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# KV 3 - KV 6 - KV 10



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## GENERAL DATA

### Applications

Vertical multistage centrifugal pump suitable for use in small and medium water supplies. It is ideal for pressure sets, boiler feed and hot water circulation, conveying condensate and cooling water, fire fighting and washing systems, supplying drinking water and feeding pressurised tanks, sprinkler and spraying irrigation systems.

### Constructional features of the pump

Cast iron discharge and suction bodies treated against corrosion.

Technopolymer impellers, diffuser bodies and diffusers.

AISI 304 stainless steel pump liner and wear rings.

AISI 416 stainless steel pump shaft and AISI 316 stainless steel sliding bush.

Bronze sliding bush guide, self-lubricated by the pumped liquid itself.

Carbon/ceramic mechanical seal.

Connected to the motor with a rigid coupling.

Supplied standard with threaded counterflanges.

### Constructional features of the motor

Induction motor, closed and cooled with external ventilation.

Rotor mounted on oversized greased sealed-for-life ball bearings to ensure silent running and long life.

Built-in thermal and current overload protection in the single-phase version.

Three-phase motors should be protected with a suitable overload protection complying with the regulations in force.

Manufactured according to CEI 2-3 and CEI 61-69 standards (EN 60335-2-41).

Motor protection: IP 55

Insulation class: F

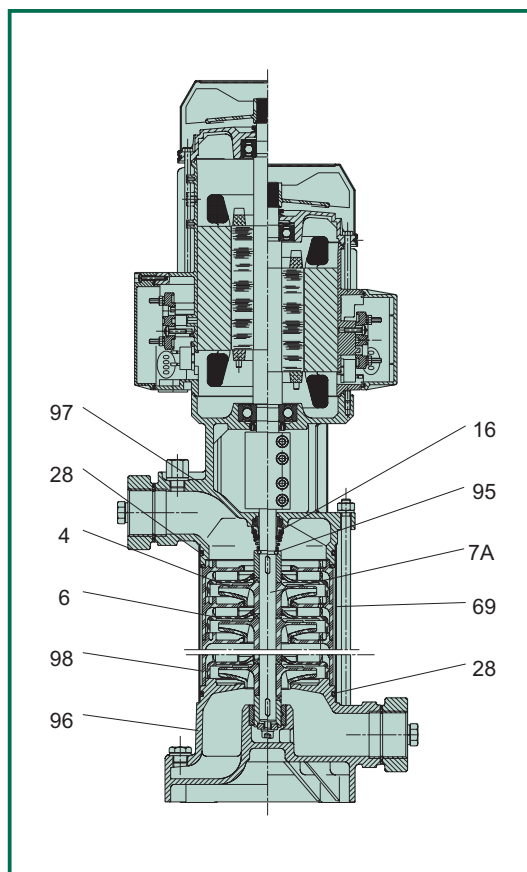
Standard voltage: single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz

# TECHNICAL DATA

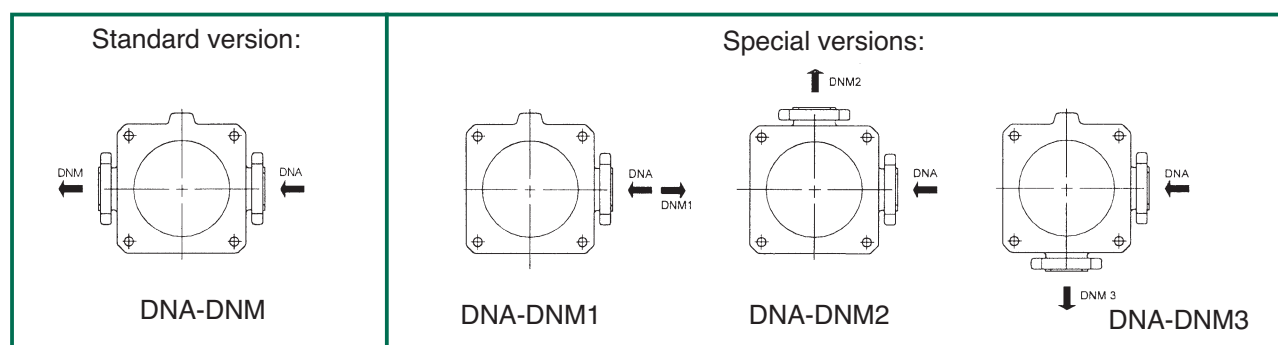
N.	PARTS*	MATERIALS
4	IMPELLER	TECNOPLYMER B
6	DIFFUSER	TECNOPLYMER B
7A	PUMP SHAFT	STAINLESS STEEL AISI 416 X12 CrS 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMIC
28	OR GASKET	EPDM RUBBER
69	LINER	STAINLESS STEEL AISI 304 X5 CrNi 1810 UNI 6900/71
95	OR GASKET	EPDM RUBBER
96	SUCTION BODY	CAST IRON 200 UNI ISO 185
97	DISCHARGE BODY	CAST IRON 200 UNI ISO 185
98	DIFFUSER BODY	TECNOPLYMER B

