

ELFOSpace BOX3

"Cassette" type water terminal unit for indoor installation

CFK 007.0 - 041.0 RANGE



- ▶ DC Brushless Motor
- ▶ Compact design, simple installation and easy maintenance for modules 600x600
- ▶ High standards of efficiency and low noise for modules 800x800
- ▶ Electronic version with infra-red remote control
- ▶ New wall remote control (optional accessory)
- ▶ The unit comes with a built-in condensate drain pump



Nominal cooling capacity from 2,98 to 11,19 kW
Nominal heating capacity from 2,61 to 10,07 kW

Terminal unit Clivet

The hydronic terminal units are very diffused for their versatility and reliability. The Clivet range includes many versions that simplify the application in different types of installation and building.

	Commercial			
	 			
	ELFOSpace	ELFODuct MP ELFODuct HP	ELFOSpace BOX3	ELFOSpace WALL3
Capacities (A27/W7)	1,5 ÷ 11 kW	6 ÷ 25 kW	3 ÷ 11 kW	2 ÷ 4,5 kW
 Vertical cased				
 Horizontal cased				
 Vertical uncased				
 Horizontal uncased				
 2 pipes				
 4 pipes				
 DC Motor				
 High head				
 RS485 Connection				

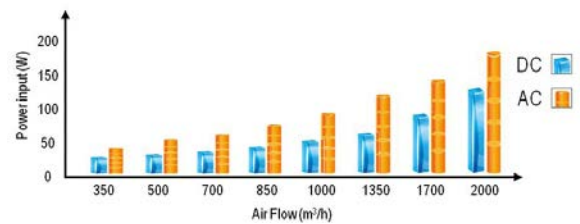
New 3rd generation fan coil Clivet

High energy efficiency with standard DC brushless motor

The new ventilation fan coils with DC brushless motor of the series, characterized by an advanced high efficiency, provide low levels of noise and precision of the temperature control technology. They are well suited to applications such as hospitals, offices, hotels, airports and many other applications in commercial and industrial applications.



The fan-coils having DC motor reduce the electric input up to 60%, compared to the equipped with asynchronous motor.



Silent operation

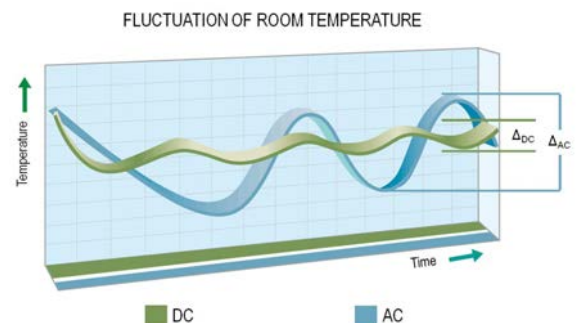
The particular construction features, in addition to increasing the efficiency of the unit, minimize the noise level and make it very noiseless.

The fan-coil noise level when equipped with DC Brushless fan motor is 2÷5 dB(A) less than an AC motor, making the ambient really more comfortable.



Better control of the air temperature and humidity

The DC brushless motors regulate the air flow rate moment by moment according to the thermal load, ensuring less temperature fluctuations and an improved comfort.



DC Brushless

The motor is in a fully closed structure thereby ensuring high operating efficiency and high durability.

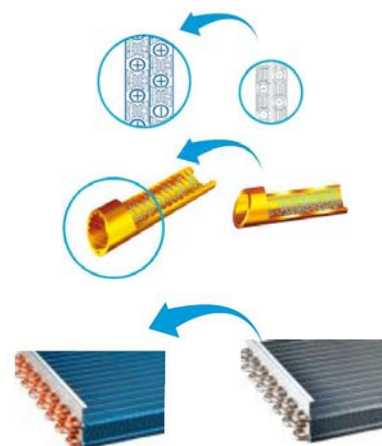
The motor bearing, easy maintenance, can operate up to 80,000 hours continuously.



Main features of standard unit

High-performance heat exchangers

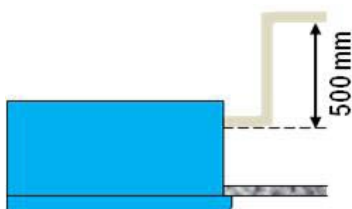
The new fins design is thought to increase the exchange surface, reducing the air resistance, reducing waste and improving energy performances.
The inner threaded copper tubes optimizes the efficiency of heat exchange.
The fins hydrophilic coating increase the heat exchanger operating life, improving longevity and corrosion resistance
Having 2 rows in the configuration for 2 pipes installation, and 2 or 3 rows in the 4 pipes installation.



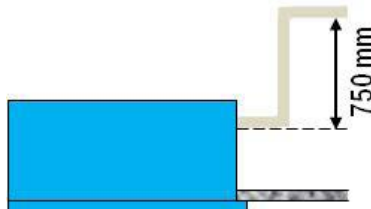
Condensate drain pump, built-in

To ensure the optimal condensate drain, the standard unit is equipped with condensation drain pump having available head 500mmwc in 600x600 modules (sizes 007.0 ÷ 015.0) and 750mmwc in 800x800 modules (sizes 021.0 ÷ 041.0).

Size 007.0 ÷ 015.0



Size 021.0 ÷ 041.0



Infrared standar control

The R05 infrared remote control allows to remotely manage the unit through a receiver placed on the air supply and return ceiling.

Features:

- Backlit

Functions:

- On/Off
- Operation selection: Auto, Heating, Cooling, Dehumidification, Ventilation
- Set the fan speed (MIN - MED - MAX or AUTO)
- Temperature setting (temperature range selectable: 17~30°C)
- Timer setting
- Setting of deflectors position (swing)



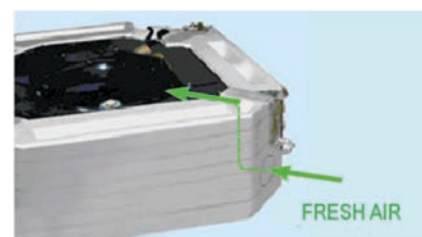
Filtration

Synthetic washable filter class G2 (EU2), easily accessible for maintenance.

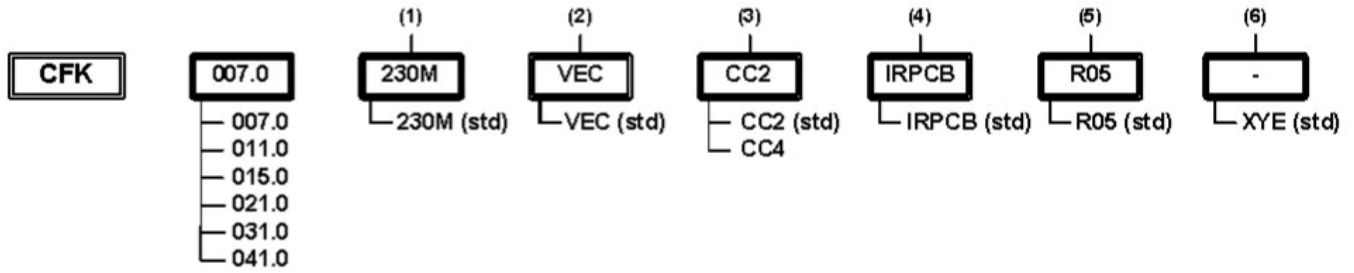
Primary air inlet and air distribution in adjacent rooms

Arrangement for primary air into the ambient through a precut.

Having specific precuts positioned on the sides of the unit, it is also possible enter the air in adjacent rooms or at greater distances.



Configuration Unit



(1) Voltage

- 230M - Supply voltage 230V/1Ph/50Hz (standard)

(2) Fans

- VEC - High efficiency DC Brushless fan (standard)

(3) Coil configuration

- CC2 - Coil configuration for 2-pipe system (standard)
- CC4 - Coil configuration for 4-pipe system

(4) Electronic version

- IRPCB - Electronics with infrared remote control (standard)

(5) Control

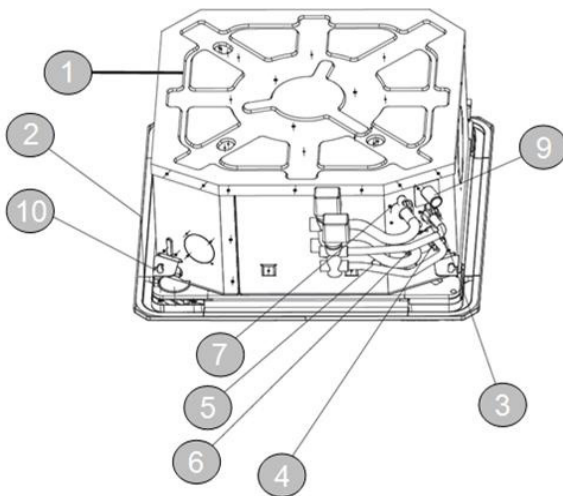
- R05 - R05 infrared remote control

(6) Communication module

- XYE - XYE communication port (standard)

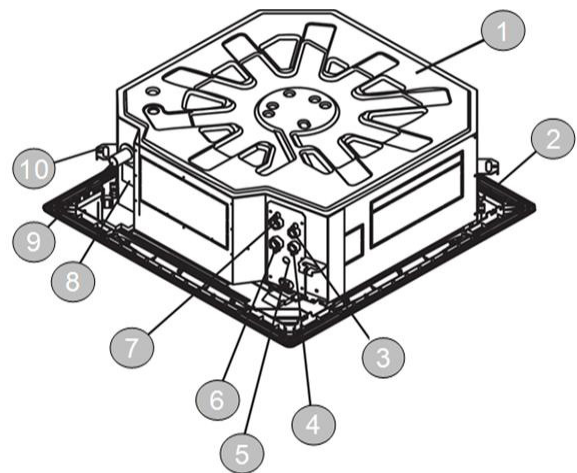
Description Unit

Size 007.0 ÷ 015.0 (module 600x600)



- (1) Main structure
- (2) Air return and supply ceiling
- (3) Additional coil water outlet (4-pipe system)
- (4) Additional coil water inlet (4-pipe system)
- (5) Valve condensate collection tray fixing holes

Size 021.0 ÷ 041.0 (module 800x800)



- (6) Water inlet (main coil)
- (7) Water outlet (main coil)
- (8) Inspection panel of the condensate discharge pump
- (9) Drain pipe
- (10) Ceiling fixing hook

External appearance

Size 007.0 ÷ 015.0 (module 600x600)



CC2 - 2-pipe system



CC4 - 4-pipe system

Size 021.0 ÷ 041.0 (module 800x800)



CC2 - 2-pipe system



CC4 - 4-pipe system

Standard unit technical specifications

Structure

In galvanized sheet metal with internal thermal insulation (high-density expanded polystyrene) and an anti-condensation barrier on the external panel.

Internal exchanger

It is composed of copper pipes and aluminium fins, with hydrophilic coating, fastened to tube with a process of mechanical expansion and suitably shaped. The batteries are with 2 rows for 2 pipe models and 2 or 3 rows for 4 pipe models.

The heat exchanger is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

Fan

The fan-motor assembly, hung on anti-vibration devices, is especially quiet. The radial fan with single intake is designed to optimize improvement using wing-profile rotor blades with a special shape that reduces turbulence, increasing efficiency and reducing noise. The fans are coupled to a single-speed electric motor, driven by the continuous magnetic switching of the stator, with built-in thermal overload protection. The brushless technology and the special supply increase both the life expectancy and the efficiency. The units use 3 preset speeds with the possibility, during system adjustment, to modify them.

Filtration

Washable renewable synthetic filter, G2 class (EU2), easily accessible.

Condensate drain

In high-density expanded polystyrene, with preformed air passages suitably shaped to allow passage of air. To ensure optimal runoff of condensation, the unit is standard equipped with a centrifugal condensation drain pump with static pressure of 500mm for 600x600 modules and 750mm for 800x800 models. It is controlled directly by the electronic card to which is connected a float system to control the condensation and alarm level.

Electrical panel

Electrical panel inside the unit with a complete accessibility from below for an easy maintenance.

Standard infrared remote control to manage the unit remotely through a receiver placed in the air supply and return ceiling.

The unit is equipped with XYE communication port standards.

- remote ON/OFF control
- Remoting of cumulative alarm

Configuration options

- 230M - Supply voltage 230V/1Ph/50Hz (standard)
- VEC - High efficiency DC Brushless fan (standard)
- CC2 - Coil configuration for 2-pipe system (standard)
- CC4 - Coil configuration for 4-pipe system
- IRPCB - Electronics for control with infrared remote control (standard)
- R05 - Infrared remote control R05
- XYE - XYE communication port (standard)

Accessories separately supplied

- 360PX - Air return and supply frame with supply at 360° (mandatory accessory)
- 3V2X - Three-way valve kit for 2-pipe system type "on/off"
- 3V4X - Three-way valve kit for 4-pipe system type "on/off"
- DTX - Auxiliary condensate collection tray
- KJR90X - Electronic room control for wall installation
- KJR150X - Indoor units' group controller
- CCM30BX - Touch-key indoor units' centralized controller (with cover plate)
- CCM08X - BACnet protocol
- CMM18X - Modbus protocol for up to 64 fancoil units
- CCM18UX - Modbus protocol for up to 16 fancoil units
- LONGWX - LowWorks protocol

Accessories standard supplied

Accessory	Picture	Description	Quantity	
			007.0÷015.0	021.0÷041.0
Installation and operating manual		Installation and operating guide	1	1
Control Manual		Control Manual	1	1
Pattern for installation		Pattern for installation	1	1
Bolt M6		Bolt M6	-	4
Pipes and fittings		Tubing insulating and sound insulating	2	2
Water connection for draining the condensate		Drain pipe	1	1
		Tubing insulating and sound insulating for the drain pipe	-	1
		Fastening collar	1	1
		Ties	5	5
Infrared remote control		Infrared remote control R05	1	1
		Pocket for remote control for wall installation	1	1
		Fixing screws	2	2
		Remote control batteries	2	2

General technical data - CC2 (2-pipe system)

Size			007.0			011.0			015.0			021.0			031.0			041.0		
Fan Speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Air flow		[m³/h]	535	429	322	719	561	448	781	611	494	1175	987	768	1581	1371	1236	1871	1415	1198
Cooling Performance																				
Total cooling capacity	(1)	[kW]	2,98	2,53	2,00	3,96	3,26	2,76	4,20	3,48	3,01	5,93	5,30	4,40	7,87	7,12	6,67	11,19	8,82	7,48
Sensible cooling capacity	(1)	[kW]	2,49	2,08	1,59	3,20	2,57	2,10	3,45	2,74	2,31	5,00	4,34	3,52	6,68	5,95	5,50	9,04	7,03	5,97
Water flow rate	(1)	[l/h]	530	450	350	700	580	510	750	610	540	1050	920	770	1440	1280	1220	1960	1530	1280
Water pressure drop	(1)	[kPa]	10,00	7,00	5,00	11,48	8,20	6,54	12,32	8,62	7,40	19,20	15,40	11,00	22,30	18,10	16,30	36,60	22,70	16,40
Heating Performance																				
Heating capacity (45°)	(2)	[kW]	2,61	2,89	2,24	4,63	3,79	3,10	4,95	3,99	3,26	6,06	6,35	5,32	9,16	8,54	7,90	10,07	10,08	8,68
Water flow rate	(2)	[l/h]	640	540	420	830	670	560	870	700	580	1300	1140	1130	1730	1570	1460	2350	1860	1590
Water pressure drop	(2)	[kPa]	12,10	8,50	5,30	9,20	8,60	6,00	9,40	8,23	6,10	25,90	20,10	19,90	28,80	24,00	20,70	49,20	31,20	23,30
Heating capacity (65°)	(3)	[kW]	5,57	5,19	4,07	8,04	6,59	5,54	8,67	7,15	5,96	10,87	10,49	8,74	15,81	14,52	13,49	19,47	17,01	14,77
Water flow rate	(3)	[l/h]	490	450	360	700	580	480	760	620	520	950	920	760	1380	1270	1180	1700	1480	1290
Water pressure drop	(3)	[kPa]	7,52	6,34	3,93	7,15	6,32	4,86	7,06	6,20	4,38	19,01	17,34	16,87	22,82	19,40	16,80	33,96	24,98	18,45
Sound level																				
Sound pressure level	(4)	[dB(A)]	39	33	27	42	36	30	43	38	32	43	39	33	48	44	41	49	43	39
Sound power level	(4)	[dB(A)]	51	45	39	54	48	42	55	50	44	55	51	45	60	56	53	61	55	51
Fan motor																				
Type		[-]	DC			DC			DC			DC			DC			DC		
Quantity		[Nr]	1			1			1			1			1			1		
Brand		[-]	Panasonic			Panasonic			Panasonic			Panasonic			Panasonic			Panasonic		
Model		[-]	WZDK37-38G			WZDK37-38G			WZDK37-38G			WZDK80-38G			WZDK90-38G			WZDK90-38G		
Fan																				
Type	(5)	[-]	RAD			RAD			RAD			RAD			RAD			RAD		
Quantity		[Nr]	1			1			1			1			1			1		
Coil																				
Row		[Nr]	2			2			2			2			2			2		
Coil (length x leight)		[mm]	1315 x 210			1315 x 210			1315 x 210			1960 x 168			1960 x 252			1960 x 252		
Circuits		[Nr]	5			6			7			8			12			12		
Max. working pressure		[MPa]	1,6			1,6			1,6			1,6			1,6			1,6		
Pipe connections																				
Water inlet		["]	G3/4"			G3/4"			G3/4"			RC3/4"			RC3/4"			RC3/4"		
Water outlet		["]	G3/4"			G3/4"			G3/4"			RC3/4"			RC3/4"			RC3/4"		
Drain pipe	(6)	[mm]	Ø25mm			Ø25mm			Ø25mm			Ø32mm			Ø32mm			Ø32mm		

The Product is compliant with the Erp (Energy Related Products) European Directive. It includes the Commission delegated Regulation (EU) No 2016/2281, also known as Ecodesign Lot21.

H = High

M = Medium

L = Low

(1) Cooling: Exchanger inlet water 7°C (temperature differential 5°C)

Ambient air 27°C D.B. / 19°C W.B

(2) Heating: Exchanger inlet water 45°C (temperature differential 5°C)

Ambient air 20°C D.B

(3) Heating: Exchanger inlet water 65°C (temperature differential 10°C)

Ambient air 20°C D.B.

(4) Sound levels tested in an anechoic chamber. The sound pressure level refers to a distance of 1 m from the outer surface of the unit operating in an open field.

(5) RAD = Radial fan

(6) External diameter

Electrical data - CC2 (2-pipe system)

Size		007.0			011.0			015.0			021.0			031.0			041.0		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Electrical data																			
Power supply	[V/Ph/Hz]	220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50		
Power input	[W]	15,0	9,0	5,0	28,0	15,0	19,0	43,0	28,0	21,0	41,0	27,0	17,0	85,0	59,0	45,0	126,0	58,0	39,0
F.L.A. - Full load current at max admissible conditions	[A]	0,21			0,32			0,36			0,40			0,80			1,10		

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- Cooling: Exchanger inlet water 7°C (temperature differential 5°C)

Ambient air 27°C D.B. / 19°C W.B

- Heating: Exchanger inlet water 45°C (temperature differential 5°C)

Ambient air 20°C D.B

- Heating: Exchanger inlet water 65°C (temperature differential 10°C)

Ambient air 20°C D.B.

General technical data - CC4 (4-pipe system)

Size			007.0			011.0			015.0			021.0			031.0			041.0		
Fan Speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Air flow		[m³/h]	536	429	321	727	569	451	731	572	462	1287	1084	851	1785	1545	1397	1857	1410	1191
Cooling Performance																				
Total cooling capacity	(1)	[kW]	2,40	2,08	1,65	3,08	2,64	2,28	3,05	2,62	2,30	5,36	4,81	4,00	8,75	7,97	7,40	8,76	7,29	6,45
Sensible cooling capacity	(1)	[kW]	2,08	1,78	1,39	2,69	2,24	1,88	2,61	2,21	1,90	4,66	4,17	3,42	7,51	6,74	6,18	7,70	6,20	5,40
Water flow rate	(1)	[l/h]	420	360	290	560	480	410	540	470	400	990	870	720	1570	1430	1310	1580	1300	1150
Water pressure drop	(1)	[kPa]	17,40	13,50	9,30	13,15	9,40	7,00	16,80	13,10	10,30	14,80	11,50	8,10	33,90	30,00	24,00	33,00	22,60	17,70
Heating Performance																				
Heating capacity (45°)	(2)	[kW]	2,65	2,01	1,61	3,18	2,29	1,94	3,13	2,18	1,86	4,40	3,76	3,17	6,29	5,50	5,17	6,55	5,16	4,65
Water flow rate	(2)	[l/h]	460	350	280	550	400	340	540	380	320	760	650	550	1090	950	900	1140	900	810
Water pressure drop	(2)	[kPa]	25,60	15,29	10,29	30,60	16,28	11,45	43,68	20,91	15,15	26,69	19,81	13,38	62,60	49,03	43,04	74,37	42,77	35,06
Heating capacity (65°)	(3)	[kW]	4,24	2,86	2,25	5,52	3,53	2,98	5,97	3,66	3,09	7,38	6,06	5,09	11,70	9,88	9,27	12,29	9,17	8,24
Water flow rate	(3)	[l/h]	320	270	210	360	310	270	390	330	280	610	550	470	960	890	840	990	830	760
Water pressure drop	(3)	[kPa]	23,50	17,10	11,30	24,14	17,90	13,10	26,80	19,20	14,50	25,30	20,50	14,50	42,40	36,60	32,60	48,70	32,50	27,00
Sound level																				
Sound pressure level	(4)	[dB(A)]	39	33	27	42	35	30	44	39	31	42	37	31	48	44	42	49	43	38
Sound power level	(4)	[dB(A)]	51	45	39	54	47	42	56	51	43	54	49	43	60	56	54	61	55	50
Fan motor																				
Type		[-]	DC			DC			DC			DC			DC			DC		
Quantity		[Nr]	1			1			1			1			1			1		
Brand		[-]	Panasonic			Panasonic			Panasonic			Panasonic			Panasonic			Panasonic		
Model		[-]	WZDK37-38G			WZDK37-38G			WZDK37-38G			WZDK90-38G			WZDK90-38G			WZDK90-38G		
Fan																				
Type		[-]	RAD			RAD			RAD			RAD			RAD			RAD		
Quantity		[Nr]	1			1			1			1			1			1		
Coil																				
Row		[Nr]	2			2			2			2			3			3		
Coil (length x leight)		[mm]	1315 x 210			1315 x 210			1315 x 210			1990 x 252			2050 x 252			2080 x 252		
Circuits in cooling		[Nr]	3			4			4			9			14			14		
Circuits in heating		[Nr]	3			3			3			3			4			4		
Max. working pressure		[MPa]	1,6			1,6			1,6			1,6			1,6			1,6		
Pipe connections																				
Water inlet in cooling		["]	G3/4			G3/4			G3/4			RC3/4			RC3/4			RC3/4		
Water inlet in heating		["]	G1/2			G1/2			G1/2			RC1/2			RC1/2			RC1/2		
Water outlet in cooling		["]	G3/4			G3/4			G3/4			RC3/4			RC3/4			RC3/4		
Water outlet in heating		["]	G1/2			G1/2			G1/2			RC1/2			RC1/2			RC1/2		
Drain pipe		[mm]	Ø25mm			Ø25mm			Ø25mm			Ø32mm			Ø32mm			Ø32mm		

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Ambient air 27°C D.B. / 19°C W.B

(2) Heating: Exchanger inlet water 45°C (temperature differential 5°C)

Ambient air 20°C D.B

(3) Heating: Exchanger inlet water 65°C (temperature differential 10°C)

Ambient air 20°C D.B.

