

# 500 SERIES / 50 SERIES SAN

WET ROTOR ELECTRONIC CIRCULATORS



in line with European Directive  
ErP 2009/125/EC (formerly EuP) of 2015

## TECHNICAL DATA

**Operating range:** from 3 a 75.6 m<sup>3</sup>/h with head of up to 18 metres.

**Pumped liquid temperature range:** from -10 °C to +110 °C.

**Pumped liquid:** clean, free of solids and mineral oils, non-viscous, chemically neutral, with properties similar to water. (glycol max 30%).

**Maximum operating pressure:** 16 bar (1600 kPa).

**Standard flanges:** DN 32, DN 40, DN 50, DN 65, PN 6 / PN 10 / PN 16 (4 holes), DN 80 and DN 100, PN 6 (4 holes).

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

**Minimum suction pressure:** the values are shown in the corresponding tables.

**Special executions on request:** DN 80, DN 100 PN 10 / PN 16 (8 holes).

**Accessories (Counter flanges):** PN 10 DN 32 - DN 40 - DN 50 - DN 65  
PN 6 DN 80 - DN 100.

**Electromagnetic compatibility:** 500 Series circulator comply with EN 61800-3 standard, category C2, as far as electromagnetic compatibility. Electromagnetic emissions - Residential environment (containment measures might be required in some cases). Conducted emissions - Residential environment (containment measures might be required in some cases).

## APPLICATIONS

500 Series circulation electronic pumps can be used in heating, ventilation, and air conditioning systems for residential and commercial buildings, like:

- Large residential buildings
- Private and public hospitals
- Real estate buildings
- Condominiums and small apartment buildings
- Schools
- Homes
- Office buildings

All the models are available both in the single and twin version.

Bronze pump execution for the recirculation of sanitary water, available in single version with DN 32, DN 40, DN 50 and DN 65 flanged ports.

Supplied as a standard ready for control using 0-10 V or PWM external signal, and for the connection to ModBus management systems (LonBus with appropriate communication module available as optional).

## HEATING SYSTEM APPLICATIONS

The heating required for the different applications varies significantly during day and night, due to the external temperature, or the degree of occupancy inside the areas. To the above, one must add the different needs of the various environments, and the opening or closing of the various circuit branches of complex systems. Electronic wet rotor pumps ensure at all times, and virtually in all correctly sized systems, a sufficient level of energy, together with a quieter operation, and more comfort, together with an important reduction of operating costs.

## AIR CONDITIONING APPLICATIONS

Unlike conventional electronic pumps, EVOPLUS electronic circulators can also be used in air conditioning systems where the temperature of the pumped liquid is lower than the room temperature. In these conditions, condensation tends to form on the outer surface of the circulator, which however does not affect the operation of the electronic and the mechanical components. The unit is designed and sized in such a way that it allows condensation to drain without damage to the construction components.

## SANITARY RECIRCULATION APPLICATIONS

The SAN version, with bronze pump body, was specifically developed for the recirculation of sanitary water. With the constant temperature mode of operation, the temperature inside the recirculation piping is controlled without the need for thermostat valves, therefore optimizing comfort.

## CONSTRUCTION FEATURES

Monobloc circulation pump consisting of the cast iron hydraulic section, and the wet rotor synchronous motor. Aluminium motor casing. Scroll type pump body featuring high hydraulic efficiency thanks to highly precise design and smooth internal surfaces. In-line suction and delivery ports.

The single version is supplied as standard with insulating casing, to avoid heat dispersion and/or the formation of condensation on the pump body.

For the twin version, the insulation must be provided by the installer. In any case, pay attention not to obstruct the condensation drainage ducts, to avoid impairing the operation of the circulator.

Technopolymer impeller, stainless steel motor shaft on ceramic bushings lubricated by the pumped liquid. Stainless steel rotor protection liner. Ceramic thrust ring, ethylene-propylene seal rings and carbon fibre composite stator liner. Asynchronous motor with permanent magnet rotor. The twin version features an automatic swing check valve incorporated in the delivery port, to avoid water recirculating through the unit when this is not running; in addition, a blank flange is also supplied as standard, to allow either of the two motors to be removed for servicing. The standard execution of the pump body is PN 16. DN 80 and DN 100 PN 16 (8 holes) also available on request.

Circulator protection class: IP X4D

Insulation class: F

Standard voltage: single-phase 220/240 V / 50/60 Hz

sound pressure value  $\leq$  45 dB(A)

Product compliant with European Standards EN 61800-3 – EN 60335-1 – EN 60335-2-51



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## 500 SERIES CONSTRUCTION CHARACTERISTICS COLLECTIVE SYSTEMS (ELECTRONIC DEVICE)\*

500 Series circulators are controlled by a latest generation NPT technology IGBT device, for better efficiency and strength. The specific features are:

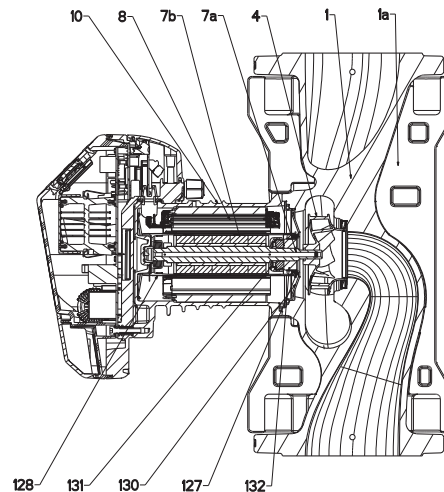
- Sine-wave PWM modulation
- High carrier frequency to eliminate all audio band noise
- 2 dedicated 32 bit processors  
one for driving the motor  
one for the user interface, enabling to perform the following functions:
  - start/stop command
  - Economy command
  - 0-10 V analogue signal command
  - PWM signal command
  - 4-20 mA analogue signal command
  - ΔT temperature sensor signal command
- connection to ModBus system management devices. Optional LonBus with appropriate module.
- Optimised "space vector" algorithm
- Presence/absence of system alarms
- Pump in operation notification

\* Inputs only available if the associated function is active.

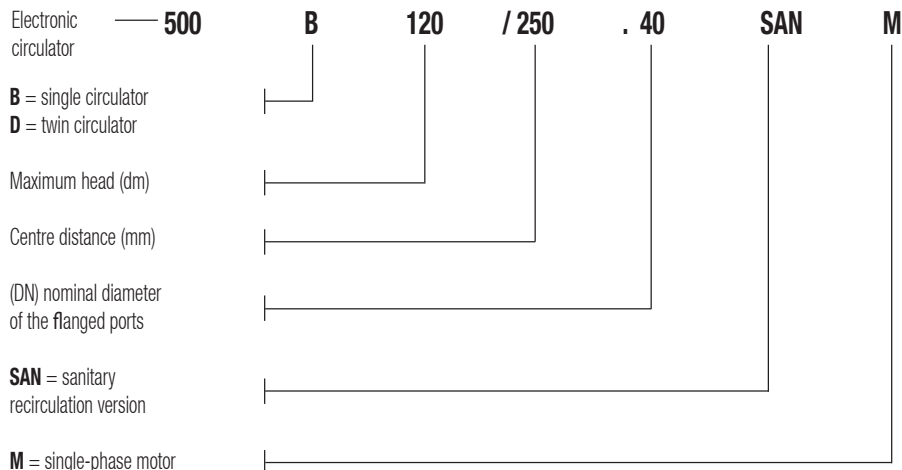
An intuitive and functional user interface guarantees ease of calibration by all users. The easy to read OLED display on the control panel, three simple navigation keys, an in-line cascade menu featuring the latest mobile technology trends, and a wide range of functions, mean that EVOPLUS circulators are truly revolutionary products. A reliable and sturdy construction, together with a modern and innovative design, complete the product, also in terms of aesthetic value.

## MATERIALS

N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON 250 UNI ISO 185 - CTF BRONZE (for the SAN version)
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
7B	ROTOR	STAINLESS STEEL LINER
8	STATOR	-
10	MOTOR CASING	DIE-CAST ALUMINIUM
127	SEAL RING	EPDM RUBBER
128	STATOR LINER	COMPOSITE AND CARBON FIBRE
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	STAINLESS STEEL
132	BUSHINGS	ALUMINA



### - Legend: (example)



# 500 SERIES / 500 SERIES SAN

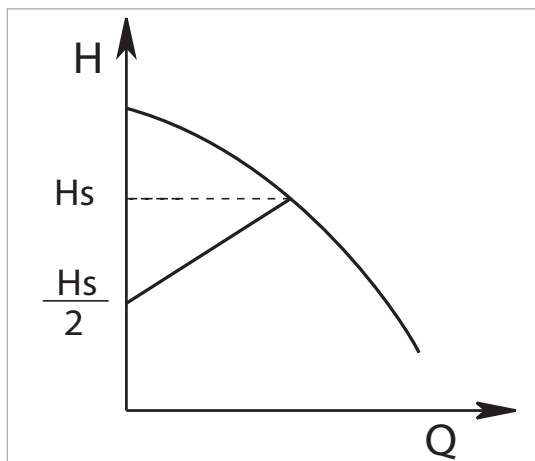
WET ROTOR ELECTRONIC CIRCULATORS

## MODES OF OPERATION

All the functions listed below can be consulted by the users (including less experienced ones) by simply scrolling through the menu. The calibration and the modification of the parameters are protected, and can only be completed by expert users. The factory settings of the 500 Series range are for proportional differential pressure control mode in the curve that ensures the best energy efficiency index (EEI).

### 1 - $\Delta P-v$ proportional differential pressure adjustment mode

With  $\Delta P-v$  adjustment mode, with the variation of the flow rate, the value of the delivery of the head also varies in a linear manner, from  $H_{setp}$  to  $H_{setp}/2$ .



This adjustment is particularly indicated for the following systems:

#### a. Two-pipe heating systems with thermostat valves and with:

- head greater than 4 metres;
- very long circuit piping;
- valves with wide operating range;
- differential pressure regulators;
- high pressure drops in those parts of the system carrying the entirety of the water flow rate;
- low differential pressure.

#### b. Under-floor central heating systems with thermostatic valves and significant pressure drops in the boiler circuit.

#### c. Systems with primary circuit pumps with high pressure drops.

### Example of set-up of the set-point with $\Delta P-v$

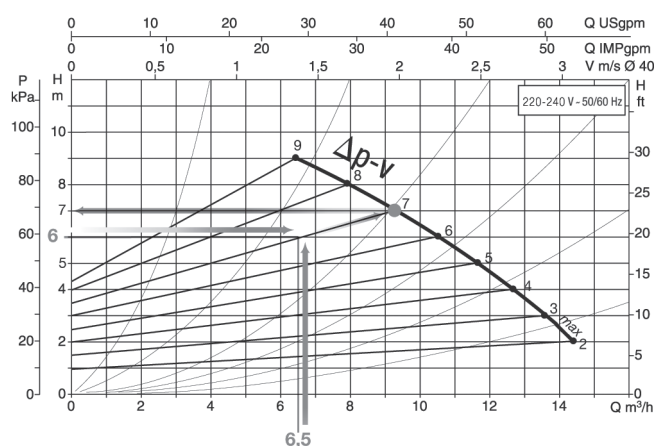
The following operating point is required:

$$Q = 6,5 \text{ m}^3/\text{h}$$

$$H = 6 \text{ m}$$

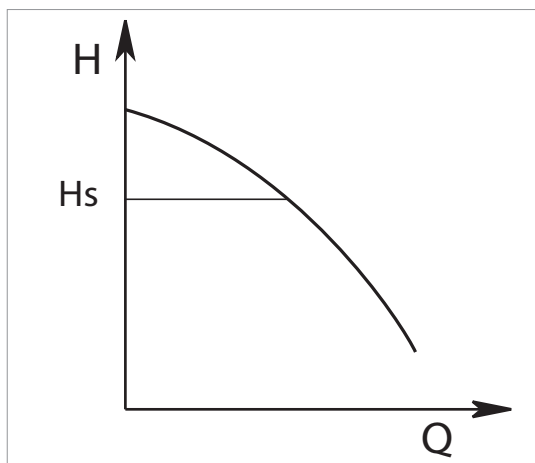
#### PROCEDURE:

1. In the graph, find the desired operating point, and then find the EVOPLUS curve closest to it (in this case the point lies precisely on the curve)
2. Follow the curve upwards until reaching the intersection with the limit curve of the circulator.
3. The head reading at this limit point is the set-point head that must be entered to obtain the desired operating point.



### 2 - $\Delta P-c$ constant differential pressure adjustment mode

The  $\Delta P-c$  adjustment mode keeps the differential pressure of the system constantly at the  $H_{setp}$  value set, even in case of variation of the flow rate.



This adjustment is particularly indicated for the following systems:

#### a. Two-pipe heating systems with thermostat valves and with:

- head lower than 2 metres;
- natural circulation;
- low pressure drops in those parts of the system carrying the entirety of the water flow rate;
- high differential temperature (central heating).

#### b. underfloor heating systems with thermostat valves

#### c. single-pipe heating systems with thermostat valves and calibration valves

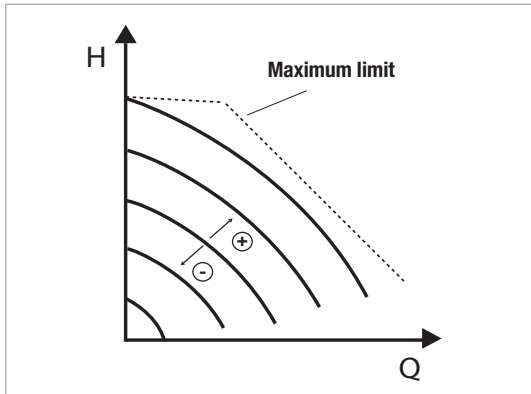
#### d. Systems with primary circuit pumps with low pressure drops.



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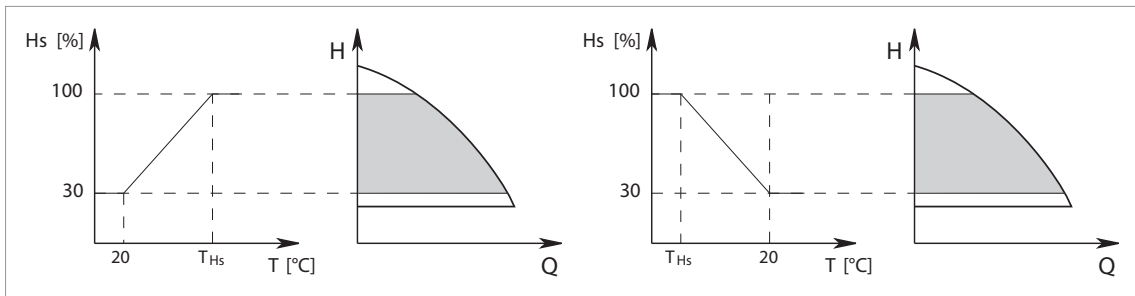
## 3 - Constant curve adjustment modes



In this control mode, the circulator works based on constant speed characteristic curves. The operation curve is selected by setting the rotation speed using a percentage factor. The 100 % value indicates the maximum limit curve. The actual rotation speed may be affected by the power and differential pressure limitations of the actual circulator model. The rotation speed may be set using the display, or either a 0-10 V or PWM external signal.

Control mode indicated for constant flow rate heating and air conditioning systems.

## 4 - Constant differential pressure control mode with proportional control based on the water temperature

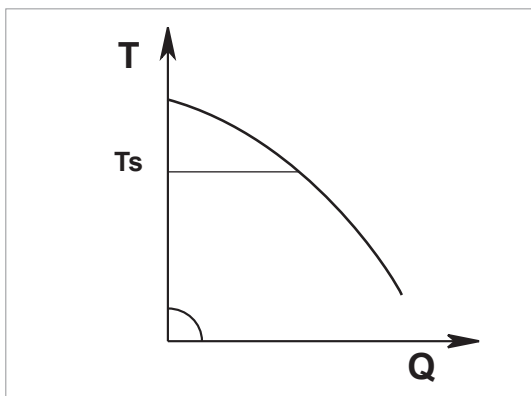


The circulator head set-point is reduced in accordance with the water temperature. The liquid temperature can be set between 0 °C to 100 °C.

This adjustment is particularly indicated for the following systems:

- in variable flow rate systems (two-pipe central heating systems), for which a further reduction of the circulator performance levels is provided in accordance with the lowering of the temperature of the circulating liquid, in case of reduced heating demand.
- in constant flow rate systems (single-pipe and under-floor central heating systems), where the performance of the circulator can only be adjusted by activating the temperature influence function. It is set through the 500 Series control panel.

## 5 - $\Delta T$ -c \* constant differential temperature adjustment mode



The  $\Delta T$ -c control mode keeps the pumped liquid at constant temperature, changing the flow rate to the Tsetp settable value.

This adjustment is particularly indicated for the following systems:

- Under-floor heating systems.
- Systems with circuit pumps with heat exchanger.
- Solar energy systems with storage tanks.
- Solar panel swimming pool heating systems.

\* Adjustment during implementation.

## ECONOMY MODE

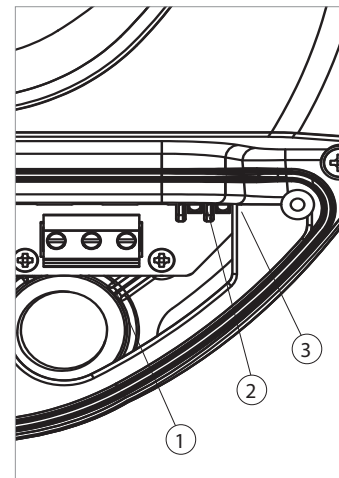
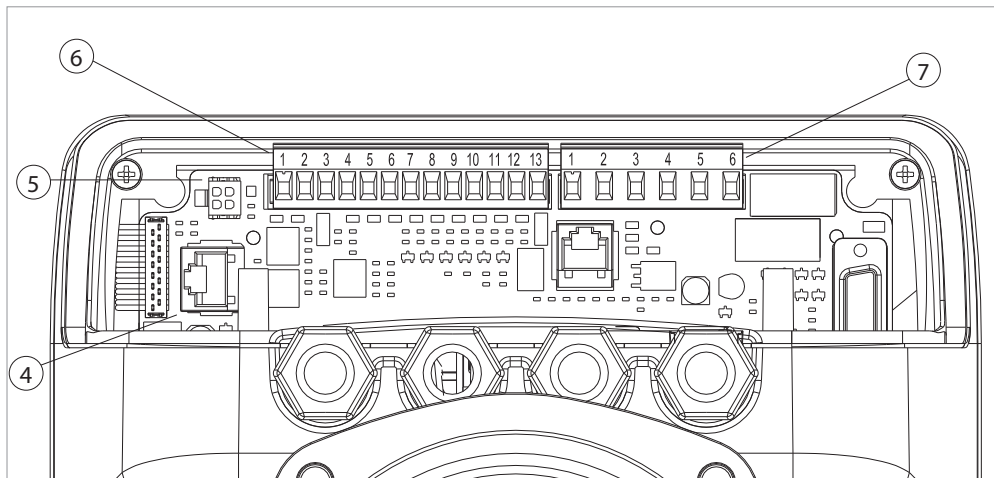
The economy function can be set directly on the control panel, by setting a reduction value (f.rid), the maximum value of which can be 50%. In all the previously listed settings, the Hset value must be replaced with an Hset x f.rid.



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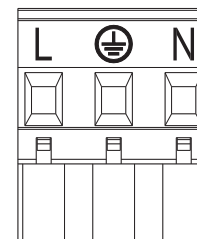
WET ROTOR ELECTRONIC CIRCULATORS

## CONNECTION DIAGRAM



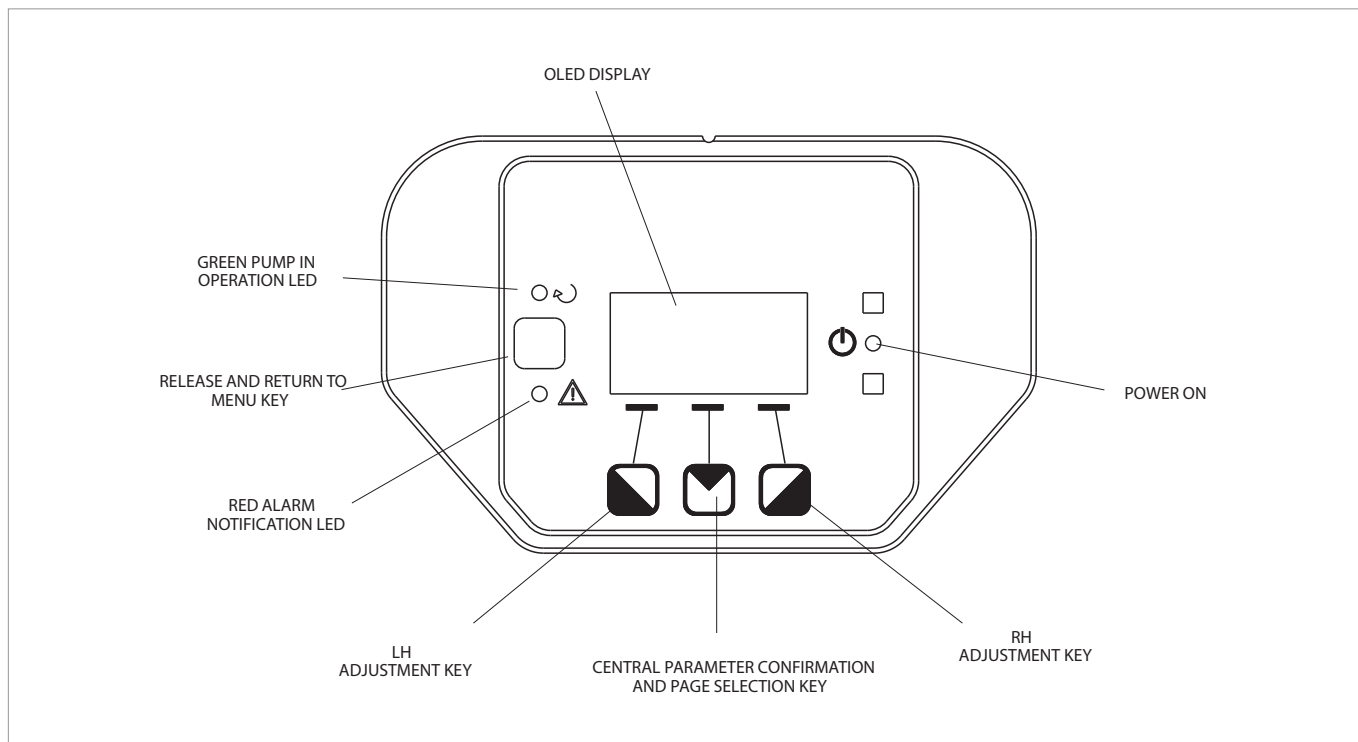
1	Removable terminal box for the connection of the power input line: 1x220-240 V, 50/60 Hz
2	Auxiliary LED
3	High voltage LED
4	Connector for twin circulators
5	Connector for pressure and temperature sensor on the circulator (as standard)
6	Removable 13-pole terminal box for the connection of MODBUS systems and inputs
7	Removable 6-pole terminal box for system status and alarm notification

### POWER INPUT CONNECTION



Removable power input terminal box

## USER INTERFACE





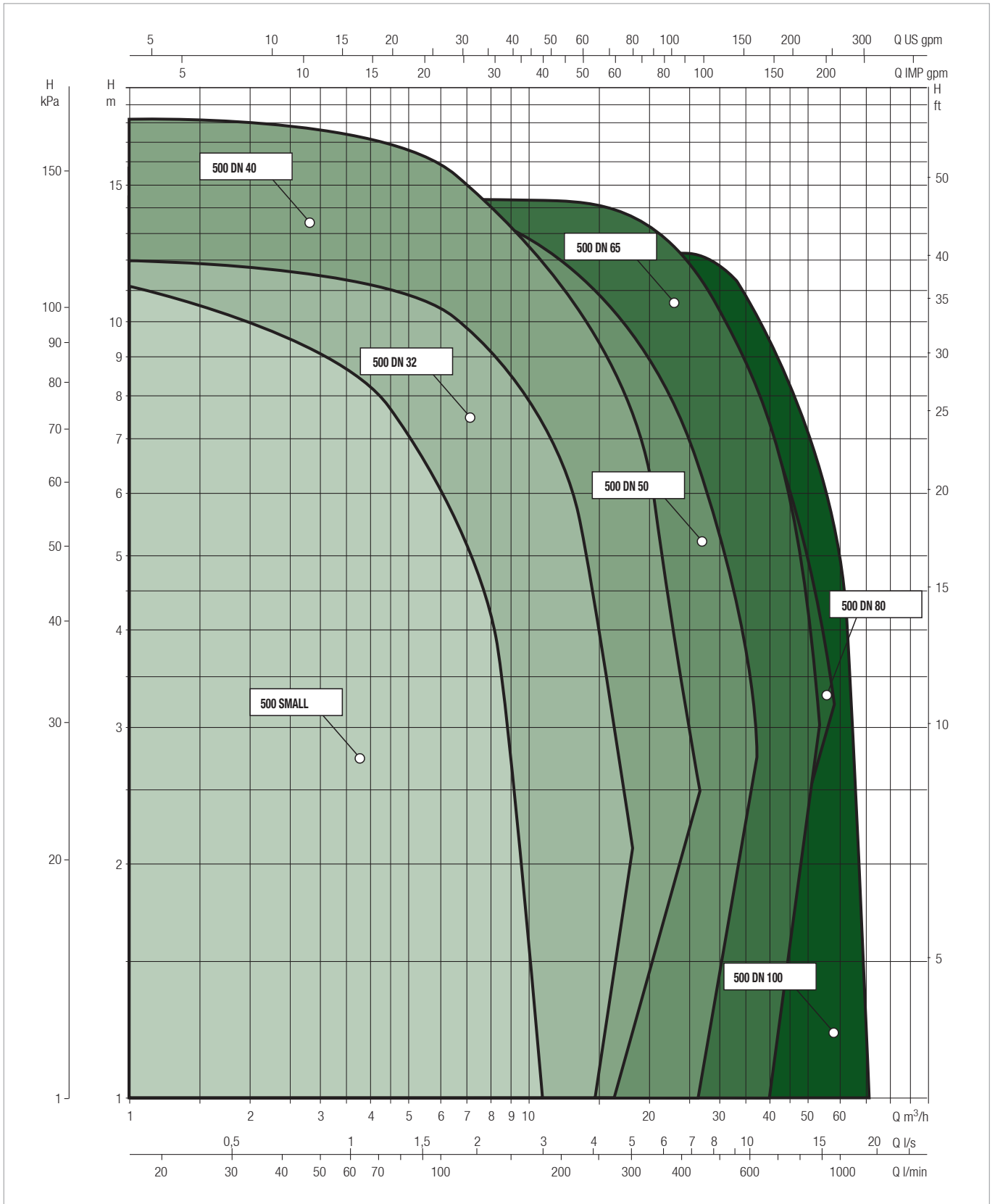
# 500 SERIES RANGE

WET ROTOR ELECTRONIC CIRCULATORS

## PERFORMANCE RANGE

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

### GRAPHIC SELECTION TABLE



# 500 SERIES / 500 SERIES SAN

WET ROTOR ELECTRONIC CIRCULATORS

## SELECTION TABLE - 500 SERIES

MODEL	Q=m³/h	0	4,2	5,4	7,2	9,6	12	14,4	18	24	30	36	42	54	72	
	Q=l/min	0	70	90	120	160	200	240	300	400	500	600	700	900	1200	
500 B 120/220.32 M	H (m)	12,1	11,5	10,7	9,5	7,9	6,3	4,7	2,2							
500 B 40/220.40 M		4	3,6	3,1	2,5	1,7										
500 B 60/220.40 M		6		5,9	5,1	4,1	3	2								
500 B 80/220.40 M		8		7,9	7,4	6,1	5	3,7	2							
500 B 100/220.40 M		10			9,7	8,3	7	5,5	3,5							
500 B 120/250.40 M		12			11,5	10,1	8,7	7,3	5,2							
500 B 150/250.40 M		15			14,5	12,8	11,3	9,7	7,5	3,8						
500 B 180/250.40 M		18		16,2	14,6	13	11,2	9,6	7,4	3,9						
500 B 40/240.50 M		4		3,9	3,6	3,1	2,6	2,1	1,4							
500 B 60/240.50 M		6				5,4	4,7	4	3,2	1,6						
500 B 80/240.50 M		8			7,4	6,6	5,9	5,2	4,2	2,6						
500 B 100/280.50 M		10			9,4	8,4	7,5	6,7	5,5	3,6	2					
500 B 120/280.50 M		12			11	9,9	9	8,2	6,9	4,8	3					
500 B 150/280.50 M		15,3			12,4	11,5	10,6	9,6	8,3	6,2	4,2					
500 B 180/280.50 M		17,1			14	13	12	11,1	9,7	7,4	5,2	3,1				
500 B 40/340.65 M		4			4	3,8	3,4	3	2,4	1,4						
500 B 60/340.65 M		6				6	5,9	5,4	4,7	3,7	2,2					
500 B 80/340.65 M		8				7,8	7,4	6,8	5,9	4,6	3,5	2				
500 B 100/340.65 M		10,1				9,8	9,1	8,4	7,6	6,1	4,7	3,1				
500 B 120/340.65 M		12				11,5	10,8	10	9	7,4	5,9	4,6	2,8			
500 B 150/340.65 M		15,2					14,9	14,7	14	12,1	10,3	8,5	6,9			
500 B 40/360.80 M		4							4	3,1	2,2	1,4				
500 B 60/360.80 M		6							6	5,2	4	3	2			
500 B 80/360.80 M		8							8	6,7	5,4	4,2	3,2			
500 B 100/360.80 M		10								9,7	8,3	6,7	5,4	3		
500 B 120/360.80 M		12,1								11,6	9,9	8,3	6,8	4,1		
500 B 40/450,100 M		4									3,9	3	2			
500 B 60/450,100 M		6									5,7	4,7	3,6	1,3		
500 B 80/450,100 M		8									8	7,2	5,7	3,4		
500 B 100/450,100 M		10,1									10,1	9,2	7,6	4,9	0,7	
500 B 120/450,100 M		12,2									11,8	10,4	8,7	5,9	1,5	



