Programming Guide Wiring Diagram

REFRIGERATED WELLS – Static Cooling

Products:

Built-in refrigerated well EBS Cooling plate KP

Plug-in or with external refrigeration connection

with Carel PJEZ or mechanical thermostat





THE WARRANTY CLAIM MAY BE VOIDED IF THE STATED INSTRUCTIONS ARE NOT OBSERVED. Table of contents

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1 Technical guide for electronic temperature controller

Introduction

The controller serves to control the temperature of refrigeration systems.

The operation, setting and programming are optimised and simplified as far as possible. (If you need a more detailed operating manual, we refer you to the Carel website.)

The controller has been developed such that the temperature control and defrost control are handled by means of air circulation defrosting or by switching the compressor on and off.



1.1 User interface

Button functions



Fig. 3.b

Bez.	Normalbetrie	Normalbetrieb		
	Einzelner Tastendruck	Kombinierter	1	
		Tastendruck		
1	Länger als 3 s:	Zusammen	-	
	EIN/AUS-Schaltung	mit 3 gedrückt:		
		Aktivierung/De-		
		aktivierung des		
		Dauerbetriebs		
2	 - 1 s: Anzeige/Einstellung des Sollwertes - Länger als 3 s: Zugriff auf die Parameterkonfiguration (Passwort 22 eingeben) - Abstellen des akustischen Signals (Summer) 	-	Für 1 s ge- drückt: RESET von EZY	Zusammen ge- drückt (2 und 3): Aktivierung des Parameter- RESET-Verfah- rens
3	Länger als 3 s: Aktivierung/ Deaktivierung der Abtauung	Zusammen mit 1 gedrückt: Aktivierung/De- aktivierung des Dauerbetriebs	Für 1 s gedrückt: Anzeige der Firmeware- Version	

Tab. 3.b

1.2 Basic operation

Setting the set-point value

For controlling and changing the set-point value:

- Press SET for 1 s: the set value will start flashing.
- Increase or reduce the value with UP or DOWN.
- Confirm the new value with SET.

1.3 Alarms

If there is an alarm, the corresponding alarm message flashes on the display alternately with the temperature. The buzzer and alarm relay will eventually also be activated if present.

All alarms are reset automatically (i.e. the alarm message stops as soon as the cause of the alarm no longer exists). Only the alarm "CHt" has to be reset manually (switch the unit off and back on by means of UP or by disconnecting the power supply). The buzzer is switched off by pressing the SET button, while the displayed alarm code and alarm relay are only deactivated as soon as the cause of the alarm no longer exists. The designated alarm codes are listed in the table below:

Alarm	Summer und	LED	Beschreibung des Alarms	Reset	Vom Alarm betroffene	easy	easy	easy
code	Alarmrelais				Parameter		compact	split
EO	Aktiv	EIN	Fehler des Fühlers 1= Regelung	Automatisch	-	 Image: A second s	 Image: A set of the set of the	 Image: A set of the set of the
E1	Nicht aktiv	EIN	Fehler des Fühlers 2= Abtauung	Automatisch	d0= 0 / 1 / 4, F0= 1	 Image: A set of the set of the	 Image: A set of the set of the	 Image: A set of the set of the
E2	Nicht aktiv	EIN	Fehler des Fühlers 3= Verflüssiger/	Automatisch	easy, easy compact [A4=10/11]	×	-	×
			Produkt		easy split [A4=13/14]			
IA	Aktiv	EIN	Externer Alarm	Automatisch	[A4 = 1][+A7]	 Image: A second s	-	 Image: A second s
dOr	Aktiv	EIN	Alarm für Tür offen	Automatisch	easy, easy compact [A4=7/8][+A7]	 Image: A set of the set of the	-	 Image: A second s
					easy split [A4=7/8/10/11][+A7]			
LO	Aktiv	EIN	Alarm für niedrige Temperatur	Automatisch	[AL] [Ad]	 Image: A second s	✓	 Image: A second s
HI	Aktiv	EIN	Alarm für hohe Temperatur	Automatisch	[AH] [Ad]	 Image: A second s	✓	 Image: A set of the set of the
EE	Nicht aktiv	EIN	Geräteparameterfehler	Nicht möglich	-	 Image: A second s	✓	 Image: A set of the set of the
EF	Nicht aktiv	EIN	Betriebsparameterfehler	Manuell	-	 Image: A second s	✓	 Image: A set of the set of the
Ed	Nicht aktiv	EIN	Abtauende wegen Time-out	Bei der ersten, korrekt	[dP] [dt] [d4] [A8]	 Image: A set of the set of the	×	 Image: A set of the set of the
				beendeten Abtauung				
dF	Nicht aktiv	AUS	Abtauung wird ausgeführt	Automatisch	[d6=0]	 Image: A second s	✓	 Image: A set of the set of the
cht	Nicht aktiv	EIN	Voralarm für Verflüssiger	Automatisch	easy, easy compact [A4=10]	 Image: A set of the set of the	-	 Image: A set of the set of the
			verschmutzt		easy split [A4=13]			
CHt	Aktiv	EIN	Alarm für Verflüssiger verschmutzt	Manuell	easy, easy compact [A4=10]	 Image: A second s	-	 Image: A second s
			_		easy split [A4=13]			
EtC	Nicht aktiv	EIN	Uhralarm	Durch die Einstellung	Bei aktiven Zeitzyklen	 Image: A set of the set of the	-	 Image: A set of the set of the
				der Uhr				
SrC (nur	Nicht aktiv	EIN	Wartungsmeldung	Manuell,	[HMP] [HMd] [HMr]	-	-	 Image: A set of the set of the
easy split)				HMr=1 einstellen				
			·	·	•		Ta	b. 5.a

