



DESIGNING INNOVATIVE SOLUTIONS

AIR CONDITIONING SOLUTIONS



RELIABLE



EFFICIENT



SMART



FLEXIBLE

Packaged Rooftop Units

Cooling Capacity 22-215 kW - Heating Capacity 24-229 kW

50/48 UC-(V) / UP-(V) R454B & R410A





50/48 UC-(V)/UP-(V) R454B & R410A Packaged Rooftop Unit

All In One Packaged Solutions

The 50/48 UC-(V)/UP-(V) Carrier rooftop units are designed to meet diverse demands, available with R454B & R410A models and fully aligned with Ecodesign standards (EU 2016/2281). The 50/48 UC-(V)/UP-(V) Carrier rooftops comply with Ecodesign 2021 efficiency requirements with high seasonal efficiency (SEER, SCOP)**.

13 different models
between 25-220 kW

R454B & R410A

SMARTVU™
Touch Screen
Coloured Human
Machine Interface*

All Models
Ecodesign 2021
Compliant in
Seasonal Efficiency**
(SEER, SCOP)

High Efficient
EC Plug Supply*
and Return Fans

Thermodynamic
and **Rotary**
Energy Recovery
Options

Unit Integrated
High Efficient
Condensing
Gas Heater

Bottom, Top, Side Air
Inlet-Outlet Availability

**Inverter
Compressor**
Single Circuit Units*
(025, 035, 045, 055)
Double Circuit Units
(065, 075, 090, 105, 125,
140, 160, 190, 220)

30 mm
Double Skin
Panels*

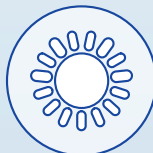
Building
Pressure Control



R454B & R410A



Cooling



Heating



Natural Gas
Heater



Electric Heater



Hot Water Coil



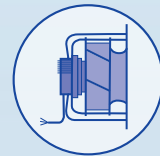
Inverter Scroll
Compressor



Rotary HR



Thermodynamic
HR



EC Plug Fan

*Supplied as standard with the unit.

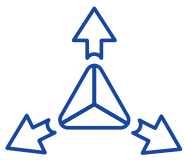
**Excluding 50/48 UC/UP models 25, 35 & 45

Your Future Technology Presented Today Packaged Rooftop Units



Model Coding

1-2	48	ROOFTOP SERIES	>	48: With Natural Gas Heater	50: Without Natural Gas Heater
3	U	HEAT REJECTION	>	U: Air Cooled	
4	C	COOLING / HEATING	>	C: Cooling Only	P: Heat Pump
5	V	COMPRESSOR	>	-: Fixed Speed	V: Inverter
6-7-8	055	NOMINAL CAPACITY	>	025, 035, 045, 055, 065, 075, 090, 105, 125, 140, 160, 190, 220	
9	B	Refrigerant	>	A: R410A	B: R454B



Unit Duct Connections

Air Duct Connections in 3 Different Ways



Carrier new generation rooftop units are designed to meet all customer requirements for air duct inlet and outlet connections. The flexible design allows air duct connection to the unit in three different way on both supply and return air side.

Supply

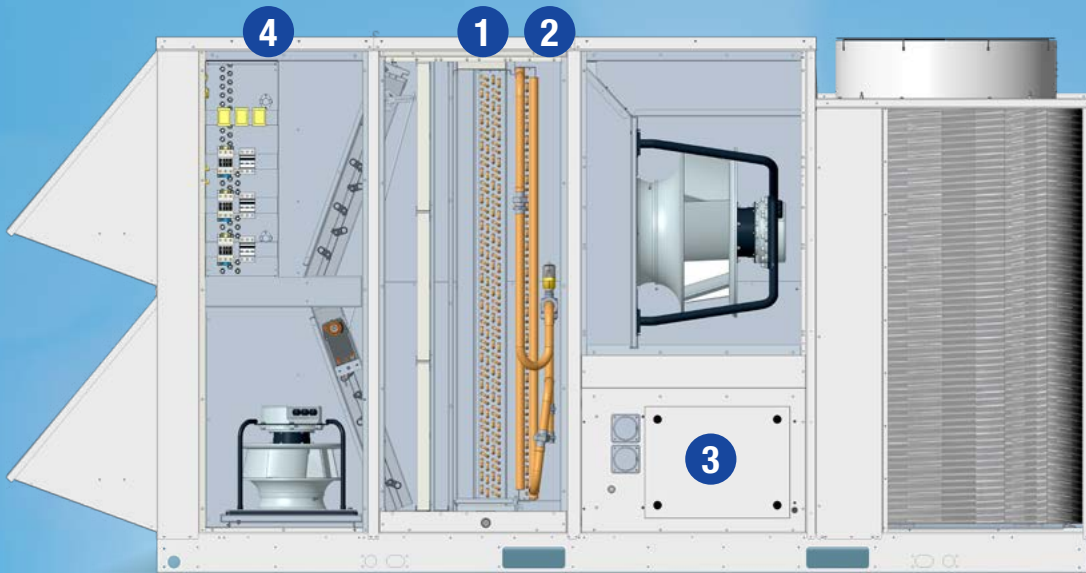
Reference	Option No	Duct Connection Way	With Natural Gas Heater	Without Natural Gas Heater
S1	Standard	Bottom Supply	Yes	Yes
S2	231	Side Supply	No	Yes
S3	232	Top Supply	Yes	Yes
S4*	233	Side Supply via Top Plenum	Yes	Yes
S5	234	Face (Rear) Supply	No	Yes

Return

Reference	Option No	Duct Connection Way	Economizer	Return Fan	Thermodynamic HR	Rotary HR
R1	Standard	Bottom Return	Yes	Yes	Yes	Yes
R2	241	Face (Front) Return	Yes	No	No	No
R3	242	Top Return	Yes	Yes	Yes	Yes
R4*	243	Side Return via Top Plenum	Yes	Yes	Yes	Yes
-	-	-	-	-	-	-

*Optional

Auxiliary Heating Components



1 Electric Heater

4 stage electric heater can provide precise control of the indoor comfort condition by meeting the heating load of the building in cooling only and heat pump units. Four temperature limit switches provide additional safety.



