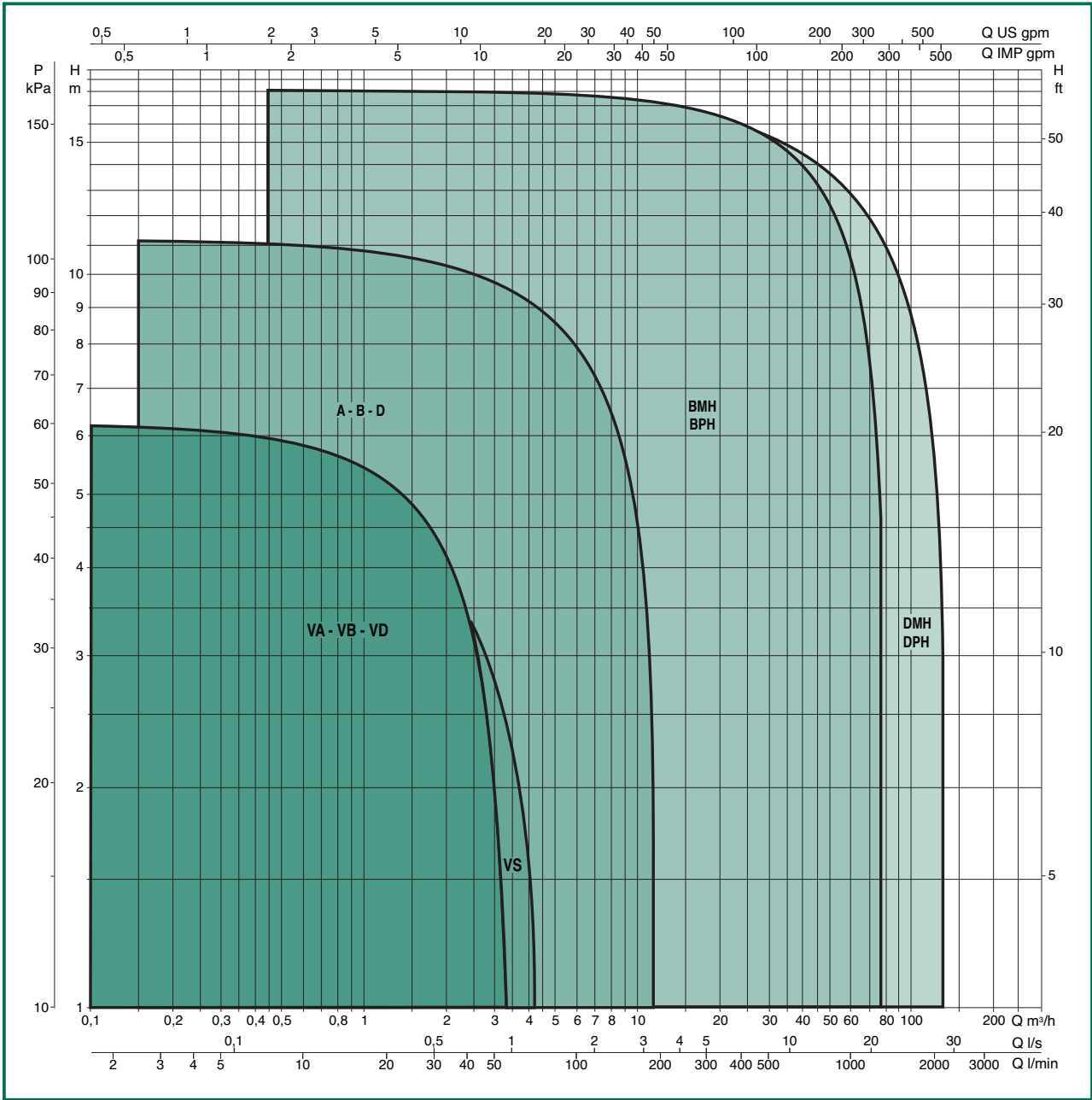


CIRCULATORS WET ROTOR

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

GRAPHIC SELECTION TABLE



PERFORMANCE RANGE

NUMERICAL SELECTION TABLE

SINGLE Single-phase - Three-phase	TWIN Single-phase - Three-phase	P1 Max W	Q m³/h l/min	0	0,6	1,2	1,8	2,4	3	4,2	5,4	7,2	9,6	12	14,4	18	24	30	36	42	54	72
				0	10	20	30	40	50	70	90	120	160	200	240	300	400	500	600	700	900	1200
VA 25 - VSA 25	-	57	H (m)	2,7	2,5	2,2	1,8	1,3	0,6													
VA 35 - VSA 35	-	71		4,3	3,9	3,4	2,9	2,1	1,4													
VA 55 - VSA 55	VD 55/220.32	82		5,4	4,8	4	3,2	2,4	1,4	0,2												
VA 65 - VSA 65	-	102		6,1	5,4	4,6	3,9	3,1	2,4													
VB 35/120	-	71		4,3	3,9	3,4	2,9	2,1	1,4													
VB 55/120	-	82		5,4	4,8	4	3,2	2,4	1,4	0,2												
VB 65/120	VD 65/220.32	102		6,1	5,4	4,6	3,9	3,1	2,4													
VS 8/150	-	40	H (m)	0,83	0,73	0,52	0,21															
VS 16/150	-	54		1,81	1,78	1,62	1,41	0,6	0,6													
VS 35/150	-	71		4,31	3,9	3,4	2,8	2,1	1,4													
VS 65/150	-	103		6	5,4	4,6	3,9	3,1	2,1													
A 50/180 M - XM B 50/250.40 M	D 50/250.40 M	184	H (m)	5,7	5,6	5,4	5,3	5,1	4,8	4,2		2,6										
A 56/180 M - XM B 56/250.40 M	D 56/250.40 M	271		6,35	6,3	6,2	6,18	6	5,9	5,5		4,2		1,2								
A 80/180 M - XM B 80/250.40 M	D 80/250.40 M	256		8,25	8	7,6	7,4	7,2	6,9	6,3		3,8										
A 110/180 XM B 110/250.40 M	D 110/250.40 M	410		11,3	11	10,8	10,5	10	9,8	9,2		7		1,6								
A 50/180 XT B 50/250.40 T	D 50/250.40 T	201		5,9	5,85	5,8	5,6	5,5	5,2	4,6		2,9										
A 50/180 T	-	197		5,6	5,6	5,6	5,5	5,43	5,4	4,9		2,8										
A 56/180 XT B 56/250.40 T	D 56/250.40 T	291		6,4	6,3	6,2	6,1	6	5,9	5,7		4,4										
A 56/180 T	-	297		6,42	6,42	6,41	6,4	6,4	6,4	6,1		4,8										
A 80/180 XT B 80/250.40 T	D 80/250.40 T	272		8,2	7,9	7,6	7,3	7	6,8	6,1		3,7										
A 80/180 T	-	271		8,2	7,9	7,6	7,3	7	6,8	6,1		3,7										
A 110/180 XT B 110/250.40 T	D 110/250.40 T	403		11,3	11	10,8	10,5	10	9,8	9,2		7		1,6								
BPH 60/250.40 M	DPH 60/250.40 M	316	H (m)	7,2			6,8	6,7	6,5	6,2	5,8	5	3,7	2								
BPH 120/250.40 M	DPH 120/250.40 M	510		11			10,3	10,1	9,8	9,2	8,6	7,65	6,2	4,35	2,4							
BPH 60/280.50 M	DPH 60/280.50 M	595		7,65			7,5	7,45	7,4	7,3	7,2	6,98	6,7	6,2	5,75	4,6	2,3					
BPH 60/340.65 M	DPH 60/340.65 M	735		6,8			6,79	6,75	6,7	6,6	6,57	6,5	6,35	6,2	5,95	5,5	4,35	2,85	1,2			
BMH 30/250.40 T	DMH 30/250.40 T	192		3,3			3,1	2,95	2,85	2,5	2,1	1,15										
BPH 60/250.40 T	DPH 60/250.40 T	348		7,65			7,4	7,3	7,2	6,8	6,4	5,45	3,9	2,25								
BPH 120/250.40 T	DPH 120/250.40 T	536		12				11	10,7	10,1	9,5	8,4	6,8	4,7	2,2							
BMH 30/280.50 T	DMH 30/280.50 T	255		3,15				3,02	3	2,93	2,85	2,65	2,3	1,75	1,2							
BMH 60/280.50 T	DMH 60/280.50 T	410		5,83				5,65	5,6	5,49	5,35	5,1	4,75	4,2	3,65	2,62						
BPH 60/280.50 T	DPH 60/280.50 T	589		7,95				7,75	7,7	7,6	7,5	7,35	6,92	6,45	5,85	4,65	2,4					
BPH 120/280.50 M	DPH 120/280.50 M	870		11,3						10,8	10,5	10,3	9,9	9,4	8,5	7,2	4,8	2,1				
BPH 120/280.50 T	DPH 120/280.50 T	898		11,7						11,3	11	10,75	10,25	9,6	8,9	7,75	5,4	2,6				
BPH 150/280.50 T	DPH 150/280.50 T	1130		15						14,6	14,4	14	13,6	12,7	11,8	10,5	7,5					
BPH 180/280.50 T	DPH 180/280.50 T	1630		18,4								17,4	17	16,4	15,6	14,4	12	8,8	5,2			
BMH 30/340.65 T	DMH 30/340.65 T	270		3,15						3,09	3,02	2,98	2,85	2,55	2,25	1,65						
BMH 60/340.65 T	DMH 60/340.65 T	445		5,4						5,15	5,05	4,9	4,7	4,45	4,1	3,45	2,25					
BPH 60/340.65 T	DPH 60/340.65 T	756		7,4						7,35	7,3	7,24	7,1	6,9	6,65	6,15	4,9	3,3	1,4			
BPH 120/340.65 T	DPH 120/340.65 T	1275		10,9						10,75	10,68	10,6	10,5	10,38	10,2	9,8	8,7	7,15	5,2	3		
BPH 150/340.65 T	DPH 150/340.65 T	2800		14,9						14,88	14,83	14,75	14,65	14,55	14,3	13,88	12,65	11	9,35	7,15		
BPH 180/340.65 T	DPH 180/340.65 T	2760		17,9								17,8	17,7	17,5	17,3	16,8	15,7	14,1	12,1	10		
BMH 30/360.80 T	DMH 30/360.80 T	484		3,9								3,85	3,8	3,75	3,65	3,48	3,1	2,45	1,75			
BMH 60/360.80 T	DMH 30/360.80 T	763		5,7								5,66	5,61	5,59	5,5	5,4	5	4,55	3,9	3,1		
BPH 120/360.80 T	DPH 120/360.80 T	1820		11,8								11,65	11,58	11,5	11,4	11,25	10,75	10,2	9,39	8,37	5,65	
BPH 150/360.80 T	DPH 150/360.80 T	2710		15,3								15,1	15,06	14,99	14,92	14,75	14,5	14	13,4	12,4	10,3	6
BPH 180/360.80 T	DPH 180/360.80 T	2310		17,5								17,4	17,25	17,1	16,8	16,25	15	13,7	12	10,1	5,5	

Hydraulic values are assumed at maximum speed and are referred to individual models.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS



GENERAL DATA

Applications

Pump for hot water circulation in domestic central heating and air conditioning systems of the closed circuit pressurized type or open circuit type.

Construction features

Enbloc body composed of hydraulic section in cast iron and wet rotor motor. Motor casing in die cast aluminium. Impeller in technopolymer. Motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.

Rotor protective jacket, stator jacket, and closing flange in stainless steel.

Ceramic thrust ring, ethylene-propylene seal rings and brass air breather plug. The two-pole asynchronous wet-rotor motor is resistance protected and does not require any form of overload protection.

Three-speed operation.

Protection rating: IP 44

Insulation class: F

Cable gland: PG 11

Installation: with horizontal motor shaft.

Standard voltage input: single-phase 230 V / 50 Hz

Special versions on request - alternative voltages and/or frequencies

– Designation index:
(example)

VA = circulator with threaded ports

VB = circulator with
DN 25 oval flanges

VD = twin circulator

maximum head (dm)

centre distance (mm)

standard (no ref.)

1/2"

X

32

= 1" 1/2 threaded ports

= 1" threaded ports

= 2" threaded ports

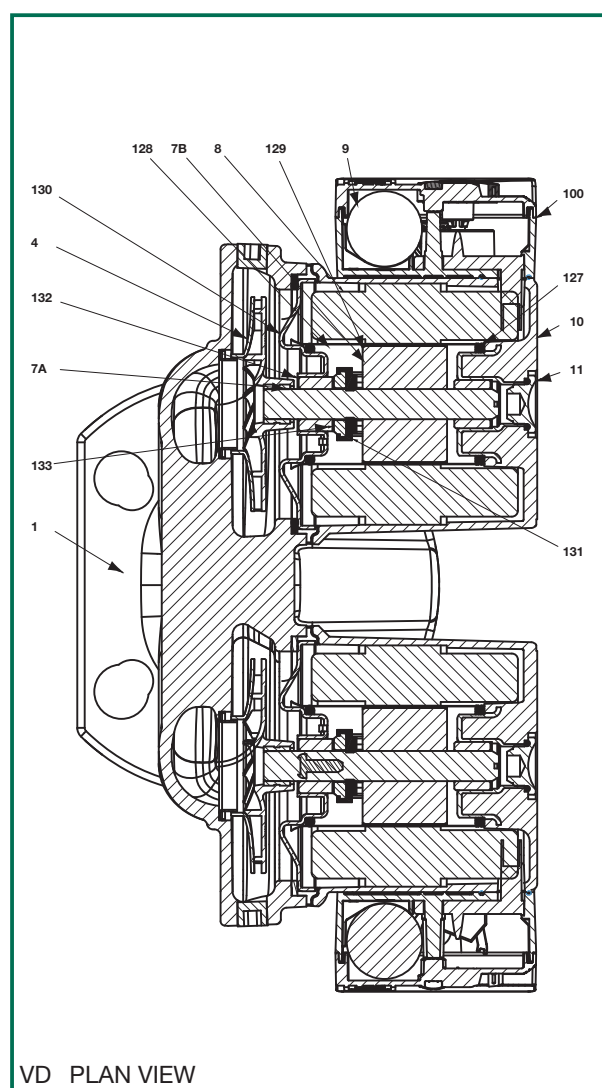
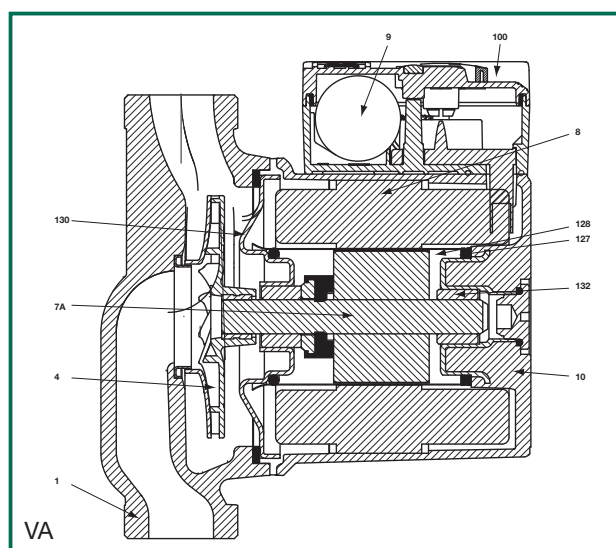
= DN32/PN6/10 flanged ports

VA 55 / 180 X

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

TECHNICAL DATA

No.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHER PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE POLYPROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE PROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



Operating range:

Liquid temperature range:

Liquid quality requirements:

Maximum working pressure:

Minimum suction pressure:

Installation:

SPECIAL executions on request:

Optional accessories:

VA - VB - VD: from 0.5 to 3.6 m³/h with head of up to 6 m.

VA - VB - VD: from -10°C to +110°C

clean, free of solids and mineral oils, non-viscous,
chemically neutral and approximating the properties of water
(max. glycol contents 30%).

VA - VB - VD 10 bar (1000 kPa)

the values are given in the relative tables.

with HORIZONTAL MOTOR SHAFT on discharge or return pipe,
with suction port as close as possible to expansion vessel, above
maximum boiler level and as far as possible from bends, elbows,
and circuit branches to avoid water turbulence with consequent
noise.

alternative voltages and/or frequencies

1/4" F - 1" F - 1 1/4" F - 1 1/4" M unions

DN20-DN25-DN32 oval counter-flanges

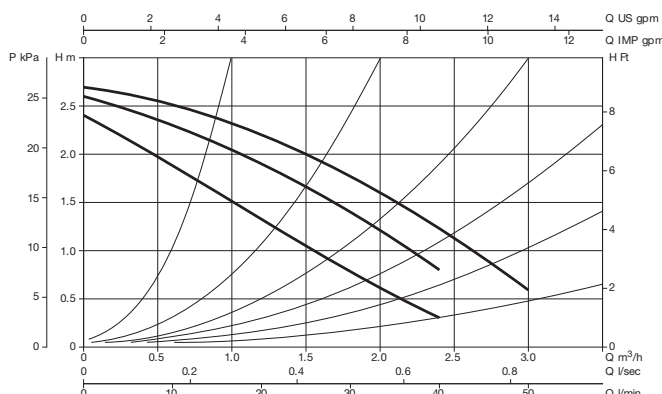
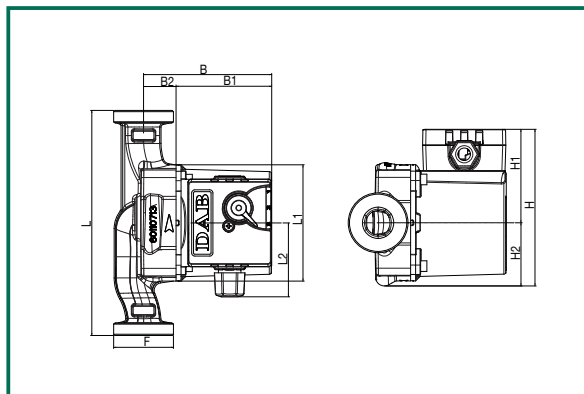
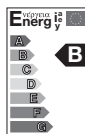
DN32/PN6 round counter-flanges

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

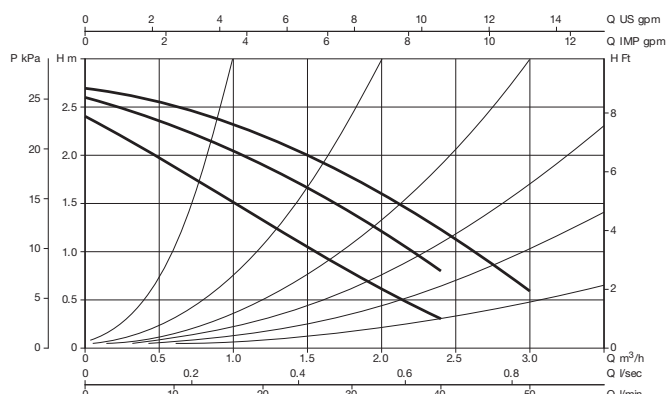
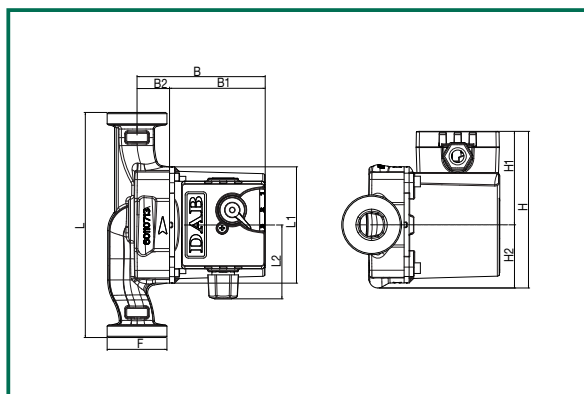
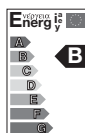
VA 25/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VA 25/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

VA 25/180 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

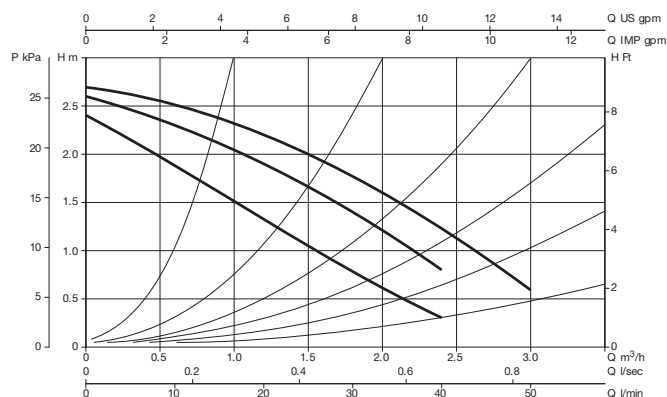
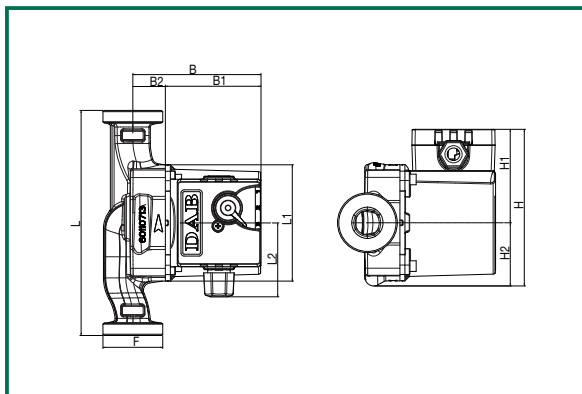
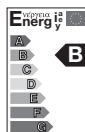
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VA 25/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

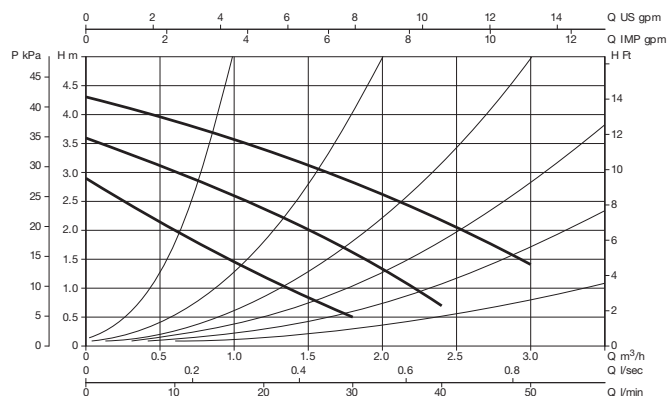
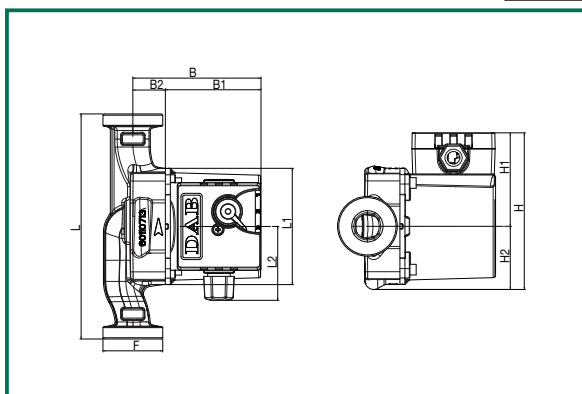
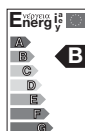
VA 25/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
										L	B	H		
180	93	59	102,5	76,5	26	125,5	75	50,5	48	130	190	150	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
VA 25/180X	1x230 V ~	180	1" 1/4 F	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5	
				2	2380	38	0,17				
				1	1680	31	0,15				

VA 35/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
										L	B	H		
130	93	59	102,5	76,5	26	125,5	75	50,5	48	135	135	150	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
VA 35/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5	
					2	1930	50	0,22				
					1	1150	35	0,16				

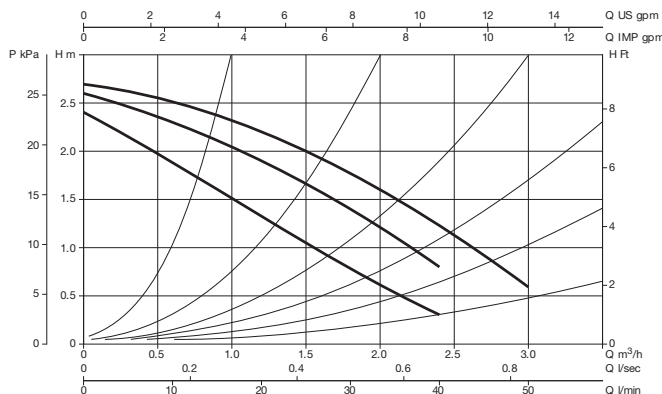
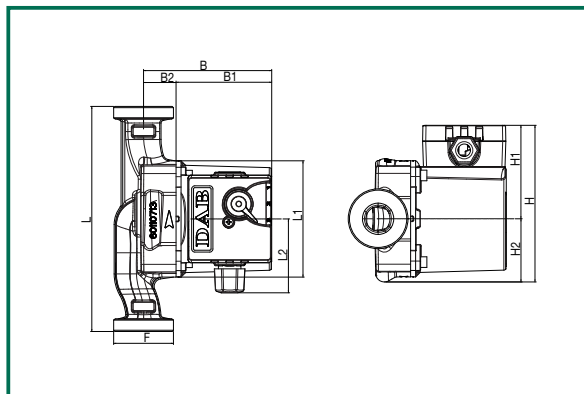
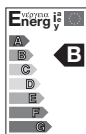
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VA 35/130 - 1/2"

SINGLE WITH UNIONS

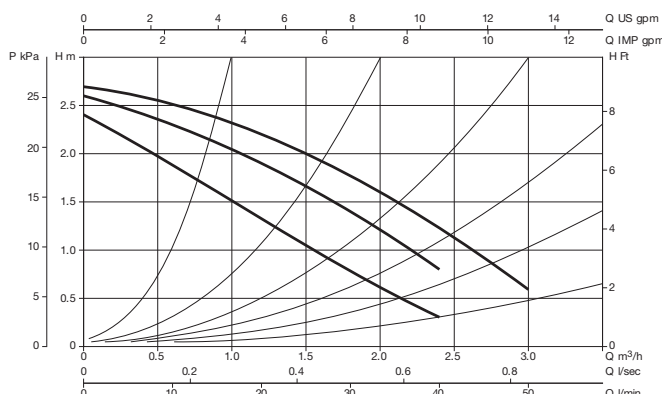
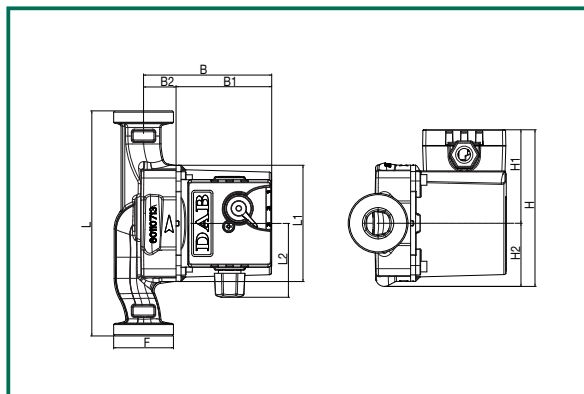
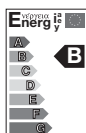


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _C		
VA 35/130 ½"	1x230 V ~	130	—	—	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

VA 35/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

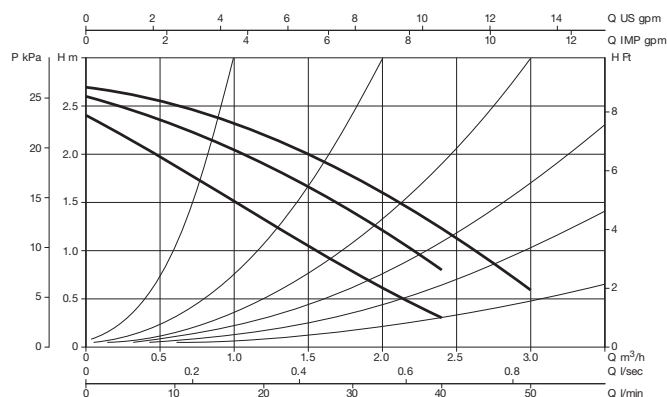
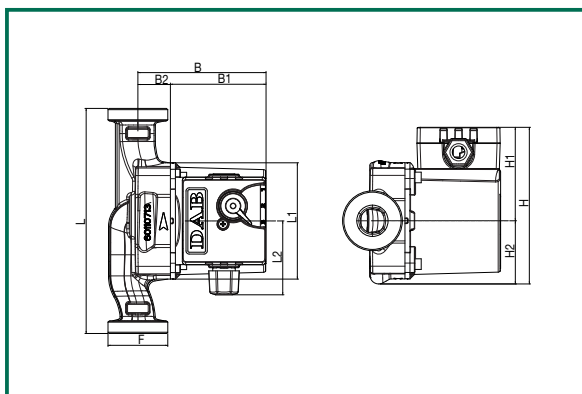
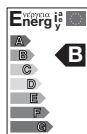
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _C		
VA 35/180	1x230 V ~	180	1" F	¾" F - 1 ¼" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

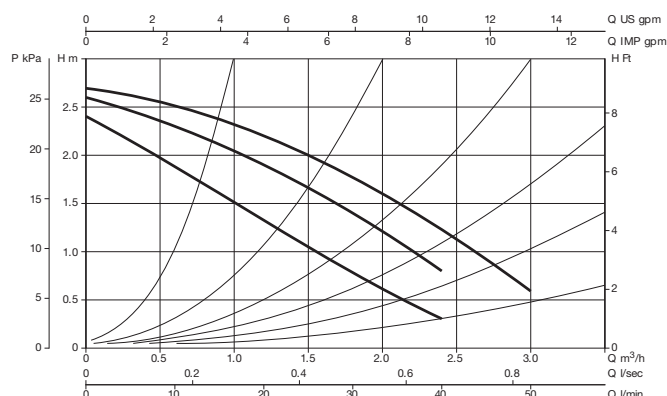
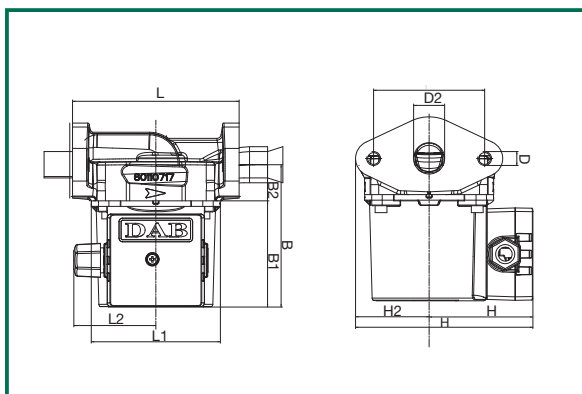
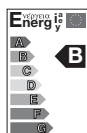
VA 35/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc		
VA 35/180X	1x230 V ~	180	1 1/4" F	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5	
				2	1930	50	0,22				
				1	1150	35	0,16				

VB 35/120 SINGLE WITH OVAL FLANGES



L	L1	L2	B	B1	B2	H	H1	H2	D2	D1	I	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
120	98	60	104	78	26	124	75	49	25	M10	78	L	B	H	0,0027	2,7

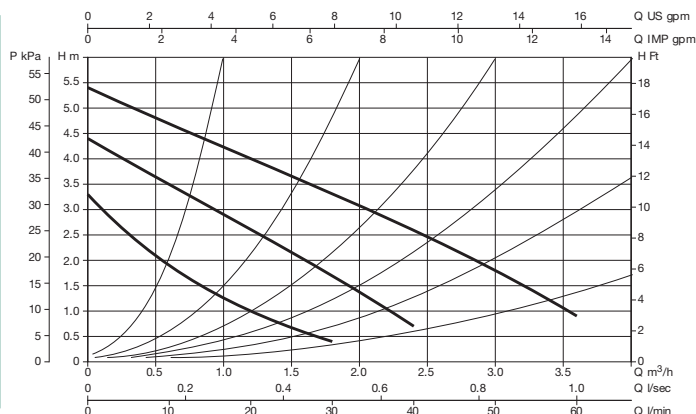
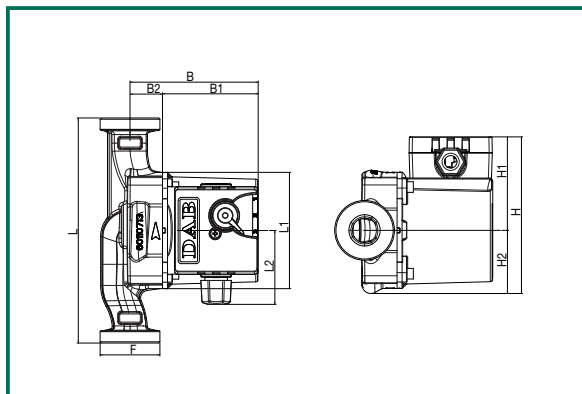
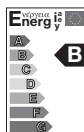
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc		
VB 35/120	1x230 V ~	120	DN 25	DN 20 DN 32	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5	
					2	1930	50	0,22				
					1	1150	35	0,16				

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VA 55/130 SINGLE WITH UNIONS

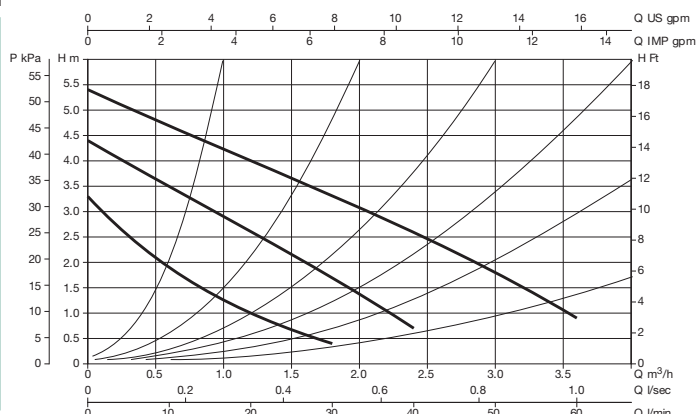
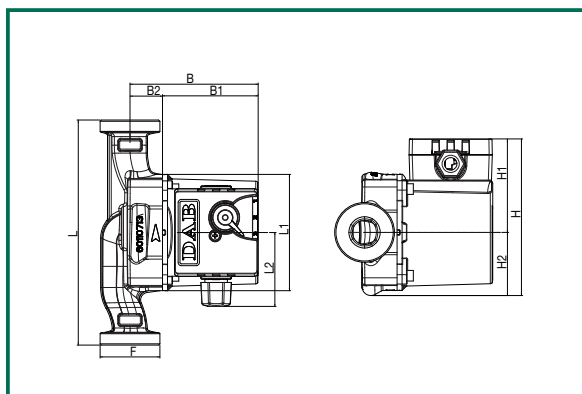
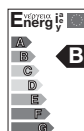


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 55/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

VA 55/130 - 1/2"

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

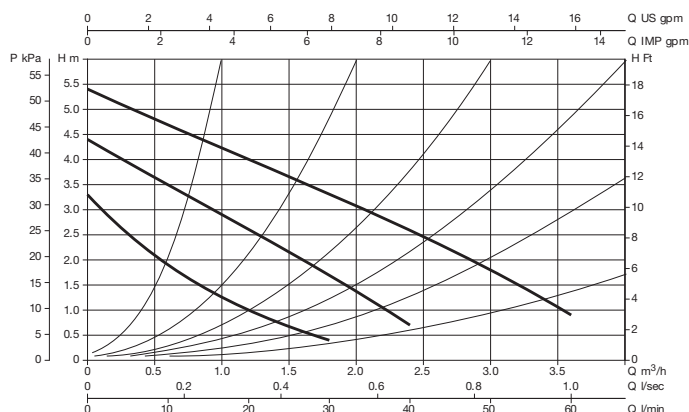
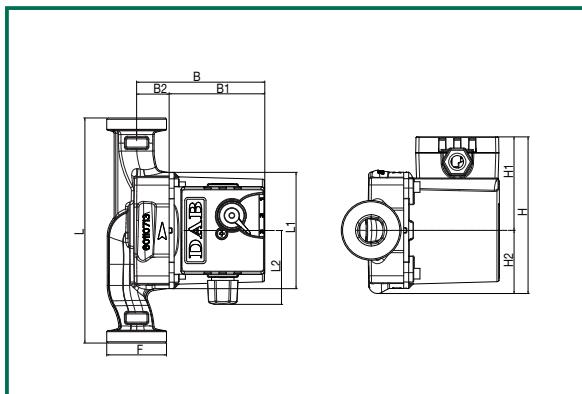
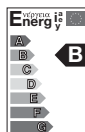
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 55/130 1/2"	1x230 V ~	130	-	-	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

