

COLDFACE

Controllers for static and ventilated cold rooms



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Coldface series controllers ensure the control of all static or ventilated cold room functions in a single device.

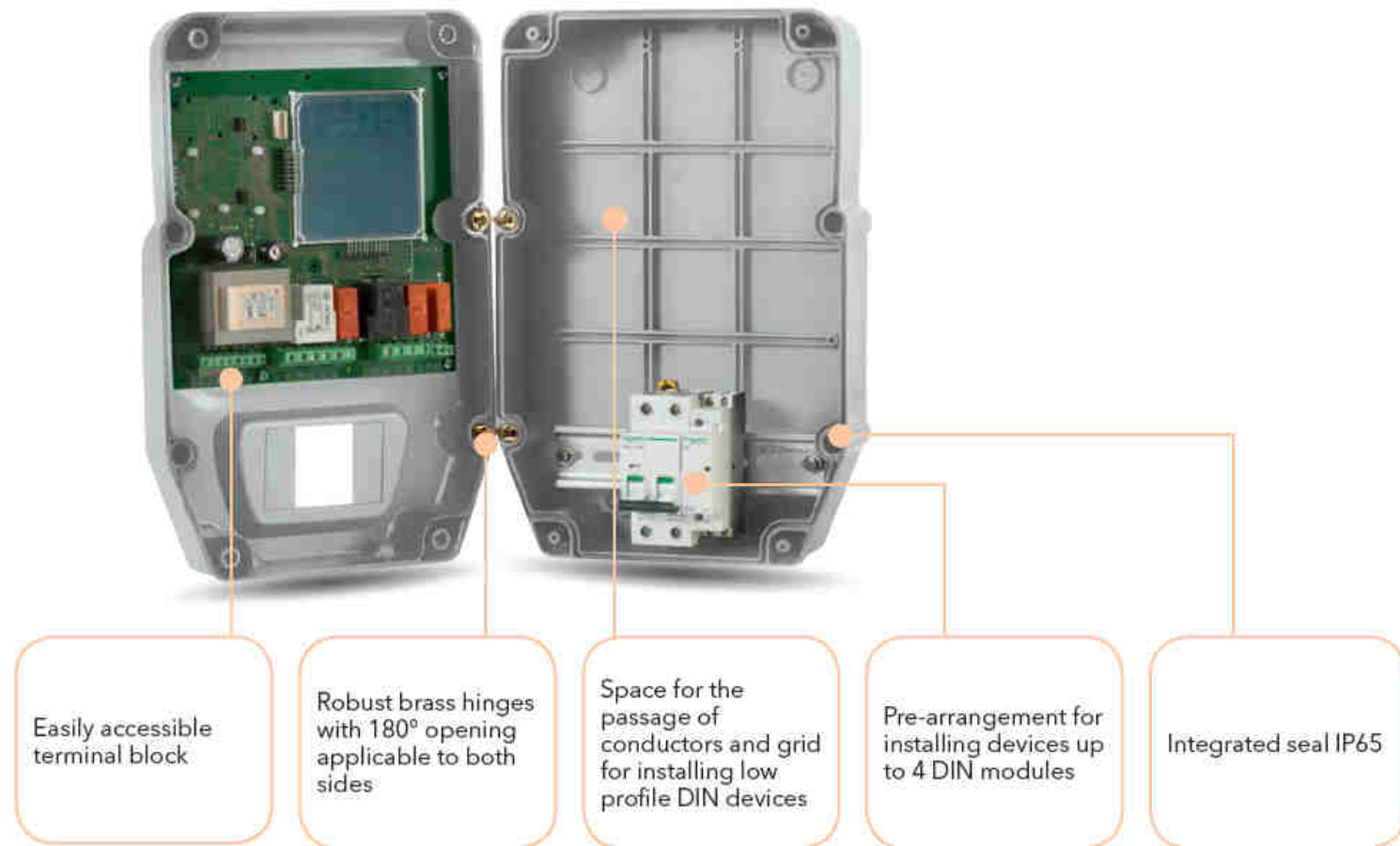
The enclosure, with innovative design for on-board installation, combines ease of installation, water resistance and the possibility of installing magneto-thermal switches on a DIN rail.

The versions with door on the front panel allow direct access to the magneto-thermal switch to manually stop the power supply.

The controllers are available with a series of advanced functions, such as the logging of HACCP events with a yearly calendar, Pump down management and programmed defrosts.



