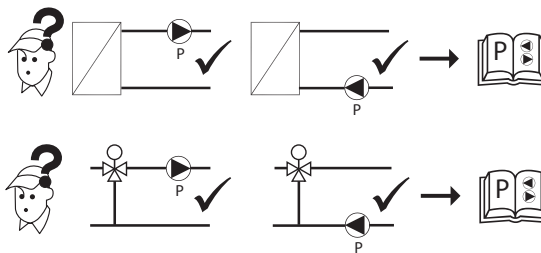
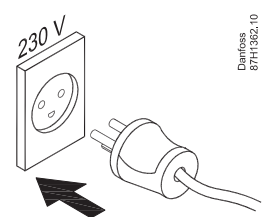
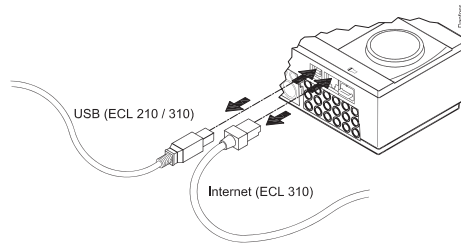
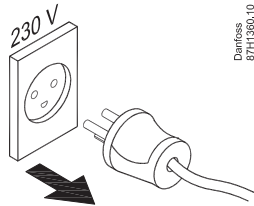


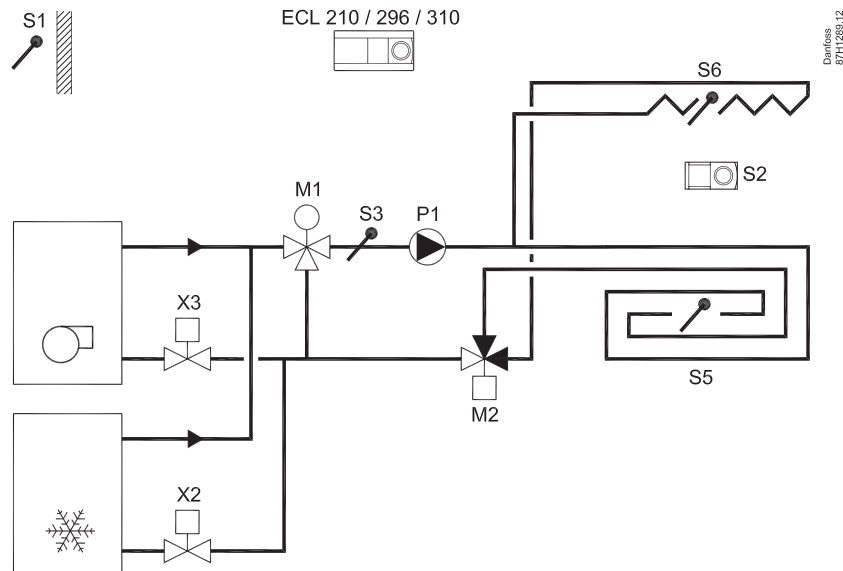
Installation Guide

# ECL Comfort 210 / 296 / 310, A232 / A332 (code no. 087H3812)

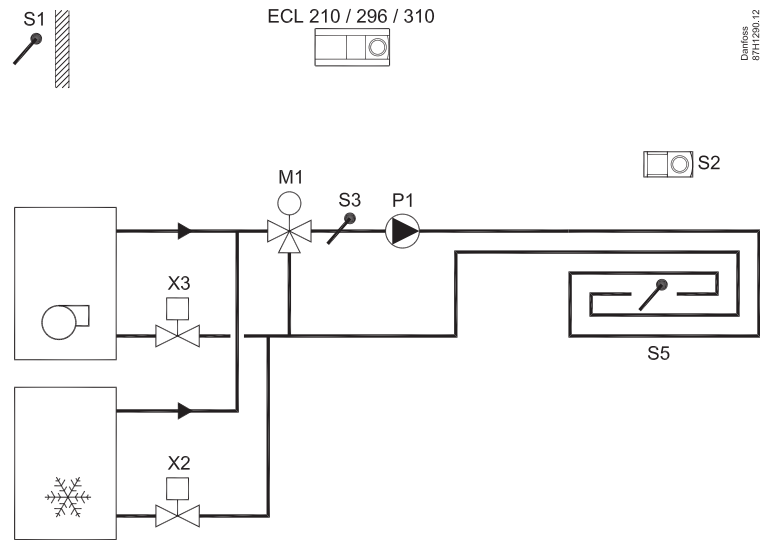
(A232.1, A332.1, A332.2, A332.3, A332.4)