2 Hot Water Coil

It is supplied with shut-off valves and 3-way proportional control valve. Valve opening of 3-way valve are adjusted according to supply temperature and 100% modulated (0-10 V) control can be achieved. Frost protection thermostat prevents the coil from freezing in winter time.



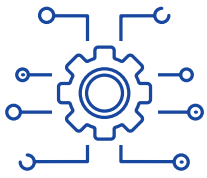
3 Natural Gas Heater

Natural gas heaters with high efficiency, low NOx emissions and the latest condensation technology, it is possible to keep indoor air in ideal conditions in winter. Thanks to its flexible design, the supply air duct connection can be made from bottom, top, or side of the unit with a plenum, even if the natural gas heater option is used. With combustion efficiency up to 109% and condensing technology and proportional control between 22%-100%, it consumes natural gas at the rate of heating demand.



4 Electric Pre-Heater

The electric pre-heater is placed before the economizer fresh air damper to pre-heat fresh air depending on outdoor air conditions. Shielded electric resistance heaters are fully factory-wired and tested. Each stage is protected against overloads by two thermal protectors. The low limit protector with automatic overload protection and is set to 90°C.



DOUBLE SKIN INSULATED PANELS



ENERGY RECOVERY OPTIONS

Rotary:

- Enthalpic or Sorption
- Fresh air up to %100
- Eurovent certified heat exchanger
- Easy installation without ducts

Thermodynamic:

- Additional independent refrigeration circuit



EC PLUG SUPPLY and RETURN FANS

- High efficient operation without belt and pulley
- Building pressure control
- IE4 motor efficiency class
- Flow setting and display via controller

THERMOSTATIC or ENTHALPIC ECONOMIZER

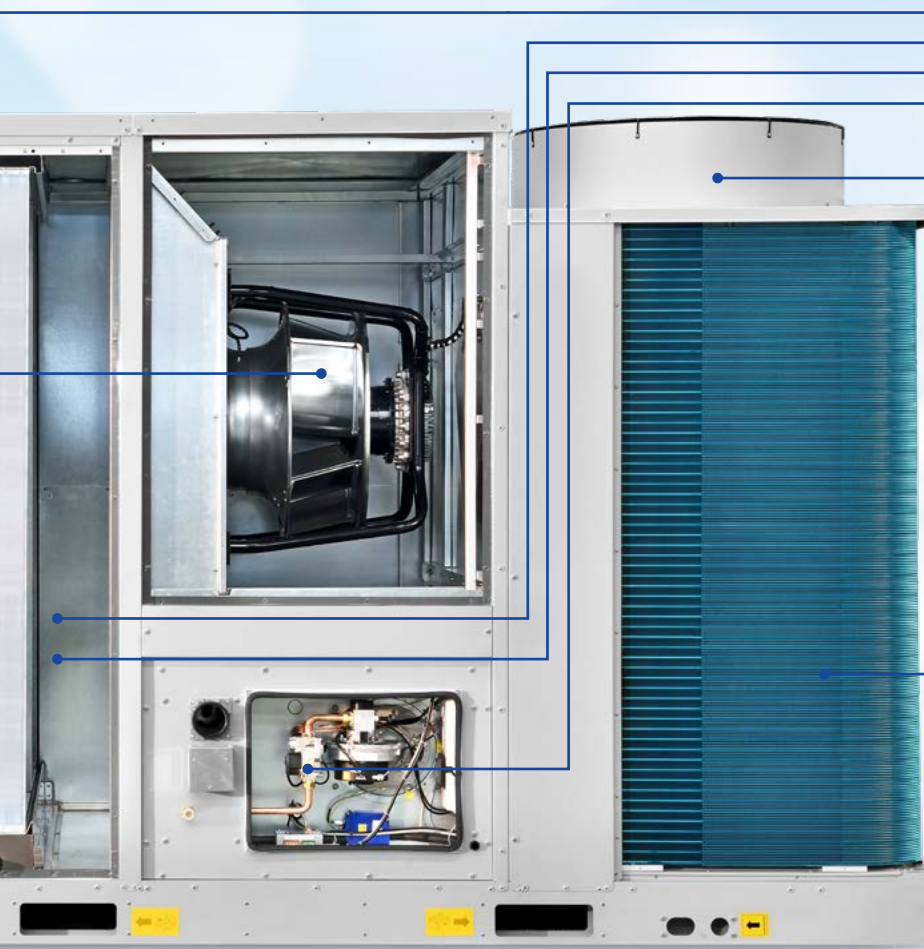
- Smart free cooling
- Fresh air control
- Possibility of indoor CO₂ control

TWO STAGE FILTRATION SOLUTIONS

- G4
- F7
- G4 + F7
- M6 + F7
- F7 + F9

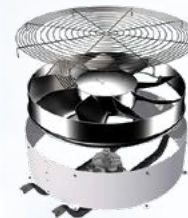
REMOVABLE STAINLESS STEEL DRAIN PAN

- Sloped and bottom insulated
- Supplied siphon with ball



AUXILIARY HEATING OPTIONS

- Multi stage electric pre-heater
- Multi stage electric heater
- Proportional control hot water coil
- Proportional control condensing natural gas heater



FLYING BIRD VI™ CONDENSER FANS

- Carrier patented direct drive axial fans
- Two speed, quiet operating, night mode
- Special algorithm for fan speed control

CU / AL CONDENSER / EVAPORATOR COILS

- 6-stage flow circuit leak control tests in factory
- Polyurethane coating option for extra UV and corrosion resistancy
- AquaAero coating for high durability alternative



ADVANCED CONTROL BOARD

- Single point power supply
- Coloured and numbered cabling
- Control box cover cannot not be opened until power switch is turned off
- IP68 cable inlet-outlet
- Energy Meter option
- Leak detector option (standard in R454B)



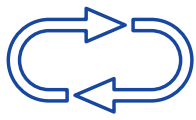
SMARTVU™ SMART CONTROL INTERFACE

- 4.3" user friendly touch screen coloured HMI
- All major parameters are displayed on one screen visualization
- Possibility of control from anywhere in the world via Internet
- Sending alarm to predetermined e-mail address

HIGH EFFICIENT SCROLL COMPRESSORS

- Inverter or 4 capacity stages





Rotary Energy Recovery Module (ERM)

It is a high efficiency rotary energy recovery that allows the exhaust air to be recovered by transferring the energy to the fresh air.

