



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 $\pm 1^\circ\text{C}$ in the temperature range between -30°C and $+15^\circ\text{C}$.



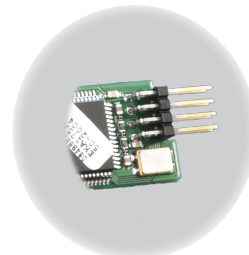
Quick and easy installation:

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.



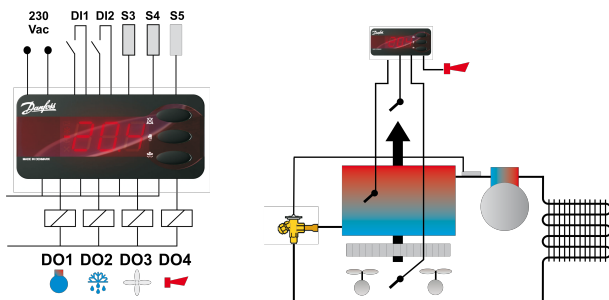
Quick and easy programming:

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	Applica- tion 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					•	•	•	•	•

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