(4) Sound levels tested in an anechoic chamber. The sound pressure level refers to a distance of 1 m from the outer surface of the unit operating in an open field.

(5) RAD = Radial fan

(6) External diameter

Electrical data - CC4 (4-pipe system)

Size			007.0			011.0			015.0			021.0			031.0			041.0		
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Electrical data																				
Power supply	[V/Ph/Hz]		220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50		
Power input	[W]		14,0	9,0	5,0	37,0	24,0	19,0	32,0	17,0	11,0	50,0	33,0	19,0	107,0	71,0	54,0	125,0	58,0	38,0
F.L.A. - Full load current at max admissible conditions	[A]		0,21			0,32			0,36			0,50			0,90			1,30		

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L = Low

- Cooling: Exchanger inlet water 7°C (temperature differential 5°C)

Ambient air 27°C D.B. / 19°C W.B

- Heating: Exchanger inlet water 45°C (temperature differential 5°C)

Ambient air 20°C D.B

- Heating: Exchanger inlet water 65°C (temperature differential 10°C)

Ambient air 20°C D.B.

Operating limits

CC2 - 2-pipe system

Size			007.0	011.0	015.0	021.0	031.0	041.0
Maximum water inlet temperature		[°C]	80	80	80	80	80	80
Minimum water inlet temperature		[°C]	3	3	3	3	3	3
Maximum operating pressure		[bar]	16	16	16	16	16	16
Maximum water flow rate	Cooling	[l/h]	674	878	947	1248	1567	2379
	Heating	[l/h]	674	878	947	1248	1567	2379
Minimum water flow rate	Cooling	[l/h]	363	473	510	672	844	1281
	Heating	[l/h]	363	473	510	672	844	1281
Maximum inlet air temperature Ta (W.B.)		Cooling [°C]	40	40	40	40	40	40
Minimum inlet air temperature Ta (W.B.)		Cooling [°C]	3	3	3	3	3	3
Maximum inlet air temperature Ta (D.B.)		Heating [°C]	40	40	40	40	40	40
Minimum inlet air temperature Ta (D.B.)		Heating [°C]	3	3	3	3	3	3
Relative humidity limits in the room		R.H.	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%

- Cooling: Exchanger inlet water 7°C (temperature differential 5°C)

Aria ambiente 27°C D.B. / 19°C W.B.

- Heating: Exchanger inlet water 45°C (temperature differential 5°C)

Aria ambiente 20°C D.B.

- Heating: Exchanger inlet water 65°C ((temperature differential 10°C)

Ambient air 20°C D.B.

CC2 - 4-pipe system

Size			007.0	011.0	015.0	021.0	031.0	041.0
Maximum water inlet temperature		[°C]	80	80	80	80	80	80
Minimum water inlet temperature		[°C]	3	3	3	3	3	3
Maximum operating pressure		[bar]	16	16	16	16	16	16
Maximum water flow rate	Cooling	[l/h]	534	643	725	1105	2016	2048
	Heating	[l/h]	438	529	551	798	1264	1328
Minimum water flow rate	Cooling	[l/h]	287	346	390	595	1085	1103
	Heating	[l/h]	235	284	396	429	681	715
Maximum inlet air temperature Ta (W.B.)		Cooling [°C]	40	40	40	40	40	40
Minimum inlet air temperature Ta (W.B.)		Cooling [°C]	3	3	3	3	3	3
Maximum inlet air temperature Ta (D.B.)		Heating [°C]	40	40	40	40	40	40
Minimum inlet air temperature Ta (D.B.)		Heating [°C]	3	3	3	3	3	3
Relative humidity limits in the room		R.H.	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%	20% < R.H. < 100%

- Cooling: Exchanger inlet water 7°C (temperature differential 5°C)

Aria ambiente 27°C D.B. / 19°C W.B.

- Heating: Exchanger inlet water 45°C (temperature differential 5°C)

Aria ambiente 20°C D.B.

- Heating: Exchanger inlet water 65°C ((temperature differential 10°C)

Ambient air 20°C D.B.

Sound levels

CC2 - 2-pipe system

HIGH SPEED										
Size	Sound power level (dB)								Sound pressure level (at 1 meter)	Sound power level
	Octave band (Hz)									
	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
007.0	35,7	38,5	38,3	36,8	30,6	24,9	17,5	15,2	39	51
011.0	37,8	42,4	40,3	39,1	32,9	27,2	21,3	19,6	42	54
015.0	39,7	45,1	42,4	40,6	34,8	29,8	23,5	22,4	43	55
021.0	38,3	41,2	42,9	39,9	33,1	27,6	19,6	16,8	43	55
031.0	42,5	48,4	47,3	42,6	39,8	32,2	25,4	22,8	48	60
041.0	42,8	49,3	47,9	43,8	40,8	32,7	27,2	23,2	49	61

MEDIUM SPEED										
Size	Sound power level (dB)								Sound pressure level (at 1 meter)	Sound power level
	Octave band (Hz)									
	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
007.0	34,1	35,6	36,7	31,7	27,5	20,7	15,7	14,2	33	45
011.0	36,5	38,1	38,7	34,2	30,2	22,9	19,4	17,7	36	48
015.0	38,3	40,3	39,6	36,1	31,6	24,2	21,2	18,9	38	50
021.0	37,3	39,5	38,9	37,2	30,7	25,7	17,5	14,7	39	51
031.0	41,1	45,9	44,2	40,2	34,7	30,1	22,1	20,7	44	56
041.0	41,1	44,1	43,5	39,8	34,5	28,8	21,4	20,6	43	55

LOW SPEED										
Size	Sound power level (dB)								Sound pressure level (at 1 meter)	Sound power level
	Octave band (Hz)									
	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
007.0	30,5	31,5	29,1	26,7	21,7	18,1	15,1	13,5	27	39
011.0	32,8	34,2	32,6	30,3	24,3	20,7	17,8	16,4	30	42
015.0	33,7	35,5	34,2	31,8	26,6	21,9	18,8	17,8	32	44
021.0	33,7	35,4	34,7	31,2	23,5	21,4	16,2	12,3	33	45
031.0	39,7	41,5	40,7	37,1	30,2	27,6	20,2	19,2	41	53
041.0	38,3	40,3	39,5	36,3	29,4	26,2	18,3	18,8	39	51

-Sound levels tested in an anechoic chamber. The sound pressure level refers to a distance of 1 m from the outer surface of the unit operating in an open field.

Sound levels

CC4 - 4-pipe system

HIGH SPEED										
Size	Sound power level (dB)								Sound pressure level (at 1 meter)	Sound power level
	Octave band (Hz)									
	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
007.0	35,5	39,1	38,2	36,2	30,6	23,2	17,2	15,5	39	51
011.0	37,5	42,4	41,1	38,4	32,5	27,1	20,9	19,2	42	54
015.0	40,1	45,5	43,8	42,2	34,8	30,1	23,7	22,9	44	56
021.0	38,0	40,8	41,8	39,1	33,0	27,3	18,8	16,9	42	54
031.0	42,1	48,9	46,8	42,7	40,2	31,7	26,2	22,1	48	60
041.0	42,2	49,5	47,2	43,9	40,5	33,1	26,9	23,0	49	61

MEDIUM SPEED										
Size	Sound power level (dB)								Sound pressure level (at 1 meter)	Sound power level
	Octave band (Hz)									
	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
007.0	33,9	35,2	36,4	32,3	27,7	21,7	15,5	14,1	33	45
011.0	36,1	37,4	37,7	34,1	30,6	22,6	19,6	17,5	35	47
015.0	39,1	41,6	39,9	35,8	31,9	23,6	21,5	19,2	39	51
021.0	36,1	38,2	38,5	37,0	29,3	24,3	17,3	14,2	37	49
031.0	41,0	45,5	44,6	41,1	34,2	29,2	22,5	20,6	44	56
041.0	41,0	44,3	43,2	40,1	34,8	28,5	21,7	20,3	43	55

LOW SPEED										
Size	Sound power level (dB)								Sound pressure level (at 1 meter)	Sound power level
	Octave band (Hz)									
	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
007.0	30,3	30,9	29,5	26,2	20,9	18,0	14,3	13,5	27	39
011.0	32,4	34,1	31,9	30,5	24,7	21,1	18,2	16,3	30	42
015.0	33,2	35,1	34,3	31,4	25,2	21,2	17,9	17,5	31	43
021.0	32,2	34,1	33,4	31,0	23,1	20,8	16,1	11,7	31	43
031.0	40,1	41,9	40,7	38,1	31,2	28,1	20,6	19,6	42	54
041.0	37,5	40,1	39,3	35,8	28,9	26,4	18,5	18,1	38	50

-Sound levels tested in an anechoic chamber. The sound pressure level refers to a distance of 1 m from the outer surface of the unit operating in an open field.

Cooling performance

CC2 - 2-pipe system

011.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	1,52	1,52	430	4,96	1,93	1,93	550	7,52	2,34	2,34	670	10,39	2,74	2,74	780	13,58	3,13	3,13	900	17,08	3,33	3,33	950	18,94	
		17	1,83	1,43	700	6,93	1,97	1,86	560	7,77	2,34	2,34	670	10,42	2,74	2,74	790	13,61	3,14	3,14	900	17,12	3,33	3,33	950	18,99	
		19	3,07	1,43	880	16,48	3,04	1,79	870	16,27	3,02	2,15	870	16,06	3,01	2,53	860	15,95	3,18	3,03	910	17,57	3,34	3,29	960	19,09	
		21	-	-	-	-	4,41	1,84	1260	30,73	3,63	1,93	700	11,12	4,35	2,56	1250	30,05	4,32	2,92	1240	29,72	4,31	3,09	1240	29,55	
		23	-	-	-	-	-	-	-	-	5,84	2,26	1670	49,97	5,81	2,62	1660	49,46	5,77	2,98	1650	48,96	5,76	3,15	1650	48,71	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	0,94	0,94	160	0,81	1,32	1,32	230	1,14	1,93	1,93	330	2,53	2,37	2,37	410	4,37	2,78	2,78	480	5,82	2,98	2,98	510	6,55	
		19	2,08	1,24	700	3,26	1,96	1,55	700	2,68	2,04	1,82	350	3,02	2,39	2,30	410	4,45	2,79	2,79	480	5,83	2,99	2,99	510	6,57	
		21	-	-	-	-	3,34	1,45	570	7,93	3,31	1,82	570	7,82	3,29	2,17	570	7,72	3,27	2,54	560	7,64	3,31	2,76	570	7,81	
		23	-	-	-	-	-	-	-	-	4,83	1,89	830	14,86	4,80	2,25	830	14,69	4,77	2,61	820	14,53	4,76	2,79	820	14,45	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	1,01	0,99	120	0,61	1,31	1,31	160	0,79	1,65	1,65	200	0,99	2,33	2,33	290	1,60	2,57	2,57	320	2,19	
		21	-	-	-	-	2,18	1,45	700	1,41	2,21	1,69	700	1,55	2,07	1,98	700	1,26	2,39	2,23	290	1,72	2,62	2,51	320	2,35	
		23	-	-	-	-	-	-	-	-	3,60	1,47	440	5,03	3,57	1,83	700	4,96	3,53	2,18	430	4,88	3,52	2,36	430	4,84	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	1,09	1,09	310	2,08	1,52	1,52	440	4,95	1,94	1,94	560	7,44	2,34	2,34	670	10,25	2,74	2,74	790	13,39	2,94	2,94	840	15,08	
		19	2,21	1,25	630	9,31	1,93	1,39	700	7,48	2,04	1,83	580	8,11	2,35	2,31	670	10,30	2,74	2,74	790	13,43	2,94	2,94	840	15,12	
		21	-	-	-	-	3,33	1,45	950	18,67	3,30	1,81	950	18,42	3,27	2,17	940	18,18	3,25	2,52	930	17,94	3,25	2,72	930	17,93	
		23	-	-	-	-	-	-	-	-	4,77	1,87	1370	34,73	4,74	2,23	1360	34,34	4,71	2,58	1350	33,95	4,69	2,76	1350	33,76	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	0,94	0,94	160	0,77	1,46	1,46	250	1,21	1,96	1,96	340	2,81	2,38	2,38	410	4,39	2,59	2,59	450	5,07	
		21	-	-	-	-	2,38	1,30	410	4,37	2,15	1,49	700	3,67	2,20	1,85	380	3,78	2,46	2,28	420	4,64	2,62	2,51	450	5,19	
		23	-	-	-	-	-	-	-	-	3,75	1,57	650	9,49	3,63	1,85	630	8,99	3,60	2,20	620	8,87	3,59	2,38	620	8,81	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	1,02	0,98	700	0,58	1,31	1,31	160	0,75	1,73	1,73	210	0,99	2,13	2,13	260	1,30	
		23	-	-	-	-	-	-	-	-	2,33	1,28	700	1,70	2,16	1,61	700	1,35	2,32	1,94	700	1,69	2,45	2,13	700	2,02	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	1,10	1,08	320	2,37	1,53	1,53	440	4,91	1,94	1,94	560	7,35	2,34	2,34	670	10,11	2,54	2,54	730	11,62	
		21	-	-	-	-	2,31	1,18	700	9,76	2,11	1,40	700	8,48	2,14	1,81	620	8,69	2,38	2,27	680	10,41	2,55	2,51	730	11,68	
		23	-	-	-	-	-	-	-	-	3,61	1,47	1030	21,14	3,58	1,83	1030	20,86	3,55	2,18	1020	20,59	3,54	2,36	1020	20,46	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	0,94	0,93	160	0,73	1,52	1,51	260	1,29	1,97	1,97	340	2,99	2,18	2,18	380	3,71	
		23	-	-	-	-	-	-	-	-	2,57	1,25	700	4,93	2,41	1,53	700	4,42	2,33	1,81	700	4,15	2,43	2,03	420	4,47	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC2 - 2-pipe system

015.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	1,62	1,62	460	5,02	2,08	2,08	590	7,90	2,52	2,52	720	10,95	2,95	2,95	850	14,34	3,38	3,38	970	18,06	3,59	3,59	1030	20,04	
		17	1,90	1,53	540	6,78	2,10	2,00	600	8,09	2,52	2,52	720	10,98	2,96	2,96	850	14,38	3,38	3,38	970	18,11	3,60	3,60	1030	20,09	
		19	3,27	1,53	940	17,11	3,25	1,92	930	16,89	3,22	2,31	920	16,67	3,22	2,73	920	16,61	3,43	3,28	980	18,49	3,60	3,56	1030	20,16	
		21	-	-	-	-	4,73	1,98	1360	32,16	4,70	2,37	1350	31,80	4,67	2,76	1340	31,45	4,64	3,14	1330	31,10	4,63	3,33	1330	30,92	
		23	-	-	-	-	-	-	-	-	6,29	2,43	1800	52,49	6,25	2,82	1790	51,96	6,21	3,21	1780	51,43	6,19	3,40	1770	51,17	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	1,02	1,02	170	0,91	1,35	1,35	230	1,21	2,04	2,04	350	2,14	2,52	2,52	430	4,31	2,98	2,98	510	6,07	3,20	3,20	550	6,87	
		19	2,05	1,33	750	2,22	1,43	1,36	250	1,28	2,13	1,96	750	2,49	2,54	2,47	440	4,36	2,98	2,98	510	6,09	3,21	3,21	550	6,89	
		21	-	-	-	-	3,52	1,54	600	8,05	3,49	1,93	600	7,94	3,46	2,32	590	7,83	3,45	2,73	590	7,79	3,51	2,97	600	8,03	
		23	-	-	-	-	-	-	-	-	5,15	2,02	890	15,39	5,12	2,41	880	15,21	5,08	2,80	870	15,04	5,07	2,99	870	14,96	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	1,09	1,06	130	0,68	1,42	1,42	170	0,88	1,75	1,75	220	1,09	2,35	2,35	290	1,47	2,70	2,70	330	1,88	
		21	-	-	-	-	1,45	1,00	750	0,90	2,49	1,94	750	1,88	2,33	2,18	750	1,56	2,36	2,35	290	1,48	2,70	2,63	330	1,89	
		23	-	-	-	-	-	-	-	-	3,70	1,53	460	4,83	3,86	2,06	750	5,19	3,63	2,30	450	4,63	3,70	2,55	750	4,85	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	1,14	1,14	330	1,77	1,63	1,63	470	5,12	2,08	2,08	600	7,82	2,52	2,52	720	10,82	2,95	2,95	850	14,15	3,17	3,17	910	15,94	
		19	2,33	1,33	670	9,46	2,03	1,48	750	7,51	2,17	1,97	620	8,42	2,52	2,50	720	10,85	2,96	2,96	850	14,19	3,17	3,17	910	15,99	
		21	-	-	-	-	3,55	1,55	1020	19,41	3,53	1,94	1010	19,15	3,50	2,33	1000	18,90	3,47	2,71	1000	18,65	3,48	2,94	1000	18,70	
		23	-	-	-	-	-	-	-	-	5,12	2,01	1470	36,38	5,09	2,40	1460	35,97	5,05	2,78	1450	35,56	5,04	2,98	1450	35,36	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	1,02	1,02	180	0,86	1,38	1,38	240	1,18	2,07	2,07	360	2,45	2,54	2,54	440	4,48	2,77	2,77	480	5,28	
		21	-	-	-	-	2,38	1,35	410	3,84	2,25	1,68	750	3,29	2,32	2,02	400	3,59	2,60	2,45	450	4,70	2,80	2,70	480	5,37	
		23	-	-	-	-	-	-	-	-	3,97	1,67	680	9,74	3,83	1,97	660	9,18	3,80	2,35	650	9,06	3,79	2,54	650	8,99	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	1,10	1,07	140	0,65	1,42	1,42	170	0,84	1,76	1,76	220	1,04	2,06	2,06	250	1,22	
		23	-	-	-	-	-	-	-	-	2,44	1,59	750	1,55	2,45	1,83	750	1,65	2,57	2,21	750	1,89	2,15	2,12	750	1,27	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	1,16	1,15	330	1,98	1,64	1,64	470	5,12	2,09	2,09	600	7,73	2,52	2,52	720	10,67	2,74	2,74	790	12,27	
		21	-	-	-	-	2,56	1,36	740	10,95	2,22	1,50	640	8,60	2,28	1,95	650	8,98	2,56	2,46	730	10,92	2,75	2,72	790	12,32	
		23	-	-	-	-	-	-	-	-	3,32	1,40	750	11,29	3,83	1,96	1100	21,72	3,80	2,35	1090	21,43	3,78	2,54	1090	21,29	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	1,02	1,01	170	0,82	1,48	1,48	250	1,20	2,09	2,09	360	2,75	2,33	2,33	400	3,72	
		23	-	-	-	-	-	-	-	-	2,67	1,39	750	4,76	2,44	1,61	420	4,13	2,43	1,94	750	4,11	2,59	2,22	450	4,61	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

EWT = Exchanger water inlet temperature (°C)
 ΔT = Temperature differential (°C)
 T_a = Ambient temperature (°C)
 D.B. = Dry bulb
 W.B. = Wet bulb

TC = Total cooling capacity (kW)
SC = Sensible cooling capacity (kW)
WF = Water flow-rate (l/h)
WDP = Exchanger pressure drops (kPa)

Cooling performance

CC2 - 2-pipe system

031.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	2,94	2,94	840	9,50	3,77	3,77	1080	14,60	4,57	4,57	1310	20,25	5,37	5,37	1540	26,57	6,15	6,15	1760	33,52	6,54	6,54	1870	37,23	
		17	4,28	3,22	1440	23,25	3,85	3,64	1100	15,12	4,58	4,58	1310	20,29	5,37	5,37	1540	26,62	6,16	6,16	1760	33,59	6,55	6,55	1880	37,31	
		19	6,03	2,81	1730	32,40	6,20	3,76	1440	33,01	5,95	4,24	1710	31,67	5,93	4,99	1700	31,47	6,26	5,96	1790	34,58	6,57	6,47	1880	37,51	
		21	-	-	-	-	8,69	3,63	2490	60,60	8,64	4,35	2480	60,02	8,59	5,06	2460	59,45	8,54	5,77	2450	58,88	8,52	6,11	2440	58,60	
		23	-	-	-	-	-	-	-	-	11,52	4,46	3300	98,75	11,47	5,18	3290	97,91	11,41	5,89	3270	97,07	11,38	6,24	3260	96,65	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	1,83	1,83	310	1,60	2,48	2,48	430	2,17	3,74	3,74	640	4,52	4,61	4,61	790	8,35	5,43	5,43	930	11,30	5,83	5,83	1000	12,76	
		19	3,71	2,26	1440	4,44	3,33	2,60	570	3,13	3,98	3,61	1440	5,54	4,68	4,53	810	8,64	5,44	5,44	930	11,33	5,84	5,84	1000	12,79	
		21	-	-	-	-	6,88	3,11	1180	16,85	6,51	3,58	1120	15,35	6,46	4,28	1440	15,16	6,43	5,01	1440	15,04	6,51	5,45	1120	15,36	
		23	-	-	-	-	-	-	-	-	9,51	3,73	1640	29,27	9,46	4,45	1630	28,99	9,41	5,16	1620	28,71	9,38	5,51	1610	28,57	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	1,97	1,93	240	1,19	2,55	2,55	310	1,55	3,17	3,17	390	1,93	4,47	4,47	550	2,90	4,97	4,97	610	3,94	
		21	-	-	-	-	4,52	2,91	1440	3,27	2,77	2,45	340	1,68	4,23	4,08	1440	2,65	4,63	4,38	570	3,15	5,04	4,84	620	4,14	
		23	-	-	-	-	-	-	-	-	7,03	2,88	860	9,78	7,52	4,03	1440	10,82	7,25	4,53	1440	10,50	7,23	4,94	1440	10,20	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	2,09	2,09	600	3,65	2,96	2,96	850	9,54	3,78	3,78	1090	14,46	4,58	4,58	1320	20,03	5,37	5,37	1540	26,25	5,76	5,76	1650	29,60	
		19	4,64	2,74	1440	20,25	4,42	3,07	1440	23,49	3,99	3,60	1150	15,85	4,60	4,54	1320	20,13	5,38	5,38	1540	26,31	5,77	5,77	1660	29,67	
		21	-	-	-	-	6,54	2,85	1880	36,75	6,50	3,57	1870	36,33	6,46	4,28	1850	35,92	6,41	4,98	1840	35,50	6,41	5,38	1840	35,47	
		23	-	-	-	-	-	-	-	-	9,40	3,69	2700	68,59	9,35	4,40	2680	67,93	7,62	4,53	1440	23,22	9,27	5,46	2660	66,95	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	1,83	1,83	310	1,52	2,66	2,66	460	2,21	3,79	3,79	650	5,15	4,64	4,64	800	8,48	5,05	5,05	870	9,85	
		21	-	-	-	-	4,72	2,63	1440	8,74	4,41	3,25	1440	7,65	4,32	3,69	1440	7,34	4,80	4,47	830	9,00	5,13	4,92	880	10,11	
		23	-	-	-	-	-	-	-	-	7,19	2,93	1240	17,89	7,15	3,65	1440	17,80	7,09	4,35	1220	17,48	7,06	4,70	1220	17,37	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	1,99	1,92	1440	1,14	2,55	2,55	310	1,47	3,24	3,24	400	1,88	4,04	4,04	500	2,38	
		23	-	-	-	-	-	-	-	-	4,51	2,65	1440	3,11	4,35	3,14	1440	2,92	4,83	4,19	1440	4,01	4,92	4,41	1440	4,18	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	2,13	2,09	610	4,26	2,98	2,98	860	9,51	3,79	3,79	1090	14,31	4,59	4,59	1320	19,78	4,99	4,99	1430	22,76	
		21	-	-	-	-	4,78	2,53	1370	21,18	4,61	3,04	1440	22,49	4,21	3,56	1210	17,05	4,68	4,47	1340	20,41	5,01	4,94	1440	22,91	
		23	-	-	-	-	-	-	-	-	7,10	2,89	2040	41,69	7,06	3,61	2030	41,21	7,01	4,32	2010	40,74	6,98	4,67	2000	40,50	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	1,83	1,82	310	1,44	2,89	2,89	500	2,35	3,83	3,83	660	5,59	4,25	4,25	730	7,13	
		23	-	-	-	-	-	-	-	-	4,87	2,49	1440	8,86	4,82	3,12	1440	8,95	4,81	3,89	830	8,91	4,95	4,29	1440	9,25	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC2 - 2-pipe system

