

Installation Guide

ERC 112

Bottle Cooler Controller

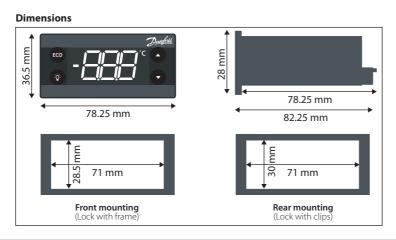


DKRCE.PI.RL0.A3.02
520H10340

Technical specification

Power Supply	100 – 240 V AC Switch	mode power	supply. Ave	erage 0.7 W						
Input Output Probes	5 inputs: 4 analogue (die	gital), 1 digital;	user specific	assignment						
	Air / Evaporator / Cond	or: all types, user specific								
	Light sensor: Danfoss E sensor	CO light	 Motion ser 	nsor						
		UL60730		EN60730						
Input Output Probes Connectors Programming	"DO1"	120 V AC: 16 FLA 16/LRA 3								
	(Compressor relay)	240 V AC: 10 FLA 10 / LRA		16(16) A						
	"DO4"	8 & resistive FLA 2 / LRA								
	"DO5"	FLA 2 / LRA 1	2, TV-1	8 A resistive, 2(2) A						
	"DO6"	FLA 2 / LRA 1	2, TV-1	8 A resistive, 2(2) A						
Probes		Max 10 A total "DO4-6"								
Probes	Danfoss NTC sensors ar Danfoss PT1000 ohm /		D accessories	;						
Connectors	Modular connector system in a ladapter Input connector type: I output connector type	Rast2 5 Edge co	onnectors	th optional output screw						
Programming	Programming with Danf			KoolDock						
Assembly	3 types for all controls: front mounting; bracket (requires OEM specific d	s; fully integrat	ed solution							

splay	LED display, 3 digit, decimal point and	multi functionality icons; °C / °F scale
ypad	4 buttons (integrated IP65 design), 2 le	ft, 2 right; user programmable
perating		
onditions	0 C - 55 C, 95%1H	
orage	40 °C 85 °C 0304 -U	
onditions	-40 C - 85 C, 95%1H	
nge of	10 °C 95 °C	
easurement	-40 C - 65 C	
	Front: IP65	
otection	Rear: water and dust protection corresponds to IP31, accessibility of connectors limit rear part rating to IP00 Pollution degree II, non-condensing Category D (UL94-V0) Category I 25 Compressor relay: more than 175.000 at full load (16 A (16 A)) • R290 / R600a end-use applications employing in accordance to EN / IEC 60335-2-24, annex CC and EN / IEC 60335-2-24, annex CC and EN / IEC 60335-2-24, annex CC and EN / IEC 60335-2-49, annex B8 • Glow wire according to EN / IEC 60335-1 / IEC / EN 60730 • NJSF • CQC • EAC	
	accessibility of connectors limit rear pa	rt rating to IP00
vironmental	Pollution degree II, non-condensing	
sistance to		
at & fire	Category D (0E94-V0)	
AC category	Category I	
perating Cycles	Compressor relay: more than 175.000 a	at full load (16 A (16 A))
	EN / IEC 60335-2-24, annex CC and	
	EN / IEC 60335-2-89, annex BB	
	 Glow wire according to 	Those approvals are only valid when
oprovals	EN / IEC 60335-1 / IEC / EN 60730	
	• UL60730	using the accessories approved
	• NSF	
	• CQC	
	• EAC	
	• Ukraine	



Functional description of used sensors

Control temperature sensor

The control sensor must always be connected and is used for controlling the cut-in and cut-out of the compressor according to the set-point. The sensor is also used for the displayed temperature. Most common placement is in the return air to the evaporator.

Evaporator sensor

The evaporator sensor is only used for de-icing of the evaporator and has no control purpose. Place the sensor where the ice melts last. Please be aware of that sharp fins can damage the cable.

Condenser temperature sensor

The condenser sensor is used to protect the compressor against high pressure when the condenser is blocked or the condenser fan fails. Place the sensor at the liquid side of the condenser. Use a metal bracket or metal tape to ensure good thermal conductivity. Be sure that the cable does not pass hot spots at the compressor or condenser that exceeds 80 °C.

