

Electric circular duct heaters/preheaters for ventilation systems



VENTCOMMERCE

DESCRIPTION

The electric circular duct heaters/preheaters are intended to be used for heating of clean air in the ventilation systems. Also heaters/preheaters can be used for heating or preheating function with air handling units. The heaters/preheaters can be supplied with or without installed electronic controller, with pressure and flow monitoring system via or produced according to the client requirements. It is possible to connect to the BMS system via the RS485 MODBUS. The heater/preheater cases are produced from aluzinc coated metal sheet, sealing rubber for tight connection with ventilation duct system. The stainless steel heating elements are used in the heaters.

All heaters/preheaters are equipped with 2 overheat thermostats. Heaters/preheaters with diameter under 250 mm have automatic reset thermostat 60°C that controls output air temperature, manual reset thermostat 100°C is for cut off function in case of overheat. Heaters/preheaters with diameter from 250 mm have automatic reset thermostat 70°C that controls output air temperature, manual reset thermostat 100°C is for cut off function in case of overheat. Thermostat push button is installed on heater cover to reset manual reset. Thermostats for 1 and 2 phases are connected in series with heating element and no extra relay is needed. For 3 phase heaters/preheaters external relay is needed for overheat functions. All electric duct heaters have integral controller indication.

Minimum air speed for heaters/preheaters must be not less than 1,5 m/s.

Flow monitor makes possible to monitor air flow in ducts and prevents from operating and overheating if there is no air flow. In this case no extra interlocking with fans or air handling units is needed.

Heaters/preheaters with installed electronic controller can be supplied in 5 types:

- Internal setpoint with one duct temperature sensor (model SI), duct sensor must be installed in output air duct. Setpoint knob is installed on heater case.
- External setpoint with one duct temperature sensor (model SE), duct sensor must be installed in output air duct. Setpoint device installed on wall is used (potentiometer resistance – 10K).
- External control signal 0-10 VDC (model CE). External control signal from other controller must be supplied.
- FC- flow and pressure control.
- MB- MODBUS. Temperature setpoint and other settings can be adjusted using RS485 serial interface and MODBUS protocol. MODBUS master can be BMS (building management system) module, local server or computer.

If heater/preheater is supplied without installed electronic controller, external controller should be used.

MODEL NAME DESCRIPTION

Example: EHC 250/3.0/2/SE/FC/MB/K
 EHC – electric circular heater/preheater,
 250 – diameter of duct in mm,
 3.0 – output power kW,
 2 – phase,
 SE – electronic controller type,

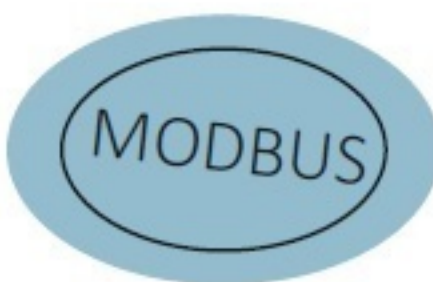
FC – flow and pressure control,
 MB – MODBUS,
 K – contactor.



Type	EHC	EHC..CE	EHC..SE	EHC..SI	EHC..CE/FC EHC..SE/FC EHC..SI/FC
	Without integrated control	With integrated control (0-10)V	With integrated control (external setpoint) (0...+30)	With integrated control (internal setpoint) (0...+30)	Plug & play (with flow and pressure control) (-30...0) (0...+30)*
EHC 100/0.5/1	x	x	x	x	x
EHC 125/0.5/1	x	x	x	x	x
EHC 125/1.0/1	x	x	x	x	x

