

Mechanical Systems

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Carrier

About Carrier

Founded by the inventor of modern air conditioning, Carrier is the world's leader in high-technology heating, air conditioning and refrigeration solutions. Carrier experts provide sustainable solutions, integrating energy-efficient products, building controls and energy services for residential, commercial, retail, transport and food service customers.

With more than a century of expertise, we drive innovation while putting our customers first, helping protect our planet, and inspiring and empowering our people.



2020 NET sales





Active patents and pending patent applications worldwide



80+ brands





- <u>- </u>
·

100+ new products for the 6th consecutive year

Delivering confidence

through innovative & sustainable refrigeration solutions

Carrier Commercial Refrigeration is a part of Carrier Global Corporation and a leading supplier of innovative, sustainable and intelligent cold chain solutions in the food retail and cold storage industries.

Remote and plug-in cabinets. Chillers and freezers. Systems and controls. Carrier provides the design, installation, service and support your need to enjoy optimum performance – from day one through the entire life-cycle.

We deliver a comprehensive range of solutions to keep goods cool, energy costs low and environmental footprint to a minimum. Delivering confidence.



connected stores



700+ top trained technicians



22.000+ sites maintained



50K+ Carrier Refrigeration products in stores and warehouses







COUNTERS



PLUG-IN CABINETS



MECHANICAL SYSTEMS





Check our complete range of solutions, Naturally...



Content

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$\mathbf{CO}_{\mathbf{2}}$

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Packaged Condensing Units

QuietCO₂OL™
QuietCO₂OL™ Multi-Compressors Outdoor
MiniCO2OL® Outdoor
$GC5^{TM}CO_2$
GC5™ Hybrid

Gas Coolers

Soprano [®] CO ₂
Soprano [®] CO ₂ (Centrifugal)
Alto™ CO₂
Tenor [®] CO ₂
Tenor® CO ₂ (Centrifugal)

Air Coolers

Solo™ 25-31 XS CO₂	
Solo™ 25-31-35 CO₂	
Duo™ 31-35 CO₂	
SoloCO ₂ OL [®]	

HFC / HFO

Rack units

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Our products

		0 10 30 70 150 300 600 1200 2000 kwlt/mt
	QuietCO2OL™	
	QuietCO₂OL [™] MC	
	MiniCO2OL® Compact	
CO₂ racks and condensing units	MiniCO ₂ OL®	
	MaxiCO ₂ OL®	
	MiniCO ₂ OL [®] & MaxiCO ₂ OL [®] with ejectors COOLtecEvo	
	PowerCO ₂ OL [®] with ejectors COOL tecEvo	
Hybrid	CombiCO₂OL®	
CO₂/HFC	FlexiCO20L®	Refrigerant:
HFC	Quietis®	
Condensing units	Quietor®	
HFO Chiller	Chiller	
CO₂ Chiller	PowerCO20L [®]	
	Soprano® CO₂ (centrifugal)	
	Soprano [®] CO ₂	
Gas coolers CO2	Alto™ CO₂	
	Tenor® CO2 (centrifugal)	
	Tenor [®] CO ₂	Site of California and California an
CO₂	SOLO™ CO₂ single discharge	
Air Coolers	DUO™ CO₂ dual discharge	
HFC	SOLO™ single discharge	
Air Coolers	DUO™ dual discharge	

Solutions for various types of applications

Retail Stores

- Food retail C-stores
- Medium & large supermarkets
- Hard discounters



Recommended products

Refrigeration Power Packs:



MiniCO₂OL[®] Compact



Air-Cooled gas coolers:

Air Coolers:

Solo™ 25-31-35 CO₂



Duo™ 31-35 CO₂

Food service

- Restaurants
- Catering
- Petrol stations
- Large kitchens

Recommended products

Packaged condensing units:



 $\mathsf{QuietCO_2OL^{\tiny M}} \And \mathsf{QuietCO_2OL^{\tiny M}} \mathsf{Multi-compressors}$







Quietor[®] Evolution

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Solo™ 25-31 XS CO₂

Cold storage

- Warehouses
- Large cold rooms



Recommended products

Refrigeration Power Packs:





 $\mathsf{PowerCO_2OL^{\tiny{\mathsf{TM}}}}\ (Chiller)$





Tenor®

Air Coolers:



SoloCO₂OL® & Duo™

Industry

Process cooling



Recommended products

Rack Units:



PowerCO₂OL™

Packaged Condensing Units:



GC5™

Air-Cooled Gas Coolers:







QuietCO2OL™ Multi-Compressors Indoor

Compact refrigeration rack unit for convenience stores, gas stations and small to medium cold rooms

- Uses CO₂ natural refrigerant
- Small size unit for indoor installation (1200 x 800 x 1950 mm or 1650 x 800 x 1950mm)
- Designed for small and medium store formats
- Semi-hermetic reciprocating & Hermetic Rotary version
- Booster on the semi-hermetic version
- Integrated electrical control panel with controller
- Integrated medium pressure receiver
- Removable side panels for easy maintenance access
- Serviceability from the front
- Heating & air conditioning capabilities
- Large capacity control
- Can be split into 2 modules

Design PS:

- LT Suction: 80 Bar (Optional 60 Bar)
- MT Suction: 80 Bar (Optional 60 Bar)
- Liquid receiver: 80 Bar (Optional 60 Bar)
- Gas cooler discharge: 120 Bar





Quiet COOL MC

QuietCO₂OL [™] MC Indoor	MT application	LT application (Semi-hermetic)	
No. of compressors	1-5 (Rotary) / 1-4 (Semi-hermetic)	1-2	
Refrigeration capacity	2 – 93 kW 0 – 17 kW		
Refrigerant			

Evaporating temp. MT -8°C/BT -32°C; Ambient temperature= 32°C

MiniCO₂OL[®] Compact

Transcritical CO₂ booster rack for small to medium supermarkets

- Uses CO₂ natural refrigerant
- Not affected by the EU F-Gas Regulation
- Compact unit for indoor installation
- Single or dual temperature range
- Semi-hermetic compressors
- Integrated electrical control panel incorporating rack and gas cooler controls
- Variable speed drive for primary compressor or CRII capacity regulation (optional)
- Optional heat recovery
- Variety of options available

Design PS:

