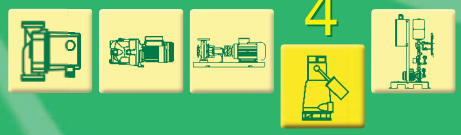
SUBMERSIBLE AND SUBMERGED PUMPS



DAB®

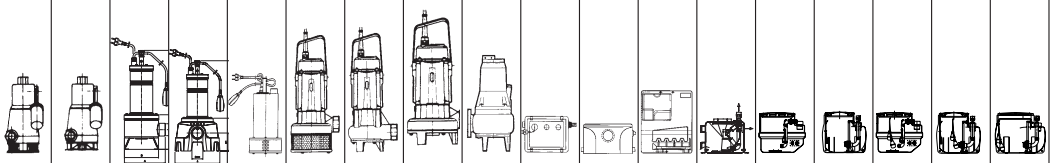
PUMP PERFORMANCE

TECHNICAL CATALOGUE SECTIONS:

INDEX

SUBMERSIBLE PUMPS

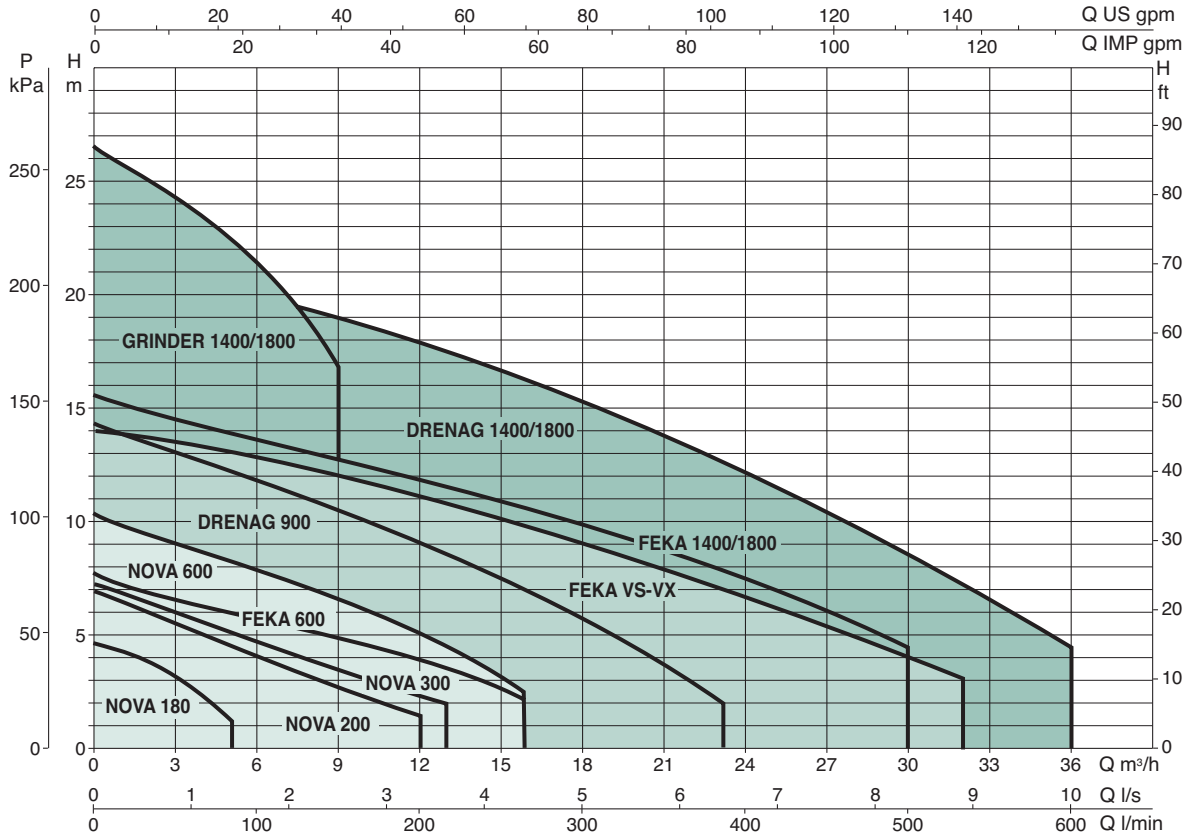
TABLE OF PERFORMANCE RANGES AND POSSIBLE APPLICATIONS

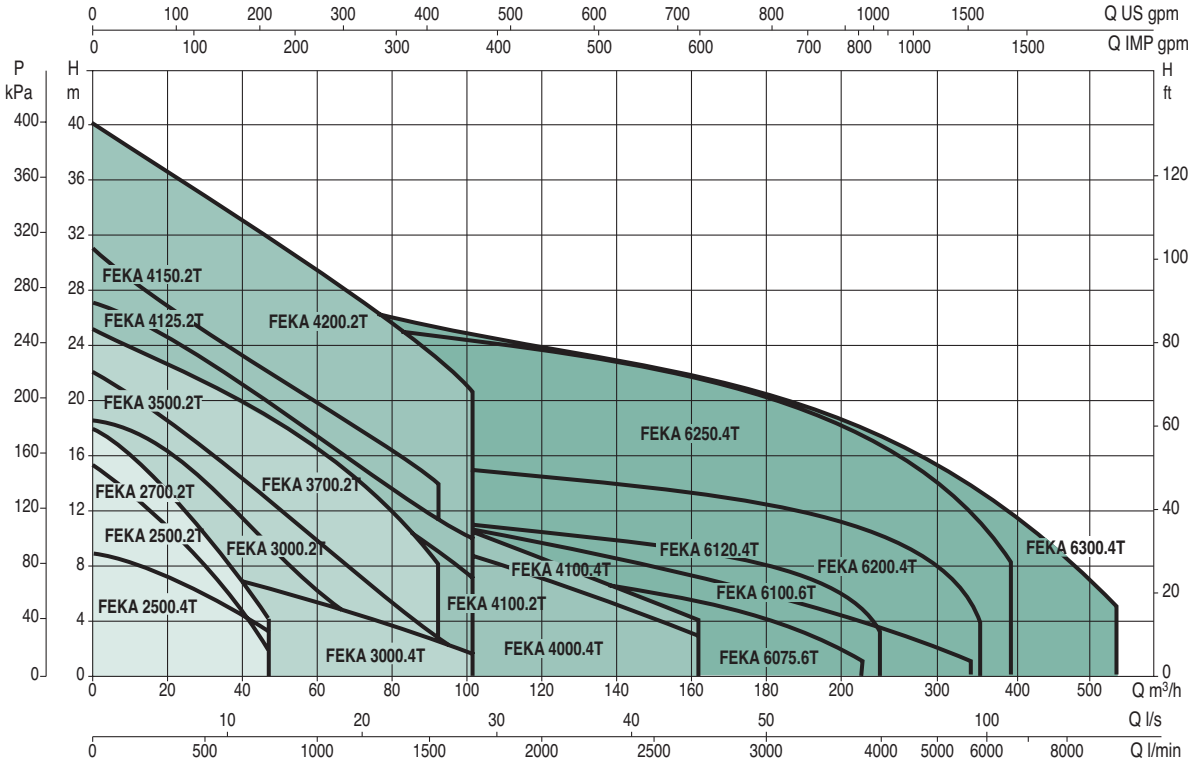
	NOVA	FEKA 600	FEKA VS	FEKA VX	DRENAG 900	DRENAG	FEKA	GRINDER	FEKA 2500/3000 4000/6000	NOVABOX 30/300	FEKALIFT	AQUAPROF	FEKABOX 100	FEKABOX 200	FEKABOX 280	FEKAFOS 200	FEKAFOS 280	FEKAFOS 550
																		
DNA connections										VARI	DN 28 DN 40	1"	DN 50 DN 110	DN110	DN110	DN 110	DN110	DN110
DNM connections	1¼" G	1¼" G	2" F	2" F	1½" G	2" G	2" G	2" G	DN 65 DN 150	1¼" G	DN 25	1"	2" G	2" G	2" G	2" G	2" G	2" G
Flow rate Q (m^3/h)	16	16	32	32	23	33	30	9	162	7,5	3,9	4,8	24	24	24	35	35	65
Head H (m)	10,2	7,4	14	14	14,5	21,5	15,5	26,5	40	6,9	6,9	4,1	9	9	9	9	26,5	26,5
Temperature t (°C)	+50	+50	+50	+50	+50	+55	+55	+55	+55	+50	+60	+50	+50	+50	+50	+50	+55	+55
Ground-water	●	●	●	●	●	●	●		●	●		●	●	●	●	●	●	●
Rain water	●	●	●	●	●	●	●		●	●		●	●	●	●	●	●	●
Clean waste water	●	●	●	●	●	●	●		●	●			●	●	●	●	●	●
Dirty waste water		●	●	●			●	●	●		●		●	●	●	●	●	●
Fountain water			●	●	●	●												
River or lake water			●	●	●	●	●		●			●	●	●	●	●	●	●
Sandy water			●	●	●	●												
A Sewage containing, solids and long fibres									●						●		●	●

PERFORMANCE RANGE

SELECTION TABLE

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.





PERFORMANCE RANGE

SELECTION TABLE

MODEL		P2 NOMINAL		Q																		
				m³/h	0	1	2	3	4,5	5	6	7	7,5	9	10	12	15	18	24	30	36
SINGLE-PHASE	THREE-PHASE	kW	HP	l/min	0	16,6	33,3	50	75	83,3	100	116,6	125	150	166,6	200	250	300	400	500	600
NOVA 180 M-A *	–	0,22	0,3		4,8	4,3	3,8	3	1,6												
NOVA 180 M-NA *	–	0,22	0,3		4,8	4,3	3,8	3	1,6												
NOVA 200 M-NA *	–	0,22	0,3		6,6	6,2	5,8	5,2	4,6	4,4	4	3,4	3,2	2,6	2,2						
NOVA 300 M-A *	–	0,22	0,3		6,8	6,4	6	5,6	5,1	4,9	4,6	4,2	4	3,4	3	2,2					
NOVA 600 M-A *	–	0,55	0,75		10,2	9,7	9,3	8,9	8,3	8,1	7,8	7,4	7,2	6,6	6,1	5	3,1				
NOVA 600 M-NA *	NOVA 600 T-NA *	0,55	0,75		10,2	9,7	9,3	8,9	8,3	8,1	7,8	7,4	7,2	6,6	6,1	5	3,1				
FEKA 600 M-A *	–	0,55	0,75		7,45	7,1	6,75	6,45	6,1	5,95	5,7	5,45	5,35	4,95	4,7	4,1	2,8				
FEKA 600 M-NA *	FEKA 600 T-NA *	0,55	0,75		7,45	7,1	6,75	6,45	6,1	5,95	5,7	5,45	5,35	4,95	4,7	4,1	2,8				
FEKA VS-VX 550 M-A	–	0,55	0,75	H (m)	7,4			6,9			6,2					4,1		1,8			
FEKA VS-VX 550 M-NA	FEKA VS-VX 550 T-NA	0,55	0,75		7,4			6,9			6,2					4,1		1,8			
FEKA VS-VX 750 M-A	–	0,75	1		9,6			9,2			8,5					6,7		4,3	1,9		
FEKA VS-VX 750 M-NA	FEKA VS-VX 750 T-NA	0,75	1		9,6			9,2			8,5					6,7		4,3	1,9		
FEKA VS-VX 1000 M-A	–	1,00	1,36		11,8			11,3			10,5					9,0		6,8	4,1		
FEKA VS-VX 1000 M-NA	FEKA VS-VX 1000 T-NA	1,00	1,36		11,8			11,3			10,5					9,0		6,8	4,1		
FEKA VS-VX 1200 M-A	–	1,20	1,60		14			13,4			12,8					11,2		9,0	6,7		
FEKA VS-VX 1200 M-NA	FEKA VS-VX 1200 T-NA	1,20	1,60		14			13,4			12,8					11,2		9,0	6,7		
DRENAG 900 M-A	DRENAG 900 T-A	1,36	14,2		13,8	13,4	13	12,4	12,2	11,8	11,4	11,2	10,5	10	9	7,3	5,4				
DRENAG 900 M-NA	DRENAG 900 T-NA	1	1,36		14,2	13,8	13,4	13	12,4	12,2	11,8	11,4	11,2	10,5	10	9	7,3	5,4			
DRENAG 1400 M	–	1,1	1,5		19,2						17	16,5	16,3	15,9	15,6	14,6	13,5	12,1	9	5,5	
–	DRENAG 1800 T	1,5	2		21,5						20	19,8	19,6	19	18,9	18	16,5	15,2	12	8,5	4,5
FEKA 1400 M	–	1,1	1,5		13,9						12	11,6	11,4	11	10,8	9,9	8,9	7,8	5,7	3,4	
–	FEKA 1800 T	1,5	2		15,5						13,7	13,3	13,1	12,8	12	11,8	10,7	9,7	7,3	4,5	
GRINDER 1400 M	–	1,1	1,5		24,5	23,8	22,8	22,3	20,8	20,6	19	17,4	16,8	14,1	13						
–	GRINDER 1800 T	1,52	26,5		25,3			25	24	22,9	22,3	21,6	20,3	19,9	17	16					

* Available also with special stainless steel motor shaft version (SV).

MODEL	P2 NOMINAL		Q																											
			m³/h	0	3	6	12	18	24	36	48	60	72	84	96	102	120	138	150	162	180	210	240	270	300	360	420	516
	kW	HP	l/min	0	50	100	200	300	400	600	800	1000	1200	1400	1600	1700	2000	2300	2500	2700	3000	3500	4000	4500	5000	6000	7000	8800
FEKA 2500.4 T	1,8	2,5		9	8,85	8,75	8,4	17,8	7,2	5,4	2																	
FEKA 2500.2 T	1,8	2,5		15,5	15,3	14,9	13,6	11,9	10	5,9	3																	
FEKA 2700.2 T	2,2	3		18	17,6	17	15,6	14	12,2	8,3																		
FEKA 3000.4 T	3,7	5		9,5			8,9	8,5	8,2	7,4	6,5	5,6	4,6	3,6	2,4	1,8												
FEKA 3000.2 T	3,7	5		18,7			17,5	16,6	15,4	12,6	9,5	6,4	4															
FEKA 3500.2 T	4,4	6		22,3			20,4	19,1	17,9	15,2	12,8	10	7,5	5	2,5													
FEKA 3700.2 T	5,5	7,5		25		24,1	23,4	22,6	21,9	20,2	18,5	16,5	14	10,8														
FEKA 4000.4 T	6	8		15,3					14,3	13,7	12,9	12	11,2	10,3	9,3	8,8	7,1	5,5	4,3	3								
FEKA 4100.4 T	7,5	10		17					16	15,2	14,7	13,8	12,8	11,8	10,6	10	8,3	6,5	5,2	4								
FEKA 4100.2 T	7,5	10	H (m)	24					20,4	18,2	16,1	14,3	12,3	10,2	8,4	7,6												
FEKA 4125.2 T	9,2	12,5		27			25,3	24,3	23,5	21,3	19,5	17,3	15,3	13,5	11,8	10,9												
FEKA 4150.2 T	11	15		31		29,3	28	26,8	25,8	23,8	22	20	18,2	16														
FEKA 4200.2 T	15	20		40			38,5	37,8	36,6	34,3	32	29,8	27,6	25	22	20,6												
FEKA 6075.6 T	5,5	7,5		13						9,5	9,0	8,8	8,2	7,8	7,6	7,4	7,1	6,4	6,0	5,2	4,8	2,2						
FEKA 6100.6 T	7,5	10		15						13,5	13,0	12,8	11,8	11,2	10,4	10,2	9,5	8,2	7,8	6,8	6,5	5,0	3,5	2,5	1,2			
FEKA 6120.6 T	8,8	12		14						12,5	11,8	12,5	11,2	10,8	10,4	10,2	10,0	9,4	8,8	8,4	8,1	6,9	5,0	3,2				
FEKA 6150.6 T	11	15		17						15,8	15,2	15,2	14,2	13,8	13,6	13,4	12,4	11,8	11,2	10,4	10,0	8,7	7,7	5,8	4,8			
FEKA 6200.4 T	15	20		20						17,5	16,8	16,5	15,2	14,8	14,4	14,2	13,5	12,8	12,4	11,8	11,0	10,7	9,5	8,0				
FEKA 6250.4 T	18,5	25		31						28,0	27,0	26,5	25,4	24,6	24,0	23,8	23,0	21,6	20,6	20,0	20,0	18,5	16,5	15,0	12,5	10,5		
FEKA 6300.4 T	22	30		34,3						29,8	28,2	27,9	26,2	25,0	24,0	23,8	23,0	21,6	20,6	20,0	19,5	18,0	17,1	16,0	15,0	12,3	10,0	4,8

NOVA - FEKA

SUBMERSIBLE PUMPS
FOR DRAINAGE AND WASTE WATER
FOR DOMESTIC USE

CE

GENERAL DATA

Applications

The submersible pump from the NOVA series is designed mainly for automatically operated fixed applications in domestic use, draining basements and garages which are subject to flooding.
Thanks to its compact, easy to handle form, it may also be used as a portable pump for emergencies such as lifting water from tanks or rivers, emptying swimming pools, fountains, excavations and underpasses. It is also ideal for gardening and hobbies in general.
The submersible pump from the FEKA series has been designed for lifting sewage from cesspools and is capable of draining suspended solids with dimensions up to 25 mm.
The level switch allows fixed installation and guarantees automatic pump operation.
Available also with special stainless steel motor shaft version (SV).

Constructional features of the pump

Water-resistant technopolymer pump body, impeller, top body and suction grid.
Stainless steel motor, rotor shaft and screws.
Triple O-ring seals interposed with oil chamber.

Constructional features of the motor

Continuous duty submersible induction motor. Stator fitted in an airtight stainless steel casing covered by a top body which contains the cabling, microswitch and capacitor. 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 and CEI 61-69 standards (EN 60335-2-41).
Motor protection: IP68
Insulation class: F
Standard voltage: single-phase 220-240 V/50 Hz
three-phase 400 V/50 Hz
Standard cables for the single-phase version:

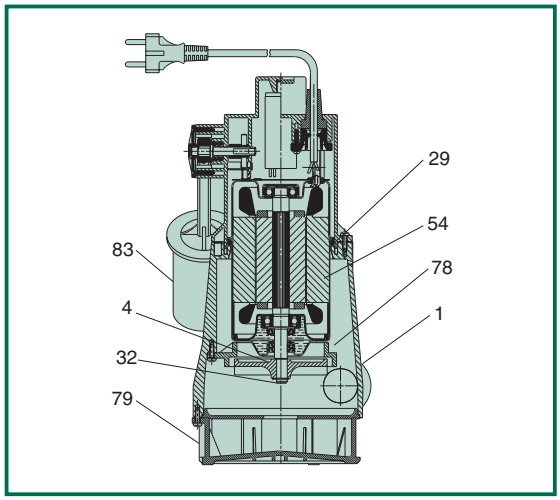
5 metres H05 RN-F	NOVA 180	M-A	-	NOVA 300	M-A
	NOVA 600	M-A	-	FEKA 600	M-A
10 metres H05 RN-F	NOVA 180	M-NA	-	NOVA 200	M-NA
10 metres H07 RN-F	NOVA 600	M-NA	-	FEKA 600	M-NA

Standard plug for the single-phase version: SCHUKO CEE 7 - VII - UNEL 47166-68
Standard cables for the three-phase version: 5 metres H07 RN-F

TECHNICAL DATA

N.	PARTS*		MATERIALS
1	PUMP BODY		TECHNOPOLYMER
4	IMPELLER		TECHNOPOLYMER
29	OR GASKET		NBR
32	STOP RING		12E - UNI 7435 STAINLESS
54	MOTOR:	TOP BODY	STAINLESS STEEL AISI 304 X5 CrNi 1810 - UNI 6900/71
		ROTOR SHAFT	STAINLESS STEEL AISI 416 X12 CrS13 - UNI 6900/71
			FOR SV SHAFT VERSION STAINLESS STEEL AISI 431
78	PRESSURE DISC (FOR NOVA)		TECHNOPOLYMER
79	SUCTION GRID		TECHNOPOLYMER
83	FLOAT		TECHNOPOLYMER

* In contact with the liquid



- Operating range: from 1 to 16 m³/h with head up to 10,2 metres
- Liquid quality requirements: NOVA cloudy water without fibres
  FEKA sewage from cesspools
- Free passage of solids through the suction grid:

NOVA 180 - NOVA 200	5 mm
NOVA 300 - NOVA 600	10 mm
FEKA 600	25 mm

- Minimum draught depth:

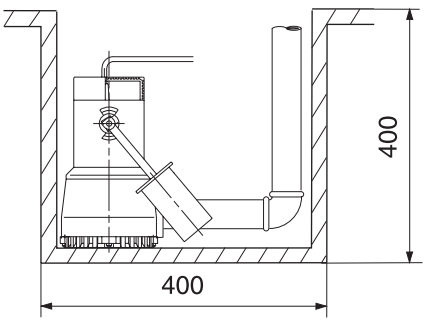
NOVA 180	77 mm
NOVA 200 - NOVA 180 NA	8 mm
NOVA 300	85 mm
NOVA 600 A - FEKA 600 A	175 mm
NOVA 600 NA - FEKA 600 NA	48 mm

- Liquid temperature range: from 0°C to +35°C for domestic use (EN 60335-2-41)
- Maximum immersion depth: 7 metres
- Maximum dry running time: 1 minute
- Installation: fixed or portable in a vertical position

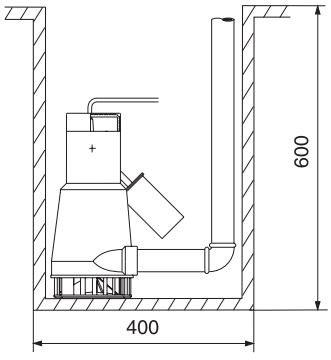
MODEL	WITH FLOAT (A)	WITHOUT FLOAT (NA)
NOVA 180	YES	YES
NOVA 200	NO	YES
NOVA 300	YES	NO
NOVA 600	YES	YES
FEKA 600	YES	YES

- Minimum pit dimensions for fixed installation with automatic operation:

NOVA 180 - NOVA 300

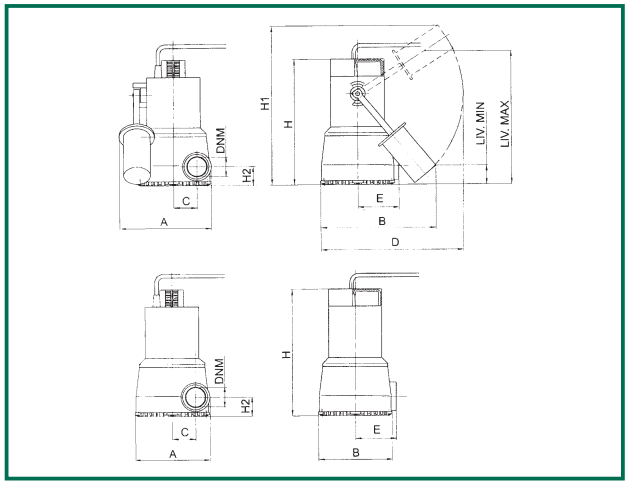


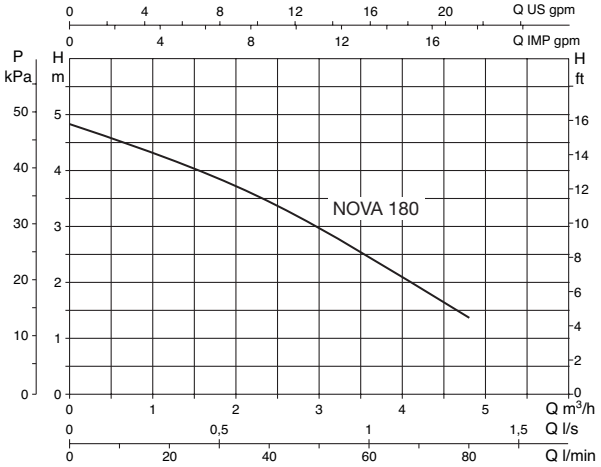
NOVA 600 - FEKA 600



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.

NOVA 180



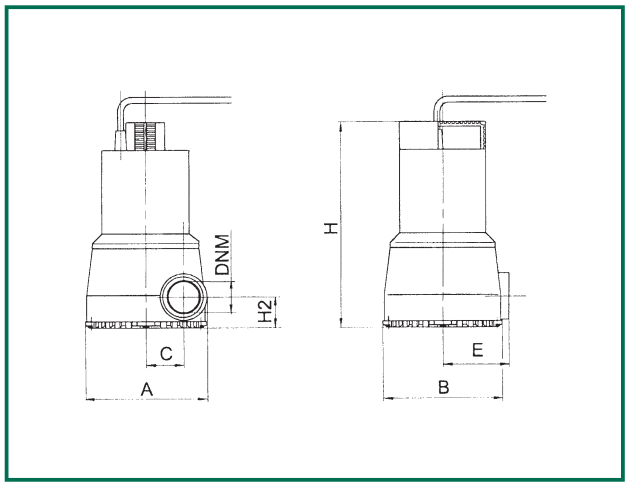


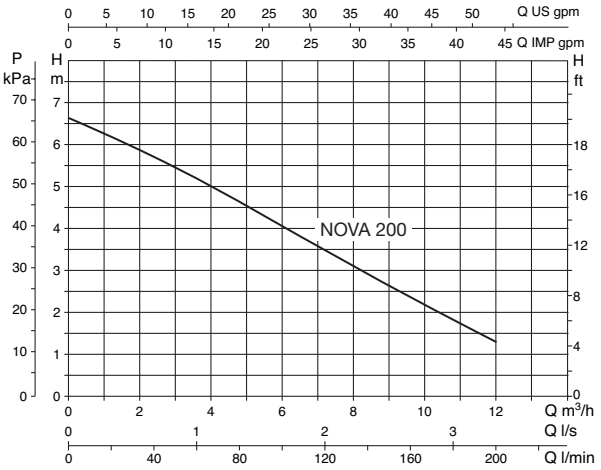
MODEL	A	B	C	D	E	H	H1	H2	LEV. MIN.	LEV. MAX	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
NOVA 180 M-A	181	235	46	296	82	253	345	38	77	277	1¼"G	287	202	320	0,019	4,6
NOVA 180 M-NA	148	148	46	–	82	253	–	38	–	–	1¼"G	287	202	320	0,019	4,5

MODEL	ELECTRICAL DATA VOLTAGE 50 Hz	P1 MAX W	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	HYDRAULIC DATA (n ≃ 2850 1/min)					
								Q m³/h	0	1,2	2,4	3,6	4,8
								l/min	0	20	40	60	80
NOVA 180 M	1x220-240 V ~	190	0,20	0,28	0,9	5	450	H (m)	4,8	4,2	3,5	2,4	1,4

* Available also with special stainless steel motor shaft version (SV).

NOVA 200





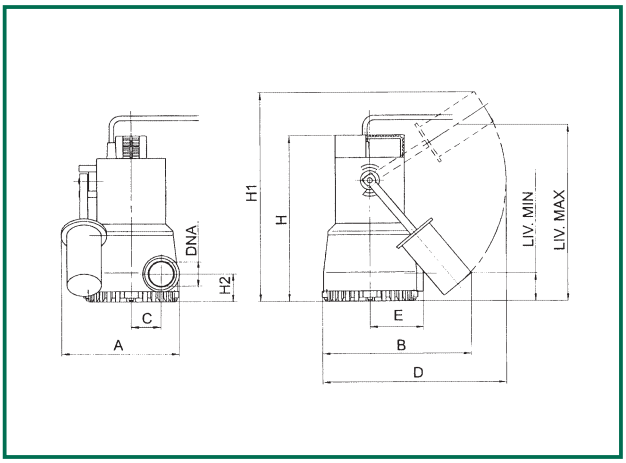
MODEL	A	B	C	E	H	H2	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
NOVA 200 M-NA	148	148	46	82	253	38	1¼" G	287	202	320	0,019	4,5

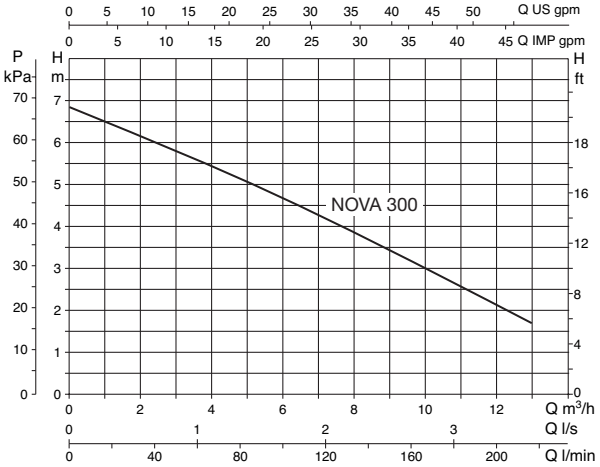
MODEL	ELECTRICAL DATA VOLTAGE 50 Hz	P1 MAX W	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	HYDRAULIC DATA (n ≃ 2850 1/min)							
								Q m³/h	0	3	4,5	6	7,5	9	12
								l/min	0	50	75	100	125	150	200
NOVA 200 M-NA	1x220-240 V ~	350	0,22	0,3	1,5	8	450	H (m)	6,6	5,2	4,6	4	3,2	2,6	1,4

* Available also with special stainless steel motor shaft version (SV).

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.

NOVA 300



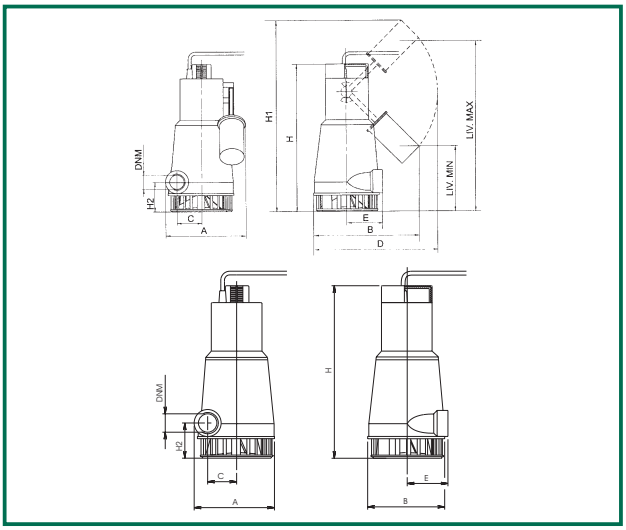


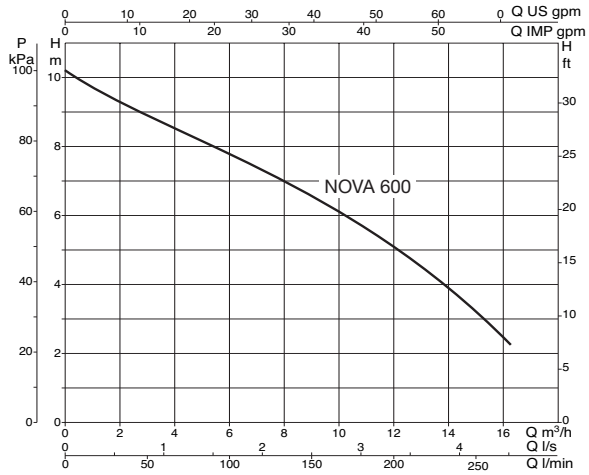
MODEL	A	B	C	D	E	H	H1	H2	LEV. MIN.	LEV. MAX	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
NOVA 300 M-A	181	235	46	296	82	262	354	47	85	285	1¼"G	287	202	320	0,019	4,6

MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2850 1/min)								
	VOLTAGE 50 Hz	P1 MAX W	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	3	4,5	6	7,5	9	10,8	12	13,02
								l/min	0	50	75	100	125	150	180	200	217
NOVA 300 M-A	1x220-240 V ~	355	0,22	0,3	1,6	8	450	H (m)	6,8	5,6	5,1	4,6	4	3,4	2,7	2,2	1,7

* Available also with special stainless steel motor shaft version (SV).

NOVA 600





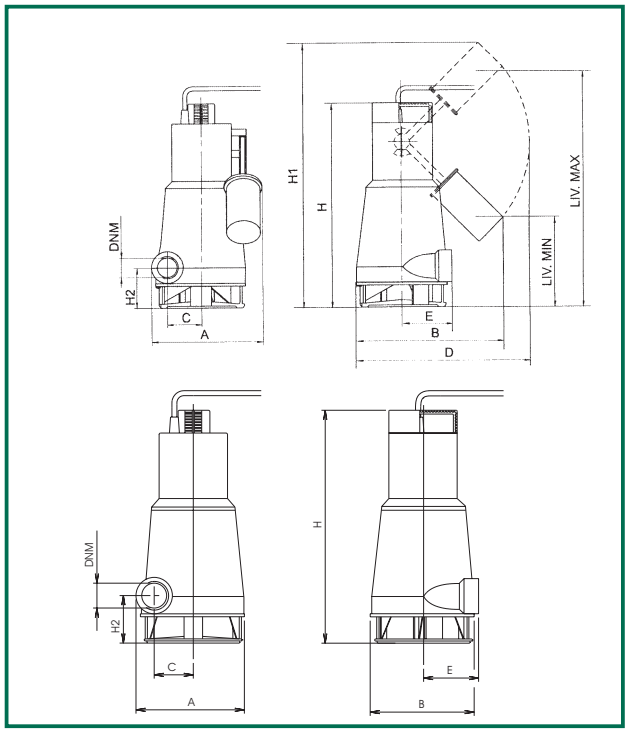
MODEL	A	B	C	D	E	H	H1	H2	LEV. MIN.	LEV. MAX	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
NOVA 600 M-A	193	235	56	296	90	368	443	73	190	390	1¼"G	287	202	431	0,025	7
NOVA 600 (M-T)-NA	162	160	56	–	90	368	–	73	–	–	1¼"G	287	202	431	0,025	6,7

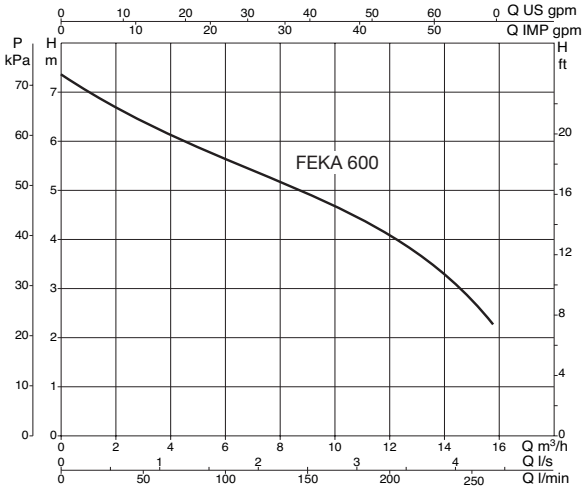
MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2850 1/min)									
	VOLTAGE 50 Hz	P1 MAX W	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	3	4,5	6	7,5	9	12	15	16,2
								l/min	0	50	75	100	125	150	200	250	270
NOVA 600 M	1x220-240 V ~	800	0,55	0,75	3,4	14	450	H (m)	10,2	8,9	8,3	7,8	7,2	6,6	5	3,1	2,3
NOVA 600 T	3x400 V ~	800	0,55	0,75	1,6	–	–										

* Available also with special stainless steel motor shaft version (SV).

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.

FEKA 600





MODEL	A	B	C	D	E	H	H1	H2	LEV. MIN.	LEV. MAX	DNM	PACKING DIMENSIONS			VOLUME m³	WEIGHT Kg
												L/A	L/B	H		
FEKA 600 M-A	193	235	56	296	90	368	443	73	190	390	1¼"G	287	202	431	0,025	7
FEKA 600 (M-T)-NA	162	160	56	–	90	368	–	73	–	–	1¼"G	287	202	431	0,025	6,7

MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2850 1/min)									
	VOLTAGE 50 Hz	P1 MAX W	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	3	4,5	6	7,5	9	12	15	15,9
								l/min	0	50	75	100	125	150	200	250	265
FEKA 600 M	1x220-240 V ~	1000	0,55	0,75	4,3	14	450	H (m)	7,45	6,45	6,1	5,7	5,35	4,95	4,1	2,8	2,2
FEKA 600 T	3x400 V ~	970	0,55	0,75	1,7	–	–										

* Available also with special stainless steel motor shaft version (SV).

FEKA VS
SUBMERSIBLE CENTRIFUGAL PUMP

CE

GENERAL DATA

Applications
Stainless steel submersible centrifugal pump with precision cast steel liquid vortex impeller, suitable for pumping sewer water and waste water in general containing solids up to a maximum size of 50 mm.

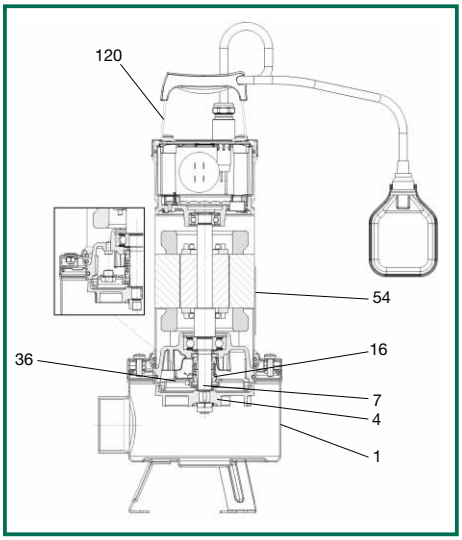
Constructional features of the pump
Pump body, seal housing cover, motor casing, cap with handle made of stainless steel. Precision cast steel impeller. Handle coated with insulating rubber. AISI 304 stainless steel motor shaft. Double mechanical seal with interposed oil chamber (non-toxic oil), made of carbon/alumina on the motor side and silicon carbide/silicon carbide on the pump side.

Constructional features of the motor
Dry, asynchronous, sealed and cooled by the pumped liquid.Rotor mounted on greased for-life ball bearings, oversized and selected to guarantee greater noise reduction and duration. Thermo-amperometric protection as standard for single-phase version, and the user's responsibility for the three-phase ver-sion. Constantly active capacitor on the single-phase version. Construction in accordance with the IEC 2-3 IEC 61-69 (EN 60335-2-41) standards.
Motor protection class: IP 68 - Insulation class: F
Standard voltage: 220-240V 50Hz Single-phase - 400V 50Hz Three-phase
Continual running with liquid at 35 °C and pump completely submerged. The single-phase version can be supplied with float for automatic function. Power supply cable: 10 metres of H07RN-F cable with Shuko plug for the single-phase version and 10 meters of H07RN-F cable for the three-phase version.

TECHNICAL DATA

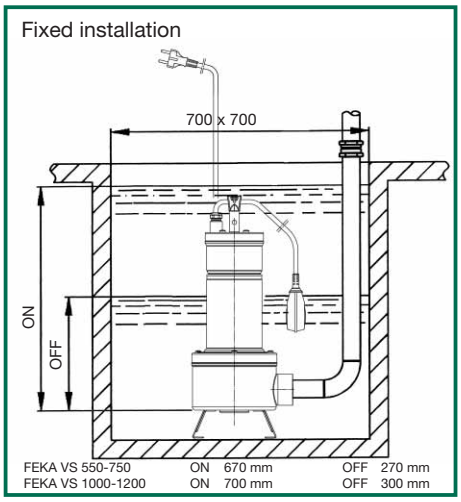
N.	PARTS*		MATERIALS
1	PUMP BODY		STAINLESS STEEL AISI 304
4	IMPELLER		MICROCASTING STAINLESS STEEL
7	MOTOR SHAFT		STAINLESS STEEL AISI 304
16	MECHANICAL SEAL	PUMP SIDE	SILICON CARBIDE/SILICON CARBIDE
		MOTOR SIDE	CARBON/ALLUMINA
36	SEAL COVER		STAINLESS STEEL AISI 304
54	MOTOR CASING		STAINLESS STEEL AISI 304
120	HANDLE		STAINLESS STEEL AISI 304 WITH INSULATING RUBBER COVER

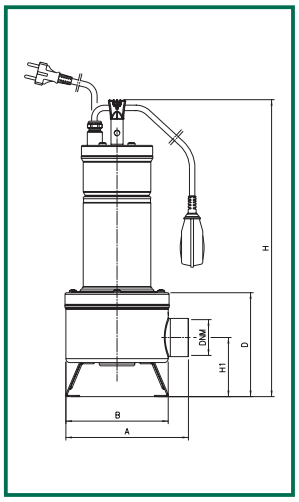
* In contact with the liquid

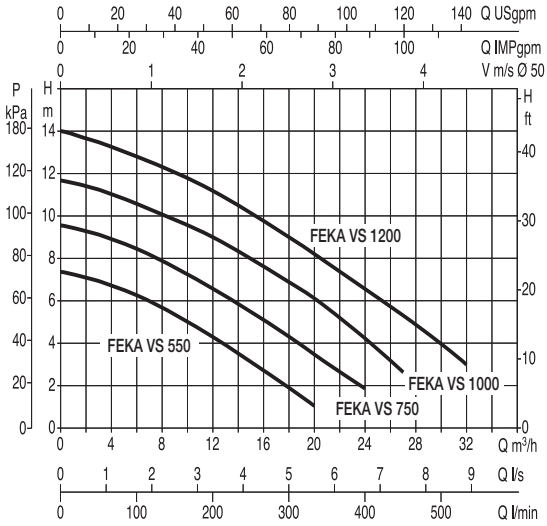


- Operating range: from 0 a 32 m³/h with head up to 14 metres.
- Pumped liquid: sewer water and waste water in general and non aggressive.
- Liquid temperature range: - da 0°C a +35°C for domestic use (EN 60335-2-41)
  - da 0°C a +50°C for other uses
- Maximum ambient temperature for pump running with sub-merged motor: +40°C
- Maximum immersion depth: 10 metri
- Installation: fixed or portable, vertical

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.







MODEL	A	B	D	H	H1	Ø DNM	PACKAGING DIM. L/A	L/B	H	VOL m³	WEIGHT Kg
FEKA VS 550	203	170	172	492	98	2"F	240	600	240	0,034	16,3
FEKA VS 750	203	170	172	492	98	2"F	240	600	240	0,034	17,5
FEKA VS 1000	203	170	172	537	98	2"F	240	600	240	0,034	19,3
FEKA VS 1200	203	170	172	537	98	2"F	240	600	240	0,034	20,8

MODEL	VOLTAGE 50 HZ	ELECTRICAL DATA P1 max W	P2 Nominal kW	P2 Nominal HP	In A	Ist A	CAPACITOR µF	CAPACITOR VC	HYDRAULIC DATA (N≃2800 1/min) m³/h	0	3	6	12	18	20	24	27	32
									l/min	0	50	100	200	300	333	400	450	533
FEKA VS 550 M-NA	1x220-240 V~	927	0,55	0,75	4,2	20	20	450	H (m)	7,4	6,9	6,2	4,1	1,8	1,2	-	-	-
FEKA VS 550 M-A																		
FEKA VS 550 T-NA	3x400 V~	900	0,55	0,75	1,64	11	-	-										
FEKA VS 750 M-NA	1x220-240 V~	1111	0,75	1	5,13	20	20	450		9,6	9,2	8,5	6,7	4,3	3,5	1,9	-	-
FEKA VS 750 M-A																		
FEKA VS 750 T-NA	3x400 V~	1038	0,75	1	1,94	11	-	-										
FEKA VS 1000 M-NA	1x220-240 V~	1469	1	1,36	6,63	31	25	450		11,8	11,3	10,5	9	6,8	6	4,1	2,7	-
FEKA VS 1000 M-A																		
FEKA VS 1000 T-NA	3x400 V~	1374	1	1,36	2,51	16	-	-										
FEKA VS 1200 M-NA	1x220-240 V~	1936	1,2	1,6	8,63	38	30	450		14	13,4	12,8	11,2	9	8,3	6,7	5,3	3
FEKA VS 1200 M-A																		
FEKA VS 1200 T-NA	3x400 V~	1865	1,2	1,6	3,44	22	-	-										

FEKA VX
SUBMERSIBLE CENTRIFUGAL PUMP

CE

GENERAL DATA

Applications
Stainless steel submersible centrifugal pump with technopolymer liquid vortex impeller, suitable for pumping sewer water and waste water in general containing solids up to a maximum size of 50 mm.

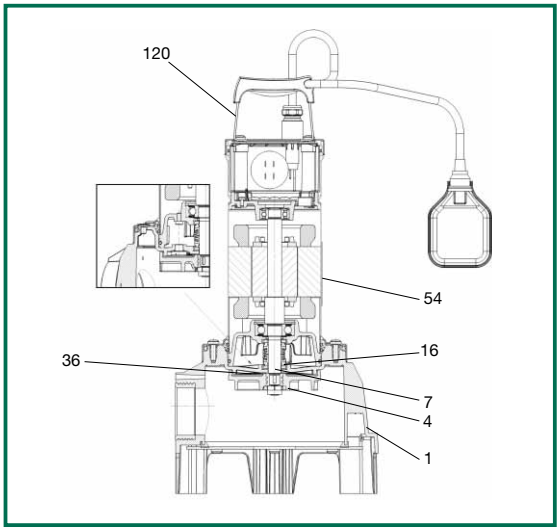
Constructional features of the pump
Pump body made of technopolymer, with threaded metal insert in the delivery port, seal housing cover, motor casing, cap with handle made of stainless steel. Technopolymer impeller.
Handle coated with insulating rubber. AISI 304 stainless steel motor shaft. Double mechanical seal with interposed oil chamber (non-toxic oil), made of carbon/alumina on the motor side and silicon carbide/silicon carbide on the pump side.

Constructional features of the motor
Dry, asynchronous, sealed and cooled by the pumped liquid.Rotor mounted on greased for-life ball bearings, oversized and selected to guarantee greater noise reduction and duration. Thermo-amperometric protection as standard for single-phase version, and the user's responsibility for the three-phase version. Constantly active capacitor on the single-phase version. Construction in accordance with the IEC 2-3 IEC 61-69 (EN 60335-2-41) standards.
Motor protection class: IP 68 - Insulation class: F
Standard voltage: 220-240V 50Hz Single-phase - 400V 50Hz Three-phase
Continual running with liquid at 35 °C and pump completely submerged. The single-phase version can be supplied with float for automatic function. Power supply cable: 10 metres of H07RN-F cable with Shuko plug for the single-phase version and 10 meters of H07RN-F cable for the three-phase version.

TECHNICAL DATA

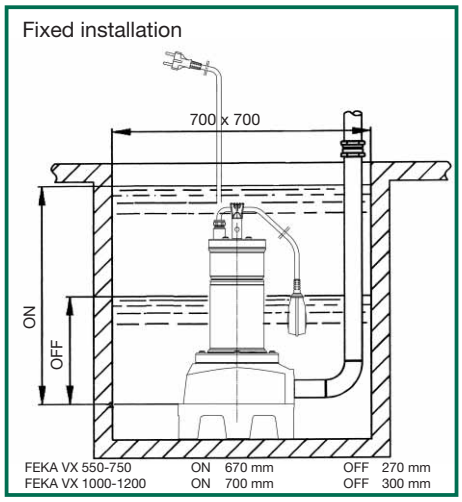
N.	PARTS*		MATERIALS
1	PUMP BODY		TECHNOPOLYMER
4	IMPELLER		TECHNOPOLYMER
7	MOTOR SHAFT		STAINLESS STEEL AISI 304
16	MECHANICAL SEAL	PUMP SIDE	SILICON CARBIDE/SILICON CARBIDE
		MOTOR SIDE	CARBON/ALLUMINA
36	SEAL COVER		STAINLESS STEEL AISI 304
54	MOTOR CASING		STAINLESS STEEL AISI 304
120	HANDLE		STAINLESS STEEL AISI 304 WITH INSULATING RUBBER COVER

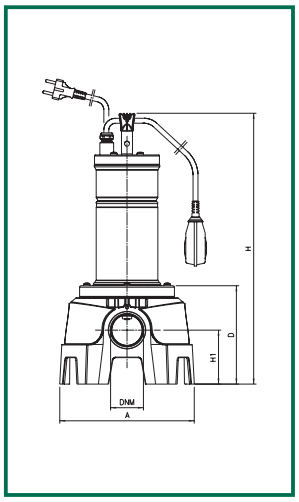
* In contact with the liquid

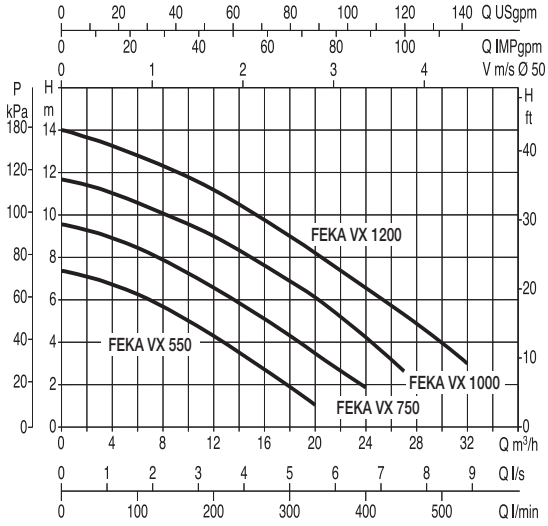


- Operating range: from 0 a 32 m³/h with head up to 14 metres.
- Pumped liquid: sewer water and waste water in general and non aggressive.
- Liquid temperature range: - da 0°C a +35°C for domestic use (EN 60335-2-41)
  - da 0°C a +50°C for other uses
- Maximum ambient temperature for pump running with sub-merged motor: +40°C
- Maximum immersion depth: 10 metri
- Installation: fixed or portable, vertical

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.







MODEL	A	D	H	H1	Ø DNM	PACKAGING DIM. L/A	L/B	H	VOL m³	WEIGHT Kg
FEKA VX 550	245	179	498	98	2"F	360	600	320	0,069	16,7
FEKA VX 750	245	179	498	98	2"F	360	600	320	0,069	17,9
FEKA VX 1000	245	179	543	98	2"F	360	600	320	0,069	19,6
FEKA VX 1200	245	179	543	98	2"F	360	600	320	0,069	21,1

MODEL	VOLTAGE 50 HZ	ELECTRICAL DATA P1 max W	P2 Nominal kW	P2 Nominal HP	In A	Ist A	CAPACITOR µF	CAPACITOR VC	HYDRAULIC DATA (N≃2800 1/min) m³/h	0	3	6	12	18	20	24	27	32
									l/min	0	50	100	200	300	333	400	450	533
FEKA VX 550 M-NA	1x220-240 V~	927	0,55	0,75	4,2	20	20	450	H (m)	7,4	6,9	6,2	4,1	1,8	1,2	-	-	-
FEKA VX 550 M-A																		
FEKA VX 550 T-NA	3x400 V~	900	0,55	0,75	1,64	11	-	-										
FEKA VX 750 M-NA	1x220-240 V~	1111	0,75	1	5,13	20	20	450		9,6	9,2	8,5	6,7	4,3	3,5	1,9	-	-
FEKA VX 750 M-A																		
FEKA VX 750 T-NA	3x400 V~	1038	0,75	1	1,94	11	-	-										
FEKA VX 1000 M-NA	1x220-240 V~	1469	1	1,36	6,63	31	25	450		11,8	11,3	10,5	9	6,8	6	4,1	2,7	-
FEKA VX 1000 M-A																		
FEKA VX 1000 T-NA	3x400 V~	1374	1	1,36	2,51	16	-	-										
FEKA VX 1200 M-NA	1x220-240 V~	1936	1,2	1,6	8,63	38	30	450		14	13,4	12,8	11,2	9	8,3	6,7	5,3	3
FEKA VX 1200 M-A																		
FEKA VX 1200 T-NA	3x400 V~	1865	1,2	1,6	3,44	22	-	-										

DRENAG 900
SUBMERSIBLE PUMP IN STAINLESS STEEL

CE

GENERAL DATA

Applications
Submersible centrifugal pump in stainless steel with adjustment ring impeller in micro cast steel, designed to drain clear waste water, sandy, slimy and muddy water, free from fibres, containing solids up to 12 mm. Suitable for domestic use and for building sites in fixed applications, with manual or automatic operation, for draining basements and garages which are subject to flooding, pumping drains, rainwater collection traps, etc.
It may also be used as a portable pump for emergencies such as lifting water from tanks or rivers, emptying swimming pools, fountains, excavations and underpasses. It is also ideal for gardening and hobbies in general too.

Constructional features of the pump
Stainless steel pump body, microcasting stainless steel impeller, motor flange, filter and filter cover, motor casing, motor shaft, casing and handle, cable housing.
Handle covered with insulating rubber.
Double mechanical seal with interposed oil chamber (non-toxic oil) made of carbon/alumina on the motor side and silicon carbide/silicon carbide on the pump side. Supply vertical vent in stainless steel 1”1/2 G male.

Constructional features of the motor
Watertight dry induction motor, cooled by the pumped liquid.
Rotor mounted on oversized greased sealed-for-life ball bearings to ensure silent running and long life.
Standard thermal and current overload protection.
Capacitor permanently in circuit in the single-phase version.
Manufactured according to CEI 2-3 and CEI 61-69 standards (EN 60335-2-41).
Motor protection: IP68
Insulation class: F

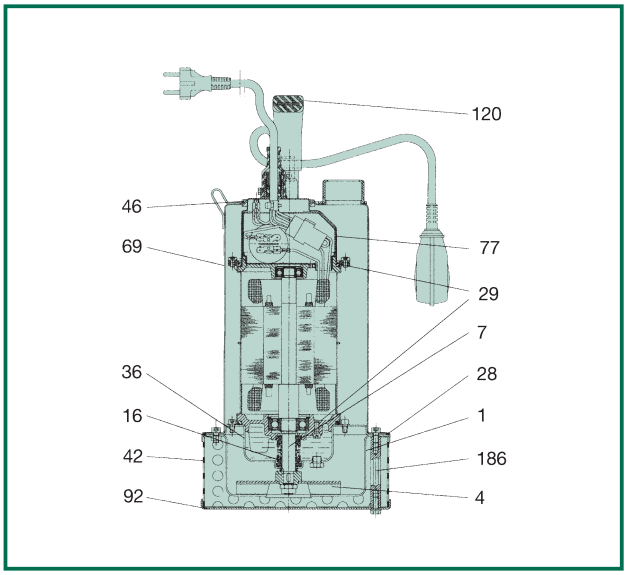
Standard voltage:	single-phase	220-240 V/50 Hz
	three-phase	400 V/50 Hz

Both versions may be supplied without a float or with float for automatic operation.
Power cable: 10 metres H07 RN-F, with UNEL 47166-68 plug for the single-phase version and EEC EN 60-309 plug for the three-phase version.

TECHNICAL DATA - DRENAG 900

N.	PARTS*		MATERIALS
1	PUMP BODY		STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71
4	IMPELLER		MICROCASTING STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71
7	MOTOR SHAFT		MICROCASTING STAINLESS STEEL AISI 316 X5CrNiMo 1712 - UNI 6900/71
16	MECHANICAL SEAL	PUMP SIDE	SILICON CARBIDE/SILICON CARBIDE
		MOTOR SIDE	CARBON/ALLUMINA
28	OR GASKET		NBR
29	OR GASKET		VITON
36	SEAL COVER		STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71
42	FILTER		
46	GASKET		EPDM
69	PUMP LINER		STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71
77	PROTECTION COVER		
92	FILTER COVER		
186	HEXAGONAL COLUMNS		STAINLESS STEEL AISI 303 X10CrNi 1810 - UNI 6900/71
120	MANIGLIA		STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71 WITH INSULATING RUBBER COVER

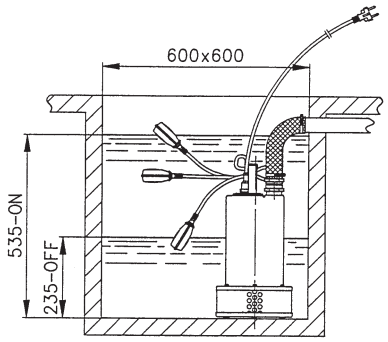
* In contact with the liquid

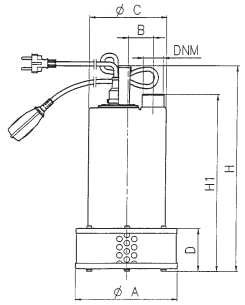


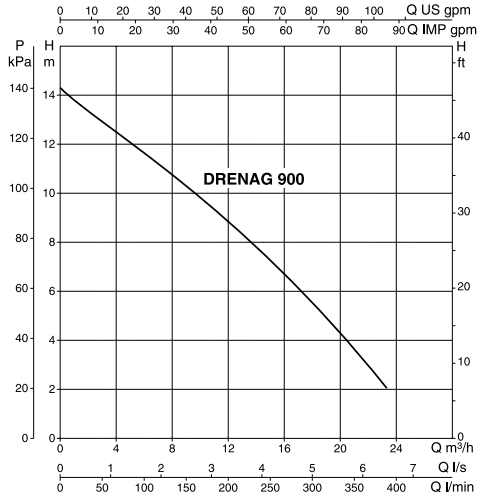
- Operating range: from 3 to 23 m³/h with head up to 14,2 metres
- Liquid quality requirements: rain water, ground water, sandy water from building sites and clean waste water, always non aggressive
- Liquid temperature range: from 0°C to +35°C for domestic use (EN 60335-2-41)
from 0°C to +50°C for other uses
- Maximum ambient temperature: +40°C for pump operation with the motor emerging
- Maximum immersion depth: 10 metres
- Installation: fixed or portable in a vertical position

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.

Fixed installation







MODEL	A	B	C	D	H	H1	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
DRENAG 900	219	62,5	166	95	486	388	1"½ G	522	246	307	0,040	17

MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2800 1/min)								
	VOLTAGE 50 Hz	P1 MAX KW	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	3	6	9	12	15	18	21
								l/min	0	50	100	150	200	250	300	350
DRENAG 900 M	1x220-240 V ~	1,38	1	1,36	6	25	450	H (m)	14,2	13	11,8	10,5	9	7,3	5,4	3,5
DRENAG 900 T	3x400 V ~	1,37	1	1,36	2,5	–	–									

DRENAG 1400 - 1800
SUBMERSIBLE PUMP
FOR USE ON BUILDING SITES

CE

GENERAL DATA

Applications
Submersible cast iron pump for use on building sites with thrust ring pipe impeller, designed for draining, lifting or transfer or sandy, muddy or sludgy water, ground water, rain water, fountain water, clean waste water, river or lake water containing solid bodies with maximum dimensions 12 mm.

Constructional features of the pump
Cast iron pump body and motor casing.
High-resistance cast iron thrust ring pipe impeller.
Cast iron suction cover covered with abrasion-proof rubber.
Stainless steel rotor shaft, handle, filter, filter cover and screws.
Inspectable oil seal chamber.
Silicon carbide mechanical seal.
The supply vent of 2” threaded GAS is radial to facilitate assembly on the lifting devices (DSD 2).

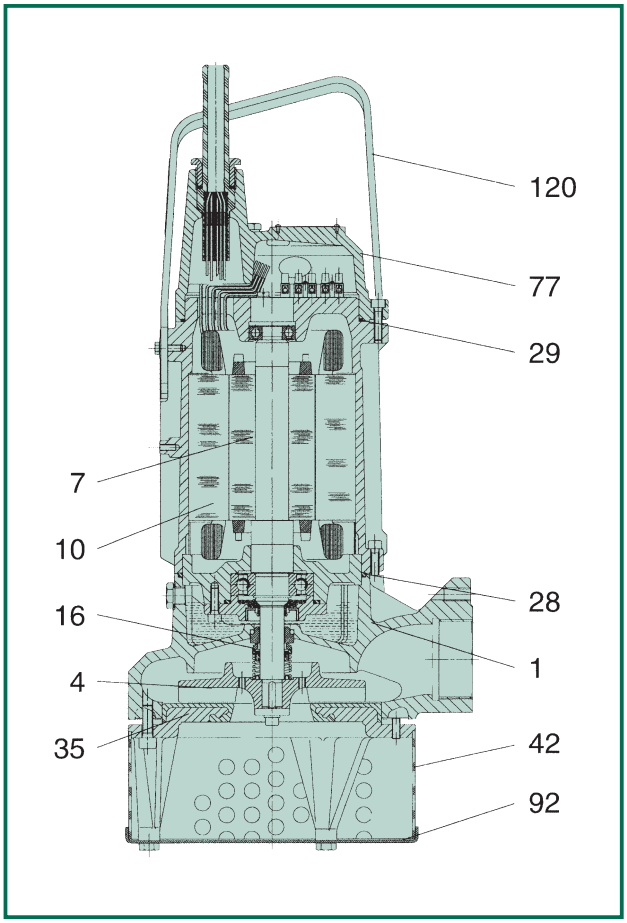
Constructional features of the motor
Continuous duty submersible induction motor, in a watertight casing.
Rotor mounted on oversized greased sealed-for-life ball bearings.
Thermal protection in the windings, to be connected to the control panel.
In order to operate, the pumps must be equipped with a control and protection system, supplied separately and not connected to the electropumps.
Supplied with 10 metres of neoprene rubber power cable 6x(4x1,5)+(2x0,5).
Motor protection: IP68
Insulation class: F
Manufactured according to CEI 2-3 standards.

