

YFCC Coanda Hydro Cassette

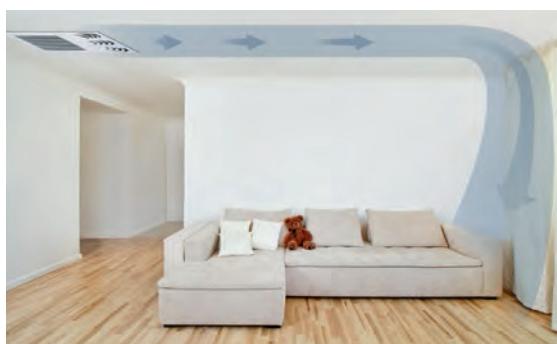
2 & 4 pipe system

A complete range from 0.9 kW to 4.0 kW



Thanks to its unique diffuser, YFCC cassette units generate an airflow with a "coanda" effect. The unit is suitable for installation in a suspended ceiling. Air intake is from the bottom while the air is supplied parallel to the ceiling.

The resulting "coanda" effect creates excellent draft free distribution of the air inside the room. Units can be supplied with 1 coil (2 pipe system) with optional electric heating element, or with 2 coils (4 pipe system) with one or two rows.



Coanda effect



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

Features

- Coanda effect units, allowing easier and cheaper installation
- Cooling duty from 0.9 to 4.0 kW
- 2 & 4 pipes systems in all range
- 3 sizes: 600 x 600, 600 x 1000 & 600 x 1200
- 2/3 way valves fitted or supplied loose in all range
- Left and right hand (optional) water connections
- 6 fan speeds (3 pre-wired)
- Air throw till 7.6m (cooling) and 9.5m (heating)



Selection software



YFCC Coanda Hydro Cassette

0.9 to 4.0 kW



Technical features

Model -2 pipes		YFCC 130	YFCC 140	YFCC 230	YFCC 240	YFCC 330	YFCC 340
Total cooling capacity 2 Pipes [kW]	(1) max	1.5	1.74	2.37	2.57	3.34	4.02
	med	1.06	1.19	1.62	1.72	2.84	3.56
	min	0.88	0.97	1.37	1.44	1.97	2.49
Sensible cooling capacity 2 Pipes [kW]	(1) max	1.18	1.31	1.77	1.88	2.51	2.98
	med	0.81	0.88	1.19	1.24	2.11	2.63
	min	0.66	0.71	1.0	1.04	1.44	1.81
Pressure drop in cooling 2 Pipes [kPa]	(1) max	6.1	12.9	7.6	12.1	16.2	15.5
	med	3.3	6.7	3.9	6.0	12.1	12.6
	min	2.4	4.7	2.9	4.4	6.4	6.7
Heating capacity 2 pipes [kW]	(2) max	1.93	2.1	2.86	3.12	4.02	4.77
	med	1.33	1.42	1.91	2.03	3.37	4.2
	min	1.08	1.1	1.6	1.69	2.3	2.9
Pressure drop in heating 2 pipes [kPa]	(2) max	4.9	10.7	6.3	10.2	13.4	12.6
	med	2.6	5.4	3.1	4.8	9.8	10.0
	min	1.8	3.7	2.3	3.5	5.2	5.5
Air flow [m³/h]	max	280	280	380	380	540	620
	med	180	180	240	240	440	540
	min	140	140	200	200	290	360
Sound power level [dB(A)]	max	52	52	48	48	52	55
	med	41	41	36	36	46	52
	min	35	35	33	33	35	41
Sound pressure level [dB(A)]	(4) max	43	43	39	39	43	46
	med	32	32	27	27	37	43
	min	26	26	24	24	26	32
Power supply [V-ph-Hz]							
Power input [W]	max	66	66	71	71	84	84
Absorbed current [A]	max	0.30	0.30	0.32	0.32	0.38	0.38
Dimensions	Height mm	309	309	309	309	309	309
	Width mm	592	592	592	592	592	592
	Depth mm	592	592	970	970	1 192	1 192