- LT Suction: 30 Bar
- MT Suction: 52 Bar
- Liquid receiver: 60 Bar
- Gas cooler discharge: 120 Bar



MiniCOOL compact

MiniCO₂OL® compact	MT application	LT application	
No. of compressors	3	0 – 2	
Refrigeration capacity	$45 - 190$ kW $^{(2)}$	$0-57$ kW $^{(1)}$	
Refrigerant	R744		

 $^{(1)}$ -30°C /-5°C. $^{(2)}$ -5°C /+36°C outside (negative heat rejection not deducted)

Rack units

MiniCO₂OL[®]

Transcritical CO₂ booster rack for medium to large supermarkets

- Uses CO₂ natural refrigerant
- Not affected by the EU F-Gas Regulation
- Compact unit for indoor installation
- Single or dual temperature range
- Semi-hermetic compressors
- Integrated electrical control panel incorporating rack and gas cooler controls
- Variable speed drive for primary compressor
- Optional parallel compression (ECO compressor)
- Optional outdoor housing with built-on gas cooler
- Optional heat recovery & air conditioning
- Variety of options available

Design PS:

- LT Suction: 30 Bar (Optional 60, 80 Bar)
- MT Suction: 45 Bar (Optional 52, 60, 80 Bar)
- Liquid receiver: 45 Bar (Optional 52, 60, 80 Bar)
- Gas cooler discharge: 120 Bar





MiniCO ₂ OL®	MT application LT application		
No. of compressors	4 - 6	0 – 4	
Refrigeration capacity	90 – 380 kW ⁽²⁾	0 – 110 kW ⁽¹⁾	
Refrigerant	R744		

 $^{(1)}$ -30°C /-5°C. $^{(2)}$ -5°C /+36°C outside (negative heat rejection not deducted)

MaxiCO₂OL®

Transcritical CO₂ booster rack for medium to large supermarkets and warehouses

- Uses CO₂ natural refrigerant
- Not affected by the EU F-Gas Regulation
- Flexible unit for indoor installation
- Modular product makes the installation easy
- Designed for large store formats and warehouses
- Single or dual temperature range
- 6 cylinders semi-hermetic compressors
- Integrated electrical control panel incorporating rack and gas cooler controls
- MT & LT variable speed drive on the lead compressor
- Optional parallel compression (ECO compressor)
- Optional outdoor housing with built-on gas cooler
- Optional heat recovery & air conditionning
- Variety of options available

Design PS:

- LT Suction: 25 Bar (Optional 30, 52, 60 Bar)
- MT Suction: 45 Bar (Optional 52, 60 Bar)
- Liquid receiver: 45 Bar (Optional 52, 60, 80 Bar)
- Gas cooler discharge: 120 Bar





MaxiCO₂OL [®]	MT application	LT application	
No. of compressors	3 - 6	0 - 4	
Refrigeration capacity	$200-550 \ kW^{(2)}$	$0-450 \ kW^{(1)}$	
Refrigerant	R744		

 $^{(1)}$ -30°C /-5°C. $^{(2)}$ -5°C /+36°C outside (negative heat rejection not deducted)

CO₂OLtec[®]Evo

New generation of transcritical CO₂ rack with modulating ejector and CO₂ pump for small to large supermarkets and warehouses

- Uses CO₂ natural refrigerant
- High-efficiency CO₂ solution for all climates
- Includes advanced modulating vapor ejector technology (patented)
- Designed for small to large store formats, for indoor installation
- Semi-flooded operation allowing higher efficiency and better food conservation
- Single or dual temperature range
- Semi-hermetic compressors
- Integrated electrical control panel incorporating controls for rack, high-efficiency module and gas cooler
- Variable speed drive on the lead compressor
- Variety of options available to further improve efficiency in all climates

Design PS:

- LT Suction: 30 Bar
- MT Suction: 52 Bar (Optional 52, 60 Bar)
- Liquid receiver: 52 Bar (Optional 52, 60, 80 Bar)
- Gas cooler discharge: 120 Bar



CO₂OLtec[®]Evo Single frame – MiniCO₂OL[®] with integrated High-efficiency module

High-efficiency module

Up to 40%*

energy

savings

COOLtec**Evo**

MiniCO20L® or MaxiCO20L®

CO₂OLtec [®] Evo		MT application	LT application
	No. of compressors	3 – 5	0 - 4
CO ₂ OLtec [®] Evo single frame**	Refrigeration capacity	Up to 260 kW***	Up to 92 kW***
	No. of compressors	2 - 6	0 – 4
CO₂OLtec® Evo 2 frames	Refrigeration capacity	65 – 600 kW***	0-450 kW***
	Refrigerant		44

* Up to 40% energy savings compared to a standard HFC system; up to 30% energy savings compared to a standard CO2 transcritical system.

** Some options are not available on this model.

*** See operating conditions for MiniCO₂OL[®] or MaxiCO₂OL[®]

PowerCO₂OL[™]

Industrial CO2 transcritical solution

- Uses CO₂ natural refrigerant
- Not affected by the EU F-Gas Regulation
- Single or dual evaporating temperature
- Chiller version
- Optional outdoor frame for oudoor installation
- Semi-hermetic compressors (6 cylinders)
- Integrated controls (rack and gas cooler)
- Inverter on the main compressor
- (MT and LT as standard)
- Modulating vapor ejector
- Heat recovery and air conditionning (Option)
- Numerous options available

Service pressure:

- Suction LT: 80 Bar (Optional 60 Bar)
- Suction MT: 80 Bar (Optional 60 Bar)
- Liquid receiver: 80 Bar
- Gas cooler discharge: 120 Bar



Power CO₂OL

Configurations	PowerCO₂OL™ MT DX	PowerCO₂OL™ MT Chiller	PowerCO₂OL™ MT+LT DX	PowerCO₂OL™ LT DX	PowerCO₂OL™ MT Chiller + LT DX	PowerCO2OL ^{IM} MT (DX+Chiller) +LT DX	PowerCO₂OL™ Heat pump
Applications	Power 1	Power 2	Power 3	Power 4	Power 5	Power 6	Power 7
Distribution center	\checkmark	\checkmark	\checkmark	\checkmark			
Warehouse	\checkmark	\checkmark	\checkmark	\checkmark			
Hypermarket	\checkmark	\checkmark	\checkmark				
Food processing	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Tunnel freezer			\checkmark	\checkmark			
Heating		\checkmark					\checkmark
Air conditionning		\checkmark					\checkmark
Sport venues	\checkmark	\checkmark					\checkmark
lce rink	\checkmark	\checkmark					\checkmark
PowerCO₂OL [™]			MT application			LT application	
No. of compressors			3 - 8			0-6	
Refrigeration capacity			Up to 1500 kW*			0 – 700kW*	
Refrigerant				R7	44		