Standard voltage:	single-phase	220-240 V/50 Hz
	three-phase	400 V/50 Hz

TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	CAST IRON 200 UNI ISO 185
7	MOTOR SHAFT	STAINLESS STEEL AISI 416 X12CrS13 - UNI 6900/71
10	MOTOR CASING	CAST IRON 200 UNI ISO 185
16	MECHANICAL SEAL	SILICON CARBIDE
28	OR GASKET	VITON
29	OR GASKET	VITON
35	SUCTION COVER	CAST IRON 200 UNI ISO 185
42	SUCTION FILTER	STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71
77	PROTECTION COVER	CAST IRON 200 UNI ISO 185
92	FILTER COVER	STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71
120	HANDLE	STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71

* In contact with the liquid

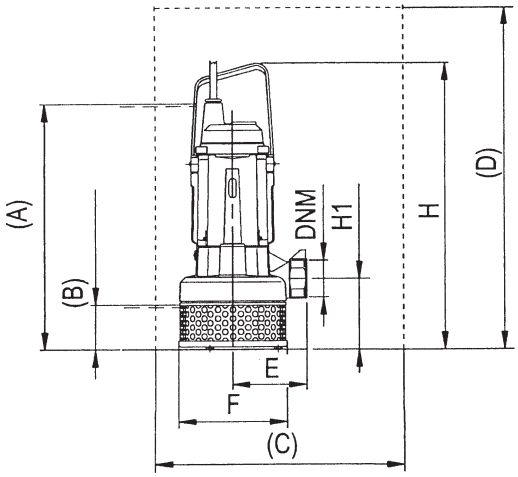


- Operating range: from 6 to 33 m^3/h with head up to 19,2 metres for the single-phase version and 21,5 metres for the three-phase version.
- Liquid quality requirements: sandy, muddy or sludgy water from building sites, clean waste water, rain water, ground water, fountain, river or lake water, always non aggressive
- Liquid temperature range: from 0°C to +55°C
- Free passage of solids through the suction grid: 12 mm
- Maximum immersion depth: 10 metres
- Installation: fixed or portable in a vertical position
- Special executions on request: other voltages and/or frequencies

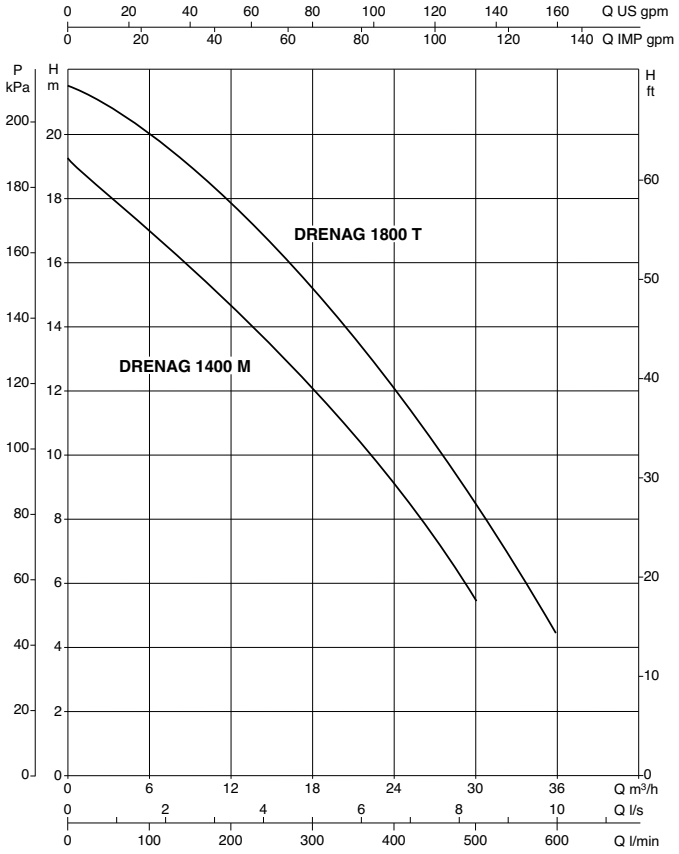
The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 Kg/m³. Curve tolerance according to ISO 9906.

Liquid temperature range: from 0°C to +55°

DRENAG 1400 - 1800



(A) minimum level for continuous duty
(B) minimum residual level in manual operation
(C) minimum dimension of borehole base
(D) minimum borehole height



MODEL	A	B	C	D	E	F Ø	DNM	H	H1	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
DRENAG 1400 M	500	90	500x500 min	600 min	150	219	2" G	584	144	680	330	380	0,085	43,3
DRENAG 1800 T	500	90	500x500 min	600 min	150	219	2" G	584	144	680	330	380	0,085	44,2

MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2800 1/min)							
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	6	12	18	24	30	36
								l/min	0	100	200	300	400	500	600
DRENAG 1400	1x220-240 V ~	2	1,1	1,5	9,2	40	450	H (m)	19,2	17	14,6	12,1	9	5,5	–
DRENAG 1800	3x400 V ~	2,3	1,5	2	4,4	–	–		21,5	20	18	15,2	12	8,5	4,5

FEKA 1400 - 1800

SUBMERSIBLE PUMPS FOR CESSPOOLS

CE

GENERAL DATA

Applications

Submersible cast iron pump with vortex backflowing impeller for cesspools. Suitable for lifting or drainage installations for sewage from cesspools and for generally dirty water containing solids up to maximum 38 mm diameter. Also suitable for ground water, rain water, clean and dirty waste water, river or lake water.

Constructional features of the pump

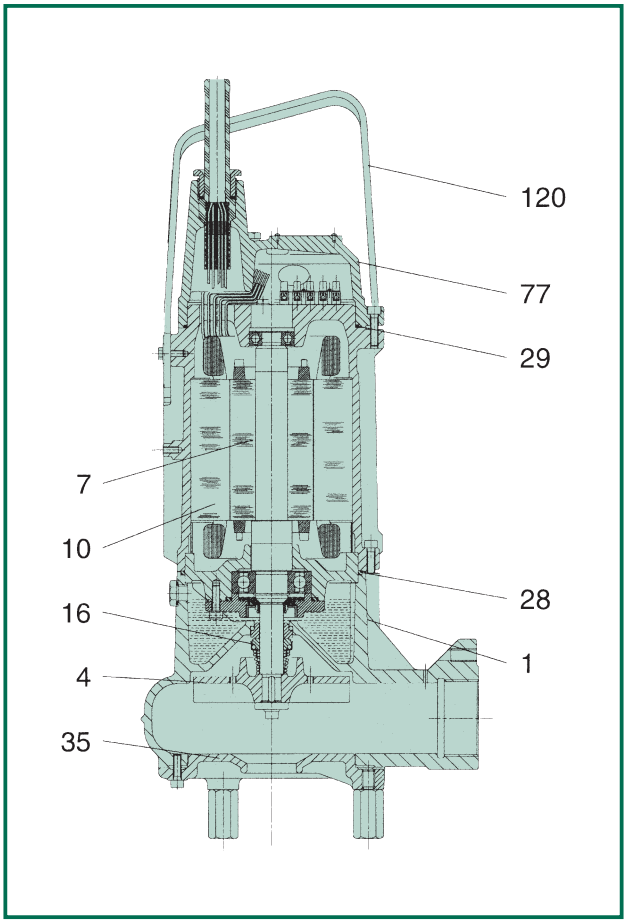
Cast iron pump body, motor casing, suction cover and impeller.
Stainless steel rotor, handle and screws.
Inspectable oil seal chamber.
Carbon/ceramic mechanical seal.
The supply vent of 2" threaded GAS is radial to facilitate assembly on the lifting devices (DSD 2).

Constructional features of the motor

Continuous duty submersible induction motor, in a watertight casing.
Rotor mounted on oversized greased sealed-for-life ball bearings.
Thermal protection in the windings, to be connected to the control panel.
In order to operate, the pumps must be equipped with a control and protection system, supplied separately and not connected to the electropumps.
Supplied with 10 metres of neoprene rubber power cable 6x(4x1,5)+(2x0,5).
Motor protection: IP68
Insulation class: F
Manufactured according to CEI 2-3 standards.

Standard voltage:	single-phase	220-240 V/50 Hz
	three-phase	400 V/50 Hz

TECHNICAL DATA



N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	CAST IRON 200 UNI ISO 185
7	MOTOR SHAFT	STAINLESS STEEL AISI 416 X12CrS13 - UNI 6900/71
10	MOTOR CASING	CAST IRON 200 UNI ISO 185
16	MECHANICAL SEAL	CARBON/CERAMIC
28	OR GASKET	VITON
29	OR GASKET	VITON
35	SUCTION COVER	CAST IRON 200 UNI ISO 185
77	PROTECTION COVER	CAST IRON 200 UNI ISO 185
120	HANDLE	STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71

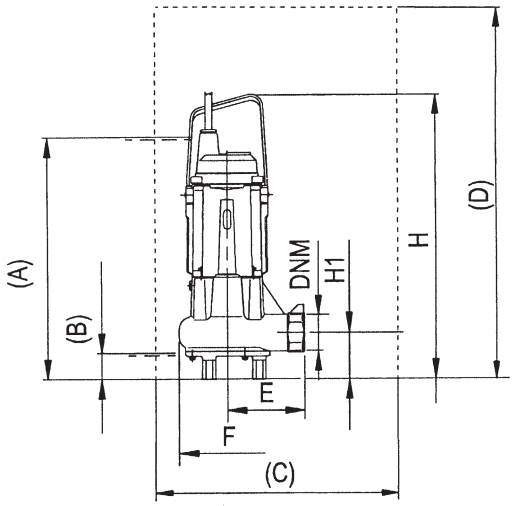
* In contact with the liquid

- Operating range: from 6 to 30 m^3/h with head up to 14 metres for the single-phase version and 15,5 metres for the three-phase version.
- Liquid quality requirements: dirty waste water, untreated sewage containing solids, always non aggressive
- Liquid temperature range: from 0°C to +55°C
- Maximum ambient temperature for pump operation with the motor emerging: +40°C
- Free passage of solids: 38 mm
- Maximum immersion depth: 10 metres
- Installation: fixed or portable in a vertical position
- Special executions on request: other voltages and/or frequencies

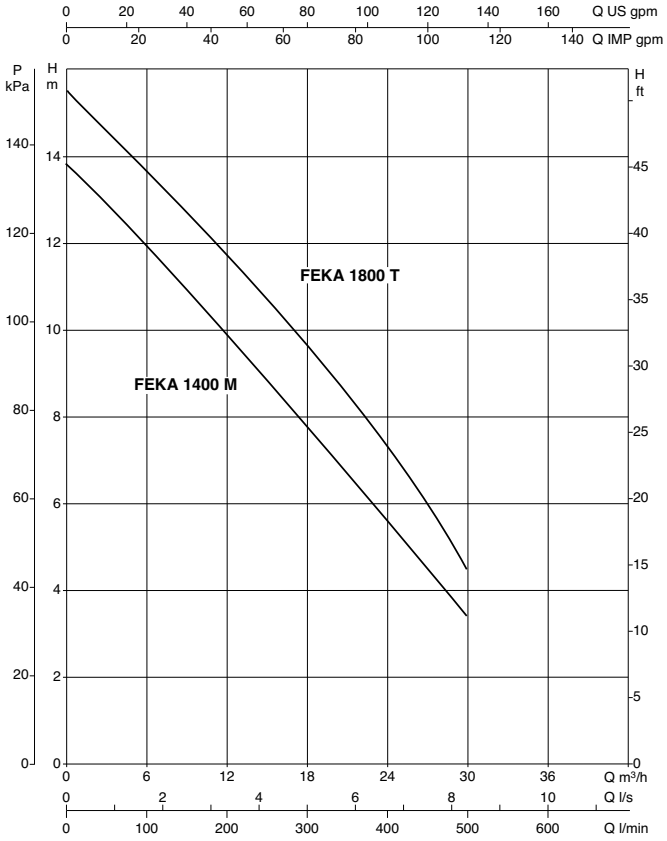
The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

Liquid temperature range: from 0°C to +55°C

FEKA 1400 - 1800



(A) minimum level for continuous duty
(B) minimum residual level in manual operation
(C) minimum dimension of borehole base
(D) minimum borehole height



MODEL	A	B	C	D	E	F Ø	DNM	H	H1	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
FEKA 1400 M	500	50	500x500 min	600 min	160	200	2" G	583	94	680	330	380	0,085	41,2
FEKA 1800 T	500	50	500x500 min	600 min	160	200	2" G	583	94	680	330	380	0,085	42,4

MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2800 1/min)						
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	6	12	18	24	30
								l/min	0	100	200	300	400	500
FEKA 1400 M	1x220-240 V ~	1,8	1,1	1,5	8,5	40	450	H (m)	13,9	12	9,9	7,8	5,7	3,4
FEKA 1800 T	3x400 V ~	1,9	1,5	2	3,7	–	–		15,5	13,7	11,8	9,7	7,3	4,5

GRINDER 1400 - 1800

SUBMERSIBLE PUMPS WITH TRITURATOR

CE

GENERAL DATA

Applications

Submersible cast iron pump with triturator suitable for lifting or drainage installations for civil and industrial sewage. Thanks to the grinding system, the material present in the sewage (organic waste, fabric, rubber, etc.) is reduced into small particles, allowing the liquid to be pumped without any risk of clogging or obstruction of the delivery pipes.

Constructional features of the pump

Cast iron pump body, motor casing and suction cover.
High-resistance cast iron thrust ring pipe impeller.
Triturator device obtained by precision casting of extremely strong and durable materials.
Stainless steel rotor shaft, handle and screws.
Inspectable oil seal chamber.
Silicon carbide mechanical seal.
The supply vent of 2” threaded GAS is radial to facilitate assembly on the lifting devices (DSD 2).

Constructional features of the motor

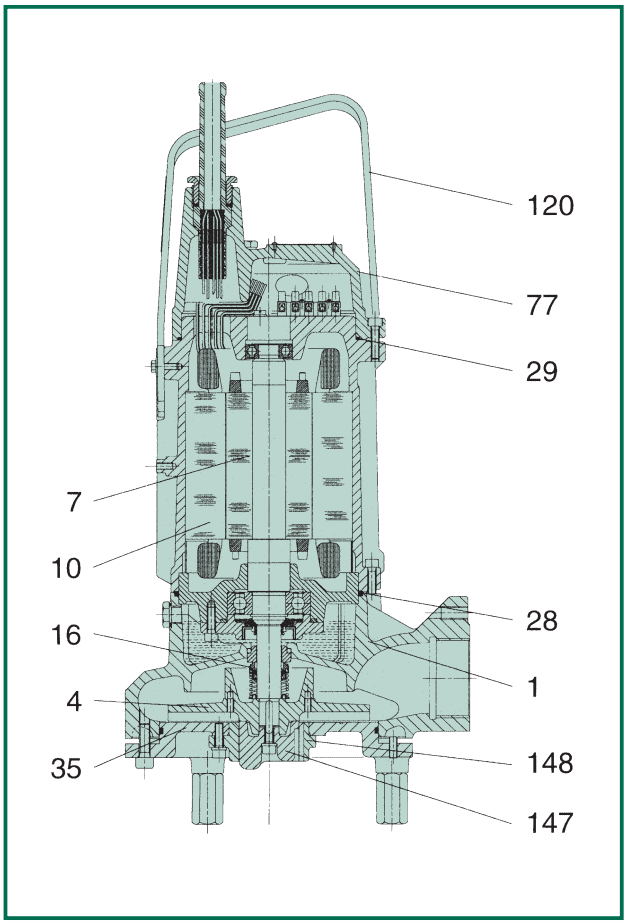
Continuous duty submersible induction motor, in a watertight casing.
Rotor mounted on oversized greased sealed-for-life ball bearings.
Thermal protection in the windings, to be connected to the control panel.
In order to operate, the pumps must be equipped with a control and protection system, supplied separately and not connected to the electropumps.
Supplied with 10 metres of neoprene rubber power cable 6x(4x1,5)+(2x0,5).
Motor protection: IP68
Insulation class: F
Manufactured according to CEI 2-3 standards.

Standard voltage:	single-phase	220-240 V/50 Hz
	three-phase	400 V/50 Hz

TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	CAST IRON 200 UNI ISO 185
7	MOTOR SHAFT	STAINLESS STEEL AISI 416 X12CrS13 - UNI 6900/71
10	MOTOR CASING	CAST IRON 200 UNI ISO 185
16	MECHANICAL SEAL	SILICON CARBIDE
28	OR GASKET	VITON
29	OR GASKET	VITON
35	SUCTION COVER	CAST IRON 200 UNI ISO 185
77	PROTECTION COVER	CAST IRON 200 UNI ISO 185
120	HANDLE	STAINLESS STEEL AISI 304 X5CrNi 1810 - UNI 6900/71
147	TRITURATOR FIXED PART FIXED PART	HARDENED STEEL AISI 440
148	TRITURATOR FIXED PART ROTARY PART	HARDENED STEEL AISI 440

* In contact with the liquid

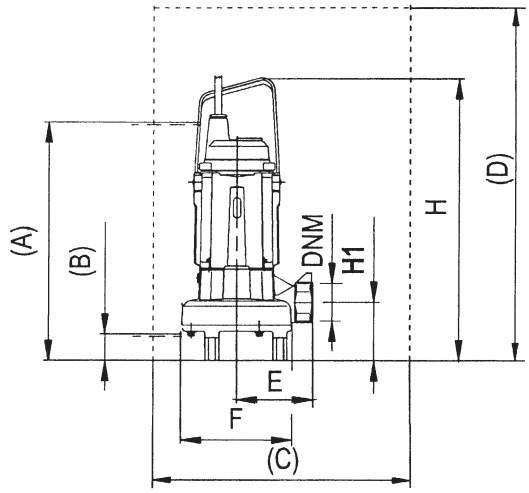


- Operating range: from 2 to 9 m^3/h with head up to 24,5 metres for the single-phase version and 26,5 metres for the three-phase version.
- Liquid quality requirements: dirty waste water, untreated sewage containing solids and/or long fibres, always non aggressive
- Liquid temperature range: from 0°C to +55°C
- Maximum ambient temperature for pump operation with the motor emerging: +40°C
- Maximum immersion depth: 10 metres
- Installation: fixed or portable in a vertical position
- Special executions on request: other voltages and/or frequencies

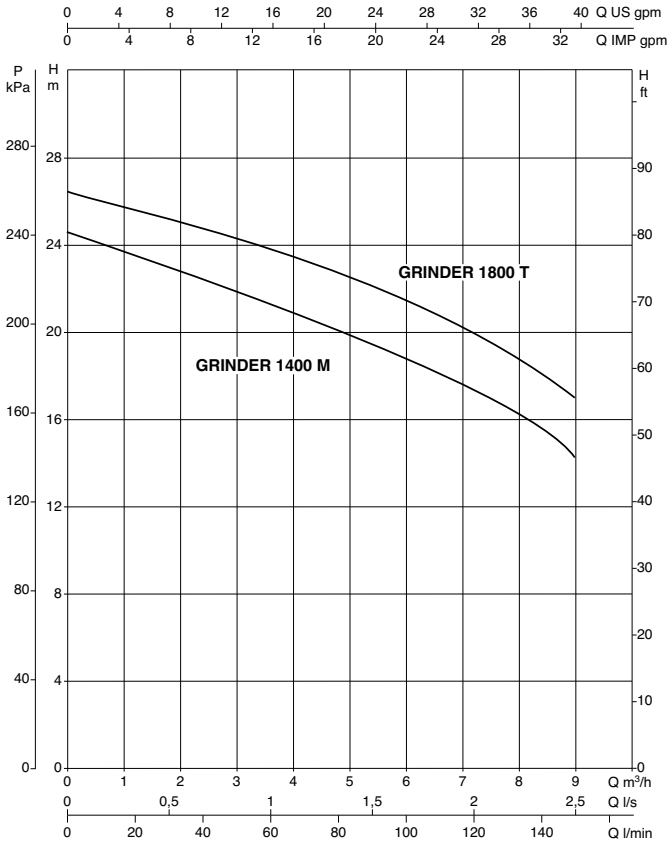
The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

Liquid temperature range: from 0°C to +55°C

GRINDER 1400 - 1800



(A) minimum level for continuous duty
(B) minimum residual level in manual operation
(C) minimum dimension of borehole base
(D) minimum borehole height



MODEL	A	B	C	D	E	F Ø	DNM	H	H1	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
GRINDER 1400 M	500	50	500x500 min	600 min	150	219	2" G	549	109	680	330	380	0,085	43,2
GRINDER 1800 T	500	50	500x500 min	600 min	150	219	2" G	549	109	680	330	380	0,085	43,8

MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2800 1/min)						
	VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	2	4	6	8	9
								l/min	0	33,3	66,6	100	133,3	150
GRINDER 1400 M	1x220-240 V ~	1,95	1,1	1,5	8,7	40	450	H (m)	24,5	22,8	21	19	16,2	14,1
GRINDER 1800 T	3x400 V ~	2	1,5	2	3,8	–	–		26,5	25	23,5	21,6	18,8	17

FEKA 2500-3000-4000-6000

SUBMERSIBLE PUMPS
FOR CESSPOOLS

CE

GENERAL DATA

Applications

Submersible cast iron pump with vortex backflowing impeller for cesspools. Suitable for lifting or drainage installations for sewage from cesspools and for generally dirty water containing solids (see technical particulars). Also suitable for ground water, rain water, clean and dirty waste water, river or lake water.

Constructional features of the pump

Cast iron pump body, motor casing, suction cover and impeller.
Stainless steel rotor and screws.
Double mechanical seal with inspectable oil seal chamber.

The flanged supply vent: Ø 65 mm for FEKA 2500 - FEKA 2700
Ø 80 mm for FEKA 3000 - FEKA 3500 - FEKA 3700
Ø 100 mm for FEKA 4000 - FEKA 4125 - FEKA 4150 - FEKA 4200
Ø 150 mm for FEKA 6075 - FEKA 6100 - FEKA 6120 - FEKA 6150
FEKA 6200 - FEKA 6250 - FEKA 6300

The pumps are supplied with threaded counter-flange (mass-produced).
On request, lifting devices are available,they facilitate the pump's descent in the cesspools and allow to execute the maintenances without disassembling the

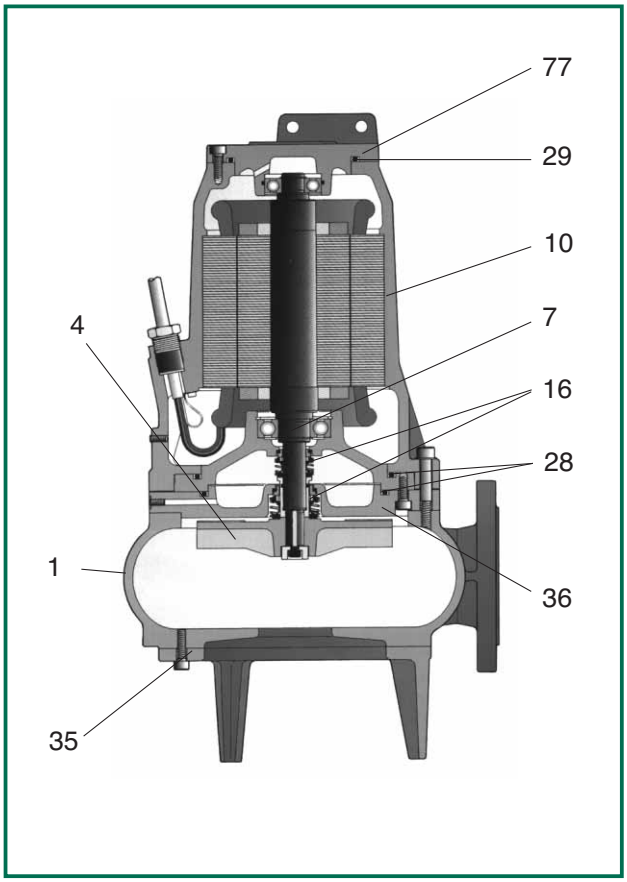
Constructional features of the motor

Continuous duty submersible induction motor, in a watertight casing.
Rotor mounted on oversized greased sealed-for-life ball bearings.
Thermal protection in the windings, to be connected to the control panel.
In order to operate, the pumps must be equipped with a control and protection system, supplied separately and not connected to the electropumps.
Supplied with 10 metres of neoprene rubber power cable 6x(4x1.5)+(2x0.5).
Motor protection: IP68
Insulation class: F
Manufactured according to CEI 2-3 standards.
Voltage: 3X400 V 50 Hz (fitted in ⅄ Δ for Feka 4100.4T - 4100.2T - 4150.2T - 4125.2T - 4200.2T, Feka 6075.6T - Feka 6100.6T - Feka 6120.4T - Feka 6200.4T - Feka 6250.4T - Feka 6300.4T).
Special executions on request: other voltages and/or frequencies, thermal protection in the windings and oil sensor (for all Feka 6000 models).

TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	CAST IRON 200 UNI ISO 185
7	MOTOR SHAFT	STAINLESS STEEL AISI 416 X12CrS13 - UNI 6900/71
10	MOTOR CASING	CAST IRON 200 UNI ISO 185
16	MECHANICAL SEAL	SILICON CARBIDE
28	OR GASKET	NBR
29	OR GASKET	NBR
35	SUCTION COVER	CAST IRON 200 UNI ISO 185
36	MECHANICAL SEAL	CAST IRON 200 UNI ISO 185
77	PROTECTION COVER	CAST IRON 200 UNI ISO 185

* In contact with the liquid

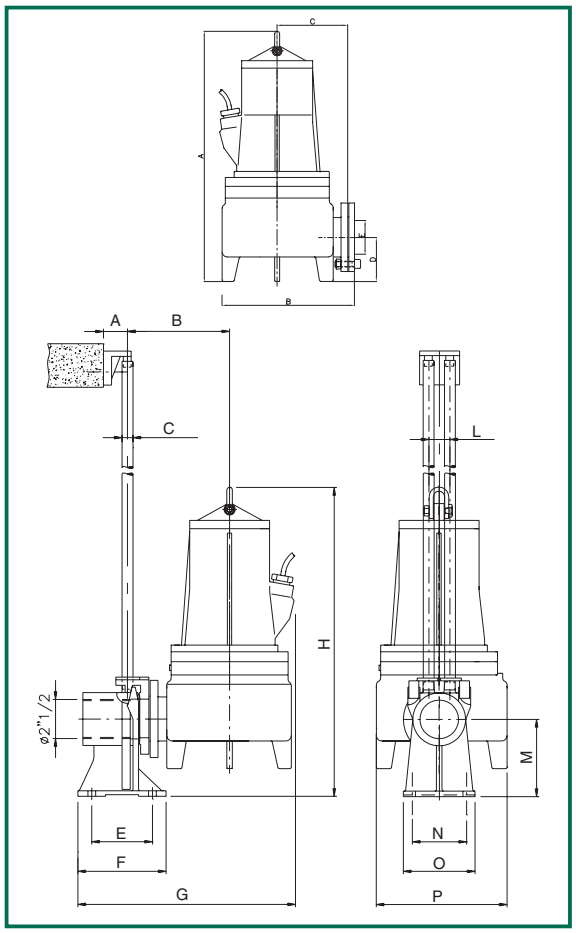


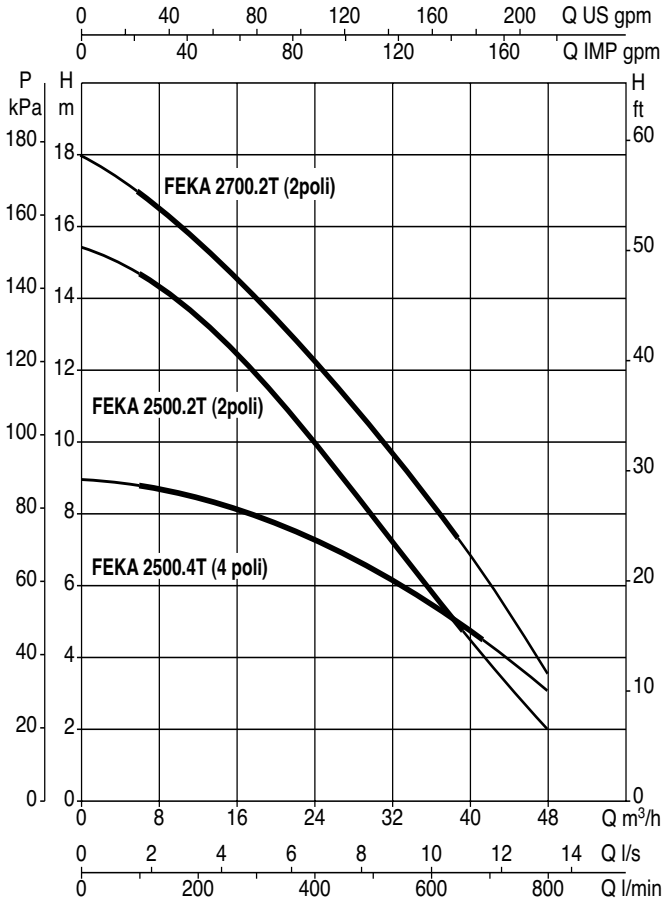
- Operating range: from 7 to 516 m^3/h in continuous duty with head up to 40 m;
- Liquid quality requirements: waste water, water in general containing solid bodies (view free passage in dimensions table), ground water, rain water, clean and black waste water, river or lake water, always non aggressive;
- Liquid temperature range: from 0°C to +55°C
- Maximum immersion depth: 10 metres
- Installation: fixed or portable in a vertical position

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 0°C to +55°C

FEKA 2500





Packing dimension of the pump

MODEL	A	B	C	D	E	G	FREE PASSAGE OF SOLIDS mm	WEIGHT Kg
FEKA 2500.4T	515	273	158	90	62	2"1/2	62	40
FEKA 2500.2T								45
FEKA 2700.2T								47

Dimensions with lifting device

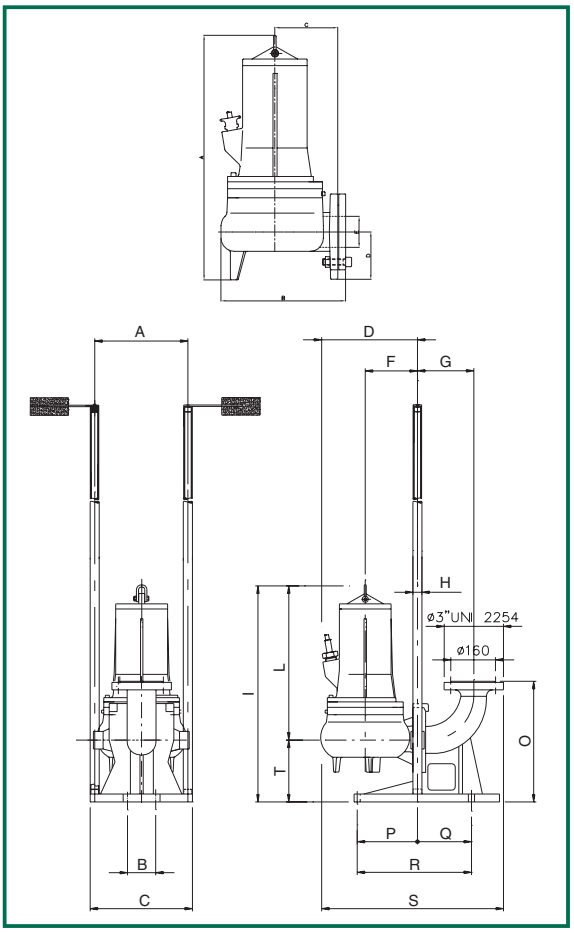
MODEL	A	B	C	D	E	F	G	H	L	M	N	O	P
FEKA 2500.4T	80	190	3/4"	2" 1/2	110	150	418	530	38	140	100	130	228
FEKA 2500.2T													
FEKA 2700.2T													

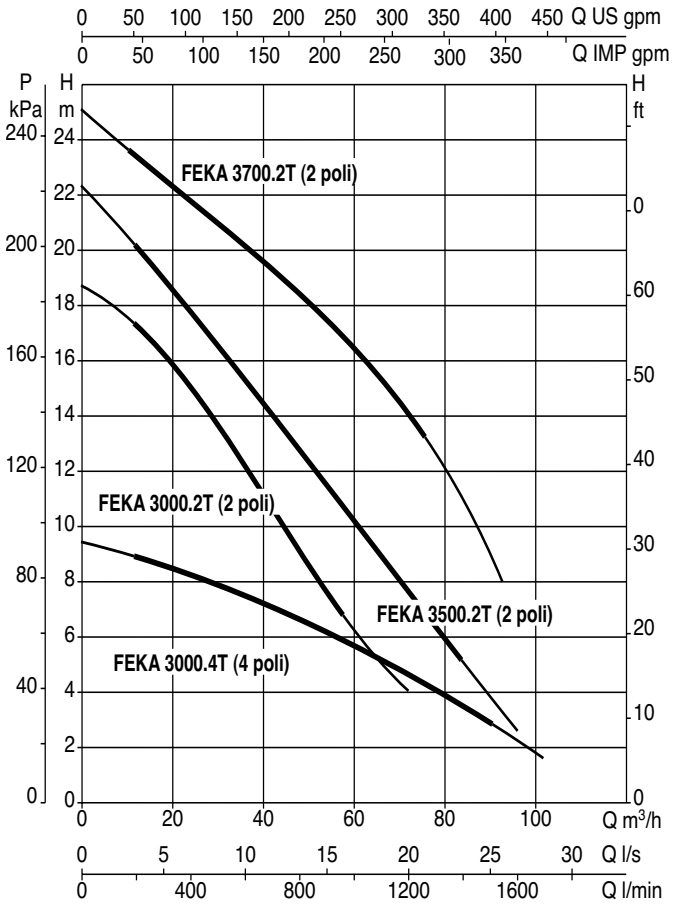
MODEL	ELECTRICAL DATA					HYDRAULIC DATA							
	VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	In A	RPM 1/min.	Q m³/h	0	6	12	18	24	36	48
						Lt/min.	0	100	200	300	400	600	800
FEKA 2500.4T	3x400 V~	1,8	2,5	4,6	1400	H (m)	9	8,75	8,4	7,8	7,2	5,4	2
FEKA 2500.2T	3x400 V~	1,8	2,5	4,8	2800		15,5	14,9	13,6	11,9	10	5,9	3
FEKA 2700.2T	3x400 V~	2,2	3	5,4	2840		18	17	15,6	14	12,2	8,3	3,9

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 0°C to +55°C

FEKA 3000





Packing dimension of the pump

MODEL	A	B	C	D	E	G	FREE PASSAGE OF SOLIDS mm	WEIGHT Kg
FEKA 3000.4T	620	315	185	125	82	3"	79	76
FEKA 3000.2T		365	203		68		67	72
FEKA 3500.2T								74
FEKA 3700.2T							50	76

Dimensions with lifting device

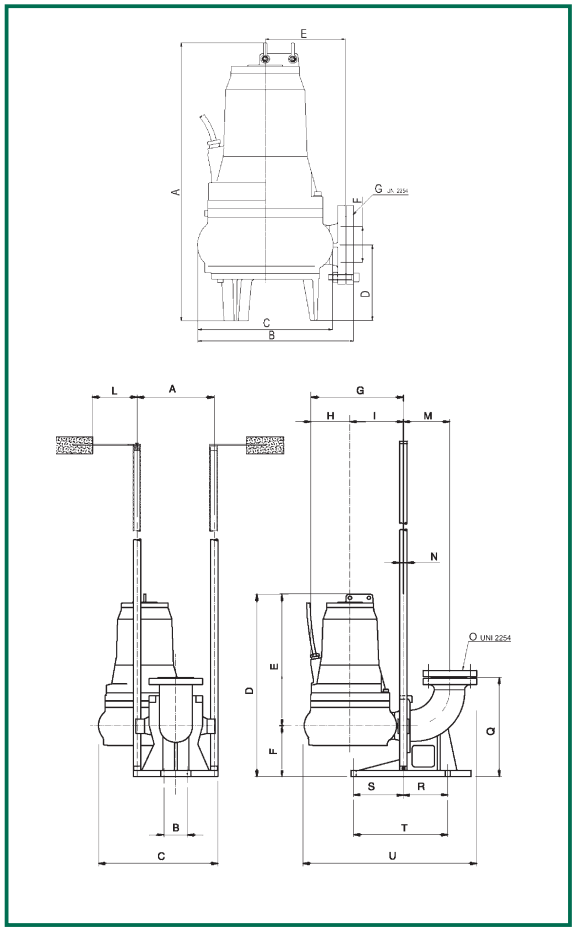
MODEL	A	B	C	D	F	G	H	I	L	O	P	Q	R	S	T
FEKA 3000.4T	353	110	422	315	175	180	2"	700	480	375	240	150	390	638	220
FEKA 3000.2T				330											
FEKA 3500.2T															
FEKA 3700.2T															

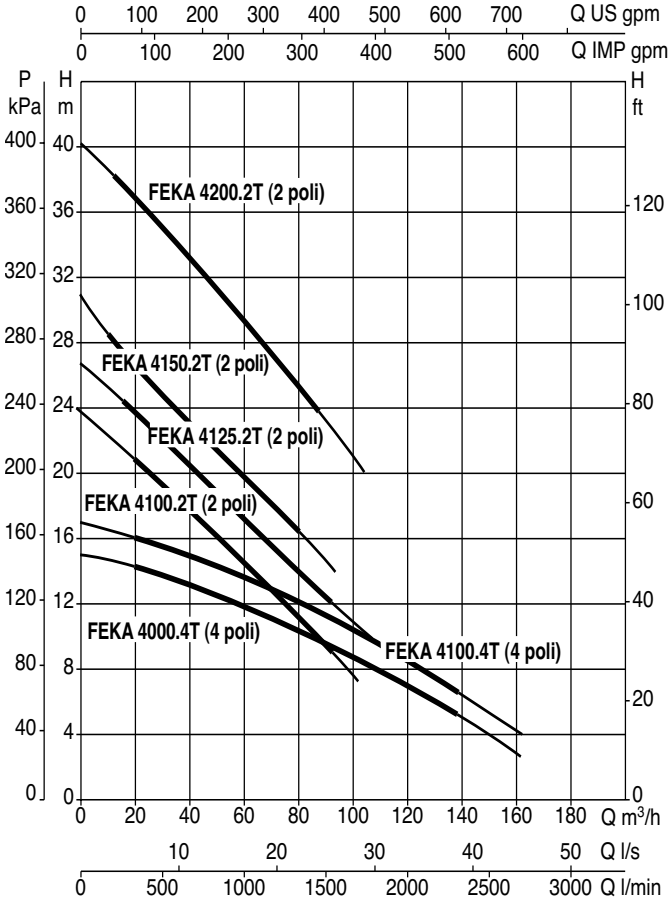
MODEL	ELECTRICAL DATA					HYDRAULIC DATA											
	VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	In A	RPM 1/min.	Q m³/h	0	12	18	24	36	48	60	72	84	96	102
						Lt/min.	0	200	300	400	600	800	1000	1200	1400	1600	1700
FEKA 3000.4T	3x400 V~	3,6	5	7,8	1400	H (m)	9,5	8,9	8,5	8,2	7,4	6,5	5,6	4,6	3,6	2,4	1,8
FEKA 3000.2T	3x400 V~	3,7	5	9,8	2800		18,7	17,5	16,6	15,4	12,6	9,5	6,4	4			
FEKA 3500.2T	3x400 V~	4,4	6	10	2910		22,3	20,4	19,1	17,9	15,2	12,8	10	7,5	5	2,5	
FEKA 3700.2T	3x400 V~	5,5	7,5	12	2900		25	23,4	22,6	21,9	20,2	18,5	16,5	14	10,8		

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 0°C to +55°C

FEKA 4000





Packing dimension of the pump

MODEL	A	B	C	D	E	F	G	FREE PASSAGE OF SOLIDS mm	WEIGHT Kg
FEKA 4000.4T	774	410	366	227	225	100	4"	98	149
FEKA 4100.4T									158
FEKA 4100.2T								83	142
FEKA 4125.2T									148
FEKA 4150.2T	874								160
FEKA 4200.2T									220

Dimensions with lifting device

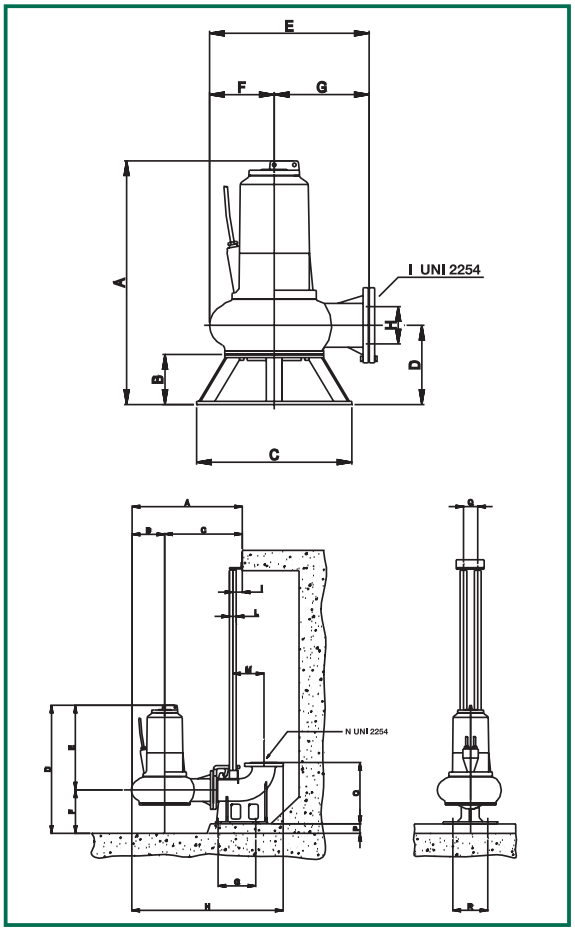
MODEL	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U
FEKA 4000.4T	355	110	520	774	547	227	410	185	225	300	200	ø 2"	ø 4"	–	420	180	280	460	730
FEKA 4100.4T																			
FEKA 4100.2T																			
FEKA 4125.2T																			
FEKA 4150.2T																			
FEKA 4200.2T																			

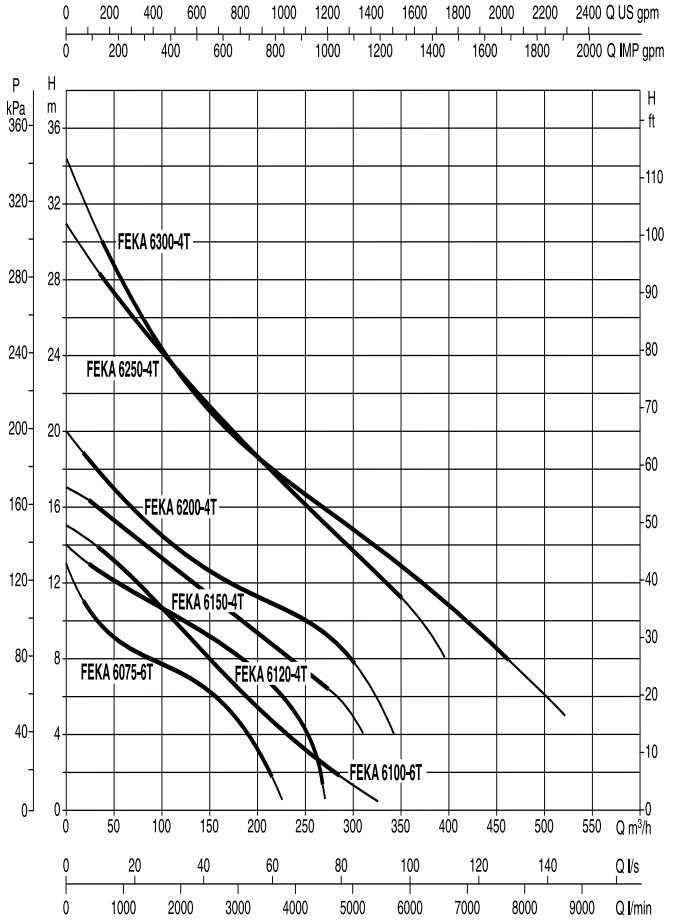
MODEL	ELECTRICAL DATA					HYDRAULIC DATA													
	VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	In A	RPM 1/min.	Q m³/h	0	24	36	48	60	72	84	96	102	120	138	150	162
						LT/min.	0	400	600	800	1000	1200	1400	1600	1700	2000	2300	2500	2700
FEKA 4000.4T	3x400 V~	6	8	15	1400	H (m)	15,3	14,3	13,7	12,9	12	11,2	10,3	9,3	8,8	7,1	5,5	4,3	3
FEKA 4100.4T	3x400 V~ (⅄/Δ)	7,5	10	20	1400		17	16	15,2	14,7	13,8	12,8	11,8	10,6	10	8,3	6,5	5,2	4
FEKA 4100.2T	3x400 V~ (⅄/Δ)	7,5	10	22,5	2800		24	20,4	18,2	16,1	14,3	12,3	10,2	8,4	7,6				
FEKA 4125.2T	3x400 V~ (⅄/Δ)	9,2	12,5	26	2930		27	23,5	21,3	19,5	17,3	15,3	13,5	10,9					
FEKA 4150.2T	3x400 V~ (⅄/Δ)	11	15	23	2890		31	25,8	23,8	22	20	18,2	16						
FEKA 4200.2T	3x400 V~ (⅄/Δ)	15	20	31	2920		40	36,6	34,3	32	29,8	27,6	25	22	20,6				

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 0°C to +55°C

FEKA 6000





Packing dimension of the pump

MODEL	A	B	C	D	E	F	G	H	I	FREE PASSAGE OF SOLIDS mm	WEIGHT Kg
FEKA 6075.6T	950	190	590	301	602	240	362	150	DN 150	95	200
FEKA 6100.6T	1150	190	590	317	657	271	386	150	DN 150	108	300
FEKA 6120.4T	950	190	590	301	602	240	362	150	DN 150	95	200
FEKA 6150.4T	950	190	590	301	602	240	362	150	DN 150	95	212
FEKA 6200.4T	950	190	590	301	602	240	362	150	DN 150	95	226
FEKA 6250.4T	1150	190	590	317	657	271	386	150	DN 150	108	330
FEKA 6300.4T	1150	190	590	317	657	271	386	150	DN 150	108	340

Dimensions with lifting device

MODEL	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
FEKA 6075.6T	810	240	570	970	650	320	300	1100	70	ø 2"	229	DN 150	450	70	105	275
FEKA 6100.6T	871	271	600	1155	835	320	300	1174	70	ø 2"	229	DN 150	450	70	105	275
FEKA 6120.4T	810	240	570	970	650	320	300	1100	70	ø 2"	229	DN 150	450	70	105	275
FEKA 6150.4T	810	240	570	970	650	320	300	1100	70	ø 2"	229	DN150	450	70	105	275
FEKA 6200.4T	810	240	570	970	650	320	300	1100	70	ø 2"	229	DN 150	450	70	105	275
FEKA 6250.4T	871	271	600	1155	835	320	300	1174	70	ø 2"	229	DN 150	450	70	105	275
FEKA 6300.4T	871	271	600	1155	835	320	300	1174	70	ø 2"	229	DN 150	450	70	105	275

MODEL	ELECTRICAL DATA					Q	HYDRAULIC DATA																		
	VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	In A	RPM 1/min.	m³/h	0	36	48	60	72	84	96	102	120	138	150	162	180	210	240	270	300	360	420	516
						Lt./min.	0	600	800	1000	1200	1400	1600	1700	2000	2300	2500	2700	3000	3500	4000	4500	5000	6000	7000	8600
FEKA 6075.6T	3x400 V~ (人/Δ)	5,5	7,5	12	950		13	9,5	9,0	8,8	8,2	7,8	7,6	7,4	7,1	6,4	6,0	5,2	4,8	2,2						
FEKA 6100.6T	3x400 V~ (人/Δ)	7,5	10	19	950		15	13,5	13,0	12,8	11,8	11,2	10,4	10,2	9,5	8,2	7,8	6,8	6,5	5,0	3,5	2,5	1,2			
FEKA 6120.4T	3x400 V~ (人/Δ)	8,8	12	23	1450		14	12,5	11,8	12,5	11,2	10,8	10,4	10,2	10,0	9,4	8,8	8,4	8,1	6,9	5,0	3,2				
FEKA 6150.4T	3x400 V~ (人/Δ)	11	15	26	1450	H (m)	17	16	15,8	15,2	14,9	14,4	13,9	13,4	12,4	11,8	11,2	10,8	10,0	8,2	7,7	5,8	4,8			
FEKA 6200.4T	3x400 V~ (人/Δ)	15	20	31	1450		20	17,5	16,8	16,5	15,2	14,8	14,4	14,2	13,5	12,8	12,4	11,8	11,8	11,0	10,7	9,5	8,0			
FEKA 6250.4T	3x400 V~ (人/Δ)	18,5	25	37	1450		31	28,0	27,0	26,5	25,4	24,6	24,0	23,8	23,0	21,6	20,6	20,0	20,0	18,5	16,5	15,0	12,5	10,5		
FEKA 6300.4T	3x400 V~ (人/Δ)	22	30	46	1450		34,3	29,8	28,2	27,9	26,2	25,0	24,0	23,8	23,0	21,6	20,6	20,0	19,5	18,0	17,1	16,0	15,0	12,3	10,0	4,8

PROTECTION AND CONTROL SYSTEMS

SINGLE-PHASE VERSION

MODEL	MDN	ED 1,3 M	ED 3 M	ED 3 M Hs	E2D 2,6 M	E2D 6 M
TYPE OF PUMP	DRENAG 1400 M FEKA 1400 M	FEKA 600 M FEKA VS M FEKA VX M DRENAG 900 M	DRENAG 1400 M FEKA 1400 M	GRINDER 1400 M	FEKA 600 M FEKA VS M FEKA VX M DRENAG 900 M	DRENAG 1400 M FEKA 1400 M
N° pump to be connected	1	1	1	1	2	2
Static torque increase				●		
N° float to be connected*	1	1 o 2	1 o 2	1 o 2	2 o 3	2 o 3
Remote operation of luminous alarms or float alarms		●	●	●	●	●
Man.-0-Auto. selector		●	●	●	●	●

THREE-PHASE VERSION

MODEL	ED 1 T	ED 1,5 T	ED 2,5 T	E2D 2 T	E2D 3 T	E2D 5 T
TYPE OF PUMP	FEKA 600 T FEKA VS 550-750 T FEKA VX 550-750 T	FEKA VS 1000-1200 T FEKA VS 1000-1200 T DRENAG 900 T	DRENAG 1800 T FEKA 1800 T GRINDER 1800 T FEKA 2500.4 T FEKA 2500.2 T FEKA 2700.2 T	FEKA 600 T FEKA VS 550-750 T FEKA VX 550-750 T	FEKA VS 1000-1200 T FEKA VS 1000-1200 T DRENAG 900 T	DRENAG 1800 T FEKA 1800 T GRINDER 1800 T FEKA 2500.4 T FEKA 2500.2 T FEKA 2700.2 T
N° pump to be connected	1	1	1	2	2	2
N° float to be connected*	1 o 2	1 o 2	1 o 2	2 o 3	2 o 3	2 o 3
Remote operation of luminous alarms or float alarms	●	●	●	●	●	●
Man.-0-Auto. selector	●	●	●	●	●	●

* To be ordered separatly

THREE-PHASE VERSION

MODEL	ED 4 T	ED 7,5 T	ED 8 T	ED 15 T	ED 20 T	ED 25 T	ED 30 T
TYPE OF PUMP	FEKA 3000.4 T	FEKA 3000.2 T FEKA 3500.2 T FEKA 3700.2 T FEKA 6075.6 T	FEKA 4000.4 T	FEKA 4100.4 T FEKA 4100.2 T FEKA 4150.2 T FEKA 6100.6 T FEKA 6120.4 T	FEKA 4125.2 T FEKA 4200.2 T FEKA 6200.4 T	FEKA 6250.4 T	FEKA 6300.4 T
N° pump to be connected	1	1	1	1	1	1	1
N° float to be connected*	1 o 2	1 o 2	1 o 2	1 o 2	1 o 2	1 o 2	1 o 2
Remote operation of luminous alarms or float alarms	●	●	●	●	●	●	●
Man.-0-Auto. selector	●	●	●	●	●	●	●
Star-delta starting				●	●	●	●

THREE-PHASE VERSION

MODEL	E2D 8 T	E2D 15 T	E2D 16 T	E2D 30 T	E2D 40 T	E2D 50 T	E2D 60 T
TYPE OF PUMP	FEKA 3000.4 T	FEKA 3000.2 T FEKA 3500.2 T FEKA 3700.2 T FEKA 6075.6 T	FEKA 4000.4 T	FEKA 4100.4 T FEKA 4100.2 T FEKA 4150.2 T FEKA 6100.6 T FEKA 6120.4 T	FEKA 4125.2 T FEKA 4200.2 T FEKA 6200.4 T	FEKA 6250.4 T	FEKA 6300.4 T
N° pump to be connected	2	2	2	2	2	2	2
N° float to be connected*	2 o 3	2 o 3	2 o 3	2 o 3	2 o 3	2 o 3	2 o 3
Remote operation of luminous alarms or float alarms	●	●	●	●	●	●	●
Man.-0-Auto. selector	●	●	●	●	●	●	●
Star-delta starting			●	●	●	●	●

* To be ordered separatly

CONTROL MDN

CE

GENERAL DATA

Applications

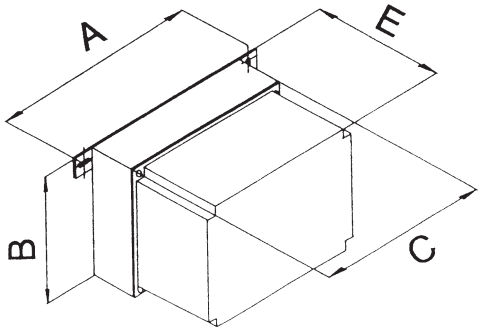
Control unit for the protection and automatic and manual operation of DRENAG 1400 M and FEKA 1400 M single-phase electropumps.
To be connected to a wall socket 2P+ ⏚ 16 Amp 220-240 V a.c. with a block switch and fuse-carrier, using type AM fuses, 10-12 Amp.

Characteristics

Supplied in a self-extinguishing plastic box, fitted with a bracket for wall mounting.
Complete with:
- micro circuit breaker with manual reset for overload protection;
- thermal protection with automatic reset;
- 40 µF starting capacitor;
- remote control switch to guarantee operation of an optional float (available on request);
- terminal board for connecting the electropump and the float (if required, fed at 220-240V);
- 1,5 m power cable H07RN-F 3G1,5 with EEC plug 17-2P+Earth (16A-220V);
- plate showing the wiring diagram applied on the inside of the cover.

TECHNICAL DATA

- Supply voltage	220 - 240 V
- Phases	1
- Frequency	50 Hz
- Rated output power	1,1 kW - 1,5 HP
- Max. rated using current	12 Amp
- Starting capacitor	40 µF-450 V
- Field of use environment temp.	-10°C +40°C
- Degree of protection	IP55
- Storage temperature	-10°C +60°C
- Relative humidity of the air	MAX 95%
- Electric construction	EN 603204-1 and EN 60439-1
- E.M.C. (emissions)	EN 55014 - EN 61000-3-2-1



MODEL	DIMENSIONS (mm)				WEIGHT (Kg)
	A	B	C	E	
MDN	225	168	198	148	2,1

DAB PUMP PERFORMANCE

ED 1,3 M - ED 3 M

CE

GENERAL DATA

Applications

Electric panel for the protection and automatic operation by means of one or more floats of single-phase electropumps, like t is indicated in the following table:

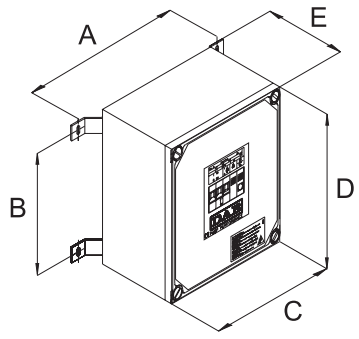
CONTROL PANEL	ELECTROPUMP
ED 1,3 M	FEKA 600M, FEKA VS-VX 550 M-NA, FEKA VS-VX 750 M-NA, FEKA VS-VX 1000 M-NA, FEKA VS-VX 1200 M-NA, DRENAG 900M
ED 3 M	DRENAG 1400 M, FEKA 1400 M

Characteristics

Supplied in a thermoplastic self-extinguishing box, fitted with a bracket for wall mounting. The panel is self-protected and it protects the electropump from overloads and short circuit breakers with manual reset (only for model ED 3 M).
Complete with:
- insulating switch of the supply line;
- self-protected transformer for the supply at 24V of the external controls;
- terminals for connecting the electropump and the control floats minimum/maximum (or thrust meter etc.);
- terminals for connecting the alarm float and for installing a remote acoustic or luminous alarm (without potential);
- thermal protection with manual reset for connection to the KK leads from the motor (only for model ED 3 M);
- button in front of the panel for the manual functioning of the electropump;
- green signal in front the panel indicating the working pump.

TECHNICAL DATA

- Supply voltage:	220 - 240 V +/- 10%	
- Phases:	1	
- Frequency:	50 - 60 Hz	
	ED 1,3 M	**ED 3 M**
- Rated output power:	1,85 KW 220-240 V	2,95 KW 220-240 V
- Max. rated using current:	10 Ampere	16 Ampere
- Starting capacitor:	–	40 µF
- Field of use environment temp.:	-10°C +40°C	
- Storage environment temp. limit:	-25°C +55°C	
- Relative humidity (without condensation):	50% at 40°C max. (90% at 20°C)	
- Max. altitude:	3000 m (a.s.l.)	
- Degree of protection:	IP 55	
- Construction of the panels:	according to EN 60204-1 and EN 60439-1	



MODEL	DIMENSIONS (mm)					WEIGHT (Kg)
	A	B	C	D	E	
ED 1,3 M	350	245	270	300	190	5,6
ED 3 M	350	245	270	300	190	5,6

ED 3 M Hs

CE

GENERAL DATA

Applications

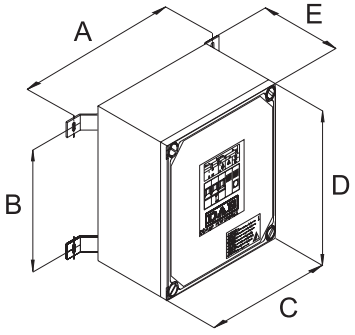
Electric panel for the protection and automatic operation by means of one or more floats of single-phase electropumps model GRINDER 1400 M in single installation.

Characteristics

Supplied in a thermoplastic self-extinguishing box, fitted with a bracket for wall mounting. The panel is self-protected and it protects the electropump from overloads and short circuit breakers with manual reset.
Complete with:
- insulating switch of the supply line;
- automatic device for increasing static torque when starting with the possibility of regulation from 0,5 to 4 seconds (set from the constructor during the taring at 2 seconds).
- self-protected transformer for the supply at 24V of the external controls;
- terminals for connecting the electropump and the control floats minimum/maximum (or thrust meter etc.);
- terminals for connecting the alarm float and for installing a remote acoustic or luminous alarm (without potential);
- thermal protection with manual reset for connection to the KK leads from the motor;
- button in front of the panel for the manual functioning of the electropump;
- green signal in front the panel indicating the working pump.