041.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	4,09	4,09	1170	16,35	5,21	5,21	1490	25,65	6,29	6,29	1800	35,29	7,35	7,35	2100	45,97	8,39	8,39	2400	57,65	8,91	8,91	2550	63,85	
		17	4,81	3,70	1960	22,41	5,32	4,98	1530	26,65	6,30	6,30	1800	35,38	7,36	7,36	2110	46,10	8,40	8,40	2410	57,81	8,92	8,92	2560	64,03	
		19	8,32	3,86	2380	56,80	8,25	4,83	2370	56,03	8,19	5,78	2350	55,28	8,14	6,76	2330	54,73	8,56	8,09	2450	59,65	8,96	8,78	2570	64,45	
		21	-	-	-	-	11,90	4,97	3410	104,82	11,82	5,93	3390	103,60	11,74	6,88	3360	102,39	11,66	7,81	3340	101,19	11,62	8,27	3330	100,60	
		23	-	-	-	-	-	-	-	-	15,71	6,08	4500	169,32	15,62	7,04	4470	167,50	15,52	7,98	4450	165,70	15,47	8,45	4430	164,81	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	2,71	2,70	470	3,19	3,61	3,61	620	4,27	5,22	5,22	900	7,13	6,38	6,38	1100	13,96	7,49	7,49	1290	19,74	8,02	8,02	1380	22,29	
		19	5,93	3,45	1960	11,33	5,37	4,06	1960	8,22	5,66	5,03	970	9,51	6,46	6,19	1110	14,42	7,50	7,48	1290	19,78	8,04	8,04	1380	22,35	
		21	-	-	-	-	9,13	3,96	1570	27,72	9,36	5,16	1610	28,96	8,98	5,86	1540	26,96	8,92	6,81	1530	26,63	9,00	7,40	1550	27,05	
		23	-	-	-	-	-	-	-	-	13,12	5,13	2260	51,29	13,03	6,09	2240	50,69	12,94	7,03	2230	50,09	12,90	7,50	2220	49,80	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	2,99	2,88	370	2,44	3,78	3,78	460	3,10	4,65	4,65	570	3,82	6,16	6,16	760	5,10	6,91	6,91	850	6,30	
		21	-	-	-	-	6,41	3,74	1960	5,74	6,11	4,76	1960	5,29	4,90	4,74	1960	4,02	6,24	5,94	770	5,18	7,15	6,81	1960	6,90	
		23	-	-	-	-	-	-	-	-	10,31	4,31	1270	19,04	9,80	4,97	1210	17,32	9,72	5,91	1190	17,02	9,67	6,38	1190	16,87	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	2,93	2,93	840	6,00	4,11	4,11	1180	16,70	5,21	5,21	1500	25,35	6,29	6,29	1800	34,79	7,34	7,34	2110	45,29	7,87	7,87	2260	50,91	
		19	5,78	3,11	1960	31,05	5,26	3,73	1510	25,74	5,52	4,90	1580	27,93	6,31	6,19	1810	35,02	7,36	7,36	2110	45,42	7,88	7,88	2260	51,07	
		21	-	-	-	-	9,01	3,91	2590	64,19	8,94	4,87	2560	63,32	8,87	5,82	2540	62,46	8,80	6,75	2520	61,62	8,78	7,26	2520	61,40	
		23	-	-	-	-	-	-	-	-	12,86	5,03	3690	118,28	12,77	5,99	3660	116,89	12,69	6,93	3640	115,51	12,64	7,40	3630	114,84	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	2,71	2,68	470	3,03	3,73	3,73	640	4,18	5,28	5,28	910	8,02	6,42	6,42	1110	14,56	6,97	6,97	1200	17,18	
		21	-	-	-	-	6,37	3,35	1100	14,34	5,85	4,13	1960	11,02	6,02	4,91	1960	12,99	6,66	6,11	1150	15,75	7,09	6,73	1220	17,75	
		23	-	-	-	-	-	-	-	-	9,99	4,04	1720	31,80	9,91	5,00	1710	31,36	9,83	5,94	1690	30,93	9,79	6,41	1690	30,72	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	3,00	2,85	370	2,33	3,78	3,76	460	2,94	4,70	4,70	580	3,67	5,52	5,52	680	4,31	
		23	-	-	-	-	-	-	-	-	5,73	3,59	710	4,43	6,10	4,23	1960	4,98	5,46	4,98	1960	4,21	6,84	5,74	1960	6,79	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		19	-	-	-	-	2,98	2,90	850	6,68	4,13	4,13	1180	16,72	5,22	5,22	1500	25,00	6,29	6,29	1810	34,27	6,82	6,82	1960	39,29	
		21	-	-	-	-	6,05	3,08	1960	30,24	5,75	3,77	1650	29,46	5,82	4,84	1670	30,05	6,42	6,09	1840	35,53	6,85	6,71	1970	39,63	
		23	-	-	-	-	-	-	-	-	9,76	3,96	2800	72,58	9,69	4,92	2780	71,59	9,61	5,86	2760	70,62	9,57	6,33	2750	70,13	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	2,71	2,63	470	2,88	3,96	3,96	680	4,22	5,32	5,32	920	8,91	5,89	5,89	1010	12,08	
		23	-	-	-	-	-	-	-	-	7,17	3,46	1230	17,81	6,61	4,07	1960	15,61	6,37	4,87	1100	14,39	6,62	5,46	1140	15,49	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	3,03	2,80	370	2,23	3,78	3,73	470	2,80	4,22	4,22	520	3,13	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Heating performance

CC2 - 2-pipe system

007.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	2,24	390	5,86	1,94	340	4,57	1,64	280	3,42	1,33	230	2,41	1,02	180	1,52
	10	1,51	130	0,61	0,96	80	0,35	0,74	60	0,28	0,64	640	0,27	0,54	640	0,27
	15	0,94	640	0,29	0,84	60	0,28	-	-	-	-	-	-	-	-	-
40	5	2,99	520	9,37	2,69	470	7,80	2,39	410	6,35	2,09	360	5,04	1,79	310	3,87
	10	2,39	210	1,99	2,07	180	1,55	1,74	150	1,07	1,38	120	0,51	0,85	70	0,28
	15	1,28	70	0,30	1,09	60	0,26	0,99	640	0,26	0,89	640	0,26	0,79	60	0,25
45	5	3,74	650	13,46	3,43	600	11,61	2,61	640	12,10	2,83	490	8,30	2,53	440	6,84
	10	3,18	280	3,13	2,87	250	2,63	2,56	220	2,16	2,25	190	1,74	1,93	170	1,34
	15	2,49	140	0,95	2,13	120	0,59	1,46	80	0,31	1,17	70	0,25	1,04	60	0,24
50	5	4,48	780	18,07	4,17	730	15,96	3,87	670	13,98	3,57	620	12,13	3,26	570	10,40
	10	3,94	340	4,41	3,63	320	3,83	3,33	290	3,30	3,02	260	2,79	2,71	240	2,33
	15	3,34	190	1,69	3,02	170	1,42	2,69	160	1,17	2,36	140	0,88	2,01	120	0,55
55	5	5,22	910	23,18	4,91	860	20,83	4,61	800	18,59	4,30	750	16,49	4,00	700	14,51
	10	4,70	410	5,83	4,39	380	5,18	4,08	350	4,57	3,77	330	4,00	3,47	300	3,46
	15	4,13	240	2,36	3,82	220	2,07	3,50	200	1,79	3,19	180	1,52	2,87	170	1,28
60	5	5,96	1040	28,76	5,65	990	26,16	5,34	930	23,69	5,03	880	21,34	4,73	830	19,12
	10	5,45	470	7,38	5,14	450	6,66	4,83	420	5,98	4,52	390	5,34	4,21	370	4,73
	15	4,90	280	3,09	4,59	270	2,76	4,28	250	2,45	3,97	230	2,16	3,66	210	1,88
65	5	6,70	1170	34,79	6,39	1120	31,96	6,08	1060	29,25	5,77	1010	26,67	5,46	960	24,21
	10	6,19	540	9,05	5,88	510	8,27	5,57	490	7,52	5,26	460	6,81	4,95	430	6,14
	15	5,67	330	3,88	5,35	310	3,52	5,04	290	3,18	4,73	270	2,85	4,42	260	2,54
70	5	7,44	1300	41,23	7,13	1250	38,17	6,81	1190	35,24	6,50	1140	32,42	6,19	1080	29,74
	10	6,94	610	10,85	6,62	580	10,00	6,31	550	9,19	6,00	520	8,41	5,69	500	7,67
	15	6,42	370	4,73	6,11	360	4,33	5,79	340	3,96	5,48	320	3,60	5,17	300	3,26

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

011.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	3,25	560	5,61	2,81	490	4,38	2,37	410	3,28	1,93	330	2,32	1,48	260	1,46
	10	2,21	190	0,59	1,51	130	0,38	1,18	100	0,30	0,91	80	0,24	0,77	830	0,24
	15	1,34	80	0,26	1,20	830	0,25	-	-	-	-	-	-	-	-	-
40	5	4,33	750	8,93	3,89	670	7,43	3,45	600	6,06	3,02	520	4,81	2,58	450	3,69
	10	3,48	300	1,92	3,02	260	1,50	2,55	220	1,01	2,02	170	0,49	1,34	120	0,30
	15	2,03	120	0,32	1,69	100	0,27	1,40	80	0,23	1,26	830	0,23	1,13	80	0,22
45	5	5,40	940	12,80	4,95	860	11,04	4,63	830	9,20	4,08	710	7,89	3,65	630	6,50
	10	4,61	400	3,00	4,16	360	2,52	3,71	320	2,08	3,26	280	1,67	2,81	240	1,29
	15	3,64	210	0,90	3,12	180	0,56	2,33	130	0,34	1,86	110	0,27	1,52	90	0,22
50	5	6,46	1120	17,15	6,02	1050	15,15	5,58	970	13,26	5,14	890	11,50	4,70	820	9,86
	10	5,71	500	4,21	5,26	460	3,67	4,82	420	3,15	4,37	380	2,67	3,93	340	2,23
	15	4,86	280	1,63	4,39	250	1,38	3,92	230	1,12	3,45	200	0,84	2,94	170	0,51
55	5	7,53	1310	21,98	7,08	1230	19,73	6,63	1160	17,61	6,19	1080	15,61	5,75	1000	13,73
	10	6,79	590	5,56	6,34	550	4,94	5,90	510	4,36	5,45	470	3,81	5,01	440	3,30
	15	5,99	350	2,27	5,54	320	1,98	5,09	290	1,72	4,63	270	1,47	4,17	240	1,23
60	5	8,59	1500	27,24	8,14	1420	24,76	7,69	1340	22,41	7,25	1260	20,18	6,80	1190	18,06
	10	7,87	690	7,02	7,42	650	6,34	6,97	610	5,69	6,52	570	5,08	6,08	530	4,50
	15	7,10	410	2,96	6,65	390	2,65	6,20	360	2,35	5,75	330	2,06	5,30	310	1,80
65	5	9,66	1690	32,92	9,20	1610	30,22	8,75	1530	27,64	8,30	1450	25,19	7,85	1370	22,85
	10	8,94	780	8,61	8,49	740	7,86	8,04	700	7,15	7,59	660	6,47	7,14	620	5,83
	15	8,20	480	3,71	7,74	450	3,36	7,29	420	3,03	6,84	400	2,72	6,40	370	2,42
70	5	10,72	1880	38,99	10,26	1800	36,07	9,80	1720	33,27	9,35	1640	30,60	8,90	1560	28,04
	10	10,01	880	10,30	9,56	840	9,49	9,10	800	8,72	8,65	760	7,98	8,20	720	7,27
	15	9,29	540	4,51	8,83	510	4,13	8,37	490	3,77	7,92	460	3,43	7,47	430	3,10

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Heating performance

CC2 - 2-pipe system

015.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	3,49	600	5,53	3,02	520	4,31	2,54	440	3,23	2,07	360	2,27	1,57	270	1,31
	10	2,10	180	0,51	1,62	140	0,40	1,27	110	0,31	0,97	90	0,25	0,82	870	0,24
	15	1,41	90	0,26	1,27	870	0,26	-	-	-	-	-	-	-	-	-
40	5	4,66	810	8,83	4,19	730	7,34	3,72	640	5,98	3,25	560	4,75	2,78	480	3,64
	10	3,72	320	1,87	3,21	280	1,40	2,69	230	0,82	1,92	170	0,42	1,44	120	0,32
	15	2,18	130	0,34	1,82	100	0,28	1,49	90	0,24	1,34	870	0,23	1,19	870	0,23
45	5	5,82	1010	12,65	5,34	930	10,91	4,95	870	9,40	4,40	760	7,79	3,93	680	6,42
	10	4,95	430	2,95	4,46	390	2,48	3,98	340	2,04	3,49	300	1,63	2,99	260	1,23
	15	3,84	220	0,75	3,14	180	0,45	2,39	140	0,34	2,00	120	0,28	1,63	90	0,23
50	5	6,98	1210	16,96	6,49	1130	14,98	6,02	1050	13,11	5,54	960	11,37	5,07	880	9,75
	10	6,14	530	4,16	5,66	490	3,61	5,18	450	3,11	4,70	410	2,63	4,22	370	2,19
	15	5,19	300	1,59	4,68	270	1,33	4,17	240	1,04	3,64	210	0,71	3,02	170	0,41
55	5	8,13	1420	21,73	7,64	1330	19,51	7,16	1250	17,41	6,68	1160	15,43	6,21	1080	13,57
	10	7,32	640	5,49	6,83	590	4,88	6,35	550	4,30	5,87	510	3,76	5,39	470	3,25
	15	6,43	370	2,23	5,94	340	1,95	5,45	320	1,68	4,95	290	1,43	4,46	260	1,20
60	5	9,28	1620	26,93	8,79	1530	24,48	8,30	1450	22,15	7,82	1370	19,95	7,34	1280	17,86
	10	8,48	740	6,94	8,00	700	6,26	7,51	650	5,62	7,03	610	5,02	6,55	570	4,44
	15	7,64	440	2,92	7,15	410	2,61	6,66	390	2,31	6,17	360	2,03	5,69	330	1,77
65	5	10,43	1820	32,55	9,94	1740	29,88	9,45	1650	27,33	8,96	1570	24,90	8,48	1480	22,59
	10	9,65	840	8,51	9,15	800	7,77	8,67	760	7,06	8,18	710	6,39	7,70	670	5,76
	15	8,83	510	3,66	8,34	480	3,32	7,85	460	2,99	7,36	430	2,68	6,88	400	2,39
70	5	11,58	2030	38,54	11,08	1940	35,65	10,59	1860	32,89	10,10	1770	30,25	9,61	1680	27,72
	10	10,81	940	10,18	10,31	900	9,38	9,82	860	8,62	9,33	820	7,89	8,85	770	7,19
	15	10,01	580	4,45	9,51	550	4,08	9,02	520	3,72	8,53	500	3,38	8,05	470	3,06

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

021.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	4,35	750	14,69	3,76	650	11,45	3,17	550	8,56	2,57	440	6,01	1,96	340	3,70
	10	2,75	240	1,35	1,91	170	0,93	1,50	1300	0,73	1,30	130	0,72	1,10	1300	0,71
	15	1,91	1300	0,76	1,70	1300	0,75	-	-	-	-	-	-	-	-	-
40	5	5,82	1010	23,60	5,23	910	19,63	4,65	810	15,99	4,06	700	12,69	3,47	600	9,72
	10	4,61	400	4,91	3,98	340	3,80	3,33	290	2,48	2,55	220	1,14	1,70	150	0,75
	15	2,56	150	0,79	2,20	130	0,70	2,01	130	0,69	1,81	1300	0,68	1,60	1300	0,67
45	5	7,29	1270	33,96	6,69	1160	29,31	6,06	1300	25,90	5,52	960	20,97	4,93	860	17,29
	10	6,15	530	7,80	5,55	480	6,55	4,94	430	5,39	4,33	380	4,31	3,71	320	3,31
	15	4,75	270	2,20	4,01	230	1,31	2,86	170	0,80	2,35	140	0,66	2,11	130	0,63
50	5	8,74	1520	45,67	8,15	1420	40,38	7,55	1310	35,40	6,96	1210	30,73	6,38	1110	26,37
	10	7,65	660	11,05	7,05	610	9,61	6,46	560	8,26	5,86	510	7,00	5,26	460	5,83
	15	6,43	370	4,18	5,81	340	3,52	5,17	300	2,85	4,52	260	2,08	3,81	220	1,23
55	5	10,20	1780	58,65	9,60	1670	52,74	9,00	1570	47,14	8,41	1470	41,84	7,82	1360	36,85
	10	9,14	790	14,64	8,54	740	13,03	7,94	690	11,50	7,34	640	10,06	6,75	590	8,71
	15	7,99	460	5,89	7,38	430	5,15	6,77	390	4,45	6,16	360	3,79	5,54	320	3,17
60	5	11,65	2030	72,82	11,05	1930	66,31	10,45	1820	60,11	9,85	1720	54,21	9,26	1620	48,61
	10	10,61	920	18,58	10,01	870	16,79	9,41	820	15,09	8,81	770	13,48	8,22	720	11,95
	15	9,51	550	7,74	8,91	520	6,92	8,30	480	6,14	7,70	450	5,40	7,09	410	4,70
65	5	13,10	2290	88,14	12,49	2190	81,06	11,89	2080	74,28	11,29	1980	67,80	10,69	1870	61,61
	10	12,07	1050	22,83	11,47	1000	20,88	10,87	950	19,01	10,27	900	17,23	9,67	840	15,54
	15	11,01	640	9,74	10,40	600	8,84	9,80	570	7,98	9,20	530	7,16	8,60	500	6,38
70	5	14,55	2550	104,50	13,94	2440	96,86	13,33	2340	89,53	12,73	2230	82,48	12,13	2130	75,74
	10	13,54	1180	27,39	12,93	1130	25,28	12,32	1080	23,25	11,72	1030	21,31	11,12	970	19,45
	15	12,49	730	11,88	11,89	690	10,90	11,28	660	9,96	10,68	620	9,07	10,08	590	8,21

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Heating performance

CC2 - 2-pipe system

031.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	6,36	1100	17,78	5,50	950	13,88	4,64	800	10,40	3,78	650	7,33	2,89	500	4,52
	10	4,16	360	1,73	2,93	250	1,20	2,29	200	0,94	1,85	170	0,82	1,56	1730	0,81
	15	2,71	170	0,87	2,42	1730	0,85	-	-	-	-	-	-	-	-	-
40	5	8,49	1470	28,42	7,63	1320	23,65	6,78	1170	19,28	5,92	1030	15,32	5,07	880	11,76
	10	6,78	590	6,03	5,87	510	4,67	4,94	430	3,03	3,83	330	1,46	2,61	230	0,97
	15	3,93	230	1,03	3,28	190	0,86	2,84	170	0,79	2,57	1730	0,78	2,27	1730	0,76
45	5	10,61	1840	40,79	9,74	1690	35,20	9,16	1730	28,80	8,03	1390	25,20	7,18	1250	20,78
	10	9,01	780	9,48	8,14	700	7,97	7,26	630	6,57	6,37	550	5,28	5,47	470	4,05
	15	7,05	410	2,70	5,99	350	1,65	4,42	250	1,05	3,61	210	0,86	2,98	1730	0,71
50	5	12,71	2210	54,74	11,84	2060	48,39	10,98	1910	42,41	10,12	1760	36,82	9,27	1610	31,60
	10	11,18	970	13,36	10,31	890	11,63	9,44	820	10,01	8,57	740	8,49	7,70	670	7,08
	15	9,47	550	5,12	8,56	490	4,31	7,64	440	3,50	6,69	390	2,54	5,68	330	1,52
55	5	14,82	2580	70,19	13,94	2430	63,10	13,07	2280	56,38	12,21	2130	50,03	11,35	1980	44,05
	10	13,32	1160	17,66	12,45	1080	15,71	11,58	1010	13,87	10,71	930	12,14	9,85	860	10,51
	15	11,72	680	7,17	10,83	630	6,27	9,94	580	5,42	9,05	520	4,63	8,15	470	3,88
60	5	16,92	2950	87,05	16,04	2800	79,24	15,16	2650	71,80	14,29	2500	64,73	13,43	2340	58,02
	10	15,45	1350	22,35	14,58	1270	20,20	13,70	1190	18,15	12,83	1120	16,21	11,97	1040	14,38
	15	13,91	810	9,38	13,03	760	8,38	12,15	700	7,44	11,27	650	6,55	10,39	600	5,71
65	5	19,02	3330	105,28	18,13	3170	96,77	17,25	3020	88,63	16,38	2860	80,86	15,51	2710	73,45
	10	17,57	1530	27,42	16,69	1460	25,07	15,81	1380	22,82	14,94	1300	20,68	14,07	1230	18,65
	15	16,08	930	11,77	15,19	880	10,68	14,31	830	9,64	13,43	780	8,65	12,56	730	7,71
70	5	21,12	3700	124,73	20,22	3550	115,55	19,34	3390	106,73	18,46	3230	98,28	17,58	3080	90,20
	10	19,69	1720	32,85	18,80	1640	30,30	17,92	1570	27,87	17,04	1490	25,53	16,17	1410	23,30
	15	18,22	1060	14,32	17,33	1010	13,14	16,45	960	12,01	15,57	910	10,92	14,70	850	9,89

