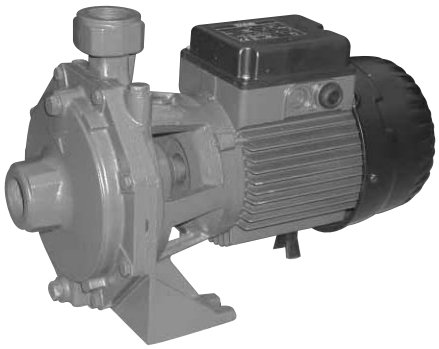
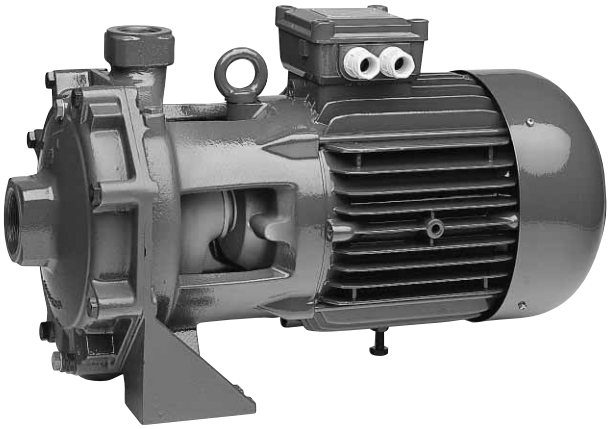
K
TWIN IMPELLER PUMPS





CE

GENERAL DATA

Applications
Twin-impeller centrifugal pump designed for use in pressurisation units for water supply systems and for supplying pressurised tanks.
Suitable also for sprinkling irrigation and other water supply applications.

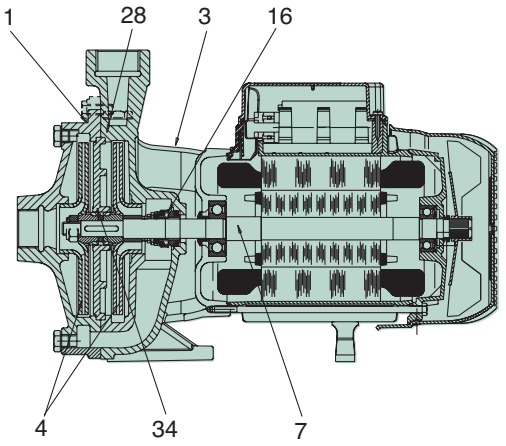
Constructional features of the pump
Cast iron pump body and motor support.
Technopolymer impeller.
Carbon/ceramic mechanical seal.

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 and a capacitor permanently in circuit 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 standards.
Motor protection: IP55, IP 44 for the models K 35/40, K 45/50, K 55/50, K 35/100, K 40/100
Terminal box protection: IP55
Insulation class: F

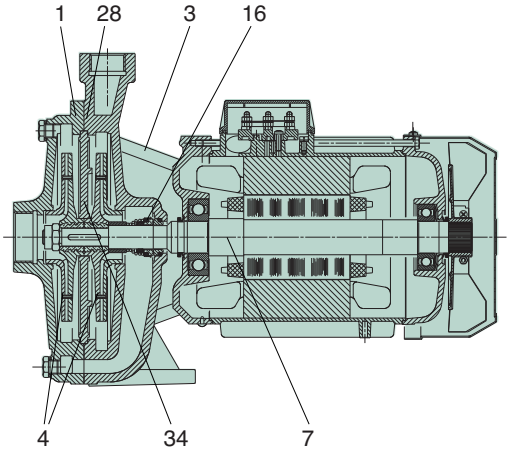
Standard voltage:	single-phase	220-240 V/50 Hz
	three-phase	220-400 V/50 Hz up to and including 4 kW
		400 V Δ 50 Hz over 4 kW

TECHNICAL DATA

K 35/40



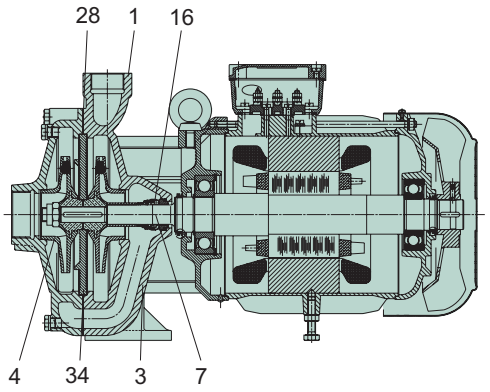
K 45/50 - K 55/50 - K 35/100 - K 40/100



N.	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	STAINLESS STEEL AISI 416 X12CrS13 UNI 6900/71	K 35/40
		STAINLESS STEEL AISI 303 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
		STAINLESS STEEL AISI 304 X5 Ni 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 55/100 - K 66/100 - K 90/100
K 70/300 - K 80/300
K 70/400 - K 80/400