TECHNICAL DATA

- Supply voltage:	220 - 240 V +/- 10%
- Phases:	1
- Frequency:	50 - 60 Hz
- Rated output power:	2,95 KW 220-240 V
- Max. rated using current:	16 Ampere
- Starting capacitor:	40 µF - 450 V
- Starting capacitor:	200-250 µF - 320 V
- Field of use environment temp.:	-10°C +40°C
- Storage environment temp. limit:	-25°C +55°C
- Relative humidity (without condensation):	50% at 40°C max. (90% at 20°C)
- Max. altitude:	3000 m (a.s.l.)
- Degree of protection:	IP 55
- Construction of the panels:	according to EN 60204-1 and EN 60439-1



MODEL	DIMENSIONS (mm)					WEIGHT (Kg)
	A	B	C	D	E	
ED 3 M Hs	350	335	270	390	190	6,9

DAB PUMP PERFORMANCE

E2D 2,6 M - E2D 6 M

CE

GENERAL DATA

Applications

Electric panel for the protection and automatic operation by means of one or more floats of single-phase electropumps, like t is indicated in the following table:

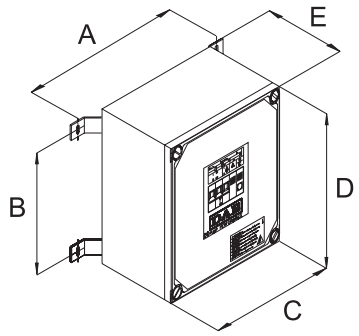
CONTROL PANEL	ELECTROPUMP
E2D 2,6 M	FEKA 600M, FEKA VS-VX 550 M-NA, FEKA VS-VX 750 M-NA, FEKA VS-VX 1000 M-NA, FEKA VS-VX 1200 M-NA, DRENAG 900M
E2D 6 M	DRENAG 1400 M, FEKA 1400 M

Characteristics

Supplied in a thermoplastic self-extinguishing box, fitted with a bracket for wall mounting. The panel is self-protected and it protects the electropump from overloads and short circuit breakers with manual reset (only for model E2D 6 M).
Complete with:
- insulating switch of the supply line;
- self-protected transformer for the supply at 24V of the external controls;
- terminals for connecting the electropump and the control floats minimum/maximum (or thrust meter etc.);
- terminals for connecting the alarm float and for installing a remote acoustic or luminous alarm (without potential);
- thermal protection with manual reset for connection to the KK leads from the motor (only for model E2D 6 M);
- set for the starting order's inversion of the two pumps at each starting;
- buttons in front of the panel for the manual functioning of the electropumps;
- green signals in front the panel indicating the working pumps.

TECHNICAL DATA

- Supply voltage:	220 - 240 V +/- 10%	
- Phases:	1	
- Frequency:	50 - 60 Hz	
	E2D 2,6 M	**E2D 6 M**
- Rated output power:	1,85 KW+1,85 KW 220-240V	2,95 KW+2,95 KW 220-240V
- Max. rated using current:	10+10 Ampere	16+16 Ampere
- Starting capacitor:	–	40 µF+40 µF
- Field of use environment temp.:	-10°C +40°C	
- Storage environment temp. limit:	-25°C +55°C	
- Relative humidity (without condensation):	50% at 40°C max. (90% at 20°C)	
- Max. altitude:	3000 m (a.s.l.)	
- Degree of protection:	IP 55	
- Construction of the panels:	according to EN 60204-1 and EN 60439-1	



MODEL	DIMENSIONS (mm)					WEIGHT (Kg)
	A	B	C	D	E	
E2D 2,6 M	345	335	270	390	230	8
E2D 6 M	345	335	270	390	230	8,5

ED 1 T - ED 1,5 T - ED 2,5 T

CE

GENERAL DATA

Applications

Electric panels for the protection and automatic operation by means of one or more floats of single-phase electropumps, like t is indicated in the following table:

CONTROL PANEL	ELECTROPUMP
ED 1 T	FEKA 600 T, FEKA VS-VX 550 T-NA, FEKA VS-VX 750 T-NA
ED 1,5 T	FEKA VS-VX 1000 T-NA, FEKA VS-VX 1200 T-NA, DRENAG 900 T
ED 2,5 T	DRENAG 1800 T, FEKA 1800 T, GRINDER 1800 T, FEKA 2500.4 T, FEKA 2500.2 T, FEKA 2700.2 T

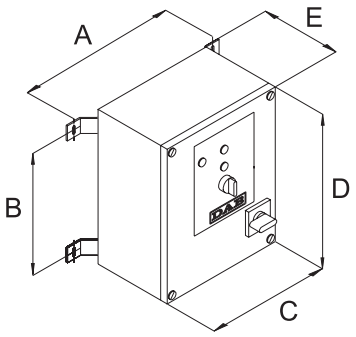
Characteristics

Supplied in a thermoplastic self-extinguishing box, fitted with a bracket for wall mounting. The panel is self-protected and it protects the electropump from overloads and short circuit breakers with manual reset (only for model ED 2,5 T paired off to Drenag/Feka/Grinder 1800).
Complete with:
- insulating switch of the supply line;
- self-protected transformer for the supply at 24V of the external controls;
- terminals for connecting the electropump and the control floats minimum/maximum (or thrust meter etc.);
- terminals for connecting the alarm float and for installing a remote acoustic or luminous alarm (without potential);
- thermal protection with manual reset for connection to the KK leads from the motor (only for model ED 2,5 T, fit a jumper when using it with Feka 2500.4 T - 2500.2 T - 2700.2 T);
- switch in front the panel for the manual functioning - o - automatic of the electropump;
- signalling in front the panel:
  - luminous red signal which indicates the intervention of the amperometric protection;
  - luminous green signal which indicates that the pump is working;
  - luminous white signal which indicates the correct functioning of the auxiliaries circuits.

TECHNICAL DATA

- Supply voltage:	400 V +/- 10%		
- Phases:	3		
- Frequency:	50 - 60 Hz		
	ED 1T	**ED 1,5 T**	**ED 2,5 T**
- Rated output power:	1,38 KW	2,2 KW	3,5 KW
- Max. rated using current:	2,5 A	4A	6,3A

- Field of use environment temp.:	-10°C +40°C
- Storage environment temp. limit:	-25°C +55°C
- Relative humidity (without condensation):	50% at 40°C max. (90% at 20°C)
- Max. altitude:	3000 m (a.s.l.)
- Degree of protection:	IP 55
- Construction of the panels:	according to EN 60204-1 and EN 60439-1



MODEL	DIMENSIONS (mm)					WEIGHT (Kg)
	A	B	C	D	E	
ED 1 T	350	245	270	300	230	5,6
ED 1,5 T	350	245	270	300	230	5,6
ED 2,5 T	350	245	270	300	230	5,6

ED 4 T - ED 7,5 T - ED 8 T - ED 15 T - ED 20 T - ED 25 T - ED 30 T CE

GENERAL DATA

Applications

Electrical panels for protection and automatic control using float/s for submersible three-phase electric pumps, installed singly, as shown in the following table:

CONTROL PANEL	ELECTROPUMP
ED 4 T	FEKA 3000.4 T
ED 7,5 T	FEKA 3000.2 T, FEKA 3500.2 T, FEKA 3700.2 T
ED 7,5 T (人 /Δ)	FEKA 6075.6 T
ED 8 T	FEKA 4000.4 T
ED 15 T (人 /Δ)	FEKA 4100.4 T, FEKA 4100.2 T, FEKA 4150.2 T, FEKA 6100.6 T, FEKA 6120.4 T
ED 20 T (人 /Δ)	FEKA 4125.2 T, FEKA 4200.2 T, FEKA 6150.4 T
ED 25 T (人 /Δ)	FEKA 6250.4 T, FEKA 6200.4 T
ED 30 T (人 /Δ)	FEKA 6300.4 T

Characteristics

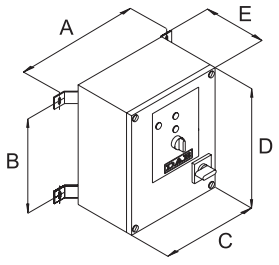
Supplied with cabinet in flame-proof, thermoplastic material, with brackets for wall-mounting.
The panel is self-protected and protects the electric pump from overloading and short circuits, power failure with a manually resettable device.
Supplied complete with:
- isolator for the power input line with padlockable door handle;
- self-protected transformer for 24V powering of external commands;
- terminals for connecting electric pump and min. and max. control float/s (or pressure switches, etc.);
- terminals for connecting a remote acoustic or luminous alarm (without potential);
- terminals for connecting temperature/oil sensors from the motor. Supplied with a jumper to be removed when using it.
- switch on the front of the panel for man - 0 - aut operation of the electric pump;
- LED on the front of the panel:
  - red LED indicating that the thermal-current protection device has cut in
  - green LED on the front of the panel indicating the pump is working
  - yellow LED indicating that the auxiliary circuits are working correctly
- Models ED 15 T and ED 20 T are provided with star-delta starting.

TECHNICAL DATA

- Rated power input: 400V~ +/- 10%
- Phases: 3
- Frequency: 50-60 Hz

	ED 4T	ED 7,5 T	ED 8 T	ED 15 T	ED 20 T	ED 25 T	ED 30 T
- Rated input current (A):	6-10	9-14	13-18	20-25	24-32	25-40	40-63

- Operating temperature range: -10°C +40°C
- Storage temperature range: -25°C + 55°C
- Relative humidity (without condensation): 50% at 40°C MAX (90% at 20°C)
- Max. altitude: 3000 m (a.s.l.)
- Level of protection: IP55
- The panels are built to EN 60204-1 and EN 60439-1 standards



MODEL	DIMENSIONS (mm)					WEIGHT (Kg)
	A	B	C	D	E	
ED 4 T	350	245	270	300	230	8
ED 7,5 T	350	245	270	300	230	10
ED 7,5 T (人 /Δ)	350	335	270	390	230	10
ED 8 T	350	245	270	300	230	10,5
ED 15 T (人 /Δ)	350	335	270	300	230	16
ED 20 T (人 /Δ)	350	335	270	300	230	16
	350	335	270	300	230	18,4
ED 25 T (人 /Δ)	350	335	270	300	230	18,4

E2D 2 T - E2D 3 T - E2D 5 T

CE

GENERAL DATA

Applications

Electric panels for the protection and automatic operation by means of one or more floats of single-phase electropumps, like t is indicated in the following table:

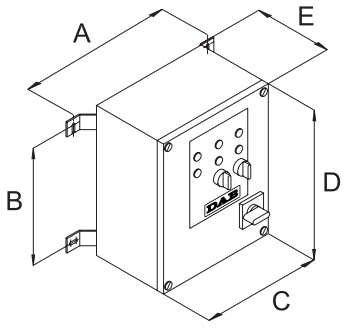
CONTROL PANEL	ELECTROPUMP
E2D 2 T	FEKA 600 T, FEKA VS-VX 550 T-NA, FEKA VS-VX 750 T-NA
E2D 3 T	FEKA VS-VX 1000 T-NA, FEKA VS-VX 1200 T-NA, DRENAG 900 T
E2D 5 T	DRENAG 1800 T, FEKA 1800 T, GRINDER 1800 T, FEKA 2500.4 T, FEKA 2500.2 T, FEKA 2700.2 T

Characteristics

Supplied in a thermoplastic self-extinguishing box, fitted with brackets for wall mounting. The panel is self-protected and it protects the electropump from overloads and short circuit breakers with manual reset (only for model ED 5 T).
Complete with:
- insulating switch of the supply line with block door-handle and lock;
- self-protected transformer for the supply at 24V of the external controls;
- terminals for connecting the electropump and the control floats minimum/maximum (or thrust meter etc.);
- terminals for connecting the alarm float and for installing a remote acoustic or luminous alarm (without potential);
- thermal protection with manual reset for connection to the KK leads from the motor (only for model ED 5 T);
- set for the starting order's inversion of the two pumps at each starting, for the functioning simultaneously and for the insertion of one of the two in case of damage of the other one;
- switch in front the panel for the manual functioning - o - automatic of each electropump;
- signalling in front the panel:
  - luminous red signal which indicates the intervention of the amperometric protection for each electropump;
  - luminous green signals which indicate that the pumps are working;
  - luminous white signal which indicates the correct functioning of the auxiliaries circuits.

TECHNICAL DATA

- Supply voltage:	400 V +/- 10%		
- Phases:	3		
- Frequency:	50 - 60 Hz		
	E2D 2 T	**E2D 3 T**	**E2D 5 T**
- Rated output power:	1,38 +1,38 KW	2,2 +2,2 KW	3,5 +3,5 KW
- Max. rated using current:	2,5 +2,5A	4+4A	6,3+6,3 A
- Field of use environment temp.:	-10°C +40°C		
- Storage environment temp. limit:	-25°C +55°C		
- Relative humidity (without condensation):	50% at 40°C max. (90% at 20°C)		
- Max. altitude:	3000 m (a.s.l.)		
- Degree of protection:	IP 55		
- Construction of the panels:	according to EN 60204-1 and EN 60439-1		



MODEL	DIMENSIONS (mm)					WEIGHT (Kg)
	A	B	C	D	E	
E2D 2 T	345	335	270	390	230	8
E2D 3 T	345	335	270	390	230	8
E2D 5 T	345	335	270	390	230	8,1

E2D 8 T - E2D 15 T - E2D 16 T - E2D 30 T - E2D 40 T - E2D 50 T - E2D 60 T CE

GENERAL DATA

Applications

Electrical panels for protection and automatic control using float/s for submersible three-phase electric pumps, twin installation, as shown in the following table:

CONTROL PANEL	ELECTROPUMP
E2D 8 T	FEKA 3000.4 T
E2D 15 T	FEKA 3000.2 T, FEKA 3500.2 T, FEKA 3700.2 T
E2D 15 T (⅄ /Δ)	FEKA 6075.6 T
E2D 16 T	FEKA 4000.4 T
E2D 30 T (⅄ /Δ)	FEKA 4100.4 T, FEKA 4100.2 T, FEKA 4150.2 T, FEKA 6100.6 T, FEKA 6120.4 T
E2D 40 T (⅄ /Δ)	FEKA 4125.2 T, FEKA 4200.2 T, FEKA 6150.4 T
E2D 50 T (⅄ /Δ)	FEKA 6250.4 T, FEKA 6200.4 T
E2D 60 T (⅄ /Δ)	FEKA 6300.4 T

Characteristics

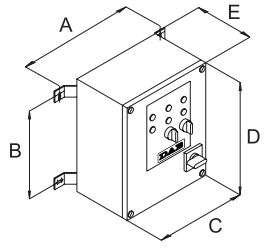
Supplied with cabinet in flame-proof, thermoplastic material, with brackets for wall-mounting.
The panel is self-protected and protects the electric pump from overloads and short circuits with manual reset.
Complete with:
- modular isolator for the power input line with padlockable door handle;
- self-protected transformer for 24V powering of external commands;
- terminals for connecting the electric pump and min./max. control floats (or pressure switches, etc.);
- terminals for connecting a remote acoustic or luminous alarm; (without potential)
- terminals for connecting temperature/oil sensors from the motor. Supplied with a jumper to be removed when using it.
- pre-set for inverting the starting order of the two pumps at every start up, for simultaneous operation and for starting one of the two in case the other one breaks down;
- switch on the front of the panel for manual – 0 – automatic electric pump operation;
- indicators on the front of the panel:
  - red LED indicating the current protection device has cut in;
  - green LED indicating the pump is working;
  - yellow LED indicating the auxiliary circuits are working properly.
- Models E2D 30 T and E2D 40 T are provided with star-delta starting.

TECHNICAL DATA

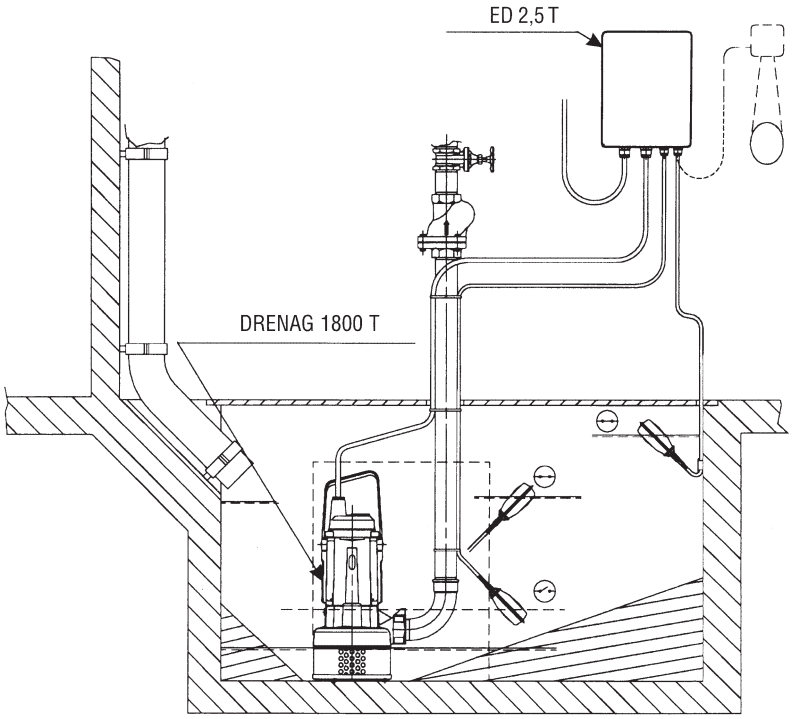
- Rated power input: 400V~ +/- 10%
- Phases: 3
- Frequency: 50-60 Hz

	E2D 8T	E2D 15 T	E2D 16 T	E2D 30 T	E2D 40 T	E2D 50 T	E2D 60 T
- Rated input current (A):	6-10	9-14	13-18	20-25	24-32	25-40	40-63

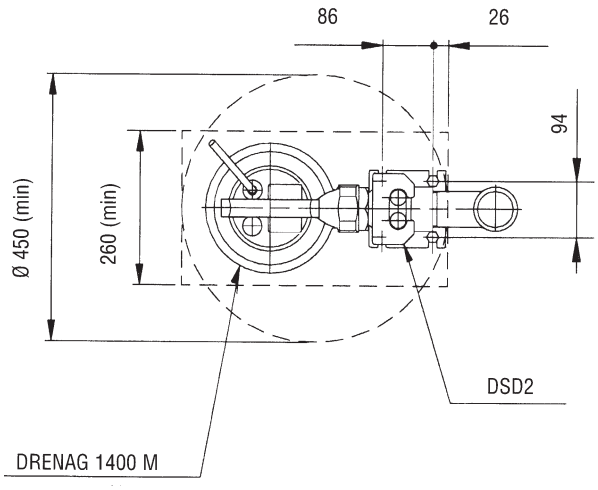
- Operating temperature range: -10°C +40°C
- Storage temperature range: -25°C + 55°C
- Relative humidity (without condensation): 50% at 40°C MAX (90% at 20°C)
- Max. altitude: 3000 m (a.s.l.)
- Level of protection: IP55
- The panels are built to EN 60204-1 and EN 60439-1 standards



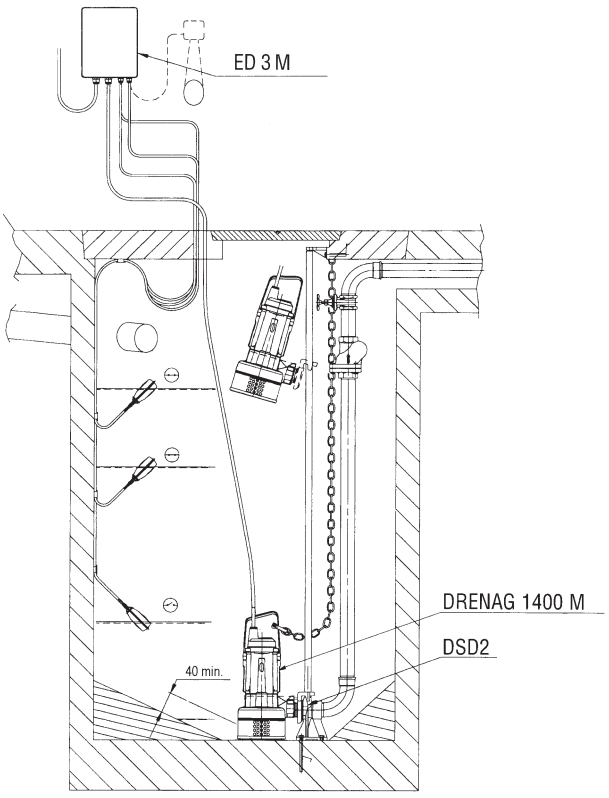
MODEL	DIMENSIONS (mm)					WEIGHT (Kg)
	A	B	C	D	E	
E2D 8 T	345	335	270	390	230	8,3
E2D 15 T	345	335	270	390	230	15
E2D 15 T (⅄ /Δ)	514	335	540	390	230	15
E2D 16 T	345	335	270	390	230	15
E2D 30 T (⅄ /Δ)	514	335	270	390	230	15
E2D 40 T (⅄ /Δ)	514	335	270	390	230	30
E2D 50 T (⅄ /Δ)	514	335	270	390	230	37
E2D 60 T (⅄ /Δ)	514	335	270	390	230	37



Fixed installation with 1 Drenag 1800 T pump, complete with ED 2,5 T control unit, with one MIN/MAX level control float and 1 alarm float.



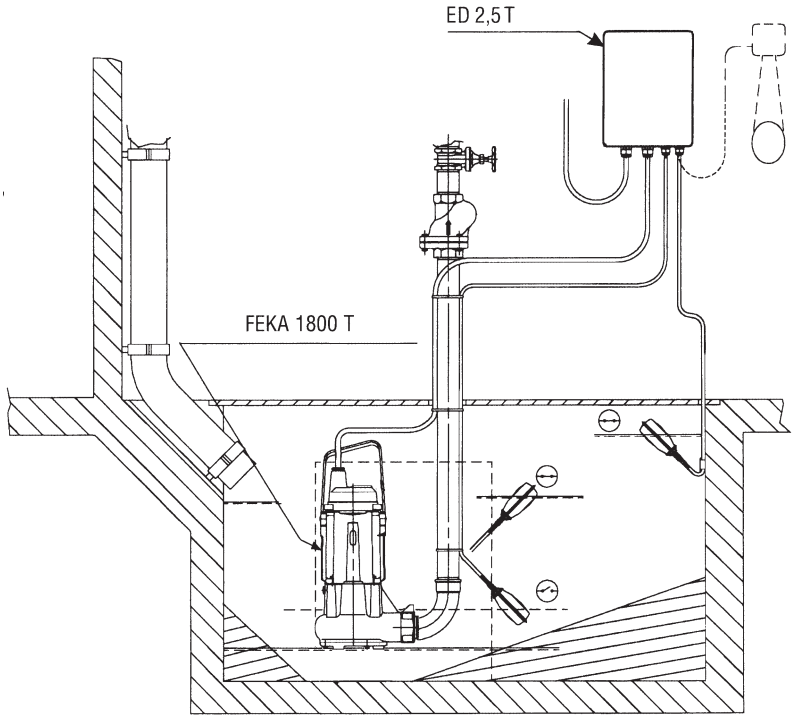
Minimum dimensions of borehole cover for systems provided with DSD2 (layout view).



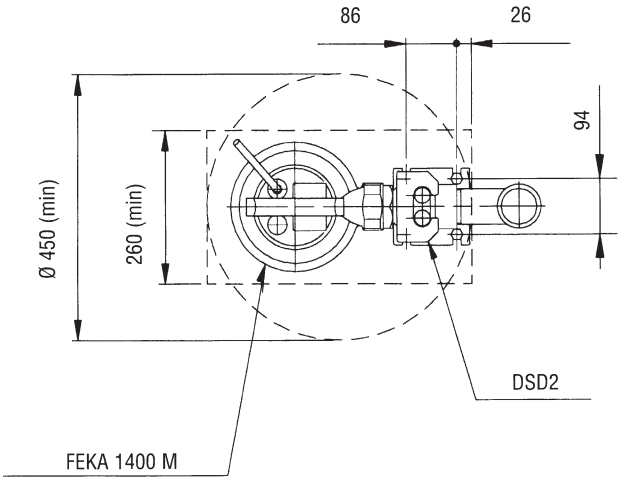
Fixed installation with 1 Drenag 1400 M pump with DSD2 device, complete with ED 3 M control unit, with two minimum and maximum level control floats and one alarm float.

* Technical data of control units from page 32

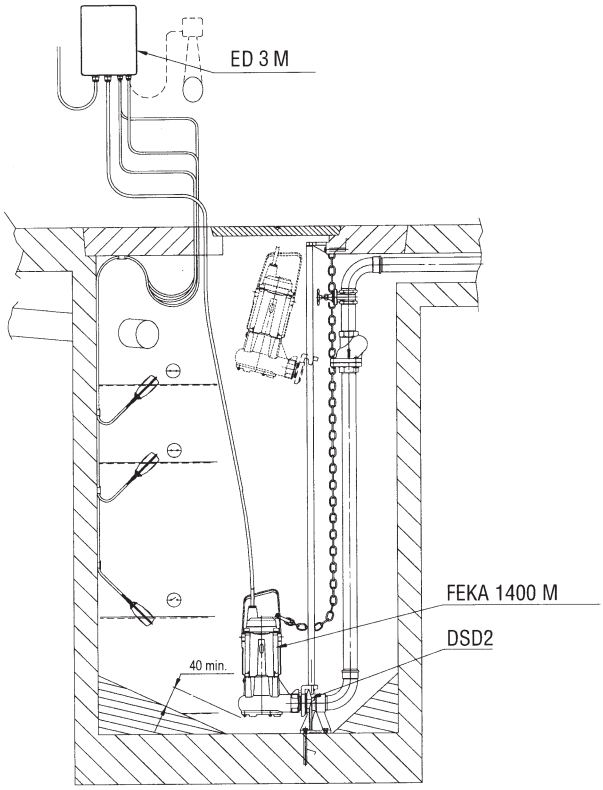
DAB PUMP PERFORMANCE



Fixed installation with 1 Feka 1800 T pump, complete with ED 2,5 T control unit, with one MIN/MAX level control float and 1 alarm float.

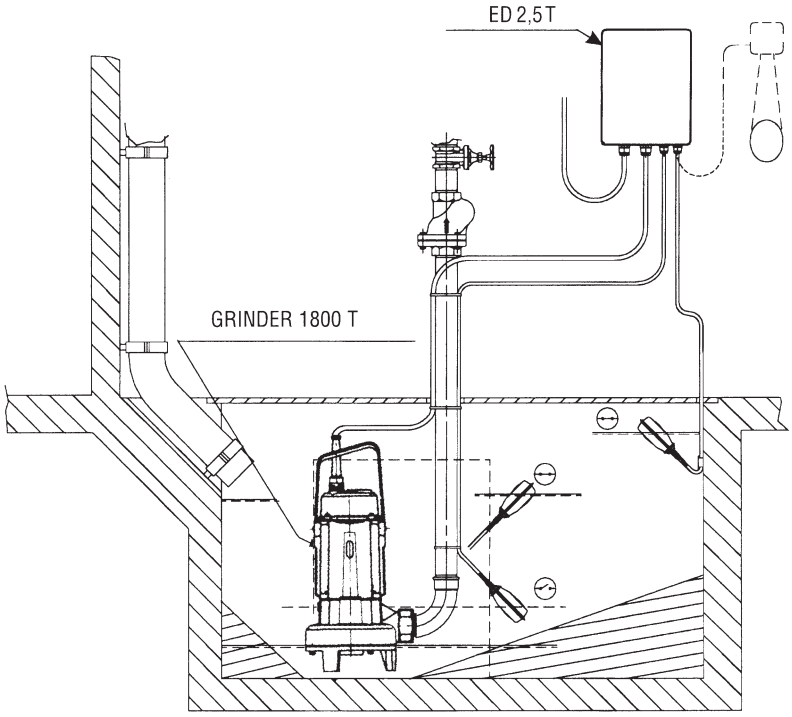


Minimum dimensions of borehole cover for systems provided with DSD2 (layout view).

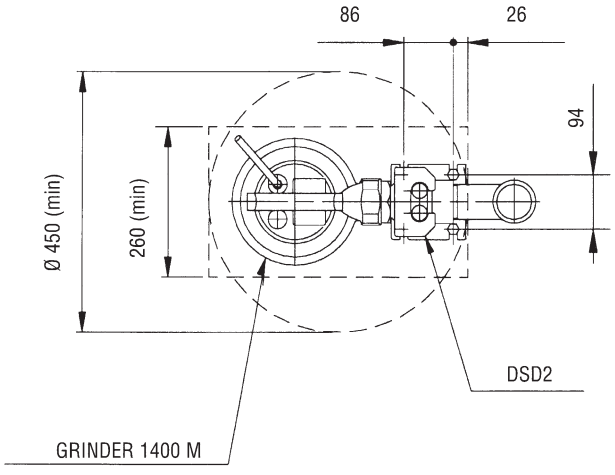


Fixed installation with 1 Feka 1400 M pump with DSD2 device, complete with ED 3 M control unit, with two minimum and maximum level control floats and one alarm float.

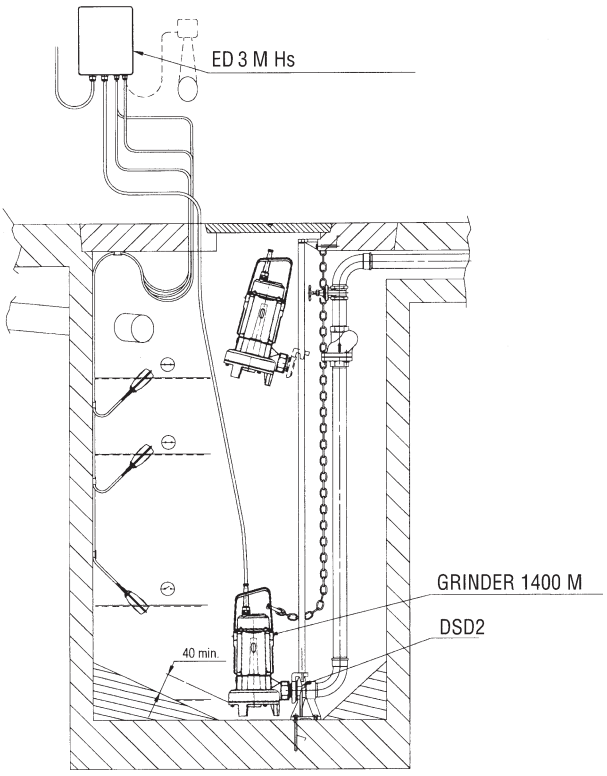
* Technical data of control units from page 32



Fixed installation with 1 Grinder 1800 T pump, complete with ED 2,5 T control unit, with one MIN/MAX level control float and 1 alarm float.



Minimum dimensions of borehole cover for systems provided with DSD2 (layout view).



Fixed installation with 1 Grinder 1400 M pump with DSD2 device, complete with ED 3 M control unit, with two minimum and maximum level control floats and one alarm float.

* Technical data of control units from page 32

ACCESSORIES

FLOATS

Comes with 5 or 10 meters of 3x1 H07 RN-F cable

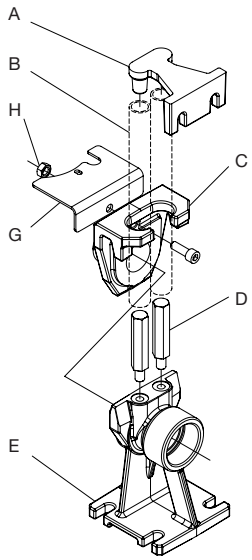
Bulb-type float

KIT SUPPORT PLATE

Supporting device for FEKA and GRINDER, complete with support disc, spacers and screws. Recommended for portable applications to prevent the pump from filling up with sand during operation.

LIFTING DEVICE

DSD2 - FEKA VS-VX

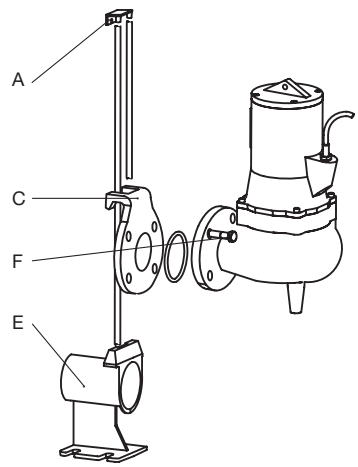


Lifting device for 3/4" gas pipes, complete with: support foot, slide, pipe fixing bracket, pipe guide columns, pump locking nut.

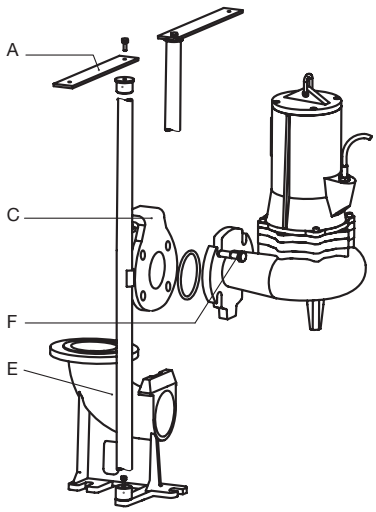
The DSD2-FEKA VS-VX include the bracket of fix the pump.

A	Pipe holding bracket
B	3/4” pipes
C	Sliding saddle
D	Pipe guide columns
E	Stand
F - H	Bracket fastening screw and nut
G	Anti-rotation bracket (only Feka VS and VX)

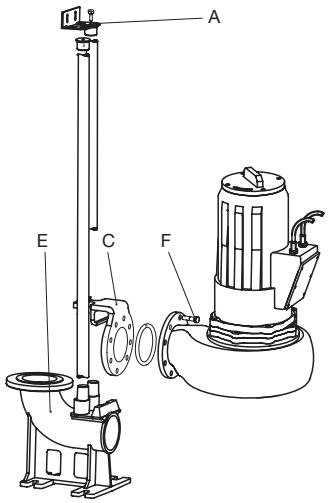
FEKA 2500 - 2,5"



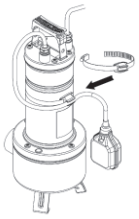
FEKA 3000/4000



FEKA 6075/6300

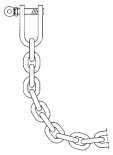


CABLE CLAMPS FOR FEKA VS and FEKA VX



Height adjustable float cable clamp secured to the motor jacket
(fekabox version)

CLEVIS KIT

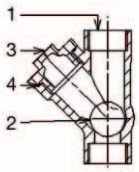


Pump lifting device. Chain and clevis made of stainless steel AISI 316.
Chain length 5 or 10 m on request.

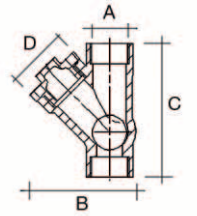
ACOUSTIC ALARM

230Vac - 10W acoustic alarm

NON-RETURNE VALVE



N°	Description	Qty	Materials
1	CASING	1	PVC
2	BALL	1	Cast iron NBR
3	CAP	1	PVC
4	SEAL	1	NBR (nitrile)



Rif.	DN inch	A mm	B mm	C mm	D mm	Weight Kg	Kv m 3/H	ζ
5222	1"1/4	33/42	114,0	143,0	66,0	0,450	22,30	3,30
5223	1"1/2	40/49	160,0	257,0	89,0	1,010	57,80	1,20
5224	2"	50/60	160,0	179,0	89,0	0,810	68,30	2,10

BALL CHECK VALVES, FLANGED

DN 65 - PN 10
DN 80 - PN 10
DN 100 - PN 10
DN 150 - PN 10

CONTROL AS1

Electronic control unit with alarm device for operation even in the absence of current by means of a 10-hour reserve charge provided by lead buffer batteries. Complete with 1.5 m cable with EXPORT DIN 49441 R2 plug and one float with 10 m H07 RN-F cable, not connected.
Degree of protection: IP30 - Temp.: -10°C +40°C - Consumption: 7 VA 220-240V.
Self-extinguishing thermoplastic box for wall mounting.
Supplied with wall brackets, screws and a spare fuse.

MODEL	VOLTAGE 50-60 Hz	AUTONOMY CHARGE	SOUND VOLUME	WEIGHT Kg
Control AS1	1x115 V ~	10 HOURS	95 dB discontinuous	3,3
	1x220-240 V ~			

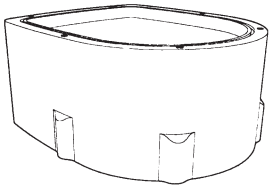
ADAPTER FOR LIFTING DEVICES

AVAILABLE IN THREE DIFFERENT VERSIONS, DN 65 - DN 80 - DN 100.
Adapter for lifting devices in existing installations, designed to adapt the system to the DAB pump.

REFLOW KIT

Kit for installation in FEKABOX and FEKAFOX tanks.
1 ball check valve, 1 2” ball on-off valve and 2 fittings. Integral 2” passage. Made in PVC.

STEP FOR FEKAFOS AND FEKABOX



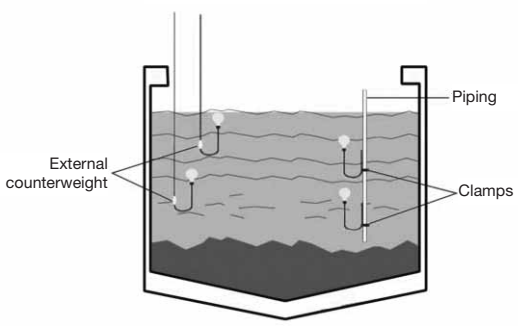
300mm step (up to 2 steps can be installed one on top of the other).

300 G FLOAT COUNTERWEIGHT

The counterweight is mounted directly onto the level regulator output cable.

WEIGHT	Standard 200 g	gr. 300
DIMENSIONS	Ø 47X55	Ø 47X55
MATERIAL	Shockproof polystyrene	Shockproof polystyrene
FILLING MATERIAL	sand + iron shot	sand + iron shot

INSTALLATION METHODS



NOVABOX 30/300.1

CE

GENERAL DATA

Applications
Automatic collecting and lifting station for domestic waste water from baths, wash-hand basins, showers and washing machines located in basements or anywhere under the sewer level.

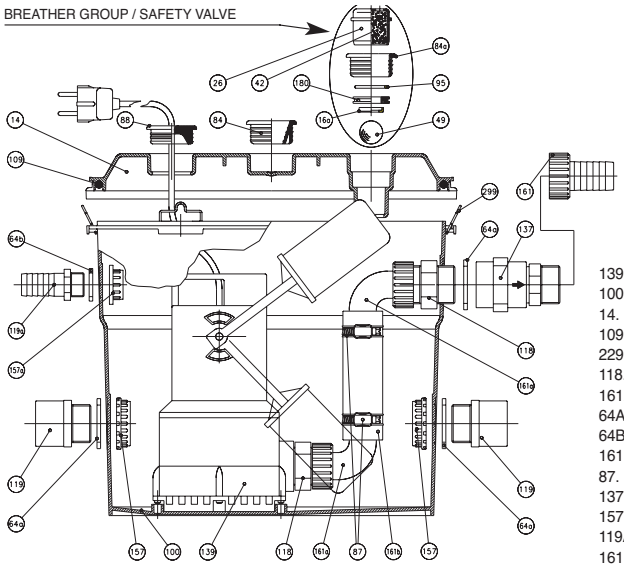
Conveyable liquids
Waste water free from solids and/or fibrous substances.

Constructional features
Hydraulic part
1 NOVA 300 M-A submersible electropump with 5 metres of cable and a plug - 1 technopolymer container with capacity 30 litres - 1 non-return valve fitted on the delivery - technopolymer plumbing connections.

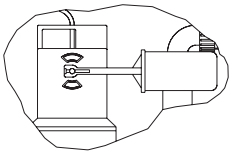
Electrical part
The NOVA 300 M-A pump fitted in the NOVABOX 30/300.1 has as standard features a built-in float, motor with thermal and current overload protection and a capacitor permanently in circuit.

Supply
The NOVABOX 30/300 collecting and lifting station is supplied complete with the pump.To avoid damages during the transport, the pump is placed inside the container with a proper packing that has to be removed before using it. The station is supplied in a sturdy cardboard package, complete with an instructions leaflet for installation and maintenance.
The supply also includes a series of accessories which make the product particularly versatile with just a few simple adjustments.
Alarm system (when it is requested), composed from a power-station and a probe. Installed on the Novabox's top, it allows to check the maximum level inside the tank (acoustic signal).
The system is able to function even in case there is a black-out for 10 hours. Beside the acoustic alarm incorporated, it is possible to send again at distance a luminous or acoustic alarm (not supplied).

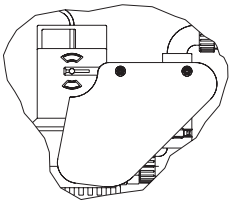
Novabox 30/300.1 is in compliance with the norm En 12050-2.



STANDARD FLOAT



FLOAT TYPE B "SHOWER"



139.	PUMP
100.	TANK
14.	COVER
109.	GASKET
229.	CLOSER CLIP
118.	NIPPLES 1 1/4"
161A.	CURVE RUBBER HOLDER 1 1/4" X 32
64A.	GASKET Ø 1 1/4"
64B.	GASKET Ø 3/4"
161B.	RUBBER PIPE 32
87.	HOSE CLAMP Ø 44
137.	NON-RETURNE VALVE 1 1/4"
157.	COLLAR 1 1/4"
119A.	RIGHT RUBBER HOLDER 3/4" X 25
161.	RIGHT RUBBER HOLDER 1 1/4" X 32

88.	RUBBER CABLE GLAND
119.	ADAPTOR 50 x 40 x 1 1/4"
157a.	COLLAR 3/4"
84.	PIPE CLAMP Ø 30 mm
83.	FLOAT KIT

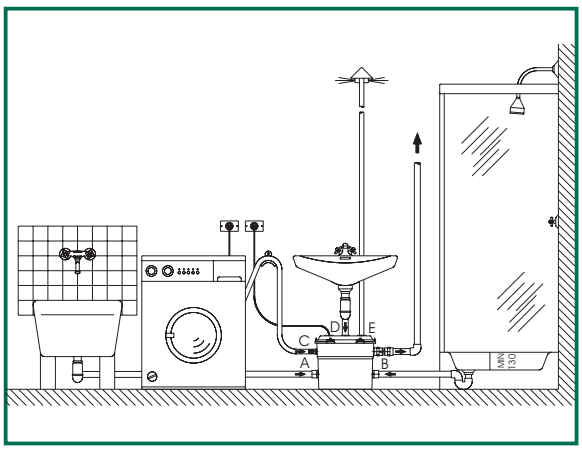
BREATHER GROUP / SAFETY VALVE

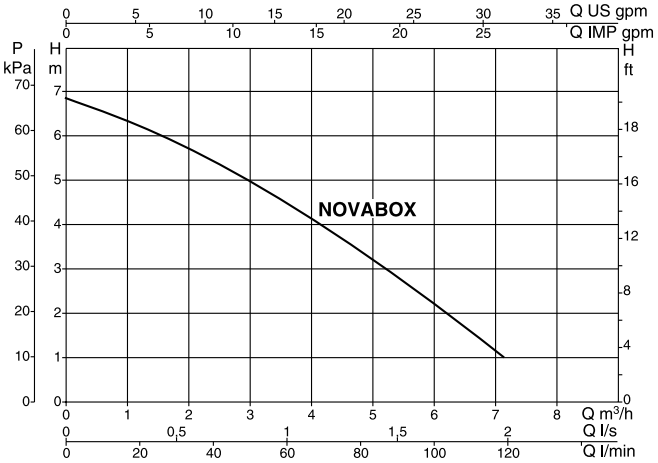
49.	FLOAT BALL
16a.	O RING Ø 15 mm
180.	VALVE SUPPORT
95.	ORING -3143 36,14 x 2,62
26.	BREATHER PLUG
84a.	PIPE CLAMP Ø 40 mm
42.	FILTER

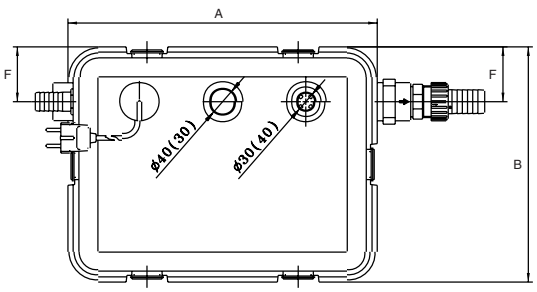
TECHNICAL DATA

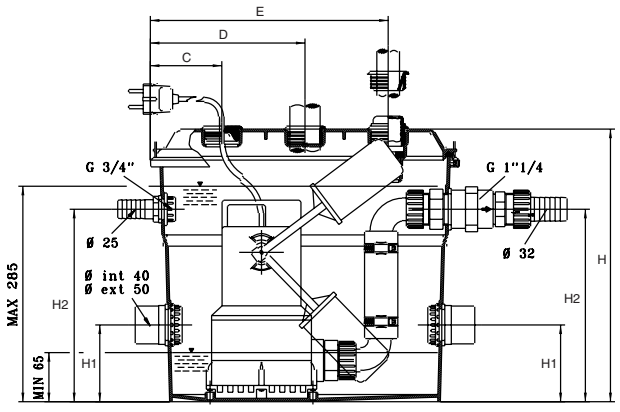
- Operating range: from 1 to 7,2 m³/h with head up to 6,9 metres
- Liquid temperature range: +50°C
  90°C for a maximum time of 3 min.
- Pump motor protection: IP 68
- Motor Insulation class: F
- Pump manufactured according to standards: CEI 61-69 (EN 60335-2-41)
- Standard single-phase voltage: 220-240 V/50 Hz

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.









MODEL	A	B	C	D	E	F	H	H1	H2	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
NOVABOX 30/300.1	407	309	94	204	314	72	360	100	254	45	33	38	0,056	9,2

MODEL	ELECTRICAL DATA							HYDRAULIC DATA (n ≃ 2800 1/min)					
	VOLTAGE 50 Hz	P1 MAX W	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	Q m³/h	0	2,4	4,8	6	7,2
								l/min	0	40	80	100	120
NOVABOX 30/300.1	1x220-240 V ~	290	0,22	0,3	1,3	8	450	H (m)	6,9	5,3	3,2	2,2	1,2

FEKALIFT
LIFTING STATION

BASIC

CE

GENERAL DATA

Applications

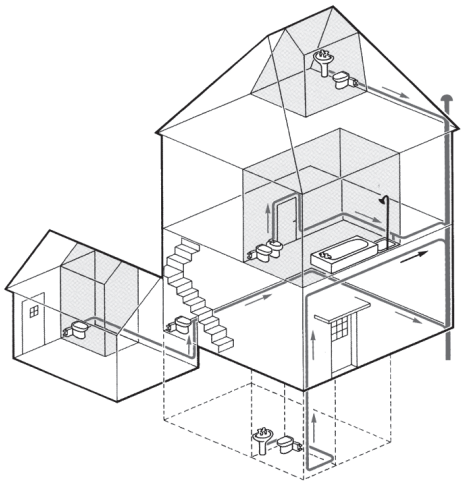
Small lifting stations for automatic collecting and pumping sewage. Its use is necessary whenever the wastewater cannot be expelled by gravity. The lifting station is mounted directly behind the WC and is therefore unaffected by the type of waste piping and unions.
This lifting station can be used wherever an additional toilet is required during new building work, renovations and structural modifications. Depending on the model, a shower, bidet and washbasin can be connected together with the WC.
The inflow water from the sanitary ware connected to the system automatically turns on the Fekalift 50/150 when there is an increase in the water level of approximately 8 cm and is automatically turned off when the level drops by approximately 3 cm. The solids and excrement that arrive from the toilet are chopped and forced into the general waste pipe through the pressure pipe.
The Fekalift 50/150 can be connected to any European standards WC with horizontal waste. At least 6 litres of water must be available each time flushing is performed. Water saving push button flushes are advised.
The appealing design, technical innovation and manufacturing quality make FEKALIFT an indispensable item for the fitting of a supplementary toilet, above or below the backwater level (based on the DIN 1986 standard).
The Fekalift 50 and Fekalift 150 systems are suitable for water temperatures up to 35°C and are resistant to slightly acidic substances. Avoid the discharge of water containing greasy or oily substances into the Fekalift 50 and Fekalift 150.

Constructional Characteristics

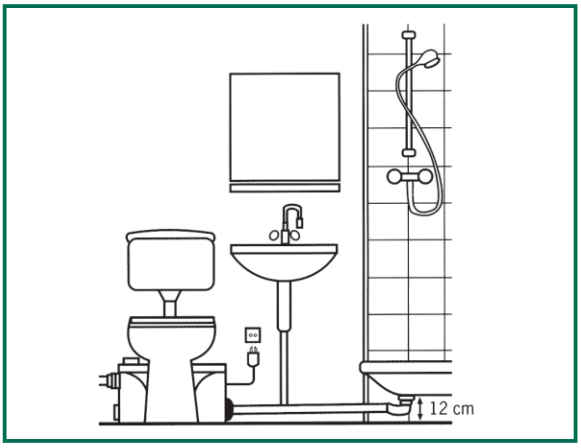
The motor, powerful yet noiseless, the pump and the grinding device are made of stainless steel.
The integrated pump purifying system makes the station practically maintenance-free. Easy to install, it is also designed for connection of a shower base with 12 cm drain height.
The forced side duct with built-in no-return valve allows the cover to be removed without having to remove the delivery pipe.

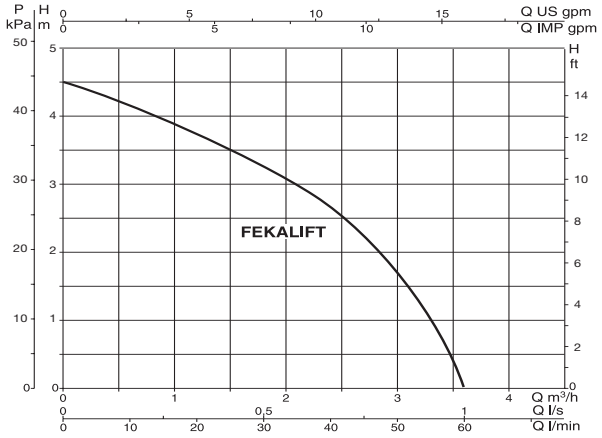
TECHNICAL DATA

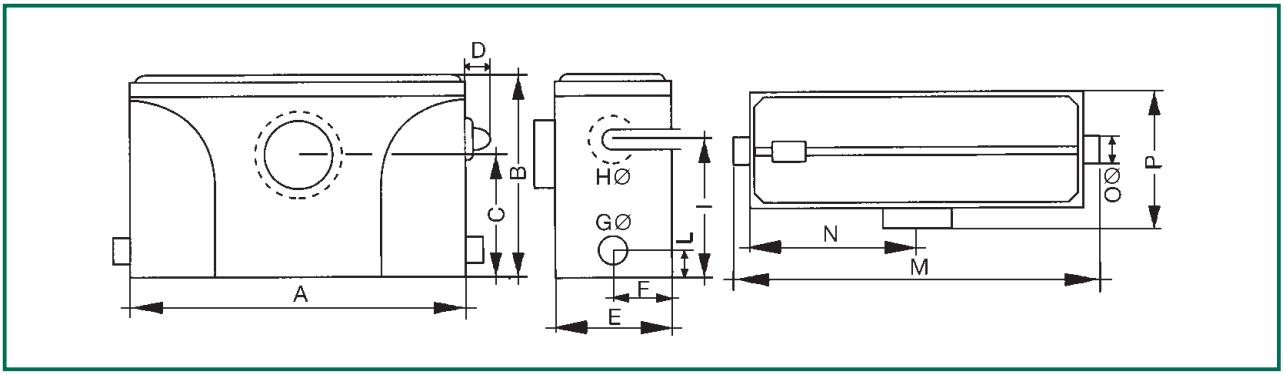
- Power input: 1x230 V~ 50 Hz
- Current: 2,1 A
- Power: 450 W
- Flow Q: 3 m³/h
- Head H: 4,5 m
- Max liquid temperature: 35°C
- Insulation class: B
- Speed of rotation: 2900 1/min.
- Delivery union: DN 25
- Operation: automatic
- Capacity: Fekalift 50 9 lt.
  Fekalift 150 12 lt.



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.







MODEL	A	B	C	D	E	F	G Ø	H Ø	I	L	M	N	O Ø	P
FEKALIFT 50	377	275	180	90	177	–	–	DN 28	200	70	–	188	–	–
FEKALIFT 150	485	270	180	50	170	85	DN 40	DN 28	200	40	530	242,5	40	200

MODEL	ELECTRICAL DATA					HYDRAULIC DATA (n ≃ 2800 1/min)					
	VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	In A	Q m³/h	0	0,6	1,2	1,8	3	3,3
					l/min	0	10	20	30	50	55
FEKALIFT 50/150	1x230 V ~	0,45	0,61	2,1	H (m)	4,5	4,1	3,7	3,2	1,7	1,1

FEKALIFT
LIFTING STATION

PROFESSIONAL

CE

GENERAL DATA

Applications

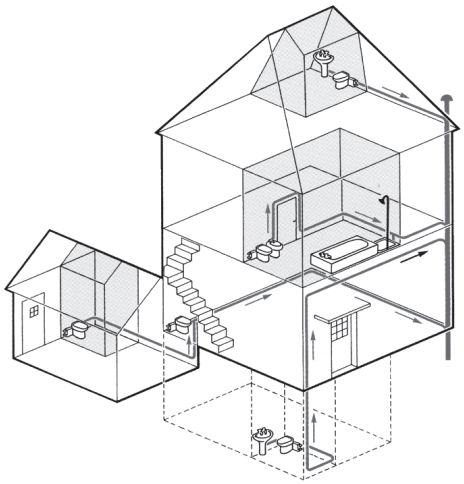
Small lifting stations for automatic collecting and pumping sewage. Its use is necessary whenever the wastewater cannot be expelled by gravity. The lifting station is mounted directly behind the WC and is therefore unaffected by the type of waste piping and unions.
This lifting station can be used wherever an additional toilet is required during new building work, renovations and structural modifications. Depending on the model, a shower, bidet and washbasin can be connected together with the WC.
The inflow water from the sanitary ware connected to the system automatically turns on the Fekalift 100/200 when there is an increase in the water level of approximately 8 cm and is automatically turned off when the level drops by approximately 3 cm. The solids and excrement that arrive from the toilet are chopped and forced into the general waste pipe through the pressure pipe.
The Fekalift 100/200 can be connected to any European standards WC with horizontal waste. At least 6 litres of water must be available each time flushing is performed. Water saving push button flushes are advised.
The appealing design, technical innovation and manufacturing quality make FEKALIFT an indispensable item for the fitting of a supplementary toilet, above or below the backwater level (based on the DIN 1986 standard).
The Fekalift 100 and Fekalift 200 systems are suitable for water temperatures up to 65°C and are resistant to slightly acidic substances. Avoid the discharge of water containing greasy or oily substances into the Fekalift 100 and Fekalift 200.

Constructional Characteristics

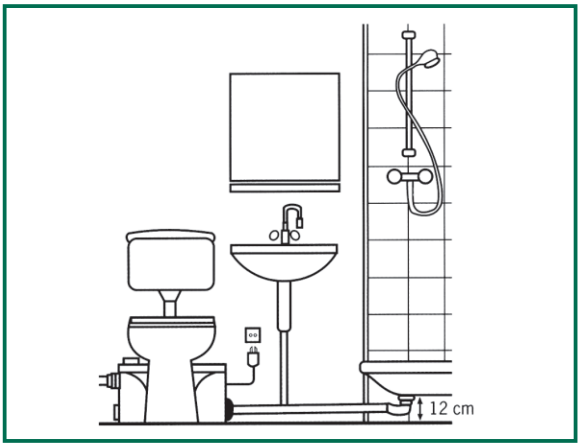
The motor, powerful yet noiseless, the pump and the grinding device are made of stainless steel.
The integrated pump purifying system makes the station practically maintenance-free. Easy to install, it is also designed for connection of a shower base with 12 cm drain height.
The forced side duct with built-in no-return valve allows the cover to be removed without having to remove the delivery pipe.

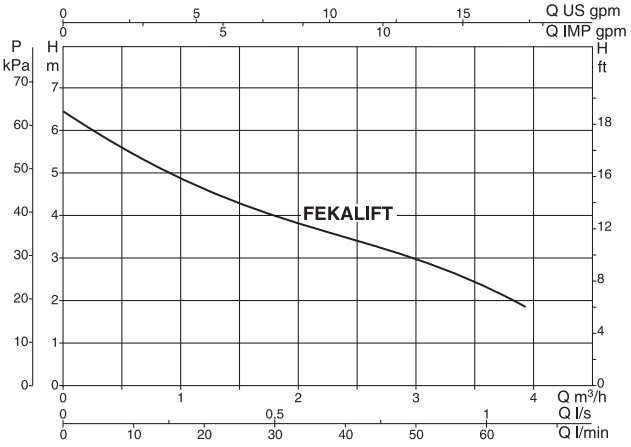
TECHNICAL DATA

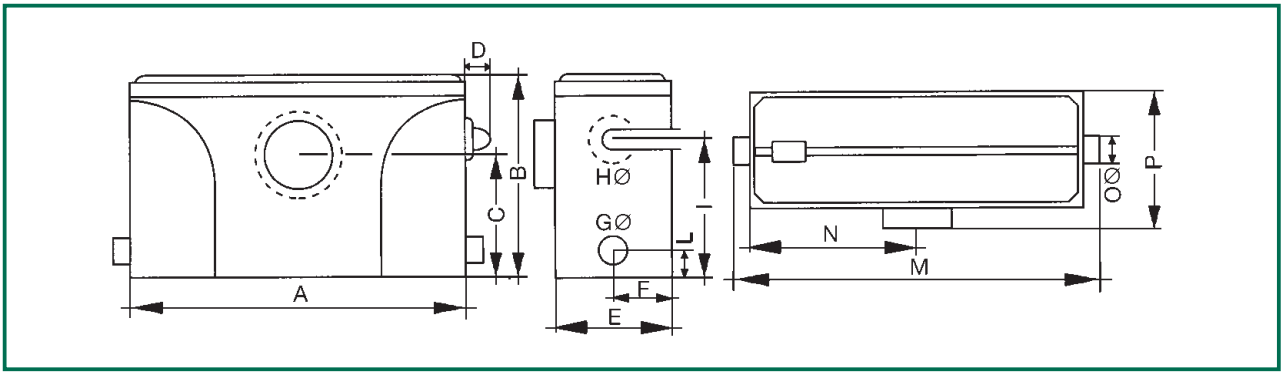
- Power input: 1x230 V~ 50 Hz
- Current: 2,1 A
- Power: 650 W
- Flow Q: 3,9 m³/h
- Head H: 6,4 m high or 70 m length
- Max liquid temperature: 60°C
- Insulation class: B
- Speed of rotation: 3000 1/min.
- Delivery union: DN 25
- Operation: automatic
- Approval: VDE - GS
- Built to: DIN 19762
- Capacity: Fekalift 100 9 lt.
  Fekalift 200 12 lt.



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.







MODEL	A	B	C	D	E	F	G Ø	H Ø	I	L	M	N	O Ø	P
FEKALIFT 100	377	275	180	90	177	–	–	DN 28	200	70	–	188	–	–
FEKALIFT 200	485	270	180	50	170	85	DN 40	DN 28	200	40	530	242,5	40	200

MODEL	ELECTRICAL DATA					HYDRAULIC DATA (n ≃ 2800 1/min)					
	VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	In A	Q m³/h	0	0,6	1,2	1,8	3	3,9
					l/min	0	10	20	30	50	65
FEKALIFT 100/200	1x230 V ~	0,65	0,88	2,1	H (m)	6,4	5,6	4,7	3,9	3	1,9

FEKALIFT
LIFTING STATION

PROFESSIONAL

CE

GENERAL DATA

Applications

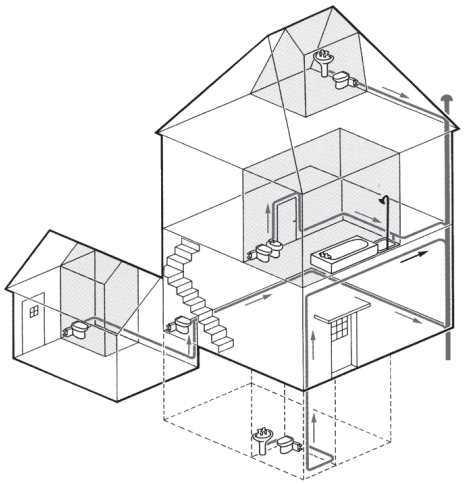
Lifting stations for automatic collecting and pumping sewage. Its use is necessary whenever the wastewater cannot be expelled by gravity.The lifting system, with FEKALIFT 300 VM wall-mounted installation, consists of a tank made of synthetic, non-putrescible, impermeable, gas-proof and odourless material, with a single-stage centrifugal pump that starts up automatically when the water level rises to about 8 cm, and stops when it drops to about 4 cm. The integrated grinder minces all solid substances found in the wastewater, so as to enable their passage through pipes of small diameter (25 mm ID). The FEKALIFT 300 VM tank is equipped with a horizontal WC delivery pipe DN 100, a lateral wastewater delivery pipe DN 40 (optional) and a revolving delivery union DN 28 with integrated non-return valve. The non-return valve in the delivery union prevents backflow in the tank's delivery pipe. Moreover, the cover of the lifting system is equipped with a ventilation and bleed device. This lifting station can be used wherever a toilet is required on the site of new installations, structural renovations and modifications. Depending on the model, a shower, bidet and washbasin can be connected in addition to the WC.
Fekalift 300 VM can be connected to any WC designed according to European standards, equipped with horizontal outlet. The use of flush tanks equipped with water saving flush button is recommended. The attractive design, innovative technique and quality of workmanship make FEKALIFT 300 VM an indispensable component when installing an additional toilet below or above the backwater level (according to DIN 1986). The Fekalift 300 VM system is suitable for water temperatures up to 65°C and is resistant to the action of moderately acid substances. Do not allow wastewater containing greasy or oily substances to flow into the system.