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

041.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	7,80	1350	26,40	6,73	1160	20,54	5,65	980	15,29	4,56	790	10,50	3,40	590	4,40
	10	4,39	380	2,51	3,59	310	2,06	2,80	240	1,61	2,40	240	1,55	2,02	2350	1,52
	15	3,52	240	1,64	3,14	2350	1,60	-	-	-	-	-	-	-	-	-
40	5	10,45	1810	42,35	9,38	1630	35,19	8,32	1440	28,64	7,25	1260	22,70	6,19	1070	17,36
	10	8,16	710	8,31	6,98	600	5,22	5,49	470	2,85	3,98	340	2,06	3,19	280	1,65
	15	4,82	280	1,76	4,05	2350	1,49	3,70	240	1,48	3,32	2350	1,45	2,95	2350	1,43
45	5	13,08	2270	60,83	12,00	2080	52,45	10,07	2350	49,20	9,87	1710	37,46	8,81	1530	30,85
	10	11,00	950	14,01	9,90	860	11,73	8,79	760	9,58	7,67	660	7,43	6,51	560	4,74
	15	7,74	450	2,58	6,09	350	2,01	5,21	300	1,72	4,41	250	1,46	3,87	2350	1,35
50	5	15,69	2730	81,63	14,61	2540	72,09	13,53	2350	63,13	12,46	2170	54,75	11,40	1980	46,95
	10	13,72	1190	19,86	12,63	1100	17,25	11,54	1000	14,80	10,46	910	12,52	9,37	810	10,41
	15	11,43	660	7,29	10,26	590	5,67	9,05	520	3,88	7,60	440	2,41	5,71	330	1,72
55	5	18,30	3190	104,62	17,21	3000	93,97	16,12	2810	83,89	15,05	2620	74,39	13,98	2440	65,45
	10	16,39	1430	26,29	15,30	1330	23,37	14,21	1240	20,60	13,13	1140	18,00	12,06	1050	15,56
	15	14,30	830	10,57	13,18	760	9,22	12,06	700	7,93	10,93	630	6,67	9,78	570	5,29
60	5	20,91	3650	129,67	19,80	3460	117,95	18,71	3270	106,79	17,63	3080	96,20	16,55	2890	86,17
	10	19,04	1660	33,30	17,94	1560	30,07	16,85	1470	26,99	15,77	1370	24,08	14,69	1280	21,33
	15	17,05	990	13,92	15,94	920	12,42	14,84	860	11,00	13,74	800	9,65	12,64	730	8,38
65	5	23,51	4110	156,74	22,40	3920	143,96	21,30	3730	131,75	20,20	3530	120,10	19,12	3340	109,02
	10	21,67	1890	40,87	20,57	1800	37,33	19,47	1700	33,96	18,38	1600	30,74	17,30	1510	27,69
	15	19,75	1150	17,50	18,65	1080	15,86	17,55	1020	14,29	16,45	960	12,81	15,36	890	11,39
70	5	26,11	4580	185,60	24,99	4380	171,80	23,88	4190	158,57	22,78	3990	145,91	21,68	3800	133,80
	10	24,30	2120	48,95	23,18	2030	45,12	22,08	1930	41,46	20,98	1830	37,95	19,89	1740	34,60
	15	22,43	1300	21,33	21,31	1240	19,54	20,21	1180	17,84	19,11	1110	16,21	18,02	1050	14,66

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC4 - 4-pipe system

007.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	0,98	0,98	280	6,57	1,27	1,27	360	10,32	1,55	1,55	440	14,47	1,83	1,83	520	19,10	2,10	2,10	600	24,20	2,23	2,23	640	26,92	
		17	1,08	0,91	310	7,78	1,28	1,24	370	10,42	1,55	1,55	440	14,50	1,83	1,83	520	19,14	2,10	2,10	600	24,25	2,23	2,23	640	26,97	
		19	1,97	0,93	560	21,68	1,95	1,18	560	21,39	1,94	1,43	550	21,11	1,95	1,71	560	21,35	2,11	2,06	610	24,49	2,24	2,24	640	27,03	
		21	-	-	-	-	2,89	1,21	830	41,92	2,87	1,46	820	41,45	2,85	1,71	820	40,98	2,83	1,95	810	40,52	2,82	2,07	810	40,30	
		23	-	-	-	-	-	-	-	-	3,87	1,50	1110	69,50	3,85	1,75	1100	68,79	3,82	1,99	1100	68,10	3,81	2,12	1090	67,75	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	0,56	0,56	100	1,02	0,75	0,75	130	1,37	1,21	1,21	210	2,82	1,52	1,52	260	5,71	1,81	1,81	310	7,88	1,95	1,95	340	8,95	
		19	0,67	0,59	420	1,22	1,03	0,94	420	1,98	1,24	1,20	420	3,09	1,52	1,52	260	5,72	1,82	1,82	310	7,90	1,96	1,96	340	8,97	
		21	-	-	-	-	2,13	0,97	420	10,36	2,21	1,32	420	11,06	2,07	1,48	420	9,81	2,11	1,78	360	10,16	2,13	1,89	370	10,34	
		23	-	-	-	-	-	-	-	-	3,07	1,21	530	19,27	3,05	1,46	530	19,05	3,03	1,71	520	18,83	3,02	1,83	520	18,72	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	0,59	0,59	70	0,75	0,78	0,78	100	0,99	0,97	0,97	120	1,23	1,34	1,34	160	1,71	1,60	1,60	200	2,42	
		21	-	-	-	-	0,73	0,59	420	0,91	0,80	0,76	100	1,02	0,97	0,97	120	1,23	1,34	1,34	170	1,72	1,60	1,60	200	2,43	
		23	-	-	-	-	-	-	-	-	2,39	1,13	420	7,03	2,35	1,39	420	6,84	2,17	1,53	420	5,92	2,20	1,68	420	6,07	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	0,67	0,67	190	2,24	0,99	0,99	280	6,63	1,28	1,28	370	10,24	1,55	1,55	450	14,32	1,83	1,83	520	18,88	1,96	1,96	560	21,33	
		19	1,40	0,87	420	12,00	1,17	0,90	340	8,84	1,31	1,23	380	10,70	1,56	1,56	450	14,35	1,83	1,83	530	18,92	1,97	1,97	560	21,38	
		21	-	-	-	-	2,14	0,94	610	24,69	2,12	1,19	610	24,36	2,11	1,44	600	24,03	2,09	1,68	600	23,71	2,11	1,84	610	24,10	
		23	-	-	-	-	-	-	-	-	3,13	1,23	900	47,52	3,11	1,48	890	46,99	3,09	1,73	890	46,46	3,08	1,85	880	46,19	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	0,56	0,56	100	0,97	0,76	0,76	130	1,32	1,23	1,23	210	3,31	1,54	1,54	270	5,84	1,68	1,68	290	6,84	
		21	-	-	-	-	1,41	0,89	420	5,23	1,04	0,88	420	1,91	1,38	1,29	420	4,59	1,55	1,50	420	5,91	1,69	1,66	290	6,87	
		23	-	-	-	-	-	-	-	-	2,25	0,93	390	11,18	2,35	1,29	420	11,93	2,21	1,43	380	10,86	2,20	1,55	380	10,78	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	0,60	0,59	70	0,71	0,78	0,78	100	0,94	0,97	0,97	120	1,17	1,12	1,12	140	1,35	
		23	-	-	-	-	-	-	-	-	0,75	0,60	420	0,89	1,35	1,08	420	1,94	1,43	1,35	420	2,10	1,37	1,36	420	1,77	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		19	-	-	-	-	0,69	0,69	200	2,65	1,00	1,00	290	6,63	1,28	1,28	370	10,15	1,56	1,56	450	14,15	1,69	1,69	490	16,33	
		21	-	-	-	-	1,56	0,90	450	14,11	1,42	1,05	410	12,01	1,36	1,21	390	11,27	1,57	1,53	450	14,29	1,70	1,70	490	16,37	
		23	-	-	-	-	-	-	-	-	2,33	0,96	670	28,09	2,31	1,21	660	27,72	2,29	1,45	660	27,34	2,28	1,57	650	27,16	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	0,56	0,56	100	0,92	0,80	0,80	140	1,32	1,25	1,25	220	3,69	1,40	1,40	240	4,87	
		23	-	-	-	-	-	-	-	-	1,51	0,89	420	5,59	1,42	1,02	420	5,14	1,38	1,18	420	4,67	1,49	1,34	420	5,40	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	0.60	0.59	70	0.68	0.78	0.78	100	0.90	0.88	0.88	110	1.0	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC4 - 4-pipe system

011.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	1,21	1,21	350	4,23	1,62	1,62	460	8,48	2,00	2,00	570	12,17	2,37	2,37	680	16,24	2,74	2,74	780	20,72	2,92	2,92	840	23,11	
		17	1,25	1,15	360	4,78	1,62	1,61	460	8,50	2,00	2,00	570	12,19	2,37	2,37	680	16,27	2,74	2,74	780	20,76	2,92	2,92	840	23,16	
		19	2,43	1,17	700	16,95	2,73	1,77	780	20,69	2,49	1,92	560	18,16	2,46	2,25	560	17,19	2,74	2,72	790	20,80	2,92	2,92	840	23,21	
		21	-	-	-	-	3,67	1,55	1050	34,31	3,65	1,89	1050	33,93	3,63	2,22	1040	33,55	2,88	2,43	560	11,64	3,59	2,70	1030	33,00	
		23	-	-	-	-	-	-	-	-	4,99	1,94	1430	58,07	4,96	2,27	1420	57,50	4,93	2,60	1410	56,94	4,92	2,76	1410	56,66	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	0,73	0,73	130	0,96	0,98	0,98	170	1,29	1,24	1,24	210	1,64	1,86	1,86	320	3,38	2,28	2,28	390	6,19	2,48	2,48	430	7,28	
		19	0,88	0,82	150	1,15	0,98	0,97	170	1,30	1,24	1,24	210	1,64	1,87	1,87	320	3,39	2,29	2,29	390	6,21	2,48	2,48	430	7,30	
		21	-	-	-	-	2,82	1,53	490	9,12	2,67	1,78	560	8,38	2,63	2,12	450	8,06	2,40	2,16	560	6,88	2,55	2,38	440	7,63	
		23	-	-	-	-	-	-	-	-	3,76	1,50	650	14,81	3,73	1,83	640	14,63	3,71	2,16	640	14,46	3,69	2,32	640	14,37	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	0,77	0,77	90	0,71	1,02	1,02	120	0,93	1,26	1,26	160	1,16	1,51	1,51	190	1,39	1,64	1,64	200	1,52	
		21	-	-	-	-	0,92	0,75	560	0,84	1,04	1,01	560	0,96	1,27	1,27	160	1,16	2,88	2,43	560	11,64	1,65	1,65	200	1,52	
		23	-	-	-	-	-	-	-	-	2,53	1,59	560	3,33	1,39	1,16	560	1,27	2,20	2,01	560	2,20	1,65	1,62	200	1,52	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	0,69	0,69	200	1,48	1,23	1,23	350	4,83	1,63	1,63	470	8,49	2,01	2,01	580	12,09	2,38	2,38	680	16,09	2,56	2,56	730	18,24	
		19	1,31	0,77	380	5,66	1,35	1,15	390	6,06	1,64	1,59	470	8,59	2,01	2,01	580	12,11	2,38	2,38	680	16,13	2,56	2,56	740	18,28	
		21	-	-	-	-	2,66	1,19	760	19,49	2,76	1,63	790	20,69	2,79	1,91	560	24,71	2,61	2,21	750	18,88	2,67	2,43	560	19,42	
		23	-	-	-	-	-	-	-	-	3,99	1,58	1150	39,07	3,97	1,91	1140	38,63	3,94	2,24	1130	38,20	3,01	2,19	560	11,44	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	0,73	0,73	130	0,91	0,98	0,98	170	1,23	1,31	1,31	220	1,64	1,91	1,91	330	3,96	2,11	2,11	360	5,28	
		21	-	-	-	-	0,89	0,79	560	1,11	0,99	0,98	170	1,24	1,31	1,31	230	1,65	1,91	1,91	330	3,98	2,12	2,12	360	5,30	
		23	-	-	-	-	-	-	-	-	3,06	1,48	560	10,36	2,90	1,74	500	9,43	2,79	2,01	480	8,82	3,01	2,19	560	11,44	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	-	-	-	-	-	-	0,77	0,77	90	0,67	1,02	1,02	130	0,89	1,27	1,27	160	1,10	1,39	1,39	170	1,21	
		23	-	-	-	-	-	-	-	-	0,93	0,73	560	0,81	1,06	1,03	130	0,92	1,27	1,27	160	1,11	3,01	2,19	560	11,44	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	0,70	0,70	200	1,42	1,25	1,25	360	5,16	1,64	1,64	470	8,46	2,02	2,02	580	11,98	2,20	2,20	630	13,90	
		21	-	-	-	-	1,86	1,20	530	10,44	1,49	1,15	430	7,17	1,69	1,57	490	8,90	2,02	2,01	580	12,01	2,20	2,20	630	13,93	
		23	-	-	-	-	-	-	-	-	2,91	1,22	840	22,36	2,89	1,55	830	22,06	2,46	1,86	560	11,29	2,85	2,04	820	21,62	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	-	-	-	-	-	-	0,73	0,73	130	0,87	0,98	0,98	170	1,16	1,48	1,48	260	1,87	1,73	1,73	300	3,02	
		23	-	-	-	-	-	-	-	-	0,91	0,77	560	1,07	0,99	0,98	170	1,18	2,46	1,86	560	11,29	1,74	1,69	300	3,12	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		23	-	-	-	-	-	-	-	-	-	-	-	-	0,77	0,77	100	0,64	2,46	1,86	560	11,29	1,14	1,14	140	0,99	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC4 - 4-pipe system

015.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	1,25	1,25	360	4,40	1,69	1,69	490	11,13	2,10	2,10	600	16,23	2,49	2,49	710	21,66	2,87	2,87	820	27,62	3,06	3,06	880	30,79	
		17	1,28	1,19	370	4,74	1,70	1,70	490	11,15	2,10	2,10	600	16,26	2,49	2,49	710	21,71	2,88	2,88	820	27,68	3,07	3,07	880	30,85	
		19	2,54	1,22	730	22,42	2,73	1,76	780	25,32	2,51	1,92	540	22,19	2,58	2,36	740	23,01	2,88	2,86	830	27,72	3,07	3,07	880	30,93	
		21	-	-	-	-	3,85	1,63	1100	45,53	3,83	1,98	1100	44,99	3,80	2,32	1090	44,47	3,78	2,66	1080	43,95	2,94	2,74	540	13,41	
		23	-	-	-	-	-	-	-	-	5,23	2,03	1500	77,01	5,20	2,38	1490	76,20	5,17	2,72	1480	75,40	5,15	2,89	1480	75,00	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	0,79	0,79	140	1,43	1,07	1,07	180	1,93	1,33	1,33	230	2,41	1,91	1,91	330	3,62	2,38	2,38	410	7,35	2,59	2,59	450	9,28	
		19	0,95	0,82	540	1,71	1,07	1,06	180	1,94	1,33	1,33	230	2,41	1,91	1,91	330	3,63	2,39	2,39	410	7,38	2,60	2,60	450	9,31	
		21	-	-	-	-	2,86	1,54	490	11,35	2,79	1,89	480	10,80	2,67	2,18	540	9,98	2,64	2,39	540	10,27	2,65	2,50	460	9,73	
		23	-	-	-	-	-	-	-	-	3,92	1,57	680	19,52	3,89	1,91	670	19,27	3,65	2,18	540	15,71	3,65	2,36	540	15,79	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	0,84	0,84	100	1,05	1,11	1,11	140	1,39	1,38	1,38	170	1,73	1,65	1,65	200	2,07	1,78	1,78	220	2,24	
		21	-	-	-	-	1,04	0,83	540	1,29	1,14	1,08	140	1,43	1,38	1,38	170	1,73	1,65	1,65	200	2,07	1,78	1,78	220	2,24	
		23	-	-	-	-	-	-	-	-	2,72	1,78	540	4,09	2,30	1,88	540	3,03	1,68	1,58	210	2,11	1,80	1,78	220	2,26	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	0,75	0,75	220	2,20	1,28	1,28	370	5,24	1,71	1,71	490	11,26	2,11	2,11	610	16,12	2,50	2,50	720	21,46	2,69	2,69	770	24,32	
		19	1,30	0,79	370	5,62	1,38	1,19	400	6,89	1,72	1,68	490	11,36	2,11	2,11	610	16,16	2,50	2,50	720	21,51	2,69	2,69	770	24,38	
		21	-	-	-	-	2,79	1,25	800	25,82	2,78	1,60	540	26,09	2,33	1,90	540	13,24	2,74	2,31	790	25,02	2,81	2,54	810	26,13	
		23	-	-	-	-	-	-	-	-	4,19	1,66	1200	51,82	4,16	2,00	1190	51,21	3,00	2,06	540	13,19	2,98	2,22	540	13,19	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	0,80	0,80	140	1,36	1,07	1,07	180	1,83	1,34	1,34	230	2,30	1,98	1,98	340	4,16	2,20	2,20	380	6,11	
		21	-	-	-	-	0,97	0,79	540	1,65	1,08	1,05	190	1,85	1,34	1,34	230	2,30	1,98	1,98	340	4,18	2,21	2,21	380	6,14	
		23	-	-	-	-	-	-	-	-	3,22	1,62	540	13,51	2,98	1,79	510	12,09	3,00	2,06	540	13,19	2,98	2,22	540	13,19	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	0,84	0,84	100	1,00	1,11	1,11	140	1,32	1,38	1,38	170	1,64	1,51	1,51	190	1,80	
		23	-	-	-	-	-	-	-	-	1,06	0,85	540	1,25	1,16	1,08	140	1,38	3,00	2,06	540	13,19	2,98	2,22	540	13,19	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		19	-	-	-	-	0,75	0,75	210	2,09	1,30	1,30	370	6,05	1,72	1,72	490	11,26	2,12	2,12	610	15,98	2,31	2,31	660	18,54	
		21	-	-	-	-	1,91	1,22	550	13,36	1,53	1,20	440	9,14	1,77	1,65	510	11,77	2,12	2,11	610	16,00	2,32	2,32	660	18,58	
		23	-	-	-	-	-	-	-	-	3,05	1,27	880	29,65	3,02	1,62	870	29,23	2,44	1,88	540	13,02	2,99	2,13	860	28,61	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		21	-	-	-	-	-	-	-	-	0,80	0,80	140	1,29	1,07	1,07	180	1,73	1,38	1,38	240	2,24	1,78	1,78	310	3,17	
		23	-	-	-	-	-	-	-	-	0,98	0,74	540	1,58	1,09	1,04	190	1,77	2,44	1,88	540	13,02	1,79	1,77	310	3,21	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	0,85	0,84	100	0,96	2,44	1,88	540	13,02	1,25	1,25	150	1,4	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC4 - 4-pipe system

021.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	1,98	1,98	570	3,42	2,74	2,74	780	9,20	3,41	3,41	980	13,88	4,05	4,05	1160	18,60	4,68	4,68	1340	23,76	4,99	4,99	1430	26,51	
		17	2,02	1,92	580	3,55	2,74	2,74	790	9,23	3,41	3,41	980	13,91	4,06	4,06	1160	18,64	4,69	4,69	1340	23,81	5,00	5,00	1430	26,56	
		19	4,22	2,50	990	14,17	4,71	3,12	990	23,98	4,48	3,55	1280	22,00	3,95	3,76	990	14,19	4,69	4,66	1350	23,86	5,01	5,01	1430	26,61	
		21	-	-	-	-	6,31	2,67	1810	39,48	5,16	3,12	990	14,13	5,07	3,62	990	14,12	6,19	4,36	1770	38,20	6,17	4,64	1770	38,00	
		23	-	-	-	-	-	-	-	-	8,57	3,33	2460	66,80	8,52	3,90	2440	66,16	8,48	4,46	2430	65,52	8,45	4,74	2420	65,21	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	1,32	1,32	230	1,30	1,77	1,77	300	1,75	2,21	2,21	380	2,19	2,91	2,91	500	2,89	3,84	3,84	660	5,60	4,19	4,19	720	7,46	
		19	4,22	2,50	990	14,17	2,66	2,33	990	3,36	2,21	2,21	380	2,19	2,92	2,92	500	2,90	3,85	3,85	660	5,62	4,20	4,20	720	7,49	
		21	-	-	-	-	3,70	1,90	990	4,71	4,02	2,71	990	6,53	5,19	3,83	990	14,25	4,04	3,70	990	6,62	4,28	4,05	740	7,90	
		23	-	-	-	-	-	-	-	-	6,41	2,56	1100	16,89	6,37	3,13	1100	16,69	6,32	3,69	1090	16,49	6,30	3,97	990	16,40	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	1,40	1,40	170	0,96	1,84	1,84	230	1,27	2,29	2,29	280	1,57	2,73	2,73	340	1,88	2,95	2,95	360	2,03	
		21	-	-	-	-	1,77	1,40	990	1,20	1,94	1,85	990	1,33	2,29	2,28	280	1,57	4,09	3,69	990	7,32	2,95	2,95	360	2,03	
		23	-	-	-	-	-	-	-	-	4,04	2,66	990	2,93	3,94	3,25	990	2,85	4,10	3,70	990	3,05	2,98	2,89	370	2,05	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	1,24	1,24	360	2,00	2,05	2,05	590	3,86	2,77	2,77	790	9,51	3,43	3,43	980	13,82	4,07	4,07	1170	18,45	4,38	4,38	1260	20,93	
		19	2,05	1,26	590	3,86	2,22	1,94	640	5,16	2,78	2,72	800	9,61	3,43	3,43	980	13,85	4,07	4,07	1170	18,48	4,39	4,39	1260	20,97	
		21	-	-	-	-	4,56	2,04	1310	22,38	4,84	2,87	1390	24,76	4,53	3,19	990	22,58	4,42	3,77	990	20,53	4,59	4,17	1320	22,61	
		23	-	-	-	-	-	-	-	-	6,86	2,72	1970	44,96	6,82	3,29	1960	44,47	6,77	3,85	1940	43,98	6,75	4,13	1940	43,75	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	1,32	1,32	230	1,24	1,77	1,77	300	1,66	2,21	2,21	380	2,08	3,15	3,15	540	3,16	3,55	3,55	610	4,59	
		21	-	-	-	-	1,73	1,50	990	1,61	1,81	1,75	310	1,70	2,21	2,21	380	2,08	3,16	3,16	540	3,17	3,55	3,55	610	4,62	
		23	-	-	-	-	-	-	-	-	5,52	2,84	990	12,79	4,96	2,98	990	10,97	4,96	3,66	990	10,80	4,80	3,86	990	10,18	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	1,41	1,40	170	0,91	1,85	1,85	230	1,20	2,29	2,29	280	1,49	2,51	2,51	310	1,64	
		23	-	-	-	-	-	-	-	-	1,81	1,37	990	1,17	1,97	1,87	240	1,28	2,29	2,26	280	1,50	2,51	2,51	310	1,64	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		19	-	-	-	-	1,24	1,24	360	1,89	2,10	2,10	600	4,54	2,79	2,79	800	9,59	3,45	3,45	990	13,72	3,76	3,76	1080	15,93	
		21	-	-	-	-	3,18	1,96	990	12,74	2,48	1,95	710	7,61	2,87	2,69	820	10,07	3,45	3,44	990	13,75	3,77	3,77	1080	15,97	
		23	-	-	-	-	-	-	-	-	4,99	2,09	1430	25,73	4,95	2,66	1420	25,38	4,92	3,22	1410	25,04	5,03	3,66	990	24,99	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	1,32	1,32	230	1,18	1,77	1,77	300	1,58	2,23	2,23	380	1,99	2,77	2,77	480	2,50	
		23	-	-	-	-	-	-	-	-	1,79	1,50	990	1,60	2,61	2,05	990	2,73	2,23	2,23	380	1,99	2,78	2,78	480	2,50	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC4 - 4-pipe system