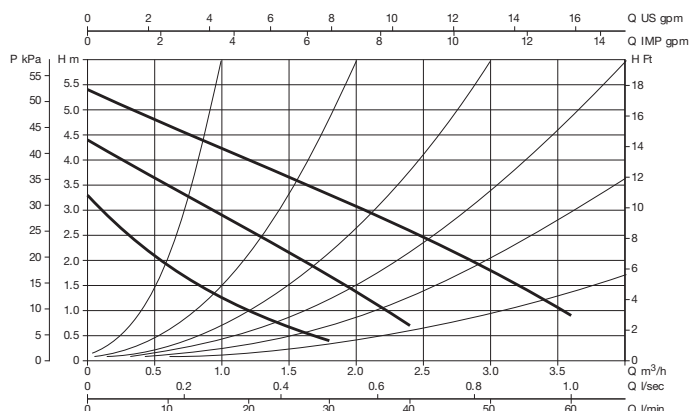
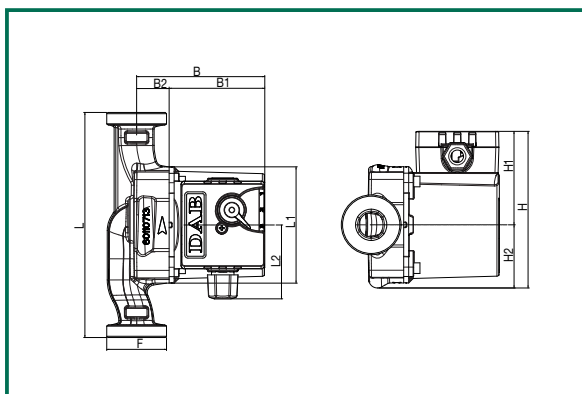
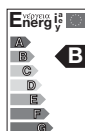
VA 55/180 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _c	
VA 55/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2400	70	0,3	1,7 450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26		
					1	930	36	0,17		

VA 55/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

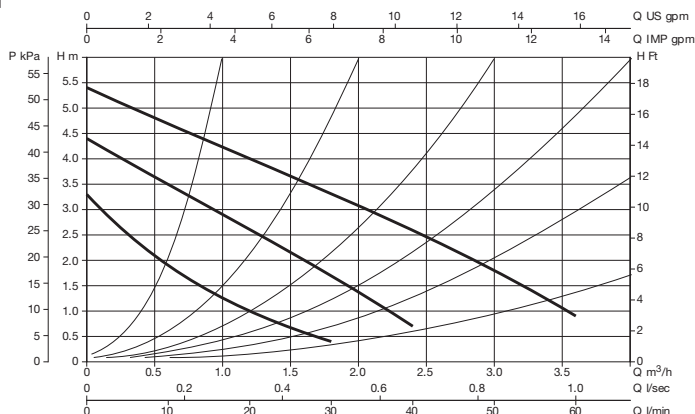
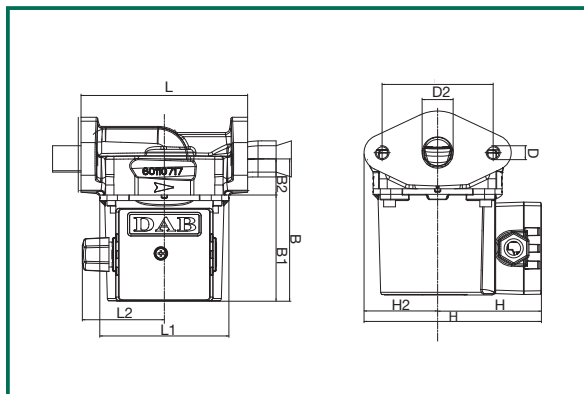
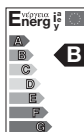
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _c	
VA 55/180X	1x230 V ~	180	1 1/4" F	3	2400	70	0,3	1,7 450	t° +90°C m.c.a. 1,5
				2	1600	58	0,26		
				1	930	36	0,17		

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

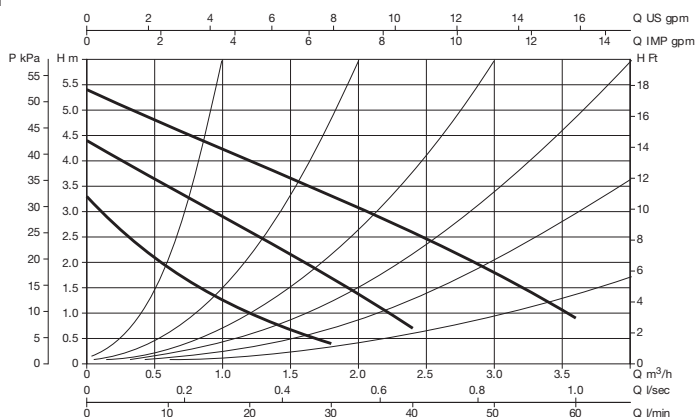
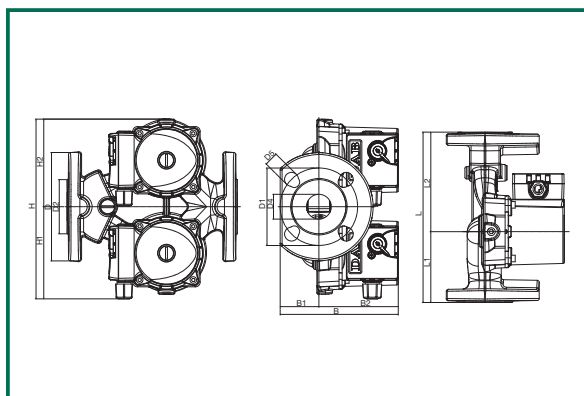
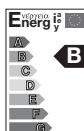
VB 55/120 SINGLE WITH OVAL FLANGES



L	L1	L2	B	B1	B2	H	H1	H2	D2	D1	I	PACK DIMENSIONS			VOLUME	WEIGHT
												L	B	H	m ³	Kg
120	98	60	104	78	26	124	75	49	25	M10	80	135	135	150	0,0027	2,7

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VB 55/120	1x230 V ~	120	DN 25	DN 20 DN 32	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

VD 55/220.32 TWIN FLANGED



L	L1	L2	B	B1	B2	D	D1 PN6/PN10	D2	D4	D5 PN6/PN10	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
														B	L	H	m ³	Kg
220	91,5	128,5	150	50	100	140	90 100	70	32	14 18	230	115	115	160	253	238	0,0096	8,2

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VD 55/220.32	1x230 V ~	220	DN 32 / PN 6 / PN 10	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
				2	1600	58	0,26			
				1	930	36	0,17			

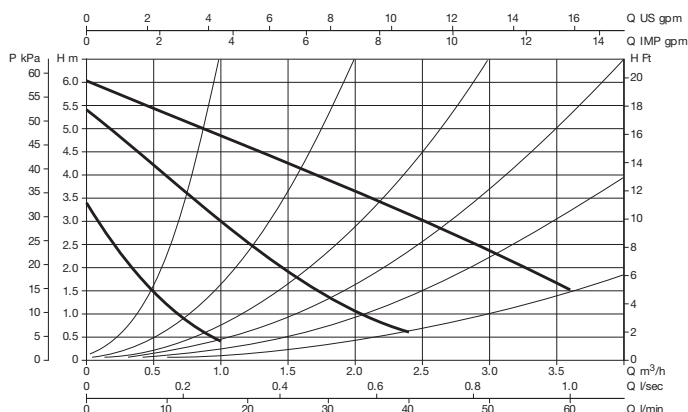
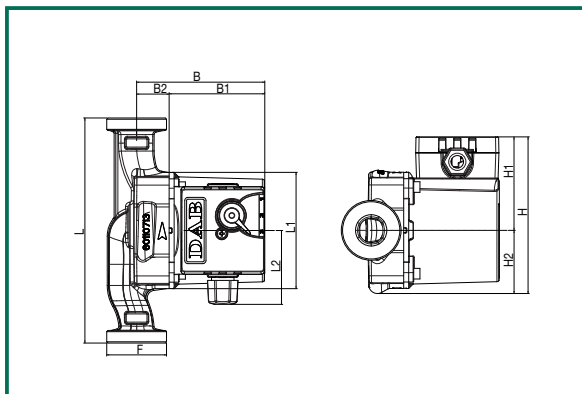
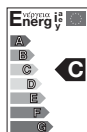
*Electrical and hydraulic data refer to operation of just one motor.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

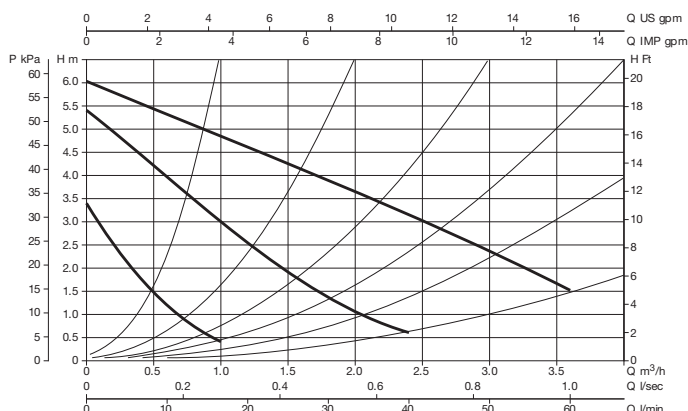
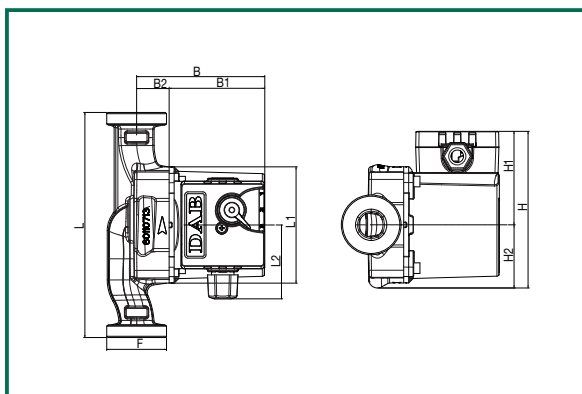
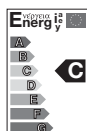
VA 65/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VA 65/130 1/2" SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

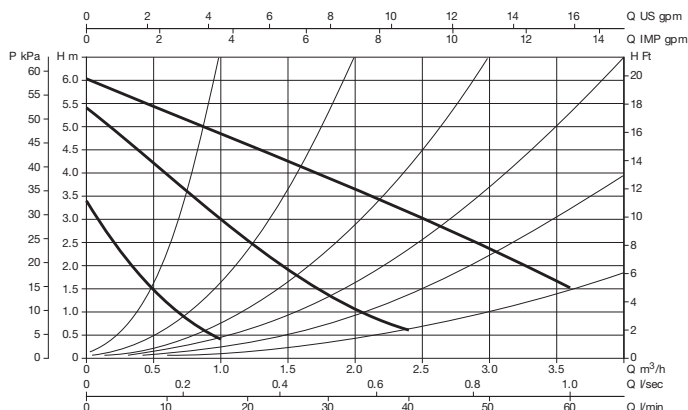
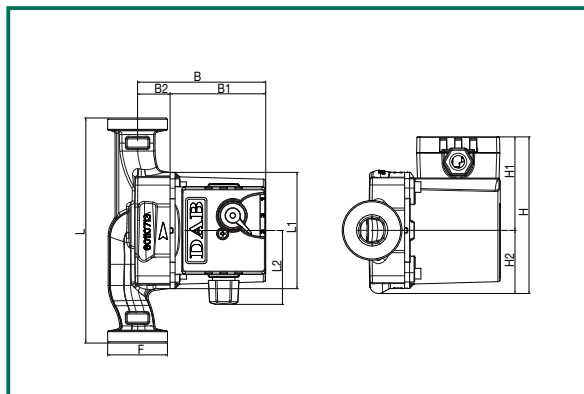
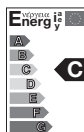
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/130 1/2"	1x230 V ~	130	-	-	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

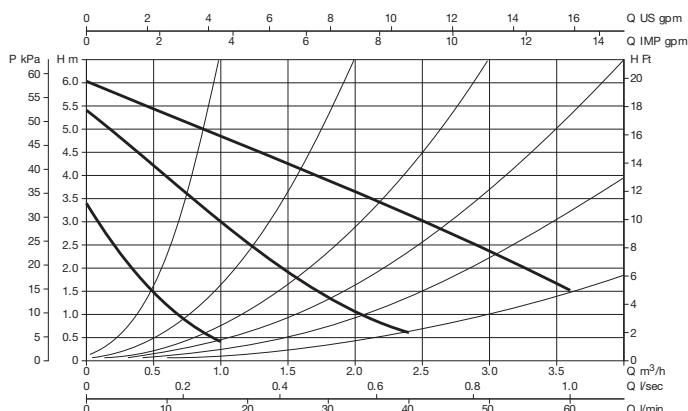
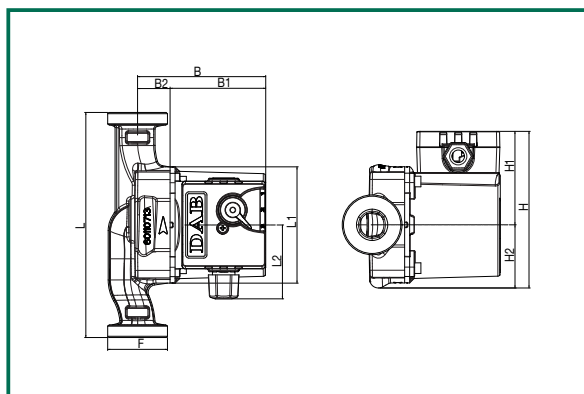
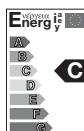
VA 65/180 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VA 65/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

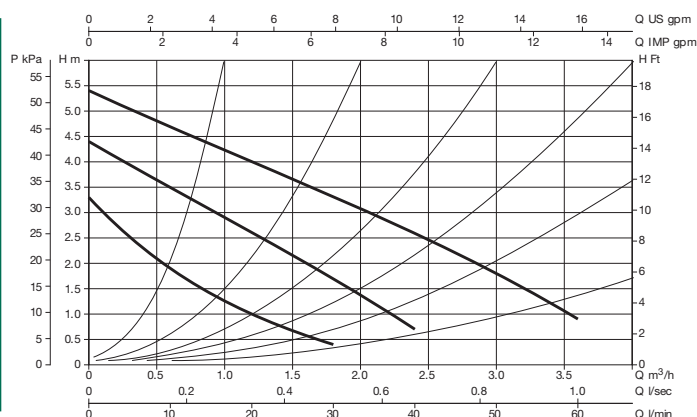
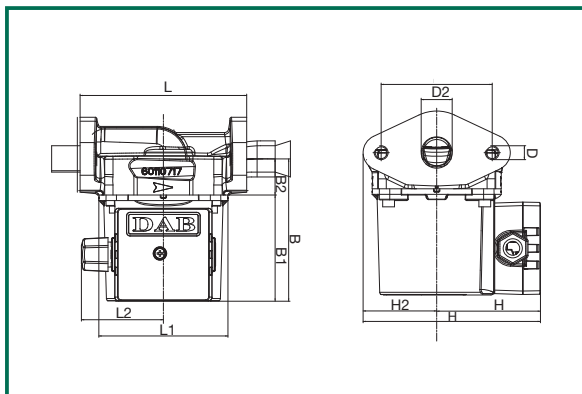
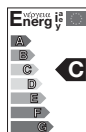
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/180X	1x230 V ~	180	1 1/4" F	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
				2	1532	59	0,26			
				1	880	37	0,17			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

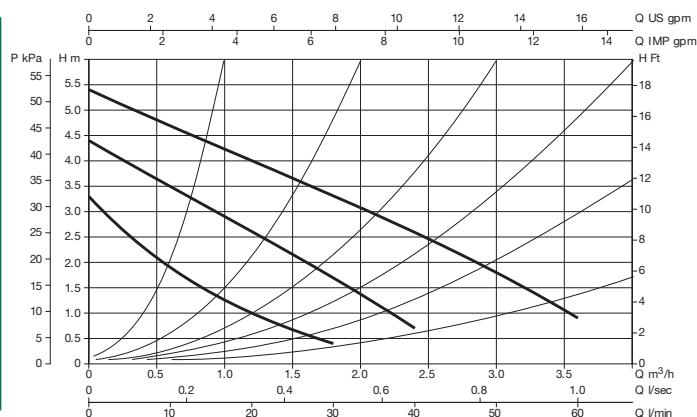
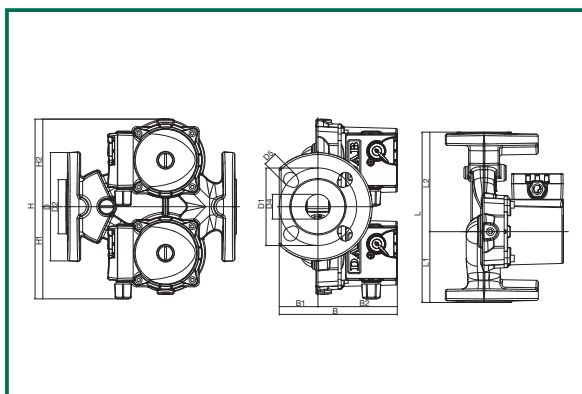
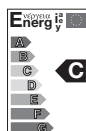
VB 65/120 SINGLE WITH OVAL FLANGES



L	L1	L2	B	B1	B2	D2	D1	I	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
												L	B	H	m ³	Kg
120	98	60	104	78	26	26	M10	80	124	75	49	135	135	150	0,0027	2,7

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VB 65/120	1x230 V ~	120	DN 25	DN 20 DN 32	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VD 65/220.32 TWIN FLANGED



L	L1	L2	B	B1	B2	D	D1 PN6/PN10	D2	D4	D5 PN6/PN10	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
														B	L	H	m ³	Kg
220	91,5	128,5	150	50	100	140	90 100	70	31	14 18	230	115	115	160	253	238	0,0096	8,2

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VD 65/220.32	1x230 V ~	220	DN 32 / PN 6 / PN 10	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
				2	1532	59	0,26			
				1	880	37	0,17			

*Electrical and hydraulic data refer to operation of just one motor.

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS



GENERAL DATA

Applications

Pump for hot water circulation in domestic central heating and air conditioning systems of the closed circuit pressurized type or open circuit type.

Construction features

Enbloc body composed of hydraulic section in bronze and wet rotor motor. Motor casing in die cast aluminium. Impeller in technopolymer. Motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.

Rotor protective jacket, stator jacket, and closing flange in stainless steel.

Ceramic thrust ring, silicone seals and brass air breather plug. The two-pole asynchronous wet-rotor motor is resistance protected and does not require any form of overload protection.

Three-speed operation.

Protection rating: IP 44

Insulation class: F

Cable gland: PG 11

Installation: with horizontal motor shaft.

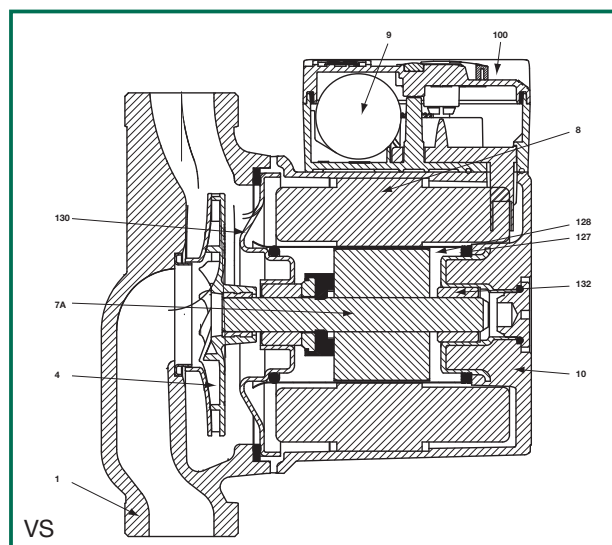
Standard voltage input: single-phase 230 V / 50 Hz

Special versions on request - alternative voltages and/or frequencies

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS

TECHNICAL DATA

No.	PARTS	MATERIALS
1	PUMP BODY	BRONZE
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	CERAMIC
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHER PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE POLYPROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE POLYPROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



– Designation index:
(example)

VS 8 / 150

VS = domestic hot water circulator _____

maximum head (dm) _____

centre distance (mm) _____

Operating range:

from 0.6 to 3.7 m³/h with head of up to 6 m.

Liquid temperature range:

from -10°C to +85°C for DHW applications and +110°C for other uses
To avoid the formation of lime scale avoid exceeding 65°C and
install an anti-scale system when water hardness exceeds 15°f.

Liquid quality requirements:

clean, free of solid contaminants and mineral oils, non-viscous,
chemically neutral, close to the properties of water
(max. glycol contents 30%).

Maximum working pressure:

10 bar (1000 kPa).

Minimum suction pressure:

the values are given in the relative tables.

Installation:

with HORIZONTAL MOTOR SHAFT

Special executions on request:

alternative voltages and/or frequencies

Accessories:

1/2" F - 3/4" F - 1" F unions
solder unions for copper pipes:

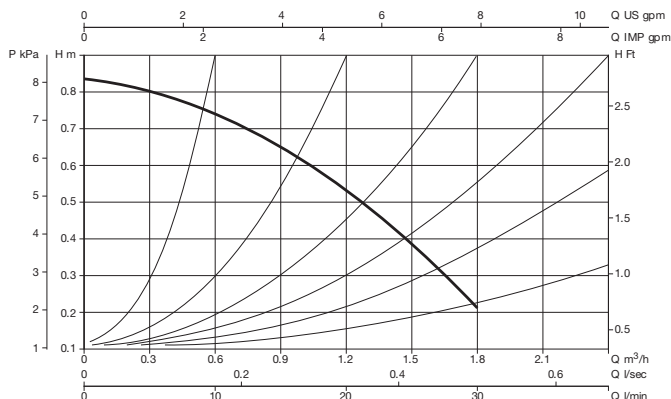
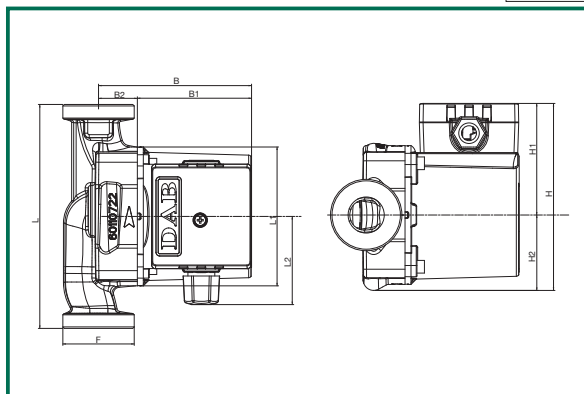
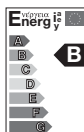
Ø 22 mm
Ø 28 mm

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS

Liquid temperature range: from -10°C to +85°C
Maximum working pressure: 10 bar (1000 kPa)

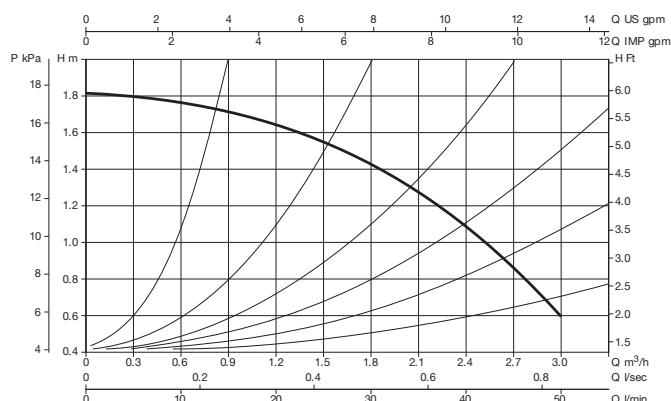
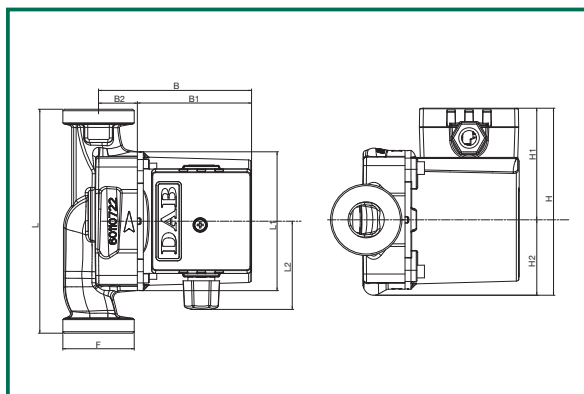
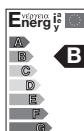
VS 8/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VS 8/150	1x230 V ~	150	BRASS: 1/2"F - 3/4"F - 1"F COPPER: Ø 22 - Ø 28	1340	22	0,14	1,5	450	t° +90°C m.c.a. 1,5

VS 16/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

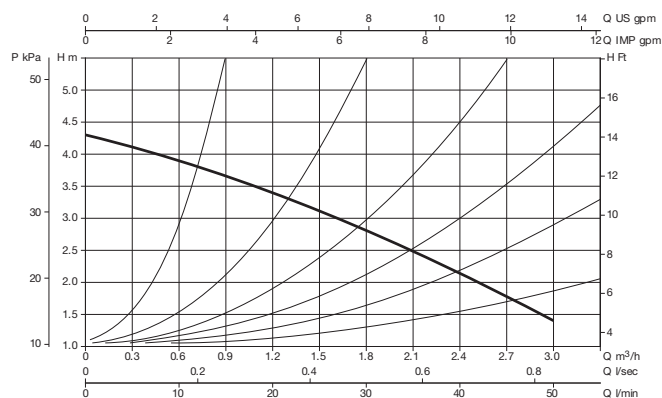
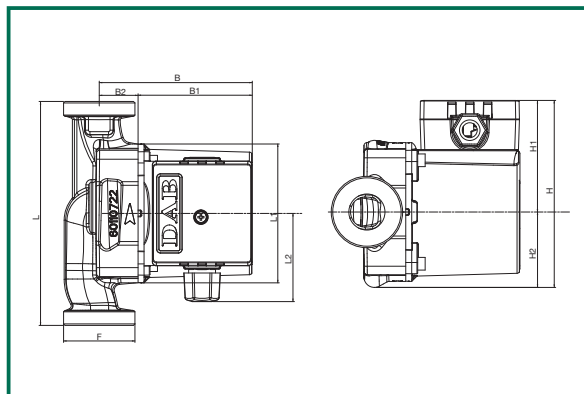
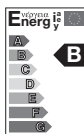
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VS 16/150	1x230 V ~	150	BRASS: 1/2"F - 3/4"F - 1"F COPPER: Ø 22 - Ø 28	2784	41	0,19	1,5	450	t° +90°C m.c.a. 1,5

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS

Liquid temperature range: from -10°C to +85°C
Maximum working pressure: 10 bar (1000 kPa)

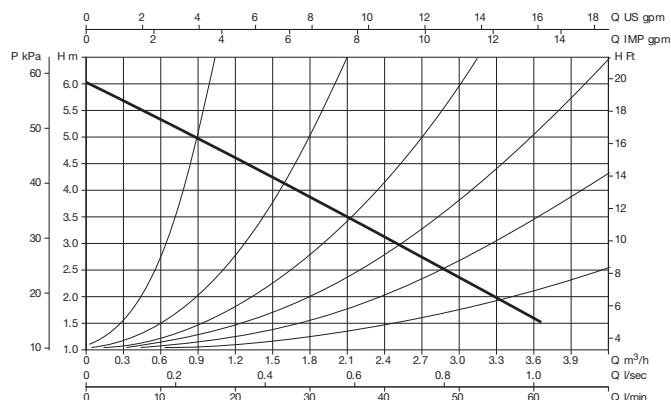
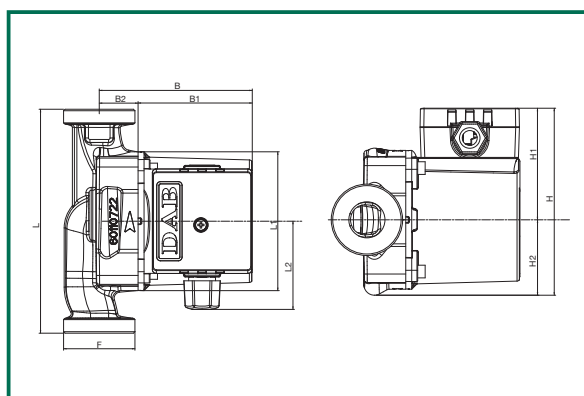
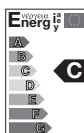
VS 35/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR μF	V _c	
VS 35/150	1x230 V ~	150	BRASS: 1/2" F - 3/4" F - 1" F COPPER: Ø 22 - Ø 28	2470	55	0,24	1,7	450	t° +90°C m.c.a. 1,5

VS 65/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR μF	V _c	
VS 65/150	1x230 V ~	150	BRASS: 1/2" F - 3/4" F - 1" F COPPER: Ø 22 - Ø 28	2317	77	0,34	2	450	t° +90°C m.c.a. 1,5

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS



GENERAL DATA

Applications

Pump for circulation of fluid media in solar panel powered heating systems.
VSA wet rotor circulators can function perfectly also with high glycol concentrations (up to 60%).

Construction features

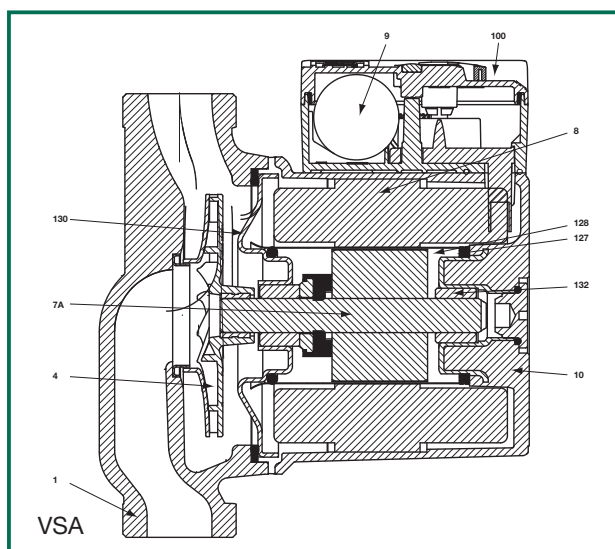
Enbloc body composed of hydraulic section in cast iron and wet rotor motor. Special electrophoresis coating of the pump body to ensure resistance to glycol attack. Motor casing in die cast aluminium. Rotor in technopolymer, motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.
Rotor protective jacket, stator jacket, and closing flange in stainless steel.
Ceramic thrust ring, silicone seals and brass air breather plug.
Two-pole asynchronous motor with squirrel cage rotor designed to run at three alternative speeds on the basis of the setting of a selector on the terminal board in order to adapt circulator operation to the characteristics of the system.

- Designation index: (example)		VSA 55 / 180 X	
	VSA = circulator with threaded ports		
	maximum head (dm)		
	centre distance (mm)		
	standard (no ref.) = 1" 1/2 threaded ports		
	1/2" = 1" threaded ports		
	X = 2" threaded ports		
	32 = DN32/PN6/10 flanged ports		

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

TECHNICAL DATA

No.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHER PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE POLYPROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE PROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



Operating range:	from 0 to 3.6 m ³ /h with head of up to 6 m.
Liquid temperature range:	from -10°C to +110°C (TF110) All models are designed to withstand temperature peaks of up to 140°C
Liquid quality requirements:	clean, free of solids and mineral oils, non-viscous, chemically neutral and approximating the properties of water (max. glycol contents 60%).
Maximum working pressure:	10 bar (1000 kPa)
Installation:	with HORIZONTAL MOTOR SHAFT

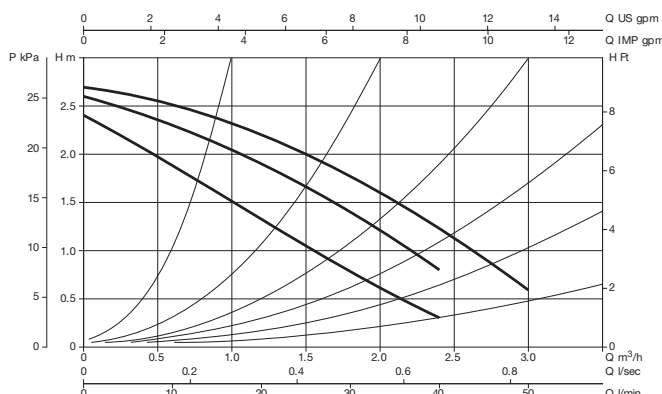
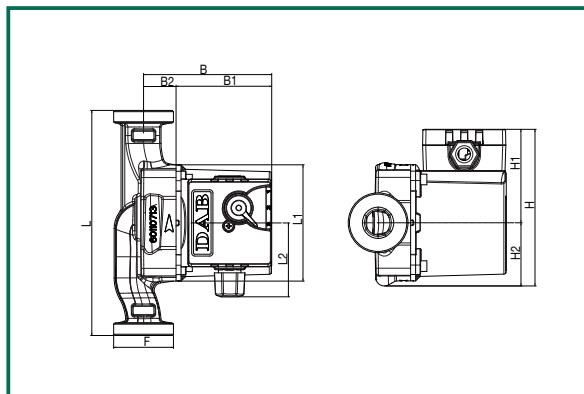
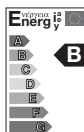
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 25/130

SINGLE WITH UNIONS

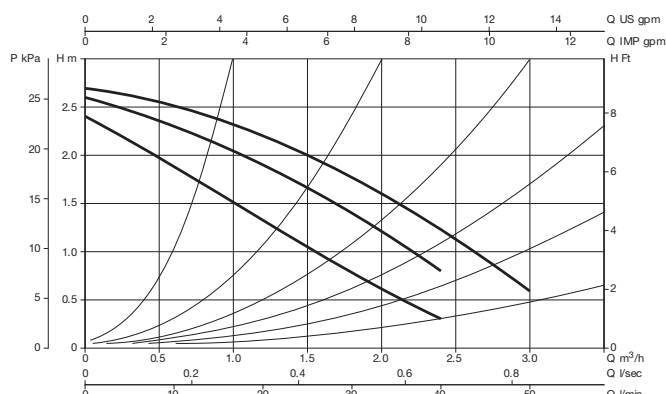
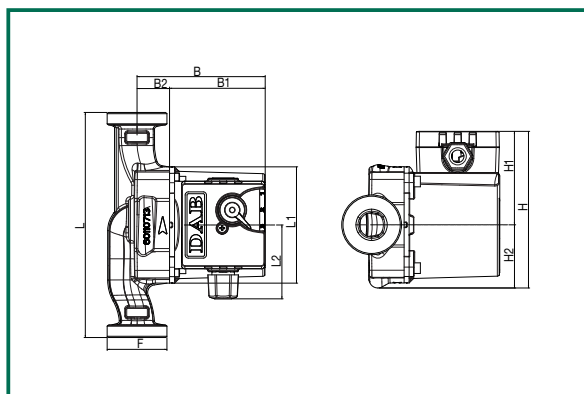
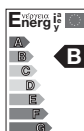


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 25/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

VSA 25/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

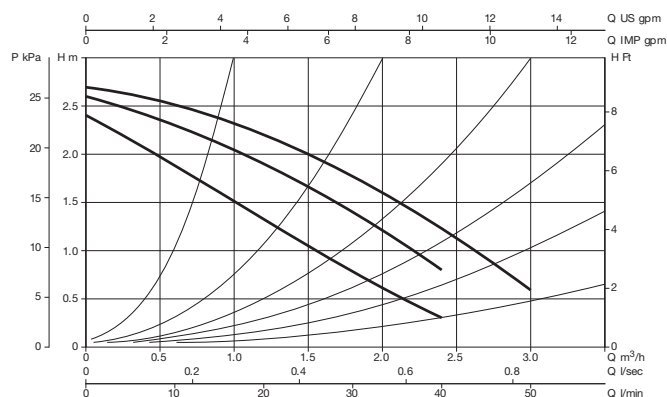
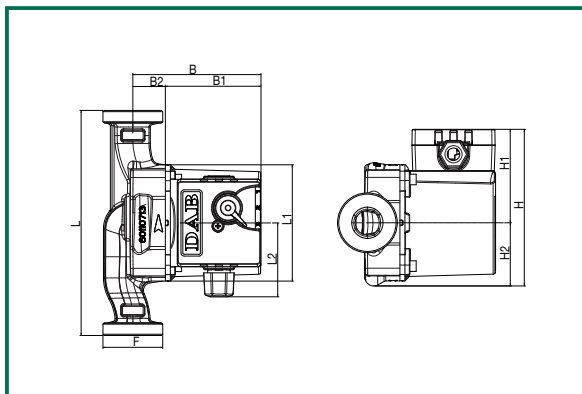
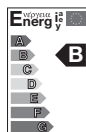
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 25/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

