

Rotor Controller



Type KR for regenerative heat exchangers

Type KS für desiccant-/enthalpy regenerators



KLINGENBURG

E N E R G Y R E C O V E R Y

Klingenburg Rotor Controller

... unexcelled operating safety and longevity

The Klingenburg control units and their central component, the frequency inverter, permit you to fully adjust the rotor speed for the entire permissible range.

Only two types are required for all rotor sizes:

KR4 = 400 Watt rotor diameters up to 3760 mm
KR7 = 750 Watt rotor diameters larger than 3760 mm

KS4 = 400 Watt rotor diameters up to 3499 mm
KS7 = 750 Watt rotor diameters larger than 3499 mm

The rotor drive is effected through three-phase alternating current motors which can be operated for small diameters direct from the mains. Furthermore, an acceleration and deceleration ramp must be utilised for the gears.

For the optimum control of the drive, a rotor controller is required.

The controller is worldwide applicable and compatible with all current threephase motors.

Klingenburg controllers are unexcelled robust, extreme fail safe and durable.

Quality features

- Latest processor technology
- CE conformity
- Extruded aluminium casing IP 54
- Short-circuit-proof output
- EN 55011 tested
- EN 61000-3 tested
- EN 61000-4-2 tested
- EN 61000-4-4 (Burst) tested
- EN 61000-4-5 (Surge) tested
- EN 61800-3 tested
- Each single module is tested repeatedly
- exchangable info sheet

Performance features

- detailed fault display
- Thermal protection / PTC resistor including function display
- Starting and running out switching
- Menu controlled programming
- Clear text display via LCD display
- Three push-button operation
- External control signal processing
- Self-cleaning function
- Rotor operation control *)

Optional features

The following functions can be selected by means of the extended Z-controller:

- Summer operation including display of function *)
 - Enthalpy comparison
 - Temperature comparison
 - Temperature switching over
- Supply air temperature control *)
- Sequence switching register including function display

In this case the controller bears the model number KR4 Z or KR7 Z.

*) The corresponding sensors must be installed for the control features marked with an asterisk.



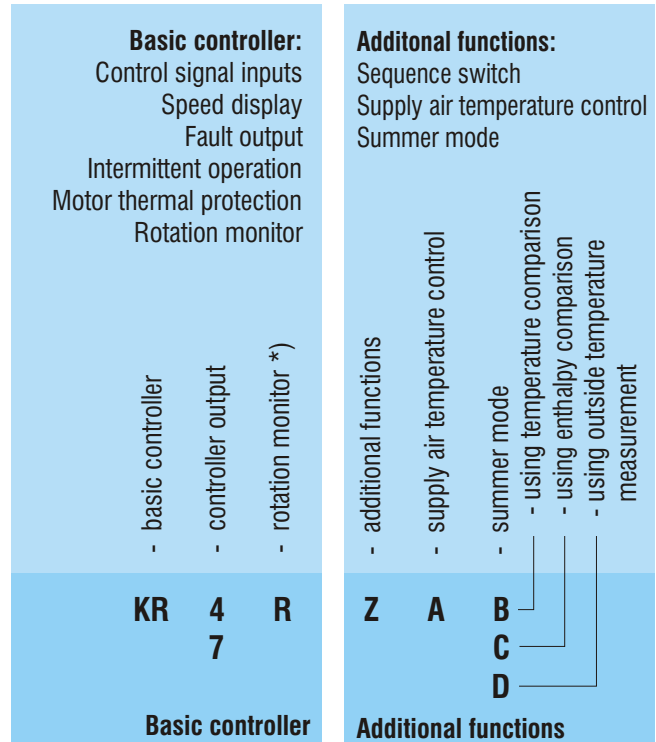
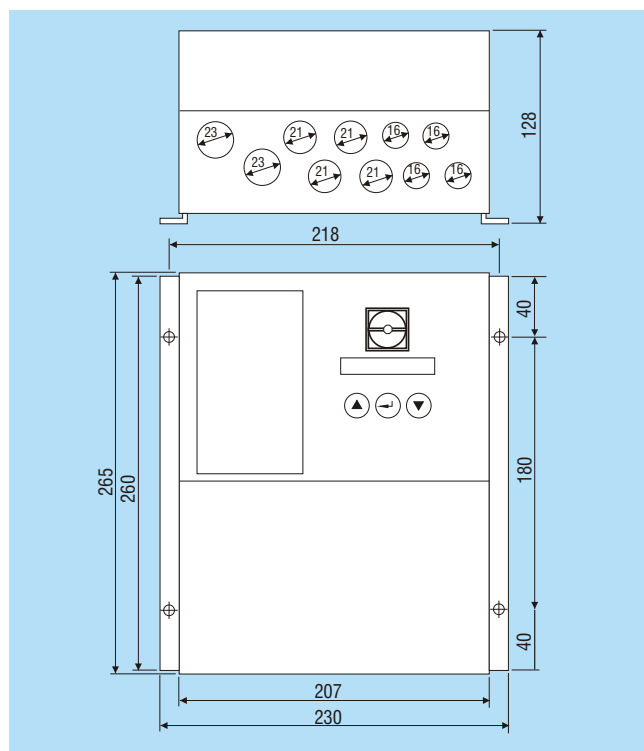
Technical specifications

