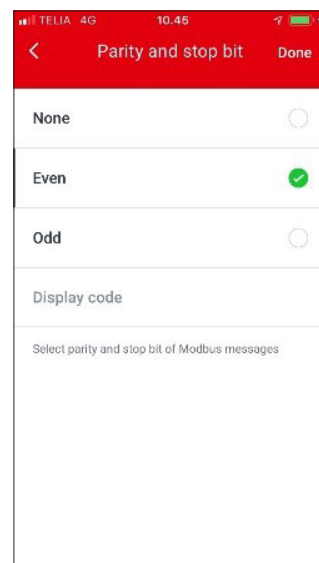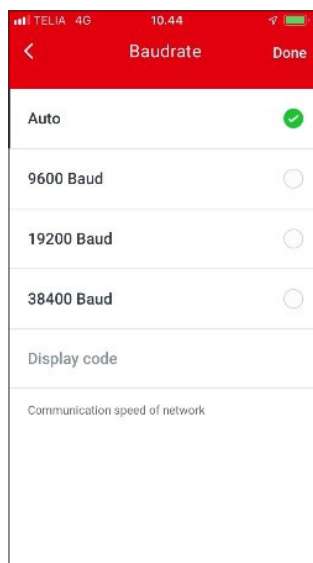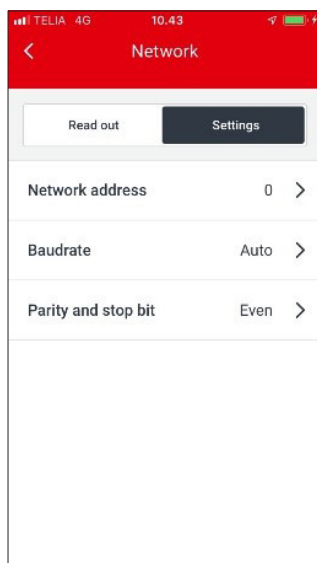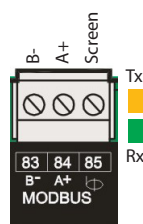**Programming Guide**

Basic Modbus parameter list
AK-CC55 Compact

SW Ver. 2.1x

**Danfoss AK-CC55 Compact
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/#tab-overview

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	