COLDFACE – A first look at the inside



COLDFACE – The available models

EWRC 500 NT HACCP 4DIN with BREAKER

5 configurable outputs, with RTC on board and yearly calendar HACCP management.
Including magneto-thermal switch

EWRC 500 NT 4DIN with BREAKER

5 configurable outputs.
Including magneto-thermal switch

EWRC 500 NT HACCP 4DIN

5 configurable outputs, with RTC on board and yearly calendar HACCP management.
4 DIN pre-arrangement

EWRC 500 NT 4DIN

5 configurable outputs
4 DIN pre-arrangement



EWRC 500 NT HACCP

5 configurable outputs, with RTC on board and yearly calendar HACCP management

EWRC 500 NT

5 configurable outputs

EWRC 300 NT

3 configurable outputs

COLDFACE – EWRC300 & 500 technical details

	EWRC 300 NT	EWRC 500 NT	EWRC 500 NT BREAKER	Notes
Enclosure rating	IP65	IP65	IP65	
Installation	wall	wall	wall	
Dimensions max	213x318x102mm	213x318x102mm	221x318x107mm	
Power supply	230V~ / 11VA	230V~ / 11VA	230V~ / 11VA	
Miniature Circuit Breaker			230V~ Icn 4500 A 2P	Miniature Circuit Breaker
Rated breaker current	-	-	In = 16A	
Rated impulse voltage			4 KV	
Terminals	Screw-type	Screw-type	Screw-type	
Digital outputs	2HP 250V~ AC1 SPST	2HP 250V~ AC1 SPST	2HP 250V~ AC1 SPST	compressor
	16A 250V~ AC1 SPST	16A 250V~ AC1 SPST	16A 250V~ AC1 SPST	defrost
	8(3)A 250V~ AC1 SPST	8(3)A 250V~ AC1 SPST	8(3)A 250V~ AC1 SPST	fans
	-	16A 250V~ AC1 SPST	16A 250V~ AC1 SPST	light
	-	8(3)A 250V~ AC1 SPST	8(3)A 250V~ AC1 SPST	alarm /auxiliary
Digital inputs	2 voltage free	2 voltage free	2 voltage free	
Analogue inputs	3 x NTC / PTC*	3 x NTC / PTC*	3 x NTC / PTC*	selectable
Connectivity	RS-485 Televis/ Modbus	RS-485 Televis/ Modbus	RS-485 Televis/ Modbus	with Optional Module
RTC Clock	optional	optional	optional	
HACCP	optional	optional	optional	
Operating temperature	-5...+50°C	-5...+50°C	-5...+50°C	
Operating humidity	10...90% RH	10...90% RH	10...90% RH	non-condensing