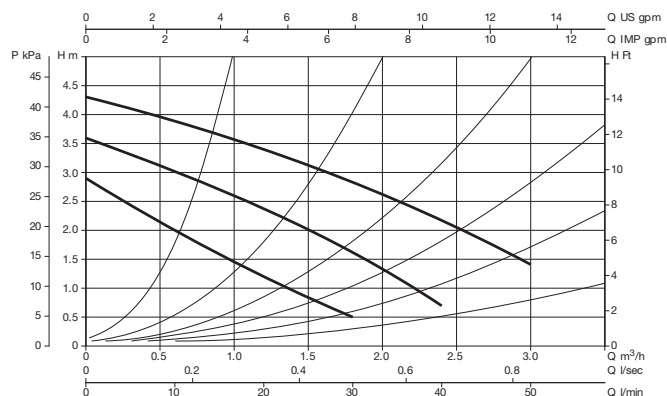
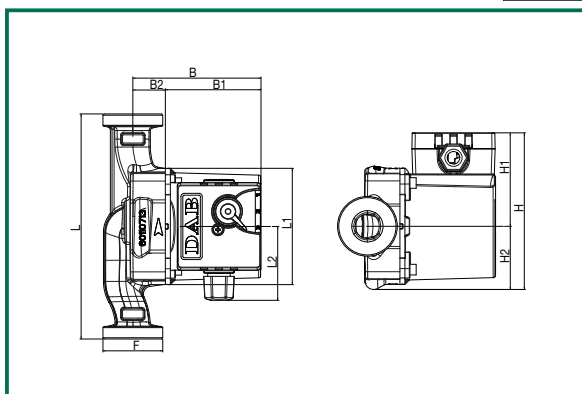
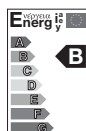
VSA 25/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
										L	B	H		
180	93	59	102,5	76,5	26	125,5	75	50,5	48	130	190	150	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE- DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 25/180X	1x230 V ~	180	1" 1/4 F	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
				2	2380	38	0,17			
				1	1680	31	0,15			

VSA 35/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
										L	B	H		
130	93	59	102,5	76,5	26	125,5	75	50,5	48	135	135	150	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 35/130	1x230 V ~	130	1" F	¾" F - 1 ¼" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

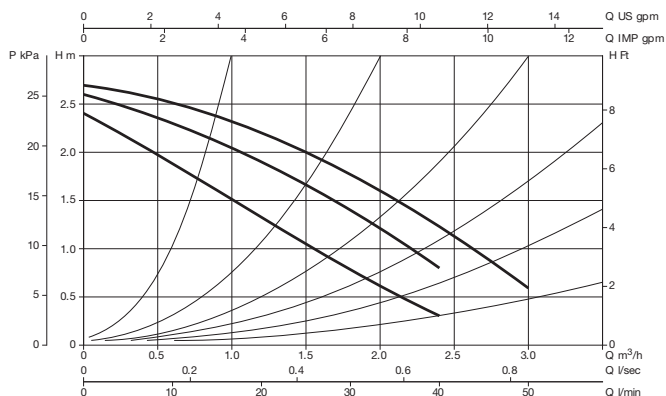
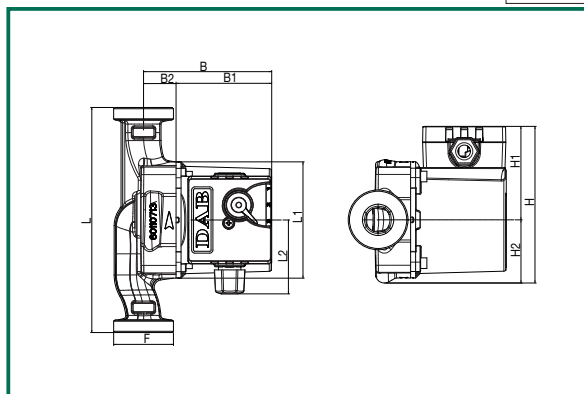
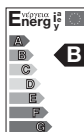
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 35/130 - 1/2"

SINGLE WITH UNIONS

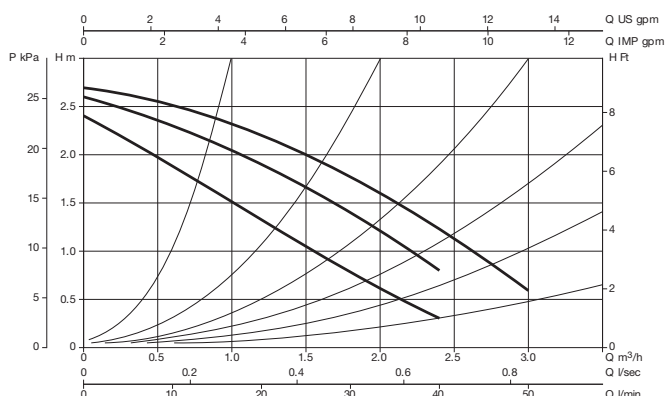
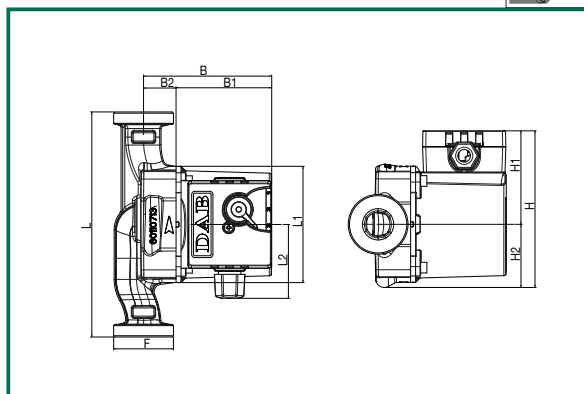
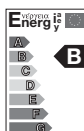


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
										L	B	H		
130	93	59	102,5	76,5	26	125,5	75	50,5	48	135	135	150	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE- DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 35/130 1/2"	1x230 V ~	130	-	-	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

VSA 35/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
										L	B	H		
180	93	59	102,5	76,5	26	125,5	75	50,5	48	130	190	150	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE- DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 35/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

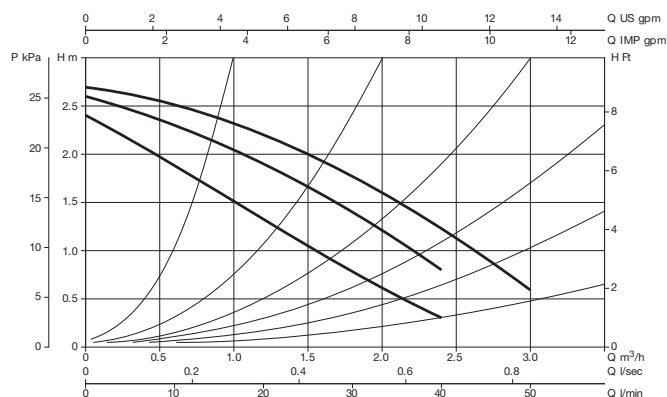
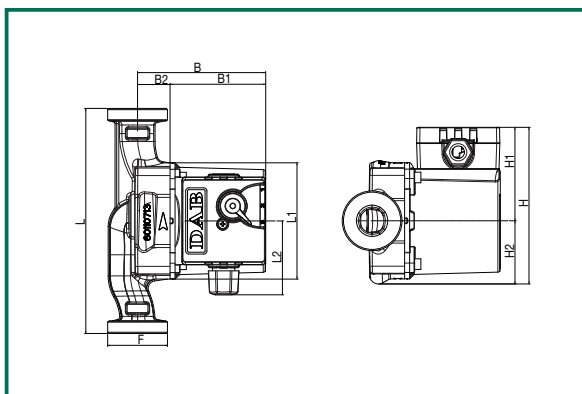
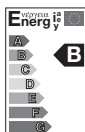
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

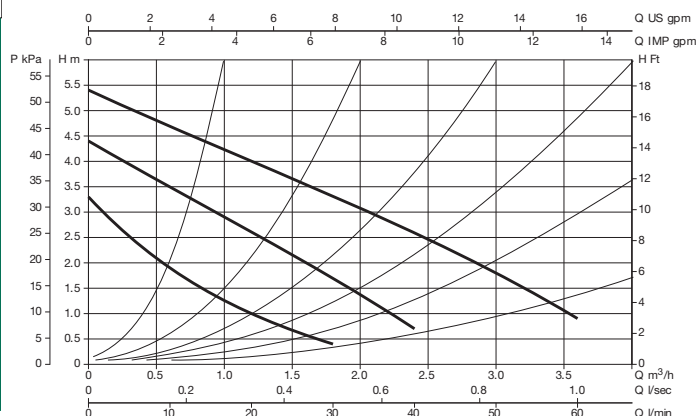
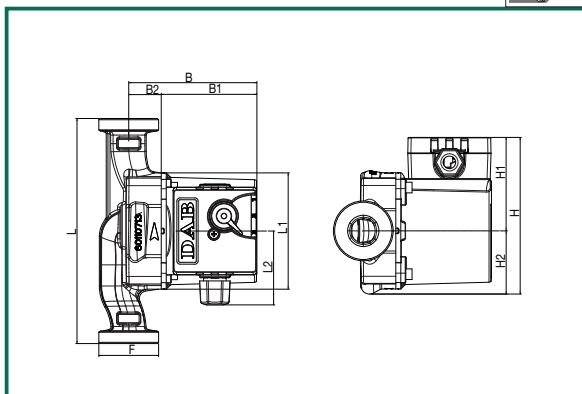
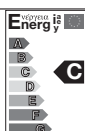
VSA 35/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 35/180X	1x230 V ~	180	1 1/4" F	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
				2	1930	50	0,22			
				1	1150	35	0,16			

VSA 55/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 55/130	1x230 V ~	130	1" F	¾" F - 1 ¼" M	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

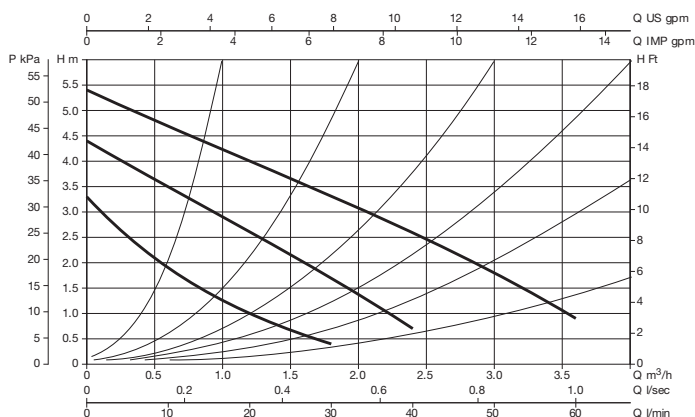
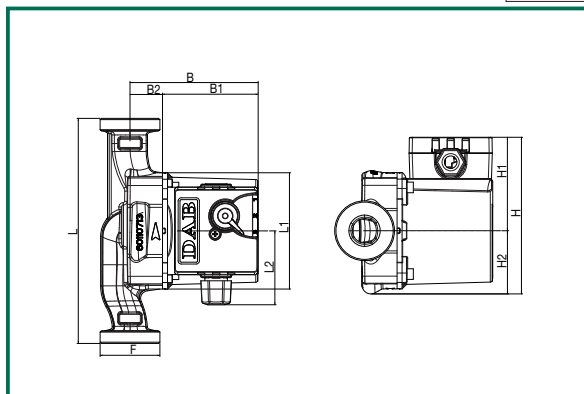
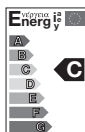
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 55/130 - 1/2"

SINGLE WITH UNIONS

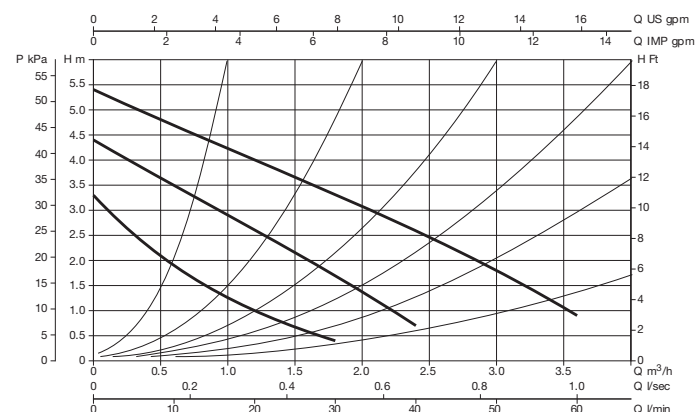
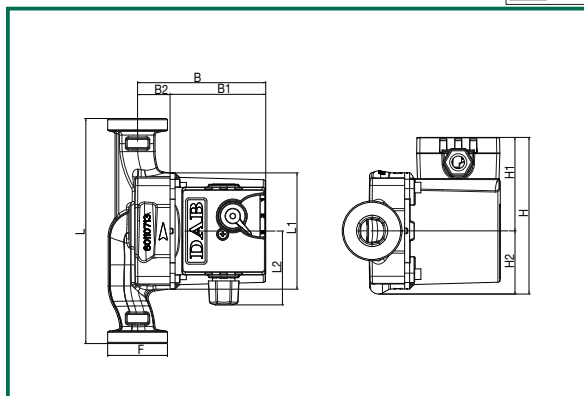
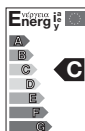


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VSA 55/130 1/2"	1x230 V ~	130	—	—	3 2 1	2400 1600 930	70 58 36	0,3 0,26 0,17	1,7	450	t° +90°C m.c.a. 1,5

VSA 55/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VSA 55/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3 2 1	2400 1600 930	70 58 36	0,3 0,26 0,17	1,7	450	t° +90°C m.c.a. 1,5

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

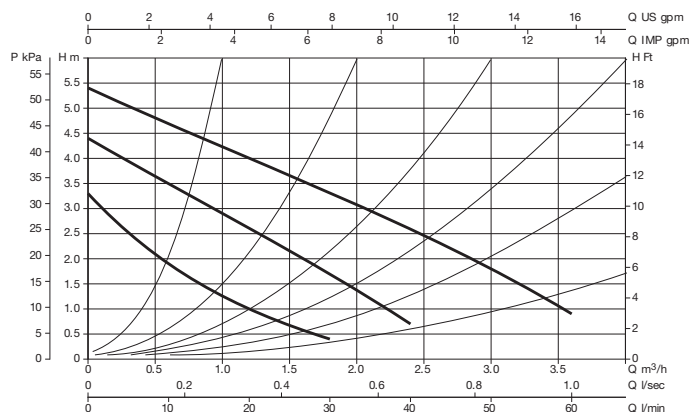
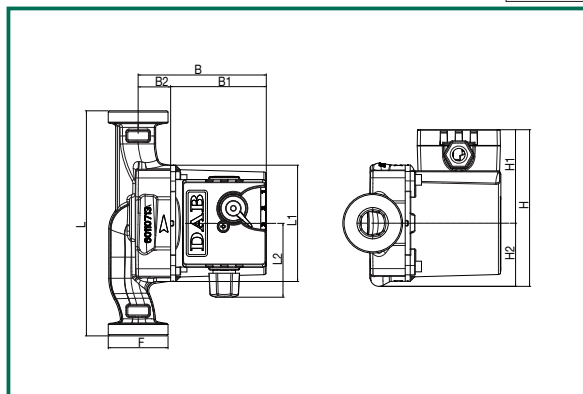
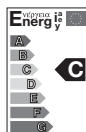
CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

VSA 55/180X

SINGLE WITH UNIONS

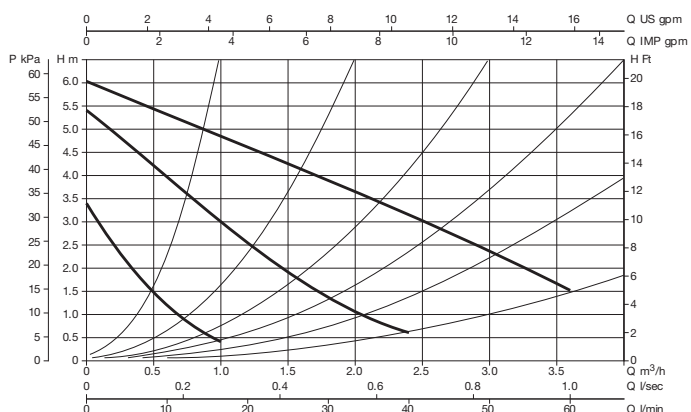
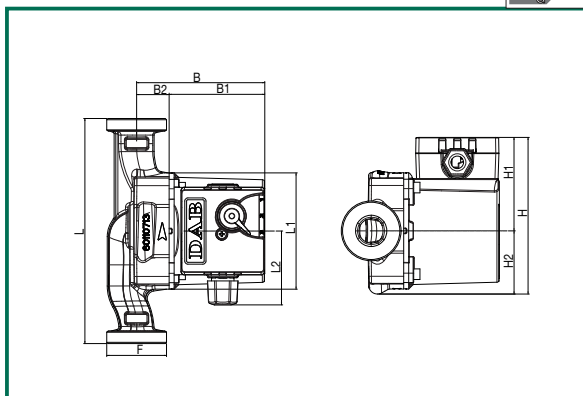
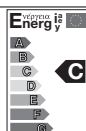


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	μF	CAPACITOR Vc	
VSA 55/180X	1x230 V ~	180	1 1/4" F	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
				2	1600	58	0,26			
				1	930	36	0,17			

VSA 65/130

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	μF	CAPACITOR Vc	
VSA 65/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

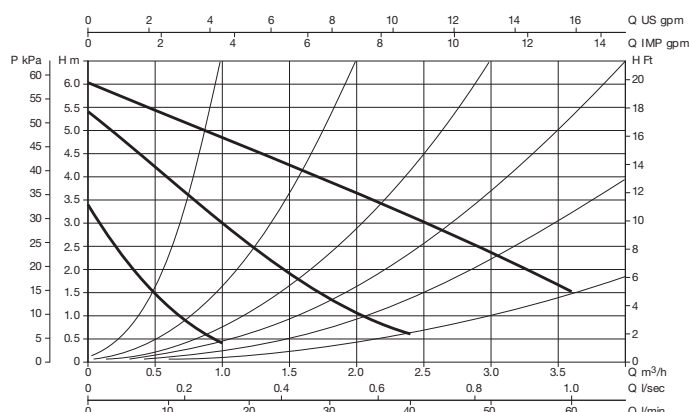
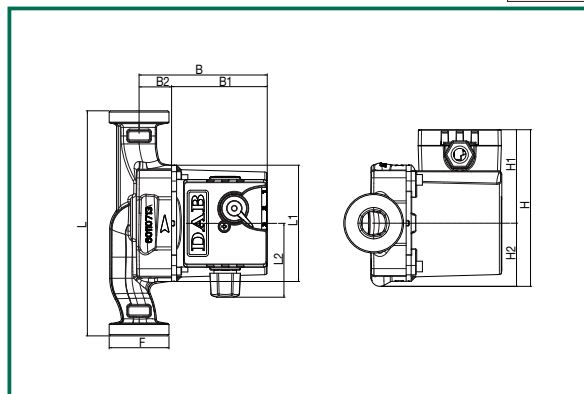
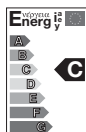
CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

VSA 65/130 1/2"

SINGLE WITH UNIONS

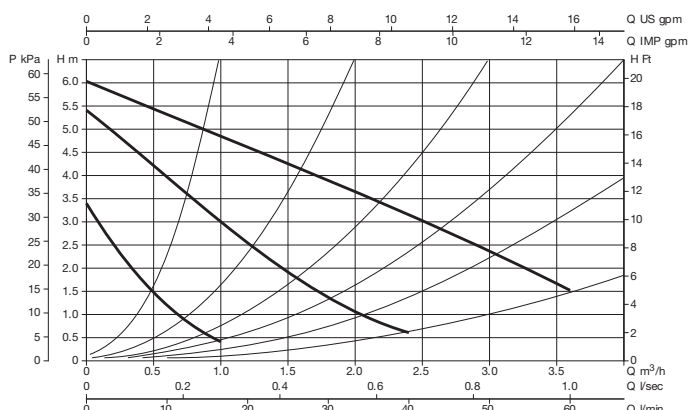
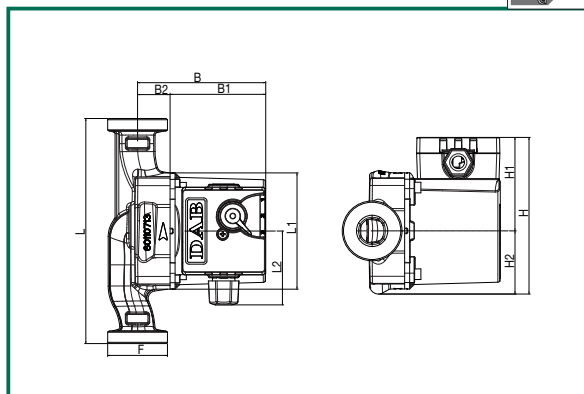
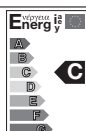


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VSA 65/130 1/2"	1x230 V ~	130	-	-	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VSA 65/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

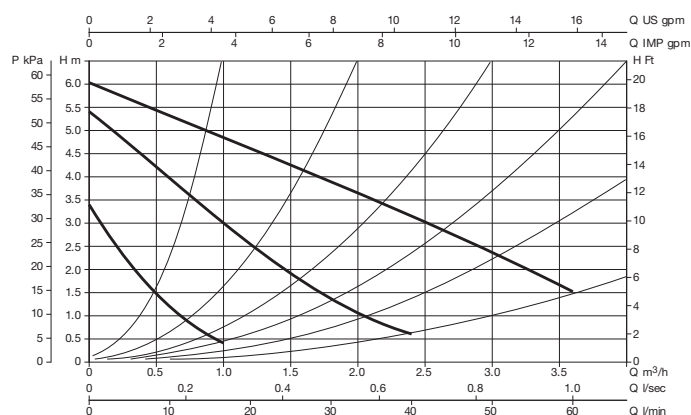
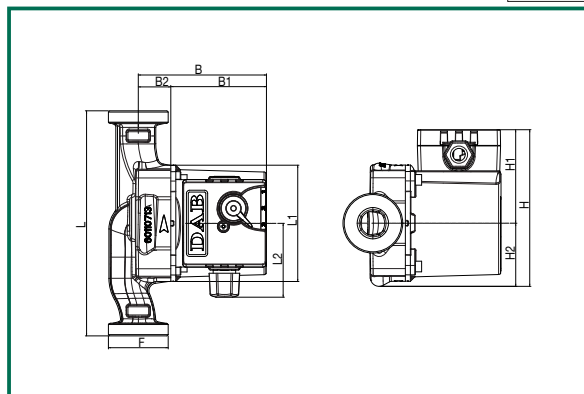
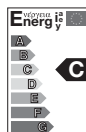
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VSA 65/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 65/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
										L	B	H		
180	93	59	102,5	76,5	26	125,5	75	50,5	48	130	190	150	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE- DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 65/180X	1x230 V ~	180	1¼" F	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
				2	1532	59	0,26			
				1	880	37	0,17			

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS



A



D



B



GENERAL DATA

Applications

Pump for hot or cold water circulation in small community central heating and air conditioning systems for both civil and industrial applications, of the closed circuit pressurized or open circuit type.

Construction features

Pump body in cast iron and motor in die cast aluminium.

Impeller in technopolymer, motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.

Pump body with threaded ports.

Rotor protective jacket, stator jacket, and closing flange in stainless steel.

The two-pole asynchronous wet rotor motor features three-speed operation.

Integral thermal probe in single-phase version.

Protection rating: IP 44

Insulation class: F

Cable gland: PG 11

Installation: with horizontal motor shaft

Standard voltage input: single-phase 230 V / 50 Hz

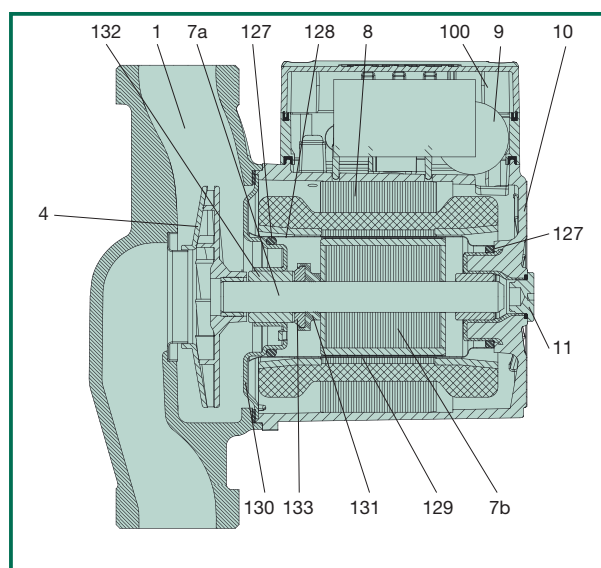
three-phase 400 V / 50 Hz

This product complies with European standard EN 60335-2-51

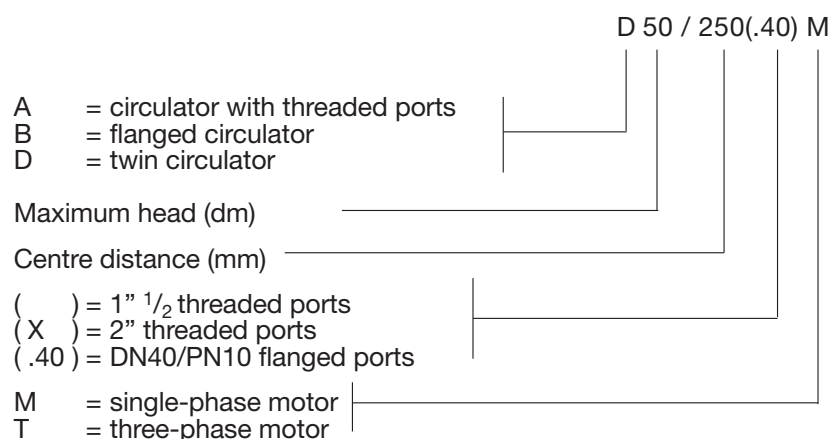
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

TECHNICAL DATA

N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHING PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE PROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE PROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



– Designation index:
(example)



Operating range:	from 1 to 12 m ³ /h with head of up to 11 m.
Liquid temperature range:	from -10°C to +110°C
Liquid quality requirements:	clean, free of solid contaminants and mineral oils, non-viscous, chemically neutral, close to the properties of water (max. glycol contents 30%).
Maximum working pressure:	10 bar (1000 kPa).
Minimum suction pressure:	the values are given in the relative tables.
Installation:	with HORIZONTAL MOTOR SHAFT on discharge or return pipe, with suction port as close as possible to expansion vessel, above maximum boiler level and as far as possible from bends, elbows, and circuit branches to avoid water turbulence with consequent noise.
SPECIAL executions on request:	alternative voltages and/or frequencies
Accessories:	1/2" F - 3/4" F - 1" F - 1 1/4" F - 1 1/4" M unions DN40/PN10 counter-flanges

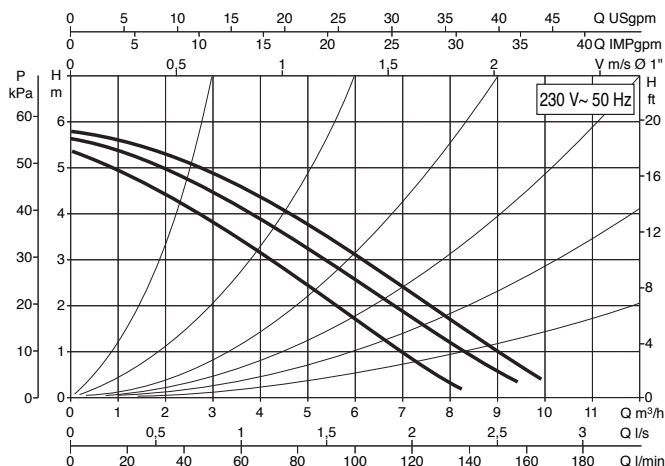
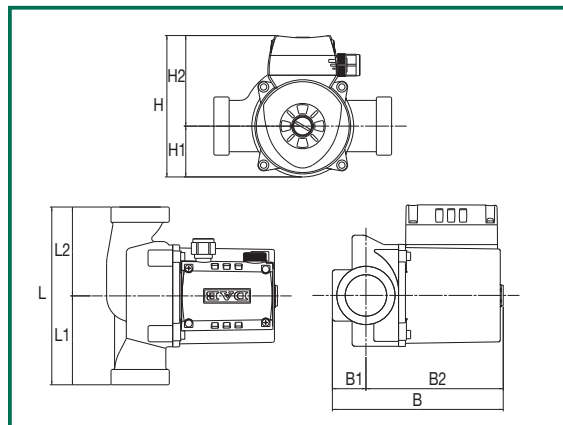
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 50/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

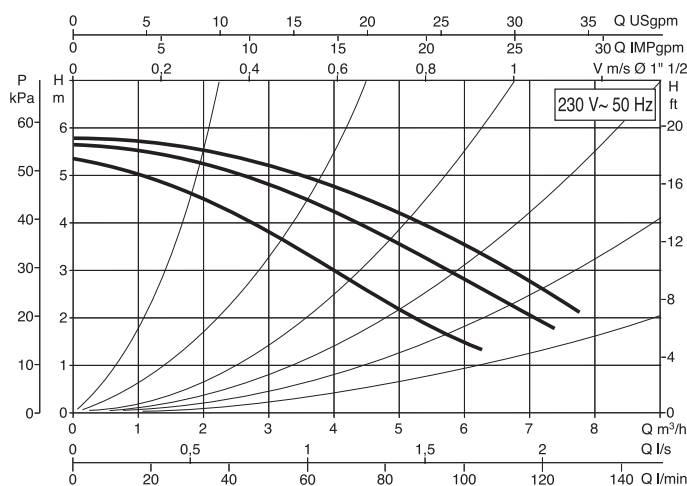
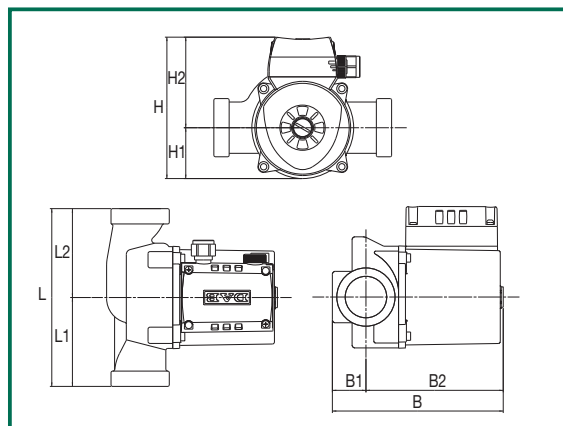


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 50/180 XM	1x230 V ~	180	1 1/4"	3	2791	184	0,92	4	400	t° +90°C m.c.a. 1,5
				2	2651	189	0,92			
				1	2297	168	0,80			

A 50/180 M

SINGLE WITH UNIONS - SINGLE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 50/180 M	1x230 V ~	180	1"	3	2766	195	0,95	4	400	t° +90°C m.c.a. 1,5
				2	2616	194	0,95			
				1	2215	180	0,85			

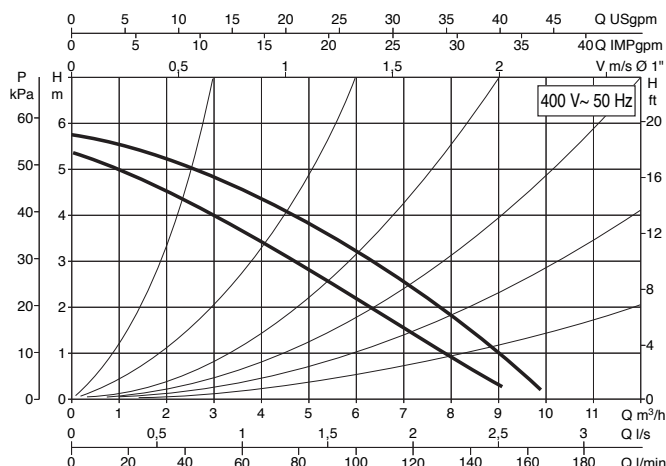
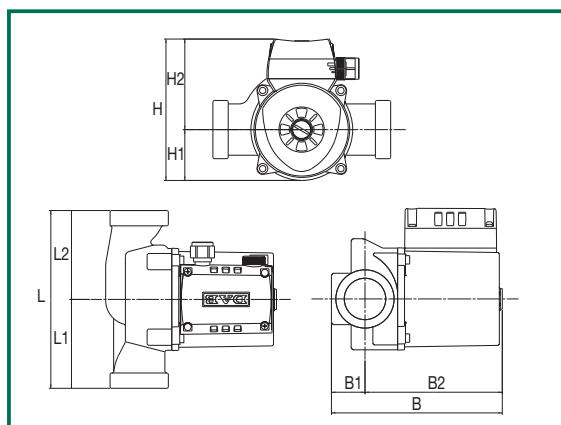
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 50/180 XT

SINGLE WITH UNIONS - THREE-PHASE

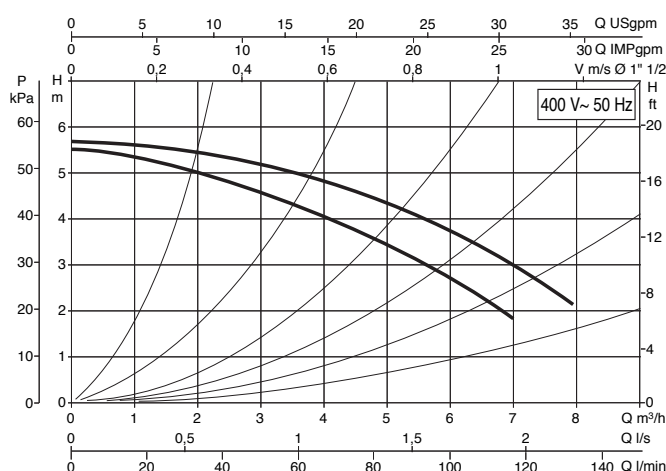
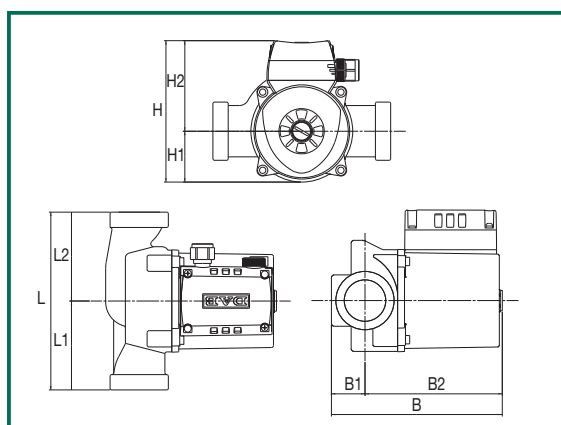


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 50/180 XT	3x400 V ~	180	1" 1/4	2 1	2838 2520	201 129	0,50 0,23	—	—	t° +90°C m.c.a. 1,5

A 50/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 50/180 T	3x400 V ~	180	1"	2 1	2827 2502	197 139	0,52 0,25	—	—	t° +90°C m.c.a. 1,5

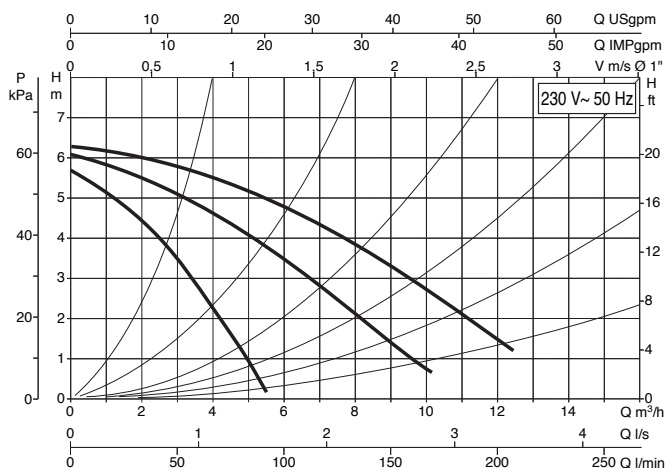
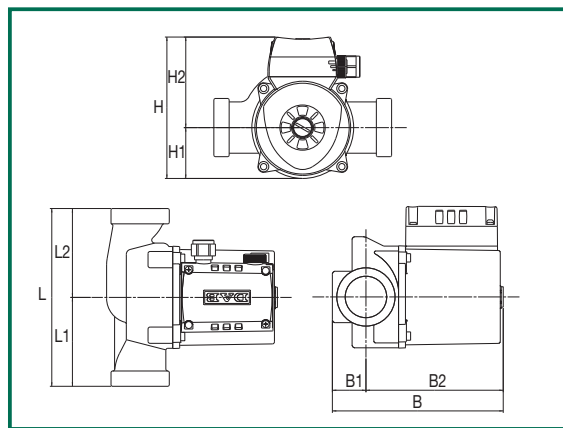
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 56/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

