

Round Electric Duct Heaters

HER



AirConcepts

AIRFLOW MEASUREMENT AND CONTROL

Application

Electric duct heaters are used in ventilation systems to supply heating to the room or space.

In VAV systems, the VAV terminal usually is controlled to the Heating Minimum Airflow setpoint for energy efficiency.

In CAV systems, electric duct heaters are mainly used to prevent undercooling of the room or space.

We recommend to limit the supply air temperature at 11°C (20°F) above the room temperature to maintain proper air circulation in the room and prevent stratification.

Design features

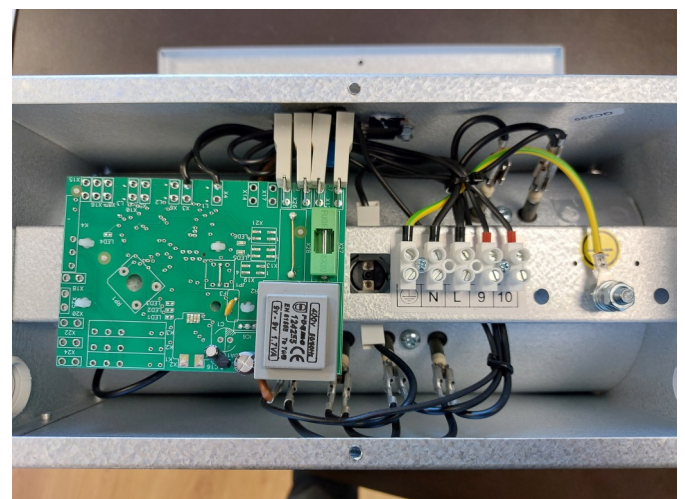
- Ridged corrosion preef AluZinc steel construction (1.2mm)
- Round in- and outlet spigots tolerances comply with DIN 24145.
- Rubber seal for easy and air tight mounting.
- Casing leakage complies with Class D (EN-1751)
- Available in 230VAC-1ph (max 16A, 3,6kW) and 400VAC-3ph (max 16A, 18kW)
- Available in ON/OFF control or Thyristor control with 0-10VDC input.
- Heating elements, stainless steel (AISI304) ø8mm.
- 2 safety thermostats; 1x 50°C (auto reset) and 1x 100°C Manual reset.



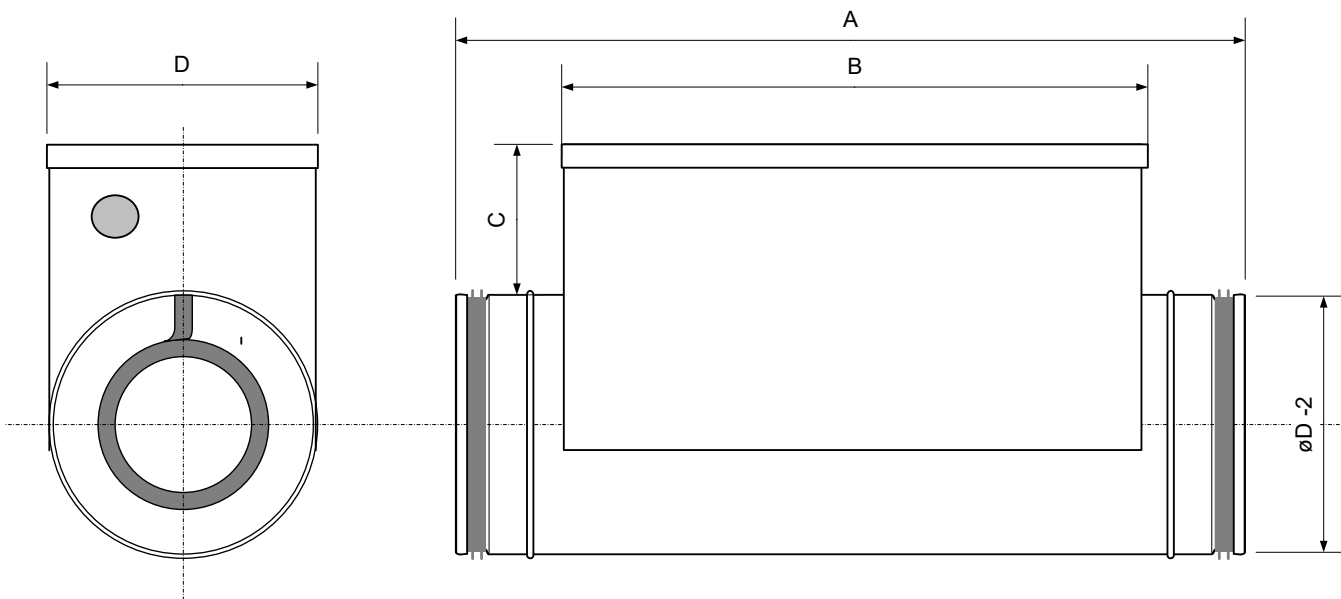
HER-A model 160 with Thyristor control (0-10V)



