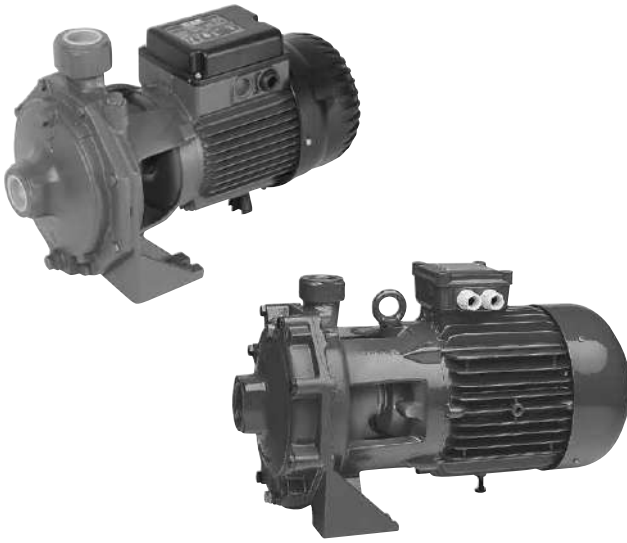


# K TWIN-IMPELLER

## TWIN-IMPELLER ELECTRIC PUMPS



ENERGY EFFICIENCY **IE3**  $\geq$  7.5 kW

### TECHNICAL DATA

#### Operating range:

from 1,2 to 30 m<sup>3</sup>/h with head up to 97 metres.

**Pumped liquid:** clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

#### Liquid temperature range:

K 35/40, K 45/50,

K 35/100, K 40/100, K 55/100

:from -10 °C to +50 °C

K 55/50, K 66/100, K 90/100

K 70/300, K 80/300, K 70/400, K 80/400

:from -15 °C to +110 °C

**Maximum ambient temperature:** +40°C

#### Maximum operating pressure:

K 35/40, K 35/100, K 40/100

:6 bar (600 kPa)

K 45/50, K 55/50

:8 bar (800 kPa)

K 55/100, K 66/100

:10 bar (1000 kPa)

K 90/100, K 70/300, K 80/300, K 70/400, K 80/400

:12 bar (1200 kPa)

#### Protection class:

IP 55, IP 44 per K 35/40, K 45/50, K 55/50, K 35/100, K 40/100

**Protection class at the terminal board:** IP 55

#### Insulation class: F

#### Standard voltage:

single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz up to 4 kW included - 400 V  $\Delta$  50 Hz from 5,5 kW

**Installation:** fixed, horizontal or vertical position, provided that the motor is always above the pump.

**Special executions on requests:** alternative voltages and frequencies.

### APPLICATIONS

Twin-impeller centrifugal pump designed for the realisation of pressurization units in water systems and filling of pressure vessels. Suitable for sprinkler systems and other general water supply uses.

### CONSTRUCTION FEATURES OF THE PUMP

Pump body and motor support in cast iron.

Technopolymer impeller.

Carbon/ceramic mechanical seal.

### CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

Construction according to CEI 2-3.

IE2 motors as standard, from 0,75 kW to 5,5 kW - IE3  $\geq$  7,5 kW

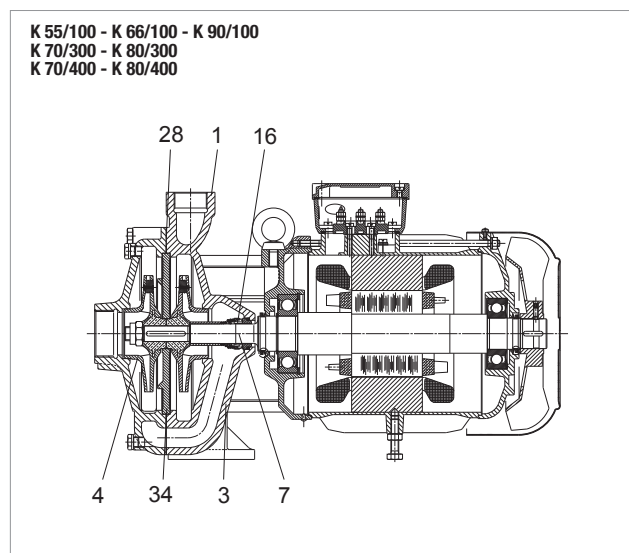
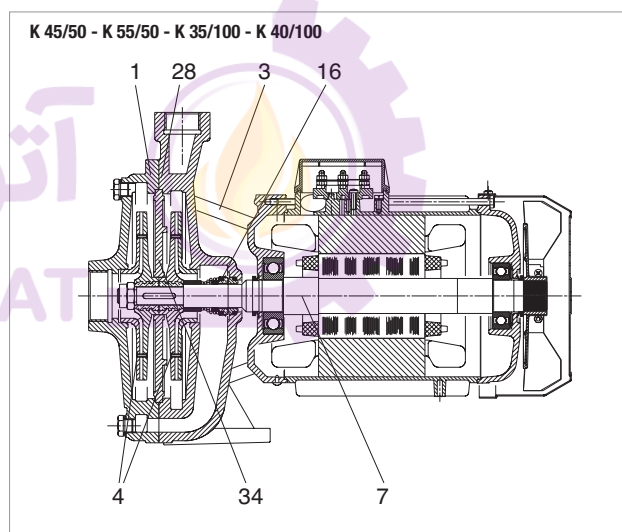
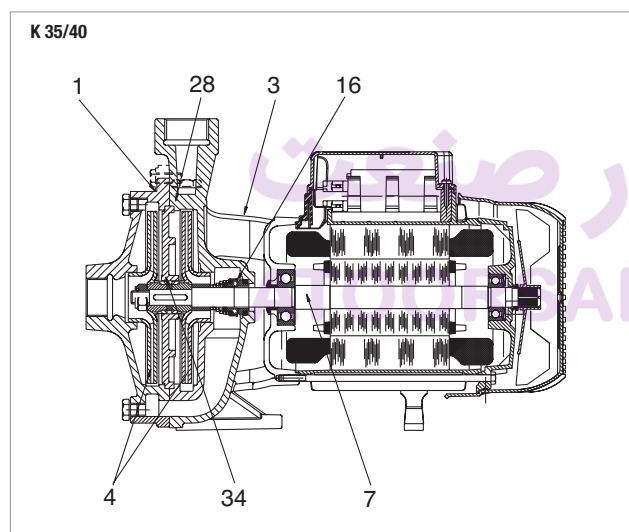
# K TWIN-IMPELLER