* -32°C /-10°C ; -10°C /+36°C ambient air temperature (negative heat rejection not deducted)

FlexiCO₂OL[®]

R134a / CO₂ cascade compressor rack for medium to large supermarkets and warehouses

- Uses natural refrigerant CO₂ for low temperature
- LT rack only (MT rack on another frame)
- Indoor installation
- Designed for supermarkets and hypermarkets
- Single or dual temperature range
- Semi-hermetic compressors
- Integrated electrical control panel with controller and condenser control
- CO₂ refrigerant receiver with liquid line
- Cascade heat exchanger
- Available as Brine/CO₂ cascade
- Variety of options available

Design PS:

- LT Suction: 25 Bar
- LT Discharge: 45 Bar
- MT Suction: 17 Bar
- MT Discharge: 19 Bar





FlexiCO ₂ OL®	MT application	LT application
No. of compressors	3 - 6	2 - 4
Refrigeration capacity	29 – 279 kW	9–171 kW
Refrigerant	R134a	R744

Evaporating temp. /condensing temp.: MT -8°C / 45°C; LT -35°C / -10°C

CombiCO₂OL[®]

Hybrid cascade stacked refrigeration rack combining a CO₂ LT rack running as a cascade and a R134a MT rack for medium to large supermarket

- Uses natural refrigerant CO₂ for low temperature
- Adapted for supermarkets and hypermarkets
- Indoor installation
- Single or dual temperature range
- R134a compressors for an optimized Coefficient of Performance (COP)
- Integrated CO₂ refrigerant receiver
- Cascade heat exchanger
- Easy installation and maintenance
- Stacked compressors for space saving
- Electrical enclosure integrated as standard with one controller per rack
- Other refrigerant available: R513A
- Variety of options available

Design PS:

- LT Suction: 25 Bar
- LT Discharge: 45 Bar
- MT Suction: 17 Bar
- MT Discharge: 19 Bar





CombiCO ₂ OL®	MT application	LT application
No. of compressors	2-4	1-3
Refrigeration capacity	24 – 125 kW	2 – 33 kW
Refrigerant	R134a	R744

Rack units

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QuietCO₂OL[™]

Packaged refrigeration unit for food retail and small store format

- Uses CO₂ natural refrigerant
- Not affected by the EU F-Gas Regulation
- Small size unit for outdoor application
- Designed for small store formats and store extensions
- Saves indoor space
- Single temperature range
- Hermetic compressor
- Integrated electrical control panel with controller
- Integrated gas cooler and medium pressure receiver
- Water cooled version
- Removable side panels for easy maintenance access
- Polar kit version available (EC fan + electrical panel heater)

Design PS:

- LT Suction: 80 Bar
- MT Suction: 80 Bar
- Liquid receiver: 90 Bar
- Gas cooler discharge: 120 Bar





QuietCO₂OL™	MT application LT application		
No. of compressors	1	2	
Refrigeration capacity	0,8–9,1 kW	0,7-6,5 kW	
Refrigerant	R744		

Evaporating temp. MT -8°C/BT -32°C; Ambient temperature= 32°C

QuietCO₂OL[™] Multi-Compressors Outdoor

Packaged refrigeration unit for convenience stores, gas stations and small to medium cold rooms

- Uses CO₂ natural refrigerant
- Small size unit for outdoor application
- Semi-hermetic reciprocating & hermetic rotary version
- Large capacity control 30-70Hz (SH) and 25-100rps (Rotary)
- Designed for small and medium store formats
- Booster on the semi-hermetic version
- Integrated gas cooler and medium pressure receiver
- Available also without gas cooler for small outdoor space
- Saves indoor space
- Integrated electrical control panel with controller
- Removable housing panels for easy maintenance access
- Light weight for easier handling and lower structure impact

Design PS:

- LT Suction: 80 Bar (Optional 60 Bar)
- MT Suction: 80 Bar (Optional 60 Bar)
- Liquid receiver: 80 Bar (Optional 60 Bar)
- Gas cooler discharge: 120 Bar



QuietCO₂OL[™] MC Outdoor



 $\mathsf{QuietCO_2OL^{\tiny TM}}\ \mathsf{MC}\ \mathsf{Outdoor}\ \mathsf{without}\ \mathsf{gas}\ \mathsf{cooler}$



Outdoor SH version



Outdoor Rotary version

Quiet COOL MC

QuietCO₂OL ^{™®} MC Outdoor	MT application	LT application (Semi Hermetic)	
No. of compressors	1-5 (Rotary) / 1-2 (Semi-hermetic)	1	
Refrigeration capacity	2 – 50 kW	0 - 10 kW	
Refrigerant	R744		

Evaporating temp. MT -8°C/BT -32°C; Ambient temperature= 32°C

MiniCO₂OL[®] Outdoor

Packaged refrigeration condensing unit for small and medium supermarkets

- Uses CO₂ natural refrigerant
- Small size unit for outdoor application
- Semi-hermetic reciprocating compressors
- Large capacity control 30-70Hz
- Designed for small and medium store formats
- Medium temperature and Booster version
- Integrated medium pressure receiver
- Integrated horizontal blowing gas cooler
- Available also without gas cooler for small outdoor space
- Saves indoor space
- Integrated electrical control panel with controller
- Optional heat recovery
- Removable side panels for easy maintenance access

Design PS:

- LT Suction: 25 Bar (Optional 80, 60 Bar)
- MT Suction: 45 Bar (Optional 80, 60, 52 Bar)
- Liquid receiver: 45 Bar (Optional 80, 60, 52 Bar)
- Gas cooler discharge: 120 Bar