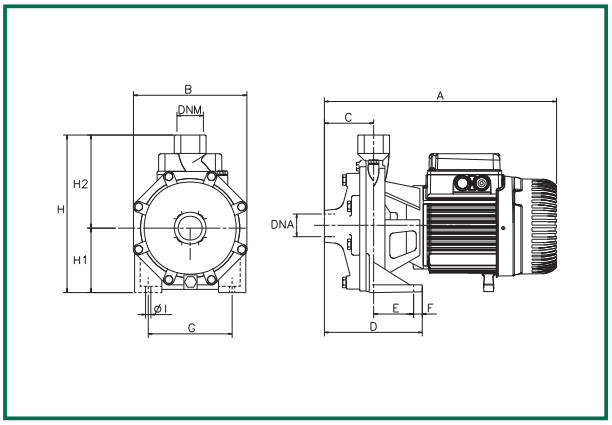
- Operating range: from 1,2 to 30 m^3/h with head up to 97 metres
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water.
- Liquid temperature range:
  K 35/40, K 45/50, K 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)
- Installation: fixed in a horizontal or vertical position, as long as the motor is above the pump.
- Special executions on request: other voltages and/or frequencies

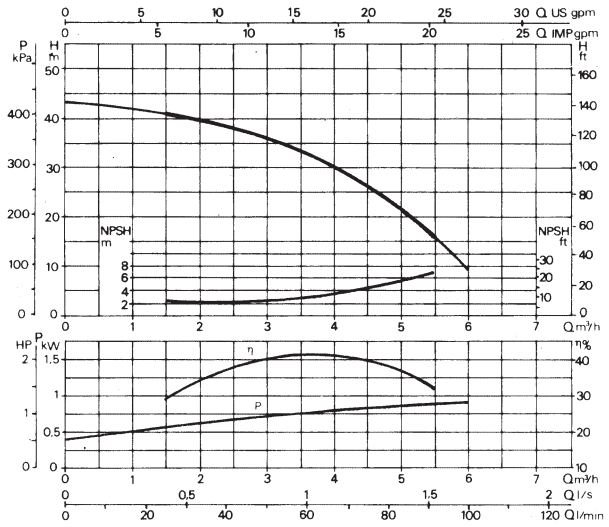
DAB PUMP PERFORMANCE

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

Liquid temperature range: from -10°C to +50°C
Massima temperatura ambiente +40°C

K 35/40

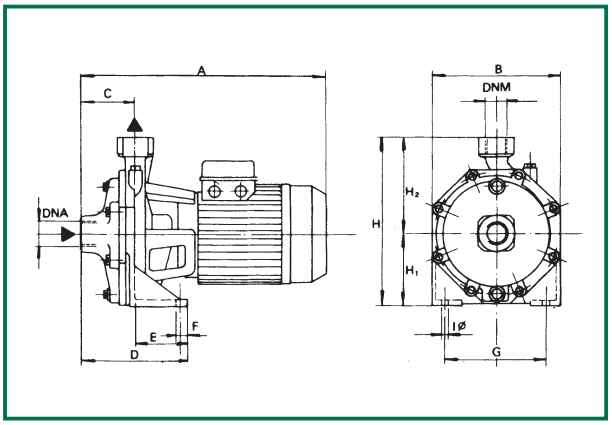


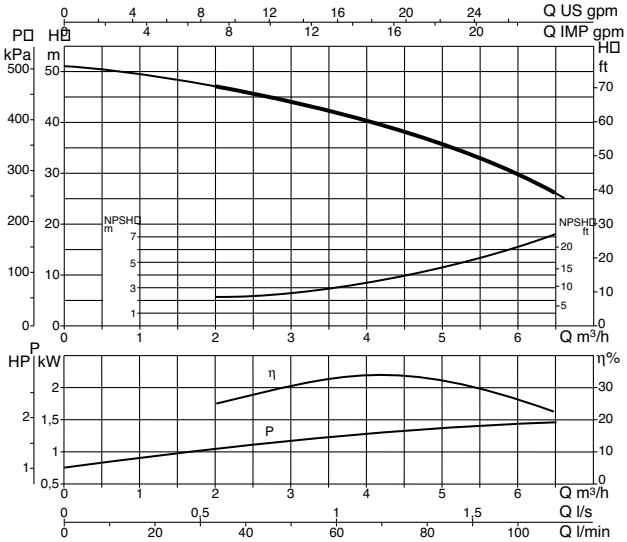


MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
K 35/40	363	180	76	148	72	15	148	9,5	235	100	135	1" G	1" G	392	232	262	0,024	16,1

