

# YHK Hydro Cassette

2 & 4 pipe system

A complete range from 1.3 kW to 11.1 kW



Coloured versions available as an option

YHK Hydro Cassette units are simple and elegant, discreet in their design. High standards of quality and reliability, combined with a wide range of accessories ensure a total solution for all comfort cooling and heating requirements.



Selection software

## Wired controls



**JWC-3V**  
Remote three speeds controller

**JWC-T**  
JWC-3V + Electronic thermostat and Summer/Winter switch

**JWC-AU**  
Automatic JWC-T



**JTM-B**  
Digital Automatic Remote controller

**TMO 503 SV2**  
Digital Automatic Remote controller to be mounted in the standard light wall box

## Infrared control



**TUC03 Terminal unit controller**  
BacNET and N2 Metasys network compatible

## Features

- Cooling duty from 1.3 to 11.1 kW
- 2 & 4 pipes systems in all range
- 2 sizes: 600 x 600 & 800 x 800
- Possible choice between 6 fan speeds
- Condensate pump integrated in all range
- 2/3 way valves fitted or supplied loose in all range
- Coloured versions, possible to change the colour of the grill and the frame
- Possible to select a complete range of controls
- Electric heater fitted as an option for all range (2 pipe only)
- All metal parts insulated to avoid condensations

# YHK Hydro Cassette

1.3 to 11.1 kW



## Technical features

Model -2 pipes		YHK 20-2	YHK 25-2	YHK 40-2	YHK 50-2	YHK 65-2	YHK 95-2	YHK 110-2	
Total cooling capacity 2 Pipes [kW]	(1)	max	2.0	2.7	4.3	5.0	6.2	9.5	11.1
		med	1.6	2.3	3.3	3.9	4.9	6.8	8.5
		min	1.3	1.8	2.3	2.9	4.2	5.3	5.3
Sensible cooling capacity 2 Pipes [kW]	(1)	max	1.6	2.0	3.2	3.7	4.6	6.5	8.3
		med	1.3	1.8	2.4	2.8	3.6	4.5	6.1
		min	1.0	1.4	1.6	2.1	3.0	3.5	3.7
Water flow in cooling 2 Pipes [l/h]	(1)	max	340	461	745	863	1 060	1 636	1 909
		med	280	402	574	667	845	1 166	1 453
		min	219	316	387	506	724	913	913
Pressure drop in cooling 2 Pipes [kPa]	(1)	max	10	9.7	15.1	19.7	21.6	26.9	35.6
		med	7	7.6	9.4	12.4	14.3	14.7	21.8
		min	4.5	4.9	4.6	7.5	10.9	9.4	9.4
Heating capacity 2 pipes [kW]	(2)	max	2.6	3.4	5.2	6.2	7.8	10.71	14.0
		med	2.1	2.9	3.9	4.6	6.0	7.34	10.3
		min	1.6	2.2	2.6	3.4	5.1	5.61	6.1
Water flow in heating 2 pipes [l/h] *	(2)	max	340	461	745	863	1 060	1 636	1 909
		med	280	402	574	667	845	1 166	1 453
		min	219	316	387	506	724	913	913
Pressure drop in heating 2 pipes [kPa]	(2)	max	9	8.2	11.4	17.7	15.1	23	30.6
		med	6	6.3	7.3	11.2	9.9	12.4	18.6
		min	4	4.1	3.5	6.7	6.7	7.9	7.9
Heating capacity 2 pipes [kW]	(3)	max	4.6	5.7	9.3	10.6	13.1	19.8	23.7
		med	3.7	4.9	7	8.3	10.7	13.4	17.3
		min	2.8	4.2	4.9	6.1	8.6	10.3	10.3
Water flow in heating 2 pipes [l/h]	(3)	max	393	488	795	914	1 130	1 699	2 037
		med	315	422	598	709	874	1 155	1 484
		min	240	360	415	524	741	882	882
Pressure drop in heating 2 pipes [kPa]	(3)	max	9.9	8.4	12.5	16	17.5	20.9	28.9
		med	6.5	6.4	7.6	10	11.3	10.6	16
		min	4	4.8	4	5.9	8.4	6.7	6.7