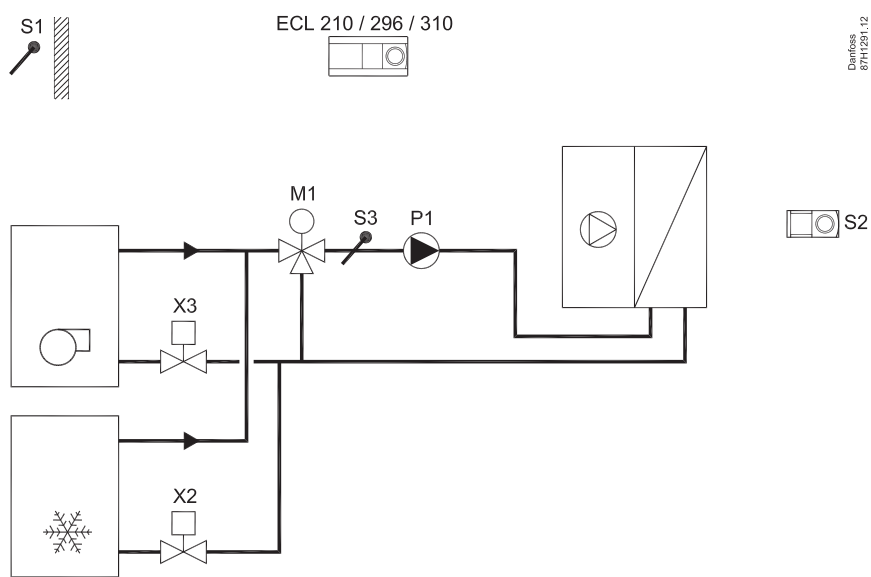
## A232.1, ex. a



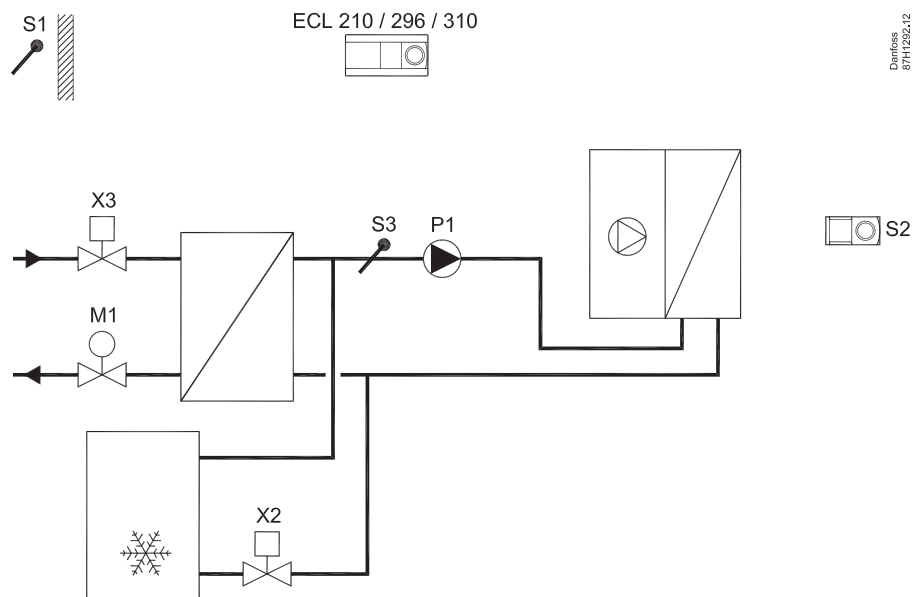
A232.1, ex. b



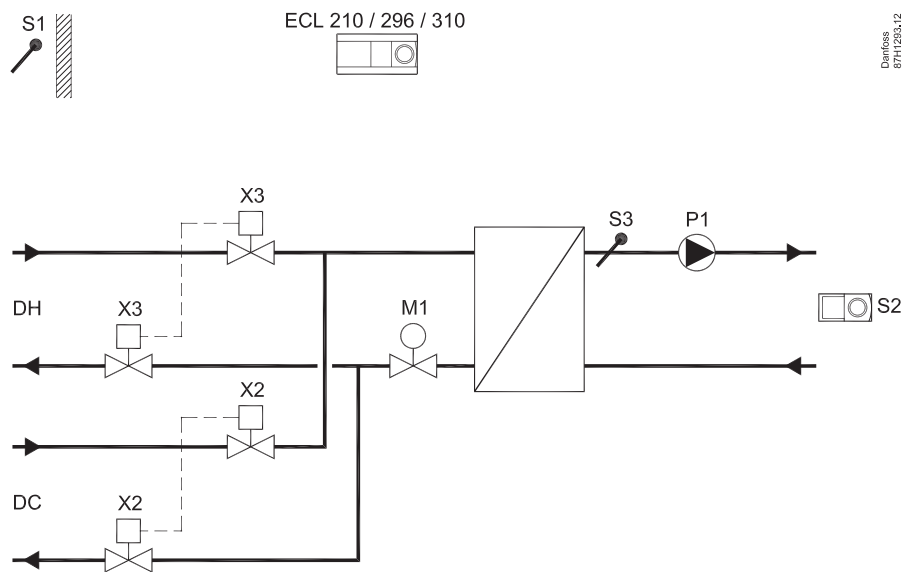
A232.1, ex. c



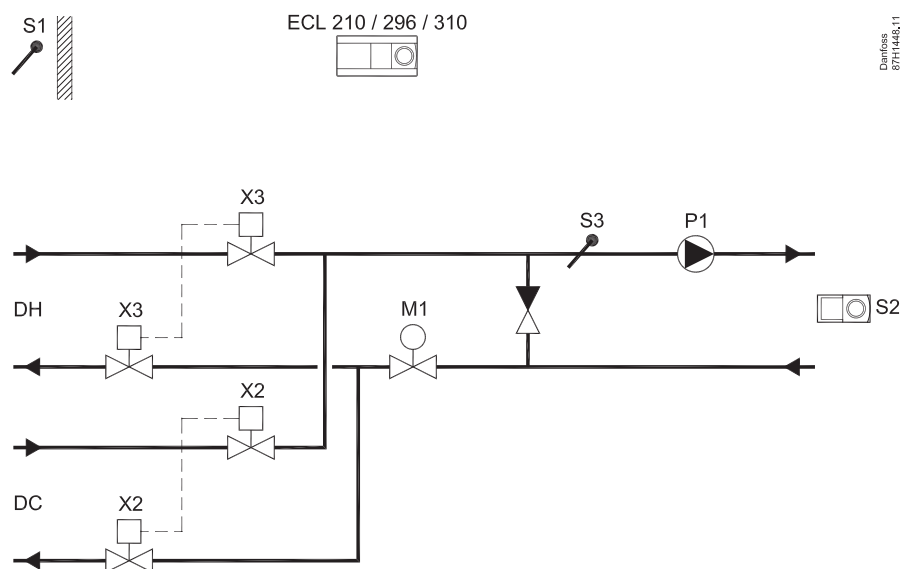
A232.1, ex. d



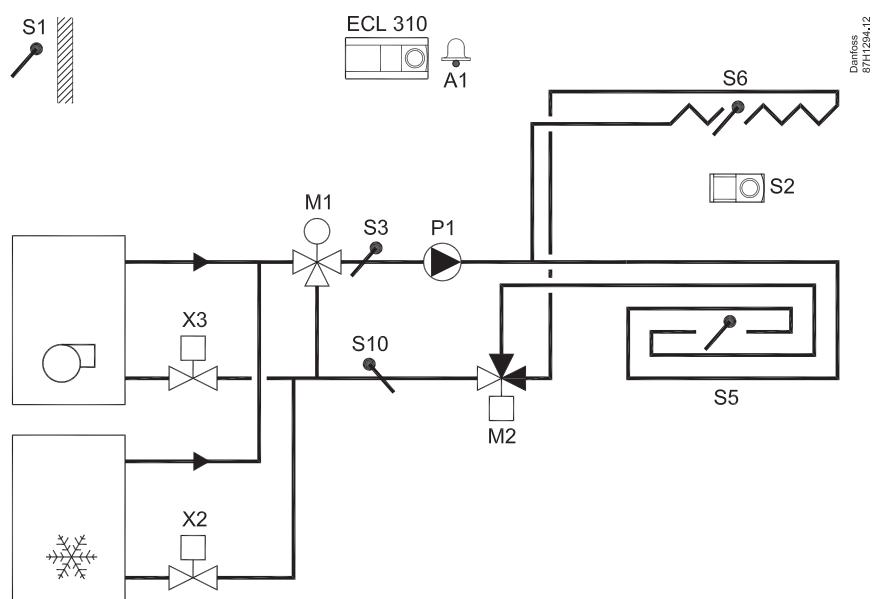
A232.1, ex. e



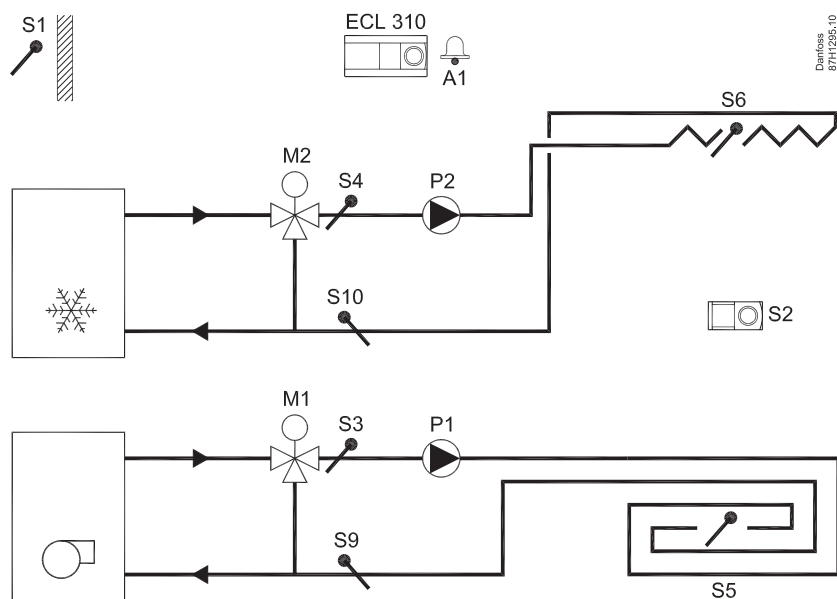
A232.1, ex. f



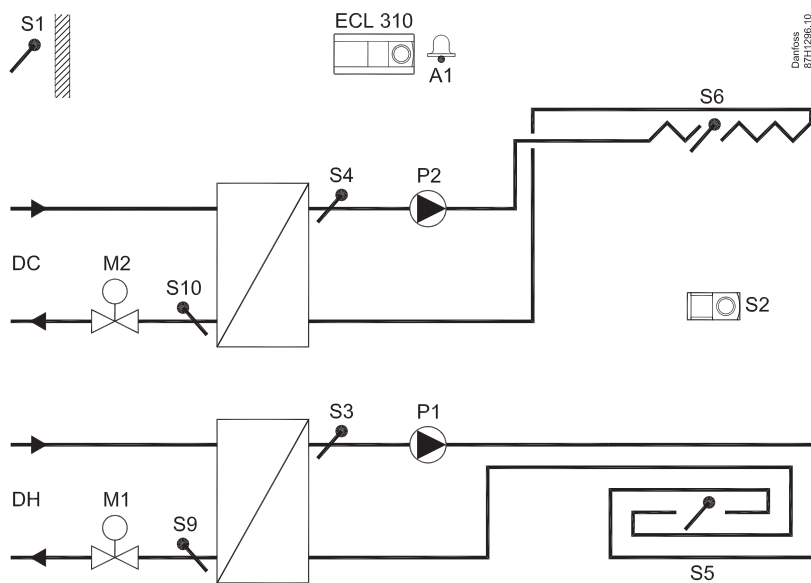
A332.1, ex. a



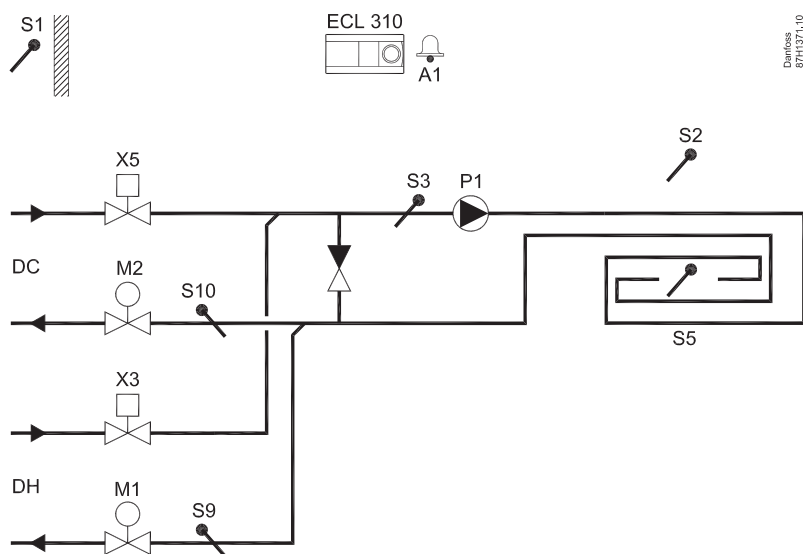