MODEL	ELECTRICAL DATA											HYDRAULIC DATA (n ≃ 2850 1/min)						
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	1,2	2,4	3,6	4,8	5,5
												Q l/min	0	20	40	60	80	91,6
K 35/40 M	1x220-240 V ~	1,2	0,75	1	5,5	18,5	2800	72,8	0,96	20	450	H (m)	43,5	41,5	38	33	23,5	16
K 35/40 T	3x230-400 V ~	1,2	0,75	1	3,8-2,2	22,14-12,8	2850	78,6	0,77	–	–							

K 45/50





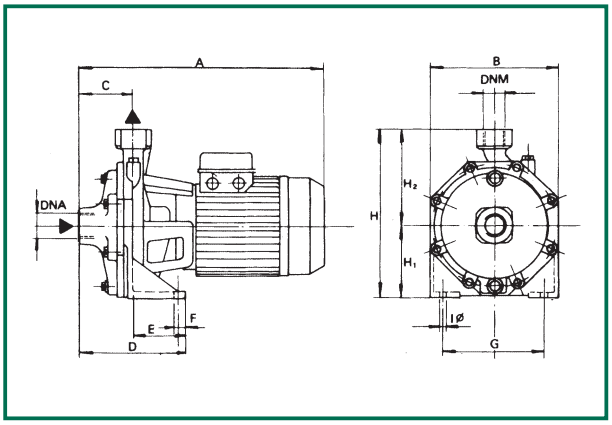
MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
K 45/50	370	210	75	144	69	15	165	11,5	268	118	150	1¼" G	1" G	415	234	295	0,028	23,3

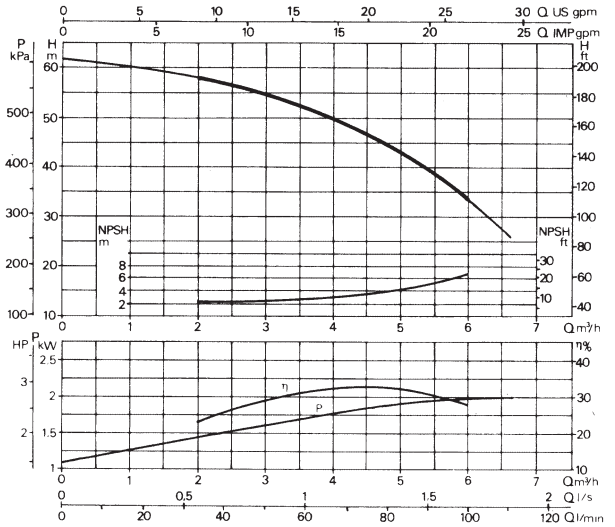
MODEL	ELECTRICAL DATA											HYDRAULIC DATA (n ≃ 2850 1/min)							
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	1,2	2,4	3,6	4,8	6	6,6
												Q l/min	0	20	40	60	80	100	110
K 45/50 M	1x220-240 V ~	1,86	1,1	1,5	8,3	29,2	2800	73,1	0,97	31,5	450	H (m)	51	49	46	42	37	30	25
K 45/50 T	3x230-400 V ~	2	1,1	1,5	6-3,5	31,1-18	2850	79,2	0,81	–	–								

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

Liquid temperature range: from -10°C to +50°C (K 55/50 da -15°C to +110°C)
Massima temperatura ambiente +40°C

