

# RAHU Condensing unit

Unico 3,5-15,3 kW <sup>[R14]</sup>



- 1. Optional RCU-AHUBOX-1C module not included
- 2. Outdoor units have a 5-year warranty
- 3. RCU-AHUBOX module has a 2-year warranty

## Unit features



Digital DC Inverter SKY<sup>®</sup>



Automatic operation settings (heating/cooling)



Anti-corrosive gold fins



Operation with 0-10V control panels



Integrated expansion valve



Drip tray heater



Compressor crankcase heater



Self-diagnostics

## Characteristics of RAHU unit

The RCU-AHUBOX-1C communication module is compatible with external inverter units from the Imoto I26Xo, I35Xo, I50Xo, I70Xo and UNICO UO35Xo, UO50Xo, UO70Xo, UO90Xo, UO100Xo, UO120Xo, UO140Xo, UO160Xo series with capacities of 2,6 kW to 15,3 kW.

The Rotenso outdoor units, together with the air handling unit connection module, form an ideal solution to operate in cooling and heating mode. One air handling unit requires at least one RAHU kit.

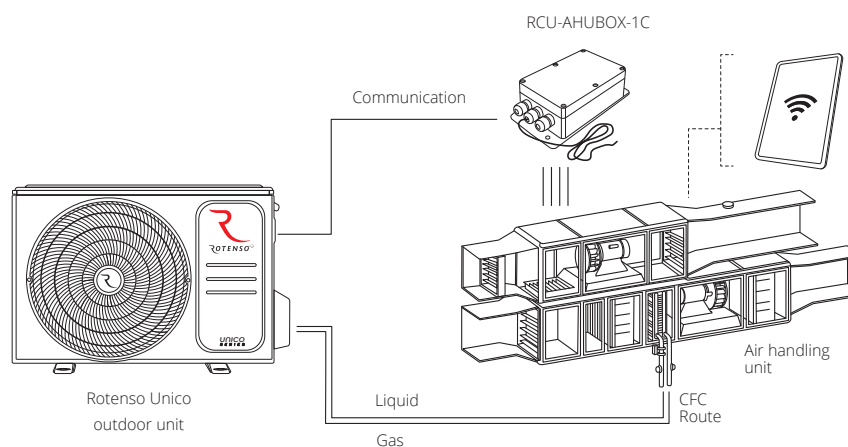
Control of the cooling/heating mode is made by a 0-10V voltage signal in the capacity range from 0 to 100%. The unit is equipped with a defrost and alarm mode control output.

# Technical specification

Air handling unit connection module				RCU-AHUBOX-1C			
EAN product code				5905567605130			
Control				0 - 10V			
RCU power supply type		V-Hz, Ø		220-240-50, 1f			
Control and power cables: outdoor unit - RCU		pcs × mm²		3 × 1,5			
Control cables: control unit - RCU		pcs × mm²		10 × 0,25			
Outdoor unit model				Unico UO35Xo R14	Unico UO50Xo R14	Unico UO70Xo R14	Unico UO90Xo R14
EAN product code				5905567601545	5905567601552	5905567601569	5905567601576
Capacity	Cooling	Nom. (Min. - Max.)	W	3517 (528-3988)	5275 (2550-5861)	7034 (3276-8156)	8792 (2227-9847)
Rated input		Nom. (Min. - Max.)	W	1053 (155-1373)	1530 (710-2150)	2190 (750-2960)	2500 (190-3050)
Operating current		Nom. (Min. - Max.)	A	4,6 (0,7-6,0)	6,7 (3,1-9,3)	9,5 (3,3-12,9)	10,9 (0,8-13,3)
Capacity	Heating	Nom. (Min. - Max.)	W	3810 (996-4389)	5868 (2198-6154)	7620 (2808-8486)	9378 (2696-10023)
Rated input		Nom. (Min. - Max.)	W	1038 (302-1390)	1510 (740-1760)	1900 (640-2580)	2250 (430-2450)
Operating current		Nom. (Min. - Max.)	A	4,5 (1,3-6,0)	6,6 (3,2-7,7)	8,3 (2,8-11,2)	9,8 (1,9-10,7)
Reversible heat pump type				air-to-air			
Fan speed		H / M / L	obr/min	780 / 690 / 600	760 / 705 / 650	800 / 700 / 580	900 / 750 / 550
Maximum air flow			m³/h	2200	2100	3500	3800
Sound pressure level			dB(A)	54	56	61	62
Sound power level			dB(A)	62	65	68	70
Net dimensions		W × D × H	mm	765 × 303 × 555	805 × 330 × 554	890 × 342 × 673	946 × 410 × 810
Gross dimensions		W × D × H	mm	887 × 337 × 610	915 × 370 × 615	995 × 398 × 740	1090 × 500 × 885
Bracket spacing		W × D	(mm)	452 × 286	511 × 317	663 × 348	673 × 403
Net weight / Gross weight			kg	26,6 / 29,0	32,5 / 35,2	43,9 / 46,9	52,8 / 57,3
Refrigerant	Type			R32	R32	R32	R32
	GWP			675	675	675	675
	Quantity (up to 5 lm)		kg	0,72	1,15	1,5	2,0
			TCO <sub>2</sub> eq	0,49	0,78	1,01	1,35
	Quantity (over 5 lm)		g/mb	12	12	24	24
Amount of refrigerant for the air handling unit's exchanger			according to the technical specifications of the PBX				
Pipe connections		Liquid/Gas	mm (inches)	Φ6,35 / Φ9,52 (1/4" / 3/8")	Φ6,35 / Φ12,7 (1/4" / 1/2")	Φ9,52 / Φ15,9 (3/8" / 5/8")	Φ9,52 / Φ15,9 (3/8" / 5/8")
Maximum installation length			m	8	8	8	8
Maximum height difference			m	1	1	1	1
Compressor type				Rotation DC			
Type of outdoor unit power supply		V-Hz, Ø		220-240-50, 1f		220-240-50, 1f	
Protection		A		C10		C16	
Power cables: outdoor unit		pcs × mm²		3 × 1,5		3 × 2,5	
Indoor operating range (Cooling / Heating)		°C		16-32 / 0-30		16-32 / 0-30	
Outdoor operating range (Cooling / Heating)		°C		-15-50 / -20-24		-15-50 / -20-24	
Outdoor unit compatibility							
1:1 SINGLE				•	•	•	•
1:2 DUAL						•	
1:X MULTI							
RAHU				•	•	•	•