MiniCO₂OL [®] outdoor	MT application	LT application	
No. of compressors	3	2	
Refrigeration capacity	50-160 kW*	5-67 kW*	
Refrigerant	R744		

*Evaporating temp. -5°C/LT -30°C; Ambient temperature=36°C

GC5[™] CO₂

Transcritical CO₂ Booster rack for medium to large supermarkets and warehouses

- Uses natural refrigerant CO2
- Outdoor unit for large cooling capacities
- Compatible racks: MiniCO₂OL[®] Compact, MaxiCO₂OL[®] Compact, CO₂OLtec[®] Evo
- Can be customized to suit customer requirements
- Saves indoor space
- Single or dual temperature range
- Semi-hermetic compressors
- Integrated electrical control panel with controller
- Integrated gas cooler and medium pressure receiver
- Low sound level version
- Walk-in housing

Design PS:

Refrigerant

- LT Suction: 30 Bar
- MT Suction: 45 Bar (Optional 52, 60 Bar)
- Liquid receiver: 45 Bar (Optional 52, 60, 80 Bar)
- Gas cooler discharge: 120 Bar



R744

Packaged Condensing Units

⁽¹⁾ -32°C /-10°C. ⁽²⁾ -10°C /+36°C ambient temperature (Capacity rejected negative not taken into account)

GC5[™] Hybrid

Packaged refrigeration unit for medium to large supermarkets and warehouses

- Uses natural refrigerant CO₂ for low temperature
- Outdoor unit for large cooling capacities
- Can be customized to suit customer requirements
- Saves indoor space
- Dual temperature range
- Semi-hermetic compressors
- Integrated electrical control panel with controller
- Integrated gas cooler and medium pressure receiver
- Walk-in housing
- Other HFC refrigerant available: R513A

Design PS:

- LT Suction: 30 Bar
- Refoulement BT: 45 Bar
- MT Suction: 17 Bar
- MT Discharge: 19 Bar



Hybrid COOL

GC5™ Hybrid	MT application	LT application
No. of compressors	3-6	2 - 4
Refrigeration capacity	29 – 279 kW	9–171 kW
Refrigerant	R134a	R744

Evaporating temp. MT -8°C/BT -32°C; Ambient temperature= 32°C

Soprano[®] CO₂

Air-cooled gas cooler for commercial refrigeration applications

- Uses CO₂ natural refrigerant
- Small to medium sized capacities
- Outdoor application
- Single or double row design
- Vertical or horizontal airflow
- Robust casing
- High-efficiency EC fans and motors
- Modbus control for EC fans
- Energy savings and reduction of CO_2 emissions thanks to EC technology
- Compliant with ErP Directiv
- Design PS: 120 Bar





Soprano [®] CO ₂	
No. of fans	1-6
Capacity	7 – 300 kW
Refrigerant	R744

Soprano[®] CO₂ (Centrifugal)

Air-cooled gas cooler for commercial refrigeration applications

- Uses CO₂ natural refrigerant
- Small to medium-sized capacities
- Indoor application
- Single row design
- Adjustable air flow
- Ductable for 3 different blowing directions
- Robust casing
- Compact design
- Splitable into 2 modules
- Installation possible against a wall
- Easy fans and casing disassembly
- High-efficiency EC centrifugal fans
- Analog signal or Modbus fan control
- Energy savings and CO₂ emissions reduction thanks to EC technology
- Compliant with ErP Directive
- Design PS: 120 Bar





Soprano [®] CO ₂ (Centrifugal)		
No. of fans	1-3	
Capacity	3.7 – 92 kW	
Refrigerant	R744	

Alto[™] CO₂

Air-cooled gas cooler for commercial and industrial refrigeration applications

- Uses CO₂ natural refrigerant
- Small to medium-sized capacities
- Outdoor installation
- Single or double row design
- Vertical or horizontal airflow
- Robust casing
- High-efficiency EC fans and motors
- Modbus control for EC fans
- Energy savings and reduction of CO₂ emissions thanks to EC technology
- Compliant with ErP Directiv
- Design PS: 120 Bar





Alto™ CO₂	_
No. of fans	1-10
Capacity	23 - 840 kW
Refrigerant	R744

Tenor[®] CO₂

Air-cooled gas cooler for commercial and industrial refrigeration applications

- Uses CO₂ natural refrigerant
- Large capacities
- Outdoor installation
- Single or double row design
- Vertical airflow
- Robust casing
- High-efficiency EC fans
- Reduced footprint due to V-shaped configuration
- Modbus control for EC fans
- Energy savings and reduction of CO₂ emissions thanks to EC technology
- Compliant with ErP Directiv
- Design PS: 120 Bar





$Tenor^{ end{bmatrix}} CO_2$	
No. of fans	2-16
Capacity	64–1208 kW
Refrigerant	R744

Tenor[®] CO₂ (Centrifugal)

Air-cooled gas cooler for commercial refrigeration applications

- Uses CO₂ natural refrigerant
- Small to medium-sized capacities
- Indoor application
- Reduced footprint thanks to the V-shaped configuration
- Single row design
- Adjustable air flow
- Ductable for 3 different blowing directions
- Robust casing
- Compact design
- Splitable into 2 modules
- Installation possible against a wall
- Easy fans and casing disassembly
- High-efficiency EC centrifugal fans
- Analog signal or Modbus fan control
- Energy savings and CO₂ emissions reduction thanks to EC technology
- Compliant with ErP Directive
- Design PS: 120 Bar





Tenor® CO2 (Centrifugal)		
No. of fans	1-3	
Capacity	3.7 – 92 kW	
Refrigerant	R744	

Condensers / Gas Coolers/ Fluid Coolers

Solo™ 25-31 XS CO₂

Air cooler for commercial applications

- Uses CO₂ natural refrigerant
- Compact, ceiling-mounted air cooler
- Designed for refrigerated display cases and small cold rooms
- Aluminium-Magnesium alloy casing
- Axial fans
- Finned coil with smooth copper tubes and aluminium fins
- Large choice of fan diameter as well as fin spacing
- Optional coil coating, electric defrost and EC fan
- Compliant with ErP Directive
- Design PS: 80 Bar





Solo™ 25-31 XS CO₂	MT application	LT application
No. of fans	1-4	2 - 3
Refrigeration capacity	0,74 – 7,3 kW	0,59 – 6 kW
Refrigerant	R744	