ERC front and button functionality



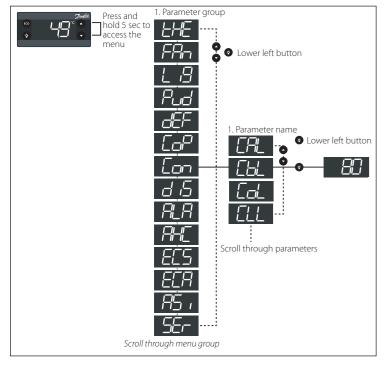
c	onfigurable fu	nctionality	/			<u> </u>		
в	utton	Basic function	Not operating	ON/OFF	Increase setpoint	Decrease setpoint	Toggle defrost	Toggle light
1	press	OK						
1	pess and hold							
2	press	BACK						
2	pess and hold							
3	press	UP						
3	pess and hold							
4	press	DOWN						
4	pess and hold							

Configurable functionalit	ty

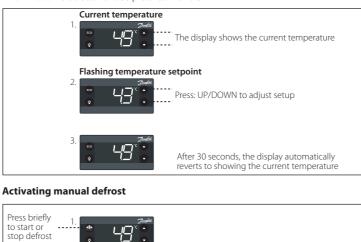
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31	utton	Toggle ECO	Toggle pull- down	Increase display intensity	Decrease display intensity	Toggle °C or °F	Enter holiday	Toggle winter/ summer	Info menu
	press								
	pess and hold								
)	press								
)	pess and hold								
3	press								
;	pess and hold								
ļ	press								
ŀ	pess and hold								

Menu structure

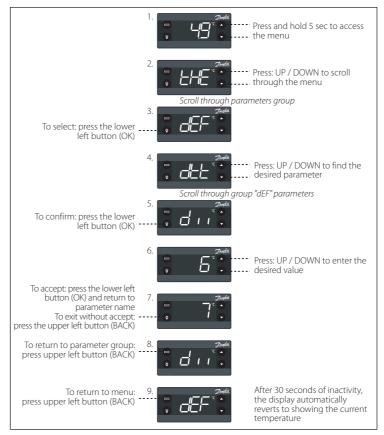


Operation Changing the setpoint: Two kinds of left buttons - see pictures 1. and 3.

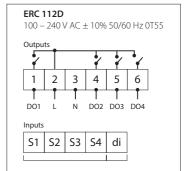


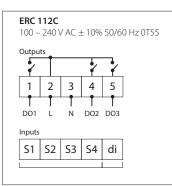


Example of changing a parameter



Wiring diagram





Configuration of outputs

Relay outputs	Compress.	Defrost	Fan	Light	Alarm	Heating application
DO1 (o1C)						
DO2 (o2C)						
DO3 (o3C)						
DO4 (o4C)						

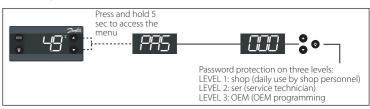
Configuration of inputs

Input/ sensor	Cabinet sensor	Evapor. sensor	Conden. sensor	Door sensor	Light sensor	Movem. sensor	Comm.
S1							
S2							
S3							
S4							
di							

Turning ON/OFF the ECO function



Password protection



Acknowledging alarm



e alarm code flashing alternately th the temperature and the arm symbol is displayed