\* In contact with the liquid.



- Operating range: from 1,8 to 13,5 m<sup>3</sup>/h with head up to 139 metres
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water.
- Liquid temperature range: from 0°C to +35°C for domestic use (EN 60335-2-41)  
from -15°C to +110°C for other uses
- Maximum ambient temperature: +40°C
- Maximum operating pressure: 18 bar (1800 kPa)
- Installation: fixed, in a vertical position
- Special executions on request: other voltages and/or frequencies

- Position of the suction and delivery connectors:



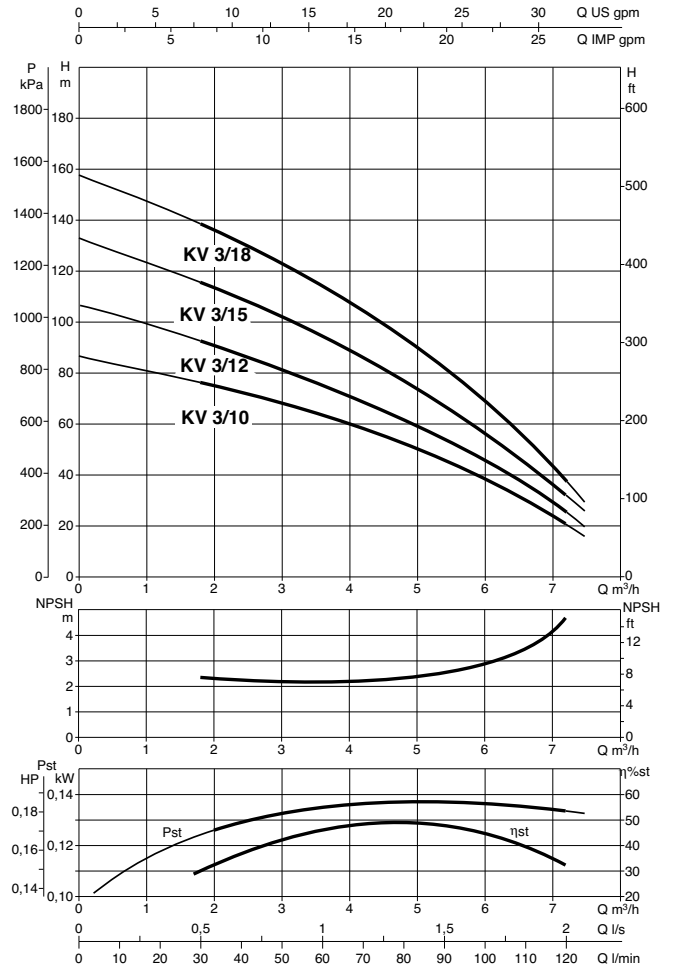
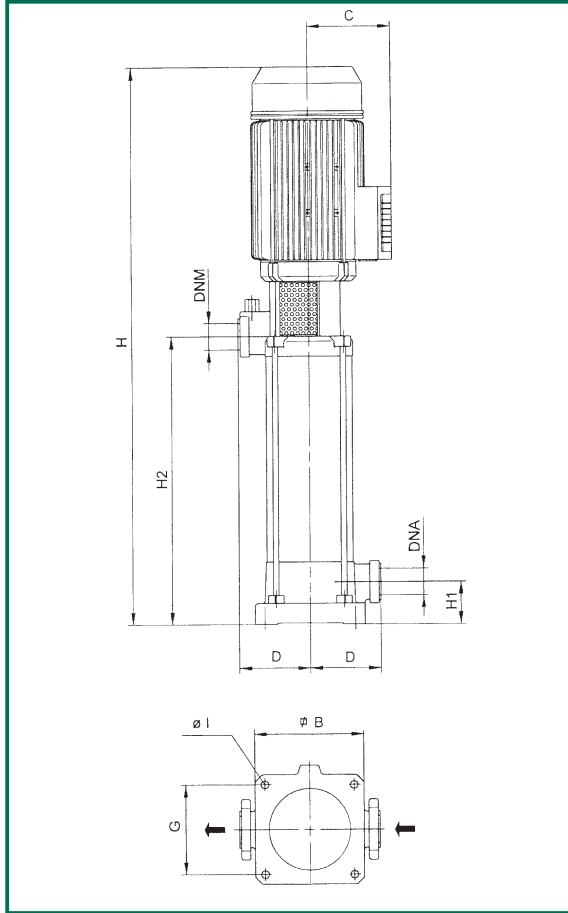