Fluid = R744; inlet air temp./evaporating temp.: $MT = 0^{\circ}C/-8^{\circ}C$; $LT = -18^{\circ}C/-25^{\circ}C$

Solo™ 25-31-35 CO₂

Air cooler for commercial applications

- Uses CO₂ natural refrigerant
- Ceiling-mounted cubic air cooler
- Designed for all types of cold rooms from small to medium capacities
- Aluminium-Magnesium alloy casing
- Axial fans
- Finned coil with copper tubes and aluminium fins
- Large choice of fan diameter as well as fin spacing
- Casing complete with doors and removable pan
- Optional coil coating, electric defrost and EC fan
- Compliant with ErP Directive
- Design PS: 80 Bar



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Solo™ 25-31-35 CO₂	MT application	LT application
No. of fans	1-5	
Refrigeration capacity	1,2 – 23,9 kW	1–16,4 kW
Refrigerant	R744	

Fluid = R744; inlet air temp./evaporating temp.: $MT = 0^{\circ}C/-8^{\circ}C$; $LT = -18^{\circ}C/-25^{\circ}C$

Duo[™] 31-35 CO₂

Air cooler for commercial applications

- Uses CO₂ natural refrigerant
- Ceiling-mounted dual-discharge air cooler
- Designed for working areas, such as preparation rooms
- Aluminium-Magnesium alloy casing
- Low air speed for occupied areas
- Axial fans
- Comfortable sound level
- Finned coils with smooth copper tubes and aluminium fins
- Specially designed casing for easy cleaning and maintenance access
- Optional coil coating, electric defrost and EC fan
- Compliant with ErP Directive
- Design PS: 80 Bar





Duo™ 31-35 CO₂	
No. of fans	1-5
Refrigeration capacity	2,6 – 24,6 kW
Refrigerant	R744

Fluid = R744; inlet air temp./evaporating temp.: $MT = 10^{\circ}C/0^{\circ}C$

SoloCO₂OL[®]

Industrial air cooler for large capacity low temperature applications

- Uses CO₂ natural refrigerant
- Ceiling-mounted cubic air cooler
- Designed for large capacity refrigeration, storage and freezing applications
- Easy to install and maintain
- Coolers delivered in mounting position (with drain pan)
- Finned coil with smooth copper tubes and aluminium fins
- Wired fans with quick connectors and wired heaters
- Air streamer (Option)
- High efficiency defrost (Option)
- Coil treatment (Option)
- Compliant with ErP Directiv
- Design PS: 30 Bar





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SoloCO ₂ OL®		
No. of fans	1-4	
Refrigeration capacity	4-111 kW	
Refrigerant	R744	
Fluid = R744; inlet air temp./evaporating temp.: LT = -18°C/-25°C		



HFC / HFO solutions

Carrier

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CCR H/CCB HL

Compressor pack system for small to medium supermarket

- Hermetic scroll compressors
- Indoor installation
- Designed for supermarkets
- Single or dual temperature range
- Refrigerant receiver with liquid line
- Variety of options available
- Extended operation range



CCR H - CCB H	MT application	LT application
No. of compressors	2 - 4	2 - 4
Refrigeration capacity	6–101 kW	3 – 36 kW
Refrigerant	R134A/R407F/R448A/R449A/R513A/R450A	R407F/R448A/R449A

Performance data with Reference fluid (without glide), -10°C/+45°C(MT), -35°C/+40°C (LT), 20K superheat

CKR SH/CKB SH

Compressor pack system for small to medium supermarket

- Semi-hermetic Ecoline compressors
- Indoor installation
- Designed for supermarkets
- Single or dual temperature range
- Refrigerant receiver with liquid line
- Variety of options available



CKR SH - CKB SH	MT application	LT application
No. of compressors	2-4	2-4
Refrigeration capacity	22 – 110 kW	7 – 30 kW
Refrigerant	R134A/R407F/R448A/R449A/	R407F/R448A/R449A

Performance data with Reference fluid (without glide), -10°C/+45°C(MT), -35°C/+40°C (LT), 20K superheat

CCR SH/CCB SH

Compressor pack system for small to large supermarket

- Semi-hermetic Ecoline compressors
- Indoor installation
- Designed for supermarkets and hypermarkets
- Single or dual temperature range
- Refrigerant receiver with liquid line
- Variety of options available



CCR SH - CCB SH	MT application	LT application
No. of compressors	2 - 6	2 - 5
Refrigeration capacity	38–190 kW	21–140 kW
Refrigerant	R134A/R407F/R448A/R449A/R513A/R450A	R134A/R407F/R448A/R449A

Performance data with Reference fluid (without glide), -10°C/+45°C(MT), -30°C/+40°C (LT), 20K superheat
GRS™

Compressor receiver set for cold room application

- Ideal for indoor installation
- Designed for a single cooling application
- Hermetic scroll compressor
- Liquid injection system for low temperature models
- Refrigerant receiver
- Easy handling and installation
- Variety of options available



GRS™	MT application	LT application
No. of compressors		1
Refrigeration capacity	2–70 kW	0 – 31 kW
Refrigerant	R134A (MT only)/R407F/R448A/R449A	

Performance data with Reference fluid (without glide), -10°C/+45°C(MT), -35°C/+40°C (LT), 20K superheat

GSB[™] SH

Air-cooled condensing unit for cold room application

- Space saving design for indoor installation
- Designed for a small to medium cooling capacity application
- Semi-hermetic compressor
- Compressor cylinder head cooling fans (depending on model)
- Condenser mounted and connected
- Refrigerant receiver mounted and connected
- Easy handling and installation
- Variety of options available



GSB™ SH	MT application	LT application
No. of compressors	1	1
Refrigeration capacity	2-108 kW	0 - 43 kW
Refrigerant	R134A (MT only)/R407F/R448A/R449A	

Performance with the reference fluid: Evaporating temperature -10°C (MT) & -35°C (LT). Ambient +32°C. Superheat 10K

GF™

Air-cooled condensing unit for cold room application

- Space saving design for indoor installation
- Designed for a small to medium cooling capacity application
- Semi-hermetic compressor
- Compressor cylinder head cooling fans (depending on model)
- Condenser mounted and connected
- Refrigerant receiver mounted and connected
- Easy handling and installation
- Variety of options available