Model -4 pipes		YHK 20-4	YHK 25-4	YHK 40-4	YHK 50-4	YHK 65-4	YHK 95-4	YHK 110-4	
Total cooling capacity 4 Pipes [kW]	(1)	max	2.3	2.7	3.3	3.8	6.3	7.7	8.9
		med	2.0	2.4	2.7	3.0	5.0	5.7	6.9
		min	1.5	1.9	1.9	2.4	4.1	4.5	4.5
Sensible cooling capacity 4 Pipes [kW]	(1)	max	1.9	2.0	2.6	3.0	4.7	5.8	6.8
		med	1.6	1.7	2.0	2.3	3.7	4.2	5.2
		min	1.2	1.3	1.3	1.8	3.0	3.3	3.3
Water flow in cooling 4 pipes [l/h]	(1)	max	401	464	574	655	1 090	1 326	1 529
		med	337	406	456	519	865	974	1 192
		min	260	318	318	406	712	777	777
Pressure drop in cooling 4 pipes [kPa]	(1)	max	13.5	8.8	13.4	17	18.9	26.9	34.7
		med	10	6.9	8.8	11.2	12.5	15.4	22.1
		min	6	4.6	4.6	7.2	8.8	10.3	10.3
Heating capacity 4 pipes [kW]	(3)	max	3.0	3.5	4.4	5.0	9.1	11.0	12.7
		med	2.5	3.0	3.5	4.0	7.2	8.1	10.0
		min	2.0	2.4	2.4	3.1	5.9	6.5	6.5
Water flow in heating 4 pipes [l/h]	(3)	max	261	298	378	426	783	946	1 092
		med	219	260	298	341	618	697	858
		min	169	209	209	267	508	555	555
Pressure drop in heating 4 pipes [kPa]	(3)	max	14.5	10.8	16.6	20.5	21.4	29.9	38.8
		med	10.5	8.5	10.8	13.8	14	17.4	25.3
		min	6.5	5.7	5.7	8.8	9.8	11.5	11.5
Air flow [m3/h]		max	610	520	710	880	1140	1500	1 820
		med	420	420	500	610	820	970	1 280
		min	310	310	320	430	630	710	710
Sound power level [dB(A)]		max	49	45	53	59	48	53	58
		med	40	40	45	49	40	40	48
		min	33	33	33	41	33	34	34
Sound pressure level [dB(A)]	(4)	max	40	36	44	50	39	44	49
		med	31	31	36	40	31	31	39
		min	24	24	24	32	24	25	25
Power supply [V-ph-Hz]		230V/1ph/50Hz							
Power input [W]	max	57	44	68	90	77	120	170	
Absorbed current [A]	max	0.27	0.20	0.32	0.45	0.36	0.53	0.74	
Water content (2 pipes) [l]		8.0	1.4	2.1	2.1	3.0	4.0	4.0	
Dimensions	Height	mm	275	275	275	275	303	303	303
	Width	mm	575	575	575	575	820	820	820
	Depth	mm	575	575	575	575	820	820	820

(1) Room temperature 27°C d.b., 19°C w.b. - Water temperature 7/12 °C

(2) Room temperature 20°C - Water inlet temperature: 50°C - Water flow rate as for the cooling conditions.

(3) Room temperature 20°C - Water inlet temperature: 70/60°C

(4) Sound pressure level in a 100 m<sup>2</sup> room, at 1,5 m distance and reverberating time of 0,3 s.

\* Water flow values as Cooling, accordingly to the EUROVENT standards and UNI ENV 1397



Manufacturer reserves the rights to change specifications without prior notice.