The performance curves are based on the kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.

# KV 3

2-pole motor (2900 1/min)

Liquid temperature range: from 0°C to +35°C for domestic use (EN 60355-2-41)  
from -15°C to +110°C for other uses



MODEL	B	C	D	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
											L/A	L/B	H		
<b>KV 3/10 M</b>	155	111	100	127	11	779	60	472	1 1/4	1 1/4	972	232	232	0,052	27,2
<b>KV 3/10 T</b>	155	111	100	127	11	779	60	472	1 1/4	1 1/4	972	232	232	0,052	26,3
<b>KV 3/12 M</b>	155	116	100	127	11	917	60	536	1 1/4	1 1/4	972	232	232	0,052	30,6
<b>KV 3/12 T</b>	155	111	100	127	11	843	60	536	1 1/4	1 1/4	972	232	232	0,052	28
<b>KV 3/15 M</b>	155	116	100	127	11	1013	60	632	1 1/4	1 1/4	1212	232	232	0,065	32,5
<b>KV 3/15 T</b>	155	116	100	127	11	1013	60	632	1 1/4	1 1/4	1212	232	232	0,065	31,9
<b>KV 3/18 T</b>	155	116	100	127	11	1109	60	728	1 1/4	1 1/4	1212	232	232	0,065	35,8

