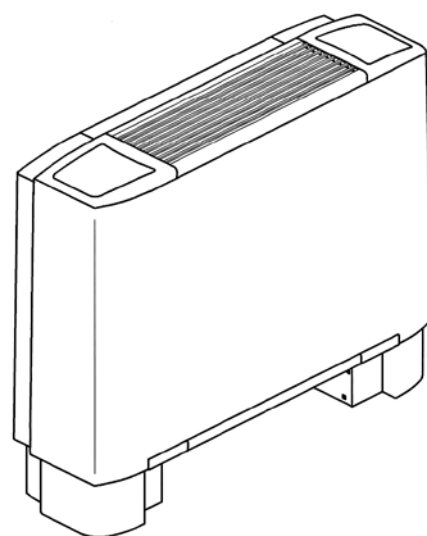


Original instructions
PCW

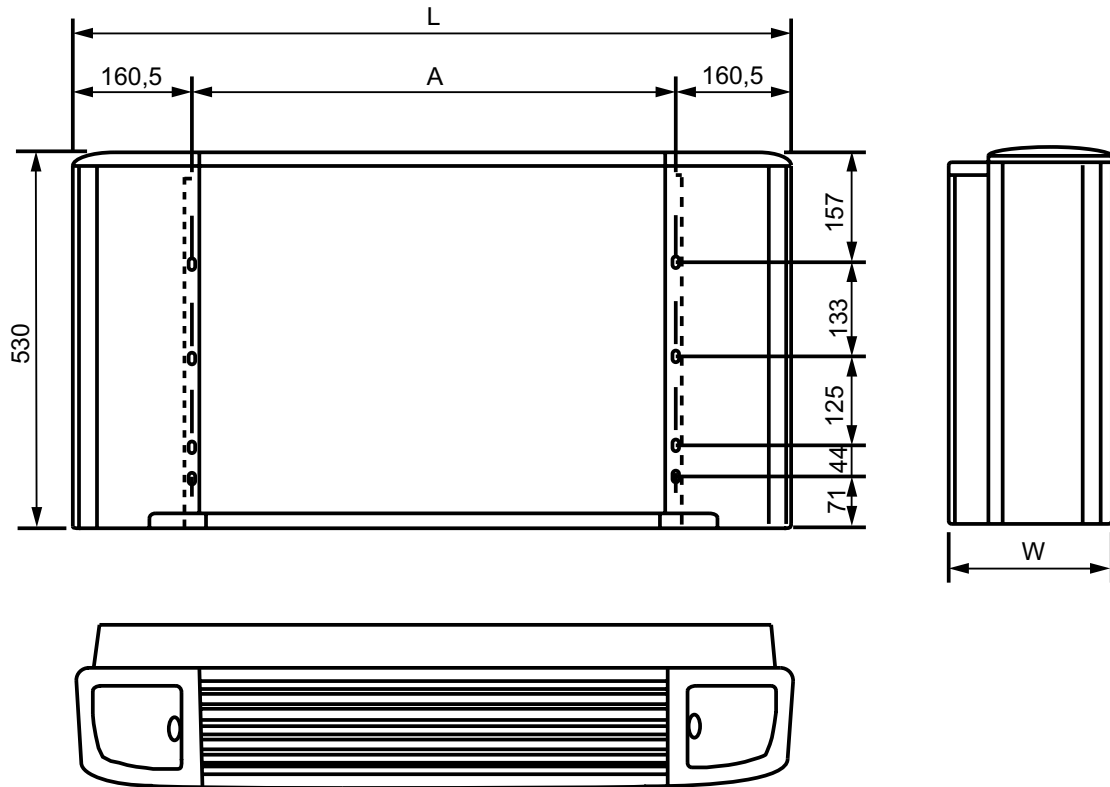


SE ... 29

NO ... 45

EN ... 61

PCW



	L [mm]	A [mm]	H [mm]	W [mm]
PCW132S/134S	775	454	530	225
PCW232S/234S	990	669	530	225
PCW332S/334S	1205	884	530	225
PCW432S/434S	1205	884	530	225
PCW532S/534S	1420	1099	530	225

Vattenanslutning invändig gänga / Water connection inside thread/
Vanntilkobling innvendig gjenge

PCW132S/134S	DN15	G15 1/2"	
PCW232S/234S	DN15	G15 1/2"	
PCW332S/334S	DN15	G15 1/2"	
PCW432S	DN20	G20 3/4"	
PCW434S	DN20	G20 3/4" / DN15	G15 1/2"
PCW532S	DN20	G20 3/4"	
PCW534S	DN20	G20 3/4" / DN15	G15 1/2"

Montering / Mounting / Montering

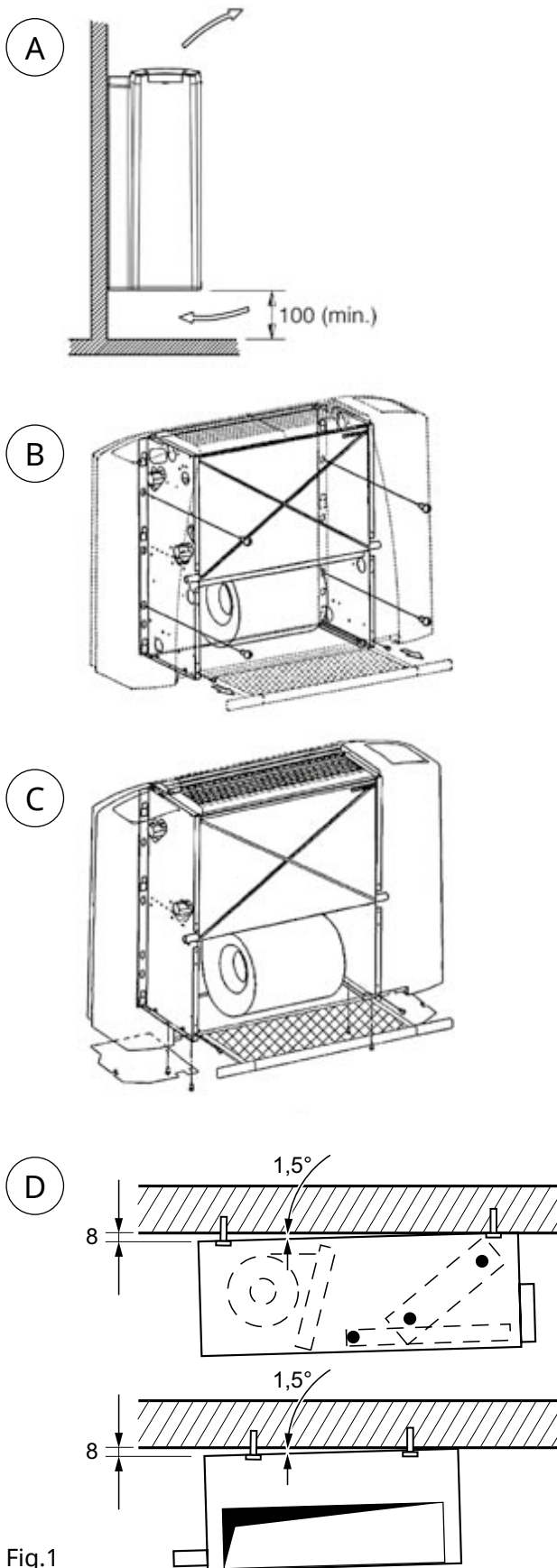
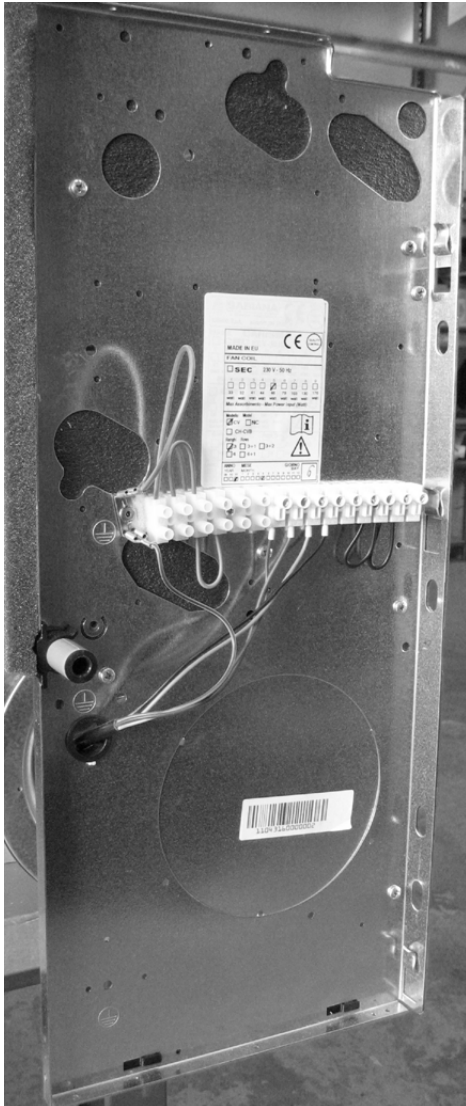


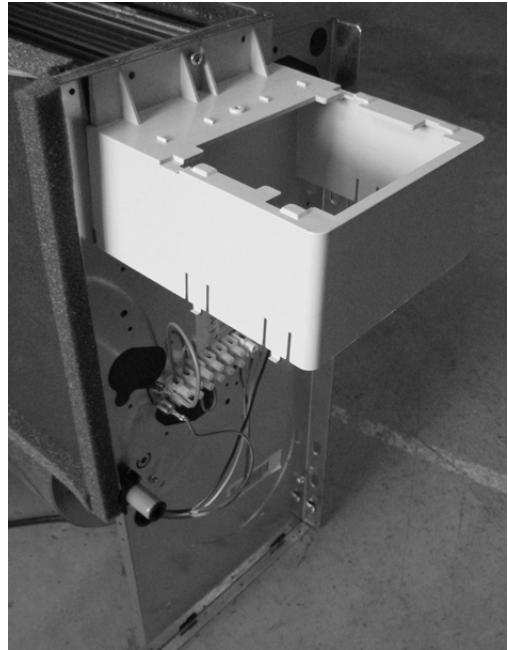
Fig.1

Montering av inbyggd manöverpanel (PCR1 och PCR2) / Mounting of built-in control panels (PCR1 and PCR2) / Montering av innebygde kontrollenheter (PCR1 og PCR2)

A



B



C

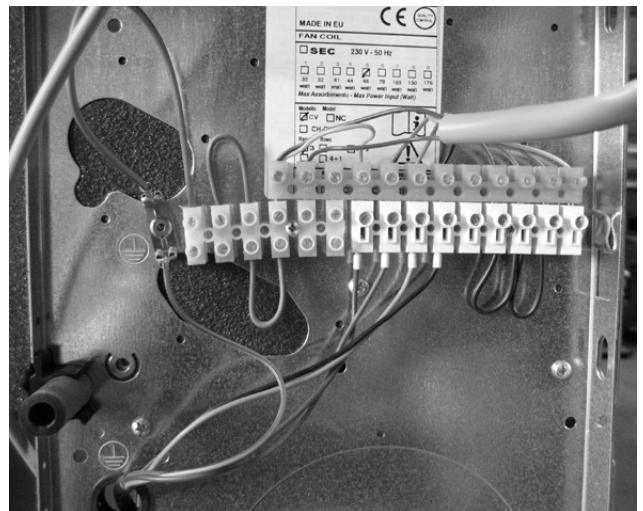
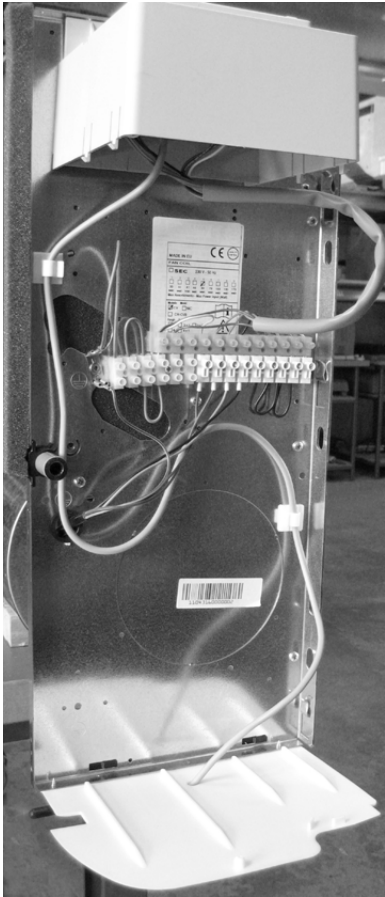
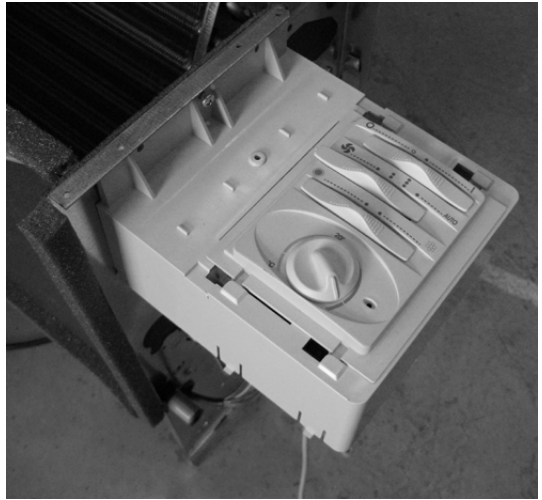


Fig.2: A-C

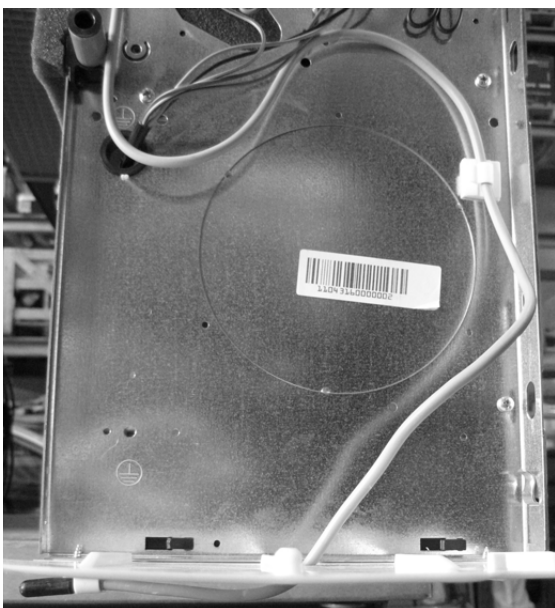
D



F



E



G

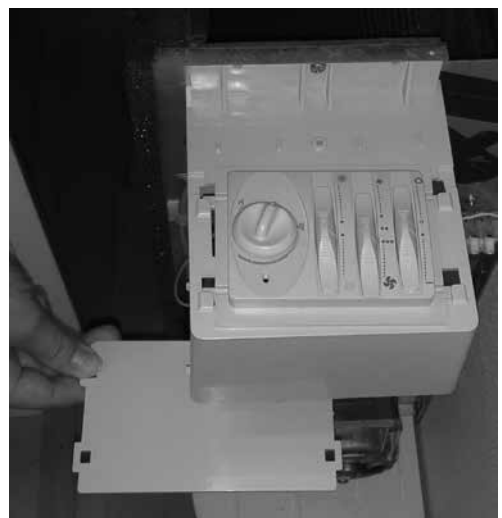
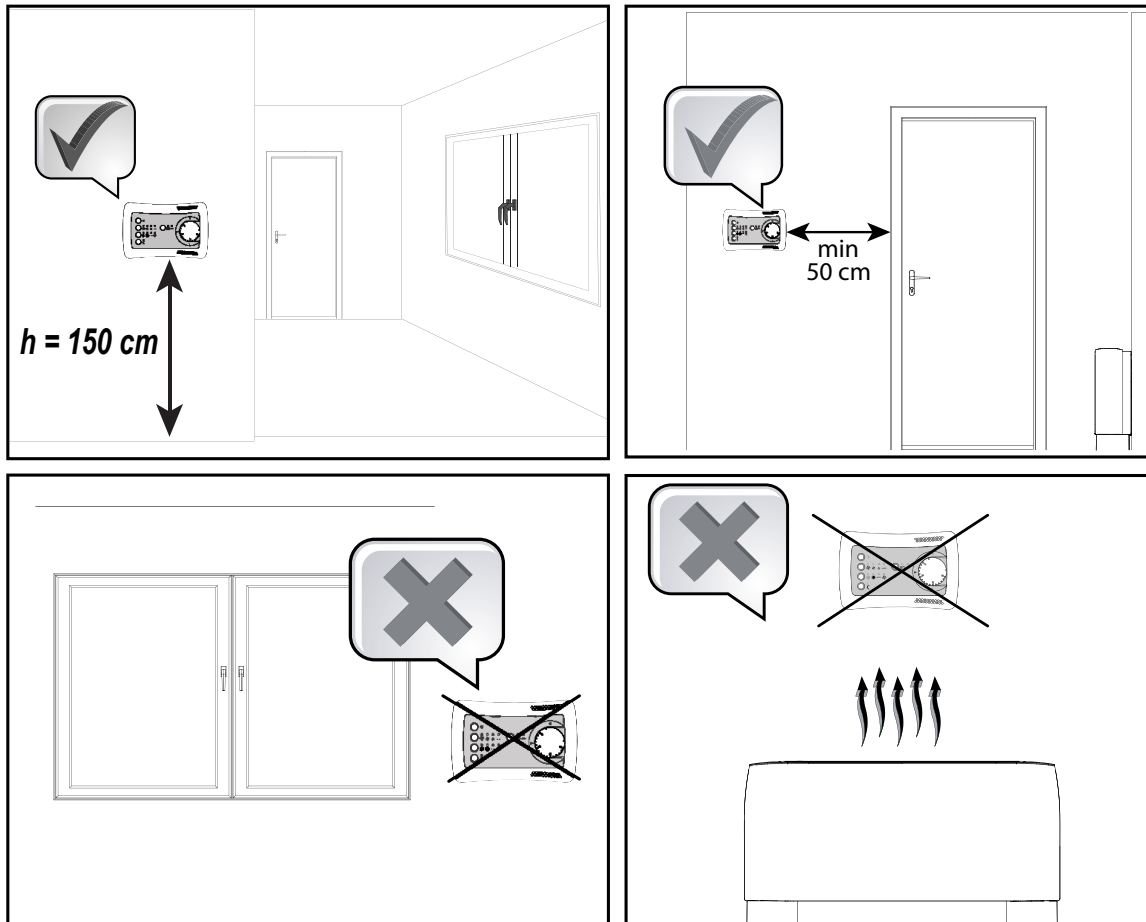
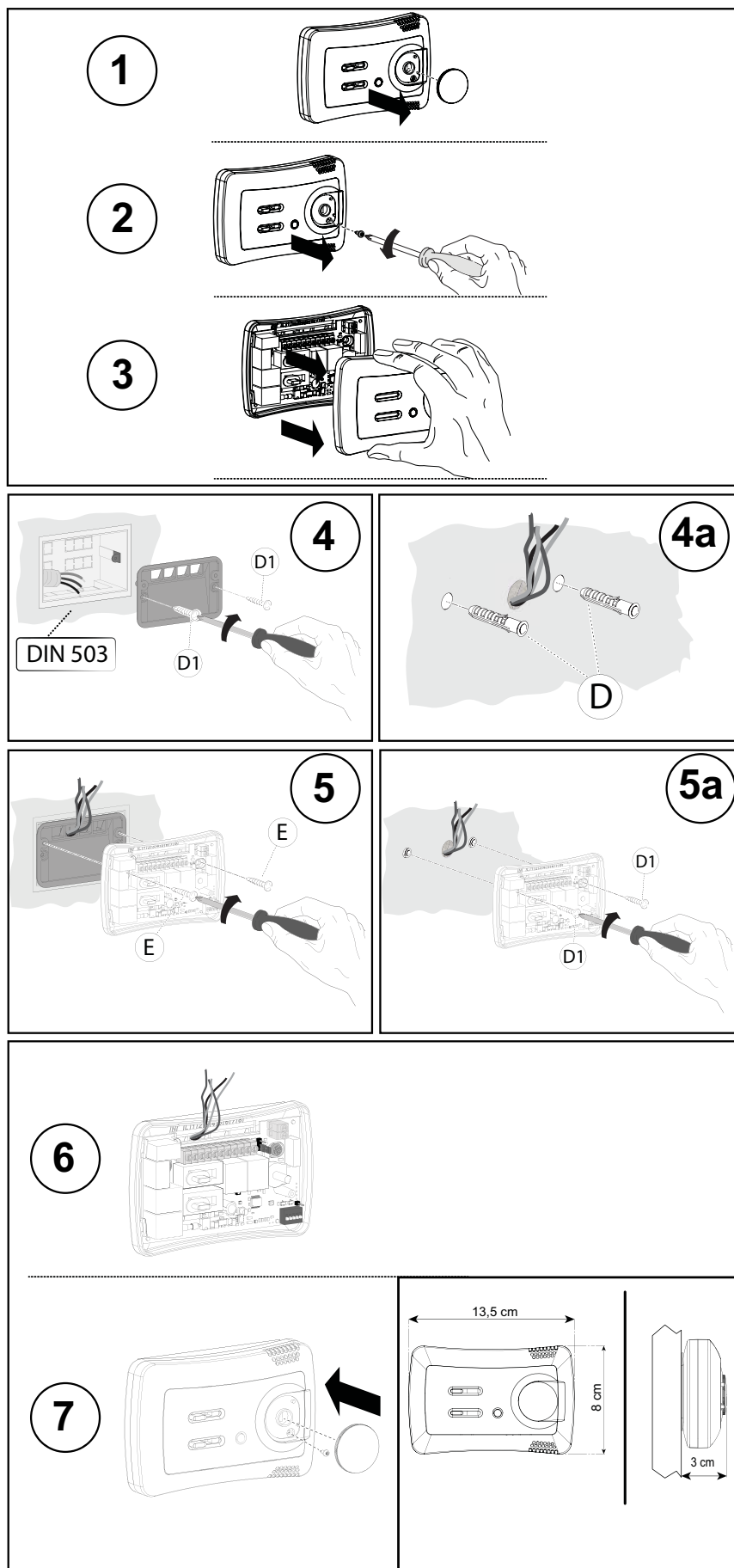