K 55/50

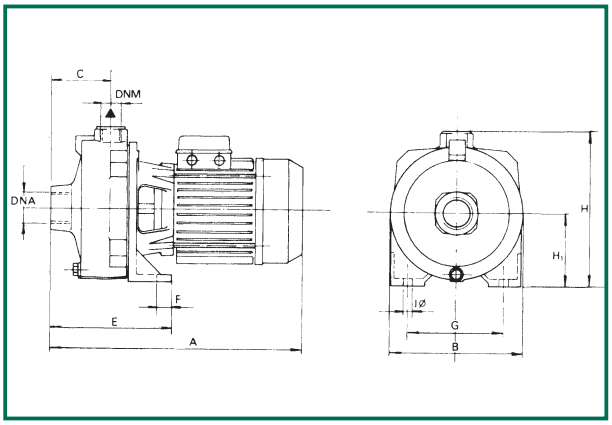


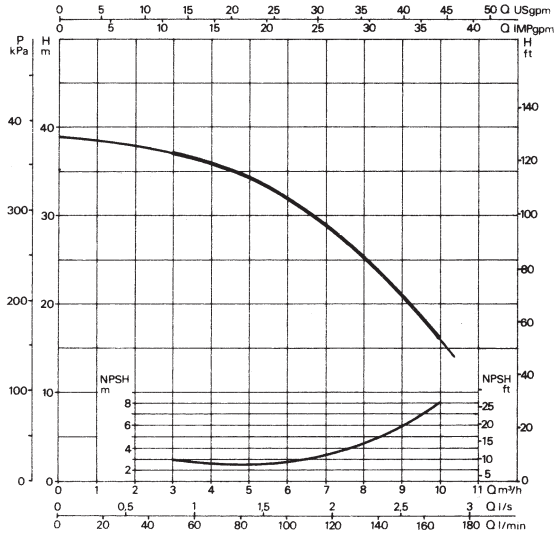


MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
K 55/50	370	210	75	144	69	15	165	11,5	268	118	150	1¼" G	1" G	415	234	295	0,032	23,8

MODEL	ELECTRICAL DATA									HYDRAULIC DATA (n ≃ 2900 1/min)							
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m³/h	0	1,2	2,4	3,6	4,8	6	6,6
										Q l/min	0	20	40	60	80	100	110
K 55/50 M	1x220-240 V ~	2,7	1,85	2,5	12,8	48	2850	76,5	0,97	H (m)	62	60	57	52	45	34	26
K 55/50 T	3x230-400 V ~	2,5	1,85	2,5	8,4-4,8	37,6-21,7	2850	78,9	0,85								

K 35/100





MODEL	A	B	C	E	F	G	I	H	H1	DNA	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
K 35/100	387	205	88	179	20	145	11	233	108	1½" G	1" G	415	234	295	0,028	21,5

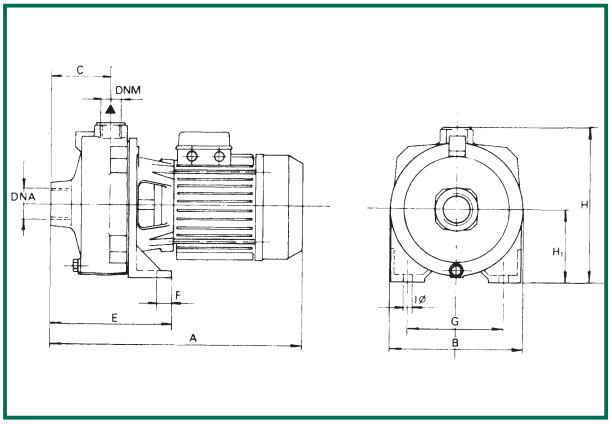
MODEL	ELECTRICAL DATA											HYDRAULIC DATA (n ≃ 2850 1/min)									
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	2,4	3,6	4,8	6	7,2	8,4	9	10,2
												Q l/min	0	40	60	80	100	120	140	150	170
K 35/100 M	1x220-240 V ~	1,56	1,1	1,5	7,1	33	2780	75,6	0,97	25	450	H (m)	38,5	37,5	36,3	35	32	28,5	24	18,5	15,5
K 35/100 T	3x230-400 V ~	1,65	1,1	1,5	5,36-3,1	31,1-18	2850	71,2	0,77	–	–										