Constructional Characteristics

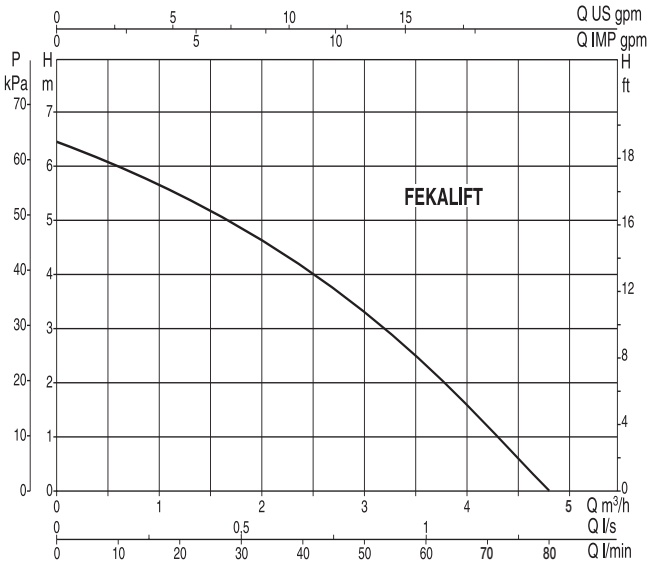
The motor, powerful yet noiseless, the pump and the grinding device are made of stainless steel.
The integrated pump purifying system makes the station practically maintenance-free. Easy to install, it is also designed for connection of a shower base with 12 cm drain height.
The forced side duct with built-in no-return valve allows the cover to be removed without having to remove the delivery pipe.

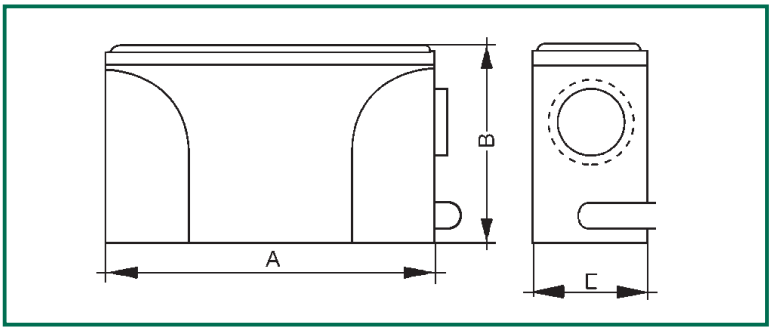
TECHNICAL DATA

- Delivery pipe: 1“ (DN25)
- Power input: 230V/1Ph, 50Hz
- Power: 650 Watt
- Rated current: 2,1 A
- Motor protection: IP 44
- Speed of rotation: 3000 1/min.
- Max head H: 8 m
- Max flow Q: 80 l/min
- Delivery pressure: 0,9 bar
- Cable length: 1.5m with plug
- Weight: 7,0kg
- Capacity: 9 lt.



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.





MODEL	A	B	C
FEKALIFT 300	377	275	177

MODEL	ELECTRICAL DATA					HYDRAULIC DATA (n ≃ 2800 1/min)					
	VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	In A	Q m³/h	0	0,6	1,2	1,8	3	3,9
					l/min	0	10	20	30	50	65
FEKALIFT 300	1x230 V ~	0,65	0,88	2,1	H (m)	6,5	6,1	5,7	5	3,2	1,7

FEKABOX 100

FITTED FOR
FEKA 600 MA
FEKA VS 550-750 M-A
FEKA VX 550-750 M-A

CE

GENERAL DATA

Applications

Automatic collection and lifting system, ideal for collecting and pumping black water and domestic/industrial waste from basements located under the level of the drains into sewers.

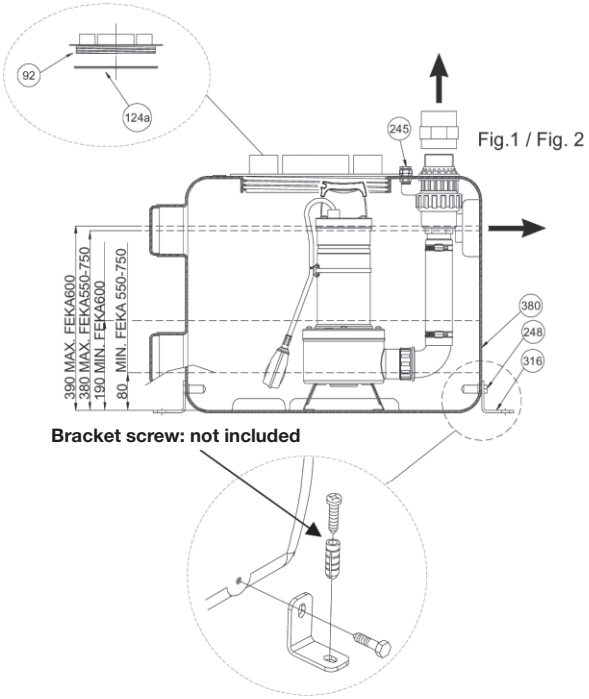
Pumped liquid

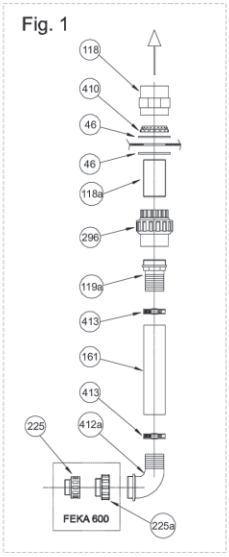
Phreatic water, rain water, clear waste water, black waste water and water from rivers and lakes.

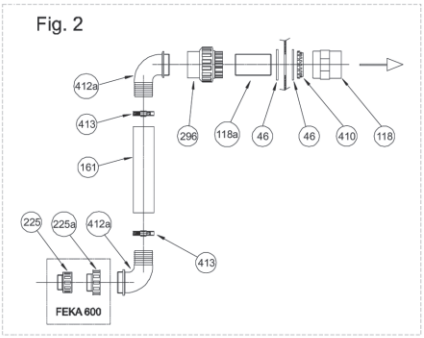
TECHNICAL DATA

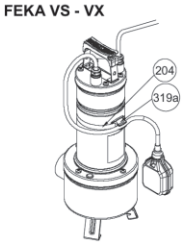
FEKABOX 100 comprises a high density polyethylene tank with an effective capacity of 100 litres, supplied with tank cover and technopolymer gasket. Fitted for operation with one automatic electric pump FEKA 600-FEKA VS - FEKA VX **to be ordered separately.**

- Material: 5 mm thick propylene
- Tank inlet: DN50 - DN100 (male/female)
- Tank outlet: DN50 - 2”GAS (vertical or horizontal)
- Discharge: DN40
- Max liquid temperature: +50°C
- Supplied with anti floatation device (EN 12050-1 standard)



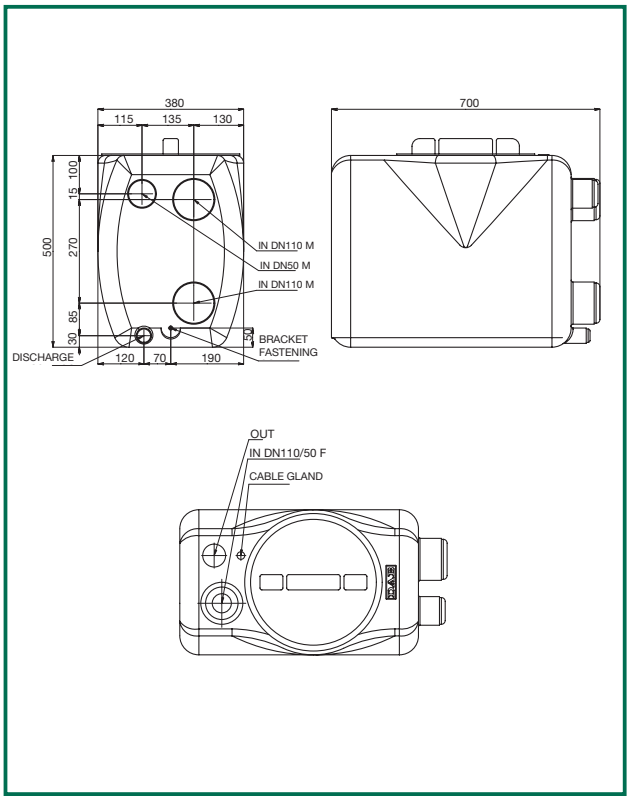


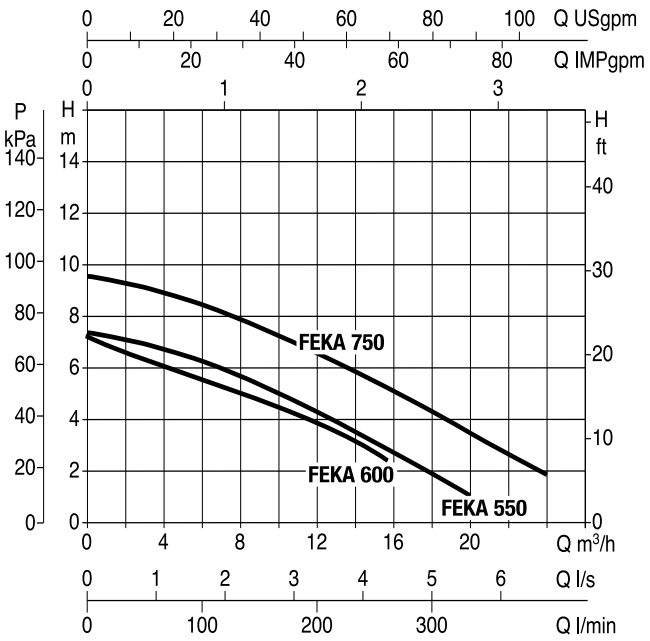




46	GASKET 78X58X4 (2")
92	TANK COVER
118	SLEEVE 63X2"
118a	BAR WITH THREADED HOLES 2"X100
119a	RUBBER HOLDER
124a	GASKET COVER
161	RUBBER PIPE 57X50 L=240
204	CABLE CLAMP
225	ADAPTER M-F 1 1/4" - 1 1/2"
225a	ADAPTER M-F 1 1/2" - 2"
245	CABLE GLAND M20X1,5
248	TE SCREW 10X40
296	UNION 3 pcs WITH O-RING
316	FASTENING BRACKET
319a	CABLE HOLDER
380	TANK
410	COLLAR 2" PP OR PVC
412a	BENT HOSE ADAPTER
413	TUBE CLAMP Ø57

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.





MODEL	A	B	C	D	E	F	G	H	H1	H2	H3	H4	H5	I	WEIGHT Kg
FEKABOX 100	700	190	70	120	380	115	135	270	100	15	85	30	50	130	8,5

FEKABOX 200

FITTED FOR
FEKA 600 MA
FEKA VS 550-750 M-A
FEKA VX 550-750 M-A

CE

GENERAL DATA

Applications

Automatic collection and lifting system, ideal for collecting and pumping black water and domestic/industrial waste from basements located under the level of the drains into sewers.

Pumped liquid

Phreatic water, rain water, clear waste water, black waste water and water from rivers and lakes.

Technical features

Hydraulic part
FEKABOX 200 comprises a high density polyethylene tank with an effective capacity of 200 litres, with a sturdy gas and liquid proof sealed cover, stainless steel base plate and pipe fittings for connecting the pump to the drains. Complete with: special cable holder, DN50 and DN110 suction manifolds and 2” delivery manifolds. Complete with connector for DN50 vent tube. An alarm float can be used on request.

Fitted for operation with one automatic electric pump (see models in graph) **to be ordered separately.**

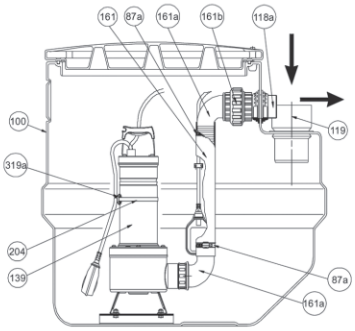
Supply

The station is supplied on a pallet wrapped in a tough cardboard pack, complete with an installation and maintenance instructions sheet.
A float cable clamp kit is supplied (clamp fastened to the motor jacket, with height adjustment).

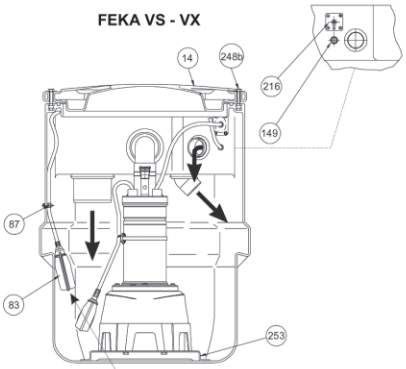
TECHNICAL DATA

- Operating range:	from 1 to 24 m^3/h with head up to 9 metres
- Liquid temperature range:	+50°C

FEKA VS - VX

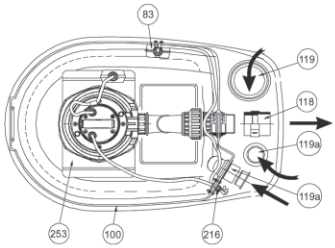


FEKA VS - VX

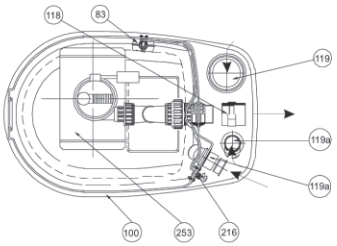


SUPPLIED ONLY ON REQUEST

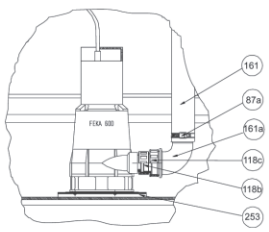
FEKA VS - VX



FEKA 600

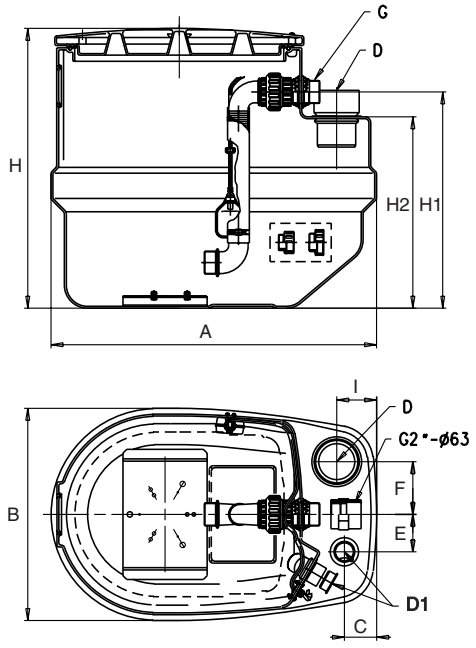


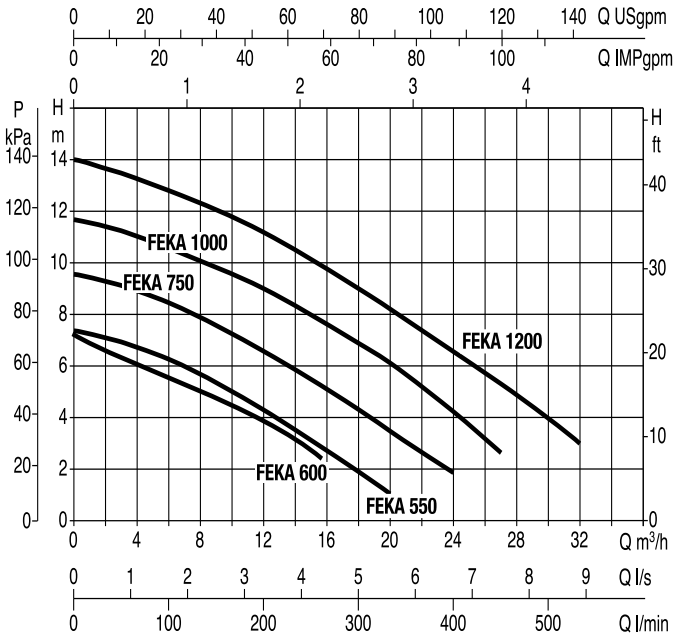
FEKA 600



14	TANK COVER
83	“ALARM” FLOAT (not supplied)
87	CABLE CLAMP
87a	TUBE CLAMP Ø57
100	TANK
118	SLEEVE 63X2”
118a	THREADED PIPE 100X2”
118b	ADAPTER M-F 1 $^{1}/_{4}$” - 1$^{1}/_{2}$”
118c	ADAPTER M-F 1$^{1}/_{2}$”- 2”
119	UNION DN 110 (inlet)
119a	45° ELBOW DN 50 (inlet - ventilation)
139	PUMP
149	CABLE HOLDER PG 11
161	RUBBER PIPE 57X50 L=300
161a	BENT HOSE ADAPTER 2”X50
161b	UNION 3 pcs WITH O-RING (2”)
204	CABLE CLAMP
216	SPECIAL CABLE GLAND
248b	COVER SCREW
253	PUMP POSITIONING PLATE
319a	CLAMP

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.





MODEL	A	B	C	D	D1	E	F	G	H	H1	H2	I	WEIGHT Kg
FEKABOX 200	850	555	85	DN 110	DN 50	100	140	2”	735	565	500	105	25

FEKABOX 280

FITTED FOR
FEKA 600 MA
FEKA VS 550-750 M-A
FEKA VX 550-750 M-A

CE

GENERAL DATA

Applications

Automatic collection and lifting system, ideal for collecting and pumping black water and domestic/industrial waste from basements located under the level of the drains into sewers.

Pumped liquid

Phreatic water, rain water, clear waste water, black waste water and water from rivers and lakes.

Technical features

FEKABOX 280 comprises a high density polyethylene tank with an effective capacity of 280 litres, with a sturdy gas and liquid proof sealed cover, a DSD-2 device complete with support, a slide, hose bracket and chute hoses, and pipe fittings for connecting the pump to the drains.

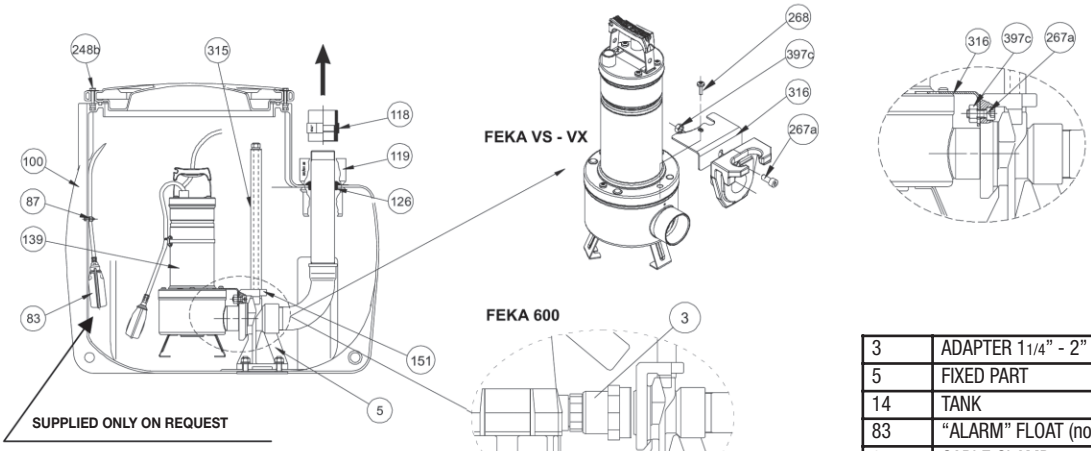
Complete with: special cable holder, DN50 and DN110 suction manifolds and 2” delivery manifolds.
Complete with connector for DN50 vent tube. An alarm float can be used on request.
Fitted for operation with one automatic electric pump (see models in graph) **to be ordered separately**.
For use with VS or VX electric pump, the bracket for the DSD2 device must be ordered separately .

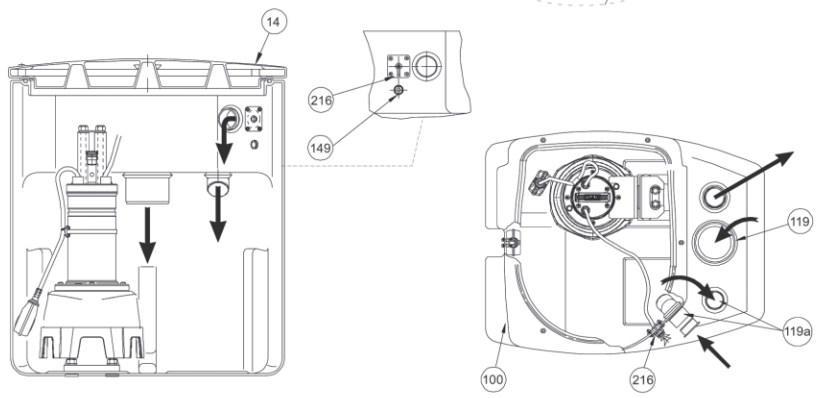
Supply

The station is supplied on a pallet wrapped in a tough cardboard pack, complete with an installation and maintenance instructions sheet.
A float cable clamp kit is supplied (clamp fastened to the motor jacket, with height adjustment).

TECHNICAL DATA

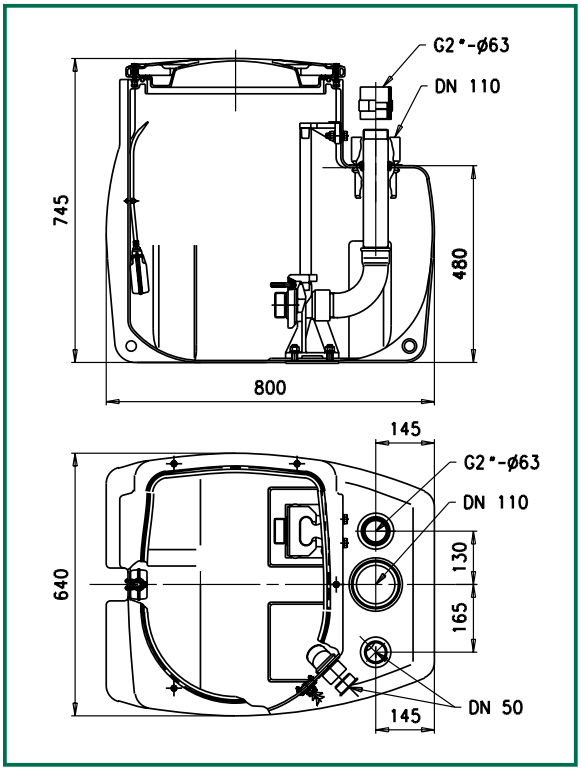
- Operating range:	from 1 to 24 m^3/h with head up to 9 metres
- Liquid temperature range:	+50°C

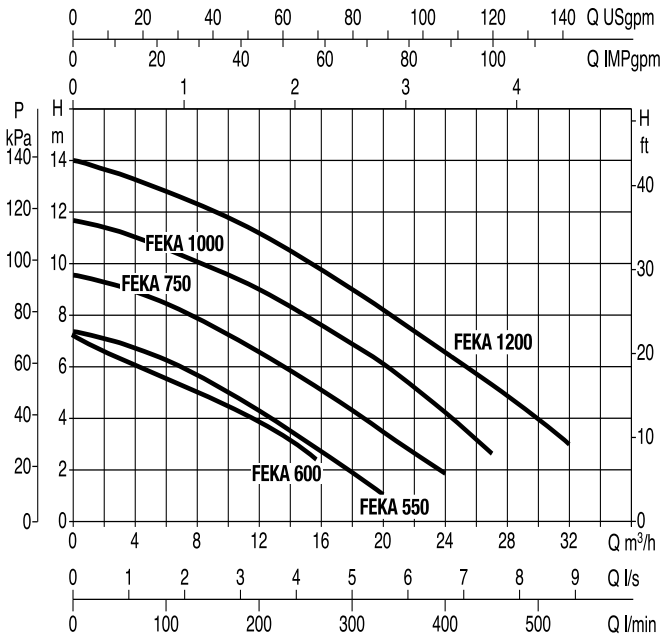




3	ADAPTER 1 1/4" - 2"
5	FIXED PART
14	TANK
83	"ALARM" FLOAT (not supplied)
87	CABLE CLAMP
100	TANK
118	SLEEVE 63X2"
119	UNION DN 110 (inlet)
119a	45° ELBOW DN 50 (inlet - ventilation)
126	OUTLET HOSE CLAMP
139	PUMP
149	CABLE HOLDER PG 11
151	SLIDE MOBILE PART
204	CABLE CLAMP
216	SPECIAL CABLE GLAND
248b	COVER SCREW
267a	TCEI SCREW M10X25 UNI 5931
268	PUMP FLANGE SCREW
315	GUIDE HOSES
316	ANTI-ROTATION BRACKET
319a	CLAMP
397c	M10 NUT

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.





MODEL	A	B	C	D	D1	E	F	G	H	H1	I	WEIGHT Kg
FEKABOX 280	800	640	145	DN 50	DN 110	165	130	2"	745	480	145	38

FEKAFOS 200

FITTED FOR
FEKA 600 NA
FEKA VS/VX 550 M-NA/T-NA
FEKA VS/VX 750 M-NA/T-NA
FEKA VS/VX 1000 M-NA/T-NA
FEKA VS/VX 1200 M-NA/T-NA

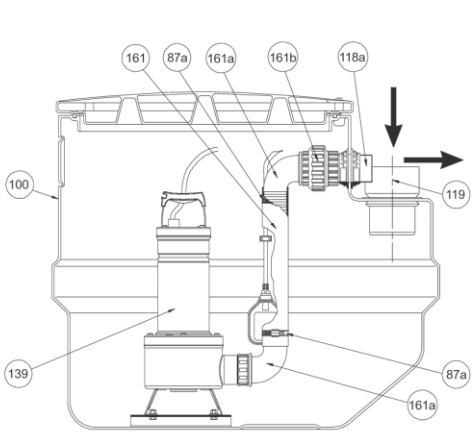
CE

GENERAL DATA

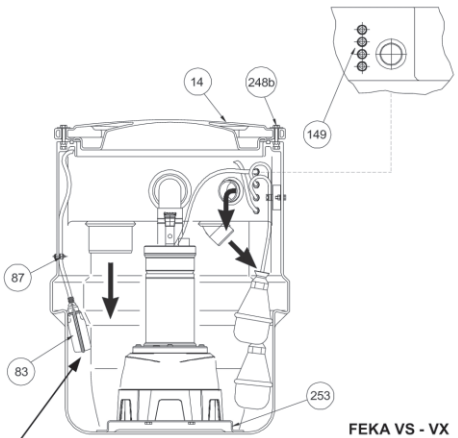
Applications
Automatic system for collecting, lifting and pumping black water and domestic/industrial waste from basements located under the level of the drains into sewers.

Pumped liquid
Phreatic water, rain water, clear waste water, black waste water and water from rivers and lakes.

Technical features
FEKABOS 200 comprises a high density polyethylene tank with an effective capacity of 200 litres, with a sturdy gas and liquid proof sealed cover, stainless steel base plate and pipe fittings for connecting the pump to the drains. Complete with 2 bulb floats mounted on a stainless steel support, cable holder for connecting the float and pump cables to the electrical panel **(to order separately according to the table)**.
Complete with DN50 and DN110 suction manifolds and 2" delivery manifolds.
Complete with connector for DN50 vent tube.
An alarm float can be used on request.
Fitted for operation with one automatic electric pump (see models in graph) **to be ordered separately.**

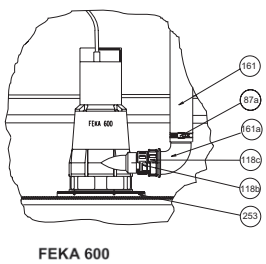


FEKA VS - VX

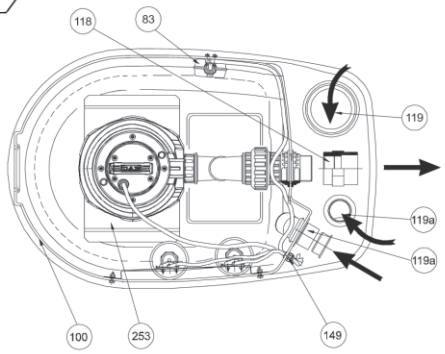


FEKA VS - VX

SUPPLIED ONLY ON REQUEST



FEKA 600

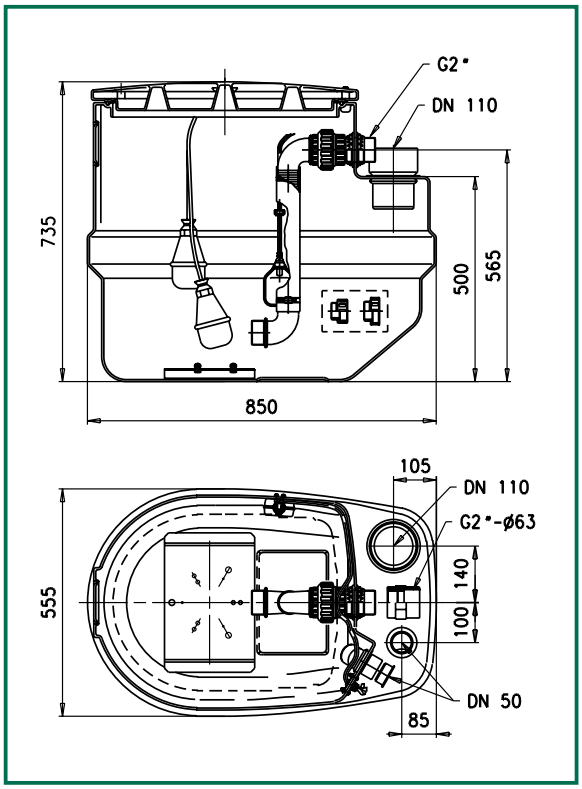


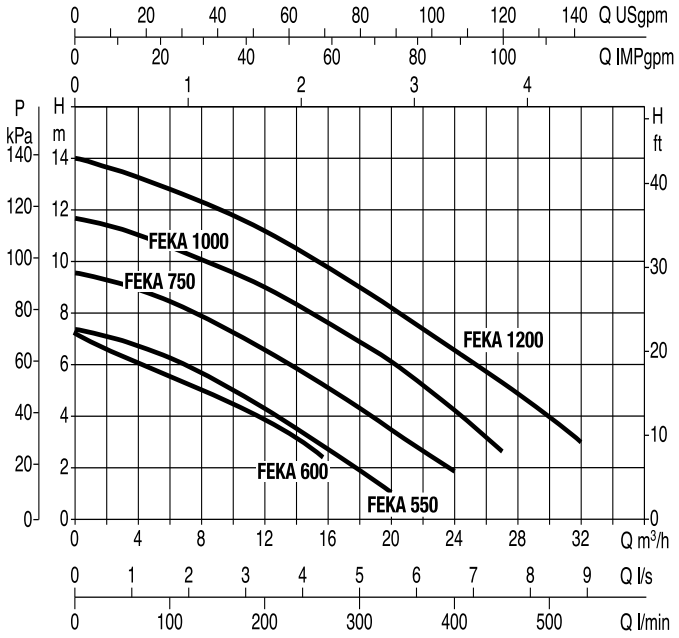
14	TANK COVER
83	"ALARM" FLOAT (not supplied)
87	CABLE CLAMP
87a	TUBE CLAMP Ø57
100	TANK
118	SLEEVE 63X2"
118a	THREADED PIPE 100X2"
118b	ADAPTER M-F 1 1/4" - 1 1/2"
118c	ADAPTER M-F 1 1/2" - 2"
119	UNION DN 110 (inlet)
119a	45° ELBOW DN 50 (inlet - ventilation)
139	PUMP
149	CABLE HOLDER PG 11
161	RUBBER PIPE 57X50 =300
161a	CURVE RUBBER HOLDER 2"X50
161b	UNION 3 Pcs WITH O-RING (2")
248b	COVER SCREW
253	PUMP POSITIONING PLATE

TECHNICAL DATA

- Operating range: from 1 to 35 m³/h with head up to 9 metres
- Liquid temperature range: +50°C

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.





MODEL	A	B	C	D	D1	E	F	G	H	H1	H2	I	WEIGHT Kg
FEKAFOS 200	850	555	85	DN 50	DN 110	100	140	2"	735	500	565	105	28

CHOICE OF PUMP/ELECTRICAL PANEL

PUMP MODEL	P2 NOMINAL ELECTRIC PUMP kW	HP	SINGLE-PHASE 230V~ 50 Hz	THREE-PHASE 400V~ 50 Hz
FEKA 600 NA	0,55	0,75	ED1,3 M	ED1 T
FEKA VS-VX 550 NA	0,55	0,75	ED1,3 M	ED1 T
FEKA VS-VX 750 NA	0,75	1	ED1,3 M	ED1 T
FEKA VS-VX 1000 NA	1	1,36	ED1,3 M	ED1,5 T
FEKA VS-VX 1200 NA	1,2	1,6	ED1,3 M	ED1,5 T

FEKAFOS 280

FITTED FOR
FEKA 600 NA
FEKA VS/VX 550 M-NA/T-NA
FEKA VS/VX 750 M-NA/T-NA
FEKA VS/VX 1000 M-NA/T-NA
FEKA VS/VX 1200 M-NA/T-NA
FEKA/GRINDER 1400/1800

CE

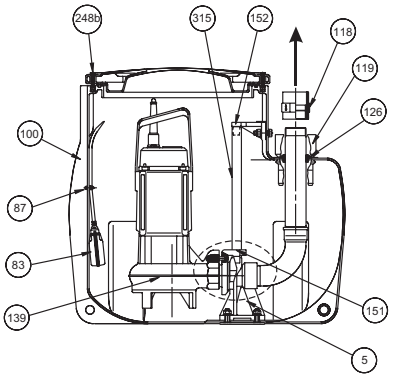
GENERAL DATA

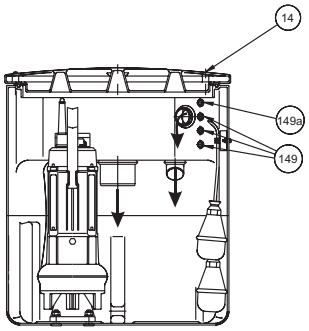
Applications
Automatic system for collecting, lifting and pumping black water and domestic/industrial waste from basements located under the level of the drains into sewers.

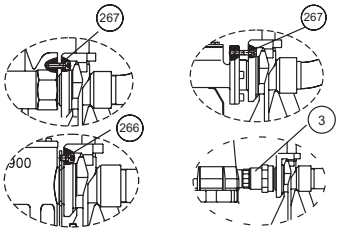
Pumped liquid
Phreatic water, rain water, clear waste water, black waste water and water from rivers and lakes.

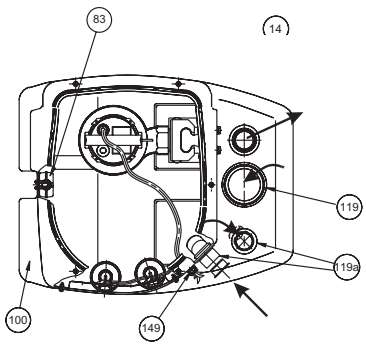
Technical features
FEKABOX 280 comprises a high density polyethylene tank with an effective capacity of 280 litres, with a sturdy gas and liquid proof sealed cover, a DSD-2 device (to simplify pump maintenance) complete with support, a slide, hose bracket and chute hoses, and pipe fittings for connecting the pump to the drains. Fitted for one non-automatic electric pump (see models indicated above) **to be ordered separately.** Complete with: 2 bulb floats mounted on a stainless steel support, cable holder for connecting the float and pump cables to the electrical panel **(to order separately according to the table).** Complete with DN50 and DN110 suction manifolds and 2" delivery manifolds. Complete with connector for DN50 vent tube. An alarm float can be used on request.

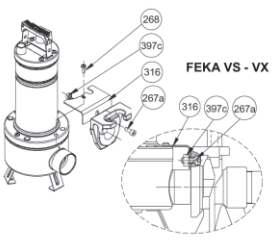
Supply
The station is supplied on a pallet wrapped in a tough cardboard pack, complete with an installation and maintenance instructions sheet.









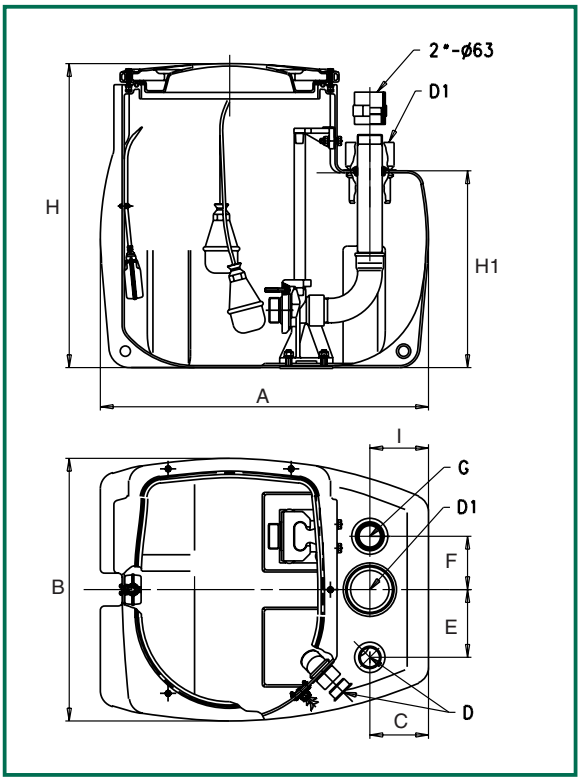


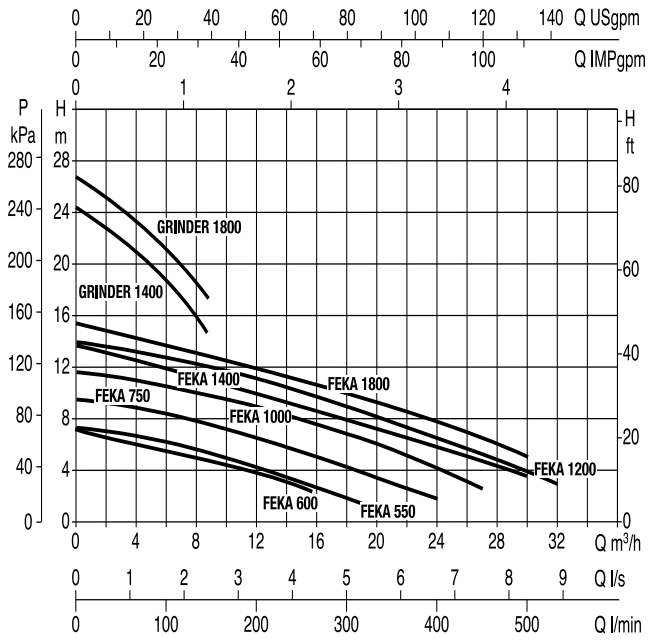
5	FIXED PART
14	COVER
83	"ALARM" FLOAT (not supplied)
87	CABLE CLAMP
100	TANK
118	SLEEVE 63X2"
119	UNION DN 110 (inlet)
119a	45° ELBOW DN 50 (inlet - ventilation)
119b	45° ELBOW DN 50 (inlet)
126	OUTLET HOSE CLAMP
139	PUMP
149	CABLE HOLDER PG 11
149a	CABLE HOLDER PG 13,5
151	SLIDE MOBILE PART
152	FASTENING BRACKET
248b	COVER SCREW
266	TCEI SCREW M10X16
267	TCEI SCREW M10X60 UNI 5931
267a	TCEI SCREW M10X25 UNI 5931
268	PUMP FLANGE SCREW
315	GUIDE HOSES
316	ANTI-ROTATION BRACKET
397c	M10 NUT

TECHNICAL DATA

- Operating range: from 1 to 35 m³/h with head up to 26,5 metres
- Liquid temperature range: +55°C

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.





MODEL	A	B	C	D	D1	E	F	G	H	H1	I	WEIGHT Kg
FEKAFOS 280/...	800	640	145	DN 50	DN 110	165	130	2"	745	480	145	41

CHOICE OF PUMP/ELECTRICAL PANEL

PUMP MODEL	P2 NOMINAL ELECTRIC PUMP kW	HP	SINGLE-PHASE 230V~ 50 Hz	THREE-PHASE 400V~ 50 Hz
FEKA 600 NA	0,55	0,75	ED1,3 M	ED1 T
FEKA VS-VX 550 NA	0,55	0,75	ED1,3 M	ED1 T
FEKA VS-VX 750 NA	0,75	1	ED1,3 M	ED1 T
FEKA VS-VX 1000 NA	1	1,36	ED1,3 M	ED1,5 T
FEKA VS-VX 1200 NA	1,2	1,6	ED1,3 M	ED1,5 T
FEKA 1400	1,1	1,5	ED3 M	–
FEKA 1800	1,5	2	–	ED2,5 T
GRINDER 1400	1,1	1,5	ED3 M Hs	–
GRINDER 1800	1,5	2	–	ED2,5 T

FEKAFOS 280 DOUBLE

FITTED FOR
FEKA 600 NA
FEKA VS/VX 550 M-NA/T-NA
FEKA VS/VX 750 M-NA/T-NA
FEKA VS/VX 1000 M-NA/T-NA
FEKA VS/VX 1200 M-NA/T-NA

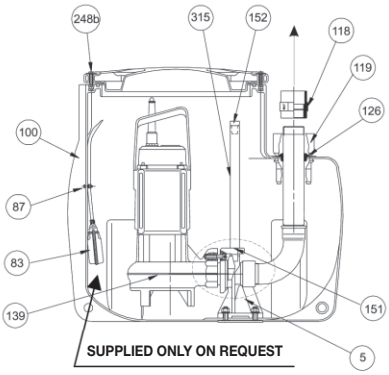
CE

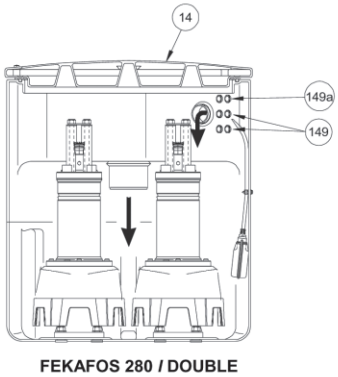
GENERAL DATA

Applications
Station for the collecting, automatic lifting and pumping of sewage sludge and household/industrial waste into the drainage system from basement rooms that are below the drainage system.

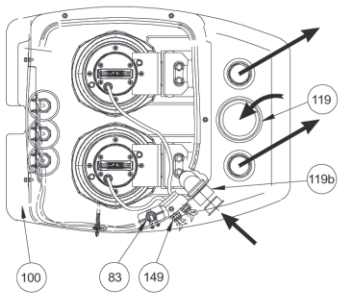
Ductile liquids
Ground water, rainwater, clear waste water, black waste water and water from rivers and lakes.

Constructional characteristics
The FEKAFOS 280 DOUBLE is made of a high density polyethylene tank with an actual capacity of 280 litres, with reinforced cover including seal that guarantees gas and liquid tightness, two DSD-2 devices (to ease pump maintenance) together with supporting feet, sliding guides, tube guide brackets, slide tubes and pipe connector kit for the connection of the pump to the sewerage system. Designed for the functioning of 2 non-automatic electric pumps (see models mentioned above) **to be ordered separately**. Complete with: 3 bulb floats fitted to stainless steel supporting plate, cable holder for the connection of the float and pump cables to the electrical panel (**to be ordered separately according to the table**). Including DN110 liquid inlet manifold and 2" outlet. Including DN50 breather pipe connector. The use of a warning float is available on request.

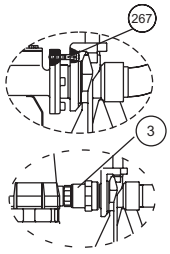




FEKAFOS 280 / DOUBLE



FEKAFOS 280 / DOUBLE

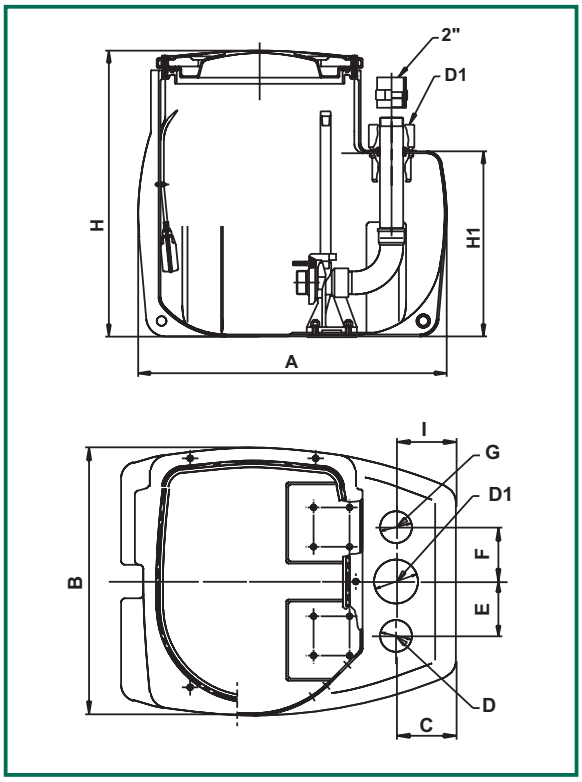


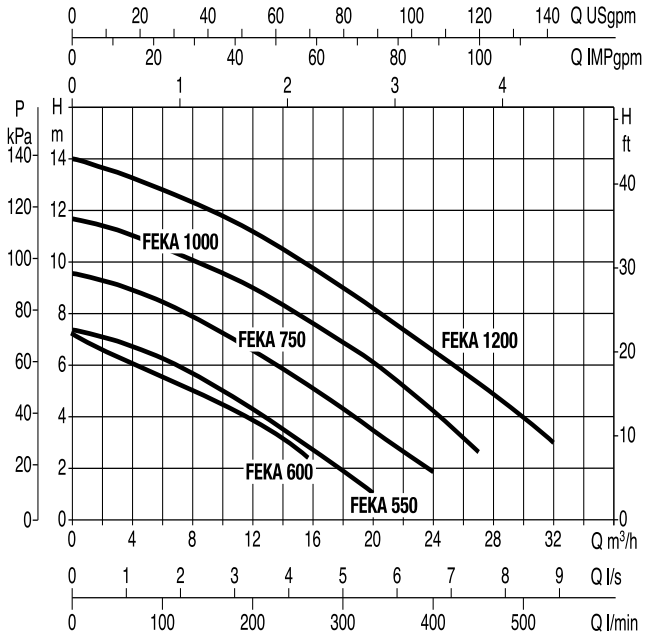
5	FIXED PART	149a	CABLE HOLDER PG 13,5
14	COVER	151	SLIDE MOBILE PART
83	"ALARM" FLOAT (not supplied)	152	FASTENING BRACKET
87	CABLE CLAMP	248b	SCREW COVER
100	TANK	266	TCEI SCREW M10X16
118	SLEEVE 63X2"	267	TCEI SCREW M10X60 UNI 5931
119	UNION DN 110 (inlet)	267a	TCEI SCREW M10X25 UNI 5931
119a	45° ELBOW DN 50 (inlet - ventilation)	268	PUMP FLANGE SCREW
119b	45° ELBOW DN 50 (inlet)	315	GUIDE HOSES
126	OUTLET HOSE CLAMP	316	ANTI-ROTATION BRACKET
139	PUMP	397c	M10 NUT
149	CABLE HOLDER PG 11		

TECHNICAL DATA

- Operating range: from 1 to 35 m^3/h with head up to 26,5 metres
- Liquid temperature range: +55°C

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.





MODEL	A	B	C	D	D1	E	F	G	H	H1	I	WEIGHT Kg
FEKAFOS 280 DOUBLE/...	800	640	145	DN 50	DN 110	130	130	2"	745	480	145	54

CHOICE OF PUMP/ELECTRICAL PANEL

PUMP MODEL	P2 NOMINAL ELECTRIC PUMP kW	HP	SINGLE-PHASE 230V~ 50 Hz	THREE-PHASE 400V~ 50 Hz
2FEKA 600 NA	0,55	0,75	E2D2,6 M	E2D2 T
2FEKA VS-VX 550 NA	0,55	0,75	E2D 2,6 M	E2D2T
2FEKA VS-VX 750 NA	0,75	1	E2D 2,6 M	E2D2T
2FEKA VS-VX 1000 NA	1	1,36	E2D 2,6 M	E2D3T
2FEKA VS-VX 1200 NA	1,2	1,6	E2D 2,6 M	E2D3T

FEKAFOS 550

FITTED FOR
FEKA 600 NA
FEKA VS/VX 550 M-NA/T-NA
FEKA VS/VX 750 M-NA/T-NA
FEKA VS/VX 1000 M-NA/T-NA
FEKA VS/VX 1200 M-NA/T-NA
FEKA 1400/1800
GRINDER 1800

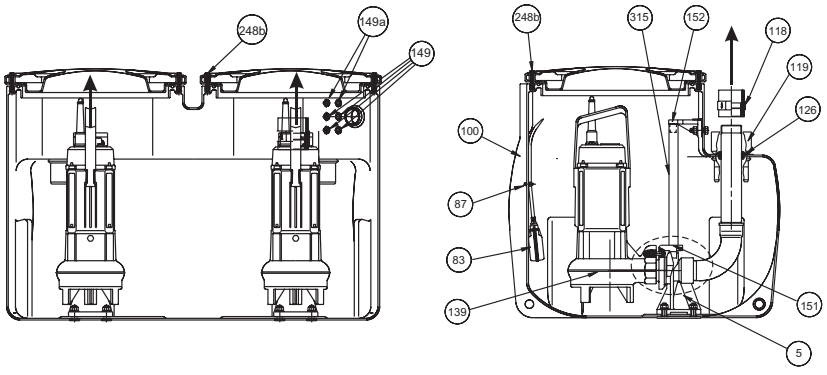
CE

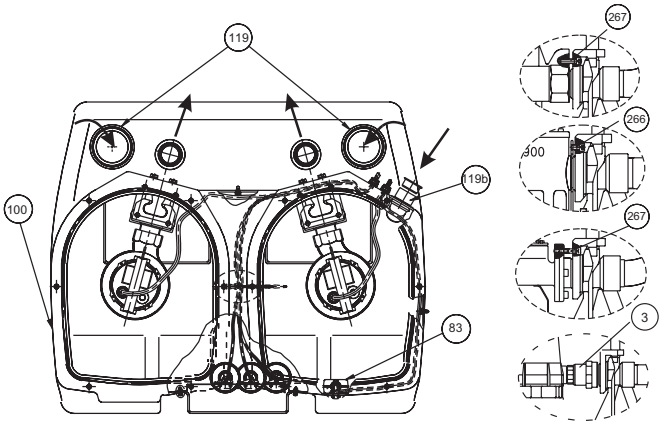
GENERAL DATA

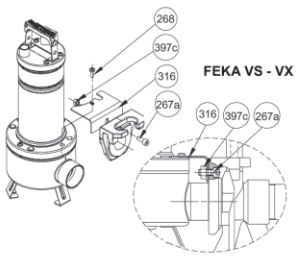
Applications
Automatic system for collecting, lifting and pumping black water and domestic/industrial waste from basements located under the level of the drains into sewers.

Pumped liquid
Phreatic water, rain water, clear waste water, black waste water and water from rivers and lakes.

Technical features
FEKABOX 550 comprises a high density polyethylene tank with an effective capacity of 550 litres, with 2 sturdy gas and liquid proof sealed covers, 2 DSD-2 devices to simplify pump maintenance, supports, slides, hose brackets and chute hoses, and pipe fittings for connecting the two pumps to the drains. Fitted for two non-automatic electric pump (see models indicated above) **to be ordered separately.** Complete with: 3 bulb floats mounted on a stainless steel support, cable holder for connecting the float and pump cables to the electrical panel **(to order separately according to the table).** Complete with DN110 suction manifolds and 2" delivery manifolds. Complete with connector for DN50 vent tube. An alarm float can be used on request.





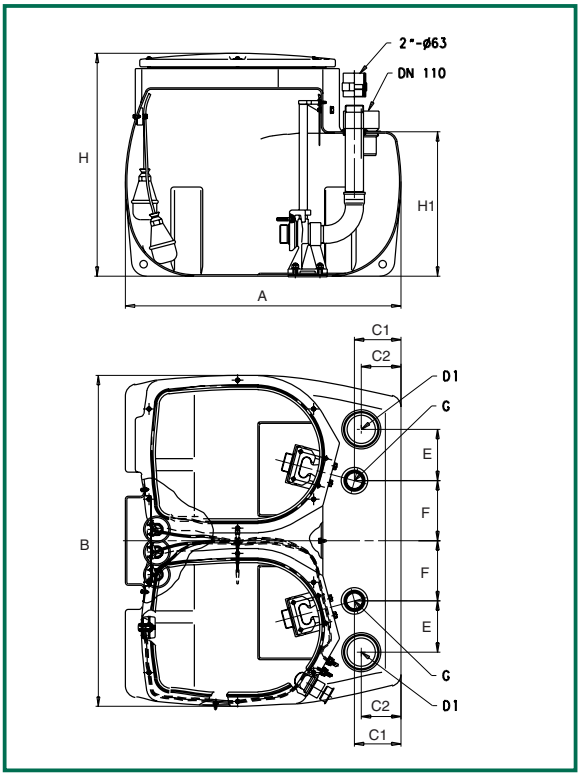


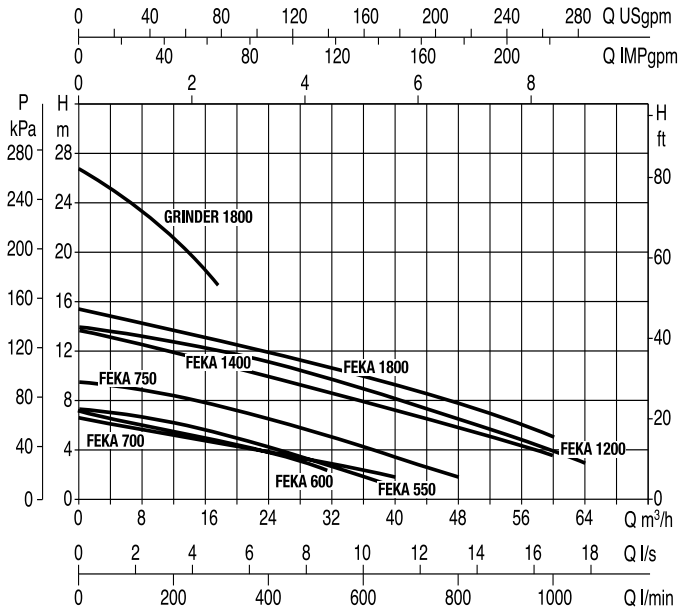
5	FIXED PART
14	COVER
83	"ALARM" FLOAT (not supplied)
87	CABLE CLAMP
100	TANK
118	SLEEVE 63X2"
119	UNION DN 110 (inlet)
119b	45° ELBOW DN 50 (inlet)
126	OUTLET HOSE CLAMP
139	PUMP
149	CABLE HOLDER PG 11
149a	CABLE HOLDER PG 13,5
151	SLIDE MOBILE PART
152	FASTENING BRACKET
248b	COVER SCREW
266	TCEI SCREW M10X16
267	TCEI SCREW M10X60 UNI 5931
267a	TCEI SCREW M10X25 UNI 5931
268	PUMP FLANGE SCREW
315	GUIDE HOSES
316	ANTI-ROTATION BRACKET
397c	M10 NUT

TECHNICAL DATA

- Operating range: from 1 to 65 m³/h with head up to 26,5 metres
- Liquid temperature range: +55°C

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.





Curves refer to two pumps in function.

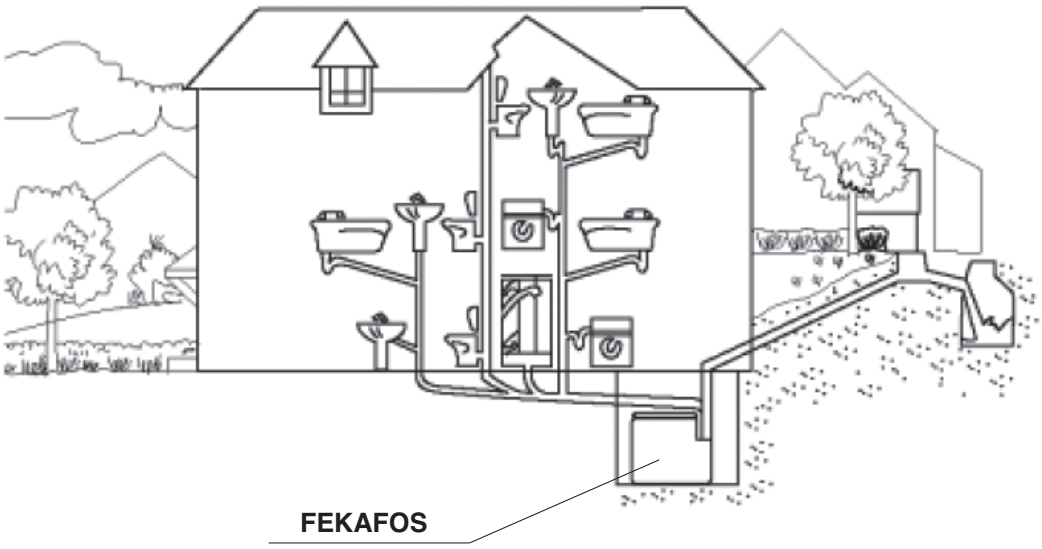
MODEL	A	B	C1	C2	D1	E	F	G	H	H1	WEIGHT Kg
FEKAFOS 550/...	920	1100	155	135	DN 110	170	200	2"	745	480	94

CHOICE OF PUMP/ELECTRICAL PANEL

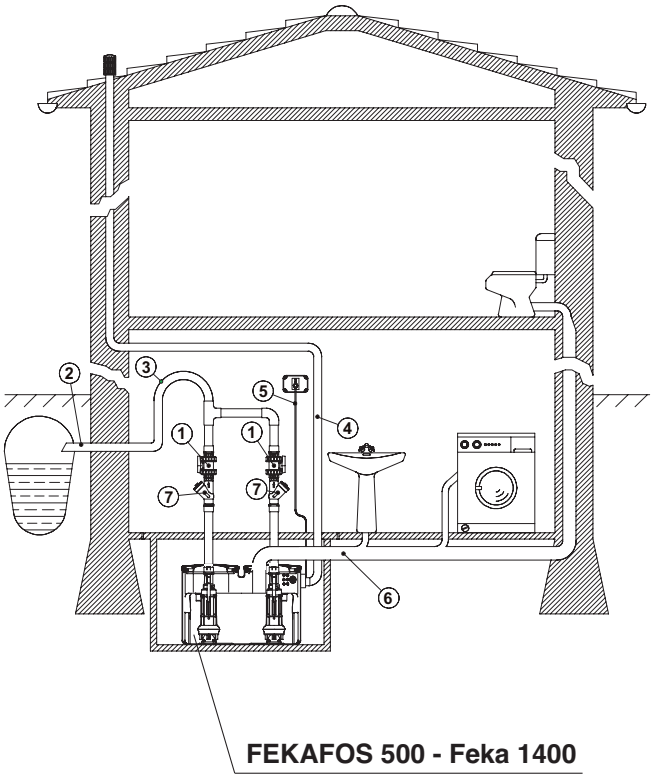
PUMP MODEL	P2 NOMINAL ELECTRIC PUMP kW	HP	SINGLE-PHASE 230V~ 50 Hz	THREE-PHASE 400V~ 50 Hz
2FEKA 600 NA	0,55	0,75	E2D2,6 M	E2D2 T
2FEKA VS-VX 550 NA	0,55	0,75	E2D 2,6 M	E2D2T
2FEKA VS-VX 750 NA	0,75	1	E2D 2,6 M	E2D2T
2FEKA VS-VX 1000 NA	1	1,36	E2D 2,6 M	E2D3T
2FEKA VS-VX 1200 NA	1,2	1,6	E2D 2,6 M	E2D3T
2FEKA 1400	1,1	1,5	E2D6 M	–
2FEKA 1800	1,5	2	–	E2D5 T
2GRINDER 1800	1,5	2	–	E2D5 T

EXAMPLES OF INSTALLATION

The installation can be made either at surface level or underground whenever any ground obstacles must be crossed in order to join up to a remote sewer system. FEKAFOS can be installed in basements, garages and underground pits.