Fig.2: D-G

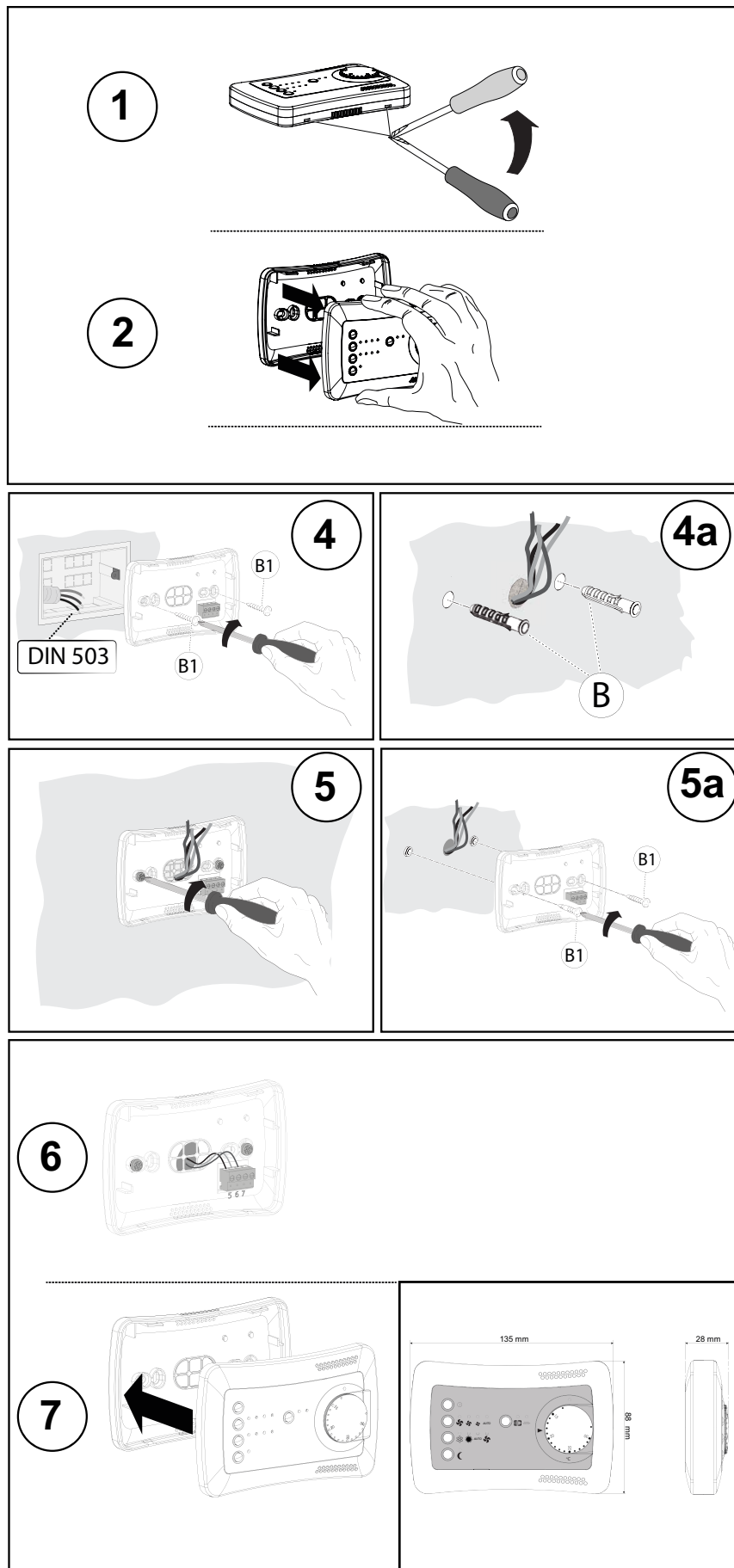
Montering av extern manöverpanel (PCEB, PCEC och PCEA) / Mounting of remote control panels (PCEB, PCEC and PCEA) / Montering av eksternt kontrollpanel (PCEB, PCEC og PCEA)



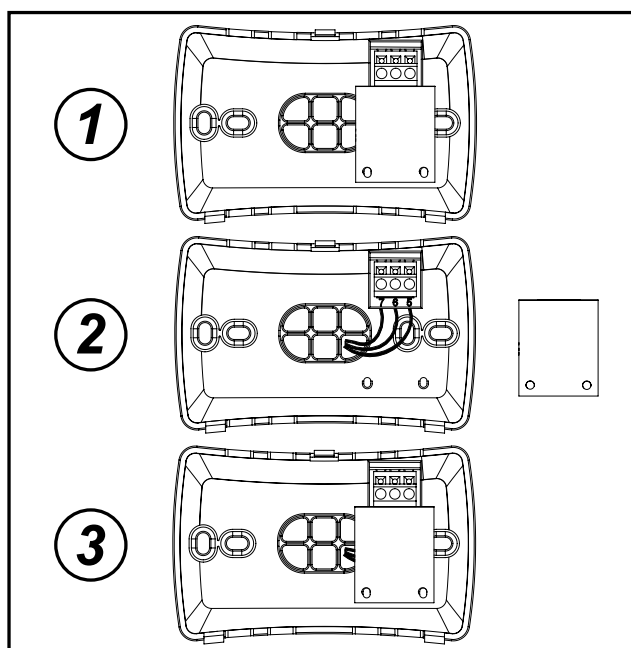
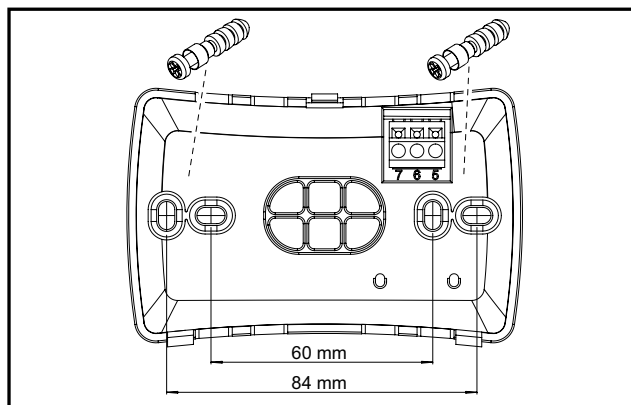
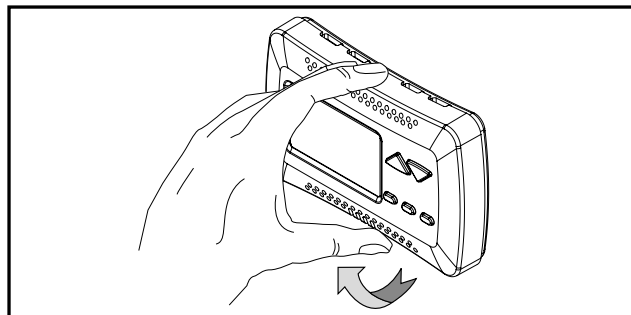
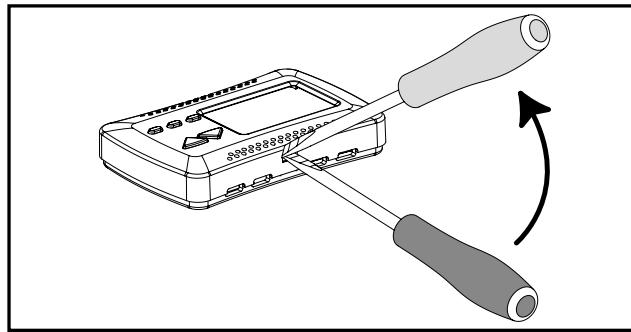
Montering av extern manöverpanel (PCEB) / Mounting of remote control panels (PCEB) / Montering av eksternt kontrollpanel (PCEB)



Montering av extern manöverpanel (PCEC) / Mounting of remote control panels (PCEC) / Montering av eksternt kontrollpanel (PCEC)



Montering av extern manöverpanel (PCEA) / Mounting of remote control panels (PCEA) / Montering av eksternt kontrollpanel (PCEA)



Vattenbatteri / Water coil / Vannbatteri

Max. vattentemperatur in / Max. water temperature in: +85 °C

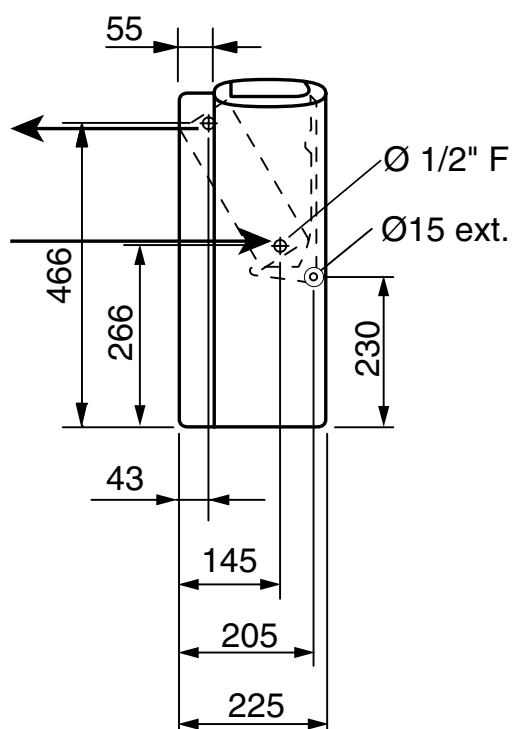
Min. vattentemperatur in / Min. water temperature in: +5 °C

Max. arbetstryck / Max. working pressure: 1000 kPa (10 bar)

2-rörsystem, 3-radigt batteri

2 pipe system, 3 row coil

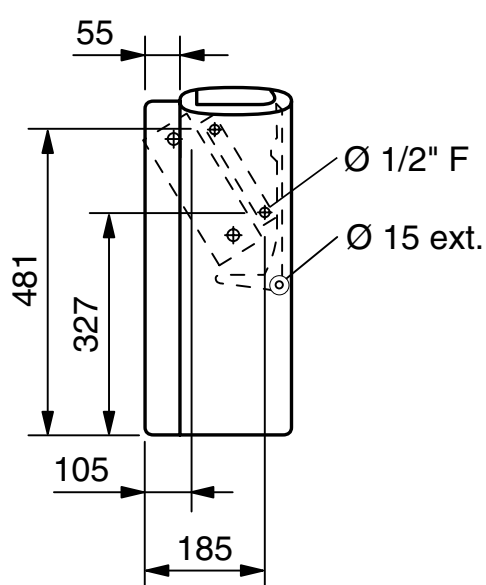
2-rørsystem, 3-raders batteri



4-rörsystem, 3-radigt samt 1-radigt batteri

4-pipe system, 3 row and 1 row battery

4-rørsystem, 3-raders og 1-raders batteri



Typ/Type	Vattenvolym Water volume Vannvolum [l]	Vattenflöde min. Water flow min. Vannmengde min. [l/h]	Vattenflöde max. Water flow max. Vannmengde max. [l/h]
2-rörsystem, 3-radigt batteri / 2 pipe system, 3 row coil / 2-rørsystem, 3-raders batteri			
PCW132S	0,6	100	500
PCW232S	0,9	100	750
PCW332S	1,3	150	1000
PCW432S	1,6	150	1000
PCW532S	1,7	150	1500
4-rörsystem, 3-radigt samt 1-radigt batteri/ 4-pipe system, 3 row and 1 row battery/ 4-rørsystem, 3-raders og 1-raders batteri			
PCW134S	0,6+0,2	100+50	500+250
PCW234S	0,9+0,3	100+50	750+350
PCW334S	1,3+0,4	150+100	1000+450
PCW434S	1,6+0,5	150+100	1000+500
PCW534S	1,7+0,5	150+100	1500+650

PCW

Dimensioneringstabeller, 3-radigt batteri, 2-rørsystem, varme
 Output charts water, 3 row coil, 2-pipe system, heating
 Effektdiagrammer, vann, 3-raders batteri, 2-rørssystem, varme

Incoming air temperature 20 °C

Type	Fan Position	Air flow [m³/h]	Water temperature 60/40 °C			Water temperature 55/35 °C			Water temperature 55/30 °C		
			Output [kW]	Water flow [l/s]	Pres. drop [kPa]	Output [kW]	Water flow [l/s]	Pres. drop [kPa]	Output [kW]	Water flow [l/s]	Pres. drop [kPa]
PCW132S	Max	295	2,04	0,02	0,7	1,60	0,02	0,5	1,19	0,01	0,2
	Med	220	1,61	0,02	0,5	1,27	0,02	0,3	0,95	0,01	0,1
	Min	145	1,15	0,01	0,3	0,92	0,01	0,2	0,68	0,01	0,1
PCW232S	Max	385	3,02	0,04	2,1	2,42	0,03	1,5	1,83	0,02	0,6
	Med	270	2,23	0,03	1,2	1,80	0,02	0,9	1,36	0,01	0,4
	Min	235	1,95	0,02	1,0	1,57	0,02	0,7	1,19	0,01	0,3
PCW332S	Max	650	4,59	0,05	1,7	3,64	0,04	1,2	2,77	0,03	0,5
	Med	495	3,69	0,04	1,2	2,94	0,04	0,8	2,23	0,02	0,3
	Min	315	2,50	0,03	0,6	2,01	0,02	0,4	1,52	0,01	0,2
PCW432S	Max	760	5,20	0,06	2,1	4,11	0,05	1,4	3,14	0,03	0,6
	Med	590	4,23	0,05	1,5	3,36	0,04	1,0	2,56	0,02	0,4
	Min	415	3,16	0,04	0,9	2,53	0,03	0,6	1,92	0,02	0,3
PCW532S	Max	925	6,44	0,08	3,6	5,12	0,06	2,5	3,94	0,04	1,1
	Med	735	5,35	0,06	2,6	4,27	0,05	1,8	3,28	0,03	0,8
	Min	535	4,15	0,05	1,7	3,33	0,04	1,2	2,54	0,02	0,5

Incoming air temperature 20 °C

Type	Fan Position	Air flow [m³/h]	Water temperature 50/44 °C			Water temperature 50/40 °C			Water temperature 50/30 °C		
			Output [kW]	Water flow [l/s]	Pres. drop [kPa]	Output [kW]	Water flow [l/s]	Pres. drop [kPa]	Output [kW]	Water flow [l/s]	Pres. drop [kPa]
PCW132S	Max	295	2,17	0,05	2,4	1,93	0,03	1,1	1,19	0,01	0,2
	Med	220	1,70	0,04	1,6	1,52	0,02	0,7	0,95	0,01	0,1
	Min	145	1,21	0,0	0,8	1,08	0,02	0,4	0,68	0,01	0,1
PCW232S	Max	385	3,13	0,07	6,5	2,83	0,04	3,2	1,83	0,02	0,6
	Med	270	2,31	0,05	3,8	2,09	0,03	1,9	1,36	0,01	0,4
	Min	235	2,01	0,04	3,0	1,82	0,03	1,5	1,19	0,01	0,3
PCW332S	Max	650	4,80	0,10	5,4	4,32	0,07	2,6	2,77	0,03	0,5
	Med	495	3,84	0,08	3,6	3,46	0,06	1,8	2,23	0,02	0,3
	Min	315	2,60	0,06	1,8	2,35	0,04	0,9	1,52	0,01	0,2
PCW432S	Max	760	5,45	0,12	6,7	4,90	0,08	3,2	3,14	0,03	0,6
	Med	590	4,42	0,10	4,6	3,97	0,06	2,2	2,56	0,02	0,4
	Min	415	3,29	0,07	2,8	2,97	0,05	1,3	1,92	0,02	0,3
PCW532S	Max	925	6,71	0,15	11,2	6,05	0,10	5,5	3,94	0,04	1,1
	Med	735	5,56	0,12	8,1	5,02	0,08	3,9	3,28	0,03	0,8
	Min	535	4,29	0,09	5,1	3,89	0,06	2,5	2,54	0,02	0,5

