

# YKEY and YKEY900 Hydro Cassette

2 and 4 pipe system

A complete range from 1.1 kW to 10 kW



The YORK YKEY Cassette units are designed for installation on a false ceiling, suitable for cooling and heating applications.

The ambient air drawn through the central air intake grill is blown into the circular heat exchanger, composed by copper pipes and aluminium fins, and then it comes out from the 4 sides of the cassette unit. Thanks to the special combination of air intake/air outlet grilles it is possible to obtain the pleasant COANDA effect.



**CSR00 (Wall mounted)**  
Fan speed selector



**CER00 (Wall mounted)**  
Thermostat with manual fan speed and automatic change over



**CMR00 (Wall mounted)**  
Thermostat with manual fan speed and S/W change over

**CER20 (Wall mounted)**  
Thermostat with auto. fan speed and automatic change over

**CER30 (Wall mounted)**  
Thermostat with auto. fan speed and automatic change over for modulating valve

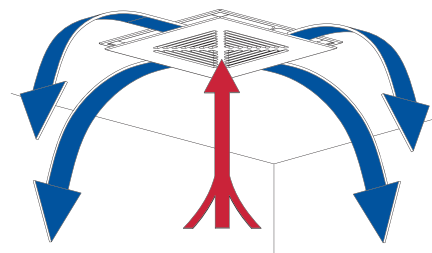


**TUC03+ Terminal unit controller**  
BacNET and N2 Metasys network compatible



## Features

- Cooling duty from 1.4 to 10 kW
- 2 and 4 pipes systems in all range
- Central air intake grill
- 4 sides air outlet plenum
- 2 panel sizes: 600 x 600 & 900 x 900
- 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 2 pipe range
- All metal parts insulated to avoid condensations
- EUROVENT Certified



## COANDA effect

The particular shape of the air outlet plenum is designed specifically in order to obtain the Coanda effect, a phenomenon for which the air outlet flow tends to adhere to the ceiling and falls down smoothly, without blowing directly towards people in the room: the optimal solution for an uniform and pleasant air diffusion.



**YKEY/M Special version with micro-drilled metallic grill**



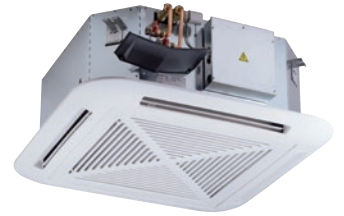
**YKEY/H-Special version with natural condensate water discharge**



Selection software

# YKEY and YKEY900 Hydro Cassette

1.1 kW to 10 kW



## Technical features

YKEY model -2 pipes			621	622	623	921	922
Total cooling capacity [kW]	(1)	max	2.52	3.68	4.72	8.63	9.99
		med	1.78	2.84	3.82	6.49	8.24
		min	1.42	2.27	2.51	3.86	5.65
Sensible cooling capacity [kW]	(1)	max	2.12	2.79	3.7	6.1	7.64
		med	1.4	2.06	2.89	4.49	6.2
		min	1.08	1.63	1.81	2.61	4.13
Water flow in cooling [l/h]	(1)	max	433	633	812	1484	1718
		med	306	488	657	1116	1417
		min	244	390	432	664	972
Pressure drop in cooling [kPa]	(1)	max	7.8	10.9	16.5	20.1	26
		med	4.6	7.3	11.5	12.3	19
		min	3.2	5.2	6	4.5	9
Heating capacity [kW]	(2)	max	2.66	3.65	4.89	8.33	10.18
		med	1.78	2.7	3.8	5.7	7.91
		min	1.38	2.09	2.39	3.25	5.04
Water flow in heating [l/h]	(2)	max	458	628	841	1433	1751
		med	306	464	654	980	1361
		min	237	359	411	559	867
Pressure drop in heating [kPa]	(2)	max	7	9.4	14.9	12.1	17.4
		med	3.4	5.3	9.5	6.1	11
		min	2.2	2	4.1	2.2	4.9
Water content [l]		1.34	2.12	2.12	4.26	4.26	

