kW</li> </ul>
<p><b>CC-ESLIM</b> Multicompressors Scroll</p> 	<p><b>Compressor racks with scroll compressors with R-404A, R-134a or R-407F</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 30,150 to 80,400 kW</li> <li>› Freezing from 14,460 to 38,560 kW</li> </ul>
<p><b>CC-E</b> Multicompressors Scroll</p> 	<p><b>Compressor racks with scroll compressors R-404A, R-134a or R-407F</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 14,480 to 103,450 kW</li> <li>› Freezing from 6,770 to 48,850 kW</li> </ul>
<p><b>ZCC Satellite Scroll</b></p> 	<p><b>Compressor racks with scroll compressors R-404A</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 17,960 to 64,710 kW</li> <li>› Freezing from 3,287 to 23,540 kW</li> </ul>
<p><b>CC-B</b> Multicompressors Bitzer</p>	<p><b>Compressor racks with semi hermetic reciprocating compressors (Bitzer) with R-404A, R-134a or R-407F</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 26,033 to 305,100 kW</li> <li>› Freezing from 12,326 to 117,872 kW</li> </ul>
<p><b>CC-D</b> Multicompressors Dorin</p> 	<p><b>Compressor racks with semi hermetic reciprocating compressors (Dorin) with R-404A, R-134a or R-407F</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 25,218 to 295,070 kW</li> <li>› Freezing from 12,930 to 123,510 kW</li> </ul>
<p><b>CC-C</b> Multicompressors Copeland Stream</p>	<p><b>Compressor racks with semi hermetic Copeland- stream compressors with R-404A, R-134a or R-407F</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 98,250 to 323,650 kW</li> <li>› Freezing from 37,706 to 133,500 kW</li> </ul>
<p><b>CC-R</b> Multicompressors Fracold</p>	<p><b>Compressor racks with semi hermetic reciprocating compressors (Fracold) with R-404A, R-134a or R-407F</b></p> <ul style="list-style-type: none"> <li>› Various design options are available</li> <li>› Electric box</li> <li>› Chilling from 26,570 to 304,600 kW</li> <li>› Freezing from 15,420 to 111,000 kW</li> </ul>





# Daikin Services

Saving energy doesn't stop with the purchase or installation of energy-efficient equipment; it has to be kept running under optimum conditions.

Good maintenance and servicing are key elements in ensuring the maximum performance.

**Are you sure the filters are clean and none of the components are defective?  
Are all of your settings correct?**

Any of these things may lead to a reduced level of comfort. And while you may not notice the difference right away, you will certainly notice it at the end of the year – when you pay your energy bill.

Our Daikin design team is constantly striving to improve the energy efficiency of our systems.

We at Daikin Service are here to support you in keeping your units up and running efficiently by means of optimised commissioning and start-up, regular and preventative maintenance, remote monitoring, improving the performance of units, and providing cost effective upgrades to benefit from the efficiency gains from our latest state of the art technology.

## Optimisation and upgrades



Intelligent remote monitoring



Upgrading / optimisation

## Keep the installation in top condition



Maintenance plan

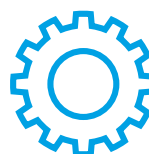


Installation support



Commissioning

## Parts and repairs



Spare parts



Repair service

# Commissioning

To guarantee your Daikin unit efficiency and long term performance, Daikin offers the **professional start-up of your Daikin system** by highly qualified, OEM educated engineers as part of the commissioning services.

Commissioning through an authorized Partner or by Daikin itself assures you that your unit is working as it should and is delivering all the benefits of a unique climate.

Every commissioning is documented as per Daikin standard and a detailed commissioning report is provided, detailing all activities done and recording the functioning of the units.