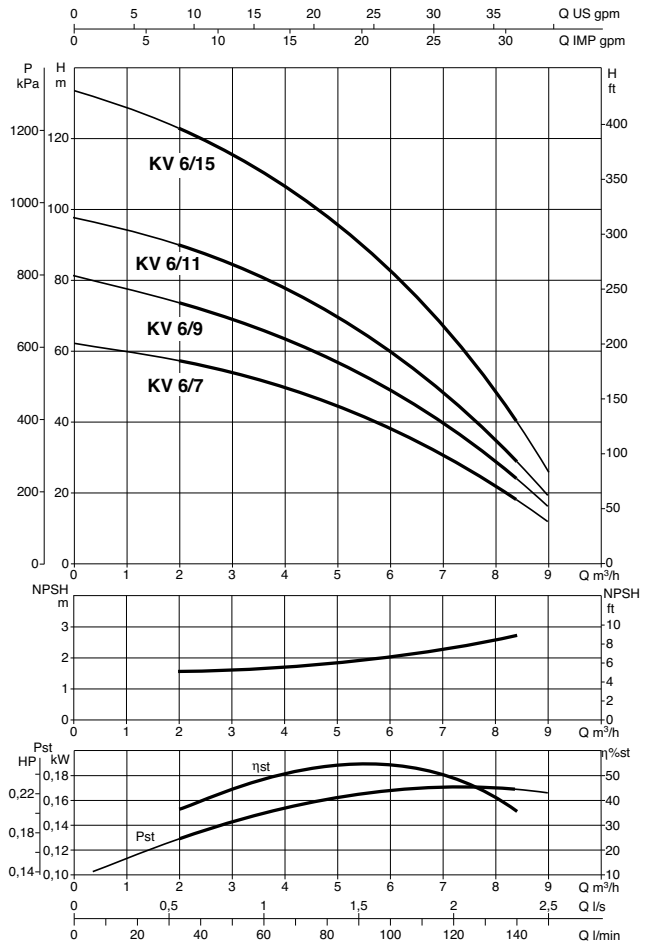
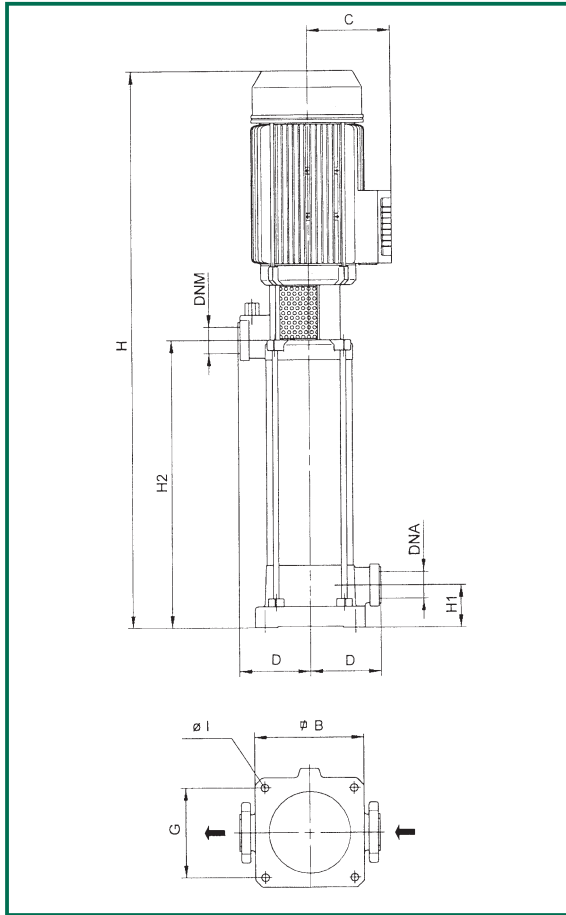
MODEL	ELECTRICAL DATA											HYDRAULIC DATA (n = 2850 1/min)					
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A	I st. A	1/min	η max %	cos φ	CAPACITOR		Q m³/h l/min	0	1,8 30	3,6 60	5,4 90	7,2 120
			kW	HP						μF	Vc						
<b>KV 3/10 M</b>	1x220-240 V ~	1,77	1,1	1,5	7,8	29	2800	75	0,99	31,5	450	H (m)	88	77	63,5	47,5	21
<b>KV 3/10 T</b>	3x230-400 V ~	1,8	1,1	1,5	5,6-3,2	38-22	2850	81	0,78	-	-						
<b>KV 3/12 M</b>	1x220-240 V ~	2,34	1,5	2	9,6	38	2750	72	0,97	40	450						
<b>KV 3/12 T</b>	3x230-400 V ~	2,06	1,5	2	6,4-3,7	43-25	2750	80	0,82	-	-						
<b>KV 3/15 M</b>	1x220-240 V ~	2,5	1,85	2,5	11,3	48	2850	78	0,95	40	450						
<b>KV 3/15 T</b>	3x230-400 V ~	2,6	1,85	2,5	7,5-4,3	57-33	2850	78	0,94	-	-						
<b>KV 3/18 T</b>	3x230-400 V ~	3,3	2,2	3	10-5,8	78-45	2850	82	0,81	-	-	158,4	138,6	114,3	82,3	37,8	

The performance curves are based on the kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.

# KV 6

2-pole motor (2900 1/min)

Liquid temperature range: from 0°C to +35°C for domestic use (EN 60355-2-41)  
from -15°C to +110°C for other uses



MODEL	B	C	D	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
											L/A	L/B	H		
<b>KV 6/7 M</b>	155	111	100	127	11	683	60	376	1 1/4	1 1/4	972	232	232	0,052	26,1
<b>KV 6/7 T</b>	155	111	100	127	11	683	60	376	1 1/4	1 1/4	972	232	232	0,052	25,2
<b>KV 6/9 M</b>	155	116	100	127	11	821	60	440	1 1/4	1 1/4	972	232	232	0,052	29
<b>KV 6/9 T</b>	155	111	100	127	11	747	60	440	1 1/4	1 1/4	972	232	232	0,052	26,8
<b>KV 6/11 M</b>	155	116	100	127	11	885	60	504	1 1/4	1 1/4	972	232	232	0,052	29,9
<b>KV 6/11 T</b>	155	116	100	127	11	885	60	504	1 1/4	1 1/4	972	232	232	0,052	27,7
<b>KV 6/15 T</b>	155	116	100	127	11	1013	60	632	1 1/4	1 1/4	1212	232	232	0,065	34,5