RAHU capacity determined based on a piping length of 8m and a level difference of 1m.  
H-High, M-Mid, L-Low

# Connection diagram



# Technical specification

Air handling unit connection module				RCU-AHUBOX-1C			
EAN product code				5905567605130			
Control				0 - 10V			
RCU power supply type		V-Hz, Ø		220-240-50, 1f			
Control and power cables: outdoor unit - RCU		pcs × mm²		3 × 1,5			
Control cables: control unit - RCU		pcs × mm²		10 × 0,25			
Outdoor unit model				Unico UO100Xo R14	Unico UO120Xo R14	Unico UO140Xo R14	Unico UO160Xo R14
EAN product code				5905567601583	5905567601590	5905567601606	5905567601613
Capacity	Cooling	Nom. (Min. - Max.)	W	10551 (2726-11781)	12016 (2931-12309)	14067 (3517-15533)	15240 (4103-17291)
Rated input		Nom. (Min. - Max.)	W	4000 (890-4200)	4200 (680-4500)	4800 (880-6000)	5250 (1030-6650)
Operating current		Nom. (Min. - Max.)	A	6,8 (1,5-7,1)	18,3 (3,0-19,6)	8,1 (1,5-10,1)	8,9 (1,7-11,2)
Capacity	Heating	Nom. (Min. - Max.)	W	11723 (2784-12836)	13481 (3370-14067)	16119 (4103-18170)	18170 (4396-20515)
Rated input		Nom. (Min. - Max.)	W	3250 (780-4000)	3450 (750-4100)	4500 (950-5700)	5150 (950-6600)
Operating current		Nom. (Min. - Max.)	A	5,5 (1,3-6,8)	15,0 (3,3-17,8)	7,6 (1,6-9,6)	8,7 (1,6-11,1)
Reversible heat pump type				air-to-air			
Fan speed		H / M / L	obr/min	950 / 850 / 700	950 / 850 / 750	830 / 740 / 650	830 / 740 / 650
Maximum air flow			m³/h	4000	4000	7500	7500
Sound pressure level			dB(A)	62	64	65	65
Sound power level			dB(A)	70	75	74	74
Net dimensions		W × D × H	mm	946 × 410 × 810	946 × 410 × 810	952 × 415 × 1333	952 × 415 × 1333
Gross dimensions		W × D × H	mm	1090 × 500 × 885	1090 × 500 × 885	1095 × 495 × 1480	1095 × 495 × 1480
Bracket spacing		W × D	(mm)	673 × 403	673 × 403	634 × 404	634 × 404
Net weight / Gross weight			kg	75,5 / 80	71,0 / 75,0	103,7 / 118,3	107,0 / 121,2
Refrigerant	Type			R32	R32	R32	R32
	GWP			675	675	675	675
	Quantity (up to 5 lm)		kg	2,4	2,8	2,9	3,0
			TCO <sub>2</sub> eq	1,62	1,89	1,96	2,03
	Quantity (over 5 lm)		g/mb	24	24	24	24
Amount of refrigerant for the air handling unit's exchanger			according to the technical specifications of the PBX				
Pipe connections		Liquid/Gas	mm (inches)	Φ9,52 / Φ15,9 (3/8" / 5/8")	Φ9,52 / Φ15,9 (3/8" / 5/8")	Φ9,52 / Φ15,9 (3/8" / 5/8")	Φ9,52 / Φ15,9 (3/8" / 5/8")
Maximum installation length			m	8	8	8	8
Maximum height difference			m	1	1	1	1
Compressor type				Rotation DC			
Type of outdoor unit power supply		V-Hz, Ø		380-420-50, 3f	220-240-50, 1f	380-420-50, 3f	380-420-50, 3f
Protection		A		C10/3	C25	C16/3	C16/3
Power cables: outdoor unit		pcs × mm²		5 × 2,5	3 × 2,5	5 × 2,5	5 × 2,5
Indoor operating range (Cooling / Heating)		°C		16-32 / 0-30	16-32 / 0-30	16-32 / 0-30	16-32 / 0-30
Outdoor operating range (Cooling / Heating)		°C		-15-50 / -20-24	-15-50 / -20-24	-15-50 / -20-24	-15-50 / -20-24
Outdoor unit compatibility							
1:1 SINGLE				•	•	•	•
1:2 DUAL				•		•	•
1:X MULTI							
RAHU				•	•	•	•

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