The prices listed are based on completion of the Pre-Commissioning checklist which covers a range of core activities including the general conditions at the site, provision of power and the required electrical distribution as well as installation related topics. This ensures that the service can be provided efficiently, on time and giving the best results. For the latest edition of the Pre-Commissioning checklist please visit: [www.daikin-ce.com](http://www.daikin-ce.com)

The image displays a collection of documents related to Daikin's commissioning services for refrigeration. At the top left is a 'Pre-Commissioning Checklist' form, which includes fields for project name, location, and contact information. Below the form are sections for 'GENERAL REQUIREMENTS', 'INSTALLATION RELATED', and 'ELECTRICAL RELATED', each containing a list of 24 items with checkboxes for completion. To the right is a 'Commissioning Services Refrigeration' brochure, which features the Daikin logo and a photograph of a worker in a green jacket and blue jeans standing in a warehouse, holding a blue crate. The brochure also includes the text 'Information about Commissioning Services for Refrigeration products'.

## Maintenance

Maintenance is the key element to ensure the quality, efficiency and flawless operation of any asset. Our Care agreements are based on years of experience to ensure you reap the full benefits of having Daikin Certified engineers maintain your equipment.

Preventive maintenance and regular service is a key component in securing your investment.

Dust, temperature, humidity and load degrade the reliability and performance of a refrigeration system over time.

Regular maintenance of a unit or system ensures that electricity costs and performance are not jeopardized, and that the safety features and the entire system are in line with the latest standards and regulations.

Regular care safeguards your investment for the full lifetime of the Daikin System. Downtime and failures are avoided, while keeping operating costs low, as they should be throughout the entire system lifecycle.

Preventive maintenance plans give you cost transparency avoiding unexpected repair costs or degradation of comfort, quality or production loss.



Daikin Cares contains 3 different levels of maintenance agreements catering to your every need. In addition to these 3 Care packages Daikin offers a comprehensive set of options you can choose from.

### 1. Care:

**Care is the minimal requirement to fulfil current legislation requirements, and makes sure your refrigeration system is operating in a correct fashion and according to parameters.**

The Care package includes the following services:

- Inspections based on predefined activities
- On-site refrigeration system diagnostic and/or analysis during service intervention
- Soft- and firmware upgrades as needed and if required
- Recorded, retrievable service history of each refrigeration system
- Validated Log book

### 2. Preventive Care:

**Preventive Care keeps the refrigeration system in optimal condition for a long time.**

In addition to the maintenance activities included in the Care package, Preventive Care includes:

- Optimizations and detailed analysis of the retrieved data
- Lifecycle report with comprehensive, predictive status & measurement report
- Emergency support & callout
- Access to technical assistance and repair service

### 3. Extended Care:

**Extended Care provides maximum equipment availability at the minimum Total Cost of Ownership.**

In addition to the activities mentioned in the Preventive care package, Extended Care includes:

- Oil analysis, refill and/or change if required
- Labor- & travel cost, spare parts for planned maintenances are included
- Labor- & travel cost, spare parts for repairs are included
- Extension of warranty

**Options:**

- Energy audit & reporting
- Remote monitoring
- Remote analysis
- Fleet management for larger systems or multi-site systems

## Service

### E-Parts

Find the correct spare part for your Daikin unit, check availability (real-time) and order online.

All in just a few simple steps.

#### Your benefits:

- > fast handling
- > free shipment
- > 24/7 accessibility
- > flexible delivery
- > "real time" availability



#### Register now to use the E-Parts service

Create access for you and your colleagues.

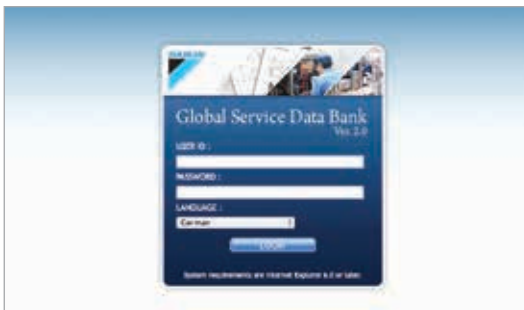
- Simply go to [my.daikin.eu](http://my.daikin.eu)
- download the registration form
- fill it in
- and send it back to Daikin ([service@daikin.XX](mailto:service@daikin.XX))

#### Always accessible for you

You can login directly or visit the E-Parts via the Business Portal:

<http://eparts.daikin-ce.com>

<https://my.daikin.eu>



In our Business Portal you can find the links to E-Parts and to the spareparts bank.