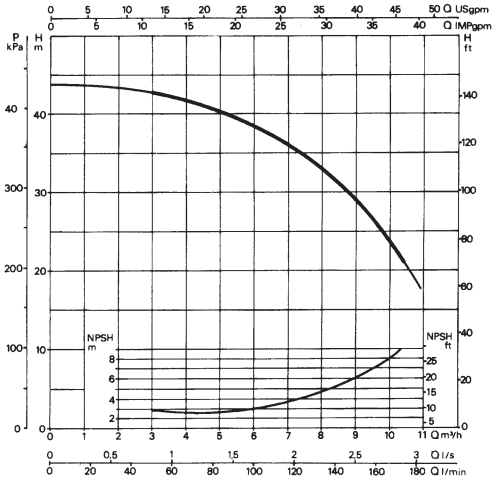
DAB PUMP PERFORMANCE

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

Liquid temperature range: from -10°C to +50°C
Massima temperatura ambiente +40°C

K 40/100

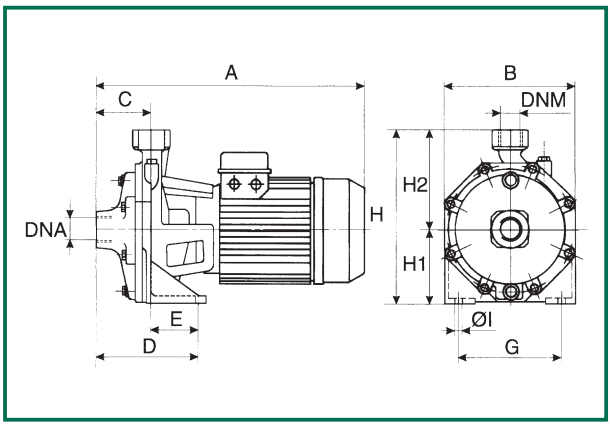


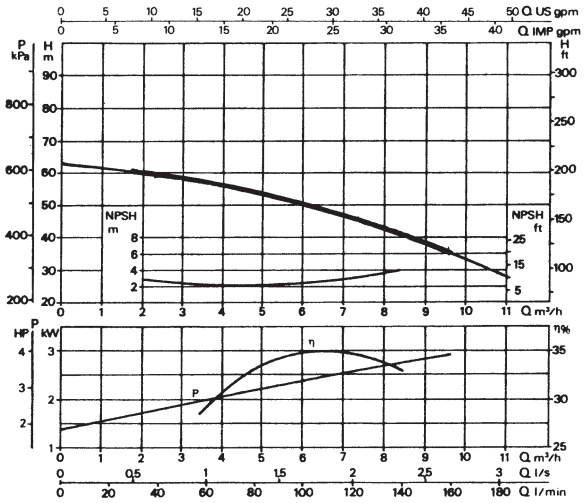


MODEL	A	B	C	E	F	G	I	H	H1	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m³	WEIGHT Kg
K 40/100 M	461	205	88	179	20	145	11	233	108	1½" G	1" G	510	234	285	0,034	25,9
K 40/100 T	387	205	88	179	20	145	11	233	108	1½" G	1" G	415	234	295	0,028	22

MODEL	ELECTRICAL DATA											HYDRAULIC DATA (n ≃ 2900 1/min)									
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	2,4	3,6	4,8	6	7,2	8,4	9	10,8
												Q l/min	0	40	60	80	100	120	140	150	180
K 40/100 M	1x220-240 V ~	2	1,85	2,5	9	45	2850	78,3	0,97	40	450	H (m)	44	43,4	42,5	41	39	35,7	32	29	18,5
K 40/100 T	3x230-400 V ~	2,0	1,85	2,5	6,2-3,6	37,6-21,7	2850	80	0,80	–	–										

K 55/100





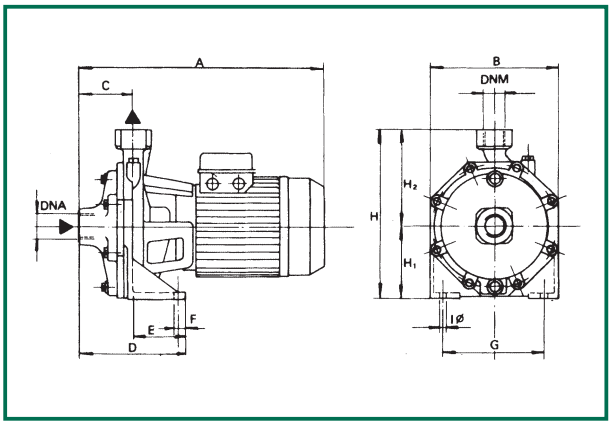
MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m³	WEIGHT Kg
K 55/100 T	450	256	88	160	72	18	200	14	312,5	140	172,5	1½" G	1" G	500	274	333	0,045	37,1

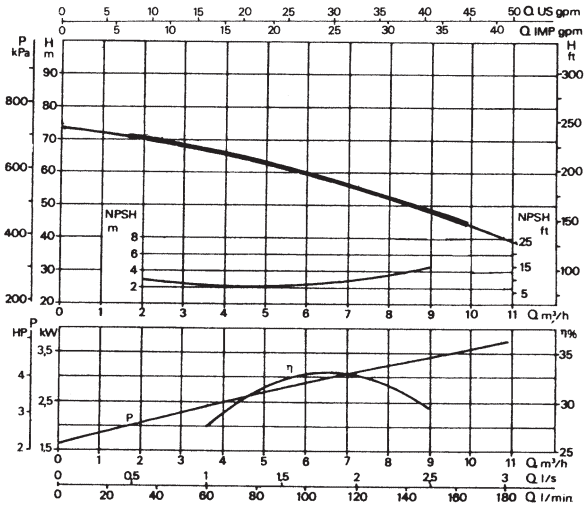
MODEL	ELECTRICAL DATA									HYDRAULIC DATA (n ≃ 2850 1/min)										
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m³/h	0	1,2	2,4	3,6	4,8	6	6,6	7,2	8,4	9,6
										Q l/min	0	20	40	60	80	100	110	120	140	160
K 55/100 T	3x230-400 V ~	3,9	2,2	3	11,6-6,7	67,5-39	2850	79,9	0,86	H (m)	62	61	59,5	57	54,5	51	49	47	42	36