fter the acknowledge the nperature is displayed and the n symbol remains shown



Press any button to acknowlege

Parameter table

Parameter name	Menu code	Description	Def	Min Max	setting	u Parameter name		Description	Def Min	Max U	nit setting	Menu	Parameter name	Menu code Description	Def	Min	Max	Ur
Set point		Main menu for thermostatic settings Set point value	2.0	-100.0 200.0	°⊂ Displ			Display settings no: Display intensity use fixed value	00 00	VEC		Assign.		ASi Assignment of inputs and outputs USA no: MODBUS auto detection is enabled USA Construction of the second sec			VES	
Set point adjustment ratio	SPr	Actual value of setpoint. Adjustment = diF * SPr	0.5	0.0 1.0		Display intensity auto control	-	VES: Display intensity controlled automaticlly by ambient light Normal Intensity of display when no ambient light sensor is attached	no no	yES			MODBUS Safety Temp Adi, for S1	uSA yEs: MODBUS communication is deactivaed t1A Adjust value for sensor1 before being used by application	no	no -20.0	yES 20.0	
Differential High Set point		Thermostat differential for serving High limitation of thermostat setpoint in position warm	2.0 50.0	0.0 20.0		Display Intensity	din	Minimum intensity when ambient light sensor is attached	10 2	10			Temp Adj. for S2	t2A Adjust value for sensor2 before being used by application	0.0	-20.0	20.0	K
Low Set point		Low limitation of thermostat setpoint in position cold		-100.0 200.0		Display Unit	CFu	C=Celsius. F=Fahrenheit SCo: Temperature control	-C -C	-F		-	Temp Adj. for S3 Temp Adj. for S4	t3A Adjust value for sensor3 before being used by application t4A Adjust value for sensor4 before being used by application	_	-20.0	20.0	
Initial cut in	iCi	Comp relay action when Tair is between Cut-in and Cut-out at power-up	no	no yES		Temp sensor to display	trS	EuA: Evaporator temperture Con: Condenser temperature (Condenser cleaning)	SCo SCo	AuS			ланр нај. ЮГ УТ	Sensor type used for sensor input 1/2/3	0.0	20.0	20.0	^
initial car in		yES: Cut in the compressor no: Cut out the compressor		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				AuS: Only for showing on display			_		S1/S2/S3 Config	S1C Stn: Standard NTC 5k @ 25 °C (EKS211) in Celsius S2C Htn: High temperature NTC 100k @ 25 °C in Celsius	Stn	Stn	dig	
Seasonal offset temperature	SP2	Offset value for set point and alarms when the seasonal offset button is activated.	0	-25 25	к	Display Resolution	rES	0.1: Decimal with 0.1 degree resolution 0.5: Decimal with 0.5 degree resolution	0.1 0.1	1				S3C Ldr: Light sensor(LDR). Luminens dig: Digital input. On / Off				
Seasonal differential	dF2	Temperature differential during seasonal offset mode. This diffe-	2	0 20	к		-	1: Integers no: Disabled. display is allowed to go outside of				-		Stn: Standard NTC 5k @ 25 °C (EKS211). in Celsius Htn: High temperature NTC 100k @ 25 °C. in Celsius				[
		rential not applicable during ECO mode. Main menu for fan settings	-			Display Range Limit	rLt	'ThSP - diF*SPr ~ ThSP + diF* (1 - SPr)' yES: Enabled. display is not allowed to go outside of	no no	yES			S4 Config	S4C Pt1: PT1000 sensor 1000K @ 0 °C. in Celsius	Stn	Stn	dig	
Ean control mathed	FCt	FAo: Fan always on	FAo	FAO Aut				ThSP - diF*SPr ~ ThSP + diF*(1 - SPr)'			_			Ldr: Light sensor(LDR). Luminens dig: Digital input. On / Off				4
Fan control method	FCI	SEt: Fan follow compressor by manually settings Aut: Automatical Fan control	FAO	FAO AUL		Display Delay	ddL	Time-constant for averaging of temperature at display Temp value reaches 100 % when 5 * ddL expires	0 0	10 m	nin			Select the function to be controlled via the Sensor 1 / 2 / 3 nC: Not connected				
Fan On Delay		Delay for fan start after compressor cutin	0	0 240		Display Offset	doF	Correction for bad sensor placement. Value at 0 °C	0.0 -10.0	10.0	K			SCo: Temperature control EuA: Evaporator temperture				