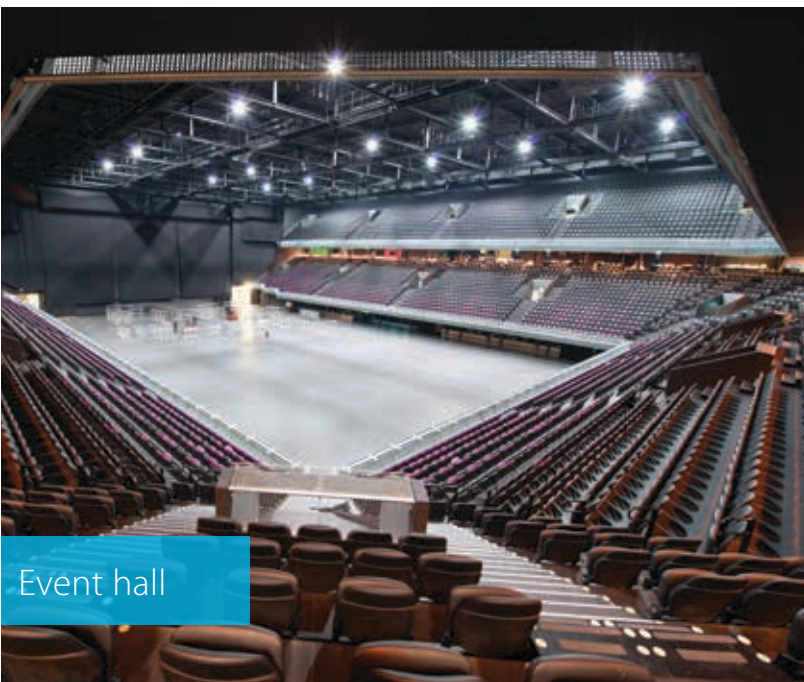
Ice bar



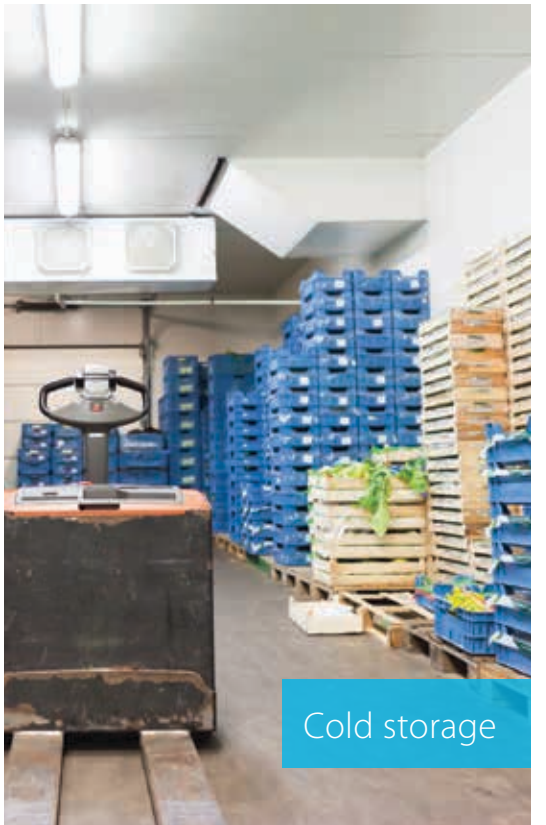
Cabinet cooling



Multi ZEAS condensing units



Event hall



Cold storage



**COMPLIANT WITH  
NEW F-GAS REGULATION**

NAME: ZEAS  
CAPACITY: 12-37 KW

[www.daikineurope.com/minisite/zeas](http://www.daikineurope.com/minisite/zeas)

## KEEP COOL, SAVE MONEY

Daikin refrigeration products are designed to reduce environmental impact. That's why Daikin ZEAS and Conveni-Pack already comply with the latest F-gas regulation. This secures your investments and enables you to plan ahead for long-term projects, already complying with all the regulations.

**Learn more at [www.daikineurope.com/minisite/zeas](http://www.daikineurope.com/minisite/zeas)**



### DAIKIN AIRCONDITIONING CENTRAL EUROPE HandelsgmbH

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We reserve the right for printing errors and model changes