# YHK-ECM Inverter Hydro Cassette

2 & 4 pipe system

A complete range from 1.8 kW to 10.8 kW



## Wired control



### JTM-B

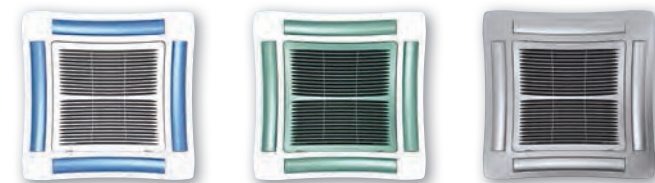
Wall control with display that allows controlling one or more units in Master/Slave mode. The control is equipped with internal sensor to detect the room temperature, which can be defined as a priority compared to the return air sensor on the fan coil.

## Infrared control



### TUC03 Terminal unit controller

BacNET and N2 Metasys network compatible



Coloured versions available as an option

YHK ECM water cassette is the result of significant technical and design research focused on providing an avant-garde product in terms of performance, low noise and control flexibility. YHK ECM series uses an innovative brushless electric motor controlled by an inverter card that varies the air flow continuously by means of a 0-10 V signal. The extreme efficiency, also at a low speed, makes it possible to greatly reduce electrical consumption (more than 75% less in comparison to a traditional motor) with absorption values, under normal operating conditions, that are no greater than 10 Watt in the entire range.

## Features

- Cooling duty from 1.8 to 10.8 kW
- YHK: models with infrared control (standard)
- YHK-MP: models with wired control (accessory)
- 2 (-2) & 4 (-4 or -6) pipes systems
- 2 sizes: 600 x 600 & 800 x 800
- Condensate pump integrated in all range
- 2/3 way valves fitted or supplied loose in all range
- Coloured versions, possible to change the colour of the grid and the frame
- All metal parts insulated to avoid condensations
- Inverter fan motor for a very quiet operation
- Electrical consumption reduced by up to 75%
- Specific range of controllers with master-slave function



Selection software

# YHK-ECM Inverter Hydro Cassette

1.8 to 10.8 kW



## Technical features

Model -2 pipes		YHK-ECM 25-2	YHK-ECM 40-2	YHK-ECM 50-2	YHK-ECM 65-2	YHK-ECM 95-2	
Total cooling capacity 2 Pipes [kW]	(1)	max 10v	2.8	4.3	5.0	6.3	10.8
		med 5v	2.2	3.1	3.9	5.2	7.7
		min 1v	1.8	2.2	2.6	4.2	5.3
Sensible cooling capacity 2 Pipes [kW]	(1)	max	2.1	3.2	3.7	4.7	7.9
		med	1.6	2.2	2.8	3.8	5.5
		min	1.4	1.6	1.8	3.0	3.7
Water flow in cooling 2 Pipes [l/h]	(1)	max	473	744	864	1 089	1 848
		med	373	524	666	885	1 328
		min	317	385	441	723	909
Pressure drop in cooling 2 Pipes [kPa]	(1)	max	10.1	15.1	19.7	22.7	33.6
		med	6.6	9.4	12.4	15.6	18.5
		min	4.9	4.6	5.9	10.9	9.4
Heating capacity 2 pipes [kW]	(2)	max	3.4	5.2	6.2	8.0	12.7
		med	2.7	3.6	4.6	6.4	8.8
		min	2.2	2.6	3.0	5.1	5.9
Pressure drop in heating 2 pipes [kPa]	(2)	max	8.7	13.1	17.7	19.5	28.8
		med	5.5	6.6	10.5	12.8	14.9
		min	4.0	3.6	4.7	8.7	7.2

