

Series
NK



Duct electric heater

Series
NK...U/Un



Duct electric heater with a heating capacity from 0.6 kW up to 2.4 kW and an integrated temperature controller

Series
NK...U



Duct electric heater with heating capacity from 3.0 kW up to 9.0 kW and an integrated control unit

■ Applications

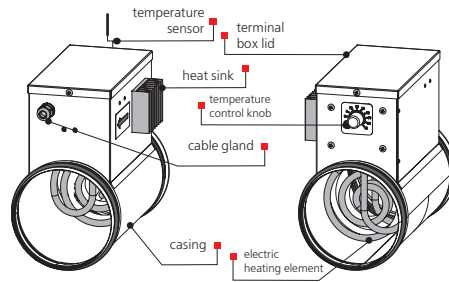
Duct electric heaters are designed for supply air heating in round duct ventilating systems. The heaters are applied in heating, ventilation and air conditioning systems for various premises.

■ Design

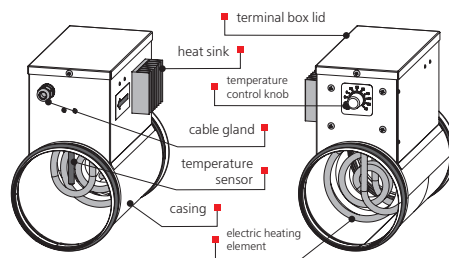
The casing and the terminal box are made of galvanized steel and the heating elements are made of stainless steel. The rubber seals in the casing provide airtight connection to the air ducts.

Each standard size is available with various heating capacity modifications. Installation of the heaters in series increases the heating capacity. All the three phase heaters have star connection.

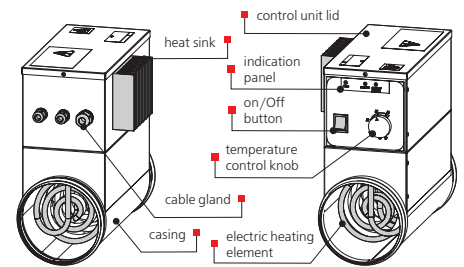
▶ NK...Un duct heater design:



▶ NK...U duct heater design:



▶ NK...U with a control unit, heating capacity 3.0 up to 9.0 kW



The temperature is set with an integrated temperature control knob or by means of a control signal 0-10V from a connected external control device. The heating temperature in the air duct is proportional to the signal output value.

■ Complete set:

Model	Heating capacity range [kW]	Sensors		Temperature controller [°C]	Max. operation temperature of outlet air flow [°C]	Overheat protection	
		integrated	external			basic overheat protection actuated at +50 °C with automatic reset and emergency overheat protection actuated at +90 °C with manual reset	thermal shutdown at +60 °C with manual reset
NK	0,6...9,0	-	-	-	40	+	-
NK...U	0,6...2,4	+	-	-10...+40	40	-	+
NK...Un	0,6...2,4	-	+	-10...+40	40	-	+
NK...U with control unit	3,0...9,0	+	-	-30...+30	30	+	-

Designation key:

Series	Connected air duct diameter [mm]	Heater power [kW]	Phase	Options
NK	100; 125; 150; 160; 200; 250; 315	0,6; 0,8; 1,2; 1,6; 1,7; 2,0; 1,8; 2,4; 3,0; 3,4; 3,6; 5,1; 6,0; 9,0	1 – single phase 3 – three phase	U – integrated temperature control unit Un – temperature control unit with an external temperature sensor

Accessories

Model	Pulser-M*	KDT2-M*	KDT2-M1*	KDT2-MK*
NK	+	+	+	+
NK...U/Un from 0.6 up to 2.4 kW	-	-	-	-
NK...U from 3,0 up to 9,0 kW	-	+	+	+