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

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

K 66/100

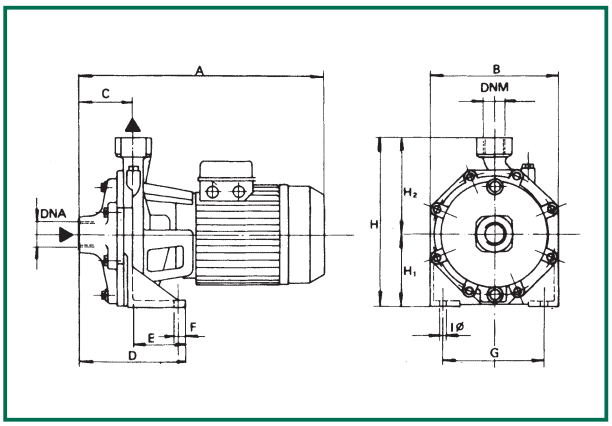


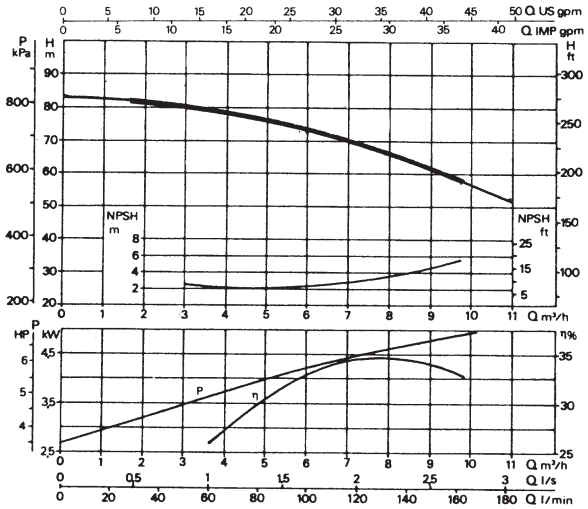


MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m^3	WEIGHT Kg
K 66/100	450	256	88	160	72	18	200	14	312,5	140	172,5	1½" G	1" G	500	274	333	0,045	39,7

MODEL	ELECTRICAL DATA								HYDRAULIC DATA (n ≃ 2850 1/min)										
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m^3/h	0	1,2	2,4	3,6	4,8	6	6,6	7,2	8,4	9,6
										l/min	0	20	40	60	80	100	110	120	140	160
K 66/100 T	3x230-400 V ~	4,7	3	4	14,6-8,4	103,8-60	2900	80,3	0,84	H (m)	73	72	70	67,5	64	60,5	58,5	57	52	47

K 90/100





MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m^3	WEIGHT Kg
K 90/100	450	256	88	160	72	18	200	14	312,5	140	172,5	1½" G	1" G	500	274	333	0,045	43

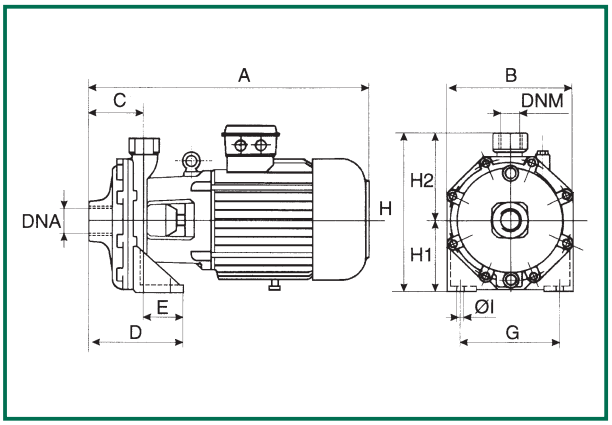
MODEL	ELECTRICAL DATA								HYDRAULIC DATA (n ≃ 2850 1/min)										
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m^3/h	0	1,2	2,4	3,6	4,8	6	6,6	7,2	8,4	9,6
										l/min	0	20	40	60	80	100	110	120	140	160
K 90/100 T	3x230-400 V ~	5,4	4	5,5	16,5-9,5	103,8-60	2850	80,3	0,84	H (m)	83,5	82,5	82	79,5	76,5	72,5	70	68	63	58