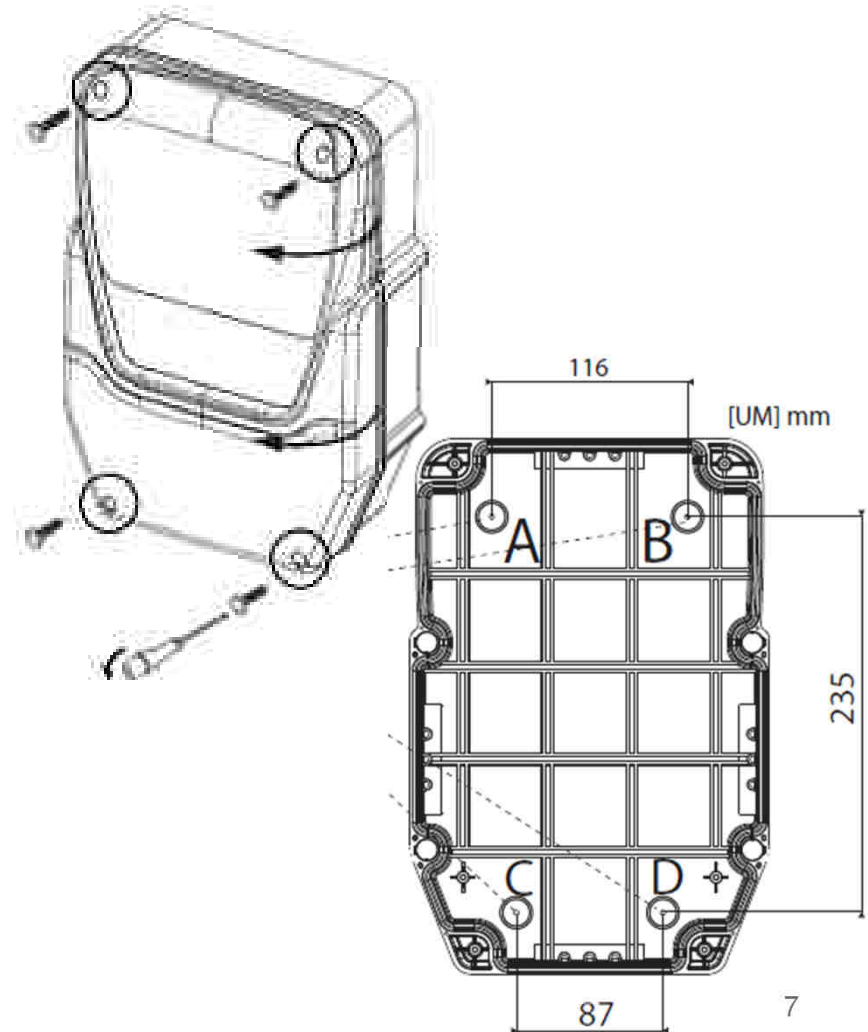
COLDFACE – Main control functionalities

- › Complete control: Compressor, evaporator fans, defrost heater\valve, condenser fan, light
- › Advanced control: Pump-Down, HACCP alarm data storage with annual calendar, Deep Cooling Cycle
- › Complete diagnostic: Temperature alarms, pressure switch, door switch
- › Monitoring systems: Compatibility with Televis System and ModBus RTU



COLDFACE – The box installation

- › The wall installation is very simple
- › The bottom side now can be detached from the top cover making easier the wall mounting
- › The top cover opening can be done toward left or right
- › Quick and convenient accessibility to the wiring connections



COLDFACE – The user interface

- › Double-row color display
- › Large digits
- › Large buttons with direct functions activation
- › Embedded large and colored icons



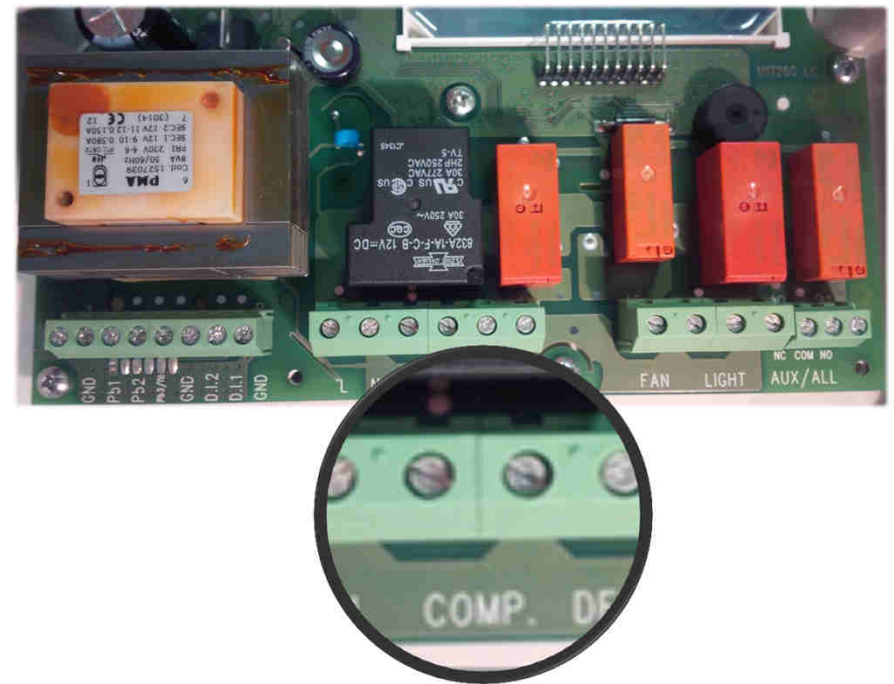
COLDFACE – The hardware characteristics

- › Up to 5 relay outputs fully configurable
- › Direct control up to 2HP single-phase
- › Up to 3 temperature inputs (Ntc\Ptc selectable by parameter)
- › Up to 2 dry contact digital inputs fully configurable
- › Built- In audible alarm
- › Direct connection to RS485 thru opto-isolated Plug-In module optional



COLDFACE – The hardware characteristics

- › Easy connection on screw terminal block
- › Relays with Common line up to 18Amps to increase the robustness
- › Independent SPDT alarm relay @ 8Amps
- › Factory configuration printed on electronic board



