

9. Transformer based controller for 3~ motors
9.2.1-GB 5-step controller inclusive additional functions for voltage controllable fans

Type: **R-DT1... 7KT(G)**

Examples of applications for controlling 3~ fans in 5-steps

Manual 5-step speed change-over of one or more 3~ fans e. g. in: heat exchangers (as warm-air heaters), hoods, ventilation of rooms.

Via potential-free contact, e. g. of thermostat (type SRE1G), the device can be switched ON / OFF in the preselected step. Thus simple temperature control is accomplished.

The device includes potential-free and 230 V power on contacts for the connection of gas valves (hoods application) or damper control motors (see connection example on back).

Equipment

Enclosed version IP21 / IP54

Transformer based controllers for voltage controllable 3~ fans

- 5-step switch for manual speed control
- Remote control (ON/OFF) via potential-free contact (terminals „RT“-„RT“).
- Motor protection using thermal contact connection (terminals „TK“-„TK“
Automatic switch-off by motor over temperature
Restart after cooling the drive unit by switch-off and after that switch on the mains voltage or by step-switch („reset“).
- Switch-off with interlock via potential-free contact (terminals FS - FS) e. g. for antifreezing thermostat (restart see motor failure)
- A power on lamp is integrated
- Automatic switch on after power failure
- Additional power on contact
- Potential-free changer (terminals 11, 12, 14)
- 230 V switched and constant voltage (terminals N↓, L↓, L↓)



Technical data

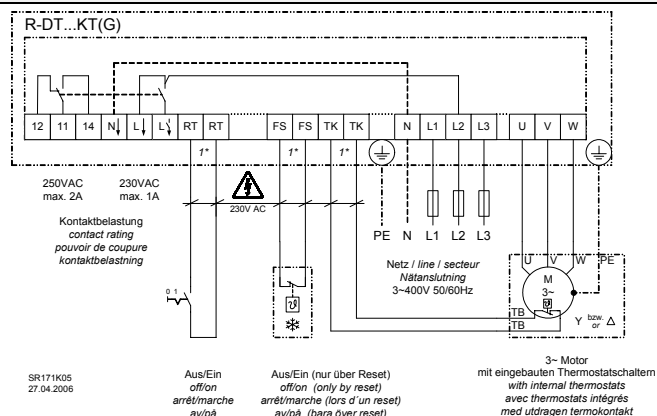
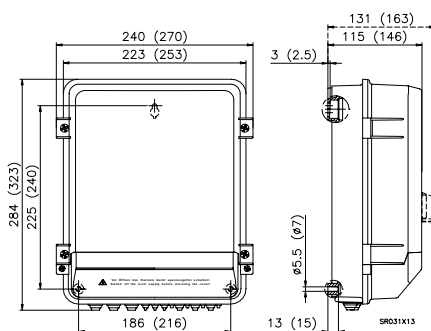
- Line voltage 3~ 400 V, 50/60 Hz
- Output voltage 95 V - 145 V - 190 V - 240 V - 400 V
- Max. load of the power on contacts:
- Potential-free changer (terminals 11, 12, 14) 250 V AC / 2 A
- 230 V switched and constant voltage max. 1 A (terminals N↓, L↓, L↓)
- max. ambient temperature +40° C
- Housing top ABS plastic, colour light grey, bottom aluminium die casting

Type	Part.-Nr.	Rated current	Max. line Fuse	Max. heat dissipation	Protection	Weight
R-DT1KTG	302581	1 A	4 A	approx. 40 W	IP54	4.7 kg
R-DT2KTG	302582	2 A	4 A	approx. 55 W	IP54	7.4 kg
R-DT3KTG	302583	3 A	6 A	approx. 60 W	IP54	11.0 kg
R-DT4KT	302584	4 A	6 A	approx. 75 W	IP21	11.0 kg
R-DT5.2KTG	302585	5.2 A	13 A	approx. 85 W	IP54	15.6 kg
R-DT7KT	302586	7 A	16 A	approx. 115 W	IP21	15.6 kg

Dimension sheet

Connection diagram

R-DT1/2KTG (R-DT3/4/5.2/7KT(G))



¹ Wenn Funktion nicht benötigt wird, Klemmen brücken
 If function is not needed, terminals must be bridged

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Connection example for damper control motors



Connection of damper control motors (different models) is possible via the potential-free contacts or via the 230 V contacts of the power on relay. This relay rises, if the device is activated and the fan is running. By switching off via remote control (terminals „RT”-„RT“) or in case of motor fault the relay falls off.

For damper control motors with „single-wire-control” connection with constant voltage (also in switch position „0”) for „damper CLOSE”.

For motors with „single-wire-control”

- damper „OPEN”: if fan is running, 230 V at terminal 
- damper „CLOSE”: constant voltage at terminal L, if fan is not running (also in switch position „0”)

For motors with „spring return”

- damper „OPEN”: if fan is running, 230 V at terminal 
- damper „CLOSE”: via spring return (if no voltage at )

For motors with „2-wire-control”

- damper „OPEN”: if fan is running, voltage at terminal 14
- damper „CLOSE”: voltage at terminal 12, fan is not running (also in switch position „0”)

