K20002EN ed.4

# TECHNICAL NOTE



# COMMANDS AND CONTROLS FAN COILS

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Controls and controls for fan coil units and terminal units: BRIO-I SLIM - YARDY EV3 - YARDY-I EV3 - YARDY DUCT2 YARDY ID2- YARDY HP - DIVA - DIVA-I













## ,2. Functions standard controls

### **COMPATIBLE FAN COILS:**

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tandard controls STANDARD FAN COIL ෆ	INSTALLATION:	3-speed ON/OFF switch	0-10 Vdc Minimum fan analogue	Room thermostat	Thermostat output	Air sensor with remote control option	Summer/winter switch	3-way ON/OFF valve control	2-way ON/OFF valve control	Electric heater control	Continuous ventilation/ thermostat	2-pipe systems	4-pipe systems	Weekly time bands	Control interface for 4 fan coil units	Serial interface
KC C	→ KC - C on board	•									<u>,                                     </u>			-		
KTA TATM	→ KTA - ★ TATM on board	•		٠	٠		•									
ксу2	→ KCV2 receiver	•			•		•								٠	
KTCV2	<ul> <li>→ KTCV2 wall</li> <li>mounted</li> <li>→ KBTCV2 -</li> <li>◆ TCV2</li> <li>on board</li> </ul>	•		٠	ACCESSORY	٠	٠	•	•	•	•	•	•		•	
KTCVA	→ KTCVA wall mounted → KBTCVA - ◆ TCVA on board	•		٠	•	٠	AUTOMATIC	•			•	•			•	
KTCVR	→ KTCVR wall mounted → KBTCVR -	AUTOMATIC SPEED /MINIMUM SPEED		REGLIATION ±5°C	•	•	AUTOMATIC	•	ONLY FOR 4-PIPE-SY- STEMS	•		•	•		•	
STANDARD	→ KTVD semi- recessed in wall	MANUAL/ AUTOMATIC SPEED		•	TMED (Å)			•	•	•	•	•	•	•	•	
FAN COIL	→ KTVDM semi- recessed in wall	MANUAL/ AUTOMATIC SPEED		•				•	•	•	•	•	•	•	•	•
INVERTER FAN COIL	→ KTVDI semi- recessed in wall	MANUAL/ AUTOMATIC SPEED	•	•	TMED (A)			•	•	•	•	•	•	٠		
	→ KTVDIM semi- recessed in wall	MANUAL/ AUTOMATIC SPEED	•	٠	TMED (A)		AUTOMATIC (B)	•	•	٠	•	•	٠	٠		٠

(A) Fan or minimum thermostat with KSO probe (accessory) start delay.

(B) Manual summer/winter switch or by contact or automatic with KSO probe (accessory).

 $\clubsuit$  Factory mounted  $\rightarrow$  supplied loose

(\*) Per utilizzo di controlli standard KCV2, KTCV2, KTCVA, KTCVR su ventilconvettori Inverter è disponibile il convertitore analogico digitale KADC.

**COMMANDS AND CONTROLS** 

#### 2.2 Features standard checks

- KC (supplied separately)
- C (factory fitted)

OFF/1/2/3 speed switch (for MVP and MVT). On board installation only.

- KTA (supplied separately)
- **TA** (factory fitted)
- TATM (factory fitted)

Room thermostat complete with OFF/1/2/3 speed and SUMMER/WIN-TER switch (for MVP and MVT) with the possibility of connecting the minimum thermostat externally. On board installation only. The TATM version is supplied complete with the minimum thermostat.

#### • KCV2 (supplied separately)

Panel with 3-speed switch complete with the summer/off/winter switch with the possibility of connecting the minimum thermostat externally. Wall mounted.

(dimensions 145 x 82 x 40 mm)

#### KTCV2-KBTCV2 (supplied separately) • TCV2-TCV2TM (factory fitted)

Control and adjustment panel including: off/continuous ventilation/thermostat ventilation switch; room thermostat; summer/winter switch; speed switch; auxiliary contacts (230 Vac) for On/Off valve control in 2-pipe systems, with 2 pipes with electrical resistance (KRER) or 4 pipes, with the possibility of connecting the minimum thermostat externally. Installed on board the machine (KBTCV2) or on the wall (KTCV2).

The TCV2TM control is supplied complete with the minimum thermostat.

(dimensions 145 x 82 x 40 mm)



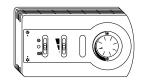
• KTCVA-KBTCVA (supplied separately) • TCVA (factory fitted)

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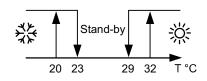
Electronic control panel including: continuous ventilation/off/thermostat ventilation switch; 3- speed switch; room thermostat; automatic summer/winter switch; red/green heating/cooling mode signal LED; auxiliary contact (230 Vac) for ON/OFF valve control in 2-pipe systems.

Installed on board the machine (KBTCVA) or on the wall (KTCVA).

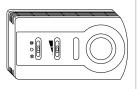
NOTE: the control does not work with a 2-way valve.