# 500 SERIES / 500 SERIES SAN

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## SELECTION TABLE - 500 SERIES

MODEL	Q=m³/h	0	4,2	5,4	7,2	9,6	12	14,4	18	24	30	36	42	54	72	
	Q=l/min	0	70	90	120	160	200	240	300	400	500	600	700	900	1200	
500 D 120/220.32 M	H (m)	12,1	11,5	10,7	9,5	7,9	6,3	4,7	2,2							
500 D 40/220.40 M		4	3,6	3,1	2,5	1,7										
500 D 60/220.40 M		6		5,9	5,1	4,1	3	2								
500 D 80/220.40 M		8		7,9	7,4	6,1	5	3,7	2							
500 D 100/220.40 M		10			9,7	8,3	7	5,5	3,5							
500 D 120/250.40 M		12			11,5	10,1	8,7	7,3	5,2							
500 D 150/250.40 M		15			14,5	12,8	11,3	9,7	7,5	3,8						
500 D 180/250.40 M		18		16,2	14,6	13	11,2	9,6	7,4	3,9						
500 D 40/240.50 M		4		3,9	3,6	3,1	2,6	2,1	1,4							
500 D 60/240.50 M		6				5,4	4,7	4	3,2	1,6						
500 D 80/240.50 M		8			7,4	6,6	5,9	5,2	4,2	2,6						
500 D 100/280.50 M		10			9,4	8,4	7,5	6,7	5,5	3,6	2					
500 D 120/280.50 M		12			11	9,9	9	8,2	6,9	4,8	3					
500 D 150/280.50 M		15,3			12,4	11,5	10,6	9,6	8,3	6,2	4,2					
500 D 180/280.50 M		17,1			14	13	12	11,1	9,7	7,4	5,2	3,1				
500 D 40/340.65 M		4			4	3,8	3,4	3	2,4	1,4						
500 D 60/340.65 M		6				6	5,9	5,4	4,7	3,7	2,2					
500 D 80/340.65 M		8				7,8	7,4	6,8	5,9	4,6	3,5	2				
500 D 100/340.65 M		10,1				9,8	9,1	8,4	7,6	6,1	4,7	3,1				
500 D 120/340.65 M		12				11,5	10,8	10	9	7,4	5,9	4,6	2,8			
500 D 150/340.65 M		15,2	14,9	14,7	14	12,1	10,3	8,5	6,9							
500 D 40/360.80 M		4			4	3,1	2,2	1,4								
500 D 60/360.80 M		6			6	5,2	4	3	2							
500 D 80/360.80 M		8			8	6,7	5,4	4,2	3,2							
500 D 100/360.80 M		10				9,7	8,3	6,7	5,4	3						
500 D 120/360.80 M		12,1				11,6	9,9	8,3	6,8	4,1						
500 D 40/450,100 M		4					3,9	3	2							
500 D 60/450,100 M		6					5,7	4,7	3,6	1,3						
500 D 80/450,100 M		8					8	7,2	5,7	3,4						
500 D 100/450,100 M		10,1					10,1	9,2	7,6	4,9	0,7					
500 D 120/450,100 M		12,2					11,8	10,4	8,7	5,9	1,5					



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WET ROTOR ELECTRONIC CIRCULATORS

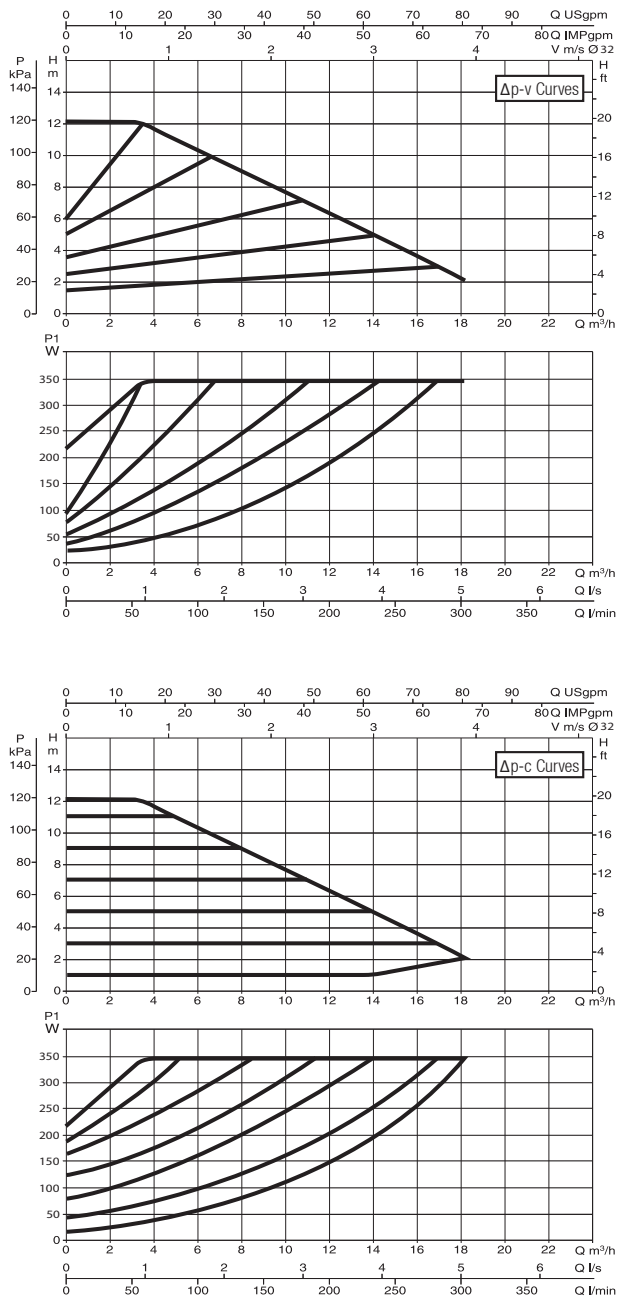
## SELECTION TABLE - 500 SERIES SAN

MODEL	Q=m <sup>3</sup> /h	0	4,2	5,4	7,2	9,6	12	14,4	18	24	30	36	42	54	72	
	Q=l/min	0	70	90	120	160	200	240	300	400	500	600	700	900	1200	
500 B 120/220.32 SAN M	H (m)	12,1	11,5	10,7	9,5	7,9	6,3	4,7	2,2							
500 B 120/250.40 SAN M		12			11,5	10,1	8,7	7,3	5,2							
500 B 150/250.40 SAN M		15			14,5	12,8	11,3	9,7	7,5	3,8						
500 B 180/250.40 SAN M		18		16,2	14,6	13	11,2	9,6	7,4	3,9						
500 B 100/280.50 SAN M		10			9,4	8,4	7,5	6,7	5,5	3,6	2					
500 B 120/280.50 SAN M		12			11	9,9	9	8,2	6,9	4,8	3					
500 B 150/280.50 SAN M		15,3			12,4	11,5	10,6	9,6	8,3	6,2	4,2					
500 B 180/280.50 SAN M		17,1			14	13	12	11,1	9,7	7,4	5,2	3,1				
500 B 40/340.65 SAN M		4			4	3,8	3,4	3	2,4	1,4						
500 B 60/340.65 SAN M		6				6	5,9	5,4	4,7	3,7	2,2					
500 B 80/340.65 SAN M		8				7,8	7,4	6,8	5,9	4,6	3,5	2				
500 B 100/340.65 SAN M		10,1				9,8	9,1	8,4	7,6	6,1	4,7	3,1				
500 B 120/340.65 SAN M		12				11,5	10,8	10	9	7,4	5,9	4,6	2,8			
500 B 150/340.65 SAN M		15,2					14,9	14,7	14	12,1	10,3	8,5	6,9			

# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

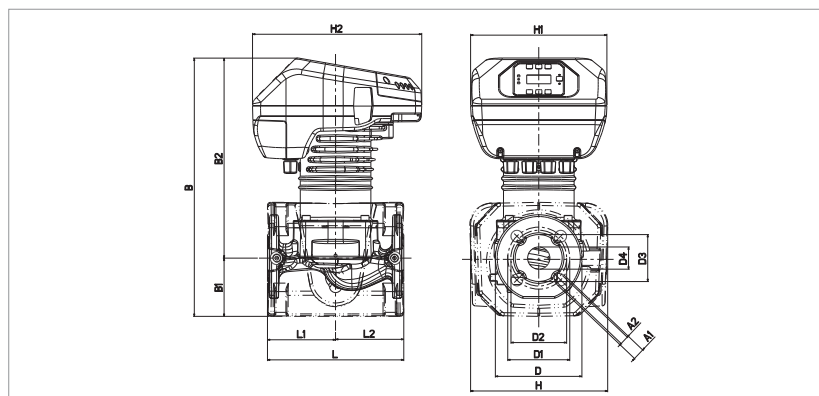
500 B 120/220.32 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 B 120/220.32 M</b>	220	DN 32 PN 6	220/240 V	340	1,7	EEI ≤ 0,22	m.c.w.	20	25	24

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



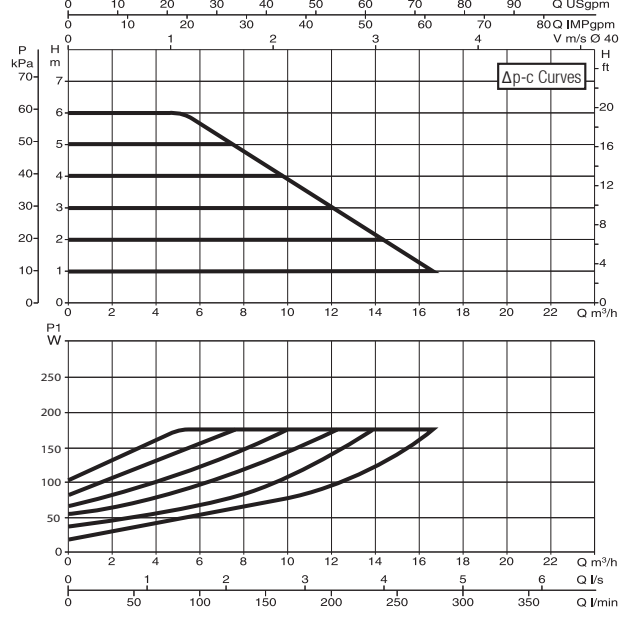
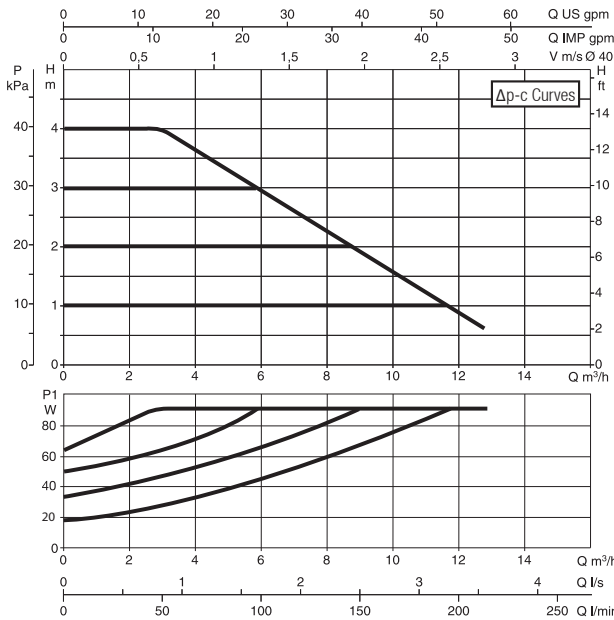
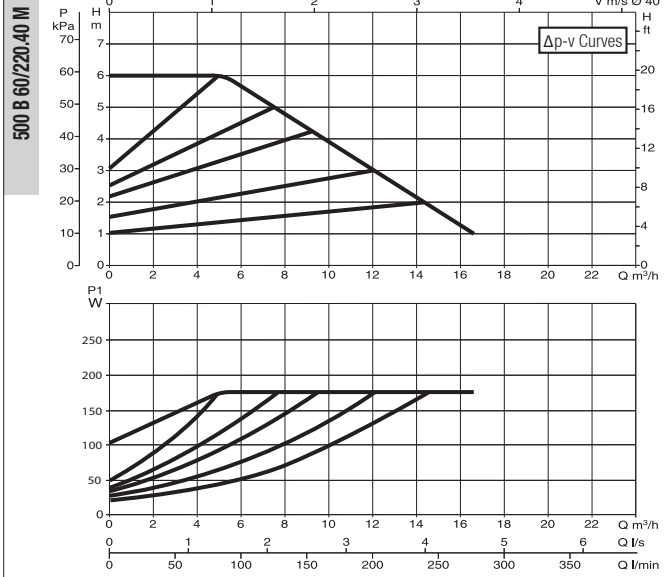
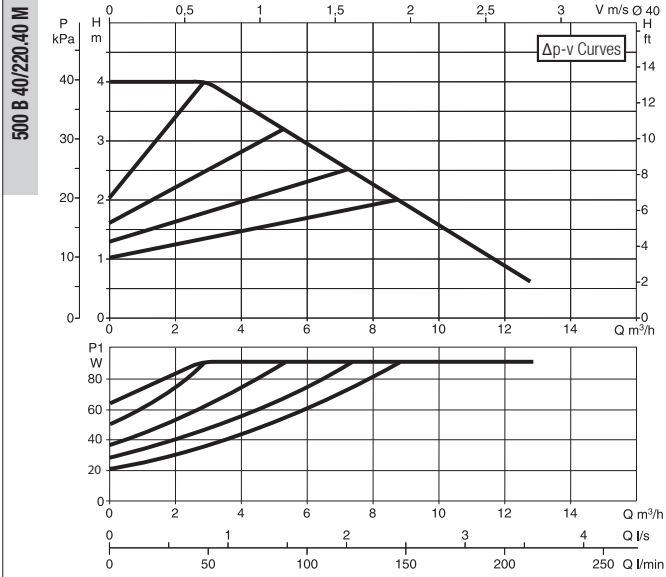
L	L1	L2	A1	A2	B	B1	B2
220	110	110	19	14	417	94	323

D	D1	D2	D3	D4	H	H1	H2
140	100	90	76	36	222	220	273



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

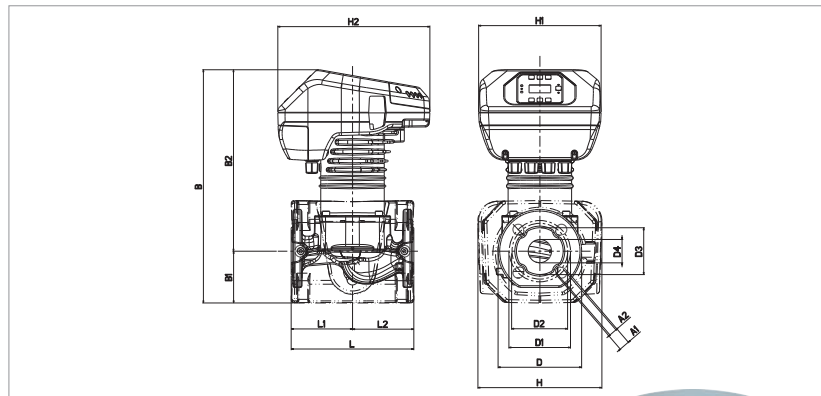
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 40/220.40 M	220	DN 40 PN 10	220/240 V	90	0,7	EEI ≤ 0,23	m.c.w.	20	25	20,8
500 B 60/220.40 M	220	DN 40 PN 10	220/240 V	175	1	EEI ≤ 0,23	m.c.w.	20	25	20,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2
220	110	110	19	14	419	93	326

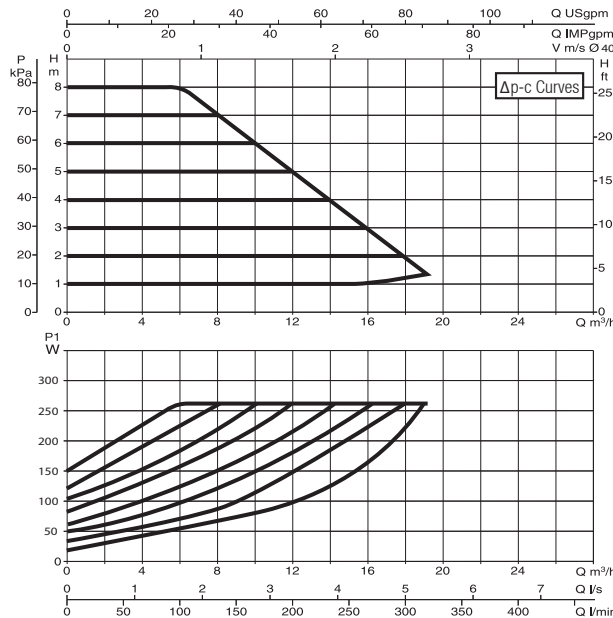
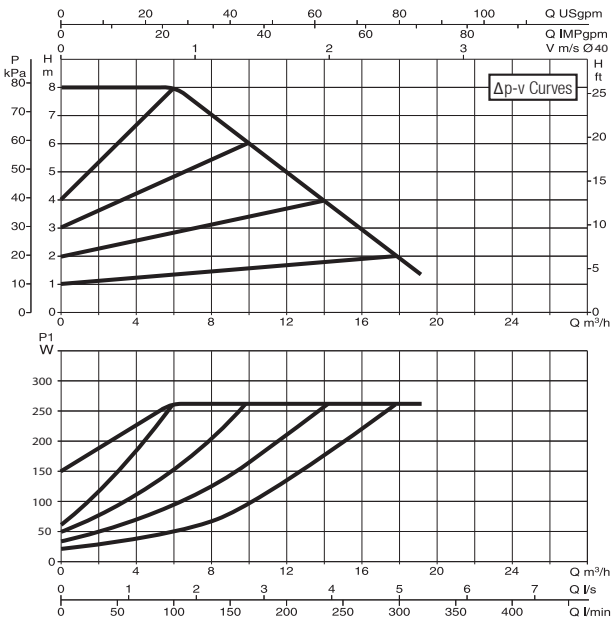
D	D1	D2	D3	D4	H	H1	H2
150	110	100	84	42	222	220	273



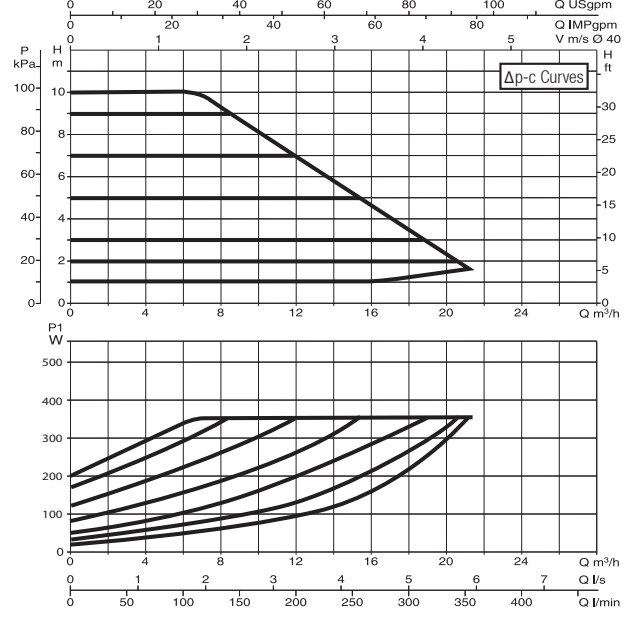
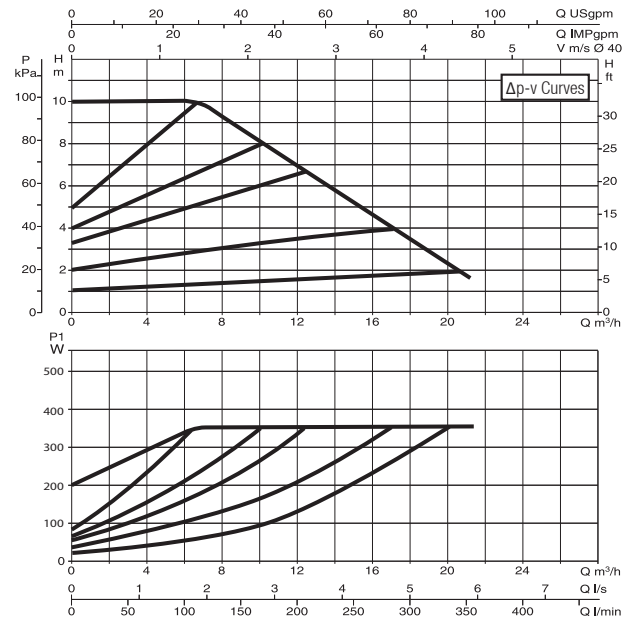
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 80/220.40 M



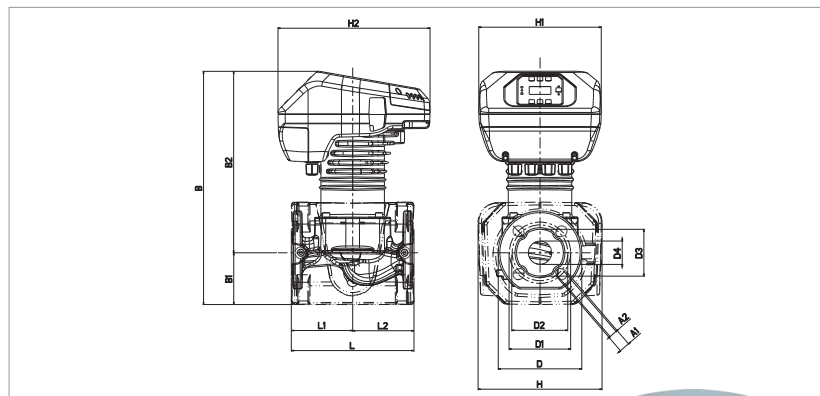
500 B 100/220.40 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 80/220.40 M	220	DN 40 PN 10	220/240 V	260	1,35	EEI ≤ 0,21	m.c.w.	20	25	20,8
500 B 100/220.40 M	220	DN 40 PN 10	220/240 V	350	1,75	EEI ≤ 0,20	m.c.w.	20	25	20,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2
220	110	110	19	14	419	93	326

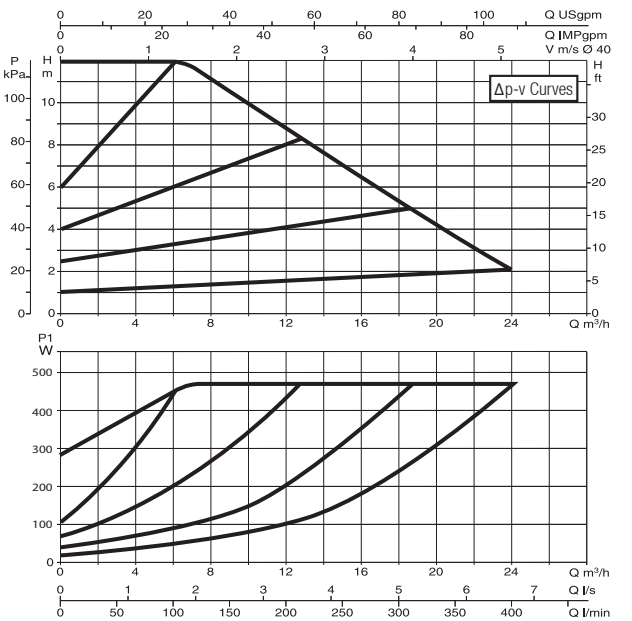
D	D1	D2	D3	D4	H	H1	H2
150	110	100	84	42	222	220	273



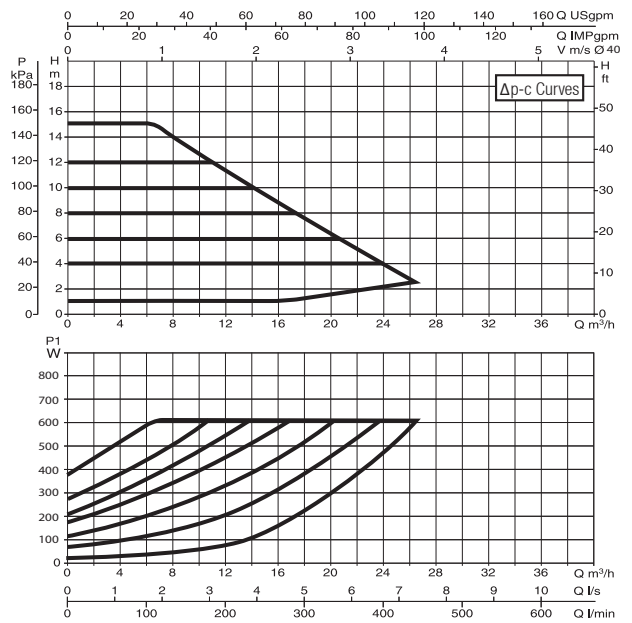
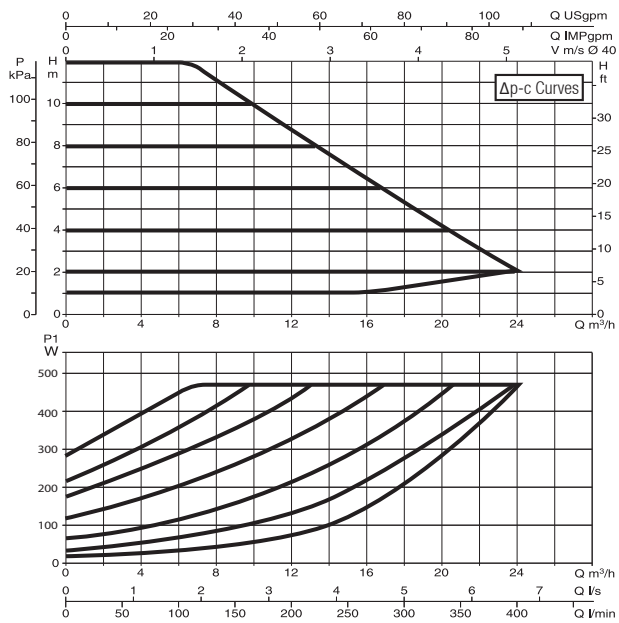
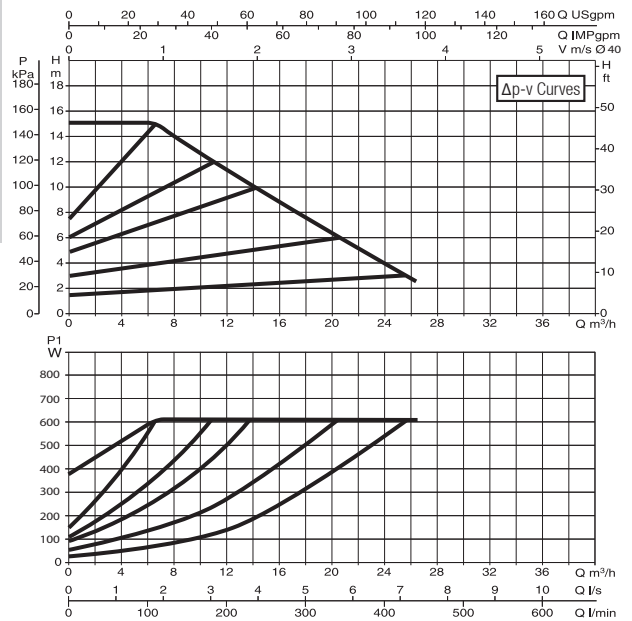
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure:16 bar (1600 kPa)

500 B 120/250.40 M



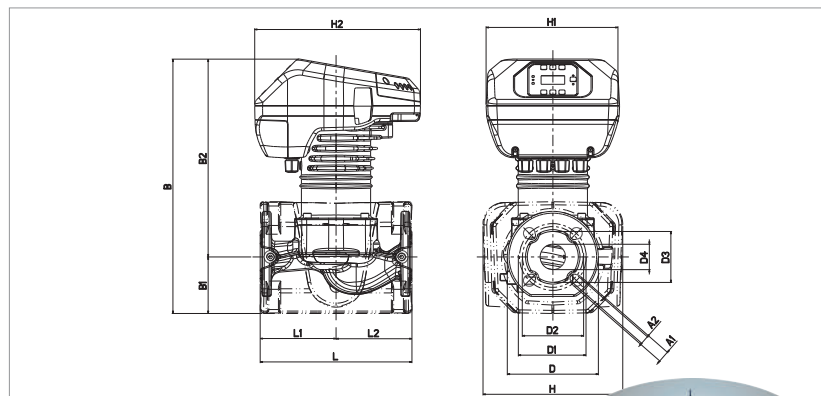
500 B 150/250.40 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 120/250.40 M	250	DN 40 PN 10	220/240 V	465	2,2	EEI ≤ 0,20	m.c.w.	20	25	20
500 B 150/250.40 M	250	DN 40 PN 10	220/240 V	610	2,9	EEI ≤ 0,20	m.c.w.	20	25	20