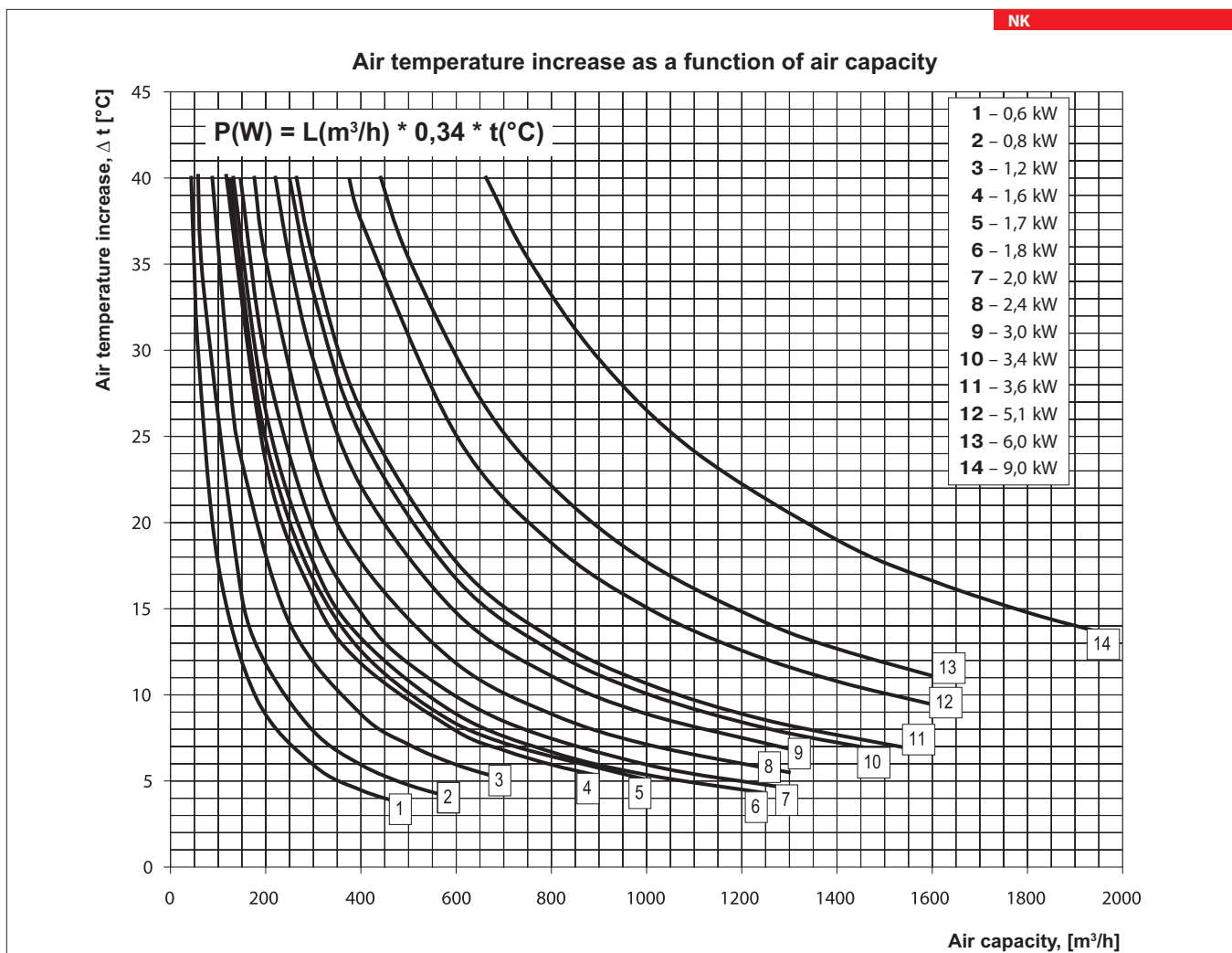
* - refer to Electric Accessories section

Mounting

Fixation	Clamp fixing. The fixation place location must be at least two diameters away from any device.
Position	Any mounting position. The terminal box or the control unit must not be directed downwards because of short circuit danger as a result of condensate drainage.
Air flow	The air direction must match the pointer on the heater casing. The air flow must be equal at any point in the heater and must not be below 1.5 m³/h.
Filters	Air filter prevents contamination.