PCW

Dimensioneringstabeller, 3-radigt batteri, 2-rørsystem, kyla. Luftfuktigh.: 50%

Output charts water, 3 row coil, 2-pipe system, cooling. R.H. 50%

Effektdiagrammer, vann, 3-raders batteri, 2-rørssystem, kjøling. Relativ fuktighet: 50 %

Incoming air temperature 27 °C

Type	Fan Position	Air flow [m³/h]	Water temperature 7/12 °C				Water temperature 7/17 °C			
			Output total [kW]	Output sensibel [kW]	Water flow [l/s]	Pres. drop [kPa]	Output total [kW]	Output sensibel [kW]	Water flow [l/s]	Pres. drop [kPa]
PCW132S	Max	295	1,69	1,23	0,08	7,5	1,04	1,04	0,02	0,9
	Med	220	1,35	0,97	0,06	5,1	0,77	0,75	0,02	0,6
	Min	145	0,98	0,69	0,05	2,9	0,57	0,53	0,01	0,3
PCW232S	Max	385	2,57	1,80	0,12	22,4	1,41	1,41	0,04	2,8
	Med	270	1,92	1,32	0,09	13,4	1,22	1,04	0,03	1,7
	Min	235	1,68	1,15	0,08	10,6	1,08	0,91	0,03	1,4
PCW332S	Max	650	3,92	2,81	0,19	18,4	2,38	2,21	0,06	2,2
	Med	495	3,16	2,23	0,15	12,6	1,95	1,75	0,05	1,6
	Min	315	2,18	1,51	0,10	6,6	1,38	1,18	0,03	0,8
PCW432S	Max	760	4,41	3,19	0,21	22,6	2,66	2,52	0,06	2,7
	Med	590	3,63	2,58	0,17	16,0	2,22	2,03	0,05	2,0
	Min	415	2,73	1,91	0,13	9,7	1,70	1,50	0,04	1,2
PCW532S	Max	925	5,50	3,94	0,26	38,8	3,43	3,13	0,08	4,9
	Med	735	4,62	3,26	0,22	28,6	2,91	2,59	0,07	3,7
	Min	535	3,59	2,50	0,17	18,3	2,29	1,98	0,05	2,4

Incoming air temperature 24 °C

Type	Fan Position	Air flow [m³/h]	Water temperature 7/12 °C				Water temperature 7/17 °C			
			Output total [kW]	Output sensibel [kW]	Water flow [l/s]	Pres. drop [kPa]	Output total [kW]	Output sensibel [kW]	Water flow [l/s]	Pres. drop [kPa]
PCW132S	Max	295	1,13	1,01	0,05	3,7	0,71	0,71	0,02	0,5
	Med	220	0,91	0,80	0,04	2,5	0,56	0,56	0,01	0,3
	Min	145	0,66	0,56	0,03	1,4	0,41	0,41	0,01	0,2
PCW232S	Max	385	1,76	1,48	0,08	11,6	1,10	1,10	0,03	1,5
	Med	270	1,32	1,309	0,06	7,0	0,83	0,83	0,02	0,9
	Min	235	1,16	0,95	0,06	5,6	0,72	0,72	0,02	0,7
PCW332S	Max	650	2,67	2,32	0,13	9,4	1,69	1,69	0,04	1,2
	Med	495	2,16	1,84	0,10	6,5	1,35	1,35	0,03	0,8
	Min	315	1,50	1,24	0,07	3,4	0,94	0,94	0,02	0,4
PCW432S	Max	760	3,00	2,64	0,104	11,5	1,91	1,91	0,05	1,5
	Med	590	2,47	2,13	0,12	8,2	1,56	1,56	0,04	1,1
	Min	415	1,87	1,57	0,09	5,0	1,17	1,17	0,03	0,6
PCW532S	Max	925	3,77	3,26	0,18	20,0	2,41	2,41	0,06	2,6
	Med	735	3,17	2,70	0,15	14,8	2,01	2,01	0,05	1,9
	Min	535	2,48	2,06	0,12	9,5	1,55	1,55	0,04	1,2

Dimensioneringstabeller, 3-rad. batteri-kyla, 1-rad. batteri-värme, 4-rørsystem
 Output charts water, 3 row coil-cooling, 1 row coil-heating, 4-pipe system
 Effektdiagrammer, vann, 3-raders batteri-kjøling, 1-rads batteri-varme, 4-rørssystem

Type	Fan Position	Air flow [m³/h]	Incoming air temperature 24 °C				Incoming air temperature 20 °C		
			Water temperature 7/12 °C				Water temperature 50/40 °C		
			3 row coil Cooling				1 row coil Heating		
			Output cooling total [kW]	Output cooling sensibel [kW]	Water flow [l/s]	Pres. drop [kPa]	Output heating [kW]	Water flow [l/s]	Pres. drop [kPa]
PCW134S	Max	295	1,69	1,23	0,08	7,5	0,76	0,02	1,2
	Med	220	1,35	0,97	0,06	5,1	0,63	0,01	0,9
	Min	145	0,98	0,69	0,05	2,9	0,48	0,01	0,5
PCW234S	Max	385	2,57	1,8	0,12	22,4	1,17	0,03	3,2
	Med	270	1,92	1,32	0,09	13,4	0,92	0,02	2,1
	Min	235	1,68	1,15	0,08	10,6	0,83	0,02	1,7
PCW334S	Max	650	3,92	2,81	0,19	18,4	1,72	0,04	1,2
	Med	495	3,16	2,23	0,15	12,6	1,43	0,03	0,9
	Min	315	2,18	1,51	0,1	6,6	1,05	0,03	0,5
PCW434S	Max	760	4,41	3,19	0,21	22,6	1,91	0,05	1,5
	Med	590	3,63	2,58	0,17	16	1,61	0,04	1,1
	Min	415	2,73	1,91	0,13	9,7	1,26	0,03	0,7
PCW534S	Max	925	5,5	3,94	0,26	38,8	2,45	0,06	2,7
	Med	735	4,62	3,26	0,22	28,6	2,1	0,05	2,1
	Min	535	3,59	2,5	0,17	18,3	1,69	0,04	1,4

Ordlista Dimensioneringstabeller

Glossary Output charts

Ordliste Effektdiagrammer

Inkommande lufttemperatur / Incoming air temperature / Innkommende lufttemperatur

Typ / Type / Type

Vattentemperatur / Water temperature / Vanntemperatur

Fläktläge / Fan position / Vifte-posisjon

Luftflöde / Air flow / Luftmengde

Effekt / Output / Effekt

Vattenflöde / Water flow / Vannmengde

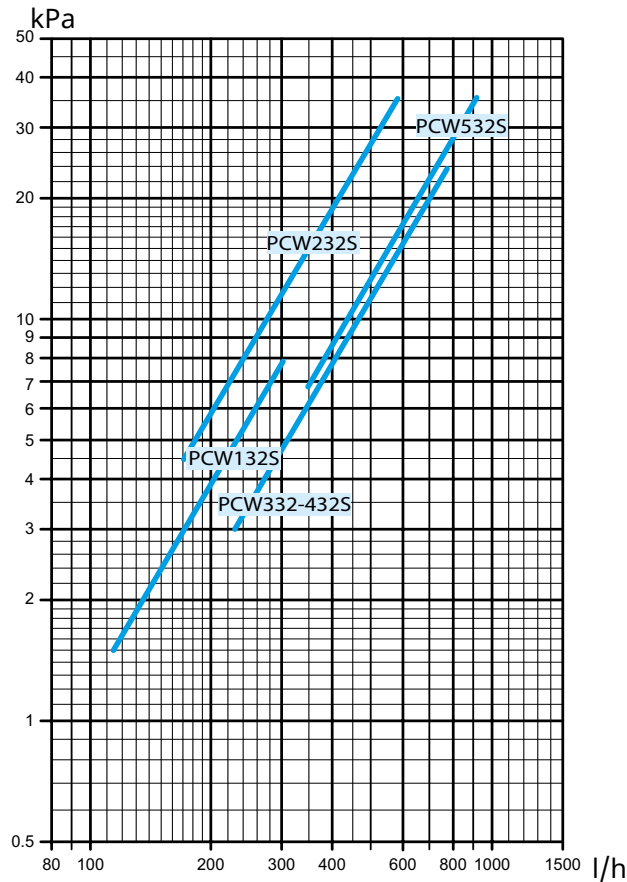
Tryckfall / Pres. drop / Trykkfall

Effekt total / Output total / Effekt, total

Effekt sensibel / Output sensibel / Effekt, følsom

Tryckfallsdiagram över fläktkonvektor PCW / Water pressure drop over PCW water coil / Tryckfall över vannbatteri PCW

3-radigt batteri / 3 row coil / 3-raders batteri

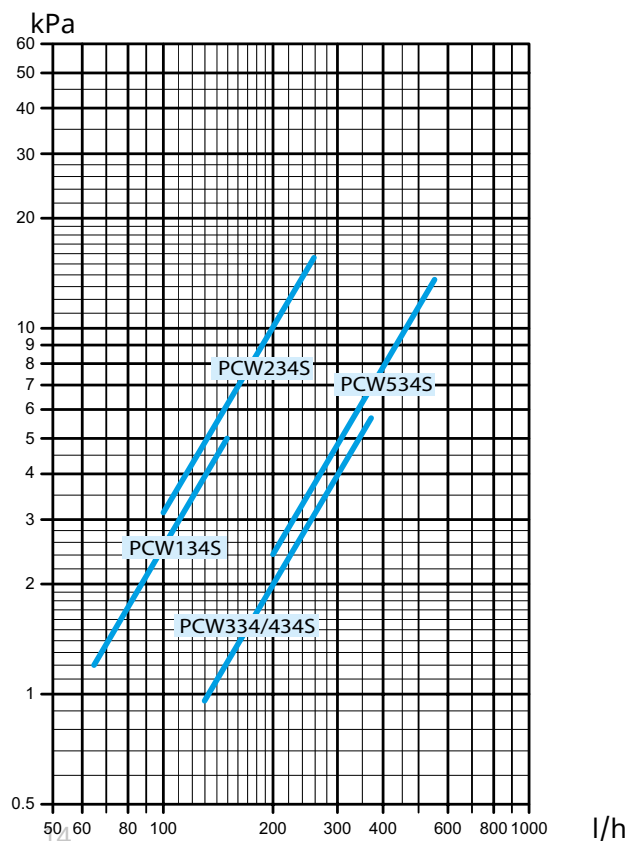


Tryckförlusten i diagrammet är beräknad för medeltemperaturen (T) 10 °C. För andra vattentemperaturen multipliceras tryckfallet med en faktor K.

The water pressure drop figures refer to a mean water temperature (T) of 10 °C. For different temperatures multiply the pressure drop by correction factors K.

T °C	20	30	40	50	60	70	80
K	0,94	0,90	0,86	0,82	0,78	0,74	0,70

1-radigt batteri / 1 row coil / 1-rads batteri



Tryckförlusten i diagrammet är beräknad för medeltemperaturen 65 °C. För andra vattentemperaturen multipliceras tryckfallet med en faktor K.

The water pressure drop figures refer to a mean water temperature of 65 °C. For different temperatures multiply the pressure drop by correction factors K.

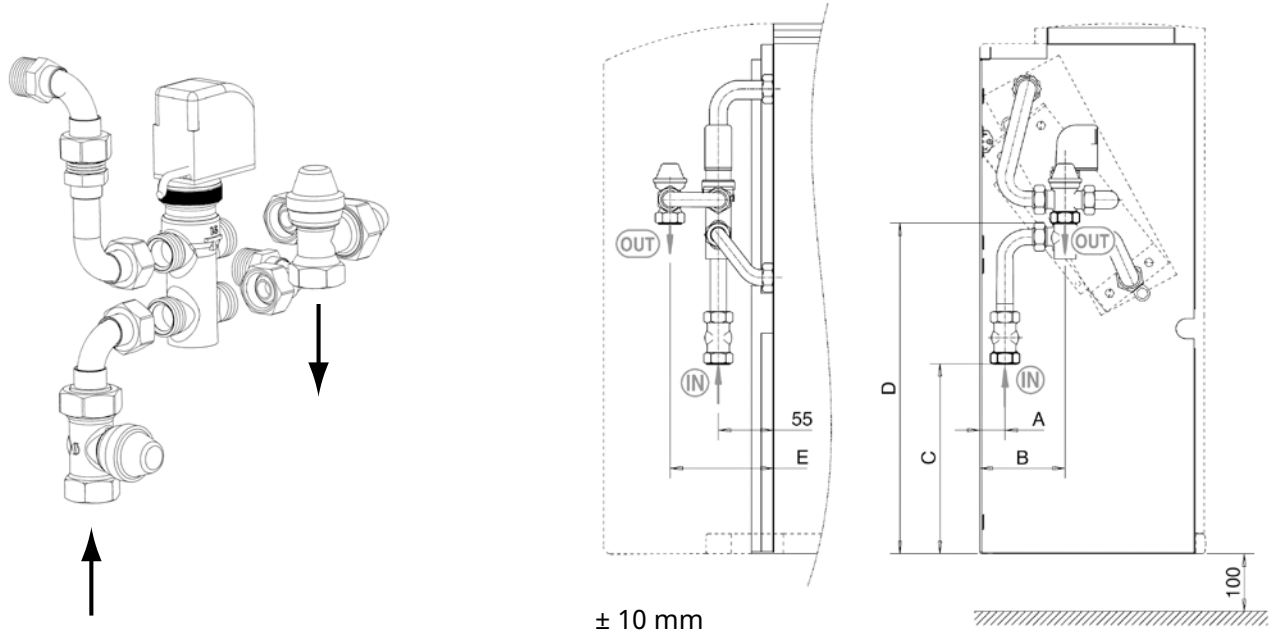
T °C	40	50	60	70	80
K	1,14	1,08	1,02	0,96	0,90

Vattenregleringar / Water controls / Vannregulering

PCVR13C /PCVR45

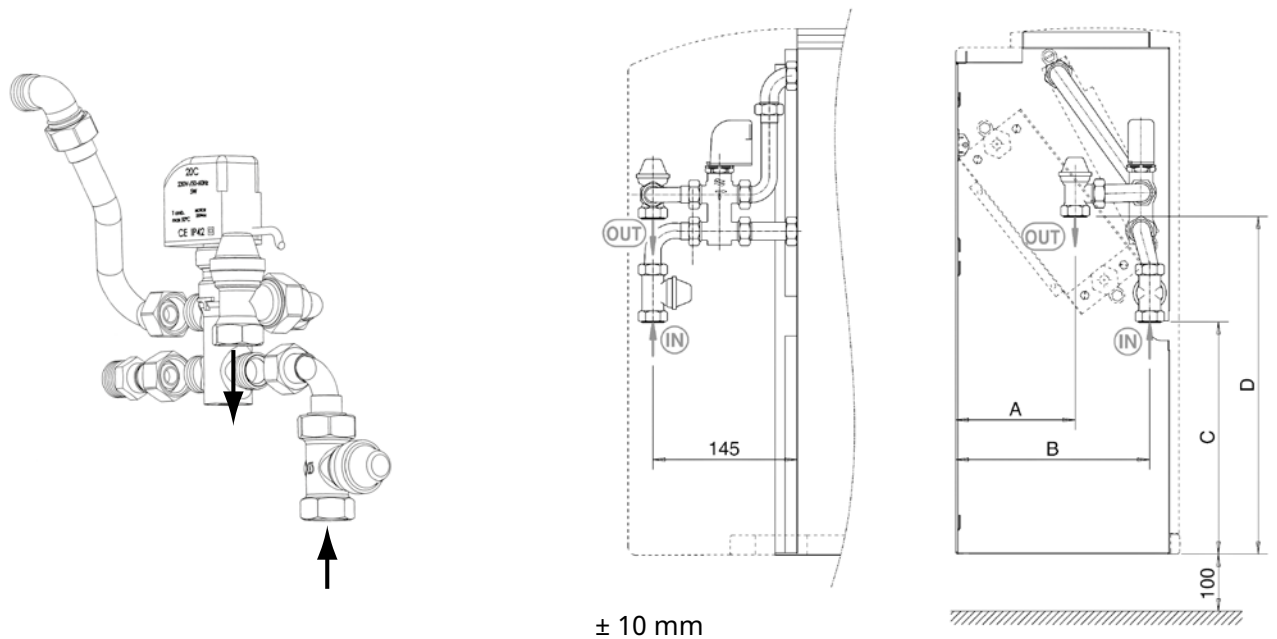
PCVR13C: PCW132S, PCW232S, PCW332S

PCVR45: PCW432S, PCW532S



PCVR315

PCVR315: PCW134S, PCW234S, PCW334S, PCW434S, PCW534S

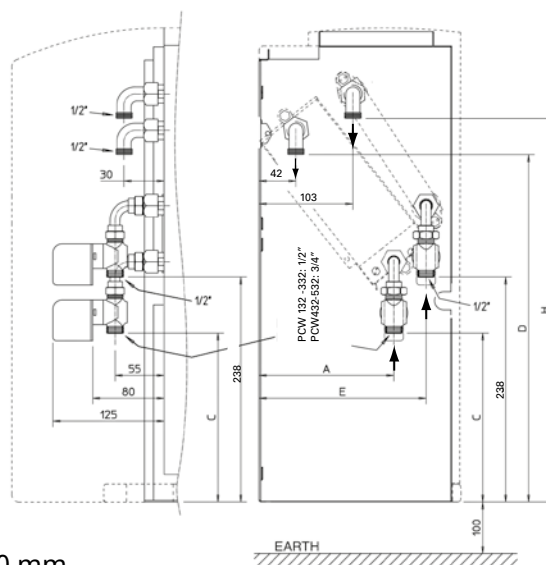
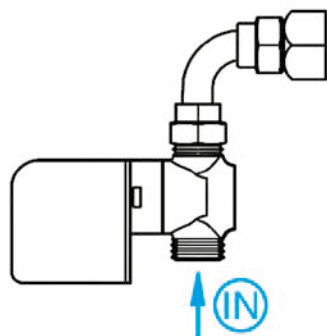