The rotary type energy recoveries are the most efficient energy recovery systems. In particular, it is much more advantageous than other energy recovery systems when the temperature difference between the ambient air and the return air is high and fresh air is more used.

The rotary energy recovery allows maximum heat transfer either as an enthalpy or sorption type, either in fresh air ratio or in different types depending on the ambient air conditions. The rotary energy recovery is used in rooftop unit has also Eurovent certification. The site setup of the energy recovery module is quite simple. The main unit and the power supply of the ERM are made from the single point on the unit. There is an additional G4 filter to protect the rotary in the fresh air inlet.

Winter Operating Mode



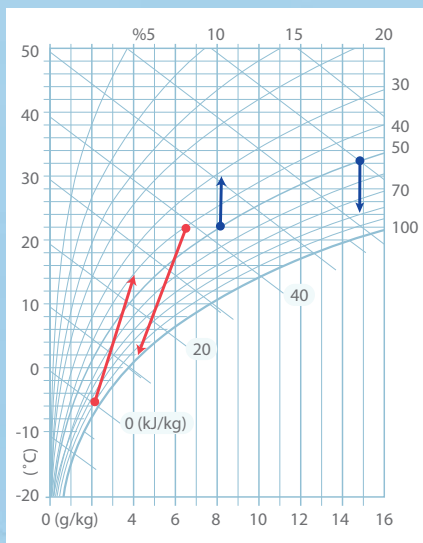
Fresh Air
up to %100

Enthalpy
of
Sorption
Type

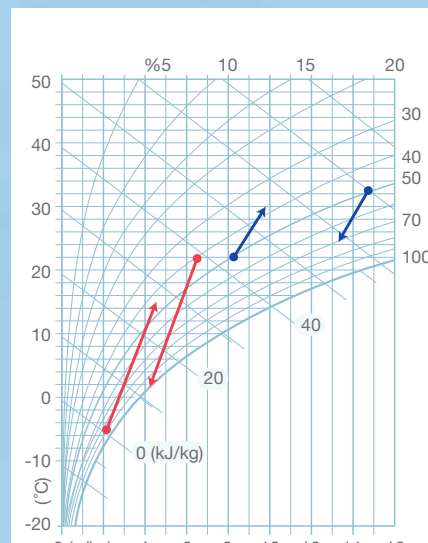
Easy
Installation

Eurovent
Certified
Performance

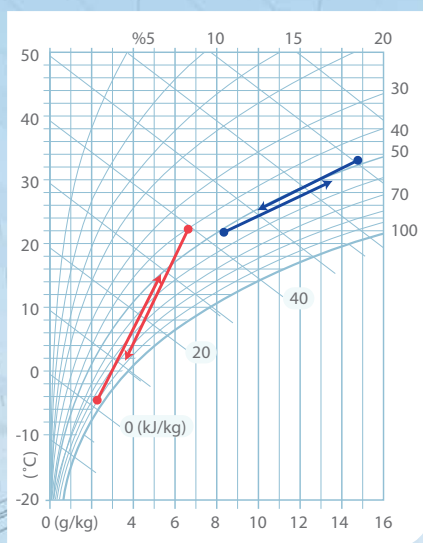
Condensation Type



Enthalpy Type

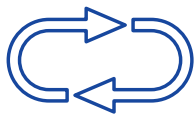


Sorption Type



As can be understood from the graphs above, the enthalpy rotary permits latent heat transfer in particular amount while the latent heat transfer is not observed in condensation type energy recoveries in summer time and high amount of latent heat transfer can be achieved with the sorption type rotary energy recoveries (depending on the humidity of the ambient air).

→ Winter Operation
→ Summer Operation



Thermodynamic Energy Recovery (THR)

Thermodynamic energy recovery is an additional independent refrigerant circuit energy recovery system that includes a DX coils on the exhaust and supply air side, a compressor and an expansion valve to recover energy by transferring the energy from exhaust air to the supply air.

It is more advantageous than other energy recovery systems, especially at seasonal passages and by