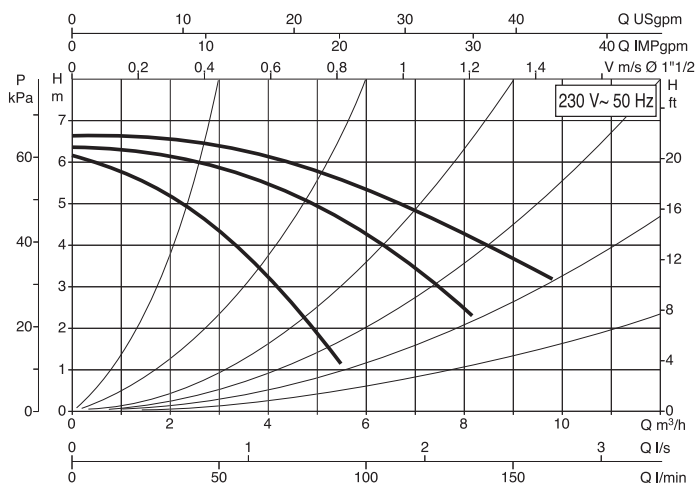
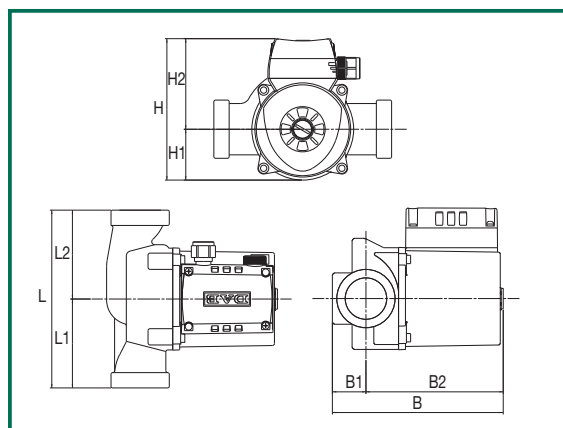


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 56/180 XM	1x230 V ~	180	1" 1/4	3	2658	271	1,18	7	400	t° +90°C m.c.a. 1,5
				2	2117	294	1,32			
				1	1394	224	1,00			

A 56/180 M

SINGLE WITH UNIONS - SINGLE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 56/180 M	1x230 V ~	180	1"	3	2636	282	1,23	7	400	t° +90°C m.c.a. 1,5
				2	2226	287	1,30			
				1	1485	228	1,06			

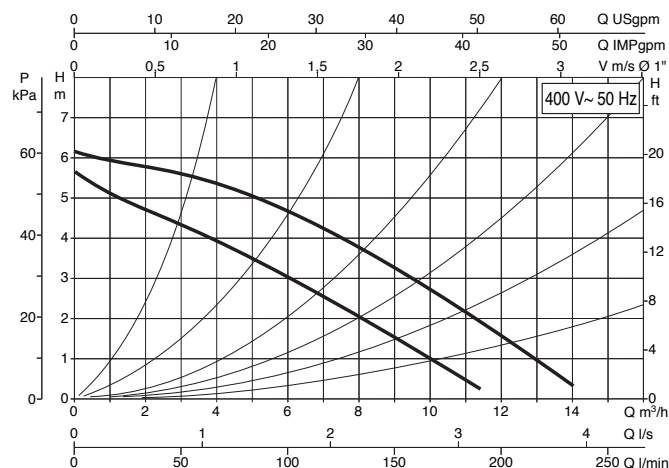
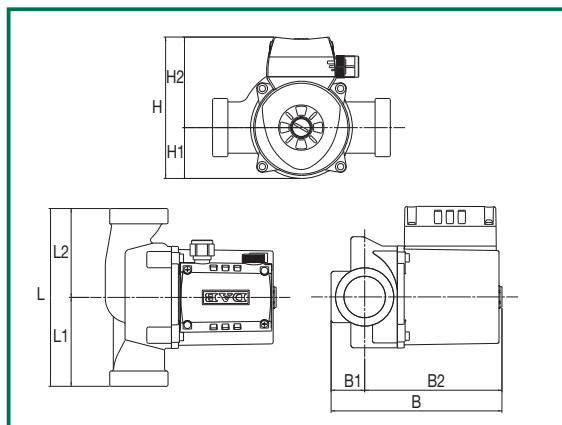
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 56/180 XT

SINGLE WITH UNIONS - THREE-PHASE

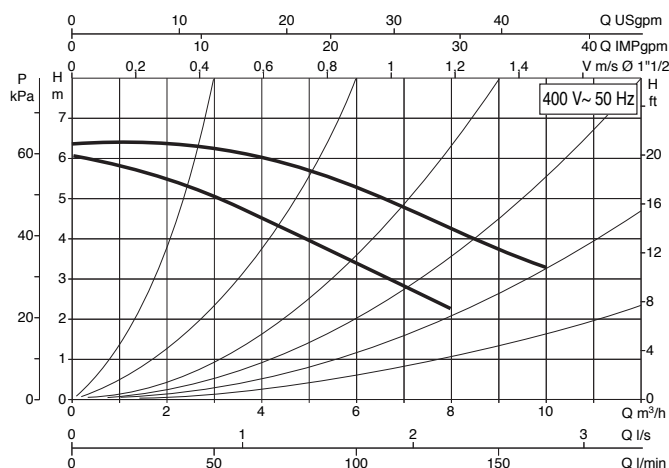
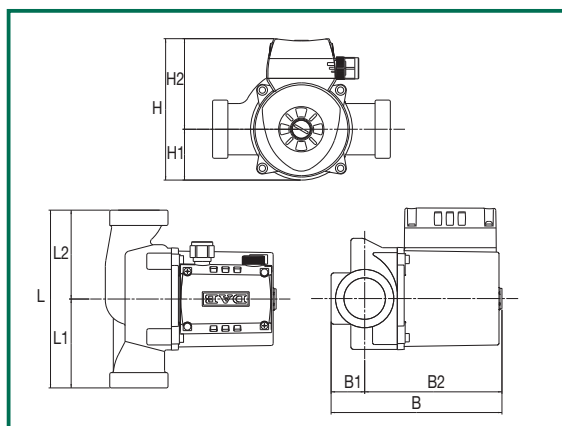


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 56/180 XT	3x400 V ~	180	1" 1/4	2	2708	291	0,60	-	-	t° +90°C m.c.a. 1,5
				1	2178	200	0,32			

A 56/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 56/180 T	3x400 V ~	180	1"	2	2704	294	0.60	—	—	t° +90°C m.c.a. 1,5
				1	2178	200	0.33			

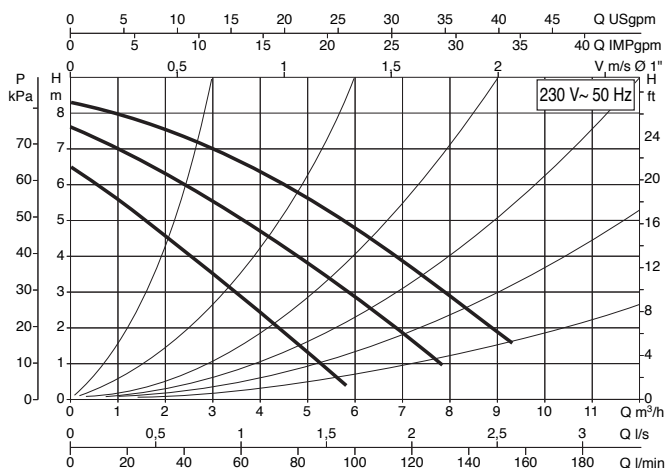
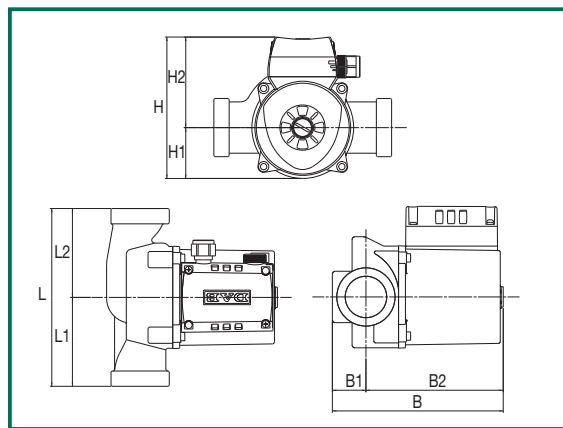
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 80/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

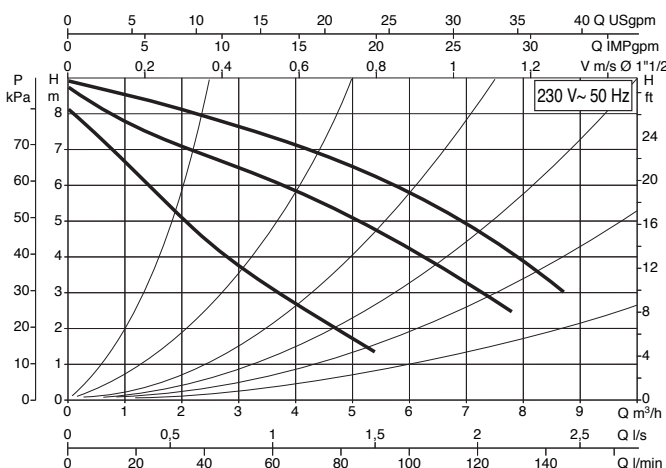
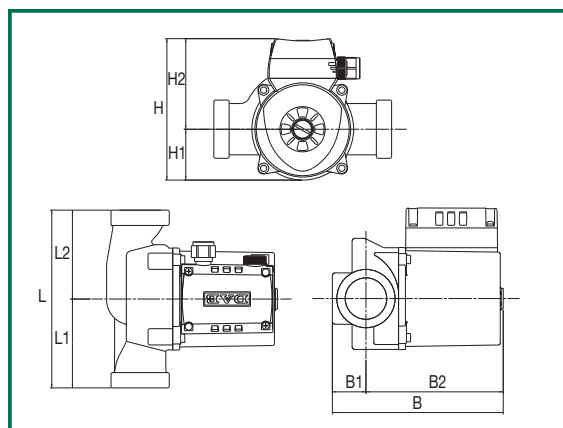


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
										L	B	H	m ³	Kg
180	90	90	173	34	139	143	52	92	2" G	206	170	180	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 XM	1x230 V ~	180	1" 1/4	3	2683	256	1,12	7	400	t° +90°C m.c.a. 2,5
				2	2374	260	1,17			
				1	1688	218	1,00			

A 80/180 M

SINGLE WITH UNIONS - SINGLE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
										L	B	H	m ³	Kg
180	90	90	173	34	139	143	52	92	1" 1/2	206	170	180	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 M	1x230 V ~	180	1"	3	2674	264	1,15	7	400	t° +90°C m.c.a. 2,5
				2	2356	262	1,20			
				1	1615	223	1,00			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

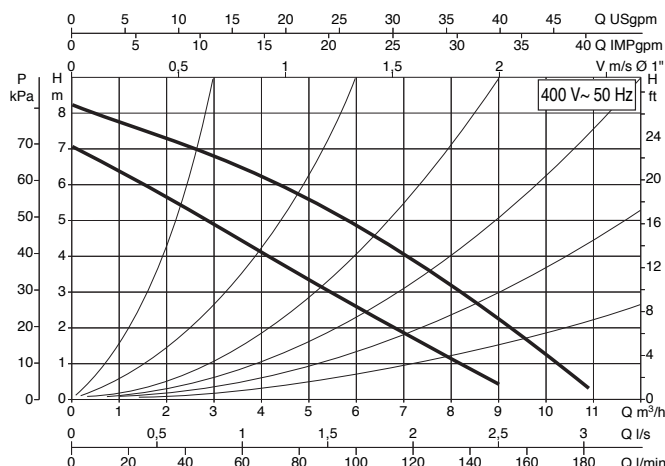
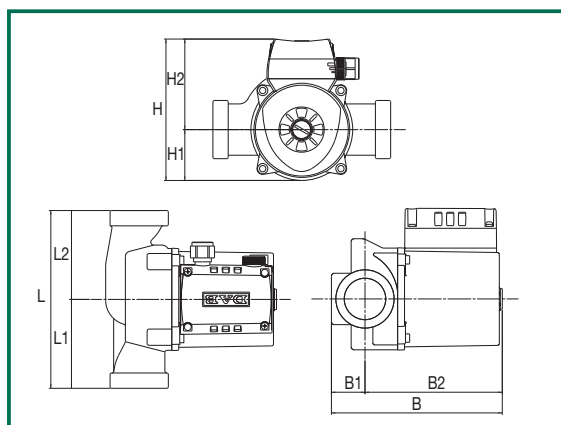
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

A 80/180 XT

SINGLE WITH UNIONS - THREE-PHASE

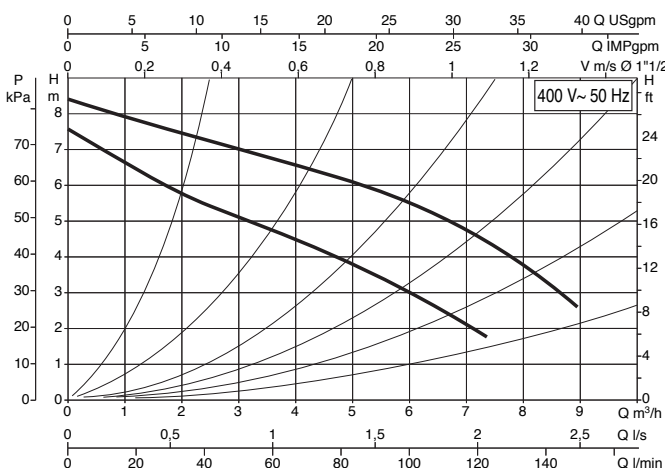
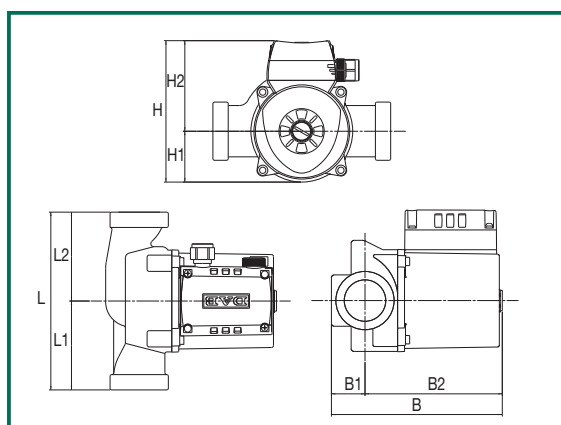


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 XT	3x400 V ~	180	1" 1/4	2 1	2727 2227	272 186	0,57 0,30	—	—	t° +90°C m.c.a. 2,5

A 80/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 T	3x400 V ~	180	1"	2 1	2724 2226	271 187	0,57 0,31	—	—	t° +90°C m.c.a. 2,5

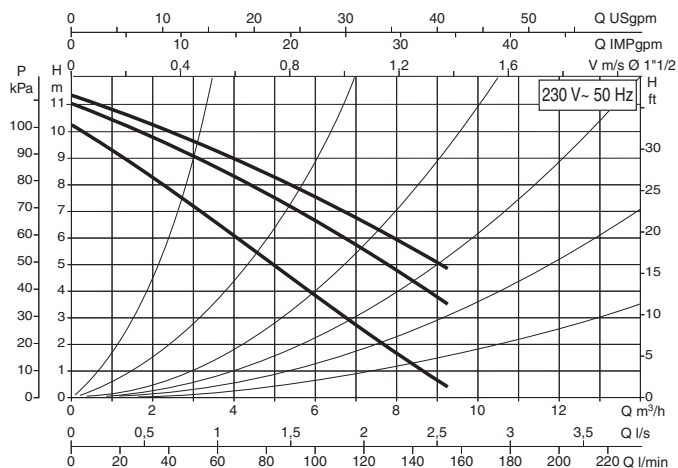
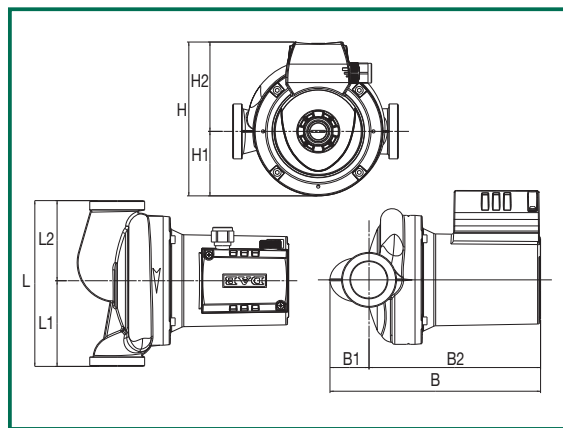
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 110/180 M

SINGLE WITH UNIONS - SINGLE-PHASE

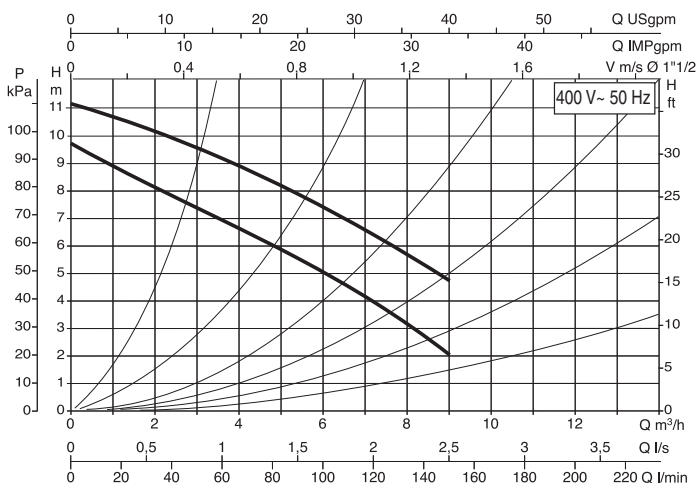
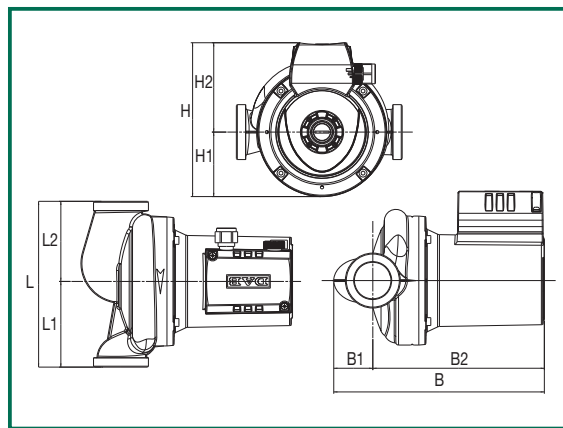


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	42	186	167	70	97	1 1/2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 110/180 M	1x230 V ~	180	2" G	3	2746	410	1,6	12	450	t° +90°C m.c.a. 2,5
				2	2552	393	1,8			
				1	2052	361	1,7			

A 110/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	186	42	163	70	93	1 1/2" G	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 110/180 T	3x400 V ~	180	2" G	2	2753	402	0,87	-	-	t° +90°C m.c.a. 2,5
				1	2338	286	0,48			

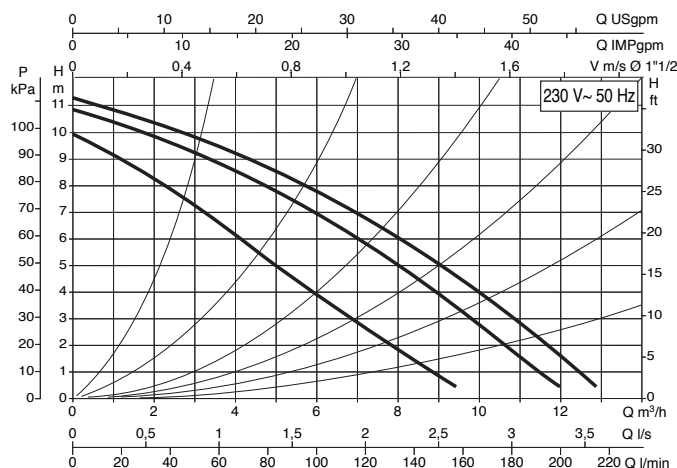
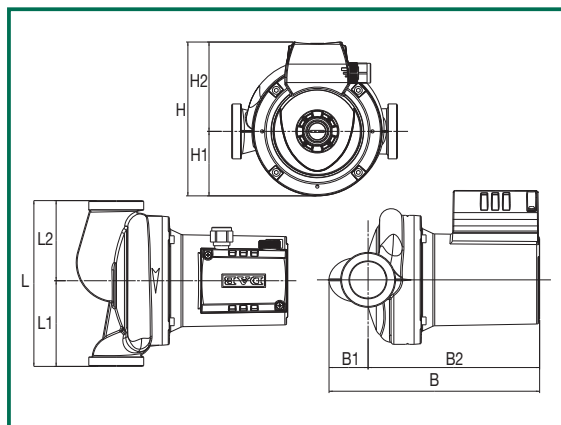
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906..

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 110/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

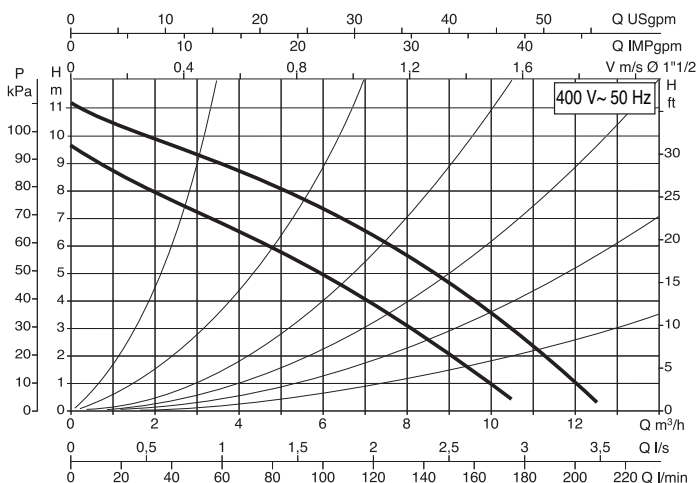
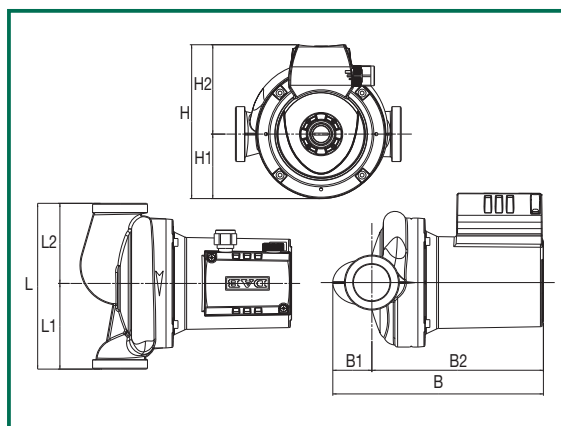


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	42	186	167	70	97	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 110/180 XM	1x230 V ~	180	1" 1/4	3	2746	410	1,7	12	450	t° +90°C m.c.a. 2,5
				2	2552	393	1,8			
				1	2052	361	1,6			

A 110/180 XT

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	186	42	163	70	93	2" G	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 110/180 XT	3x400 V ~	180	2" G	2	2759	403	0,90	-	-	t° +90°C m.c.a. 2,5
				1	2341	289	0,48			

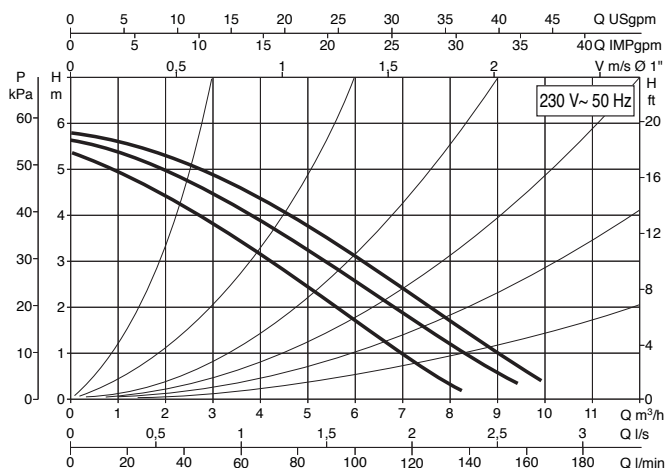
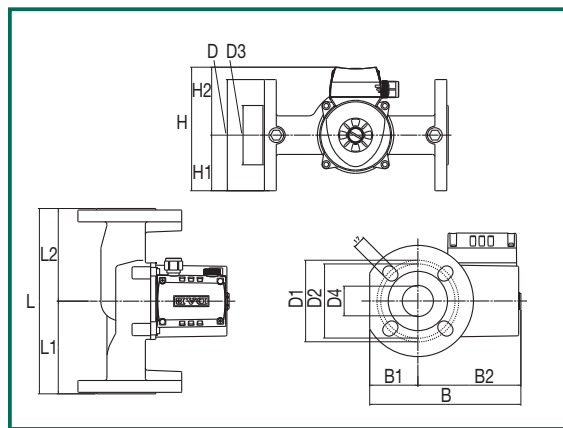
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

B 50/250.40 M

SINGLE FLANGED - SINGLE-PHASE

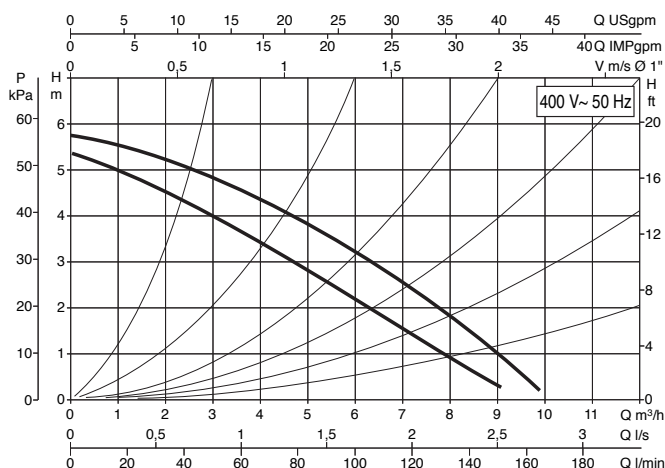
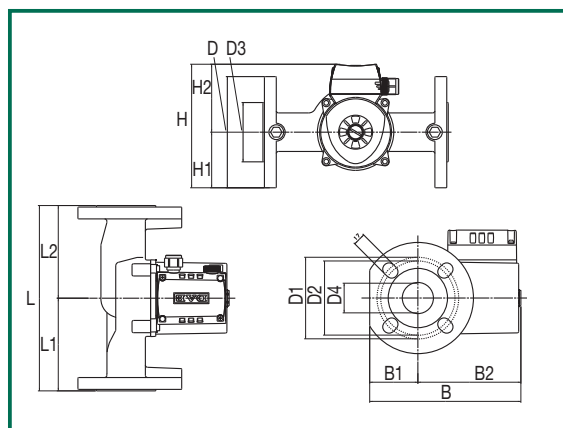


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,1

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
B 50/250.40 M	1x230 V ~	250	DN 40	3	2766	195	0,95	4	400	t° +90°C m.c.a. 1,5
				2	2616	194	0,95			
				1	2215	180	0,85			

B 50/250.40 T

SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,3

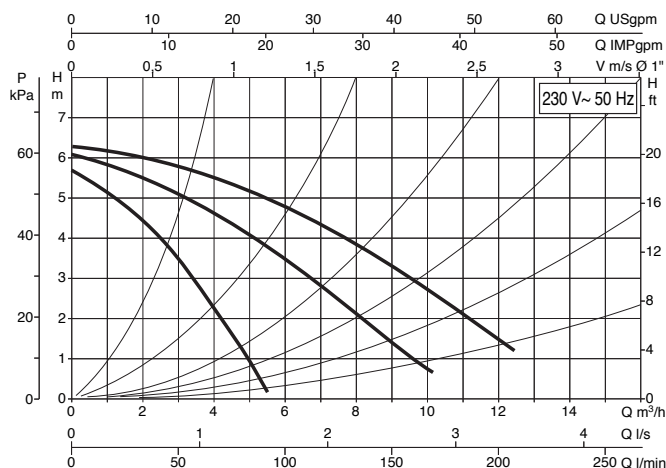
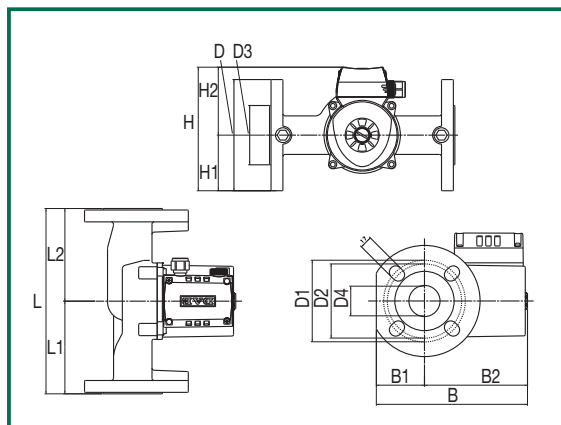
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
B 50/250.40 T	3x400 V ~	250	DN 40	2	2838	201	0,5	-	-	t° +90°C m.c.a. 1,5
				1	2520	129	0,23			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

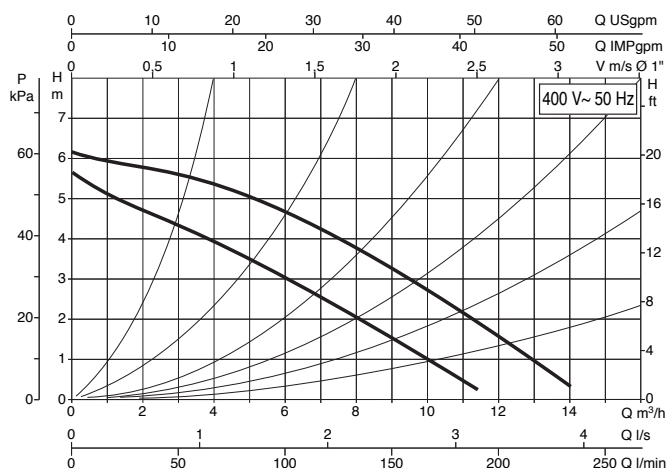
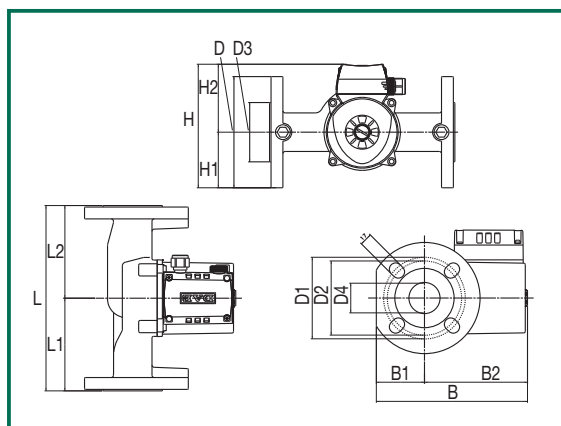
B 56/250.40 M SINGLE FLANGED - SINGLE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	L	B	H	0,013	9,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
B 56/250.40 M	1x230 V ~	250	DN 40	3	2658	271	1,18			7	400	t° +90°C m.c.a. 1,5
				2	2117	294	1,32					
				1	1394	224	1					

B 56/250.40 T SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	L	B	H	0,013	9,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
B 56/250.40 T	3x400 V ~	250	DN 40	2	2708	291	0,6			-	-	t° +90°C m.c.a. 1,5
				1	2178	200	0,32					

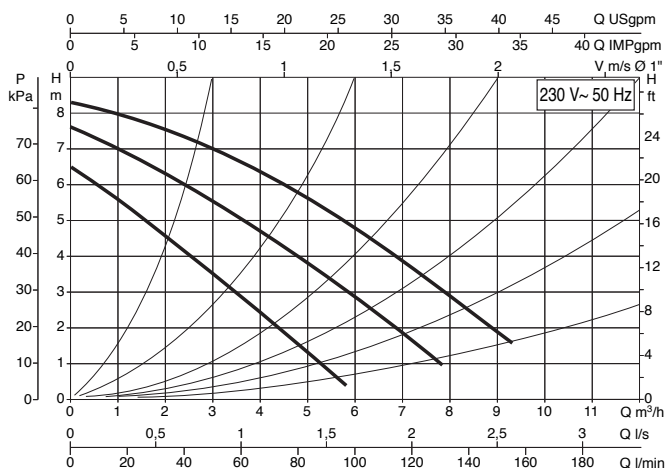
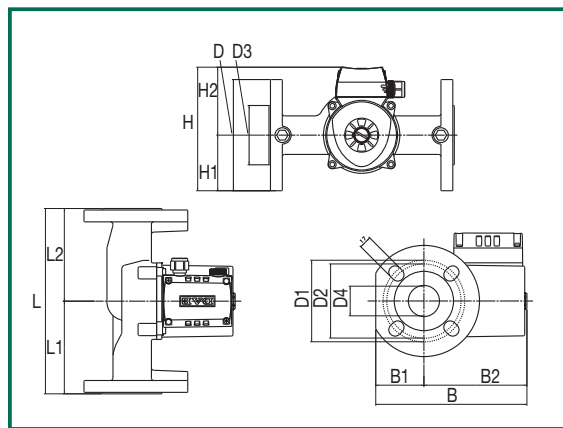
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

B 80/250.40 M

SINGLE FLANGED - SINGLE-PHASE

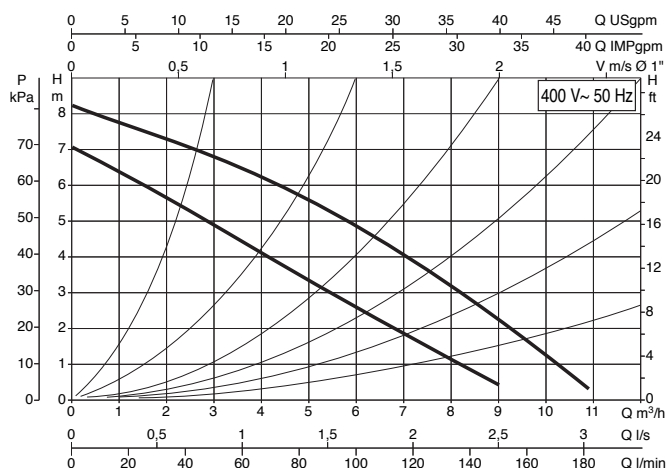
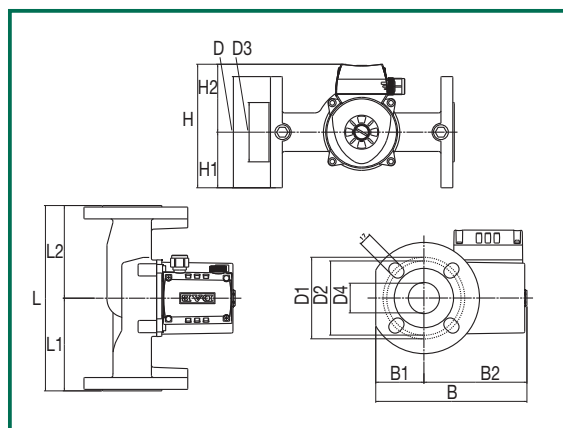


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
B 80/250.40 M	1x230 V ~	250	DN 40	3	2683	256	1,12	7	400	t° +90°C m.c.a. 2,5
				2	2374	260	1,17			
				1	1688	218	1,00			

B 80/250.40 T

SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
B 80/250.40 T	3x400 V ~	250	DN 40	2	2724	271	0,57	—	—	t° +90°C m.c.a. 2,5
				1	2226	187	0,31			