Model -4 pipes		YFCC 130+1	YFCC 230+1	YFCC 330+1			
Total cooling capacity 4 Pipes [kW]	(1) max	1.5	2.37	3.34			
	med	1.06	1.62	2.84			
	min	0.88	1.37	1.97			
Sensible cooling capacity 4 Pipes [kW]	(1) max	1.18	1.77	2.51			
	med	0.81	1.19	2.11			
	min	0.66	1.0	1.44			
Pressure drop in cooling 4 pipes [kPa]	(1) max	6.1	7.6	16.2			
	med	3.3	3.9	12.1			
	min	2.4	2.9	6.4			
Heating capacity 4 pipes [kW]	(3) max	1.47	2.35	3.3			
	med	1.08	1.71	2.87			
	min	0.92	1.49	2.12			
Pressure drop in heating 4 pipes [kPa]	(3) max	3.6	2.0	4.3			
	med	2.1	1.2	3.4			
	min	1.6	0.9	2.0			
Air flow [m³/h]	max	280	380	540			
	med	180	240	440			
	min	140	200	290			
Sound power level [dB(A)]	max	52	48	52			
	med	41	36	46			
	min	35	33	35			
Sound pressure level [dB(A)]	(4) max	43	39	43			
	med	32	27	37			
	min	26	24	26			
Power supply [V-ph-Hz]							
Power input [W]	max	66	71	84			
Absorbed current [A]	max	0.30	0.32	0.38			
Dimensions	Height mm	309	309	309			
	Width mm	592	592	592			
	Depth mm	592	970	1 192			

(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 m² room, at 1,5 m distance and reverberating time of 0,3 s.

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



Manufacturer reserves the rights to change specifications without prior notice.

YFCC-ECM Coanda Hydro Cassette

2 & 4 pipe system

A complete range from 0.8 kW to 4.0 kW



Thanks to its unique diffuser, YFCC cassette units generate an airflow with a "coanda" effect. The unit is suitable for installation in a suspended ceiling. Air intake is from the bottom while the air is supplied parallel to the ceiling.

The resulting "coanda" effect creates excellent draft free distribution of the air inside the room. Units can be supplied with 1 coil (2 pipe system) with optional electric heating element, or with 2 coils (4 pipe system) with one or two rows.



Coanda effect



Wired controls

JWC-AU

Automatic remote controller

T-MB

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.

WM-S-ECM

Continuous fan speed control with electronic thermostat and s/w switch

Infrared control

Features

- Coanda effect units, allowing easier and cheaper installation
- Cooling duty from 0.8 to 4.0 kW
- 2 & 4 pipes systems in all range
- 3 sizes: 600 x 600, 600 x 1000 & 600 x 1200
- 2/3 way valves fitted or supplied loose in all range
- Left and right hand (optional) water connections
- 6 fan speeds (3 pre-wired)
- Air throw till 7.6m (cooling) and 9.5m (heating)
- ECM variable speed motor



Selection software



YFCC-ECM Coanda Hydro Cassette

0.8 to 4.0 kW



Technical features

Model -2 pipes		YFCC-ECM 130	YFCC-ECM 140	YFCC-ECM 230	YFCC-ECM 240	YFCC-ECM 330	YFCC-ECM 340
Total cooling capacity 2 Pipes [kW]	max 10v	1.56	1.81	3.16	3.5	3.75	4.02
	med 5v	1.18	1.34	2.31	2.51	2.78	2.94
	min 1v	0.82	0.91	1.46	1.55	1.87	1.95
Sensible cooling capacity 2 Pipes [kW]	max	1.24	1.38	2.41	2.6	2.83	2.98
	med	0.91	0.99	1.73	1.84	2.06	2.15
	min	0.62	0.66	1.07	1.11	1.37	1.41
Pressure drop in cooling 2 Pipes [kPa]	max	6.5	13.9	12.6	20.8	19.8	15.5
	med	4	8.1	7.3	11.6	11.7	8.9
	min	2.1	4.1	3.2	5	5.8	4.3
Heating capacity 2 pipes [kW]	max	2.02	2.2	3.85	4.32	4.54	4.78
	med	1.5	1.6	2.79	3.03	3.3	3.44
	min	1.02	1.07	1.72	1.82	2.19	2.25
Pressure drop in heating 2 pipes [kPa]	max	5.3	11.6	10.4	17.1	16.6	13
	med	3.3	6.6	6	9.4	9.4	7.4
	min	1.7	3.3	2.6	4.1	4.7	3.5
Air flow [m³/h]	max	295	295	540	540	620	620
	med	205	205	370	370	430	430
	min	130	130	215	215	275	275
Sound power level [dB(A)]	max	55	55	56	56	58	58
	med	46	46	46	46	48	48
	min	35	35	34	34	36	36
Sound pressure level [dB(A)]	max	46	46	47	47	49	49
	med	37	37	37	37	39	39
	min	26	26	25	25	27	27
Power supply [V-ph-Hz]				230V/1ph/50Hz			
Power input [W]	max	29	29	37	37	42	42
Absorbed current [A]	max	0.24	0.24	0.29	0.29	0.35	0.35
Dimensions	Height mm	309	309	309	309	309	309
	Width mm	592	592	592	592	592	592
	Depth mm	592	592	970	970	1 192	1 192