## TWIN-IMPELLER ELECTRIC PUMPS

### MATERIALS

No.	PARTS*	MATERIALS	MODELS
1	PUMP BODY	CAST IRON 200 UNI ISO 185	
3	SUPPORT	CAST IRON 200 UNI ISO 185	
4	IMPELLER	TECHNOPOLYMER A	K 35/40; K 45/50; K 35/100; K 40/100; K 55/100
		TECHNOPOLYMER B	K 55/50; K 66/100; K 90/100; K 70/300; K 80/300; K 70/400; K 80/400
7	SHAFT WITH ROTOR	AISI 416 STAINLESS STEEL X12CRS13 UNI 6900/71	K 35/40
		AISI 303 STAINLESS STEEL X10CRNIS 1089 UNI 6900/71	K 45/50; K 55/50; K 35/100; K 40/100; K 55/100; K66/100; K 90/100
		AISI 304 STAINLESS STEEL X5 1810 UNI 6900/71	K 70/300; K 80/300; K 70/400; K 80/400
16	MECHANICAL SEAL	CARBON / CERAMIC	
28	GASKET	NBR RUBBER	K 35/40; K 45/50; K 55/50; K 55/100; K 35/100; K 40/100
		GUARNITAL	K 66/100; K 90/100; K 70/300; K 80/300; K 70/400; K 80/400
34	INTERMEDIATE DISC	CAST IRON 200 UNI ISO 185	K 35/40; K 45/50; K 55/50; K 55/100; K 66/100; K 90/100; K 70/300; K 70/400; K 80/300; K 80/400