Model -4 pipes		YHK-ECM 25-4	YHK-ECM 40-6	YHK-ECM 50-6	YHK-ECM 65-4	YHK-ECM 95-6	
Total cooling capacity 4 Pipes [kW]	(1)	max	2.8	3.9	4.5	6.5	9.9
		med	2.2	2.8	3.5	5.3	7.2
		min	1.9	2.1	2.4	4.3	5.0
Sensible cooling capacity 4 Pipes [kW]	(1)	max	2.1	3.0	3.5	4.8	7.4
		med	1.6	2.0	2.6	3.8	5.2
		min	1.3	1.5	1.7	3.1	3.5
Water flow in cooling 4 pipes [l/h]	(1)	max	476	676	779	1 120	1 697
		med	375	483	608	908	1 233
		min	318	359	409	740	856
Pressure drop in cooling 4 pipes [kPa]	(1)	max	9.5	10.5	13.1	19.8	30.1
		med	6.2	5.7	8.4	13.6	17.0
		min	4.6	3.5	4.1	9.4	8.8
Heating capacity 4 pipes [kW]	(3)	max	3.6	3.4	3.8	9.4	9.5
		med	2.9	2.5	3.1	7.5	7.2
		min	2.4	2.0	2.2	6.1	5.2
Water flow in heating 4 pipes [l/h]	(3)	max	311	288	326	805	818
		med	245	217	263	649	616
		min	209	170	189	528	449
Pressure drop in heating 4 pipes [kPa]	(3)	max	11.7	9.0	11.0	22.5	18.0
		med	7.6	5.5	7.5	15.5	11.0
		min	5.7	3.5	4.5	10.5	6.5
Air flow [m3/h]		max	535	710	880	1 165	1 770
		med	380	445	610	870	1 130
		min	310	310	360	630	710
Sound power level [dB(A)]		max	47	54	60	48	57
		med	39	43	50	39	47
		min	33	33	37	33	34
Sound pressure level [dB(A)]	(4)	max	38	45	51	39	48
		med	30	34	41	30	38
		min	24	24	28	24	25
Power supply [V-ph-Hz]		230V/1ph/50hZ					
Power input [W]	max	16	31	62	33	108	
Water content (2 pipes) [l]		1.4	2.1	2.1	3.0	4.0	
Absorbed current [A]	max	0.15	0.27	0.52	0.28	0.92	
Dimensions	Height	mm	275	275	275	303	303
	Width	mm	575	575	575	820	820
	Depth	mm	575	575	575	820	820

- (1) Room temperature 27°C d.b., 19°C w.b. - Water temperature 7/12 °C
- (2) Room temperature 20°C - Water inlet temperature: 50°C - Water flow rate as for the cooling conditions.
- (3) Room temperature 20°C - Water inlet temperature: 70/60°C
- (4) Sound pressure level in a 100 m<sup>2</sup> room, at 1,5 m distance and riverberating time of 0,3 s.
- \* Water flow values as Cooling, accordingly to the EUROVENT standards and UNI ENV 1397



Condensate pump integrated in all sizes



Metal parts insulated to avoid condensation



2 or 3 way valves fitted or supplied loose in all sizes



Outer casing as an option to integrate the water cassette into any environment



Manufacturer reserves the rights to change specifications without prior notice.