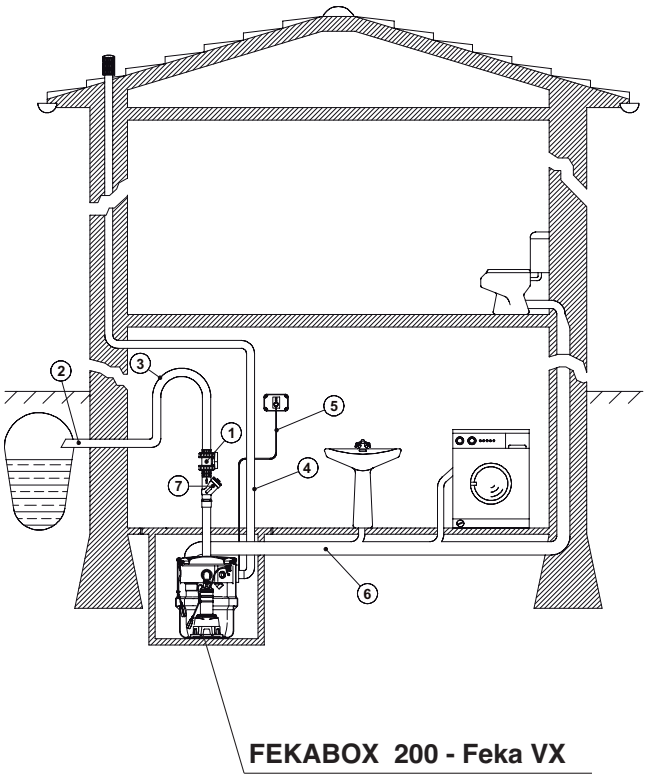


FEKAFOS



FEKAFOS 500 - Feka 1400

1 - On-Off ball valve
2 - Delivery
3 - Siphon
4 - Ventilation
5 - Power cable
6 - Collection
5 - Non-return valve



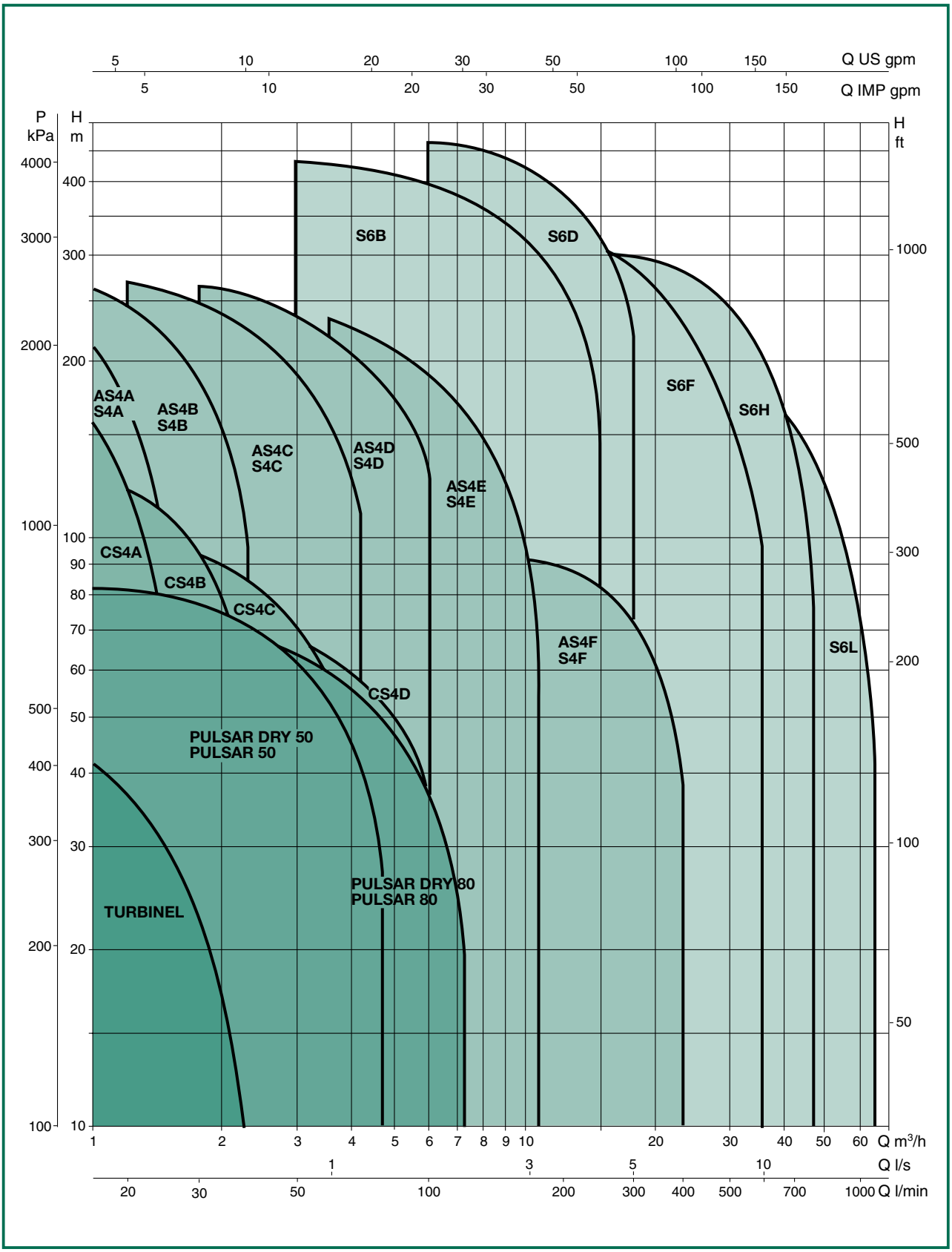
FEKABOX 200 - Feka VX

1 - On-Off ball valve
2 - Delivery
3 - Siphon
4 - Ventilation
5 - Power cable
6 - Collection
5 - Non-return valve

PERFORMANCE RANGE

GRAPHIC SELECTION TABLE

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.



PERFORMANCE RANGE CS4 - AS4 - S4

NUMERICAL SELECTION TABLE

MODEL		P2 NOMINAL		Q m^3/h	0	0,6	1,2	1,5	1,8	2,4	3	4,2	4,8	6	9	11,4	18	24	27
SINGLE-PHASE	THREE-PHASE	kW	HP	l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	450
MINITURBINEL M	**–**	0,37	0,5	H	43	33,5	21,5	13,7	8,5										
TURBINEL M	**TURBINEL T**	0,75	1	(m)	63	50	37	29	23	8									
CS4A-8 M	**–**	0,25	0,33		51	44,4	26,8	13,7											
CS4A-12 M	**CS4A-12 T**	0,37	0,5		76,5	66,6	40,2	20,5											
CS4A-18 M	**CS4A-18 T**	0,55	0,75		114,8	99,8	60,3	30,8											
CS4A-25 M	**CS4A-25 T**	0,75	1		159,4	138,7	83,7	42,7											
CS4A-36 M	**CS4A-36 T**	1,1	1,5		229,5	200	120,6	61,6											
CS4B-5 M	**–**	0,25	0,33		31	30	26	22,6	19	10									
CS4B-8 M	**CS4B-8 T**	0,37	0,5		49,6	47,8	41,5	36,2	30,6	16									
CS4B-12 M	**CS4B-12 T**	0,55	0,75		74,4	71,8	62,3	54,4	45,8	24									
CS4B-16 M	**CS4B-16 T**	0,75	1	H	99,2	95,7	83	72,5	61	32									
CS4B-24 M	**CS4B-24 T**	1,1	1,5	(m)	148,8	143,5	124,6	108,7	91,7	48									
CS4C-6 M	**CS4C-6 T**	0,37	0,5		33		31,8	30,7	29,4	26,4	22,7	13,2							
CS4C-9 M	**CS4C-9 T**	0,55	0,75		49,5		47,7	46	44	39,6	34	19,8							
CS4C-13 M	**CS4C-13 T**	0,75	1		71,5		68,9	66,4	63,7	57,2	49,2	28,6							
CS4C-19 M	**CS4C-19 T**	1,1	1,5		104,5		100,7	97	93	83,6	71,8	41,8							
CS4D-4 M	**CS4D-4 T**	0,37	0,5		24				23	22	21,8	18	16,2	11,2					
CS4D-6 M	**CS4D-6 T**	0,55	0,75		36				34,5	33	31,5	27	24,3	16,8					
CS4D-8 M	**CS4D-8 T**	0,75	1		48				46	44	42	36	32,5	22,4					
CS4D-13 M	**CS4D-13 T**	1,1	1,5		78				74,7	71,5	68,3	59	52,6	36,4					
AS4A/S4A-8 M	**–**	0,25	0,33		51	44,4	26,8	13,7											
AS4A/S4A-12 M	**AS4A/S4A-12 T**	0,37	0,5		76,5	66,6	40,2	20,5											
AS4A/S4A-18 M	**AS4A/S4A-18 T**	0,55	0,75		114,8	99,8	60,3	30,8											
AS4A/S4A-25 M	**AS4A/S4A-25 T**	0,75	1		159,4	138,7	83,7	42,7											
AS4A/S4A-36 M	**AS4A/S4A-36 T**	1,1	1,5		229,5	200	120,6	61,6											
AS4A/S4A-50 M	**AS4A/S4A-50 T**	1,5	2		318,8	277,4	167,5	85,5											
AS4B/S4B-5 M	**–**	0,25	0,33		31	30	26	22,6	19	10									
AS4B/S4B-8 M	**AS4B/S4B-8 T**	0,37	0,5		49,6	47,8	41,5	36,2	30,6	16									
AS4B/S4B-12 M	**AS4B/S4B-12 T**	0,55	0,75		74,4	71,8	62,3	54,4	45,8	24									
AS4B/S4B-16 M	**AS4B/S4B-16 T**	0,75	1		99,2	95,7	83	72,5	61	32									
AS4B/S4B-24 M	**AS4B/S4B-24 T**	1,1	1,5		148,8	143,5	124,6	108,7	91,7	48									
AS4B/S4B-32 M	**AS4B/S4B-32 T**	1,5	2		198,4	191,4	166	144,9	122,2	64									
AS4B/S4B-40 M	**AS4B/S4B-40 T**	2,2	3		248	239,2	207,6	181,2	152,8	80									
AS4B/S4B-48 M	**AS4B/S4B-48 T**	2,2	3		297,6	287,1	249,2	217,4	183,4	96									
AS4C/S4C-6 M	**AS4C/S4C-6 T**	0,37	0,5		33		31,8	30,7	29,4	26,4	22,7	13,2							
AS4C/S4C-9 M	**AS4C/S4C-9 T**	0,55	0,75		49,5		47,7	46	44	39,6	34	19,8							
AS4C/S4C-13 M	**AS4C/S4C-13 T**	0,75	1		71,5		68,9	66,4	63,7	57,2	49,2	28,6							
AS4C/S4C-19 M	**AS4C/S4C-19 T**	1,1	1,5		104,5		100,7	97	93	83,6	71,8	41,8							
AS4C/S4C-25 M	**AS4C/S4C-25 T**	1,5	2		137,5		132,5	128	122,5	110	94,5	55							
AS4C/S4C-32 M	**AS4C/S4C-32 T**	2,2	3		176		169,6	163	156,8	140,8	120,9	70,4							
AS4C/S4C-39 M	**AS4C/S4C-39 T**	2,2	3		214,5		206,7	200	191,1	171,6	147,4	85,8							
–	**AS4C/S4C-45 T**	3	4		247,5		238,5	229	220,5	198	170,1	99							
–	**AS4C/S4C-51 T**	3	4		280,5		270,3	261	250	224,4	192,8	112,2							
AS4D/S4D-4 M	**AS4D/S4D-4 T**	0,37	0,5	H	24				23	22	21,8	18	16,2	11,2					
AS4D/S4D-6 M	**AS4D/S4D-6 T**	0,55	0,75	(m)	36				34,5	33	31,5	27	24,3	16,8					
AS4D/S4D-8 M	**AS4D/S4D-8 T**	0,75	1		48				46	44	42	36	32,5	22,4					
AS4D/S4D-13 M	**AS4D/S4D-13 T**	1,1	1,5		78				74,7	71,5	68,3	59	52,6	36,4					
AS4D/S4D-17 M	**AS4D/S4D-17 T**	1,5	2		102				98	93,5	89,5	77,5	68,8	47,6					
AS4D/S4D-21 M	**AS4D/S4D-21 T**	2,2	3		126				121	115,5	110	96	85	58,8					
AS4D/S4D-25 M	**AS4D/S4D-25 T**	2,2	3		150				144	137,5	132	114,5	101,2	70					
–	**AS4D/S4D-29 T**	3	4		174				166	159,5	152	132	117,4	81,2					
–	**AS4D/S4D-34 T**	3	4		204				196	187	179,5	155	137,7	95,2					
–	**AS4D/S4D-38 T**	4	5,5		228				219	209	200	173	153,9	106,4					
–	**AS4D/S4D-45 T**	4	5,5		270				259	247,5	237	205	182,2	127					
AS4E/S4E-6 M	**AS4E/S4E-6 T**	0,75	1		40,5							31,5	30	27	17,6	7,7			
AS4E/S4E-8 M	**AS4E/S4E-8 T**	1,1	1,5		54							42	40	37	23,4	10,3			
AS4E/S4E-12 M	**AS4E/S4E-12 T**	1,5	2		81							63	60	55	35,2	15,5			
AS4E/S4E-17 M	**AS4E/S4E-17 T**	2,2	3		114,8							89,5	86	78	49,8	21,9			
–	**AS4E/S4E-20 T**	3	4		135							105	101,5	91	58,6	25,7			
–	**AS4E/S4E-23 T**	3	4		155,4							120,5	117	104,5	67,4	29,6			
–	**AS4E/S4E-27 T**	4	5,5		182,4							141,5	137	122,5	79,2	34,8			
–	**AS4E/S4E-31 T**	4	5,5		209,4							162	156	140	90,9	39,9			
–	**AS4E/S4E-36 T**	5,5	7,5		243,2							188	180	162	105,5	46,5			
–	**AS4E/S4E-42 T**	5,5	7,5		283,7							220	211	189	123,2	54			
AS4F/S4F-7 M	**AS4F/S4F-7 T**	2,2	3		40,5										36	33	24	15	11
–	**AS4F/S4F-10 T**	3	4		58										50,8	47	34	22	16
–	**AS4F/S4F-13 T**	4	5,5		76										66	62	44,7	28	20
–	**AS4F/S4F-18 T**	5,5	7,5		104,5										91	84	61,2	39	28

PERFORMANCE RANGE PULSAR - PULSAR DRY - S6

NUMERICAL SELECTION TABLE

MODEL		P2 NOMINAL		Q m^3/h	0	2,4	4,8	6	7,8	8,4	10,8	12	15	18	24	36	48	54	66
SINGLE-PHASE	THREE-PHASE	kW	HP	l/min	0	40	80	100	130	140	180	200	250	300	400	600	800	900	1100
PULSAR 30/50 M	**PULSAR 30/50 T**	0,55	0,75	H (m)	42	33,8	13,5												
PULSAR 40/50 M	**PULSAR 40/50 T**	0,75	1		56	45	18												
PULSAR 50/50 M	**PULSAR 50/50 T**	1	1,36		72	58	24,5												
PULSAR 65/50 M	**PULSAR 65/50 T**	1,2	1,6		86	70	29												
PULSAR 30/80 M	**PULSAR 30/80 T**	0,75	1		51	44,8	39,4	23,5											
PULSAR 40/80 M	**PULSAR 40/80 T**	1	1,36		64	56,8	41,5	30,5											
PULSAR 50/80 M	**PULSAR 50/80 T**	1,2	1,6		77	68	50	37											
PULSAR DRY 20/50 M	**PULSAR DRY 20/50 T**	0,55	0,75	H (m)	29	23,2	10,3												
PULSAR DRY 30/50 M	**PULSAR DRY 30/50 T**	0,55	0,75		42	33,8	13,5												
PULSAR DRY 40/50 M	**PULSAR DRY 40/50 T**	0,75	1		56	45	18												
PULSAR DRY 50/50 M	**PULSAR DRY 50/50 T**	1	1,36		72	58	24,5												
PULSAR DRY 65/50 M	**PULSAR DRY 65/50 T**	1,2	1,6		86	70	29												
PULSAR DRY 30/80 M	**PULSAR DRY 30/80 T**	0,75	1		51	44,8	32,4	23,5											
PULSAR DRY 40/80 M	**PULSAR DRY 40/80 T**	1	1,36		64	56,8	41,5	30,5											
PULSAR DRY 50/80 M	**PULSAR DRY 50/80 T**	1,2	1,6		77	68	50	37											
–	**S6B-9**	4	5,5	H (m)	147			125	120	114	96	85	46						
–	**S6B-12**	5,5	7,5		196			172	160	152	128	113	64						
–	**S6B-15**	7,5	10		224			216	198	190	160	141	80						
–	**S6B-18**	9,2	12,5		293			250	238	228	193	169	96						
–	**S6B-21**	9,2	12,5		342			291	278	266	225	197	112						
–	**S6B-24**	11	15		391			340	315	304	257	226	128						
–	**S6B-28**	13	17,5		446			400	370	354	300	263	149						
–	**S6D-6**	3,7	5		94					87	80	76	63	44					
–	**S6D-7**	5,5	7,5		109					101	93	89	74	51					
–	**S6D-8**	5,5	7,5		125					115	106	102	84	58					
–	**S6D-9**	5,5	7,5		140					130	120	114	95	66					
–	**S6D-12**	7,5	10		187					173	160	153	127	88					
–	**S6D-15**	9,2	12,5		234					216	201	191	158	110					
–	**S6D-18**	11	15		281					260	241	229	190	132					
–	**S6D-21**	13	17,5		328					304	281	267	222	154					
–	**S6D-24**	15	20		374					347	321	305	254	176					
–	**S6D-30**	18,5	25		468					464	401	381	317	220					
–	**S6F-4**	4	5		61							53	51	48	40	15			
–	**S6F-6**	5,5	4,5		91							80	76	71	59	22			
–	**S6F-8**	7,5	10		122							106	101	95	79	30			
–	**S6F-10**	9,2	12,5		152							133	126	119	99	37			
–	**S6F-12**	11	15		182							159	154	143	119	47			
–	**S6F-14**	13	17,5		213							186	178	167	139	56			
–	**S6F-16**	15	20		243							212	204	190	158	64			
–	**S6F-20**	18,5	25		304							265	255	238	198	80			
–	**S6F-24**	22	30		365							318	305	286	238	96			
–	**S6H-3**	4	5,5		48									42	39	30	12		
–	**S6H-4**	5,5	7,5		63									57	53	40	16		
–	**S6H-5**	7,5	10		78									71	66	50	20		
–	**S6H-6**	9,2	12,5		94									85	80	60	23		
–	**S6H-8**	11	15		126									114	106	80	31		
–	**S6H-9**	13	17,5		141									128	120	90	35		
–	**S6H-10**	15	20		157									142	133	100	39		
–	**S6H-12**	18,5	25		188									170	160	1200	47		
–	**S6H-15**	22	30		235									213	199	150	59		
–	**S6H-18**	26	35		283									256	239	180	71		
–	**S6H-20**	30	40		314									284	266	200	78		
–	**S6L-3**	5,5	7,5		40											28	22	18	7
–	**S6L-4**	7,5	10		52											38	29	23	9
–	**S6L-5**	9,2	12,5		65											48	36	29	11
–	**S6L-6**	11	15		78											57	44	36	13
–	**S6L-8**	13	17,5		104											77	58	47	18
–	**S6L-9**	15	20		118											86	66	53	20
–	**S6L-10**	18,5	25		131											96	73	59	23
–	**S6L-12**	22	30		158											114	88	71	27
–	**S6L-15**	26	35		197											144	110	89	34
–	**S6L-18**	30	40		236											173	130	106	41

MINITURBINEL
TURBINEL

CE

(CONTROLBOX only for single-phase version)

GENERAL DATA

Applications

Submerged single-impeller peripheral pump for wells and boreholes with a diameter of 4" or greater, capable of developing high heads with limited power. Suitable for lifting and distributing water in domestic installations, small-scale agriculture, pressurization of autoclave units and hobby applications.

Constructional features of the pump

Brass pump body, pressure disc and impeller.
Cast iron motor support.
Stainless steel rotor shaft extension and strainer.

Constructional features of the motor

Submersible two-pole induction motor, made completely of stainless steel, dry and cooled from the outside by the pumped liquid.
Squirrel cage rotor mounted on oversized greased sealed-for-life ball bearings to ensure reliability and long life.
Double mechanical seal in an oil bath with special protection against sand.
Capacitor permanently in circuit and overload protection with manual reset located in the control box supplied as standard equipment with the single-phase version.
The user is responsible for protection in the three-phase version.
Motor protection: IP68
Insulation class: F

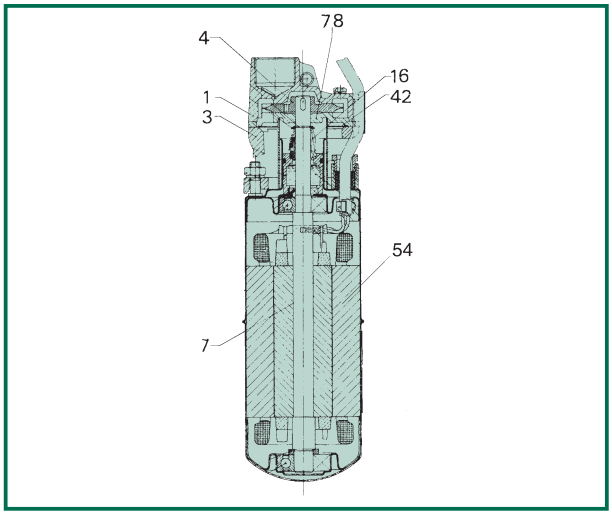
Standard voltage:	single-phase	220-240 V/50 Hz
	three-phase	400 V (⅄)/50 Hz

Standard power cable length 15 metres.
All the pumps are supplied with a nylon rope 15 metres long.

TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	BRASS PCuZn40Pb2 UNI 5705
3	SUPPORT	CAST IRON 200 UNI ISO 185
4	IMPELLER	BRASS PCuZn40Pb2 UNI 5705
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 416 X12 Cr5 13 UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMIC
42	STRAINER	STAINLESS STEEL AISI 304 X5 CrNi 1810 UNI 6900/71
54	MOTOR	STAINLESS STEEL AISI 304 X5 CrNi 1810 UNI 6900/71
78	PRESSURE DISC	BRASS PCuZn40Pb2 UNI 5705

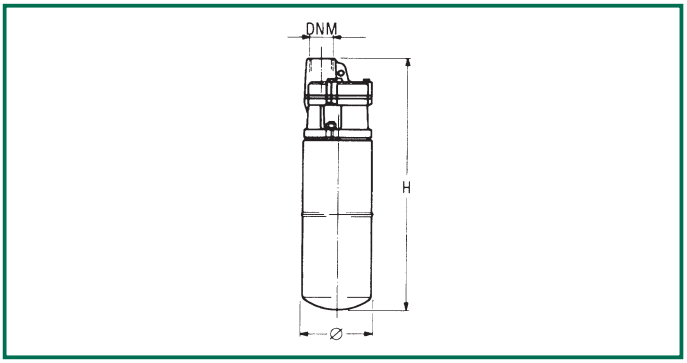
* In contact with the liquid

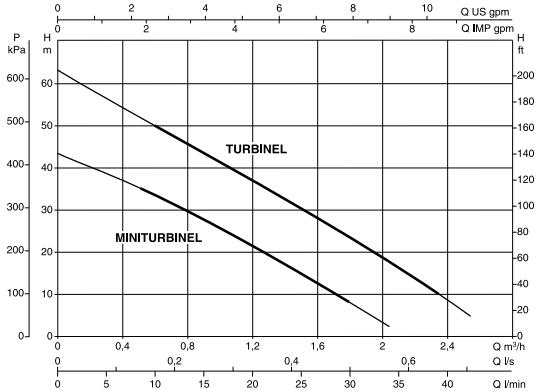


- Operating range: from 0,6 to 2,4 m³/h with head up to 63 metres
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water.
- Liquid temperature range: from 0°C to +40°C
- Maximum immersion: 10 m
- Installation. in wells and boreholes with a diameter of 4" or greater, tanks and cisterns, in a vertical position
- Special executions on request: other voltages and/or frequencies
- Accessories: see page 94-95
- Power cable section: see table on page 95

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.

MINITURBINEL - TURBINEL





MODEL	Ø	H	DNM	PACKING DIMENSIONS L/A	PACKING DIMENSIONS L/B	PACKING DIMENSIONS H	VOLUME m³	WEIGHT Kg
MINITURBINEL	95	290	1" G	440	206	245	0,022	10
TURBINEL	95	340	1" G	440	206	245	0,022	14,8

MODEL	ELECTRICAL DATA VOLTAGE 50 Hz	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A	CAPACITOR µF	CAPACITOR Vc	HYDRAULIC DATA (n ≃ 2800 1/min)							
								Q m³/h	0	0,6	1,2	1,5	1,8	2,1	2,4
								l/min	0	10	20	25	30	35	40
MINITURBINEL M	1x220-240 V ~	0,66	0,37	0,5	3,3	14	450	H (m)	43	33,5	21,5	15,5	8,5		
TURBINEL M	1x220-240 V ~	1,16	0,75	1	5,7	16	450		63	50	37	29	23	17	8
TURBINEL T	3x400 V ~	1,1	0,75	1	2,1	–	–								

* The data on the protections are on page 94-95

CS4

RESISTANT TO SAND

CE

(CONTROLBOX only for single-phase version)

GENERAL DATA

Applications

Bore hole pumps for 4” wells or greater capable of developing a wide range of flow rates and heads. These pumps can be used in a wide range of lifting, distributing and pressurising applications in civil and industrial supplies, autoclaves and tanks, fire-fighting and washing installations, irrigation systems.

Construction features of pump

Centrifugal multi-stage pump with radial or semi-axial impellers. Pump and motor directly connected with a rigid coupling.
The technopolymer impeller with parts subject to wear in stainless steel, operating on floating adjustment rings in abrasion-proof synthetic material and the technopolymer diffusers make the pump particularly hard-wearing.
Pump liner, shaft with coupling, filter and cable sheath in stainless steel.
Base (with incorporated filter) and upper head (with incorporated resin check valve) in technopolymer.
Plastic cable sheaths.
These pumps comply with Community Directives.

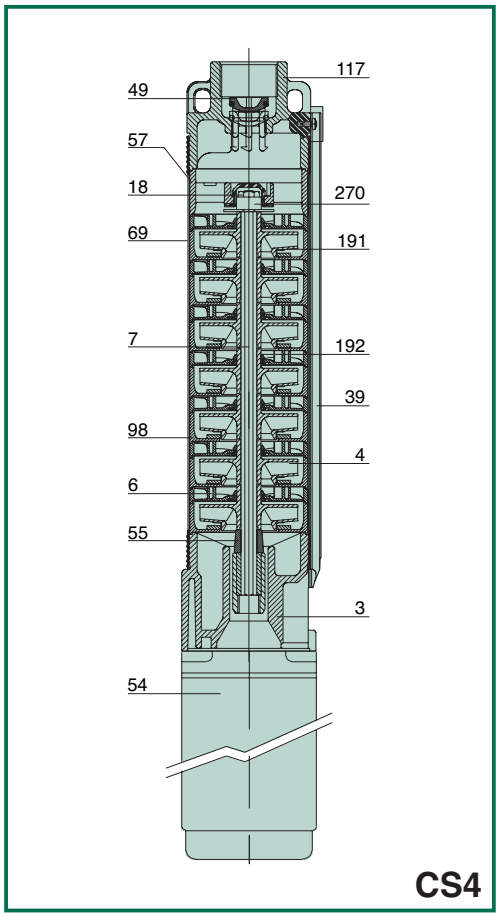
Construction features of motor

Asynchronous 2-pole submerged motor totally built from AISI 304 stainless steel. Squirrel-cage rotor mounted on a self-centring thrust block bearing suitable for withstanding axial loads. The bearings and the bushings are cooled by the water so as to prevent dangers of pollution.
Stator encased in synthetic resin with high quality dielectric inserted in a stainless steel airtight casing.
Capacitor and manually resettable overload cut-out located on the standard supplied electrical power panel for the single-phase version.
The user must provide overload protection for the three-phase version.
Flanging to NEMA - 4”
Protection level: IP58
Heat insulation class: B
Input voltage: single-phase 220-230 V/50Hz
three-phase 400 V / 50Hz

TECHNICAL DATA

N.	PARTS*	MATERIALS
3	BASE	TECHNOPOLYMER A
4	IMPELLER	TECHNOPOLYMER A IN STAINLESS STEEL INOX AISI 304 X5CrNi1810 - UNI 6900/71
6	DIFFUSER	TECHNOPOLYMER A
7	SHAFT WITH COUPLING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
18	IMPELLER LOCK NUT	STAINLESS STEEL
39	CABLE SHEATH	PLASTIC
49	VALVE	ACETAL RESIN
54	MOTOR	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
55	SPACER	TECHNOPOLYMER A
57	SUPPORT	TECHNOPOLYMER A
69	PUMP LINING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER A
117	UPPER HEAD	TECHNOPOLYMER A
191	FRONT ADJUSTMENT RING	ABRASION-PROOF SYNTHETIC MATERIAL
192	REAR ADJUSTMENT RING	ABRASION-PROOF SYNTHETIC MATERIAL
270	UPPER SHAFT GUIDE BUSHING	RUBBER

* In contact with the liquid



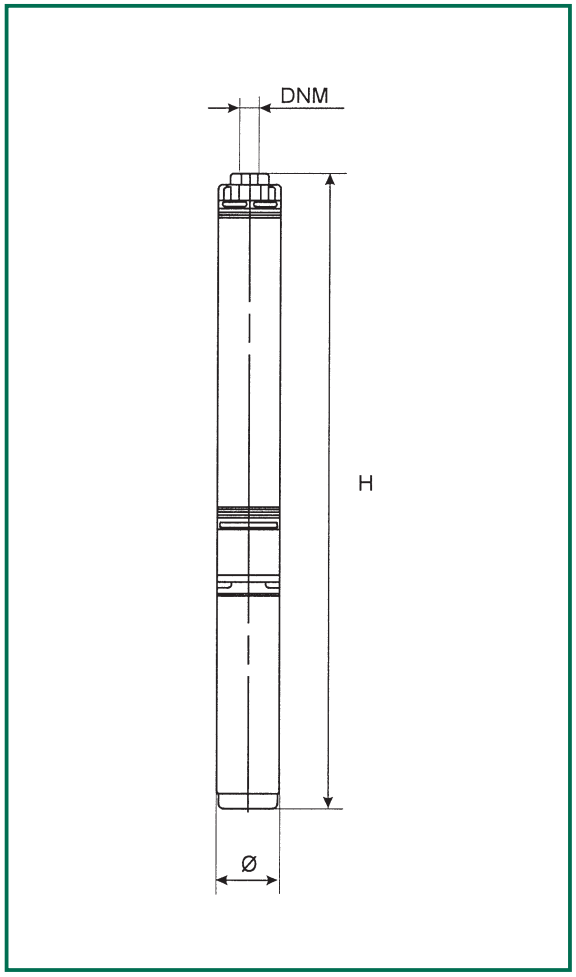
- Operating range: from 0,24 to 6 m³/h with head up to 230 metres.
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water.
- Liquid temperature range: from 0°C to +40°C
- Installation: in wells and bore-holes with a diameter of 4" or greater, tanks and cisterns, in a vertical position.
- Starts/hour : max 20
- Cooling flow: 8 cm/sec.
- **Maximum quantity of sand: 120 gr/m³**
- Special versions on request: different voltages and/or frequencies.
- Length of power cable : 15 metres: CS4A-8 / CS4A-12 / CS4B-5 / CS4B-8 / CS4B-12 CS4C-6 / CS4C-9 / CS4D-4 / CS4D-6 / CS4D-8

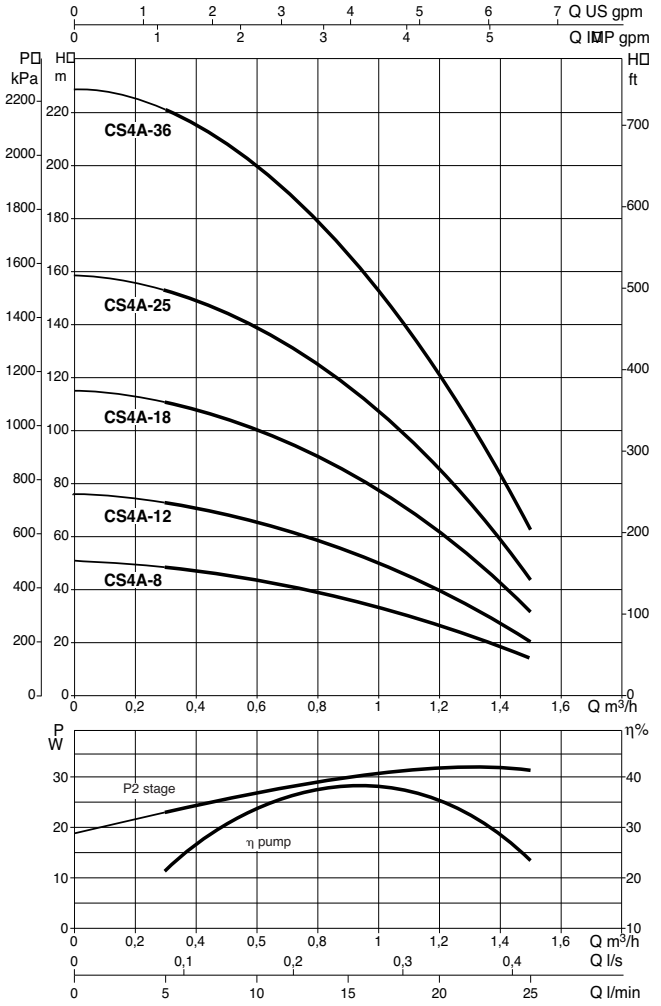
  standard nylon: 30 metres long: CS4A-18 / CS4A-25 / CS4A-36 / CS4B-16 CS4B-24 / CS4C-13 / CS4C-19 / CS4D-13
- Accessories: see pages 94-95.
- Power cable section: see page 95.
- CONTROL BOX HS for increasing static torque may be supplied for the single-phase version on request.

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.

CS4A

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	H Franklin motor (mm)	H Dab motor (mm)	DNM	PACKING DIMENSIONS (mm)			VOLUME m³	WEIGHT Kg
					L/A	L/B	H		
CS4A-8 M	97	577	571	1" ¼ G	815	90	250	0,018	13,2
CS4A-12 M	97	677	671	1" ¼ G	815	90	250	0,018	14,7
CS4A-12 T	97	657	650	1" ¼ G	815	90	250	0,018	12,7
CS4A-18 M	97	825	820	1" ¼ G	945	90	250	0,021	19,8
CS4A-18 T	97	797	791	1" ¼ G	945	90	250	0,021	17,5
CS4A-25 M	97	993	981	1" ¼ G	1145	90	250	0,026	22
CS4A-25 T	97	965	960	1" ¼ G	1145	90	250	0,026	19,8
CS4A-36 M	97	1303	1307	1" ¼ G	1375	90	250	0,030	26,3
CS4A-36 T	97	1245	1233	1" ¼ G	1375	90	250	0,030	22,6

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)						
	VOLTAGE 50 Hz	P2 NOMINAL		Q m³/h	0	0,3	0,6	0,9	1,2	1,5
		kW	HP	l/min	0	5	10	15	20	25
CS4A-8 M [1]	1x230 V ~*	0,25	0,33	H (m)	51	48,6	44,4	37,3	26,8	13,7
CS4A-12 M	1x230 V ~*	0,37	0,5		76,5	72,9	66,6	55,9	40,2	20,5
CS4A-12 T	3x400 V ~**	0,37	0,5		76,5	72,9	66,6	55,9	40,2	20,5
CS4A-18 M	1x230 V ~*	0,55	0,75		114,8	109,3	99,8	84	60,3	30,8
CS4A-18 T	3x400 V ~**	0,55	0,75		114,8	109,3	99,8	84	60,3	30,8
CS4A-25 M	1x230 V ~*	0,75	1		159,4	151,8	138,7	116,5	83,7	42,7
CS4A-25 T	3x400 V ~**	0,75	1		159,4	151,8	138,7	116,5	83,7	42,7
CS4A-36 M	1x230 V ~*	1,1	1,5		229,5	218,6	200	167,8	120,6	61,6
CS4A-36 T	3x400 V ~**	1,1	1,5		229,5	218,6	200	167,8	120,6	61,6

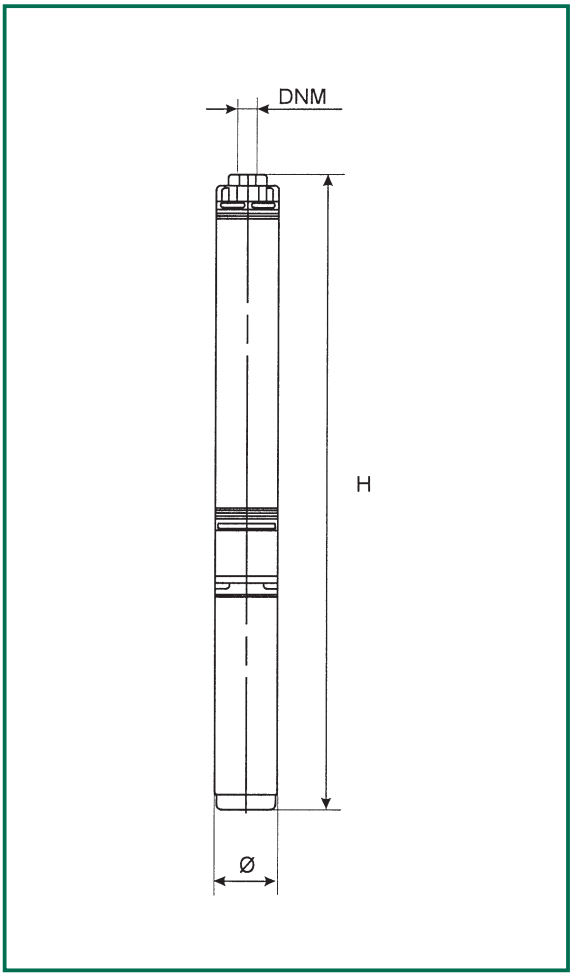
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.
[1] Dab motor: P2(kW) = 0,37 and P2(HP) = 0,5

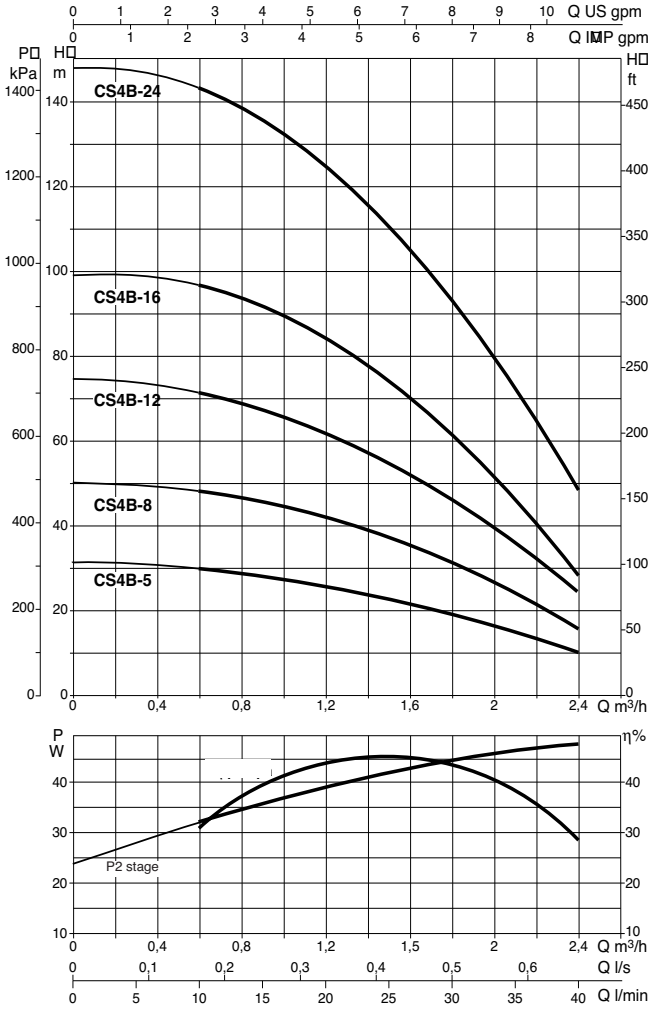
DAB PUMP PERFORMANCE

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.

CS4B

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	H Franklin motor (mm)	H Dab motor (mm)	DNM	PACKING DIMENSIONS (mm) L/A	L/B	H	VOLUME m³	WEIGHT Kg
CS4B-5 M	97	530	524	1" ¼ G	815	90	250	0,018	12,9
CS4B-8 M	97	617	611	1" ¼ G	815	90	250	0,018	14,3
CS4B-8 T	97	597	590	1" ¼ G	815	90	250	0,018	12,3
CS4B-12 M	97	735	730	1" ¼ G	815	90	250	0,018	16,1
CS4B-12 T	97	707	701	1" ¼ G	815	90	250	0,018	13,8
CS4B-16 M	97	853	841	1" ¼ G	945	90	250	0,021	21
CS4B-16 T	97	825	820	1" ¼ G	945	90	250	0,021	18,8
CS4B-24 M	97	1090	1094	1" ¼ G	1375	90	250	0,030	25
CS4B-24 T	97	1033	1021	1" ¼ G	1145	90	250	0,026	21,1

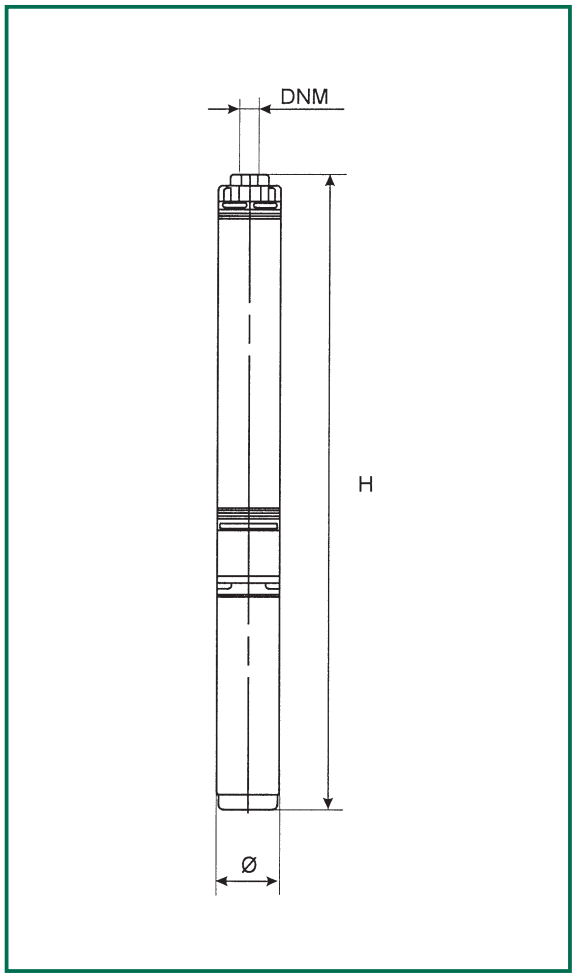
MODEL	ELECTRICAL DATA VOLTAGE 50 Hz	P2 NOMINAL kW	HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h	0	0,6	0,9	1,2	1,5	1,8	2,1	2,4
				Q l/min	0	10	15	20	25	30	35	40
CS4B-5 M (1)	1x230 V ~*	0,37	0,5	H (m)	31	30	28,6	26	22,6	19	14,8	10
CS4B-8 M	1x230 V ~*	0,37	0,5		49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
CS4B-8 T	3x400 V ~**	0,37	0,5		49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
CS4B-12 M	1x230 V ~*	0,55	0,75		74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
CS4B-12 T	3x400 V ~**	0,55	0,75		74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
CS4B-16 M	1x230 V ~*	0,75	1		99,2	95,7	91,5	83	72,5	61	47,4	32
CS4B-16 T	3x400 V ~**	0,75	1		99,2	95,7	91,5	83	72,5	61	47,4	32
CS4B-24 M	1x230 V ~*	1,1	1,5		148,8	143,5	137,3	124,6	108,7	91,7	71	48
CS4B-24 T	3x400 V ~**	1,1	1,5		148,8	143,5	137,3	124,6	108,7	91,7	71	48

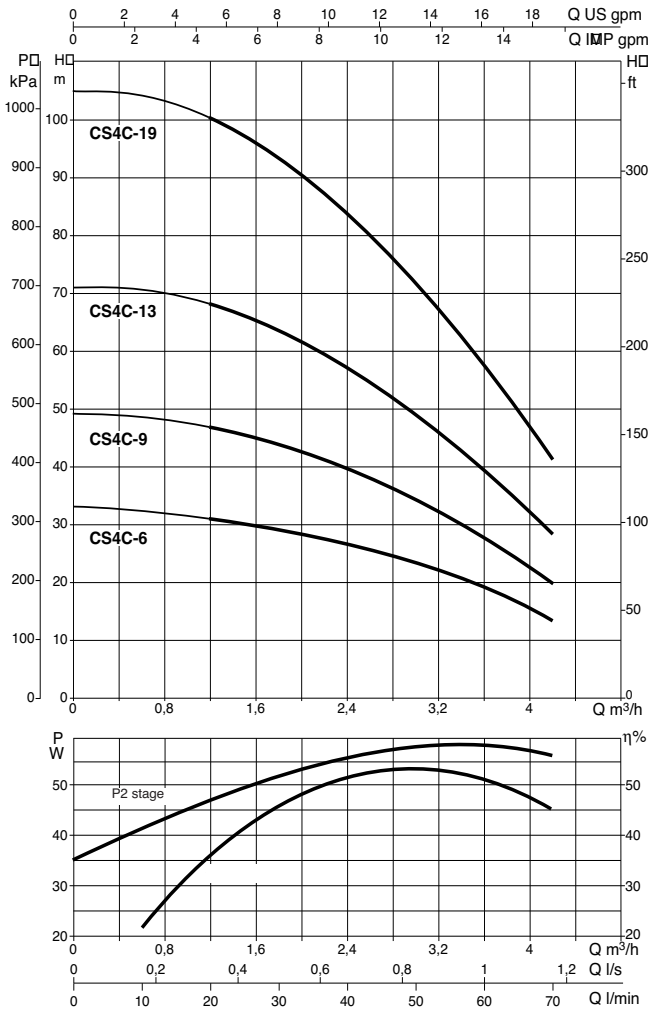
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.
(1) Dab motor: P2(kW) = 0,37 and P2(HP) = 0,5

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.

CS4C

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	H Franklin motor (mm)	H Dab motor (mm)	DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg
					L/A	L/B	H		
CS4C-6 M	97	632	626	1" ¼ G	815	90	250	0,018	14,3
CS4C-6 T	97	612	605	1" ¼ G	815	90	250	0,018	12,3
CS4C-9 M	97	758	753	1" ¼ G	945	90	250	0,021	16,2
CS4C-9 T	97	729	723	1" ¼ G	815	90	250	0,018	13,8
CS4C-13 M	97	915	903	1" ¼ G	1145	90	250	0,026	21,3
CS4C-13 T	97	888	883	1" ¼ G	1145	90	250	0,026	19,1
CS4 C-19 M	97	1168	1172	1" ¼ G	1375	90	250	0,030	25,3
CS4C-19 T	97	1110	1098	1" ¼ G	1375	90	250	0,030	21,6

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)								
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	1,2	1,5	1,8	2,1	2,4	3	3,6	4,2
		kW	HP	l/min	0	20	25	30	35	40	50	60	70
CS4C-6 M	1x230 V ~*	0,37	0,5	H (m)	33	31,8	30,7	29,4	27,5	26,4	22,7	18,5	13,2
CS4C-6 T	3x400 V ~**	0,37	0,5		33	31,8	30,7	29,4	27,5	26,4	22,7	18,5	13,2
CS4C-9 M	1x230 V ~*	0,55	0,75		49,5	47,7	46	44	41,5	39,6	34	27,5	19,8
CS4C-9 T	3x400 V ~**	0,55	0,75		49,5	47,7	46	44	41,5	39,6	34	27,5	19,8
CS4C-13 M	1x230 V ~*	0,75	1		71,5	68,9	66,4	63,7	60,5	57,2	49,2	40	28,6
CS4C-13 T	3x400 V ~**	0,75	1		71,5	68,9	66,4	63,7	60,5	57,2	49,2	40	28,6
CS4 C-19 M	1x230 V ~*	1,1	1,5		104,5	100,7	97	93	87,8	83,6	71,8	58,5	41,8
CS4C-19 T	3x400 V ~**	1,1	1,5		104,5	100,7	97	93	87,8	83,6	71,8	58,5	41,8

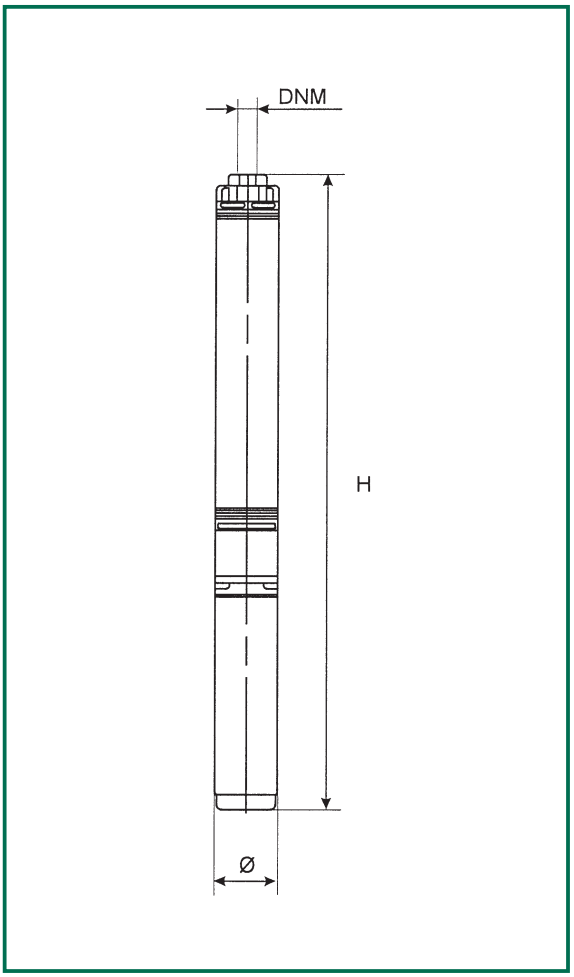
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

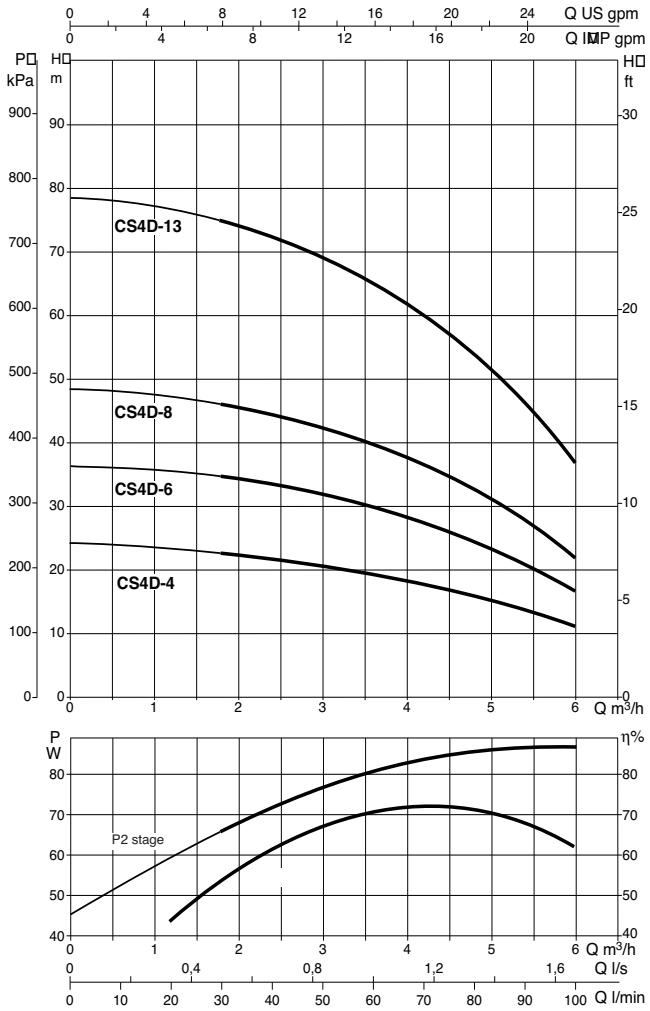
DAB PUMP PERFORMANCE

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.

CS4D

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	H Franklin motor (mm)	H Dab motor (mm)	DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg
					L/A	L/B	H		
CS4D-4 M	97	567	561	1" ¼ G	815	90	250	0,018	14
CS4D-4 T	97	547	540	1" ¼ G	815	90	250	0,018	12
CS4D-6 M	97	660	655	1" ¼ G	815	90	250	0,018	15,6
CS4D-6 T	97	632	626	1" ¼ G	815	90	250	0,018	13,3
CS4D-8 M	97	753	741	1" ¼ G	945	90	250	0,021	17,3
CS4D-8 T	97	725	720	1" ¼ G	815	90	250	0,018	15
CS4D-13 M	97	973	977	1" ¼ G	1145	90	250	0,026	24,1
CS4D-13 T	97	915	903	1" ¼ G	1145	90	250	0,026	20,4

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)								
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	1,8	2,1	2,4	3	3,6	4,2	4,8	6
		kW	HP	l/min	0	30	35	40	50	60	70	80	100
CS4D-4 M	1x230 V ~*	0,37	0,5	H (m)	24	23	22,5	22	21,8	19,9	18	16,2	11,2
CS4D-4 T	3x400 V ~**	0,37	0,5		24	23	22,5	22	21,8	19,9	18	16,2	11,2
CS4D-6 M	1x230 V ~*	0,55	0,75		36	34,5	33,7	33	31,5	29,8	27	24,3	16,8
CS4D-6 T	3x400 V ~**	0,55	0,75		36	34,5	33,7	33	31,5	29,8	27	24,3	16,8
CS4D-8 M	1x230 V ~*	0,75	1		48	46	45	44	42	40	36	32,5	22,4
CS4D-8 T	3x400 V ~**	0,75	1		48	46	45	44	42	40	36	32,5	22,4
CS4D-13 M	1x230 V ~*	1,1	1,5		78	74,7	73,2	71,5	68,3	64,6	59	52,6	36,4
CS4D-13 T	3x400 V ~**	1,1	1,5		78	74,7	73,2	71,5	68,3	64,6	59	52,6	36,4

* 1x220-230 V ~ per i motors Franklin.
** 3x230 V ~ fornibile su richiesta.

AS4

RESISTANT TO SAND

CE

(CONTROLBOX only for single-phase version)

GENERAL DATA

Applications

Bore hole pumps for 4” wells or greater capable of developing a wide range of flow rates and heads. These pumps can be used in a wide range of lifting, distributing and pressurising applications in civil and industrial supplies, autoclaves and tanks, fire-fighting and washing installations, and irrigation systems.

Construction features of pump:

Centrifugal multi-stage pump with radial or semi-axial impellers. Pump and motor directly connected with a rigid coupling.
The technopolymer impeller with parts subject to wear in stainless steel, operating on floating adjustment rings in abrasion-proof synthetic material and the technopolymer diffusers make the pump particularly hard-wearing.
Pump liner, shaft with coupling, filter and cable sheath in stainless steel.
Base and upper head in precision-cast AISI 304 steel with steel check valve incorporated in the head.
These pumps comply with Community Directives.

Construction features of motor

Asynchronous 2-pole submerged motor totally built from AISI 304 stainless steel.Squirrel-cage rotor mounted on a self-centring thrust block bearing suitable for withstanding axial loads. The bearing and the bushings are cooled by the water so as to prevent dangers of pollution. Stator encased in synthetic resin with high quality dielectric inserted in a stainless steel airtight casing. Capacitor and manually resettable overload cut-out located on the standard supplied electrical power panel for the single-phase version. The user must provide overload protection for the three-phase version.
Flanging to NEMA - 4”
Protection level: IP58
Heat insulation class: B
Cooling flow: 8 cm/sec.
Max. number of starts/hour: 20
Input voltage: single-phase 220-230 V/50Hz
three-phase 400 V/50Hz

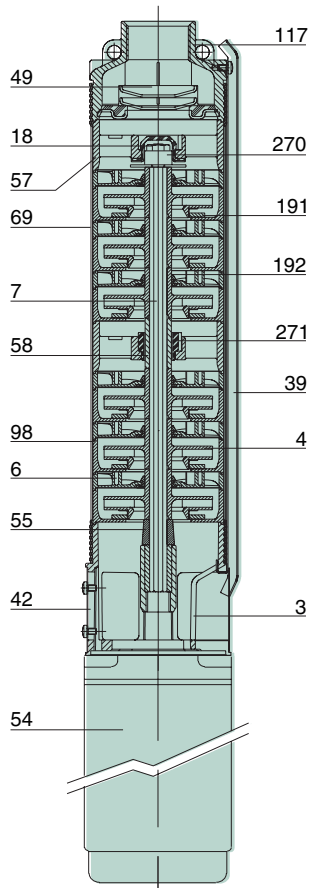
Supply

Controlbox (for the single-phase version) and motor to be ordered separately.

