



## EKC 202 Refrigeration Controller series

The series of EKC 202 controllers can be used for a wide range of different refrigeration applications – from control of air temperatures and defrost to more advanced applications, including control of light and fans.

**Compact hardware design:** Integration of 230 V a.c. voltage supply, four relays and built-in "super cap" real time clock without compromising with the dimensions. A selection of supplementary modules makes it possible to extend the functionality with, say, RS 485 network card and battery back-up.

**IP65 rating guaranteed:** Danfoss' innovative plastic moulding technology has made it possible to integrate push buttons as well as front packing in the controller's front panel.

**Quick and safe programming:** The "Copy key" programming key with room for 25 controller setups ensures a quick and safe factory programming.

**HACCP and EN 441-13:** Factory calibration ensures that the measuring accuracy of all EKC 202 controllers in combination with a Pt 1000 sensor is better than required in EN 441-13 without any subsequent calibration.

## Functions

### Thermostat

- ON/OFF heating or cooling thermostat
- Sensors: Danfoss Pt1000, PTC1000 or NTC5000
- Day / night control
- Thermostat band
- Alarm thermostat with delay

### Defrost

- Electrical, natural or hot gas defrost
- Start via DI input, time interval or schedule (RTC)
- Defrost on demand
- Stop on time or temperature
- Coordinated defrost

### Compressor

- Anti cycle timers for optimum protection
- High-effect 16A relays for connection of compressors without use of intermediate relays

### DI input

- Multi purpose DI input for defrost start, door function, night setback, main switch, appliance cleaning, general alarm, defrost coordination and thermostat band.

### Fan

- Fan delay during defrost
- Fan stop when compressor cuts out
- Fan stop at high S5 temperature

### Light control

- Light control of day/night, door, or via network

### Other functions

- S5 sensor can be used for monitoring of condenser temperature or as product sensor
- Door function with alarm monitoring
- Manual control of outputs
- Case cleaning function

### Supplementary options

- RS 485 network card for connection to network
- Battery back-up card for real time clock
- "Copy key" programming key

### EKC 202D specialities

- 3 applications selectable
- Weighted thermostat, alarm thermostat and display readout between S3 and S4
- Railheat control for day/night load

## Advantages



### HACCP and EN 441-13:

Factory calibration ensures that all EKC 202 controllers in combination with a Pt 1000 sensor have a measuring accuracy better than +/-1°C in the temperature range between -30°C and +15°C.



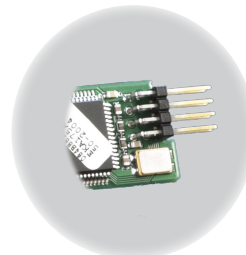
### Quick and easy installation:

The integrated mounting brackets in the controller's housing ensure a quick and easy mounting of the panel.



### IP 65 rating guarantee:

Integration of push buttons and packing in the controller's front panel ensures a cleaning-safe tightness.



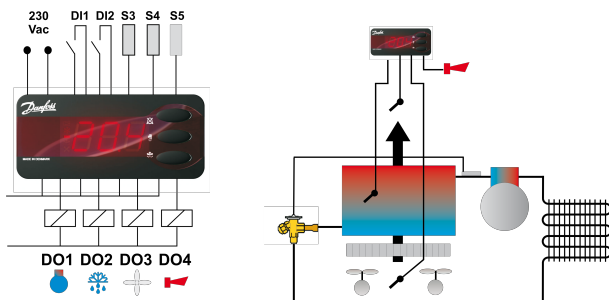
### Quick and easy programming:

The "Copy key" programming key can save up to 25 different controller setups. A valuable tool when controllers have to be programmed without risk of errors.

## Electric connections and applications

Below example is showing electrical wiring diagram for application 1 of EKC 202D.

The table on the right hand side shows an overview for all controllers.



Controller	Application no.	Outputs				Inputs				
		DO1	DO2	DO3	DO4	S3	S4	S5	DI1	DI2
EKC 202A	Only 1						•	•	•	
EKC 202B	Only 1						•	•	•	
EKC 202C	Only 1						•	•	•	
EKC 202D	1					•	•	•	•	•
	2					•	•	•	•	•
	3					•	•	•	•	•

Danfoss A/S, DK-6430 Nordborg, Denmark, Tel. +45 7488 2222, Fax +45 7488 5757, [www.danfoss.com](http://www.danfoss.com)

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed.

All trademarks in this material are property of the respective companies. Danfoss and Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.