**A332.2, ex. a**



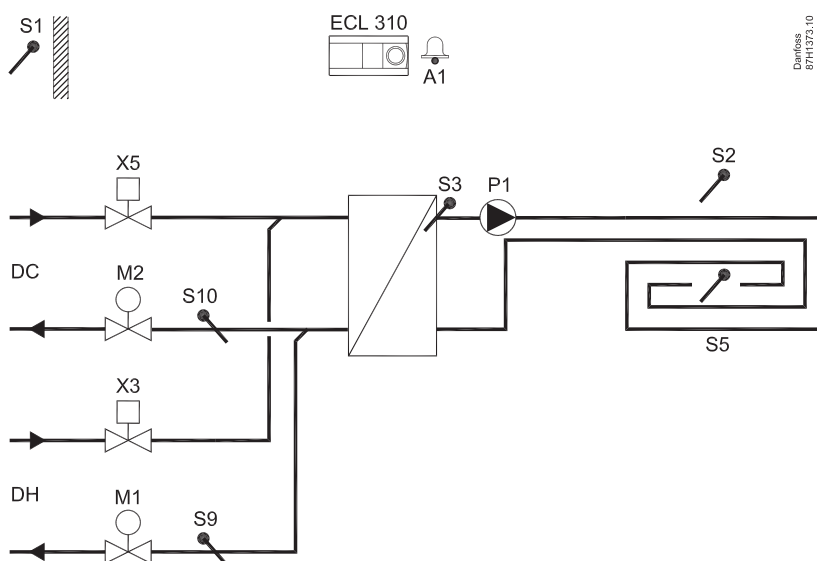
**A332.2, ex. b**



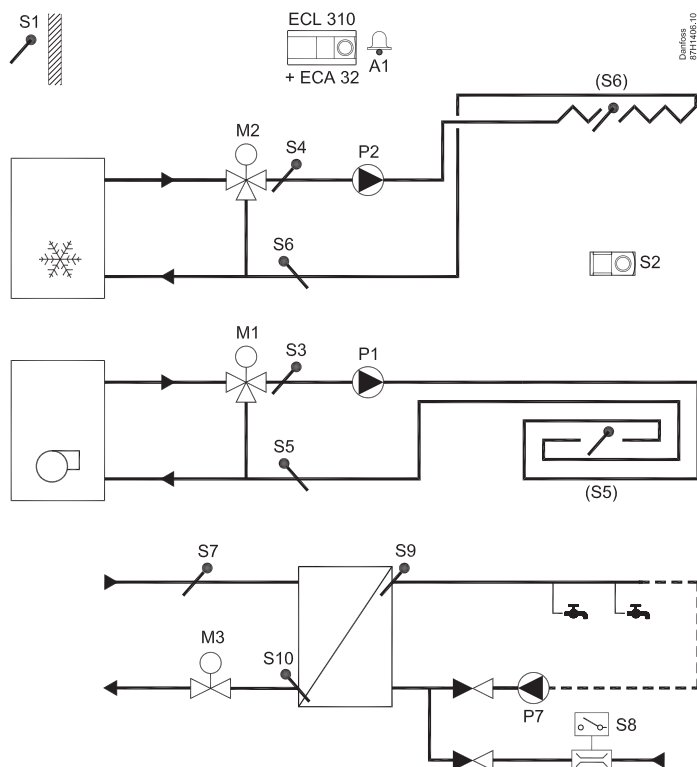
A332.2, ex. c



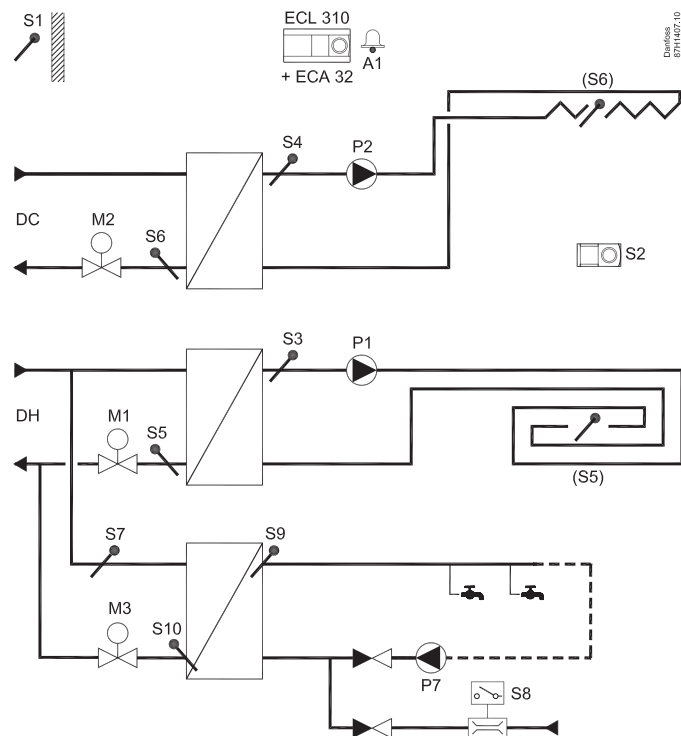
A332.2, ex. d



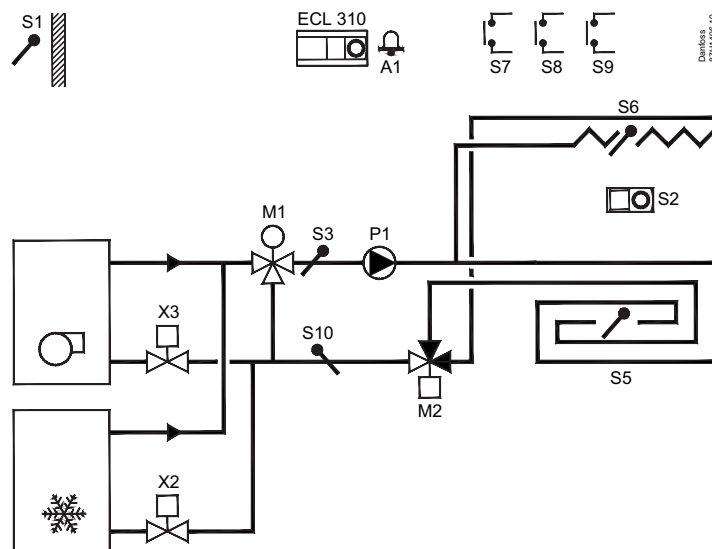
**A332.3, ex. a**






**A332.3, ex. b**

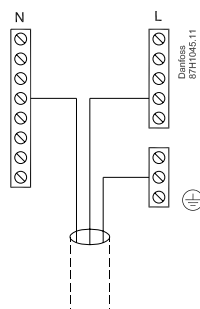
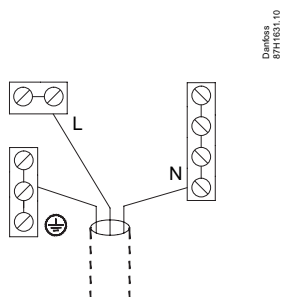


**A332.4, ex. a**



**ECL Comfort 210 / 296 / 310:**  
**230 V a.c.**

R 	4 (2) A / 230 V a.c.
R 	
Tr 	0,2 A / 230 V a.c.