\* In contact with the liquid



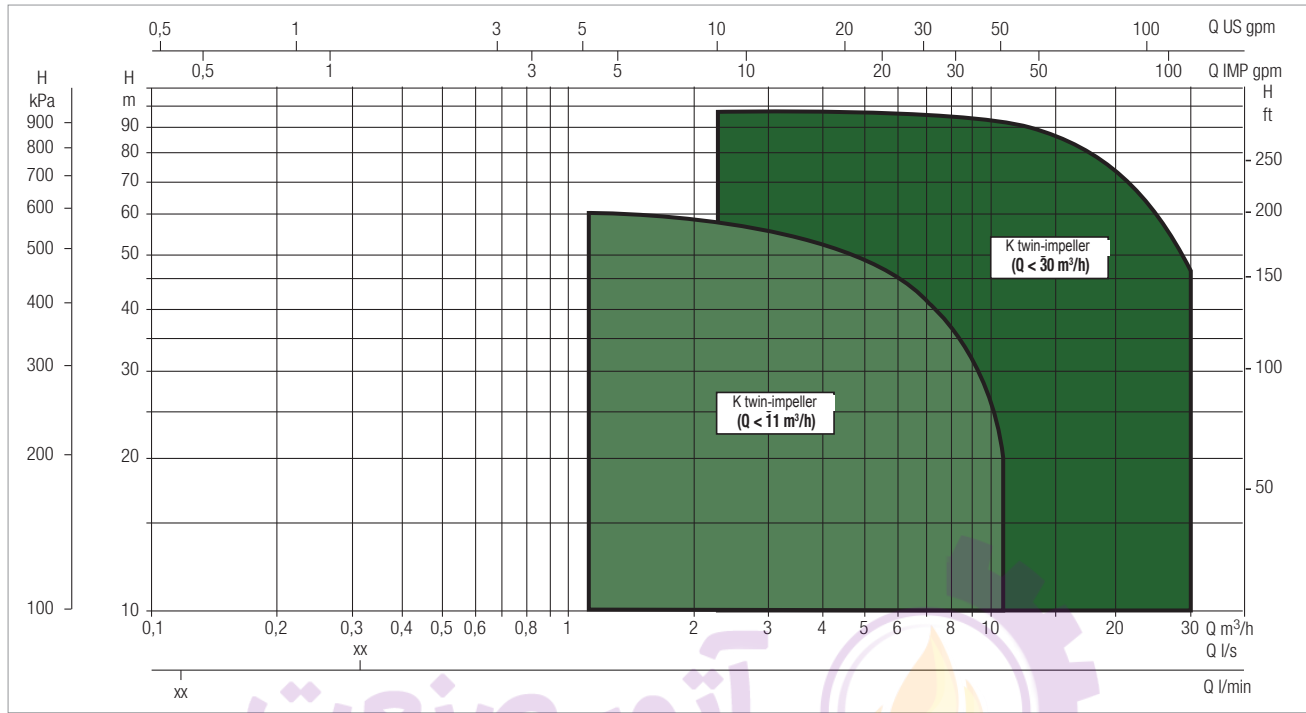
# K TWIN-IMPELLER RANGE

## ELECTRIC PUMPS

### PERFORMANCE RANGE

The performance curves are based on 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.

### GRAPHIC SELECTION TABLE

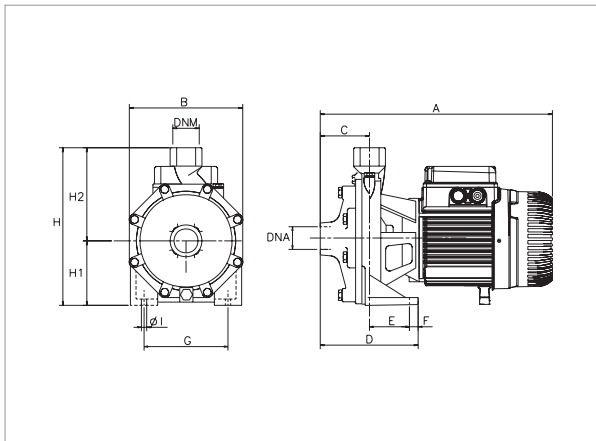


### SELECTION TABLE

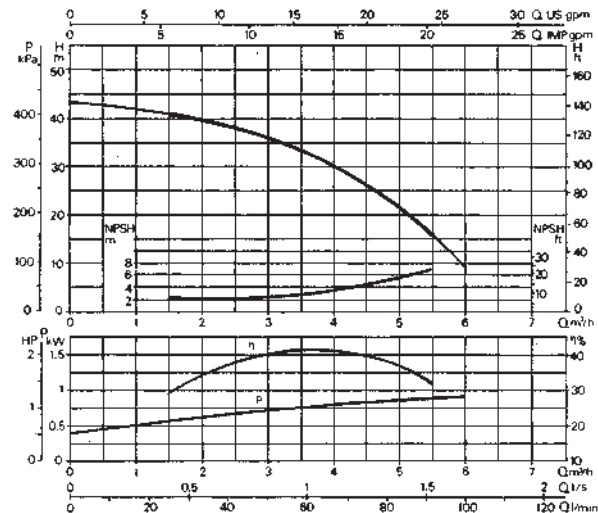
MODEL	Q=	0	1.2	1.8	2.4	3.6	4.8	6	7.2	9	9.6	10.8	12	15	18	24	30	
	m <sup>3</sup> /h	0	20	30	40	60	80	100	120	150	160	180	200	250	300	400	500	
	Q=																	
	l/min																	
K 35/40 M-T	H (m)	43.5	41.5	40	38	33	23.5											
K 45/50 M-T		51	49	47.5	46	42	37	30										
K 55/50 M-T		62	60	58	57	52	45	34										
K 35/100 M-T		38.5			37.5	36.5	35	32	28.5	18.5	17.5							
K 40/100 M-T		44			43.4	42.5	41	39	35.7	29	26	18.5						
K 55/100 T		62			59.5	57	54.5	51	47	39	36							
K 66/100 T		73			70	67.5	64	60.5	57	49	47							
K 90/100 T		83.5			82	79.5	76.5	72.5	68	61	58							
K 70/300 T		76						74	73	72	71.5	70	69	65	60.5	43.5		
K 80/300 T		95						93	92.2	91	90.5	90	89.5	87	82	68		
K 70/400 T		86								84	83.2	82.5	82	79	76	65	47	
K 80/400 T		97									95	94.5	94	92	89	80	64	

## K 35/40 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

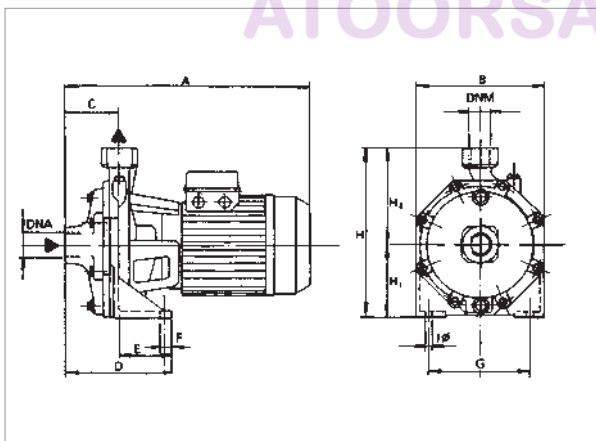


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					µF	Vc
K 35/40 M	1x220-240 V ~	1.2	0.75	1	5.5	-	18.5	2800	20	450
K 35/40 T	3x230-400 V ~	1.2	0.75	1	3.8-2.2	IE2	22.14-12.8	2850	-	-