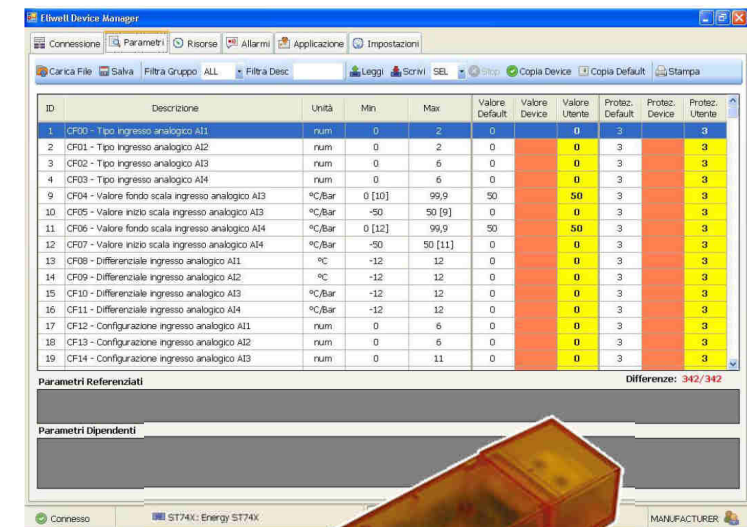
COLDFACE – The plastic enclosure

- › Brand new plastic enclosure in PC-ABS
- › Large internal room for wiring and electromechanical device (More space 2x previous EWRC)
- › Double internal free space vs previous EWRC
- › Robust brass hinges applicable either o left or right side
- › Over-molded integrated gasket to protect from water splash (IP65 instead of the IP54 on the previous EWRC)



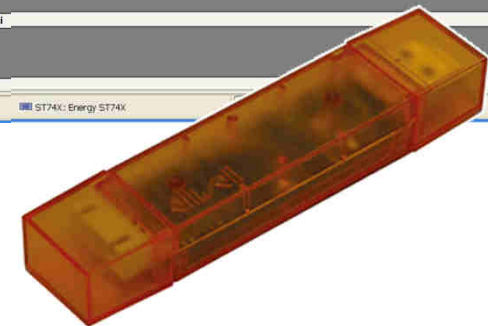
COLDFACE – The product commissioning

- › Quick access to a dedicate menu with the frequently used parameters
- › Quick programming by means of memory keys: Copy card, Unicard, Multi Function Keys
- › Quick programming via Personal Computer by means of Device Manager software tool
- › On field upgrading. Thanks to the embedded boot loader, EWRC NT can be updated



The screenshot shows the Etwell Device Manager software interface. The main window displays a table of parameters for an ST74X Energy ST74X device. The table has columns for ID, Descrizione, Unità, Min, Max, Valore Default, Valore Device, Valore Utente, Protez. Default, Protez. Device, and Protez. Utente. The table lists 19 parameters, including analog inputs (AI1, AI2, AI3, AI4), analog outputs (AO1, AO2, AO3, AO4), and digital inputs (DI1, DI2, DI3, DI4). The Valore Device column is highlighted in yellow, and the Protez. Device column is highlighted in orange. Below the table, there are sections for Parametri Referenziati and Parametri Dipendenti. The status bar at the bottom shows 'Connesso' and 'ST74X: Energy ST74X'.

ID	Descrizione	Unità	Min	Max	Valore Default	Valore Device	Valore Utente	Protez. Default	Protez. Device	Protez. Utente
1	CF00 - Tipo ingresso analogico AI1	num	0	2	0	0	0	3	3	3
2	CF01 - Tipo ingresso analogico AI2	num	0	2	0	0	0	3	3	3
3	CF02 - Tipo ingresso analogico AI3	num	0	6	0	0	0	3	3	3
4	CF03 - Tipo ingresso analogico AI4	num	0	6	0	0	0	3	3	3
9	CF04 - Valore fondo scala ingresso analogico AI3	%C/Bar	0 [10]	99,9	50	50	0	3	3	3
10	CF05 - Valore inizio scala ingresso analogico AI3	%C/Bar	-50	50 [9]	0	0	0	3	3	3
11	CF06 - Valore fondo scala ingresso analogico AI4	%C/Bar	0 [12]	99,9	50	50	0	3	3	3
12	CF07 - Valore inizio scala ingresso analogico AI4	%C/Bar	-50	50 [11]	0	0	0	3	3	3
13	CF08 - Differenziale ingresso analogico AI1	%C	-12	12	0	0	0	3	3	3
14	CF09 - Differenziale ingresso analogico AI2	%C	-12	12	0	0	0	3	3	3
15	CF10 - Differenziale ingresso analogico AI3	%C/Bar	-12	12	0	0	0	3	3	3
16	CF11 - Differenziale ingresso analogico AI4	%C/Bar	-12	12	0	0	0	3	3	3
17	CF12 - Configurazione ingresso analogico AI1	num	0	6	0	0	0	3	3	3
18	CF13 - Configurazione ingresso analogico AI2	num	0	6	0	0	0	3	3	3
19	CF14 - Configurazione ingresso analogico AI3	num	0	11	0	0	0	3	3	3