Item number	Type	Dimensions					Valve			Micrometric lockshield valve		
		A	B	C	D	E	DN	Ø	Kvs	DN	Ø	Kvs
19017	PCVR13C	25	85	190	290	105	15	1/2"F	1,6	1/2"F	1/2"F	2
11703	PCVR45	25	85	190	290	105	20	3/4"F	2,5	1/2"F	1/2"F	2
11704	PCVR315	120	195	240	340	-	15	1/2"	1,6	1/2"F	1/2"F	2

PCVR213 /PCVR245

PCVR213: PCW132/134S, PCW232/234S, PCW332/334S

PCVR245: PCW432/434S, PCW532/534S



± 10 mm

Item number	Type	Dimensions					Valve					
		Main coil			Additional coil		Main coil			Additional coil		
		A	C	D	E	H	DN	Ø	Kvs	DN	Ø	Kvs
11705	PCVR213	149	180	386	186	456	15	1/2" F	1,7	15	1/2"	1,7
11706	PCVR245	150	181	438	186	456	20	3/4" F	2,8	15	1/2"	1,7

Ordlista Vattenregleringar

Glossary Water controls

Ordliste Vannregulering

Mått / Dimensions / Mål

Ventil / Valve / Ventil

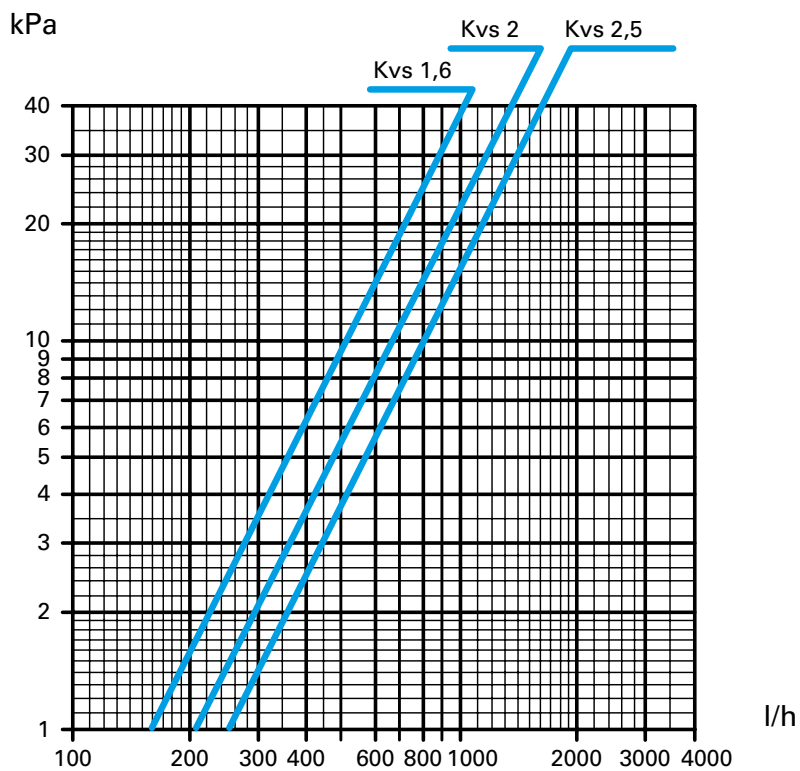
Manuell avstängningsventil / Micrometric lockshield valve / Mikrometrisk avstengningsventil

Huvudbatteri / Main coil / Hovedbatteri

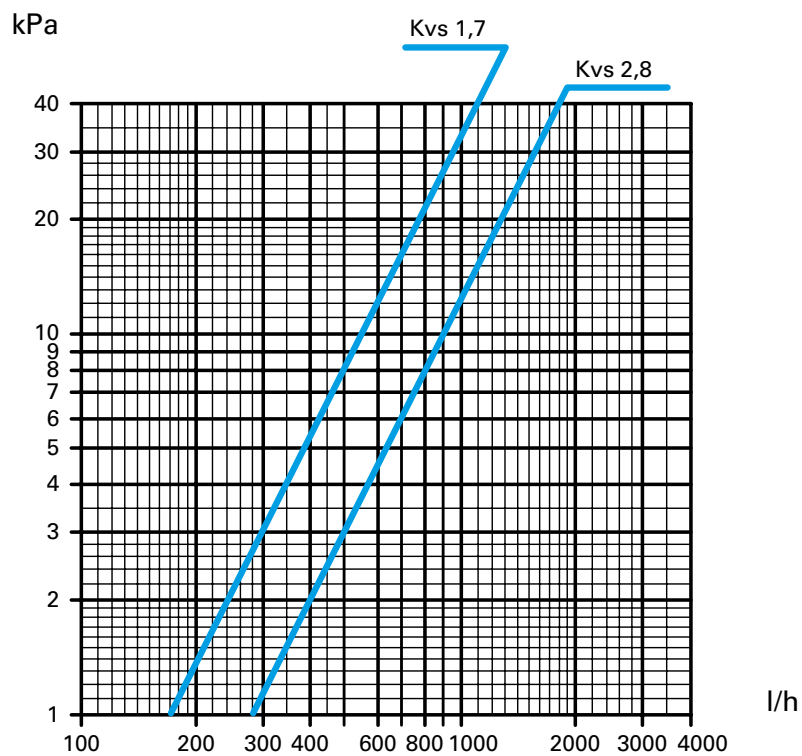
Tilläggsbatteri / Additional coil / Tilleggsbatteri

Tryckfallsdiagram över ventiler / Pressure drop over valves / Trykkfallsdiagram over ventiler

PCVR13C / PCVR45

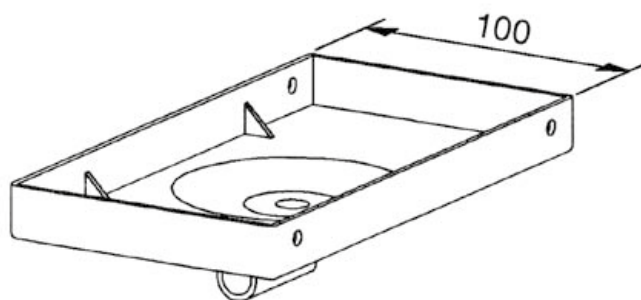


PCVR213 / PCVR245



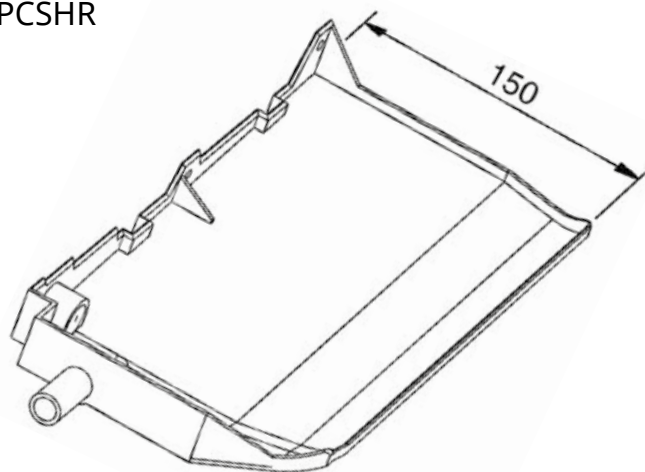
Tillbehör / Accessories / Tilbehør

PCTV

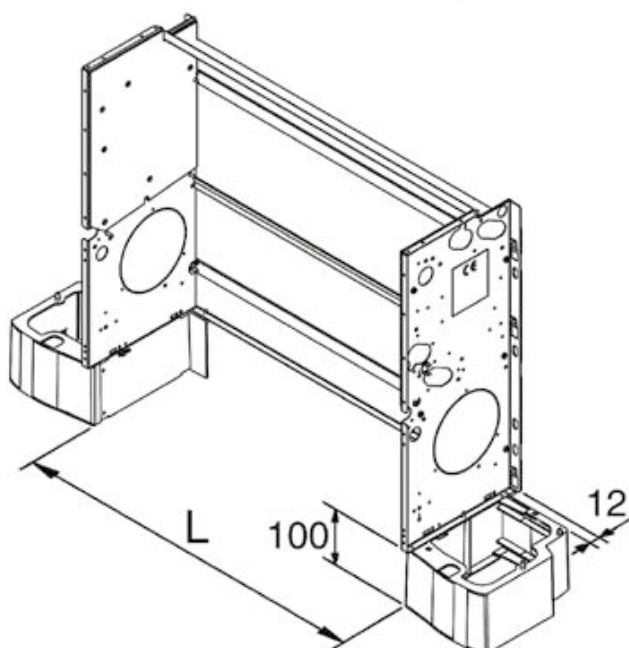


Item number	Type
11699	PCTV
19015	PCSHL
19016	PCSHR
11694	PCF

PCSHL / PCSHR

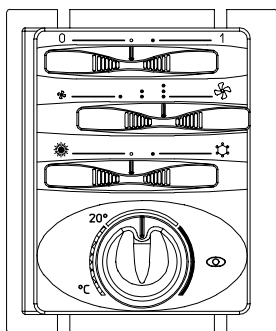


PCF

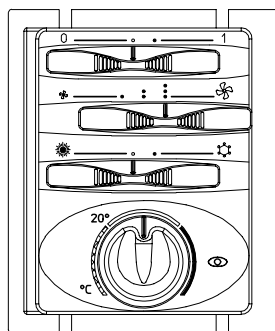


Type	L [mm]
PCW132/134S	430
PCW232/234S	645
PCG332/334S	860
PCG532/534S	1119

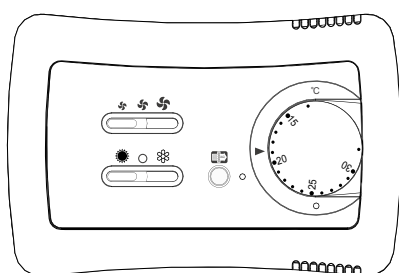
Regleringar / Controls / Reguleringer



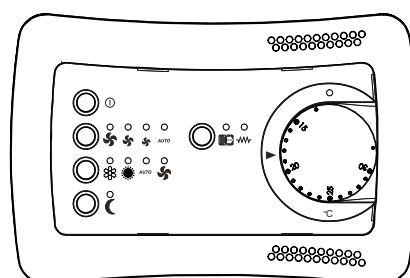
PCR1



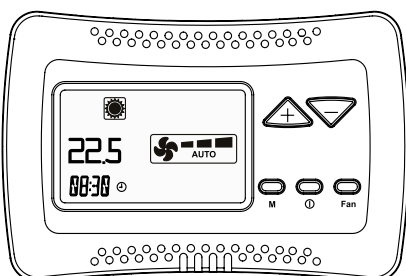
PCR2



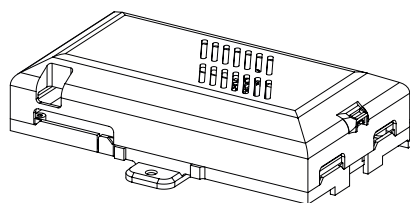
PCEB



PCEC



PCEA



PCPU

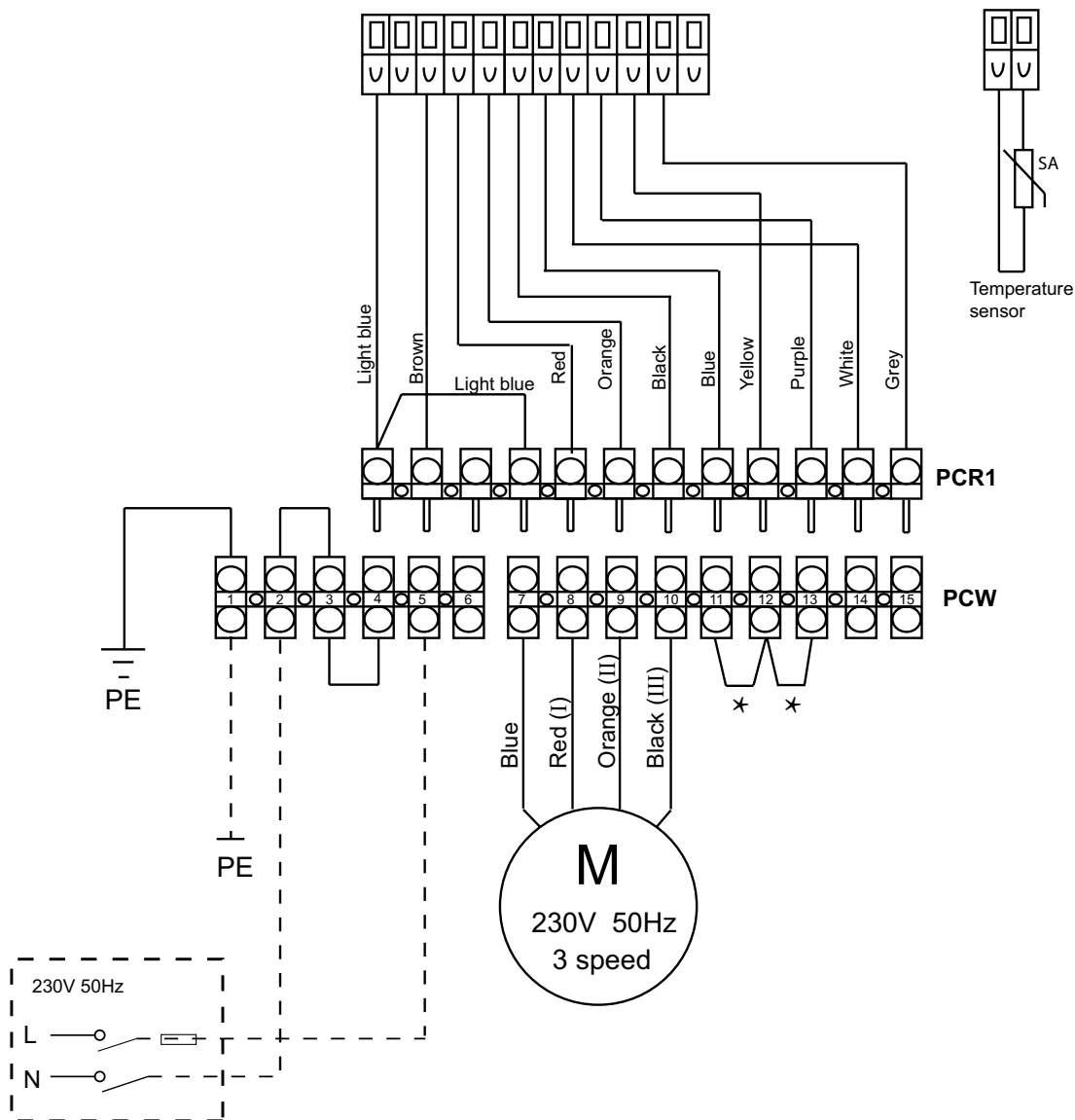


PCT

Item number	Type
11685	PCR1
11686	PCR2
452690	PCEB
452691	PCEC
452692	PCEA
452693	PCPU
11693	PCT

PCR1

Utan ventil / Without valve / Uten ventil



Temperaturgivare / Temperature sensor / Temperaturmåler

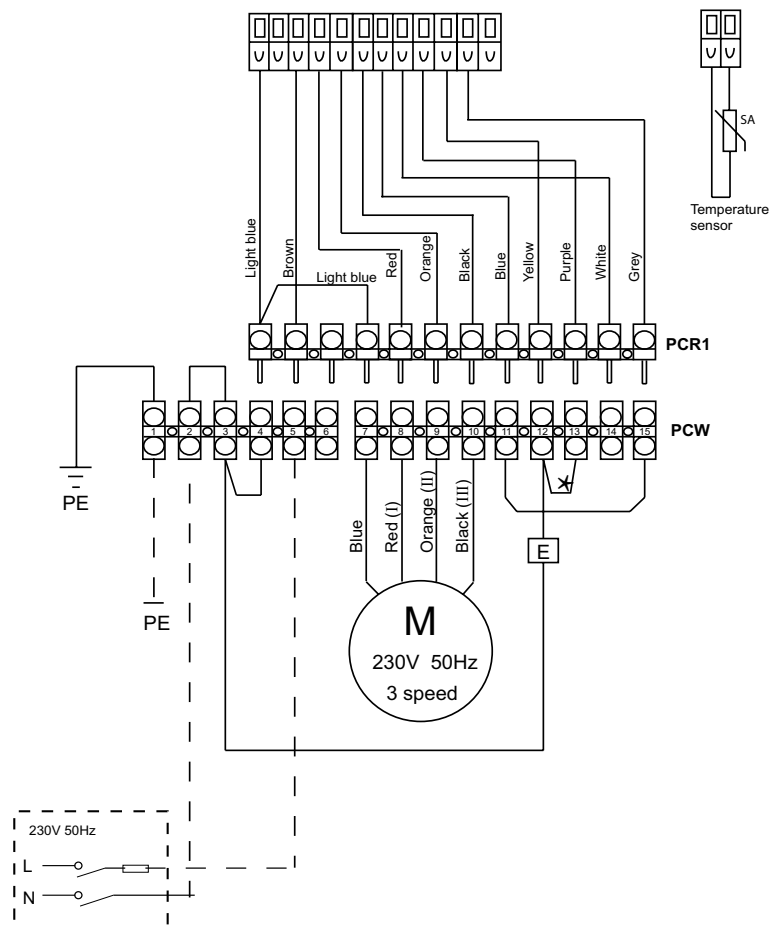
3 hastigheter / 3 speed / 3 hastigheter

Med begränsningstermostat / With low cut-out thermostat / Med begrensningsstermostat