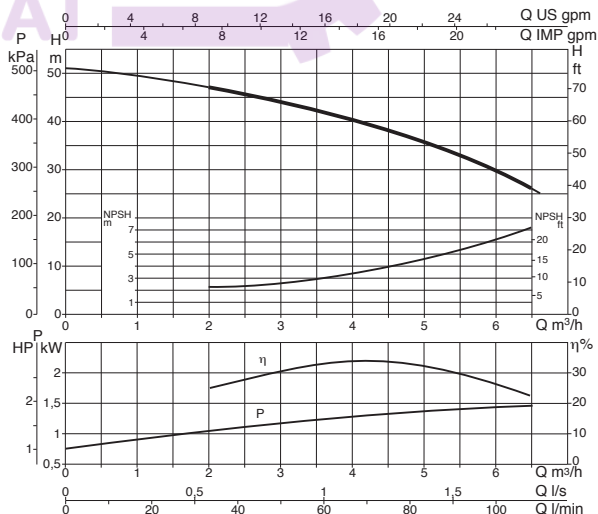
MODEL	A	B	C	D	E	F	G	Ø1	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 35/40	342	180	76	148	72	15	148	9.5	235	100	135	1" G	1" G	392	232	262	0.024	15.9

## K 45/50 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

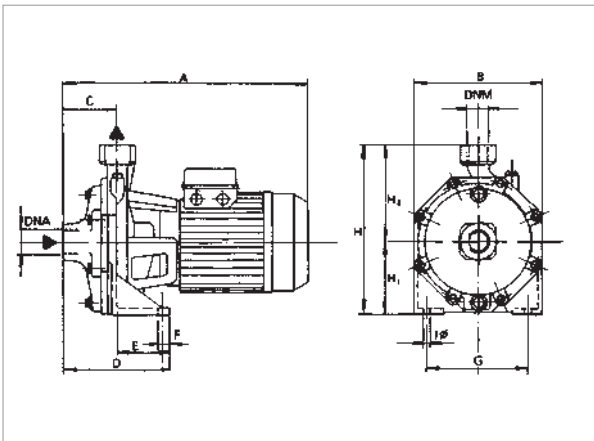


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					µF	Vc
K 45/50 M	1x220-240 V ~	1.86	1.1	1.5	8.3	-	29.2	2800	31.5	450
K 45/50 T	3x230-400 V ~	1.96	1.1	1.5	7.2-4	IE2	31.1-18	2850	-	-

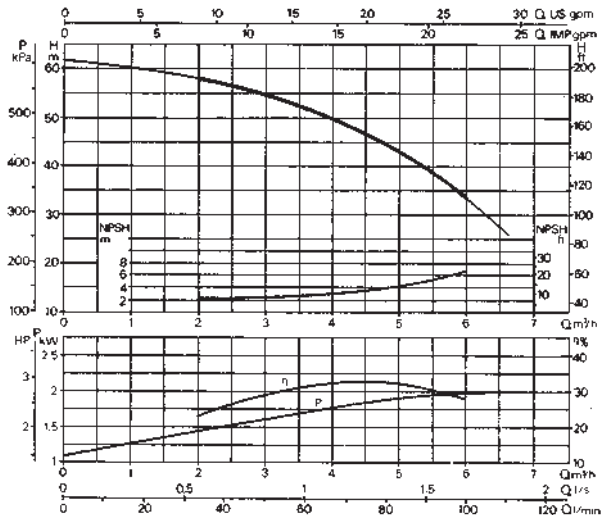
MODEL	A	B	C	D	E	F	G	Ø1	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 45/50	370	210	75	144	69	15	165	11.5	268	118	150	1 1/4" G	1" G	415	234	295	0.028	23.3

## K 55/50 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

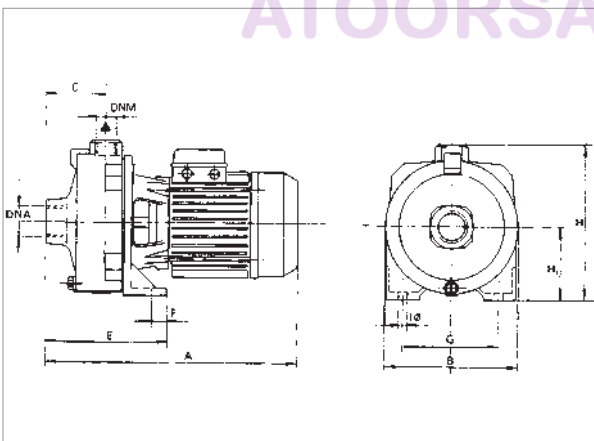


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 55/50 M	1x220-240 V ~	2.7	1.85	2.5	12.8	-	48	2850	40	450
K 55/50 T	3x230-400 V ~	2.5	1.85	2.5	8.4-4.8	IE2	37.6-21.7	2850	-	-