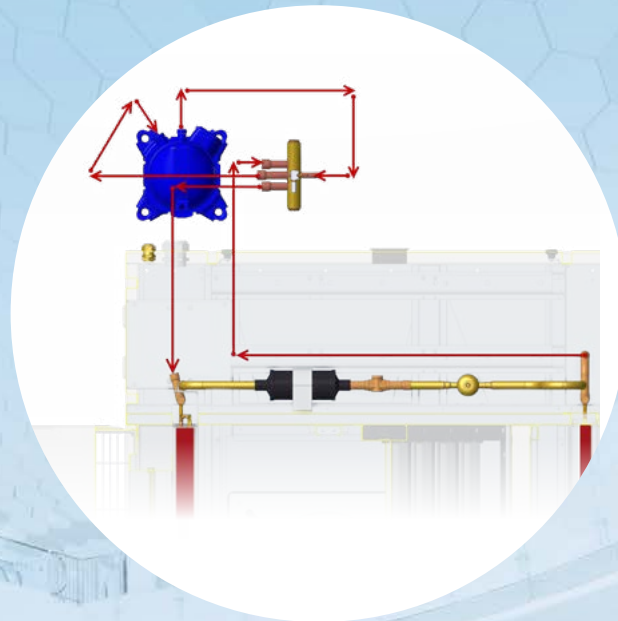
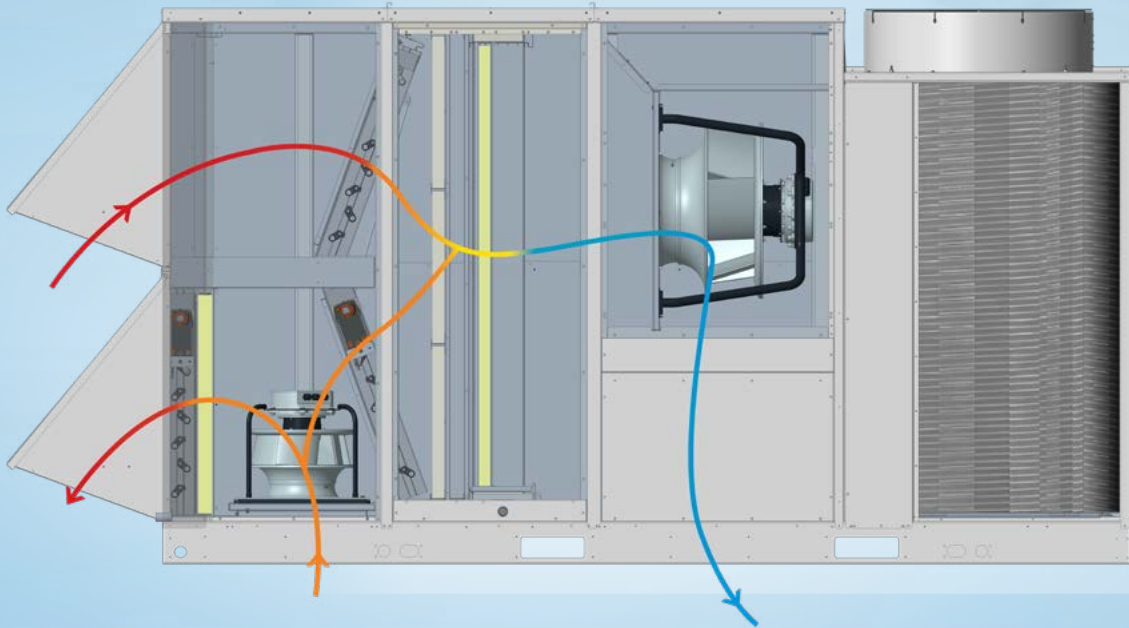
providing stable energy recovery at times when the temperature difference between indoor and ambient air is not too high. Fresh air ratio can be 20-100% in THR mode. As the energy recovery system is integrated into the unit, the unit dimensions do not increase. Depending on the amount of fresh air, 25% to 40% of the unit capacity is provided with energy recovery. The advanced controller can operate in accordance with the free cooling mode depending on the room load requirement.