Stainless steel (AISI304) coils

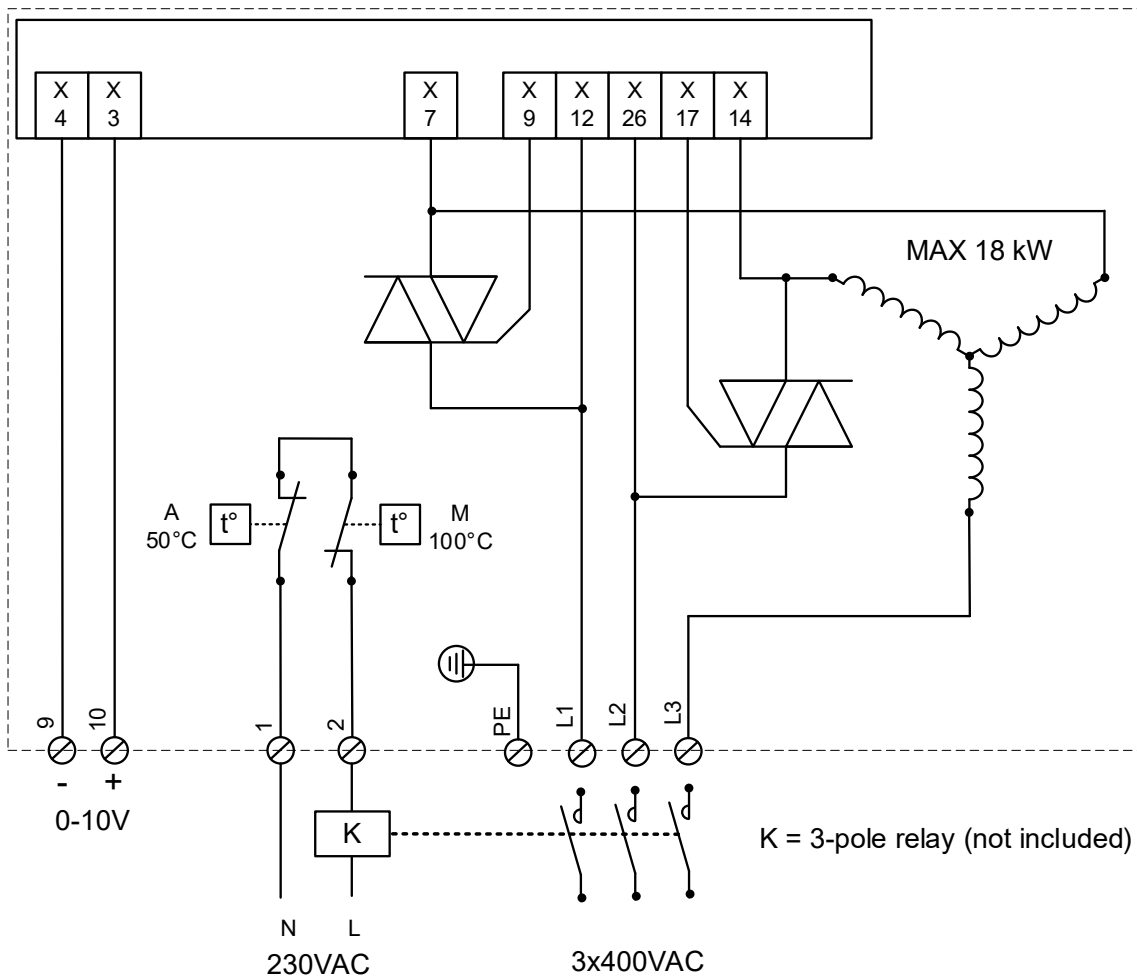