Power supply to the heater must be disabled during the fan standby.

- ▶ To ensure the correct and safe heater operation the automation system is recommended to ensure the integrated control and protection:
 - ✓ automatic control of the heat output and air heating temperature
 - ✓ monitoring the filter contamination by means of the pressostat
 - ✓ disabling power supply to the heater in case of supply fan shutdown, decrease of air flow or tripping of the integrated overheating thermostats
 - ✓ shutoff of the ventilation system after cooling of the electric heating elements

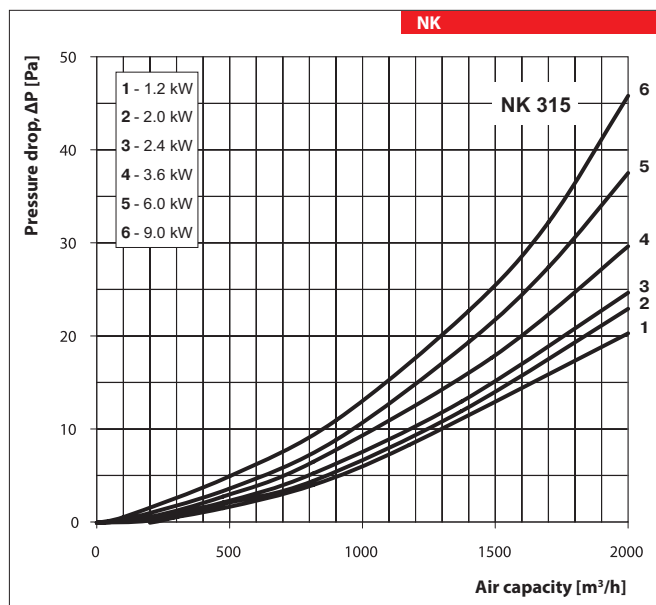
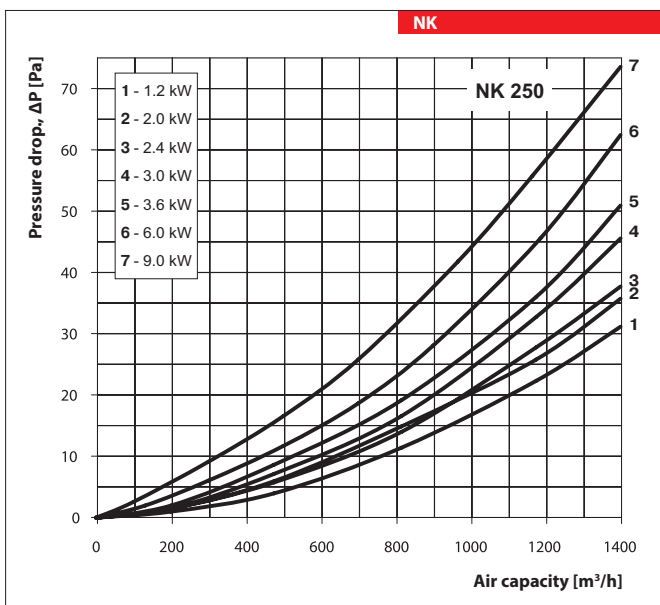
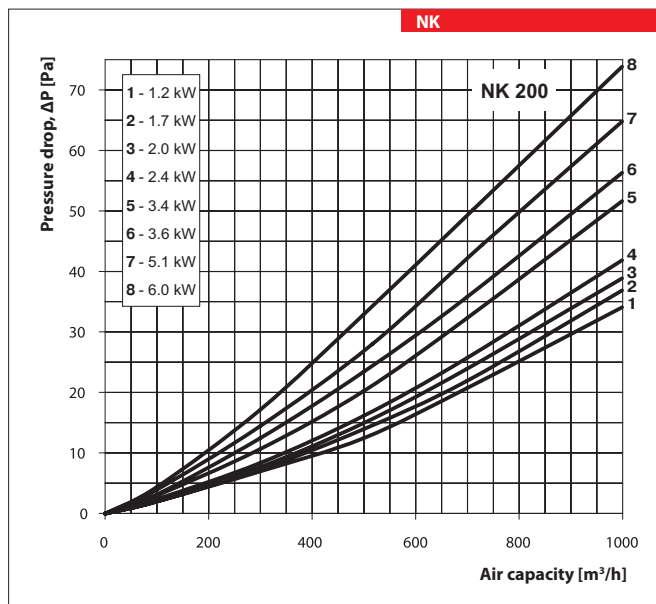
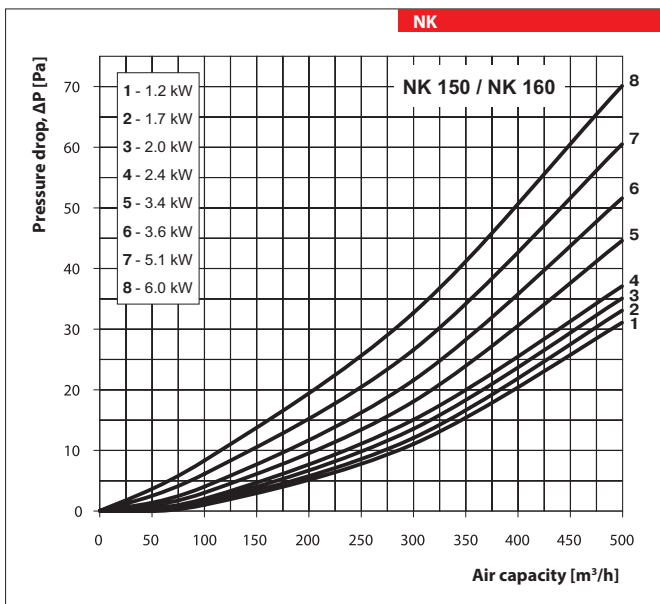
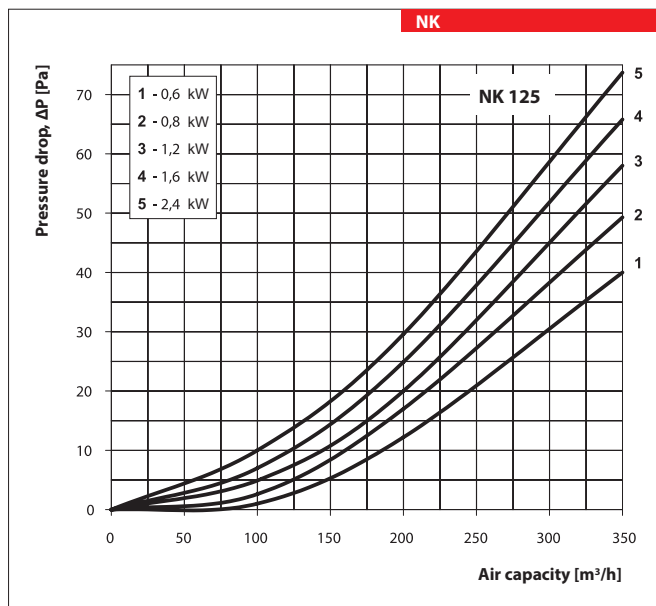
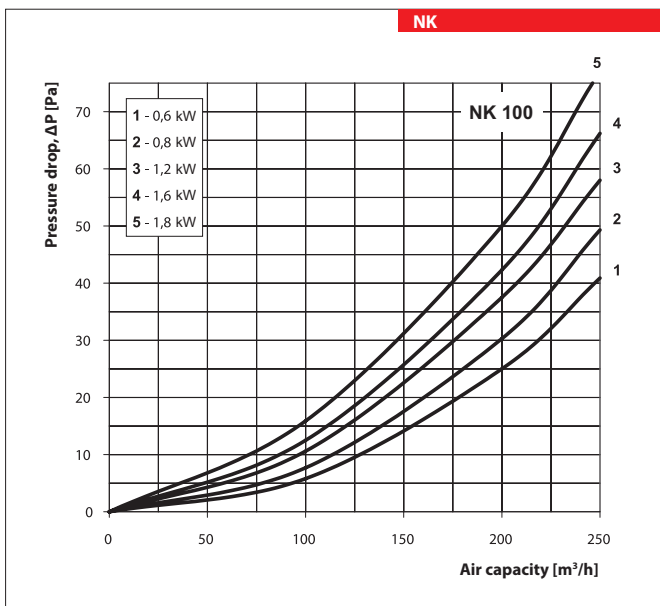


