



Danfoss EKC 102C1 Temperature Controller Instructions

[Home](#) » [Danfoss](#) » Danfoss EKC 102C1 Temperature Controller Instructions 

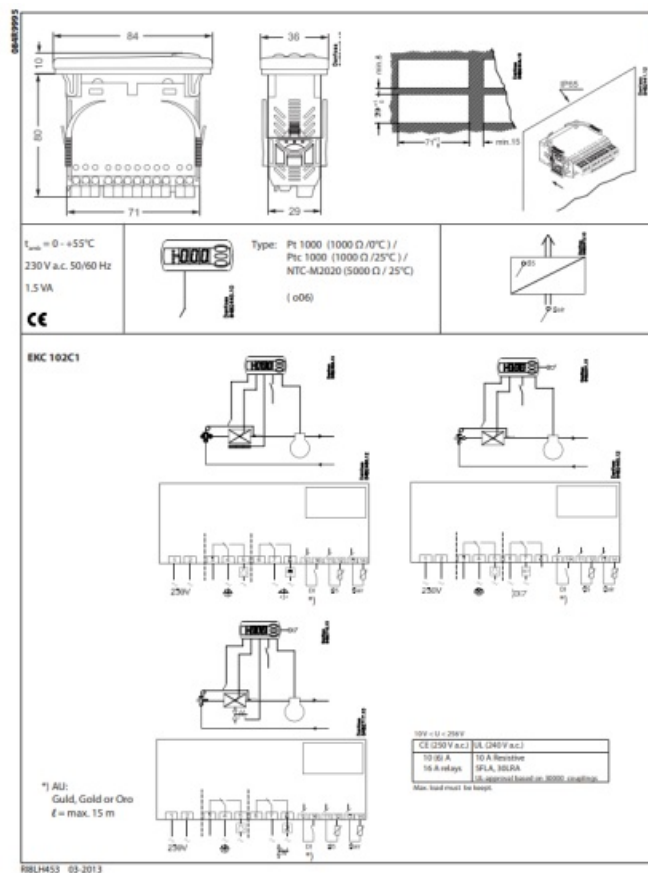


REFRIGERATION AND AIR CONDITIONING
INSTRUCTIONS
EKC 102C1
084B8508

Contents

- [1 EKC 102C1 Temperature Controller](#)
- [2 Documents / Resources](#)
 - [2.1 References](#)

EKC 102C1 Temperature Controller



The buttons

Set menu

1. Push the upper button until a parameter is shown
2. Push the upper or the lower button and nd that parameter you want to change
3. Push the middle button until the parameter value is shown
4. Push the upper or the lower button and select the new value
5. Push the middle button again to enter the value.

Set temperature

1. Push the middle button until the temperature value is shown
2. Push the upper or the lower button and select the new value
3. Push the middle button to select the setting.

See temperature at the other temperature sensor

- Push briefly the lower button
Manuel start or stop of a defrost
- Push the lower button for four seconds.

Light emmiting diode



= refrigeration



= defrost

Flashes fast at alarm

See alarm code

Push briefly the upper button

Start-up:

Regulation starts when the voltage is on.

Go through the survey of factory settings. Make any necessary changes in the respective parameters.

Parameters		Min.- value	Max.- value	Factory setting	Actual setting
Function	Codes				
Normal operation					
Temperature (set point)	—	-50°C	90°C	2°C	
Thermostat					
Differential	r01	0,1 K	20 K	2 K	
Max. limitation of setpoint setting	r02	-49°C	90°C	90°C	
Min. limitation of setpoint setting	r03	-50°C	89°C	-10°C	
Adjustment of temperature indication	r04	-20 K	20 K	0 K	
Temperature unit (°C/°F)	r05	°C	°F	°C	
Correction of the signal from Sair	r09	-10 K	10 K	0 K	
Manual service, stop regulation, start regulation (-1, 0, 1)	r12	-1	1	1	
Displacement of reference during night operation	r13	-10 K	10 K	0 K	
Alarm					
Delay for temperature alarm	A03	0 min	240 min	30 min	
Delay for door alarm	A04	0 min	240 min	60 min	
Delay for temperature alarm after defrost	A12	0 min	240 min	90 min	
High alarm limit	A13	-50°C	50°C	8°C	
Low alarm limit	A14	-50°C	50°C	-30°C	
Compressor					
Min. ON-time	c01	0 min	30 min	0 min	
Min. OFF-time	c02	0 min	30 min	0 min	
Compressor relay must cut in and out inversely (NC-function)	c30	OFF	On	OFF	
Defrost					
Defrost method (0=none / 1*=natural / 2=gas)	d01	0	2	1	
Defrost stop temperature	d02	0°C	25°C	6°C	
Interval between defrost starts	d03	0 hours	48 hours	8 hours	
Max. defrost duration	d04	0 min	180 min	45 min	
Displacement of time on cut in of defrost at start-up	d05	0 min	240 min	0 min	