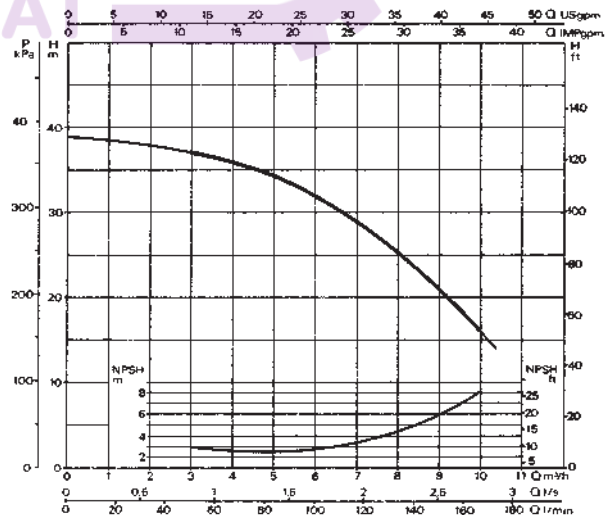
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 55/50	370	210	75	144	69	15	165	11.5	268	118	150	1 1/4" G	1" G	415	234	295	0.032	27.2

## K 35/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

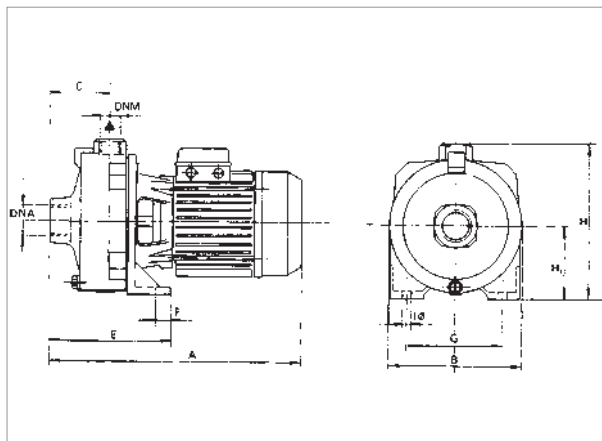


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					μF	Vc
K 35/100 M	1x220-240 V ~	1.56	1.1	1.5	7.1	-	33	2780	25	450
K 35/100 T	3x230-400 V ~	1.65	1.1	1.5	6.5-3.5	IE2	21	2850	-	-

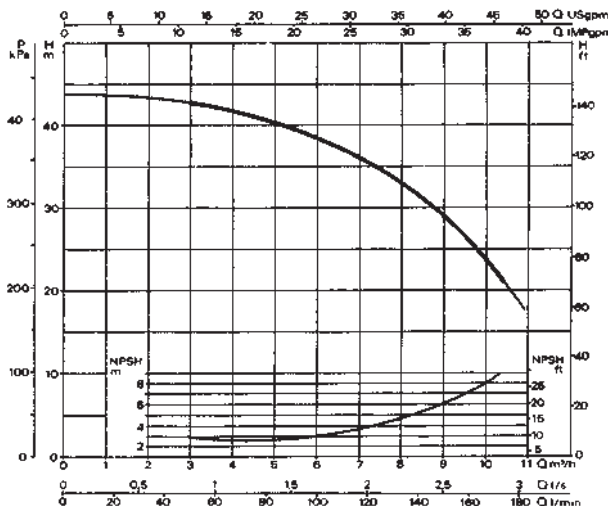
MODEL	A	B	C	E	F	G	ØI	H	H1	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
												L/A	L/B	H		
K 35/100	387	205	88	169	20	145	11	233	108	1 1/2" G	1" G	415	234	295	0.028	22

## K 40/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10°C to 50°C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

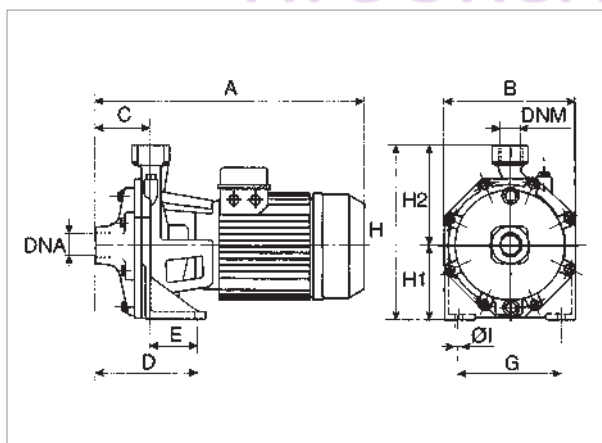


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.	CAPACITOR	
			kW	HP					µF	Vc
K 40/100 M	1x220-240 V ~	2	1.85	2.5	9	-	45	2850	40	450
K 40/100 T	3x230-400 V ~	2	1.85	2.5	7-4	IE2	22	2850	-	-