Model -4 pipes		YFCC-ECM 130+1	YFCC-ECM 230+1	YFCC-ECM 330+1
Total cooling capacity 4 Pipes [kW]	max 10v	1.56	3.16	3.75
	med 5v	1.18	2.31	2.78
	min 1v	0.82	1.46	1.87
Sensible cooling capacity 4 Pipes [kW]	max	1.24	2.41	2.83
	med	0.91	1.73	2.06
	min	0.62	1.07	1.37
Pressure drop in cooling 4 pipes [kPa]	max	6.5	12.6	19.8
	med	4	7.3	11.7
	min	2.1	3.2	5.8
Heating capacity 4 pipes [kW]	max	1.52	3.01	3.64
	med	1.18	2.31	2.82
	min	0.87	1.58	2.04
Pressure drop in heating 4 pipes [kPa]	max	3.8	3.1	5.1
	med	2.5	2	3.3
	min	1.4	1	1.8
Air flow [m³/h]	max	295	540	620
	med	205	370	430
	min	130	215	275
Sound power level [dB(A)]	max	55	56	58
	med	46	46	48
	min	35	34	36
Sound pressure level [dB(A)]	max	46	47	49
	med	37	37	39
	min	26	25	27
Power supply [V-ph-Hz]			230V/1ph/50Hz	
Power input [W]	max	29	37	42
Absorbed current [A]	max	0.24	0.29	0.35
Dimensions	Height mm	309	309	309
	Width mm	592	592	592
	Depth mm	592	970	1 192

(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 m² room, at 1,5 m distance and reverberating time of 0,3 s.

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



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Options & Accessories YFCC / YFCC-ECM