YKEY model -4 pipes			641	642	643	941	942
Total cooling capacity [kW]	(1)	max	1.76	3.11	3.88	7.49	9.04
		med	1.34	2.48	3.23	5.67	7.5
		min	1.1	2.04	2.25	3.41	5.2
Sensible cooling capacity [kW]	(1)	max	1.62	2.49	3.24	5.98	7.46
		med	1.17	1.91	2.61	4.42	6.08
		min	0.94	1.52	1.73	2.58	4.08
Water flow in cooling [l/h]	(1)	max	303	535	667	1288	1555
		med	230	427	556	975	1290
		min	189	351	387	587	894
Pressure drop in cooling [kPa]	(1)	max	7.5	11.2	16.7	23.2	32
		med	4.8	7.8	11.9	14.1	23
		min	3.6	5.7	6.6	5	12
Heating capacity [kW]	(3)	max	2.01	2.69	3.31	6.66	7.86
		med	1.47	2.2	2.84	5.32	6.75
		min	1.23	1.82	2.01	3.49	4.95
Water flow in heating [l/h]	(3)	max	173	231	285	573	676
		med	126	189	244	458	581
		min	106	157	173	300	426
Pressure drop in heating [kPa]	(3)	max	5.8	10.6	15.2	25	33.2
		med	3.3	7.4	11.8	15.9	25.6
		min	2.4	5.2	6.3	7.9	14.7
Water content [l]		1.34	2.12	2.12	4.26	4.26	

Common features			641	642	643	941	942
Air flow [m³/h]		max	566	566	717	1420	1530
		med	351	351	525	813	960
		min	182	182	308	410	477
Sound power level [dB(A)]		max	49	49	58	54	63
		med	34	40	50	45	55
		min	30	34	37	30	40
Sound pressure level [dB(A)]		max	39.5	39.5	48.5	44.5	53.5
		med	24.5	30.5	40.5	35.5	45.5
		min	20.5	24.5	27.5	20.5	30.5
Power supply [V-ph-Hz]				230 /1 /50			
Power input [W]	max	52	52	86	127	161	
Absorbed current [A]	max	0.25	0.25	0.38	0.62	0.68	
Dimensions	Height	mm	328	328	328	360	360
	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 temperature: 45/40 °C

(3) Room temperature 20°C - Water inlet temperature: 65/55°C

The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.

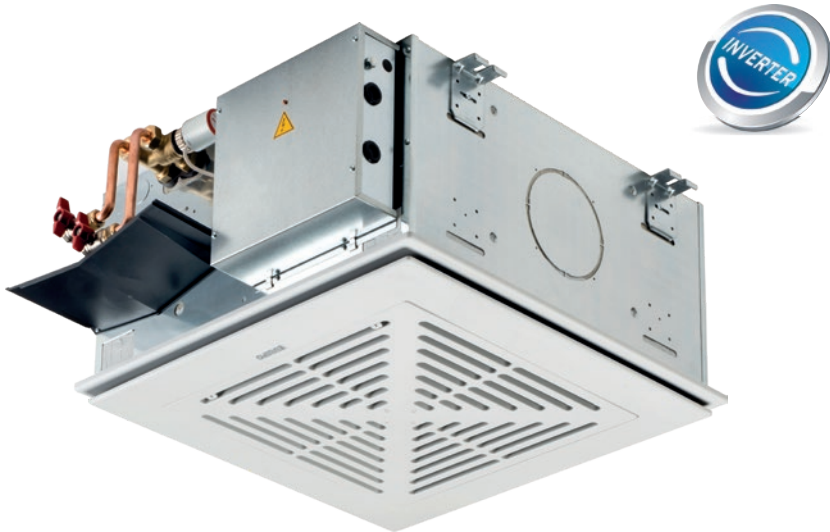


Manufacturer reserves the rights to change specifications without prior notice.