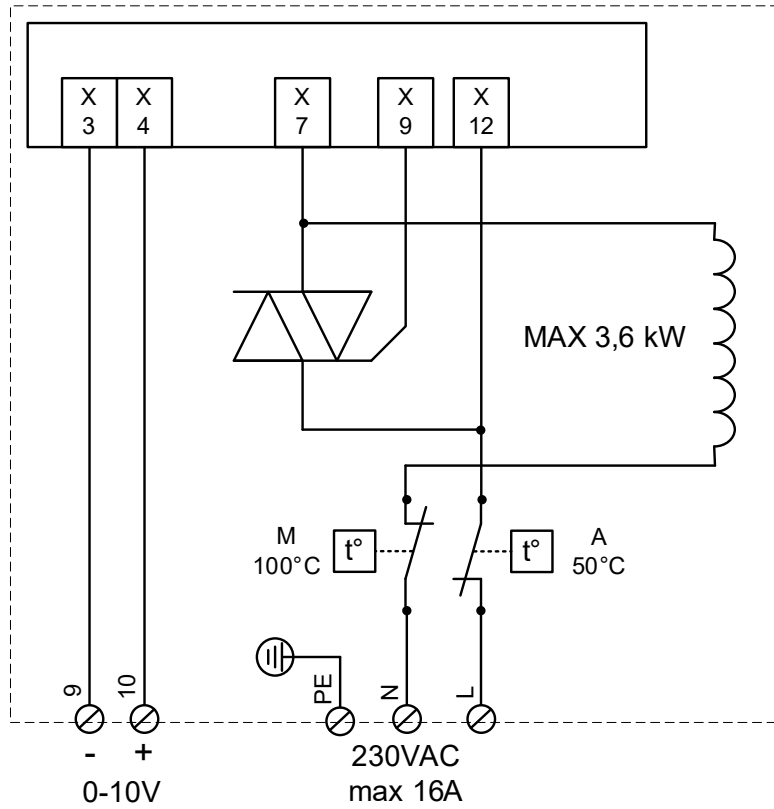


