

BLAUBERG Electrical HEATERS

Series NK



Applications

Duct electrical heaters are designed for supply air heating in round duct ventilating system. The heaters are applied in heating, ventilation and air conditioning systems for various premises.

Design

The casing and the terminal box are made of galvanized steel and the heating elements are of stainless steel. The heaters are equipped with rubber seals for connection to the air ducts.

NK duct heaters are equipped with two overheating protection thermostats:

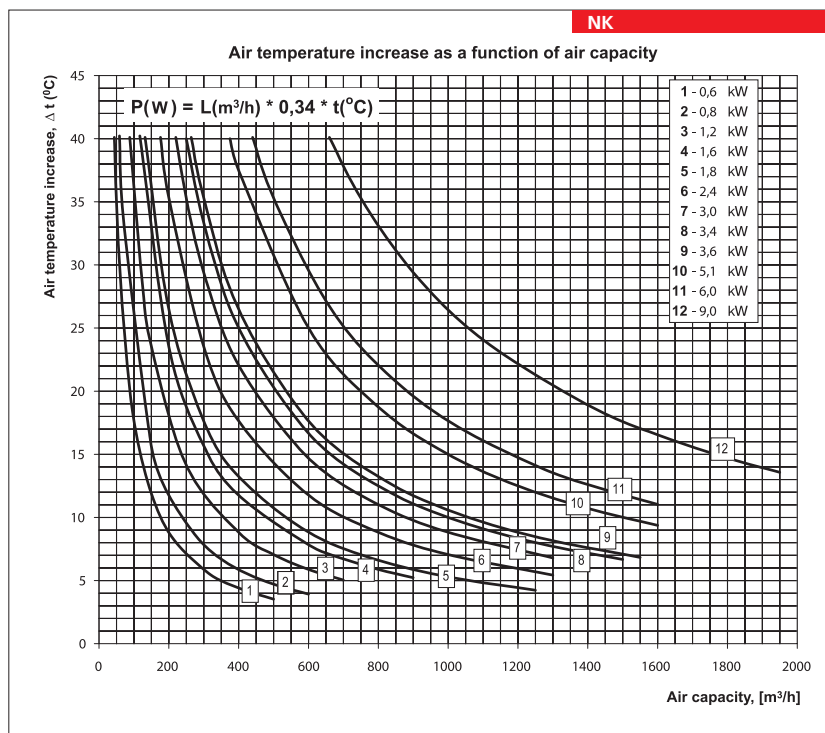
- ▶ basic protection with automatic restart with +50°C operating temperature. After cooling the thermostat closes the control circuit of the heater automatically.
- ▶ emergency protection with manual restart (operating temperature +90°C). In case of response the power supply to the heater is allowed after the manual emergency reset only.

Each standard size has several electric capacity options. The higher capacity can be attained by means of installation of the heaters in series.

Mounting

- ▶ The heater design ensures its mounting on the round ducts in any position by means of clamps. The air flow direction shall match the pointer on the filter. The duct heaters can be installed in any position except for with the electric control unit below to prevent liquid penetration and wiring short circuit.
- ▶ The mounting shall be performed in such a way as to enable uniform air distribution along the entire cross section.

- ▶ The air filter shall be installed at heater inlet to protect the heating elements against pollution.
- ▶ The minimum distance between the heater and other system elements is no less than two connecting diameters.
- ▶ The duct heaters are designed for minimum air flow speed 1.5 m/s and the maximum operating outlet temperature 40°C. In case of speed control option ensure the minimum air flow through the heater.
- ▶ Power supply to the heater shall be disabled if the fan is not running.
- ▶ To ensure the correct and safe heater operation the automation system can be applied to ensure the complex control and protection:
 - ✓ automatic control of heating elements capacity and air heating temperature;
 - ✓ checking filter condition by means of differential pressure sensor;
 - ✓ power supply disabling in case of supply fan shutdown or airflow speed decrease as well as in case of the built-in overheating thermostats operation;
 - ✓ shutoff of ventilating system with blowing of electrical heating elements.