PCR1

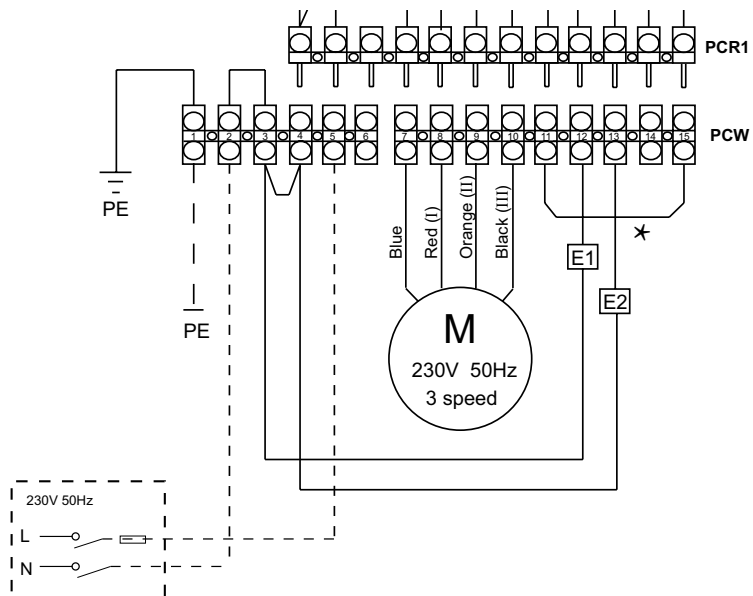
Med 1 ventil / With 1 valve / Med 1 ventil

- ! *Obs! Bygel
 *Note! Bridge
 *NB! Klemme



Med 2 ventiler / With 2 valves / Med 2 ventiler

- ! *Obs! Bygel
 *Note! Bridge
 *NB! Klemme



Temperaturgivare / Temperature sensor / Temperaturmåler

3 hastigheter / 3 speed / 3 hastigheter

Med begränsningstermostat / With low cut-out thermostat / Med begrensningstermostat

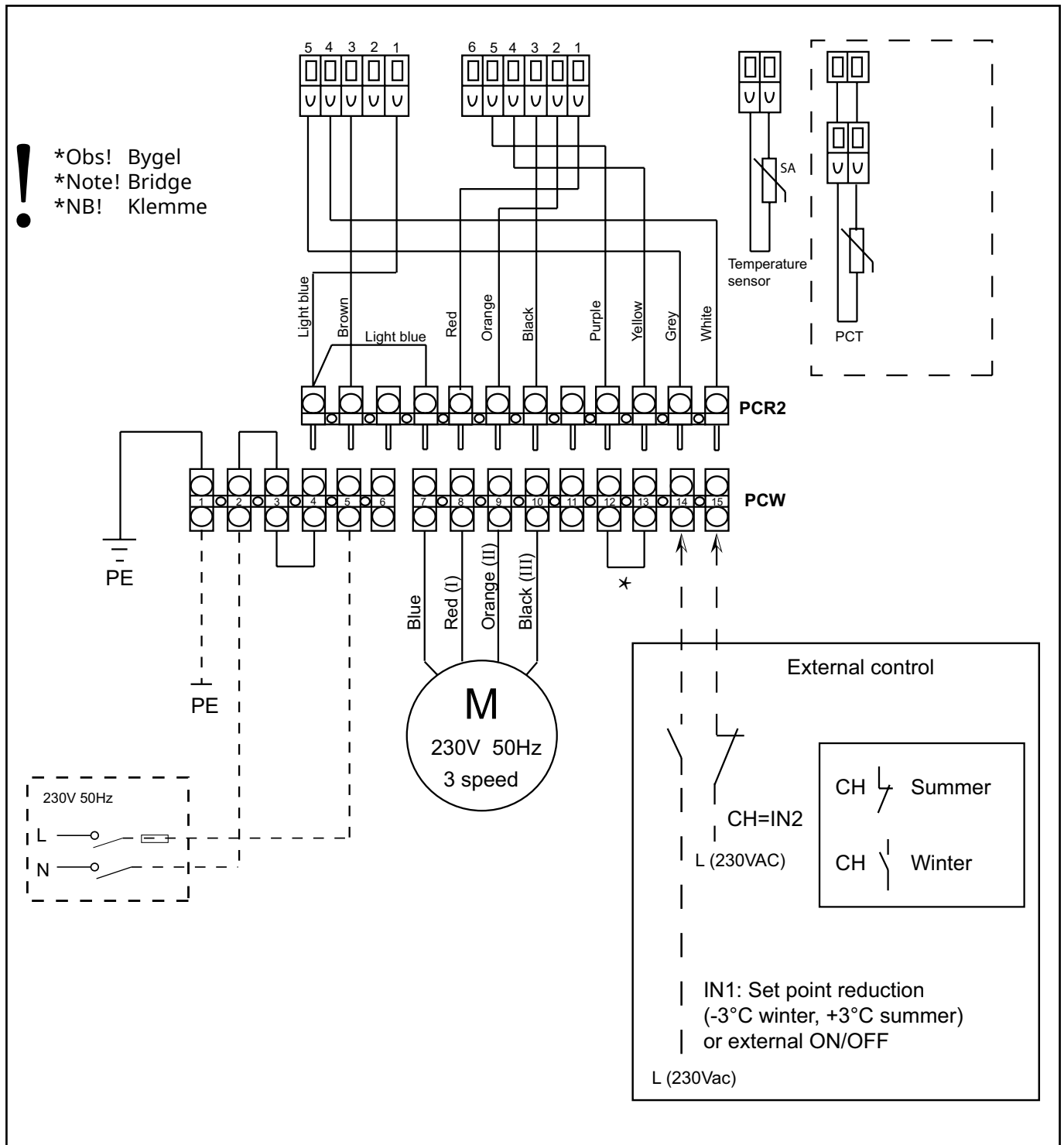
E = Vattenventil / Water valve / Vannventil

E1 = Varmvattenventil / Warm water valve / Varmtvannsventil

E2 = Kylvattenventil / Chilled water valve / Kjølevannventil

PCR2

Utan ventil / Without valve / Uten ventil



Temperaturgivare / Temperature sensor / Temperaturmåler
3 hastigheter / 3 speed / 3 hastigheter

Extern reglering / External control / Ekstern regulering

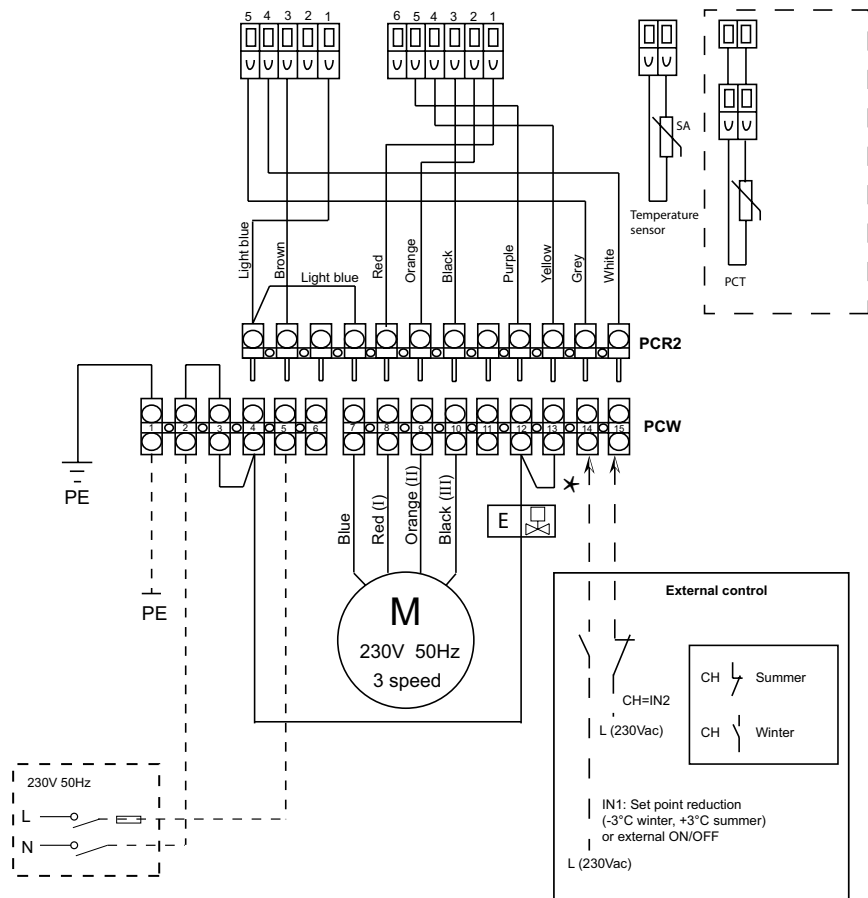
Börvärdesänkning (-3 °C vinter, +3 °C sommar) eller extern ON / OFF

Set point reduction (-3 °C winter, +3 °C summer) or external ON/OFF

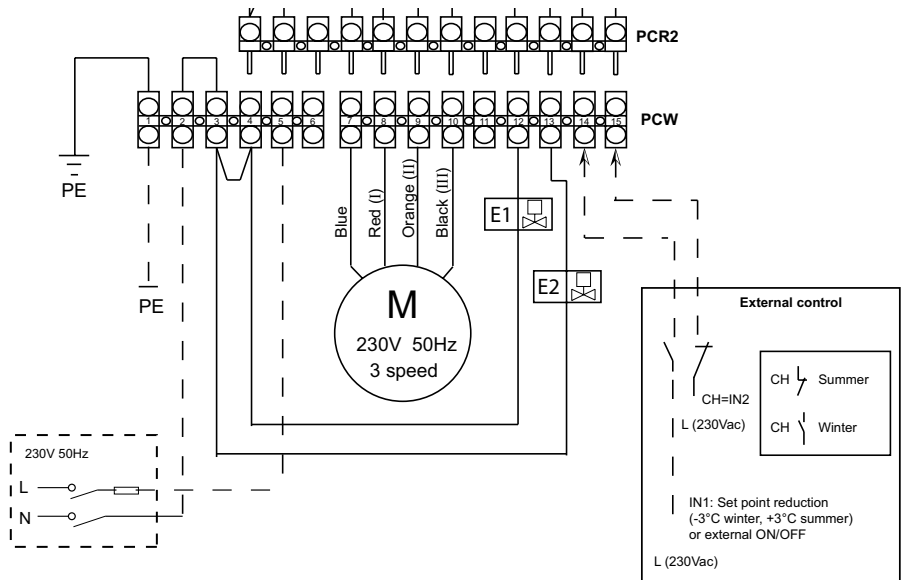
Børverdijustering (-3 °C vinter, +3 °C sommer) eller ekstern ON/OFF

PCR2

Med 1 ventil / With 1 valve / Med 1 ventil



Med 2 ventiler / With 2 valves / Med 2 ventiler



Temperaturgivare / Temperature sensor / Temperaturmåler

3 hastigheter / 3 speed / 3 hastigheter

E = Vattenventil / Water valve / Vannventil

E1 = Varmvattenventil / Warm water valve / Varmtvannsventil

E2 = Kylvattenventil / Chilled water valve / Kjølevannventil

Extern reglering / External control / Ekstern regulering

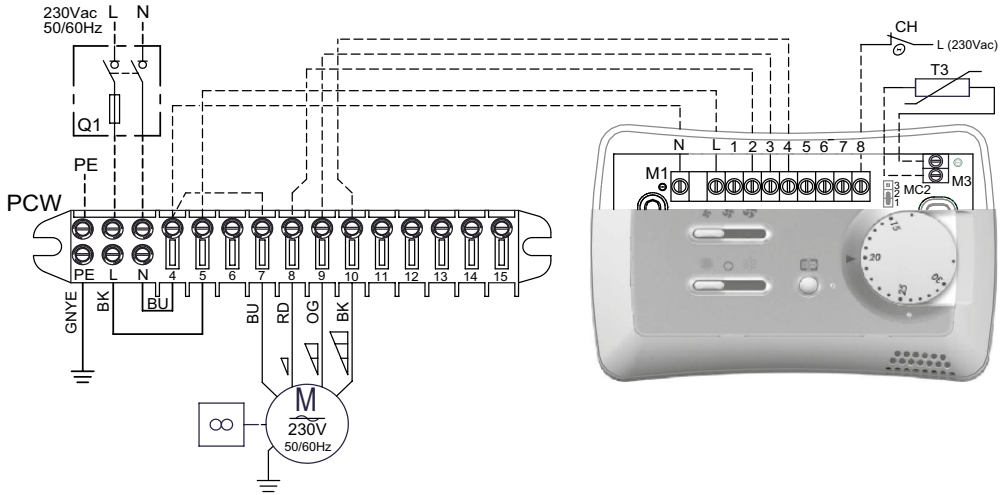
Börvärdesänkning (-3 °C vinter, +3 °C sommar) eller extern ON / OFF

Set point reduction (-3 °C winter, +3 °C summer) or external ON/OFF

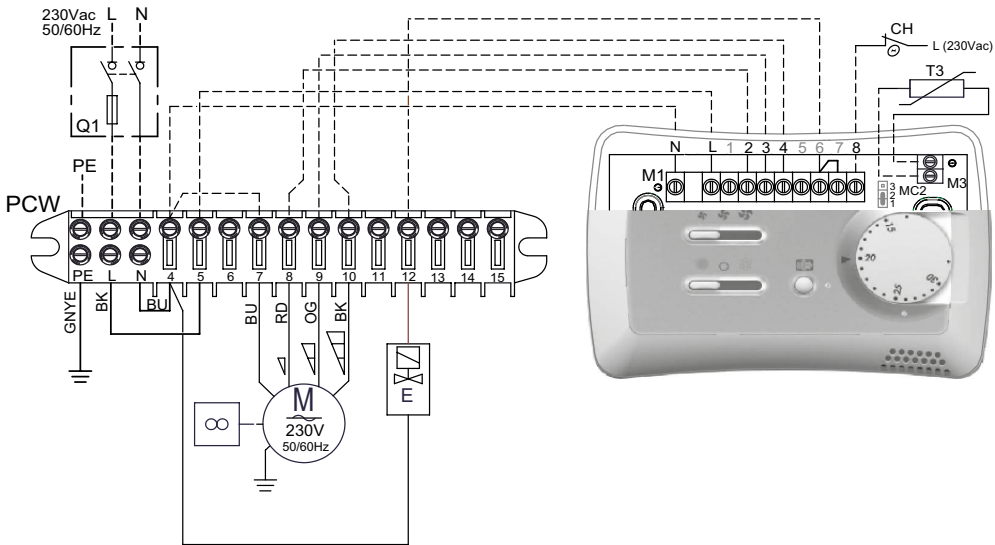
Børverdijustering (-3 °C vinter, +3 °C sommer) eller ekstern ON/OFF

PCEB

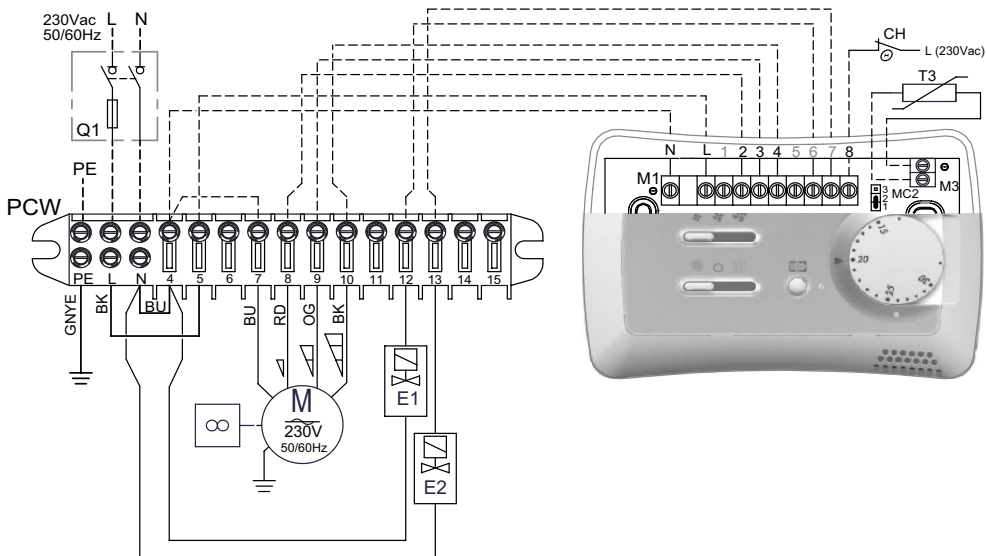
Utan ventil / Without valve / Uten ventil



Med 1 ventil / With 1 valve / Med 1 ventil

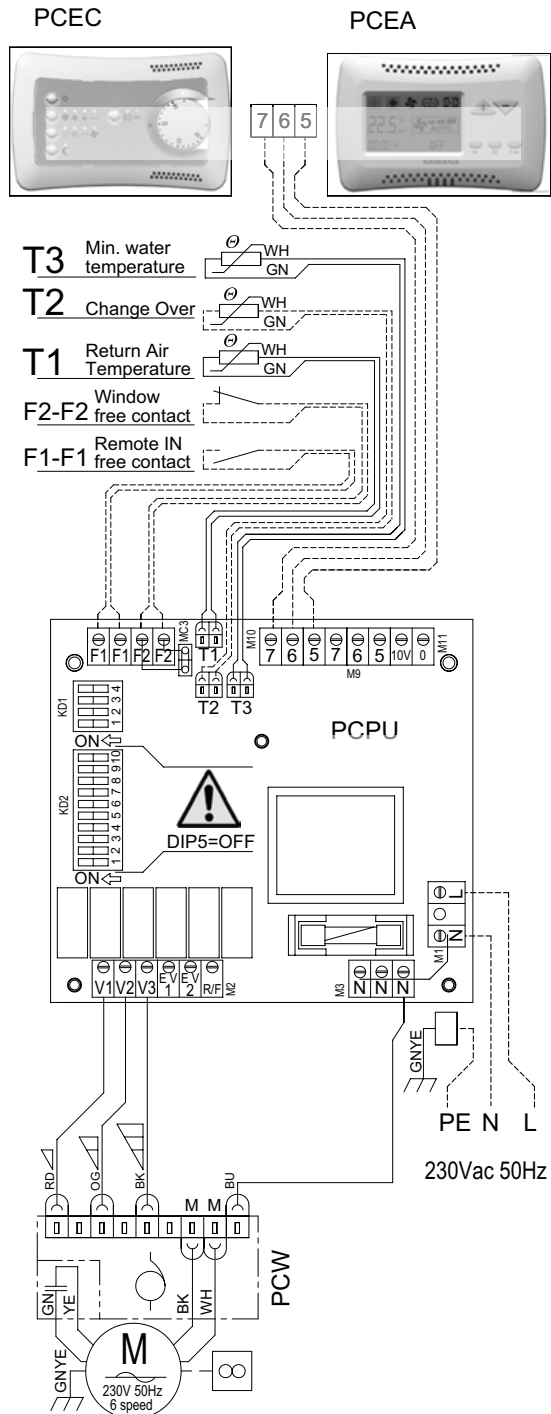


Med 2 ventiler / With 2 valves / Med 2 ventiler



PCEC + PCEA

Utan ventil / Without valve / Uten ventil



Min. vattentemperatur / Min. water temperature / Min. vanntemperatur

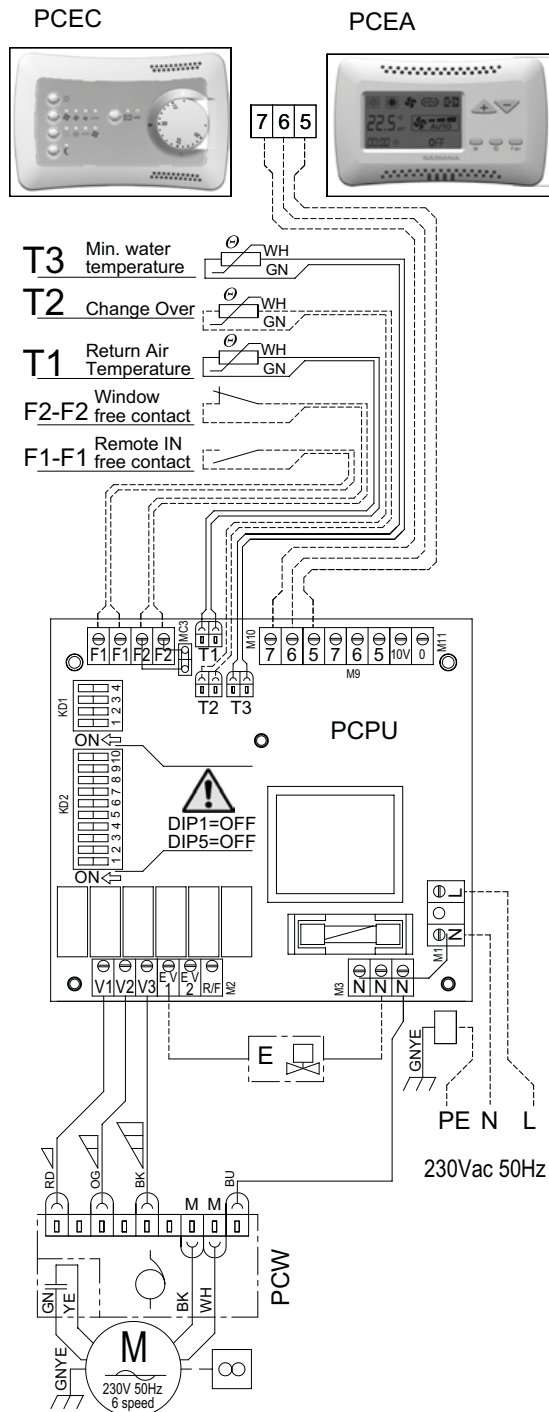
Returtemperatur / Return air temperature / Returtemperatur