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2
250	125	125	19	14	419	93	326

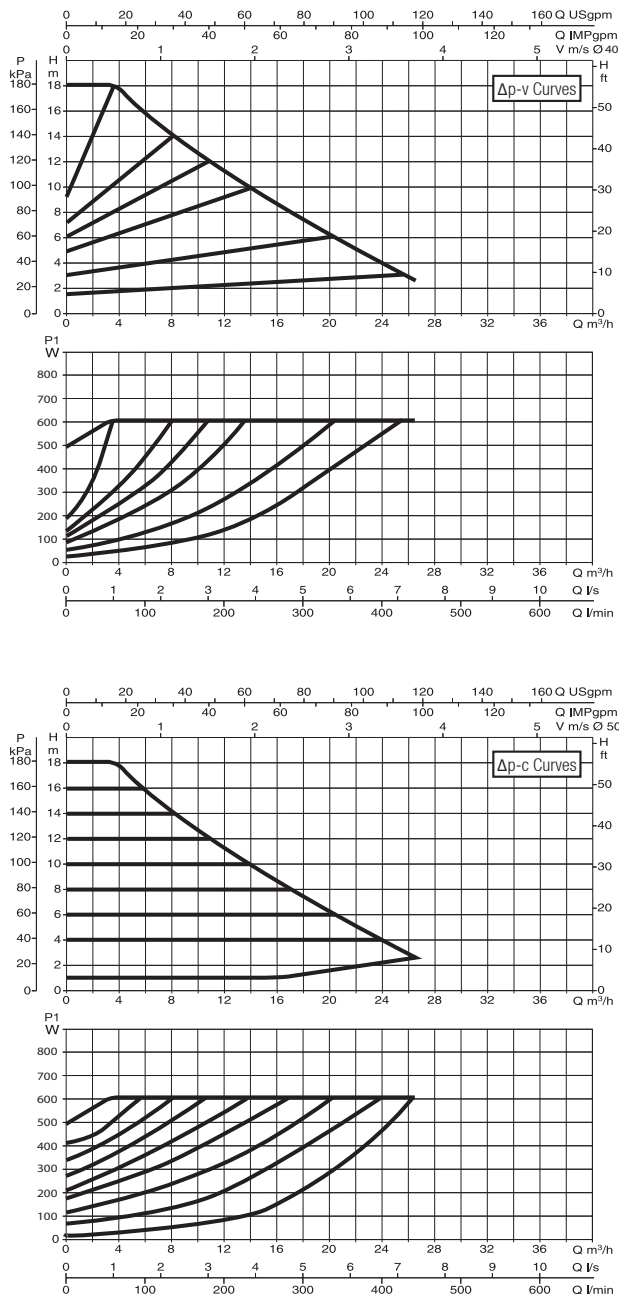
D	D1	D2	D3	D4	H	H1	H2
150	110	100	84	42	230	220	273



# 500- ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

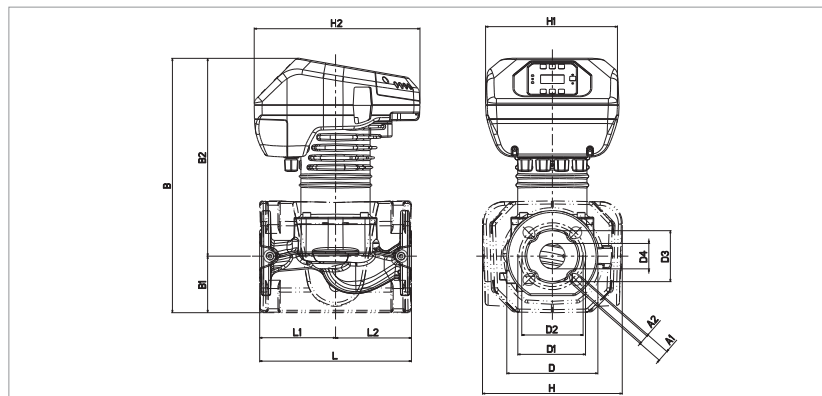
500 B 180/250.40 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 180/250.40 M	250	DN 40 PN 10	220/240 V	610	2,9	EEI ≤ 0,20	m.c.w.	20	25	20

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2
250	125	125	19	14	419	93	326

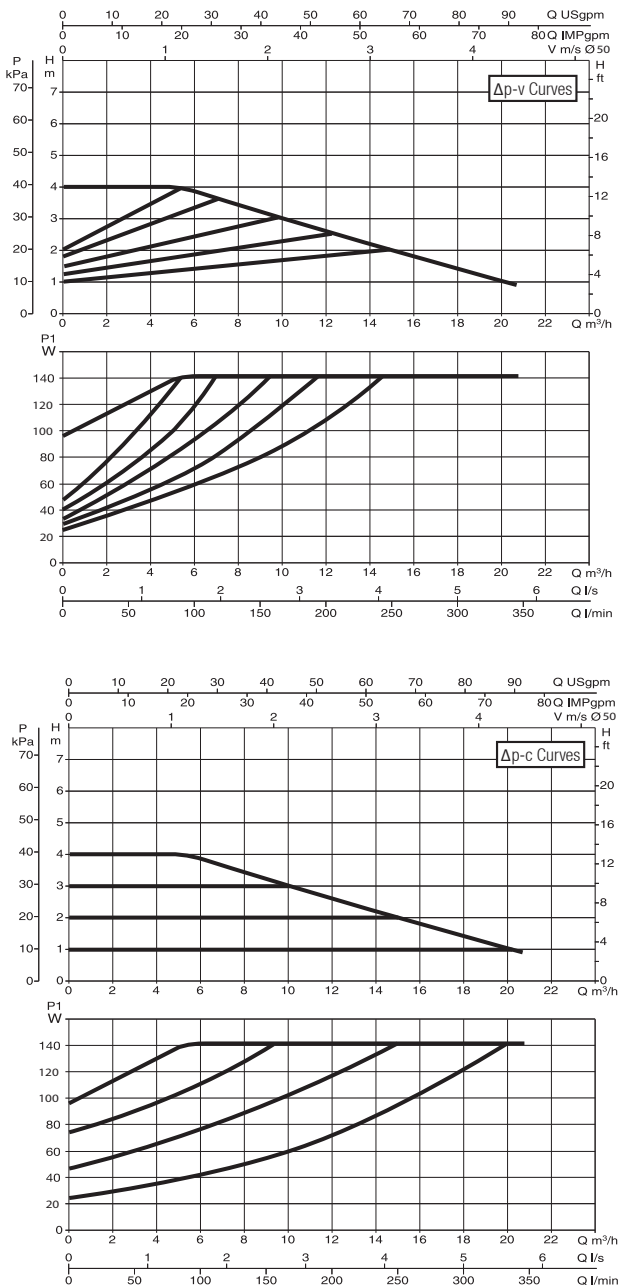
D	D1	D2	D3	D4	H	H1	H2
150	110	100	84	42	230	220	273



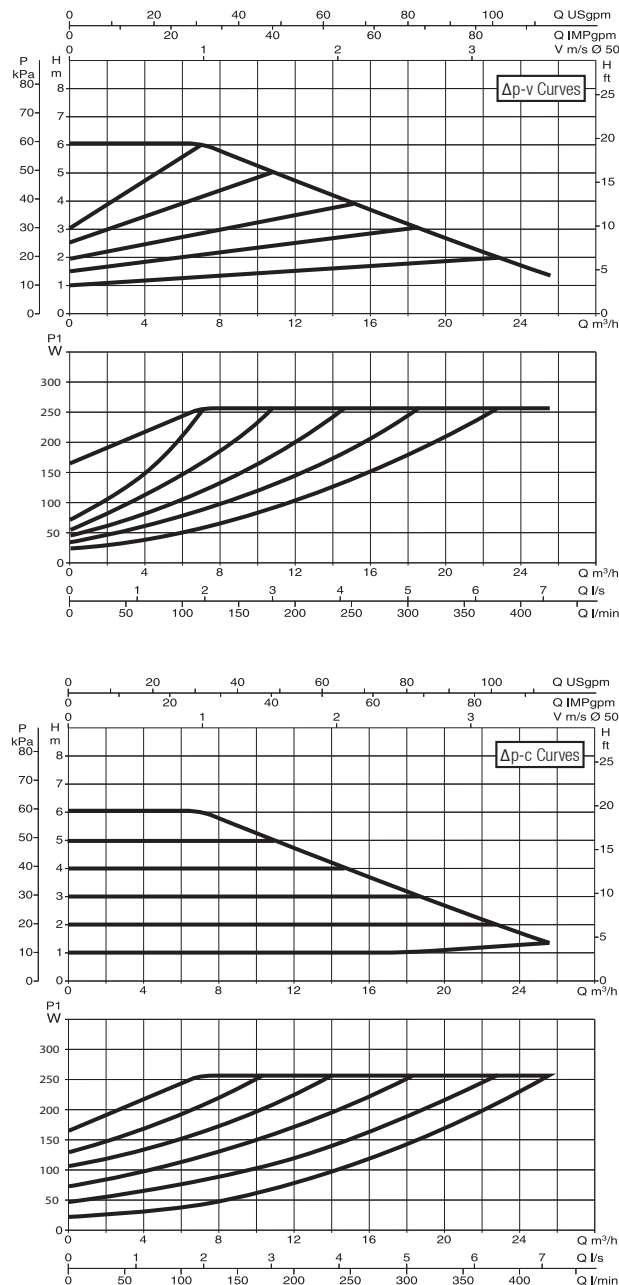
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 40/240.50 M

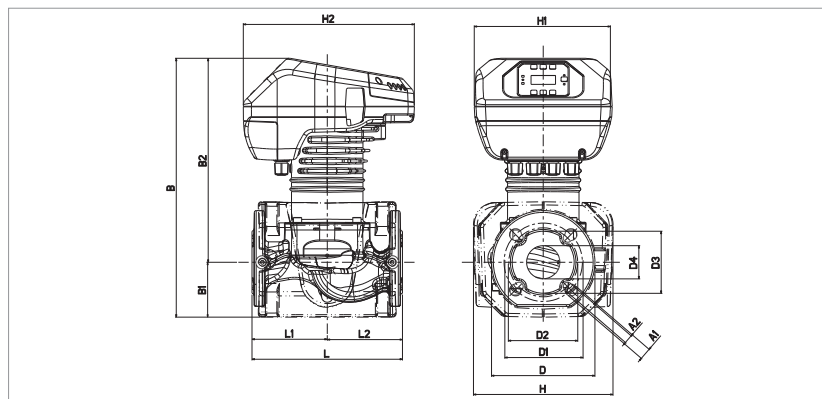


500 B 60/240.50 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 40/240.50 M	240	DN 50 PN 10	220/240 V	140	0,87	EEI ≤ 0,23	m.c.w.	20	25	21,4
500 B 60/240.50 M	240	DN 50 PN 10	220/240 V	260	1,35	EEI ≤ 0,21	m.c.w.	20	25	21,4



The parameter of reference for the more efficient circulators is EEI ≤ 0,20.

L	L1	L2	A1	A2	B	B1	B2
240	120	120	19	14	413	87	325

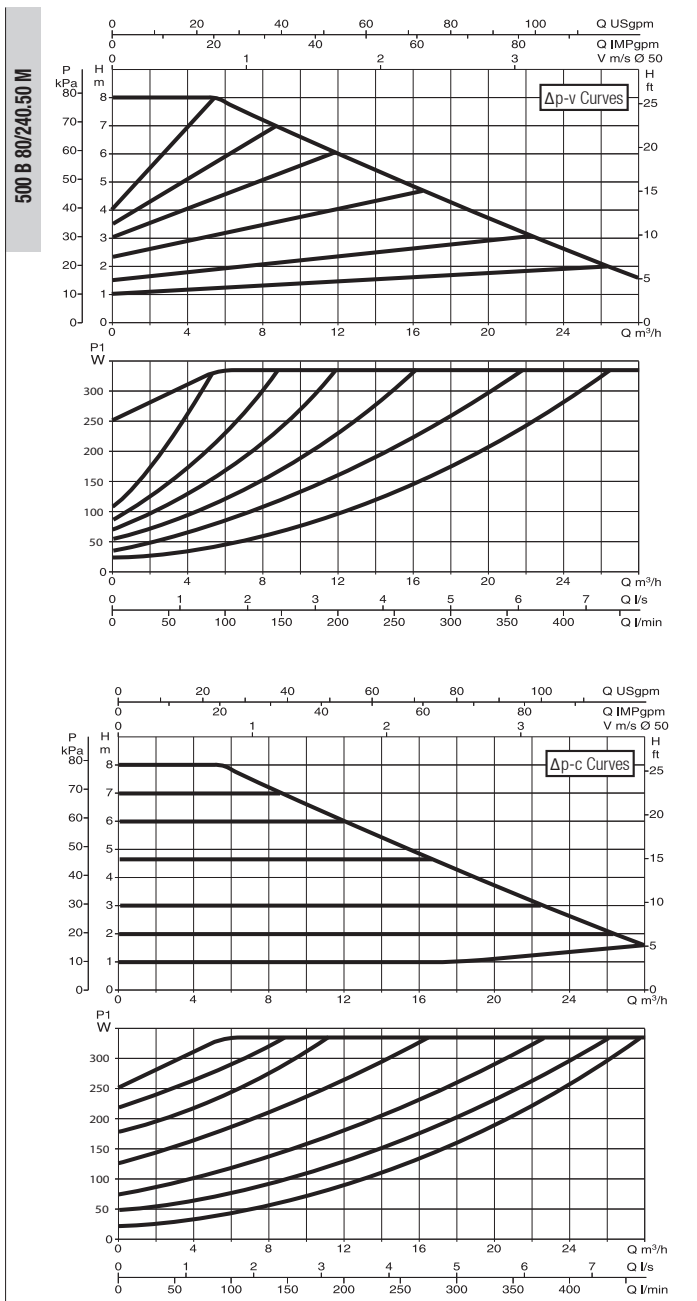
D	D1	D2	D3	D4	H	H1	H2
165	125	110	99	53	222	220	273





# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

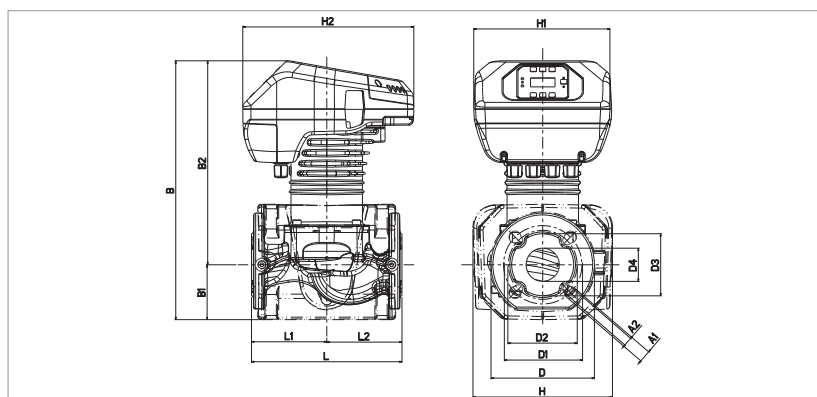
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	I <sub>n</sub> A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 B 80/240.50 M</b>	240	DN 50 PN 10	220/240 V	330	0,87	EEI ≤ 0,21	m.c.w.	20	25	21,4

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2
240	120	120	19	14	413	87	325

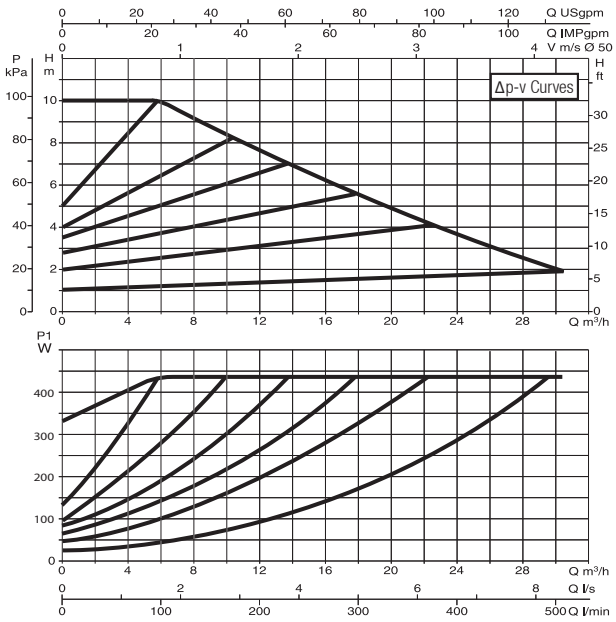
D	D1	D2	D3	D4	H	H1	H2
165	125	110	99	53	222	220	273



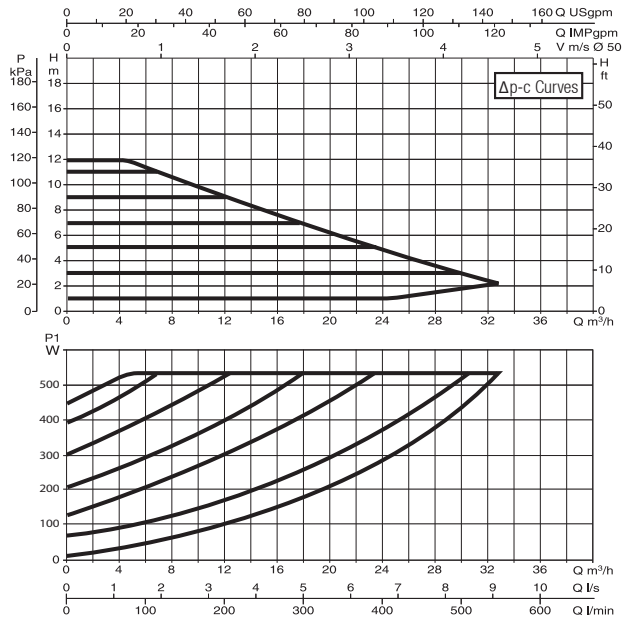
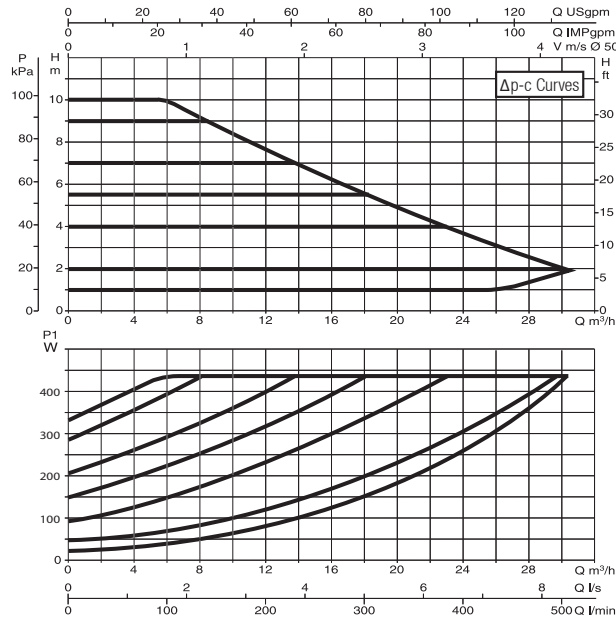
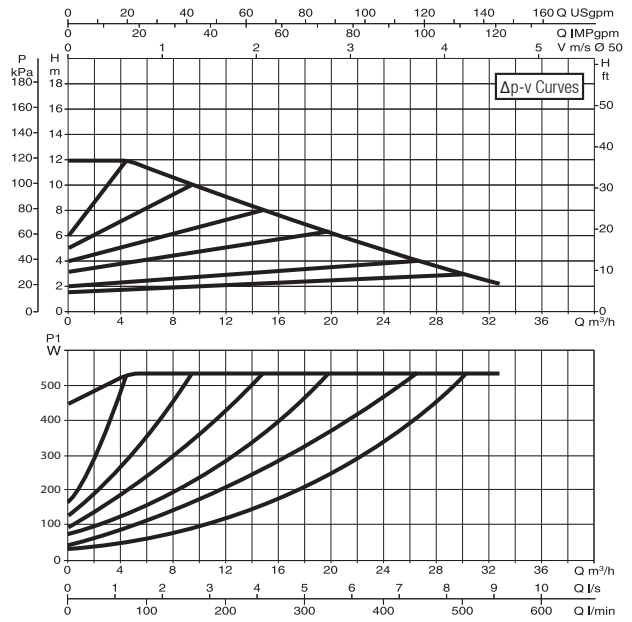
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 (1600 kPa)

500 B 100/280.50 M



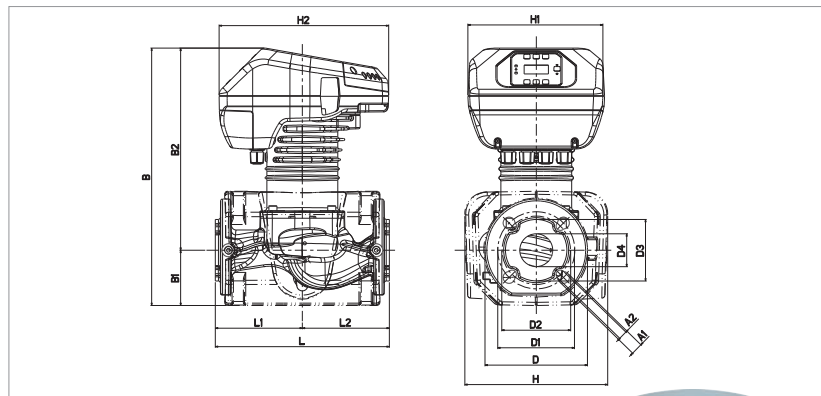
500 B 120/280.50 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 100/280.50 M	280	DN 50 PN 10	220/240 V	430	2,1	EEI ≤ 0,20	m.c.w.	20	25	22
500 B 120/280.50 M	280	DN 50 PN 10	220/240 V	530	2,5	EEI ≤ 0,19	m.c.w.	20	25	21,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2
280	140	140	19	14	413	87	325

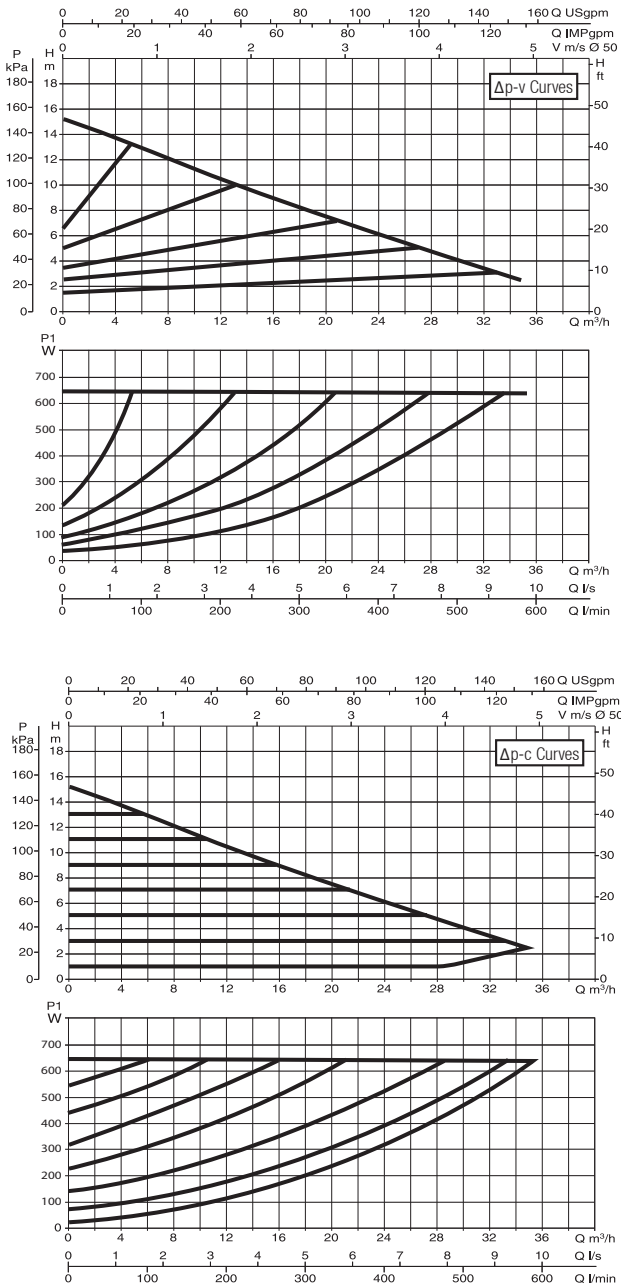
D	D1	D2	D3	D4	H	H1	H2
165	125	110	99	53	230	220	273



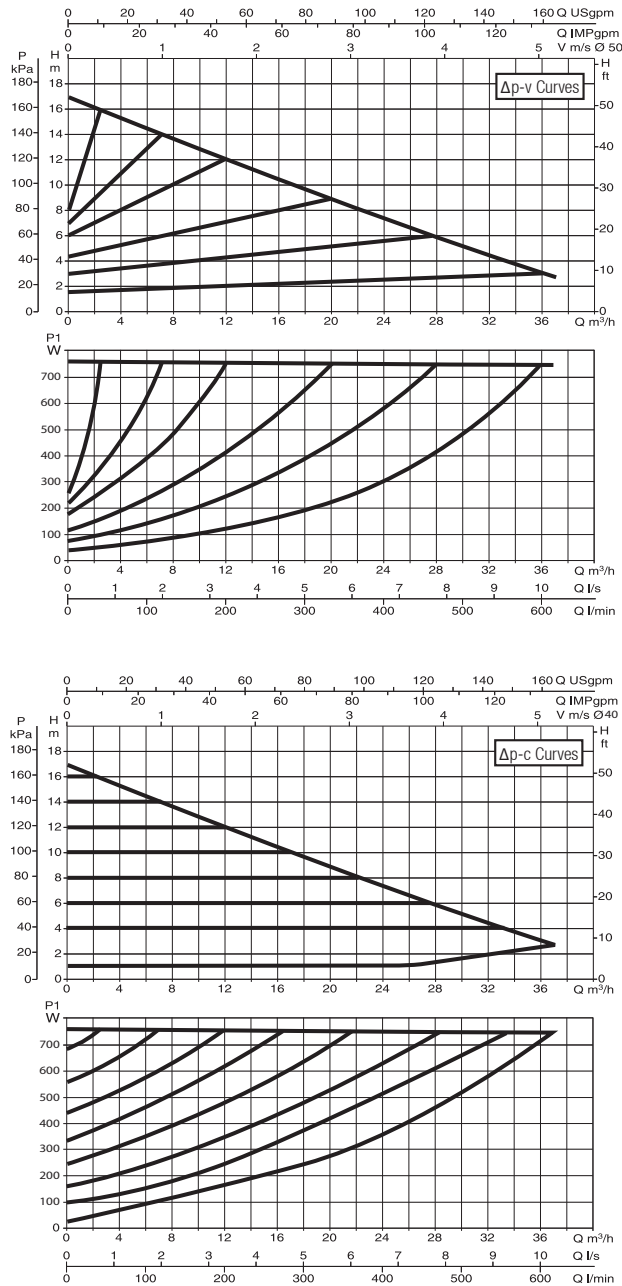
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 150/280.50 M



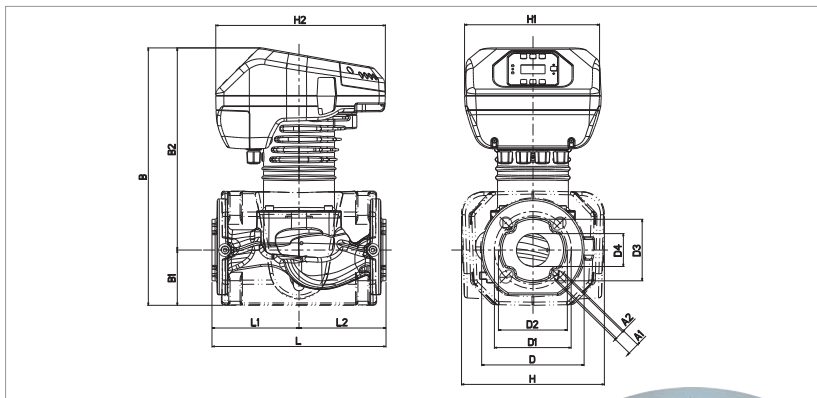
500 B 180/280.50 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 150/280.50 M	280	DN 50 PN 10	220/240 V	640	3	EEI ≤ 0,19	m.c.w.	20	25	22,8
500 B 180/280.50 M	280	DN 50 PN 10	220/240 V	750	3,45	EEI ≤ 0,19	m.c.w.	20	25	22,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2
280	140	140	19	14	413	87	325