**ECL 210 / 310****ECL 296**

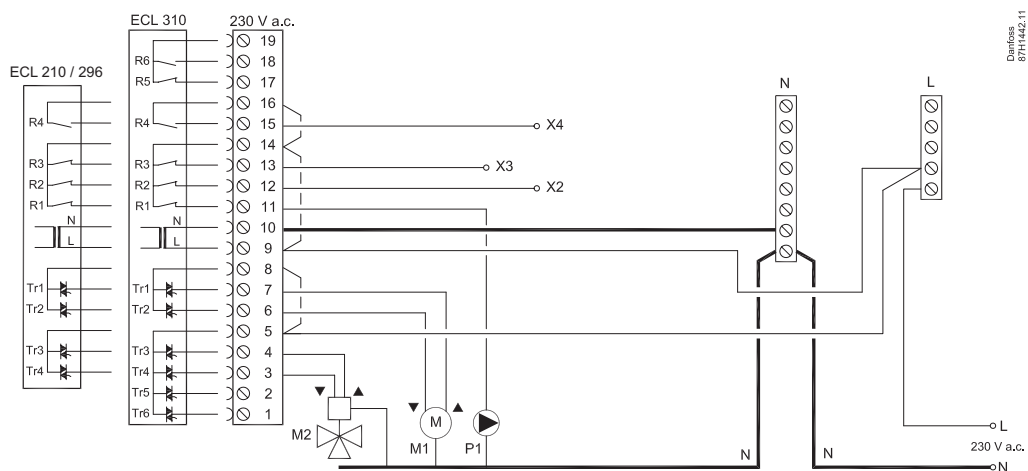


**230 V a.c., A232.1 (ECL 210 / 296 / 310)**

**A332.1, A332.2, A332.3, A332.4 (ECL 310)**

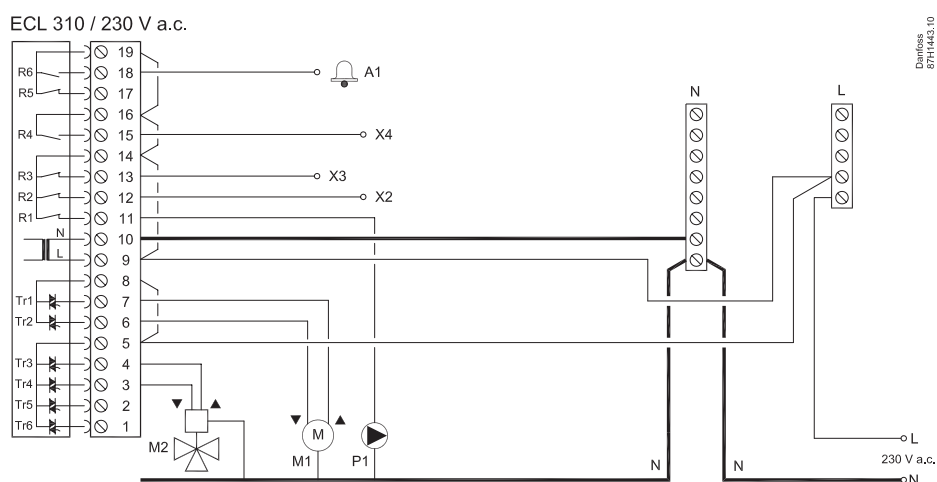
	M1	M2	M3		R1	R2	R3	R4	R5	R6
<b>A232.1</b>	✓	✓			<b>P1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>		
<b>A332.1</b>	✓	✓			<b>P1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>		<b>A1</b>
<b>A332.2</b>	✓	✓			<b>P1</b>	<b>P2</b>	<b>X3</b>	<b>X4</b>	<b>X5</b>	<b>A1</b>
<b>A332.3</b>	✓	✓	✓		<b>P1</b>	<b>P2</b>	<b>X3</b>	<b>X4</b>	<b>X5</b>	<b>A1</b>
<b>A332.4</b>	✓	✓			<b>P1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>		<b>A1</b>

**230 V a.c., A232.1 (ECL 210 / 296 / 310)**

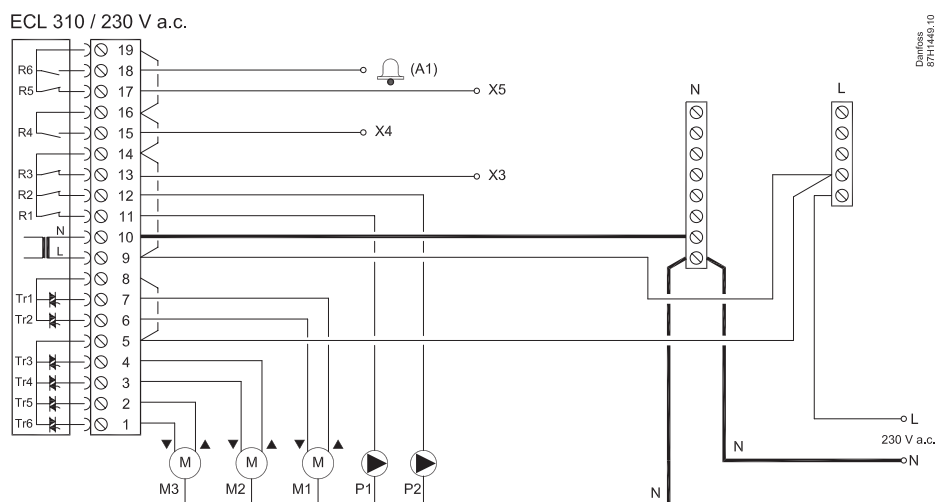


Danfoss  
8711442.11

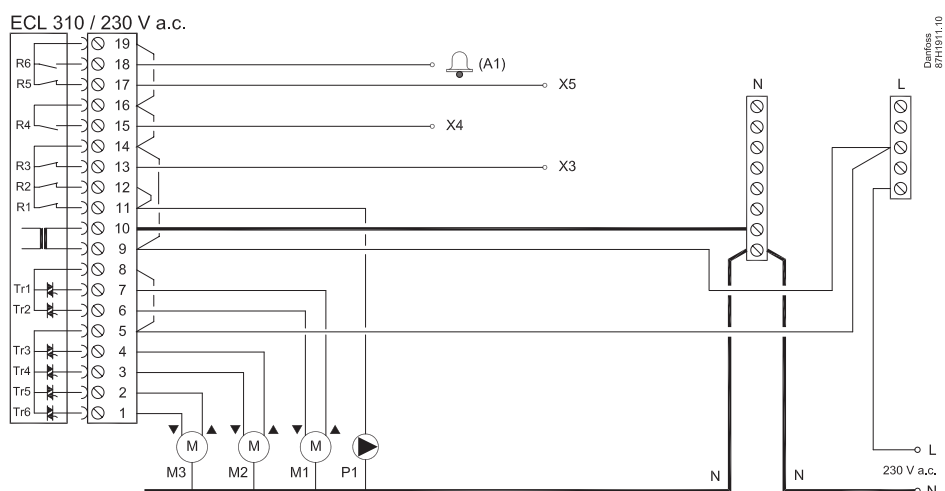
**230 V a.c., A332.1, A332.4 (ECL 310)**



**230 V a.c., A332.2, A332.3 (ECL 310)**

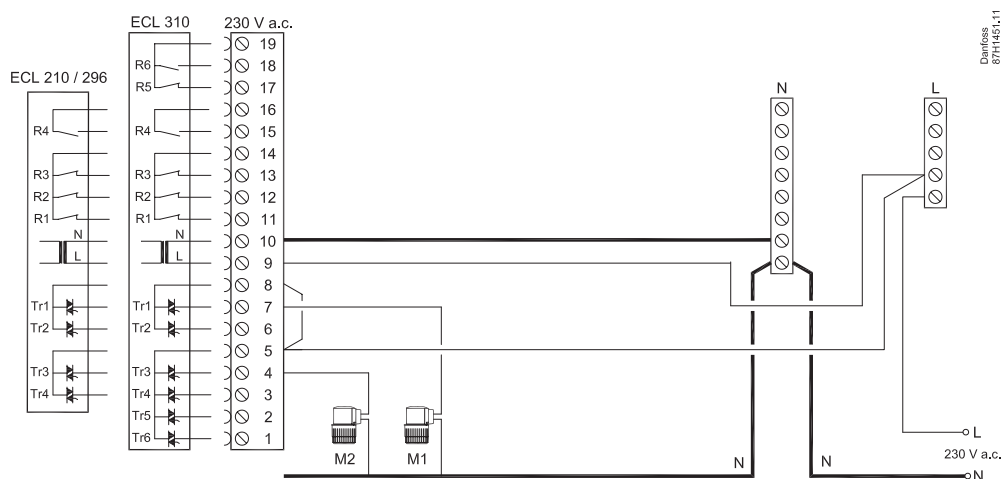


**230 V a.c., A332.2 ex. c, A332.2 ex. d**  
**P1**

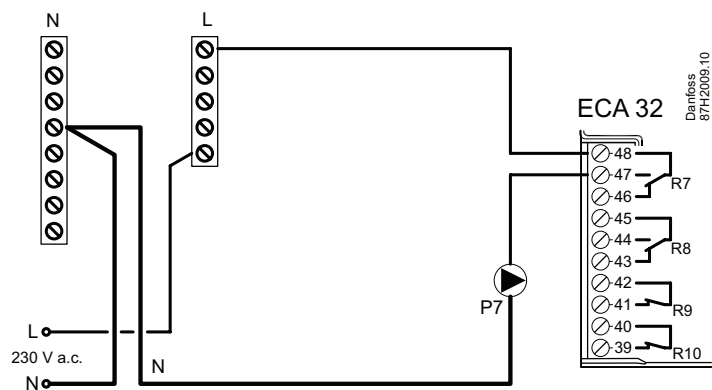


230 V a.c., A232 Danfoss ABV

	Danfoss type ABV:		
	M1	M2	M3
A232.1	✓		
A332.1	✓		
A332.2	✓	✓	
A332.3	✓	✓	
A332.4	✓		