Fan Stop delay Fan On Cycle		Delay for fan stop after compressor cutout On time for fan during compressor off period	0	0 240	Sec	Lock-time After defrost	dLt	In order not to show a rising temperature during defrosting, the displayed temperature is locked at the temperature shown at the	15 0	60 m	nin		S1/S2/S3 Application	Con: Condenser temperature (Condenser cleaning)	SCo	nC	doo	
Fan Stop Cycle		Stop time for fan during compressor off period	0	0 960		Lock and Alter Genost		start of the defrost cycle for the number of minutes set in this parameter. 0=No lock						AuS: Only for showing temperature on display Ldr: Light sensor(LDR). Luminens				
Fan Minimum Stop time		Minimum Stop time for fan protection Delta T for fan to cut in which the temperature offset comparing	10	0 960	Sec	Show Economy/Night Mode	SEC	no: "ECo" and "ngt" will not be showed for Economy / Night Mode yES: "ECo" or "ngt" will be displayed through whole	no no	yES		71		ECo: External input to control ECO mode doC: Door contact. Contact closed when door closed				
∆t for fan to cut in	FdC	with thermostat cut in temperature	0.0	-10.0 10.0	ĸ	Show Economy/Night Mode	JLC	Économy / Night Mode		yL3				doo: Door contact. Contact open when door closed Select the function to be controlled via the Sensor 4 input				-
Fan delay on door open	Fdt	0: Fan stop immediately when door open 1~998: delay for fan stop after door open	0	0 999	Sec	Show Pull Down	SSC	no: "SC" will not be showed for Pull down state yES: "SC" will be displayed through whole Pull down state	no no	yES				nC: Not connected SCo: Temperature control				/
E P N .	51.	999: fan keep running all the time during door opening This parameter defines the maximum evaporator temperature at	50	0 50		Show Holiday	SHo	no: Display will show temperature or ECO mode during holiday mode yES: Display will show "HoL" during holiday mode	no no	yES		7		EuA: Evaporator temperture				/
Fan limit temperature	FLt	which the Fan must switch OFF.	50	0 50		Show Defrost	SdF	no: Display will show temperature during defrost	yES no	VES			S4 Application	S4A AuS: Only for showing temperature on display	nC	nC	bt5	
Fan limit Delta temperature	FdF	This is the evaporator delta temperature for the fan to switch ON after it is switched off due to FLt setting.	2	1 10	К		-	yES: Display will show dEF during defrost no: Compressor symbol will not show on display	-			-		Ldr: Light sensor (LDR). Luminens ECo: External input to control ECO mode				
	Lig	Main menu for Light settings on: Always ON (Button is default to control light for all these options)				Show compressor symbol	SCS	yES: Show compressor symbol on display	yES no	yES	_			doC: Door contact. Contact closed when door closed doo: Door contact. Contact open when door closed				
Cabinet Light Control Source	e CLC	oFF: Always OFF	on	on dor		Show Fan symbol	SFS	no: Fan symbol will not show on display yES: Show fan symbol on display	yES no	yES				bt5: Button5 Select the function to be controlled via the digital I/O				_
Light off delay	Lod	dor: Door sensor only Delay to turn off the cabinet light after door close. 0=No delay	0	0 300	Sec	Show Defrost symbol	SdS	no: Defrost symbol will not show on display vES: Show defrost symbol on display	yES no	yES				non: Not used. (If communication is available depending on				
n		Main menu for pull-down settings				Show ECO symbol	SES	no: ECO symbol will not show on display	-	yES		11	DI Config	diC doC: Door contact. Contact closed when door closed	non	non	Pir	
Pull-down Initiate Temperatu	ure Pit	Temperature measured by control-sensor that will trigger the pull-down mode	50.0	-40.0 50.0	°C			yES: Show ECO symbol on display Temperature displayed by the controller, if the probe value is less	-					doo: Door contact. Contact open when door closed ECo: External input to control ECO mode				
Pull-down Cycling	PCy	The duration of the thermostatic operation at pull-down mode The periode will start first time the controller reaches the PCt	30	0 360	min	Minimum Display value	Ld	than minimum display value.	-100 -100.0	200.0 °	°C			Pir: Movement sensor (Passive infrared)				c