# YKEY-ECM and YKEY900-ECM Inverter Cassette

2 and 4 pipe system

A complete range from 1.2 kW to 10.2 kW



**EDCR (Wall mounted)**

Thermostat with manual or automatic fan speed and automatic change over for modulating valve



**TUC03+ Terminal unit controller**

BacNET and N2 Metasys network compatible



The YORK YKEY-ECM Cassette units, with energy saving motors, are designed for installation on a false ceiling, suitable for cooling and heating applications.

The ambient air drawn through the central air intake grill is blown into the circular heat exchanger, composed by copper pipes and aluminium fins, and then it comes out from the 4 sides of the cassette unit. Thanks to the special combination of air intake/air outlet grilles it is possible to obtain the pleasant COANDA effect.

**Features**

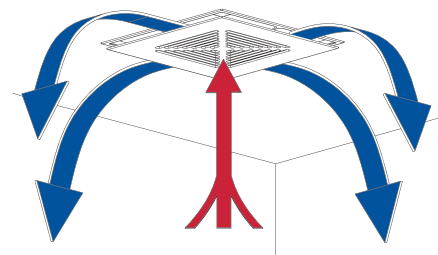
- Cooling duty from 1.2 to 10.2 kW
- Brushless motor and inverter technology
- 2 and 4 pipes systems in all range
- Central air intake grill
- 4 sides air outlet plenum
- 2 panel sizes: 600 x 600 & 900 x 900
- Possible choice between 6 fan speeds
- Condensate pump integrated in all range
- 2/3 way valves 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 2 pipe range
- All metal parts insulated to avoid condensations
- EUROVENT Certified



YKEY/M-ECM Special version with micro-drilled metallic grill



YKEY/H-ECM Special version with natural condensate water discharge



**COANDA effect**

The particular shape of the air outlet plenum is designed specifically in order to obtain the Coanda effect, a phenomenon for which the air outlet flow tends to adhere to the ceiling and falls down smoothly, without blowing directly towards people in the room: the optimal solution for an uniform and pleasant air diffusion.



Selection software

# YKEY-ECM and YKEY900-ECM Inverter Cassette

1.2 kW to 10.2 kW



## ECM the Energy Saving Technology

Brushless motor with inverter managed by dedicated controls. It permits to maintain extremely low electrical absorption and a continuous modulation of the air flow.

### Technical features

YKEY-ECM model -2 pipes			621	622	624	922.1
Total cooling capacity [kW]	(1)	max	2.85	4.85	5.43	10.15
		med	2.37	3.64	3.99	7.61
		min	1.63	2.56	2.76	4.66
Sensible cooling capacity [kW]	(1)	max	2.42	3.79	4.17	7.87
		med	1.93	2.69	2.98	5.66
		min	1.26	1.85	1.99	3.34
Water flow in cooling [l/h]	(1)	max	491	835	935	1747
		med	408	627	687	1310
		min	281	441	475	802
Pressure drop in cooling [kPa]	(1)	max	9.2	17.2	40.5	23.2
		med	6.9	10.6	23.2	13.9
		min	3.9	6.1	12.3	5.8
Heating capacity [kW]	(2)	max	2.99	4.91	5.44	10.31
		med	2.38	3.52	3.98	7.51
		min	1.59	2.33	2.62	4.45
Water flow in heating [l/h]	(2)	max	515	845	936	1775
		med	410	606	686	1293
		min	274	401	455	766
Pressure drop in heating [kPa]	(2)	max	9	16.2	35.7	21.0
		med	5.9	8.9	20.4	12.0
		min	2.9	4.2	9.5	4.5
Water content [l]		1.34	2.12	2.15	4.26	