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

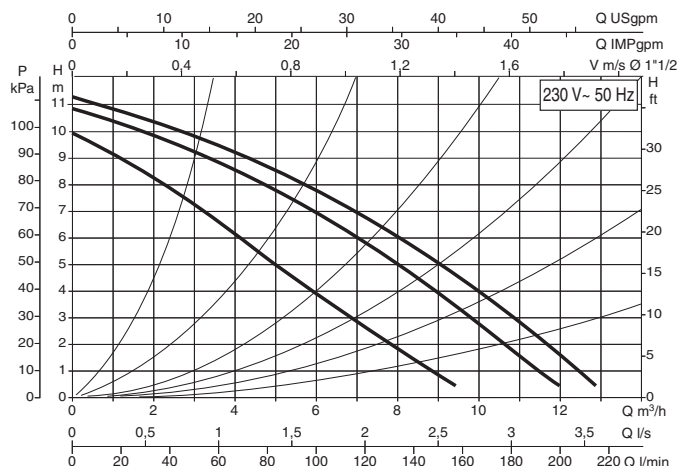
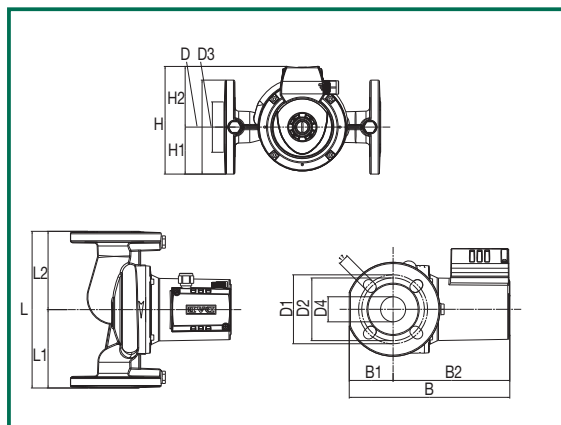
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

B 110/250.40 M

SINGLE FLANGED - SINGLE-PHASE

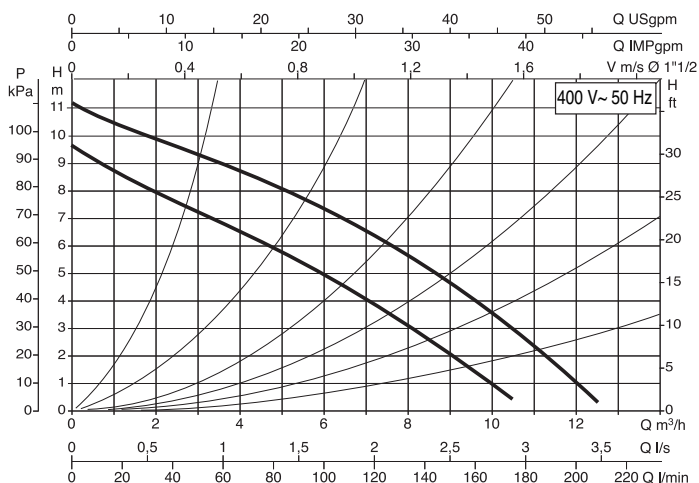
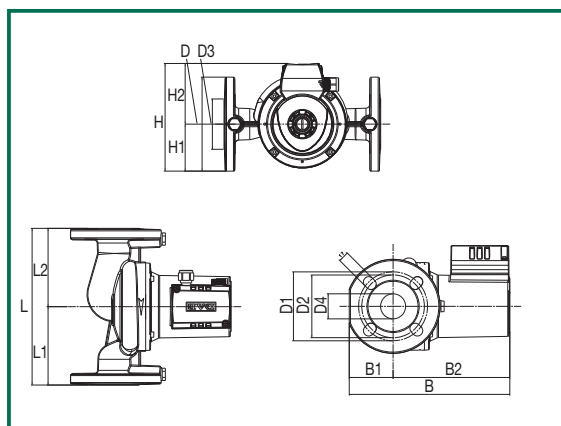


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	256	70	186	150	110	100	80	40	172	75	97	DN40/PN10	302	202	283	0,013	9,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
B 110/250.40 M	1x230 V ~	250	DN 40	3	2746	410	1,77	12	450	t° +90°C m.c.a. 2,5	
				2	2552	393	1,78				
				1	2052	361	1,64				

B 110/250.40 T

SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	256	70	186	150	110	100	80	40	168	75	93	DN40/PN10	302	202	283	0,013	9,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
B 110/250.40 T	3x400 V ~	250	DN 40	2	2759	403	0,90	-	-	t° +90°C m.c.a. 2,5	
				1	2341	289	0,48				

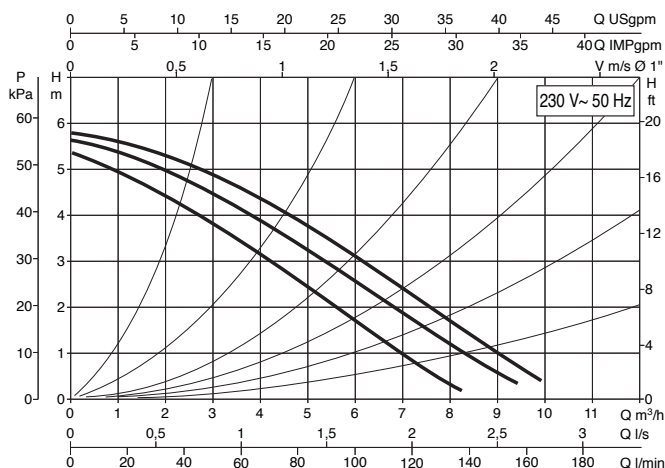
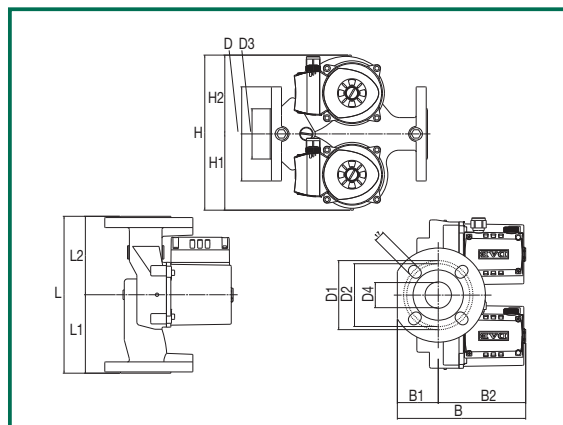
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 50/250.40 M

TWIN FLANGED - SINGLE-PHASE



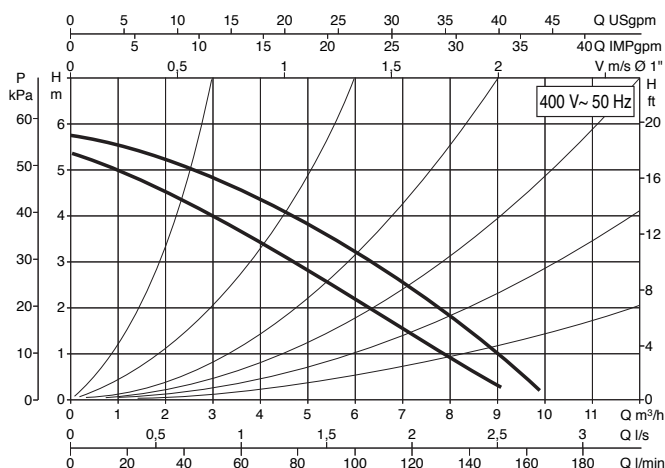
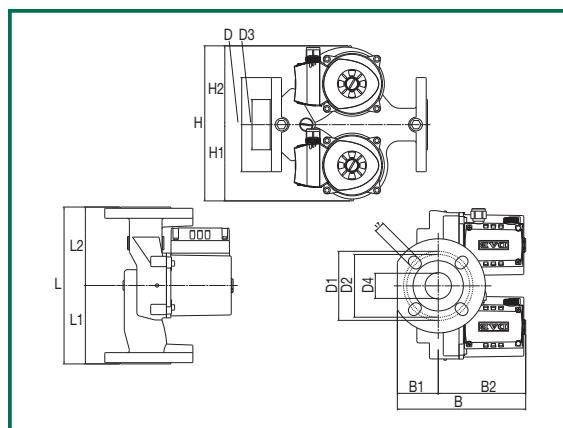
L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 50/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2766	195	0,95					t° +90°C m.c.a. 1,5
				2	2616	194	0,95			4	400	
				1	2215	180	0,85					

* Electrical and hydraulic data refer to operation of just one motor.

D 50/250.40 T

TWIN FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 50/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2838	201	0,50					t° +90°C m.c.a. 1,5
				1	2520	129	0,23			-	-	

* Electrical and hydraulic data refer to operation of just one motor.

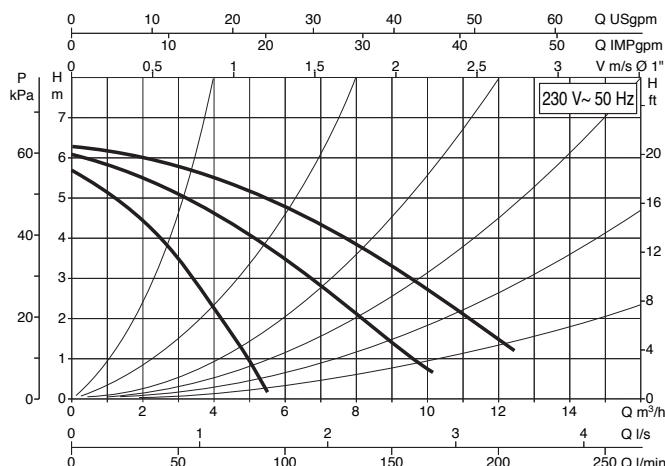
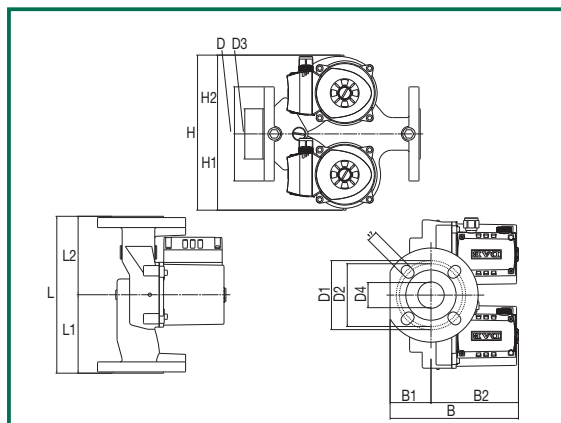
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 56/250.40 M

TWIN FLANGED - SINGLE-PHASE



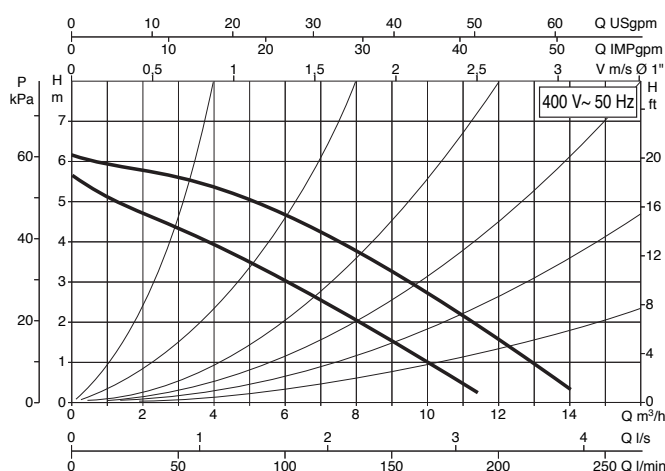
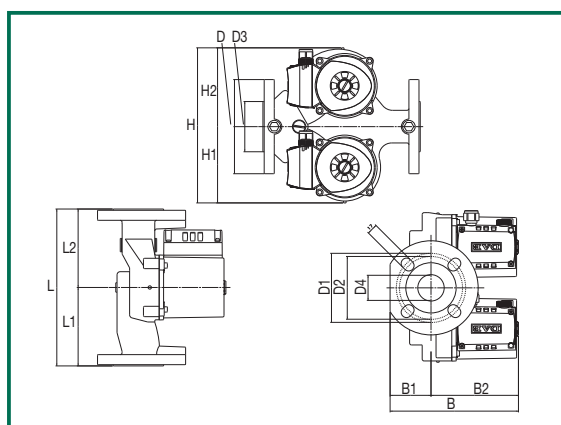
L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 56/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2658	271	1,18			7	400	t° +90°C m.c.a. 1,5
				2	2117	294	1,32					
				1	1394	224	1,00					

* Electrical and hydraulic data refer to operation of just one motor.

D 56/250.40 T

TWIN FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,4

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 56/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2708	291	0,60			-	-	t° +90°C m.c.a. 1,5
				1	2178	200	0,33					

* Electrical and hydraulic data refer to operation of just one motor.

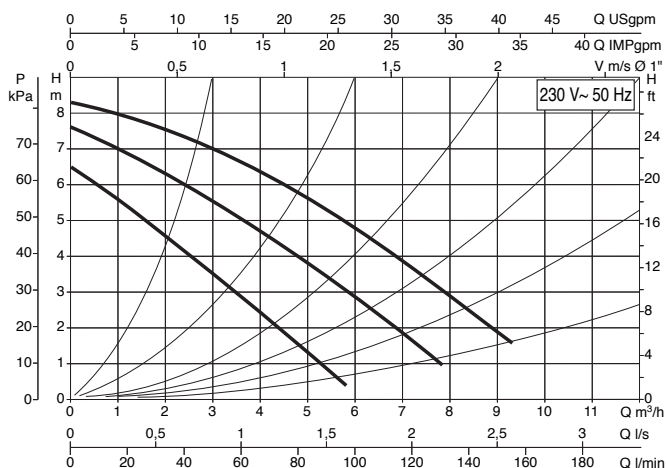
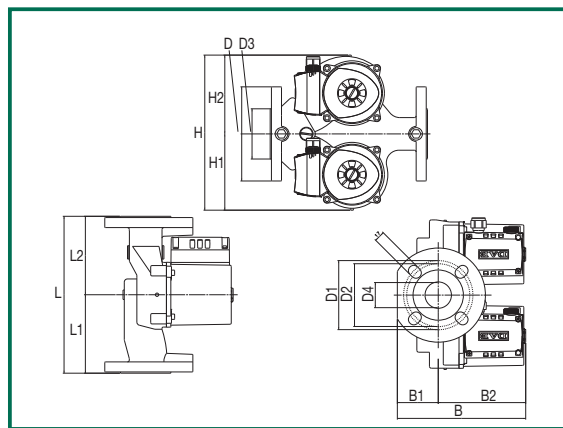
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 80/250.40 M

TWIN FLANGED - SINGLE-PHASE



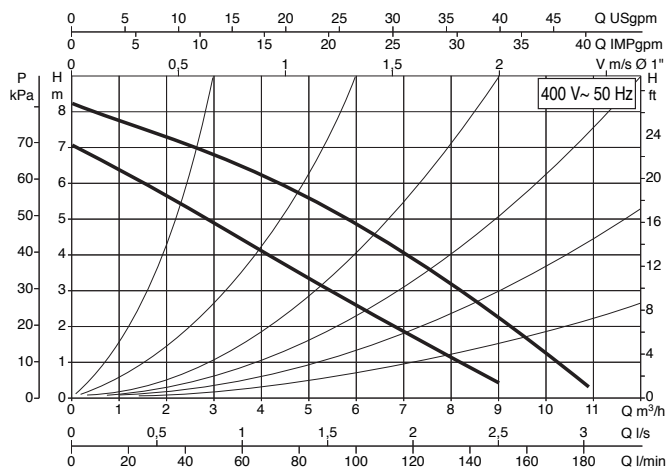
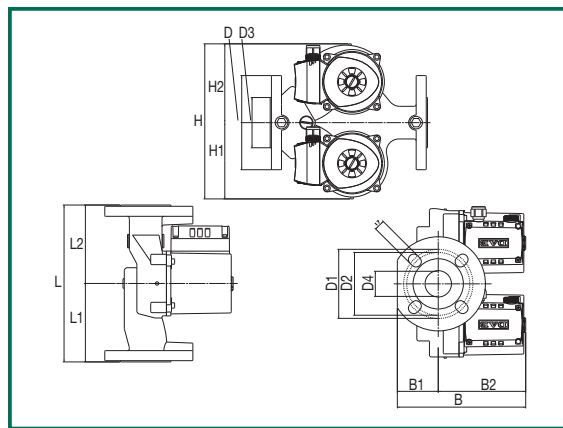
L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
D 80/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2683	256	1,12	7	400	t° +90°C m.c.a. 2,5
				2	2374	260	1,17			
				1	1688	218	1,00			

* Electrical and hydraulic data refer to operation of just one motor.

D 80/250.40 T

TWIN FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
D 80/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2724	271	0,57	—	—	t° +90°C m.c.a. 2,5
				1	2226	187	0,31			

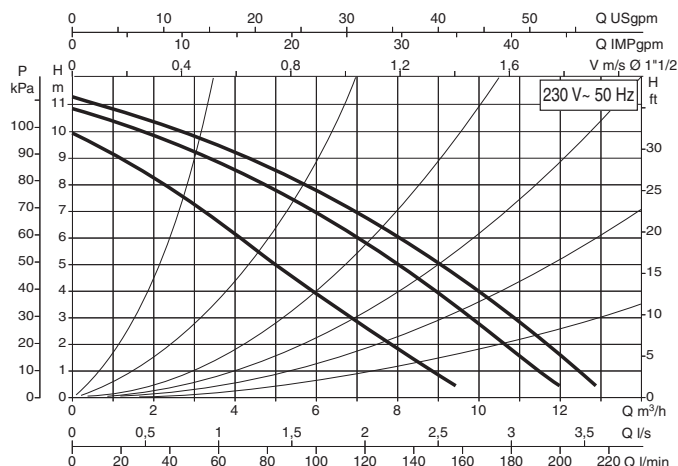
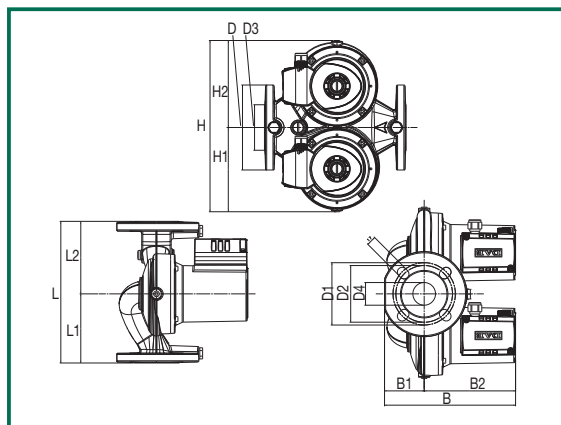
* Electrical and hydraulic data refer to operation of just one motor.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 110/250.40 M TWIN FLANGED - SINGLE-PHASE

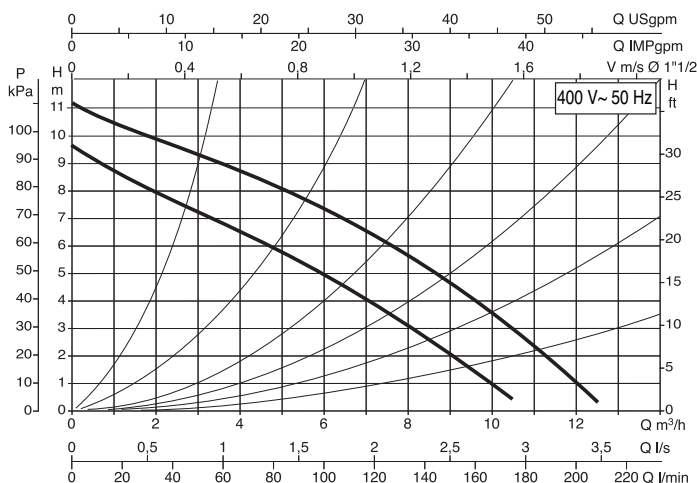
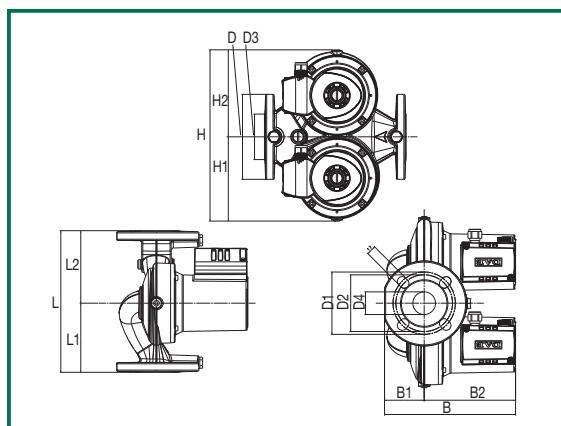


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	122	128	231	70	161	150	110	100	80	40	302	149	154	DN40/PN10	355	298	283	0,018	16

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
D 110/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2746	410	1,77	12	450	t° +90°C m.c.a. 2,5	
				2	2552	393	1,78				
				1	2052	361	1,64				

* Electrical and hydraulic data refer to operation of just one motor.

D 110/250.40 T TWIN FLANGED - THREE-PHASE

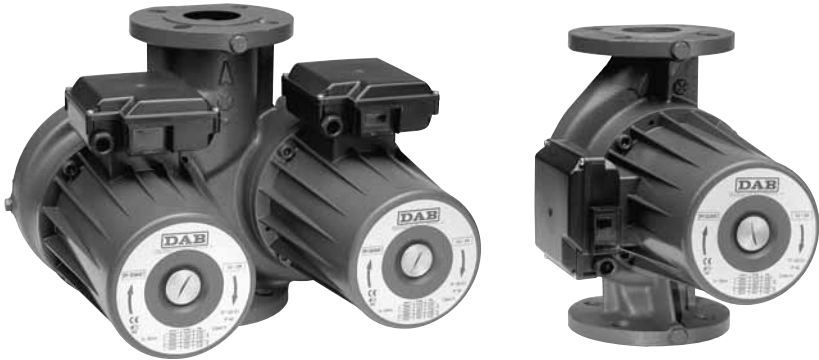


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	122	128	231	70	161	150	110	100	80	40	302	149	154	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
D 110/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2759	403	0,90	-	-	t° +90°C m.c.a. 2,5	
				1	2341	289	0,48				

* Electrical and hydraulic data refer to operation of just one motor.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS



DMH-DPH

BMH-BPH

GENERAL DATA

Applications

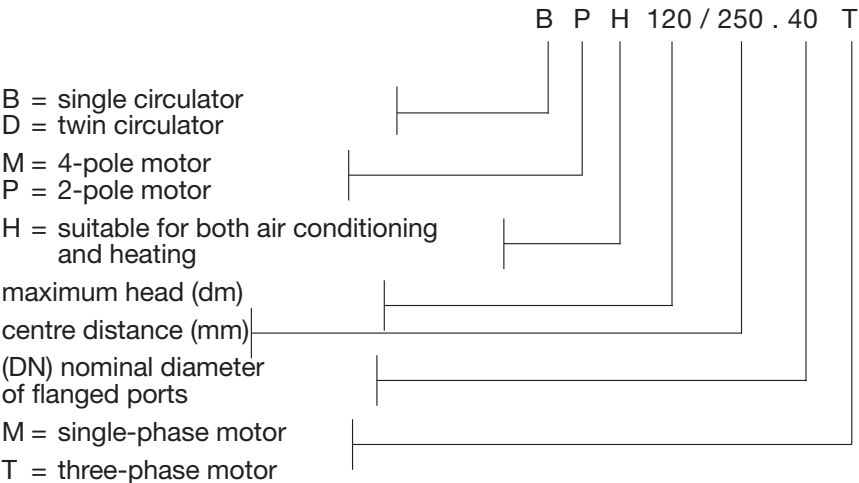
Water circulator pump for community civil and industrial heating and air conditioning systems. All models are available in both single and twin versions.

Construction features

Enbloc body composed of hydraulic section in cast iron and wet rotor motor.
Motor casing in aluminium. Flanged suction and discharge ports equipped with threaded fittings for pressure gauges. Rotor in technopolymer, motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium. Rotor protective jacket and stator jacket in stainless steel. Ceramic thrust ring, ethylene propylene seals and brass air breather plug. Four-pole asynchronous motor for versions BMH and DMH, two-pole motor for versions BPH and DPH. The Single-Phase Circulator is designed to operate at three speeds at 230 V, while the Three-Phase Circulator is designed to operate at two speeds at 230 V and at three speeds at 400 V. In both types, speed is adjusted on the basis of the setting of a selector on the terminal board in order to adapt circulator operation to the characteristics of the system.
Integral thermal in single-phase version. For the three-phase version the motor must be connected via an external contactor. The contactor must be connected to the motor's integral thermal probe to protect it against overload conditions at all speeds.
The twin version features an automatic swing check valve incorporated in the discharge port to avoid water recirculating through the unit when it is not running; moreover, a blank flange is supplied as standard to allow either of the two motors to be removed for servicing. Standard execution of the pump body is PN10, which is compatible with PN6 counter-flanges for interchangeability of pumps in existing systems.
Circulator protection rating: IP 44 both single-phase and three-phase
Insulation class: H - Cable gland: PG 11
Standard voltage input: single-phase 230V, 50Hz
three-phase 230/400V, 50Hz

This product complies with European standard EN 60335-2-51

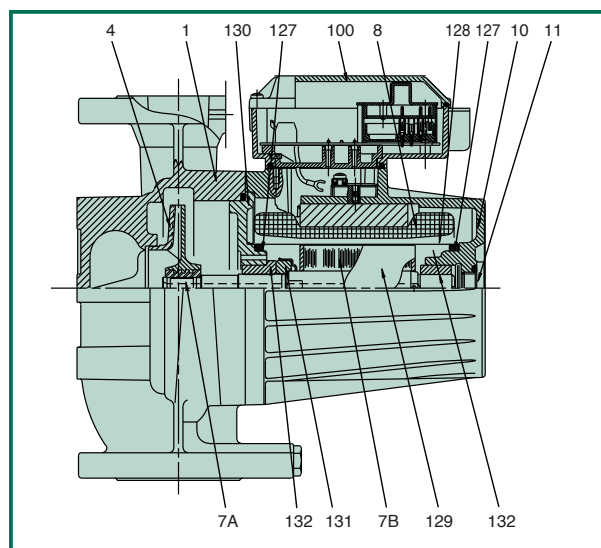
– Designation index:
(example)



CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

TECHNICAL DATA

N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	TECHNOPOLYMER B
7A	MOTOR SHAFT	AISI 420 C Quenched and Tempered STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHING PLUG	BRASS P Cu Zn 40 Pb2 UNI 5705
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE PROPYLENE (EPDM)
128	STATOR JACKET	321 AISI Quenched and Tempered STAINLESS STEEL – AISI 304
129	ROTOR JACKET	321 AISI Quenched and Tempered STAINLESS STEEL – AISI 304
130	CLOSING FLANGE	CAST IRON 200 UNI ISO 185
131	THRUST RING SUPPORT	AISI 304 L STAINLESS STEEL
132	BUSHINGS	CARBON EC 941



Operating range:	from 1.5 to 78 m ³ /h with head of up to 18 m.
Liquid temperature range:	For three-phase versions: from -10°C to +120°C For models BPH – DPH 150/340.65 T and BPH – DPH 150/360.80 T; BPH – DPH 150-180/280.50 T; BPH – DPH 180/340.65; BPH – DPH 180/360.80 T: from -10°C to +110°C For model BPH 120/280.50 M from -10 °C to +90 °C For single-phase versions: from -10 °C to +110 °C
Liquid quality requirements:	clean, free of solid contaminants and mineral oils, non-viscous, chemically neutral, close to the properties of water. (max. glycol contents 30%).
Maximum working pressure:	10 bar (1000 kPa)
Standard flanging:	DN 40, DN 50, DN 65, DN 80 in PN 6 / PN 10 (4 slots)
Minimum suction pressure:	the values are given in the relative tables.
Installation:	with HORIZONTAL MOTOR SHAFT on discharge or return pipe, with suction port as close as possible to expansion vessel, above boiler level and as far as possible from bends, elbows, and circuit branches to avoid water turbulence with consequent noise.
Special executions on request:	alternative voltages and/or frequencies. Flanging DN 80 in PN 10 / PN 16 (8 holes)
Accessories:	DN 40 - DN 50 - DN 65 - DN 80 threaded counter-flanges in PN 10.

TERMINAL BOARD POSITION

Single		Twin	
DN 40-50-65-80	DN 65-80	DN 65-80	DN 40-50-65-80

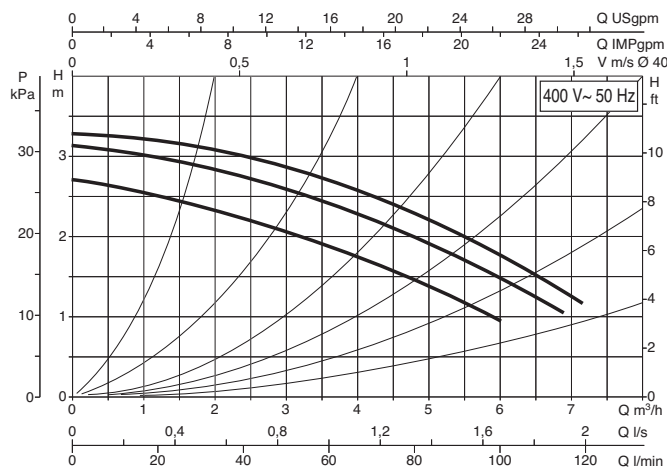
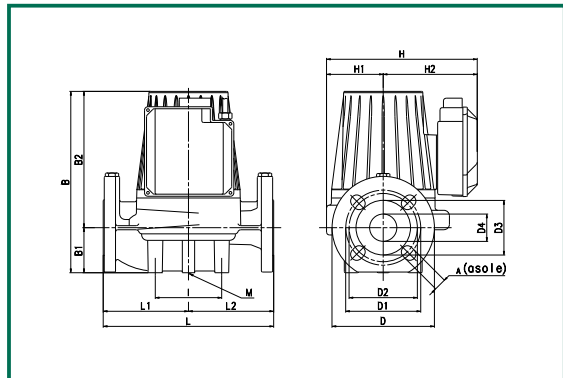
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 30/250.40 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



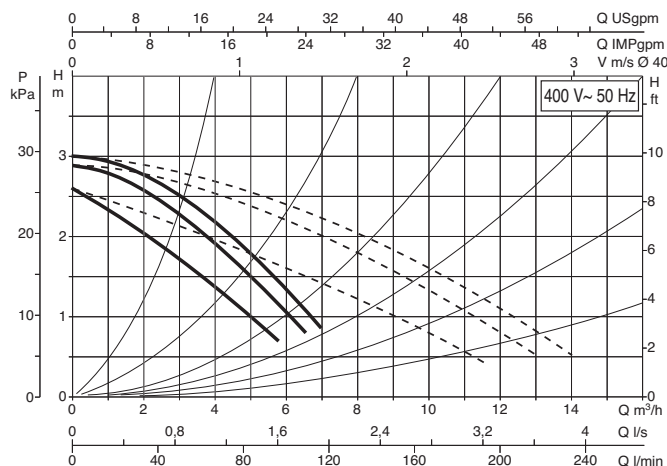
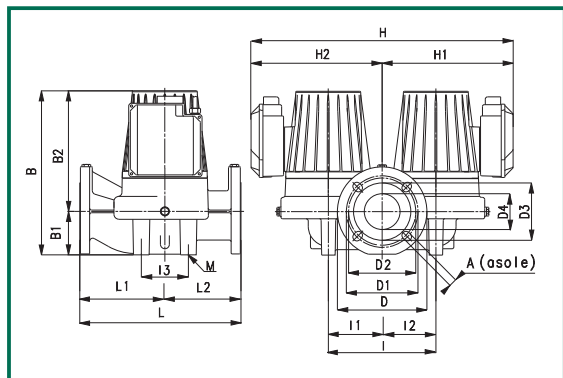
Hydraulic characteristics at 230 V are shown from page 50.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	-	-	-	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BMH 30/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	1340	100	0.48	t°	75°	90°	110°	120°
				1	1260	88	0.39					
	3x400 V ~			3	1440	192	0.78	m.c.a.	0.9	4	-	18
				2	1430	155	0.58					
				1	1260	88	0.23					

DMH 30/250.40 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 50.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DMH 30/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	1340	100	0.48	t°	75°	90°	110°	120°
				1	1260	88	0.39					
	3x400 V ~			3	1440	192	0.78	m.c.a.	0.9	4	-	18
				2	1430	155	0.58					
				1	1260	88	0.23					

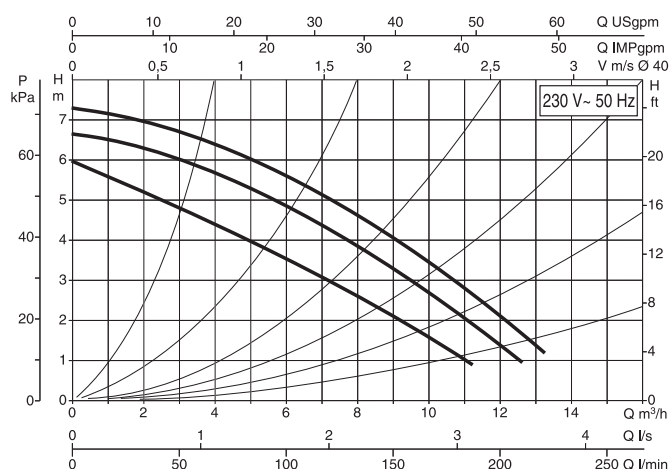
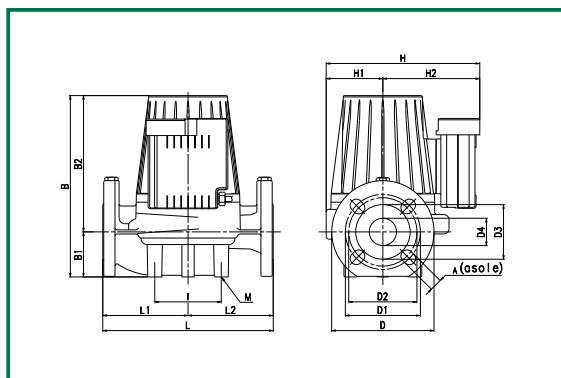
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 60/250.40 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

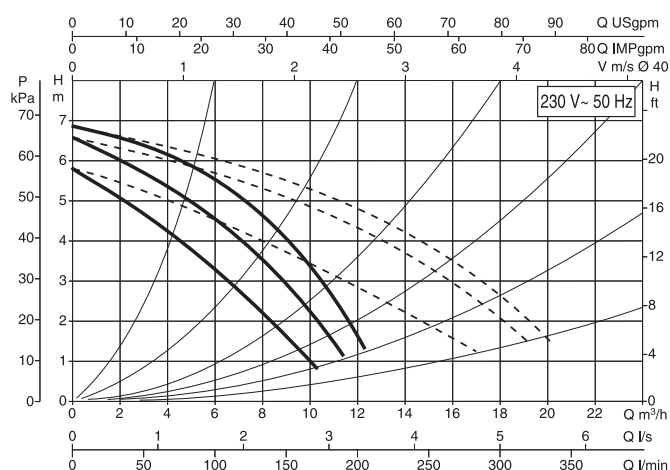
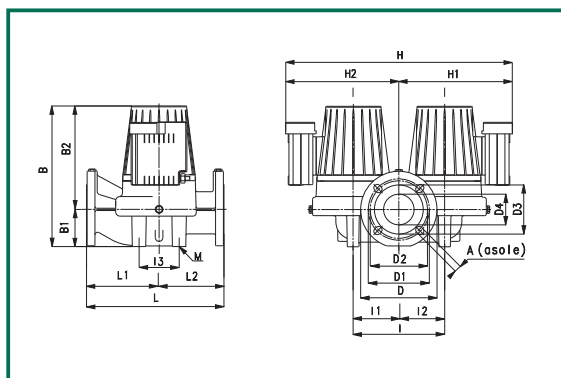


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	—	—	—	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
BPH 60/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	—	—	—	—	—
				3	2830	316	1.43	—	—	—	—	—
				2	2750	309	1.53	—	—	—	—	—
				1	2410	292	1.51	—	—	—	—	—

DPH 60/250.40 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
DPH 60/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	—	—	—	—	—
				3	2830	316	1.43	—	—	—	—	—
				2	2750	309	1.53	—	—	—	—	—
				1	2410	292	1.51	—	—	—	—	—