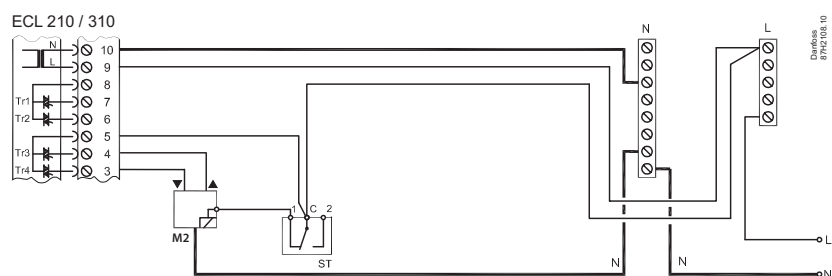
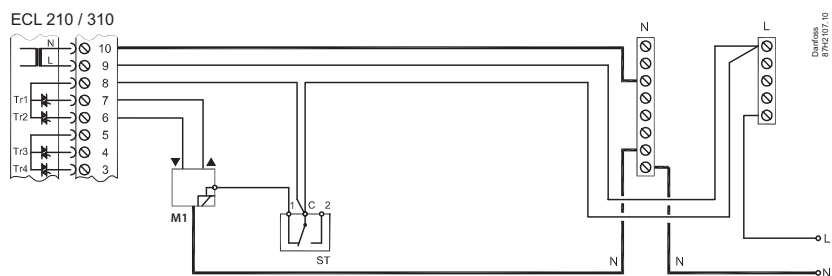
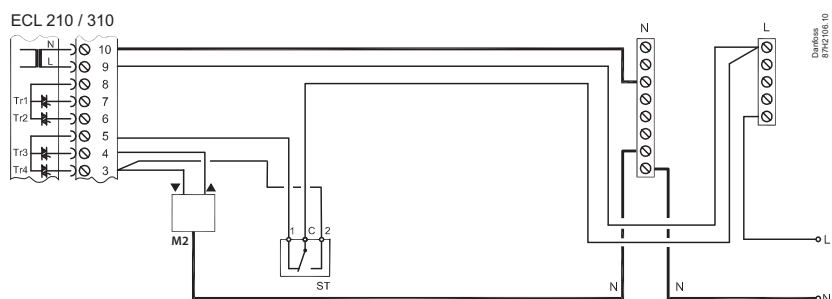
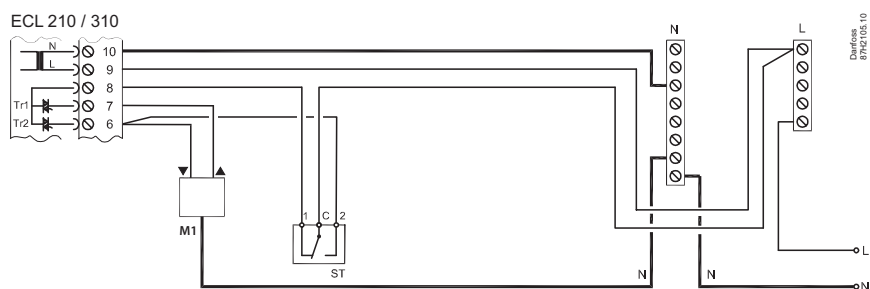


230 V a.c., A332.3, ECA 32, P7

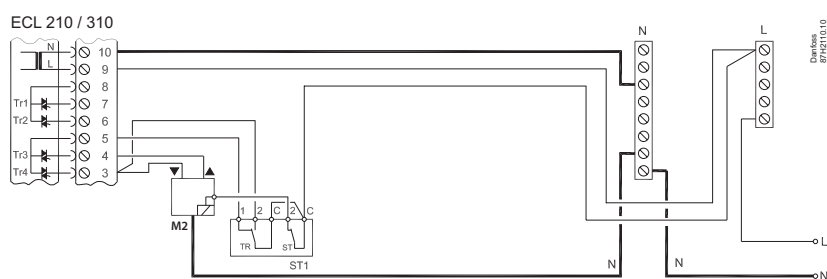
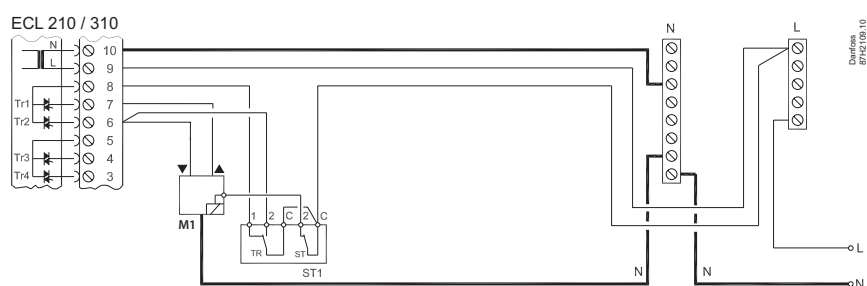


# 230 V a.c. / 24 V a.c. safety thermostat

## 1-step closing






**230 V a.c. / 24 V a.c. safety thermostat**  
**2-step closing**



**ECL Comfort 310:**

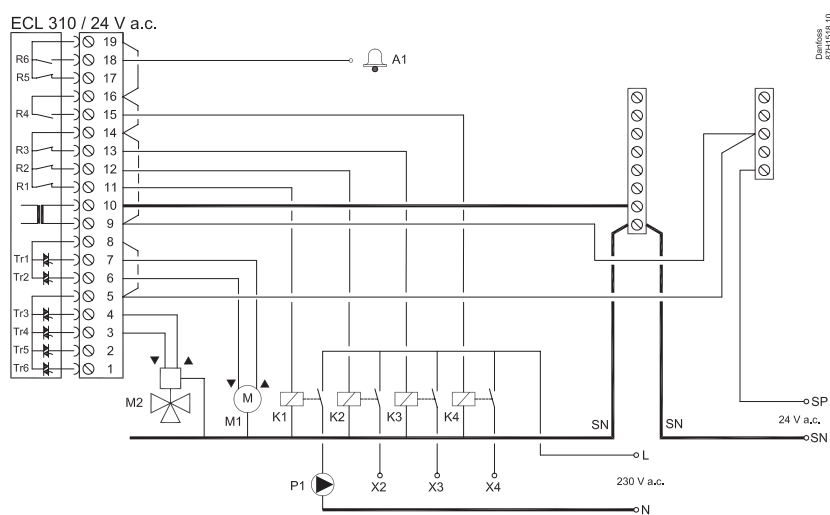
**24 V a.c.**

R		4 (2) A / 24 V a.c.
R		
Tr		1 A / 24 V a.c.

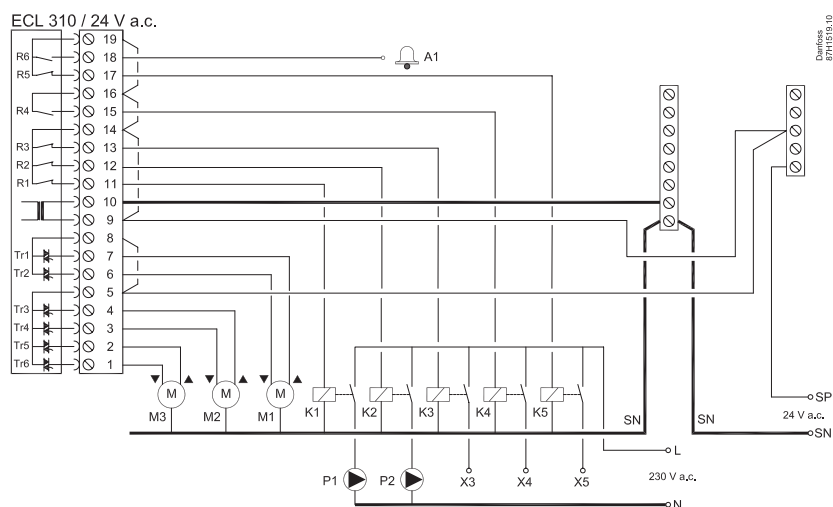
**24 V a.c., A232.1, A332.1, A332.2, A332.3, A332.4 (ECL 310)**

	M1	M2	M3		R1	R2	R3	R4	R5	R6
<b>A232.1</b>	✓	✓			<b>P1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>		
<b>A332.1</b>	✓	✓			<b>P1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>		<b>A1</b>
<b>A332.2</b>	✓	✓			<b>P1</b>	<b>P2</b>	<b>X3</b>	<b>X4</b>	<b>X5</b>	<b>A1</b>
<b>A332.3</b>	✓	✓	✓		<b>P1</b>	<b>P2</b>	<b>X3</b>	<b>X4</b>	<b>X5</b>	<b>A1</b>
<b>A332.4</b>	✓	✓			<b>P1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>		<b>A1</b>

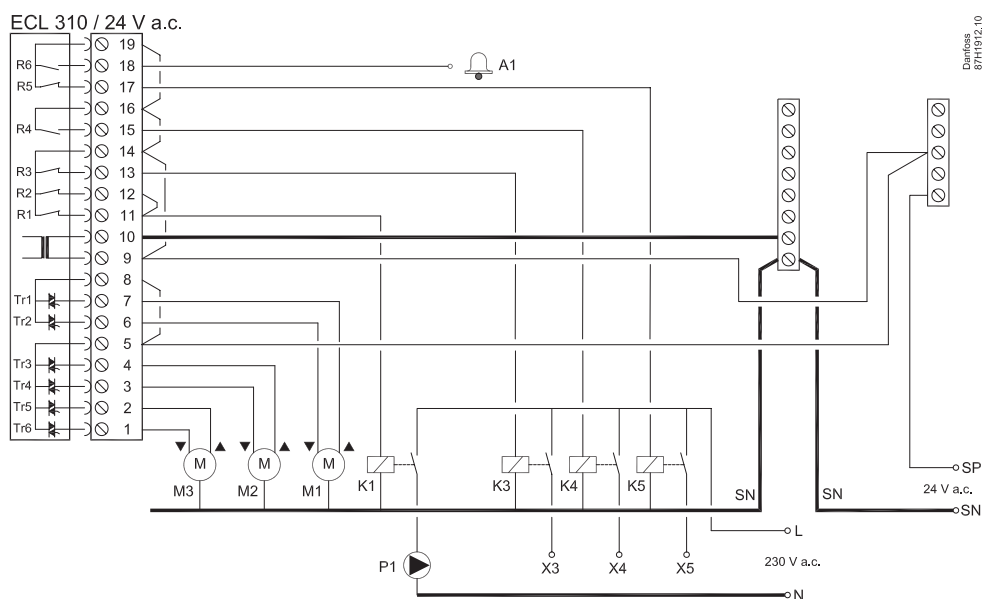
**24 V a.c., A232.1, A332.1, A332.4 (ECL 310)**