F2-F2 (ej i bruk) / F2-F2 (not in use) / F2-F2 (brukes ikke)

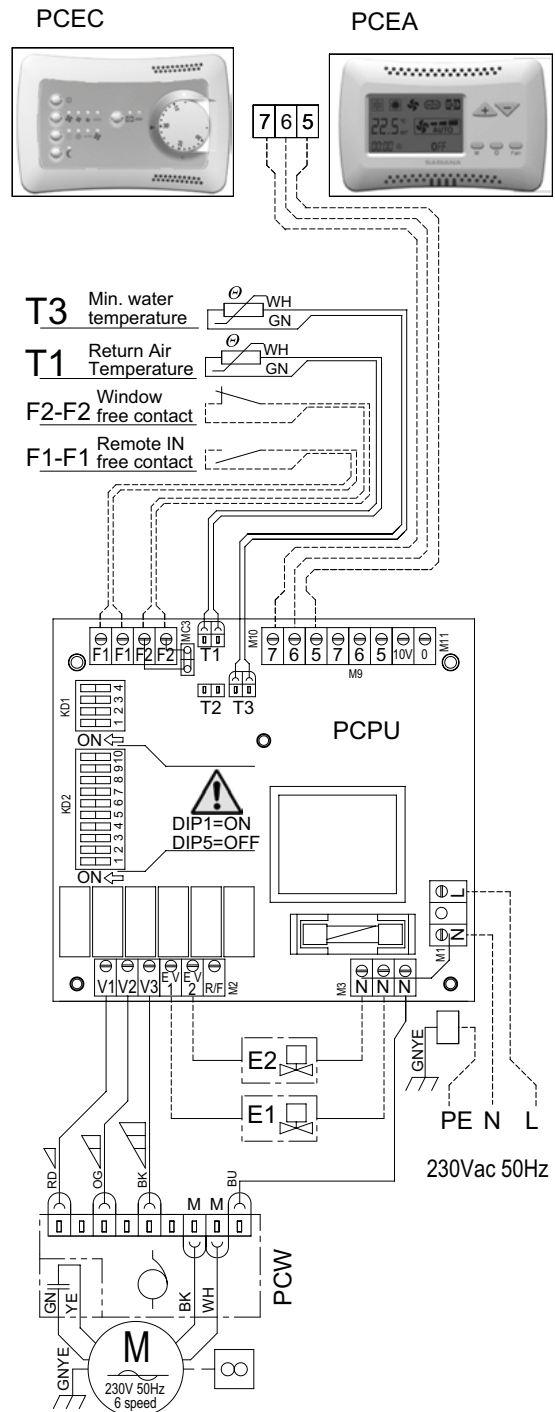
F1-F1 (ej i bruk) / F1-F1 (not in use) / F1-F1 (brukes ikke)

PCEC + PCEA

Med 1 ventil / With 1 valve / Med 1 ventil



Med 2 ventiler / With 2 valves / Med 2 ventiler



Min. vattentemperatur / Min. water temperature / Min. vanntemperatur

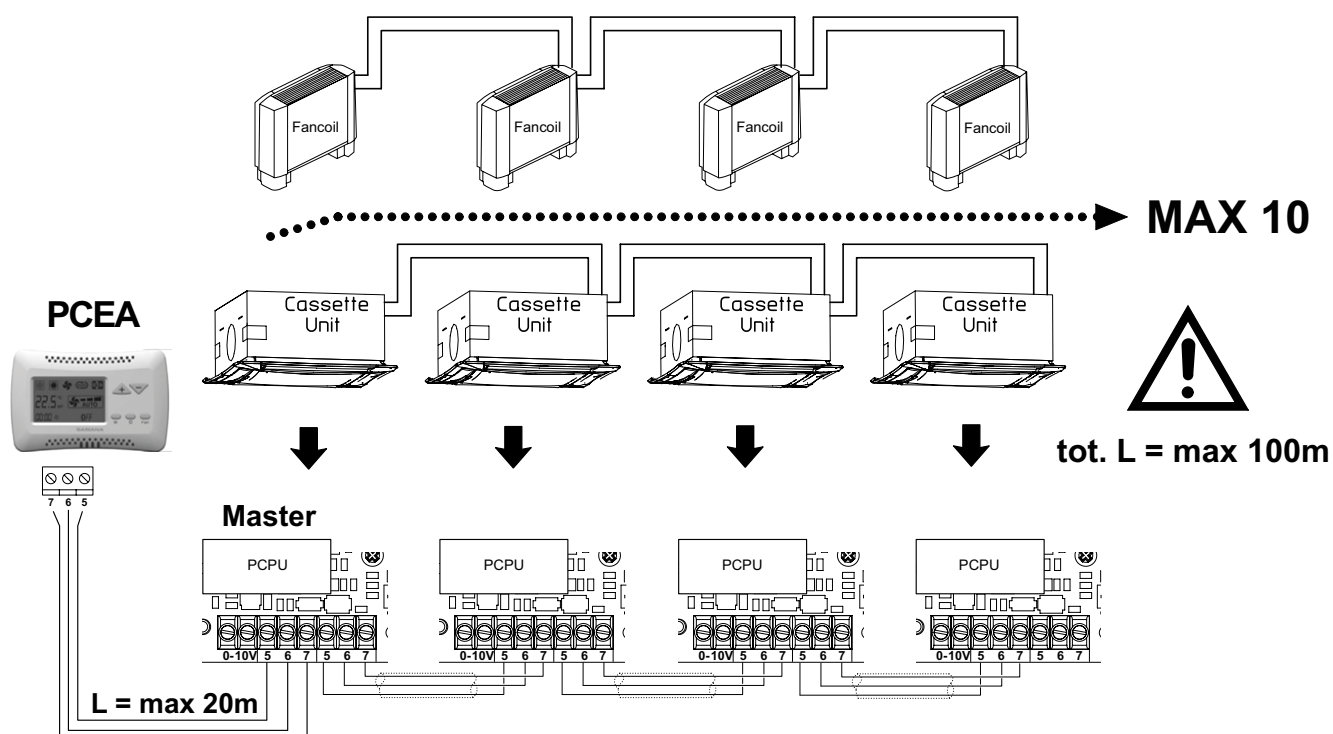
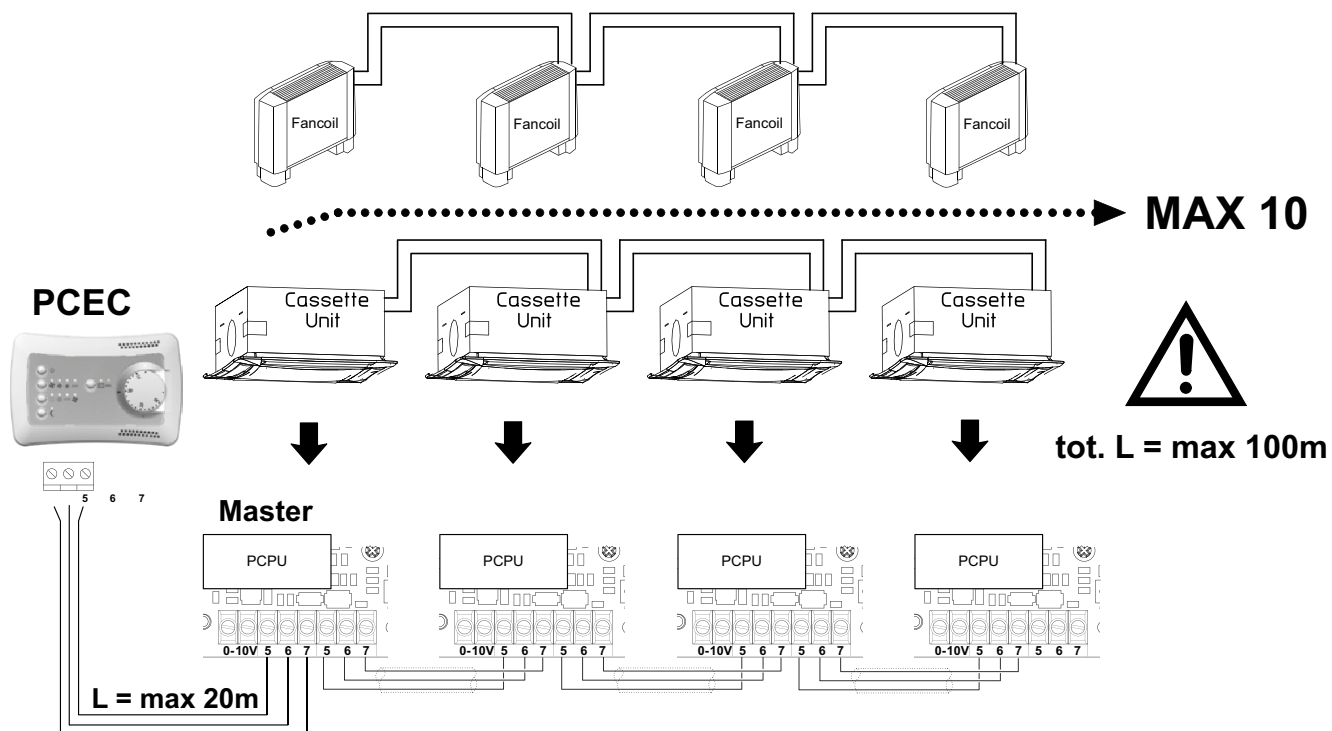
Returtemperatur / Return air temperature / Returtemperatur

F2-F2 (ej i bruk) / F2-F2 (not in use) / F2-F2 (brukes ikke)

F1-F1 (ej i bruk) / F1-F1 (not in use) / F1-F1 (brukes ikke)

PCEC + PCEA

Seriekoppling av flere aggregat / Serial connection of multiple units / Serietilkobling av flere enheter



Tekniska data / Technical specifications / Tekniske data

Art. nr	Typ	RSK	Luft- flöde* ¹ [m ³ /h]	Värme- effekt* ² [kW]	Kyleffekt total* ³ [kW]	Kyeffekt sensibel* ³ [kW]	Ljud- nivå* ⁴ [dB(A)]	Motor- effekt [W]	Ström [A]	Vatten- volym [l]	Vikt [kg]
2-rørsystem, 3-radigt batteri / 2 pipe system, 3 row coil / 2-rørsystem, 3-raders batteri (IP20)											
19005	PCW132S	672 09 82	295	2,02	1,56	1,24	38	40	0,18	0,6	16
19006	PCW232S	672 09 83	385	2,92	2,39	1,80	40	49	0,23	0,9	18
19007	PCW332S	672 09 84	650	4,50	3,64	2,82	39	61	0,27	1,3	21
19008	PCW432S	672 09 85	760	5,09	4,09	3,20	43	88	0,39	1,6	22
19009	PCW532S	672 09 86	925	6,27	5,11	3,95	47	103	0,47	1,7	25
4-rørsystem, 3-radigt samt 1-radigt batteri/ 4-pipe system, 3 row and 1 row battery/ 4-rørsystem, 3-raders og 1-raders batteri (IP20)											
19010	PCW134S	672 09 87	295	1,52	1,56	1,24	38	40	0,18	0,8	16
19011	PCW234S	672 09 88	385	2,26	2,39	1,80	40	49	0,23	1,2	23
19012	PCW334S	672 09 89	650	3,42	3,64	2,82	39	61	0,27	1,7	26
19013	PCW434S	672 09 90	760	3,81	4,09	3,20	43	88	0,39	2,1	27
19014	PCW534S	672 09 91	925	4,79	5,11	3,95	47	103	0,47	2,2	31

*1 Max luftflöde (standard: min-med-max)

*2 Gäller vid vattentemperatur in +50/44 °C, lufttemperatur +20 °C, maximalt luftflöde.

*3 Gäller vid vattentemperatur in +7/12 °C, lufttemperatur +27 °C, relativ fuktighet 50%

*4 Uppmätt i ett rum med volymen 100 m³ och i efterklangsfältet (efterklangstid 0,5 sekunder).

*1 Max air flow (standard: min-med-max)

*2 Applies at water temperature in +50/44 °C, air temperature +20 °C, maximum air flow.

*3 Applies at water temperature in +7/12 °C, air temperature +27 °C, relative humidity 50%

*4 Measured in a room with a volume of 100 m³ and in the reverberation field (reverberation time 0.5 seconds).

*1 Maks. luftmengde (standard: min.-mid.-maks.).

*2 Gjelder ved vanntemperatur inn +50/44 °C, lufttemperatur +20 °C, maks. luftmengde.

*3 Gjelder ved vanntemperatur inn +7/12 °C, lufttemperatur +27 °C, relativ fuktighet 50 %.

*4 Målt i et rom på 100 m³ og i etterklangsfeltet (etterklangstid 0,5 sekunder).

Luftflöde	Airflow	Luftmengde	Type	NRF
Värmeeffekt	Heat output	Värmeeffekt	2-rørssystem	
Kyleffekt (total)	Cooling output (total)	Kjøleffekt (total)	PCW132S	8502339
Kyleffekt (sensibel)	Cooling output (sensible)	Kjøleffekt (følbare)	PCW232S	8502341
Ljudnivå	Sound level	Lydnivå	PCW332S	8502342
Motoreffekt	Motor	Motoreffekt	PCW432S	8502343
Ström	Amperage	Strøm	PCW532S	8502344
Vattenvolym	Water volume	Vannvolum	4-rørssystem	
Vikt	Weight	Vekt	PCW134S	8502345
			PCW234S	8502346
			PCW334S	8502347
			PCW434S	8502348
			PCW534S	8502349

Assembly and operating instructions

General Instructions

Read these instructions carefully before installation and use. Keep this manual for future reference.

The product may only be used as set out in the assembly and operating instructions. The guarantee is only valid if the product is used in the manner intended and in accordance with the instructions.

Application

The PCW fan convectors are designed to heat/cool homes, sports halls, industrial, buildings commercial premises and public buildings. The units are supplied with warm or cold water depending on whether the surrounding area is to be heated or cooled.

The unit consists of:

Casing in pre-painted galvanised sheet steel.

Easy to remove to access the unit.

The exhaust grille at the top of the casing can be altered with fixed louvres.

The fan unit consists of a very quiet centrifugal fan. The aluminium fan wheel is static and dynamically balanced and directly connected to the motor shaft.

The fan motor has six speeds, three are connected from the factory and indicated as max, med and min. The motor has a built-in thermal fuse with automatic reset and is mounted on a vibration damper.

The water coil consists of copper pipe with aluminium fins. Coils with three pipe rows have two connections 1/2" with internal thread. Venting and drain nipples have a diameter of 1/8".

PCW can be provided with an extra supplementary 1-row water coil, for heating only. Coils have a connection diameter of 1/2" with internal thread.

- 3-row water coil for heating or cooling, 2-pipe system.
- 3-row coil for cooling + 1-row coil for heating, 4-pipe system.

The connections are located to the left as standard, seen from the front. The units can be supplied with the connection on the right-hand side if required.

Replaceable synthetic filter.

Condensation box made of plastic. L-profile securely mounted in the fan convector.

Mounting (Fig.1 p.3)

- Check that the air intake is not blocked when the unit is positioned. (See fig.1A.)
- For installation against glazed surfaces or where there are no walls, the unit can be mounted on the floor using feet (accessory).
- For versions without feet, a bottom panel is supplied to prevent access to parts inside the unit. (See fig.1C.)
- When installing PCW in the ceiling, note that hot air rises and ensure a good mixture of air in the premises. Also note that the exhaust grilles must be positioned so that the air flows downwards.

Warning!

For horizontal mounting in the ceiling, the unit must always be installed with a fall of about 8 mm towards the condensation outlet. (See fig.1D.)

The installer can select other methods for installation, on the condition that it is performed according to the applicable laws.

1. When opening the packaging, take care to place the package the correct way up, according to the instructions. Loosen the two screws that hold the unit frame to the casing before lifting the frame out of the packaging. The screws are on the lower section of the unit and must be saved for installing the casing.
2. Secure the fan convector frame to the wall. Position the four mountings (M8 screws are recommended) to fit the four slots in the frame. (See fig.1C.)
3. Align the casing over the frame and secure from the front using the supplied screws. Slide the air filter into the grooves and lock the filter holder into place.