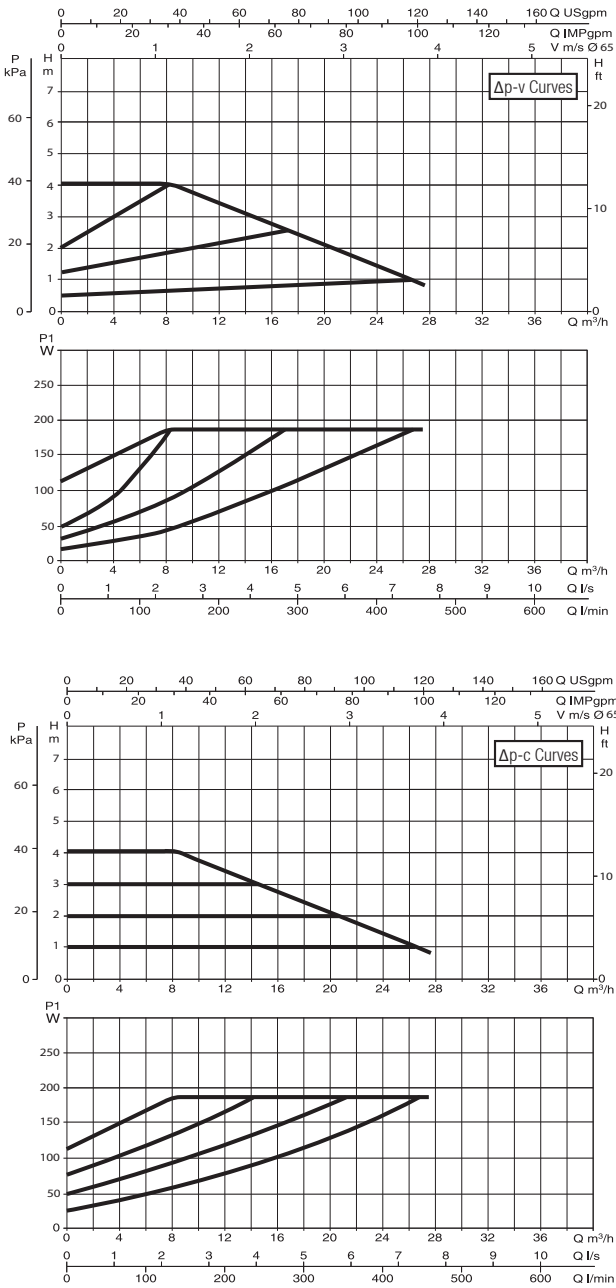
D	D1	D2	D3	D4	H	H1	H2
165	125	110	99	53	230	220	273



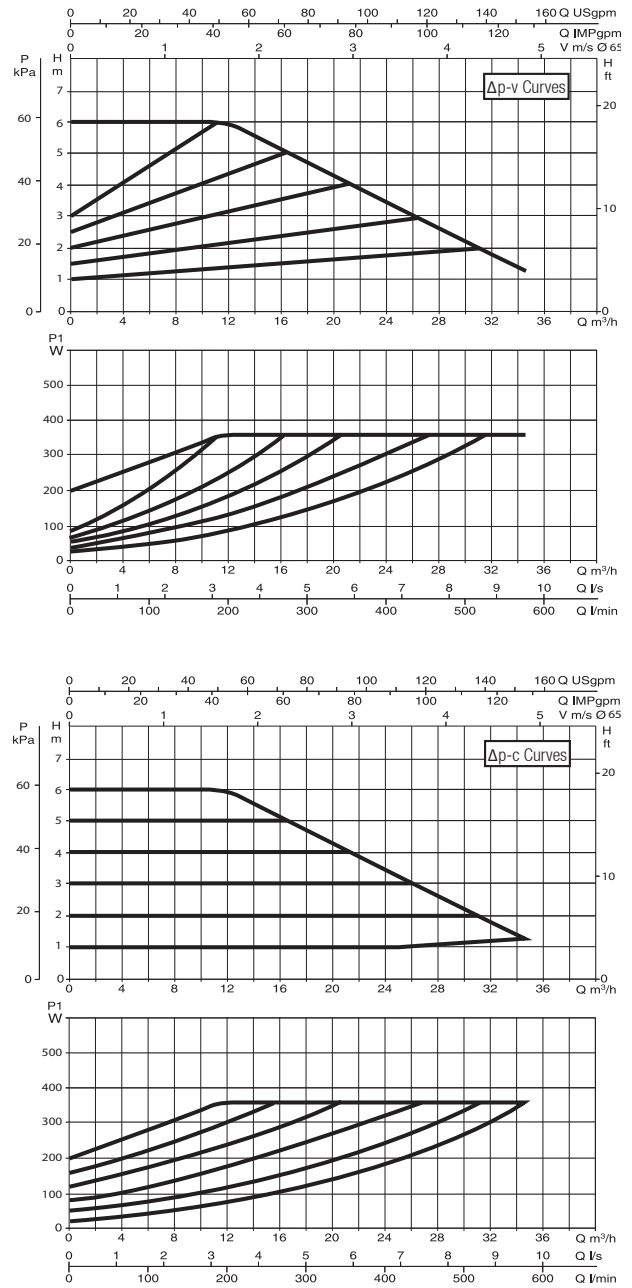
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 40/340.65 M



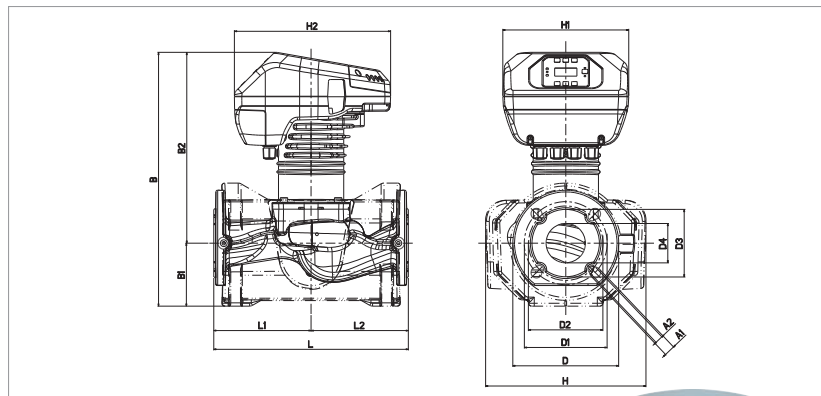
500 B 60/340.65 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 40/340.65 M	340	DN 65 PN 10	220/240 V	190	1,1	EEI ≤ 0,21	m.c.w.	20	25	23,8
500 B 60/340.65 M	340	DN 65 PN 10	220/240 V	355	1,8	EEI ≤ 0,20	m.c.w.	20	25	23,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



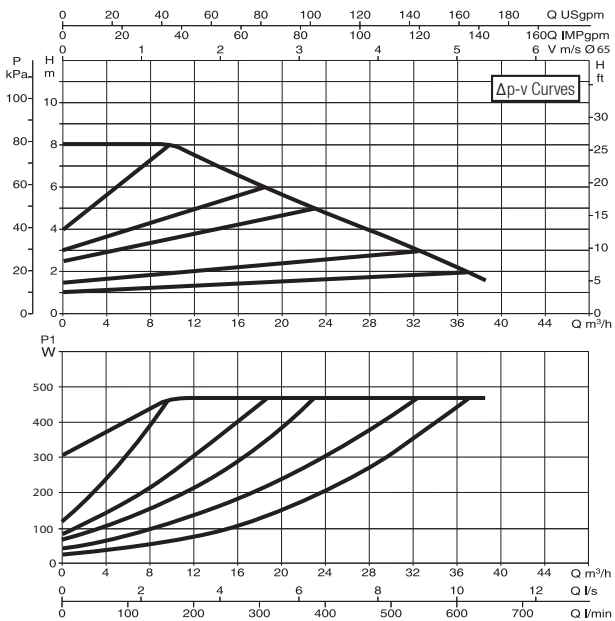
L	L1	L2	A1	A2	B	B1	B2
340	170	170	19	14	443	110	333

D	D1	D2	D3	D4	H	H1	H2
185	145	130	118	69	280	220	273

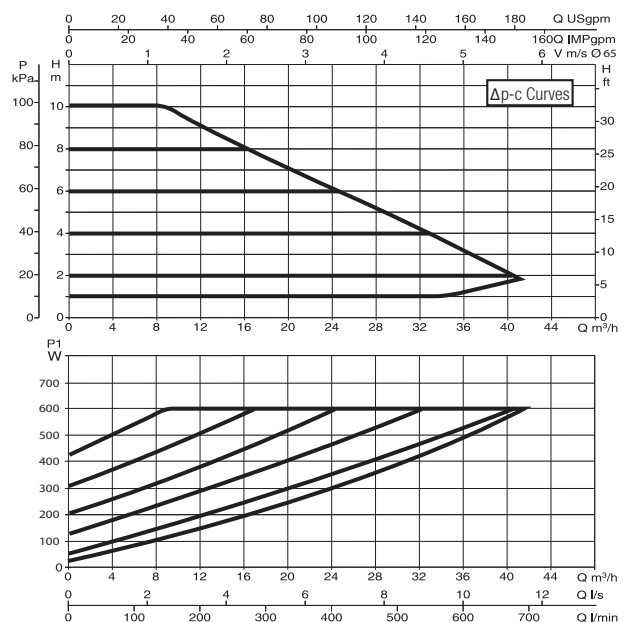
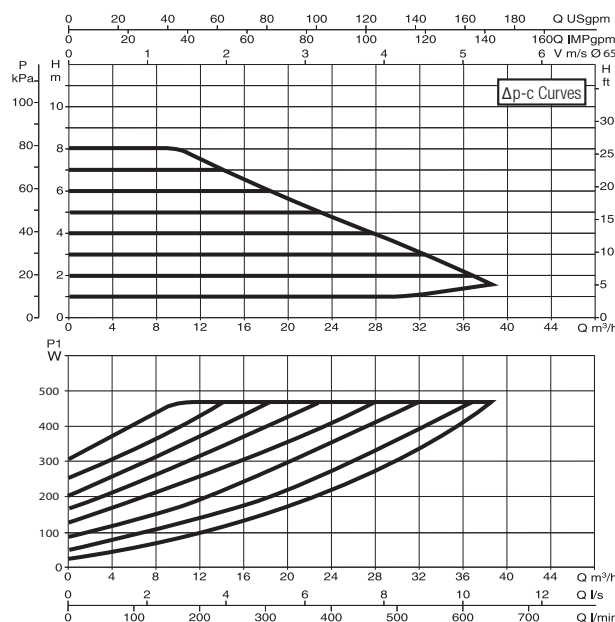
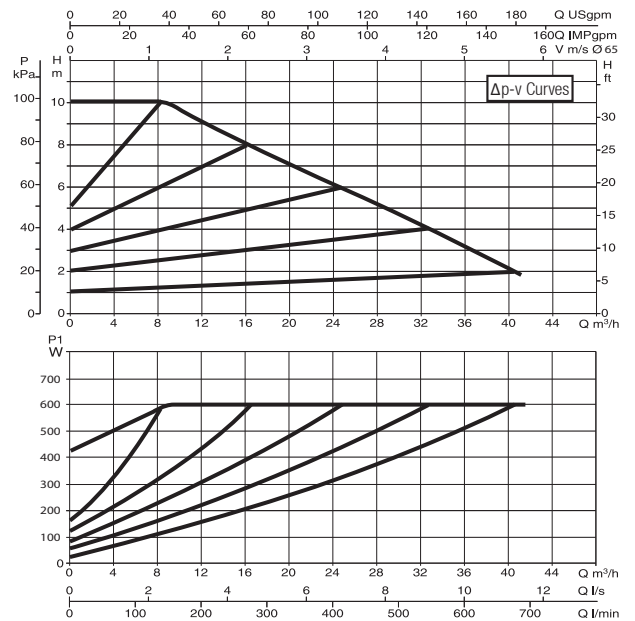
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 80/340.65 M



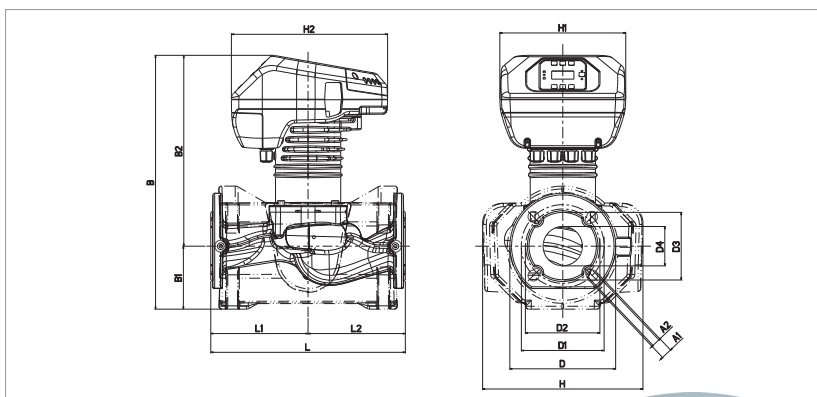
500 B 100/340.65 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	I <sub>n</sub> A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 80/340.65 M	340	DN 65 PN 10	220/240 V	465	2,2	EEI ≤ 0,19	m.c.w.	20	25	24,6
500 B 100/340.65 M	340	DN 65 PN 10	220/240 V	590	2,8	EEI ≤ 0,18	m.c.w.	20	25	25

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



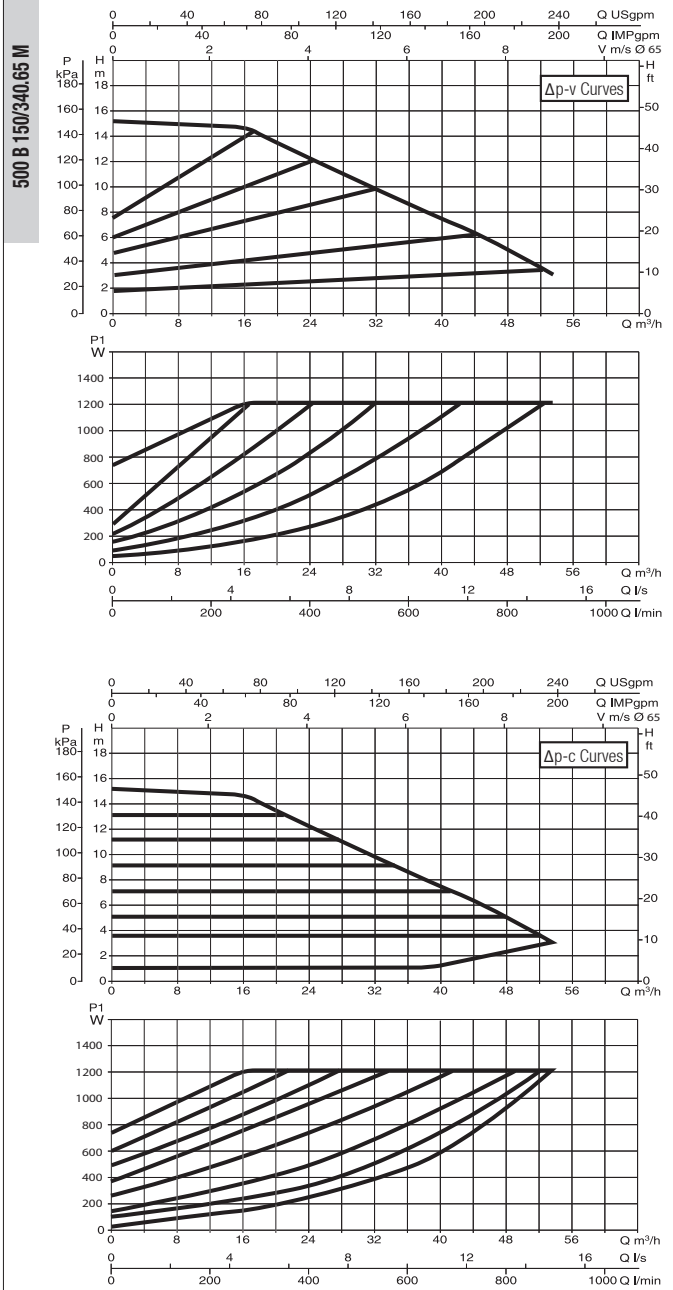
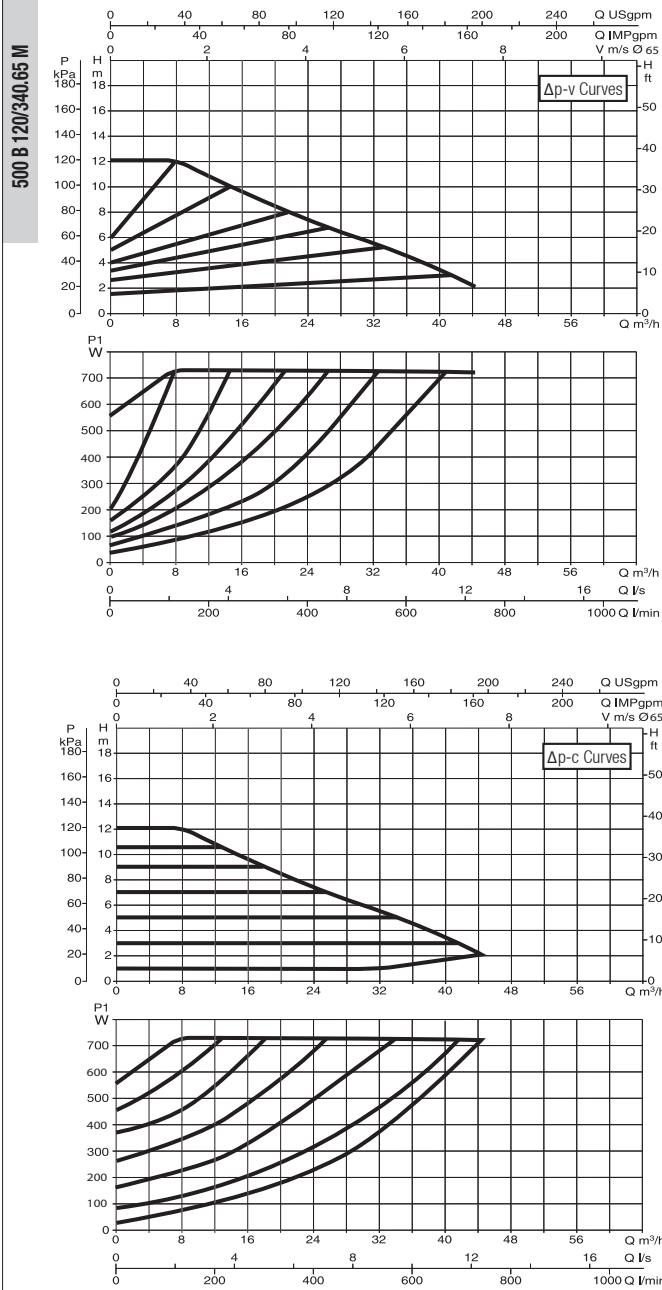
L	L1	L2	A1	A2	B	B1	B2
340	170	170	19	14	443	110	333

D	D1	D2	D3	D4	H	H1	H2
185	145	130	118	69	280	220	273



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED

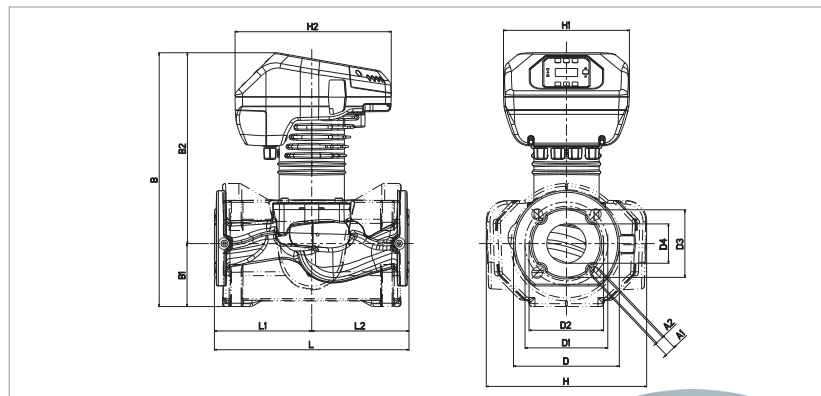
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 B 120/340.65 M</b>	340	DN 65 PN 10	220/240 V	730	3,45	EEI ≤ 0,18	m.c.w.	20	25	24,6
<b>500 B 150/340.65 M</b>	340	DN 65 PN 10	220/240 V	1210	5,5	EEI ≤ 0,18	m.c.w.	20	25	27

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



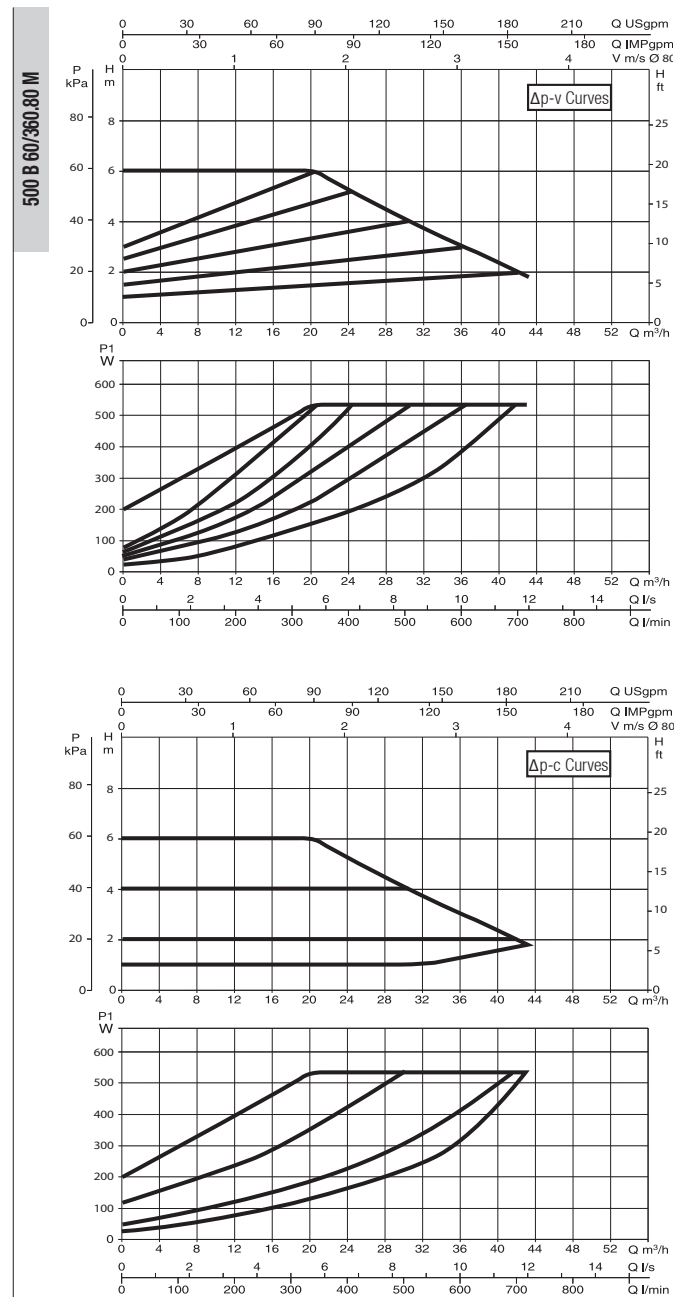
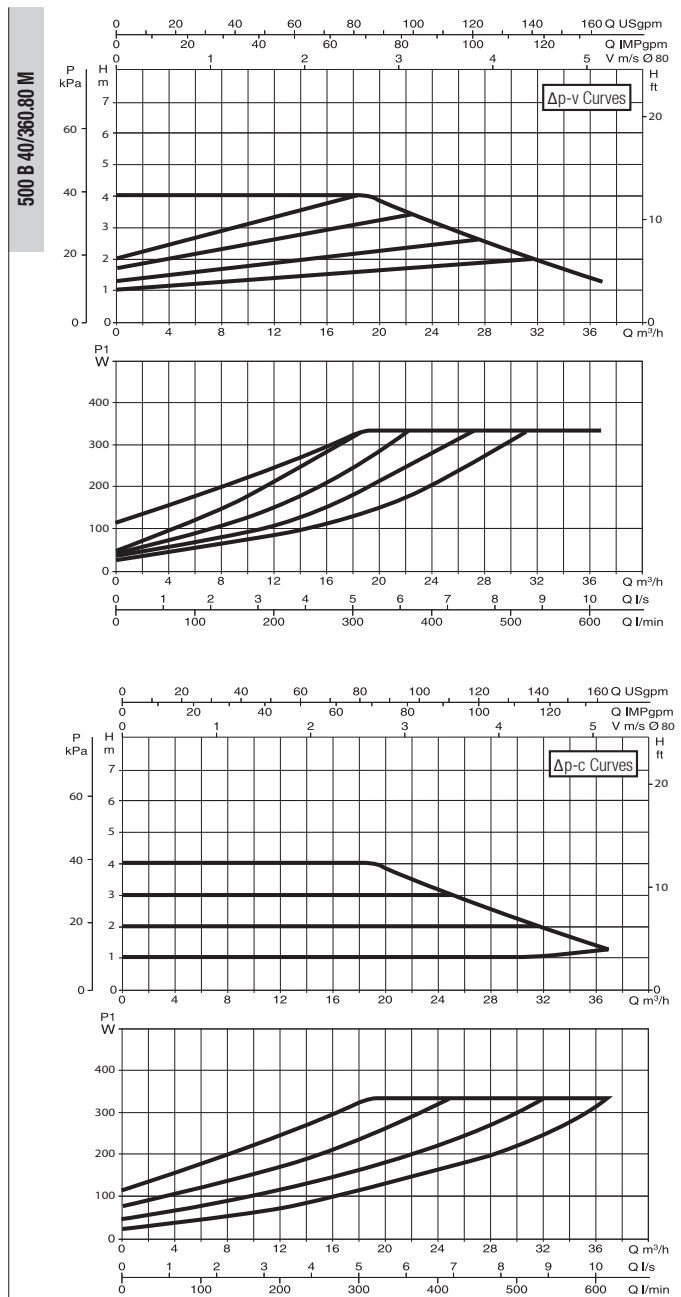
L	L1	L2	A1	A2	B	B1	B2
340	170	170	19	14	443	110	333

D	D1	D2	D3	D4	H	H1	H2
185	145	130	118	69	280	220	273



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED PN 16

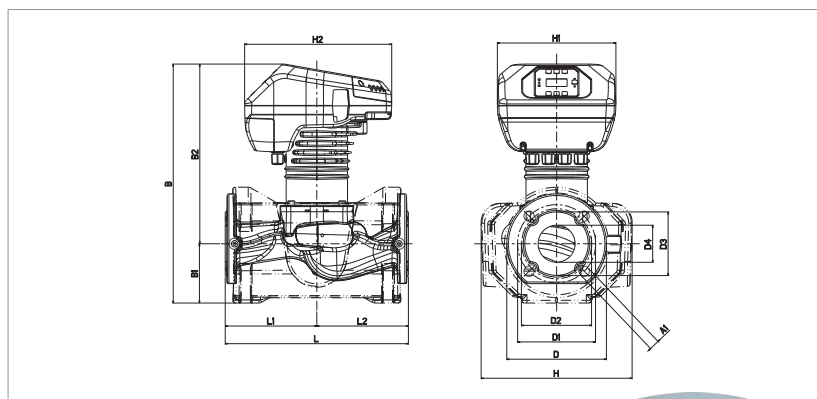
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 40/360.80 M	360	DN 80 PN 16	220/240 V	330	1,65	EEI ≤ 0,19	m.c.w.	20	25	30,2
500 B 60/360.80 M	360	DN 80 PN 16	220/240 V	535	2,5	EEI ≤ 0,20	m.c.w.	20	25	30,2

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D
360	180	180	19	446	106	340	200

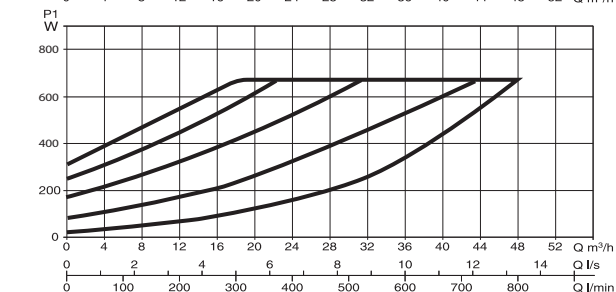
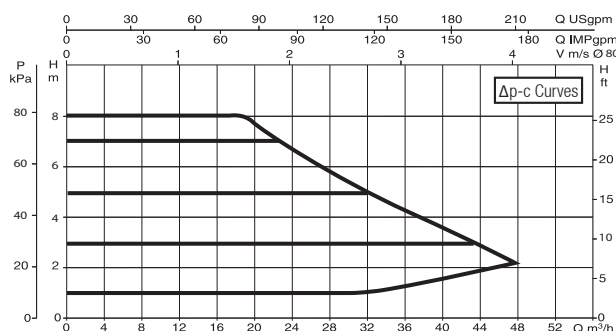
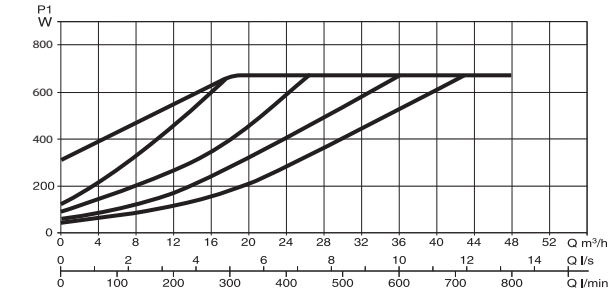
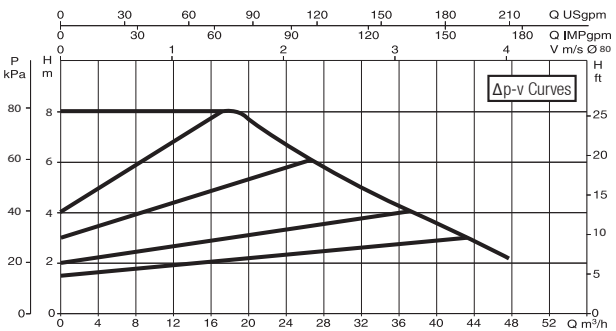
D1	D3	D4	H	H1	H2
160	132	80	279	220	273