031.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	3,52	3,52	1010	11,16	4,62	4,62	1320	22,65	5,65	5,65	1620	32,00	6,66	6,66	1910	42,21	7,65	7,65	2190	53,38	8,14	8,14	2330	59,31	
		17	3,78	3,26	1080	14,24	4,63	4,53	1330	22,70	5,66	5,66	1620	32,08	6,67	6,67	1910	42,31	7,66	7,66	2190	53,51	8,15	8,15	2330	59,45	
		19	7,47	3,71	2140	51,28	6,30	3,99	1570	30,28	6,97	5,16	2000	45,60	7,05	6,21	2020	46,48	7,69	7,50	2200	53,88	8,16	8,16	2340	59,61	
		21	-	-	-	-	10,47	4,40	3000	91,31	10,40	5,30	2980	90,19	10,33	6,19	2960	89,08	10,25	7,07	2940	87,99	10,21	7,50	2930	87,45	
		23	-	-	-	-	-	-	-	-	14,05	5,44	4030	151,36	13,96	6,34	4000	149,66	13,87	7,23	3970	148,00	13,83	7,67	3960	147,17	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	2,24	2,24	390	2,87	2,99	2,99	510	3,83	3,82	3,82	660	4,91	5,46	5,46	940	8,97	6,56	6,56	1130	16,28	7,09	7,09	1220	19,32	
		19	2,85	2,33	1570	3,63	3,07	2,99	530	3,93	3,83	3,83	660	4,92	5,47	5,47	940	9,02	6,57	6,57	1130	16,34	7,10	7,10	1220	19,38	
		21	-	-	-	-	7,57	3,60	1570	21,53	7,81	4,68	1340	23,04	7,23	5,25	1570	20,05	7,12	6,05	1570	19,26	7,59	6,82	1570	21,98	
		23	-	-	-	-	-	-	-	-	11,06	4,37	1900	41,57	10,97	5,27	1890	41,04	11,22	6,46	1930	42,62	10,85	6,59	1870	40,25	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	2,39	2,36	290	2,12	3,13	3,13	380	2,78	3,87	3,87	480	3,45	4,61	4,61	570	4,11	5,05	5,05	620	4,51	
		21	-	-	-	-	3,06	2,23	1570	2,70	3,26	2,91	400	2,89	3,88	3,82	1570	3,45	4,61	4,61	570	4,11	5,06	5,06	620	4,52	
		23	-	-	-	-	-	-	-	-	8,13	4,05	1000	11,64	7,46	4,69	920	8,73	7,10	5,52	1570	7,39	7,19	6,01	880	7,74	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	2,11	2,11	610	4,40	3,57	3,57	1020	12,68	4,64	4,64	1330	22,59	5,67	5,67	1630	31,67	6,67	6,67	1910	41,68	7,16	7,16	2050	47,05	
		19	5,18	3,10	1570	29,83	4,12	3,25	1180	18,18	4,73	4,45	1360	23,30	5,68	5,68	1630	31,75	6,68	6,68	1920	41,79	7,17	7,17	2060	47,17	
		21	-	-	-	-	7,73	3,41	2220	53,55	6,61	3,95	1570	29,75	7,60	5,21	2180	52,01	7,54	6,09	2160	51,36	7,64	6,69	2190	52,48	
		23	-	-	-	-	-	-	-	-	11,36	4,47	3260	103,49	11,27	5,37	3230	102,22	11,19	6,25	3210	100,96	11,15	6,69	3200	100,34	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	2,24	2,24	390	2,72	2,99	2,99	510	3,63	4,12	4,12	710	5,03	5,54	5,54	950	10,32	6,09	6,09	1050	13,86	
		21	-	-	-	-	4,13	2,61	1570	5,42	4,33	3,42	1570	5,98	4,11	4,06	710	5,01	5,55	5,44	960	10,36	6,09	6,05	1050	13,86	
		23	-	-	-	-	-	-	-	-	7,98	3,33	1370	23,59	7,90	4,23	1570	23,21	8,50	5,33	1570	29,63	7,79	5,56	1340	22,64	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	6,61	3,95	1570	29,76	3,13	3,13	380	2,64	3,87	3,87	480	3,27	4,23	4,23	520	3,58	
		23	-	-	-	-	-	-	-	-	3,10	2,10	1570	2,60	3,30	2,87	410	2,78	3,88	3,76	480	3,28	4,23	4,21	520	3,58	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		19	-	-	-	-	2,18	2,18	620	4,30	3,61	3,61	1040	13,68	4,66	4,66	1340	22,42	5,68	5,68	1630	31,28	6,18	6,18	1770	36,07	
		21	-	-	-	-	5,35	3,05	1530	28,22	4,69	3,50	1570	21,93	4,91	4,39	1410	24,45	5,70	5,58	1640	31,44	6,19	6,19	1780	36,18	
		23	-	-	-	-	-	-	-	-	8,42	3,47	2420	61,04	8,71	4,71	2500	64,70	8,28	5,26	2380	59,28	8,24	5,69	2370	58,85	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	2,24	2,24	390	2,58	2,98	2,98	510	3,44	4,42	4,42	760	5,34	5,04	5,04	870	7,98	
		23	-	-	-	-	-	-	-	-	4,54	2,25	1570	6,60	3,12	2,86	540	3,59	4,82	4,45	1570	6,43	5,21	4,79	900	8,98	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Cooling performance

CC4 - 4-pipe system

041.0																											
EWT	ΔT	Ta (W.B.)	Ta (D.B.)																								
			21				23				25				27				29				30				
			TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	TC	SC	WF	WDP	
[°C]	[°C]	[°C]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	[kW]	[kW]	[l/h]	[kPa]	
11	3	15	3,56	3,56	1020	10,67	4,69	4,69	1340	21,32	5,74	5,74	1650	30,17	6,77	6,77	1940	39,87	7,78	7,78	2230	50,50	8,28	8,28	2370	56,14	
		17	3,81	3,32	1090	13,34	4,69	4,61	1340	21,37	5,75	5,75	1650	30,24	6,78	6,78	1940	39,96	7,79	7,79	2230	50,62	8,30	8,30	2380	56,28	
		19	7,18	3,40	2060	43,96	7,12	4,33	2040	43,33	6,56	5,07	1580	32,11	7,15	6,34	2050	43,72	7,82	7,64	2240	50,89	8,31	8,31	2380	56,42	
		21	-	-	-	-	10,63	4,47	3050	85,99	10,56	5,40	3020	84,96	8,15	5,46	1580	27,98	10,41	7,20	2980	82,94	10,37	7,65	2970	82,44	
		23	-	-	-	-	-	-	-	-	14,29	5,54	4090	143,01	14,20	6,46	4070	141,46	14,11	7,36	4040	139,92	14,06	7,81	4030	139,16	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	2,23	2,23	380	2,62	2,98	2,98	510	3,50	3,81	3,81	660	4,49	5,52	5,52	950	8,57	6,65	6,65	1140	15,44	7,19	7,19	1240	18,23	
		19	4,17	2,33	1580	5,97	3,02	2,93	520	3,55	3,82	3,82	660	4,50	5,53	5,53	950	8,61	6,66	6,66	1150	15,50	7,20	7,20	1240	18,28	
		21	-	-	-	-	7,77	4,04	1580	18,55	7,85	4,83	1350	21,36	8,32	5,67	1580	28,15	7,42	6,36	1580	19,54	7,80	7,11	1340	21,11	
		23	-	-	-	-	-	-	-	-	11,17	4,42	1920	38,85	11,09	5,34	1910	38,36	11,32	6,51	1950	39,74	10,97	6,69	1890	37,65	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	2,37	2,34	290	1,93	3,11	3,11	380	2,54	3,85	3,85	470	3,15	4,59	4,59	560	3,76	5,04	5,04	620	4,13	
		21	-	-	-	-	2,90	2,05	1580	2,35	3,24	2,99	400	2,64	3,86	3,84	470	3,16	4,60	4,60	570	3,76	5,04	5,04	620	4,14	
		23	-	-	-	-	-	-	-	-	8,05	3,98	1580	10,44	7,43	4,74	1580	8,07	7,30	5,72	1580	7,50	7,27	6,18	890	7,36	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	2,10	2,10	600	4,02	3,61	3,61	1040	12,08	4,71	4,71	1350	21,26	5,76	5,76	1650	29,87	6,78	6,78	1950	39,39	7,29	7,29	2090	44,50	
		19	5,14	3,28	1580	24,60	4,14	3,30	1190	16,87	4,79	4,54	1370	21,87	5,77	5,77	1660	29,94	6,79	6,79	1950	39,49	7,30	7,30	2090	44,61	
		21	-	-	-	-	8,21	3,85	1580	53,77	7,76	4,39	2230	49,48	7,69	5,30	2210	48,77	7,64	6,21	2190	48,19	7,75	6,82	2220	49,39	
		23	-	-	-	-	-	-	-	-	11,53	4,54	3310	97,54	11,45	5,46	3280	96,37	11,37	6,37	3260	95,21	11,33	6,82	3250	94,63	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	2,23	2,23	380	2,49	2,98	2,98	510	3,32	4,15	4,15	710	4,65	5,61	5,61	970	9,88	6,17	6,17	1060	13,17	
		21	-	-	-	-	2,84	2,23	490	3,16	3,06	2,96	530	3,41	4,16	4,13	720	4,66	5,61	5,53	970	9,91	6,18	6,18	1060	13,24	
		23	-	-	-	-	-	-	-	-	8,02	3,36	1380	21,85	8,14	4,54	1580	21,67	7,87	5,18	1580	21,14	7,86	5,65	1580	21,20	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	2,37	2,31	290	1,83	3,11	3,11	380	2,41	3,85	3,85	470	2,99	4,22	4,22	520	3,27	
		23	-	-	-	-	-	-	-	-	2,97	2,00	1580	2,29	3,28	2,96	1580	2,54	3,86	3,77	470	2,99	4,22	4,22	520	3,28	
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		19	-	-	-	-	2,17	2,17	620	3,94	3,65	3,65	1050	12,97	4,73	4,73	1360	21,11	5,77	5,77	1660	29,52	6,29	6,29	1800	34,08	
		21	-	-	-	-	5,60	3,35	1580	27,12	5,08	3,88	1460	23,71	4,97	4,47	1430	22,91	5,79	5,69	1660	29,67	6,30	6,30	1810	34,18	
		23	-	-	-	-	-	-	-	-	8,53	3,52	2450	57,27	8,80	4,74	2530	60,48	8,38	5,35	2410	55,65	8,35	5,80	2400	55,25	
	5	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	2,23	2,23	380	2,36	2,97	2,97	510	3,15	4,47	4,47	770	5,01	5,10	5,10	880	7,63	
		23	-	-	-	-	-	-	-	-	4,77	2,56	1580	7,15	4,35	3,40	1580	5,07	4,60	4,35	1580	5,05	5,28	4,88	1580	8,88	
	7	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

EWT = Exchanger water inlet temperature (°C)

ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

W.B. = Wet bulb

TC = Total cooling capacity (kW)

SC = Sensible cooling capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Heating performance

CC4 - 4-pipe system

007.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	1,91	330	15,09	1,66	290	11,79	1,40	240	8,86	1,15	200	6,30	0,90	160	4,12
	10	1,43	120	2,82	1,16	100	1,98	0,88	80	1,24	0,52	420	0,33	0,41	420	0,30
	15	0,77	420	0,37	0,61	420	0,32	-	-	-	-	-	-	-	-	-
40	5	2,53	440	24,20	2,28	400	20,11	2,03	350	16,38	1,78	310	13,01	1,53	260	9,99
	10	2,08	180	5,21	1,82	160	4,15	1,56	140	3,19	1,30	110	2,34	1,03	90	1,58
	15	1,55	90	1,61	1,26	70	1,13	0,94	50	0,53	0,68	420	0,30	0,61	420	0,29
45	5	3,16	550	34,90	2,90	500	30,08	2,65	460	25,60	2,40	420	21,47	2,14	370	17,68
	10	2,72	240	8,07	2,46	210	6,80	2,20	190	5,63	1,95	170	4,55	1,69	150	3,57
	15	2,24	130	2,91	1,97	110	2,35	1,70	100	1,83	1,43	80	1,36	1,14	70	0,92
50	5	3,78	660	47,07	3,52	610	41,56	3,27	570	36,37	3,01	520	31,53	2,76	480	27,01
	10	3,35	290	11,36	3,09	270	9,88	2,84	250	8,51	2,58	220	7,22	2,33	200	6,04
	15	2,89	170	4,42	2,63	150	3,75	2,37	140	3,14	2,11	120	2,57	1,84	110	2,05
55	5	4,40	770	60,61	4,14	720	54,43	3,88	680	48,57	3,63	630	43,05	3,37	590	37,85
	10	3,98	350	15,04	3,72	320	13,37	3,46	300	11,80	3,21	280	10,32	2,95	260	8,94
	15	3,53	200	6,11	3,28	190	5,35	3,02	170	4,64	2,76	160	3,98	2,50	140	3,36
60	5	5,02	880	75,45	4,76	830	68,63	4,50	790	62,12	4,24	740	55,95	3,99	700	50,10
	10	4,60	400	19,09	4,34	380	17,24	4,08	360	15,48	3,83	330	13,81	3,57	310	12,24
	15	4,17	240	7,98	3,91	230	7,13	3,65	210	6,33	3,39	200	5,58	3,14	180	4,87
65	5	5,64	990	91,57	5,38	940	84,11	5,12	900	76,97	4,86	850	70,16	4,60	810	63,67
	10	5,23	460	23,50	4,97	430	21,47	4,24	320	23,50	4,45	390	17,68	4,19	370	15,93
	15	4,80	280	10,02	4,54	260	9,09	4,28	250	8,20	4,02	230	7,36	3,77	220	6,56
70	5	6,26	1100	108,85	6,00	1050	100,77	5,73	1010	93,01	5,47	960	85,58	5,22	910	78,47
	10	5,85	510	28,25	5,59	490	26,04	5,35	320	29,80	5,07	440	21,90	4,81	420	19,97
	15	5,43	320	12,22	5,17	300	11,20	4,91	290	10,23	4,65	270	9,30	4,39	260	8,42

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

011.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	2,29	400	17,89	1,98	340	13,96	1,68	290	10,47	1,38	240	7,42	1,07	190	4,83
	10	1,68	150	3,25	1,36	120	2,26	1,01	90	1,37	0,63	60	0,41	0,54	560	0,41
	15	0,90	560	0,43	0,81	560	0,43	-	-	-	-	-	-	-	-	-
40	5	3,04	530	28,82	2,74	470	23,95	2,43	420	19,50	2,13	370	15,47	1,83	320	11,87
	10	2,47	210	6,11	2,16	190	4,85	1,85	160	3,72	1,54	130	2,70	1,21	100	1,81
	15	1,81	100	1,83	1,46	80	1,25	1,03	60	0,49	0,89	560	0,42	0,80	560	0,42
45	5	3,80	660	41,67	3,49	610	35,93	3,18	550	30,60	2,88	500	25,66	2,58	450	21,13
	10	3,25	280	9,53	2,94	250	8,02	2,63	230	6,63	2,32	200	5,35	2,02	170	4,19
	15	2,64	150	3,38	2,33	130	2,72	2,00	120	2,11	1,67	100	1,55	1,31	80	1,02
50	5	4,55	790	56,31	4,24	740	49,74	3,93	680	43,57	3,63	630	37,78	3,33	580	32,39
	10	4,01	350	13,47	3,70	320	11,72	3,40	290	10,08	3,09	270	8,56	2,78	240	7,15
	15	3,44	200	5,18	3,13	180	4,40	2,81	160	3,67	2,50	140	2,99	2,18	130	2,38
55	5	5,30	920	72,62	4,99	870	65,27	4,68	820	58,28	4,38	760	51,69	4,07	710	45,48
	10	4,77	410	17,89	4,46	390	15,91	4,16	360	14,04	3,85	330	12,28	3,54	310	10,63
	15	4,22	240	7,20	3,91	230	6,31	3,60	210	5,47	3,29	190	4,68	2,98	170	3,95
60	5	6,05	1060	90,51	5,74	1000	82,39	5,43	950	74,65	5,12	890	67,28	4,82	840	60,28
	10	5,53	480	22,76	5,22	450	20,56	4,91	430	18,47	4,60	400	16,49	4,30	370	14,62
	15	4,99	290	9,44	4,68	270	8,44	4,37	250	7,50	4,06	240	6,60	3,75	220	5,76
65	5	6,80	1190	109,93	6,49	1140	101,07	6,18	1080	92,58	5,87	1030	84,46	5,56	970	76,71
	10	6,28	550	28,06	5,97	520	25,65	5,52	360	24,14	5,36	470	21,15	5,05	440	19,06
	15	5,76	330	11,89	5,45	320	10,79	5,14	300	9,74	4,83	280	8,74	4,52	260	7,79
70	5	7,55	1320	130,75	7,24	1270	121,17	6,93	1210	111,96	6,62	1160	103,11	6,31	1110	94,63
	10	7,04	620	33,77	6,73	590	31,16	6,48	360	30,36	6,11	530	26,24	5,80	510	23,94
	15	6,52	380	14,54	6,21	360	13,34	5,90	340	12,19	5,59	320	11,09	5,28	310	10,03

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Heating performance

CC4 - 4-pipe system

015.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	2,24	390	25,54	1,94	340	19,93	1,64	280	14,95	1,35	230	10,59	1,04	180	6,87
	10	1,63	140	4,60	1,31	110	3,17	0,96	80	1,71	0,58	50	0,61	0,50	540	0,60
	15	0,84	540	0,65	0,76	540	0,64	-	-	-	-	-	-	-	-	-
40	5	2,98	520	41,14	2,68	470	34,20	2,39	410	27,85	2,09	360	22,10	1,79	310	16,95
	10	2,42	210	8,70	2,11	180	6,91	1,80	160	5,28	1,49	130	3,83	1,17	100	2,54
	15	1,74	100	2,54	1,38	80	1,54	0,91	540	0,60	0,83	540	0,59	0,74	540	0,58
45	5	3,73	650	59,46	3,42	590	51,29	3,13	540	43,68	2,83	490	36,65	2,53	440	30,18
	10	3,18	280	13,60	2,88	250	11,44	2,57	220	9,45	2,27	200	7,63	1,97	170	5,97
	15	2,58	150	4,80	2,26	130	3,85	1,94	110	2,97	1,61	90	2,16	1,25	70	1,25
50	5	4,47	780	80,30	4,16	720	70,96	3,86	670	62,17	3,56	620	53,93	3,27	570	46,25
	10	3,93	340	19,23	3,63	320	16,73	3,33	290	14,40	3,03	260	12,22	2,73	240	10,20
	15	3,36	190	7,38	3,06	180	6,26	2,75	160	5,22	2,44	140	4,26	2,12	120	3,37
55	5	5,20	910	103,52	4,90	850	93,06	4,60	800	83,14	4,30	750	73,76	4,00	700	64,91
	10	4,68	410	25,53	4,38	380	22,71	4,08	350	20,05	3,77	330	17,54	3,47	300	15,19
	15	4,13	240	10,27	3,83	220	9,00	3,52	200	7,80	3,22	190	6,67	2,91	170	5,63
60	5	5,94	1040	128,98	5,64	980	117,44	5,33	930	106,43	5,03	880	95,95	4,73	830	86,00
	10	5,43	470	32,48	5,12	450	29,35	4,82	420	26,37	4,52	390	23,55	4,22	370	20,88
	15	4,89	280	13,48	4,59	270	12,05	4,28	250	10,70	3,98	230	9,42	3,68	210	8,22
65	5	6,68	1170	156,63	6,38	1120	144,04	6,07	1060	131,97	5,77	1010	120,42	5,46	960	109,40
	10	6,17	540	40,03	5,86	510	36,61	5,57	390	26,80	5,26	460	30,20	4,96	430	27,22
	15	5,65	330	16,97	5,34	310	15,40	5,04	290	13,90	4,73	270	12,48	4,43	260	11,12
70	5	7,42	1300	186,24	7,11	1250	172,64	6,80	1190	159,56	6,50	1140	146,98	6,20	1090	134,92
	10	6,91	600	48,16	6,60	580	44,45	6,30	390	36,10	5,99	520	37,46	5,69	500	34,19
	15	6,40	370	20,74	6,09	350	19,03	5,78	340	17,40	5,48	320	15,83	5,18	300	14,33

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

021.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	3,12	540	15,38	2,69	470	11,94	2,26	390	8,87	1,83	320	6,19	1,40	240	3,90
	10	2,08	180	2,34	1,50	130	0,90	1,02	100	0,62	0,89	990	0,62	0,76	990	0,61
	15	1,30	100	0,65	1,16	990	0,63	-	-	-	-	-	-	-	-	-
40	5	4,19	730	25,03	3,76	650	20,78	3,34	580	16,88	2,91	500	13,34	2,49	430	10,17
	10	3,27	280	5,03	2,83	240	3,93	2,38	210	2,93	1,90	160	1,97	1,26	990	0,64
	15	1,67	990	0,60	1,55	100	0,60	1,42	990	0,59	1,28	990	0,58	1,14	990	0,57
45	5	5,26	910	36,38	4,83	840	31,36	4,40	760	26,69	3,98	690	22,37	3,55	620	18,39
	10	4,39	380	8,09	3,95	340	6,77	3,52	300	5,55	3,08	270	4,43	2,64	230	3,41
	15	3,38	200	2,65	2,91	170	2,03	2,40	140	1,27	1,68	990	0,55	1,55	990	0,55
50	5	6,32	1100	49,27	5,89	1020	43,55	5,46	950	38,16	5,04	880	33,09	4,61	800	28,36
	10	5,48	480	11,58	5,05	440	10,06	4,62	400	8,63	4,19	360	7,29	3,76	330	6,06
	15	4,56	260	4,28	4,12	240	3,60	3,67	210	2,96	3,22	190	2,37	2,75	160	1,80
55	5	7,38	1290	63,62	6,95	1210	57,22	6,52	1140	51,14	6,10	1060	45,38	5,67	990	39,95
	10	6,56	570	15,49	6,13	530	13,77	5,70	500	12,14	5,27	460	10,60	4,84	420	9,16
	15	5,69	330	6,09	5,25	300	5,31	4,82	280	4,58	4,38	250	3,89	3,94	230	3,25
60	5	8,45	1470	79,34	8,01	1400	72,29	7,58	1320	65,56	7,15	1250	59,13	6,73	1170	53,03
	10	7,63	660	19,79	7,20	630	17,88	6,77	590	16,06	6,34	550	14,33	5,92	520	12,69
	15	6,79	390	8,08	6,36	370	7,21	5,93	340	6,39	5,49	320	5,61	5,06	290	4,87
65	5	9,51	1660	96,39	9,07	1590	88,72	8,64	1510	81,35	8,21	1440	74,28	7,78	1360	67,53
	10	8,71	760	24,46	8,27	720	22,37	7,38	610	25,30	7,41	650	18,46	6,98	610	16,63
	15	7,89	460	10,25	7,45	430	9,29	7,02	410	8,38	6,59	380	7,51	6,16	360	6,68
70	5	10,57	1850	114,65	10,13	1780	106,37	9,70	1700	98,39	9,27	1620	90,71	8,83	1550	83,33
	10	9,77	850	29,48	9,34	820	27,22	7,66	610	37,20	8,48	740	22,96	8,05	700	20,95
	15	8,97	520	12,58	8,54	500	11,54	8,10	470	10,54	7,67	450	9,59	7,24	420	8,67