Energy
Recovery
up to 40%
of Unit Nom.
Capacity

Available with
Free Cooling
Mode

No Additional
Space

Summer Operating Mode



Physical Data

50/48 UCV - (R454B)	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Nominal Cooling Capacity*	kW	20.2	30.2	37.8	50.7	58.3	73.0	80.9	-	122.4	135.8	156.6	175.6	192.2
Nominal Power Input	kW	5.9	9.7	14.0	16.8	18.2	21.9	25.5	-	35.8	41.8	47.9	55.6	59.9
EER*	kW/kW	3.43	3.11	2.70	3.01	3.20	3.33	3.17	-	3.42	3.25	3.27	3.16	3.21
SEER***		4.34	4.78	4.44	4.54	4.54	4.49	4.44	-	4.91	4.87	4.59	4.43	5.25
ηs.c***		171	188	175	179	179	177	175	-	193	192	181	174	207
50/48 UC - (R454B)	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Nominal Cooling Capacity*	kW	22.8	32.1	39.2	51.0	58.9	73.0	82.2	-	121.0	135.4	156.8	177.8	203.6
Nominal Power Input	kW	7.9	10.7	14.0	16.9	18.8	22.1	25.8	-	37.3	43.0	48.6	54.9	63.8
EER*	kW/kW	2.89	3.01	2.81	3.01	3.13	3.31	3.19	-	3.24	3.15	3.23	3.24	3.19
SEER***		3.18	3.39	3.20	4.18	4.25	4.32	4.15	-	4.58	4.52	4.39	4.88	5.05
ηs.c***		124	133	125	164	167	170	163	-	180	178	173	192	199
50/48 UPV - (R454B)	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Cooling														
Nominal Cooling Capacity*	kW	20.2	30.2	37.8	50.7	58.3	73.0	80.9	-	122.4	135.8	156.6	175.6	192.2
Nominal Power Input	kW	5.9	9.7	14.0	16.8	18.2	21.9	25.5	-	35.8	41.8	47.9	55.6	59.9
EER*	kW/kW	3.43	3.11	2.70	3.01	3.20	3.33	3.17	-	3.42	3.25	3.27	3.16	3.21
SEER***		4.34	4.78	4.44	4.54	4.54	4.49	4.44	-	4.91	4.87	4.59	4.43	5.25
ηs.c***		171	188	175	179	179	177	175	-	193	192	181	174	207
Heating														
Nominal Heating Capacity**	kW	23.1	34.2	46.6	55.8	63.4	81.2	91.7	-	123.5	144.4	169.6	183.9	199.6
Nominal Power Input	kW	6.4	9.0	12.7	14.6	17.3	22.3	26.2	-	34.2	39.9	50.5	48.5	50.3
COP*	kW/kW	3.64	3.78	3.66	3.83	3.66	3.65	3.50	-	3.61	3.62	3.36	3.79	3.97
SCOP**		3.36	3.69	3.69	3.82	3.81	3.58	3.46	-	3.75	3.66	3.33	3.47	3.64
ηs.h***		131	145	145	150	149	140	135	-	147	143	130	136	143
50/48 UP - (R454B)	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Cooling														
Nominal Cooling Capacity*	kW	22.8	32.1	39.2	51.0	58.9	73.0	82.2	-	121.0	135.4	156.8	177.8	203.6
Nominal Power Input	kW	7.9	10.7	14.0	16.9	18.8	22.1	25.8	-	37.3	43.0	48.6	54.9	63.8
EER*	kW/kW	2.89	3.01	2.81	3.01	3.13	3.31	3.19	-	3.24	3.15	3.23	3.24	3.19
SEER***		3.18	3.39	3.20	4.18	4.25	4.32	4.15	-	4.58	4.52	4.39	4.88	5.05
ηs.c***		124	133	125	164	167	170	163	-	180	178	173	192	199
Heating														
Nominal Heating Capacity**	kW	28.0	36.8	46.3	52.1	64.8	78.5	91.4	-	126.1	146.7	172.9	197.3	223.7
Nominal Power Input	kW	8.5	9.8	12.4	14.4	17.8	22.1	25.8	-	35.1	40.9	51.2	50.1	56.1
COP*	kW/kW	3.31	3.77	3.74	3.62	3.65	3.55	3.54	-	3.59	3.59	3.38	3.94	3.99
SCOP**		2.82	3.16	3.14	3.59	3.53	3.42	3.40	-	3.65	3.67	3.34	3.64	3.77
ηs.h***		110	123	123	141	138	134	133	-	143	144	131	143	148
50 UC/UP-(V) - (R454B)	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Electric Heaters (Only 50 Series)														
Heating Capacity	kW	18.0	18.0	27.6	27.6	36.0	36.0	45.0	45.0	66.6	88.8	88.8	90.0	90.0
Capacity Steps		9.0 + 9.0	9.0 + 9.0	6.9 + 6.9 + 13.8	6.9 + 6.9 + 13.8	9.0 + 9.0 + 18.0	9.0 + 9.0 + 18.0	9.0 + 9.0 + 18.0	9.0 + 18.0 + 22.2	22.2 + 22.2 + 22.2	22.2 + 33.3 + 33.3	22.2 + 33.3 + 33.3	18.0 + 18.0 + 27.0 + 27.0	18.0 + 18.0 + 27.0 + 27.0
Rated Current	A	26	26	40	40	52	52	65	65	96	128	128	130	130
48 UC/UP-(V) - (R454B)	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Gas Heaters														
Net Heat Input (Min / Max)	kW	7.60 / 34.85	7.60 / 34.85	8.50 / 42.00	8.50 / 42.00	12.40 / 65.00	12.40 / 65.00	12.40 / 65.00	12.40 / 65.00	21.00 / 100.00	21.00 / 100.00	21.00 / 100.00	16.4 / 164.00	16.4 / 164.00
Heat Output (Min / Max)	kW	8.13 / 33.56	8.13 / 33.56	8.97 / 40.45	8.97 / 40.45	13.40 / 62.93	13.40 / 62.93	13.40 / 62.93	13.40 / 62.93	22.77 / 97.15	22.77 / 97.15	22.77 / 97.15	17.77 / 160.06	17.77 / 160.06
Efficiency	%	107 / 96	107 / 96	106 / 96	106 / 96	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97
Natural Gas Rate (G20)****	m³/h	0.80 / 3.69	0.80 / 3.69	0.90 / 4.44	0.90 / 4.44	1.31 / 6.88	1.31 / 6.88	1.31 / 6.88	1.31 / 6.88	2.22 / 10.58	2.22 / 10.58	2.22 / 10.58	3.48 / 17.36	3.48 / 17.36
Capacity Steps		Modulating												
Weight****	kg	48	48	58	58	72	72	72	72	118	118	118	196	196
Power Input (230 V-1 Ph-50 Hz)*****	W	11 / 74	11 / 74	15 / 65	15 / 65	15 / 97	15 / 97	15 / 97	15 / 97	20 / 130	20 / 130	20 / 130	20 / 123	20 / 123
Gas Connection		UNI/ISO 228/1-G 3/4"												