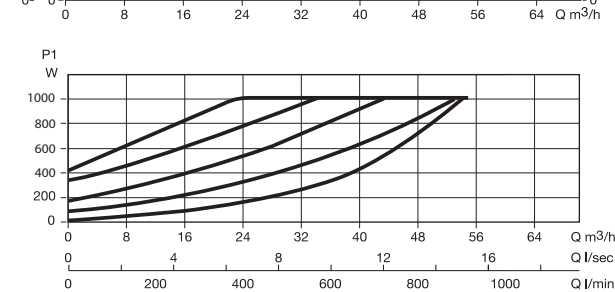
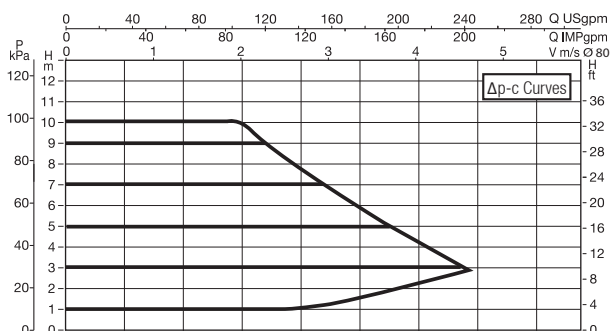
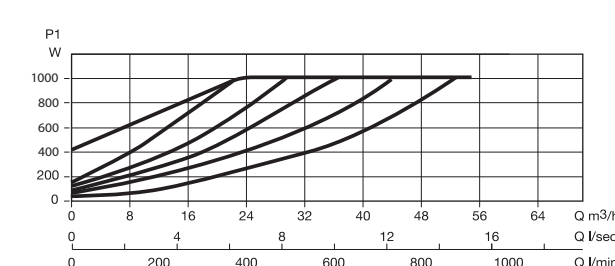
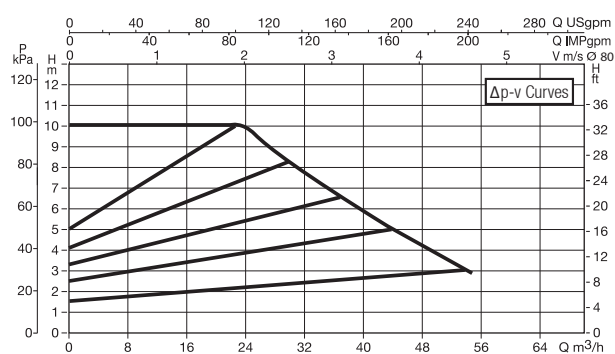
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 80/360.80 M



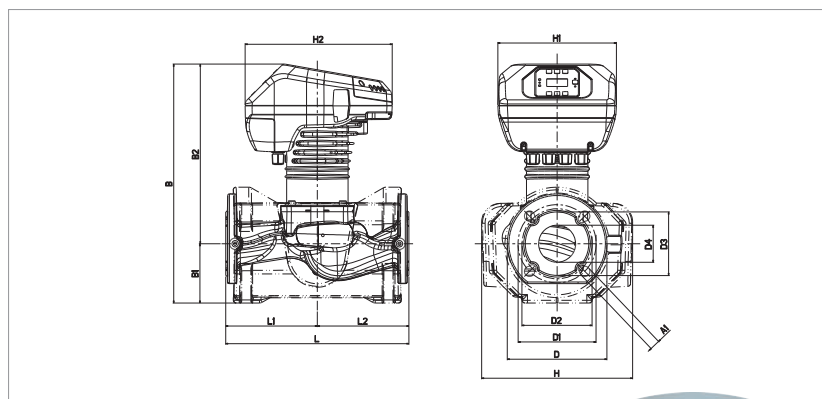
500 B 100/360.80 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 80/360.80 M	360	DN 80 PN 16	220/240 V	670	3	EEI ≤ 0,20	m.c.w.	20	25	32
500 B 100/360.80 M	360	DN 80 PN 16	220/240 V	1005	4,5	EEI ≤ 0,19	m.c.w.	20	25	32,2

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D
360	180	180	19	446	106	340	200

D1	D3	D4	H	H1	H2
160	132	80	279	220	273

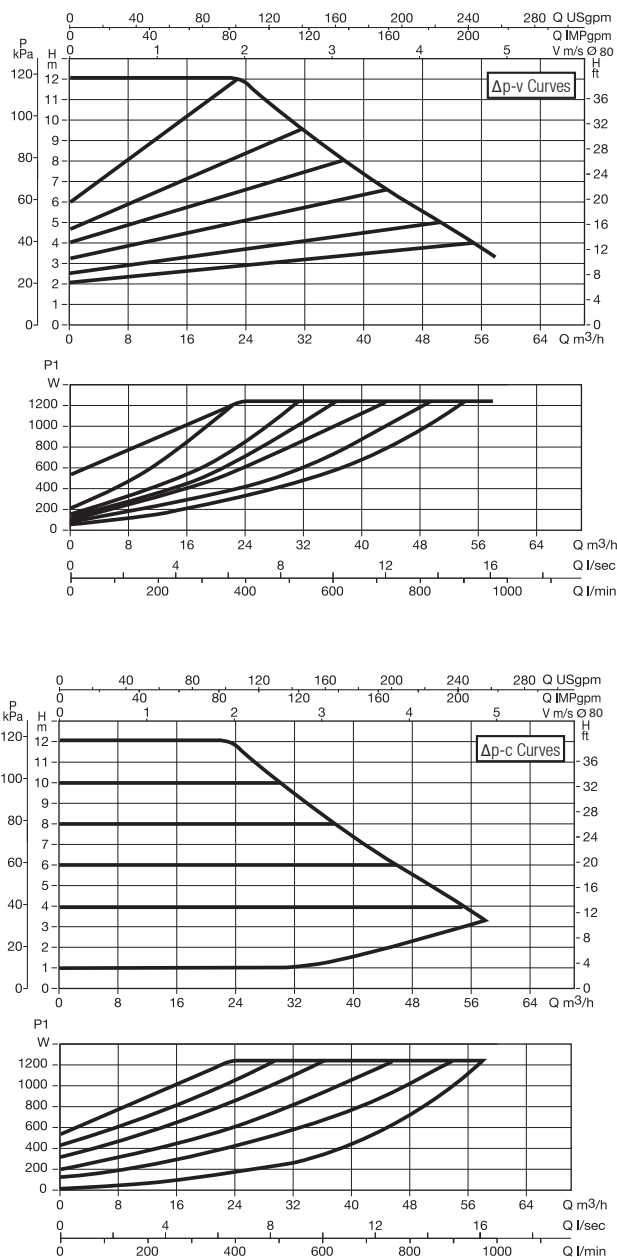




# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

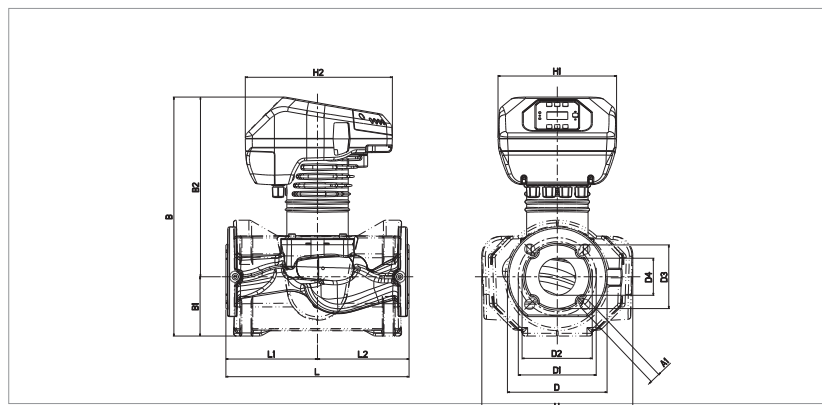
500 B 120/360.80 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 B 120/360.80 M</b>	360	DN 80 PN 16	220/240 V	1235	5,5	EEI ≤ 0,19	m.c.w.	20	25	32,2

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D
360	180	180	19	446	106	340	200

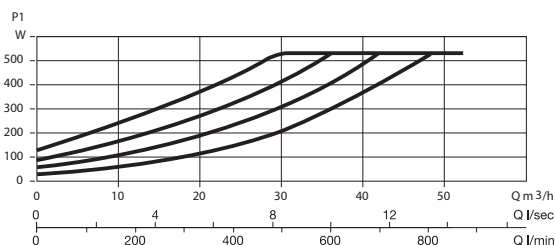
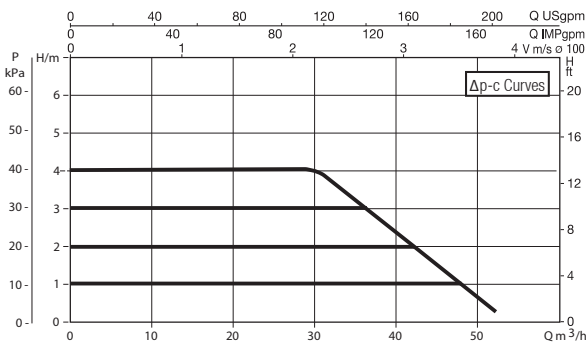
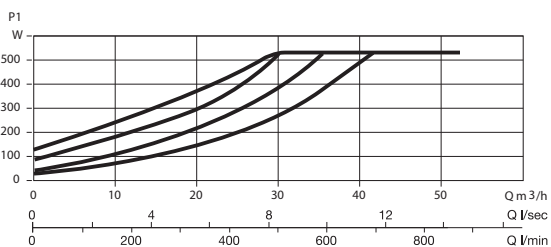
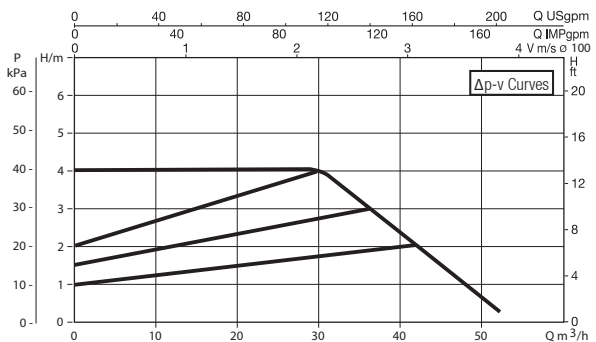
D1	D3	D4	H	H1	H2
160	132	80	279	220	273



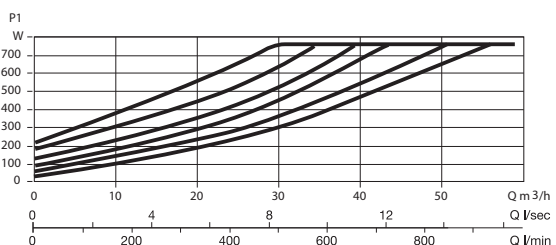
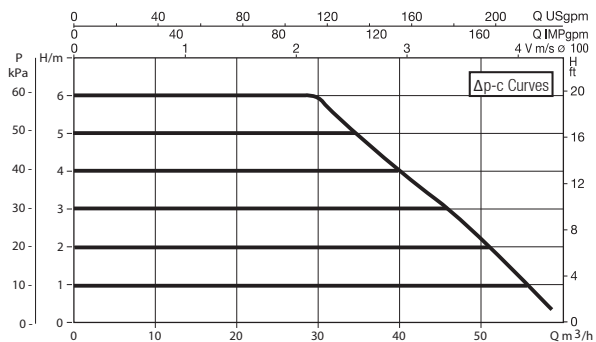
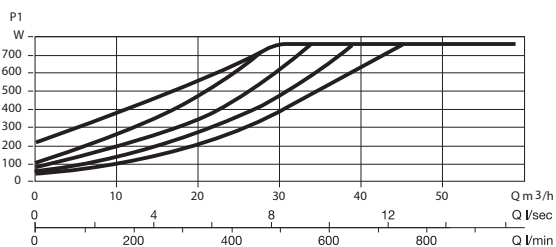
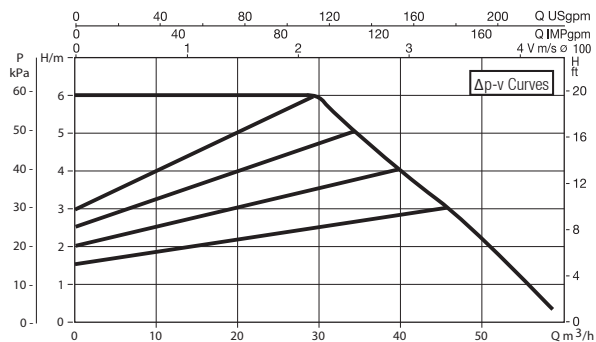
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 40/450,100 M



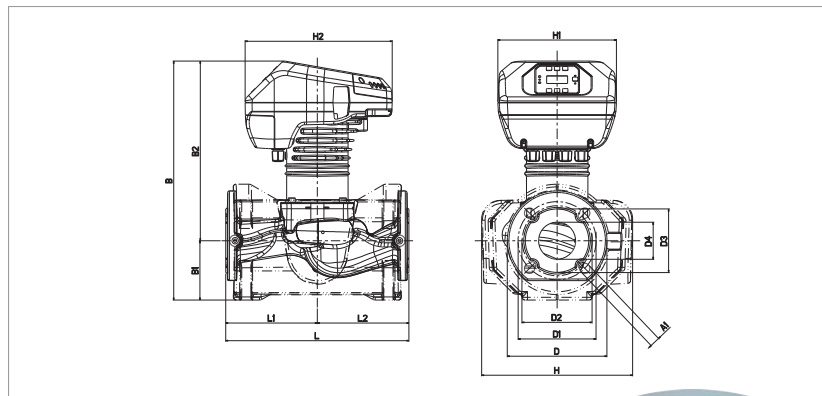
500 B 60/450,100 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 40/450,100 M	450	DN 100 PN 16	220/240 V	530	2,5	EEI ≤ 0,19	m.c.w.	20	25	37,5
500 B 60/450,100 M	450	DN 100 PN 16	220/240 V	760	3,5	EEI ≤ 0,18	m.c.w.	20	25	37,5

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D
450	225	225	19	463	110	353	220

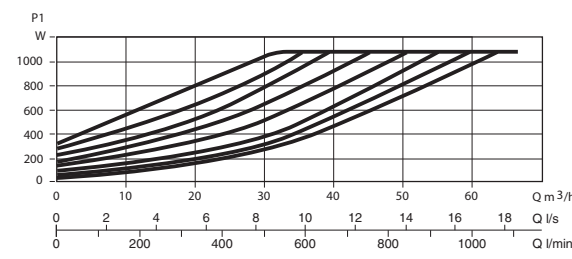
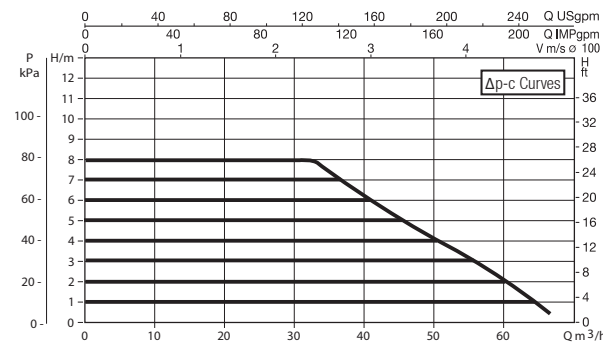
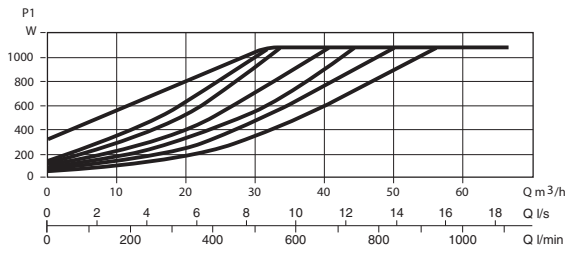
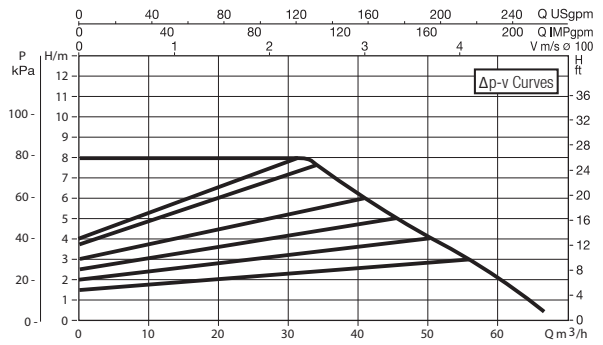
D1	D3	D4	H	H1	H2
180	156	105	292	220	273



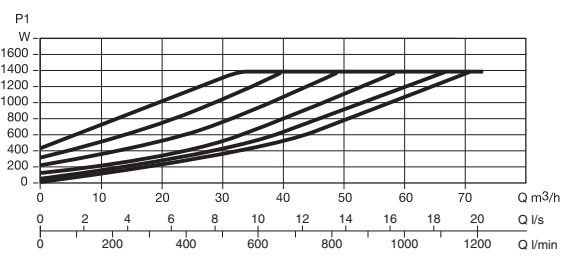
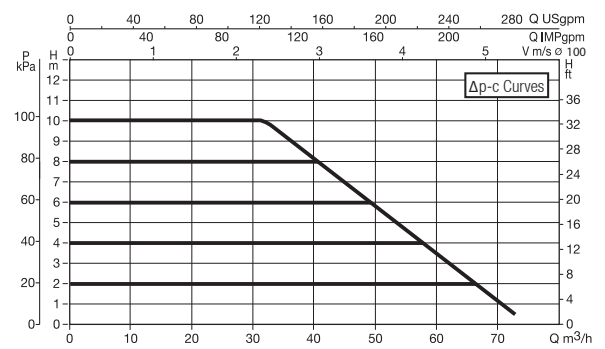
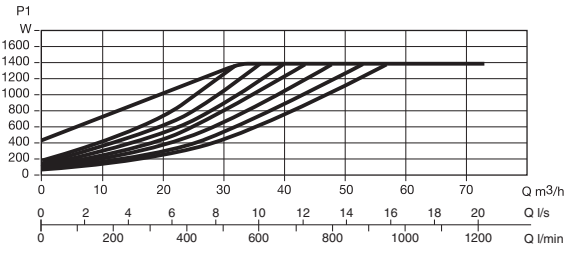
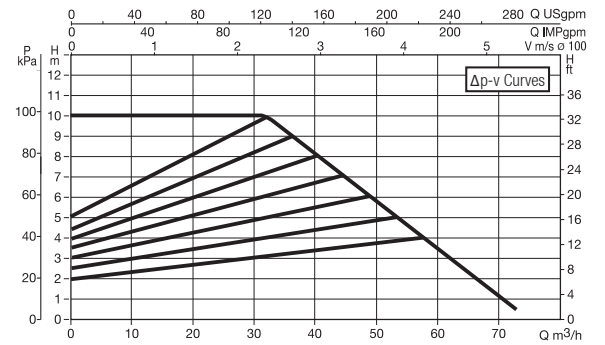
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 80/450,100 M



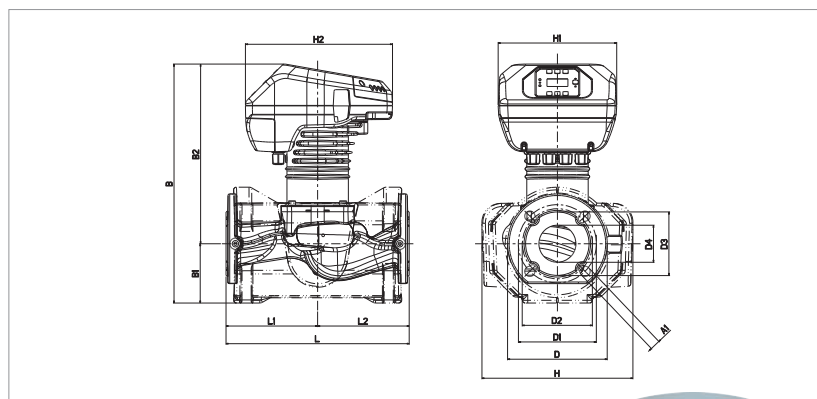
500 B 100/450,100 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 B 80/450,100 M	450	DN 100 PN 16	220/240 V	1080	4,8	EEI ≤ 0,18	m.c.w.	20	25	36,6
500 B 100/450,100 M	450	DN 100 PN 16	220/240 V	1380	6	EEI ≤ 0,19	m.c.w.	20	25	36,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D
450	225	225	19	463	110	353	220

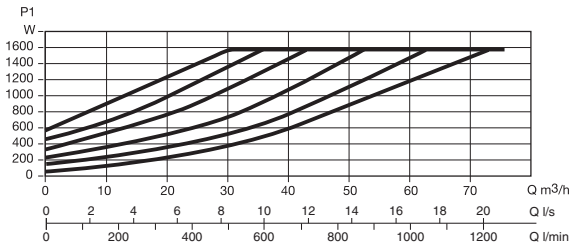
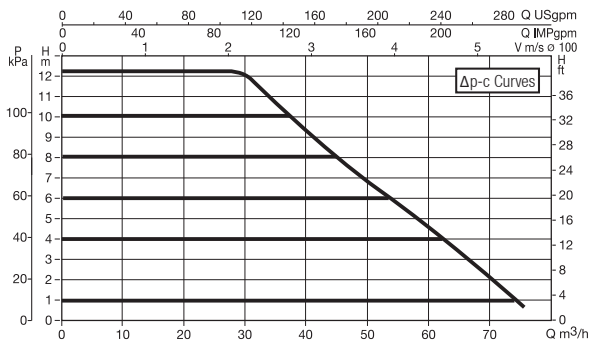
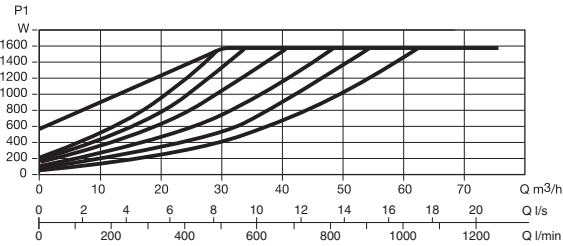
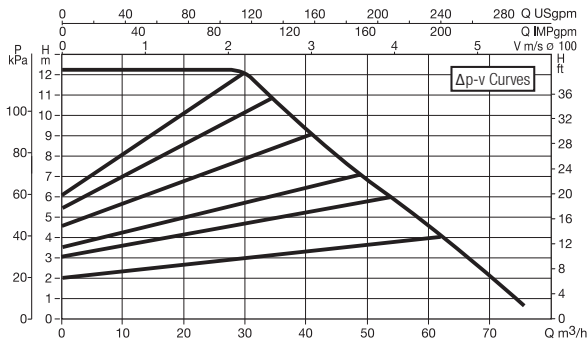
D1	D3	D4	H	H1	H2
180	156	105	292	220	273



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - SINGLE, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

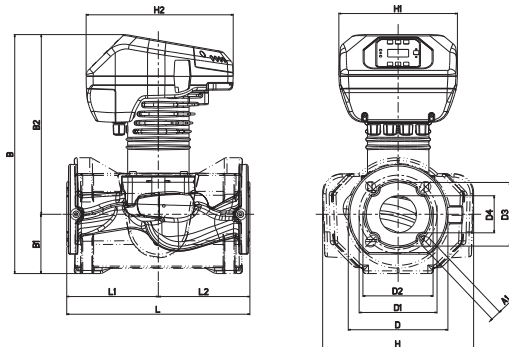
500 B 120/450,100 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 B 120/450,100 M</b>	450	DN 100 PN 16	220/240 V	1560	7	EEI ≤ 0,19	m.c.w.	20	25	36,3

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



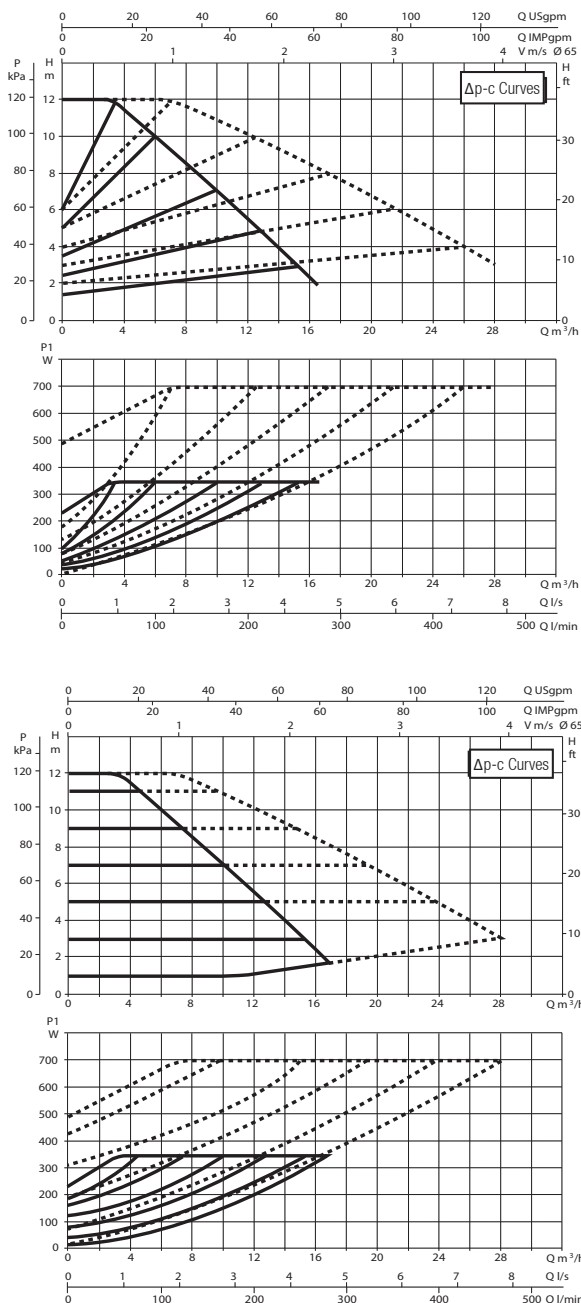
L	L1	L2	A1	B	B1	B2	D
450	225	225	19	463	110	353	220

D1	D3	D4	H	H1	H2
180	156	105	292	220	273

# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

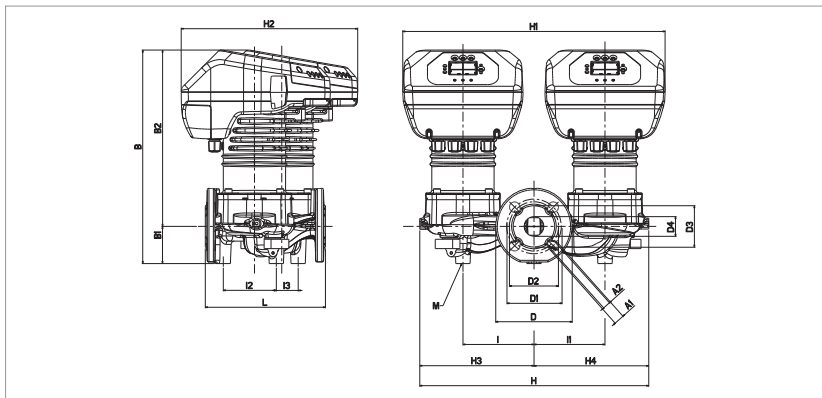
500 D 120/220.32 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 D 120/220.32 M</b>	220	DN 32 PN 6	220/240 V	340	1,7	EEI ≤ 0,22	m.c.w.	20	25	36,2

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
220	19	14	391	68	323	140	100	90	76	36