YKEY-ECM model -4 pipes			641	642	644	942.1
Total cooling capacity [kW]	(1)	max	1.87	3.52	4.30	9.10
		med	1.68	2.75	3.30	6.85
		min	1.22	2.03	2.32	4.32
Sensible cooling capacity [kW]	(1)	max	1.73	3.32	3.53	7.34
		med	1.52	2.5	2.58	5.33
		min	1.08	1.73	1.71	3.21
Water flow in cooling [l/h]	(1)	max	322	678	740	1566
		med	289	530	568	1179
		min	210	391	399	744
Pressure drop in cooling [kPa]	(1)	max	7.9	17	19.8	24.3
		med	6.6	11	12.5	14.5
		min	4.1	6.7	7.3	6.3
Heating capacity [kW]	(3)	max	2.21	3.3	3.72	7.48
		med	1.84	2.64	2.98	6.13
		min	1.37	2.04	2.23	4.41
Water flow in heating [l/h]	(3)	max	190	284	320	644
		med	158	227	256	528
		min	118	176	192	380
Pressure drop in heating [kPa]	(3)	max	7.1	15.6	19.6	26.2
		med	5.2	10.5	13.4	18.5
		min	3	6.6	8.1	10.2
Water content [l]		1.34	2.12	2.12	4.26	

Common features			641	642	644	942.1
Air flow [m³/h]		max	605	734	809	1497
		med	425	492	536	867
		min	235	260	260	384
Sound power level [dB(A)]		max	55	59	62	62
		med	47	49	51	51
		min	32	39	39	34
Sound pressure level [dB(A)]		max	45.6	49.6	52.6	52.6
		med	37.6	39.6	41.6	41.6
		min	22.6	29.6	29.6	24.6
Power supply [V-ph-Hz]			230 / 1 / 50			
Power input [W]	max	27	43	53	98	
Absorbed current [A]	max	0.25	0.39	0.46	0.80	
Dimensions	Height	mm	328	328	328	360
	Width	mm	575	575	575	820
	Depth	mm	575	575	575	820

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

(2) Room temperature 20°C - Water temperature: 45/40 °C

(3) Room temperature 20°C - Water inlet temperature: 65/55°C

The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.



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# YKEY and YKEY900 Cassette

## YKEY-ECM and YKEY900-ECM Inverter Cassette

### Compatibility tables

#### Compatibility Options / Accessories / Models

Code	Designation	YKEY models						YKEY-ECM models					
		621	622	623	-	921	922	641	642	643	-	941	942

Heaters														
KREL	Kit electrical heater with safety thermostat and relay	•	•	•	•	•	•	•						

Remote controllers and thermostats (wall mounted)														
CSR00	Fan speed selector (wall mounted) (not for ECM models)	•	•	•			•	•	•	•	•		•	•
CMR00	Thermostat with manual fan speed and S/W change over (not for ECM models)	•	•	•			•	•	•	•	•		•	•
CER00	Thermostat with manual fan speed, dead band, automatic change over (not for ECM models)	Compatible with electrical heaters												
CER20	Thermostat with automatic fan speed, dead band, automatic change over (not for ECM models)	Compatible with electrical heaters												
CER30	Thermostat with automatic fan speed, dead band, automatic change over for modulating valves (not for ECM models)	•	•	•			•	•	•	•	•		•	•
EDCR	Thermostat with manual or automatic fan speed, dead band, automatic change over for modulating valves - Only for ECM models	Compatible with electrical heaters												
OxU+OC716	Omnibus control + Remote Analogue Plus	Compatible with electrical heaters												
OxU+OC216	Omnibus control + Remote Display console	Compatible with electrical heaters												