Physical Data

	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Refrigeration System														
Compressor Type		Scroll												
Refrigerant		R454B												
50/48UCV/UPV No of Circuits / No of Compressors	pcs	1 / 1	1 / 1	1 / 1	1 / 1	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3
50/48UC-/UP- No of Circuits / No of Compressors	pcs	1 / 1	1 / 1	1 / 1	1 / 2	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4
50/48UPV Charge: Circuit A - Circuit B	kg	7.0 / -	9.5 / -	11.0 / -	13.5 / -	11.0 / 11.0	13.5 / 13.5	13.5 / 13.5	- / -	17.0 / 19.0	21.0 / 19.0	21.0 / 20.0	26.5 / 26.5	28.0 / 28.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	3.3 / -	4.4 / -	5.1 / -	6.3 / -	5.1 / 5.1	6.3 / 6.3	6.3 / 6.3	- / -	7.9 / 8.9	9.8 / 8.9	9.8 / 9.3	12.3 / 12.3	13.0 / 13.0
50/48UP- Charge: Circuit A - Circuit B	kg	7.0 / -	9.5 / -	11.0 / -	16.5 / -	11.0 / 11.0	13.5 / 13.5	13.5 / 13.5	- / -	19.0 / 19.0	19.0 / 19.0	21.0 / 20.0	26.5 / 26.5	28.0 / 28.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	3.3 / -	4.4 / -	5.1 / -	7.7 / -	5.1 / 5.1	6.3 / 6.3	6.3 / 6.3	- / -	8.9 / 8.9	8.9 / 8.9	9.8 / 9.3	12.3 / 12.3	13.0 / 13.0
50/48UCV Charge: Circuit A - Circuit B	kg	7.0 / -	9.5 / -	11.0 / -	13.5 / -	11.0 / 11.0	14.0 / 14.0	14.0 / 14.0	- / -	17.0 / 19.0	21.0 / 19.0	21.0 / 20.0	26.5 / 26.5	28.0 / 28.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	3.3 / -	4.4 / -	5.1 / -	6.3 / -	5.1 / 5.1	6.5 / 6.5	6.5 / 6.5	- / -	7.9 / 8.9	9.8 / 8.9	9.8 / 9.3	12.3 / 12.3	13.0 / 13.0
50/48UC- Charge: Circuit A - Circuit B	kg	7.0 / -	9.5 / -	11.0 / -	16.5 / -	11.0 / 11.0	14.0 / 14.0	14.0 / 14.0	- / -	19.0 / 19.0	19.0 / 19.0	21.0 / 20.0	26.5 / 26.5	28.0 / 28.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	3.3 / -	4.4 / -	5.1 / -	7.7 / -	5.1 / 5.1	6.5 / 6.5	6.5 / 6.5	- / -	8.9 / 8.9	8.9 / 8.9	9.8 / 9.3	12.3 / 12.3	13.0 / 13.0
50/48UCV/UPV Oil: Circuit A - Circuit B	kg	1.3 / -	1.6 / -	3.3 / -	3.6 / -	1.6 / 3.2	3.3 / 3.2	3.3 / 3.2	3.6 / 4.92	3.6 / 6.6	7.7 / 6.6	7.7 / 6.6	7.7 / 7.2	7.7 / 9.7
50/48UC-/UP- Oil: Circuit A - Circuit B	kg	3.3 / -	3.3 / -	3.6 / -	6.6 / -	3.2 / 3.2	3.2 / 3.2	3.2 / 3.2	4.9 / 4.9	6.6 / 6.6	6.6 / 6.6	6.6 / 6.6	7.2 / 7.2	9.7 / 9.7
Indoor Coil														
Material		Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al
Coil Type		3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF
Rows / FPI		2 / 16	3 / 16	3 / 16	4 / 16	3 / 16	4 / 16	4 / 16	4 / 16	5 / 16	5 / 16	5 / 16	4 / 16	5 / 16
Condensate Drain Connection Size	mm	34	34	34	34	34	34	34	34	34	34	34	34	34
Outdoor Coil														
Material		Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al
Coil Type		3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF
Rows / FPI		2 / 16	2 / 16	2 / 16	3 / 16	2 / 16	3 / 16	3 / 16	3 / 16	4 / 16	4 / 16	3 / 16	3 / 16	4 / 16

*Nominal Eurovent conditions: outdoor air dry bulb temperature of 35°C, indoor air wet bulb temperature of 19°C.

**Nominal Eurovent conditions: outdoor air wet bulb temperature of 6°C, indoor air dry bulb temperature of 20°C.

***According to Commission Regulation (EU) 2016/2281 and related standard EN14825:2022.

****Natural gas (G20) net calorific value 34.02 MJ/m³ @ 15°C, 1.013 mbar.

*****Weight and power input values are valid for the heating modules.

Options

ADDITIONAL HEATERS: Condensing Gas Burner, Electric Heater, Hot Water Coil, Electric Pre-Heater

Indoor / Outdoor Coil Coating

ECONOMIZER: Thermostatic or Entalpic; IAQ control by CO₂ sensor

High Static Pressure Fan

Energy Recovery (Rotary or Thermodynamic)

High Efficient Filtration (G4, F7, G4+F7, M6+F7, F7 + F9)

Barometric Exhaust Damper, Power Exhaust Fan and Return Fan

Temperature Sensors (T55, T56, T59 or Duct)

Smoke Detector and Fire Thermostat

Building Management System Communication Protocols (Bacnet IP, Modbus TCP/IP & RTU)

Packing

Compressor Soft Starter

Energy Meter

Leak Detector (standard in R454B)

Outdoor Coil Protection Grill

UV-C Lamp

Humidity Control

IP55 Control Panel

Accessories

Roofcurb

Compressor Blanket

Programmable and Non-programmable Room Thermostats

CO₂ Sensor

Dirty Filter Detection

Zone Controller

Carrier Rooftop Units - 50/48 UC-(V) / UP-(V) - English - January 2025. All Rights Reserved.