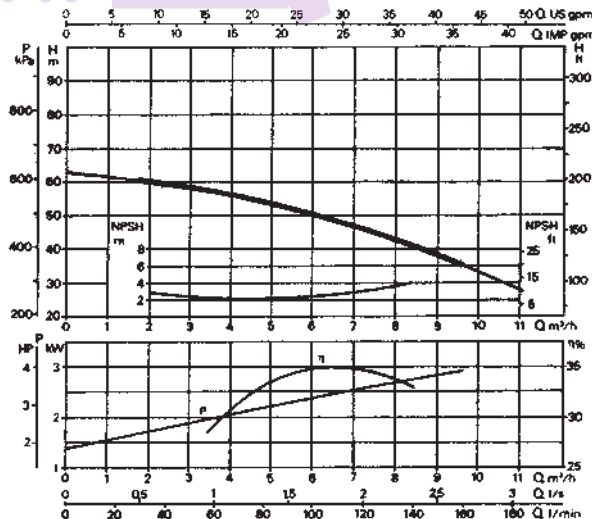
MODEL	A	B	C	D	E	F	G	ØI	H	H1	DNa	DNm	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
													L/A	L/B	H		
K 40/100 M	461	205	88	179	20	20	145	11	233	108	1 1/2" G	1" G	510	234	285	0.034	25.9
K 40/100 T	387	205	88	179	20	20	145	11	233	108	1 1/2" G	1" G	415	234	295	0.028	22

## K 55/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

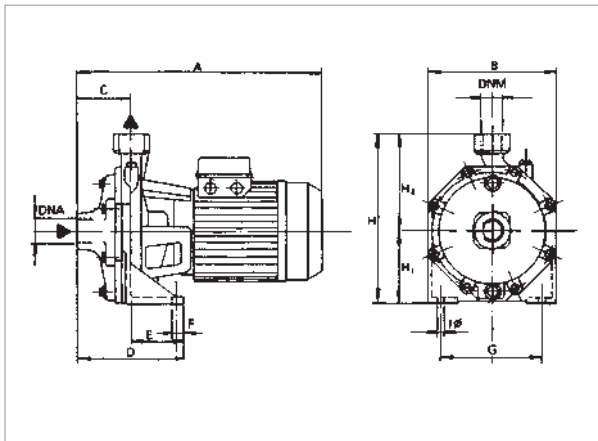


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 55/100 T	3x230-400 V ~	3.9	2.2	3	11.6-6.7	IE2	67.5-39	2850

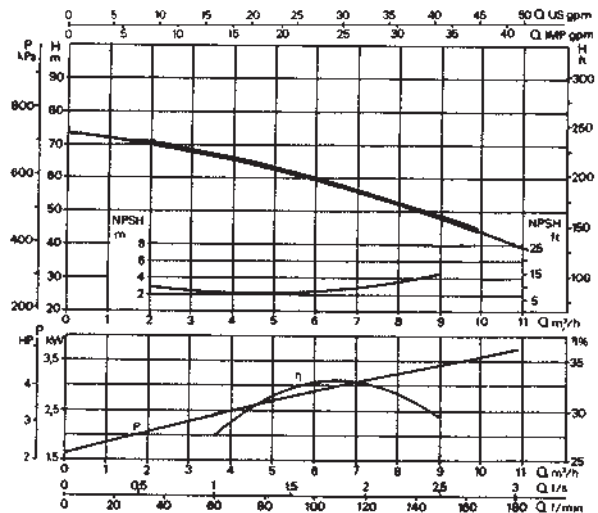
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNa	DNm	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 55/100	450	256	88	160	72	18	200	14	312.5	140	172.5	1 1/2" G	1" G	500	274	333	0.045	38.1

## K 66/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

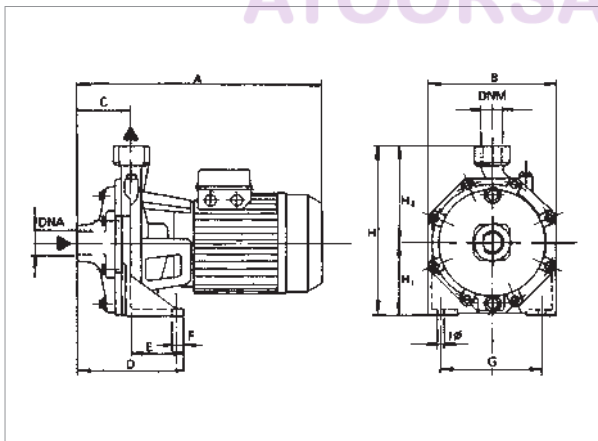


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 66/100 T	3x230-400 V ~	4.7	3	4	14.6-8.4	IE2	103.8-60	2900

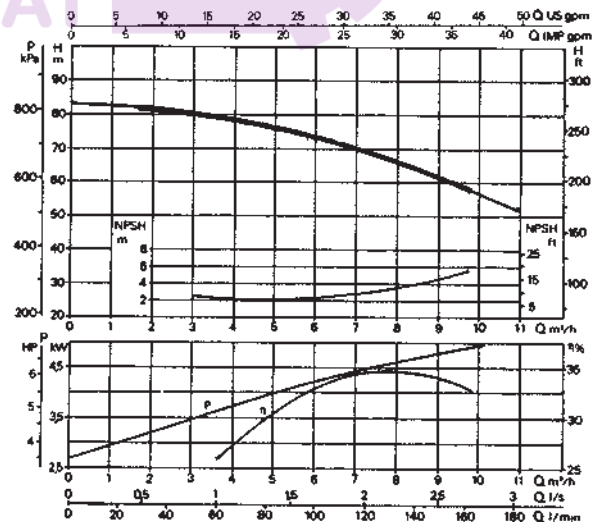
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 66/100	450	256	88	160	72	18	200	14	312.5	140	172.5	1 1/2" G	1" G	500	274	333	0.045	40.7

## K 90/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15°C to +110°C - Maximum ambient temperature: +40°C



The performance curves are based on 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.