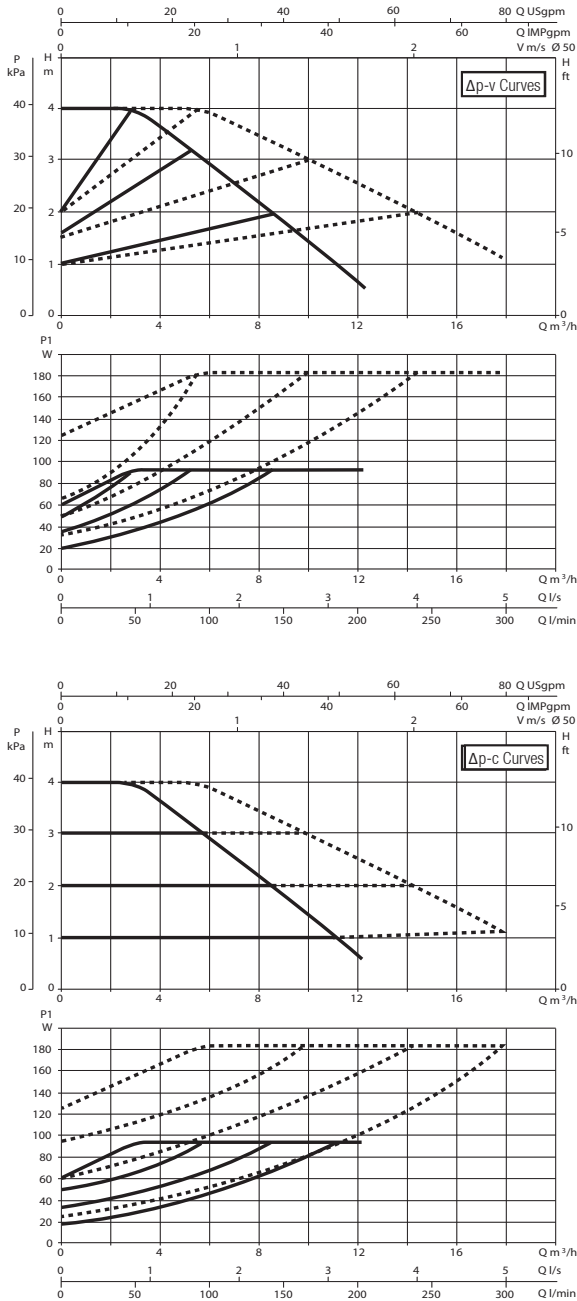
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	97	40	M12	419	480	323	209	210



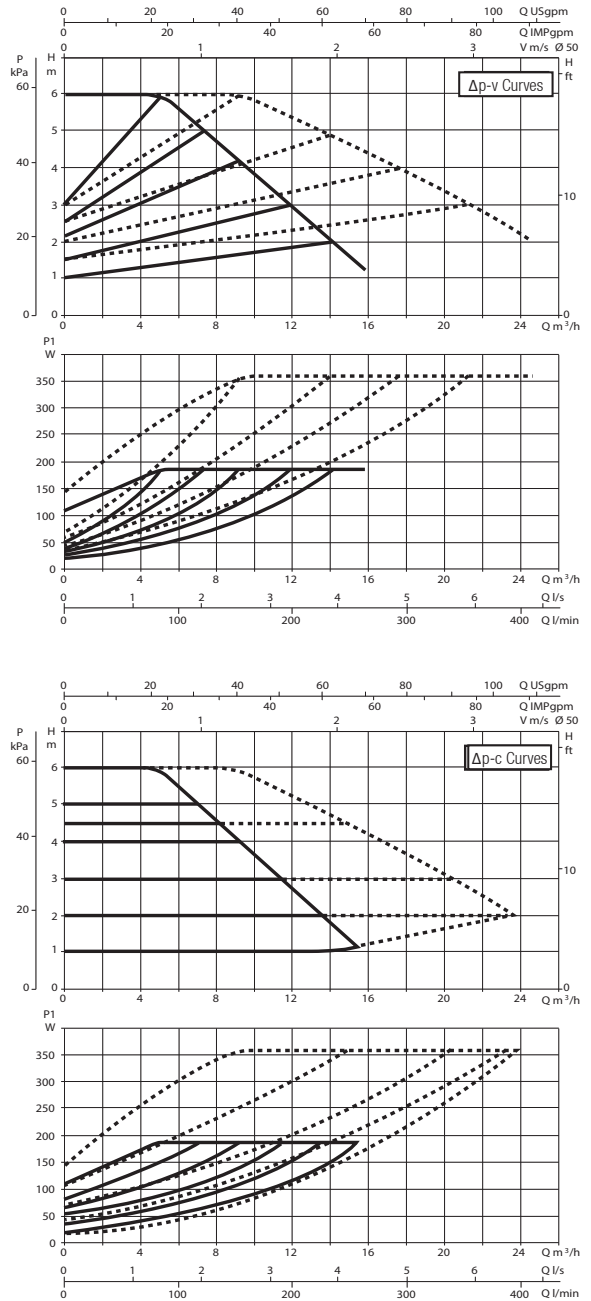
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 40/220.40 M



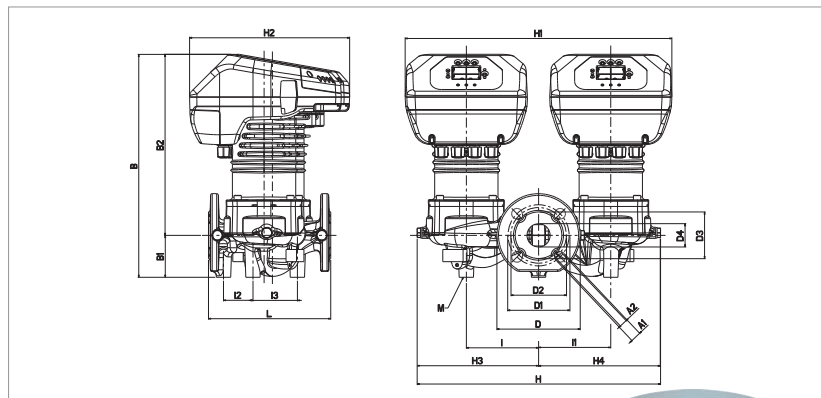
500 D 60/220.40 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 40/220.40 M	220	DN 40 PN 10	220/240 V	90	0,7	EEI ≤ 0,23	m.c.w.	20	25	38,6
500 D 60/220.40 M	220	DN 40 PN 10	220/240 V	175	1	EEI ≤ 0,23	m.c.w.	20	25	38,6

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
220	19	14	436	75	361	150	110	100	84	42

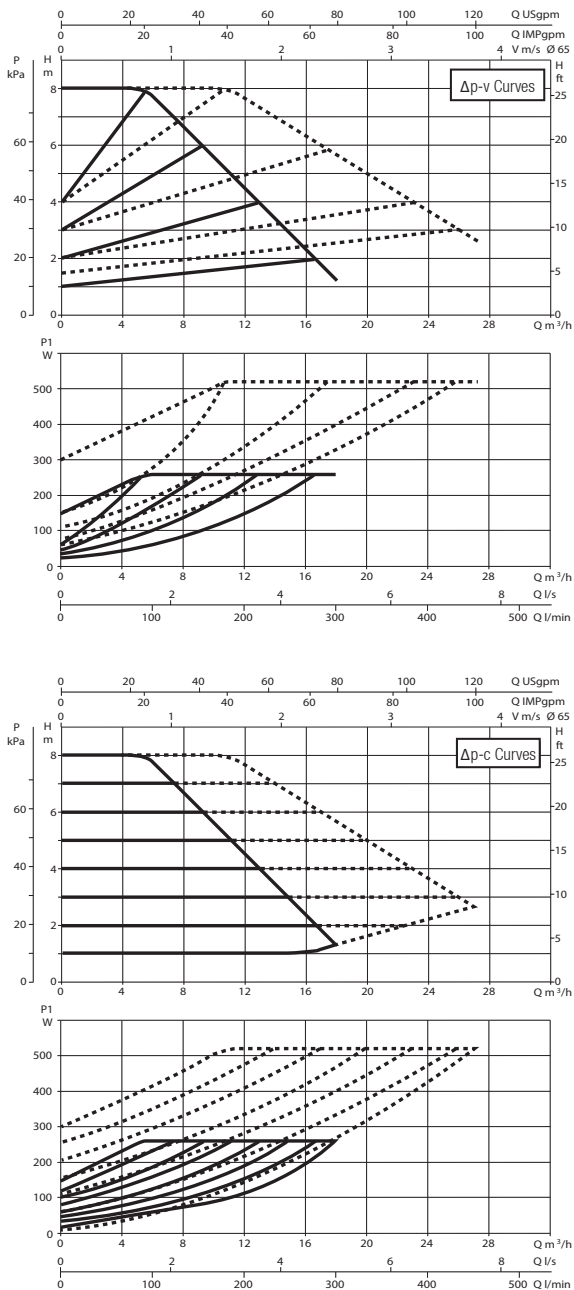
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	53	80	M12	438	480	288	219	218



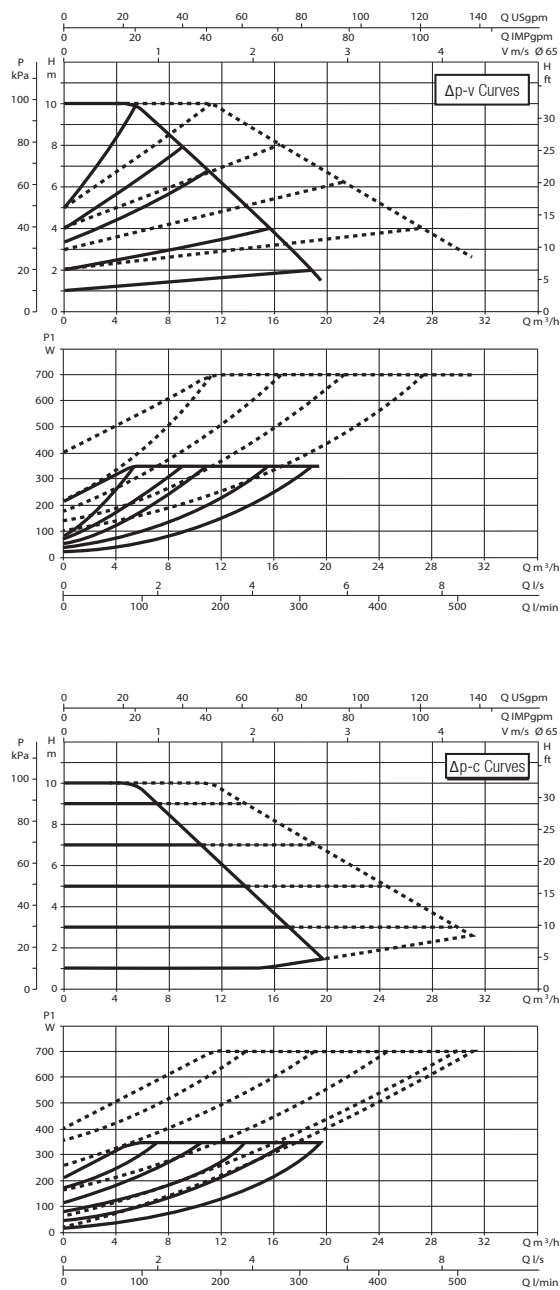
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 80/220.40 M



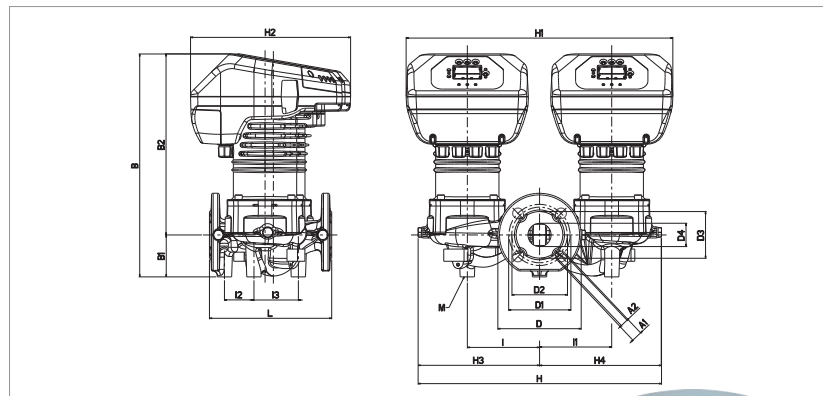
500 D 100/220.40 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 80/220.40 M	220	DN 40 PN 10	220/240 V	260	1,35	EEI ≤ 0,23	m.c.w.	20	25	38,6
500 D 100/220.40 M	220	DN 40 PN 10	220/240 V	350	1,75	EEI ≤ 0,23	m.c.w.	20	25	38,6

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
220	19	14	436	75	361	150	110	100	84	42

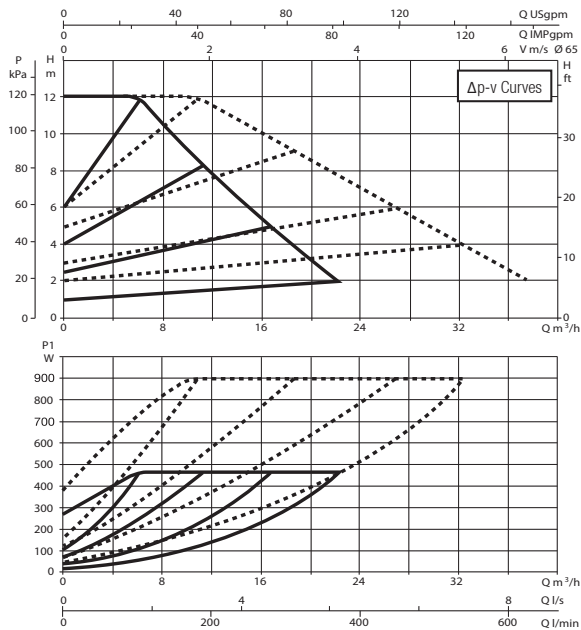
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	53	80	M12	438	480	288	219	218



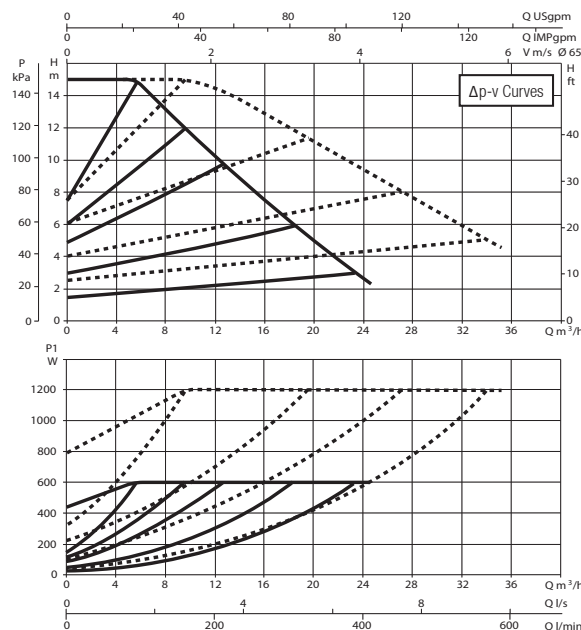
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 120/250.40 M



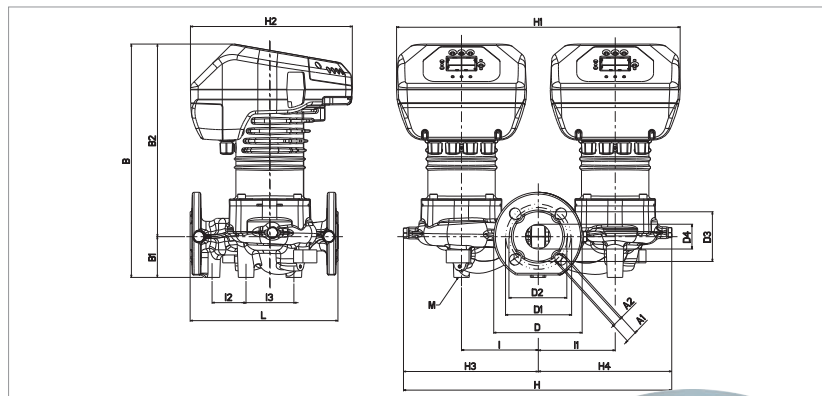
500 D 150/250.40 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							0°	90°	100°	
500 D 120/250.40 M	250	DN 40 PN 10	220/240 V	465	2,2	EEI ≤ 0,23	m.c.w.	20	25	38,8
500 D 150/250.40 M	250	DN 40 PN 10	220/240 V	610	2,9	EEI ≤ 0,23	m.c.w.	20	25	38,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
250	19	14	395	69	326	150	110	100	84	42

I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	58	81	M12	454	480	274	228	226

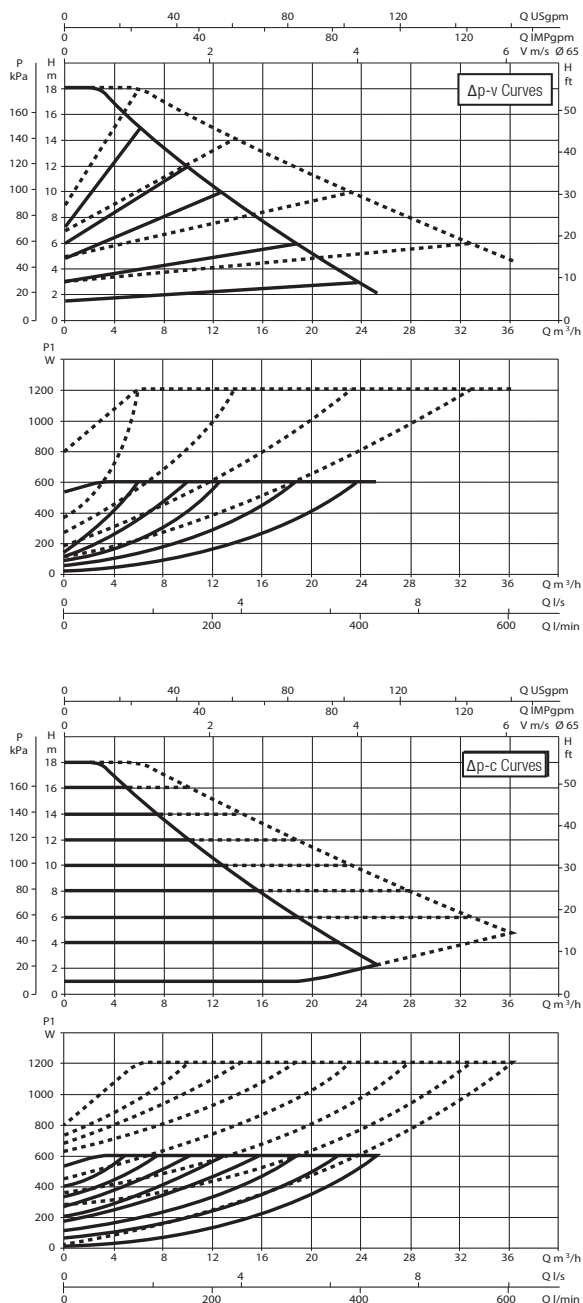




# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

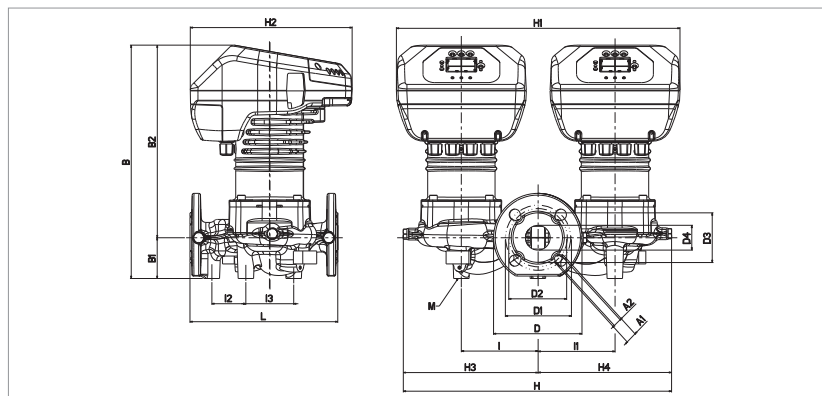
500 D 180/250.40 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 D 180/250.40 M</b>	250	DN 40 PN 10	220/240 V	610	2,9	EEI ≤ 0,23	m.c.w.	20	25	38,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
250	19	14	395	69	326	150	110	100	84	42

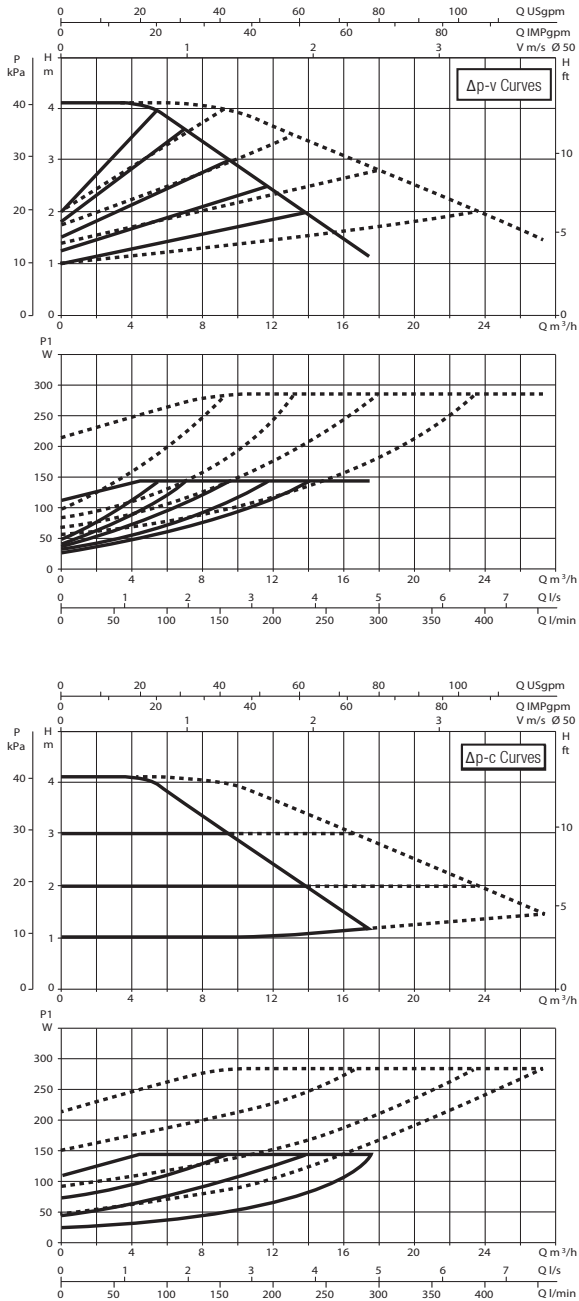
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	58	81	M12	454	480	274	228	226



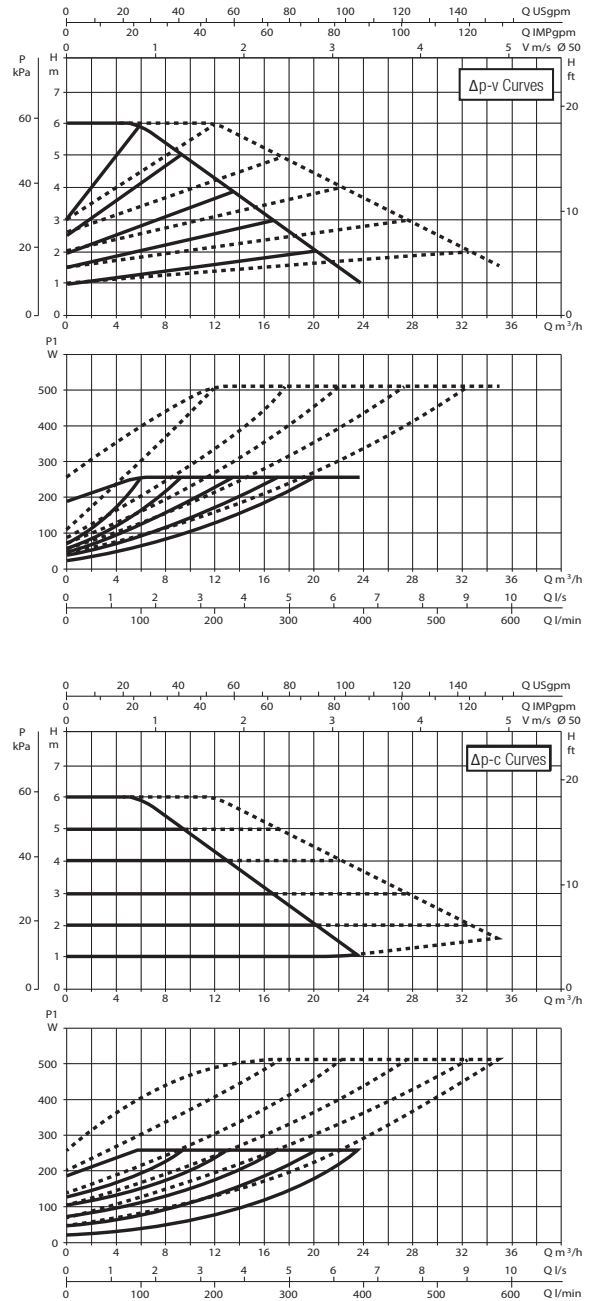
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 40/240.50 M



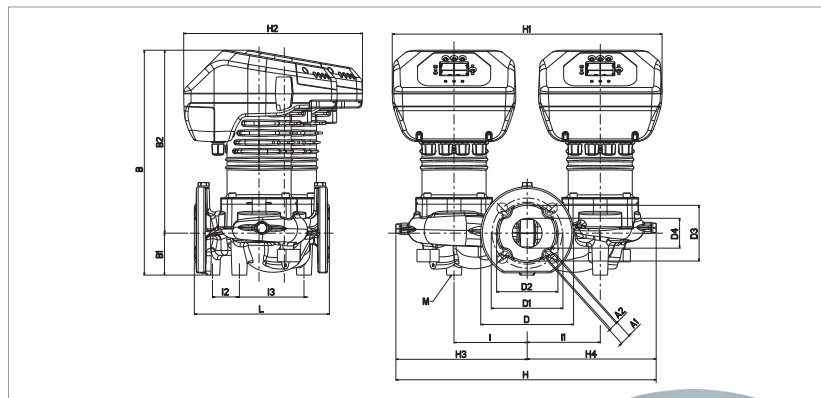
500 D 60/240.50 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 40/240.50 M	240	DN 50 PN 10	220/240 V	140	0,87	EEI ≤ 0,23	m.c.w.	20	25	40
500 D 60/240.50 M	240	DN 50 PN 10	220/240 V	260	1,35	EEI ≤ 0,22	m.c.w.	20	25	40

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
240	19	14	400	75	325	165	125	110	99	53

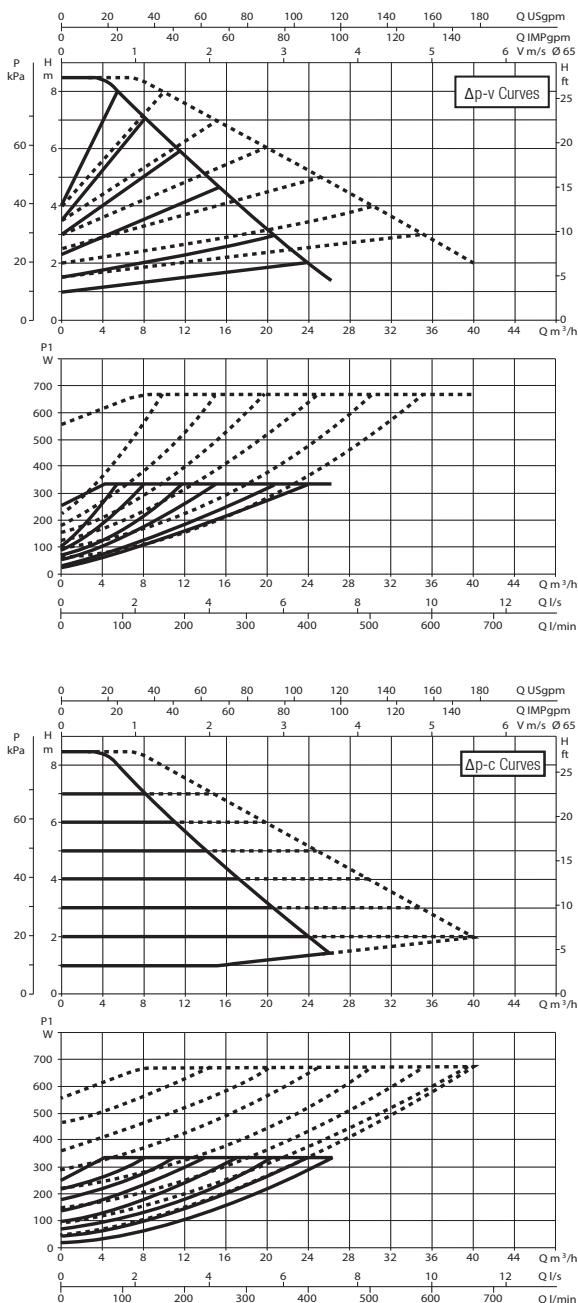
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	48	115	M12	463	480	318	233	230



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

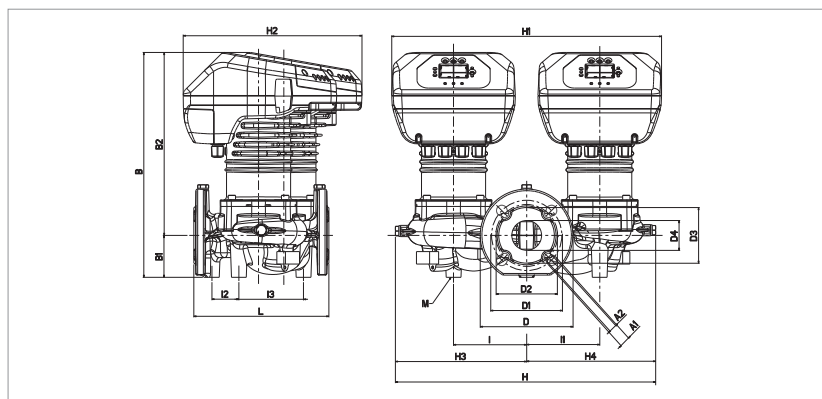
500 D 80/240.50 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 80/240.50 M	240	DN 50 PN 10	220/240 V	330	1,7	EEI ≤ 0,22	m.c.w.	20	25	40