Pull-down defrost Interval	Pdi	Defrost interval during pull-down	15	0 48	hour	Maximum display value	Hd		200 -100.0	200.0	'C		DO1 Config	CoP: Compressor (With ZeroCrossing) PIC: Pilot compressor (No ZeroCrossing) Ut here a utat it hosting a policiting (With ZeroCrossing)	CoP	CoP	PiH	4
Pull-down defrost interval		Over-rules the defrost interval in normal mode Max time for pull-down mode from initiated till terminated	24		hour	. ,		trend of the probe is increasing			C I	-		HEt: Inverse output. Heating application (With ZeroCrossing) PiH: Pilot Heat relay (No ZeroCrossing)				4
Pull-down limit temp	Pdd	The calculated cutout temp for pulldown mustn't lower than this	0.0	-55.0 55.0	°C Alarr	Signalling threshold value		Temperature limit for Maximum display visualization Main menu for alarm settings	200 -100.0	200-0				no: Not used dEF: Electric defrost heater / Valve for hot gas				
	, Lt	limit to prevent freezing of product This progressive temp value is used for calculating cutin temp and	3.0	55.0 55.0		High Temp Alarm	HAt	High alarm limit	15.0 -100.0		C]	DO2 Config	o2C ALA: Alarm output FAn: Fan control	dEF	0	Lig	
Pull-down reduction temp ∆	∆t Prt	Cutout temp for Pull-down mode: Pulldown-Cutin = NormalCutin - Δt * Hours	0.1	0.0 10.0	к	Low Temp Alarm High Alarm delay		Low alarm limit Alarm delay time for high-temperature alarm	-50.0 -100.0 30 0	200.0 °	nin	┥┟────		Lig: Light control				_
		Pulldown-Cutout = NormalCutout - $\Delta t *$ Hours				Low Alarm delay		Alarm delay time for low-temperature alarm	0 0	240 m	nin	1	DO3 Config DO4 Config	o3C Same as DO2 Config o4C Same as DO2 Config		0	~ -	_
	dEF	Main menu for Defrost settings no: Defrost function is disabled				Pulldown delay	Pdd	Alarm delay time during & after defrost and after power up (Only for high-temp. alarm)	240 0	960 m	nin		o o r coring	Config of key 1 short. Lower left	LIG	U	LIY	
Defrost type	dFt	nAt: Natural defrost. time defrost	no	no Hgd		Door Open delay	dod	Alarm delay on open door Alarm. 0=Disable	2 0	60 m	nin]		noP: Not operating tP: Increase Setpoint				2
		EL: Electrical heater Hgd: Hot gas defrost		.5-		Voltage alarm	uAL	no: No voltage alarm yES: Voltage alarm activated	no no	yES				tr: Decrease setpoint b1C ECo: Toggle Eco mode				2
Adaptive defrost	Add	no: Defrost controlled by time yES: Automatic defrost control activated	no	no yES		Leakage alarm	LEA	Leakage detection for compressor protection. 0=Disable	0 0	96 ho	our		Button 1 Short Config	b2C Lig: Toggle light b3C dEF: Toggle defrost	noP	noP	CFA	2
Def terminate temp	dtt	Defrost stop temperature	6.0	0.0 25.0	°C			0: Buzzer is off [0. 999]: Buzzer will continue for the time set by the parameter						SuP: Toggle Super-Cool /Pull-down				/
Def reset temp	drt	Defrost timer reset temperature 0-199: normal evaluation between evaporator/air temp and drt	5.0	0.0 200.0	∘⊂	Alarm Buzzer Duration	Abd	in minutes in which process the sound format is such as	0 0	999 m	nin			diP: Increase display intensity din: Decrease display intensity				/
		200: disable drt function			hour			999: Buzzer continues for ever with						CFA: Toggle Celsius and Fahrenheit Config of key 1 long. Iower left				4
Def Min Interval Def Max Interval		Minimum Interval between defrost starts Maximum Interval between defrost starts	~	1 96 1 96	hour hour			no: Disable this function; alarm status will not disappear				11		noP: Not operating tP: Increase Setpoint				
Def Min Time	dit	Minimum defrost time	5	0 240	min	Auto Clearance of Alarm	ACA	automatically without acknowledge by user even if the alarm recovers	VES	VEC				tn: Decrease setpoint				
Def Max time Drip off time		Maximum defrost time Drip off delay time		0 480		Auto clearance or Alarm	ACA	inactive automatically on condition that the alarm recovers	yES no	yES				ECo: Toggle Eco mode Lig: Toggle light				
Fan delay after Defrost		Delay for fan start after defrost	0	0 600	sec	-		(Errors are always auto-clearance enabled) Main menu for Street cooler settings					Button 1 Long Config	b1L dEF: Toggle defrost b2L SuP: Toggle Super-Cool /Pull-down	PoF	noP	tEc	