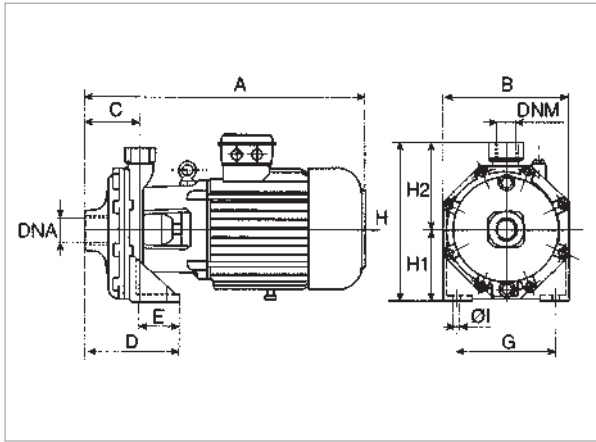


MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 90/100 T	3x230-400 V ~	5.4	4	5.5	16.5-9.5	IE2	103.8-60	2850

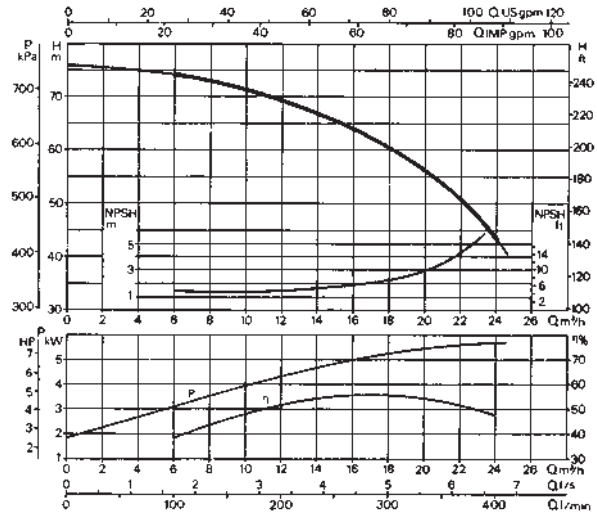
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 90/100	450	256	88	160	72	18	200	14	312.5	140	172.5	1 1/2" G	1" G	500	274	333	0.045	44

## K 70/300 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on 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.



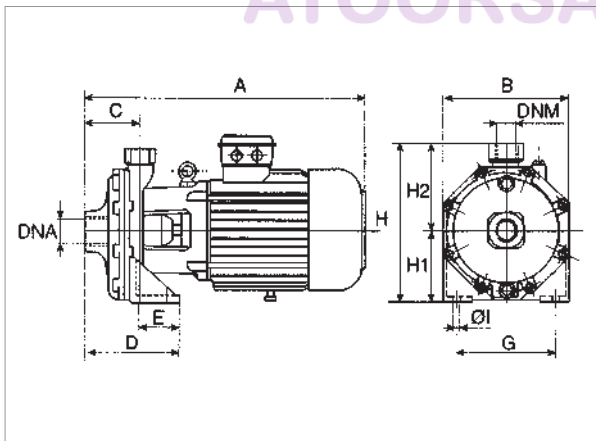
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 70/300 T	3 x 230-400 V ~1	7.1	5.5	7.5	12.9	IE2	77.9	2900

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 70/300	595	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	72

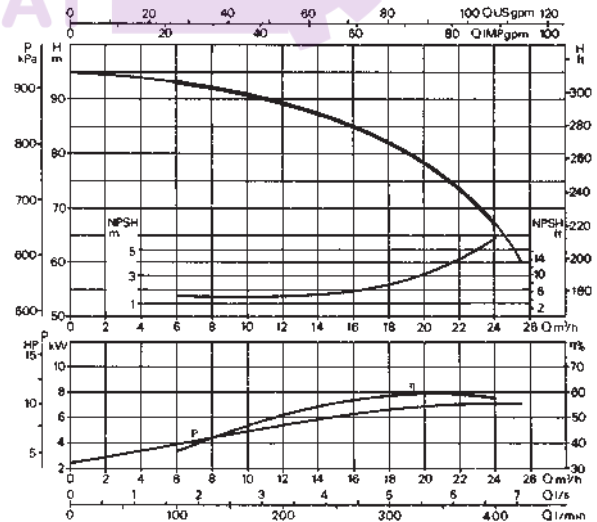
<sup>1</sup> star start-up possible (A)

## K 80/300 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on 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.



MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 80/300 T	3 x 230-400 V ~1	9.10	7.5	10	15.20	IE3	112	2910

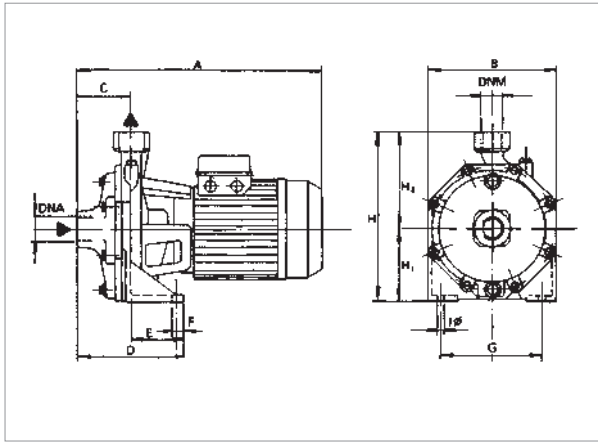
MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 80/300	595	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	78.5

<sup>1</sup> star start-up possible (A)

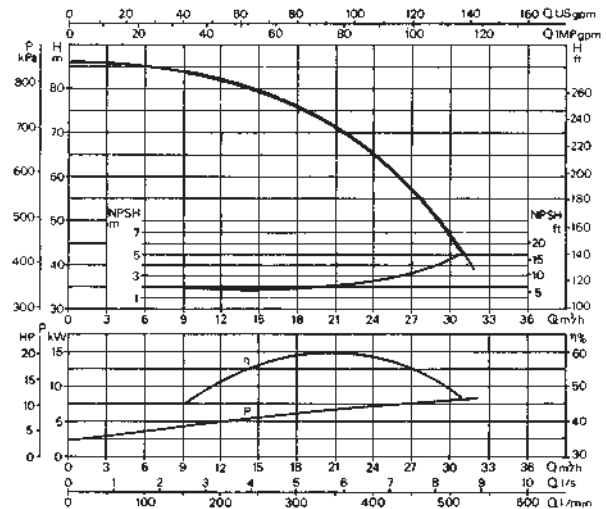


## K 70/400 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on 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.



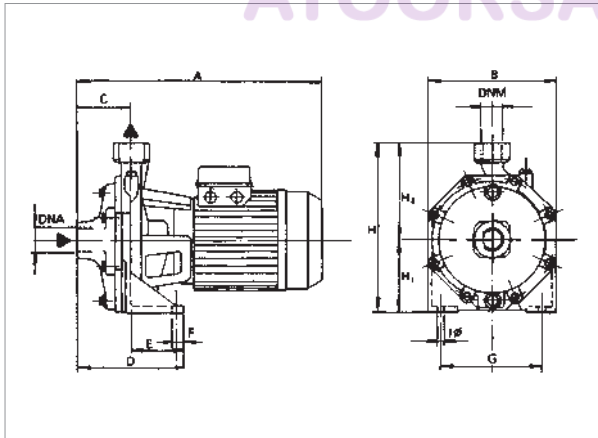
MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 70/400 T	3 x 230-400 V ~ 1	9.20	9.2	12.5	15.50	IE3	135	2930

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 70/400	635	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	74

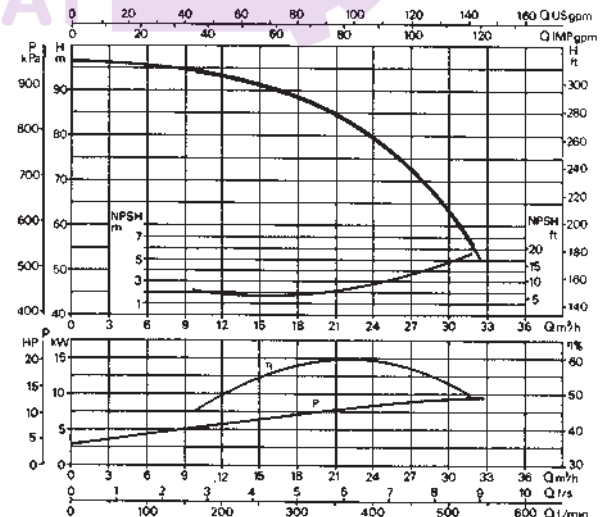
<sup>1</sup> star start-up possible (A)

## K 80/400 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15°C to +110°C - Maximum ambient temperature: +40°C



The performance curves are based on 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.



MODEL	POWER INPUT 50 Hz	P1 MAX kW	P2 NOMINAL		In A	MOTOR TYPE	I st. A	rpm n. 1/min.
			kW	HP				
K 80/400 T	3 x 230-400 V ~ 1	10.80	11	15	18.50	IE3	193	2940

MODEL	A	B	C	D	E	F	G	ØI	H	H1	H2	DNA	DNM	PACKING DIMENSIONS			VOLUME (m <sup>3</sup> )	WEIGHT kg
														L/A	L/B	H		
K 80/400	635	270	122	182	60	20	210	14	340	160	180	2" G	1 1/4" G	680	330	470	0.106	78

<sup>1</sup> star start-up possible (A)