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Physical Data

50/48 UCV - (R410A)	Unit	025	035	045	055	65	75	90	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Nominal Cooling Capacity*	kW	22.4	33.3	41.8	54.7	64.0	76.8	84.8	99.6	123.3	137.9	156.9	178.6	197.8
Nominal Power Input	kW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.3	62.6
EER*	kW/kW	3.24	3.29	3.01	3.17	3.43	3.41	3.20	2.83	3.29	3.18	3.16	3.01	3.16
SEER***		4.09	4.78	4.38	4.44	4.88	4.62	4.73	4.19	4.81	4.73	4.58	4.36	5.24
ηs.c***		161	188	172	175	192	182	186	165	189	186	180	171	208
50/48 UC - (R410A)	Unit	025	035	045	055	65	75	90	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Nominal Cooling Capacity*	kW	25.0	33.4	43.2	52.7	64.1	76.4	85.0	102.0	125.6	137.7	158.3	185.0	215.4
Nominal Power Input	kW	7.9	10.6	13.8	17.6	18.6	22.3	25.7	35.6	39.4	44.6	50.2	57.3	65.9
EER*	kW/kW	3.18	3.15	3.12	3.00	3.45	3.43	3.30	2.86	3.18	3.09	3.15	3.23	3.27
SEER***		3.42	3.48	3.51	4.13	4.45	4.56	4.19	3.90	4.55	4.37	4.38	4.90	5.01
ηs.c***		134	136	138	162	175	180	165	153	179	172	172	189	197
50/48 UPV - (R410A)	Unit	025	035	045	055	65	75	90	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Cooling														
Nominal Cooling Capacity*	kW	22.4	33.3	41.8	52.8	64.0	76.8	84.8	99.6	123.3	137.9	156.9	178.6	197.8
Nominal Power Input	kW	6.9	10.1	13.9	17.2	18.7	22.5	26.5	35.2	37.5	43.4	49.7	59.3	62.6
EER*	kW/kW	3.24	3.29	3.01	3.07	3.43	3.41	3.20	2.83	3.29	3.18	3.16	3.01	3.16
SEER***		4.09	4.78	4.38	4.37	4.88	4.62	4.73	4.19	4.81	4.73	4.58	4.36	5.28
ηs.c***		161	188	172	172	192	182	186	165	189	186	180	171	208
Heating														
Nominal Heating Capacity**	kW	24.5	35.1	46.7	58.4	64.3	82.7	92.1	115.0	130.3	151.7	181.0	186.3	205.4
Nominal Power Input	kW	7.0	9.4	12.6	15.0	17.9	23.4	26.4	33.7	35.9	41.7	53.1	50.2	53.4
COP*	kW/kW	3.51	3.75	3.71	3.90	3.60	3.54	3.49	3.41	3.63	3.64	3.41	3.71	3.85
SCOP**		3.21	3.58	3.61	3.79	3.67	3.42	3.38	3.22	3.69	3.57	3.32	3.41	3.54
ηs.h***		125	140	141	149	144	134	132	126	145	140	130	134	139
50/48 UP - (R410A)	Unit	025	035	045	055	65	75	90	105	125	140	160	190	220
Eurovent Performances at EN14511-2022														
Cooling														
Nominal Cooling Capacity*	kW	25.0	33.4	43.2	52.7	64.1	76.4	86.1	102.0	125.6	137.7	158.3	185.0	215.4
Nominal Power Input	kW	7.9	10.6	13.8	17.6	18.6	22.3	25.9	35.6	39.4	44.6	50.2	57.3	65.9
EER*	kW/kW	3.18	3.15	3.12	3.00	3.45	3.43	3.32	2.86	3.18	3.09	3.15	3.23	3.27
SEER***		3.42	3.48	3.51	4.13	4.45	4.56	4.21	3.90	4.55	4.37	4.38	4.90	5.01
ηs.c***		134	136	138	162	175	180	166	153	179	172	172	189	197
Heating														
Nominal Heating Capacity**	kW	28.9	37.1	47.8	56.4	65.0	81.6	93.1	116.6	133.1	150.9	182.6	208.6	228.8
Nominal Power Input	kW	8.8	9.9	13.3	15.3	17.6	22.5	25.9	34.2	37.3	42.0	53.2	54.5	57.8
COP*	kW/kW	3.29	3.73	3.60	3.68	3.69	3.63	3.59	3.41	3.57	3.59	3.43	3.83	3.96
SCOP**		2.76	3.08	3.02	3.54	3.33	3.39	3.33	3.33	3.52	3.55	3.27	3.61	3.68
ηs.h***		107	120	118	139	130	133	130	130	138	139	128	142	144
50 UC/UP-(V) - (R410A)	Unit	025	035	045	055	65	75	90	105	125	140	160	190	220
Electric Heaters (Only 50 Series)														
Heating Capacity	kW	18.0	18.0	27.6	27.6	36.0	36.0	45.0	45.0	66.6	88.8	88.8	90.0	90.0
Capacity Steps		9.0 + 9.0	9.0 + 9.0	6.9 + 6.9 + 13.8	6.9 + 6.9 + 13.8	9.0 + 9.0 + 18.0	9.0 + 9.0 + 18.0	9.0 + 9.0 + 18.0	9.0 + 18.0 + 22.2	22.2 + 22.2 + 33.3	22.2 + 33.3 + 33.3	22.2 + 33.3 + 33.3	18.0 + 18.0 + 27.0 + 27.0	18.0 + 18.0 + 27.0 + 27.0
Rated Current	A	26	26	40	40	52	52	65	65	96	128	128	108	108
48 UC/UP-(V) - (R410A)	Unit	025	035	045	055	65	75	90	105	125	140	160	190	220
Gas Heaters														
Net Heat Input (Min / Max)	kW	7.60 / 34.85	7.60 / 34.85	8.50 / 42.00	8.50 / 42.00	12.40 / 65.00	12.40 / 65.00	12.40 / 65.00	12.40 / 65.00	21.00 / 100.00	21.00 / 100.00	21.00 / 100.00	16.4 / 164.00	16.4 / 164.00
Heat Output (Min / Max)	kW	8.13 / 33.56	8.13 / 33.56	8.97 / 40.45	8.97 / 40.45	13.40 / 62.93	13.40 / 62.93	13.40 / 62.93	13.40 / 62.93	22.77 / 97.15	22.77 / 97.15	22.77 / 97.15	17.77 / 160.06	17.77 / 160.06
Efficiency	%	107 / 96	107 / 96	106 / 96	106 / 96	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97	108 / 97
Natural Gas Rate (G20)****	m³/h	0.80 / 3.69	0.80 / 3.69	0.90 / 4.44	0.90 / 4.44	1.31 / 6.88	1.31 / 6.88	1.31 / 6.88	1.31 / 6.88	2.22 / 10.58	2.22 / 10.58	2.22 / 10.58	3.48 / 17.36	3.48 / 17.36
Capacity Steps		Modulating												
Weight****	kg	48	48	58	58	72	72	72	72	118	118	118	196	196
Power Input (230 V-1 Ph-50 Hz)*****	W	11 / 74	11 / 74	15 / 65	15 / 65	15 / 97	15 / 97	15 / 97	15 / 97	20 / 130	20 / 130	20 / 130	20 / 123	20 / 123
Gas Connection		UNI/ISO 228/1-G 3/4"												