**24 V a.c., A332.2, A332.3 (ECL 310)**

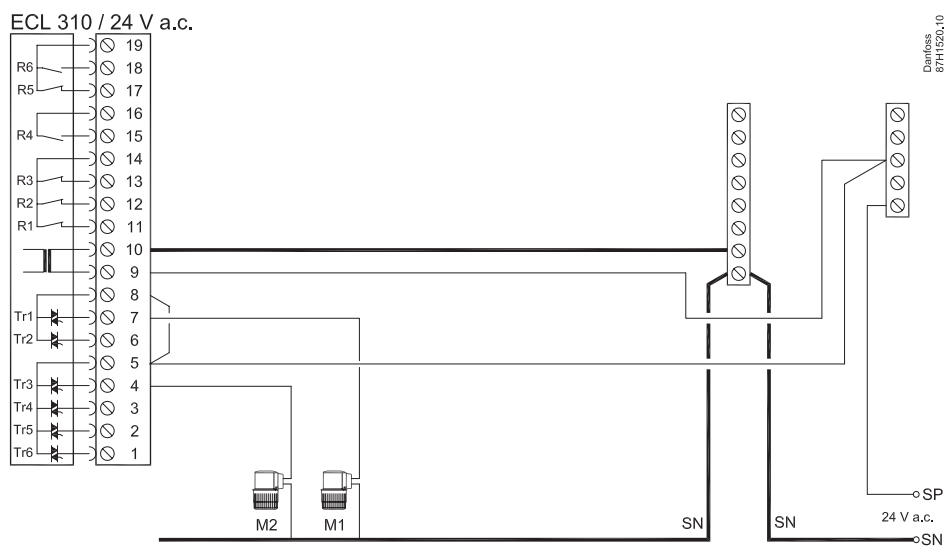


**24 V a.c., A332.2 ex. c, A332.2 ex. d  
P1**

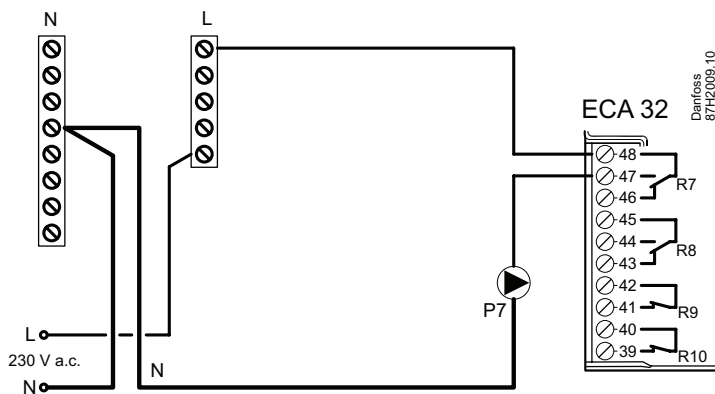


24 V a.c., A232, Danfoss ABV

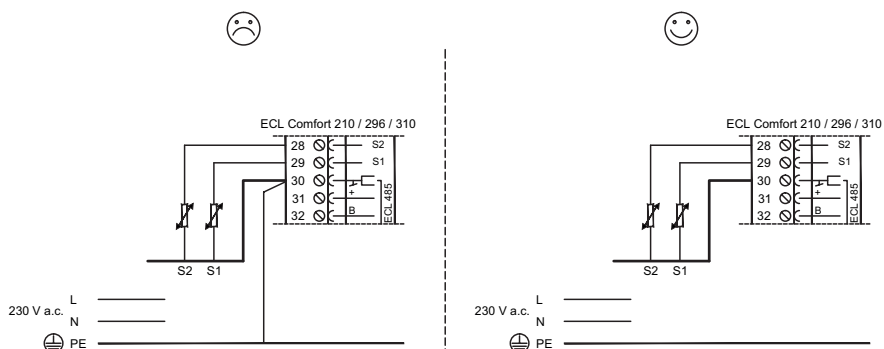
Danfoss type ABV:			
	M1	M2	M3
A232.1	✓		
A332.1	✓		
A332.2	✓	✓	
A332.3	✓	✓	
A332.4	✓		



24 V a.c., A332.3, ECA 32, P7



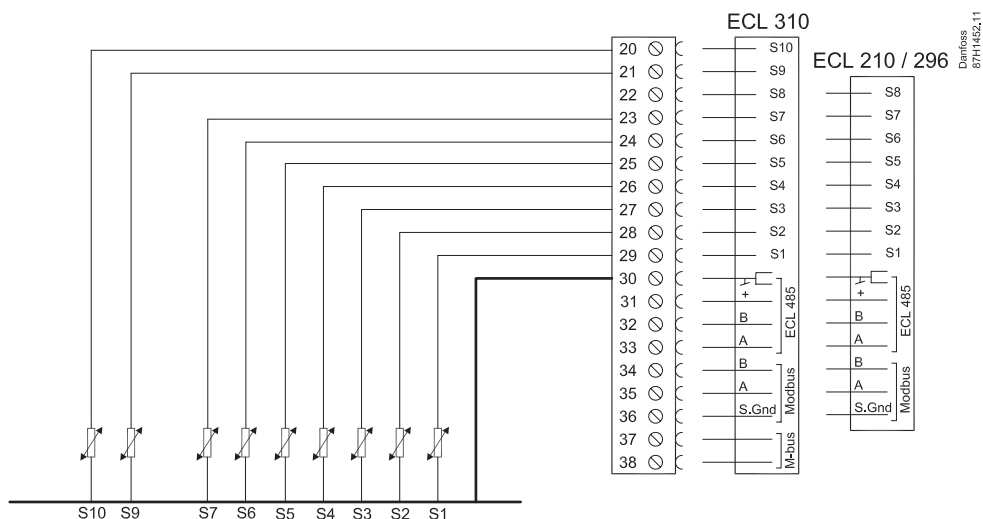
**Pt 1000** (1000  $\Omega$  / 0 °C)



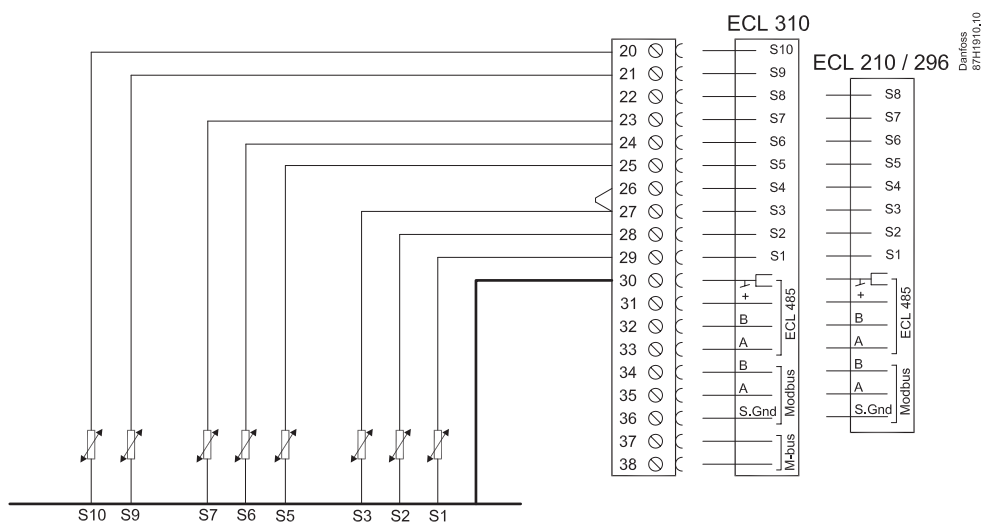


**Pt 1000** (1000  $\Omega$  / 0 °C)

	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
<b>A232.1</b>	✓	✓	✓		✓	✓				
<b>A332.1</b>	✓	✓	✓		✓	✓				✓
<b>A332.2</b>	✓	✓	✓	✓	✓	✓			✓	✓
<b>A332.3</b>	✓	✓	✓	✓	✓	✓	✓		✓	✓
<b>A332.4</b>	✓	✓	✓		✓	✓				✓