TECHNICAL DATA

N.	PARTS*	MATERIALS
3	SUPPORT	SPECIAL BRONZE ALLOY
4	IMPELLER	TECHNOPOLYMER A WITH STEEL SHIM STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
6	DIFFUSER	TECHNOPOLYMER A
7	SHAFT WITH COUPLING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
18	IMPELLER LOCK NUT	STAINLESS STEEL
39	CABLE SHEATH	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
42	FILTER	STAINLESS STEEL
49	VALVE	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
54	MOTOR	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
55	SPACER	TECHNOPOLYMER A
57	SUPPORT	SPECIAL BRONZE ALLOY
58	INTERMEDIATE BUSHING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
69	PUMP LINING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER A
117	UPPER HEAD	SPECIAL BRONZE ALLOY
191	FRONT ADJUSTMENT RING	ABRASION-PROOF SYNTHETIC MATERIAL
192	REAR ADJUSTMENT RING	ABRASION-PROOF SYNTHETIC MATERIAL
270	UPPER SHAFT GUIDE BUSHING	RUBBER
271	INTERMEDIATE SHAFT GUIDE BUSHING	ABRASION-PROOF SYNTHETIC MATERIAL

* In contact with the liquid



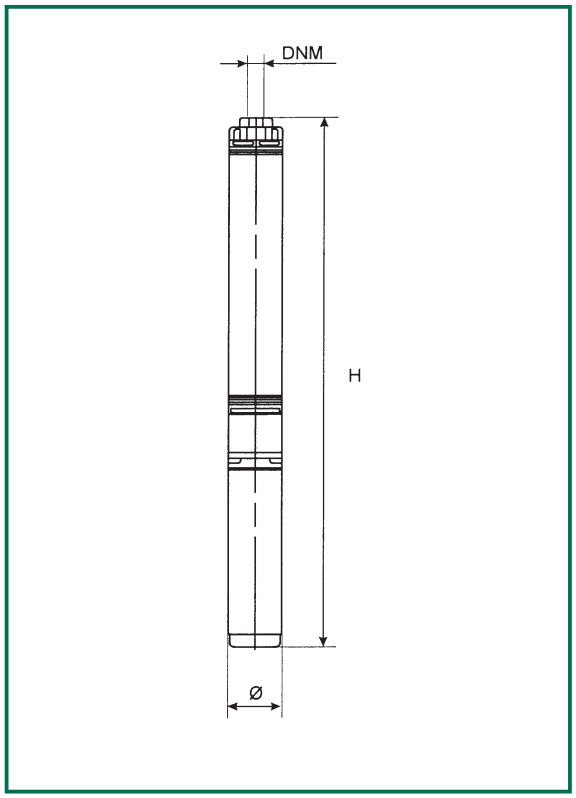
AS4

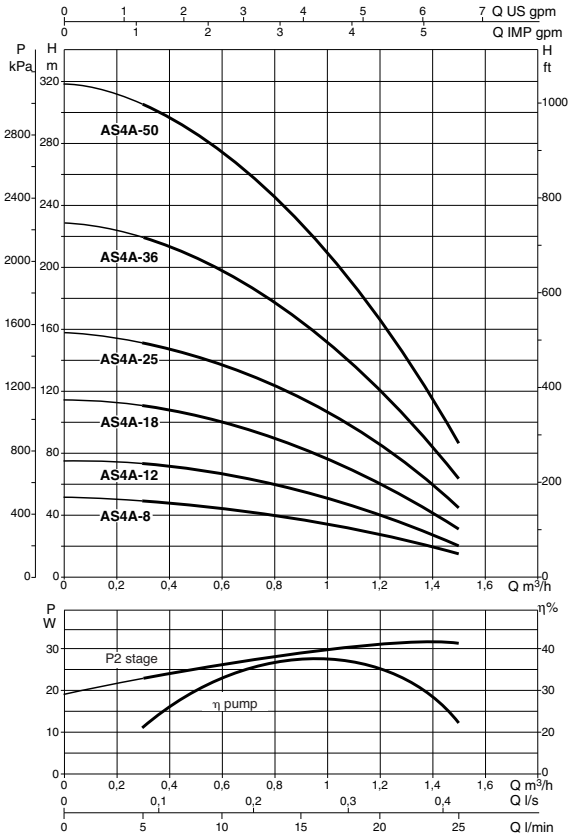
- Operating range: from 0,3 to 24 m^3/h with head up to 320 metres;
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water.
- Liquid temperature range: from 0°C to +40°C
- **Maximum quantity of sand: 120 gr/m^3**
- Installation: in wells and boreholes with a diameter of 4" or greater, tanks and cisterns, in a vertical position.
- Starts/hour: max. 20
- Special executions on request: other voltages and/or frequencies
- Accessories: see page 95-96.
- Power cable section: see table on page 96.
- On request, the CONTROL BOX HS for increasing the static torque may be supplied for the single-phase version.

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.

AS4A

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H		M single-phase	T three-phase
AS4A-8 M	97	565	–	499	–	1" ¼ G	110	110	770	0,010	11,4	–
AS4A-12 M / AS4A-12 T	97	665	645	659	638	1" ¼ G	110	110	770	0,010	13	12
AS4A-18 M / AS4A-18 T	97	813	785	808	779	1" ¼ G	110	110	910	0,011	15,2	13,9
AS4A-25 M / AS4A-25 T	97	981	953	969	948	1" ¼ G	110	110	1080	0,013	17,4	16,2
AS4A-36 M / AS4A-36 T	97	1291	1233	1295	1221	1" ¼ G	120	120	1590	0,023	21,9	19,2
AS4A-50 M / AS4A-50 T	97	1599	1542	1636	1563	1" ¼ G	120	120	1920	0,028	24,8	22,5

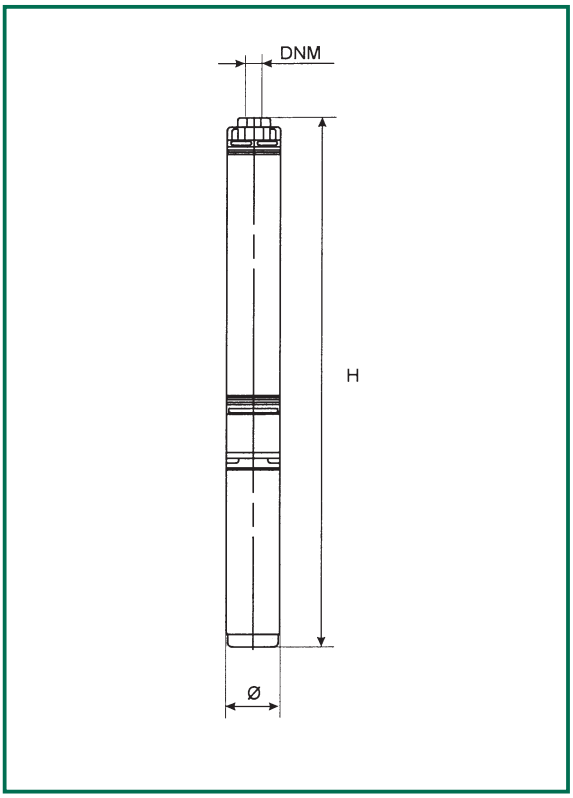
MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)						
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	0,3	0,6	0,9	1,2	1,5
		kW	HP	l/min	0	5	10	15	20	25
AS4A-8 M (1)	1x230 V ~*	0,25	0,37	H (m)	51	48,6	44,4	37,3	26,8	13,7
AS4A-12 M	1x230 V ~*	0,37	0,5		76,5	72,9	66,6	55,9	40,2	20,5
AS4A-12 T	3x400 V ~**	0,37	0,5		76,5	72,9	66,6	55,9	40,2	20,5
AS4A-18 M	1x230 V ~*	0,55	0,75		114,8	109,3	99,8	84	60,3	30,8
AS4A-18 T	3x400 V ~**	0,55	0,75		114,8	109,3	99,8	84	60,3	30,8
AS4A-25 M	1x230 V ~*	0,75	1		159,4	151,8	138,7	116,5	83,7	42,7
AS4A-25 T	3x400 V ~**	0,75	1		159,4	151,8	138,7	116,5	83,7	42,7
AS4A-36 M	1x230 V ~*	1,1	1,5		229,5	218,6	200	167,8	120,6	61,6
AS4A-36 T	3x400 V ~**	1,1	1,5		229,5	218,6	200	167,8	120,6	61,6
AS4A-50 M	1x230 V ~*	1,5	2		318,8	303,7	277,4	233,1	167,5	85,5
AS4A-50 T	3x400 V ~**	1,5	2		318,8	303,7	277,4	233,1	167,5	85,5

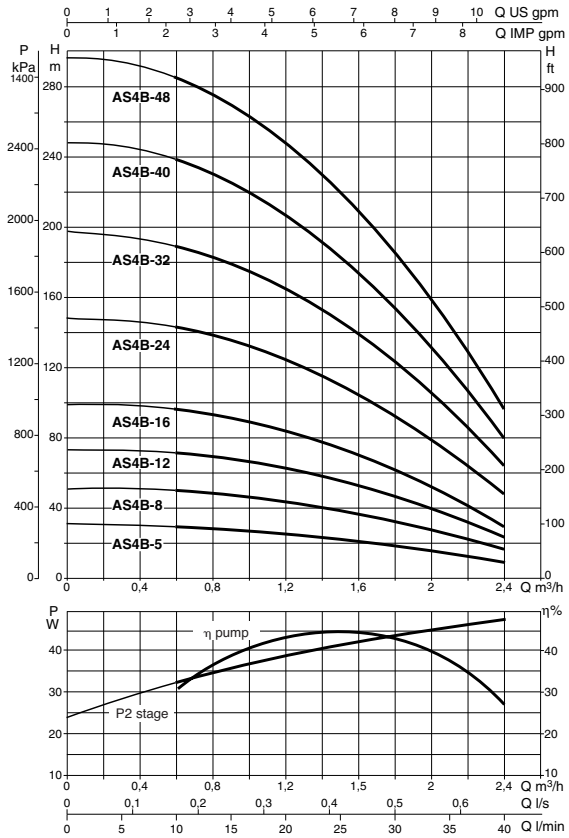
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.
(1) Dab motor: P2(kW) = 0,37 and P2(HP) = 0,5

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.

AS4B

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME (M/T) m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H (M/T)		M single-phase	T three-phase
AS4B-5 M	97	518	–	512	–	1" ¼ G	110	110	770	0,010	11,1	–
AS4B-8 M / AS4B-8 T	97	605	585	599	578	1" ¼ G	110	110	770	0,010	12,5	11,5
AS4B-12 M / AS4B-12 T	97	723	695	718	689	1" ¼ G	110	110	770	0,010	14,4	13,1
AS4B-16 M / AS4B-16 T	97	841	813	829	808	1" ¼ G	110	110	1080/910	0,013/0,010	16	15,1
AS4B-24 M / AS4B-24 T	97	1078	1021	1082	1009	1" ¼ G	120	120	1240	0,018	20,2	17,5
AS4B-32 M / AS4B-32 T	97	1287	1230	1324	1251	1" ¼ G	120	120	1590/1330	0,023/0,019	22,5	20,2
AS4B-40 M / AS4B-40 T	97	1575	1471	1528	1508	1" ¼ G	120	120	1920/1590	0,028/0,023	27,6	22,9
AS4B-48 M / AS4B-48 T	97	1755	1651	1708	1688	1" ¼ G	120	120	1920	0,028	28,7	24,2

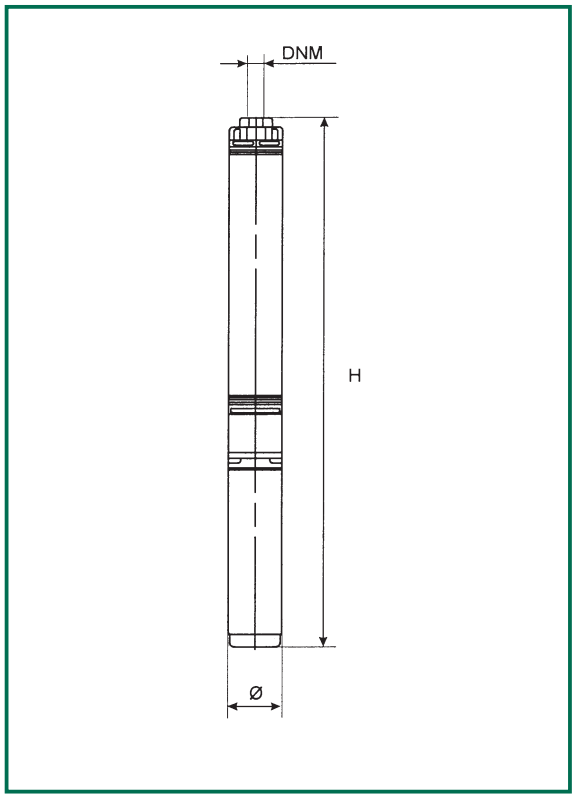
MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)							
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	0,6	0,9	1,2	1,5	1,8	2,1	2,4
		kW	HP	l/min	0	10	15	20	25	30	35	40
AS4B-5 M (1)	1x230 V ~*	0,25	0,37	H (m)	31	30	28,6	26	22,6	19	14,8	10
AS4B-8 M	1x230 V ~*	0,37	0,5		49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
AS4B-8 T	3x400 V ~**	0,37	0,5		49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
AS4B-12 M	1x230 V ~*	0,55	0,75		74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
AS4B-12 T	3x400 V ~**	0,55	0,75		74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
AS4B-16 M	1x230 V ~*	0,75	1		99,2	95,7	91,5	83	72,5	61	47,4	32
AS4B-16 T	3x400 V ~**	0,75	1		99,2	95,7	91,5	83	72,5	61	47,4	32
AS4B-24 M	1x230 V ~*	1,1	1,5		148,8	143,5	137,3	124,6	108,7	91,7	71	48
AS4B-24 T	3x400 V ~**	1,1	1,5		148,8	143,5	137,3	124,6	108,7	91,7	71	48
AS4B-32 M	1x230 V ~*	1,5	2		198,4	191,4	183	166	144,9	122,2	94,7	64
AS4B-32 T	3x400 V ~**	1,5	2		198,4	191,4	183	166	144,9	122,2	94,7	64
AS4B-40 M	1x230 V ~*	2,2	3		248	239,2	228,8	207,6	181,2	152,8	118,4	80
AS4B-40 T	3x400 V ~**	2,2	3		248	239,2	228,8	207,6	181,2	152,8	118,4	80
AS4B-48 M	1x230 V ~*	2,2	3		297,6	287,1	274,6	249,2	217,4	183,4	142,1	96
AS4B-48 T	3x400 V ~**	2,2	3		297,6	287,1	274,6	249,2	217,4	183,4	142,1	96

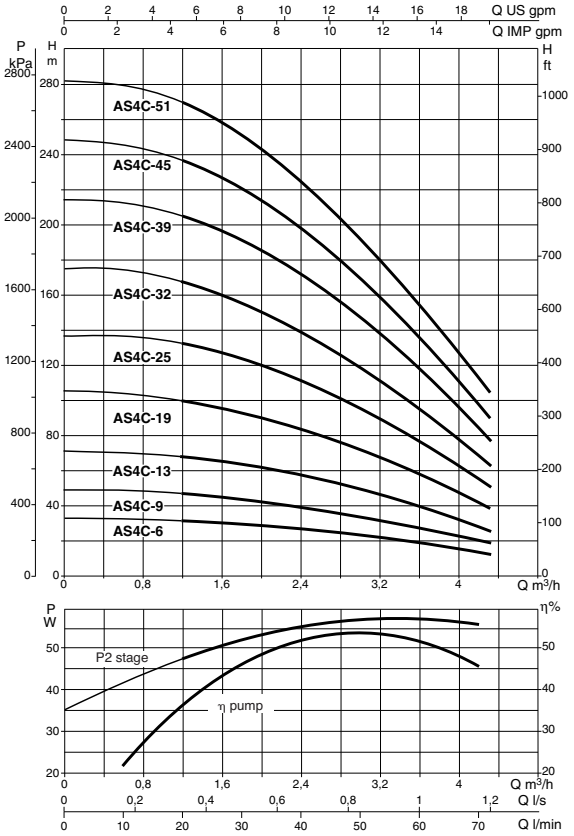
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.
(1) Dab motor: P2(kW) = 0,37 and P2(HP) = 0,5

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.

AS4C

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H		M single-phase	T three-phase
AS4C-6 M / AS4C-6 T	97	620	600	614	593	1" ¼ G	110	110	770	0,010	12,6	11,5
AS4C-9 M / AS4C-9 T	97	746	717	741	711	1" ¼ G	110	110	910	0,011	14,6	13,2
AS4C-13 M / AS4C-13 T	97	903	876	891	871	1" ¼ G	110	110	1080	0,013	14	15,4
AS4C-19 M / AS4C-19 T	97	1156	1098	1160	1086	1" ¼ G	120	120	1240	0,018	20,6	17,8
AS4C-25 M / AS4C-25 T	97	1379	1322	1416	1343	1" ¼ G	120	120	1590	0,023	26,4	20,5
AS4C-32 M / AS4C-32 T	97	1715	1611	1668	1648	1" ¼ G	120	120	1920	0,028	28,2	23,7
AS4C-39 M / AS4C-39 T	97	1943	1838	1896	1875	1" ¼ G	120	120	2200	0,032	29,8	25,3
AS4C-45 T	97	–	2216	–	2337	1" ¼ G	120	120	2600	0,038	–	31,5
AS4C-51 T	97	–	2411	–	2532	1" ¼ G	120	120	2600	0,038	–	32,6

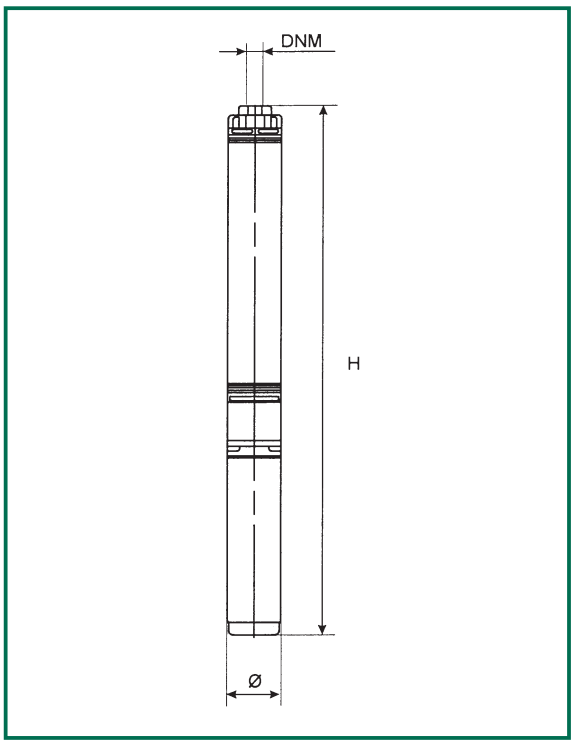
MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)									
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	1,2	1,5	1,8	2,1	2,4	3	3,6	4,2
		kW	HP	l/min	0	20	25	30	35	40	50	60	70
AS4C-6 M	1x230 V ~*	0,37	0,5	H (m)	33	31,8	30,7	29,4	27,5	26,4	22,7	18,5	13,2
AS4C-6 T	3x400 V ~**	0,37	0,5		33	31,8	30,7	29,4	27,5	26,4	22,7	18,5	13,2
AS4C-9 M	1x230 V ~*	0,55	0,75		49,5	47,7	46	44	41,5	39,6	34	27,7	19,8
AS4C-9 T	3x400 V ~**	0,55	0,75		49,5	47,7	46	44	41,5	39,6	34	27,7	19,8
AS4C-13 M	1x230 V ~*	0,75	1		71,5	68,9	66,4	63,7	60,5	57,2	49,2	40	28,6
AS4C-13 T	3x400 V ~**	0,75	1		71,5	68,9	66,4	63,7	60,5	57,2	49,2	40	28,6
AS4C-19 M	1x230 V ~*	1,1	1,5		104,5	100,7	97	93	87,8	83,6	71,8	58,5	41,8
AS4C-19 T	3x400 V ~**	1,1	1,5		104,5	100,7	97	93	87,8	83,6	71,8	58,5	41,8
AS4C-25 M	1x230 V ~*	1,5	2		137,5	132,5	128	122,5	116	110	94,5	77	55
AS4C-25 T	3x400 V ~**	1,5	2		137,5	132,5	128	122,5	116	110	94,5	77	55
AS4C-32 M	1x230 V ~*	2,2	3		176	169,6	163	156,8	149	140,8	120,9	98,6	70,4
AS4C-32 T	3x400 V ~**	2,2	3		176	169,6	163	156,8	149	140,8	120,9	98,6	70,4
AS4C-39 M	1x230 V ~*	2,2	3		214,5	206,7	200	191,1	181,5	171,6	147,4	120,1	85,8
AS4C-39 T	3x400 V ~**	2,2	3		214,5	206,7	200	191,1	181,5	171,6	147,4	120,1	85,8
AS4C-45 T	3x400 V ~**	3	4		247,5	238,5	229	220,5	210	198	170,1	138,6	99
AS4C-51 T	3x400 V ~**	3	4		280,5	270,3	261	250	237	224,4	192,8	157,1	112,2

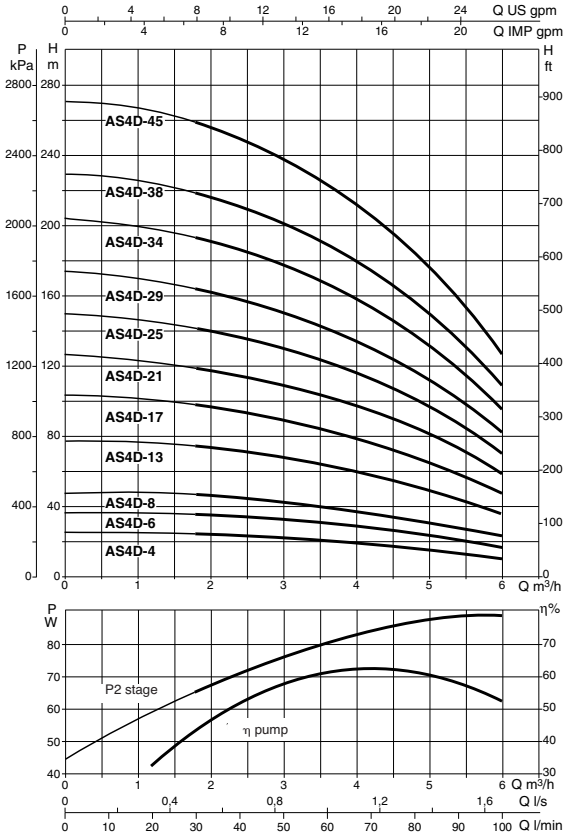
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

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.

AS4D

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor M single-phase	HEIGHT H Franklin motor T three-phase	HEIGHT H Dab motor M single-phase	HEIGHT H Dab motor T three-phase	DNM	PACKING DIMENSIONS (mm) L/A	PACKING DIMENSIONS (mm) L/B	PACKING DIMENSIONS (mm) H (M/T)	VOLUME (M/T) m^3	WEIGHT Kg M single-phase	WEIGHT Kg T three-phase
AS4D-4 M / AS4D-4 T	97	555	535	549	528	1" ¼ G	110	110	770	0,010	12,2	11,2
AS4D-6 M / AS4D-6 T	97	648	620	643	614	1" ¼ G	110	110	770	0,010	14	12,7
AS4D-8 M / AS4D-8 T	97	741	713	729	708	1" ¼ G	110	110	910	0,011	15,5	14,3
AS4D-13 M / AS4D-13 T	97	961	903	965	891	1" ¼ G	110	110	1080	0,013	19,5	16,6
AS4D-17 M / AS4D-17 T	97	1119	1062	1156	1083	1" ¼ G	120	120	1240	0,018	21,2	18,8
AS4D-21 M / AS4D-21 T	97	1325	1221	1278	1258	1" ¼ G	120	120	1590/1330	0,023/0,018	25,7	21,2
AS4D-25 M / AS4D-25 T	97	1455	1351	1408	1388	1" ¼ G	120	120	1590	0,023	26,5	22
AS4D-29 T	97	–	1664	–	1785	1" ¼ G	120	120	1820	0,028	–	25,7
AS4D-34 T	97	–	1826	–	1947	1" ¼ G	120	120	2200	0,032	–	27
AS4D-38 T	97	–	2065	–	2096	1" ¼ G	120	120	2200	0,032	–	33,7
AS4D-45 T	97	–	2293	–	2324	1" ¼ G	120	120	2600	0,038	–	35,3

MODEL	ELECTRICAL DATA VOLTAGE 50 Hz	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≅ 2850 1/min) Q m^3/h	0	1,8	2,1	2,4	3	3,6	4,2	4,8	6
				Q l/min	0	30	35	40	50	60	70	80	100
AS4D-4 M	1x230 V ~*	0,37	0,5		24	23	22,5	22	21,8	19,9	18	16,2	11,2
AS4D-4 T	3x400 V ~**	0,37	0,5		24	23	22,5	22	21,8	19,9	18	16,2	11,2
AS4D-6 M	1x230 V ~*	0,55	0,75		36	34,5	33,7	33	31,5	29,8	27	24,3	16,8
AS4D-6 T	3x400 V ~**	0,55	0,75		36	34,5	33,7	33	31,5	29,8	27	24,3	16,8
AS4D-8 M	1x230 V ~*	0,75	1		48	46	45	44	42	40	36	32,5	22,4
AS4D-8 T	3x400 V ~**	0,75	1		48	46	45	44	42	40	36	32,5	22,4
AS4D-13 M	1x230 V ~*	1,1	1,5		78	74,7	73,2	71,5	68,3	64,6	59	52,6	36,4
AS4D-13 T	3x400 V ~**	1,1	1,5		78	74,7	73,2	71,5	68,3	64,6	59	52,6	36,4
AS4D-17 M	1x230 V ~*	1,5	2	H	102	98	96	93,5	89,5	84,5	77,5	68,8	47,6
AS4D-17 T	3x400 V ~**	1,5	2	(m)	102	98	96	93,5	89,5	84,5	77,5	68,8	47,6
AS4D-21 M	1x230 V ~*	2,2	3		126	121	119	115,5	110	104,4	96	85	58,8
AS4D-21 T	3x400 V ~**	2,2	3		126	121	119	115,5	110	104,4	96	85	58,8
AS4D-25 M	1x230 V ~*	2,2	3		150	144	141	137,5	132	124,2	114,5	101,2	70
AS4D-25 T	3x400 V ~**	2,2	3		150	144	141	137,5	132	124,2	114,5	101,2	70
AS4D-29 T	3x400 V ~**	3	4		174	166	164	159,5	152	144	132	117,4	81,2
AS4D-34 T	3x400 V ~**	3	4		204	196	191,5	187	179,5	169	155	137,7	95,2
AS4D-38 T	3x400 V ~**	4	5,5		228	219	214,5	209	200	188,9	173	153,9	106,4
AS4D-45 T	3x400 V ~**	4	5,5		270	259	253	247,5	237	223,6	205	182,2	127

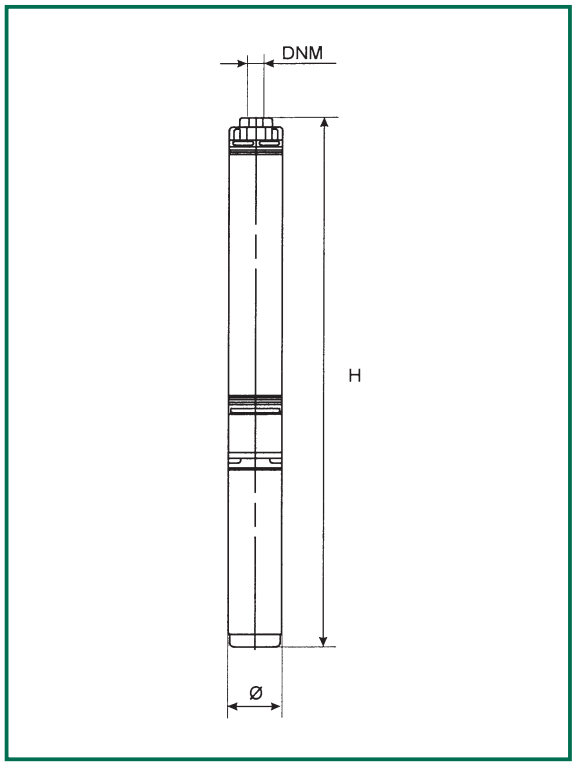
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

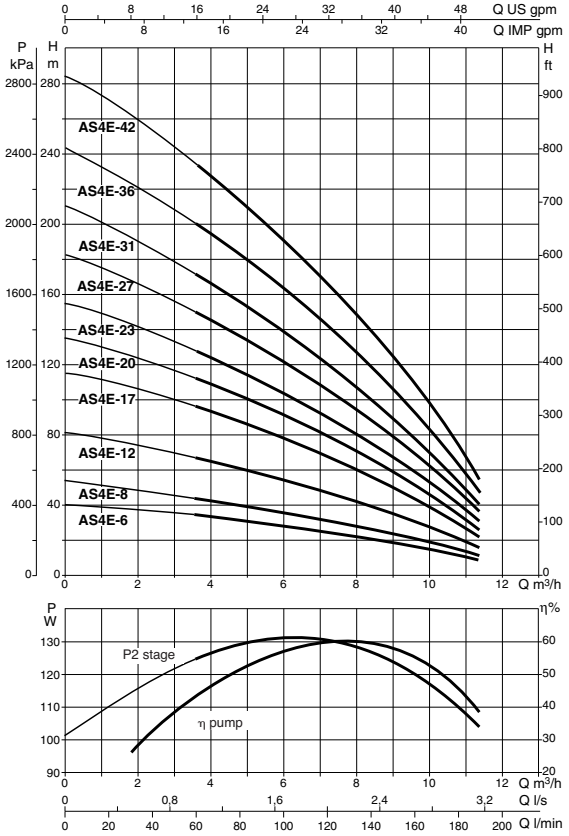
DAB PUMP PERFORMANCE

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.

AS4E

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME (M/T) m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H (M/T)		M single-phase	T three-phase
AS4E-6 M / AS4E-6 T	97	798	770	786	765	2" G-F	110	110	910	0,011	15,9	14,7
AS4E-8 M / AS4E-8 T	97	960	903	964	891	2" G-F	110	110	1080	0,013	19,3	16,4
AS4E-12 M / AS4E-12 T	97	1199	1142	1236	1163	2" G-F	120	120	1330/1240	0,019/0,018	20,5	19
AS4E-17 M / AS4E-17 T	97	1570	1465	1523	1502	2" G-F	120	120	1920/1590	0,028/0,023	27	22,3
AS4E-20 T	97	–	1773	–	1894	2" G-F	120	120	1920	0,028	–	25,8
AS4E-23 T	97	–	1931	–	2052	2" G-F	120	120	2200	0,032	–	27
AS4E-27 T	97	–	2250	–	2281	2" G-F	120	120	2600	0,038	–	34,4
AS4E-31 T	97	–	2460	–	2491	2" G-F	120	120	2600	0,038	–	35,5
AS4E-36 T	97	–	2869	–	2855	2" G-F	180	180	3000	0,097	–	43
AS4E-42 T	97	–	3184	–	3170	2" G-F	180	180	3300	0,097	–	44,8

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)									
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	3,6	4,2	4,8	6	7,2	9	10,8	11,4
		kW	HP	l/min	0	60	70	80	100	120	150	180	190
AS4E-6 M	1x230 V ~*	0,75	1		40,5	32,7	31,5	30	27	23,5	17,6	10,3	7,7
AS4E-6 T	3x400 V ~**	0,75	1		40,5	32,7	31,5	30	27	23,5	17,6	10,3	7,7
AS4E-8 M	1x230 V ~*	1,1	1,5		54	43,7	42	40	37	31,4	23,4	13,7	10,3
AS4E-8 T	3x400 V ~**	1,1	1,5		54	43,7	42	40	37	31,4	23,4	13,7	10,3
AS4E-12 M	1x230 V ~*	1,5	2		81	65,5	63	60	55	47	35,2	20,6	15,5
AS4E-12 T	3x400 V ~**	1,5	2		81	65,5	63	60	55	47	35,2	20,6	15,5
AS4E-17 M	1x230 V ~*	2,2	3		114,8	92,8	89,5	86	78	66,6	49,8	29,2	21,9
AS4E-17 T	3x400 V ~**	2,2	3	H (m)	114,8	92,8	89,5	86	78	66,6	49,8	29,2	21,9
AS4E-20 T	3x400 V ~**	3	4		135	109,2	105	101,5	91	78,4	58,6	34,3	25,7
AS4E-23 T	3x400 V ~**	3	4		155,4	125,5	120,5	117	104,5	90,2	67,4	40	29,6
AS4E-27 T	3x400 V ~**	4	5,5		182,4	147,4	141,5	137	122,5	105,8	79,2	47	34,8
AS4E-31 T	3x400 V ~**	4	5,5		209,4	169,2	162	156	140	121,5	90,9	53,2	39,9
AS4E-36 T	3x400 V ~**	5,5	7,5		243,2	196,5	188	180	162	141,2	105,5	61,8	46,5
AS4E-42 T	3x400 V ~**	5,5	7,5		283,7	229,3	220	211	189	164,7	123,2	72,2	54

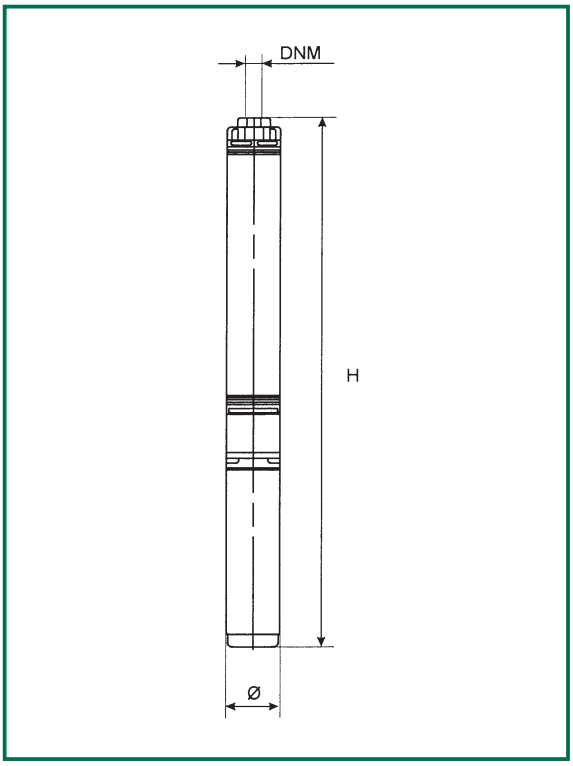
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

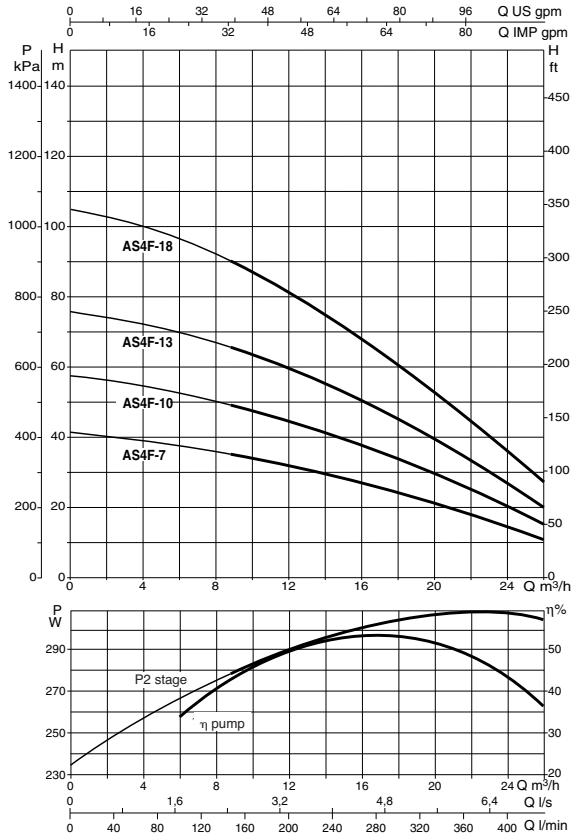
DAB PUMP PERFORMANCE

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.

AS4F

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H		M single-phase	T three-phase
AS4F-7 M / AS4F-7 T	97	1120	1016	1073	1053	2" G-F	120	120	1240	0,018	24,4	19,7
AS4F-10 T	97	–	1371	–	1492	2" G-F	120	120	1590	0,023	–	23,5
AS4F-13 T	97	–	1684	–	1715	2" G-F	120	120	1920	0,032	–	31,2
AS4F-18 T	97	–	2170	–	2156	2" G-F	120	120	2600	0,038	–	38,7

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)							
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	9	10,8	11,4	12	15	18	27
		kW	HP	l/min	0	150	180	190	200	250	300	450
AS4F-7 M	1x230 V ~*	2,2	3	H (m)	40,5	36	34	33	32,5	28	24	11
AS4F-7 T	3x400 V ~**	2,2	3		40,5	36	34	33	32,5	28	24	11
AS4F-10 T	3x400 V ~**	3	4		58	50,8	48	47	46	40	34	16
AS4F-13 T	3x400 V ~**	4	5,5		76	66	62,5	62	60	52,2	44,7	20
AS4F-18 T	3x400 V ~**	5,5	7,5		104,5	91	86,6	84	83	72	61,2	28

* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

S4

RESISTANT TO SAND

CE

(CONTROLBOX only for single-phase version)

GENERAL DATA

Applications

Bore hole pumps for 4” wells or greater capable of developing a wide range of flow rates and heads. These pumps can be used in a wide range of lifting, distributing and pressurising applications in civil and industrial supplies, autoclaves and tanks, fire-fighting and washing installations, and irrigation systems.

Construction features of pump:

Centrifugal multi-stage pump with radial or semi-axial impellers. Pump and motor directly connected with a rigid coupling. The technopolymer impeller with parts subject to wear in stainless steel, operating on floating adjustment rings in abrasion-proof synthetic material and the technopolymer diffusers make the pump particularly hard-wearing.
Pump liner, shaft with coupling, filter and cable sheath in stainless steel.
Base and upper head in precision-cast AISI 304 steel with steel check valve incorporated in the head.
These pumps comply with Community Directives.

Construction features of motor

Asynchronous 2-pole submerged motor totally built from AISI 304 stainless steel.Squirrel-cage rotor mounted on a self-centring thrust block bearing suitable for withstanding axial loads. The bearing and the bushings are cooled by the water so as to prevent dangers of pollution. Stator encased in synthetic resin with high quality dielectric inserted in a stainless steel airtight casing. Capacitor and manually resettable overload cut-out located on the standard supplied electrical power panel for the single-phase version. The user must provide overload protection for the three-phase version. Flanging to NEMA - 4”
Protection level: IP58
Heat insulation class: B
Cooling flow: 8 cm/sec.
Max. number of starts/hour: 20

Input voltage:	single-phase	220-230 V/50Hz
	three-phase	400 V/50Hz

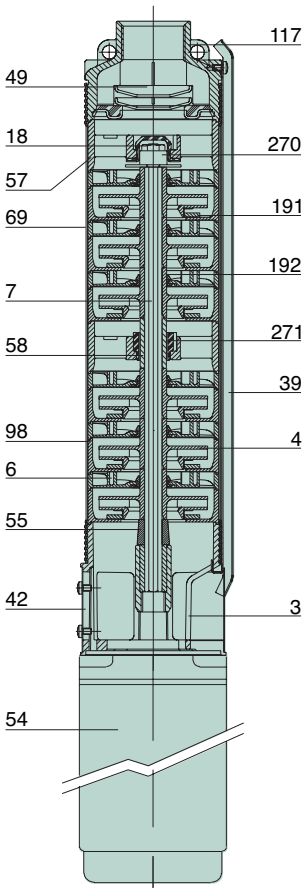
Supply

Controlbox (for the single-phase version) and motor to be ordered separately.

TECHNICAL DATA

N.	PARTS*	MATERIALS
3	SUPPORT	PRECISION CAST AISI 304 STEEL
4	IMPELLER	TECHNOPOLYMER A WITH STEEL SHIM STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
6	DIFFUSER	TECHNOPOLYMER A
7	SHAFT WITH COUPLING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
18	IMPELLER LOCK NUT	STAINLESS STEEL
39	CABLE SHEATH	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
42	FILTER	STAINLESS STEEL
49	VALVE	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
54	MOTOR	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
55	SPACER	TECHNOPOLYMER A
57	SUPPORT	TECHNOPOLYMER A
58	INTERMEDIATE BUSHING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
69	PUMP LINING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER A
117	UPPER HEAD	PRECISION CAST AISI 304 STEEL
191	FRONT ADJUSTMENT RING	ABRASION-PROOF SYNTHETIC MATERIAL
192	REAR ADJUSTMENT RING	ABRASION-PROOF SYNTHETIC MATERIAL
270	UPPER SHAFT GUIDE BUSHING	RUBBER
271	INTERMEDIATE SHAFT GUIDE BUSHING	ABRASION-PROOF SYNTHETIC MATERIAL

* In contact with the liquid



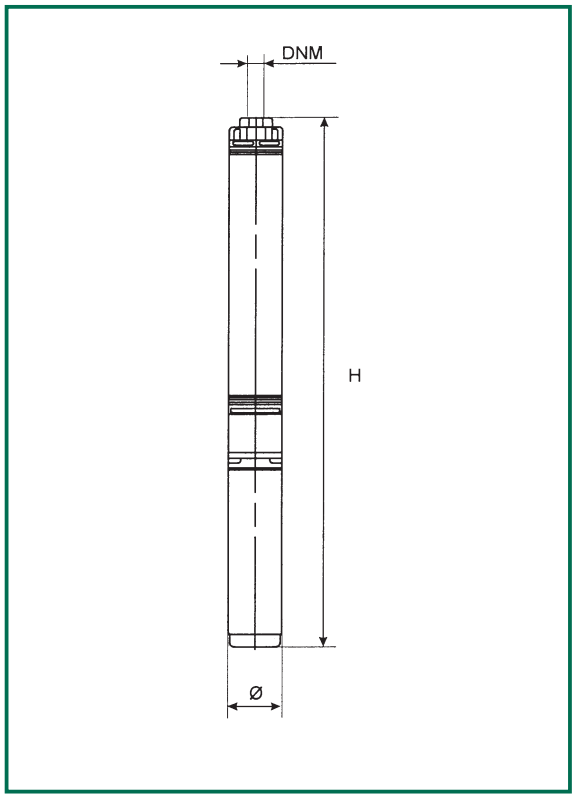
S4

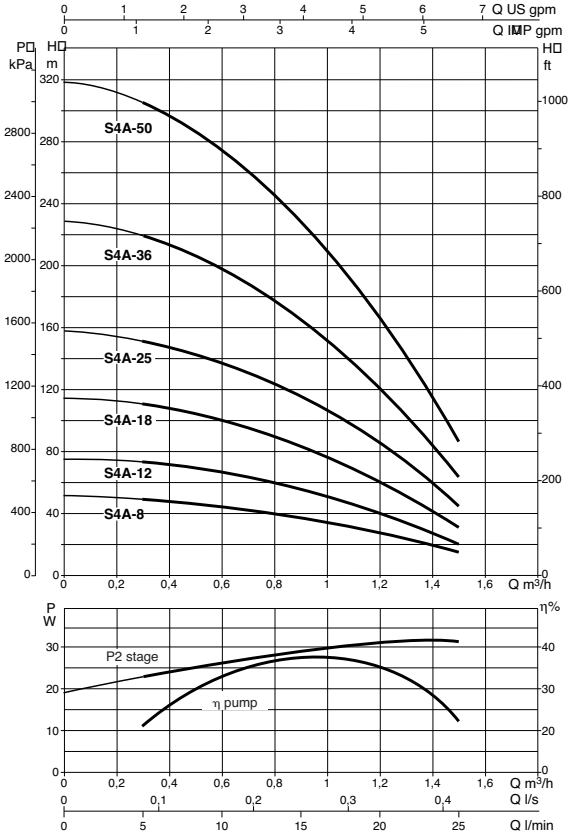
- Operating range: from 0,3 to 24 m^3/h with head up to 320 metres;
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water.
- Liquid temperature range: from 0°C to +40°C
- **Maximum quantity of sand: 120 gr/m^3**
- Installation: in wells and boreholes with a diameter of 4" or greater, tanks and cisterns, in a vertical position.
- Starts/hour: max. 20
- Cooling flow: 8 cm/sec.
- Special executions on request: other voltages and/or frequencies
- Accessories: see page 95-96.
- Power cable section: see table on page 96.
- On request, the CONTROL BOX HS for increasing the static torque may be supplied for the single-phase version.

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.

S4A

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H		M single-phase	T three-phase
S4A-8 M	97	565	–	559	–	1" ¼ G	110	110	770	0,010	11,4	–
S4A-12 M / S4A-12 T	97	665	645	659	638	1" ¼ G	110	110	770	0,010	13	12
S4A-18 M / S4A-18 T	97	813	785	808	779	1" ¼ G	110	110	910	0,011	15,2	13,9
S4A-25 M / S4A-25 T	97	981	953	969	948	1" ¼ G	110	110	1080	0,013	16	16,2
S4A-36 M / S4A-36 T	97	1291	1233	1295	1221	1" ¼ G	120	120	1590	0,023	21,9	19,2
S4A-50 M / S4A-50 T	97	1599	1542	1636	1563	1" ¼ G	120	120	1920	0,028	24,8	22,5

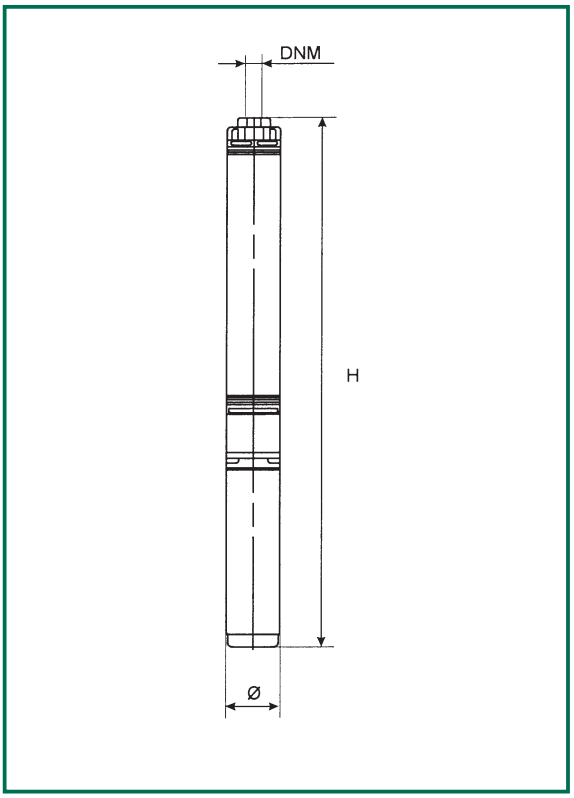
MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)						
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	0,3	0,6	0,9	1,2	1,5
		kW	HP	l/min	0	5	10	15	20	25
S4A-8 M (1)	1x230 V ~*	0,25	0,37	H (m)	51	48,6	44,4	37,3	26,8	13,7
S4A-12 M	1x230 V ~*	0,37	0,5		76,5	72,9	66,6	55,9	40,2	20,5
S4A-12 T	3x400 V ~**	0,37	0,5		76,5	72,9	66,6	55,9	40,2	20,5
S4A-18 M	1x230 V ~*	0,55	0,75		114,8	109,3	99,8	84	60,3	30,8
S4A-18 T	3x400 V ~**	0,55	0,75		114,8	109,3	99,8	84	60,3	30,8
S4A-25 M	1x230 V ~*	0,75	1		159,4	151,8	138,7	116,5	83,7	42,7
S4A-25 T	3x400 V ~**	0,75	1		159,4	151,8	138,7	116,5	83,7	42,7
S4A-36 M	1x230 V ~*	1,1	1,5		229,5	218,6	200	167,8	120,6	61,6
S4A-36 T	3x400 V ~**	1,1	1,5		229,5	218,6	200	167,8	120,6	61,6
S4A-50 M	1x230 V ~*	1,5	2		318,8	303,7	277,4	233,1	167,5	85,5
S4A-50 T	3x400 V ~**	1,5	2		318,8	303,7	277,4	233,1	167,5	85,5

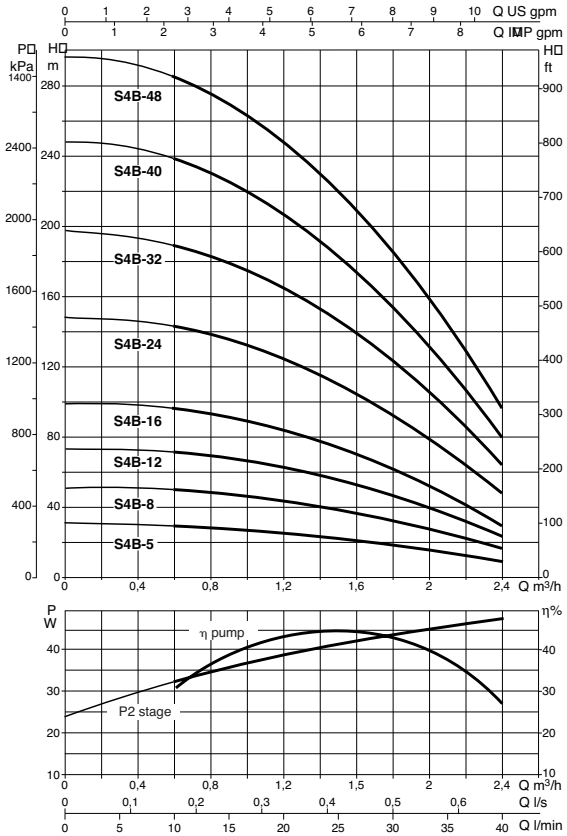
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.
(1) Dab motor: P2(kW) = 0,37 and P2(HP) = 0,5

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.

S4B

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME (M/T) m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H (M/T)		M single-phase	T three-phase
S4B-5 M	97	518	–	512	–	1" ¼ G	110	110	770	0,010	11,1	–
S4B-8 M / S4B-8 T	97	605	585	599	578	1" ¼ G	110	110	770	0,010	12,5	11,5
S4B-12 M / S4B-12 T	97	723	695	718	689	1" ¼ G	110	110	770	0,010	14,4	12
S4B-16 M / S4B-16 T	97	841	813	829	808	1" ¼ G	110	110	1080/910	0,013/0,010	16,3	15,1
S4B-24 M / S4B-24 T	97	1078	1021	1082	1009	1" ¼ G	120	120	1240	0,018	20,2	17,5
S4B-32 M / S4B-32 T	97	1287	1230	1324	1251	1" ¼ G	120	120	1590/1330	0,023/0,019	22,5	20,2
S4B-40 M / S4B-40 T	97	1575	1471	1528	1508	1" ¼ G	120	120	1920/1590	0,028/0,023	27,6	22,9
S4B-48 M / S4B-48 T	97	1755	1651	1708	1688	1" ¼ G	120	120	1920	0,028	28,7	24,2

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)								
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	0,6	0,9	1,2	1,5	1,8	2,1	2,4
				l/min	0	10	15	20	25	30	35	40
		kW	HP									
S4B-5 M (1)	1x230 V ~*	0,25	0,37	H (m)	31	30	28,6	26	22,6	19	14,8	10
S4B-8 M	1x230 V ~*	0,37	0,5		49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
S4B-8 T	3x400 V ~**	0,37	0,5		49,6	47,8	45,8	41,5	36,2	30,6	23,7	16
S4B-12 M	1x230 V ~*	0,55	0,75		74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
S4B-12 T	3x400 V ~**	0,55	0,75		74,4	71,8	68,6	62,3	54,4	45,8	35,5	24
S4B-16 M	1x230 V ~*	0,75	1		99,2	95,7	91,5	83	72,5	61	47,4	32
S4B-16 T	3x400 V ~**	0,75	1		99,2	95,7	91,5	83	72,5	61	47,4	32
S4B-24 M	1x230 V ~*	1,1	1,5		148,8	143,5	137,3	124,6	108,7	91,7	71	48
S4B-24 T	3x400 V ~**	1,1	1,5		148,8	143,5	137,3	124,6	108,7	91,7	71	48
S4B-32 M	1x230 V ~*	1,5	2		198,4	191,4	183	166	144,9	122,2	94,7	64
S4B-32 T	3x400 V ~**	1,5	2		198,4	191,4	183	166	144,9	122,2	94,7	64
S4B-40 M	1x230 V ~*	2,2	3		248	239,2	228,8	207,6	181,2	152,8	118,4	80
S4B-40 T	3x400 V ~**	2,2	3		248	239,2	228,8	207,6	181,2	152,8	118,4	80
S4B-48 M	1x230 V ~*	2,2	3		297,6	287,1	274,6	249,2	217,4	183,4	142,1	96
S4B-48 T	3x400 V ~**	2,2	3		297,6	287,1	274,6	249,2	217,4	183,4	142,1	96

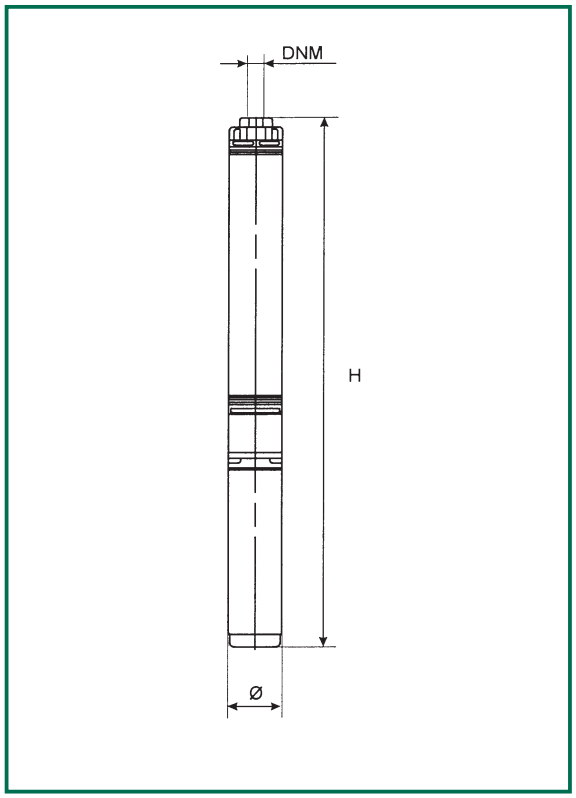
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.
(1) Dab motor: P2(kW) = 0,37 and P2(HP) = 0,5

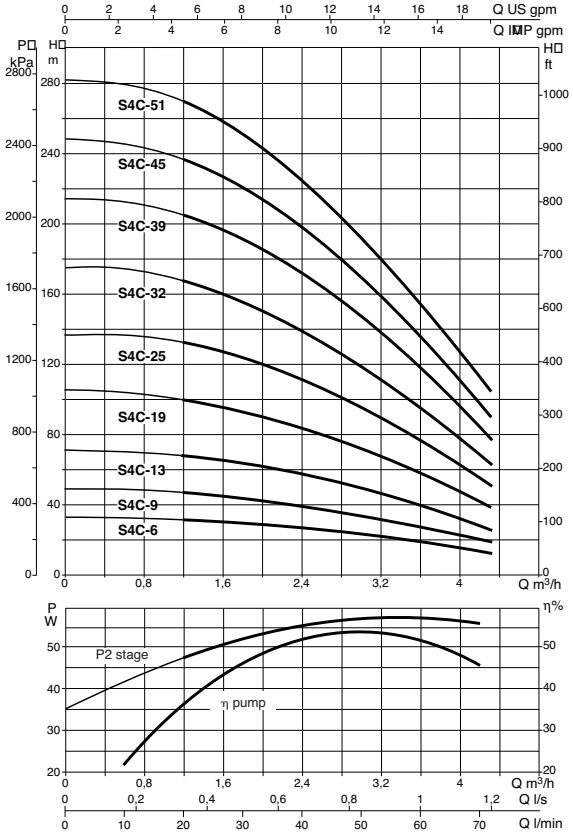
DAB PUMP PERFORMANCE

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.

S4C

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H		M single-phase	T three-phase
S4C-6 M / S4C-6 T	97	620	600	614	593	1" ¼ G	110	110	770	0,010	12,6	11,5
S4C-9 M / S4C-9 T	97	746	717	741	711	1" ¼ G	110	110	910	0,011	14,6	13,2
S4C-13 M / S4C-13 T	97	903	876	891	871	1" ¼ G	110	110	1080	0,013	15,5	15,4
S4C-19 M / S4C-19 T	97	1156	1098	1160	1086	1" ¼ G	120	120	1240	0,018	18,5	17,8
S4C-25 M / S4C-25 T	97	1379	1322	1416	1343	1" ¼ G	120	120	1590	0,023	25,2	20,5
S4C-32 M / S4C-32 T	97	1715	1611	1668	1648	1" ¼ G	120	120	1920	0,028	28,2	23,7
S4C-39 M / S4C-39 T	97	1943	1838	1896	1875	1" ¼ G	120	120	2200	0,032	29,8	25,3
S4C-45 T	97	–	2216	–	2337	1" ¼ G	120	120	2600	0,038	–	34
S4C-51 T	97	–	2411	–	2532	1" ¼ G	120	120	2600	0,038	–	32,6

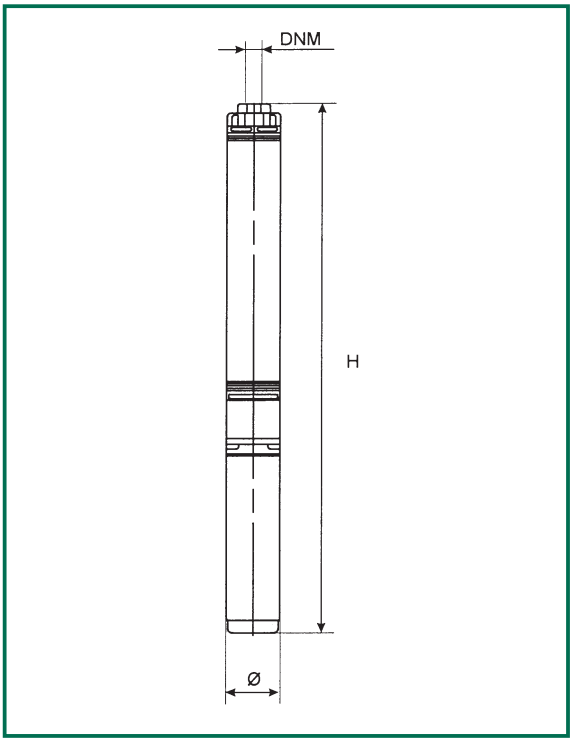
MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)								
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	1,2	1,5	1,8	2,1	2,4	3	3,6	4,2
		kW	HP	l/min	0	20	25	30	35	40	50	60	70
S4C-6 M	1x230 V ~*	0,37	0,5		33	31,8	30,7	29,4	27,5	26,4	22,7	18,5	13,2
S4C-6 T	3x400 V ~**	0,37	0,5		33	31,8	30,7	29,4	27,5	26,4	22,7	18,5	13,2
S4C-9 M	1x230 V ~*	0,55	0,75		49,5	47,7	46	44	41,5	39,6	34	27,7	19,8
S4C-9 T	3x400 V ~**	0,55	0,75		49,5	47,7	46	44	41,5	39,6	34	27,7	19,8
S4C-13 M	1x230 V ~*	0,75	1		71,5	68,9	66,4	63,7	60,5	57,2	49,2	40	28,6
S4C-13 T	3x400 V ~**	0,75	1		71,5	68,9	66,4	63,7	60,5	57,2	49,2	40	28,6
S4C-19 M	1x230 V ~*	1,1	1,5		104,5	100,7	97	93	87,8	83,6	71,8	58,5	41,8
S4C-19 T	3x400 V ~**	1,1	1,5	H	104,5	100,7	97	93	87,8	83,6	71,8	58,5	41,8
S4C-25 M	1x230 V ~*	1,5	2	(m)	137,5	132,5	128	122,5	116	110	94,5	77	55
S4C-25 T	3x400 V ~**	1,5	2		137,5	132,5	128	122,5	116	110	94,5	77	55
S4C-32 M	1x230 V ~*	2,2	3		176	169,6	163	156,8	149	140,8	120,9	98,6	70,4
S4C-32 T	3x400 V ~**	2,2	3		176	169,6	163	156,8	149	140,8	120,9	98,6	70,4
S4C-39 M	1x230 V ~*	2,2	3		214,5	206,7	200	191,1	181,5	171,6	147,4	120,1	85,8
S4C-39 T	3x400 V ~**	2,2	3		214,5	206,7	200	191,1	181,5	171,6	147,4	120,1	85,8
S4C-45 T	3x400 V ~**	3	4		247,5	238,5	229	220,5	210	198	170,1	138,6	99
S4C-51 T	3x400 V ~**	3	4		280,5	270,3	261	250	237	224,4	192,8	157,1	112,2

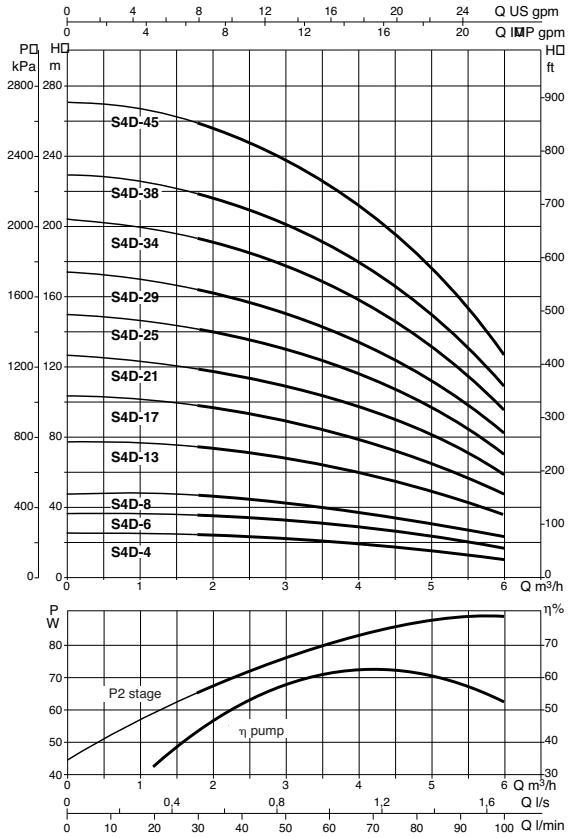
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

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.