Internal wiring and connections Thyristor control



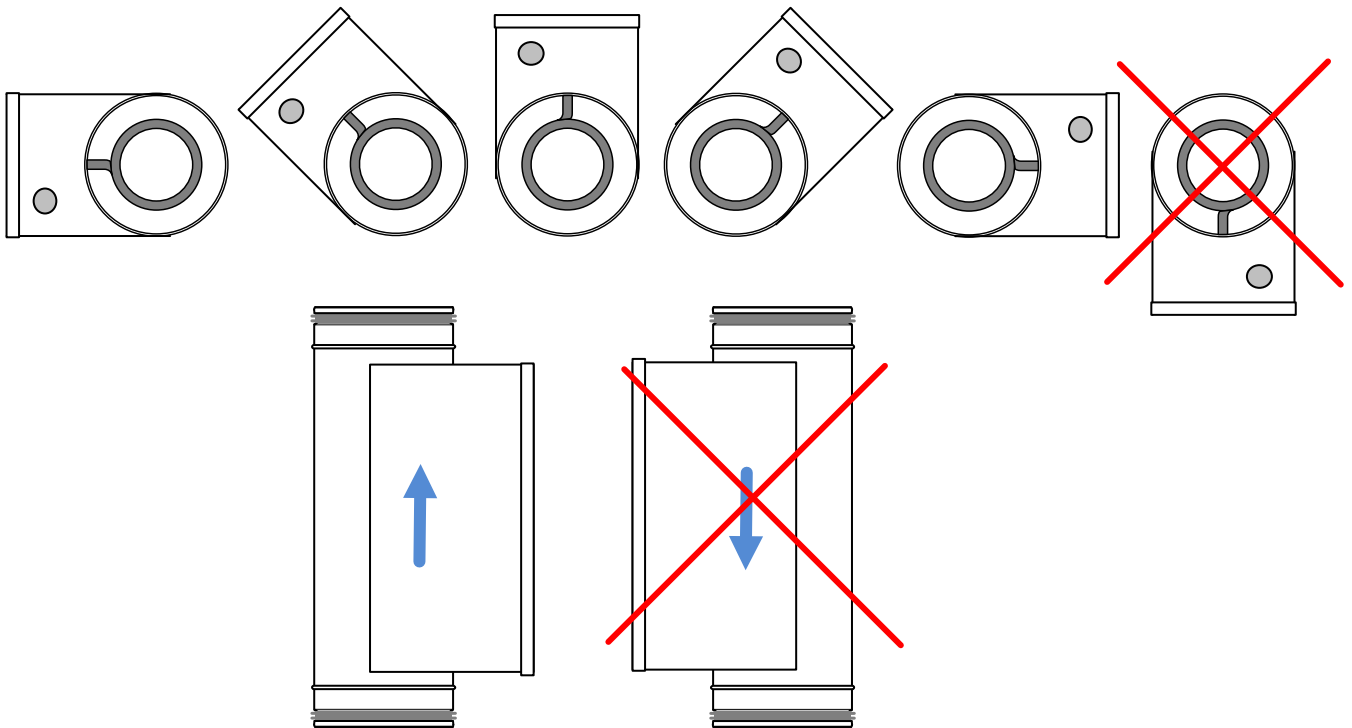
Model (D)	kW	Min m ³ /h	Min l/s	A	B	C	D
100	0,3...1,8	45	13	370	276	71	100
125	0,3...3,6	70	20				125
160	0,9...6,0	110	31				160
200	1,2...9,0	170	48				200
250	1,5...9,0	265	74	500	402	71	250
	12,0			630	532		
	15,0			630	532		
315	3,0...9,0	420	117	373	276	71	315
	12,0			500	402		
	15,0 + 18,0			630	532		
355	3,0...9,0	530	148	373	276	71	355
	12,0			500	402		
	15,0 + 18,0			630	532		
400	3,0...9,0	675	188	373	276	81	400
	12,0			500	402		
	15,0 + 18,0			630	532		