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Heating performance

CC4 - 4-pipe system

031.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	4,44	770	35,88	3,83	660	27,79	3,21	560	20,59	2,59	450	14,30	1,96	340	8,91
	10	2,87	250	4,87	1,79	1570	1,69	1,59	160	1,68	1,38	1570	1,65	1,18	1570	1,63
	15	2,00	1570	1,72	1,80	1570	1,70	-	-	-	-	-	-	-	-	-
40	5	5,99	1040	58,64	5,37	930	48,63	4,76	830	39,46	4,15	720	31,14	3,54	610	23,69
	10	4,62	400	11,59	3,98	340	9,01	3,33	290	6,64	2,63	230	4,14	1,77	1570	1,54
	15	2,60	1570	1,62	2,41	1570	1,62	2,19	1570	1,58	1,98	1570	1,56	1,77	1570	1,54
45	5	7,52	1310	85,38	6,91	1200	73,59	6,29	1090	62,60	5,68	990	52,42	5,08	880	43,05
	10	6,23	540	18,79	5,61	490	15,70	4,99	430	12,84	4,36	380	10,22	3,73	320	7,83
	15	4,74	270	5,99	4,04	230	4,41	3,26	190	2,40	2,60	160	1,53	2,41	1570	1,54
50	5	9,05	1570	115,79	8,44	1470	102,31	7,82	1360	89,61	7,21	1250	77,70	6,60	1150	66,57
	10	7,81	680	27,02	7,19	620	23,44	6,57	570	20,09	5,96	520	16,96	5,34	460	14,06
	15	6,46	370	9,87	5,82	340	8,27	5,17	300	6,77	4,51	260	5,37	3,82	220	3,98
55	5	10,58	1840	149,63	9,96	1740	134,56	9,35	1630	120,24	8,73	1520	106,68	8,12	1410	93,88
	10	9,37	810	36,23	8,75	760	32,19	8,13	710	28,36	7,52	650	24,75	6,90	600	21,37
	15	8,09	470	14,13	7,46	430	12,31	6,83	400	10,60	6,20	360	8,99	5,57	320	7,48
60	5	12,11	2110	186,72	11,49	2010	170,12	10,87	1900	154,25	10,25	1790	139,12	9,64	1680	124,73
	10	10,91	950	46,37	10,29	900	41,88	9,68	840	37,61	9,06	790	33,54	8,45	740	29,69
	15	9,68	560	18,82	9,06	520	16,79	8,43	490	14,85	7,81	450	13,02	7,19	420	11,30
65	5	13,64	2390	226,94	13,01	2280	208,86	12,39	2170	191,50	11,77	2060	174,86	11,15	1950	158,95
	10	12,45	1090	57,39	11,83	1030	52,48	11,70	960	42,40	10,60	920	43,27	9,98	870	38,98
	15	11,25	650	23,93	10,63	620	21,69	10,01	580	19,55	9,39	550	17,50	8,77	510	15,56
70	5	15,16	2660	270,00	14,54	2550	250,50	13,91	2440	231,70	13,29	2330	213,61	12,67	2220	196,23
	10	13,99	1220	69,24	13,37	1170	63,91	12,19	960	52,10	12,13	1060	53,88	11,51	1010	49,17
	15	12,81	750	29,44	12,19	710	27,00	11,57	670	24,65	10,95	640	22,41	10,33	600	20,26

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

041.0																
EWT	ΔT	Ta (D.B.)														
		16			18			20			22			24		
		TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP	TH	WF	WDP
[°C]	[°C]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]	[kW]	[l/h]	[kPa]
35	5	4,62	800	42,68	3,99	690	33,08	3,35	580	24,54	2,71	470	17,08	2,05	360	10,69
	10	3,03	260	6,23	1,97	170	2,05	1,63	160	1,88	1,42	1580	1,85	1,21	1580	1,82
	15	2,05	1580	1,93	1,84	1580	1,90	-	-	-	-	-	-	-	-	-
40	5	6,23	1080	69,68	5,59	970	57,80	4,96	860	46,92	4,32	750	37,05	3,69	640	28,20
	10	4,83	420	13,86	4,17	360	10,80	3,49	300	8,01	2,78	240	5,26	1,81	160	1,72
	15	2,66	1580	1,81	2,47	160	1,81	2,27	1580	1,80	2,03	1580	1,75	1,82	1580	1,73
45	5	7,82	1360	101,41	7,18	1250	87,41	6,55	1140	74,37	5,91	1030	62,29	5,28	920	51,17
	10	6,50	560	22,38	5,85	510	18,72	5,21	450	15,33	4,56	390	12,21	3,90	340	9,37
	15	4,97	290	7,23	4,26	250	5,48	3,48	200	3,28	2,66	1580	1,71	2,47	1580	1,73
50	5	9,41	1640	137,50	8,77	1530	121,50	8,13	1410	106,43	7,50	1300	92,29	6,86	1190	79,08
	10	8,13	710	32,14	7,49	650	27,89	6,85	590	23,91	6,21	540	20,20	5,57	480	16,76
	15	6,75	390	11,79	6,08	350	9,89	5,41	310	8,12	4,73	270	6,47	4,02	230	4,89
55	5	11,00	1920	177,66	10,36	1800	159,78	9,72	1690	142,79	9,08	1580	126,69	8,44	1470	111,50
	10	9,74	850	43,07	9,10	790	38,27	8,46	740	33,73	7,83	680	29,44	7,19	620	25,42
	15	8,43	490	16,84	7,78	450	14,68	7,13	410	12,64	6,48	370	10,73	5,82	340	8,95
60	5	12,58	2200	221,69	11,94	2080	201,99	11,30	1970	183,16	10,66	1860	165,21	10,02	1750	148,13
	10	11,35	990	55,09	10,71	930	49,77	10,07	880	44,69	9,43	820	39,87	8,79	770	35,30
	15	10,08	580	22,40	9,43	550	19,98	8,79	510	17,69	8,14	470	15,52	7,50	430	13,47
65	5	14,17	2480	269,44	13,52	2370	247,98	12,88	2250	227,38	12,23	2140	207,64	11,59	2030	188,75
	10	12,95	1130	68,17	12,31	1070	62,34	12,29	990	48,70	11,02	960	51,42	10,38	910	46,32
	15	11,71	680	28,46	11,06	640	25,79	10,42	610	23,25	9,78	570	20,83	9,13	530	18,52
70	5	15,75	2760	320,59	15,10	2650	297,43	14,45	2530	275,12	13,81	2420	253,65	13,17	2310	233,02
	10	14,55	1270	82,23	13,90	1220	75,91	12,47	990	62,10	12,61	1100	64,01	11,97	1050	58,41
	15	13,33	780	34,99	12,68	740	32,09	12,04	700	29,31	11,39	660	26,64	10,75	630	24,09

EWT = Exchanger water inlet temperature (°C)

 ΔT = Temperature differential (°C)

Ta = Ambient temperature (°C)

D.B. = Dry bulb

TH = Total heating capacity (kW)

WF = Water flow-rate (l/h)

WDP = Exchanger pressure drops (kPa)

Accessories separately supplied

360PX - Air return and supply frame with supply at 360° (mandatory accessory)

Return grille, frame and diffusion wings adjustable at 360° in ABS synthetic material, white RAL 9003:

- Dimensions size 007.0÷015.0 = 647 x 647 x 50 mm
- Dimensions size 021.0÷041.0 = 950 x 950 x 45 mm



Mandatory accessory.



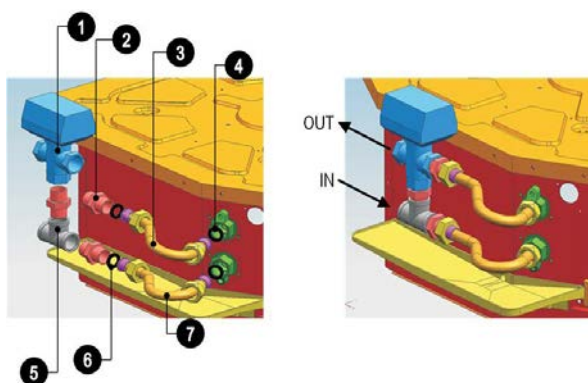
3V2X - Three-way valve kit for 2-pipe "on/off" system

Water flowrate control kit with on/off 3-way valve with thermoelectric actuator for 2-pipe installation.



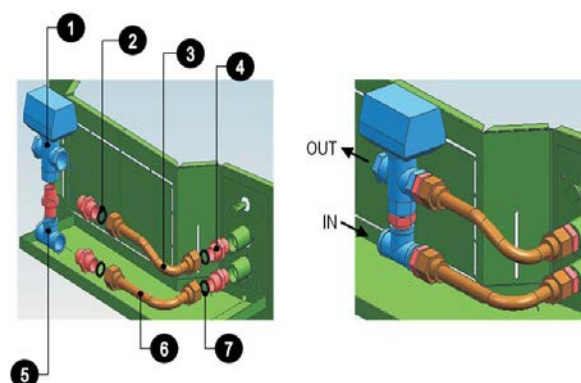
Max. operating pressure	16 bar
Max. room temperature	50°C
Max water temperature	75°C
Min water temperature	2°C
Power supply	230V - (50 - 60 Hz)
Absorption (after stabilisation)	4W
Opening time	< 3 min
Max % of glycol	50%
Kv (m³/h)	3.2

Size 007.0÷015.0



1. no.1 of 3-way solenoid valve G3/4"
2. no.3 of joints G3/4"
3. no.1 of water outlet connection pipe (diam. Ø16, connection G3/4")
4. no.2 of gaskets Ø23xØ15x2.5
5. no.1 of 3-way joint G3/4"
6. no.2 of gaskets Ø24xØ15x4
7. no.1 of water inlet connection (diam. Ø16, connection G3/4")

Size 021.0÷041.0



1. no.1 of 3-way solenoid valve G3/4"
2. no.2 of gaskets Ø24xØ15x4
3. no.1 of water outlet connection pipe (diam. Ø16, connection G3/4")
4. no.5 of joints G3/4"
5. no.1 of 3-way joint G3/4"
6. no.1 of water inlet connection (diam. Ø16, connection G3/4")
7. no.2 of gaskets Ø24xØ15x4

3V4X - Three-way valve kit for 4-pipe "on/off" system

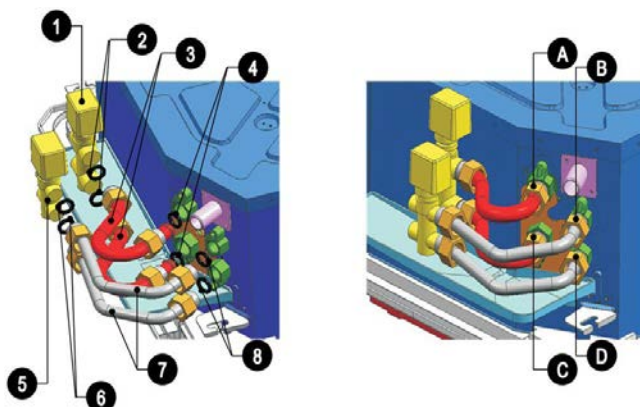
Water flowrate control kit with on/off 3-way valve with thermoelectric actuator for 4-pipe installation.



Max. operating pressure	16 bar
Max. room temperature	50°C
Max water temperature	110°C
Min water temperature	4°C
Power supply	230V - 24V (50 - 60 Hz)
Absorption (after stabilisation)	4W (230V) - 6W (24V)
Lockshield ip protection degree	IP44
Valve ip protection degree	IP54
Opening time	< 3 min
Max % of glycol	50%

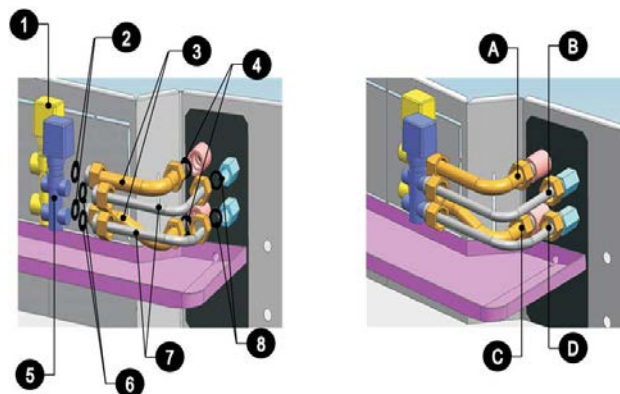


Size 007.0÷015.0



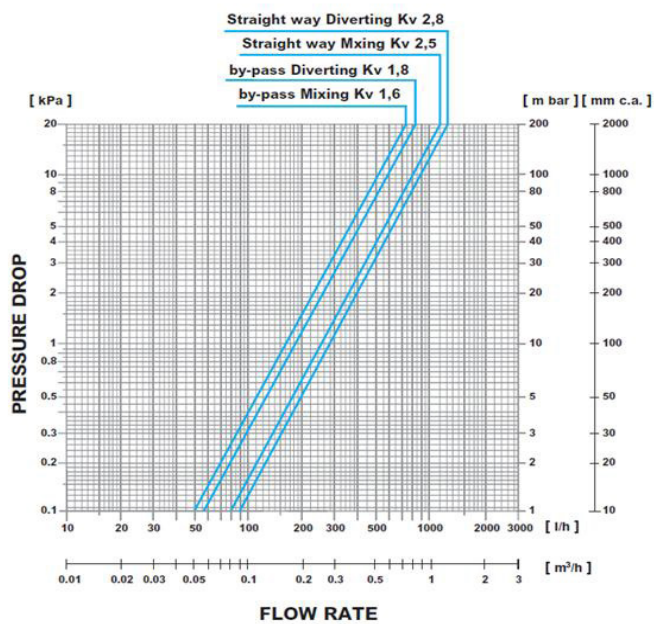
1. no.1 of 3-way valve G3/4" with actuator
2. no.2 of gaskets Ø16xØ24.5x2
3. no.2 of cold water connection pipes (diam. Ø19, connection G3/4")
4. no.2 of gaskets Ø19x2
5. no.1 of 3-way valve G1/2" with actuator
6. no.2 of gaskets Ø11xØ19x2
7. no.2 of hot water connection pipes (diam. Ø14, connection G1/2")
8. no.2 gaskets Ø13.8x1.8
- A. Cold water outlet
- B. Hot water outlet
- C. Cold water inlet
- D. Hot water inlet

Size 021.0÷041.0

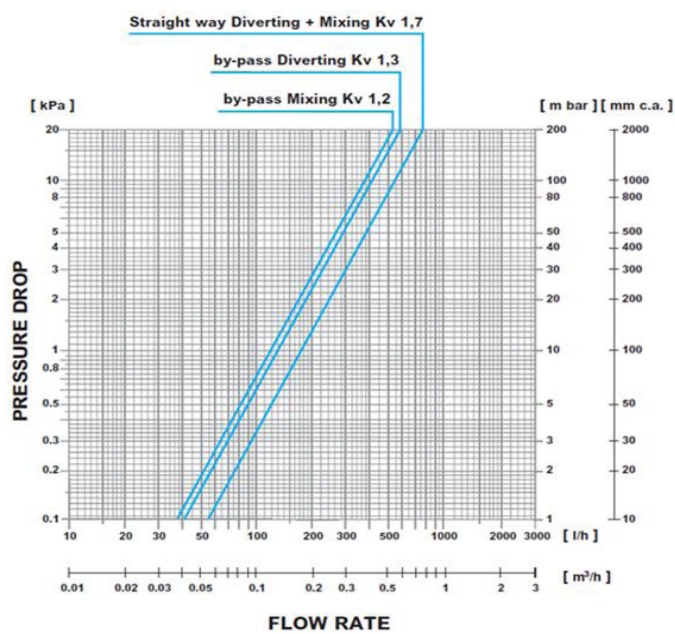


1. no.1 of 3-way valve G3/4" with actuator
2. no.2 of gaskets Ø11xØ19x2
3. no.2 of cold water connection pipes (diam. Ø19, connection G3/4")
4. no.2 of gaskets Ø19x2
5. no.1 of 3-way valve G1/2" with actuator
6. no.2 of gaskets Ø16xØ24.5x2
7. no.2 of hot water connection pipes (diam. Ø14, connection G1/2")
8. no.2 gaskets Ø13.8x1.8
- A. Cold water outlet
- B. Hot water outlet
- C. Cold water inlet
- D. Hot water inlet

Pressure drop - Cooling side 3-way valve (G3/4")



Pressure drop - Heating side 3-way valve (G1/2")



DTX - Auxiliary condensate collection tray

Valves condensate collection tray.



KJR90X - Electronic room control for wall installation

KJR90 LCD "touch-key" wall-mounted control.

Functions:

- On/Off
- Operation selection: Auto, Heating, Cooling, Dehumidification, Ventilation
- Temperature setting (temperature range selectable: 17~30°C)
- Set the fan speed (MIN - MED - MAX or AUTO)
- Timer setting
- Setting of deflectors position (swing)

Many additional functions such as:

- ECO mode
- Controller keypad lock
- Timed remainder air filter cleaning

The controller can be easily connected to the internal unit display by means of a connecting cable.

The control can be installed up to a max. distance of 15mt.



KJR150X - Indoor units' group controller

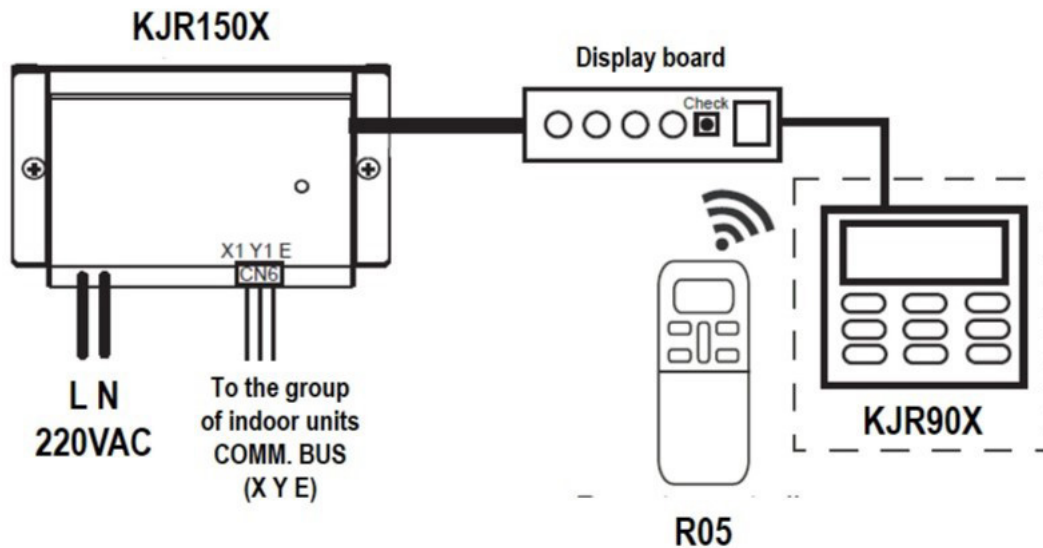
Allows the group control of up to 16 fancoil units from a single wall control KJR90X.

Each unit's operating parameters can also be individually controlled using its own remote controller R05.

Model	KJR150X
Dimensions (L×A×P) [mm]	85x150x70
Power supply	198-242V (50/60Hz)



Installation schematic

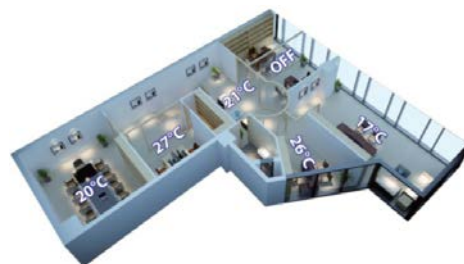


CCM30BX - Touch-key indoor units' centralized controller (with cover plate)



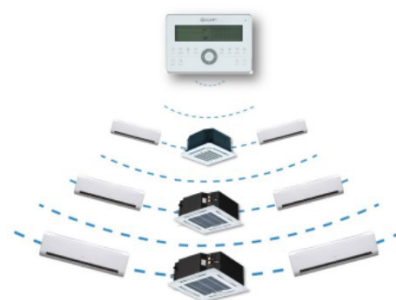
CCM30BX

The centralized controllers are multifunctional devices that can control up to 64 indoor units within a maximum connection length of 1.200m. These controls give the user the opportunity to control multiple units as a single group, or alternatively to assign an individual temperature for each one



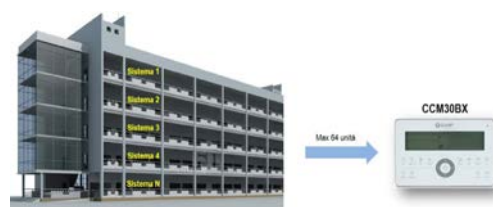
Single/unified control mode

Controllers can be toggled between unified and single control modes, to enable either unified control of all units or control of a specific unit. Operating mode feedback is used to ensure that all units are operating in the mode specified by the user.



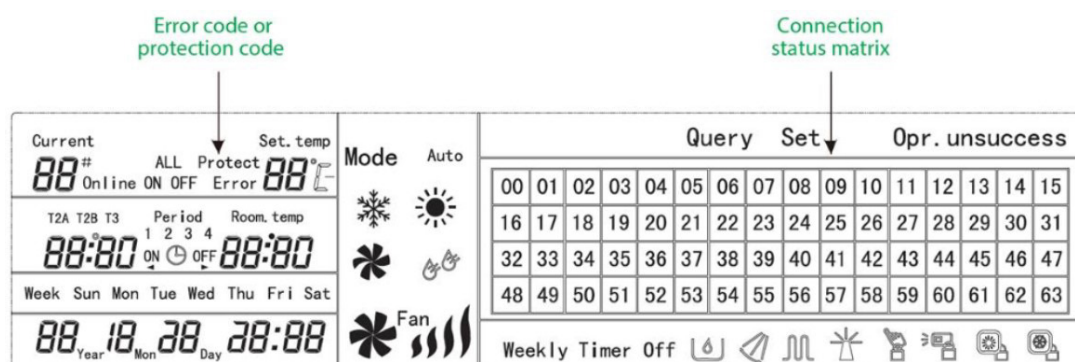
Multi-system control

Controlled units can be from different VRF/Mini VRF systems, totally up to 64 indoor units: this allows a centralized control that facilitates the building management. Ensure that the address is not repeated for more units.



Fancoil units operating status display

Error and protection codes are shown directly on centralized controllers' displays, avoiding the need to access outdoor units' PCBs to obtain codes during a system event. A wide range of error and protection codes provide system status information to building management professionals before contacting a service engineer.



Multiple lock modes

In addition to locking the centralized controller's own keyboard, the centralized controller may also be used to lock each unit's operating mode or remote controller.

Locking
Running
Mode

Locking
Remote
Controller

Locking
Keyboard

Clean filter reminder

The CCM30BX record the total running time of each indoor unit. When the accumulated running time reaches the value pre-set by the user, the system reminds the user to clean the indoor unit's filter, ensuring that the airflow does not become obstructed.