Type	EHC	EHC..CE	EHC..SE	EHC..SI	EHC..CE/FC EHC..SE/FC EHC..SI/FC
	Without integrated control	With integrated control (0-10)V	With integrated control (external setpoint) (0...+30)	With integrated control (internal setpoint) (0...+30)	Plug & play (with flow and pressure control) (-30...0) (0...+30)*
EHC 160/0.5/1	X	X	X	X	X
EHC 160/1.0/1	X	X	X	X	X
EHC 160/1.5/1	X	X	X	X	X
EHC 160/2.0/1	X	X	X	X	X
EHC 160/3.0/1	X	X	X	X	X
EHC 160/3.0/2	X	X	X	X	X
EHC 160/4.5/2	X	X	X	X	X
EHC 200/1.0/1	X	X	X	X	X
EHC 200/1.5/1	X	X	X	X	X
EHC 200/2.0/1	X	X	X	X	X
EHC 200/3.0/1	X	X	X	X	X
EHC 200/3.0/2	X	X	X	X	X
EHC 200/4.5/2	X	X	X	X	X
EHC 200/6.0/2	X	X	X	X	X
EHC 200/6.0/3	X	X	X	X	X
EHC 200/9.0/3	X	X	X	X	X
EHC 250/1.0/1	X	X	X	X	X
EHC 250/1.5/1	X	X	X	X	X
EHC 250/2.0/1	X	X	X	X	X
EHC 250/3.0/1	X	X	X	X	X
EHC 250/3.0/2	X	X	X	X	X
EHC 250/4.5/2	X	X	X	X	X
EHC 250/6.0/2	X	X	X	X	X
EHC 250/6.0/3	X	X	X	X	X
EHC 250/9.0/3	X	X	X	X	X
EHC 315/2.0/1	X	X	X	X	X
EHC 315/3.0/1	X	X	X	X	X
EHC 315/3.0/2	X	X	X	X	X
EHC 315/4.5/2	X	X	X	X	X
EHC 315/6.0/2	X	X	X	X	X
EHC 315/6.0/3	X	X	X	X	X
EHC 315/9.0/3	X	X	X	X	X
EHC 315/12.0/3	X	X	X	X	X
EHC 400/3.0/1	X	X	X	X	X
EHC 400/3.0/2	X	X	X	X	X
EHC 400/4.5/2	X	X	X	X	X
EHC 400/6.0/2	X	X	X	X	X
EHC 400/6.0/3	X	X	X	X	X
EHC 400/9.0/3	X	X	X	X	X
EHC 400/12.0/3	X	X	X	X	X
EHC 400/15.0/3	X	X	X	X	X





Type	EHC..SE/MB	EHC..SI/MB	EHC..SE/FC/MB EHC..SI/FC/MB
	With integrated control (external setpoint) with MODBUS	With integrated control (internal setpoint) with MODBUS	Plug & play (with flow and pressure control) with MODBUS
EHC 100/0.5/1	X	X	X
EHC 125/0.5/1	X	X	X
EHC 125/1.0/1	X	X	X
EHC 160/0.5/1	X	X	X
EHC 160/1.0/1	X	X	X
EHC 160/1.5/1	X	X	X
EHC 160/2.0/1	X	X	X
EHC 160/3.0/1	X	X	X
EHC 160/3.0/2	X	X	X
EHC 160/4.5/2	X	X	X
EHC 200/1.0/1	X	X	X
EHC 200/1.5/1	X	X	X
EHC 200/2.0/1	X	X	X
EHC 200/3.0/1	X	X	X
EHC 200/3.0/2	X	X	X
EHC 200/4.5/2	X	X	X
EHC 200/6.0/2	X	X	X
EHC 200/6.0/3	X	X	X
EHC 200/9.0/3	X	X	X
EHC 250/1.0/1	X	X	X
EHC 250/1.5/1	X	X	X
EHC 250/2.0/1	X	X	X
EHC 250/3.0/1	X	X	X
EHC 250/3.0/2	X	X	X
EHC 250/4.5/2	X	X	X
EHC 250/6.0/2	X	X	X
EHC 250/6.0/3	X	X	X
EHC 250/9.0/3	X	X	X
EHC 315/2.0/1	X	X	X
EHC 315/3.0/1	X	X	X
EHC 315/3.0/2	X	X	X
EHC 315/4.5/2	X	X	X
EHC 315/6.0/2	X	X	X
EHC 315/6.0/3	X	X	X
EHC 315/9.0/3	X	X	X
EHC 315/12.0/3	X	X	X
EHC 400/3.0/1	X	X	X
EHC 400/3.0/2	X	X	X
EHC 400/4.5/2	X	X	X
EHC 400/6.0/2	X	X	X
EHC 400/6.0/3	X	X	X
EHC 400/9.0/3	X	X	X
EHC 400/12.0/3	X	X	X
EHC 400/15.0/3	X	X	X

ACCESSORIES

Type
External controller REC16, 1~230 VAC or 2~400 VAC, 16A
External controller REC16MB, 1~230 VAC or 2~400 VAC, 16A
External controller REC25B, 3~400 VAC/max. 16,44 kW, 25A
External controller REC25, 3~400 VAC/max. 16,44 kW, 25A
External controller REC50B, 3~400 VAC/max. 32,89 kW, 50A
External controller REC50, 3~400 VAC/max. 32,89 kW, 50A
Temperature surface sensor TSS/NTC10K/2 m.
Temperature duct sensor TSD/NTC10K/2 m.
External setpoint RES 001
External setpoint RES 002/NTC



Temperature duct sensor
TSD/NTC10K/2m.



External setpoint RES 001



External setpoint RES 002/NTC

*NOTE: heaters/preheaters with SE/FC modification have a scale (0...+30); heaters/preheaters with SI/FC modification have a scale (-30...0) or (0...+30).

NOTE: to specify a temperature scale (-30...0) or (0...+30) in order.

NOTE: heaters/preheaters with integrate control system EHC...SE, EHC...SI – temperature duct sensor L-2.0 m included.

NOTE: external setpoint RES 001, RES 002/NTC are needed for EHC..SE, SE/FC modification.