Model	Duct Velocity		Air volume		Temperature raise at rated heater capacity in kW														
	m/s	m ³ /h	l/s	0,3	0,6	0,9	1,2	1,8	2,0	2,5	3,0	4,5	6,0	7,5	9,0	12,0	15,0	18,0	
100	1,5	40	11	22°C															
	3,0	80	22	11°C	22°C														
	6,0	160	44	6°C	11°C	17°C													
	9,0	239	66	4°C	7°C	11°C	15°C	22°C	25°C										
125	1,5	63	18	14°C	28°C														
	3,0	126	35	7°C	14°C	21°C	28°C												
	6,0	253	70	4°C	7°C	11°C	14°C	21°C	24°C	29°C									
	9,0	379	105		5°C	7°C	9°C	14°C	16°C	20°C	24°C								
160	1,5	105	29	9°C	17°C	26°C													
	3,0	209	58	4°C	9°C	13°C	17°C	26°C	29°C										
	6,0	418	116		4°C	6°C	9°C	13°C	14°C	18°C	21°C								
	9,0	627	174		3°C	4°C	6°C	9°C	10°C	12°C	14°C	21°C	29°C						
200	1,5	165	46	5°C	11°C	16°C	22°C												
	3,0	329	91	3°C	5°C	8°C	11°C	16°C	18°C	23°C	27°C								
	6,0	658	183		3°C	4°C	5°C	8°C	9°C	11°C	14°C	20°C	27°C						
	9,0	988	274			3°C	4°C	5°C	6°C	8°C	9°C	14°C	18°C	23°C	27°C				
250	1,5	259	72	3°C	7°C	10°C	14°C	21°C	23°C	29°C									
	3,0	517	144		3°C	5°C	7°C	10°C	12°C	14°C	17°C	26°C							
	6,0	1035	288			3°C	3°C	5°C	6°C	7°C	9°C	13°C	17°C	22°C	26°C				
	9,0	1552	431					3°C	4°C	5°C	6°C	9°C	12°C	14°C	17°C	23°C	29°C		
315	1,5	413	115			7°C	9°C	13°C	14°C	18°C	22°C								
	3,0	826	229			3°C	4°C	7°C	7°C	9°C	11°C	16°C	22°C	27°C					
	6,0	1651	459					3°C	4°C	5°C	5°C	8°C	11°C	14°C	16°C	22°C	27°C		
	9,0	2477	688							3°C	4°C	5°C	7°C	9°C	11°C	14°C	18°C	22°C	
355	1,5	525	146			5°C	7°C	10°C	11°C	14°C	17°C	26°C							
	3,0	1051	292			3°C	3°C	5°C	6°C	7°C	9°C	13°C	17°C	21°C	26°C				
	6,0	2102	584					3°C	3°C	4°C	4°C	6°C	9°C	11°C	13°C	17°C	21°C	26°C	
	9,0	3153	876								3°C	4°C	6°C	7°C	9°C	11°C	14°C	17°C	
400	1,5	668	186			4°C	5°C	8°C	9°C	11°C	13°C	20°C	27°C						
	3,0	1337	371				3°C	4°C	4°C	6°C	7°C	10°C	13°C	17°C	20°C	27°C			
	6,0	2674	743								3°C	3°C	5°C	7°C	8°C	10°C	13°C	17°C	20°C
	9,0	4011	1114										3°C	4°C	6°C	7°C	9°C	11°C	13°C



Mounting Instructions

- Heaters can only be used only for (pre) heating clean air. Heaters can never be installed in an explosive, wet or aggressive environment. Heaters have an IP30 protection and are designed for indoor application. When outdoor application is required, the heaters need additional protection.
- When heater are installed in such way that heating elements can be touched, a protective grille/mesh must be installed. To prevent contact with the heating elements.
- The air velocity through the heater must be minimum 1,5 m/s.
- The maximum supply temperature is 50°C. We recommend to limit the supply air temperature at 11°C (20°F) above the room temperature to maintain proper air circulation in the room and prevent stratification.
- Electric duct heaters HER can be installed horizontally in any position, except with the control box downward and vertically only with airflow going upwards.



Important :

- Connection to the mains power supply may only be done by a certified electrician.
- The power cable diameter must be selected to the rated capacity (Amps).
- Wiring and installation must be done according to the local regulations.
- An (automatic) circuit breaker must be installed in the power supply.
- The circuit braker must be selected to the heater capacity and should have characteristic "B".
- The heater must be earthed.

Type Designation

HER	-	250	-	1,5	-	230	-	A	
Type		Model		Capacity		Voltage		Control	
		100		0,3 kW		230V-1ph		O	- ON / OFF
		125		.		400V-3ph		A	- 0-10VDC
		160		.					
		200		.					
		250		.					
		315		.					
		355		.					
		400		18,0 kW					

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