S4D

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME (M/T) m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H (M/T)		M single-phase	T three-phase
S4D-4 M / S4D-4 T	97	555	535	549	528	1" ¼ G	110	110	770	0,010	12,2	11,2
S4D-6 M / S4D-6 T	97	648	620	643	614	1" ¼ G	110	110	770	0,010	14	12,7
S4D-8 M / S4D-8 T	97	741	713	729	708	1" ¼ G	110	110	910	0,011	15,5	14,3
S4D-13 M / S4D-13 T	97	961	903	965	891	1" ¼ G	110	110	1080	0,013	17	16,6
S4D-17 M / S4D-17 T	97	1119	1062	1156	1083	1" ¼ G	120	120	1240	0,018	19,5	18,8
S4D-21 M / S4D-21 T	97	1325	1221	1278	1258	1" ¼ G	120	120	1590/1330	0,023/0,018	25,7	20,1
S4D-25 M / S4D-25 T	97	1455	1351	1408	1388	1" ¼ G	120	120	1590	0,023	26,5	22
S4D-29 T	97	–	1664	–	1785	1" ¼ G	120	120	1820	0,028	–	25,7
S4D-34 T	97	–	1826	–	1947	1" ¼ G	120	120	2200	0,032	–	27
S4D-38 T	97	–	2065	–	2096	1" ¼ G	120	120	2200	0,032	–	33,7
S4D-45 T	97	–	2293	–	2324	1" ¼ G	120	120	2600	0,038	–	35,3

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)								
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	1,8	2,1	2,4	3	3,6	4,2	4,8	6
		kW	HP	l/min	0	30	35	40	50	60	70	80	100
S4D-4 M	1x230 V ~*	0,37	0,5		24	23	22,5	22	21,8	19,9	18	16,2	11,2
S4D-4 T	3x400 V ~**	0,37	0,5		24	23	22,5	22	21,8	19,9	18	16,2	11,2
S4D-6 M	1x230 V ~*	0,55	0,75		36	34,5	33,7	33	31,5	29,8	27	24,3	16,8
S4D-6 T	3x400 V ~**	0,55	0,75		36	34,5	33,7	33	31,5	29,8	27	24,3	16,8
S4D-8 M	1x230 V ~*	0,75	1		48	46	45	44	42	40	36	32,5	22,4
S4D-8 T	3x400 V ~**	0,75	1		48	46	45	44	42	40	36	32,5	22,4
S4D-13 M	1x230 V ~*	1,1	1,5		78	74,7	73,2	71,5	68,3	64,6	59	52,6	36,4
S4D-13 T	3x400 V ~**	1,1	1,5		78	74,7	73,2	71,5	68,3	64,6	59	52,6	36,4
S4D-17 M	1x230 V ~*	1,5	2	H	102	98	96	93,5	89,5	84,5	77,5	68,8	47,6
S4D-17 T	3x400 V ~**	1,5	2	(m)	102	98	96	93,5	89,5	84,5	77,5	68,8	47,6
S4D-21 M	1x230 V ~*	2,2	3		126	121	119	115,5	110	104,4	96	85	58,8
S4D-21 T	3x400 V ~**	2,2	3		126	121	119	115,5	110	104,4	96	85	58,8
S4D-25 M	1x230 V ~*	2,2	3		150	144	141	137,5	132	124,2	114,5	101,2	70
S4D-25 T	3x400 V ~**	2,2	3		150	144	141	137,5	132	124,2	114,5	101,2	70
S4D-29 T	3x400 V ~**	3	4		174	166	164	159,5	152	144	132	117,4	81,2
S4D-34 T	3x400 V ~**	3	4		204	196	191,5	187	179,5	169	155	137,7	95,2
S4D-38 T	3x400 V ~**	4	5,5		228	219	214,5	209	200	188,9	173	153,9	106,4
S4D-45 T	3x400 V ~**	4	5,5		270	259	253	247,5	237	223,6	205	182,2	127

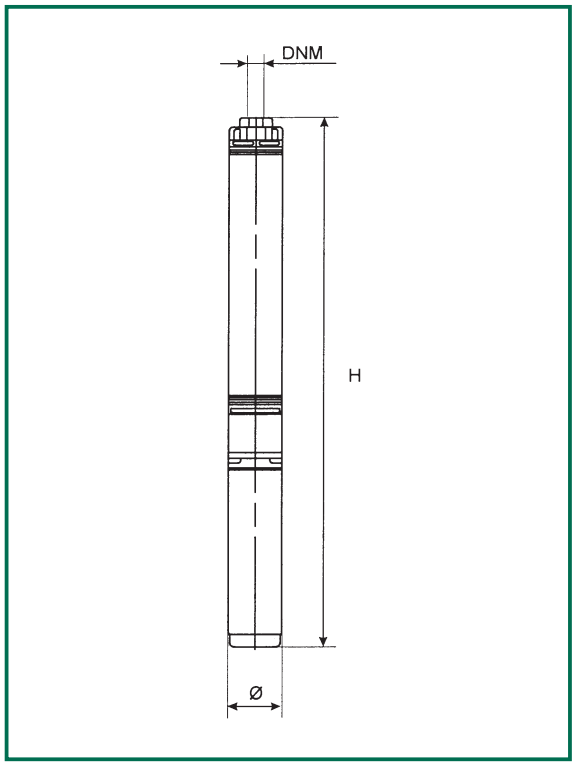
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

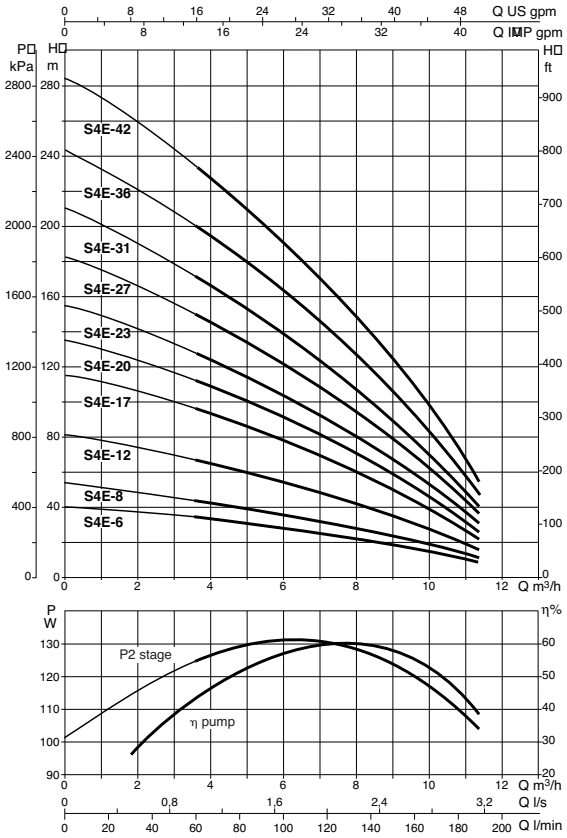
DAB PUMP PERFORMANCE

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.

S4E

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME (M/T) m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H (M/T)		M single-phase	T three-phase
S4E-6 M / S4E-6 T	97	798	770	786	765	2" G-F	110	110	910	0,011	15,9	14,7
S4E-8 M / S4E-8 T	97	960	903	964	891	2" G-F	110	110	1080	0,013	17	16,4
S4E-12 M / S4E-12 T	97	1199	1142	1236	1163	2" G-F	120	120	1330/1240	0,019/0,018	21,6	19
S4E-17 M / S4E-17 T	97	1570	1465	1523	1502	2" G-F	120	120	1920/1590	0,028/0,023	27	23,5
S4E-20 T	97	–	1773	–	1894	2" G-F	120	120	1920	0,028	–	25,8
S4E-23 T	97	–	1931	–	2052	2" G-F	120	120	2200	0,032	–	27
S4E-27 T	97	–	2250	–	2281	2" G-F	120	120	2600	0,038	–	34,4
S4E-31 T	97	–	2460	–	2491	2" G-F	120	120	2600	0,038	–	35,5
S4E-36 T	97	–	2869	–	2855	2" G-F	180	180	3000	0,097	–	43
S4E-42 T	97	–	3184	–	3170	2" G-F	180	180	3300	0,097	–	44,8

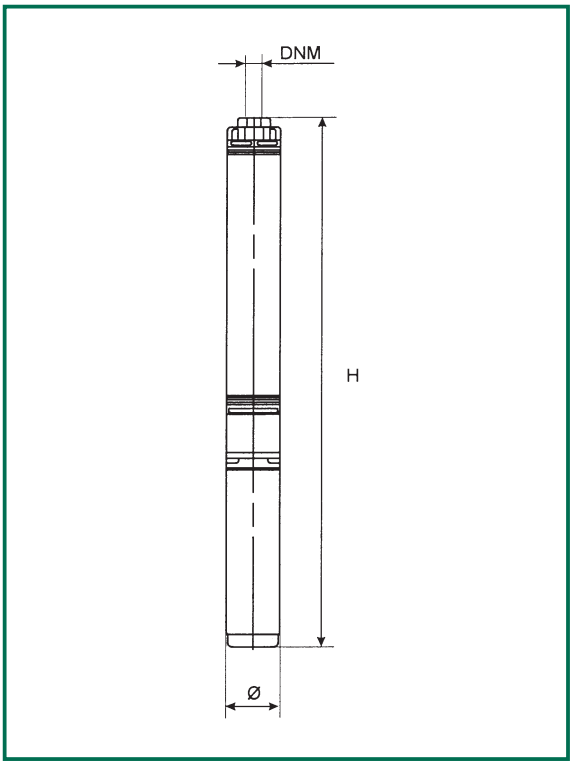
MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)									
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	3,6	4,2	4,8	6	7,2	9	10,8	11,4
		kW	HP	l/min	0	60	70	80	100	120	150	180	190
S4E-6 M	1x230 V ~*	0,75	1		40,5	32,7	31,5	30	27	23,5	17,6	10,3	7,7
S4E-6 T	3x400 V ~**	0,75	1		40,5	32,7	31,5	30	27	23,5	17,6	10,3	7,7
S4E-8 M	1x230 V ~*	1,1	1,5		54	43,7	42	40	37	31,4	23,4	13,7	10,3
S4E-8 T	3x400 V ~**	1,1	1,5		54	43,7	42	40	37	31,4	23,4	13,7	10,3
S4E-12 M	1x230 V ~*	1,5	2		81	65,5	63	60	55	47	35,2	20,6	15,5
S4E-12 T	3x400 V ~**	1,5	2		81	65,5	63	60	55	47	35,2	20,6	15,5
S4E-17 M	1x230 V ~*	2,2	3		114,8	92,8	89,5	86	78	66,6	49,8	29,2	21,9
S4E-17 T	3x400 V ~**	2,2	3	H (m)	114,8	92,8	89,5	86	78	66,6	49,8	29,2	21,9
S4E-20 T	3x400 V ~**	3	4		135	109,2	105	101,5	91	78,4	58,6	34,3	25,7
S4E-23 T	3x400 V ~**	3	4		155,4	125,5	120,5	117	104,5	90,2	67,4	40	29,6
S4E-27 T	3x400 V ~**	4	5,5		182,4	147,4	141,5	137	122,5	105,8	79,2	47	34,8
S4E-31 T	3x400 V ~**	4	5,5		209,4	169,2	162	156	140	121,5	90,9	53,2	39,9
S4E-36 T	3x400 V ~**	5,5	7,5		243,2	196,5	188	180	162	141,2	105,5	61,8	46,5
S4E-42 T	3x400 V ~**	5,5	7,5		283,7	229,3	220	211	189	164,7	123,2	72,2	54

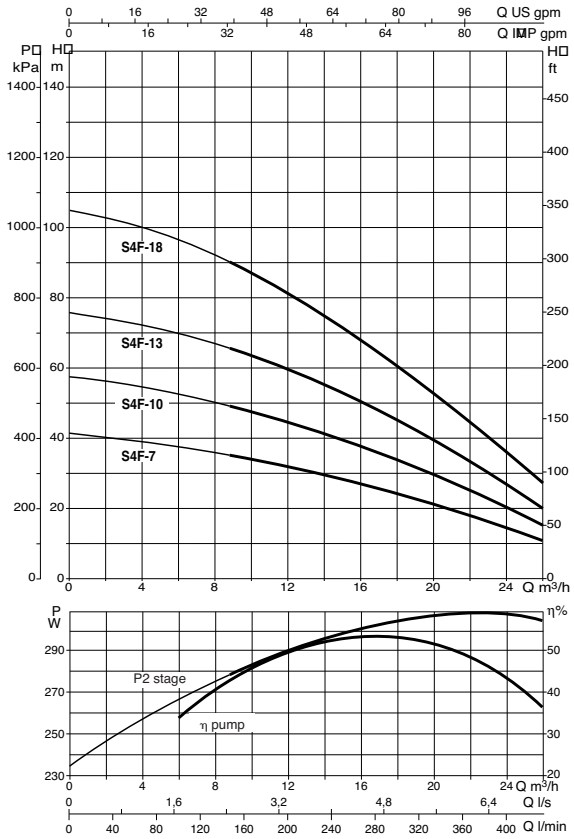
* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

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.

S4F

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H Franklin motor		HEIGHT H Dab motor		DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
		M single-phase	T three-phase	M single-phase	T three-phase		L/A	L/B	H		M single-phase	T three-phase
S4F-7 M / S4F-7 T	97	1120	1016	1073	1079	2" G-F	120	120	1240	0,018	24,4	18,5
S4F-10 T	97	–	1371	–	1491	2" G-F	120	120	1590	0,023	–	23,5
S4F-13 T	97	–	1684	–	1715	2" G-F	120	120	1920	0,032	–	31,2
S4F-18 T	97	–	2170	–	2156	2" G-F	120	120	2600	0,038	–	50,5

MODEL	ELECTRICAL DATA			HYDRAULIC DATA (n ≃ 2850 1/min)							
	VOLTAGE 50 Hz	P2 NOMINAL		Q m^3/h	0	9	10,8	11,4	12	15	18	27
		kW	HP	l/min	0	150	180	190	200	250	300	450
S4F-7 M	1x230 V ~*	2,2	3	H (m)	40,5	36	34	33	32,5	28	24	11
S4F-7 T	3x400 V ~**	2,2	3		40,5	36	34	33	32,5	28	24	11
S4F-10 T	3x400 V ~**	3	4		58	50,8	48	47	46	40	34	16
S4F-13 T	3x400 V ~**	4	5,5		76	66	62,5	62	60	52,2	44,7	20
S4F-18 T	3x400 V ~**	5,5	7,5		104,5	91	86,6	84	83	72	61,2	28

* 1x220-230 V ~ for Franklin motor.
** 3x230 V ~ available on request.

DAB PUMP PERFORMANCE

4” DAB MOTORS

CE

Two-pole, asynchronous submerged electric motor, built in AISI 304 stain-less steel. Rotor mounted on self-centring thrust block bearing suitable for receiving axial loads. The bearing and the bushings are water-cooled so as to prevent dangers of pollution. The stator is closed inside a sealed stainless steel casing filled with a mixture of ARGON-based inert gases.
In the single-phase version the capacitor and the manually resettable amperometric protection are fitted on the electrical panel, supplied separately.
Protection for the three-phase version to be provided by the user.

Flanging NEMA - 4”		Protection level: IP 58	Insulation class: F
Voltage:	single-phase	220-230 V / 50 Hz	
	three-phase	400 v / 50 Hz - 230 v / 50 Hz	

Constructional features of the motor

STATOR. The stator is encapsulated in a sealed AISI 304 stainless steel casing.
Insulation class F. It is designed to handle 40 starts/stops per hour and the single-phase version, up to 1.5 HP, incorporates a thermal switch designed to protect the motor in case of overloads or abnormal operating conditions.

POWER SUPPLY CABLE. All the motors are supplied as standard with a four-pole cable which can be quickly removed for easy assembly/disassembly of the motor or of part of the pump, without any risk of damage to the power cable itself.

SUPPORTS. The upper and lower supports are made of nickel-coated G22 cast iron, and are equipped with carbon-graphite bushings coated with AISI 304 stainless steel.

SET OF THRUST BEARINGS, 2000 N-3000 N-6000 N series.
Kingsbury thrust bearings, with stainless steel cushioning pads. Their special design and machining guarantee high reliability and long life. Different sets of thrust bearings are used according to the different powers installed:

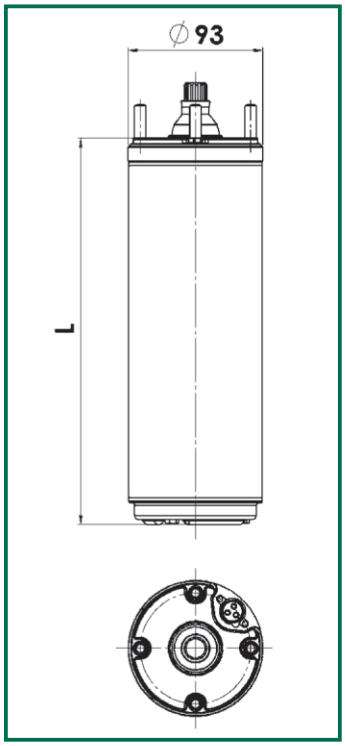
from 0.5 Hp to 1.5 Hp:	class 2000 N
from 2 Hp to 3 Hp:	class 3000 N
from 4 Hp to 10 Hp:	class 6000 N

ROTOR SHAFT, 2000 N-3000 N-6000 N series.
Stainless steel rotor shaft. The rotor is made of die-cast aluminium up to 3 Hp, copper for all motors from 4 Hp to 10 Hp.

CONTROL BOX. Electric panel for operation of single-phase motors, containing a manual-reset amperometric protection, a capacitor and a terminal board for the electrical connections and the connection of pressure and float switches.

Equipped with 1.5 m cable with SCHUCO EEC 7- UNEL 47166-168 plug. Wall-mounted case is made of self-extinguishing thermoplastic material.

	HP	kW	PHASE	AXIAL THRUST	L (mm)	WEIGHT (Kg)
SINGLE-PHASE	0,5	0,37	1	2000N	236	6,7
	0,75	0,55	1	2000N	266	8,0
	1	0,75	1	2000N	286	9,0
	1,5	1,1	1	2000N	331	11,0
	2	1,5	1	3000N	393	13,0
	3	2,2	1	3000N	413	13,8
	5	3,7	1	6000N	684	26,5
THREE-PHASE	0,5	0,37	3	2000N	216	6,0
	0,75	0,55	3	2000N	236	6,7
	1	0,75	3	2000N	266	8,0
	1,5	1,1	3	2000N	286	9,0
	2	1,5	3	3000N	348	11,0
	3	2,2	3	3000N	393	13,0
	4	3	3	6000N	544	19,7
	5,5	4	3	6000N	614	23,0
	7,5	5,5	3	6000N	684	26,6
	10	7,5	3	6000N	764	30,6



	P2 (hp)	P2 (kW)	VOLTAGE 50 Hz. (V)	IN (A)	P1 MAX (W)	R.P.M.	cosφ	EFF. η	Ia (A)	CAPACITOR µF
SINGLE-PHASE	0,5	0,37	230	3,3	0,7	2820	0,97	0,50	9	16
	0,75	0,55	230	4,6	1	2820	0,94	0,56	15	20
	1	0,75	230	6,2	1,3	2820	0,92	0,58	20	25
	1,5	1,1	230	8,6	1,8	2830	0,92	0,62	31	35
	2	1,5	230	11	2,3	2820	0,91	0,65	41	40
	3	2,2	230	16	3,5	2810	0,94	0,65	50	60
	5	3,7	230	25	5,5	2850	0,95	0,68	90	90

	P2 (hp)	P2 (kW)	VOLTAGE 50 Hz. (V)	IN (A)	P1 MAX (W)	R.P.M.	cosφ	EFF. η	Ia (A)	CONN.
THREE-PHASE	0,5	0,37	230	2,7	0,7	2820	0,70	0,53	10	Δ
	0,5	0,37	400	1,6	0,7	2820	0,70	0,53	6	Y
	0,75	0,55	230	3,3	0,9	2830	0,71	0,60	14	Δ
	0,75	0,55	400	1,9	0,9	2830	0,71	0,60	8	Y
	1	0,75	230	4,1	1,2	2830	0,73	0,63	21	Δ
	1	0,75	400	2,4	1,2	2830	0,73	0,63	12	Y
	1,5	1,1	230	5,7	1,7	2830	0,76	0,64	24	Δ
	1,5	1,1	400	3,4	1,7	2830	0,76	0,64	14	Y
	2	1,5	230	7,6	2,2	2830	0,72	0,68	33	Δ
	2	1,5	400	4,4	2,2	2830	0,72	0,68	19	Y
	3	2,2	230	10,2	3,2	2820	0,78	0,71	45	Δ
	3	2,2	400	5,9	3,2	2820	0,78	0,71	26	Y
	4	3	230	14,3	4,1	2840	0,71	0,74	66	Δ
	4	3	400	8,3	4,1	2840	0,71	0,74	38	Y
	5,5	4	230	17,3	5,3	2850	0,79	0,75	97	Δ
	5,5	4	400	10	5,3	2850	0,79	0,75	56	Y
	7,5	5,5	230	24,2	7,1	2850	0,74	0,77	133	Δ
	7,5	5,5	400	14	7,1	2850	0,74	0,77	77	Y
	10	7,5	400	17,4	9,5	2850	0,79	0,79	84	Y

4” FRANKLIN MOTORS

CE

GENERALE FEATURES

Applications

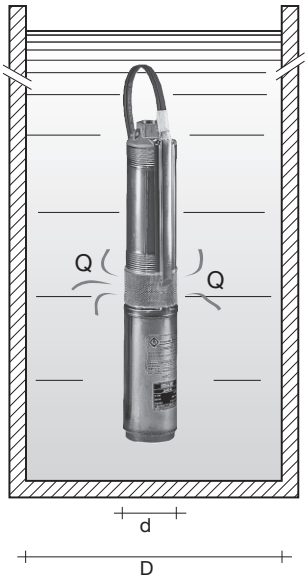
Two-pole, asynchronous submerged electric motor, built in AISI 304 stainless steel. Rotor mounted on self-centring thrust block bearing suitable for receiving axial loads. The bearing and the bushings are water-cooled so as to prevent dangers of pollution. Stator encapsulated in synthetic resin with high quality dielectrics and fitted inside a hermetic stainless steel casing. In the single-phase version the capacitor and the manually resettable amperometric protection are fitted on the electrical panel, supplied separately.
Protection for the three-phase version to be provided by the user.

Flanging NEMA - 4” Protection level: IP 58 Insulation class: B
Voltage: single-phase 220-230 V / 50 Hz
three-phase 400 v / 50 Hz - 230 v / 50

MODEL	VOLTAGE 50 Hz	P1 MAX W	P2 NOM. HP	In A	R.P.M. 1/min.	cosφ %	eff %	ROTOR BLOCKED A	CAPACITOR µF	AXIAL THRUST
MOTORS 4” M - 0,25 kW	220-230 V~	476-518	0,33	2,3-2,5	2860-2870	94-90	54-50	7,0-8,4	12,5	1500 N
MOTORS 4” M - 0,37 kW	220-230 V~	683-727	0,50	3,2-3,4	2840-2850	97-93	56-53	10,7-11,2	16	1500 N
MOTORS 4” T - 0,37 kW	230 V~	560	0,50	1,9	2865	74	66	8,2	–	1500 N
MOTORS 4” T - 0,37 kW	400 V~	533	0,50	1,1	2865	70	66	4,7	–	1500 N
MOTORS 4” M - 0,55 kW	220-230 V~	896-930	0,75	4,2-4,3	2840-2855	97-94	64-63	15,4-16,1	20	1500 N
MOTORS 4” T - 0,55 kW	230 V~	848	0,75	2,8	2855	76	67	11,1	–	1500 N
MOTORS 4” T - 0,55 kW	400 V~	831	0,75	1,6	2855	75	67	6,4	–	1500 N
MOTORS 4” M - 0,75 kW	220-230 V~	1263-1285	1,0	5,8-5,7	2840-2855	99-98	61-60	20,2-21,1	30	1500 N
MOTORS 4” T - 0,75 kW	230 V~	1105	1,0	3,7	2870	75	69	16,2	–	1500 N
MOTORS 4” T - 0,75 kW	400 V~	1091	1,0	2,1	2870	75	69	9,3	–	1500 N
MOTORS 4” M - 1,1 kW	220-230 V~	1793-1859	1,5	8,4-8,6	2840-2855	97-94	64-62	30,1-31,5	40	3000 N
MOTORS 4” T - 1,1 kW	230 V~	1574	1,5	5,2	2840	76	73	25,2	–	1500 N
MOTORS 4” T - 1,1 kW	400 V~	1580	1,5	3,0	2840	76	73	14,5	–	1500 N
MOTORS 4” M - 1,5 kW	220-230 V~	2285-2316	2,0	10,6-10,6	2805-2825	98-95	67-66	33,9-35,4	50	3000 N
MOTORS 4” T - 1,5 kW	230 V~	2089	2,0	6,9	2855	76	73	33,0	–	3000 N
MOTORS 4” T - 1,5 kW	400 V~	2106	2,0	4,0	2855	76	73	19,2	–	3000 N
MOTORS 4” M - 2,2 kW	220-230 V~	3485-3458	3,0	16-15,5	2810-2840	99-97	65-66	54,2-56,7	70	4000 N
MOTORS 4” T - 2,2 kW	230 V~	3048	3,0	10,2	2840	75	75	50,3	–	4000 N
MOTORS 4” T - 2,2 kW	400 V~	3066	3,0	5,9	2840	75	75	28,9	–	4000 N
MOTORS 4” T - 3 kW	230 V~	4034	4,0	13,5	2850	75	76	69,4	–	6500 N
MOTORS 4” T - 3 kW	400 V~	4053	4,0	7,8	2850	75	76	41,6	–	6500 N
MOTORS 4” T - 4 kW	230 V~	5376	5,5	17,3	2855	78	78	99	–	6500 N
MOTORS 4” T - 4 kW	400 V~	5404	5,5	10,0	2855	78	78	58	–	6500 N
MOTORS 4” T - 5,5 kW	230 V~	7459	7,5	23,7	2850	79	76	129	–	6500 N
MOTORS 4” T - 5,5 kW	400 V~	7498	7,5	13,7	2850	79	76	76	–	6500 N
MOTORS 4” T - 7,5 kW	400 V~	8924	10	18,4	2820	70	74	102	–	6500 N

HOW TO SIZE A COOLING JACKET

(these considerations are valid for water temperatures below 40°C)



Step 1. *Check proper motor cooling*

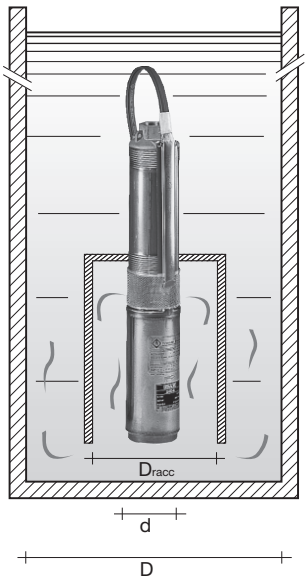
- Calculate the flow speed according to the following formula:

$$v_{[m/s]} = \frac{Q_{[m^3/h]} \times 353,7}{(D_{[mm]})^2 - (d_{[mm]})^2}$$

where:
Q = flow rate
D = well diameter
d = motor diameter

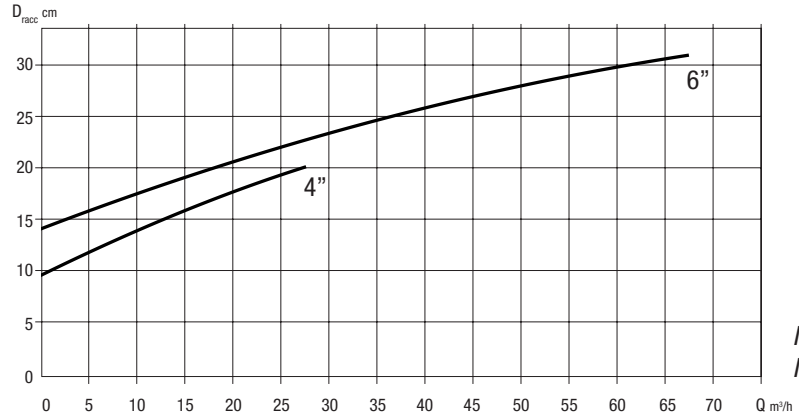
- If v > 0.3 m/s
  (0.08 m/s for 4" Franklin and 0.15 m/s for 6" Franklin)
  No cooling jacket is required, the motor is adequately cooled.

- If v < 0.3 m/s
  (0.08 m/s for 4" Franklin and 0.15 m/s for 6" Franklin)
  go to Step 2.

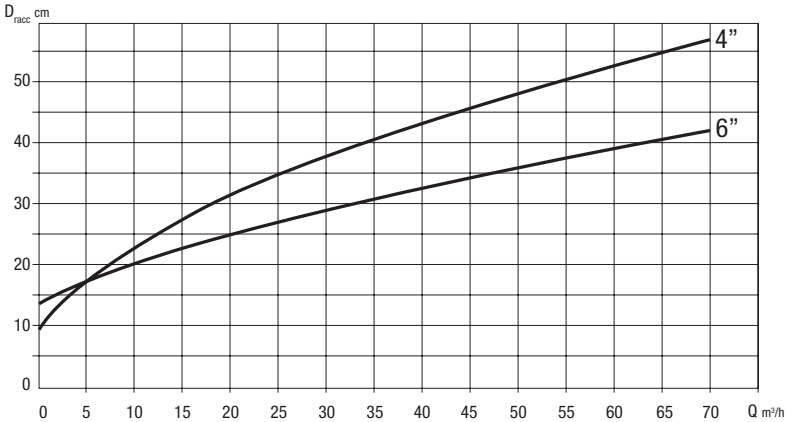


Step 2. *Calculate the recommended diameter of the jacket*

- Given the system flow rate (Q), use the graph to interpolate the maximum diameter recommended for the jacket



Maximum diameter recommended
Motors DAB



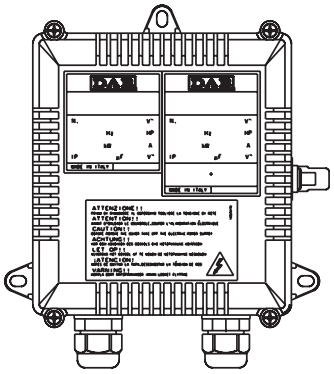
Maximum diameter recommended
Motors FRANKLIN

COMMAND AND CONTROL EQUIPMENT

FOR SUBMERGED PUMPS

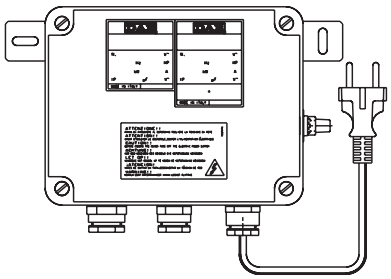
Control Box

Supplied as standard in the CS series



Electrical control panel for operating single-phase electric pumps, featuring manually resettable overload cut-out, capacitor and terminal board for electrical connections.
Complete with terminals for connecting the pump to any pressure switches or floats.
Supplied with 1,5 m of cable with SCHUKO CEE7-VII UNEL 47166-68 plug. Flame-proof thermoplastic cabinet for wall-mounting

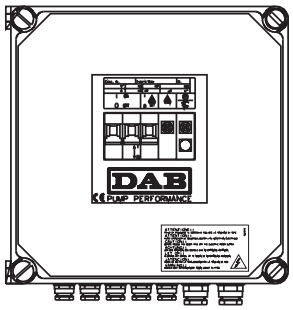
Control HS



Control unit for increasing the static torque of single-phase electric pumps with powers equivalent to 0,5-0,75-1-1,5 HP 220V - containing a micro circuit breaker for the manually rearmable thermal-current protection, a start-up capacitor, a capacitor for increasing static torque and a terminal board for electrical connections.
Level of protection: IP 55
Operating temperature range: -10°C + 40°C
Complete with 1,5 m of power cable 3G1,5 H07 VV-F.
Flame-proof thermoplastic cabinet for wall-mounting.

MODEL	VOLTAGE 50 Hz	POWER MAX kW	CURRENT MAX A	STARTING CAPAC. µF	INCREASED STATIC TORQUE CAPAC. µF	WEIGHT kg
Control HS 0.5	1x220 V~	0,37	4	16	20	2,1
Control Hs 0.75	1x220 V~	0,55	5	20	30	2,2
Control HS 1	1x220 V~	0,75	6	30	40	2,2
Control HS 1.5	1x220 V~	1,1	10	40	60	2,4
Control HS 2		1,5	12	50	80	2,5

ES 1 M - ES 3 M

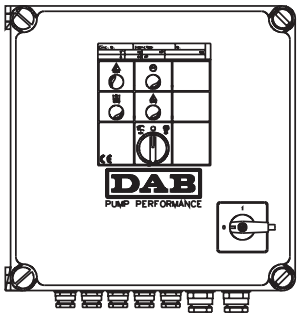


Electric control unit for protecting single-phase electric bore-hole pumps from running without water (see table). The panel is self-protected and protects the electric pump from overloads and short circuits with manual reset.
Complete with:
- Terminals for min/max. level control (with floats, pressure switches, etc.)
- Terminals for connecting a remote control unit
- Button for manual pump operation
- Timer for adjusting pause time against running without water.
- Protection against an excessive number of start-ups (can be disabled).
- Terminals (without potential) for powering a remote acoustic alarm.

Can work with 1, 2 or 3 probes depending on use.
Protection level IP 55. Operating temperature range: from –10°C to +40°C.
Supplied standard with an electric probe and brackets for wall-mounting.
Flame-proof thermoplastic cabinet for wall-mounting.

MODEL	VOLTAGE 50-60 Hz	POWER kW P2 MOT.	POWER NOM. MAX D'IMP. (kW)	CURRENT MAX A	DIMENSIONS A	B	H	WEIGHT kg
ES 1 M	1x220-240 V~	0,25-0,37-0,55-0,75	1,85	10	270	300	190	5,6
ES 3 M		1,1-1,5-2,2	2,2	16	270	300	190	5,6

ES 0,75 T
1 T - 1,5 T
3 T - 4 T - 7,5 T



Electric control unit for protecting single-phase electric bore-hole pumps from running without water (see table).
The panel is self-protected and protects the electric pump from overloads and short circuits with manual reset.
Complete with:
- Terminals for min/max. level control (with floats, pressure switches, etc.)
- Terminals for connecting a remote control unit
- Button for manual/automatic pump operation
- Timer for adjusting pause time against running without water.
- Protection against an excessive number of start-ups (can be disabled).
- Terminals (without potential) for powering a remote acoustic alarm.

Can work with 1, 2 or 3 probes depending on use.
Protection level IP 55.
Operating temperature range: from –10°C to +40°C.
Supplied standard with an electric probe and brackets for wall-mounting.
Cabinet for wall mounting in flame-proof, thermoplastic material.

MODEL	VOLTAGE 50-60 Hz	POWER kW P2 MOT.	POWER NOM. MAX D'IMP. (kW)	CURRENT MAX A	DIMENSIONS			WEIGHT kg
					A	B	H	
ES 0,75 T	3x400 V~	0,25-0,37-0,55	0,88	1,6	270	300	190	5,6
ES 1 T	3x400 V~	0,75	1,38	2,5	270	300	190	5,6
ES 1,5 T	3x400 V~	1,1	2,2	4	270	300	190	5,6
ES 3 T	3x400 V~	1,5 - 2,2	3,5	6,3	270	300	190	5,6
ES 4 T	3x400 V~	3	5,5	10	270	300	190	5,6
ES 7,5 T		4-5,5	7,5	14	270	300	190	5,6

Electrode probe

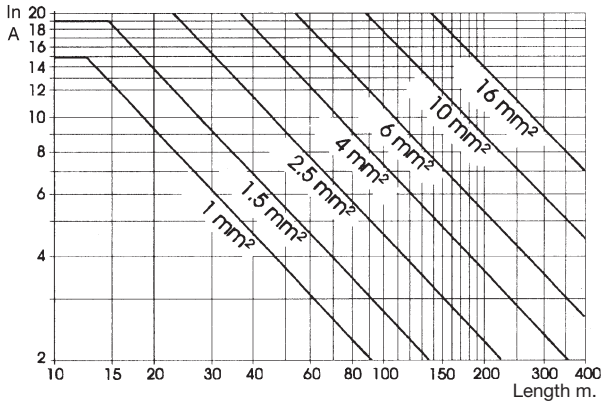
Used in ES control panels to perform the control against dry-running. Suitable for conductive liquids with a max temperature of +40°C. To be connected with a 1,5 mm² cable - 550V insulation.

TABLE FOR CALCULATING THE SECTION OF THE POWER CABLE IN RELATION TO LENGTH

Voltage 1x220/240V~ direct start

Voltage drop 3%

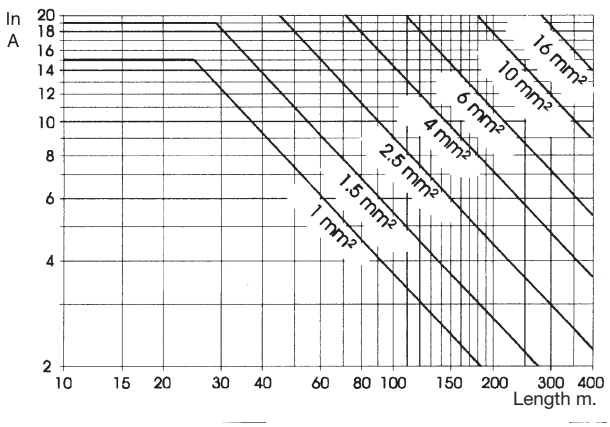
Ambient temperature 30°C



Voltage 1x220/240V~ direct start

Voltage drop 3%

Ambient temperature 30°C



5” PULSAR
BORE-HOLE PUMPS

CE

GENERAL DATA

Applications

The PULSAR electric pumps are used in systems for lifting clear water from wells, collecting tanks, septic tanks, Roman wells and watercourses and are suitable for providing pressurised water in domestic systems, small-scale farming and sprinkler systems for gardens and vegetable gardens. The pump is particularly silent and is installed inside wells or tanks to prevent suction and turn-off problems.

Constructional features of the pump

Single-piece multi-stage bore-hole pump with hydraulic assembly positioned under the motor which is cooled by the pumped liquid. Impellers, diffusers, filter and oil sump in abrasion-proof thermoplastic. Pump liner, stator sleeve, upper head with sleeve and sealing ring in AISI 304 steel. Upper and lower bearing supports in dezincification-proof pressed brass. Rotor shaft extension in AISI 304. Elastomers in NBR. Stainless steel hardware. Double mechanical seal separated by an oil chamber, in ceramic/carbon on the motor side and carburundum/carburundum on the pump side. The sealing system ensures the motor remains airtight and the mechanical seal holds even after brief periods of no-water operation.

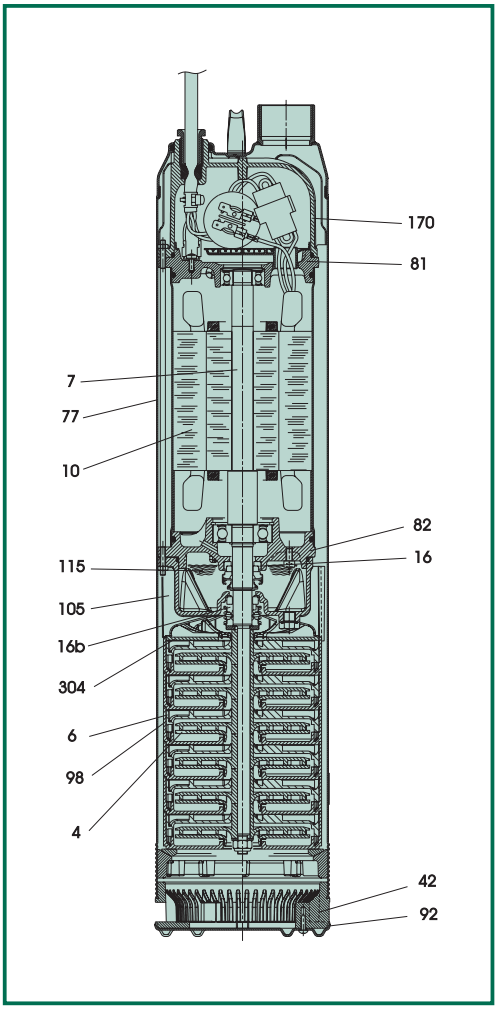
Constructional features of the motor

Continuous service asynchronous submersible motor. Stator incorporated in an AISI 304 stainless steel airtight casing with a cover housing the cables and capacitor. Rotor mounted on oversized ball bearings to ensure silent running and long life. Incorporated thermal current protection and permanently connected capacitor in the single-phase version. As regards three-phase protection, a motor overload cut out should be fitted, in accordance with current standards. Built to IEC 2-3 and IEC 61-69 (EN 60335-2-41).
Protection level of motor: IP 68
Insulation class: F
Standard voltage: Single-phase 220/240V - 50 Hz Three-phase 400V - 50 Hz
Standard cables: 20 m of HO7 RN F cable complete with SCHUKO EEC 7-VII-UNEL 47166-68 plug for the single-phase version. The single-phase versions can be supplied with or without floats for automatic operation.

TECHNICAL DATA

N.	PARTS	MATERIALS
4*	IMPELLER	TECHNOPOLYMER
6*	DIFFUSER	TECHNOPOLYMER
7*	SHAFT WITH ROTOR	AISI 304 (In contact with the liquid)
10*	MOTOR CASING WITH STATOR	AISI 304
16*	COMPLETE UPPER MECHANICAL SEAL	NBR/CERAMIC/CARBON
16b	COMPLETE LOWER MECHANICAL SEAL	NBR/SILICON/SILICON
42*	SUCTION FILTER	TECHNOPOLYMER
77*	PUMP LINER	AISI 304
81*	UPPER BEARING SUPPORT	BRASS
82*	LOWER BEARING SUPPORT	BRASS
92*	COVER FOR FILTER	AISI 304
98*	DIFFUSER BOX	TECHNOPOLYMER
105*	OIL SUMP	TECHNOPOLYMER
115	SEAL LUBRICANT	ESSO MARCOL 172 OIL
170*	CABLE SLOT COVER	TECHNOPOLYMER
304*	REAR DISK	TECHNOPOLYMER

*In contact with the pumped liquid

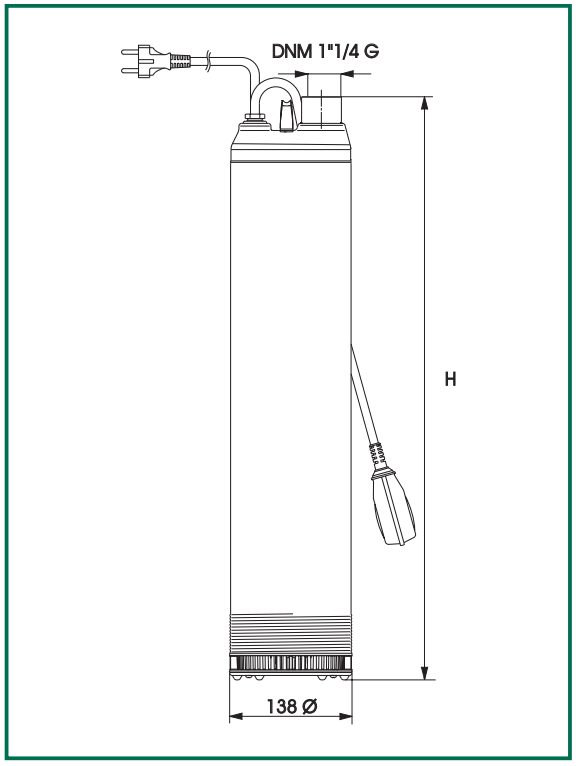


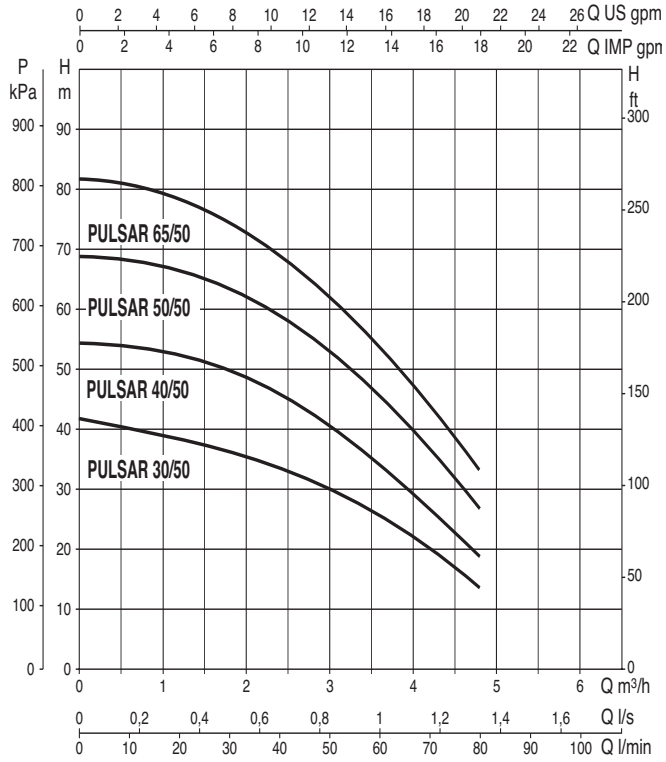
- Operating range: from 0.9 to 7.2 m^3/h with a head of up to 86 m.
- Pumped liquid: clean, without solid or abrasive substances, not aggressive.
- Max. quantity of sand in water: 50 gr/m^3
- Liquid temperature range: from 0°C to +40°C
- Maximum depth of immersion: 20 metres
- Protection level of motor: IP 68
- Protection class of motor: F
- Installation: fixed or portable, horizontal or vertical.
- Operation: manual or automatic (continuous operation with pump totally submerged)
- Diameter of delivery connection: 1" 1/4 GAS
- Maximum diameter of pump: 138 mm

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.

PULSAR 50

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H (mm)	DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg		
				L/A	L/B	H		MA*	MNA*	TNA*
PULSAR 30/50	138	562	1" ¼ G	690	220	165	0,025	17,3	16,7	17,3
PULSAR 40/50	138	562	1" ¼ G	690	220	165	0,025	17,5	17	17,5
PULSAR 50/50	138	630	1" ¼ G	690	220	165	0,025	18,5	18	18,5
PULSAR 65/50	138	657	1" ¼ G	690	220	165	0,025	19,5	19	19,5

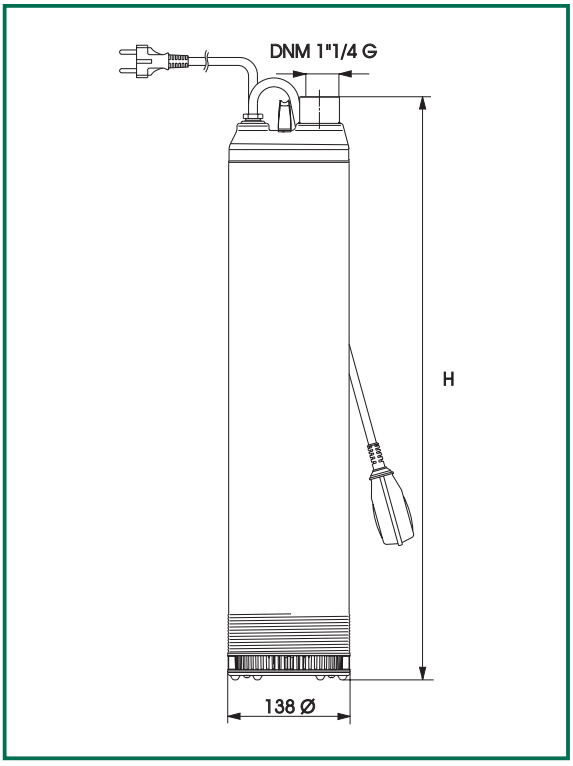
* The models are available with or without float.

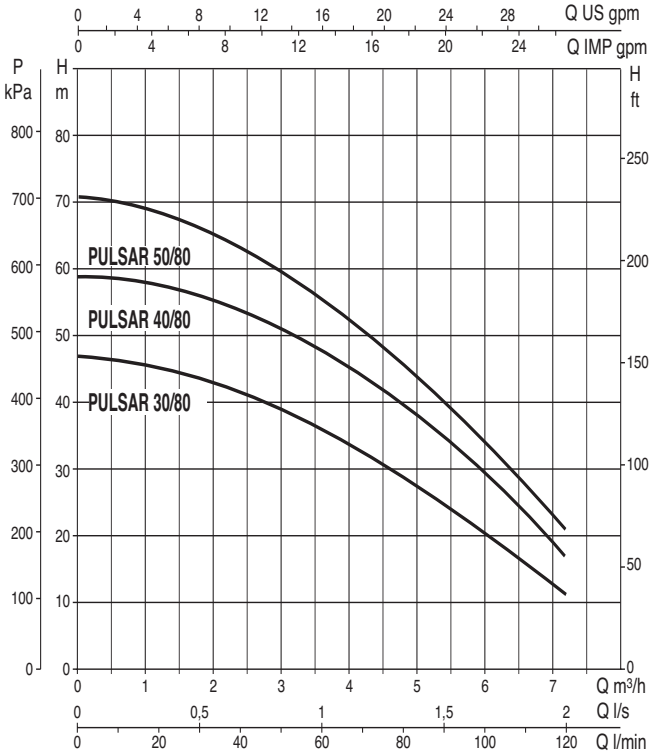
MODEL	ELECTRICAL DATA							HYDRAULIC DATA					
	VOLTAGE 50 Hz	P1 kW	P2		In A	CAPACITOR		Q m^3/h	0	1,2	2,4	3,6	4,8
			kW	HP		µF	Vc	l/min	0	20	40	60	80
PULSAR 30/50 M	220-240 V~	1	0,55	0,75	4,5	20	450	H (m)	42	38,2	33,8	24,8	13,5
PULSAR 30/50 T	400 V~	0,9	0,55	0,75	1,8	-	-						
PULSAR 40/50 M	220-240 V~	1,2	0,75	1	5,5	20	450		54,9	52,4	45,8	34,8	19,4
PULSAR 40/50 T	400 V~	1,1	0,75	1	2	-	-						
PULSAR 50/50 M	220-240 V~	1,5	1	1,36	7	25	450		68,8	66,6	59	45,4	27,4
PULSAR 50/50 T	400 V~	1,4	1	1,36	2,6	-	-						
PULSAR 65/50 M	220-240 V~	1,8	1,2	1,6	8	30	450		81,9	78,9	69,6	54,6	33,9
PULSAR 65/50 T	400 V~	1,7	1,2	1,6	3,1	-	-						

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.

PULSAR 80

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H (mm)	DNM	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg		
				L/A	L/B	H		MA*	MNA*	TNA*
PULSAR 30/80	138	562	1" ¼ G	690	220	165	0,025	17,5	17	17,5
PULSAR 40/80	138	630	1" ¼ G	690	220	165	0,025	18,5	18	18,5
PULSAR 50/80	138	657	1" ¼ G	690	220	165	0,025	19,5	19	19,5

* The models are available with or without float.

MODEL	ELECTRICAL DATA							HYDRAULIC DATA							
	VOLTAGE 50 Hz	P1 kW	P2		In A	CAPACITOR		Q m^3/h	0	1,2	2,4	3,6	4,8	6	7,2
			kW	HP		µF	Vc	l/min	0	20	40	60	80	100	120
PULSAR 30/80 M	220-240 V~	1,2	0,75	1	5,4	20	450	H (m)	46,8	46	42	35,3	30	20	11
PULSAR 30/80 T	400 V~	1,1	0,75	1	2	-	-								
PULSAR 40/80 M	220-240 V~	1,5	1	1,36	7	25	450		59,2	58,5	54	46,9	40	29	17
PULSAR 40/80 T	400 V~	1,4	1	1,36	2,5	-	-								
PULSAR 50/80 M	220-240 V~	1,8	1,2	1,6	8,2	30	450		70,7	68,2	63,3	54,9	45,8	34,5	20,3
PULSAR 50/80 T	400 V~	1,6	1,2	1,6	3	-	-								

PULSAR DRY
5” SUBMERSIBLE PUMPS

CE

GENERAL DATA

Applications

The PULSAR DRY pumps are used in lifting and pressurisation systems for water from primary collection tanks or wells and are suitable for providing pressurised water in domestic systems, small-scale farming and sprinkler systems for gardens and vegetable gardens. The pump is extremely silent and this feature makes it suitable for use with pressurisation systems in unventilated rooms or in areas prone to flooding.

Constructional features of the pump

Single-piece multi-stage bore-hole pump or of surface with hydraulic assembly positioned under the motor which is cooled by the pumped liquid. Impellers, diffusers, filter and oil sump in abrasion-proof thermoplastic. Pump liner, stator sleeve, upper head with sleeve and sealing ring in AISI 304 steel. Upper and lower bearing supports in dezincification-proof pressed brass. Rotor shaft extension in AISI 304. Elastomers in NBR. Stainless steel hardware. Double mechanical seal separated by an oil chamber, in ceramic/carbon on the motor side and carburundum/carburundum on the pump side. The sealing system ensures the motor remains airtight and the mechanical seal holds even after brief periods of no-water operation.

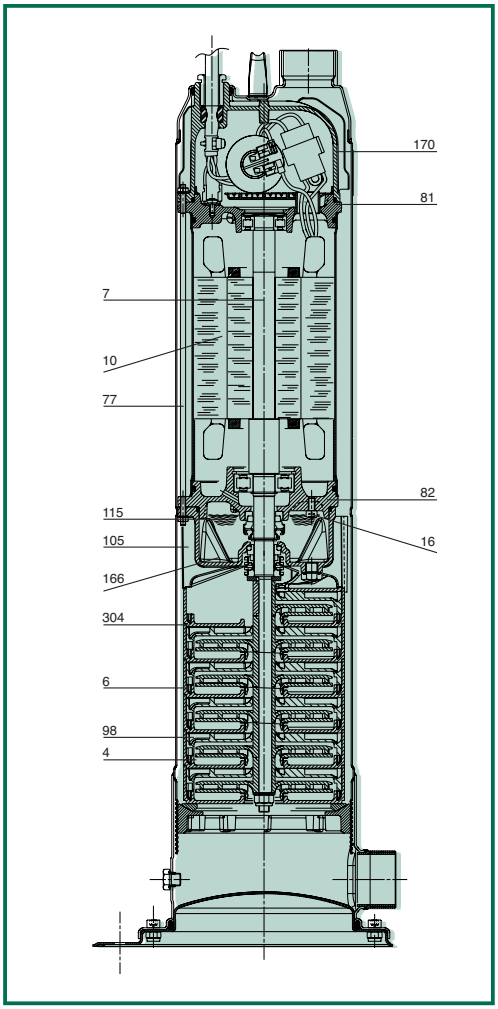
Constructional features of the motor

Continuous service asynchronous submersible motor. Stator incorporated in an AISI 304 stainless steel airtight casing with a cover housing the cables and capacitor. Rotor mounted on oversized ball bearings to ensure silent running and long life. Incorporated thermal current protection and permanently connected capacitor in the single-phase version. As regards three-phase protection, a motor overload cut out should be fitted, in accordance with current standards. Built to IEC 2-3 and IEC 61-69 (EN 60335-2-41).
Protection level of motor: IP 68
Insulation class: F
Standard voltage: Single-phase 220/240V - 50 Hz Three-phase 400V - 50 Hz
Standard cables: 15 m of HO7 RN F cable complete with SCHUKO EEC 7-VII-UNEL 47166-68 plug for the single-phase version. The single-phase versions can be supplied with or without floats for automatic operation.

TECHNICAL DATA

N.	PARTS	MATERIALS
4*	IMPELLER	TECHNOPOLYMER
6*	DIFFUSER	TECHNOPOLYMER
7*	SHAFT WITH ROTOR	AISI 304 (In contact with the liquid)
10*	MOTOR CASING WITH STATOR	AISI 304
16*	COMPLETE UPPER MECHANICAL SEAL	NBR/CERAMIC/CARBON
16b	COMPLETE LOWER MECHANICAL SEAL	NBR/SILICON/SILICON
77*	PUMP LINER	AISI 304
81*	UPPER BEARING SUPPORT	BRASS
82*	LOWER BEARING SUPPORT	BRASS
98*	DIFFUSER BOX	TECHNOPOLYMER
105*	OIL SUMP	TECHNOPOLYMER
115	SEAL LUBRICANT	ESSO MARCOL 172 OIL
170*	CABLE SLOT COVER	TECHNOPOLYMER
304*	REAR DISK	TECHNOPOLYMER

*In contact with the pumped liquid

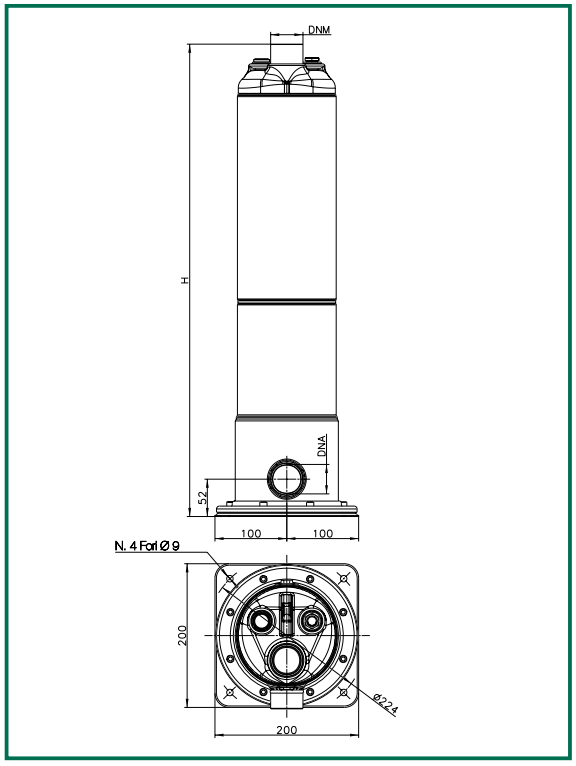


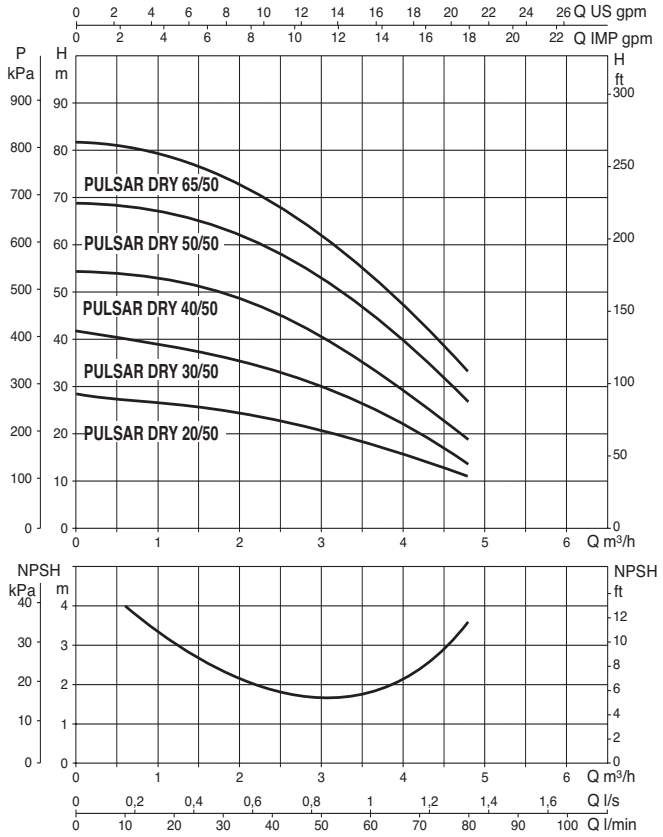
- Operating range: from 0.9 to 7.2 m^3/h with a head of up to 86 m.
- Pumped liquid: clean, without solid or abrasive substances, not aggressive.
- Max. quantity of sand in water: 50 gr/m^3
- Liquid temperature range: from 0°C to +40°C
- Maximum depth of immersion: 20 metres
- Protection level of motor: IP 68
- Protection class of motor: F
- Maximum operating pressure: 10 bar
- Installation: fixed or portable, horizontal or vertical.
- Operation: manual or automatic (continuous operation with pump totally submerged)
- Diameter of delivery connection: 1" 1/4 GAS
- Maximum diameter of pump: 138 mm

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.