Fan start Temp	Ftd	Fan start temperature after defrost. it's based on evaporator temperature.	25.0	-25.0 25.0	°⊂ Auto Heat	er	AHC	(Street-Cooler : Coolers placed in the street with frost						b3L diP: Increase display intensity din: Decrease display intensity				
Defrost Fan on		This only applies if an evaporator temperature sensor is fitted Fan cutin during defrost		no vES	Cont	Automatic heater mode	A. 11	protection) yES: Heater will be active if air-temperature is too low		550		1		CFA: Toggle Celsius and Fahrenheit PoF: ERC power ON/OFF				
Defrost Fan on Defrost on compressor time		no: Elapsed time	no	no yes no yes		enable	AuH	no: Normal operation Delay between heater and compressor operation		yES 360 m	hip			HoL: Enter holiday mode inF: Enter Info menu				
Defrost by compressor	_	yES: Accumulated compressor run time Continuous compressor running can cause defrost	10			Energy mode delay Auto Heat set point		Heater Set point: the set point of auto heating	2.0 -100.0	200.0 °	°C 🛛]	Putton 4 Short Corf-	"tEc": Toggle Winter & Summer Eco mode	+	noD	CEA	c
running time	doC	0: Deactived	0	0 24	hour	Auto heat differential			2.0 0.0				Button 4 Short Config	b4C Config of key 4 short. Lower right. As key 1 short Config of key 4 long. Lower right	u)	noP	CFA	4
Defrost start evaporator temperature	dEt	Defrost start trigger for adaptive defrost	-50.0	-50.0 0.0	°C ECO strate		ECS	Main menu for ECO strategy						noP: Not operating tP: Increase Setpoint				
Defrost ∆t	ddt	Defrost Δt compare with evporator temperature of first cut out after defrost to triager defrost start	5.0	0.0 30.0	К	ECO on / off	ECo	Eco active or not If no all other settings are not active	yES no	yES]		tr: Decrease setpoint tr: Decrease setpoint				
Initial Defrost Interval		First time defrost after power-up	3		hour	Door Actions		Times of door action to trigger exiting ECO	1 1	10				ECo: Toggle Eco mode				
		Determine defrost or not while startup by relay1 counter 0: Disable idi function				Pir Actions		Times of PIR action to trigger exiting ECO	1 1	10			Button 4 Long Config	Lig: Toggle light b4L dEF: Toggle defrost	Lig	noP	tEc	
Initial Defrost Duration	idd	1-998: Normal evaluation between idd and relay 1 counter 1999: idi salways enabled	100	0 999	cycle	Action counter time	ECt	Door action or PIR action within action counter time can trigger exiting ECO	30 0	180 m				SuP: Toggle Super-Cool /Pull-down diP: Increase display intensity				
or	CoP	Main menu for Compressor timer settings				Door delay Pir delay		Door delay after door close to trigger entering ECO PIR delay to trigger entering ECO	180 0 120 0	180 m				din: Decrease display intensity CFA: Toggle Celsius and Fahrenheit				
Voltage protection	uPt	no: No voltage protection yES: Voltage protection activated based on voltage related settings	no	no yES				Shop light level during opening hours				11		PoF: ERC power ON/OFF HoL: Enter holiday mode				
Minimum Cutin voltage	uLi	yes: voltage protection activated based on voltage related settings Compressor must not be cut in if power supply goes lower than	0	0 270	Vac	Shop Light Day	SLd	When above this level ECO mode is canceled Disabled if no light sensor connected/assigned	5 0	80				"tEc": Toggle Winter & Summer Eco mode				e
Minimum cut-out voltage	uLo	Compressor must be cut out if power supply goes lower than	0	0 270	Vac	Shop Light Night	SLn	Shop light level during closing hours When below this level ECO mode is enabled	3 0	80				Config of key 5 short. Lower right noP: Not operating				
Maximum voltage	uHi	Maximum supply voltage for the compressor to postpone startup or stop at	270	0 270	Vac	Shop Light Night	SLN	Disabled if no light sensor connected/assigned	5 0	80			Button 5 Short Config	b5C ECo: Toggle Eco mode SuP: Toggle Super-Cool / Pull-down	noP	noP	dEF	/