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

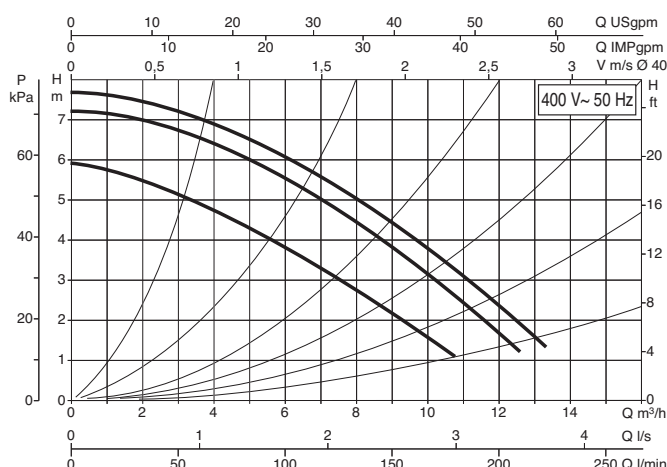
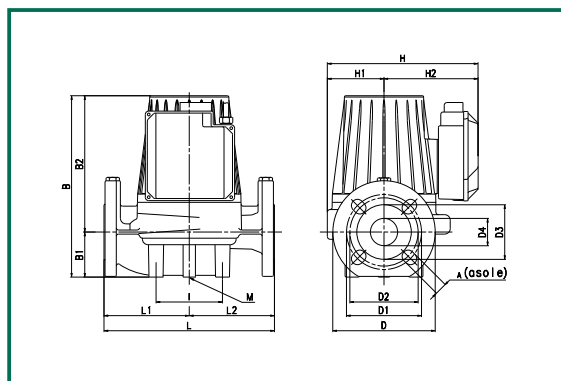
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 60/250.40 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



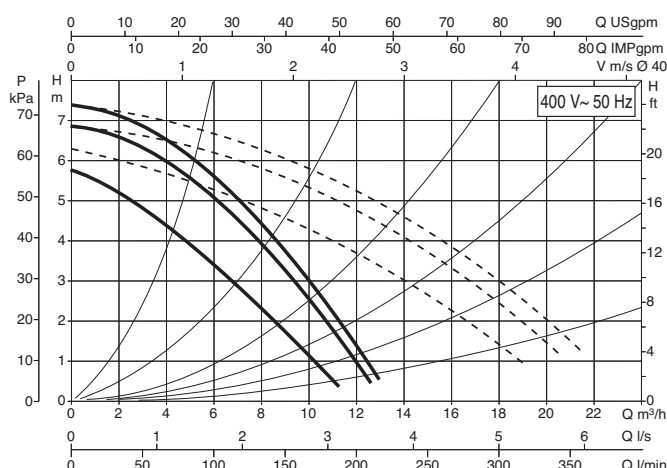
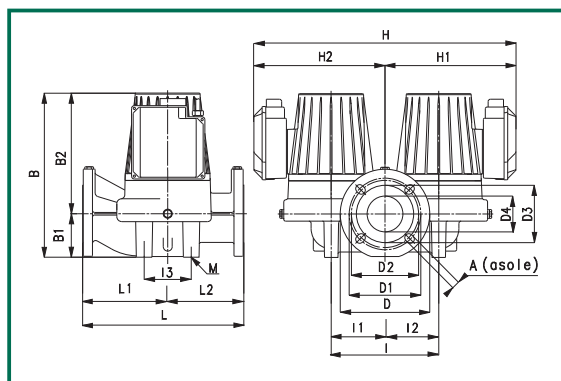
Hydraulic characteristics at 230 V are shown from page 52.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	-	-	-	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 60/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2570	253	0.81	t°	75°	90°	110°	120°				
				1	2420	229	0.72									
	3			2850	348	0.99	m.c.a.						1.6	4	-	19
	2			2810	316	0.75										
	1			2430	232	0.42										

DPH 60/250.40 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 52.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 60/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2570	253	0.81	t°	75°	90°	110°	120°								
				1	2420	229	0.72													
	3x400 V ~				3	2850	348						0.99	m.c.a.	1.6	4	-	19		
					2	2810	316						0.75							
					1	2430	232						0.42							

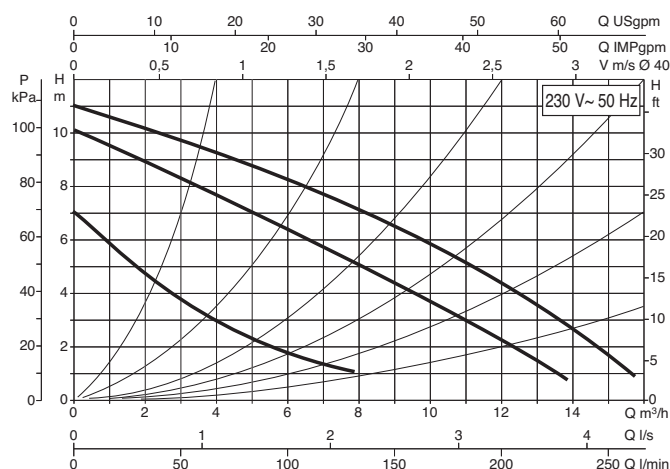
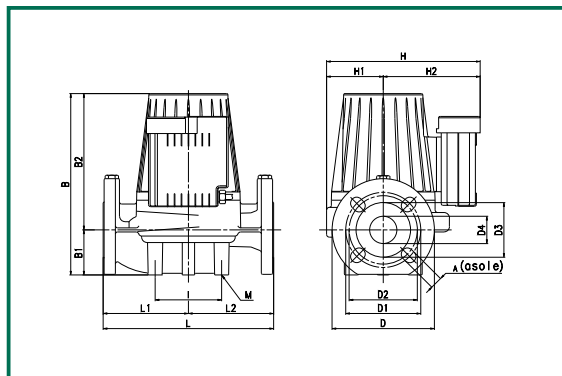
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 120/250.40 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

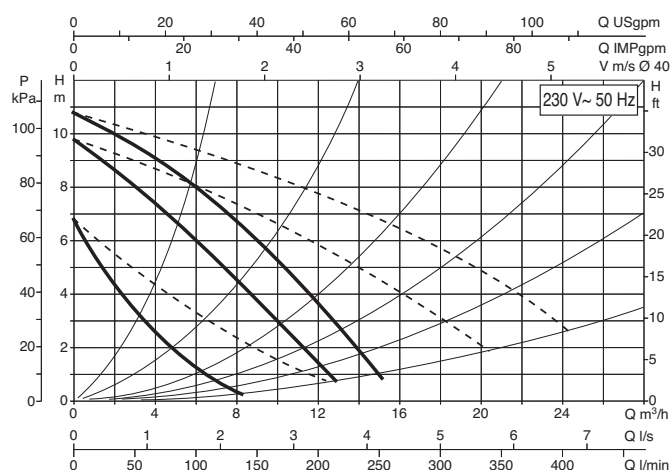
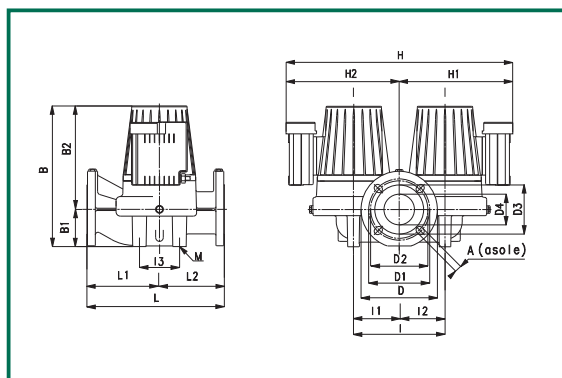


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	—	—	—	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 120/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	t°	75°	90°	110°	120°
				3	2650	510	2.24	m.c.a.	6	9	18	—
				2	2320	498	2.35					
				1	1520	376	1.96					

DPH 120/250.40 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 120/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	t°	75°	90°	110°	120°
				3	2650	510	2.24	m.c.a.	6	9	18	—
				2	2320	498	2.35					
				1	1520	376	1.96					

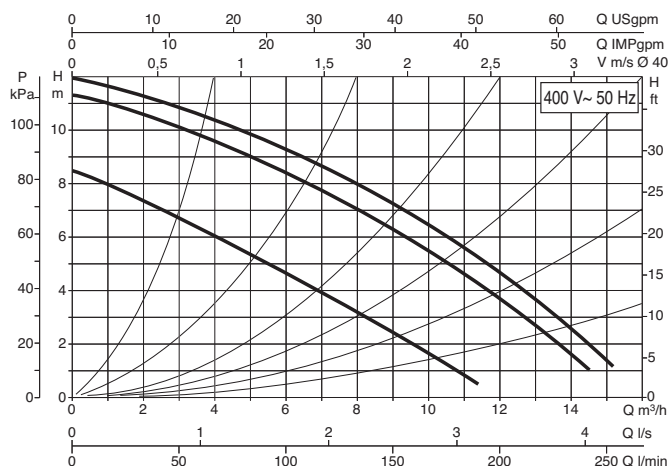
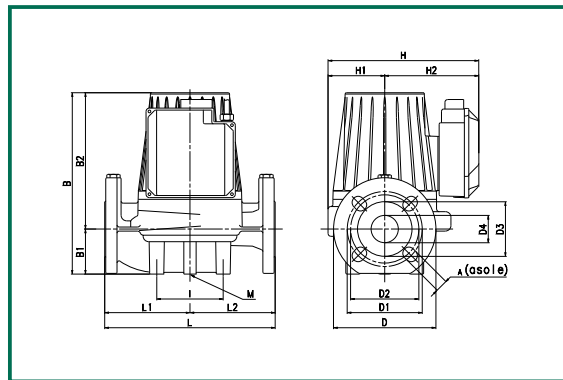
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 120/250.40 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



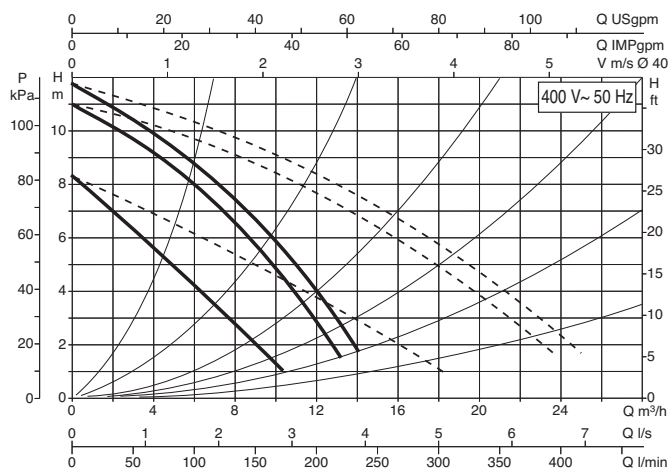
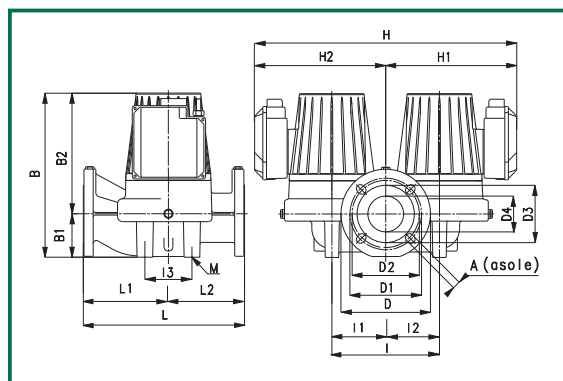
Hydraulic characteristics at 230 V are shown from page 54.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	-	-	-	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 120/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2300	395	1.2	t°	75°	90°	110°	120°
				1	2070	340	1.07					
	3			2780	536	1.16						
	2			2710	499	0.98						
	1			2080	339	0.62						
	3x400 V ~							m.c.a.	6	9	-	23

DPH 120/250.40 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 54.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 120/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2300	395	1.2	t°	75°	90°	110°	120°
				1	2070	340	1.07					
	3			2780	536	1.16						
	2			2710	499	0.98						
	1			2080	339	0.62						

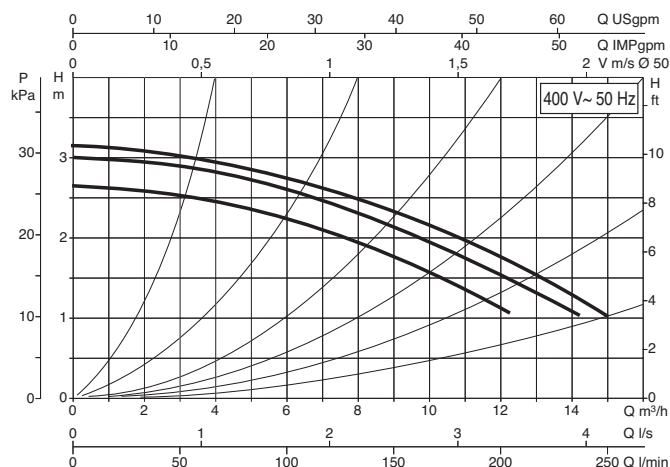
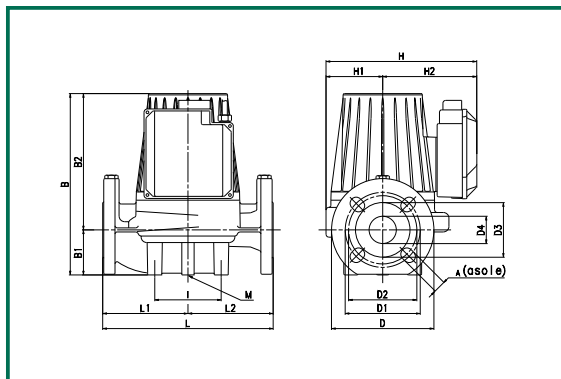
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 30/280.50 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



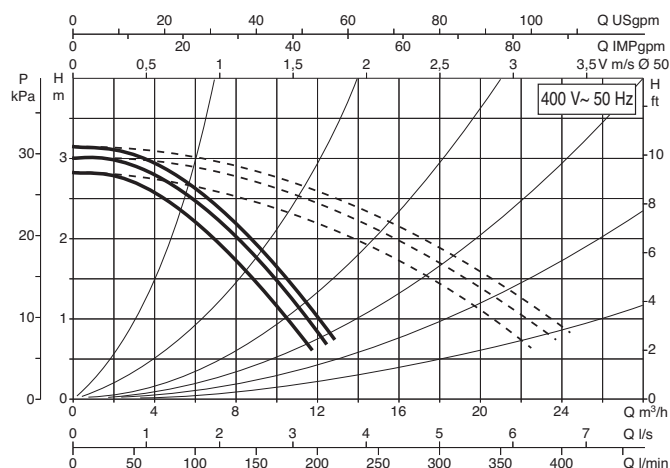
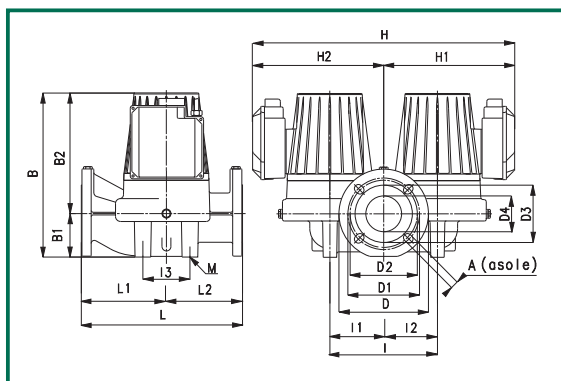
Hydraulic characteristics at 230 V are shown from page 55.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BMH 30/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1390	148	0.7	t°	75°	90°	110°	120°			
				1	1340	134	0.55								
	3x400 V ~				3	1460	255						1.12		
					2	1450	216						0.83		
					1	1350	131						0.32		
								m.c.a.	0.9	4	-	18			

DMH 30/280.50 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 55.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	130	150	18	305	73	232	165	125	110	90	50	240	120	120	120	M14	552	276	276	590	335	430	0,084	51,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DMH 30/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1390	148	0.7	t°	75°	90°	110°	120°			
				1	1340	134	0.55								
	3x400 V ~				3	1460	255						1.12		
					2	1450	216						0.83		
					1	1350	131						0.32		

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

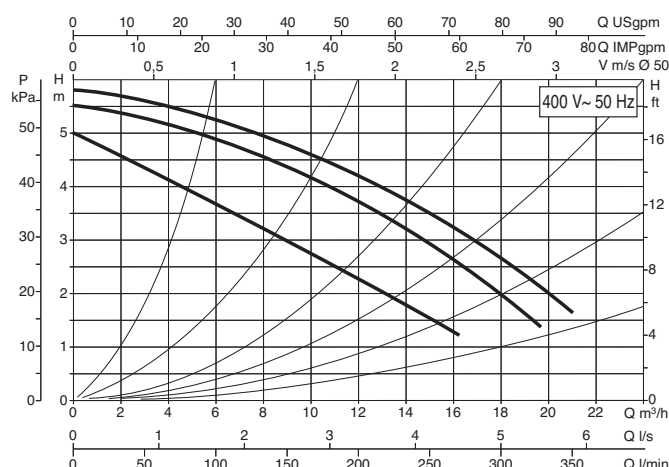
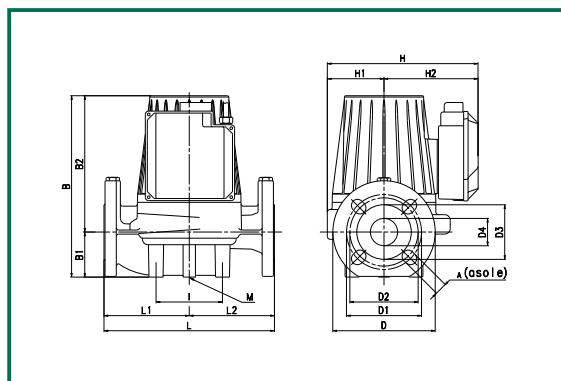
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BMH 60/280.50 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



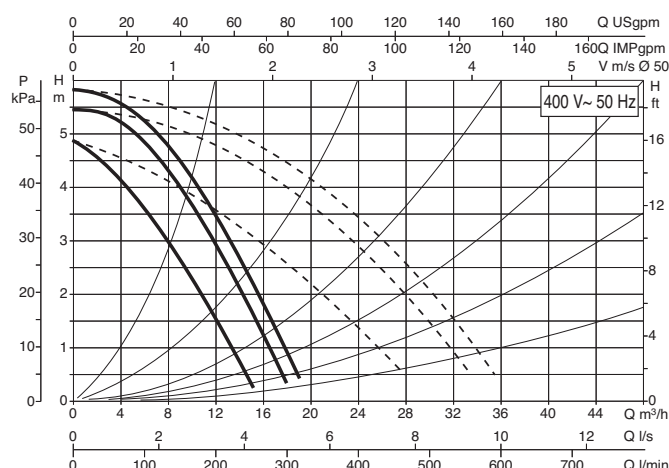
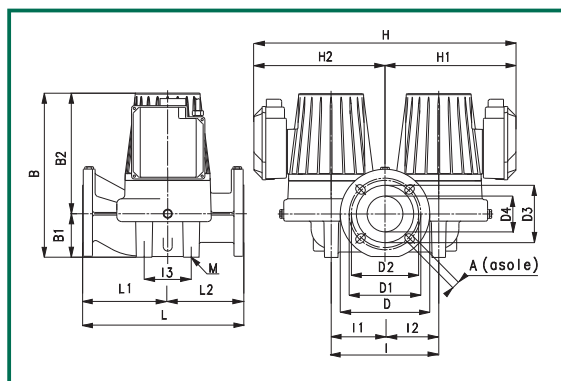
Hydraulic characteristics at 230 V are shown from page 56.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BMH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1210	272	0.94	t°	75°	90°	110°	120°				
				1	1120	240	0.8									
	3			1400	410	1.2	m.c.a.						4	7.5	-	21
	2			1360	367	0.95										
	1			1130	235	0.46										

DMH 60/280.50 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 56.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DMH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1210	272	0.94	t°	75°	90°	110°	120°								
				1	1120	240	0.8													
	3x400 V ~				3	1400	410						1.2	m.c.a.	4	7.5	-	21		
					2	1360	367						0.95							
					1	1130	235						0.46							

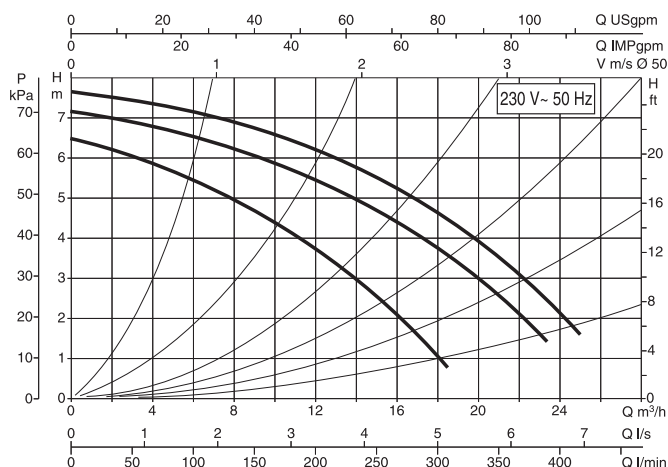
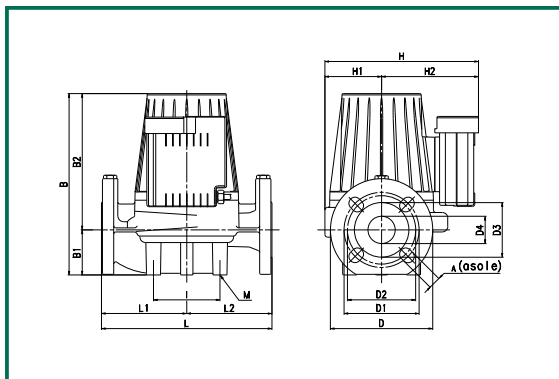
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 60/280.50 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

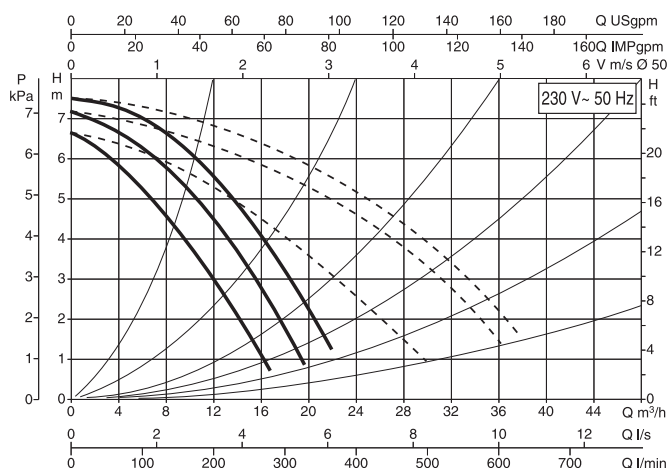
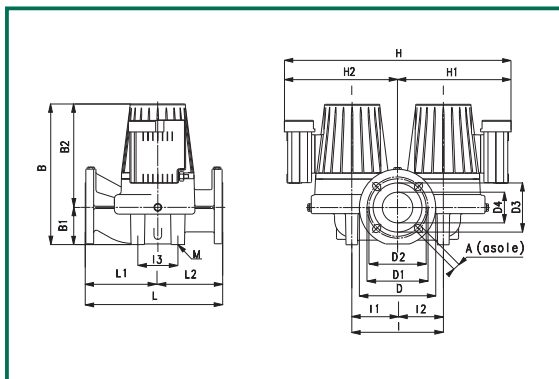


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	156	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
BPH 60/280.50 M	-	280	DN 50 - PN 10	-	-	-	-	-	-	-	-	-
	1x230 V ~			3	2840	595	2.79	m.c.a.	1.6	6	14	-
				2	2730	540	2.45					
				1	2200	506	2.58					

DPH 60/280.50 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	554	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
DPH 60/280.50 M	-	280	DN 50 - PN 10	-	-	-	-	-	-	-	-	-
	1x230 V ~			3	2840	595	2.79	m.c.a.	1.6	6	14	-
				2	2730	540	2.45					
				1	2200	506	2.58					

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

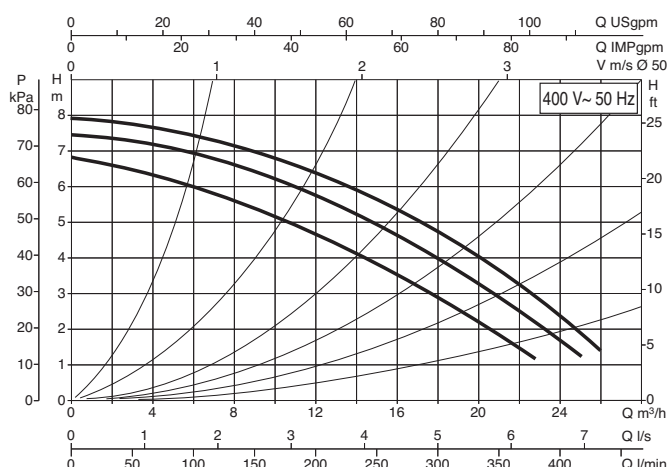
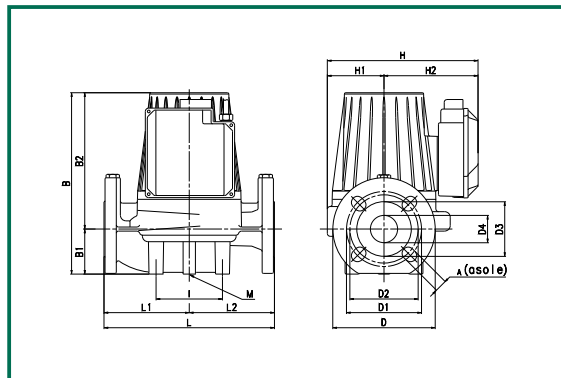
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 60/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



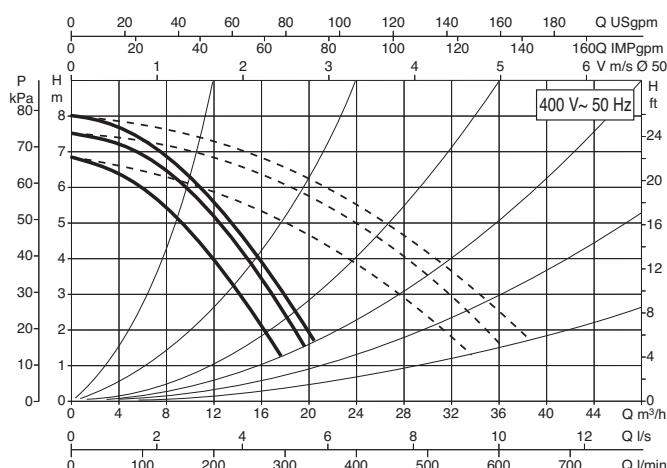
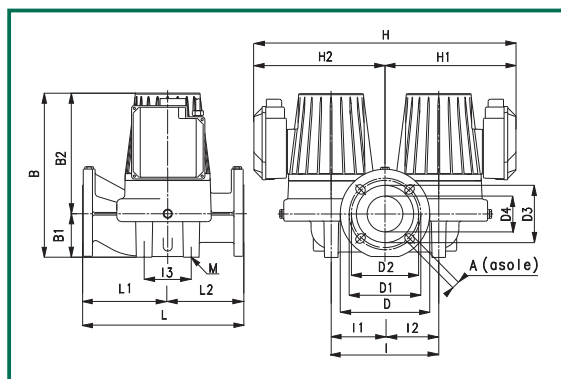
Hydraulic characteristics at 230 V are shown from page 58.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	156	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2670	464	1.35	t°	75°	90°	110°	120°				
				1	2570	432	1.23									
	3			2890	589	1.31	m.c.a.						1.6	6	-	19
	2			2860	546	1.1										
	1			2570	423	0.71										

DPH 60/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 58.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	554	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2670	464	1.35	t°	75°	90°	110°	120°								
				1	2570	432	1.23													
	3x400 V ~				3	2890	589						1.31	m.c.a.	1.6	6	-	19		
					2	2860	546						1.1							
					1	2570	423						0.71							

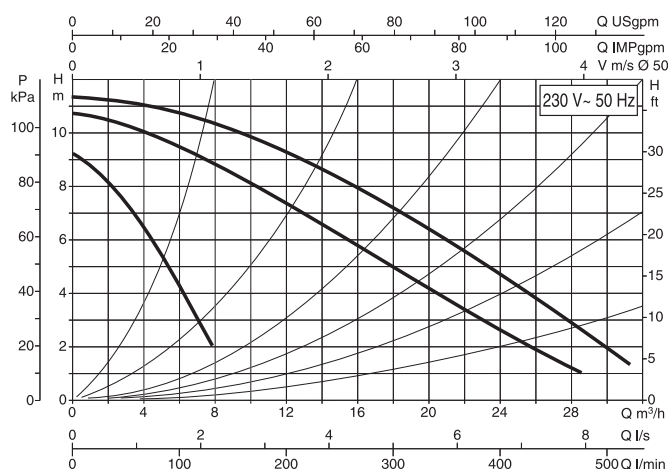
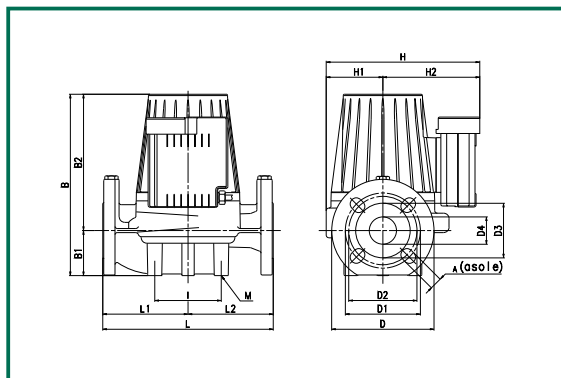
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +90°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 120/280.50 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

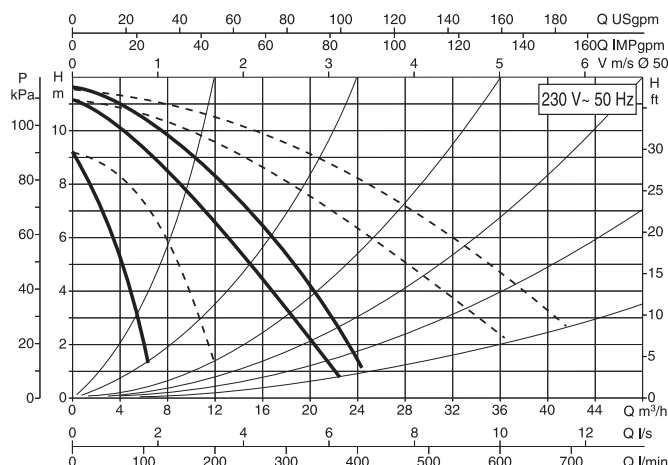
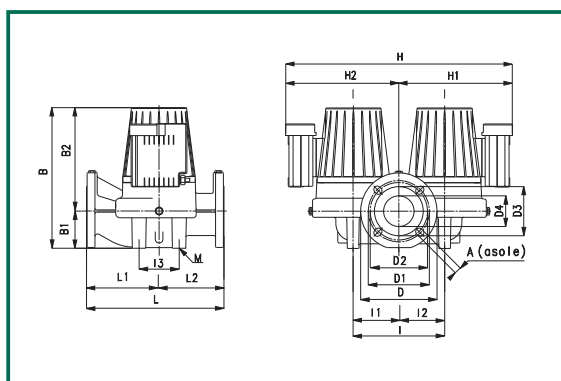


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	—	—	—	M10	254	96	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 120/280.50 M	—	280	DN 50 - PN 10	—	—	—	—	t°	75°	90°	110°	120°
				3	2690	870	3,97	m.c.a.	2	5	—	20
				2	2360	800	3,69					
				1	1340	590	3,12					

DPH 120/280.50 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 120/280.50 M	—	280	DN 50 - PN 10	—	—	—	—	t°	75°	90°	110°	120°
				3	2690	870	3,97	m.c.a.	2	5	—	20
				2	2360	800	3,69					
				1	1340	590	3,12					

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

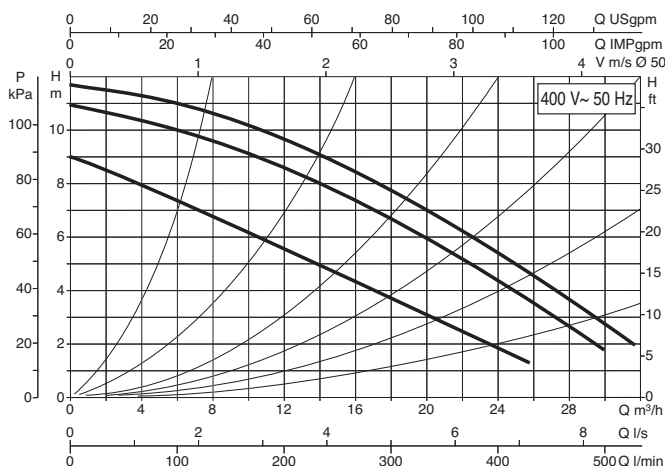
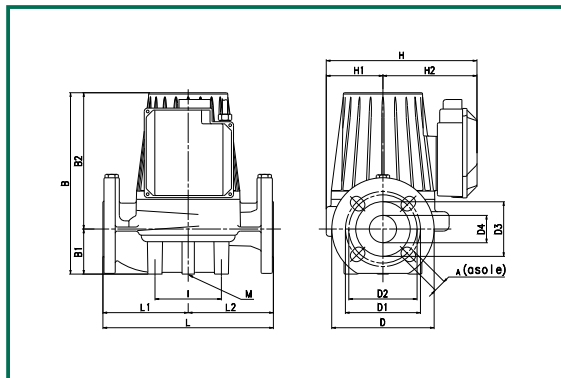
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 120/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



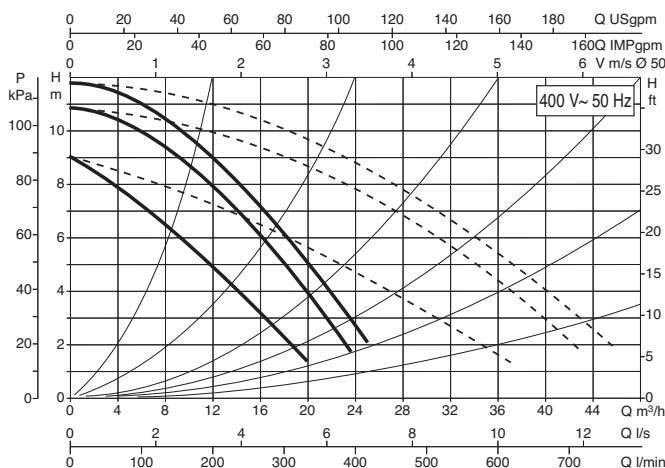
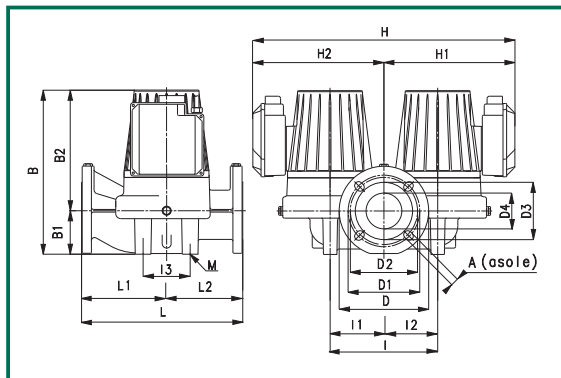
Hydraulic characteristics at 230 V are shown from page 60.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	26

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 120/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2430	683	1.95	t°	75°	90°	110°	120°				
				1	2240	605	1.75									
	3			2810	898	1.67	m.c.a.						2	5	-	20
	2			2740	840	1.47										
	1			2260	603	1										

DPH 120/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 60.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	49

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
DPH 120/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2430	683	1.95	t°	75°	90°	110°	120°				
				1	2240	605	1.75									
	3			2810	898	1.67	m.c.a.						2	5	-	20
	2			2740	840	1.47										
	1			2260	603	1										