## Compatibility table / Codes

Model with AC motor (without air diffuser)		YHKY 20	YHKY 25	YHKY 40	YHKY 50	YHKY 65	YHKY 95	YHKY 110
Cassette YHKY	2 pipe system	0079100K	0079000K	0079001K	0079002K	0079003K	0079004K	0079005K
	4 pipe system	0079110K	0079010K	0079011K	0079012K	0079013K	0079014K	0079015K
Cassette YHKY-MP (IR remote control and sensor NOT included)	2 pipe system	0079170K	0079171K	0079172K	0079173K	0079174K	0079175K	0079176K
	4 pipe system	0079180K	0079181K	0079182K	0079183K	0079184K	0079185K	0079186K
Cassette YHKY-E - with electric resistance	2 pipe system	-	0079060K	0079061K	0079062K	0079063K	0079064K	0079065K
Cassette YHKY-MP-E - with electric resistance	2 pipe system	-	0079191K	0079192K	0079193K	0079194K	0079195K	0079196K
Cassette YHKY-REB with remote electric board	2 pipe system	0079120K	0079020K	0079021K	0079022K	0079023K	0079024K	0079025K
	4 pipe system	0079130K	0079030K	0079031K	0079032K	0079033K	0079034K	0079035K
Model with ECM motor (without air diffuser)		-	YHKY 25	YHKY 40	YHKY 50	YHKY 65	YHKY 95	-
Cassette YHKY-ECM - basic model	2 pipe system	-	0079801K	0079802K	0079803K	0079804K	0079805K	-
	4 pipe system	-	0079811K	0079812K	0079813K	0079814K	0079815K	-
Cassette YHKY-MP- ECM (IR remote control and sensor NOT included)	2 pipe system	-	0079911K	0079912K	0079913K	0079914K	0079915K	-
	4 pipe system	-	0079921K	0079922K	0079923K	0079924K	0079925K	-
Cassette YHKY-ECM-E - with electric resistance	2 pipe system	-	0079841K	0079842K	0079843K	0079844K	0079845K	-
Cassette YHKY-ECM-MP-E - with electric resistance	2 pipe system	-	0079901K	0079902K	0079903K	0079904K	0079905K	-
Mandatory accessories (units cannot work without them)								
Air diffuser - intake grid, frame and louvres in RAL 9003 white colour		AKPA 600				AKPA 800		
Accessories (factory fitted)								
Valves (220V On/Off)								
3 way valve + mounting kit for 2 pipe models (factory fitted)		9079510			9079511			
3 way valve + mounting kit for 4 pipe models (factory fitted)		9079512			9079513			
2 way valve + mounting kit for 2 pipe models (factory fitted)		9079515			9079516			
2 way valve + mounting kit for 4 pipe models (factory fitted)		9079517			9079518			
2 way DN 15 balance valve for main coil + connection kit (fact. fitted) *		9079771			9079791		-	
2 way DN 20 balance valve for main coil + connection kit (fact. fitted) *		-			9079792			
2 way DN 15 balance valve for additional coil + connection kit (fact. fitted) *		9079773			9079793			
Accessories (supplied loose)								
Air diffusers / Panels								
Air diffuser - other colours (*)		Contact Johnson Controls						
Valves (220V On/Off)								
3 way valve + mounting kit for 2 pipe models (not fitted)		9079500			9079501			
3 way valve + mounting kit for 4 pipe models (not fitted)		9079502			9079503			
2 way valve + mounting kit for 2 pipe models (not fitted)		9079505			9079506			
2 way valve + mounting kit for 4 pipe models (not fitted)		9079507			9079508			
2 way DN 15 balance valve for main coil + connection kit (not fitted) *		9079761			9079781		-	
2 way DN 20 balance valve for main coil + connection kit (not fitted) *		-			9079782			
2 way DN 15 balance valve for additional coil + connection kit (not fitted) *		9079763			9079783			
Other type of valves		Contact Johnson Controls						
Other Accessories								
Outer casing OCA 600		9079240			-			
Outer casing OCA 800		-			9079250			
3 way valve + mounting kit for units with outer casing OCA (not fitted)		9079155			9079156			
Fresh air duct FAD		-			6078005			
Fresh air kit 1 way not suitable for units with outer casing OCA - FAK 600		9079230			-			
Fresh air kit 1 way not suitable for units with outer casing OCA - FAK 800		-			9079231			
FREE wireless control system for YHKY basic model								
Remote Control FREE-COM		-			9060572			
Power unit fitted FREE-USM		-			9079107			
Not Mounted Electronic Board FREE-UPS		-			9060570			
Temperature sensor FREE-SEN		-			9060573			
Low temperature cut out FREE-NTC		-			3021090			
CONTROLS for YHKY (AC versions)								
Remote three speed control JWC-3V (1) (5)		9066642			9066642			
Remote three speed control + electronic thermostat and manual S/W switch JWC-T (2)		9066630K			9066630K			
Remote three speed control + electronic thermostat and centralized/ manual S/W switch JWC-TQR (2) (4)		9066632K			9066632K			
Automatic speed control with electronic thermostat and S/W switch - JWC-AU (to be used with JPF-AU and JP-AU only) (2) (4)		9066331E			9066331E			
Automatic speed control with electronic thermostat to be mounted in the light wall box TMO-503-SV2 (3) (5)		9060172			9060172			
Electromechanical thermostat T2T (5) (6)		9060174			9060174			
Power unit JPF-AU for JWC-AU and JTM-B remote controls, fitted on the unit		-			9066641			
Power unit JP-AU for JWC-AU and JTM-B remote controls, not fitted on the unit		-			9066640			
Control accessories for all versions (supplied with separate packaging)								
Low temperature cut-out for controls JWC-T		-			9053048			
Low temperature cut-out for controls JWC-TQR, JWC-AU and JTM-B		-			3021090			
T2 sensor to be used as Change-over for controls JWC-AU and JTM-B		-			9025310			
Change-over 15-25 for control JWC-TQR		-			9053049			
Receiver SEL2M		-			9079109			

