



Danfoss AK-CC55 Compact Controller User Guide

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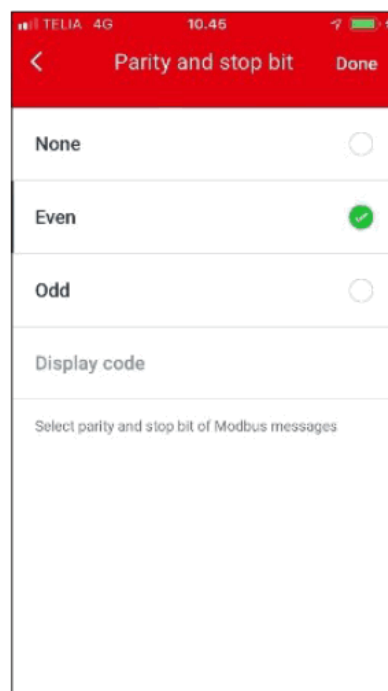
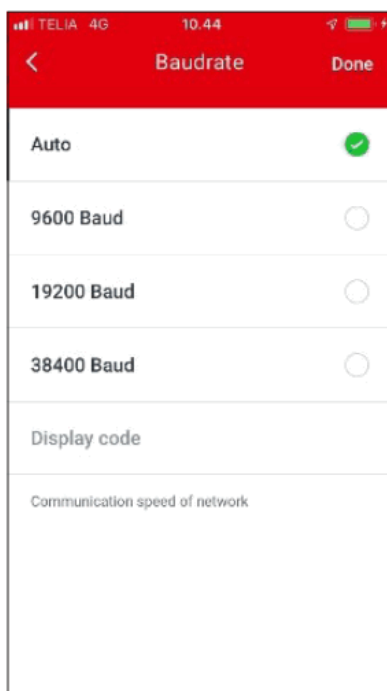
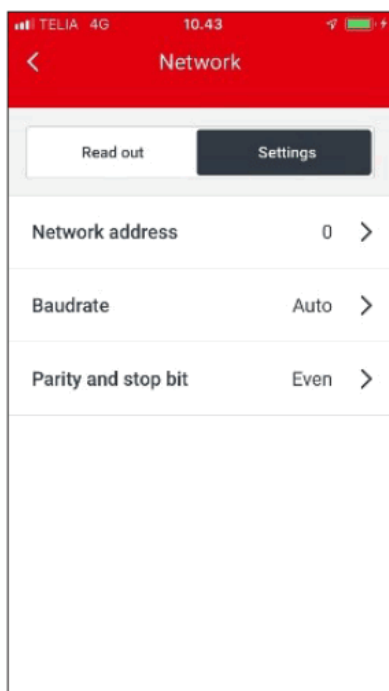
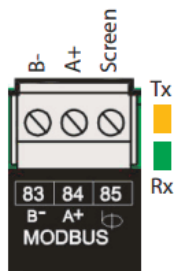
ENGINEERING TOMORROW
Basic Modbus parameter list
AK-CC55 Compact
SW Ver. 2.1x
Programming Guide



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Case controllers



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Modbus Communication

Danfoss AK-CC55 controllers are using Modbus RTU.

Communication speed is default "auto detection"

Default communication settings are "8 bit, Even parity, 1 stop bit".

Network address can be set via AK-UI55 setting display and Network address as well as Network communication settings can be changed via the AK-UI55 Bluetooth display and the AK-CC55 Connect service app. For further information see AK-CC55 Documentation.

Danfoss AK-CC55 controllers are Modbus compliant and MODBUS Application Protocol Specification can be

found via below link <http://modbus.org/specs.php>

AK-CC55 Documentation:

AK-CC55 User Guides and Installation Guides can be found via www.danfoss.com:
<https://www.danfoss.com/en/products/electronic-controls/dcs/evaporator-and-room-control/#taboverview>

Parameter list for Compact (084B4081)