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

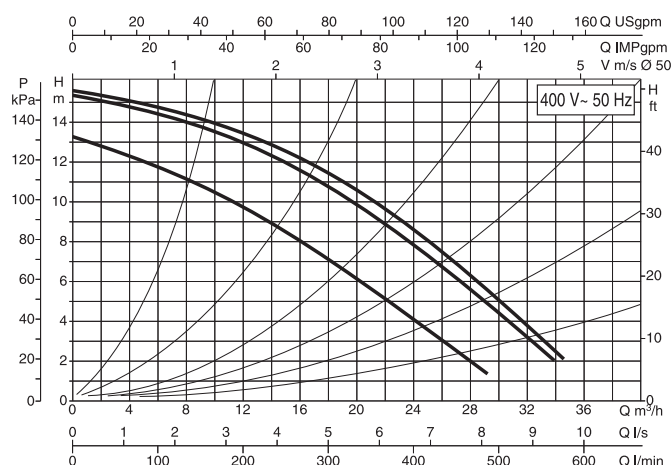
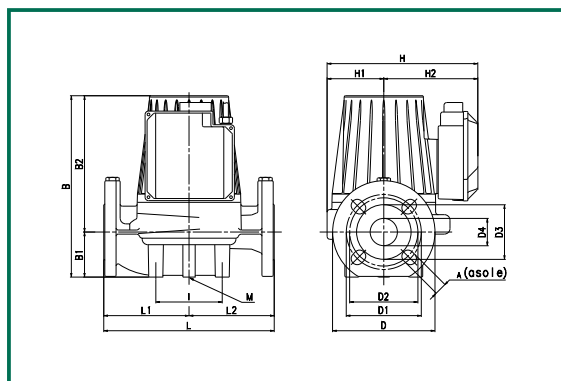
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 150/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



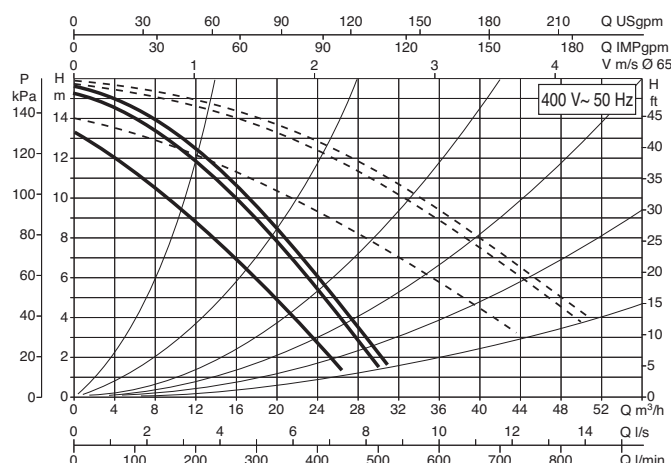
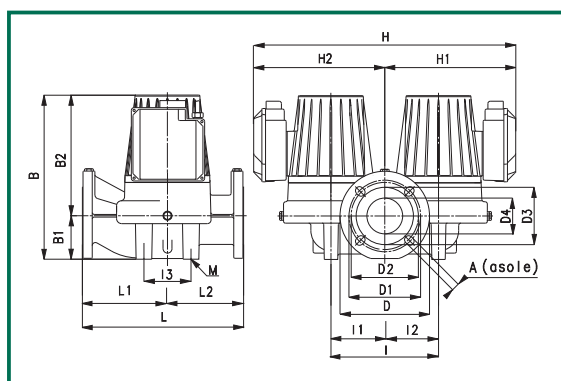
Hydraulic characteristics at 230 V are shown from page 61.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	362	73	289	165	125	110	90	50	100	—	—	—	M10	254	96	158	360	295	320	0,033	26

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BPH 150/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2553	1130	3.22	t°	75°	90°	110°	120°								
				1	2420	1032	3													
	3x400 V ~				3	2850	1470						2.9	m.c.a.	2	5	—	20		
					2	2802	1360						2.5							
					1	2425	1030						1.7							

DPH 150/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 61.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	358	73	285	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	49

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DPH 150/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2553	1130	3.22	t°	75°	90°	110°	120°			
				1	2420	1032	3								
	3x400 V ~				3	2850	1470						2.9		
					2	2802	1360						2.5		
					1	2425	1030						1.7		

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

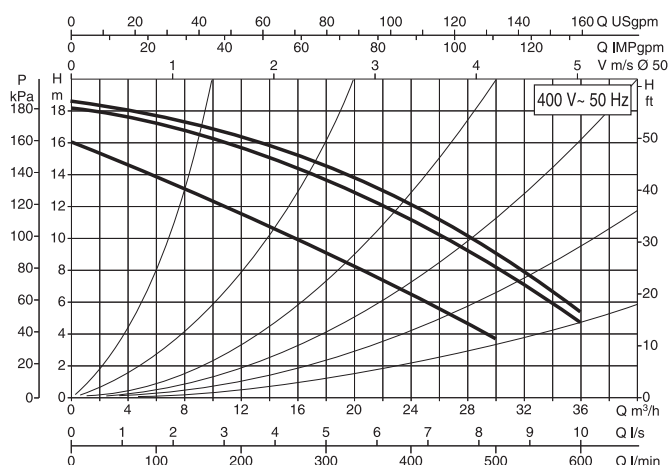
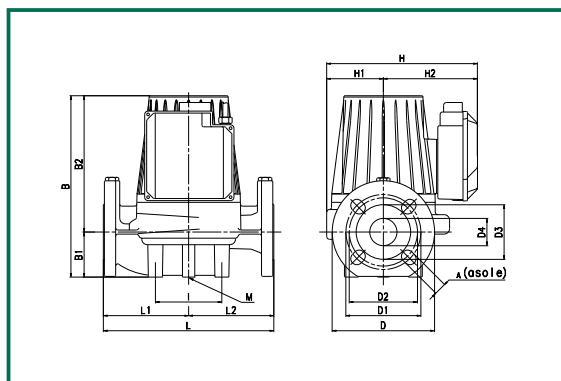
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 180/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



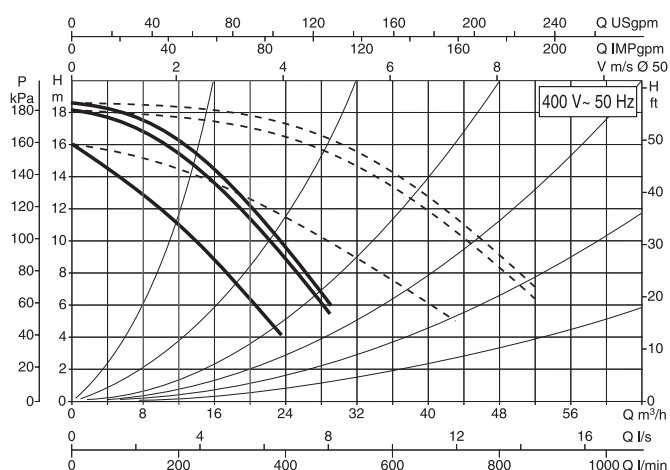
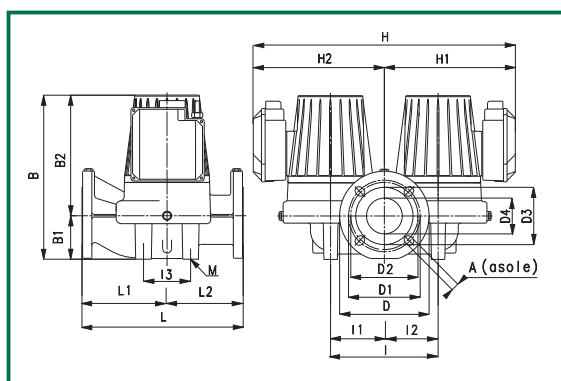
Hydraulic characteristics at 230 V are shown from page 62.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	140	140	18	362	73	289	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	26

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BPH 180/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2520	1230	3,5	t°	75°	90°	110°	120°								
				1	2340	1120	3,2													
	3x400 V ~				3	2830	1630						3	m.c.a.	2	5	-	20		
					2	2780	1540						2,70							
					1	2360	1130						1,85							

DPH 180/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 62.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	130	150	18	358	73	285	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	49

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 180/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2520	1230	3,5	t°	75°	90°	110°	120°								
				1	2340	1120	3,2													
	3x400 V ~				3	2830	1630						3	m.c.a.	2	5	-	20		
					2	2780	1540						2,70							
					1	2360	1130						1,85							

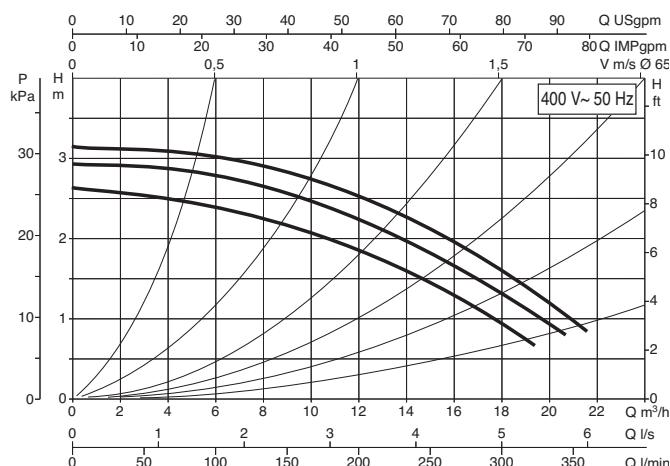
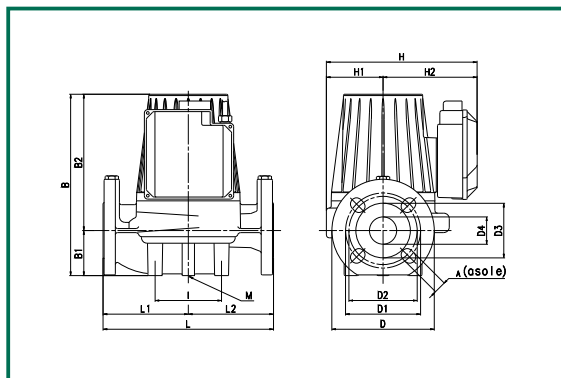
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 30/340.65 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



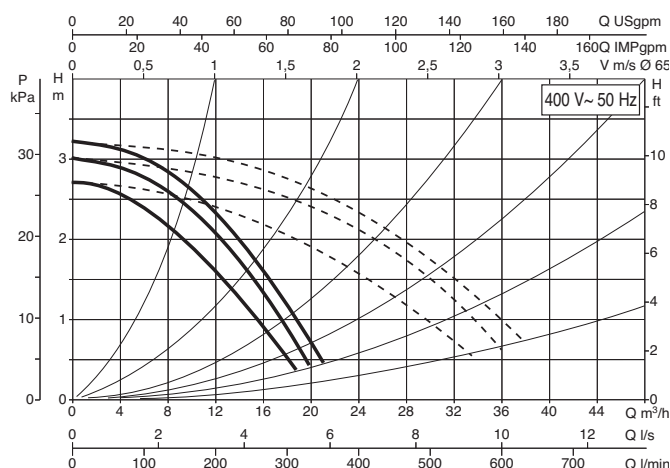
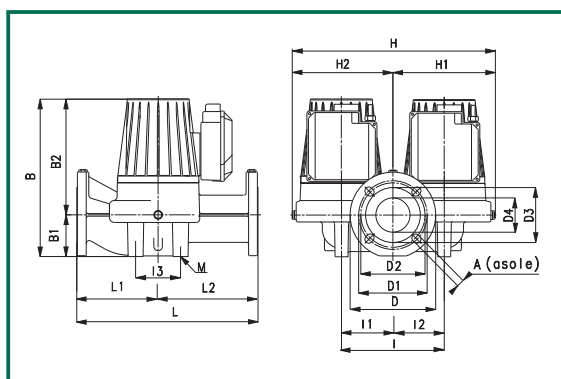
Hydraulic characteristics at 230 V are shown from page 63.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	27,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BMH 30/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1360	170	0.73	t°	75°	90°	110°	120°			
				1	1310	154	0.60								
	3x400 V ~				3	1450	270						1.12		
					2	1430	233						0.84		
					1	1310	150						0.35		

DMH 30/340.65 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 63.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	138,5	201,5	18	328	82	246	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	57

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DMH 30/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1360	170	0.73	t°	75°	90°	110°	120°			
				1	1310	154	0.60								
	3x400 V ~				3	1450	270						1.12		
					2	1430	233						0.84		
					1	1310	150						0.35		

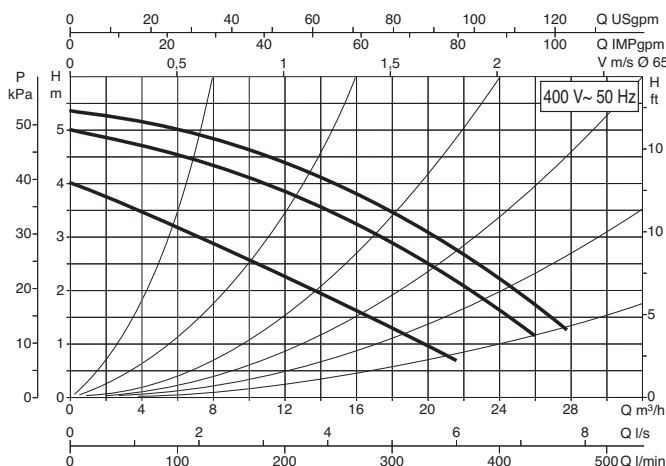
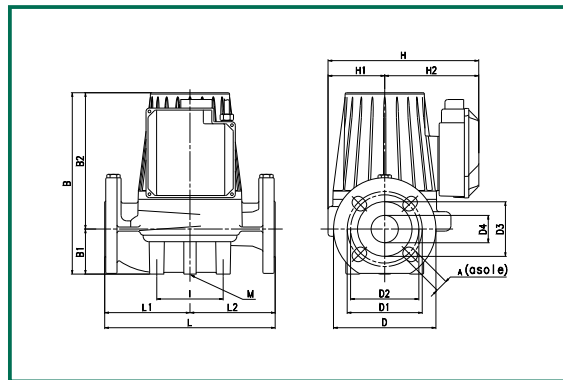
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 60/340.65 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



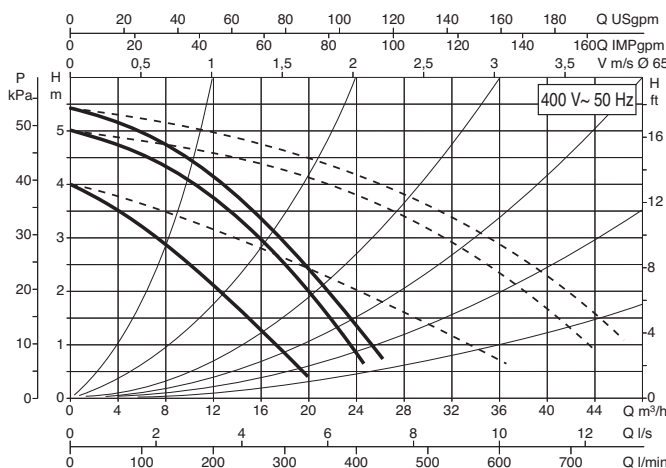
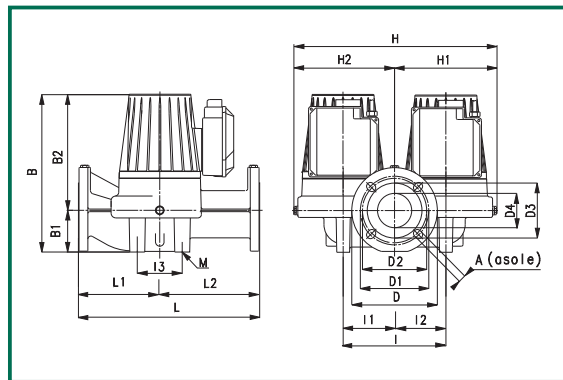
Hydraulic characteristics at 230 V are shown from page 64.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	—	—	—	M12	259	100	159	435	295	400	0,051	27,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	
BMH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1170	295	1	t° 75° 90° 110° 120°
				1	1070	257	0.85	
	3			1380	445	1.2	m.c.a. 4 7.5 – 21	
	2			1350	403	0.97		
	1			1090	255	0.49		

DMH 60/340.65 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 64.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	331	82	249	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	50

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
DMH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1170	295	1	t°	75°	90°	110°	120°				
				1	1070	257	0.85									
	3			1380	445	1.2	m.c.a.						4	7.5	—	21
	2			1350	403	0.97										
	1			1090	255	0.49										

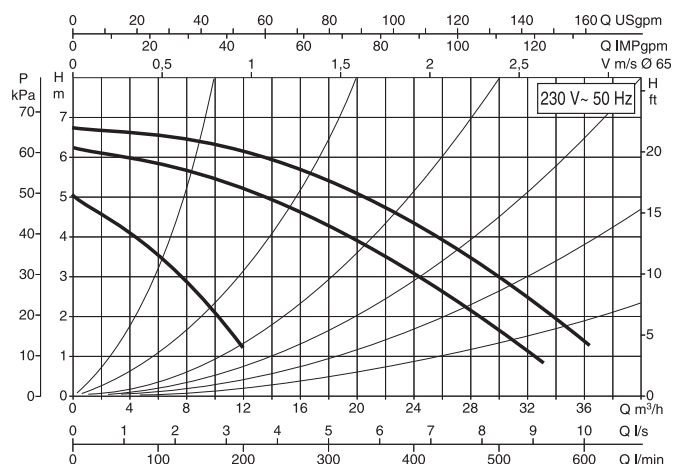
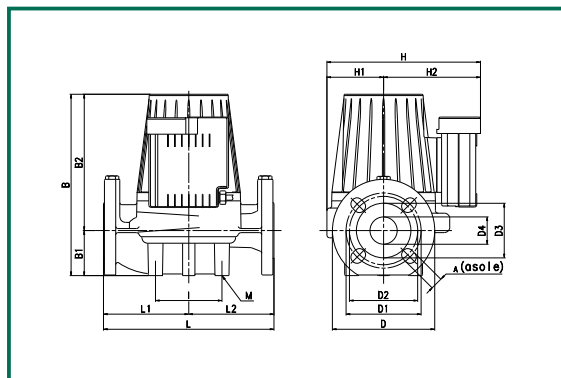
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 60/340.65 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

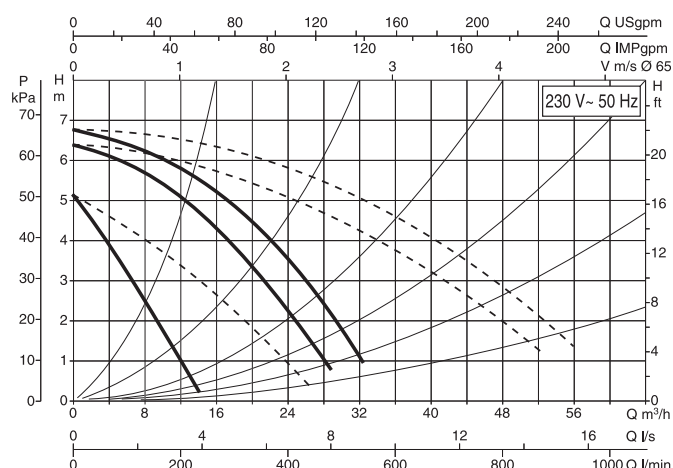
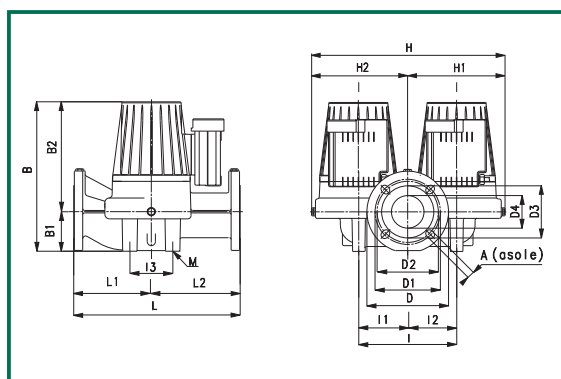


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	27,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 60/340.65 M	1x230 V ~	340	DN 65 - PN 10	-	-	-	-	t°	75°	90°	110°	120°
				3	2780	735	3.37	m.c.a.	1	4	13	-
				2	2580	685	3.13					
				1	1460	564	3.12					

DPH 60/340.65 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	331	82	249	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	50

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 60/340.65 M	1x230 V ~	340	DN 65 - PN 10	-	-	-	-	t°	75°	90°	110°	120°
				3	2780	735	3.37	m.c.a.	1	4	13	-
				2	2580	685	3.13					
				1	1460	564	3.12					

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

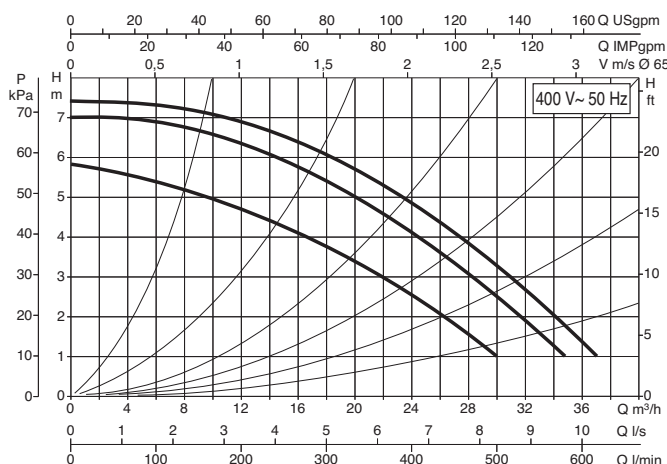
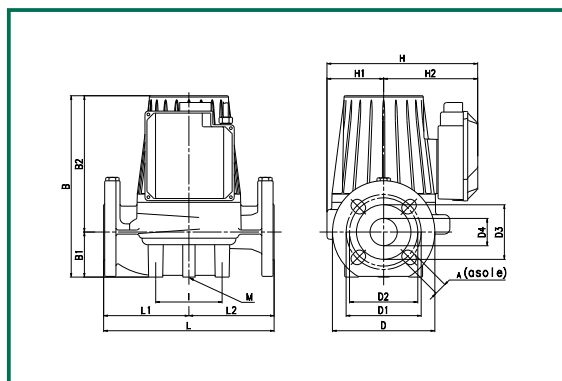
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 60/340.65 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



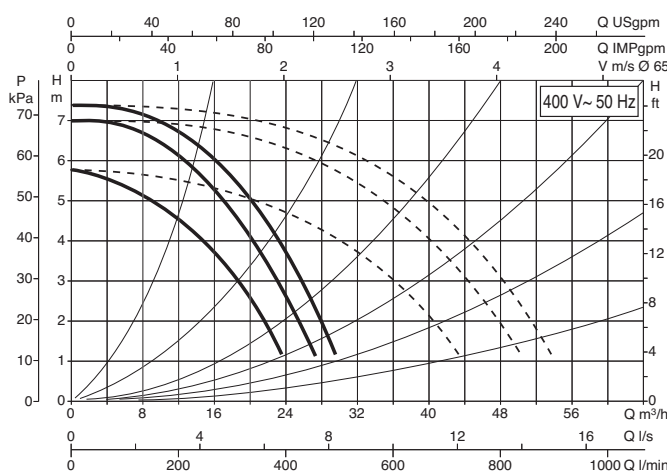
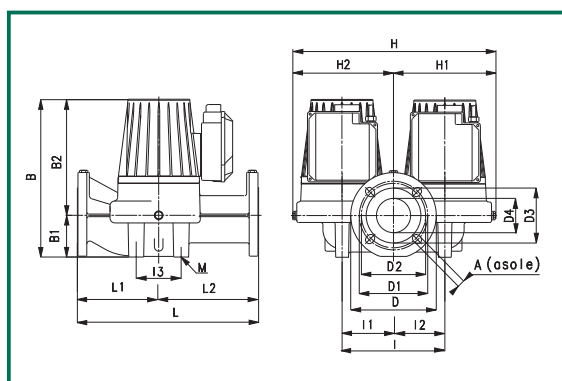
Hydraulic characteristics at 230 V are shown from page 66.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	30,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BPH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2550	582	1.67	t°	75°	90°	110°	120°								
				1	2380	532	1.53													
	3x400 V ~				3	2850	756						1.5	m.c.a.	1	4	-	18		
					2	2800	705						1.3							
					1	2400	535						0.9							

DPH 60/340.65 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 66.

Hydraulic characteristics at 250 °F are shown from page 56.																								
L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138.5	201.5	18	331	82	249	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0.125	54.5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2550	582	1.67	t°	75°	90°	110°	120°								
				1	2380	532	1.53													
	3x400 V ~				3	2850	756						1.5	m.c.a.	1	4	-	18		
					2	2800	705						1.3							
					1	2400	535						0.9							

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

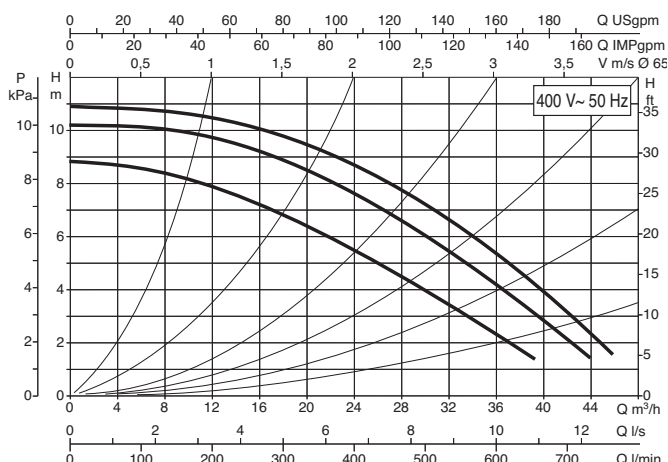
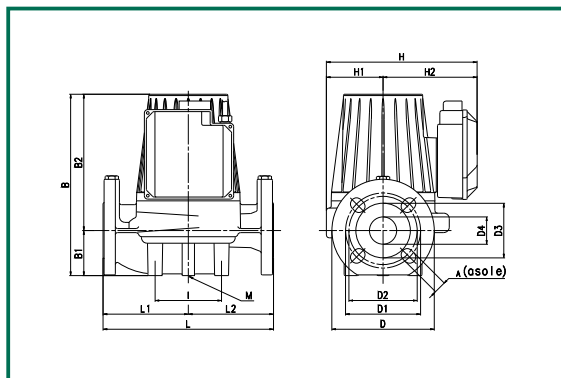
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 120/340.65 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



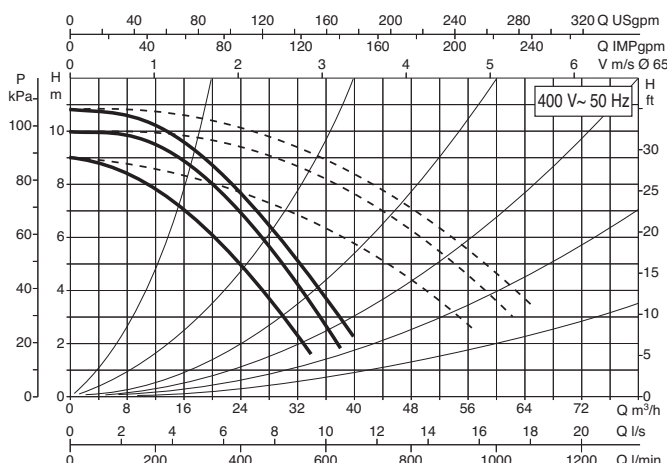
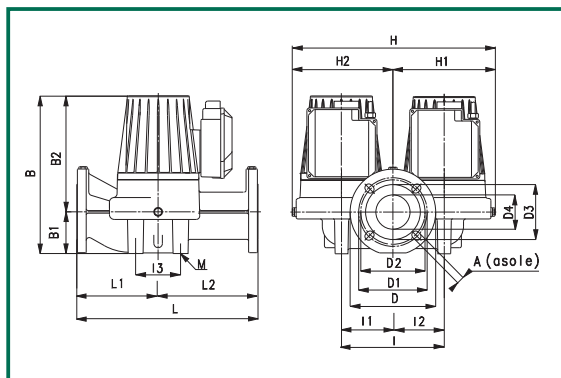
Hydraulic characteristics at 230 V are shown from page 67.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	170	170	18	384	82	302	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	32,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BPH 120/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2630	1001	2.85	t°	75°	90°	110°	120°			
				1	2500	940	2.66								
	3x400 V ~				3	2880	1275						2.64		
					2	2830	1200						2.25		
					1	2520	934						1.52		
								m.c.a.	6	9	-	22			

DPH 120/340.65 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 67.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	138,5	201,5	18	381	82	299	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	59

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DPH 120/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2630	1001	2.85	t°	75°	90°	110°	120°			
				1	2500	940	2.66								
	3x400 V ~				3	2880	1275						2.64		
					2	2830	1200						2.25		
					1	2520	934						1.52		

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

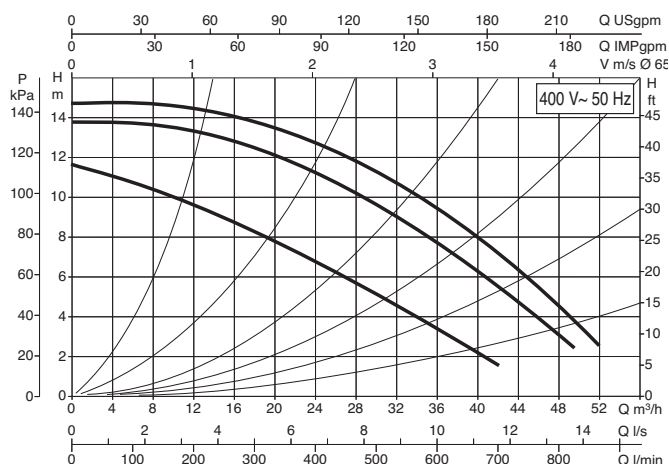
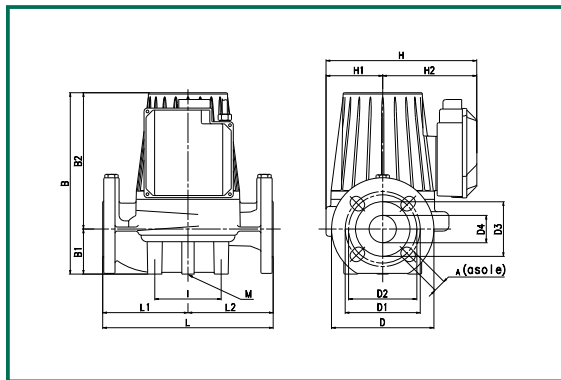
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 150/340.65 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



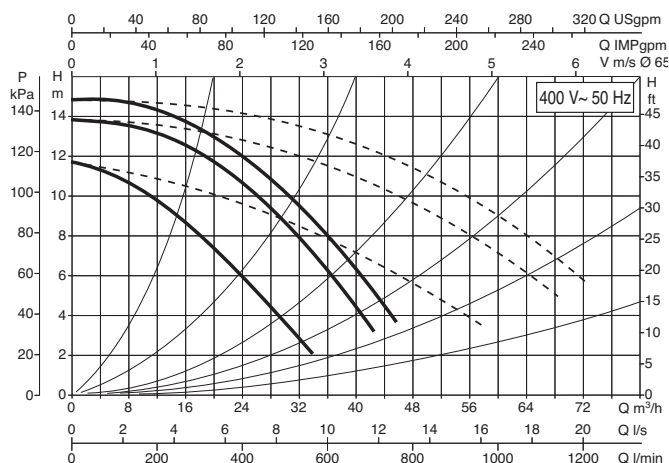
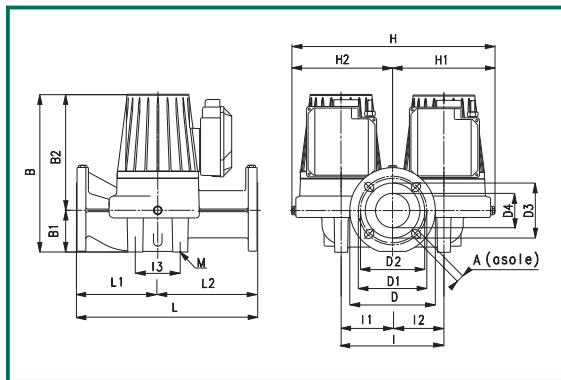
Hydraulic characteristics at 230 V are shown from page 68.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	384	82	302	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	32,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 150/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2410	1345	3.8	t°	75°	90°	110°	120°
				1	2250	1188	3.36					
	3			2800	1796	3.25						
	2			2730	1690	2.93						
	1			2250	1210	2						
	3x400 V ~							m.c.a.	7	11	18	-

DPH 150/340.65 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 68.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	381	82	299	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	59

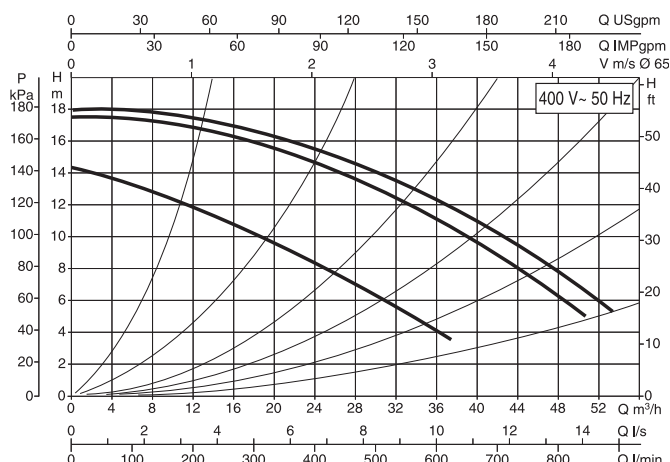
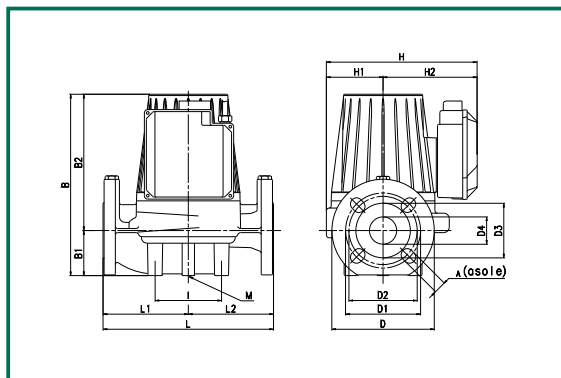
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 150/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2410	1345	3.8	t°	75°	90°	110°	120°
				1	2250	1188	3.36					
	3			2800	1796	3.25						
	2			2730	1690	2.93						
	1			2250	1210	2						
	3x400 V ~							m.c.a.	7	11	18	-

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 180/340.65 T SINGLE FLANGED - THREE-PHASE (2800 rpm)

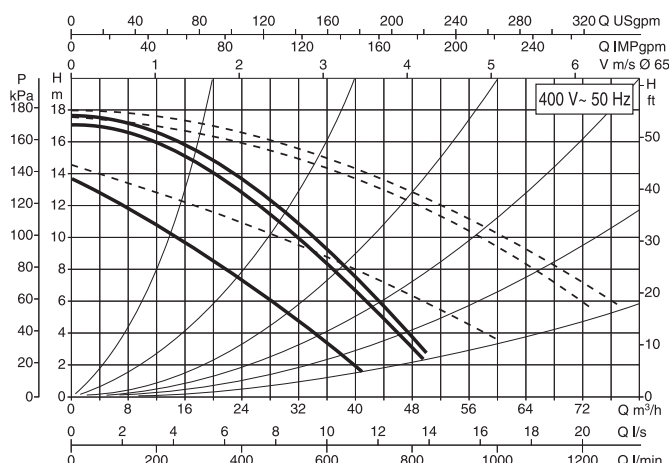
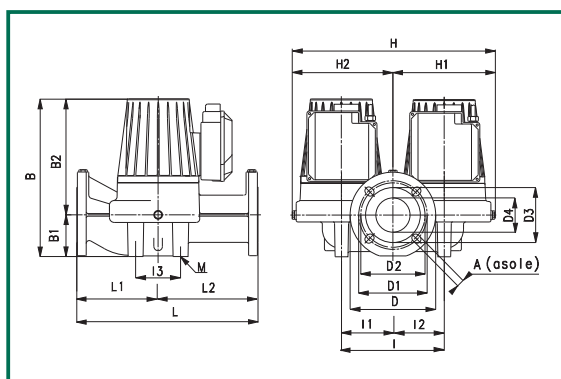


Hydraulic characteristics at 230 V are shown from page 69.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	384	82	302	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	32,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BPH 180/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°			
				1	2170	1490	4,25								
	3x400 V ~				3	2780	2310						4		
					2	2700	2210						3,5		
					1	2200	1490						2,4		

DPH 180/340.65 T TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 69.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	381	82	299	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	59

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 180/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°
				1	2170	1490	4,25					
	3x400 V ~			3	2780	2310	4	m.c.a.	7	11	18	-
				2	2700	2210	3,5					
				1	2200	1490	2,4					