GF™	MT application	LT application
No. of compressors	1	L
Refrigeration capacity	2 – 70 kW	0 - 31 kW
Refrigerant	R134A (MT only)/R407F/R448A/R449A	

Performance with the reference fluid: Evaporating temperature -10°C (MT) & -35°C (LT). Ambient +32°C. Superheat 10K

GFS™

Air-cooled condensing unit for cold room application

- Hermetic scroll compressor
- Space saving design for indoor installation or under shelter from the weather
- Designed for a small cooling capacity application
- Coil with copper tubes and aluminium fins
- Cylinder head cooling fan (depending on the model)
- Easy installation
- Variety of options available



GFS™	MT application	LT application
No. of compressors	1	1
Refrigeration capacity	5–17 kW	1-6 kW
Refrigerant	R134A (MT only)/R407F/R448A/R449A	

Performance with the reference fluid: Evaporating temperature -10°C (MT) & -35°C (LT). Ambient +32°C. Superheat 10K

Minicold™

Refrigeration unit for cold room application

- Condensing unit for outdoor installation
- Designed for low temperature freezer rooms and medium temperature chiller rooms
- Version available for wine cellar
- Hermetic compressor
- Remote electrical control panel for wall mounting
- Controller manages compressor, fans, temperature alarm and lighting
- Variety of options available



Minicold™	MT application	LT application
No. of compressors	1	L
Refrigeration capacity	0-10 kW	0 – 5 kW
Refrigerant	R452A / R449A / R448A (MT only)	

Reference fluid (without glide), cold room temp. $MT + 0^{\circ}C/LT - 25^{\circ}C$; ambient temperature = $32^{\circ}C$

Supercold[™] SH/Scroll

Split refrigeration unit for cold room application

- Condensing unit for outdoor installation
- Designed for low temperature and medium temperature cold rooms
- Hermetic scroll compressor or semi-hermetic compressor
- Integrated electrical control panel
- Variety of options available



Supercold [™] SH/SCROLL	MT application	LT application
No. of compressors	1	1
Refrigeration capacity	2 – 55 kW	0-31 kW
Refrigerant	R134A (MT only) / R407F / R448A / R449A	

Reference fluid (without glide), cold room temp. MT +0°C/LT -25°C; ambient temperature = 32° C

Quietis[®] Evolution

Air-cooled condensing unit for cold room and cabinet application

- Compact design for outdoor installation
- Designed for cold room or display cabinet applications
- Low sound level
- Hermetic reciprocating compressors
- Articulated electrical terminal block, all components factory wired
- Hinged door with large opening angle for easy maintenance access
- Easy wall mounting fix and set (kit for single fan models)
- Variety of options available



Quietis®	MT application	LT application
No. of compressors	1-	2
Refrigeration capacity	0–18 kW	0 – 8 kW
Refrigerant	R134A (MT) / R513A (MT) / R448A (MT) / R449A (MT) / R452A (BT)	

Reference fluid (without glide), evaporating temp. MT -10 $^{\circ}$ C/LT -35 $^{\circ}$ C; ambient temperature = 32 $^{\circ}$ C

Quietis[®] G (Centrifugal)

Indoor air-cooled condensing unit for cold room and cabinet application

- Compact design for indoor installation
- Designed for cold room or display cabinet applications
- Centrifugal fans with 180/250 Pa available static pressure for air duct connection
- Low sound level
- Hermetic reciprocating compressors or scroll compressors
- Outdoor version available
- Integrated control box, all components factory wired
- Removable compressor compartment and top panels for easy maintenance access
- Wall mounting kit for single fan models
- Variety of options available Quietis[®]



Quietis® G (Centrifugal)	MT application	LT application
No. of compressors	1	1
Refrigeration capacity	0–18 kW	0 – 8 kW
Refrigerant	R134a (MT) / R513A (MT) / R449A (MT) / R452A	

Reference fluid (without glide), evaporating temp. MT -10°C/LT -35°C; ambient temperature = 32°C

Quietor[®] Evolution

Air-cooled condensing unit for cold room and cabinet application

- Compact design for outdoor installation
- Designed for use with multiple display cabinets and/or cold rooms
- Low sound level
- Scroll or digital scroll compressors
- Integrated control box
- Removable side panels for easy maintenance access
- Variety of options available



Quietor [®] Evolution	MT application	LT application
No. of compressors	1	- 2
Refrigeration capacity	2-46 kW	2–28 kW
Refrigerant	(R134a/R513A/R450A - MT only) / R407F / R448A / R449A	

Reference fluid (without glide), evaporating temp. MT -10°C/LT -35°C; ambient temperature = 32°C

Quietor[®] SH

Air-cooled condensing unit for cold room and cabinet application

- Compact design for outdoor installation
- Designed for use with multiple display cabinets and/or cold rooms
- Low sound level
- Semi-hermetic compressors
- Integrated control box, all components factory wired
- Removable side panels for easy maintenance access
- Variety of options available, including compressor inverter



Quietor [®] SH	MT application	LT application
No. of compressors	1	1
Refrigeration capacity	3-31 kW	0-8 kW
Refrigerant	(R134a/R513A/R450A - MT only) / R407F / R448A / R449A	

Reference fluid (without glide), evaporating temp. MT -10 $^{\circ}$ C/LT -35 $^{\circ}$ C; ambient temperature = 32 $^{\circ}$ C

Quietor[®] City (Centrifugal)

Indoor air-cooled condensing unit for cold room and cabinet application

- Compact design for indoor installation
- Designed for use with multiple display cabinets and/or cold rooms
- Centrifugal fans with 200 Pa available static pressure for air duct connection
- Low sound level
- 1 or 2 hermetic scroll compressors (with 1 digital)
- EC fans
- Integrated control box, all components factory wired
- Removable side panels for easy maintenance access
- Outdoor version available
- Variety of options available



Quietor [®] City (Centrifugal)	MT application	LT application
No. of compressors	1-	- 2
Refrigeration capacity	6 – 23 kW	5–14 kW
Refrigerant	(R134a/R513A/R450A - MT only) / R407F / R448A / R449A	