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale	A
Readouts								
— Sum alarm	2541	0	0	1	Boolean	R	1	
u00 Ctrl. State	2007	0	0	48	Integer	R	1	
u17 Ther. air	2532	0	-2000	2000	Float	R	0.1	
u26 EvapTemp Te	2544	0	-2000	2000	Float	R	0.1	
u20 S2 temp	2537	0	-2000	2000	Float	R	0.1	
u12 S3 air temp.	2530	0	-2000	2000	Float	R	0.1	
u16 S4 air temp.	2531	0	-2000	2000	Float	R	0.1	
u09 S5 temp	1011	0	-2000	2000	Float	R	0.1	
U72 Food temp	2702	0	-2000	2000	Float	R	0.1	
u23 EEV OD %	2528	0	0	100	Integer	R	1	X
U02 PWM OD %	2633	0	0	100	Integer	R	1	X
U73 Def.StopTemp	2703	0	-2000	2000	Float	R	0.1	
u57 Alarm air	2578	0	-2000	2000	Float	R	0.1	
u86 Ther. band	2607	1	1	2	Integer	R	0	
u13 Night cond	2533	0	0	1	Boolean	R	1	
u90 Cutin temp.	2612	0	-2000	2000	Float	R	0.1	
u91 Cutout temp.	2513	0	-2000	2000	Float	R	0.1	
u21 Superheat	2536	0	-2000	2000	Float	R	0.1	X
u22 SuperheatRef	2535	0	-2000	2000	Float	R	0.1	X
Settings								
r12 Main switch	117	0	-1	1	Integer	RW	1	
r00 Cutout	100	20	-500	500	Float	RW	0.1	
r01 Differential	101	20	1	200	Float	RW	0.1	
— Def. Start	1013	0	0	1	Boolean	RW	1	
d02 Def . Stop temp	1001	60	0	500	Float	RW	0.1	

A03 Alarm delay	10002	30	0	240	Integer	RW	1	
A13 HighLim Air	10019	80	-500	500	Float	RW	0.1	
A14 LowLim Air	10020	-300	-500	500	Float	RW	0.1	
r21 Cutout 2	131	2.0	-60.0	50.0	Float	RW	1	
r93 Diff Th2	210	2.0	0.1	20.0	Float	RW	1	

Note: Parameters marked with “X” in the “A” (App mode column) is not present in all App modes (for further info see AK-CC55 User Guide).

Parameter	PNU	Value	Min.	Max.	Type	RW	Scale	A
d02 Def.StopTemp	1001	6.0	0.0	50.0	Float	RW	1	
d04 Max Def.time	1003	45	d24	360	Integer	RW	0	
d28 DefStopTemp2	1046	6.0	0.0	50.0	Float	RW	1	
d29 MaxDefTime2	1047	45	d24	360	Integer	RW	0	
Alarms								
— Contr. error	20000	0	0	1	Boolean	R	1	
— RTC error	20001	0	0	1	Boolean	R	1	
— Pe error	20002	0	0	1	Boolean	R	1	
— S2 error	20003	0	0	1	Boolean	R	1	
— S3 error	20004	0	0	1	Boolean	R	1	
— S4 error	20005	0	0	1	Boolean	R	1	
— S5 error	20006	0	0	1	Boolean	R	1	
— High t.alarm	20007	0	0	1	Boolean	R	1	
— Low t. alarm	20008	0	0	1	Boolean	R	1	
— Door alarm	20009	0	0	1	Boolean	R	1	
— Max HoldTime	20010	0	0	1	Boolean	R	1	
— No Rfg. sel.	20011	0	0	1	Boolean	R	1	

— DI1 alarm	20012	0	0	1	Boolean	R	1	
— DI2 alarm	20013	0	0	1	Boolean	R	1	
— Standby mode	20014	0	0	1	Boolean	R	1	
— Case clean	20015	0	0	1	Boolean	R	1	
— CO2 Alarm	20016	0	0	1	Boolean	R	1	
— Refg. Leak	20017	0	0	1	Boolean	R	1	
— Wrong IO cfg	20018	0	0	1	Boolean	R	1	
— Max Def. Time	20019	0	0	1	Boolean	R	1	

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Documents / Resources

	<p>Danfoss AK-CC55 Compact Controller [pdf] User Guide AK-CC55 Compact Controller, AK-CC55, Compact Controller, Controller</p>
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References

- [!\[\]\(fd4127b9e2af37bd6ea0fa06afa8e6d8_img.jpg\) Modbus Specifications and Implementation Guides](#)
- [!\[\]\(3278d6283d12f18012b5aa7d40747611_img.jpg\) Danfoss - Engineering Tomorrow | Danfoss](#)
- [!\[\]\(bb96b32142ec45f72f12316beae3ef61_img.jpg\) Evaporator controllers for high food safety | Danfoss](#)

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