**A332.2 ex. c, A332.2 ex. d**  
**S3**

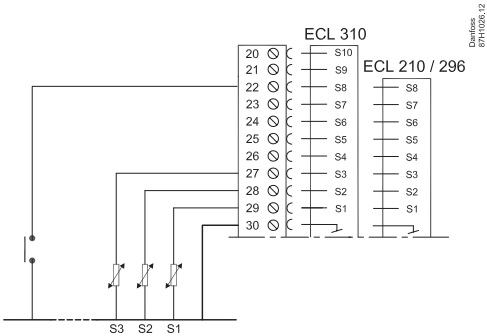
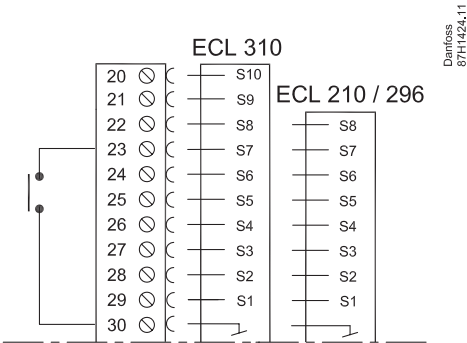


A232.1, A332.1, A332.2, A332.3, A332.4

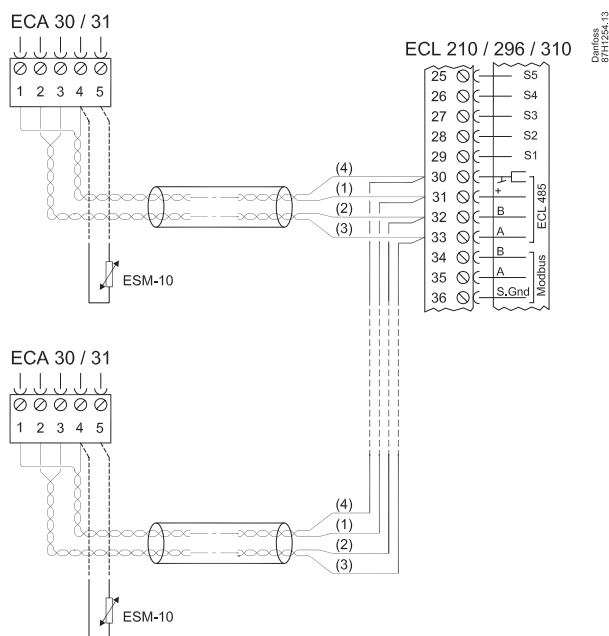
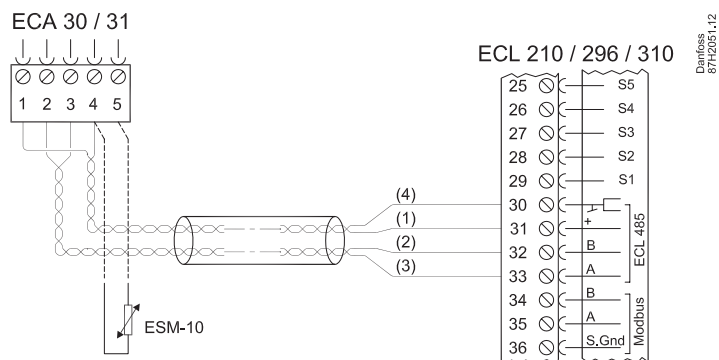


S7, S8, S9

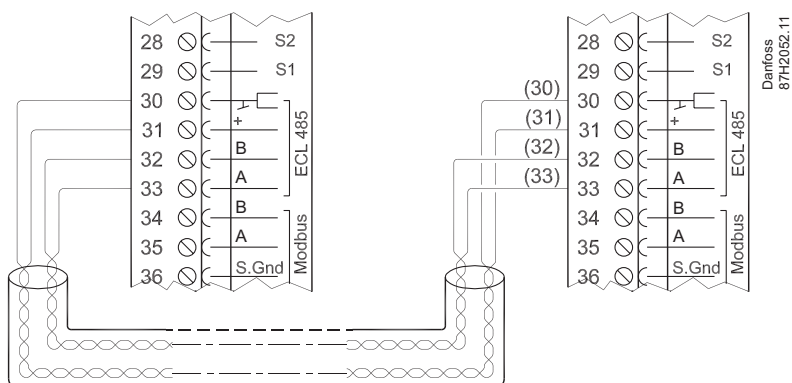
	S7	S8	S9
A232.1	✓	✓	
A332.1	✓	✓	
A332.2	✓	✓	
A332.3		✓	
A332.4	✓	✓	✓



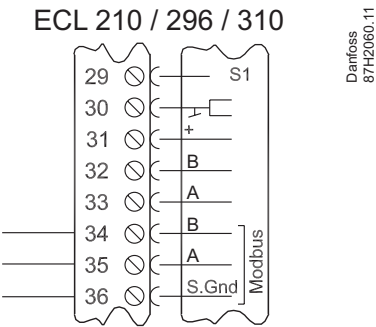
## ECA 30 / 31



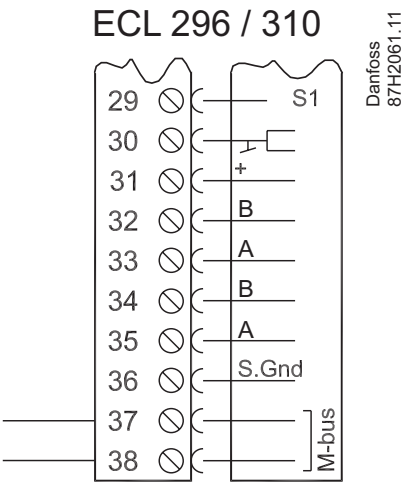
## Master / slave



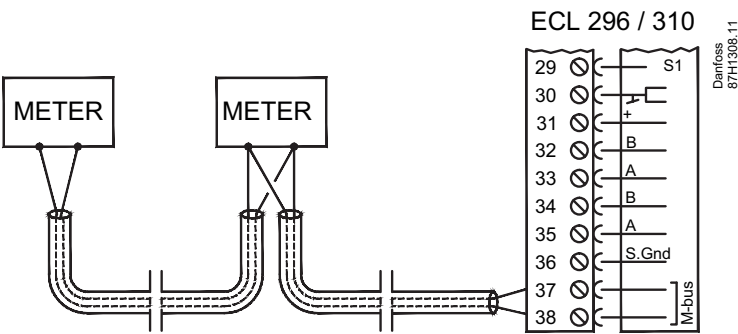
Modbus



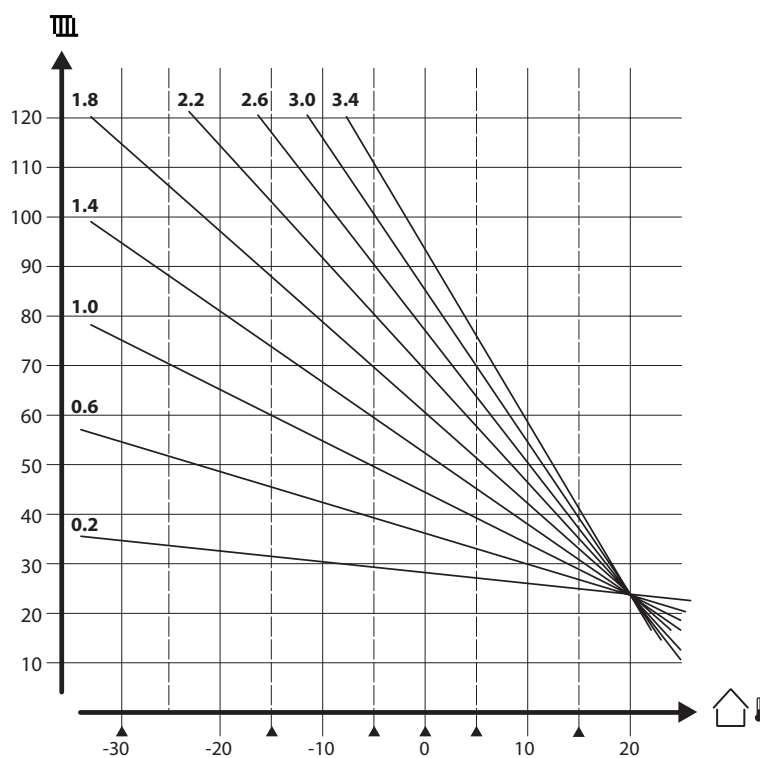
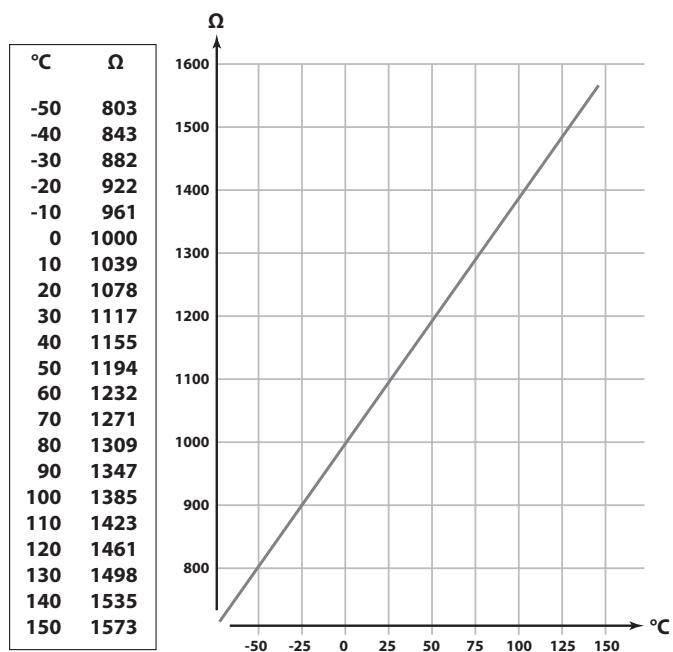
M-bus