Mounting of built-in control panels (Fig.2 p.4-5)

Built-in control panels must be mounted on the opposite side from the fan convactor's water connections.

- After choosing the required functions, fix the control support bracket that is included in the delivery, to the edge of the internal structure with screw and washer. (Fig.2B)
- Insert the terminal board of the control unit (MC) into the fan convactor's terminal board of the fan coil (MFC). Remember to tighten the screws of the terminal board. (Fig.2C)
- Check that all connections are made according to the wiring diagrams previous in this manual.
- Attach the temperature sensor with the adhesive clips that are included in the delivery. (Fig.2D-2E)
- Insert the control panel into the support bracket and mount the plastic cover in the bottom of the bracket. (Fig.2F-2G)

Mounting of remote control panels (p.6-9)

Remote control panels must be mounted on an inner wall of the room that is to be air-conditioned. The control panel should be placed at a distance of about 1.5 meter away from any heat sources and cold air streams.

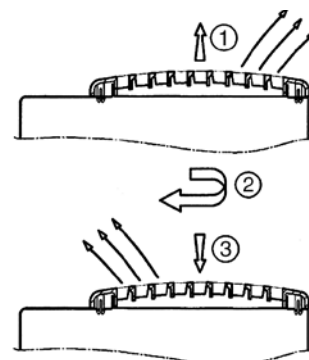
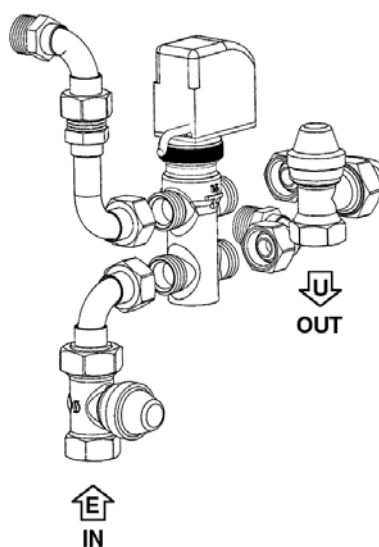
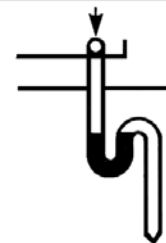
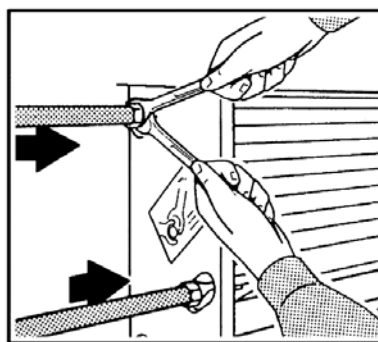
Water connections

- The heating coil must not be connected to a mains pressure water system or an open water system.
- Always use two spanners when connecting pipes to the water coil.
- Always install a shut-off valve in the water circuit.
- It is not possible to change the connection side on the installation location, as the fan's direction of rotation is reversed when the motor group is moved to the opposite side. The connection side must be given at the time of ordering.

Important!

- A water trap should be installed on the condensation water outlet with a fall of at least 3 cm/metre.
- If the unit is used for cooling the pipes, the pipes and the valve must be insulated to avoid condensation.

- During the summer and when the fan is not used for long periods, it is recommended that the water supply to the convector is disconnected to prevent condensation on the outside of the unit.
- If a supplementary condensation box is used, it must be attached to the frame's connection side and the condensation pipe must be attached to the condensation box.
- The direction of air flow can be changed by turning the grille as illustrated below.



Connection

General Instructions

- Perform electrical connections according to applicable laws and regulations for the relevant country.
- Install an isolator switch upstream, with a minimum break gap of 3 mm.

The unit must always be earthed.

Always disconnect the unit from the mains before opening the unit.

Connection

The unit is equipped with a terminal block on the inside panel on the opposite side to the water connections. Follow the wiring diagram in these instructions when connecting it.

The installer must insert the connection cables in the unit through the access points:

- Wall-mounted model, use the rear access points that correspond to the side panel.
- Floor model, use the cutout inside the foot (only models with feet).

The terminal block on the fan convector is designed for connection to the different control panels, according to the instructions in the section "Control". **Note that cables connected on the terminal block are standard versions and must always be connected as specified in the relevant control panel's wiring diagram.**

All control panels for installation on the unit have a quick release terminal board (MC). Connect this terminal board to the corresponding terminal (MFC) on the side panel. Remember to tighten the screws on the individual sockets to ensure correct electrical contact. Failure to follow these instructions can lead to serious damage.

Cleaning, maintenance and spare parts

Important!



- Ensure that the unit is disconnected from the power supply before cleaning or maintenance.
- The unit may only be maintained by authorised personnel.

Fan

- No maintenance required.

Heat exchanger

- No maintenance normally required.

Filter

- Unhook the filter holder using a suitable tool and pull out the filter from the grooves.
- Regularly clean using a vacuum cleaner or shake the filter carefully.
- Replace the filter when it can no longer be cleaned.
- Always reinstall the filter after cleaning!

Spare parts

- When ordering spare parts, always provide the unit model and a description of the components.

Packaging

Packaging materials are chosen with consideration to environment and are therefore recyclable.

Handling of product at end of working life

This product may contain substances necessary for functionality of the product but potentially dangerous for the environment. The product should not be disposed mixed with general household waste but delivered to a designated collection point for environmental recycling. Please contact local authority for further details of your nearest designated collection point.

Safety regulations

- Check that the unit is earth protected.
- Do not lift units more than 30 kg on your own, ask for the help of another person.
- The fan wheel can reach speeds up to 1000 rpm. Never insert objects or your hands into the fan wheel.
- Do not remove warning signs from the unit. If the signs are not legible, request new ones.
- Always use genuine spare parts.
- The unit may only be maintained by trained and authorised personnel.
- In cold climates, the water circuit should be drained if the unit is not to be used for long periods of time.
- If the installation is equipped with an external air intake damper, check that the pipes are not damaged by temperatures below the freezing point.
- The heat exchangers are tested to 22 bar. Max. recommended working pressure: 8 bar.

Prior to carrying out any work on the unit, check the following:

1. The unit is disconnected from the mains.
 2. The unit's water supply valve is closed and the unit has cooled.
 3. Install a circuit breaker to break the current to the unit in an easily accessible location.
- Do not expose the unit to easily combustible gases.
 - Do not place objects over the grilles.
 - Always use gloves when disassembling the unit.



Do not remove the circuit boards from the electronic thermostat.

When cleaning or replacing a filter, check that it is correctly installed before starting the unit.

Safety

- *Never insert foreign objects through the air intake or exhaust grilles.*
- *Do not use this heater near showers, baths or swimming pools.*
- *Do not position the heater directly below fixed wall sockets*
- *For all installations of electrically heated products, a residual current circuit breaker 300 mA for fire protection should be used.*
- *Keep the areas around the air intake and exhaust grilles free from possible obstructions!*
- *The unit must not be fully or partially covered as overheating can result in a fire risk!*
- *This appliance may be used by children over 8 years of age, by people with reduced physical, sensory or mental capabilities, or by people with a lack of experience and knowledge, provided they are supervised or instructed concerning use of the appliance in a safe way and understand the risks involved. Children shall not play with the appliance. Cleaning and user maintenance shall be performed by the user and shall not be performed by children without supervision.*
- *Children under 3 years of age should be kept away unless continuously supervised.*
- *Children between 3 and 8 years of age should only switch the appliance on and off if it is placed or installed in the normal place of use and they are closely supervised and instructed of safe use of the appliance and the risks involved.*
- *Children between 3 and 8 years of age should not plug in, regulate, clean or perform maintenance of the appliance.*

CAUTION: Some parts of this product can become very hot and cause burns. Particular attention has to be given where children and vulnerable people are present.

Regulation

PCR1

Technical specification

- Supply voltage: 230V, 50Hz
- Setting range: +15–30 °C
- Connection temperature difference: 0.7K

The fan convector is connected to 230V even if the thermostat is off. Always disconnect from the mains before working in the unit.

When the fan convector is set to summer operation and is switched off, i.e. switch on the control panel is at 0 (OFF), a timer activates the fan for operation for two minutes every 15 minutes.

Functions

- Control panel for integration in the fan convector.
- Manual control of fan in three stages.
- Manual selection of heating or cooling.
- When no valves are used, the thermostat switches the fan on/off depending on heating and cooling requirement.
- When valve(s) are connected, the thermostat controls heating or cooling (on/off) via the actuator/valve. Continuous fan operation.



= Summer operation (cold air)



= Winter operation (hot air)

Accessories

With PCR1, only one fan convector can be controlled. If more than one fan convector is to be controlled by the same control panel, external regulation PCEC/PCEA is used. Each unit must be equipped with a PCPU. (E.g.: 2 x PCW, 2 x PCPU and 1 x PCEC/PCEA.)

PCT Sensor

Secure the sensor between the fins on the water coil.

During winter operation, the fan starts when the water temperature is higher than 33 °C and stops when the water temperature is lower than 28 °C.

Installation instructions

PCR1 must be mounted on the opposite side to the fan convector's water connections.

- Secure the control panel's support bracket on the edge of the inner side panel.
- Insert the terminal board of the control panel (MC) into the fan convector's terminal board of the fan coil (MFC). Remember to tighten the screws of the terminal board.
- Check that all connections are made according to the wiring diagram in this manual. Note! Check bridges, if applicable.

See the wiring diagram.

PCR2

Technical specification

- Supply voltage: 230V, 50Hz
- Setting range: +15–30 °C
- Connection temperature difference: 0.7K

The fan convector is connected to 230V even if the thermostat is off. Always disconnect from the mains before working in the unit.

Alarm

If the temperature sensor is not connected or if it short circuits, the control panel changes to continuous fan operation and valve(s) opens. The red LED on the control panel starts to flash.

If the fan convector is set to automatic changing between winter and summer operation, the control panel stops regulating and the red LED starts to flash.

Functions

- Control panel for integration in the fan convector.
- Manual or automatic selection of three fan speeds.
- Manual or automatic selection of heating or cooling.
- Option of thermostat control with automatic speed control and ON/OFF control of valve(s).
- Option to install a sensor (PCT). Low temperature.



= Summer operation (cold air)



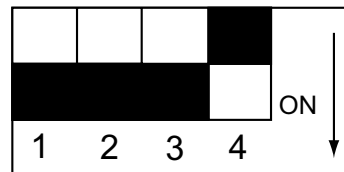
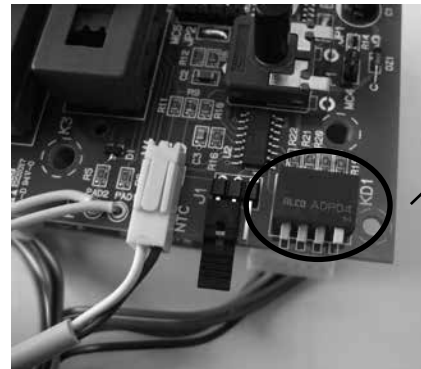
= Winter operation (hot air)

Accessories

With PCR2, only one fan convector can be controlled. If more than one fan convector is to be controlled by the same control panel, external regulation PCEC/PCEA is used. Each unit must be equipped with a PCPU. (E.g.: 2 x PCW, 2 x PCPU and 1 x PCEC/PCEA.)

Configuration switches

The configuration switches (DIP switches) are used to set which function you want for regulating the fan convector.



Factory setting configuration switch

Settings

DIP-1	DIP-2	Operation
ON	ON	Thermostatic control of fan speed. No valves used.
OFF	ON	Thermostatic control of valve. The valve closes when the setpoint value has been reached, continuous fan operation.
ON	OFF	Thermostatic control of fan and valve which both close when the setpoint value has been reached.
OFF	OFF	Thermostatic control of valves for 4-pipe system with automatic changing between winter and summer operation with a neutral zone of 2 °C.

DIP-3 Function (Only works if IN1 is connected)

ON	Setpoint offset ± 3 °C
OFF	External ON/OFF

DIP-4 Function (If the PCT sensor is connected)

ON	Limit function during cooling operation*
OFF	Limit function during heating operation*

*See description of the function.

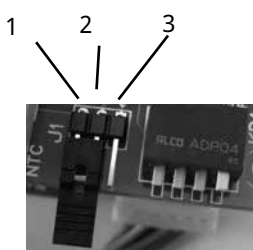
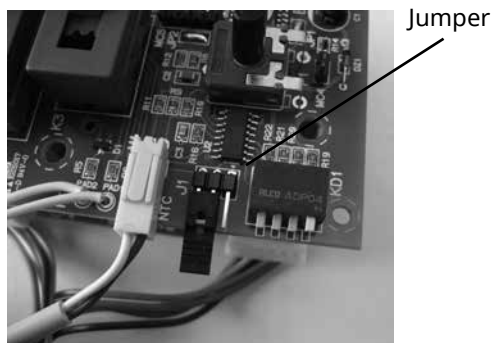
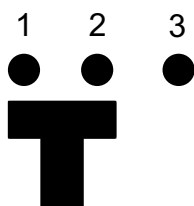
Possibility of external control (230V~signals)

IN1: Night reduction / setpoint offset via external timer or external on/off.

IN2: External change between winter and summer operation.

Jumper

This is used to select how the fan convector is to change between winter and summer operation.

**Jumper in position (1-2):**

Manual changing on the control panel between winter and summer operation.

Jumper in position (2-3):

Changing between winter and summer operation via external signal or automatically via a change-over 230V AC input IN2. Applies to 2 pipe system.

Night reduction / setpoint offset

Obtained by setting DIP-3 to "ON" and giving a 230 V~ signal via an external timer or a switch to IN1. The setpoint value changes -3 °C during winter operation and +3 °C during summer operation.

External on/off

By setting DIP-3 to "OFF" and connecting a 230 V~ signal to IN1, the fan convector switches off.

PCT Sensor

Secure the sensor between the fins on the water coil.

Winter operation

During winter operation, the fan starts when the water temperature is higher than 33 °C and stops when the water temperature is lower than 28 °C.

Summer operation

During summer operation, the fan switches off when the water temperature is higher than 24 °C and restarts when the water temperature is lower than 21 °C.

Winter/summer operation

There are different options for changing between winter and summer operation.

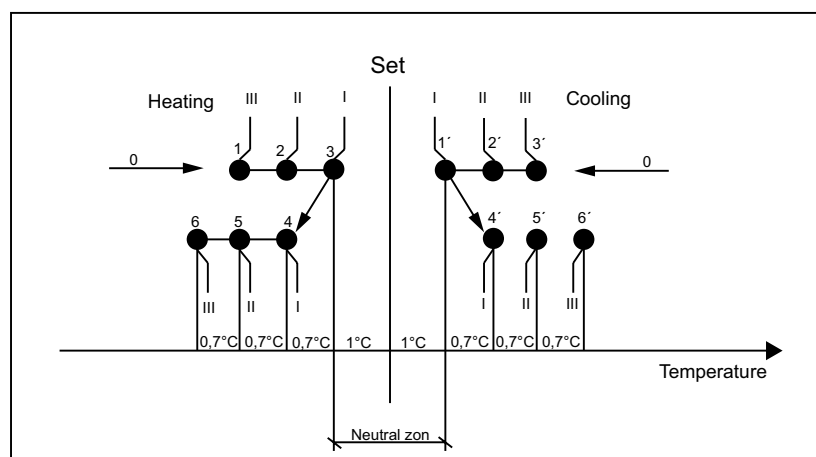
2-pipe installations

- Manual changing between sun (winter) and snowflake (summer) operation on the panel. Jumper position (1-2).
- External changing via 230 V AC -signal on input IN2 from a dominant system or heat pump (change-over). In the event of a signal, the fan convector changes to summer operation. Jumper position (2-3).

4-pipe installations

- Automatic changing between winter and summer operation according to diagram "Function diagram with neutral zone". Valves are required for heating and cooling (on/off) and a hot water circuit and cold water circuit must be available.
- Jumper position (1-2)
- DIP-1=OFF
- DIP-2=OFF

When the fan convector is set to summer operation and is switched off, i.e. switch on the control panel is at 0 (OFF), a timer activates the fan for operation for 2 minutes every 15 minutes. See the wiring diagram.



Position 3 = Hot water valve OFF
 Position 3' = Cold water valve OFF
 Position 4 = Hot water valve ON
 Position 4' = Cold water valve ON

Speed:
 I = Min
 II = Medium
 III = Max

Function diagram with Neutral zone

PCEB

Technical specification

- Manual regulation of the fan in three steps.
- Power supply: 230 Vac 50/60Hz
- Maximum switchable load: 2A 230Vac
- Thermostat control range: +15–30 °C
- Operating temperature: 0/50 °C
- Storage temperature: -10 / +50 °C
- Plastic: V0 ABS
- Protection class: IP20
- Connection terminal
- 1 x temperature sensor port
- Class of insulation: II
- Reference standard: CEI EN 60730
- Dimensions: 135 x 86 x 31 mm

Functions

- Switching the fan coil on and off.
- Setting and reading the required room temperature (SET).
- Selection of summer or winter operation directly on the control panel.
- Thermostatic control of the opening and closing (ON/OFF) of the water valve (2-pipe installation) or two valves (4-pipe installation) during summer and winter operation.
- A sensor connected to T3 can be used to limit the water temperature between 38 °C and 34 °C (applies to heating operation) or to limit the water temperature between 21 °C and 24 °C (applies to cooling operation). Please contact Frico for more information.

Accessories

With PCEB, only one fan convector can be controlled. If more than one fan convector is to be controlled by the same control panel, external regulation PCEC/PCEA is used. Each unit must be equipped with a PCPU. (E.g.: 2 x PCW, 2 x PCPU and 1 x PCEC/PCEA.).

Configuration switches

Make sure the control panel is disconnected from the power supply before setting the configuration switches (DIP switches).

* = Default settings

x = Not important for the specific function



Configuration	Switch position				
	1	2	3	4	5
T3 winter and summer (only 2-pipe systems)	ON	X	X	X	
T3 only winter (2- and 4-pipe systems)	OFF*	X	X	X	
Continuous ventilation	X	ON	X	X	
Ventilation of contemporary valves	X	OFF*	X	X	
Electronic filter IAQ - Activation (not in use)	X	X	ON	OFF	OFF
Electric resistance coil as main heating element (not in use)	X	X	OFF	ON	OFF
Electric resistance coil as integration element (not in use)	X	X	OFF	ON	ON
Resistance-coils with T2 Probe	X	X	OFF	OFF	ON
Variation of night time setpoint (-3 °C winter, +3 °C summer)	X	X	ON	ON	ON

Summer/winter switching:

The control panel is preset for winter operation.

