



μRack

Solution for condensing units and compact compressor racks

The complete solution for compact and efficient compressor racks

μRack provides all the functionality for controlling condensing units and small compressor racks, ensuring reliability, efficiency and ease of use.

Key Features

- Control of 2 suction lines, up to 6 compressors in total and first modulating compressor on each line;
- control of a condensation line: EC modulating fans and up to 4 ON-OFF fans;
- energy saving: floating suction and floating condensing setpoints;
- connectivity: Integrated BMS, NFC and Bluetooth.

μRack was created to renew the proposal of controls for condensing units and small compressor racks. Usability has been revolutionised through state-of-the-art connectivity, which complements the precision control and energy-saving features developed and established in CAREL's range of compressor rack controllers.



✓ Support for different types of compressors. Pistons, scrolls.

✓ Dedicated functions for oil return. For protection of the compressors.

✓ Modulation of the cooling capacity. AC inverter, flow-rate setting and PWM with SSR.

✓ Complete suite of Software tools. For configuration of the controls from PC and on the production line.



Compressor protection

Prevention of liquid return to the compressors with low overheating control to maximise machine reliability.



Interaction with mobile devices

Advanced connectivity and next-generation user experience. The simplicity and effectiveness of the configuration from smartphones and tablets can reduce the unit's initial start-up time and simplify maintenance activities.



Energy savings

Features such as floating condensation, fan modulation, and compressor speed regulation allow energy consumption to be minimised.



APPLICA

Distinctive element in the μ Rack range is wireless connectivity with NFC (Near Field Communication) and Bluetooth interface to interact with mobile devices via the CAREL App "APPLICA". This facilitates the operations of:

- parameter configuration;
- commissioning of the unit in the field;
- after-sales technical support.



boss





Plant supervision with boss and RED optimise cloud services

μ Rack, with its built-in BMS port, can be connected to a supervisor for local and remote monitoring of the machine's performance.

The RED optimise cloud platform enables logging of operating data, simplifying maintenance, malfunction diagnostics and measurement of energy savings.

Available versions

The new μ Rack proposal offers customers a scalable range with increasing numbers of I/Os and features. It thus turns out to be a reliable control for both super-compact condensing units and larger cooling capacities.

	U20R00MRK0380	U20R00MRK390	U20R00MRK0300 + AX2000PD20030
			
Digital outputs	5x SPST 5A	6x SPST 5A	5x SPST 5A, 1x SSR 0.4A
Analog outputs	2x 0-10 V	2x 0-10 V	2x 0-10 V
Analog inputs	3x NTC/PT1000 2x 0-5 V/4-20 mA/NTC 1x 0-10 V/NTC/0-5 V/4-20 mA/ PT1000	3x NTC/PT1000 1x NTC 2x 0-5 V/4-20 mA/NTC 1x 0-10 V/NTC/0-5 V/4-20 mA/PT1000	3x NTC/PT1000 1x NTC 2x 0-5 V/4-20 mA/NTC 1x 0-10 V/NTC/0-5 V/4-20 mA/PT1000
Digital inputs	5 voltage free	6 voltage free	6 voltage free
Power supply	24 Vac/Vdc	24 Vac/Vdc	24 Vac/Vdc
Connectivity	NFC + BLE	NFC + BLE	NFC + BLE
Serial ports	2 RS485	2 RS485	2 RS485
Mounting	panel	on DIN rail	on DIN rail
Remote display	-	-	AX2000PD20030
Alternative code w/o BLE	UR0R00MRK0280	U20R00MRK0290	-

Headquarters

CAREL INDUSTRIES HQs
Via dell'Industria, 11
35020 Brugine - Padova (Italy)
carel@carel.com



HygroMatik GmbH

Lise-Meitner-Straße 3
24558 Henstedt-Ulzburg - Germany
hy@hygromatik.de

RECUPERATOR

Via Valfurva 13
20027 Rescaldina (MI), Italy
customercare@recuperator.eu

ENGINIA S.r.l.

Viale Lombardia, 78
20056 Trezzo Sull'Adda (MI), Italy
commerciale@enginasrl.com

For more information

CAREL Asia - www.carel.hk
CAREL Australia - www.carel.com.au
CAREL Central & Southern Europe - www.carel.com
CAREL Czech & Slovakia - www.carel.cz
CAREL spol. s.r.o.
CAREL Deutschland - www.carel.de
CAREL China - www.carel-china.com
CAREL France - www.carelfrence.fr
CAREL Korea - www.carel.kr
CAREL Ibérica - www.carel.es
CAREL Ireland - www.carel.ie
FarrahVale Controls & Electronics Ltd.
CAREL Italy - www.carel.it
CAREL India - www.carel.in
CAREL Japan - www.carel-japan.com

CAREL Mexicana - www.carel.mx
CAREL Middle East - www.carel.ae
CAREL Nordic - www.carelnordic.se
CAREL Poland - www.carel.pl
ALFACO POLSKA Sp z o.o.
CAREL Russia - www.carelrussia.com
CAREL South Africa - www.carel.com
CAREL Sud America - www.carel.com.br
CAREL Thailand - www.carel.co.th
CAREL Turkey - www.carel.com.tr
CFM Sogutma ve Otomasyon San. Tic. Ltd.
CAREL U.K. - www.careluk.com
CAREL U.S.A. - www.carelusa.com
CAREL Ukraina - www.carel.ua
CAREL Canada - www.enersol.ca
Enersol Inc.

CAREL

To the best of CAREL INDUSTRIES S.p.A. knowledge and belief, the information contained herein is accurate and reliable as of the date of publication. However, CAREL INDUSTRIES S.p.A. does not assume any liability whatsoever for the accuracy and completeness of the information presented without guarantee or responsibility of any kind and makes no representation or warranty, either expressed or implied. A number of factors may affect the performance of any products used in conjunction with user's materials all of which must be taken into account by the user in producing or using the products. The user should not assume that all necessary data for the proper evaluation of these products are contained herein and is responsible for the appropriate, safe and legal use, processing and handling of CAREL's products. The information provided herein does not relieve the user from the responsibility of carrying out its own tests, and the user assumes all risks and liabilities related to the use of the products and/or information contained herein. © 2022 CAREL INDUSTRIES S.p.A. All rights reserved.