Sensor Error Type	EHd	no: No sensor error handling SEt: In case of control sensor error, follow error run/stop time	no	no SEt		Time to pull down	tto	Time which ERC stay in ECO and holiday mode to decide to enter Pull down or Serving mode	0 0	168 ho	our			Lig: Toggle light dEF:Toggle defrost				/
Error run time		Run time for compressor in case of control probe error	0	0 60	min	Light Source delay on ECO	LSd	Time delay for light source to change from serving mode source	0 0	180 m	nin	1		Config of key 5 long. Lower right				
Error stop time Min Stop time		Stop time for compressor in case of control probe error Minimum OFF time for compressor		0 60	min	EWU active		to ECO mode source				1		InoP: Not operating ECo: Toggle Eco mode				
Min run time		Minimum OFF time for compressor Minimum ON time for compressor	0	0 30		on / off		Enable or disable early wake up	, , , ,	yES	_		Button 5 Long Config	b5L Sup: Toggle Super-Cool / Pull-down Lig: Toggle light	noP	noP	HoL	
Max Off time		Maximum OFF time for compressor	0	0 480		Shop close hour	CLH	Shop is assumed to be closed when staying in ECO mode longer than shop close hour	6 0	24 ho	our			dEF: Toggle defrost PoF: ERC power ON / OFF				
Compressor door open delay System resume after door op		Door open delay to stop compressor. 0 = Disable Fan and Compressor resume after cut out by door open. 0=Disable	0	0 15 0 60		Early wake up time offset	ErL	Time of exiting ECO mode for next day: Time of first activity to exit ECO mode - the Early wake-up time	120 0	240 m	nin			HoL: Enter holiday mode				-
Power On Delay		Delay time from power on until the outputs are activated	300	0 300				0: Éarly wake up function disabled					Pass-word level1	Shop owner Most common parameters for instance real time clock. day / night	0	0	999	2
Power-on temperature	Pot	If Air temperature at power up is higher than this, power on delay is overruled	-100	-100 200	℃	Holiday Length	HoL	In case that no activity has been registered for a number of days specified by the Holiday, the Early-wake-up is deactivated and the cooler must stay in Holiday mode until activity is detected	72 0	999 ho	our			mode etc. 0: Disabled		0	555	/
er	Con	Blocked condenser protection.			FCO	manag.		cooler must stay in Holiday mode until activity is detected Main menu for ECO management						Service technician				
n Condenser Alarm Limit	_	Alarm limit for condenser temperature	00	0 200	℃	ECO Temperature Offset	Eto	If this offset is below zero, it means that Night mode will be	4.0 -25.0	25.0	к	1	Pass-word level2	PS2 all parameters with read permission and possibility to change a number of parameters like defrost, fan etc.	0	0	999	
Condenser Alarm Limit	CAL	Available only if condensor sensor is attached / assigned	80	0 200				activated instead of ECO mode Increase or decrease of temperature with respect to normal mode						0: Disabled OEM Customer			+ +	Å
1	CbL	Stop limit. If this temperature is exceeded, compressor must be stopped	85	0 200	∘	Holiday Temperature Offset	Hto	during Holiday mode		25.0	K		Pass-word level3	PS3 restriction to for instance reset statictical information	0	0	999	/
Condenser Block Limit		Available only if condensor sensor is attached/assigned OK limit. Compressor is allowed to start again if the condenser				ECO Differential ECO Fan on cycle		Thermostat differential for ECO On time for fan during compressor off period in ECO mode	2.0 0.0	10.0 960 S				0: Disabled				4
Condenser Block Limit					°C	(1						
Condenser Block Limit Condenser OK limit	CoL	temperature is lower than this temperature	60	0 200		ECO Fan stop cycle	FSE	Off time for fan during compressor off period in ECO mode	0 0	960 S	ec	4						
			60	0 200 -100 20		ECO Cabinet light control		Off time for fan during compressor off period in ECO mode on: Always ON (Button is default to control light for all these options) of F: Always OFF	on on	960 S dor	ec	- Durí	and the second state of th	n catalogues, brochures and other printed material. Danfoss reserves the right to alter its proc			The is	