Defrost sensor 0=time, 1=S5, 2=Sair	d10	0	2	0	
Defrost at start-up	d13	no	yes	no	
Max. aggregate refrigeration time between two defrosts	d18	0 hours	48 hours	0 hours	
Defrost on demand – S5 temperature's permitted variation during frost build-up. On central plant choose 20 K (=off)	d19	0 K	20 k	20 K	
Miscellaneous					
Delay of output signals after start-up	o01	0 s	600 s	5 s	
Input signal on DI1. Function: (0=not used. , 1= door alarm when open. 2=defrost start (pulse-pressure). 3=ext.main switch. 4=night operation	o02	0	4	0	
Access code 1 (all settings)	o05	0	100	0	
Used sensor type (Pt /PTC/NTC)	o06	Pt	ntc	Pt	
Display step = 0.5 (normal 0.1 at Pt sensor)	o15	no	yes	no	
Access code 2 (partly access)	o64	0	100	0	
Save the controllers present settings to the programming key. Select your own number.	o65	0	25	0	
Load a set of settings from the programming key (previously saved via o65 function)	o66	0	25	0	
Replace the controllers factory settings with the present settings	o67	OFF	On	OFF	
Select application for S5 sensor (0=defrost sensor, 1= product sensor)	o70	0	1	0	
Select application for relay 2: 1=defrost, 2= alarm relay, 3= drain valve	o71	1	3	3	
Period time between each time the drain valve is activated	o94	1 min	35 min	2 min	
Opening time for the drain valve (During defrost is the valve open)	o95	2 s	30 s	2 s	
Seconds setting. This setting is added to the minutes in 094	P54	0s	60 s	0 s	
Service					
Temperature measured with S5 sensor	u09				
Status on DI1 input. on/1=closed	u10				
Status on relay for cooling Can be controlled manually, but only when r12=-1	u58				
Status on relay 2 Can be controlled manually, but only when r12=-1	u70				

* 1 => Electric if o71 = 1
SW = 1.3X

Alarm code display	
A1	High temperature alarm
A2	Low temperature alarm
A4	Door alarm
A45	Standby mode
Fault code display	
E1	Fault in controller
E27	S5 sensor error
E29	Sair sensor error
Status code display	
S0	Regulating
S2	ON-time Compressor
S3	OFF-time Compressor
S10	Refrigeration stopped by main switch
S11	Refrigeration stopped by thermostat
S14	Defrost sequence. Defrosting
S17	Door open (open DI input)
S20	Emergency cooling
S25	Manual control of outputs
S32	Delay of output at start-up
non	The defrost temperature cannot be displayed. There is no sensor
-d-	Defrost in progress / First cooling after defrost
PS	Password required. Set password

Factory setting

If you need to return to the factory-set values, it can be done in this way:

- Cut out the supply voltage to the controller
- Keep upper and lower button depressed at the same time as you reconnect the supply voltage

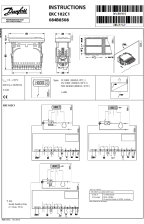
Instructions RI8LH453 © Danfoss



The Product contains electrical components And may not be disposed together with domestic waste. Equipment must be separate collected with Electrical and Electronic waste. According to Local and currently valid legislation.



Documents / Resources

	<p>Danfoss EKC 102C1 Temperature Controller [pdf] Instructions 084B8508, 084R9995, EKC 102C1 Temperature Controller, EKC 102C1, Temperature Controller, Controller</p>
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References

- [User Manual](#)

Manuals+. [Privacy Policy](#)

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