COLDFACE – The product connectivity

- › Compatible with Eliwell supervision Televis systems
- › Compatible with Modbus third party systems



COLDFACE – Summary: easy choice

Coldface series controllers are **easy to choose** thanks to:

- › Single-phase compressors up to 2HP
- › Versions with 3 and 5 relays configurable for the complete management of all loads
- › Models with clock for programmed defrosts and HACCP functions with yearly calendar
- › Highly configurable for every application need
- › Flame retardant enclosure with high internal capacity, resistant to water splashes

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COLDFACE – Summary: easy installation

Coldface series controllers are **easy to install** thanks to:

- › Fast wiring thanks to the screw terminals, 230V~ direct power supply and large space inside the enclosure
- › Guided wall-mounted application
- › Direct access to power supply switches
- › Ergonomic layout and placement of wiring connection with common line
- › Ground dedicate for each input. No common line for signals
- › 180° opening door with robust brass hinges convertible (left/right hand)
- › Large internal volume to ease cable handling and positioning

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COLDFACE – Summary: easy to use

Coldface series controllers are intuitive and **easy to use** thanks to:

- › Intuitive user interface with simplified menu and standard Eliwell parameters
- › Direct access to the most used parameters
- › Double high-visibility display for quick reading of the cold room status
- › Luminous icons and six large-size keys for direct access to functions
- › Easy to use keyboard and associated functions

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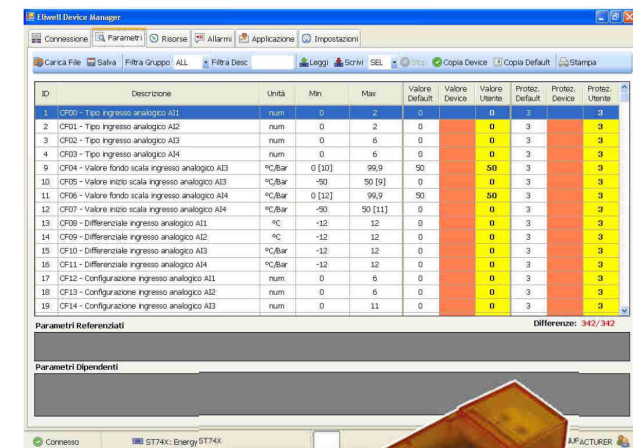
COLDFACE – Summary: easy commissioning

Coldface series controllers are **easy to commission** thanks to:

- › Device Manager software for quick set-up and programming
- › UNICARD memory stick for quick set-up and programming

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COLDFACE – Part numbers

EWRC 500 NT HACCP 4DIN with BREAKER

Part number: **RCA3UDSX2E700**

5 configurable outputs, with RTC on board and yearly calendar HACCP management. Including magneto-thermal switch

EWRC 500 NT 4DIN with BREAKER

Part number: **RCA3UDRX2E700**

5 configurable outputs.
Including magneto-thermal switch

EWRC 500 NT HACCP 4DIN

Part number: **RCA3UDTX2E700**

5 configurable outputs, with RTC on board and yearly calendar HACCP management.
4 DIN pre-arrangement

EWRC 500 NT 4DIN

Part number: **RCA3UDLX2E700**

5 configurable outputs
4 DIN pre-arrangement



EWRC 500 NT HACCP

Part number: **RCS3UDTX2E700**

5 configurable outputs, with RTC on board and yearly calendar HACCP management

EWRC 500 NT

Part number: **RCS3UDLX2E700**

5 configurable outputs

EWRC 300 NT

Part number: **RCS3HDLX2E700**

3 configurable outputs

elivell

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