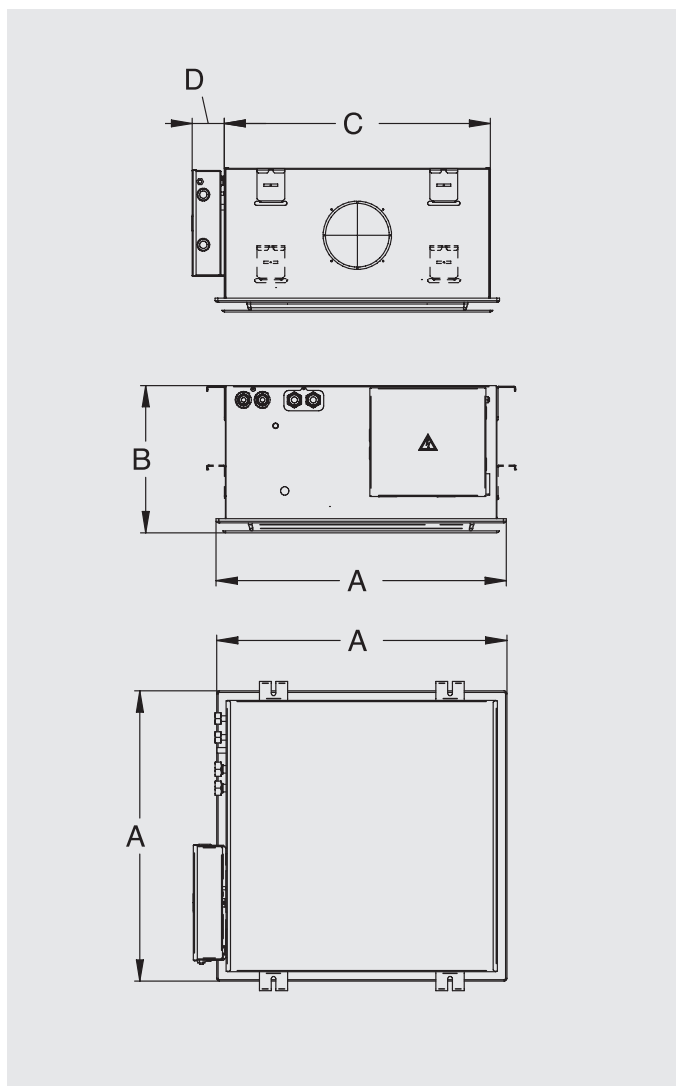
Valves (Supplied loose) / Condensate pump / Air sensor / Water sensor (Factory fitted)														
DTH2B2 (2p)	2-way on/off valves for 2-pipe systems, 230V	•	•	•	•	•	•							
DTH2B2 (4p)	2-way on/off valves for 4-pipe systems, 230V								•	•	•	•	•	•
DTH3B2 (2p)	3-way 4-ports on/off valves for 2-pipe systems, 230V	•	•	•	•	•	•							
DTH3B2 (4p)	3-way 4-ports on/off valves for 4-pipe systems, 230V								•	•	•	•	•	•
DTH2B0 (2p)	2-way on/off valves for 2-pipe systems, 24V	•	•	•	•	•	•							
DTH2B0 (4p)	2-way on/off valves for 4-pipe systems, 24V								•	•	•	•	•	•
DTH3B0 (2p)	3-way 4-ports on/off valves for 2-pipe systems, 24V	•	•	•	•	•	•							
DTH3B0 (4p)	3-way 4-ports on/off valves for 4-pipe systems, 24V								•	•	•	•	•	•
DTJ2BM (2p)	2-way modulating valves for 2-pipe systems, 24V	•	•	•	•	•	•							
DTJ2BM (4p)	2-way modulating valves for 4-pipe systems, 24V								•	•	•	•	•	•
DTJ3BM (2p)	3-way 4-ports modulating valves for 2-pipe systems, 24V	•	•	•	•	•	•							
DTJ3BM (4p)	3-way 4-ports modulating valves for 4-pipe systems, 24V								•	•	•	•	•	•
QEC10	230V/24V transformer	•	•	•	•	•	•	•	•	•	•	•	•	•
QEC20	Relay box for parallel connection for 230V actuators (not for ECM models)	•	•	•			•	•	•	•	•		•	•
QEC30	Relay box for parallel connection for 24V actuators (not for ECM models)	•	•	•			•	•	•	•	•		•	•
DT (2p)	Shut-off valves for 2-pipe systems supplied loose	•	•	•	•	•	•							
DT (4p)	Shut-off valves for 4-pipe systems supplied loose								•	•	•	•	•	•
AS	Air sensor	•	•	•	•	•	•	•	•	•	•	•	•	•
WS	Water sensor	Compatible with CEL/CER/EDCR												