NK HEATER
NK...U

HEATERS

Technical data:

Model	Min. air flow [m³/h]	Current consumption [A]	Voltage [V]	Power [kW]	Number of heating coils x capacity [kW]	Phase		
NK 100-0.6-1/NK 100-0.6-1 U/Un	60	2.6	1~230	0.6	1 x 0.6	1		
NK 100-0.8-1/NK 100-0.8-1 U/Un	80	3.5		0.8	1 x 0.8	1		
NK 100-1.2-1/NK 100-1.2-1 U/Un	90	5.2		1.2	2 x 0.6	1		
NK 100-1.6-1/NK 100-1.6-1 U/Un	120	7.0		1.6	2 x 0.8	1		
NK 100-1.8-1/NK 100-1.8-1 U/Un	130	7.8		1.8	3 x 0.6	1		
NK 125-0.6-1/NK 125-0.6-1 U/Un	60	2.6		0.6	1 x 0.6	1		
NK 125-0.8-1/NK 125-0.8-1 U/Un	80	3.5		0.8	1 x 0.8	1		
NK 125-1.2-1/NK 125-1.2-1 U/Un	90	5.2		1.2	2 x 0.6	1		
NK 125-1.6-1/NK 125-1.6-1 U/Un	120	7.0		1.6	2 x 0.8	1		
NK 125-2.4-1/NK 125-2.4-1 U/Un	150	7.8		2.4	3 x 0.8	1		
NK 150-1.2-1/NK 150-1.2-1 U/Un	120	5.2		1.2	1 x 1.2	1		
NK 150-1.7-1/NK 150-1.7-1 U/Un	130	7.4		1.7	1 x 1.7	1		
NK 150-2.0-1/NK 150-2.0-1 U/Un	140	8.7		2.0	1 x 2.0	1		
NK 150-2.4-1/NK 150-2.4-1 U/Un	150	10.4		2.4	2 x 1.2	1		
NK 150-3.4-1/NK 150-3.4-1 U	220	14.7	3.4	2 x 1.7	1			
NK 150-3.6-3/NK 150-3.6-3 U	265	5.2	3~400	3.6	3 x 1.2	3		
NK 150-5.1-3/NK 150-5.1-3 U	320	7.4		5.1	3 x 1.7	3		
NK 150-6.0-3/NK 150-6.0-3 U	360	8.7		6.0	3 x 2.0	3		
NK 160-1.2-1/NK 160-1.2-1 U/Un	150	5.2	1~230	1.2	1 x 1.2	1		
NK 160-1.7-1/NK 160-1.7-1 U/Un	160	7.4		1.7	1 x 1.7	1		
NK 160-2.0-1/NK 160-2.0-1 U/Un	170	8.7		2.0	1 x 2.0	1		
NK 160-2.4-1/NK 160-2.4-1 U/Un	180	10.4		2.4	2 x 1.2	1		
NK 160-3.4-1/NK 160-3.4-1 U	250	14.8		3.4	2 x 1.7	1		