Reference fluid (without glide), evaporating temp. MT -10°C/LT -35°C; ambient temperature= 32°C

GCV[™] SH/Scroll

Air-cooled condensing unit for small to medium supermarket

- Compact design for outdoor installation
- Designed for applications with no machinery room and less space outside
- Small footprint due to integrated V-shape condenser
- Special, low sound level version available
- Semi-hermetic reciprocating compressors or scroll compressors
- Integrated control box, all components factory wired
- Removable side panels for easy maintenance access
- Refrigerant receiver with liquid line
- Variety of options available



GCV™ SH/Scroll	MT application	LT application
No. of compressors	2 -	- 4
Refrigeration capacity	15 – 113 kW	6 – 37 kW
Refrigerant	(R134a/R513A/R450A - MT only) / R407F / R448A / R449A	

Reference fluid (without glide), evaporating temp. MT -10 $^{\circ}$ C/LT -35 $^{\circ}$ C; ambient temperature = 32 $^{\circ}$ C

GC[™] SH

Air-cooled condensing unit for small to medium supermarket

- Compact design for outdoor installation
- Designed for applications with no machinery room and less space outside
- Integrated condenser, positioned adjacent to the compressor housing
- Special, low sound level version available
- Semi-hermetic reciprocating compressors
- Integrated control box, all components factory wired
- Removable side panels for easy maintenance access
- Refrigerant receiver with liquid line
- Variety of options available



GC™ SH	MT application	LT application
No. of compressors	1-2	
Refrigeration capacity	16–153 kW	6 - 48 kW
Refrigerant	(R134a/R513A/R450A - MT only) / R407F / R448A / R449A	

Reference fluid (without glide), evaporating temp. MT -10°C/LT -35°C; ambient temperature = 32°C

GC5™

Air-cooled condensing unit for medium to large supermarkets and warehouses

- Flexible design for outdoor installation
- Designed for applications without machinery room and restricted space outside
- Integrated condenser, positioned adjacent to the compressor housing
- Can be customized to suit customer requirements
- Semi-hermetic reciprocating compressors or scroll compressors
- Integrated control box, all components factory wired
- Removable side panels for easy maintenance access
- Refrigerant receiver with liquid line
- Variety of options available



GC5™	MT application	LT application
No. of compressors	3 - 6	2 - 6
Refrigeration capacity	27 – 479 kW	9 – 213 kW
Refrigerant	R134a/R513A/R450A (MT only) / R407F / R448A / R449A	

Reference fluid (without glide), evaporating temp. MT -10°C/LT -35°C; ambient temperature = 32°C

Adagio™

Air-cooled condenser for commercial and air-conditioning applications

- Small to medium-sized capacities
- Outdoor application
- Single or double row design
- Robust casing
- Vertical or horizontal airflow
- Optional high-efficiency EC fans and motors
- Compliant with ErP Directiv



Adagio™	
No. of fans	1-6
Capacity	4 – 312 kW
Refrigerant	R134a, R407A, R407C, R407F, R417A, R448A, R449A, R450A, R513A

Fluid = Reference fluid (without glide); inlet air temp. = 25°C; condensing temp.= 40°C subcooling 3K

Alto™

Air-cooled condenser for commercial and industrial refrigeration and air-conditioning applications

- Small to medium-sized capacities
- Outdoor installation
- Single or double row design
- Vertical or horizontal airflow
- Robust casing
- Optional high-efficiency EC fans and motors
- Compliant with ErP Directiv



Alto™	
No. of fans	1-12
Capacity	22 – 1128 kW
Refrigerant	R134a, R407A, R407C, R407F, R417A, R448A, R449A, R450A, R513A

Fluid = Reference fluid (without glide); inlet air temp. = 25°C; condensing temp. = 40°C subcooling 3K

Tenor®

Air-cooled condenser for commercial and industrial refrigeration and air-conditioning applications

- Large capacities
- Outdoor installation
- Single or double row design
- Vertical airflow
- Robust casing
- Optional high-efficiency EC fans and motors
- Reduced footprint due to V-shaped configuration
- Compliant with ErP Directiv



Tenor®	
No. of fans	2 - 20
Capacity	61–1915 kW
Refrigerant	R134a, R407A, R407C, R407F, R417A, R448A, R449A, R450A, R513A

Fluid = Reference fluid (without glide); inlet air temp. = 25°C; condensing temp. = 40°C subcooling 3K

Sirocco™

Air-cooled condenser for indoor or outdoor applications that require a static pressure

- Small to large sized capacities
- Indoor or outdoor application
- Available static pressure of 0/50/100/150 Pa
- Centrifugal fan assembly
- Vertical or horizontal airflow
- Connection for air duct system



Sirocco™ / CAC (Centrifugal)		
No. of fans	1-3	
Capacity	11-88 kW	
Refrigerant	R134a, R407A, R407C, R407F, R417A, R448A, R449A, R450A, R513A	

Adagio[™] Fluid Cooler

Air-cooled fluid cooler for commercial and industrial refrigeration and air-conditioning applications

- Small to medium-sized capacities
- Outdoor application
- Single or double row design
- Vertical or horizontal airflow
- Robust casing
- Optional high-efficiency EC fans and motors
- Compliant with ErP Directiv



Adagio [™] Fluid Cooler		
No. of fans	1-6	
Capacity	10 - 300 kW	
Refrigerant	All fluids compatible with copper	

Alto[™] Fluid Cooler

Air-cooled fluid cooler for commercial and industrial refrigeration and air-conditioning applications

- Small to medium-sized capacities
- Outdoor installation
- Single or double row design
- Vertical or horizontal airflow
- Robust casing
- Optional high-efficiency EC fans and motors
- Compliant with ErP Directiv



Alto [™] Fluid Cooler		
No. of fans	1-12	
Capacity	90 – 1000 kW	
Refrigerant	All fluids compatible with copper	

Tenor[®] Fluid Cooler

Air-cooled fluid cooler for commercial and industrial refrigeration and air-conditioning applications

- Large capacities
- Outdoor installation
- Single or double row design
- Vertical airflow
- Robust casing
- Optional high-efficiency EC fans and motors
- Reduced footprint due to V-shaped configuration
- Compliant with ErP Directiv