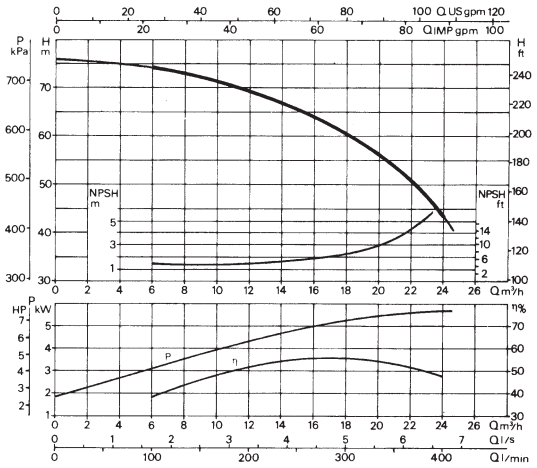
DAB PUMP PERFORMANCE

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

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

K 70/300



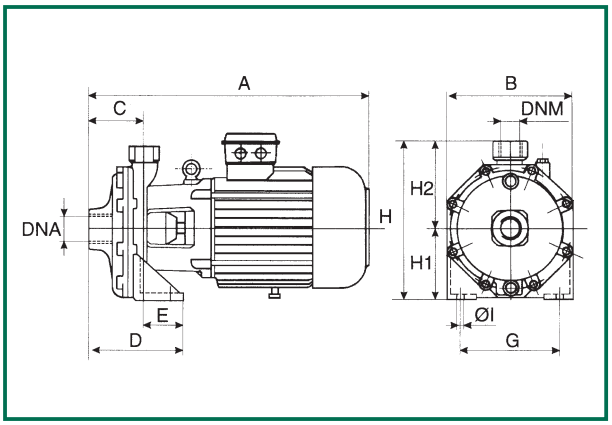


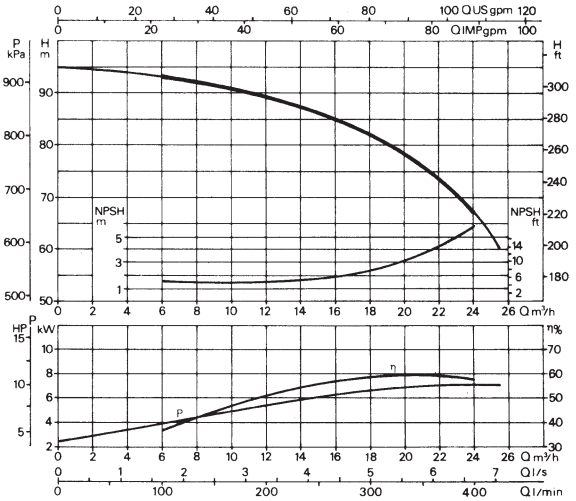
MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m³	WEIGHT Kg
K 70/300	595	270	122	182	60	20	210	14	340	160	180	2" G	1¼" G	680	330	470	0,106	72

MODEL	ELECTRICAL DATA									HYDRAULIC DATA (n ≃ 2900 1/min)									
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m³/h	0	6	7,2	8,4	9,6	10,8	12	18	24
										l/min	0	100	120	140	160	180	200	300	400
K 70/300 T	3x400 V ~ Δ*	7,1	5,5	7,5	12,9	77,9	2900	81,6	0,82	H (m)	76	74	73	72,5	71,5	70	69	60,5	43,5

* Star starting is possible (⅄)

K 80/300





MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m³	WEIGHT Kg
K 80/300	595	270	122	182	60	20	210	14	340	160	180	2" G	1¼" G	680	330	470	0,106	78,5

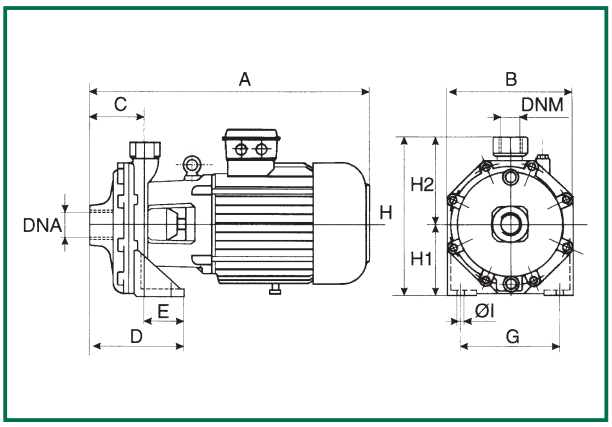
MODEL	ELECTRICAL DATA									HYDRAULIC DATA (n ≃ 2850 1/min)									
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m³/h	0	6	7,2	8,4	9,6	10,8	12	18	24
										l/min	0	100	120	140	160	180	220	300	400
K 80/300 T	3x400 V ~ Δ*	9,9	7,5	10	15	118,5	2900	84,2	0,94	H (m)	95	93	92,2	91,5	90,5	90	89,5	82	68