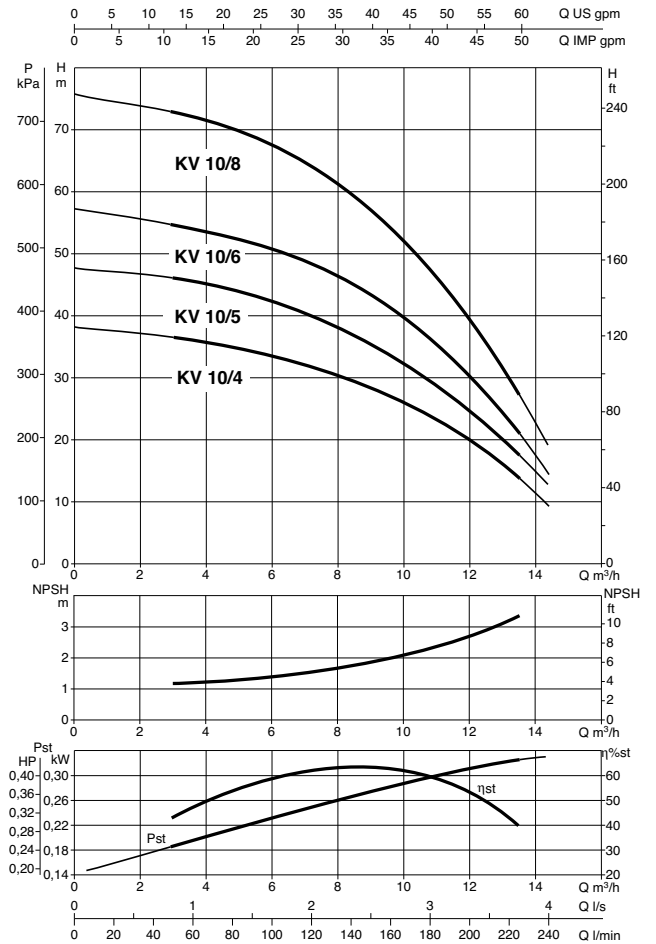
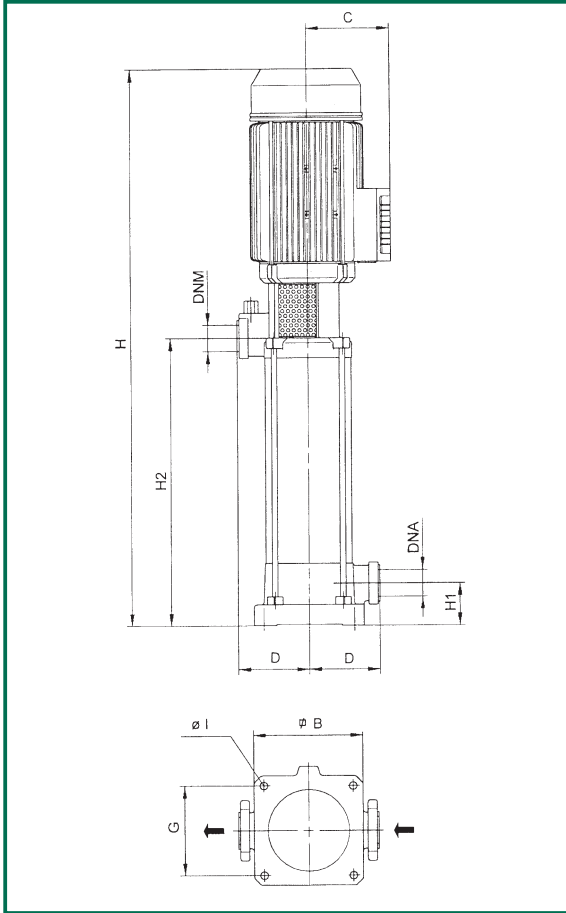
MODEL	ELECTRICAL DATA											HYDRAULIC DATA (n ≈ 2850 1/min)						
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		In A	I st. A	1/min	η max %	cos φ	CAPACITOR		Q m³/h l/min	H (m)					
			kW	HP						μF	Vc		0	1,8	3,6	5,4	7,2	8,4
<b>KV 6/7 M</b>	1x220-240 V ~	1,68	1,1	1,5	7,5	29	2800	75	0,98	31,5	450	H (m)	62,3	57,8	51,5	42,5	29,5	18,6
<b>KV 6/7 T</b>	3x230-400 V ~	1,6	1,1	1,5	5-2,9	38-22	2850	81	0,76	-	-		80,1	74,3	66,2	54,6	38	23,9
<b>KV 6/9 M</b>	1x220-240 V ~	2,1	1,5	2	9,4	38	2850	72	0,98	40	450		97,9	90,8	81	66,8	46,4	29,2
<b>KV 6/9 T</b>	3x230-400 V ~	2	1,5	2	6,2-3,6	43-25	2850	81	0,78	-	-		133,5	123,8	110,4	91,1	63,3	39,8
<b>KV 6/11 M</b>	1x220-240 V ~	2,5	1,85	2,5	11,1	48	2850	78	0,95	40	450							
<b>KV 6/11 T</b>	3x230-400 V ~	2,3	1,85	2,5	7,3-4,2	43-25	2850	80	0,84	-	-							
<b>KV 6/15 T</b>	3x230-400 V ~	3,3	2,2	3	11-6,3	78-45	2850	83	0,78	-	-							