Tenor® Fluid Cooler		
No. of fans	2 - 20	
Capacity	51-1804 kW	
Refrigerant	All fluids compatible with copper	

Solo™ 25-31 XS

Air cooler for cold room applications

- Compact, ceiling-mounted air cooler
- Designed for refrigerated display cases and small cold rooms
- Aluminium-Magnesium alloy casing
- Axial fans
- Finned coil with copper tubes and aluminium fins
- Optimized for a variety of refrigerants
- Large choice of fan diameter as well as fin spacing
- Optional coil coating, electric defrost and EC fan
- Compliant with ErP Directiv



Solo™ 25-31 XS	MT application	LT application
No. of fans	1-4	
Refrigeration capacity	1,1-8,1 kW	0,7 – 6,3 kW
Refrigerant	R134a, R407F, R407A, R407C, R417A, R449A, R448A, R513A (MT only) / R450A (MT) / R452A	

Fluid = Reference fluid (without glide); inlet air temp./evaporating temp.: MT = 0°C/-8°C; LT = -18°C/-25°C

Solo™ 25-31-35

MT / LT air cooler for small to medium cold rooms applications

- Ceiling-mounted cubic air cooler
- Designed for all types of cold rooms from small to medium capacities
- Aluminium-Magnesium alloy casing
- Axial fans
- Finned coil with copper tubes and aluminium fins
- Optimized for a variety of refrigerants
- Casing complete with doors and removable pan
- Large choice of fan diameter as well as fin spacing
- Optional coil coating, electric defrost and EC fan
- Compliant with ErP Directiv



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Solo™ 25-31-35	MT application	LT application
No. of fans	1-5	
Refrigeration capacity	1,4-24 kW	0,9–15 kW
Refrigerant	R134a (MT only) / R407F / R407A / R407C / R417A / R449A / R448A / R513A (MT only) / R450A (MT only) / R452A	

Fluid = Reference fluid (without glide); inlet air temp./evaporating temp.: $MT = 0^{\circ}C/-8^{\circ}C$; $LT = -18^{\circ}C/-25^{\circ}C$

CAN™/CAB 400-500 Evolution

MT / LT air cooler for small to medium cold rooms applications

- Ceiling-mounted cubic air cooler
- Designed for all types of cold rooms from small to medium capacities
- Large variety of dimensions, fin spacings and air flow configurations to suit cold room requirements
- Direct drive axial propeller fans
- Finned coil with copper tubes and aluminium fins
- Casing complete with doors and pivoting pan
- Variety of options available
- Compliant with ErP Directiv



CAN™/CAB 400/500 Evolution	MT application	LT application
No. of fans	1-6	
Refrigeration capacity	5,7–54 kW	4,4-40 kW
Refrigerant	R134a, R407F, R407A, R407C, R417A, R449A, R448A, R513A, R450A	

Fluid = Reference fluid (without glide); inlet air temp./evaporating temp.: MT = 0°C/-8°C; LT = -18°C/-25°C

Duo™ 31-35

MT / HT air cooler for preparation room applications

- Ceiling-mounted dual-discharge air cooler
- Designed for working areas, such as preparation rooms
- Aluminium-Magnesium alloy casing
- Low air speed for occupied areas
- Axial fans
- Comfortable sound level
- Finned coils with copper tubes and aluminium fins
- Optional coil coating, electric defrost and EC fan
- Compliant with ErP Directiv



Duo™ 31-35	
No. of fans	1-6
Refrigeration capacity	2,9 – 25,6 kW
Refrigerant	R134a (MT only) / R407F / R407A / R407C / R417A / R449A / R448A / R513A (MT only) / R450A (MT only) / R452A

Fluid = Reference fluid (without glide); inlet air temp./evaporating temp.: $MT = 10^{\circ}C/0^{\circ}C$

Solo[™] 50-60-80

MT/LT air cooler for industrial cold rooms applications

- Ceiling-mounted cubic air cooler
- Designed for large capacity refrigeration, storage and freezing applications
- Hinged side covers and drain pan
- Wired fans with quick connectors and wired heaters
- Finned coil with grooved copper tubes and aluminium fins
- Delivered in mounting position (with drain pan)
- Variety of options available
- Compliant with ErP Directiv



Solo™ 50-60-80	MT application	LT application
No. of fans	1-	- 4
Refrigeration capacity	7–128 kW	4 - 90 kW
Refrigerant	R134a, R407F, R407A, R407C, R41	7A, R449A, R448A, R513A, R450A

Fluid = Reference fluid (without glide); inlet air temp./evaporating temp.: $MT = 0^{\circ}C/-8^{\circ}C$; $LT = -18^{\circ}C/-25^{\circ}C$

Duo[™] Evolution

MT air cooler for preparation / process applications

- Ceiling-mounted dual-discharge air cooler
- Designed for refrigerated warehouses, preparation/processing cold rooms
- Low air speed for occupied areas
- Axial fans, configured for optimal air flow
- Comfortable sound level
- Finned coils with grooved copper tubes and aluminium fins
- Specially designed casing for easy cleaning and maintenance access
- Variety of options available, including factory mounted expansion valve
- Compliant with ErP Directiv



Duo [™] Evolution	
No. of fans	1-5
Refrigeration capacity	4 – 97 kW
Refrigerant	R134a, R407F, R407A, R407C, R417A, R449A, R448A, R513A, R450A

Fluid = Reference fluid (without glide); inlet air temp./evaporating temp.: MT = $10^{\circ}C/0^{\circ}C$

QFC/QFR

MT/LT air cooler for fast freezing applications

- Modular design for floor mounting
- Designed for low temperature blast freezers (QFC) and medium temperature blast chillers (QFR)
- Standard fan pressure = 50 Pa
- Axial fans, configured for optimal air flow
- Finned coils with grooved copper tubes and aluminium fins
- Adjustable unit height according to customer needs
- Variety of options available



QFC/QFR	MT application	LT application						
No. of fans	2-	- 6						
Refrigeration capacity	15 – 77 kW	10 - 53 kW						
Refrigerant	Cons	ult us						

Fluid = water; inlet air temp. = 25°C; inlet fluid temp. = 40°C fluid dT=5K Fluid = Reference fluid (without glide); evaporating temp./dT: MT = -8°C/8K; LT = -40°C/6K

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