The heating-cooling switchover occurs automatically via detection of the water temperature in the fan coil upstream the valve according to the following logic.



т Water temperature



#### KTCVR-KBTCVR (supplied separately) TCVR (factory fitted)

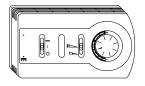
Electronic control panel including: on/ off/electrical resistance switch; automatic summer/winter switchover; automatic speed/minimum speed switch; comfort ±5°C adjustment knob; auxiliary contacts (230 Vac) to control the ON/OFF 3-way valve in 2-pipe systems and 2-pipe systems with electrical resistance (KRER); auxiliary contacts (230 Vac) to control the ON/OFF 3 or 2-way valve in 4-pipe systems. Minimum thermostat function, destratification cycle and dirty filter signal (Yardy only).

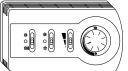
On-board assembly (KBTCVR) or wallmounted (KTCVR).

NOTE: the control does not work with a 2-way valve

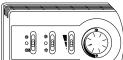
(dimensions 145 x 82 x 40 mm)

The heating-cooling switchover occurs automatically via detection of the water temperature in the fan coil upstream the valve according to the following logic. If the electric resistance is present, it can be activated.







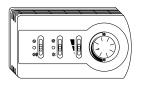


- KTCV2-KBTCV2 (supplied separately)
- TCV2-TCV2TM (factory fitted)

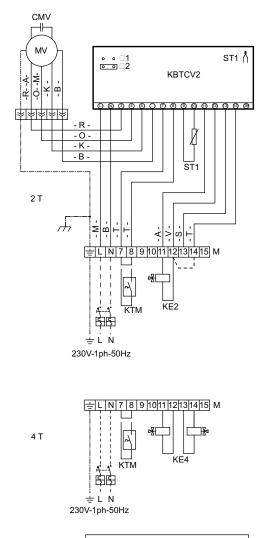
Control and adjustment panel including: off/continuous ventilation/ thermostat ventilation switch; room thermostat; summer/winter switch; speed switch; auxiliary contacts (230 Vac) for On/Off valve control in 2-pipe systems, with 2 pipes with electrical resistance (KRER) or 4 pipes, with the possibility of connecting the minimum thermostat externally. Installed on board the machine (KBTCV2) or on the wall (KTCV2).

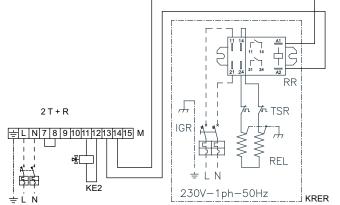
• RH055





(dimensions 145 x 82 x 40 mm)





\_\_\_\_\_\_\_230V-1ph-50Hz

KBTCV2	Control panel
CMV	Fan motor condenser
М	Terminal board
MV	Fan motor
ST1	Air temperature probe
КТМ	Minimum thermostat (accessory)
KE2	Hot/cold valve (accessory)
KE4	Hot/cold valve (accessory)
KRER	Electric heater + relais (accessory)
	Connection by installer

СОМ	MIN	MED	MAX
- B -	- R -	- 0 -	- K -
Blu	Red	Orange	Black
	- A -	- M -	
	Grey	Brown	

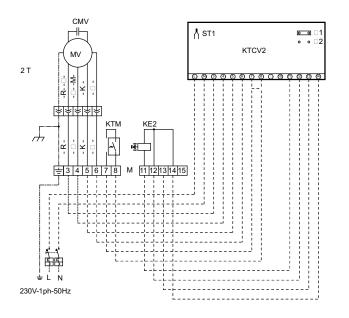
- T -	White
- S -	Pink
- V -	Violet
- A -	Grey
- M -	Brown
- 0 -	Orange
- B -	Blu
- R -	Red
- K -	Black

#### NOTE

Jumper J1 closed = Internal Air Probe ST1 Jumper J2 Closed = Air probe ST1 External In the presence of the electrical resistance, do not mount the TM.

2T = 2 pipes 4T = 4 pipes 2T + R = 2 pipes + cable





KTCV2	Control panel
CMV	Fan motor condenser
М	Terminal board
MV	Fan motor
ST1	Air temperature probe
KTM	Minimum thermostat (accessory)
KE2	Hot/cold valve (accessory)
KE4	Hot/cold valve (accessory)
KRER	Electric heater + relais (accessory)
	Connection by installer

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- B -	- R -	- 0 -	- K -
Blu	Red	Orange	Black
	- A -	- M -	
	Grey	Brown	

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- S -	Pink	
- V -	Violet	
- A -	Grey	
- M -	Brown	
- 0 -	Orange	
- B -	Blu	
- R -	Red	
- K -	Black	

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± L N 230V−1ph−50Hz

KE2

11 12 13 14 15 M

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± + S

RR

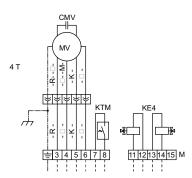
≉ TSR

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REL

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2 T+R

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CMV

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