Compatibility table / Codes

Model with AC motor	YFCC 130	YFCC 140	YFCC 230	YFCC 240	YFCC 330	YFCC 340
Cassette YFCC	2 pipe system 0064001K	0064011K	0064002K	0064012K	0064003K	0064013K
	4 pipe system (+1) 0064021K	0064031K	0064022K	0064032K	0064023K	0064033K
	4 pipe system (+2) 0064041K	-	0064042K	-	0064043K	-
Model with ECM motor	2 pipe system 0064201K	0064211K	0064202K	0064212K	0064203K	0064213K
Cassette YFCC-ECM	4 pipe system (+1) 0064221K	0064231K	0064222K	0064232K	0064223K	0064233K
	4 pipe system (+2) 0064241K	-	0064242K	-	0064243K	-
Options (Factory fitted)						
Right hand connection	Contact Johnson Controls					
Valves (220V On/Off) (factory fitted)						
Kit 3 way valve size 1-5 mounted MBVM-JC 1-5 V.220 (YFCC size 1-2)	9066561			-		
Kit 3 way valve size 6-9 mounted MBVM-JC 6-9 V.220 (YFCC size 3)	-			9060471		
Kit 3 way valve additional battery size 1-9 mounted ABVM-JC 1-7 V.220 (YFCC 4 pipes all sizes)	9060472					
Kit 2 way valve size 1-5 and additional battery mounted V2M-JC 1-5 V.220 (YFCC size 1-2)	9060476			-		
Kit 2 way valve size 6-9 primary battery mounted V2M-JC 6-9 V.220 (YFCC size 3)	-			9060477		
Kit 2 way valve all sizes 4 pipes to be used for the additional battery not mounted V2L-JC 1-5 V.220	9060476					
Simplified kit for 3 way valve for CD version fitted (sizes 1-5) VSMDM-JC G1-5 V.220 (YFCC size 1-2)	9066571			-		
Simplified kit for 3 way valve for CD version fitted (sizes 6-9) VSMDM-JC G6-9 V.220 (YFCC size 3)	-			9060484		
Simplified kit for 3 way valve for CD version fitted - additional battery (all sizes) VSAM-JC G1-9 V.220 (YFCC all sizes)	9060483					
3 way double valve kit for 4 tube installation and single coil + kit fitted on the unit (YFCC all sizes)	9066572W					
2 way DN 10 balance for main coil + kit fitted on the unit (YFCC size 1)	9066660	-				
2 way DN 15 balance for main coil + kit fitted on the unit (YFCC sizes 2-3)	-	9066661				
2 way DN 10 balance for additional coil + kit fitted on the unit (all sizes)	9066663					
Accessories (supplied loose)						
Valves 220V On/Off (supplied loose)						
Kit 3 way valve size 1-5 not mounted MBVL-JC 1-5 V.220 (YFCC size 1-2)	9066560			-		
Kit 3 way valve size 6-9 not mounted MBVL-JC 6-9 V.220 (YFCC size 3)	-			9060474		
Kit 3 way valve additional battery size 1-9 not mounted ABVL-JC 1-7 V.220 (YFCC all sizes)	9060475					
Kit 2 way valve size 1-5 and additional battery not mounted V2L-JC 1-5 V.220 (YFCC size 1-2)	9060478			-		
Kit 2 way valve size 6-9 primary battery not mounted V2L-JC 4-7 V.220 (YFCC size 3)	-			9060479		
Kit 2 way valve size 1-5 and to be used for the additional battery not mounted V2L-JC 1-5 V.220	9060478					
Simplified kit for 3 way valve for CD version not fitted (sizes 1-5) VSDS-JC G1-5 V.220 (YFCC size 1-2)	9066570			-		
Simplified kit for 3 way valve for CD version not fitted (sizes 6-9) VSDS-JC G6-9 V.220 (YFCC size 3)	-			9060481		
Simplified kit for 3 way valve for CD version not fitted - additional battery (all sizes) VSAS-JC G1-9 V.220 (YFCC all sizes)	9060480					
3 way double valve kit for 4 tube installation and single coil + kit not fitted on the unit (YFCC all sizes)	9066562W					
2 way DN 10 balance for main coil + kit not fitted (YFCC size 1)	9066650	-				
2 way DN 15 balance for main coil + kit not fitted (YFCC sizes 2-3)	-	9066651				
2 way DN 10 balance for additional coil + kit not fitted (all sizes)	9066653					
Other type of valves	Contact Johnson Controls					
Accessories						
Electrical heater and relays fitted on the unit - 350 W - size 1 - BEL-CCN 1/4 (note 1)	9064051	-				
Electrical heater and relays fitted on the unit - 550 W - size 1 - BEL-CCN 1/6 (note 1)	9064031	-				
Electrical heater and relays fitted on the unit - 700 W - size 2 - BEL-CCN 2/7 (note 1)	-	9064052	-			
Electrical heater and relays fitted on the unit - 1150 W - size 1 - BEL-CCN 2/12 (note 1)	-	9064032	-			
Electrical heater and relays fitted on the unit - 900 W - size 3 - BEL-CCN 3/9 (note 1)	-	-	9064053			
Electrical heater and relays fitted on the unit - 1400 W - size 1 - BEL-CCN 3/14 (note 1)	-	-	9064033			
Horizontal auxiliary condensate tray HC ACTH-SX (for units with LEFT hydraulic connectors)	6060402					
Horizontal auxiliary condensate tray HC ACTH-DX (for units with RIGHT hydraulic connections)	6060403					
Condensate drain pipe SCR	6060420					
Drain condensate pump not fitted PCC-S	9064010					
Drain condensate pump fitted PCC-M	9064011					
Fresh air spigot 100dia - FCR 100	6064191					
Fresh air spigot 120dia - FCR 120	6064192					