Designation key:

Series	Flange diameter, mm	-	Heater power [kW]	-	Phase
NK	100; 125; 150; 160; 200; 250; 315		0,6; 0,8; 1,2; 1,6; 1,8; 2,4; 3,4; 3,6; 5,1; 6,0; 9,0		1 – single phase; 3 – three phases

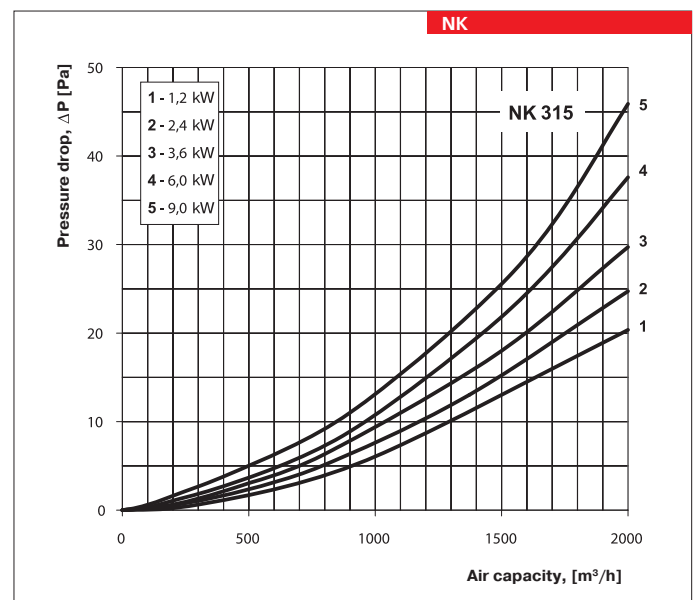
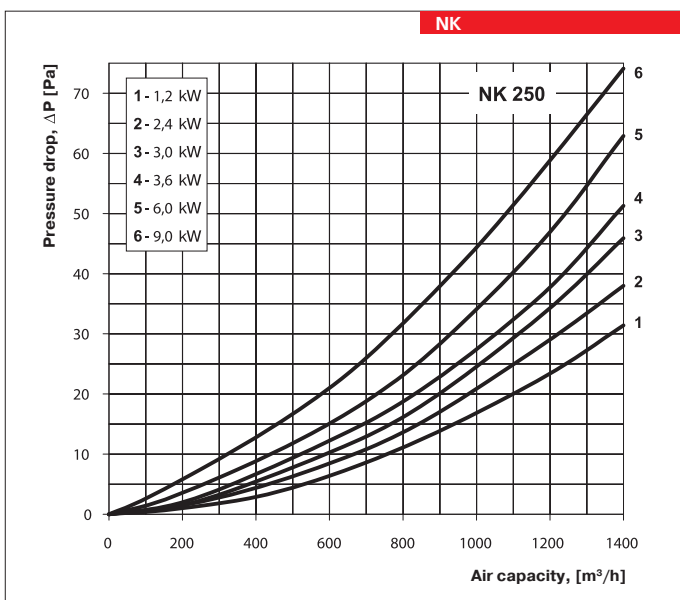
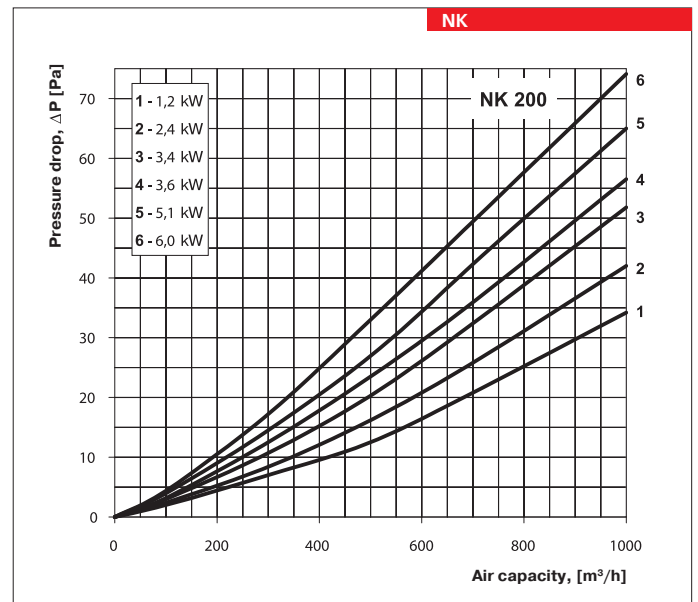
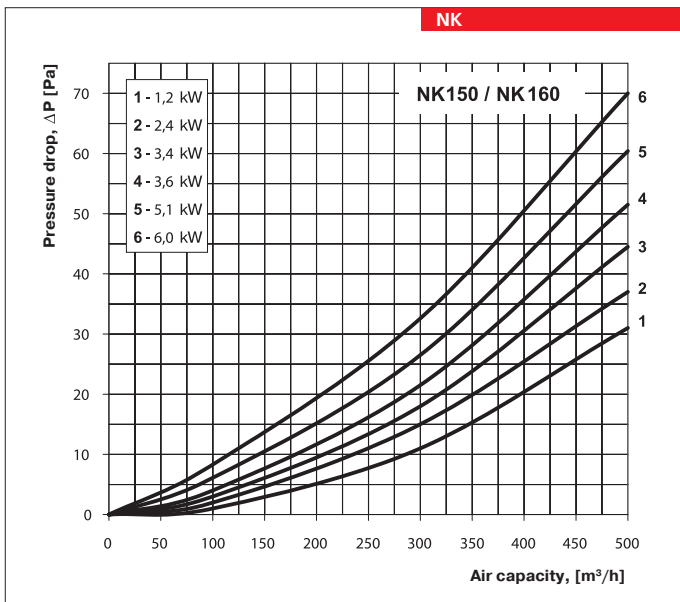
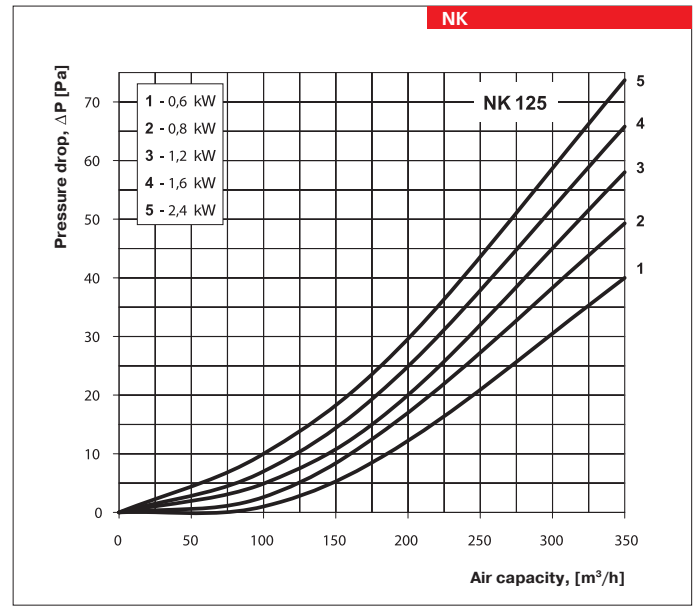
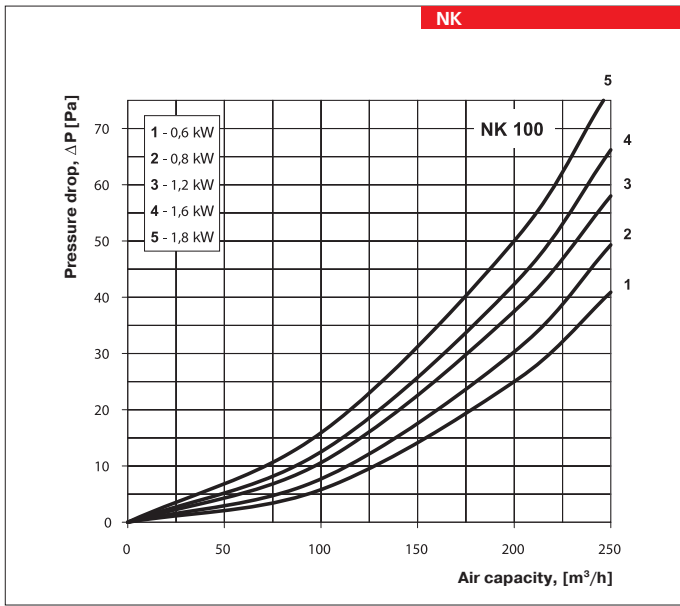
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Technical data:

	Minimum air capacity [m ³ /h]	Current [A]	Voltage [V]	Power [kW]	Number of heating coils x capacity [kW]	Phase
NK 100-0,6-1	60	2,6	230	0,6	1x0,6	1
NK 100-0,8-1	80	3,5	230	0,8	1x0,8	1
NK 100-1,2-1	90	5,2	230	1,2	2x0,6	1
NK 100-1,6-1	120	7,0	230	1,6	2x0,8	1
NK 100-1,8-1	130	7,8	230	1,8	3x0,6	1
NK 125-0,6-1	60	2,6	230	0,6	1x0,6	1
NK 125-0,8-1	80	3,5	230	0,8	1x0,8	1
NK 125-1,2-1	90	5,2	230	1,2	2x0,6	1
NK 125-1,6-1	120	7,0	230	1,6	2x0,8	1
NK 125-2,4-1	150	7,8	230	2,4	3x0,8	1
NK 150-1,2-1	120	5,2	230	1,2	1x1,2	1
NK 150-2,4-1	150	10,4	230	2,4	2x1,2	1
NK 150-3,4-1	220	14,7	230	3,4	2x1,7	1
NK 150-3,6-3	265	5,2	400	3,6	3x1,2	3
NK 150-5,1-3	320	7,4	400	5,1	3x1,7	3
NK 150-6,0-3	360	8,7	400	6,0	3x2,0	3
NK 160-1,2-1	150	5,2	230	1,2	1x1,2	1
NK 160-2,4-1	180	10,4	230	2,4	2x1,2	1
NK 160-3,4-1	250	14,8	230	3,4	2x1,7	1
NK 160-3,6-3	265	5,2	400	3,6	3x1,2	3
NK 160-5,1-3	375	7,4	400	5,1	3x1,7	3
NK 160-6,0-3	440	8,7	400	6,0	3x2,0	3
NK 200-1,2-1	150	5,2	230	1,2	1x1,2	1
NK 200-2,4-1	180	10,4	230	2,4	2x1,2	1
NK 200-3,4-1	250	14,8	230	3,4	2x1,7	1
NK 200-3,6-3	265	5,2	400	3,6	3x1,2	3
NK 200-5,1-3	375	7,4	400	5,1	3x1,7	3
NK 200-6,0-3	440	8,7	400	6,0	3x2,0	3
NK 250-1,2-1	180	5,2	230	1,2	1x1,2	1
NK 250-2,4-1	265	10,4	230	2,4	2x1,2	1
NK 250-3,0-1	375	13,0	230	3,0	1x3,0	1
NK 250-3,6-3	375	5,2	400	3,6	3x1,2	3
NK 250-6,0-3	440	8,7	400	6,0	3x2,0	3
NK 250-9,0-3	660	13,0	400	9,0	3x3,0	3
NK 315-1,2-1	180	5,2	230	1,2	1x1,2	1
NK 315-2,4-1	265	10,4	230	2,4	2x1,2	1
NK 315-3,6-3	375	5,2	400	3,6	3x1,2	3
NK 315-6,0-3	440	8,7	400	6,0	3x2,0	3
NK 315-9,0-3	660	13,0	400	9,0	3x3,0	3