Model	CCM30-B
Dimensions LxAxP (mm)	180x122x78
Power supply	198-242V (50/60Hz)

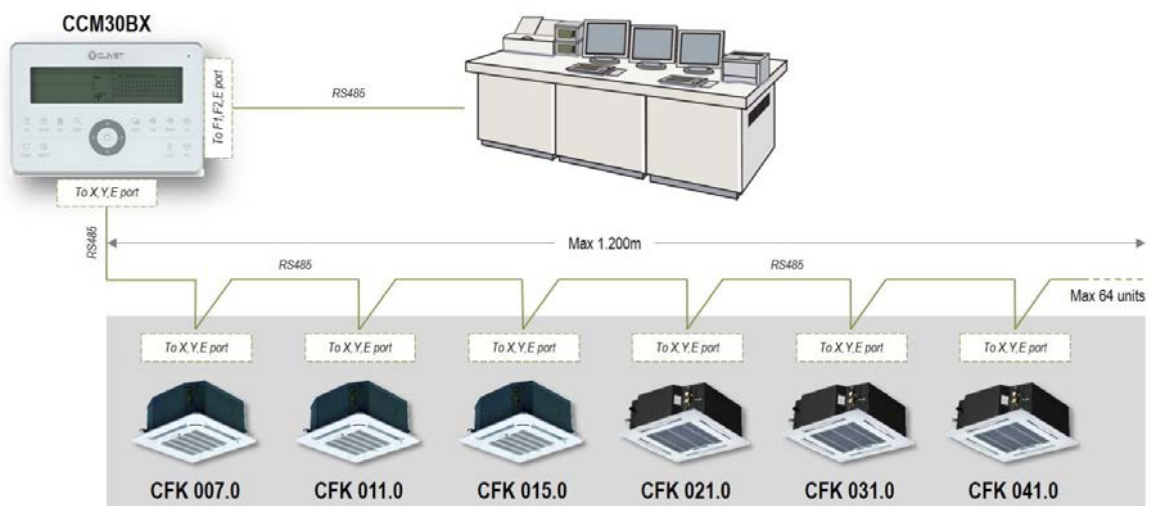
Main features:

- Setting On/Off
- Setting mode Cool/Heat/Auto/Dry/Fan
- Setting temperature
- Fan speed selection High/Medium/Low/Auto
- Air swing function
- 24h On/Off timer
- Locking the controller buttons
- Air filter cleaning reminder
- Turn On/Off the LCD backlight



Installation schematic

The centralized controller can connect up to 64 indoor units on the network monitoring and building management systems.



Connection to BMS systems

Monitoring and control can be integrated into Building Management Systems (BMS), enabling air conditioning to be monitored alongside lightning, power, fire detection, access and security systems. Full compatibility with the four main BMS protocols via gateway devices: BACnet, Modbus and LonWorks.

CCM08X - BACnet protocol

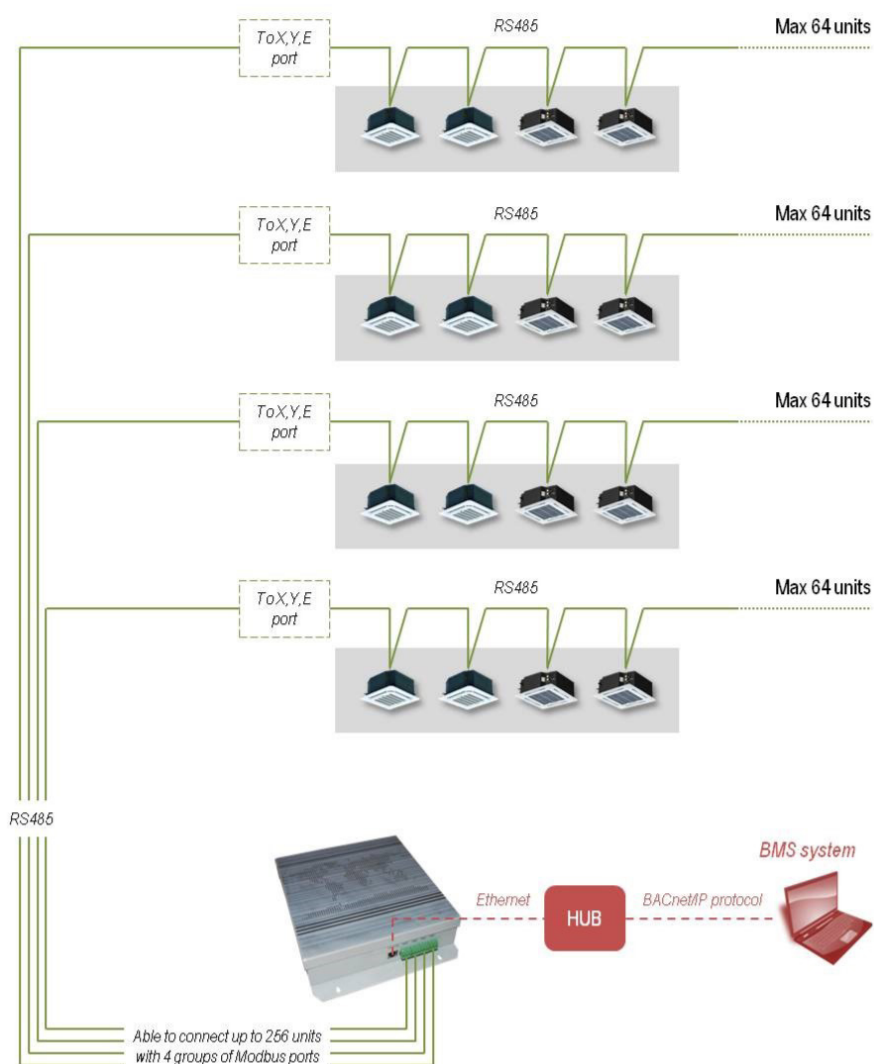
Each gateway can be connected to an fancoil unit's X,Y,E ports (up to 256 units), with built-in IP access.

It is also compatible with connections of up to four CCM30BX centralized controller through F1, F2, E ports.

Model	CCM08X
Dimensions LxAxP (mm)	319x251x61
Power supply	AC 220V~50/60Hz



Installation schematic - Connecting to fancoil unit port X, Y, E





	Company	Software BMS	Brand
1	Apogee Electronics	APOGEE	
2	Trane	Tracer Summit	
3	Honeywell	Alerton	
4	Schneider	Andover	
5	Johnson	METASYS	

CCM18X - Modbus protocol for up to 64 fancoil units

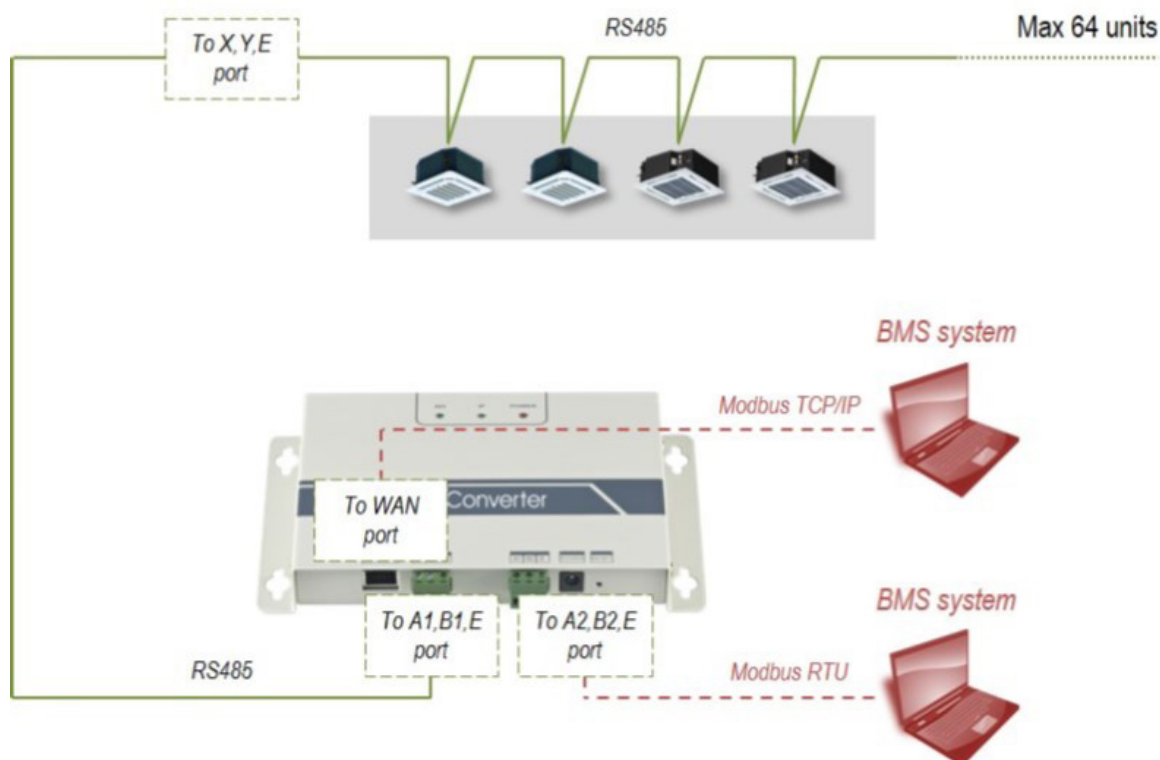
CCM18UX - Modbus protocol for up to 16 fancoil units

Each gateway can connect up to 16 indoor units (CCM18UX) or up to 64 indoor units and up to 4 outdoor units of the same system (CCM18X) with BMS through either TCP/IP or RTU. Built-in IP access.

Model	CCM18A / CCM18ANU
Dimensions LxAxP (mm)	319×251×61
Power supply	AC 220V~50/60Hz



Installation schematic - Connecting to fancoil unit port X, Y, E



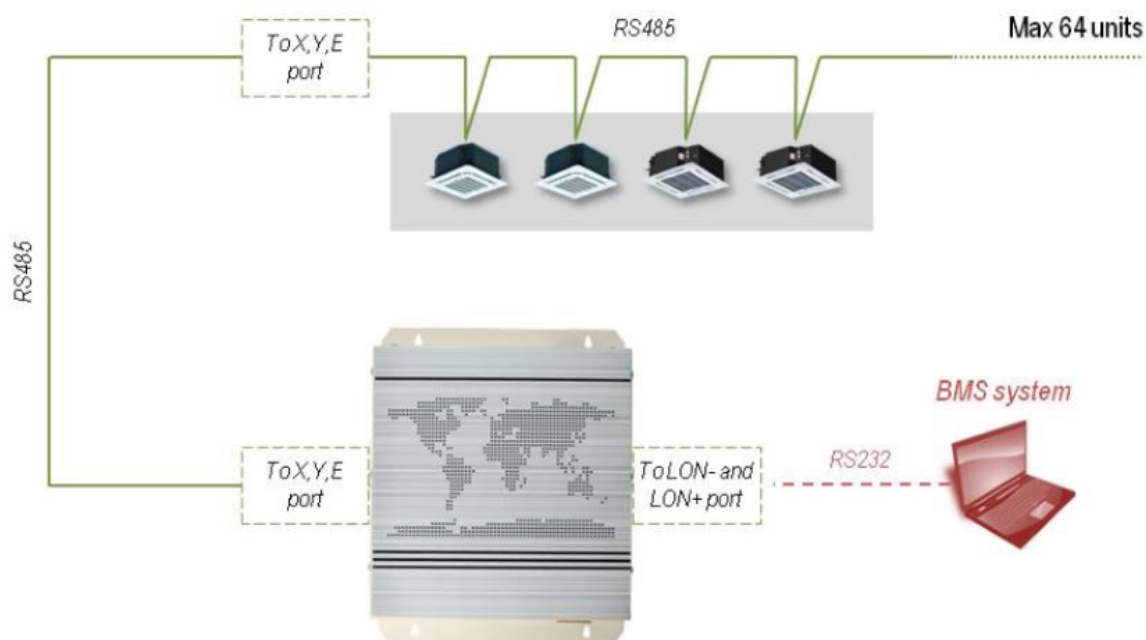
LONGWX - LowWorks protocol

Each gateway can connect up to 64 indoor units, directly to their XYE ports or through outdoor unit.

Model	LONGWX
Dimensions LxAxP (mm)	319x251x61
Power supply	AC 220V~50/60Hz

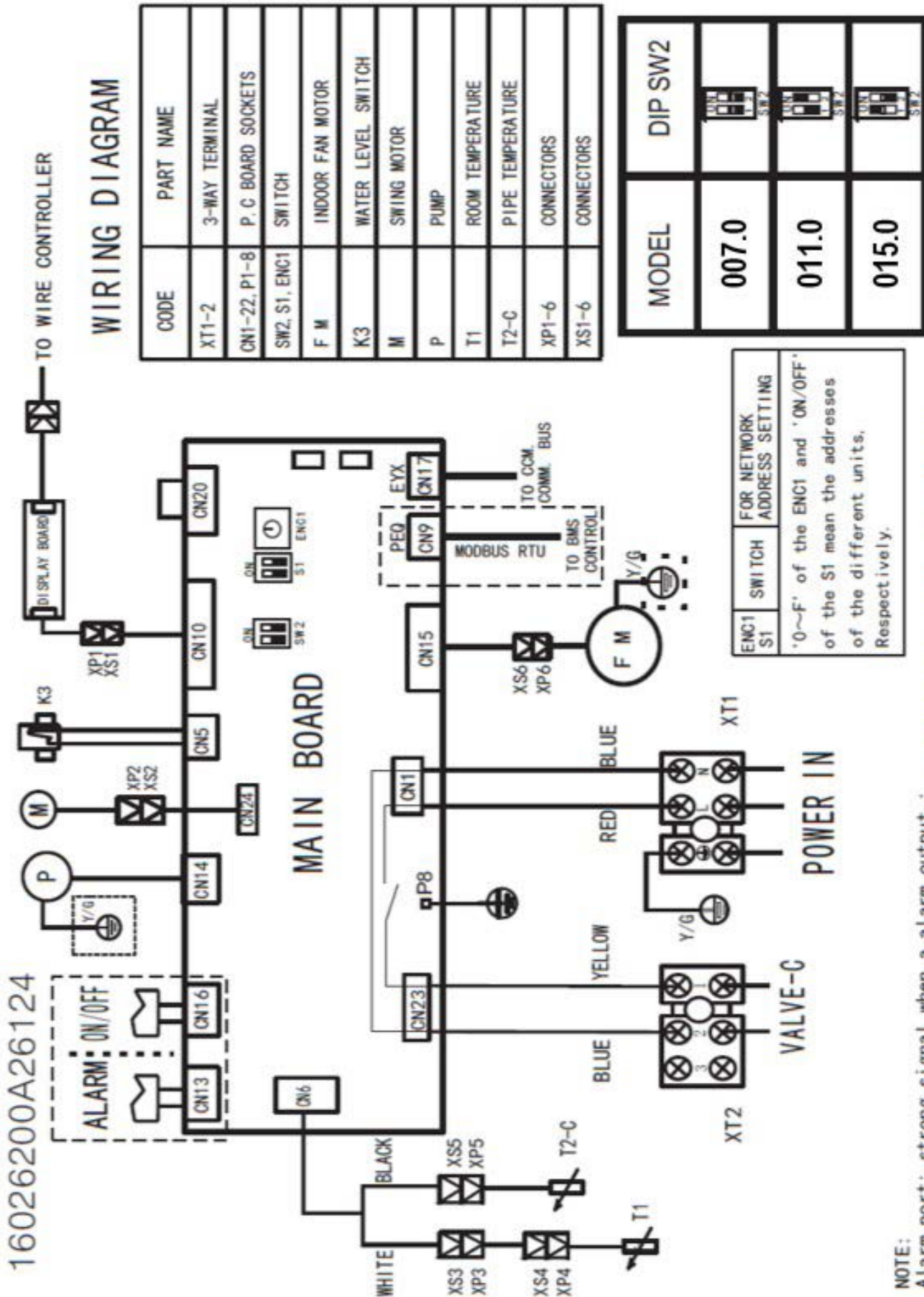


Installation schematic - Connecting to fancoil unit port X, Y, E



Wiring diagrams with XYE port (BUS communication)

CC2 - 2-pipe system (size 007.0, 011.0 and 015.0)

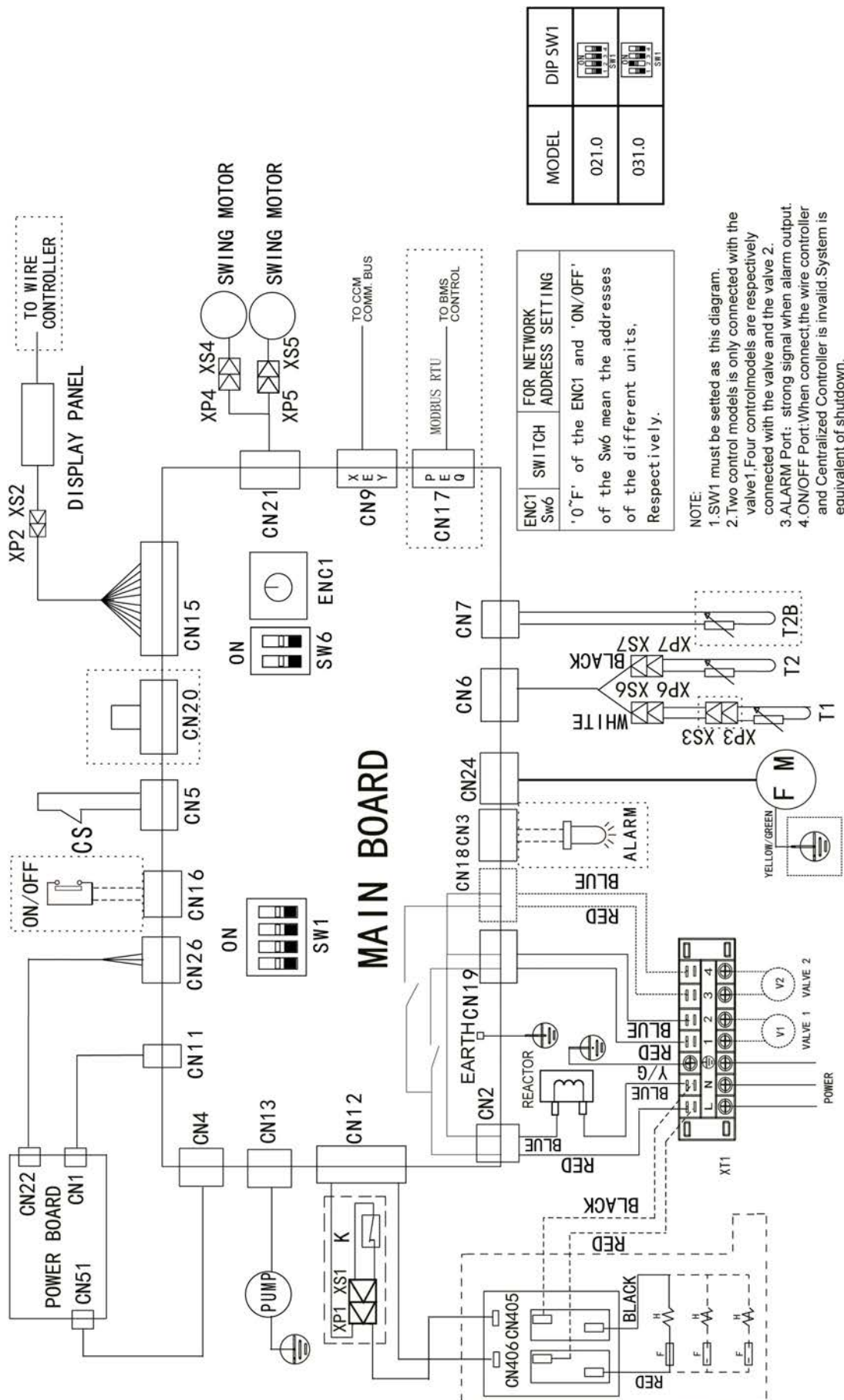


Wiring diagrams with XYE port (BUS communication)

CC2 - 2-pipe system (size 021.0 and 031.0)

CC4 - 4-pipe system (size 021.0)

16026200A26126



ENC1 Sw6	SWITCH	FOR NETWORK ADDRESS SETTING
'0' F' of the ENC1 and 'ON/OFF' of the Sw6 mean the addresses of the different units, Respectively.		

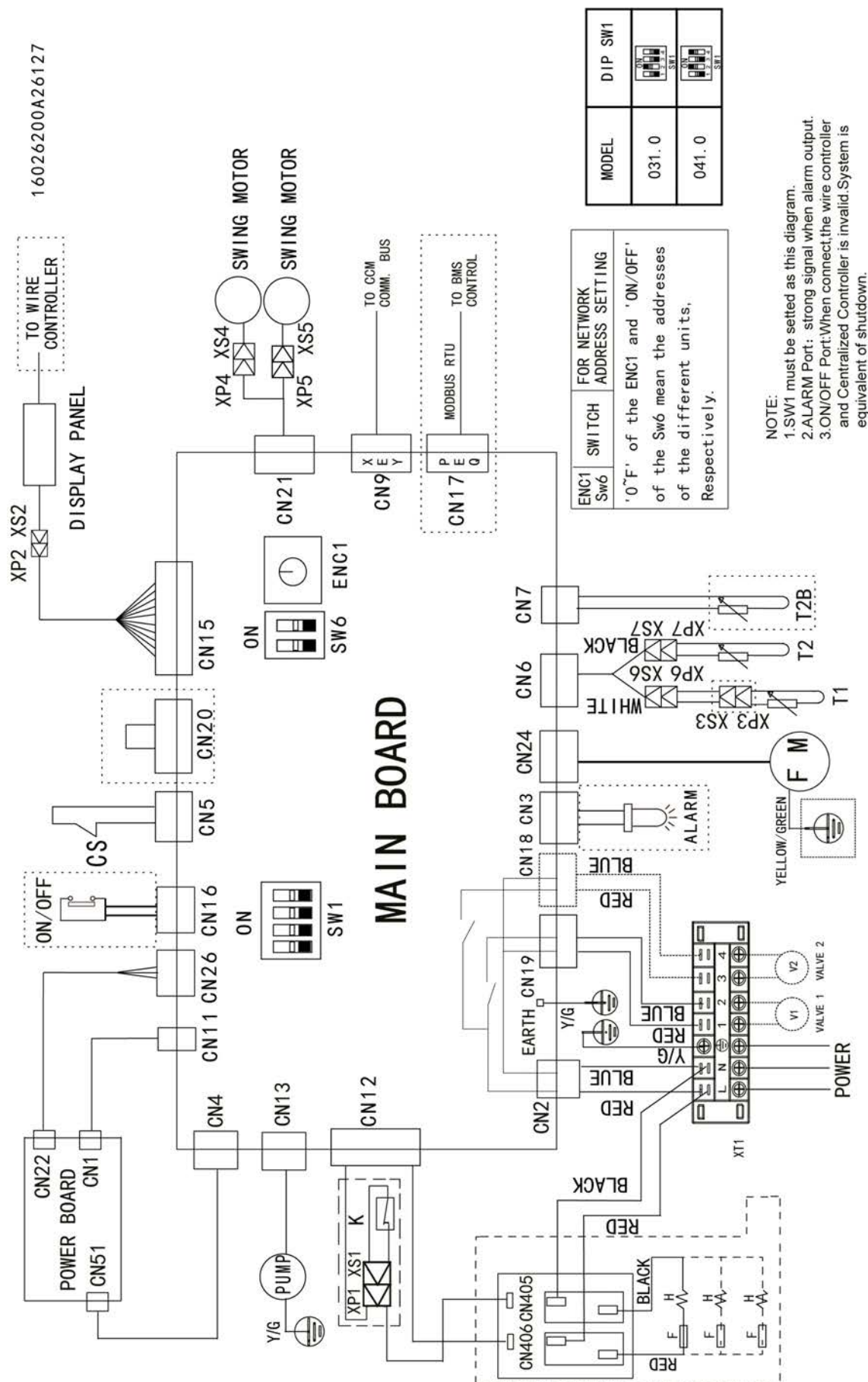
MODEL	DIP SW1
021.0	
031.0	

- NOTE:
- SW1 must be set as this diagram.
 - Two control models are only connected with the valve 1. Four control models are respectively connected with the valve and the valve 2.
 - ALARM Port: strong signal when alarm output.
 - ON/OFF Port: When connect the wire controller and Centralized Controller is invalid. System is equivalent of shutdown.