M-bus



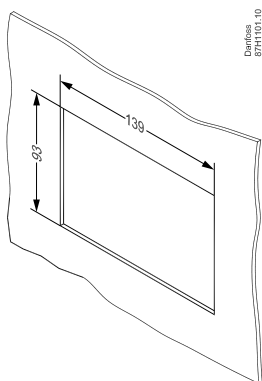
Pt 1000 (IEC 751B, 1000  $\Omega$  / 0 °C)



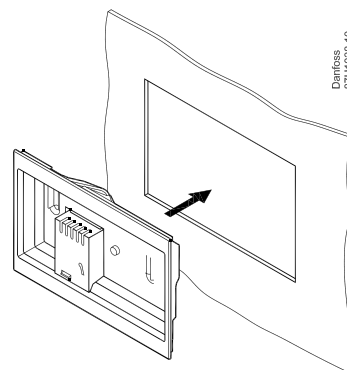


ECA 30

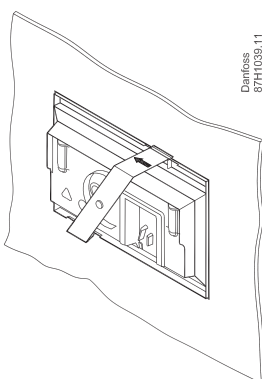
1



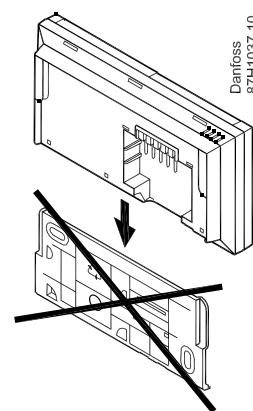
2



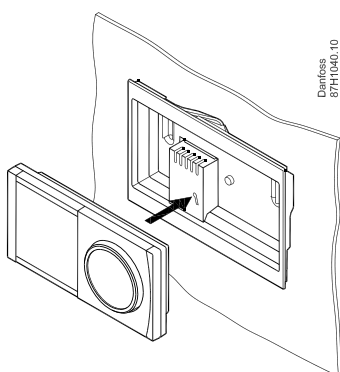
3



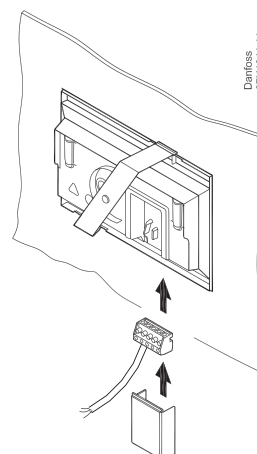
4



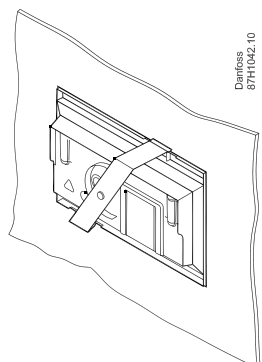
5



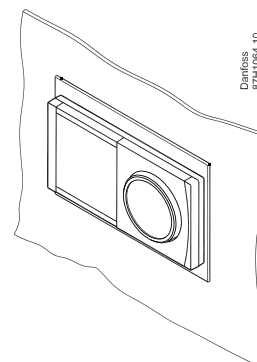
6



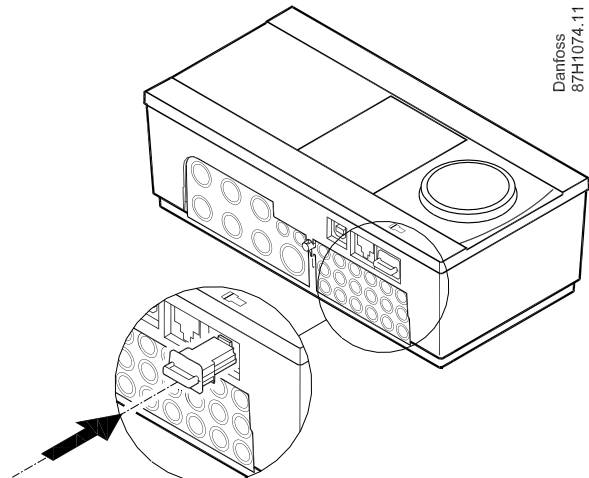
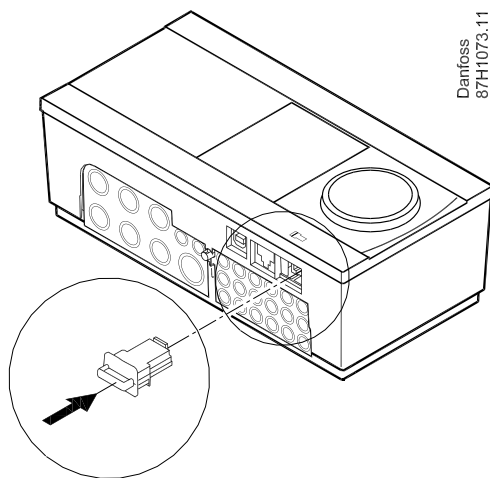
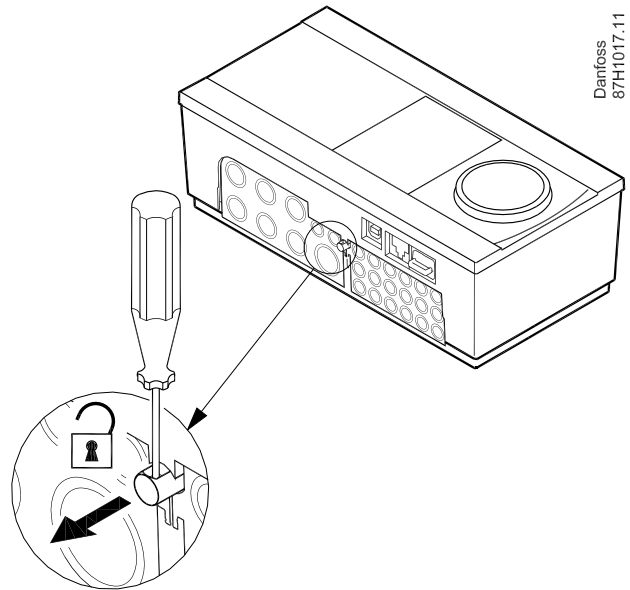
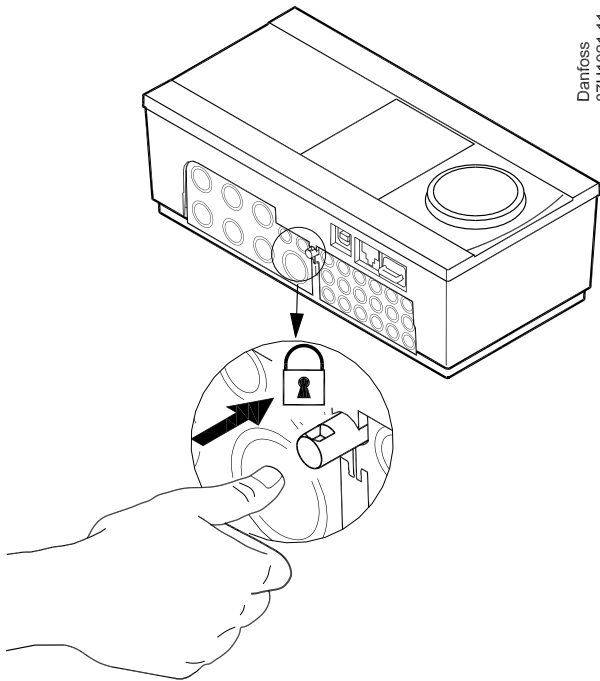
7



8



Installation Guide, ECL Comfort 210 / 296 / 310, A232 / A332



?  **ECL Comfort 210 / 296 / 310, A232 / A332: [www.heating.danfoss.com](http://www.heating.danfoss.com)**

?  **<https://www.youtube.com/user/DanfossHeating>**  
-> Playlists -> How-to Videos -> District Energy installation videos



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