Physical Data

	Unit	025	035	045	055	065	075	090	105	125	140	160	190	220
Refrigeration System														
Compressor Type		Scroll												
Refrigerant		R410A												
50/48UCV/UPV No of Circuits / No of Compressors	pcs	1 / 1	1 / 1	1 / 1	1 / 1	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3	2 / 3
50/48UC-/UP- No of Circuits / No of Compressors	pcs	1 / 1	1 / 1	1 / 1	1 / 2	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4
50/48UPV Charge: Circuit A - Circuit B	kg	8.0 / -	10.5 / -	12.0 / -	15.0 / -	12.0 / 12.0	15.0 / 15.0	15.0 / 15.0	15.0 / 17.0	19.0 / 21.0	23.0 / 21.0	23.0 / 22.0	30.0 / 30.0	34.0 / 34.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	16.7 / -	21.9 / -	25.1 / -	31.3 / -	25.1 / 25.1	31.3 / 31.3	31.3 / 31.3	31.3 / 35.5	39.7 / 43.8	48.0 / 43.8	48.0 / 45.9	62.6 / 62.6	71.0 / 71.0
50/48UP- Charge: Circuit A - Circuit B	kg	9.0 / -	10.5 / -	12.0 / -	18.0 / -	12.0 / 12.0	15.0 / 15.0	15.0 / 15.0	17.0 / 17.0	21.0 / 21.0	21.0 / 21.0	23.0 / 22.0	32.0 / 32.0	34.0 / 34.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	18.8 / -	21.9 / -	25.1 / -	37.6 / -	25.1 / 25.1	31.3 / 31.3	31.3 / 31.3	35.5 / 35.5	43.8 / 43.8	43.8 / 43.8	48.0 / 45.9	66.8 / 66.8	71.0 / 71.0
50/48UCV Charge: Circuit A - Circuit B	kg	8.0 / -	10.5 / -	12.0 / -	15.0 / -	12.0 / 12.0	15.5 / 15.5	15.5 / 15.5	15.0 / 17.0	19.0 / 21.0	23.0 / 21.0	23.0 / 22.0	30.0 / 30.0	34.0 / 34.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	16.7 / -	21.9 / -	25.1 / -	31.3 / -	25.1 / 25.1	32.4 / 32.4	32.4 / 32.4	31.3 / 35.5	39.7 / 43.8	43.8 / 43.8	48.0 / 45.9	62.6 / 62.6	71.0 / 71.0
50/48UC- Charge: Circuit A - Circuit B	kg	8.0 / -	10.5 / -	12.0 / -	18.0 / -	12.0 / 12.0	15.5 / 15.5	15.5 / 15.5	17.0 / 17.0	21.0 / 21.0	21.0 / 21.0	23.0 / 22.0	32.0 / 32.0	34.0 / 34.0
Tons of CO ₂ equivalent A/B	tCO ₂ e	18.8 / -	21.9 / -	25.1 / -	37.6 / -	25.1 / 25.1	32.4 / 32.4	32.4 / 32.4	35.5 / 35.5	43.8 / 43.8	43.8 / 43.8	48.0 / 45.9	66.8 / 66.8	71.0 / 71.0
50/48UCV/UPV Oil: Circuit A - Circuit B	kg	1.3 / -	1.6 / -	3.3 / -	3.6 / -	1.6 / 3.2	3.3 / 3.2	3.3 / 3.2	3.6 / 4.92	3.6 / 6.6	7.7 / 6.6	7.7 / 6.6	7.7 / 7.2	7.7 / 9.7
50/48UC-/UP- Oil: Circuit A - Circuit B	kg	3.3 / -	3.3 / -	3.6 / -	6.6 / -	3.2 / 3.2	3.2 / 3.2	3.2 / 3.2	4.9 / 4.9	6.6 / 6.6	6.6 / 6.6	6.6 / 6.6	7.2 / 7.2	9.7 / 9.7
Indoor Coil														
Material		Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al
Coil Type		3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF
Rows / FPI		2 / 16	3 / 16	3 / 16	4 / 16	3 / 16	4 / 16	4 / 16	4 / 16	5 / 16	5 / 16	5 / 16	4 / 16	5 / 16
Condensate Drain Connection Size	mm	34	34	34	34	34	34	34	34	34	34	34	34	34
Outdoor Coil														
Material		Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al
Coil Type		3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF
Rows / FPI		2 / 16	2 / 16	2 / 16	3 / 16	2 / 16	3 / 16	3 / 16	3 / 16	4 / 16	4 / 16	3 / 16	3 / 16	4 / 16

*Nominal Eurovent conditions: outdoor air dry bulb temperature of 35°C, indoor air wet bulb temperature of 19°C.

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The quality management system of this product's assembly site has been certified in accordance with the requirements of the **ISO 9001** standard (latest current version) after an assessment conducted by an authorized independent third party. The environmental management system of this product's assembly site has been certified in accordance with the requirements of the **ISO 14001** standard (latest current version) after an assessment conducted by an authorized independent third party. The occupational health and safety management system of this product's assembly site has been certified in accordance with the requirements of the **ISO 45001** standard (latest current version) after an assessment conducted by an authorized independent third party. The security management system of this product's assembly site has been certified in accordance with the requirements of the **ISO 27001** standard (latest current version) after an assessment conducted by an authorized independent third party. Please contact your sales representative for more information. Manufacturer reserves the right to change any product specifications without notice.



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SANAYİ VE TİCARET A.Ş.**

GOSB - Gebze Organize Sanayi Bölgesi, Şahabettin Bilgisu Cad.

No:1604 Gebze 41480 KOCAELİ - TÜRKİYE

Phone: +90 262 648 60 00

Fax: +90262 648 60 08

www.alarko-carrier.com.tr

info@alarko-carrier.com.tr