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
240	19	14	400	75	325	165	125	110	99	53

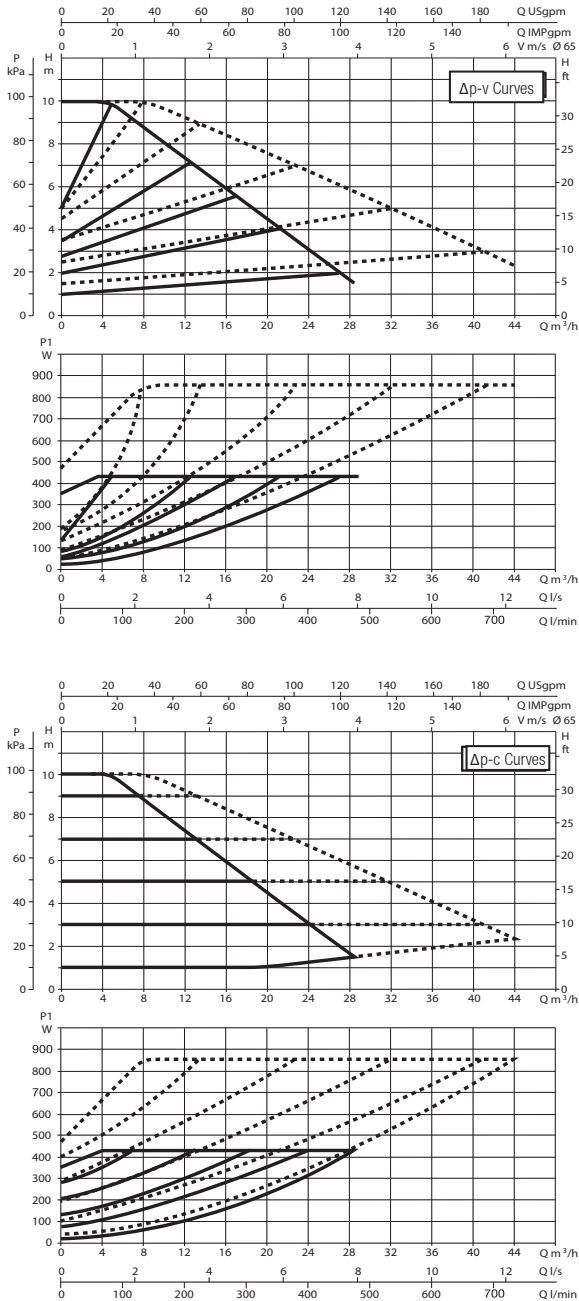
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	48	115	M12	463	480	318	233	230



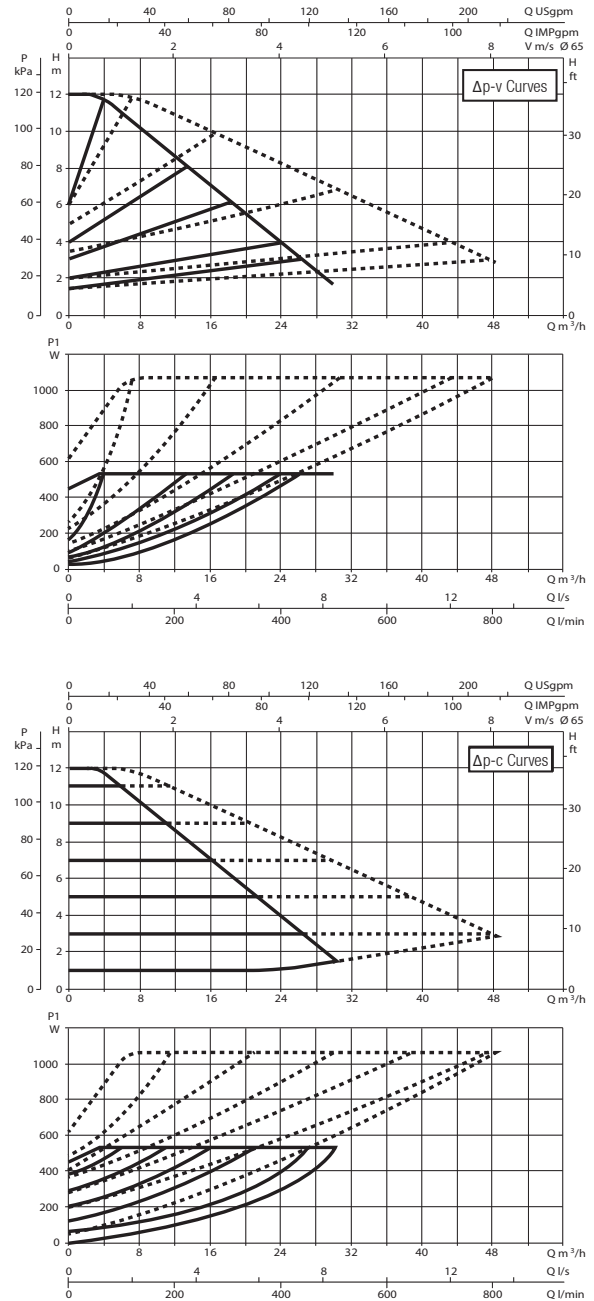
# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 100/280.50 M



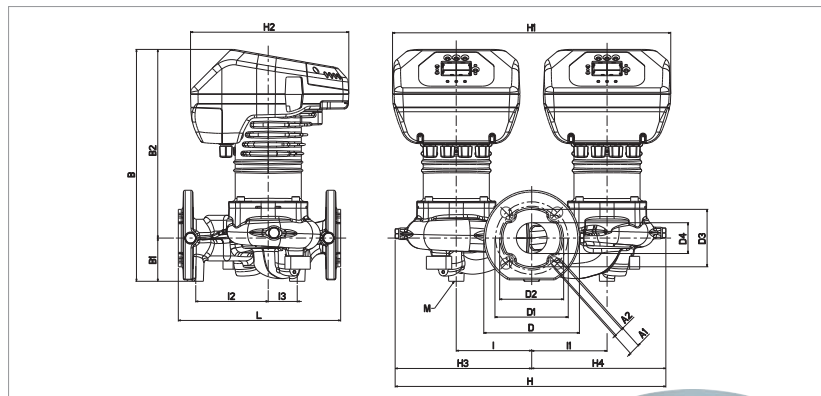
500 D 120/280.50 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							°	90°	100°	
500 D 100/280.50 M	280	DN 50 PN 10	220/240 V	430	2,1	EEI ≤ 0,22	m.c.w.	20	25	39,4
500 D 120/280.50 M	280	DN 50 PN 10	220/240 V	530	2,5	EEI ≤ 0,22	m.c.w.	20	25	39,6

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



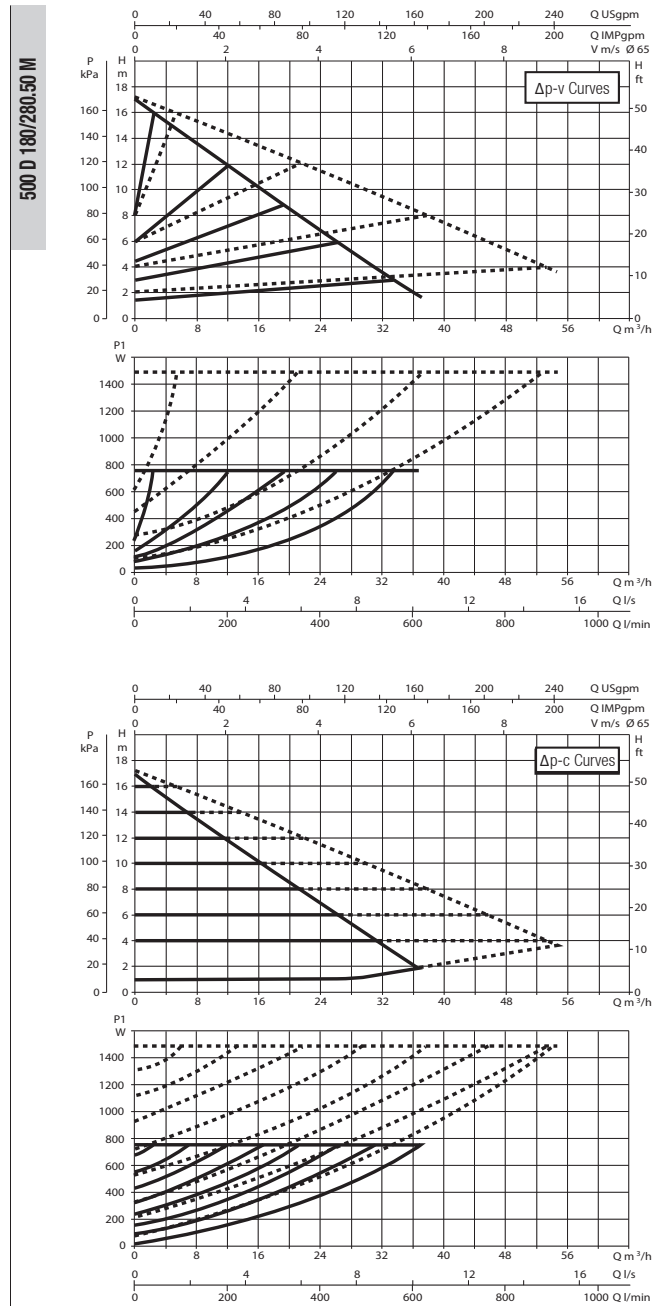
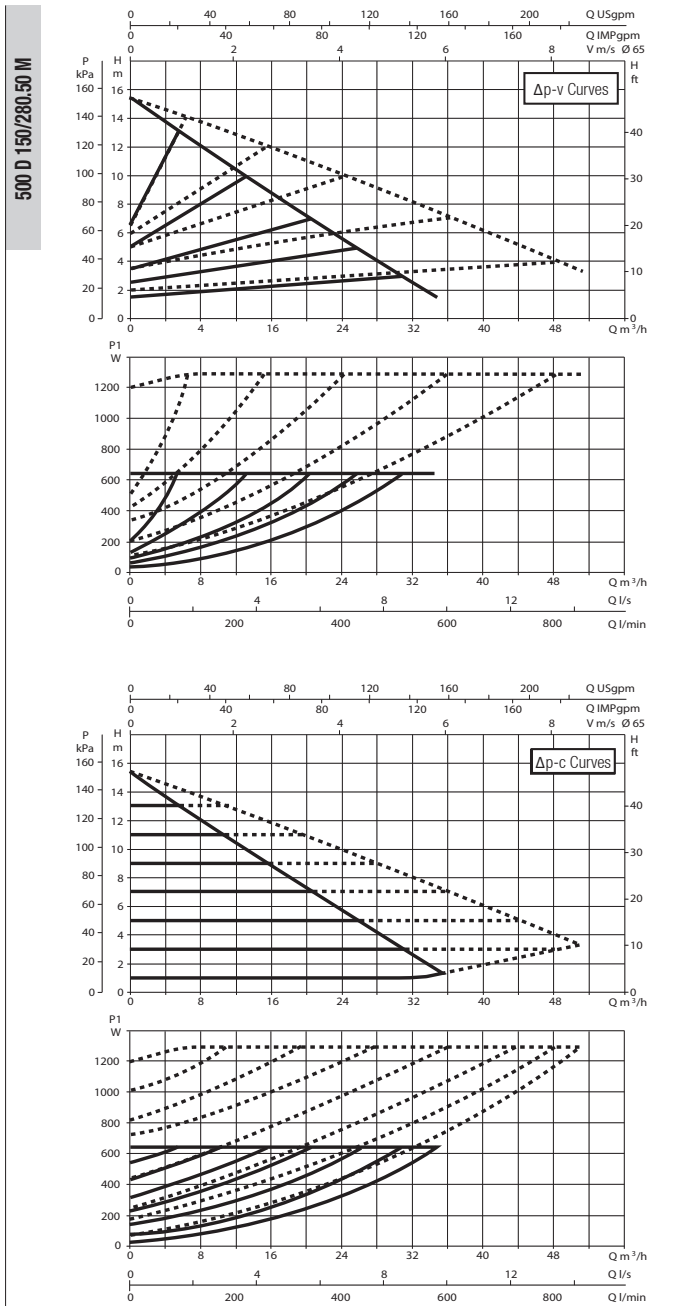
L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
280	19	14	400	75	325	165	125	110	99	53

I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	125	50	M12	467	480	273	235	232



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

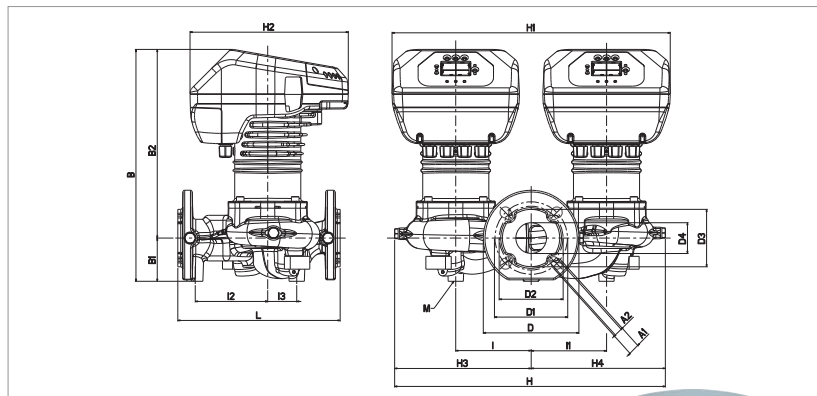
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
<b>500 D 150/280.50 M</b>	280	DN 50 PN 10	220/240 V	640	3	EEI ≤ 0,21	m.c.w.	20	25	41,6
<b>500 D 180/280.50 M</b>	280	DN 50 PN 10	220/240 V	750	3,45	EEI ≤ 0,21	m.c.w.	20	25	41,6

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	A1	A2	B	B1	B2	D	D1	D2	D3	D4
280	19	14	400	75	325	165	125	110	99	53

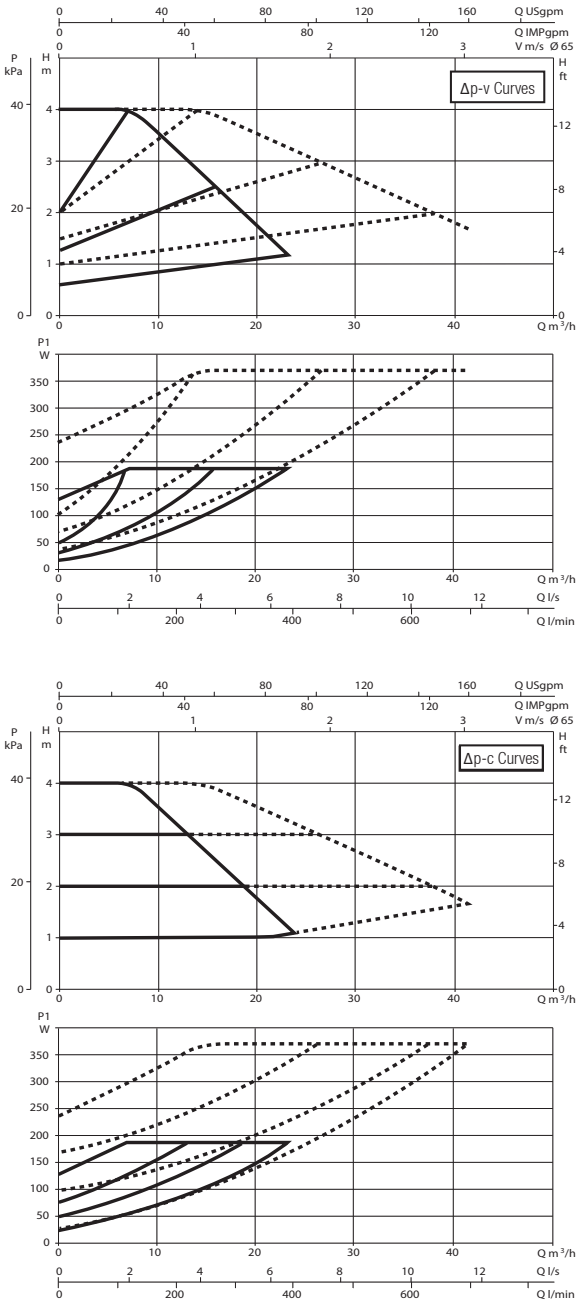
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	125	50	M12	467	480	273	235	232



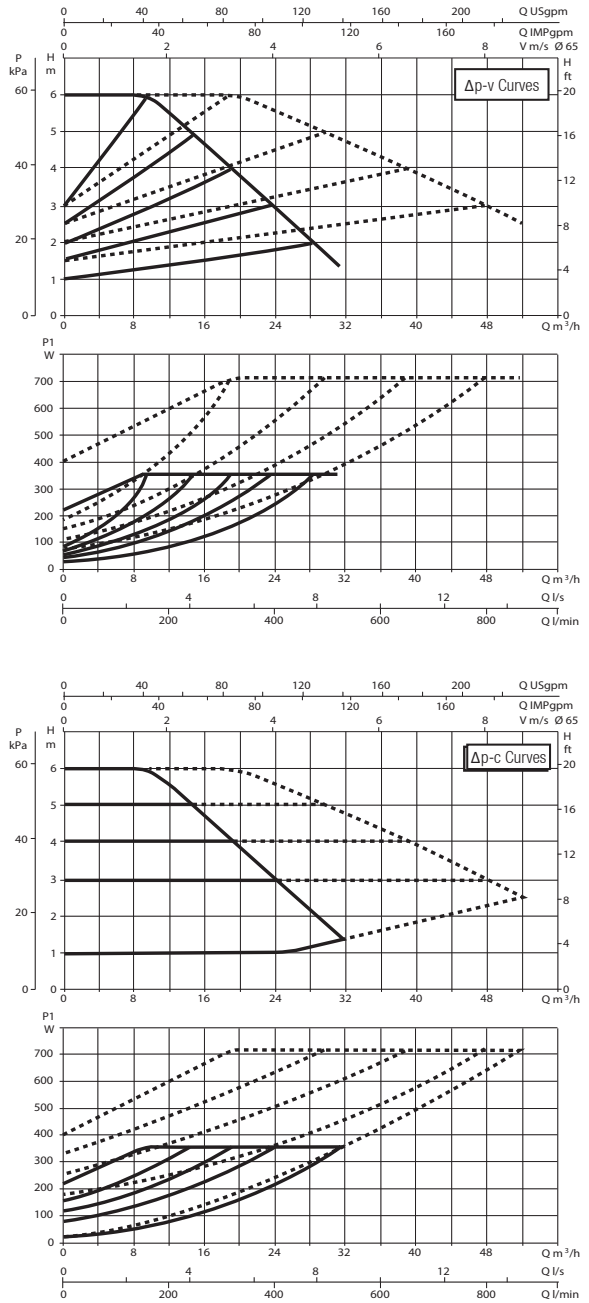
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 40/340.65 M



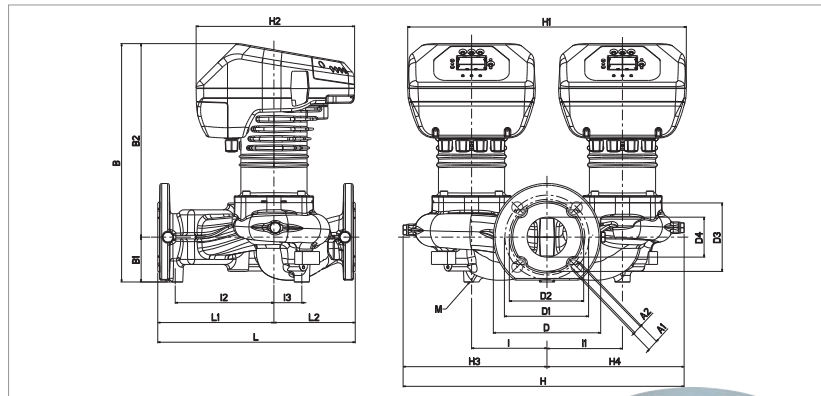
500 D 60/340.65 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 40/340.65 M	340	DN 65 PN 10	220/240 V	190	1,1	EEI ≤ 0,21	m.c.w.	20	25	43,4
500 D 60/340.65 M	340	DN 65 PN 10	220/240 V	355	1,8	EEI ≤ 0,21	m.c.w.	20	25	43,4

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



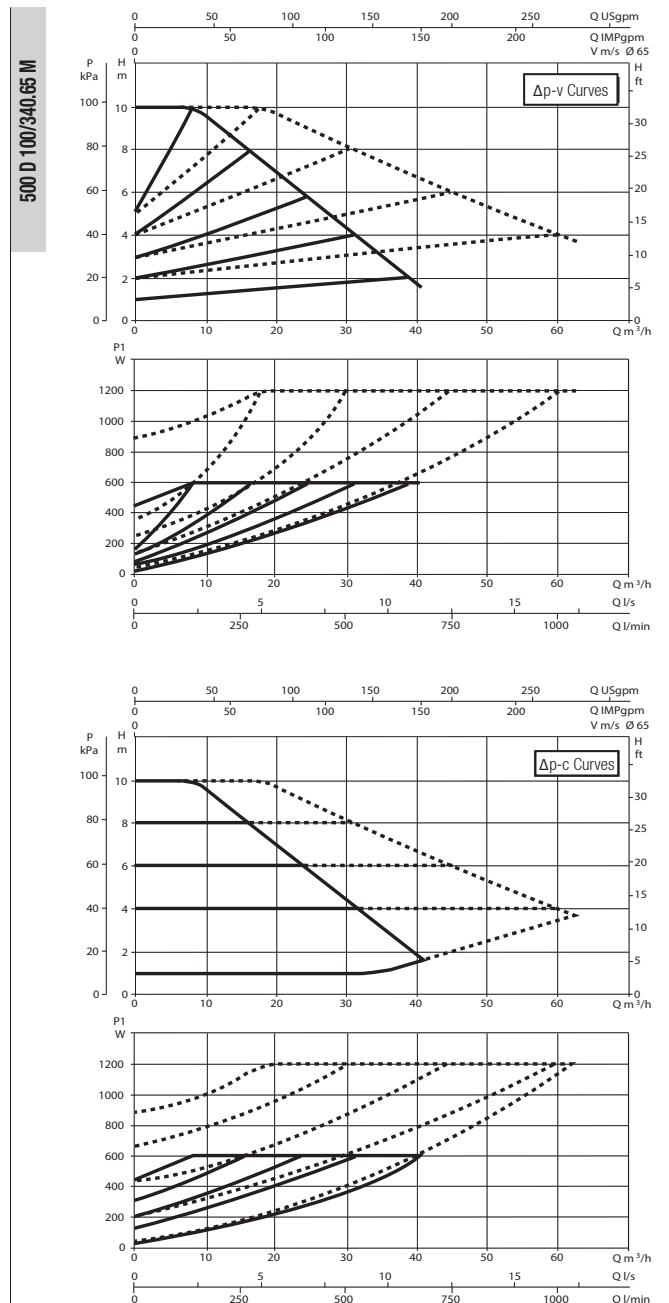
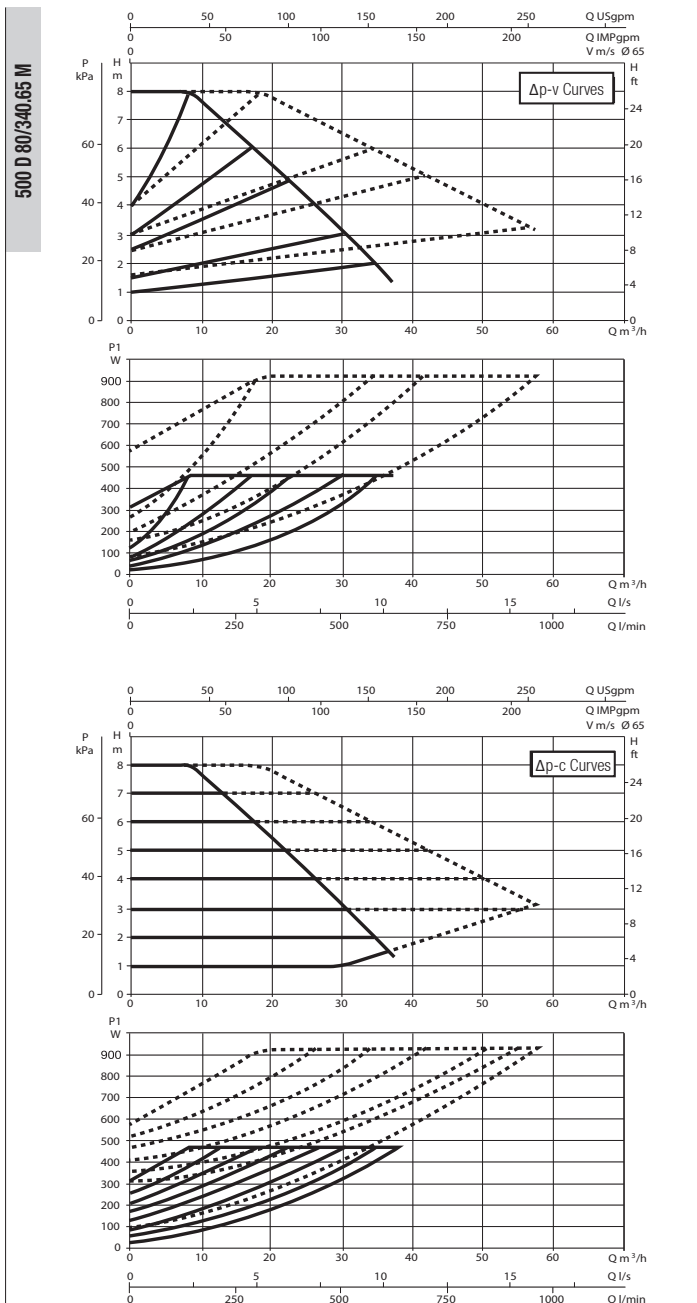
L	L1	L2	A1	A2	B	B1	B2	D	D1	D2	D3
340	200	140	19	14	411	77	334	185	145	130	118

D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
69	130	130	170	48	M12	484	480	273	248	236



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

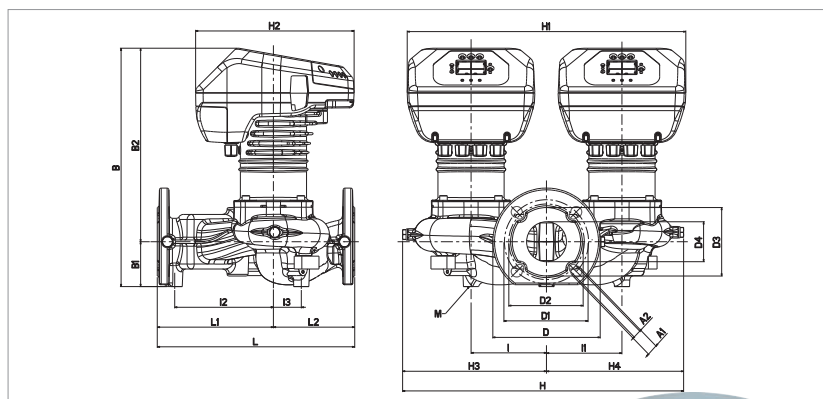
Pumped liquid temperature range: from -10 °C to +110°C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 80/340.65 M	340	DN 65 PN 10	220/240 V	465	2,2	EEI ≤ 0,21	m.c.w.	20	25	43,4
500 D 100/340.65 M	340	DN 65 PN 10	220/240 V	590	2,8	EEI ≤ 0,20	m.c.w.	20	25	44,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2	D	D1	D2	D3
340	200	140	19	14	411	77	334	185	145	130	118

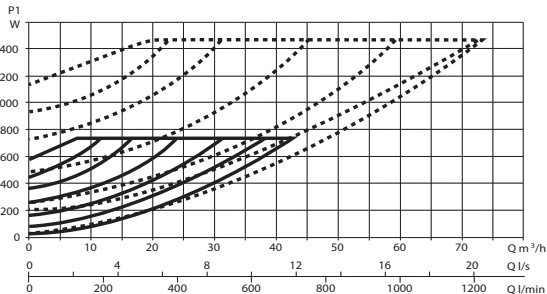
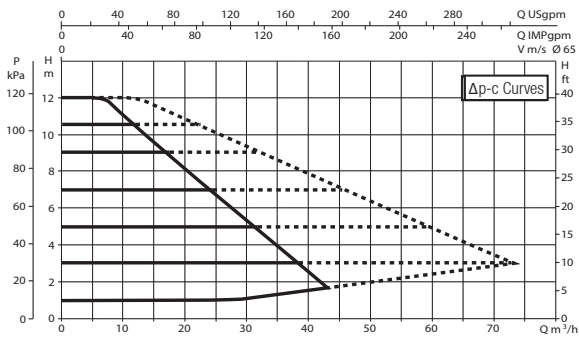
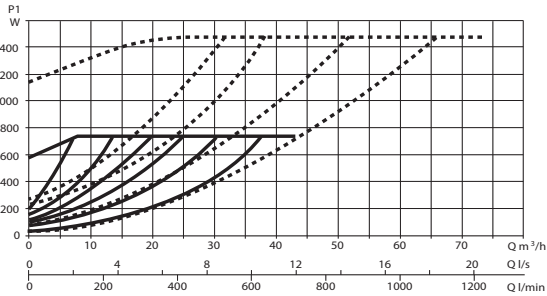
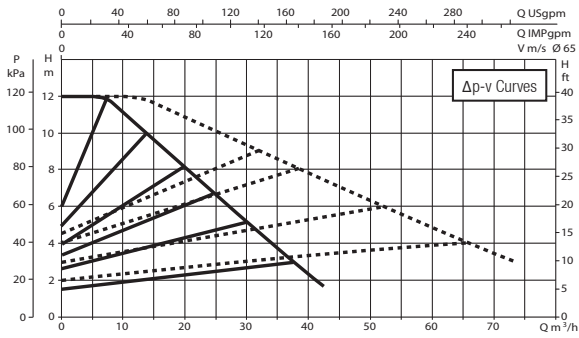
D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
69	130	130	170	48	M12	484	480	273	248	236