Compatibility table / Codes

CONTROLS for YFCC (AC versions)	YFCC 130	YFCC 140	YFCC 230	YFCC 240	YFCC 330	YFCC 340
Remote three speed control JWC-3V (1) (5)			9066642			
Remote three speed control + electronic thermostat and manual S/W switch JWC-T (2)			9066330K			
Remote three speed control + electronic thermostat and centralized/ manual S/W switch JWC-TQR (2) (4)			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			
Automatic speed control with electronic thermostat to be mounted in the light wall box TMO-503-SV2 (3) (5)			9060172			
Electromechanical thermostat T2T (5) (6)			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 control 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			
CONTROLS for YFCC (AC versions) + MB						
Mounted power unit MB-M			9066332			
Not mounted power unit MB-S			9066333			
IR remote control and not mounted IR receiver RS-RT03			9066337			
Not mounted IR receiver RS			9066338			
IR remote control RT03			3021203			
Wall control JTM-B			9066331E			
Multifunction control PSM-DI			3021293			
T2 sensor (to be used as change over or min.temp. sensor) T2			9025310			
CONTROLS for YFCC-ECM						
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			
Automatic remote control with electronic thermostat, S/W switch and liquid crystal display JTM-B (to be used with JPF-AU and JP-AU only) (2) (4)			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			
CONTROLS for YFCC-ECM + MB						
Mounted power unit MB-M			9066332			
Not mounted power unit MB-S			9066333			
IR remote control and not mounted IR receiver RS-RT03			9066337			
Not mounted IR receiver RS			9066338			
IR remote control RT03			3021203			
Wall control JTM-B			9066331E			
Multifunction control PSM-DI			3021293			
T2 sensor (to be used as change over or min.temp. sensor) T2			9025310			
Management system for a network of fan coils with MB electronic board (std. Motor and EC motor)						
Hardware / software supervisory system Net			9079118			
Router S			3021290			
Relay output board SIOS			3021292			
FREE wireless control system for YHKY basic model (AC motor)						
Remote Control FREE-COM			9060572			
Mounted Electronic Board FREE-UPM			9060571			
Not Mounted Electronic Board FREE-UPS			9060570			
Temperature sensor FREE-SEN			9060573			
Low temperature cut out FREE-NTC			3021090			

WARNING

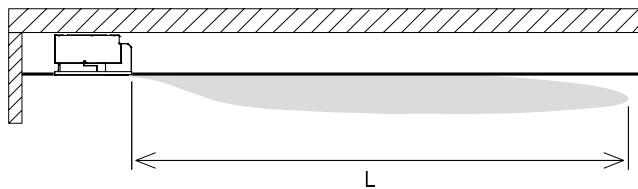
(1) Not to be used with valves and/or low temperature cut-out. (2) It can be used with valves and/or low temperature cut-out. (3) Low temperature cut-out included.

(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.

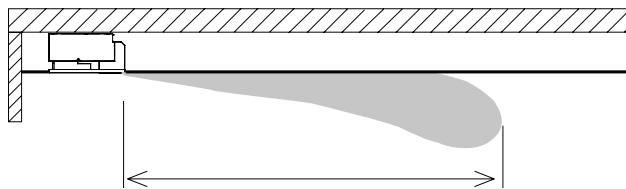
Note 1. Electric heaters must be factory supplied only - in ECM range the above controls can control the electric heater only if there is no hot water supply to the exchanger.

Air Throw

C1 - Heating



C2 - Cooling



Model	YFCC 1						YFCC 2						YFCC 3						
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	
Airthrow L (m)	C1	3.8	4.5	5.8	6.3	6.8	7.2	4	5	6.1	7	8	9	4.5	5.2	6.3	7.5	8.8	9.5
	C2	3	3.6	4.6	5	5.4	5.7	3.2	4	4.8	5.6	6.4	7.2	3.6	4.1	5	6	7	7.6