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Overall dimensions:

Type	Dimensions [mm]						Mass [kg]
	∅D	B	H	L	L1	L2	
NK-100-0,6-1	99	94	207	306	226	40	2,6
NK-100-0,8-1	99	94	207	306	226	40	2,6
NK-100-1,2-1	99	94	207	306	226	40	2,9
NK-100-1,6-1	99	94	207	306	226	40	2,9
NK-100-1,8-1	99	94	207	376	296	40	3,1
NK-125-0,6-1	124	103	230	306	226	40	2,4
NK-125-0,8-1	124	103	230	306	226	40	2,4
NK-125-1,2-1	124	103	230	306	226	40	2,7
NK-125-1,6-1	124	103	230	306	226	40	2,7
NK-125-2,4-1	124	103	230	376	296	40	3,0
NK-150-1,2-1	149	120	255	306	226	40	2,5
NK-150-2,4-1	149	120	255	306	226	40	3,1
NK-150-3,4-1	149	120	255	306	226	40	3,1
NK-150-3,6-3	149	120	255	376	296	40	4,1
NK-150-5,1-3	149	120	255	376	296	40	4,1
NK-150-6,0-3	149	120	255	376	296	40	4,1
NK-160-1,2-1	159	120	267	306	226	40	2,1
NK-160-2,4-1	159	120	267	306	226	40	2,9
NK-160-3,4-1	159	120	267	306	226	40	3,2
NK-160-3,6-3	159	120	267	376	296	40	3,9
NK-160-5,1-3	159	120	267	376	296	40	3,9
NK-160-6,0-3	159	120	267	376	296	40	3,9
NK-200-1,2-1	199	150	302	294	214	40	2,4
NK-200-2,4-1	199	150	302	294	214	40	3,2
NK-200-3,4-1	199	150	302	294	214	40	3,3
NK-200-3,6-3	199	150	302	376	296	40	4,1
NK-200-5,1-3	199	150	302	376	296	40	4,1
NK-200-6,0-3	199	150	302	376	296	40	4,1
NK-250-1,2-1	249	150	356	306	226	40	2,4
NK-250-2,4-1	249	150	356	306	226	40	2,6
NK-250-3,0-1	249	150	356	306	226	40	2,4
NK-250-3,6-3	249	150	356	376	296	40	2,9
NK-250-6,0-3	249	150	356	376	296	40	2,9
NK-250-9,0-3	249	150	356	376	296	40	2,9
NK-315-1,2-1	313	150	425	294	214	40	2,6
NK-315-2,4-1	313	150	425	294	214	40	2,8
NK-315-3,6-3	313	150	425	376	296	40	3,1
NK-315-6,0-3	313	150	425	376	296	40	3,1
NK-315-9,0-3	313	150	425	376	296	40	3,1