The performance curves are based on the kinematic viscosity values = 1 mm<sup>2</sup>/s and density equal to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.

# KV 10

2-pole motor (2900 1/min)

Liquid temperature range: from 0°C to +35°C for domestic use (EN 60355-2-41)  
from -15°C to +110°C for other uses



MODEL	B	C	D	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME m <sup>3</sup>	WEIGHT Kg
											L/A	L/B	H		
<b>KV 10/4 M</b>	155	111	100	127	11	587	60	280	1 1/4	1 1/4	712	232	232	0,038	24,4
<b>KV 10/4 T</b>	155	111	100	127	11	587	60	280	1 1/4	1 1/4	712	232	232	0,038	23,1
<b>KV 10/5 M</b>	155	116	100	127	11	693	60	312	1 1/4	1 1/4	712	232	232	0,038	26,6
<b>KV 10/5 T</b>	155	111	100	127	11	619	60	312	1 1/4	1 1/4	972	232	232	0,052	24,6
<b>KV 10/6 M</b>	155	116	100	127	11	725	60	344	1 1/4	1 1/4	972	232	232	0,052	29,5
<b>KV 10/6 T</b>	155	111	100	127	11	725	60	344	1 1/4	1 1/4	972	232	232	0,052	27,9
<b>KV 10/8 T</b>	155	116	100	127	11	789	60	408	1 1/4	1 1/4	972	232	232	0,052	30,1

MODEL	ELECTRICAL DATA										HYDRAULIC DATA (n = 2850 1/min)																				
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL		I <sub>n</sub> A	I <sub>st</sub> A	1/min	η max %	cos φ	CAPACITOR		Q																			
			kW	HP						μF	Vc	m <sup>3</sup> /h	0	1,8	3,6	5,4	7,2	8,4	10,2	12	13,8										
<b>KV 10/4 M</b>	1x220-240 V ~	1,9	1,1	1,5	8,3	29	2850	73	0,97	31,5	450	H (m)	Q l/min	0	30	60	90	120	140	170	200	230	38,2	37,4	36,2	34,4	32	29,7	25,5	20	12,6
<b>KV 10/4 T</b>	3x230-400 V ~	1,9	1,1	1,5	6,1-3,5	38-22	2850	79	0,83	-	-			47,8	46,8	45,2	43	40	37,2	31,9	25	15,8									
<b>KV 10/5 M</b>	1x220-240 V ~	2,4	1,5	2	10,4	45	2850	79	0,97	40	450			57,3	56,1	54,2	51,6	48	44,6	38,2	30	18,9									
<b>KV 10/5 T</b>	3x230-400 V ~	2,3	1,5	2	6,8-3,9	43-25	2850	80	0,83	-	-			76,4	74,8	72,3	68,8	64	59,4	51	40	25,2									
<b>KV 10/6 M</b>	1x220-240 V ~	2,6	1,85	2,5	12,5	54	2850	81	0,98	40	450																				
<b>KV 10/6 T</b>	3x230-400 V ~	2,8	1,85	2,5	8,7-5	57-33	2850	81	0,83	-	-																				
<b>KV 10/8 T</b>	3x230-400 V ~	3,7	2,2	3	11,8-6,8	78-45	2850	83	0,80	-	-																				