Wiring diagrams with XYE port (BUS communication)

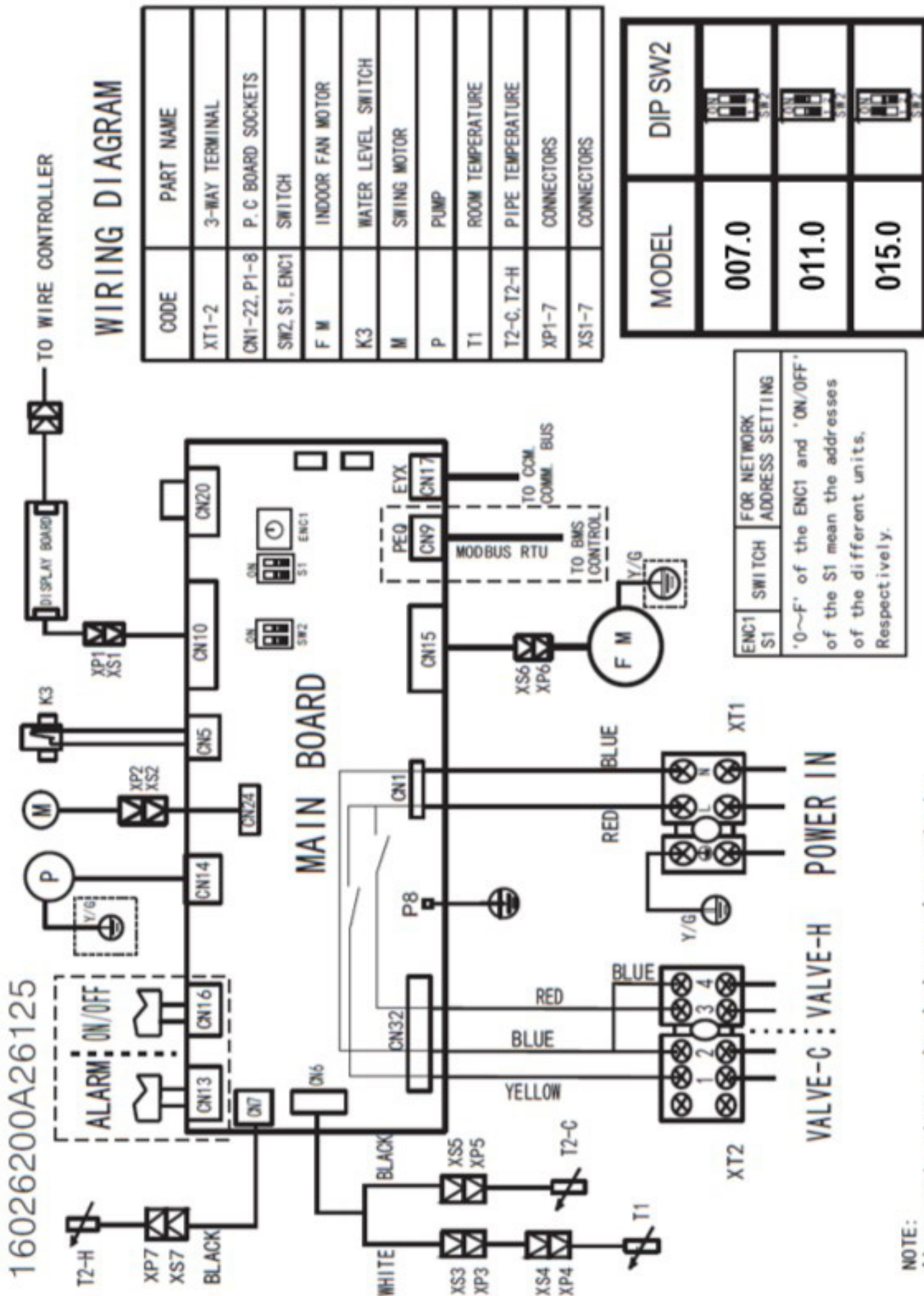
CC2 - 2-pipe system (size 041.0)

CC4 - 4-pipe system (size 031.0 and 041.0)



Wiring diagrams with XYE port (BUS communication)

CC4 - 4-pipe system (size 007.0, 011.0 and 015.0)

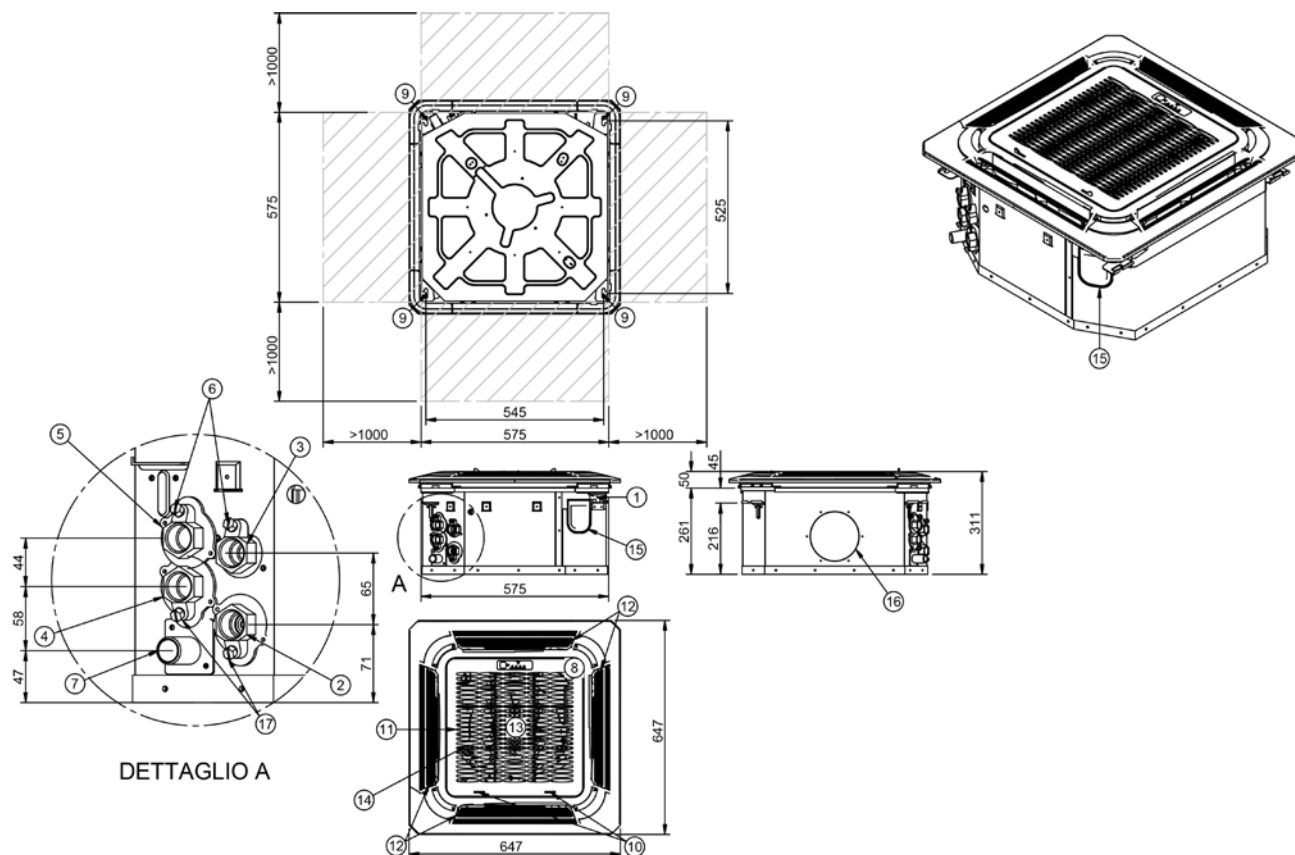


Dimensional drawings

CFK 007.0 ÷ 015.0 (CC2 - CC4)

DAAMC007.0_1 REV01

Data/Date 21/12/2016



- | | |
|---------------------------------------|-------------------------------|
| 1. Power input | 10. Filter access lungs |
| 2. Water outlet (standard unit) Ø3/4" | 11. Return air inlet |
| 3. Water inlet (standard unit) Ø3/4" | 12. Air flaps |
| 4. Additional coil water outlet Ø1/2" | 13. Fan |
| 5. Additional coil water inlet Ø1/2" | 14. Filter |
| 6. Water bleeds | 15. Fresh air spigot |
| 7. Condensate drain by pump Ø25 | 16. Branch duct spigot Ø150mm |
| 8. Electrical panel | 17. Air discharge |
| 9. Suspension brackets | |

Coil configuration			CC2			CC4		
Size			007.0	011.0	015.0	007.0	011.0	015.0
Unit								
Net dimensions	Width (W)	[mm]	575	575	575	575	575	575
	Height (H)	[mm]	261	261	261	261	261	261
	Depth (D)	[mm]	575	575	575	575	575	575
Packing	Width (W)	[mm]	675	675	675	675	675	675
	Height (H)	[mm]	320	320	320	320	320	320
	Depth (D)	[mm]	675	675	675	675	675	675
Net weight		[kg]	16,5	16,5	16,5	16,7	16,7	16,7
Gross weight		[kg]	22,5	22,5	22,5	22,7	22,7	22,7
Panel								
Net dimensions	Width (W)	[mm]	647	647	647	647	647	647
	Height (H)	[mm]	50	50	50	50	50	50
	Depth (D)	[mm]	647	647	647	647	647	647
Packing	Width (W)	[mm]	715	715	715	715	715	715
	Height (H)	[mm]	123	123	123	123	123	123
	Depth (D)	[mm]	715	715	715	715	715	715
Net weight		[kg]	2,5	2,5	2,5	2,5	2,5	2,5
Gross weight		[kg]	4,5	4,5	4,5	4,5	4,5	4,5

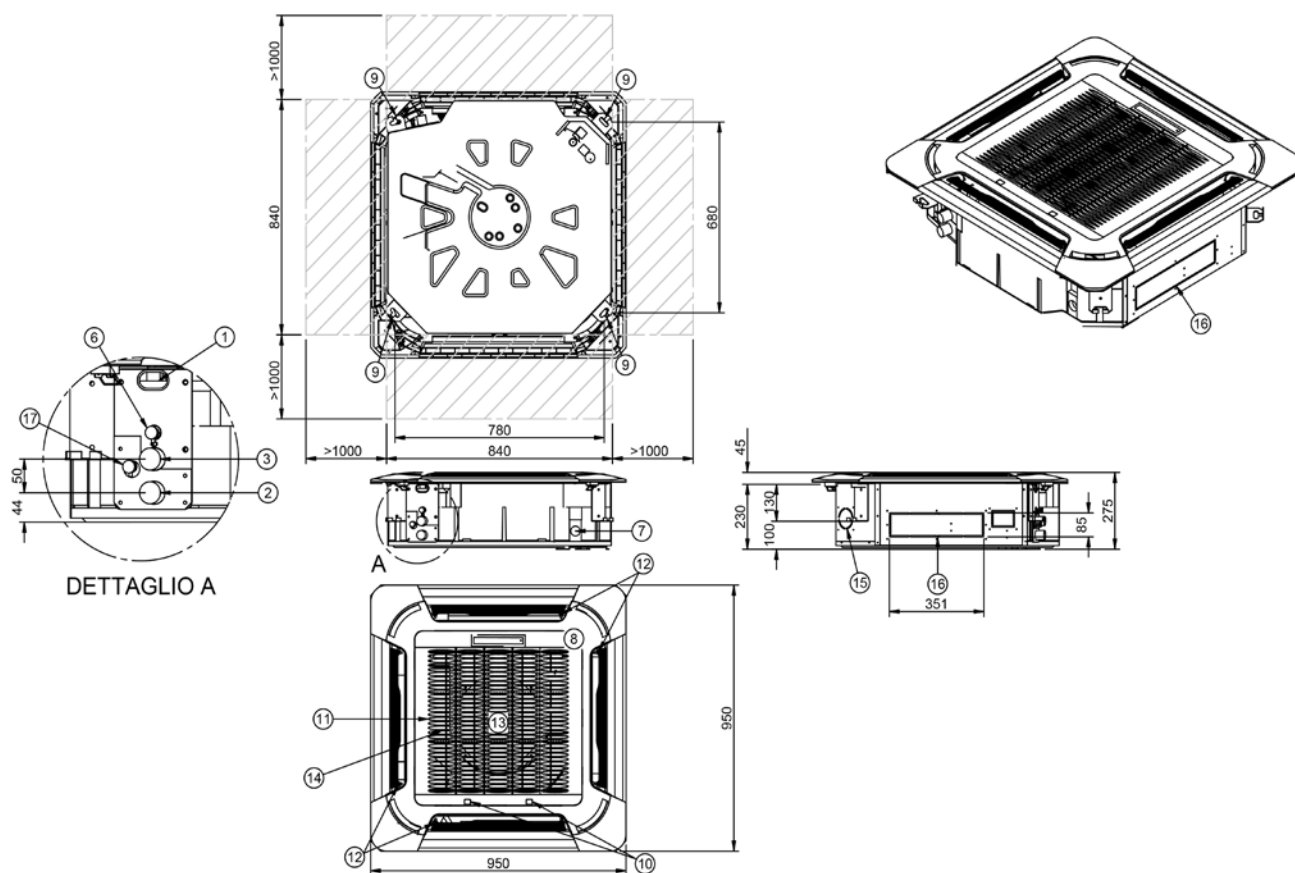
The presence of optional accessories may result in a substantial variation of the weights shown in the table.

Dimensional drawings

CFK 021.0 (CC2)

DAAMC021.1_0 REV01

Data/Date 21/12/2016



- | | |
|---------------------------------------|----------------------------|
| 1. Power input | 11. Return air inlet |
| 2. Water outlet (standard unit) Ø3/4" | 12. Air flaps |
| 3. Water inlet (standard unit) Ø3/4" | 13. Fan |
| 6. Water bleeds | 14. Filter |
| 7. Condensate drain by pump Ø32 | 15. Fresh air spigot Ø75mm |
| 8. Electrical panel | 16. Branch duct spigot |
| 9. Suspension brackets | 17. Air discharge |
| 10. Filter access lugs | |

Coil configuration			CC2
Size			021.0
Unit			
Net dimensions	Width (W)	[mm]	840
	Height (H)	[mm]	230
	Depth (D)	[mm]	840
Packing	Width (W)	[mm]	900
	Height (H)	[mm]	260
	Depth (D)	[mm]	900
Net weight			[kg] 23
Gross weight			[kg] 28
Panel			
Net dimensions	Width (W)	[mm]	950
	Height (H)	[mm]	45
	Depth (D)	[mm]	950
Packing	Width (W)	[mm]	1035
	Height (H)	[mm]	90
	Depth (D)	[mm]	1035
Net weight			[kg] 6
Gross weight			[kg] 9

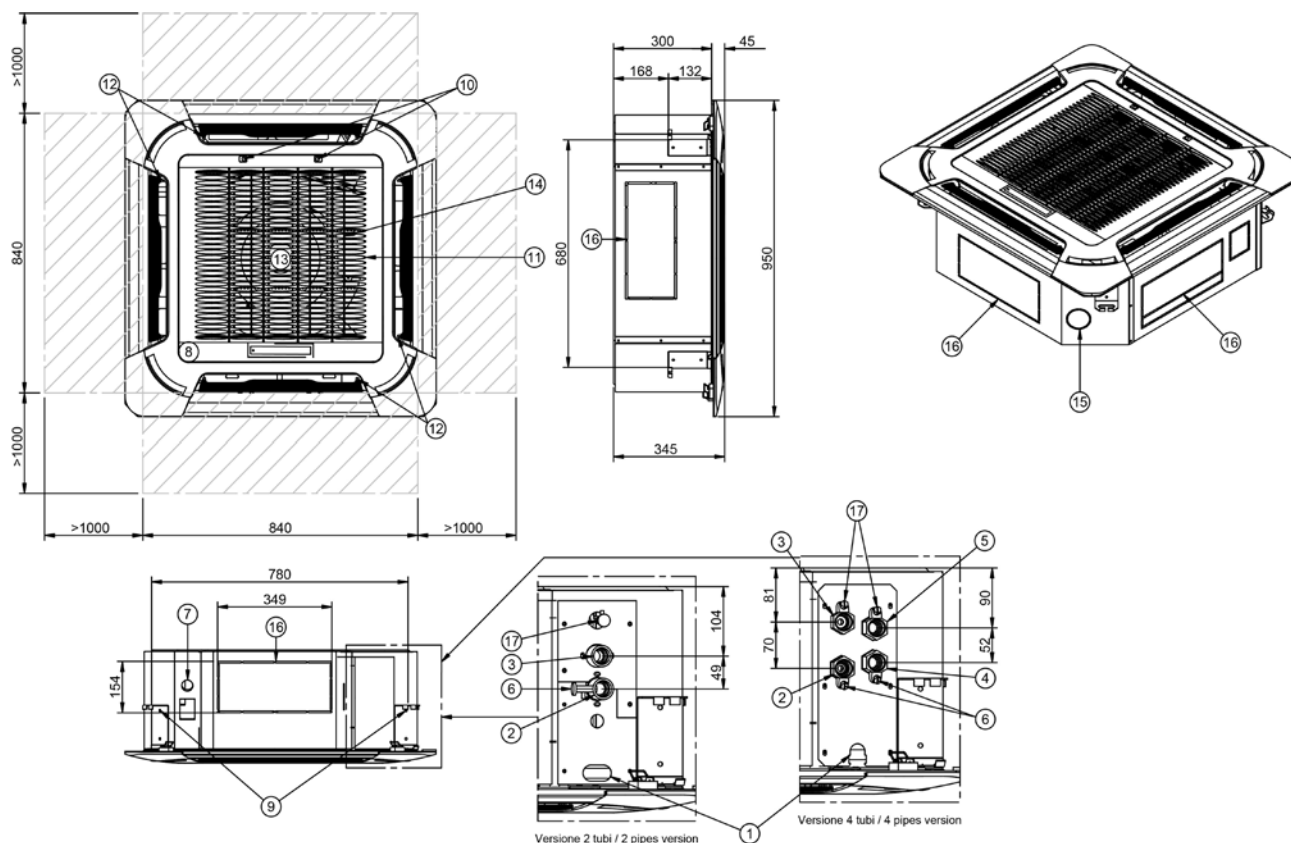
The presence of optional accessories may result in a substantial variation of the weights shown in the table.

Dimensional drawings

CFK 021.0 (CC4) and 031.0 ÷ 041.0 (CC2 - CC4)

DAAMC031.0_041.0_01 REV01

Data/Date 21/12/2016

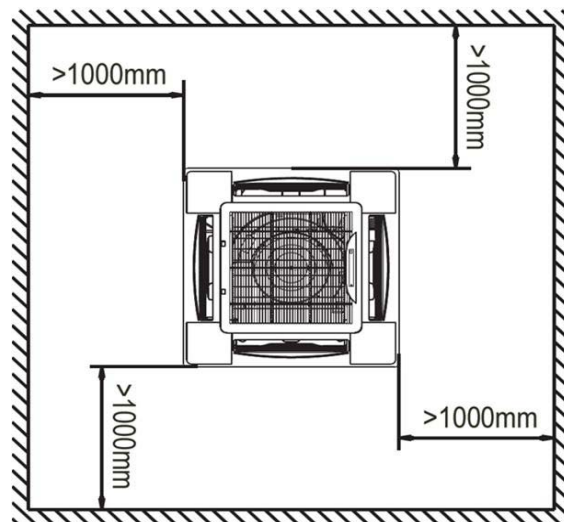
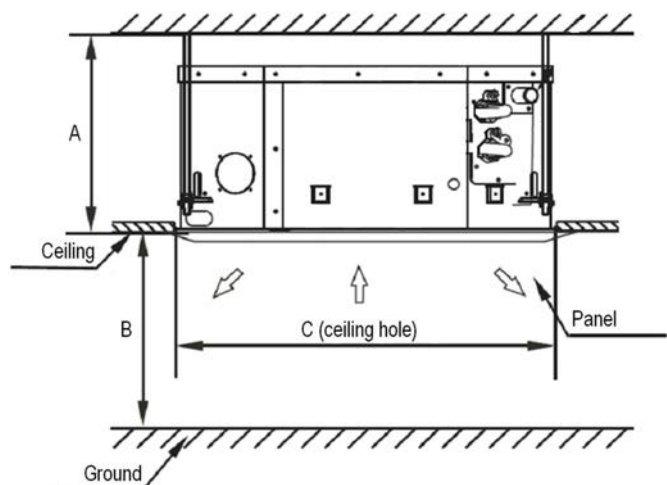


1. Power input
2. Water inlet (standard unit) Ø3/4"
3. Water outlet (standard unit) Ø3/4"
4. Additional coil water inlet Ø1/2"
5. Additional coil water outlet Ø1/2"
6. Water bleeds
7. Condensate drain by pump Ø32
8. Electrical panel
9. Suspension brackets
10. Filter access lugs
11. Return air inlet
12. Air flaps
13. Fan
14. Filter
15. Fresh air spigot Ø75mm
16. Branch duct spigot
17. Air discharge

Coil configuration			CC2		CC4		
Size			031.0	041.0	021.0	031.0	041.0
Unit							
Net dimensions	Width (W)	[mm]	840	840	840	840	840
	Height (H)	[mm]	300	300	300	300	300
	Depth (D)	[mm]	840	840	840	840	840
Packing	Width (W)	[mm]	900	900	900	900	900
	Height (H)	[mm]	330	330	330	330	330
	Depth (D)	[mm]	900	900	900	900	900
Net weight		[kg]	27	27	27,5	30	30
Gross weight		[kg]	33	33	33,5	35	35
Panel							
Net dimensions	Width (W)	[mm]	950	950	950	950	950
	Height (H)	[mm]	45	45	45	45	45
	Depth (D)	[mm]	950	950	950	950	950
Packing	Width (W)	[mm]	1035	1035	1035	1035	1035
	Height (H)	[mm]	90	90	90	90	90
	Depth (D)	[mm]	1035	1035	1035	1035	1035
Net weight		[kg]	6	6	6	6	6
Gross weight		[kg]	9	9	9	9	9

La presenza di accessori opzionali può comportare una variazione significativa dei pesi riportati in tabella.

Functional spaces



Size		007.0	011.0	015.0	021.0	031.0	041.0
A	[mm]	> 300	> 300	> 300	> 300	> 300	> 300
B	[mm]	2.800~2.300	2.800~2.300	2.800~2.300	> 2.500	> 2.500	> 2.500
C	[mm]	600	600	600	880	880	880

Specifications

Supply and installation of water terminal units for indoor installation, "cassette" type, with self-contained control system built-in. It consists of a high efficiency copper/aluminium exchange coil with a finned heating element fitted with a spindle and equipped with an hydrophilic coating, unit structure realised in electrogalvanized steel sheet and coated with insulating material, standard condensate discharge pump built-in installed. Standard infrared remote control to manage the unit remotely through a receiver placed in the air supply and return ceiling. Electrical panel inside the unit with a complete accessibility from below for an easy maintenance. Ambient primary air set up through a pre-sheared off hole. Set up for air introduction in adjacent rooms through specific pre-sheared off holes placed on the unit sides. High efficiency radial fan with standard DC Brushless motor with airflow control minute by minute according to the requested heating load. Air supply and return ceiling at 360° in self-extinguishing ABS equipped with motorised fins and with a washable renewable synthetic class G2 filter, easily accessible.

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