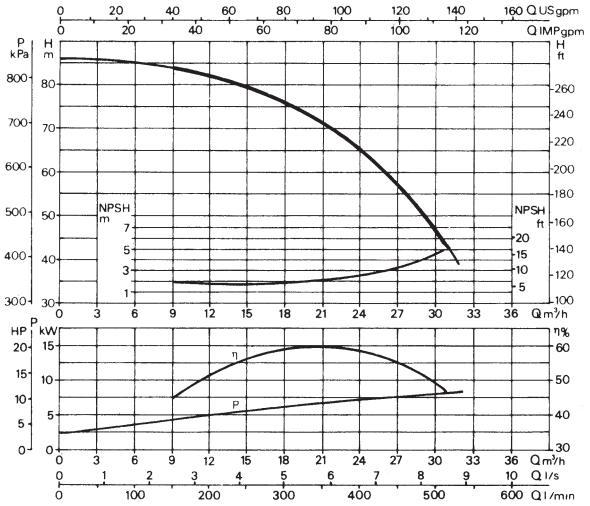
* Star starting is possible (⅄)

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

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

K 70/400



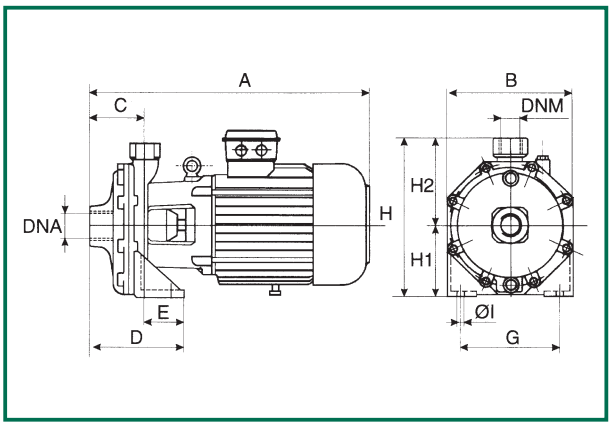


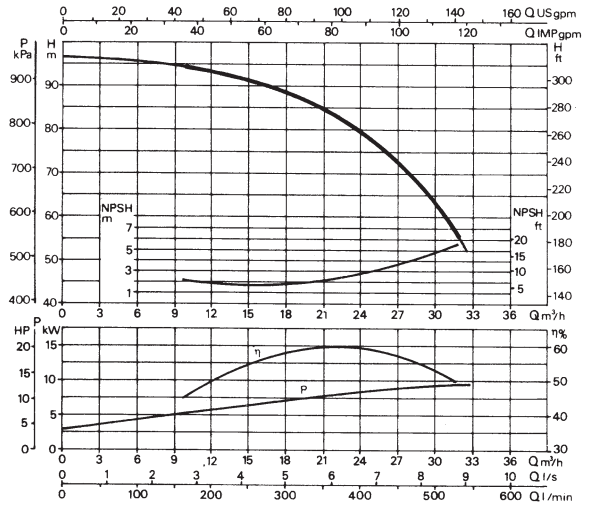
MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m^3	WEIGHT Kg
K 70/400	635	270	122	182	60	20	210	14	340	160	180	2" G	1¼" G	680	330	470	0,106	74

MODEL	ELECTRICAL DATA									HYDRAULIC DATA (n ≃ 2900 1/min)											
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m^3/h	0	9	9,6	10,8	12	15	18	21	24	27	30
										Q l/min	0	150	160	180	200	250	300	350	400	450	500
K 70/400 T	3x400 V ~ Δ*	10,7	9,2	12,5	18	146,6	2900	84,6	0,88	H (m)	86	84	83,2	82,5	82	79	76	72	65	57	47

* Star starting is possible (⅄)

K 80/400





MODEL	A	B	C	D	E	F	G	I	H	H1	H2	DNA	DNM	PACKING DIMENSIONS L/A	L/B	H	VOLUME m^3	WEIGHT Kg
K 80/400	635	270	122	182	60	20	210	14	340	160	180	2" G	1¼" G	680	330	470	0,106	78

MODEL	ELECTRICAL DATA									HYDRAULIC DATA (n ≃ 2900 1/min)											
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	I st. A	1/min	η max %	cos φ	Q m^3/h	0	9,6	10,8	12	15	18	21	24	27	30	
										Q l/min	0	160	180	200	250	300	350	400	450	500	
K 80/400 T	3x400 V ~ Δ*	12,5	11	15	21	182,6	2900	86,1	0,88	H (m)	97	95	94,5	94	92	89	85	80	73	64	

* Star starting is possible (⅄)

DAB PUMP PERFORMANCE