\* For 4 pipes unit must consider both the valve for main coil than the valve for additional coil.

(1) Not to be used with valves and/or low temperature cut-out. (2) It can be used with valves and/or low temperature cut-out. (3) Low temperature cut-out included.

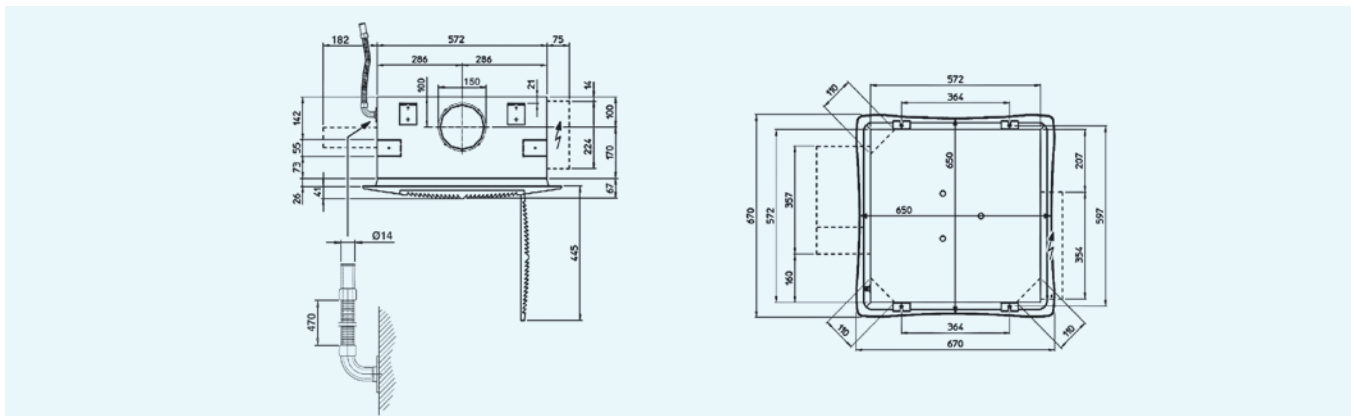
(4) It can be used with Change Over. (5) Not suitable with -E electric heater. (6) Not to be used with low temperature cut-out.