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

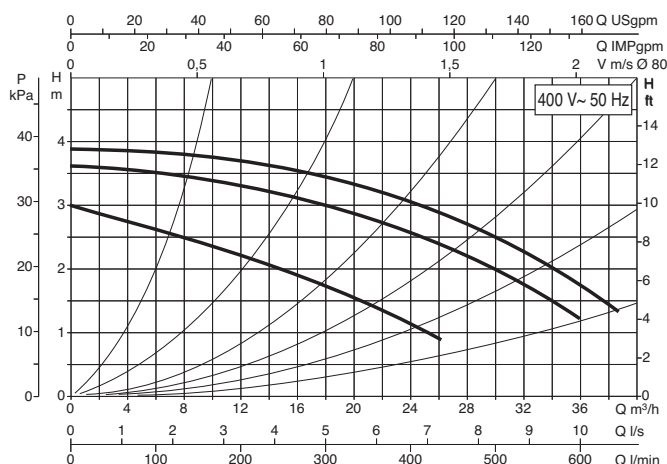
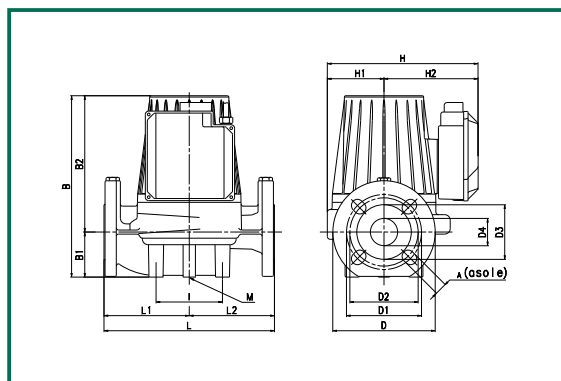
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BMH 30/360.80 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



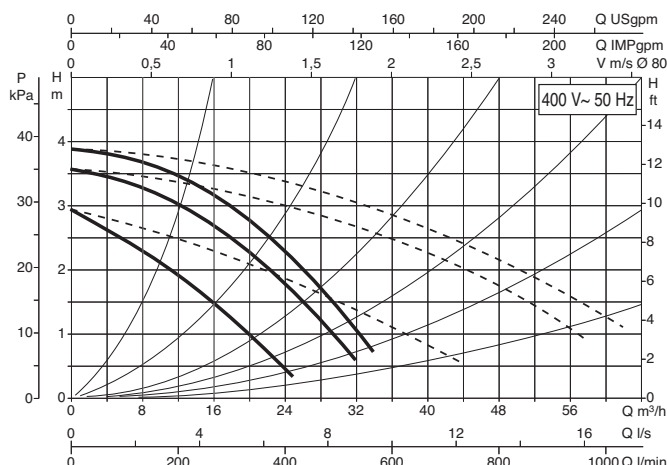
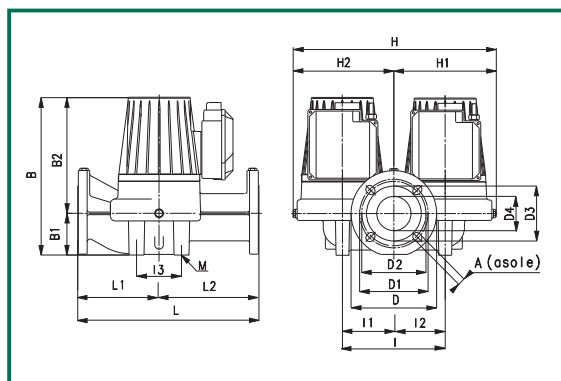
Hydraulic characteristics at 230 V are shown from page 70.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	170	190	18	354	97	254	200	160	150	130	80	115	-	-	-	M12	297	100	159	435	295	400	0,051	31

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BMH 30/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1110	313	1.05	t°	75°	90°	110°	120°								
				1	1010	268	0.88													
	3x400 V ~				3	1370	484						1.23	m.c.a.	4	7.5	-	21		
					2	1330	437						1							
					1	1030	266						0.51							

DMH 30/360.80 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 70.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	160	200	18	345	97	248	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	54,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DMH 30/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1110	313	1.05	t°	75°	90°	110°	120°			
				1	1010	268	0.88								
	3x400 V ~				3	1370	484						1.23		
					2	1330	437						1		
					1	1030	266						0.51		

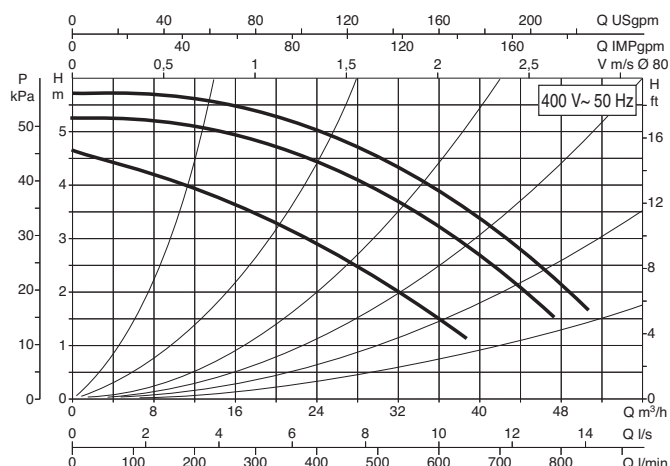
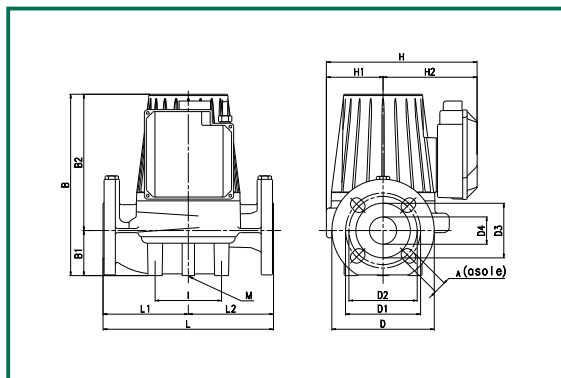
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 60/360.80 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



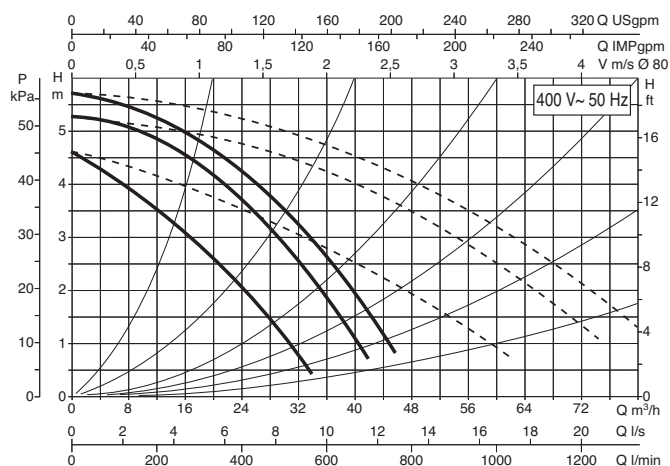
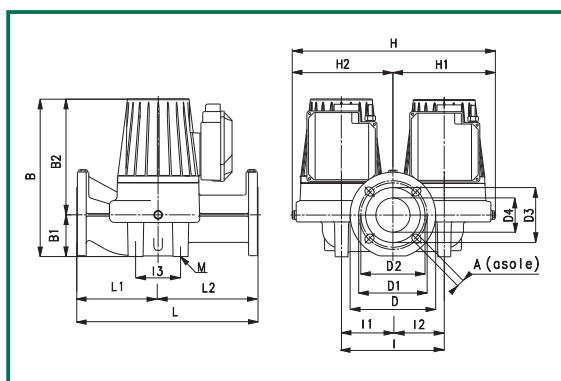
Hydraulic characteristics at 230 V are shown from page 71.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	-	-	-	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BMH 60/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1180	535	1.82	t°	75°	90°	110°	120°				
				1	1100	465	1.55									
	3x400 V ~				3	1390	763						2.04			
	2			1350	663	1.65	m.c.a.						2	5	-	20
	1			1100	465	0.89										

DMH 60/360.80 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 71.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DMH 60/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1180	535	1.82	t°	75°	90°	110°	120°			
				1	1100	465	1.55								
	3x400 V ~				3	1390	763						2.04		
	2			1350	675	1.65									
	1			1100	465	0.89									

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

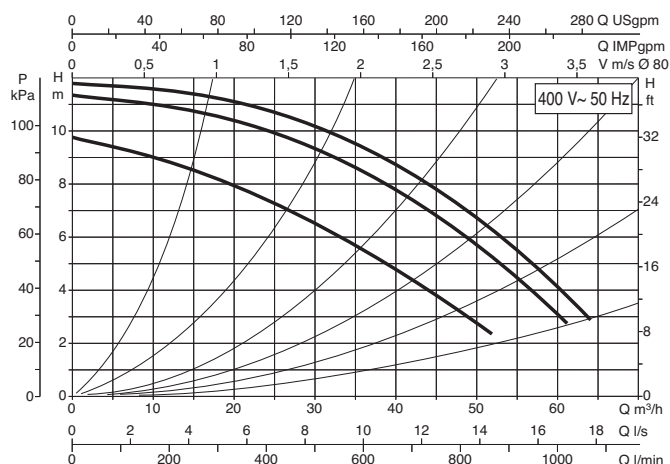
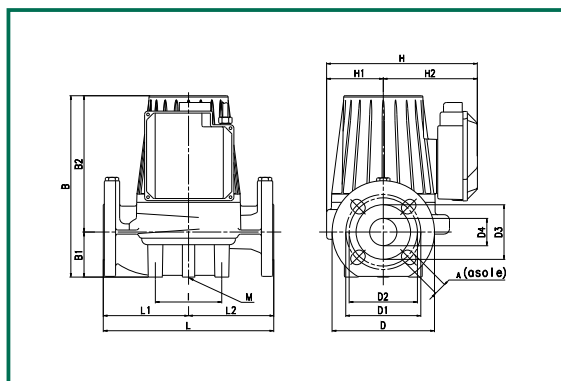
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 120/360.80 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



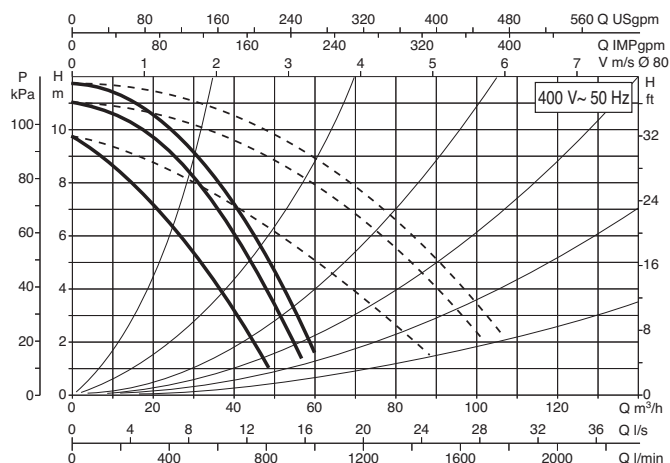
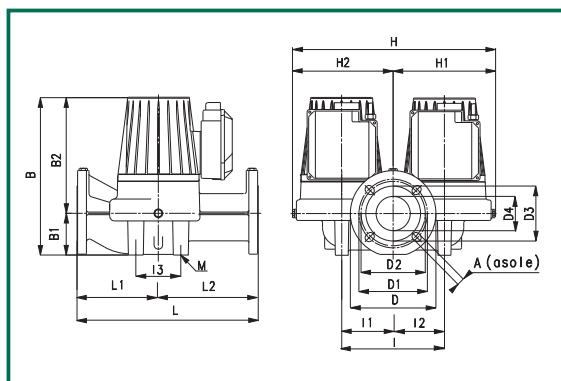
Hydraulic characteristics at 230 V are shown from page 72.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	-	-	-	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BPH 120/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2500	1410	3.95	t°	75°	90°	110°	120°								
				1	2340	1292	3.6													
	3x400 V ~				3	2830	1820						3.3	m.c.a.	6	10	-	22		
					2	2780	1710						2.93							
					1	2350	1302						2.13							

DPH 120/360.80 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 72.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 120/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2500	1410	3.95	t°	75°	90°	110°	120°								
				1	2340	1292	3.6													
	3x400 V ~				3	2830	1820						3.3	m.c.a.	6	10	-	22		
					2	2780	1710						2.93							
					1	2350	1302						2.13							

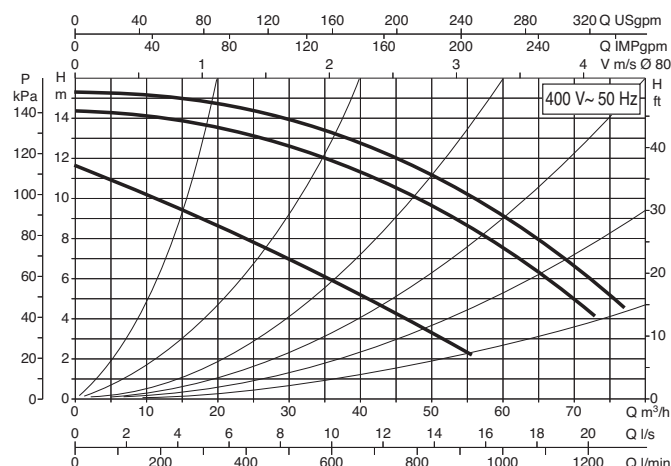
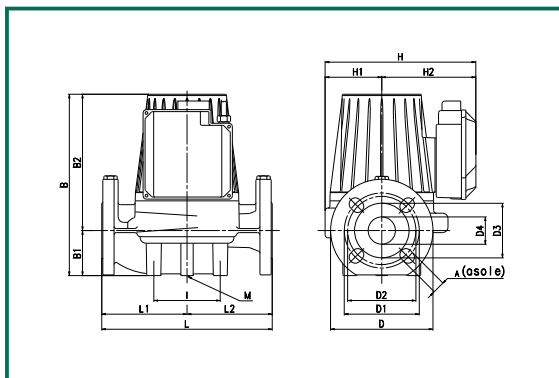
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 150/360.80 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



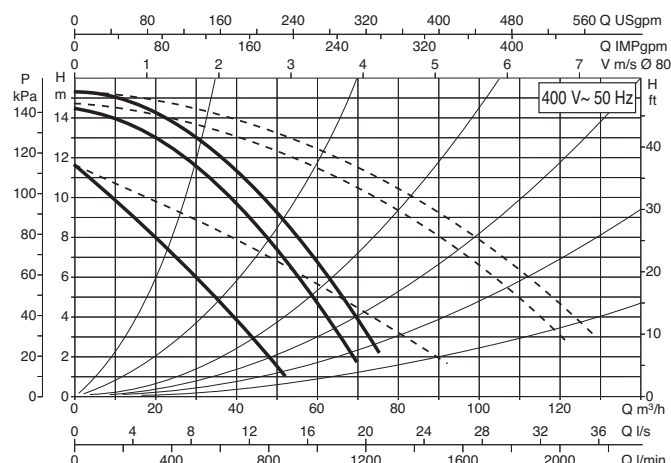
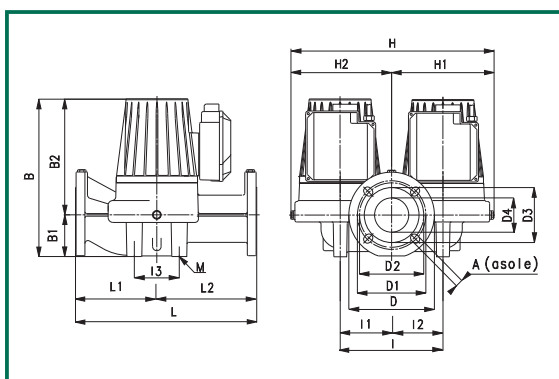
Hydraulic characteristics at 230 V are shown from page 73.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	-	-	-	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BPH 150/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2140	1984	5.62	t°	75°	90°	110°	120°			
				1	1900	1695	4.82								
	3x400 V ~				3	2710	2870						4.64		
					2	2610	2686						4.32		
					1	1940	1710						2.85		

DPH 150/360.80 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 73.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE						
				SPEED	rpm	P1 MAX W	In A							
DPH 150/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2140	1984	5.62	t°	75°	90°	110°	120°		
				1	1900	1695	4.82							
	3x400 V ~			3	2710	2870	4.64							
				2	2610	2686	4.32							
				1	1940	1710	2.85							

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

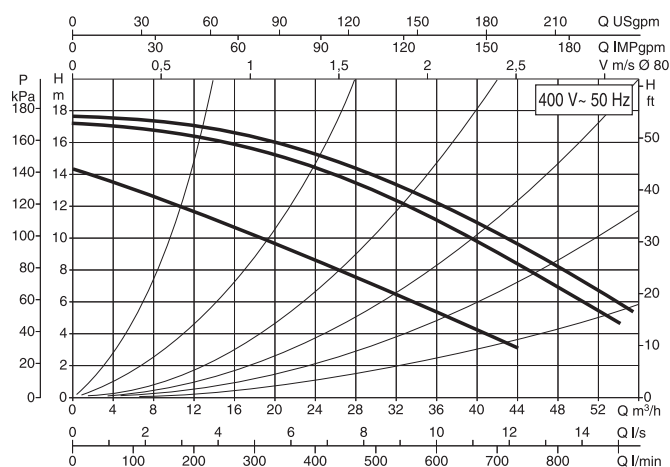
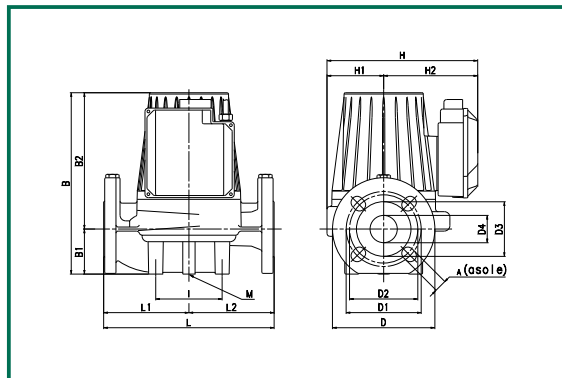
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 180/360.80 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



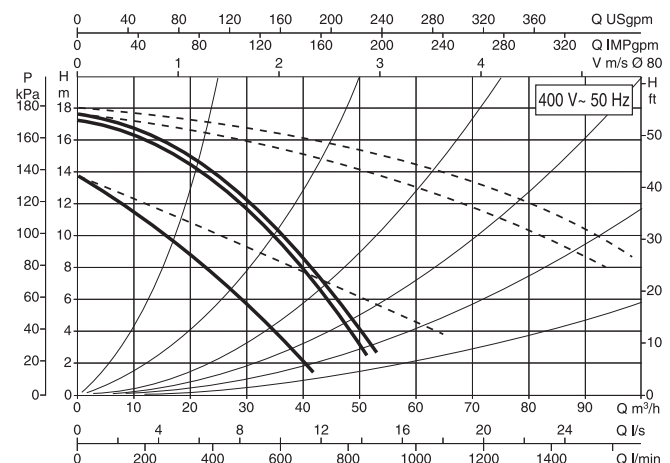
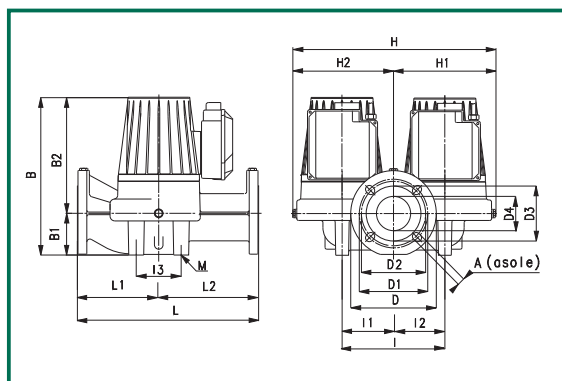
Hydraulic characteristics at 230 V are shown from page 74.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	–	–	–	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 180/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°				
				1	2170	1490	4,25									
	3			2780	2310	4	m.c.a.						7	11	18	-
	2			2700	2210	3,5										
	1			2200	1490	2,4										

DPH 180/360.80 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 74.

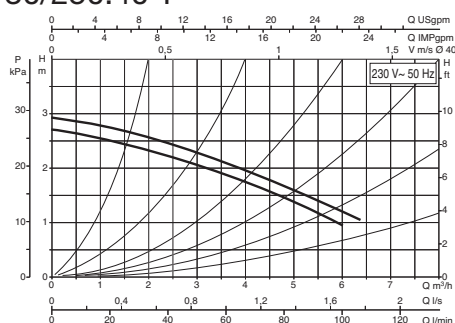
Hydrate characteristics at 25°C are shown in the page 4-1																								
L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0.125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
DPH 180/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°				
				1	2170	1490	4,25									
	3			2780	2310	4	m.c.a.						7	11	18	-
	2			2700	2210	3,5										
	1			2200	1490	2,4										

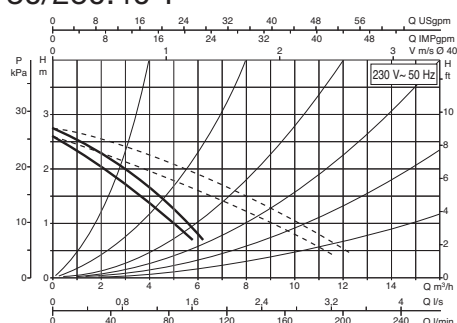
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

HYDRAULIC CHARACTERISTICS AT 230 V ~ 50Hz – THREE-PHASE

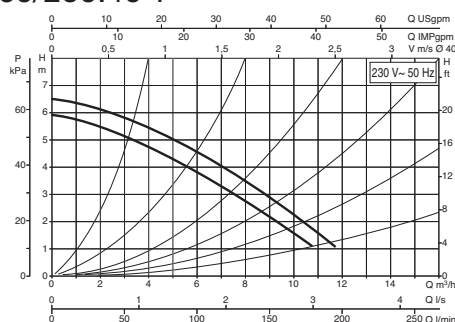
BMH 30/250.40 T



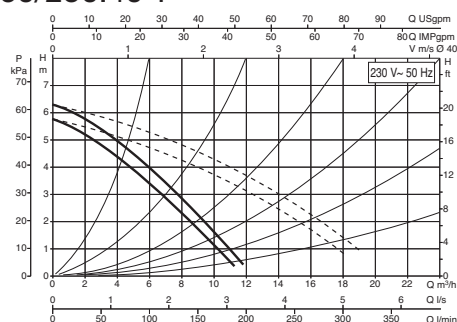
DMH 30/250.40 T



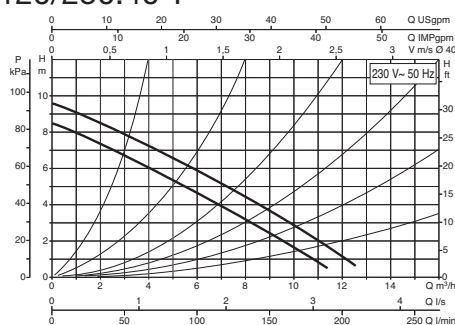
BPH 60/250.40 T



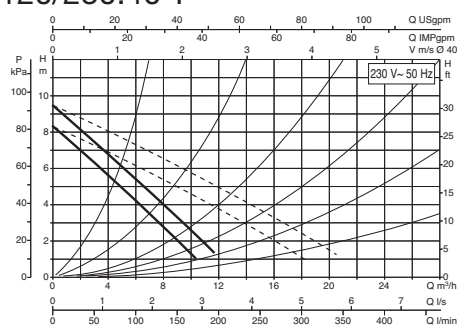
DPH 60/250.40 T



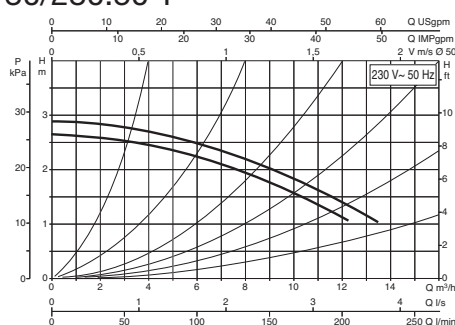
BPH 120/250.40 T



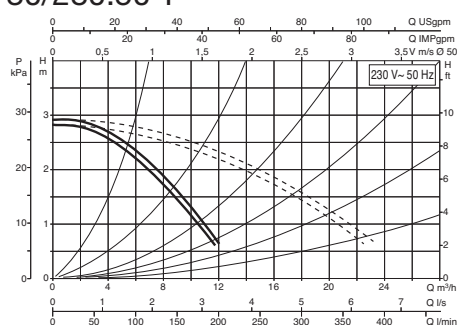
DPH 120/250.40 T



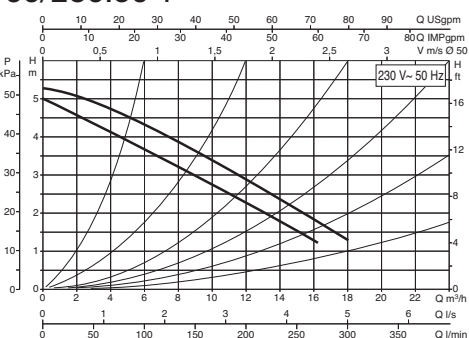
BMH 30/280.50 T



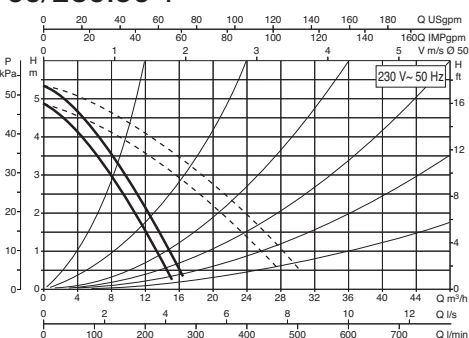
DMH 30/280.50 T



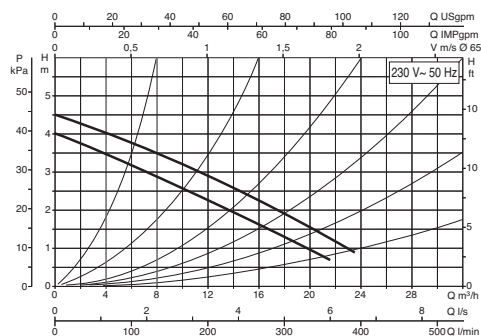
BMH 60/280.50 T



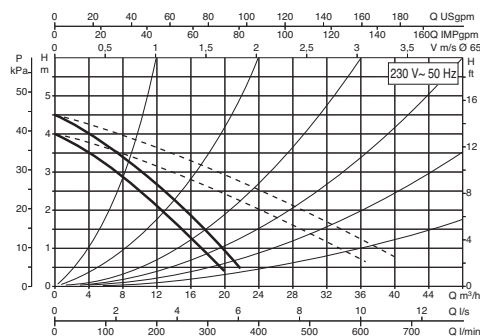
DMH 60/280.50 T



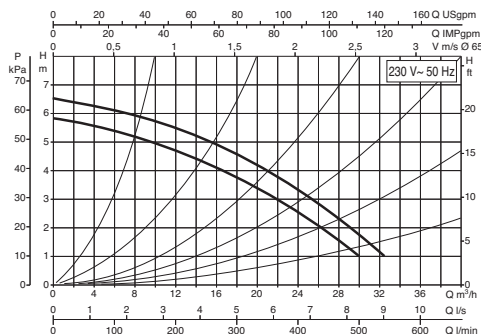
BMH 60/340.65 T



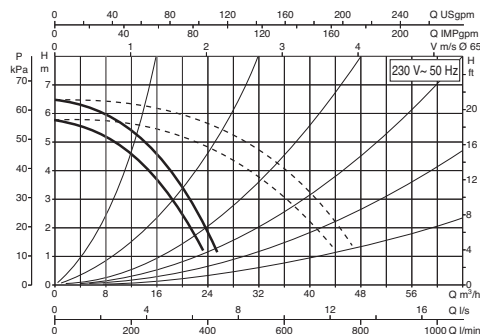
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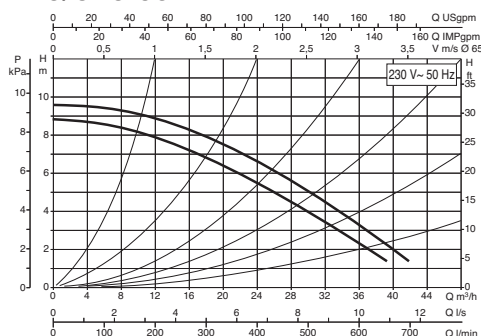
BPH 60/340.65 T



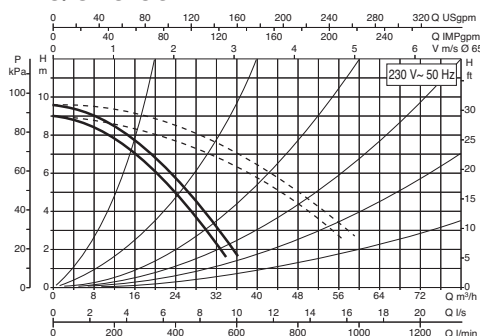
DPH 60/340.65 T



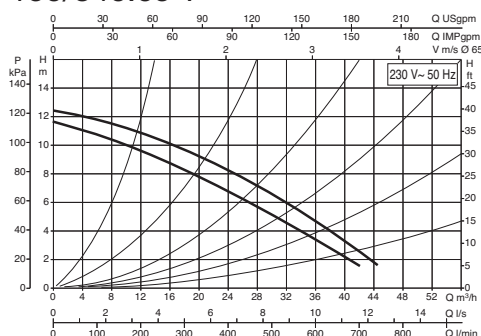
BPH 120/340.65 T



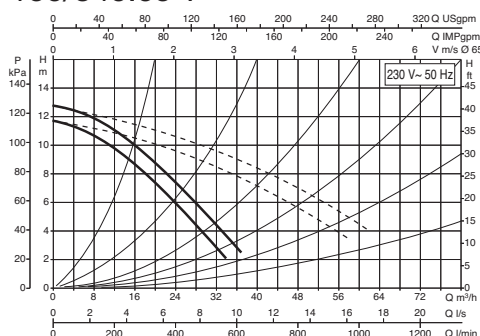
DPH 120/340.65 T



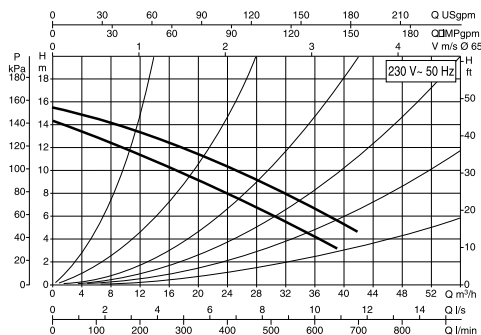
BPH 150/340.65 T



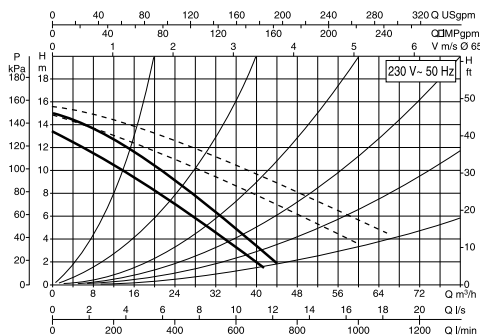
DPH 150/340.65 T



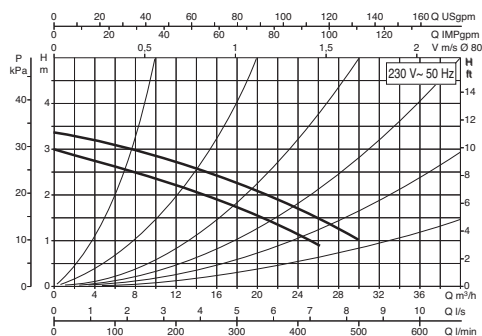
BPH 180/340.65 T



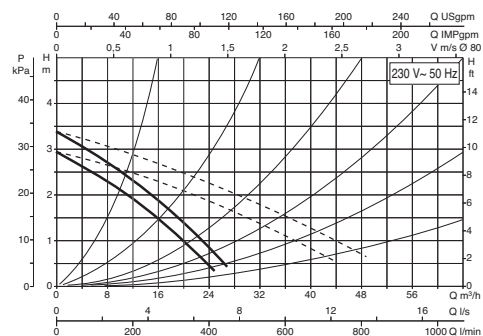
DPH 180/340.65 T



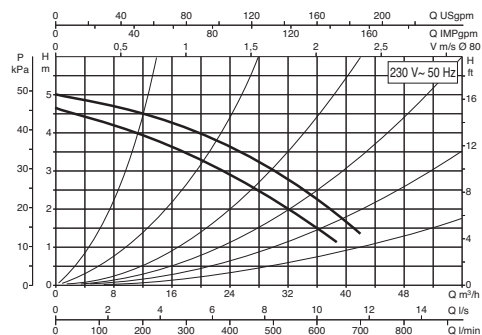
BMH 30/360.80 T



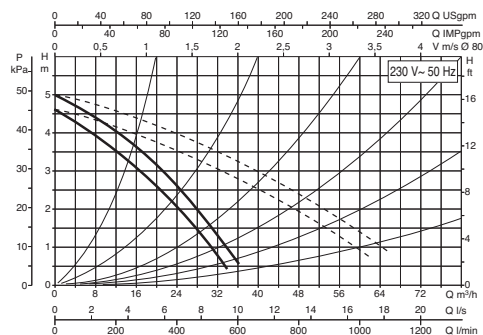
DMH 30/360.80 T



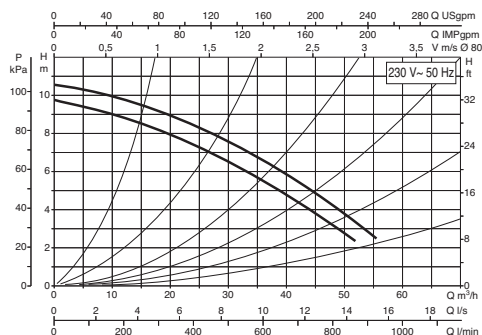
BMH 60/360.80 T



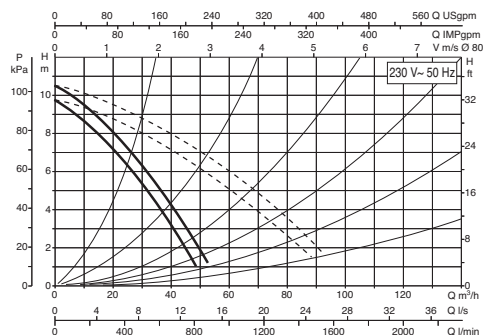
DMH 60/360.80 T



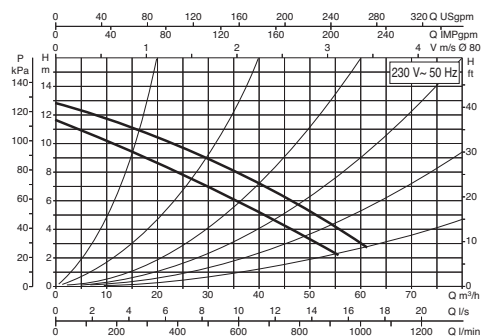
BPH 120/360.80 T



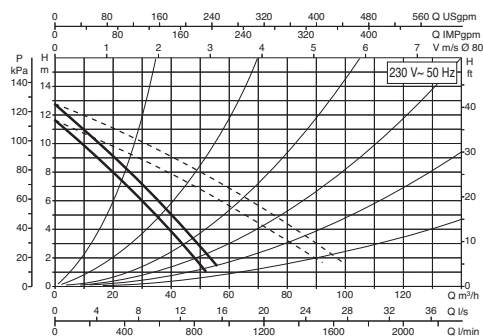
DPH 120/360.80 T



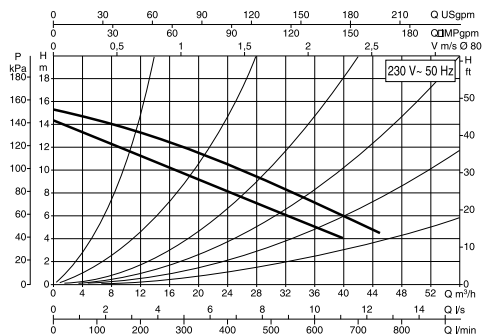
BPH 150/360.80 T



DPH 150/360.80 T



BPH 180/360.80 T



DPH 180/360.80 T