PULSAR DRY 50

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H (mm)	DNM DNA	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
				L/A	L/B	H		MNA*	TNA*
PULSAR DRY 20/50	224	603	1" ¼ G	780	240	265	0,049	16,5	17
PULSAR DRY 30/50	224	603	1" ¼ G	780	240	265	0,049	16,7	17,3
PULSAR DRY 40/50	224	603	1" ¼ G	780	240	265	0,049	17	17,5
PULSAR DRY 50/50	224	670	1" ¼ G	780	240	265	0,049	18	18,5
PULSAR DRY 65/50	224	697	1" ¼ G	780	240	265	0,049	19	19,5

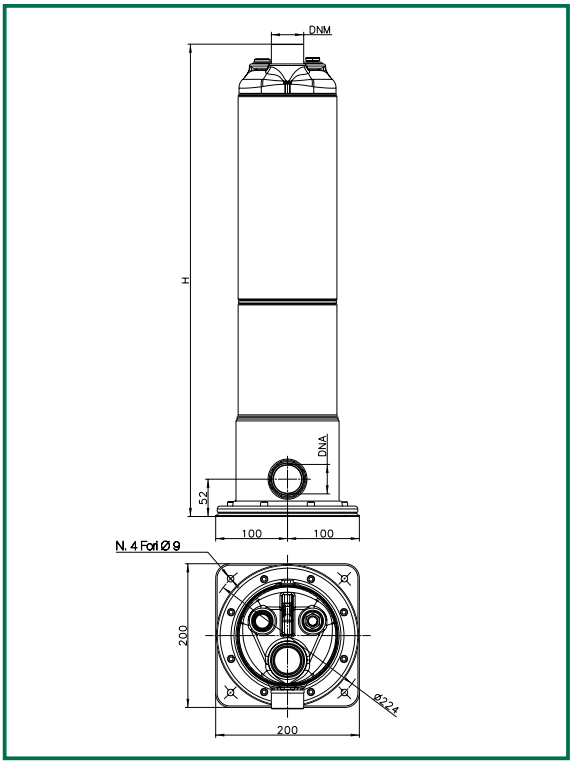
MODEL	ELECTRICAL DATA							HYDRAULIC DATA					
	VOLTAGE 50 Hz	P1 kW	P2		In A	CAPACITOR		Q m^3/h	0	1,2	2,4	3,6	4,8
			kW	HP		µF	Vc	l/min	0	20	40	60	80
PULSAR DRY 20/50 M-NA	220-240 V~	0,78	0,55	0,75	3,7	20	450	H (m)	29	27	23,2	17,2	10,3
PULSAR DRY 20/50 T-NA	400 V~	0,6	0,55	0,75	1,62	-	-						
PULSAR DRY 30/50 M-NA	220-240 V~	1,0	0,55	0,75	4,5	20	450		42	38,2	33,8	24,8	13,5
PULSAR DRY 30/50 T-NA	400 V~	0,9	0,55	0,75	1,8	-	-						
PULSAR DRY 40/50 M-NA	220-240 V~	1,2	0,75	1	5,5	20	450		54,9	52,4	45,8	34,8	19,4
PULSAR DRY 40/50 T-NA	400 V~	1,1	0,75	1	2	-	-						
PULSAR DRY 50/50 M-NA	220-240 V~	1,5	1	1,36	7	25	450		68,8	66,6	59	45,4	27,4
PULSAR DRY 50/50 T-NA	400 V~	1,4	1	1,36	2,6	-	-						
PULSAR DRY 65/50 M-NA	220-240 V~	1,8	1,2	1,6	8	30	450		81,9	78,9	69,6	54,6	33,9
PULSAR DRY 65/50 T-NA	400 V~	1,7	1,2	1,6	3,1	-	-						

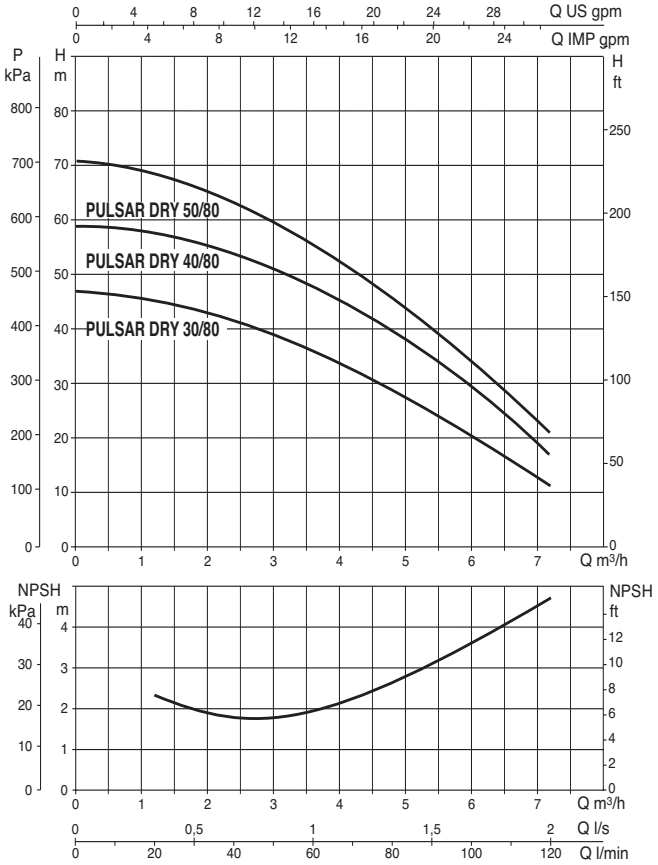
* NA = non automatica

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.

PULSAR DRY 80

Liquid temperature range: from 0°C to +40°C





MODEL	Ø (mm)	HEIGHT H (mm)	DNM DNA	PACKING DIMENSIONS (mm)			VOLUME m^3	WEIGHT Kg	
				L/A	L/B	H		MNA*	TNA*
PULSAR DRY 30/80	224	603	1" ¼ G	780	240	265	0,049	17	17,5
PULSAR DRY 40/80	224	670	1" ¼ G	780	240	265	0,049	18	18,5
PULSAR DRY 50/80	224	697	1" ¼ G	780	240	265	0,049	19	19,5

MODEL	ELECTRICAL DATA							HYDRAULIC DATA							
	VOLTAGE 50 Hz	P1 kW	P2		In A	CAPACITOR		Q m^3/h	0	1,2	2,4	3,6	4,8	6	7,2
			kW	HP		µF	Vc	l/min	0	20	40	60	80	100	120
PULSAR DRY 30/80 M-NA	220-240 V~	1,2	0,75	1	5,4	20	450	H (m)	46,8	46	42	35,3	30	20	11
PULSAR DRY 30/80 T-NA	400 V~	1,2	0,75	1	2	-	-								
PULSAR DRY 40/80 M-NA	220-240 V~	1,5	1	1,36	7	25	450		59,2	58,5	54	46,9	40	29	17
PULSAR DRY 40/80 T-NA	400 V~	1,4	1	1,36	2,5	-	-								
PULSAR DRY 50/80 M-NA	220-240 V~	1,8	1,2	1,6	8,2	30	450		70,7	68,2	63,3	54,9	45,8	34,5	20,3
PULSAR DRY 50/80 T-NA	400 V~	1,6	1,2	1,6	3	-	-								

* NA = non automatica

BORE-HOLE PUMPS FOR 6” WELLS

CE

GENERAL DATA

Applications

Multistage centrifugal bore-hole electric pumps for wells with a diameter of 6” or greater, capable of developing a wide range of flows and heads.

These pumps can be used in a wide range of lifting, distributing and pressurising applications in civil and industrial supplies, autoclaves and tanks, fire-fighting and washing installations, and irrigation systems.

Construction features of pump

Motor support and delivery in stainless spheroidal cast iron (niresist D2B). Lower support dimensioned to NEMA 6” standard.
Check valve incorporated in delivery support.
Bush bearings: bronze rubber. Totally protected splined shaft (AISI 420). Wear rings, stage box, cable sheath, extraction grid in stainless steel (AISI 304). Noryl impellers and diffusers.

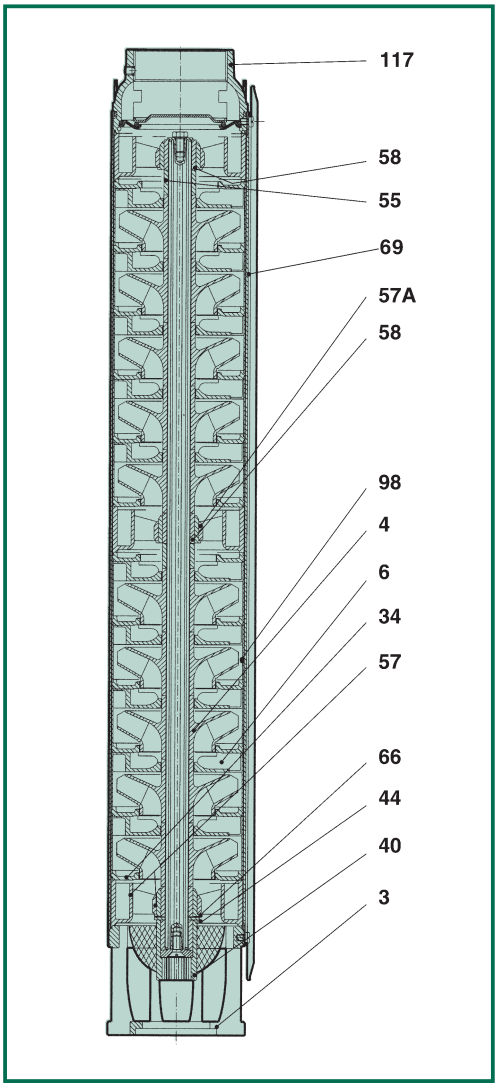
Construction features of motor

Asynchronous 2-pole submerged motor totally built from AISI 304 stainless steel.
Squirrel-cage rotor mounted on a self-centring thrust block bearing suitable for withstanding axial loads.
Stator encased in self-sealing synthetic resin and inserted in a stainless steel airtight casing. The bearings are lubricated by the pumped liquid.
Protection devices must be provided by the user according to EN 60947-4-1 (Cut-in delay <10 sec. a 5 x In).
Flanging sized to NEMA 4”.
NEMA-6” flanging
Protection level: IP 58
Insulation class: F
Input voltage: three-phase 400 V / 50Hz (+6% -10% Un)

TECHNICAL DATA

N.	PARTS*	MATERIALS
3	SUPPORT	SPHEROIDAL CAST IRON
4	IMPELLER	TECHNOPOLYMER
6	DIFFUSER	TECHNOPOLYMER
34	DISC	TECHNOPOLYMER
40	COUPLING	STAINLESS STEEL
44	SHOULDER WASHER	STAINLESS STEEL
55	SPACER BUSHING	STAINLESS STEEL AISI 304
57	SUCTION SIDE SUPPORT	STAINLESS STEEL AISI 304
57A	INTERMEDIATE SUPPORT	STAINLESS STEEL AISI 304
58	SHAFT SLEEVE	BRONZE
66	COUNTERTHRUST RING	STAINLESS STEEL AISI 304
69	PUMP LINER	STAINLESS STEEL 304
98	DIFFUSER BODY	STAINLESS STEEL AISI 304
117	VALVE BODY	SPHEROIDAL CAST IRON

* In contact with the liquid

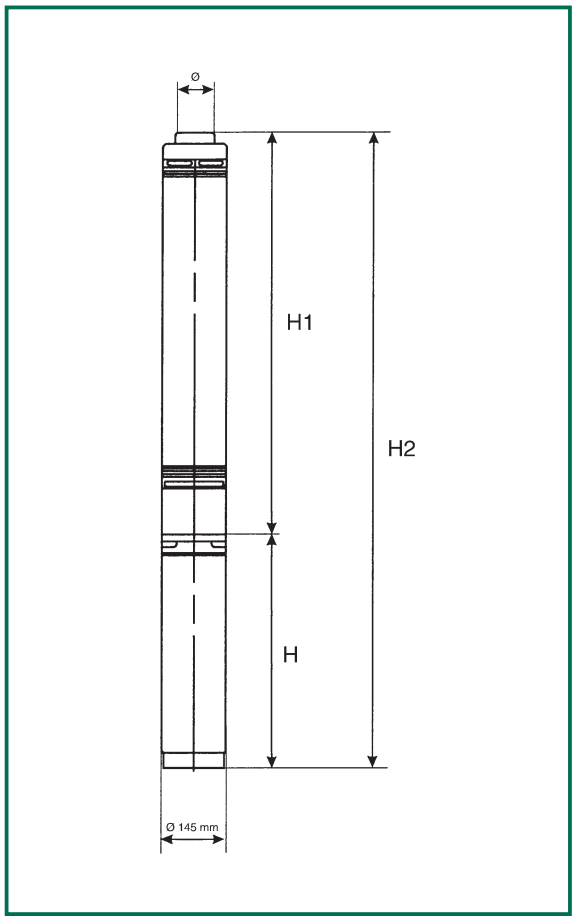


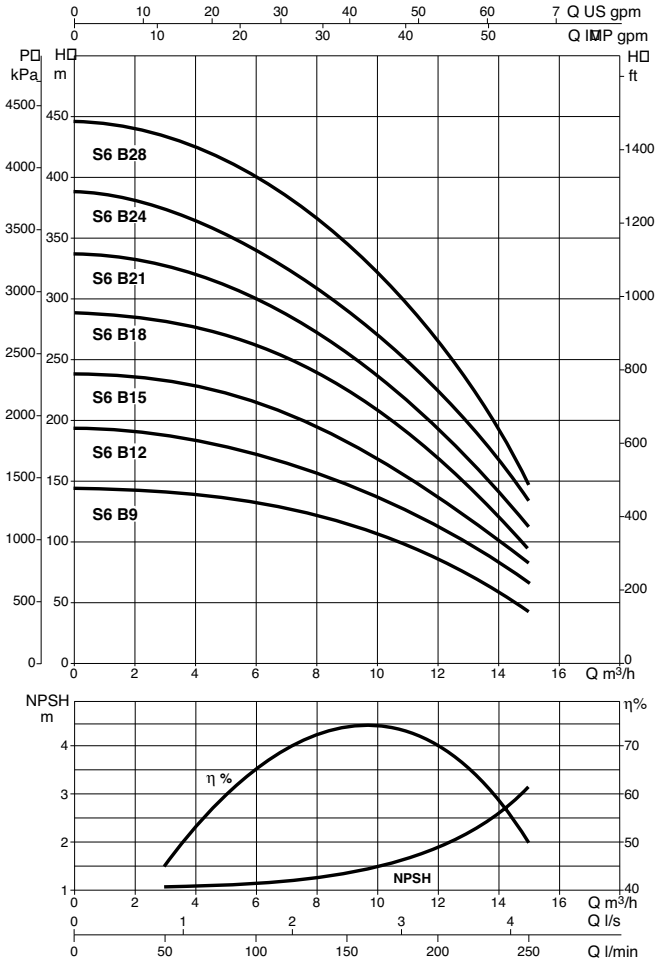
- Operating range: from 66 m³/h with a head of up to 468 mt.
- Pumped liquid: clean, without solid or abrasive substances, not aggressive.
- Starts/hour: max 20
- Cooling flow: 16 cm/sec.
- Max. quantity of sand in water 40 gr/m³
- Temperature range: 30°C
- Minimun recomennded level on suction side: mt.1
- Accessories: see page 113
- Power cable section: see table on page 114
- Installation: only vertical (horizontal on request).

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.

S6B

Max. ambient temperature: 30°C





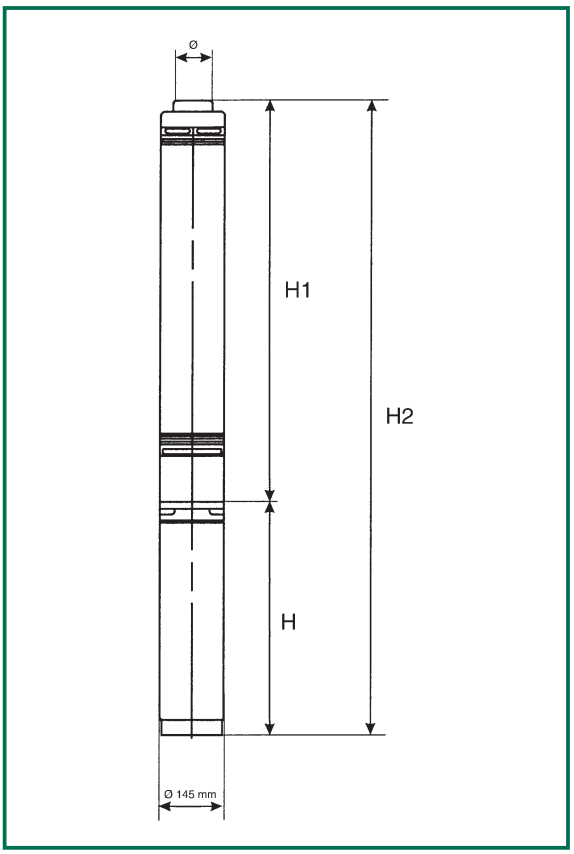
MODEL	POTENZA MOTORE RICHIESTA		HYDRAULIC DATA (n ≃ 2850 1/min)							H1 (mm)	H2 (mm)	Pump weight	Total weight	Ø
	kW	HP	Q m³/h	0	6	8,4	10,8	12	15					
			l/min	0	100	140	180	200	250					
S6B-9	4	5,5	H (m)	147	125	114	96	85	46	625	1206	11	46,6	3"
S6B-12	5,5	7,5		196	172	152	128	113	64	738	1352	13,5	52,7	3"
S6B-15	7,5	10		224	216	190	160	141	80	852	1498	15	58,3	3"
S6B-18	9,2	12,5		293	250	228	193	169	96	966	1645	17	62,6	3"
S6B-21	9,2	12,5		342	291	266	225	197	112	1079	1758	19,5	65,1	3"
S6B-24	11	15		391	340	304	257	226	128	1193	1904	21	70	3"
S6B-28	13	17,5		446	400	354	300	263	149	1397	2173	23,5	78,5	3"

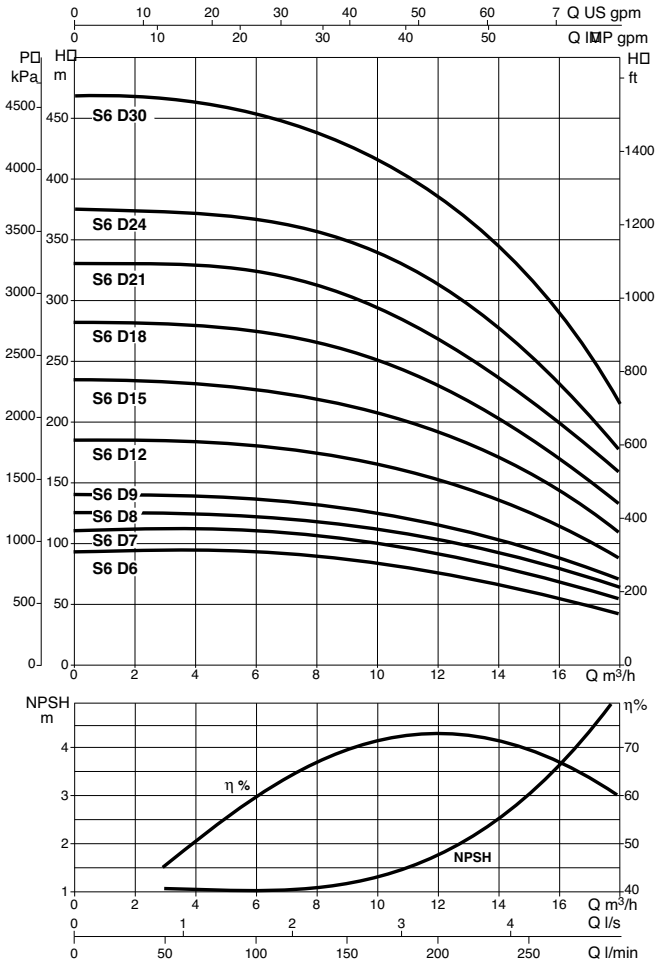
MODEL	MOTORS											
	H (mm)	WEIGHT Kg.	Axial load N	1/m	Voltage 50 Hz	Power Installed kW	HP	I_N	I_A	η (%)	cos φ	M_A
S6B-9	581	35,6	6500	2860	3X400 V ~	4	5,5	9,3	43	78	0,82	1,5
S6B-12	614	39,2	6500	2870	3X400 V ~	5,5	7,5	12,5	64	79	0,82	1,9
S6B-15	646	43,3	15500	2860	3X400 V ~	7,5	10	16	83	79	0,86	1,9
S6B-18	679	45,6	15500	2870	3X400 V ~	9,2	12,5	20,7	112	81	0,80	2,2
S6B-21	679	45,6	15500	2870	3X400 V ~	9,2	12,5	20,7	112	81	0,80	2,2
S6B-24	711	49	15500	2860	3X400 V ~	11	15	23,3	129	81	0,85	2,1
S6B-28	776	55	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1

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.

S6D

Max. ambient temperature: 30°C





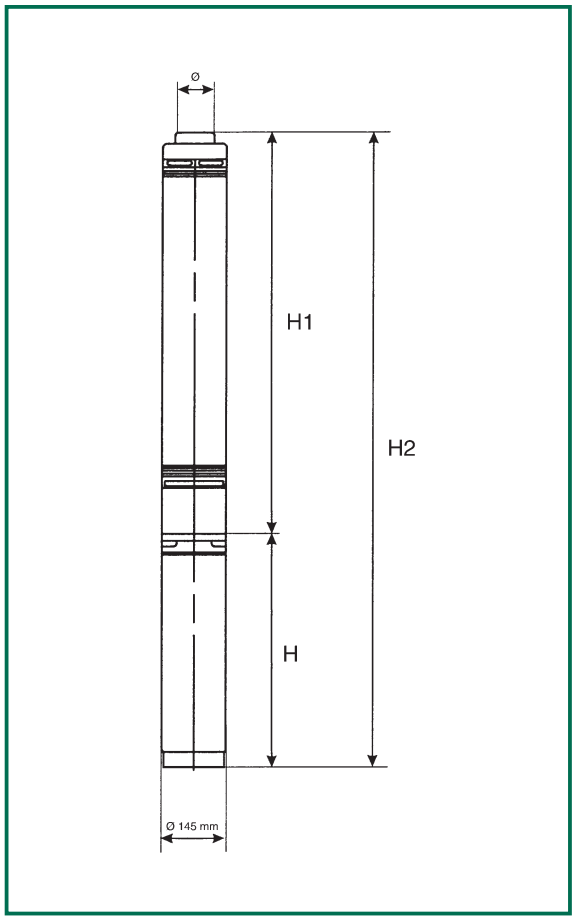
MODEL	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h / l/min	0 / 0	8,4 / 140	10,8 / 180	12 / 200	15 / 250	18 / 300	H1 (mm)	H2 (mm)	Pump weight	Total weight	Ø
S6D-6	3,7	5		94	87	80	76	63	44	511	1092	9	44,6	3"
S6D-7	5,5	7,5		109	101	93	89	74	51	549	1163	9,5	48,7	3"
S6D-8	5,5	7,5		125	115	106	102	84	58	587	1201	11	49,2	3"
S6D-9	5,5	7,5		140	130	120	114	95	66	625	1239	11	50,2	3"
S6D-12	7,5	10	H	187	173	160	153	127	88	738	1384	13,5	56,8	3"
S6D-15	9,2	12,5	(m)	234	216	201	191	158	110	852	1531	15	60,6	3"
S6D-18	11	15		281	260	241	229	190	132	966	1677	17	66	3"
S6D-21	13	17,5		328	304	281	267	222	154	1079	1855	19	74	3"
S6D-24	15	20		374	347	321	305	254	176	1193	1969	21	76	3"
S6D-30	18,5	25		468	464	401	381	317	220	1474	2316	25	86,4	3"

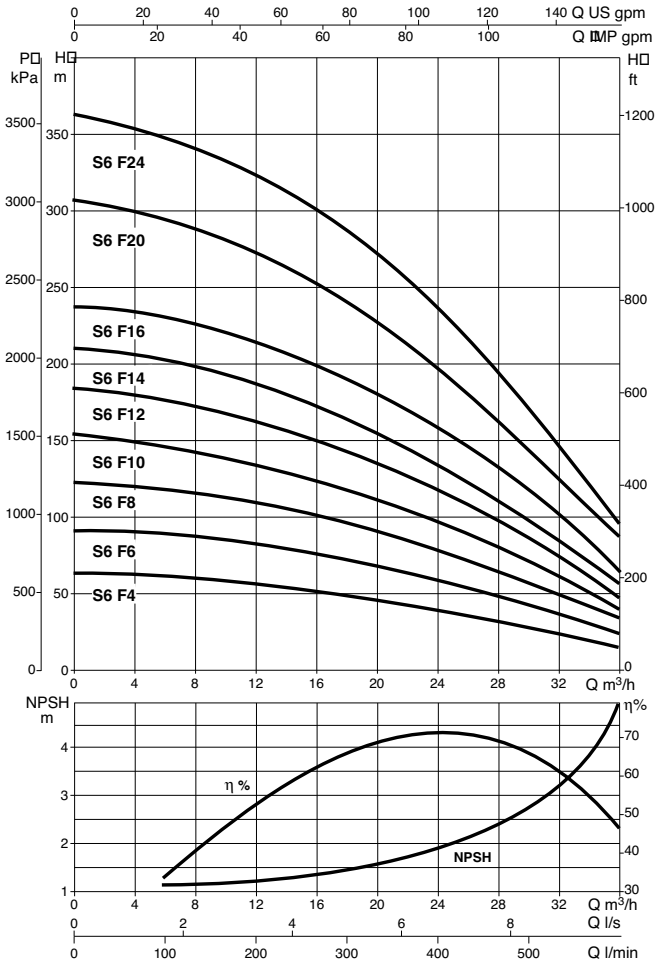
MODEL	MOTORS H (mm)	WEIGHT Kg.	Axial load N	1/m	Voltage 50 Hz	Power Installed kW	Power Installed HP	I_N	I_A	η (%)	cos φ	M_A
S6D-6	581	35,6	6500	2860	3X400 V ~	4	5,5	9,3	43	78	0,82	1,5
S6D-7	614	39,2	6500	2870	3X400 V ~	5,5	7,5	12,5	64	79	0,82	1,9
S6D-8	614	39,2	6500	2870	3X400 V ~	5,5	7,5	12,5	64	79	0,82	1,9
S6D-9	614	39,2	6500	2870	3X400 V ~	5,5	7,5	12,5	64	79	0,82	1,9
S6D-12	646	43,3	15500	2860	3X400 V ~	7,5	10	16	83	79	0,86	1,9
S6D-15	679	45,6	15500	2870	3X400 V ~	9,2	12,5	20,7	112	81	0,80	2,2
S6D-18	711	49	15500	2860	3X400 V ~	11	15	23,3	129	81	0,85	2,1
S6D-21	776	55	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6D-24	776	55	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6D-30	842	61,4	15500	2850	3X400 V ~	18,5	25	38,5	231	82	0,85	2,5

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.

S6F

Max. ambient temperature: 30°C





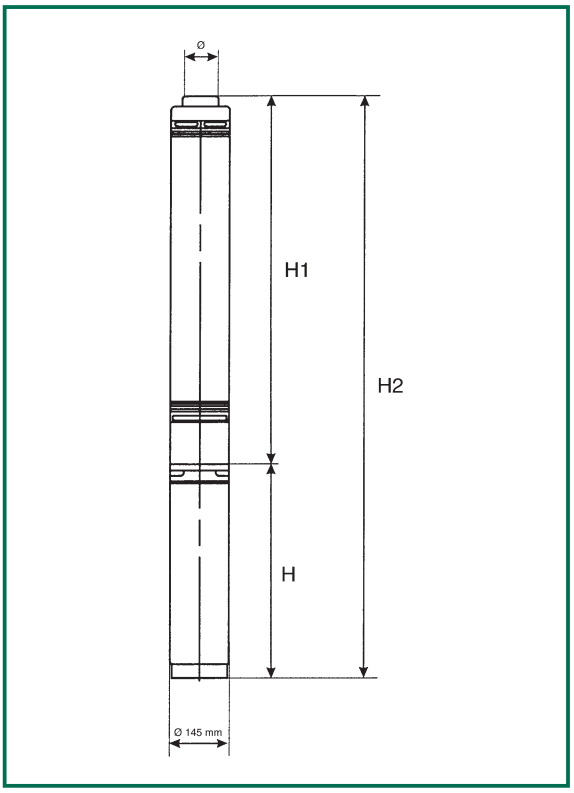
MODEL	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h	0	12	15	18	24	36	H1 (mm)	H2 (mm)	Pump weight	Total weight	Ø
			l/min	0	200	250	300	400	600					
S6F-4	4	5		61	53	51	48	40	15	511	1092	10	44,6	3"
S6F-6	5,5	7,5		91	80	76	71	59	22	625	1239	11	49,7	3"
S6F-8	7,5	10		122	106	101	95	79	30	738	1384	13	56,3	3"
S6F-10	9,2	12,5		152	133	126	119	99	37	852	1531	14,5	60,1	3"
S6F-12	11	15	H (m)	182	159	154	143	119	47	966	1677	16	65	3"
S6F-14	13	17,5		213	186	178	167	139	56	1079	1855	17,5	72,3	3"
S6F-16	15	20		243	212	204	190	158	64	1193	1969	20	73,8	3"
S6F-20	18,5	25		304	265	255	238	198	80	1474	2316	24	85,4	3"
S6F-24	22	30		365	318	305	286	238	96	1700	2607	27,5	94,9	3"

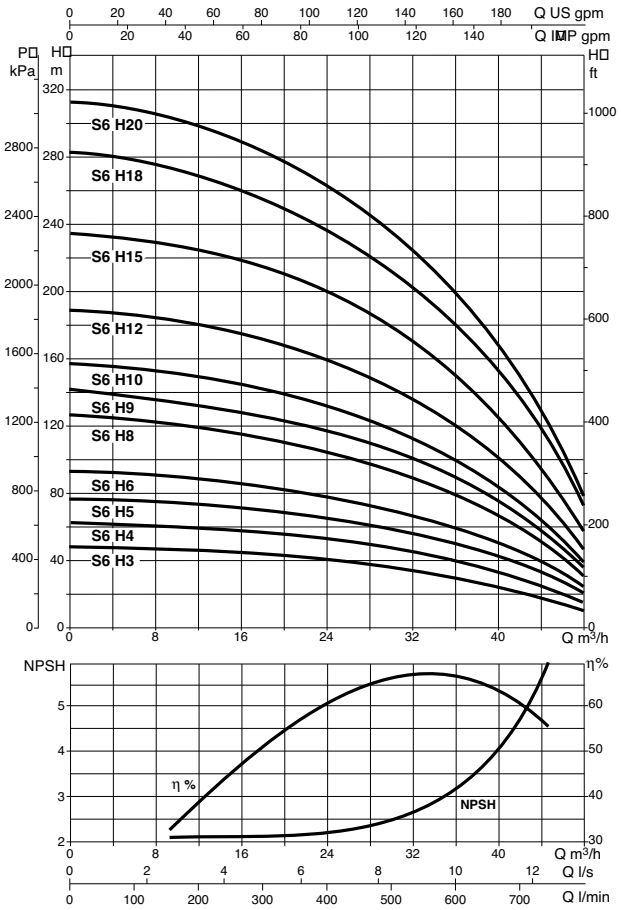
MODEL	MOTORS H (mm)	WEIGHT Kg.	Axial load N	1/m	Voltage 50 Hz	Power Installed kW	Power Installed HP	I_N	I_A	η (%)	cos φ	M_A
S6F-4	581	35,6	6500	2860	3X400 V ~	4	5	9,3	43	78	0,82	1,5
S6F-6	614	39,2	6500	2870	3X400 V ~	5,5	7,5	12,5	64	79	0,82	1,9
S6F-8	646	43,3	15500	2860	3X400 V ~	7,5	10	16	83	79	0,86	1,9
S6F-10	679	45,6	15500	2870	3X400 V ~	9,2	12,5	20,7	112	81	0,80	2,2
S6F-12	711	49	15500	2860	3X400 V ~	11	15	23,3	129	81	0,85	2,1
S6F-14	776	54,8	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6F-16	776	54,8	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6F-20	842	61,4	15500	2850	3X400 V ~	18,5	25	38,5	231	82	0,85	2,5
S6F-24	907	67,4	15500	2860	3X400 V ~	22	30	45,3	268	83	0,86	2,4

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.

S6H

Max. ambient temperature: 30°C





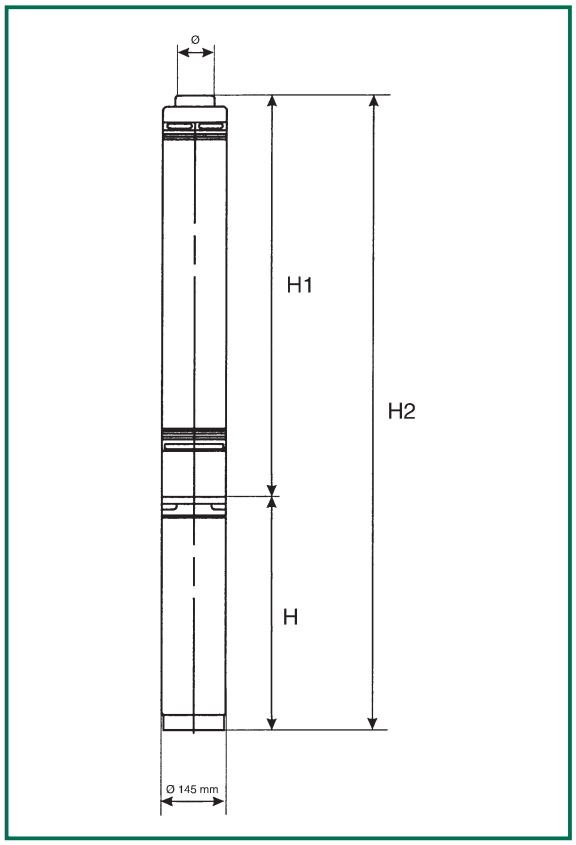
MODEL	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h / l/min	0 / 0	18 / 300	24 / 400	36 / 600	48 / 800	H1 (mm)	H2 (mm)	Pump weight	Total weight	Ø
S6H-3	4	5,5	H (m)	48	42	39	30	12	463	1044	7,5	43,1	3"
S6H-4	5,5	7,5		63	57	53	40	16	522	1136	8,5	47,7	3"
S6H-5	7,5	10		78	71	66	50	20	582	1228	9,5	52,8	3"
S6H-6	9,2	12,5		94	85	80	60	23	642	1321	10,5	56,1	3"
S6H-8	11	15		126	114	106	80	31	762	1473	12	61	3"
S6H-9	13	17,5		141	128	120	90	35	822	1598	14	67,8	3"
S6H-10	15	20		157	142	133	100	39	882	1658	14	68,8	3"
S6H-12	18,5	25		188	170	160	1200	47	1002	1844	16	77,4	3"
S6H-15	22	30		235	213	199	150	59	1182	2089	19	86,4	3"
S6H-18	26	35		283	256	239	180	71	1414	2451	22	103,7	3"
S6H-20	30	40		314	284	266	200	78	1534	2571	25	106,7	3"

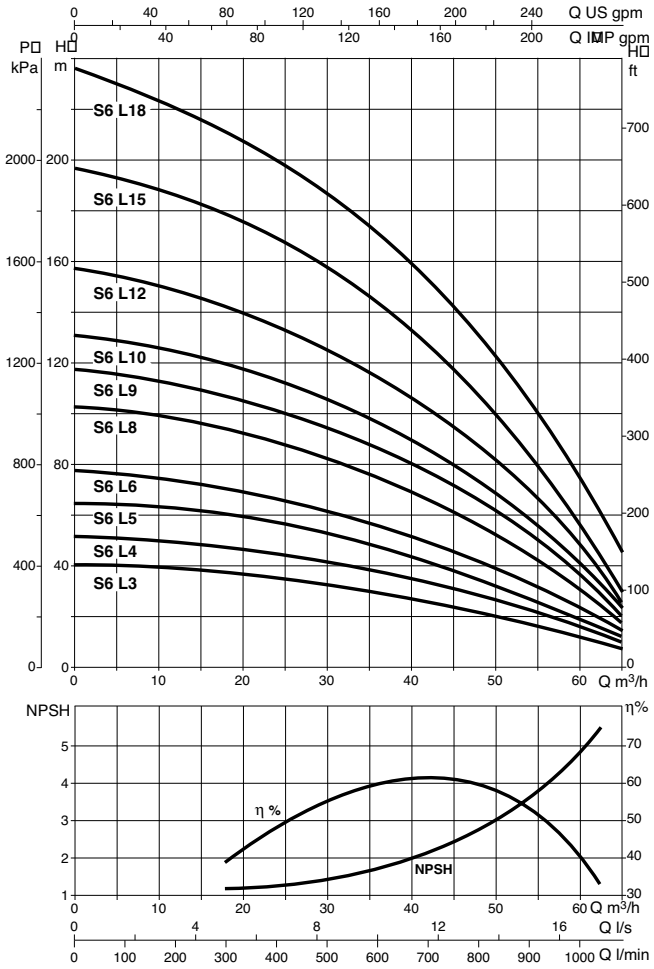
MODEL	MOTORS H (mm)	WEIGHT Kg.	Axial load N	1/m	Voltage 50 Hz	Power Installed kW	Power Installed HP	I_N	I_A	η (%)	cos φ	M_A
S6H-3	581	35,6	6500	2860	3X400 V ~	4	5,5	9,3	43	78	0,82	1,5
S6H-4	614	39,2	6500	2870	3X400 V ~	5,5	7,5	12,5	64	79	0,82	1,9
S6H-5	646	43,3	15500	2860	3X400 V ~	7,5	10	16	83	79	0,86	1,9
S6H-6	679	45,6	15500	2870	3X400 V ~	9,2	12,5	20,7	112	81	0,80	2,2
S6H-8	711	49	15500	2860	3X400 V ~	11	15	23,3	129	81	0,85	2,1
S6H-9	776	54,8	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6H-10	776	54,8	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6H-12	842	61,4	15500	2850	3X400 V ~	18,5	25	38,5	231	82	0,85	2,5
S6H-15	907	67,4	15500	2860	3X400 V ~	22	30	45,3	268	83	0,86	2,4
S6H-18	1037	81,7	27500	2860	3X400 V ~	30	40	63,5	393	83	0,84	2,6
S6H-20	1037	81,7	27500	2860	3X400 V ~	30	40	63,5	393	83	0,84	2,6

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.

S6L

Max. ambient temperature: 30°C





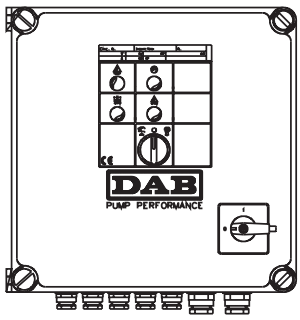
MODEL	P2 NOMINAL		HYDRAULIC DATA (n ≃ 2850 1/min)						H1 (mm)	H2 (mm)	Pump weight	Total weight	Ø
	kW	HP	Q m³/h	0	36	48	54	66					
			l/min	0	600	800	900	1100					
S6L-3	5,5	7,5		40	28	22	18	7	463	1077	7,5	46,7	3"
S6L-4	7,5	10		52	38	29	23	9	522	1168	8,5	51,8	3"
S6L-5	9,2	12,5		65	48	36	29	11	582	1261	9,5	55,1	3"
S6L-6	11	15		78	57	44	36	13	642	1353	10,5	59,5	3"
S6L-8	13	17,5	H	104	77	58	47	18	762	1538	12	66,8	3"
S6L-9	15	20	(m)	118	86	66	53	20	822	1598	13	67,8	3"
S6L-10	18,5	25		131	96	73	59	23	882	1724	14	75,4	3"
S6L-12	22	30		158	114	88	71	27	1002	1909	16	83,4	3"
S6L-15	26	35		197	144	110	89	34	1182	2219	19	100,7	3"
S6L-18	30	40		236	173	130	106	41	1414	2451	22	103,7	3"

MODEL	MOTORS											
	H (mm)	WEIGHT Kg.	Axial load N	1/m	Voltage 50 Hz	Power Installed kW	HP	I_N	I_A	η (%)	cos φ	M_A
S6L-3	614	39,2	6500	2870	3X400 V ~	5,5	7,5	12,5	64	79	0,82	1,9
S6L-4	646	43,3	15500	2860	3X400 V ~	7,5	10	16	83	79	0,86	1,9
S6L-5	679	45,6	15500	2870	3X400 V ~	9,2	12,5	20,7	112	81	0,80	2,2
S6L-6	711	49	15500	2860	3X400 V ~	11	15	23,3	129	81	0,85	2,1
S6L-8	776	54,8	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6L-9	776	54,8	15500	2860	3X400 V ~	15	20	31,3	169	81	0,85	2,1
S6L-10	842	61,4	15500	2850	3X400 V ~	18,5	25	38,5	231	82	0,85	2,5
S6L-12	907	67,4	15500	2860	3X400 V ~	22	30	45,3	268	83	0,86	2,4
S6L-15	1037	81,7	27500	2860	3X400 V ~	30	40	63,5	393	83	0,84	2,6
S6L-18	1037	81,7	27500	2860	3X400 V ~	30	40	63,5	393	83	0,84	2,6

COMMAND AND CONTROL EQUIPMENT

FOR SUBMERGED PUMPS 6”

ES 7,5 T



Electric control unit for protecting three-phase electric bore-hole pumps from running without water (see table). The panel is self-protected and protects the electric pump from overloads and short circuits with a manually resettable device.
Complete with:
- Terminals for min/max. level control (with floats, pressure switches, etc.)
- Terminals for connecting a remote control unit
- Button for manual/automatic pump operation
- Timer for adjusting pause time against running without water.
- Protection against an excessive number of start-ups (can be disabled).
- Terminals (without potential) for powering a remote acoustic alarm.

Can work with 1, 2 or 3 probes depending on use.
Protection level IP 55.
Operating temperature range: from –10°C to +40°C.
Supplied standard with an electric probe and brackets for wall-mounting.
Cabinet for wall mounting in flame-proof, thermoplastic material.

MODEL	VOLTAGE 50-60 Hz	POWER kW P2 MOT.	POWER NOM. MAX D'IMP. (kW)	CURRENT MAX A	DIMENSIONS			WEIGHT kg
					A	B	H	
ES 7,5 T		4-5,5	7,5	14	270	300	190	5,6

ES 10 T
ES 12,5 T
ES 15 T
ES 20 T
ES 25 T
ES 30 T
ES 40 T

Electrical panels for protection and automatic control using float/s for bore-hole three-phase electric pumps, installed singly.
Available for direct and star-delta starting.
Cabinet for wall mounting in flame-proof, thermoplastic material.
The panel is self-protected and protects the electric pump from overloading and short circuits, power failure with a manually resettable device.
Supplied complete with:
- isolator for the power input line with padlockable door handle;
- self-protected transformer for 24V powering of external commands;
- terminals for connecting electric pump/s and min. and max. control float/s;
- Probes module for the running without water control;
- terminals for connecting a remote acoustic or luminous alarm; (without potential)
- switch on the front of the panel for man - 0 - out operation of the electric pump
- LED on the front of the panel:
  - red LED indicating that the thermal-current protection device has cut in
  - Green LED on the front of the panel indicating the pump is working
  - yellow LED indicating that the auxiliary circuits are working correctly
  - Operating temperature range: -10°C +40°C
  - Storage temperature range: -25°C +55°C
  - Relative humidity (without condensation): 50% a t40°C MAX (90% at 20°C)
  - Max. altitude: 3000 m (a.s.l.)
  - Level of protection: IP55
  - The panels are built to EN 60204-1 and EN 60439-1 standards
  - Supplied standard with an electric probe

MODEL	VOLTAGE 50-60 Hz	POWER kW P2 MOT.	CURRENT MAX A	DIMENSIONS			WEIGHT kg
				A	B	H	
ES 10 T	400V	7,5	18	270	270	165	5,6
ES 12,5 T	400V	9,2	25	270	270	165	5,9
ES 15 T	400V	11	25	270	360	165	8
ES 20 T	400V	15	32	270	360	165	8,1
ES 25 T	400V	18,5	40	270	360	165	8,3
ES 30 T	400V	22	63	270	360	165	8,5
ES 40 T	400V	30	80	270	360	165	8,7

Electrode probe

Used in the protection and CONTROL SYSTEM ES. Ideal for conductible liquids with maximum temperatures of +40°C.
To be connected with a 1,5 mm^2 cable - 550V insulation.

6” DAB MOTORS

CE

6” submerged electric motor, two-pole asynchronous type, with jacket made entirely of stainless steel.
Rotor mounted on thrust bearings designed to carry high axial loads.
16.000 N for motors up to 30 HP (22Kw)
27.000 N for motors up to 50 HP (37Kw)
The motor and internal components are cooled by a mixture of water and polypropylene glycol to safeguard against pollution of the water table. The stator is encased in a hermetically sealed container (canned type) with steel outer jacket. Motor protection to be provided by the user.

NEMA flange
Power supply voltages: 50 Hz: 230V, 230V/400V (Y/D), 400V, 400V/690V (Y/D)
60 Hz: 230V, 380V, 460V, 575V
Protection class IP68
Insulation class F

Constructional features of the motor

STATOR. The stator is encased in a hermetically sealed container with steel outer jacket. Insulation class F, the motor can handle 25 starts/stops per hour

POWER CABLE. All the motors are supplied as standard with a four-pole removable cable that enables easy removal in case of assembly/disassembly of the motor or part of the pump, to prevent damage to the power cable itself.

SUPPORTS. The lower and upper supports are made of G20 cast iron painted with cataphoresis paint and are equipped with carbon graphite bushings.

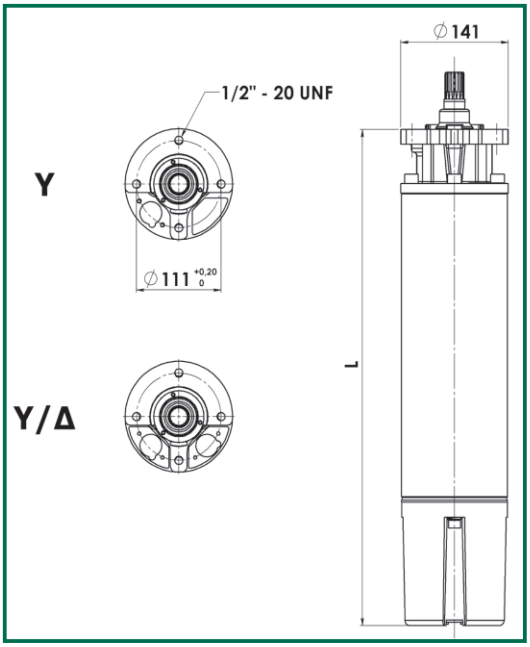
THRUST BEARING SYSTEM. Kingsbury-type thrust bearings with extra high resistance shoes made of hardened steel. The special design and treatment guarantee high durability and long life.

ROTOR SHAFT. Made of stainless steel, with AISI 316 shaft end (up to 25 HP) and AISI 329 for the remaining sizes.

MECHANICAL SEAL. All the 6” motors are equipped with traditional type ceramic alumina mechanical seal. Silicon carbide mechanical seal available on request.

All the motors are equipped with connector with 4 m cable.

HP	kW	PHASE	AXIAL THRUST	L (mm)	Weight (Kg)
5,5	4	3	16000	600	39,5
7,5	5,5	3	16000	631	43,2
10	7,5	3	16000	660	45,5
12,5	9,2	3	16000	685	49
15	11	3	16000	730	53
20	15	3	16000	785	59
25	18,5	3	16000	860	66,5
30	22	3	16000	920	72,5
40	30	3	16000	1050	85



P2 (hp)	P2 (kW)	VOLTAGE 50 Hz. (V)	In (A)	P1 MAX (W)	R.P.M.	cosφ	EFF. η	Ia (A)	CONN.
5,5	4	230	17,3	5290	2840	0,77	0,76	74	Δ
5,5	4	400	10	5290	2840	0,77	0,76	43	Y
5,5	4	415	10,5	5500	2850	0,73	0,73	47	Y
5,5	4	400/690	10	5290	2840	0,77	0,76	14	Y/Δ
7,5	5,5	230	23,7	7270	2840	0,77	0,76	112	Δ
7,5	5,5	400	13,7	7270	2840	0,77	0,76	65	Y
7,5	5,5	415	14	7330	2850	0,73	0,73	70	Y
7,5	5,5	400/690	13,7	7270	2840	0,77	0,76	22	Y/Δ
10	7,5	230	28,7	9550	2840	0,83	0,78	128	Δ
10	7,5	400	16,6	9550	2840	0,83	0,78	74	Y
10	7,5	415	17	9700	2860	0,79	0,77	80	Y
10	7,5	400/690	16,6	9550	2840	0,83	0,78	25	Y/Δ
12,5	9,2	230	36,8	11460	2840	0,78	0,8	147	Δ
12,5	9,2	400	21,3	11460	2840	0,78	0,8	85	Y
12,5	9,2	415	21,6	11600	2850	0,73	0,79	95	Y
12,5	9,2	400/690	21,3	11460	2840	0,78	0,8	28	Y/Δ
15	11	230	42,3	13860	2840	0,81	0,79	195	Δ
15	11	400	24,5	13860	2840	0,81	0,79	113	Y
15	11	415	25,1	14100	2850	0,79	0,78	125	Y
15	11	400/690	24,5	13860	2840	0,81	0,79	37	Y/Δ
20	15	230	56	17960	2840	0,8	0,83	277	Δ
20	15	400	32,5	17960	2840	0,8	0,83	160	Y
20	15	415	33,3	18200	2850	0,77	0,82	170	Y
20	15	400/690	32,5	17960	2840	0,8	0,83	53	Y/Δ
25	18,5	230	73,8	22300	2850	0,8	0,83	370	Δ
25	18,5	400	42,7	22300	2850	0,8	0,83	215	Y
25	18,5	415	43,3	22450	2860	0,79	0,82	230	Y
25	18,5	400/690	42,7	22300	2850	0,8	0,83	72	Y/Δ
30	22	230	86,5	26500	2850	0,8	0,83	415	Δ
30	22	400	50	26500	2850	0,8	0,83	240	Y
30	22	415	50,8	26850	2860	0,79	0,82	257	Y
30	22	400/690	50	26500	2850	0,8	0,83	80	Y/Δ
40	30	400	63	35130	2850	0,81	0,85	280	Y
40	30	415	64	35600	2860	0,8	0,84	296	Y
40	30	400/690	63	35130	2850	0,81	0,85	93	Y/Δ

6” FRANKLIN MOTORS

CE

GENERAL DATA

Applications

The 6” Franklin Electric motors built according to ISO standard 9001 guarantee reliable operation in wells with a diameter of 6 inches or larger. The axial and radial bearings, lubricated by the water, enable maintenance-free operation. The motors are prefilled with antifreeze, enabling the motor to be stored at temperatures down to -15°C. Pressure compensation inside the motor is ensured by a special diaphragm.

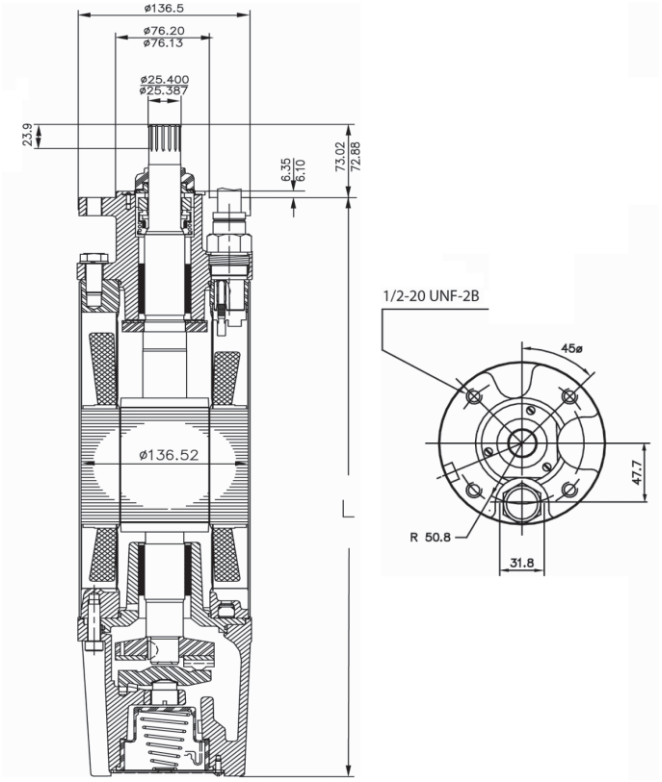
Advantages:
• Hermetically sealed stator, special resin-filled stator • Removable power supply cable “ Water Block” • Cable material in compliance with drinking water regulations (with related control)
• Sand protection and mechanical seal designed to enable optimum operation in the presence of sand
• High efficiency at low operating costs • All the motors are pre-filled with liquid and 100% tested
• Water-filled design to safeguard against pollution

Technical Specifications

Standard motor:
• 4.0 ... 45 kW
• NEMA 6" flange
• Protection class: IP68
• Number of starts per hour: max. 20
• Vertical and horizontal operation
• Rated voltage: 380-415V/50Hz, voltage tolerance: +6% / -10% (standard: 415+6% = 440V, 380-10% =342V)
• Motor protection: selection of thermal overload relays according to EN 60947-4-1 standard, trip class 10 or 10A, trip time < 10 s at 5 x IN
• Insulation class F
• Ambient temperature: 30°C
• Minimum cooling flow 0.16 m/s

Optional features
• Special voltages available upon request
• Motors made entirely of 316 SS stainless steel
• PT100 sensor (order separately)
• „Sandfighter®“ motors with SiC mechanical seal
• Cables available in different lengths, up to 50 m
• YΔ start (cable position 90°)
• Cooling fluid change
• Incorporated PTC temperature sensor
• Incorporated transmitter for protection

kW	L mm	MOTOR SIZE	WEIGHT Kg
4	581,2	135 x 135 x 910	37,5
5,5	614,4	135 x 135 x 910	41,1
7,5	646,2	135 x 135 x 910	45,2
9,3	678,7	135 x 135 x 910	47,5
11	711,2	135 x 135 x 910	50,9
15	776,2	135 x 135 x 1070	56,7
18,5	841,5	135 x 135 x 1070	63,3
22	906,5	135 x 135 x 1070	69,3
30	1036,6	135 x 135 x 1070	83,9



P2 (kW)	AXIAL THRUST	VOLTAGE 50 Hz (V)	R.P.M. 1/min.	In (A)	Ia (A)	EFF. μ	COSφ	Tn (Nm)	Ta (Nm)
4	15500	220	2840	16,4	73	77	0,85	12,5	17,9
4	15500	380	2840	9,5	42	77	0,85	12,5	17,9
4	15500	400	2860	9,3	43	78	0,82	12,3	20,2
5,5	15500	220	2850	22,1	104	78	0,85	18,7	30,3
5,5	15500	380	2850	12,8	60	78	0,85	18,7	30,3
5,5	15500	400	2870	12,5	64	79	0,82	18,6	35
7,5	15500	220	2850	28,2	143	79	0,87	25	43
7,5	15500	380	2850	16,3	83	79	0,87	25	43
7,5	15500	400	2860	16	83	79	0,86	25	47,7
9,3	15500	220	2870	36,4	183	81	0,86	31,1	61,6
9,3	15500	380	2870	21	106	81	0,86	31,1	61,6
9,3	15500	400	2870	20,7	112	81	0,8	31,1	68,2
11	15500	220	2860	41,5	218	81	0,87	37,4	72,8
11	15500	380	2860	24	126	81	0,87	37,4	72,8
11	15500	400	2860	23,3	129	81	0,85	37,3	78,3
15	15500	220	2850	55	283	82	0,86	50	104
15	15500	380	2850	32	164	82	0,86	50	104
15	15500	400	2860	31,3	169	81	0,85	49,9	107,3
18,5	15500	220	2850	69,2	380	82	0,87	62,4	139,7
18,5	15500	380	2850	40	220	82	0,87	62,4	139,7
18,5	15500	400	2850	38,5	231	82	0,85	62,4	154,6
22	15500	220	2840	81,2	441	82	0,88	75,3	160
22	15500	380	2840	47	255	82	0,88	75,3	160
22	15500	400	2860	45,3	268	83	0,86	74,7	177,6
30	15500	220	2860	111	645	82,5	0,85	99,6	237,4
30	15500	380	2860	64,1	373	82,5	0,85	99,6	237,4
30	15500	400	2860	63,5	393	83	0,84	99,4	263,1

CHOOSING THE POWER CABLE

MODEL	Power kW	In A	QUADRIPOLAR CABLE- SECTION (mm²)														
			3 x 400V - **DIRECT STARTING**							3 x 400V - **STAR/DELTA STARTING**						
		SECTION (mm²)	1,5	2,5	4	6	10	16	25	1,5	2,5	4	6	10	16	25
S6B-9	4	9,3	61	102	163	244	406									
S6B-12	5,5	12,5	47	78	125	187	312			81	134	215	323			
S6B-15	7,5	16		59	95	142	237	379		61	102	163	245	408		
S6B-18	9,2	20,7		48	76	114	190	304		49	82	131	197	328		
S6B-21	9,2	20,7		48	76	114	190	304		49	82	131	197	328		
S6B-24	11	23,3			67	100	167	267	418	43	72	115	173	288	461	
S6B-28	15	31,3				73	122	195	305		53	84	126	210	336	
S6D-6	4	9,3	61	102	163	244	406									
S6D-7	5,5	12,5	47	78	125	187	312			81	134	215	323			
S6D-8	5,5	12,5	47	78	125	187	312			81	134	215	323			
S6D-9	5,5	12,5	47	78	125	187	312			81	134	215	323			
S6D-12	7,5	16		59	95	142	237	379		61	102	163	245	408		
S6D-15	9,2	20,7		48	76	114	190	304		49	82	131	197	328		
S6D-18	11	23,3			67	100	167	267	418	43	72	115	173	288	461	
S6D-21	15	31,3				73	122	195	305		53	84	126	210	336	
S6D-24	15	31,3				73	122	195	305		53	84	126	210	336	
S6D-30	18,5	38,5					98	156	244		42	67	101	168	269	421
S6F-4	4	9,3	61	102	163	244	406									
S6F-6	5,5	12,5	47	78	125	187	312			81	134	215	323			
S6F-8	7,5	16		59	95	142	237	379		61	102	163	245	408		
S6F-10	9,2	20,7		48	76	114	190	304		49	82	131	197	328		
S6F-12	11	23,3			67	100	167	267	418	43	72	115	173	288	461	
S6F-14	15	31,3				73	122	195	305		53	84	126	210	336	
S6F-16	15	31,3				73	122	195	305		53	84	126	210	336	
S6F-20	18,5	38,5					98	156	244		42	67	101	168	269	421
S6F-24	22	45,3					86	138	216			60	89	149	238	372
S6H-3	4	9,3	61	102	163	244	406									
S6H-4	5,5	12,5	47	78	125	187	312			81	134	215	323			
S6H-5	7,5	16		59	95	142	237	379		61	102	163	245	408		
S6H-6	9,2	20,7		48	76	114	190	304		49	82	131	197	328		
S6H-8	11	23,3			67	100	167	267	418	43	72	115	173	288	461	
S6H-9	15	31,3				73	122	195	305		53	84	126	210	336	
S6H-10	15	31,3				73	122	195	305		53	84	126	210	336	
S6H-12	18,5	38,5					98	156	244		42	67	101	168	269	421
S6H-15	22	45,3					86	138	216			60	89	149	238	372
S6H-18	30	63,5						103	161				67	111	178	278
S6H-20	30	63,5						103	161				67	111	178	278
S6L-3	5,5	12,5	47	78	125	187	312									
S6L-4	7,5	16		59	95	142	237	379		61	102	163	245	408		
S6L-5	9,2	20,7		48	76	114	190	304		49	82	131	197	328		
S6L-6	11	23,3			67	100	167	267	418	43	72	115	173	288	461	
S6L-8	15	31,3				73	122	195	305		53	84	126	210	336	
S6L-9	15	31,3				73	122	195	305		53	84	126	210	336	
S6L-10	18,5	38,5					98	156	244		42	67	101	168	269	421
S6L-12	22	45,3					86	138	216			60	89	149	238	372
S6L-15	30	63,5						103	161				67	111	178	278
S6L-18	30	63,5						103	161				67	111	178	278

MAXIMUM LENGTH IN METRES

The table has been calculated considering a 4% voltage drop along the cable.
The loads of the cables have been established for an ambient temperature of 30°C, with H07RNF cables or equivalent.

NOTES

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NOTES

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