## Compatibility table / Codes

CONTROLS for YHKY-MP (AC versions)	YHKY 20	YHKY 25	YHKY 40	YHKY 50	YHKY 65	YHKY 95	YHKY 110
Wall control JTM-B				9066331E			
Wire, receiver and IR remote control kit RCS-RT03				9079117			
Infra red remote control RT-03				3021203			
Wire and receiver kit RCS				9079116			
Receiver for IR remote control for metal grid MD600 RS		9066338				9066338	
Multifunction control PSM-DI				3021293			
T2 sensor (to be used as change over or min.temp. sensor) T2				9025310			
<b>CONTROLS for YHKY-ECM (ECM motor)</b>							
Automatic speed control with electronic thermostat and S/W switch - JWC-AU (to be used with JPF-AU and JP-AU only) (2) (4)		9066632K				9066632K	
Automatic remote control with electronic thermostat, S/W switch and liquid crystall display JTM-B (to be used with JPF-AU and JP-AU only) (2) (4)		9066331E				9066331E	
WM-S-ECM Continuous fan speed control with electronic thermostat, summer/winter switch and LCD display				9066644			
Power unit JPF-AU for JWC-AU and JTM-B remote controls, fitted on the unit				9066641			
Power unit JP-AU for JWC-AU and JTM-B remote controls, not fitted on the unit				9066640			
<b>Control accessories for all versions (supplied with separate packaging)</b>							
Low temperature cut-out for controls JWC-AU and JTM-B				3021090			
T2 sensor to be used as Change-over for controls JWC-AU and JTM-B				9025310			
Change-over 15-25 for control JWC-TQR				9053049			
<b>CONTROLS for YHKY-MP-ECM (ECM motor)</b>							
Wall control JTM-B				9066331E			
Wire, receiver and IR remote control kit RCS-RT03				9079117			
Infra red remote control RT-03				3021203			
Wire and receiver kit RCS				9079116			
Receiver for IR remote control for metal grid MD600 RS				9066338			
Multifunction control PSM-DI				3021293			
T2 sensor (to be used as change over or min.temp. sensor) T2				9025310			
<b>Management system for a network of fan coils with MB electronic board</b>							
Hardware / software supervisory system Net				9079118			
Router S				3021290			
Relay output board SIOS				3021292			

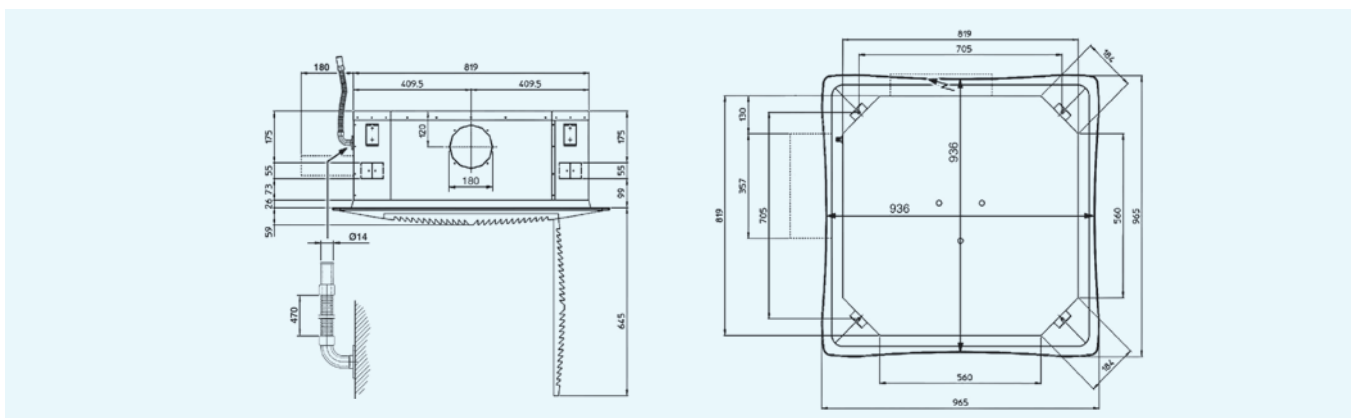
## Dimensions

### Sizes 20 to 50 (Version 600x600)



All dimensions in mm. Drawings not a scale.

### Sizes 65 to 110 (Version 800x800)



All dimensions in mm. Drawings not a scale.