NK 160-3.6-3/NK 160-3.6-3 U	265	5.2		3~400	3.6	3 x 1.2	3	
NK 160-5.1-3/NK 160-5.1-3 U	375	7.4			5.1	3 x 1.7	3	
NK 160-6.0-3/NK 160-6.0-3 U	440	8.7			6.0	3 x 2.0	3	
NK 200-1.2-1/NK 200-1.2-1 U/Un	150	5.2		1~230	1.2	1 x 1.2	1	
NK 200-1.7-1/NK 200-1.7-1 U/Un	160	7.4			1.7	1 x 1.7	1	
NK 200-2.0-1/NK 200-2.0-1 U/Un	170	8.7			2.0	1 x 2.0	1	
NK 200-2.4-1/NK 200-2.4-1 U/Un	180	10.4			2.4	2 x 1.2	1	
NK 200-3.4-1/NK 200-3.4-1 U	250	14.8			3.4	2 x 1.7	1	
NK 200-3.6-3/NK 200-3.6-3 U	265	5.2			3~400	3.6	3 x 1.2	3
NK 200-5.1-3/NK 200-5.1-3 U	375	7.4	5.1			3 x 1.7	3	
NK 200-6.0-3/NK 200-6.0-3 U	440	8.7	6.0			3 x 2.0	3	
NK 250-1.2-1/NK 250-1.2-1 U/Un	180	5.2	1~230		1.2	1 x 1.2	1	
NK 250-2.0-1/NK 250-2.0-1 U/Un	200	8.7			2.0	1 x 2.0	1	
NK 250-2.4-1/NK 250-2.4-1 U/Un	265	10.4			2.4	2 x 1.2	1	
NK 250-3.0-1/NK 250-3.0-1 U	375	13.0			3.0	1 x 3.0	1	
NK 250-3.6-3/NK 250-3.6-3 U	375	5.2			3~400	3.6	3 x 1.2	3
NK 250-6.0-3/NK 250-6.0-3 U	440	8.7				6.0	3 x 2.0	3
NK 250-9.0-3/NK 250-9.0-3 U	660	13.0		9.0		3 x 3.0	3	
NK 315-1.2-1/NK 315-1.2-1 U/Un	180	5.2		1~230	1.2	1 x 1.2	1	
NK 315-2.0-1/NK 315-2.0-1 U/Un	200	8.7			2.0	1 x 2.0	1	
NK 315-2.4-1/NK 315-2.4-1 U/Un	265	10.4			2.4	2 x 1.2	1	
NK 315-3.6-3/NK 315-3.6-3 U	375	5.2			3~400	3.6	3 x 1.2	3
NK 315-6.0-3/NK 315-6.0-3 U	440	8.7				6.0	3 x 2.0	3
NK 315-9.0-3/NK 315-9.0-3 U	660	13.0				9.0	3 x 3.0	3

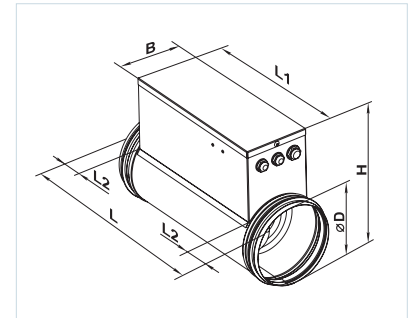


NK HEATER
NK...U

HEATERS

Overall dimensions:

Model	Dimensions [mm]						Mass [kg]
	ØD	B	H	L	L1	L2	
NK-100-0.6-1	99	94	207	306	226	40	1.3
NK-100-0.8-1	99	94	207	306	226	40	1.3
NK-100-1.2-1	99	94	207	306	226	40	1.5
NK-100-1.6-1	99	94	207	306	226	40	1.5
NK-100-1.8-1	99	94	207	376	296	40	1.7
NK-125-0.6-1	124	103	230	306	226	40	1.4
NK-125-0.8-1	124	103	230	306	226	40	1.4
NK-125-1.2-1	124	103	230	306	226	40	1.7
NK-125-1.6-1	124	103	230	306	226	40	1.7
NK-125-2.4-1	124	103	230	376	296	40	1.9
NK-150-1.2-1	149	120	255	306	226	40	2.0
NK-150-1.7-1	149	120	255	306	226	40	2.0
NK-150-2.0-1	149	120	255	306	226	40	2.0
NK-150-2.4-1	149	120	255	306	226	40	2.4
NK-150-3.4-1	149	120	255	306	226	40	2.4
NK-150-3.6-3	149	120	255	376	296	40	2.8
NK-150-5.1-3	149	120	255	376	296	40	2.8
NK-150-6.0-3	149	120	255	376	296	40	2.8
NK-160-1.2-1	159	120	267	306	226	40	2.1
NK-160-1.7-1	159	120	267	306	226	40	2.1
NK-160-2.0-1	159	120	267	306	226	40	2.1
NK-160-2.4-1	159	120	267	306	226	40	2.5
NK-160-3.4-1	159	120	267	306	226	40	2.5
NK-160-3.6-3	159	120	267	376	296	40	3.0
NK-160-5.1-3	159	120	267	376	296	40	3.0
NK-160-6.0-3	159	120	267	376	296	40	3.0
NK-200-1.2-1	199	150	302	294	214	40	2.5
NK-200-1.7-1	199	150	302	294	214	40	2.5
NK-200-2.0-1	199	150	302	294	214	40	2.5
NK-200-2.4-1	199	150	302	294	214	40	3.0
NK-200-3.4-1	199	150	302	294	214	40	3.0
NK-200-3.6-3	199	150	302	376	296	40	3.5
NK-200-5.1-3	199	150	302	376	296	40	3.5
NK-200-6.0-3	199	150	302	376	296	40	3.5
NK-250-1.2-1	249	150	356	306	226	40	3.2
NK-250-2.0-1	249	150	356	306	226	40	3.2
NK-250-2.4-1	249	150	356	306	226	40	3.7
NK-250-3.0-1	249	150	356	306	226	40	3.2
NK-250-3.6-3	249	150	356	376	296	40	4.6
NK-250-6.0-3	249	150	356	376	296	40	4.6
NK-250-9.0-3	249	150	356	376	296	40	4.6
NK-315-1.2-1	313	150	425	294	214	40	4.0
NK-315-2.0-1	313	150	425	294	214	40	4.0
NK-315-2.4-1	313	150	425	294	214	40	4.8
NK-315-3.6-3	313	150	425	376	296	40	5.6
NK-315-6.0-3	313	150	425	376	296	40	5.6
NK-315-9.0-3	313	150	425	376	296	40	5.6



Overall dimensions:

Type	Dimensions [mm]					Mass [kg]	Fig. no.
	∅D	B	H	L	L1		
NK-100-0.6-1 U/Un	99	94	204	306	227	1.5	1
NK-100-0.8-1 U/Un	99	94	204	306	227	1.5	1
NK-100-1.2-1 U/Un	99	120	204	370	290	1.6	1
NK-100-1.6-1 U/Un	99	120	204	370	290	1.6	1
NK-100-1.8-1 U/Un	99	120	204	454	374	1.8	1
NK-125-0.6-1 U/Un	124	103	230	306	227	1.6	1
NK-125-0.8-1 U/Un	124	103	230	306	227	1.6	1
NK-125-1.2-1 U/Un	124	126	230	370	290	1.8	1
NK-125-1.6-1 U/Un	124	126	230	370	290	1.8	1
NK-125-2.4-1 U/Un	124	126	230	454	374	2	1
NK-150-1.2-1 U/Un	149	144	255	306	226	2.1	1
NK-150-1.7-1 U/Un	149	144	255	306	226	2.1	1
NK-150-2.0-1 U/Un	149	144	255	306	226	2.1	1
NK-150-2.4-1 U/Un	149	144	255	370	290	2.6	1
NK-150-3.4-1 U	149	187	340	370	298	4.3	2
NK-150-3.6-3 U	149	187	340	370	298	4.9	2
NK-150-5.1-3 U	149	187	340	370	298	4.9	2
NK-150-6.0-3 U	149	187	340	370	298	4.9	2
NK-160-1.2-1 U/Un	159	154	267	306	226	2.2	1
NK-160-1.7-1 U/Un	159	154	267	306	226	2.2	1
NK-160-2.0-1 U/Un	159	154	267	306	226	2.2	1
NK-160-2.4-1 U/Un	159	154	267	370	290	2.8	1
NK-160-3.4-1 U	159	187	350	370	298	4.6	2
NK-160-3.6-3 U	159	187	350	370	298	5.2	2
NK-160-5.1-3 U	159	187	350	370	298	5.2	2
NK-160-6.0-3 U	159	187	350	370	298	5.2	2
NK-200-1.2-1 U/Un	199	174	302	306	228	2.6	1
NK-200-1.7-1 U/Un	199	174	302	306	228	2.6	1
NK-200-2.0-1 U/Un	199	174	302	306	228	2.6	1
NK-200-2.4-1 U/Un	199	174	302	376	298	3.2	1
NK-200-3.4-1 U	199	237	389	376	298	5.2	2
NK-200-3.6-3 U	199	237	389	376	298	5.9	2
NK-200-5.1-3 U	199	237	389	376	298	5.9	2
NK-200-6.0-3 U	199	237	389	376	298	5.9	2
NK-250-1.2-1 U/Un	249	174	356	376	298	3.3	1
NK-250-2.0-1 U/Un	249	174	356	376	298	3.3	1
NK-250-2.4-1 U/Un	249	174	356	376	298	3.9	1
NK-250-3.0-1 U	249	237	446	376	298	5.1	2
NK-250-3.6-3 U	249	237	446	376	298	6.6	2
NK-250-6.0-3 U	249	237	446	376	298	6.6	2
NK-250-9.0-3 U	249	237	446	376	298	6.6	2
NK-315-1.2-1 U/Un	313	174	425	306	228	4.1	1
NK-315-2.0-1 U/Un	313	174	425	306	228	4.1	1
NK-315-2.4-1 U/Un	313	174	425	306	228	5	1
NK-315-3.6-3 U	313	237	514	376	298	7.4	2
NK-315-6.0-3 U	313	237	514	376	298	7.4	2
NK-315-9.0-3 U	313	237	514	376	298	7.4	2

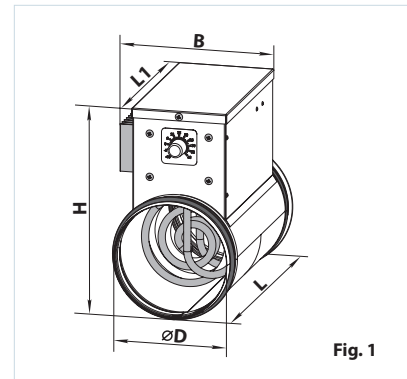


Fig. 1

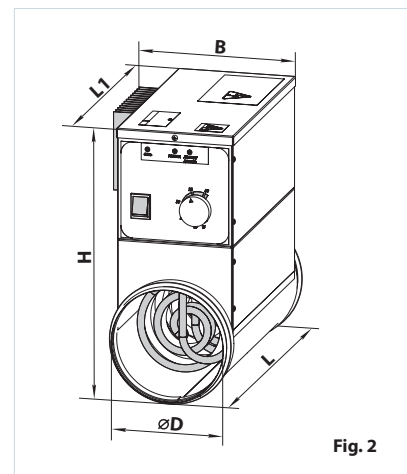


Fig. 2