- Compatible
- Compatible with conditions
- Not compatible

# Dimensions and Weights



## YKEY600 and YKEY600-ECM

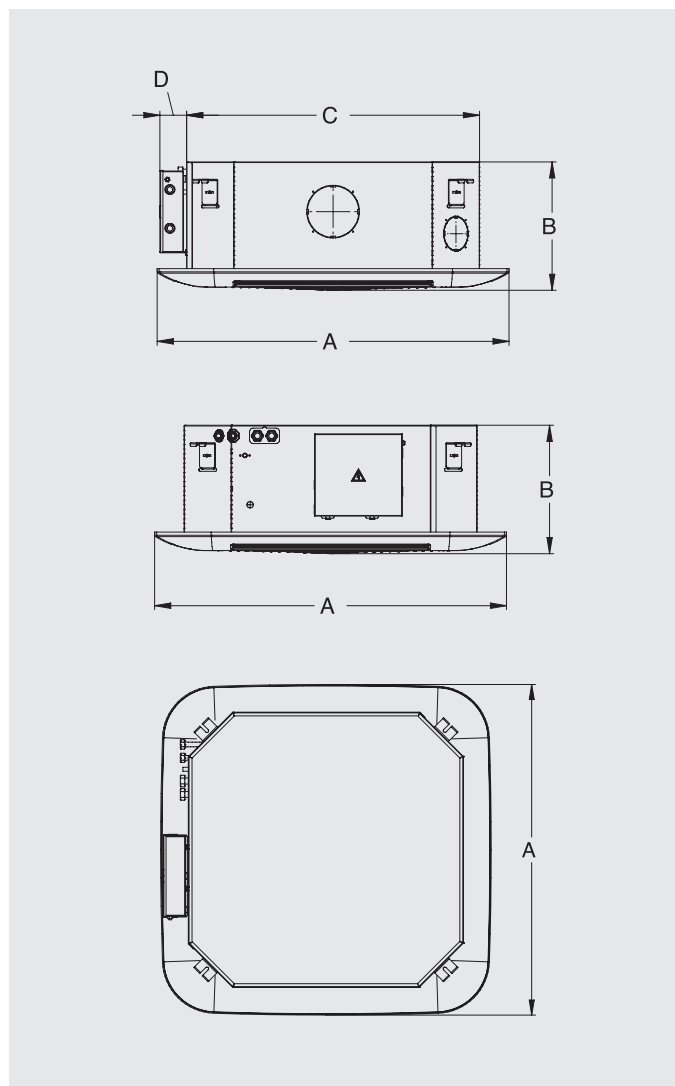


Model YKEY		621-641	622-642	623-643
A	mm	615	615	615
B	mm	328	328	328
C	mm	575	575	575
D	mm	75	75	75
Weight	kg	24 - 25,6	24 - 25,6	24 - 25,6

2 pipes installation	621	622	623
Water inlet	3/4 F	3/4 F	3/4 F
Water outlet	3/4 F	3/4 F	3/4 F

4 pipes installation	641	642	643
Cooling water inlet	3/4 F	3/4 F	3/4 F
Cooling water outlet	3/4 F	3/4 F	3/4 F
Heating water inlet	1/2 F	1/2 F	1/2 F
Heating water outlet	1/2 F	1/2 F	1/2 F

## YKEY900 and YKEY900-ECM



Model YKEY		921-941	922-942
A	mm	985	985
B	mm	360	360
C	mm	820	820
D	mm	75	75
Weight	kg	45	45

2 pipes installation	621	622
Water inlet	3/4 F	3/4 F
Water outlet	3/4 F	3/4 F

4 pipes installation	641	642
Cooling water inlet	3/4 F	3/4 F
Cooling water outlet	3/4 F	3/4 F
Heating water inlet	1/2 F	1/2 F
Heating water outlet	1/2 F	1/2 F