Product Codes Controller KR4 and KR7

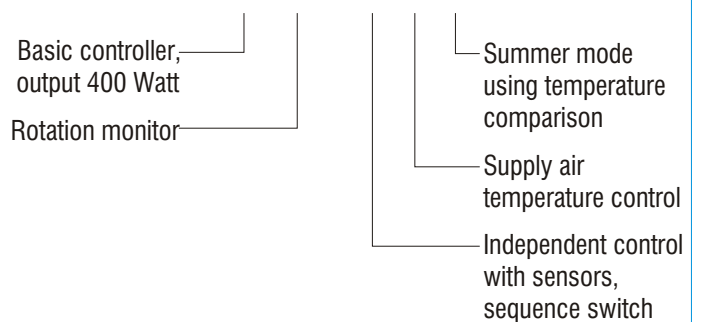


Type	KR4 / KS4	KR7 / KS7
Output:	0.4 kW	0.75 kW
Fuse:	6.3 A	10 A
Supply:	220-240 V	
Weight:	3200 g	3500 g
Operating temperature:	-10°C up to +40°C	
	When operating temperatures are below 0 °C, we recommend that the motors be left off when the power is first turned on to allow the controller to warm up.	
Supply air temperature: (only for KR4 / KR7)	10°C up to 40°C Other temperature ranges can be specially ordered.	
System of protection:	IP 54	
Output frequency KR:	0 - 120 HZ	
Output frequency KS:	0 - 90 HZ	
Frequency resolution:	0.08 Hz	
Control signals:	0 - 10 V, 0 - 20 mA, 4 - 20 mA	
Fault contact:	230 V, 1 A	
Power cord:	A shielding power cord must be used in all cases and if longer than 15m, additional main suppression filter should be installed. Please ask for more information.	

Dimensions



Sample order KR4 R Z A B



Required additional sensors for optional features

- Supply air temperature control
 - 1 sensor in the supply air
- Summer mode using temperature comparison
 - 2 sensors
- Summer mode using enthalpy comparison
 - 2 sensors
- Summer mode using outside temperature measurement
 - 1 sensor

Models KS4 R / KS7 R

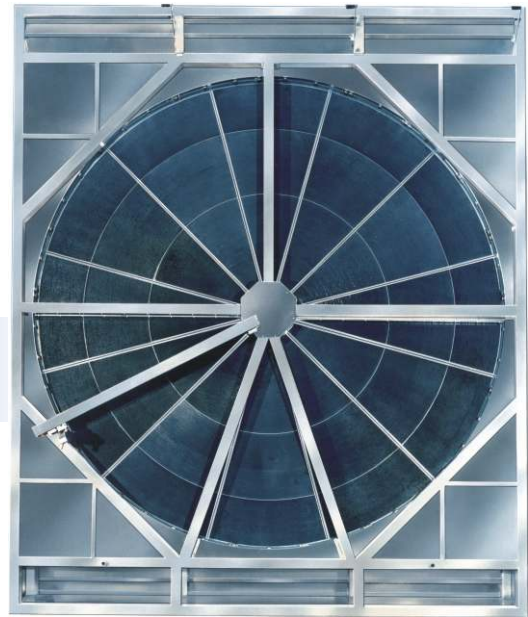
The Model KS for desiccant rotors contains the rotation monitor as standard.

Klingenburg convincing technology and quality for 3 decades - worldwide

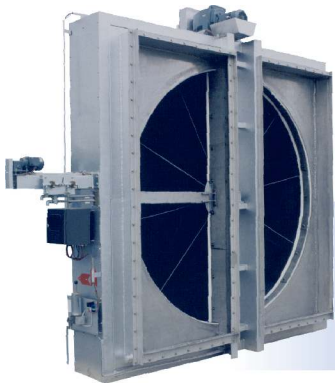


Regenerative heat exchangers/rotors

with rotor diameters up to 6000 mm, housing made of aluminium or steel, matrix made of aluminium



Regenerative heat exchangers/rotors for paint spraying plants



Regenerative heat exchangers/rotors

for the operation with high temperatures up to 650°C in industrial and process applications



SECO desiccant-/enthalpy regenerators

high efficient energy recovery and air dehumidification, - an important component in the DEC-process



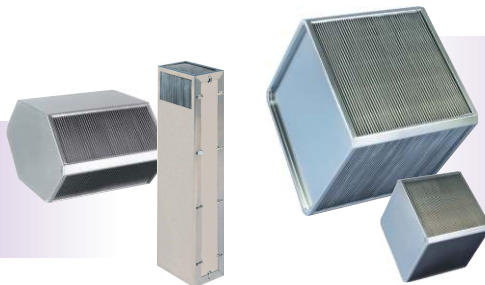
Klingenburg-Humidifier

the unique development in ventilation technology, controllable, hygienic, environment-friendly and energy-conscious



Counterflow plate heat exchanger

without condensation energy savings up to 85%



Crossflow plate heat exchangers

for total separation of supply and waste air, complete programme in full range of size, compact, double-embossed, high-strength construction.



DEC components

Klingenburg manufactures the relevant DEC system components as the first manufacturer world-wide. DEC-plants cool with less energy consumption than other compressor-driven cooling systems.

Further information is available on CD ROM!

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