Jumper

This is used to select how the fan convector is to change between winter and summer operation.

Jumper in position (1-2):

Manual changing on the control panel between winter and summer operation.

Jumper in position (2-3):

The control panel switches to summer operation (CH) via an external signal (230V).

PCEC

Technical specification

- Manual or automatic regulation of the fan in three steps.
- Thermostat control range: +15–30 °C
- Operating temperature: 0/50 °C
- Storage temperature: -10 / +50 °C
- Plastic: V0 ABS
- Protection class: IP20
- Connection terminal
- Class of insulation: II
- Reference standard: CEI EN 60730
- Dimensions: 135 x 86 x 24 mm

Functions

PCEC is a wall-mounted control panel that can be connected to fan coil units equipped with a PCPU electronic board.

Functions of the control panel:

- Switching the fan coil on and off.
- Setting and reading the required room temperature (SET).
- Selection of summer or winter operation directly on the control panel.
- Manual regulation of three fan speeds.
- Automatic regulation of the fan speed depending on the deviation between the set temperature and the room temperature.
- Thermostatic control of the opening and closing (ON/OFF) of the water valve (2-pipe installation) or two valves (4-pipe installation) during summer and winter operation.
- Functional control of the special electronic filter mounted on the fan coil unit of the IAQ version (accessory).
- Functional control of the electric heating element when fitted as an accessory.
- Enable/disable the energy saving mode.

Accessories

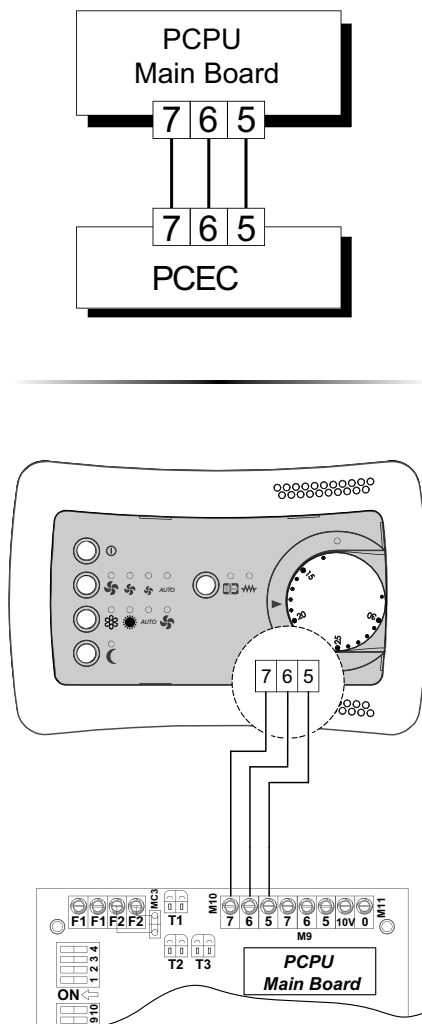
With PCEC, up to ten fan coils can be controlled. Each unit must then be equipped with a PCPU. (E.g.: 2 x PCW, 2 x PCPU and 1 x PCEC/PCEA.).

Control panel connections

The control panel must be connected to the power board in the electrical compartment of the fan coil unit, taking into account the common numbers of both boards.

Use 3 conductors with 0.5 mm² section

NOTE: The connection wirings must not exceed 20 metres in length.



PCEA

Technical specification

- Manual or automatic regulation of the fan in three steps.
- Thermostat control range: +15–30 °C
- Operating temperature: 0/50 °C
- Storage temperature: -10 / +50 °C
- Plastic: V0 ABS
- Protection class: IP20
- Connection terminal
- Class of insulation: II
- Reference standard: CEI EN 60730
- Dimensions: 110 x 72 x 25 mm

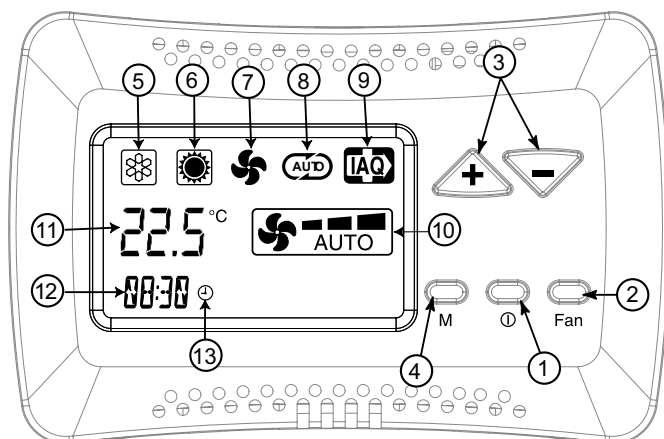
Functions

PCEA is a wall-mounted control panel that can be connected to fan coil units equipped with a PCPU electronic board.

Functions of the control panel (Fig 1):

- 1) ON and OFF mode
- 2) Set the fan speed
- 3) Set required temperature
- 4) Set required operating mode
- 5) Cooling operation
- 6) Heating operation
- 7) Fan
- 8) Automatic operation
- 9) Signalling for active resistance
- 10) Set ventilation
- 11) Room temperature / SET / OFF
- 12) Clock
- 13) Active timer

Fig. 1



Accessories

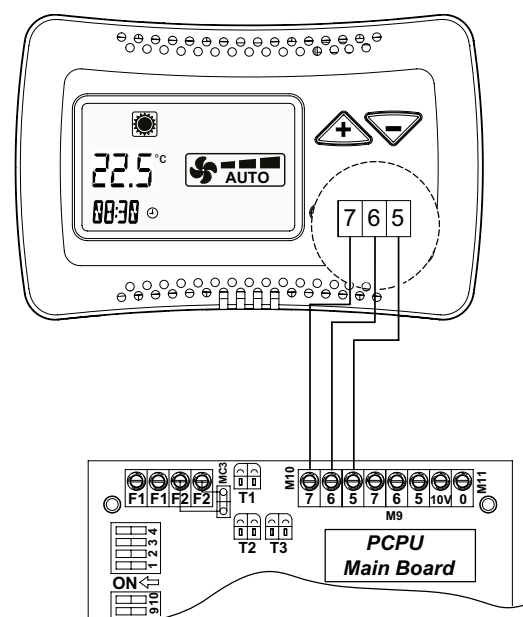
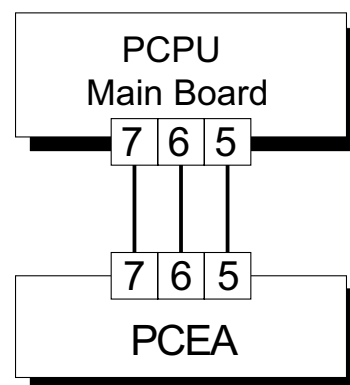
With PCEA, up to ten fan coils can be controlled. Each unit must then be equipped with a PCPU. (E.g.: 2 x PCW, 2 x PCPU and 1 x PCEC/PCEA.).

Control panel connections

The control panel must be connected to the power board in the electrical compartment of the fan coil unit, taking into account the common numbers of both boards.

Use 3 conductors with 0.5 mm² section

NOTE: The connection wirings must not exceed 20 metres in length.



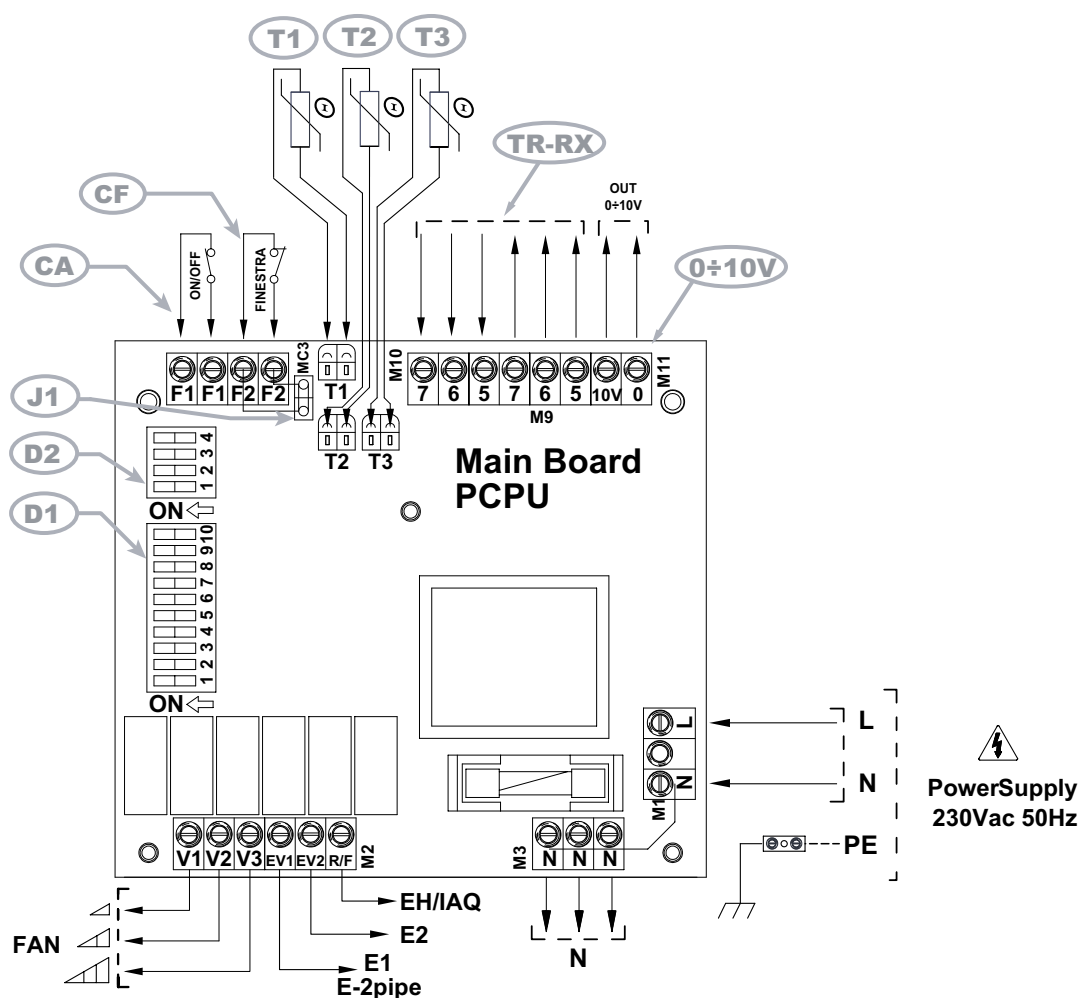
PCPU

Technical specification

- Power unit for PCEC/PCEA. With PCEC/PCEA, up to ten fan coils can be controlled. Each unit must then be equipped with a PCPU. (E.g.: 2 x PCW, 2 x PCPU and 1 x PCEC/PCEA.).
- Power supply: 230 Vac 50Hz
- Maximum switchable load: 2A 230Vac.
- Operating temperature: 0/50 °C
- Storage temperature: -10 / +50 °C
- Plastic: V0 ABS
- Protection class: IP20
- Connection terminal
- 3 x NTC 10 K Ω temperature sensor port
- Class of insulation: II
- Reference standard: CEI EN 60730

Electronic board:

- D1 = Configuration dip switches
- D2 = Speed of dip switches
- J1 = Jumper MC3
- T1 = Air probe (mounted at the inlet of the unit)
- T2 = Change-over probe (optional)
- T3 = Minimum probe
- CF = Not in use
- CA = Not in use
- TR-RX = Terminals 5/6/7 for serial connection
- 0/10 = 0/10 V output signal for inverter control (ECM motors)



Configuration switches

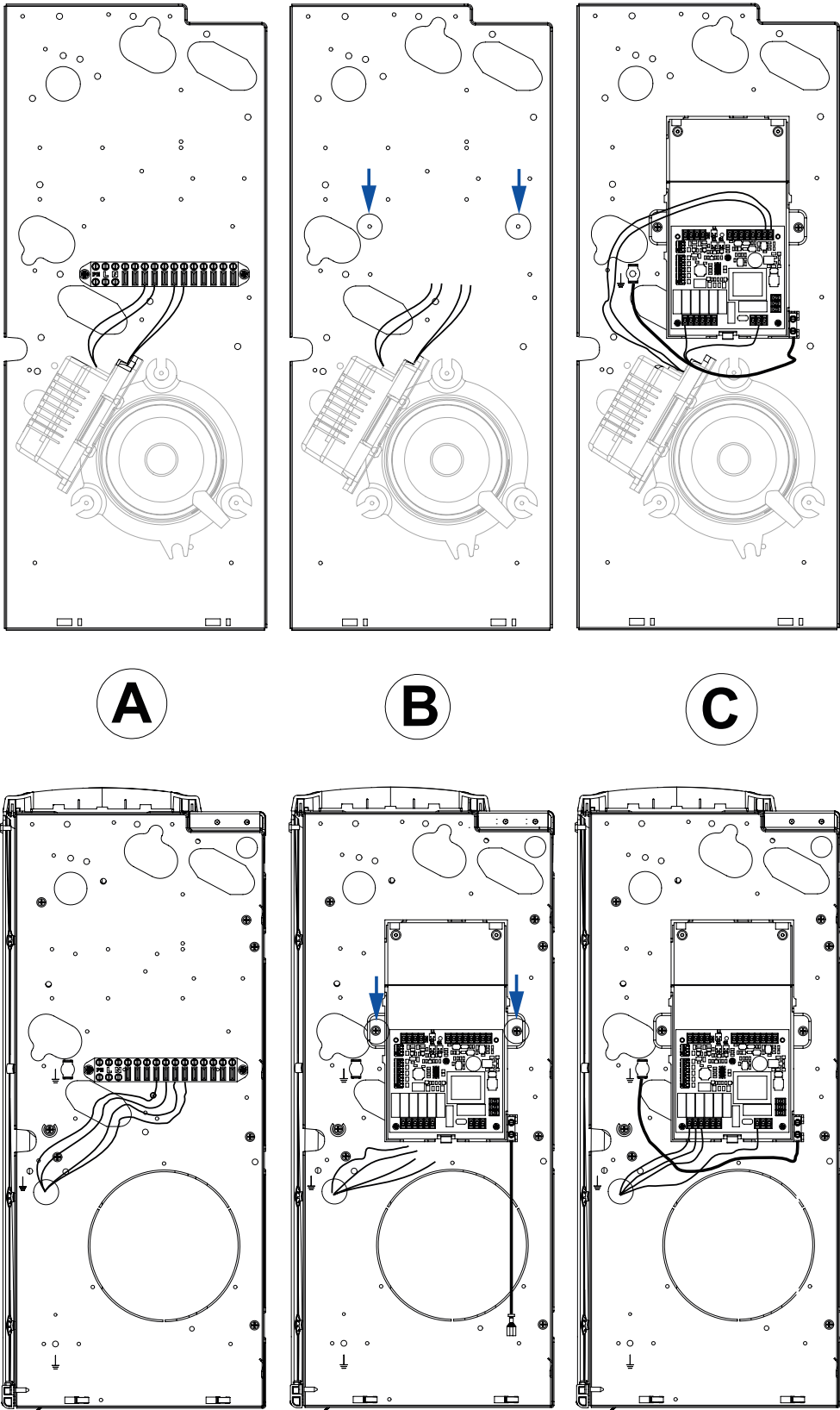
DIP	Default	Position	
		ON	OFF
1	OFF	4-pipe system	2-pipe system
2	OFF	Thermal power station with fan	Thermal power station with valves
3	OFF	Simultaneous ventilation of valves	Continuous ventilation
4	OFF	T3 winter and summer	T3 only winter
5	OFF	ECM Motor	Asynchronous Motor
6	OFF	Button IAQ/Resistance ENABLED	Button IAQ/Resistance DISABLED
7	OFF	Resistance-coils management	IAQ
8	OFF	Resistance-coils with T2	T2 as CH Change-over (resistance phase II)
9	OFF	CA = Not in use	CA = Not in use
10	OFF	--	--

ECM motor settings

The user can set the output voltage of the equipment's ECM motor in D2 according to the table below.

Operating mode	Position				Speed		
	DIP 1	DIP 2	DIP 3	DIP 4	Speed 1	Speed 2	Speed 3
A	ON	ON	ON	ON	7 V	8,5 V	10 V
B	ON	ON	ON	OFF	4 V	5,5 V	7 V
C	ON	ON	OFF	ON	5 V	6,5 V	8 V
D	ON	ON	OFF	OFF	2 V	4 V	6 V
E	ON	OFF	ON	ON	6 V	7,5 V	9 V
F	ON	OFF	ON	OFF	2,5 V	4,5 V	6,5 V
G	ON	OFF	OFF	ON	3,5 V	5,5 V	7,5 V
H	ON	OFF	OFF	OFF	1 V	3,5 V	6 V

Mounting of PCPU in PCW



Operation of main and secondary units

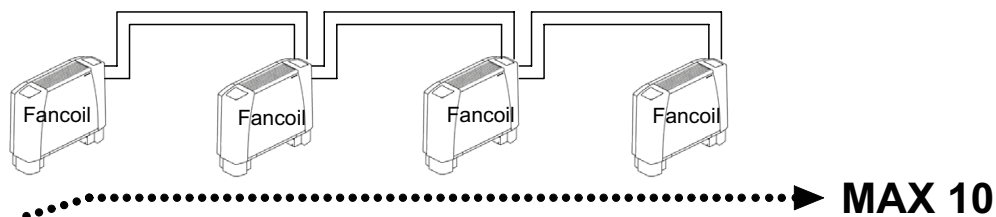
Managing units with serial connection.

It is possible to connect and control several units simultaneously by transferring the settings from the control panel to a main unit. The other units are called secondary units. However, the operation of each unit depends on its temperature condition.

- Type of cable: 3 x 0,5 mm²
- Max distance between the control panel and the first connected unit is 20 metres.
- The network must not exceed 100 metres
- Max amount of units per network is ten.

Installation remarks:

- Be careful not to get the cable tangled, bent, caught or torn when unwinding or attaching it.
- Do not run the communication cable with the power cable.
- Do not splice the cable. Always use a single cable to connect the units to one another.
- Do not cinch the cables too tightly. Tie the cable length with care and caution. Do not squeeze the cables when attaching them.
- Make sure the cables are intact and positioned correctly after installation.
- Install cables and units in a manner where the risk of accidental contact with other potentially dangerous cables is minimized.
- Never place the communication cable near any power strips, lamps, antennas, transformers, hot water pipes or steam pipes.
- Keep communication cables and units at least 2 metres away from units with high inductive loads (distribution cables, motors, generators for lighting systems, etc.).





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