1.4 Parameter list

	Para-		Set	
Symbol	meter	Description	1	Units
	Pw	Password	22	-
S	/2	Sensor measurement stability	4	-
\sim	/4	Sensor selection for display:	1	-
	/5	Temperature measuring units: 0 = °C; 1 = °F	0	flag
	/6	Display the decimal point: 0/1=Yes/No	0	flag
	/c1	Calibration of sensor 1	0	°C/°F
	/c2	Calibration of sensor 2	0	°C/°F
	/c3	Calibration of sensor 3	0	°C/°F

÷¥)	rd	Switching difference	2	°C/°F
	r1	Minimum set-point value	-4	°C/°F
	r2	Maximum set-point value	18	°C/°F
	r3	Operating mode: 0 = Direct with defrost control (cooling)	0	flag

	r4	Automatic change of the night-time set-point value	0	°C/°F
I L			0	0/1
\square		Start-up delay of the compressor, fan and AUX when switched		
	c0	on	0	min.
\Box	c1	Minimum time between sequential compressor starts	0	min.
	c2	Minimum off-time of the compressor	2	min.
	c3	Minimum on-time of the compressor	2	min.
	c4	Switch-on time of the compressor with duty setting	0	min
	сс	Duration of continuous operation	0	h
		Deactivation time of the alarm for low temperature after		
	c6	continuous operation	0	h
	1.5		-	
	d0	Type of defrosting: 2 = Time-controlled electric defrosting	2	flag
	dI	Maximum interval between sequential defrosting operations	3	h
	dt	Defrosting temperature	12	°C/°F
	dP	Maximum or effective defrosting time	30	min
	d4	Defrosting when switched on: 0/1 = Deactivated/Activated	0	flag
	d5	Defrost delay when switched on (with d4=1) or via DI	0	min
		Display during defrosting: 0 = Temperature alternates with		
	d6	dEF	0	flag
	dd	Dripping time after defrosting	0	min
	d8	Alarm suppression time for high temperature after defrosting	1	h
	d9	Defrost priority before compressor protection: 0/1 = Yes/No	1	flag
	d/	Display defrost sensor 1	-	°C/°F
		Time basis for defrosting 0 = dI in: h / min, 1 = dI in: min		
	dC	/ s	0	flag

			-	00/05
	AU	Alarm and fan switching difference	2	°C/°F
	AL	Alarm threshold for low temperature	0	°C/°F
N	AH	Alarm threshold for high temperature	0	°C/°F
	Ad	Delay of the alarms for high and low temperature	0	min
	A4	Configuration of digital input 1 (DI1): 0 = Not active	0	flag
	A7	Alarm delay via digital input	0	min
		Activation of alarm Ed (defrosting because of timeout) - 0 =		
	A8	alarm deactivated	0	flag
	Ac	Alarm threshold for high condenser temperature	70	°C/°F
	AE	Alarm switching difference for high condenser temperature	5	°C/°F
	Acd	Alarm delay for high condenser temperature	0	min

AUX	HO	Serial address	1	-
\square	H1	AUX configuration	0	flag
	H2	Deactivation of the button functions	1	flag
	H4	Buzzer: 0/1 = Activated/Deactivated	0	flag
	H5	Key ID code from supervisor	-	-
	EZY	Easy Set	0	-

2 Wiring Diagram

Electrical wiring diagram:

Refrigerated well EBS and cooling plate KP with electronic controller – plug-in



Electrical wiring diagram:

Refrigerated well EBS and cooling plate KP with electronic controller – remote refrigeration





E-Schaltschema: Kühlwanne EBS und Kühlplatte KP mit mechanischem Thermostat - zentralgekühlt -A1 -Y1 Ē 4 ωL ſ mechanisches Thermostat ÐΝ +°C 2 Danfoss - UT 72 C Netz 230V~ -O PE N BU, Magnetventil PE O GNYE GNYE .