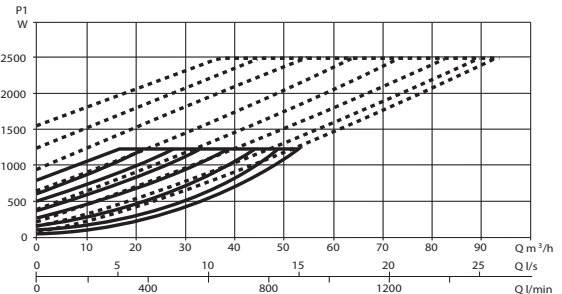
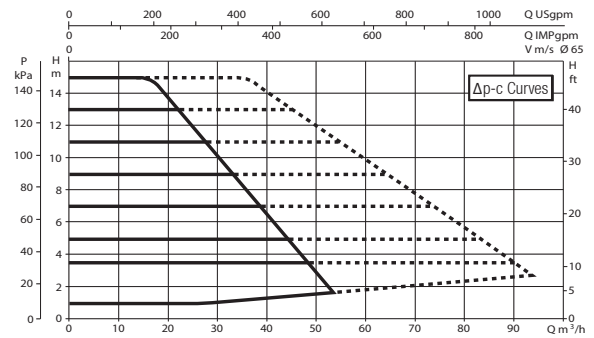
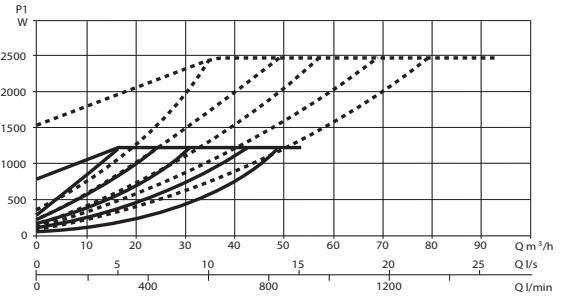
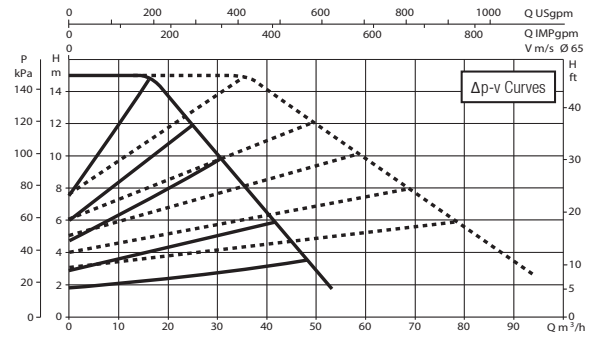
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 120/340.65 M



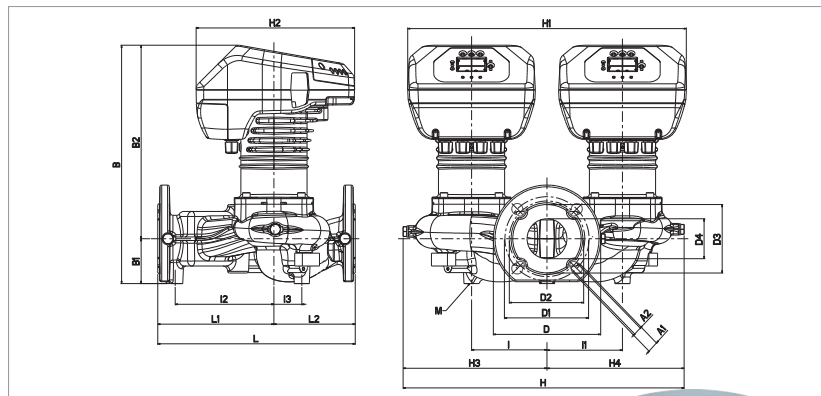
500 D 150/340.65 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							°	90°	100°	
500 D 120/340.65 M	340	DN 65 PN 10	220/240 V	730	3,45	EEI ≤ 0,20	m.c.w.	20	25	45
500 D 150/340.65 M	340	DN 65 PN 10	220/240 V	1210	5,5	EEI ≤ 0,20	m.c.w.	20	25	49,4

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	A2	B	B1	B2	D	D1	D2	D3
340	200	140	19	14	411	77	334	185	145	130	118

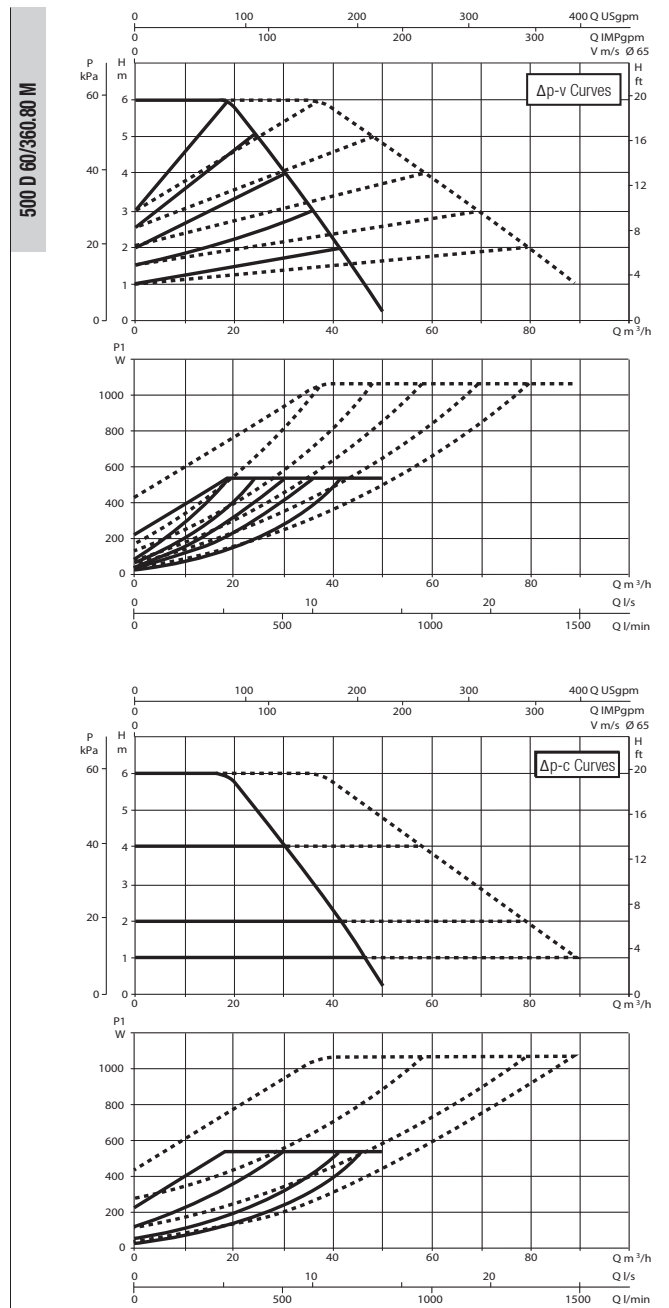
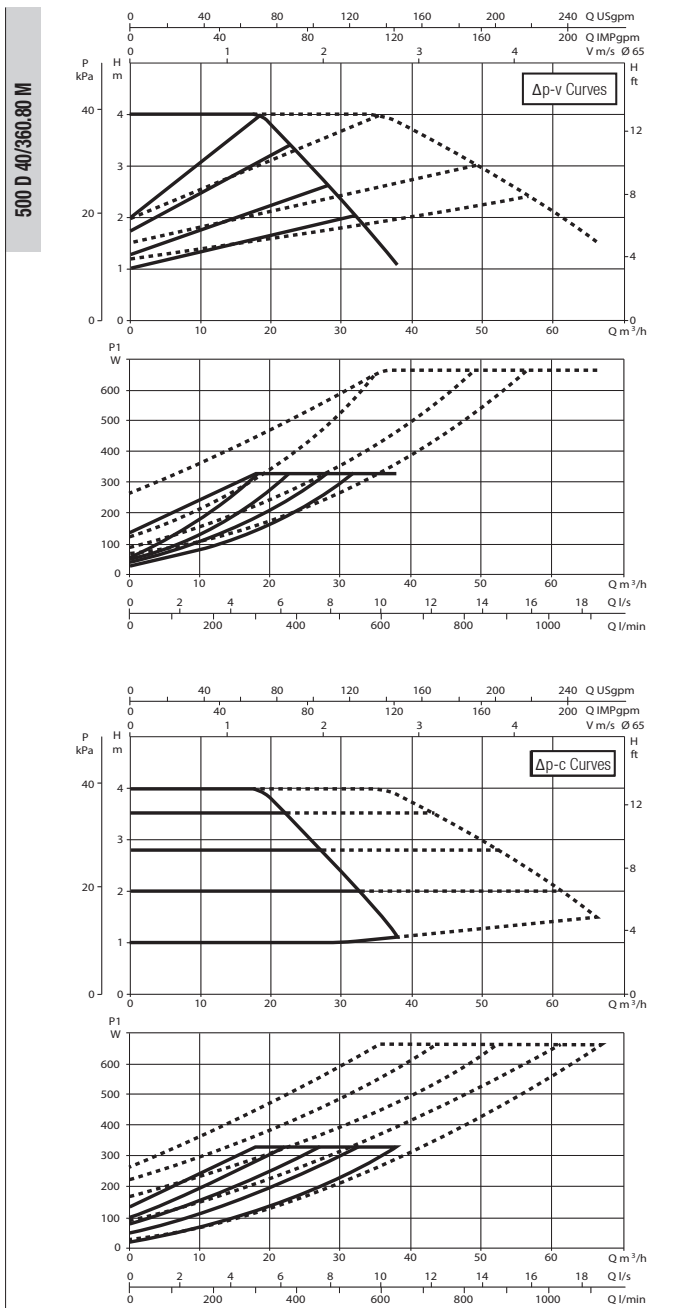
D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
69	130	130	170	48	M12	484	480	273	248	236





# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED PN 16

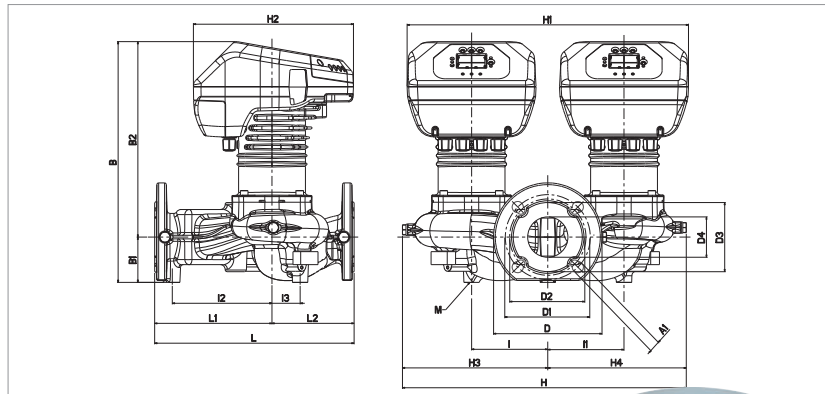
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 40/360.80 M	360	DN 80 PN 16	220/240 V	330	1,65	EEI ≤ 0,20	m.c.w.	20	25	52
500 D 60/360.80 M	360	DN 80 PN 16	220/240 V	535	2,5	EEI ≤ 0,20	m.c.w.	20	25	52

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D	D1	D3	D4
360	200	160	19	437	96	341	200	160	132	80

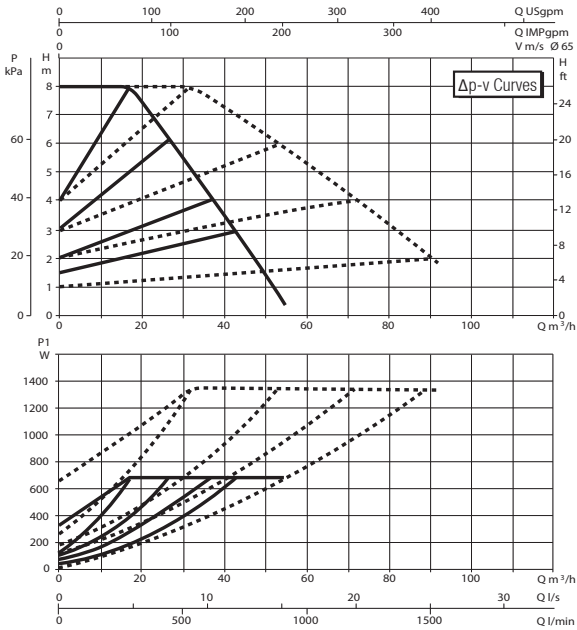
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	160	58	M12	515	480	273	262	253



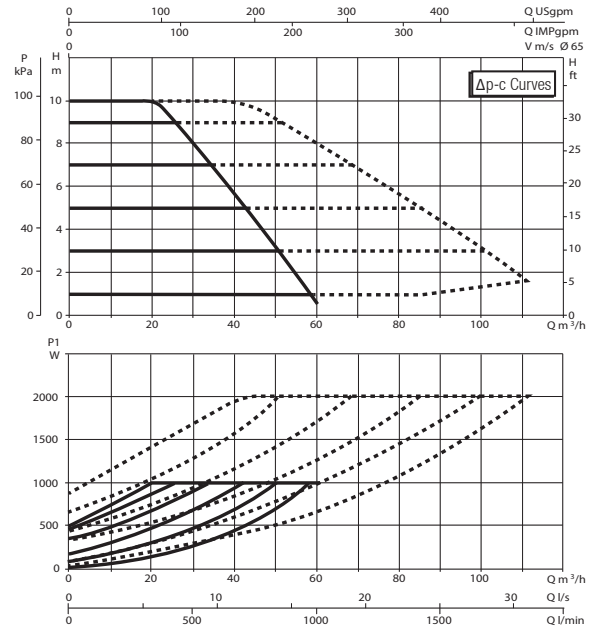
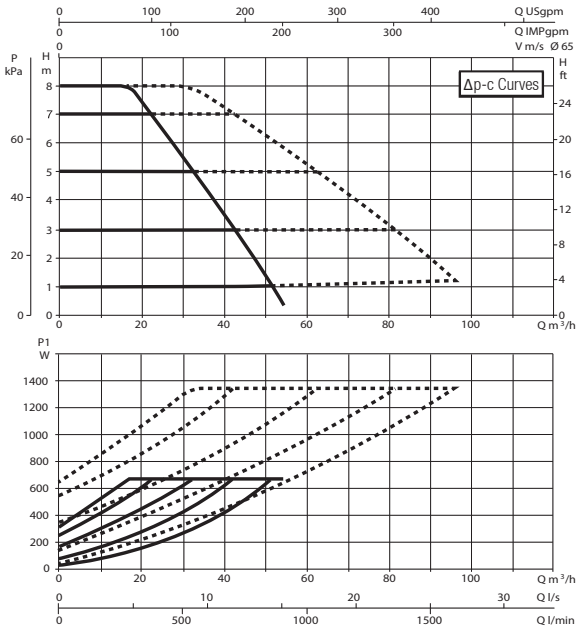
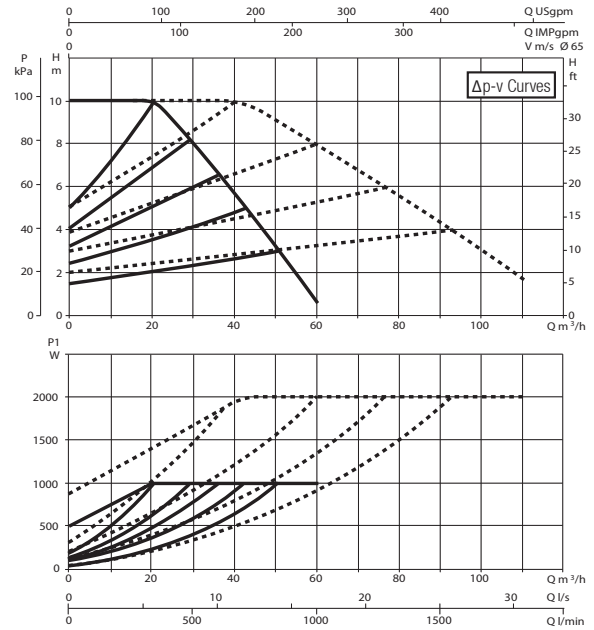
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 80/360.80 M



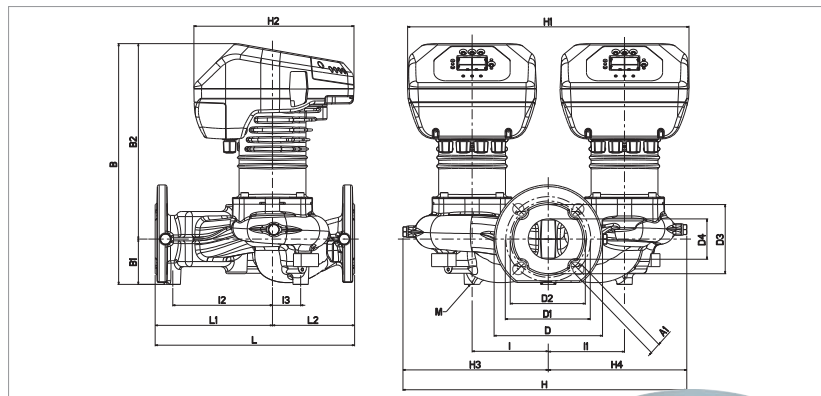
500 D 100/360.80 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 80/360.80 M	360	DN 80 PN 16	220/240 V	670	3	EEI ≤ 0,20	m.c.w.	20	25	57
500 D 100/360.80 M	360	DN 80 PN 16	220/240 V	1005	4,5	EEI ≤ 0,19	m.c.w.	20	25	56

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D	D1	D3	D4
360	200	160	19	437	96	341	200	160	132	80

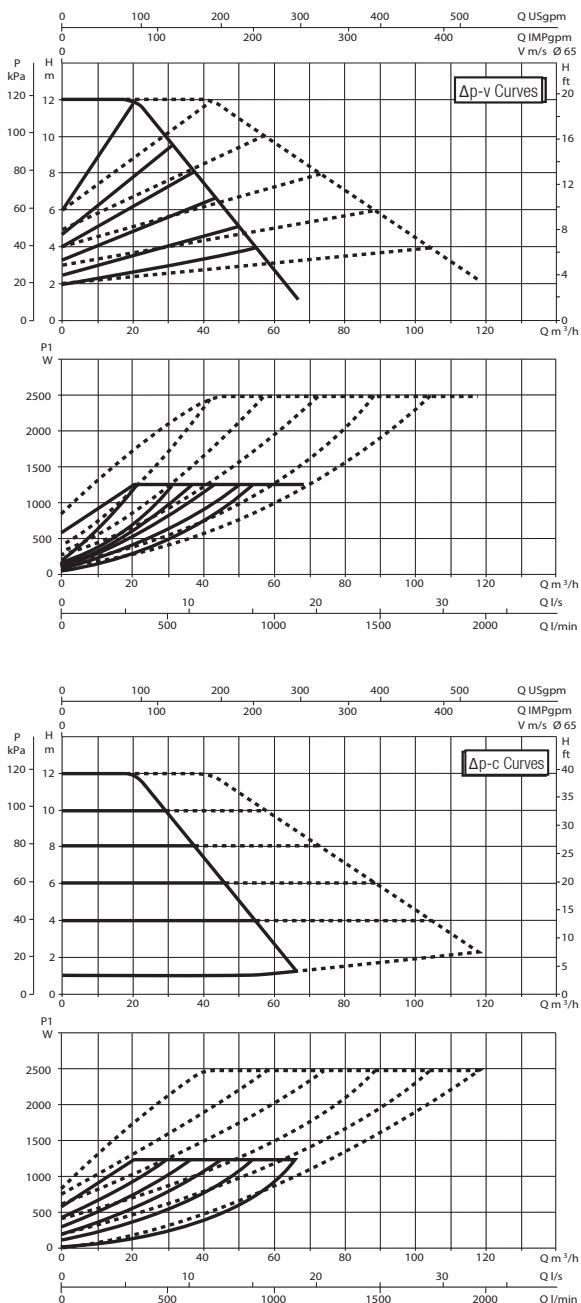
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	160	58	M12	515	480	273	262	253



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

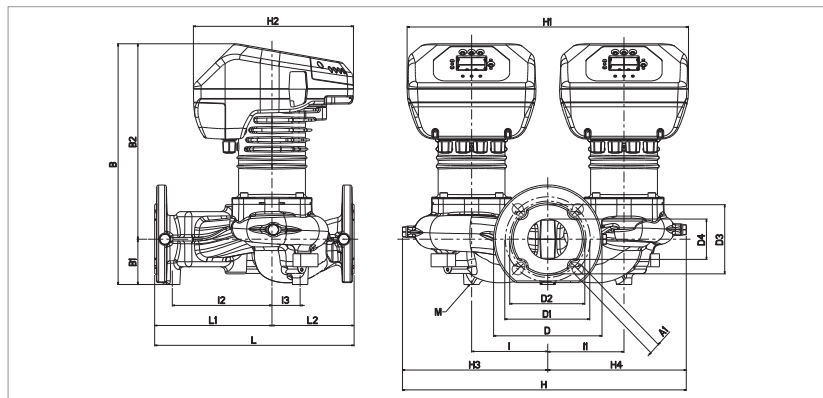
500 D 120/360.80 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 120/360.80 M	360	DN 80 PN 16	220/240 V	1235	5,5	EEI ≤ 0,19	m.c.w.	20	25	56,4

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D	D1	D3	D4
360	200	160	19	437	96	341	200	160	132	80

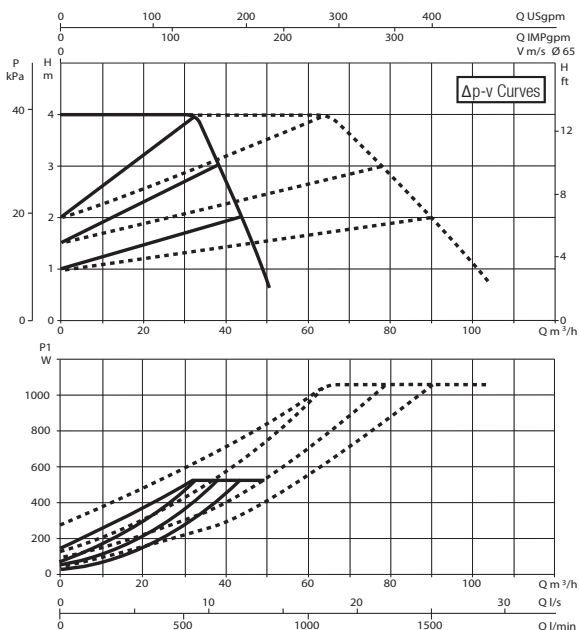
I	I1	I2	I3	M	H	H1	H2	H3	H4
130	130	160	58	M12	515	480	273	262	253



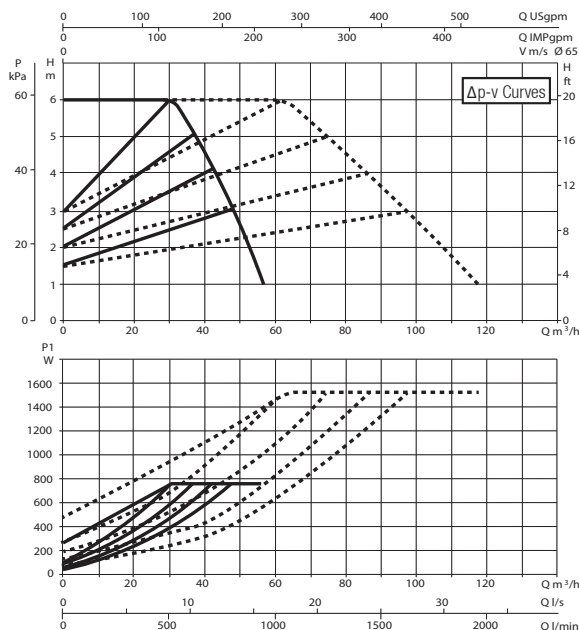
## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 D 40/450,100 M



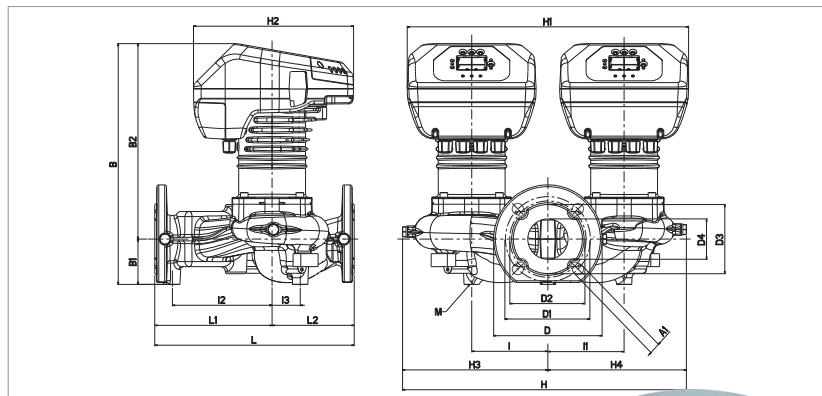
500 D 60/450,100 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 40/450,100 M	450	DN 100 PN 16	220/240 V	530	2,5	EEI ≤ 0,19	m.c.w.	20	25	67,8
500 D 60/450,100 M	450	DN 100 PN 16	220/240 V	760	3,5	EEI ≤ 0,19	m.c.w.	20	25	67,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



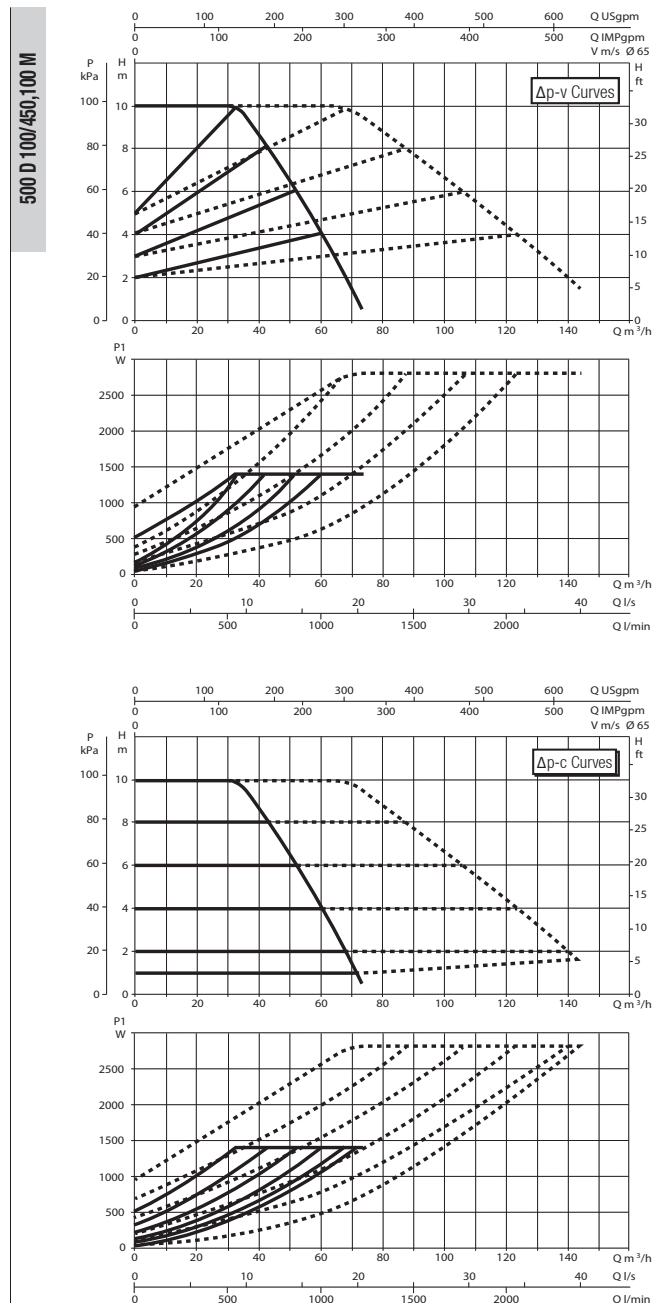
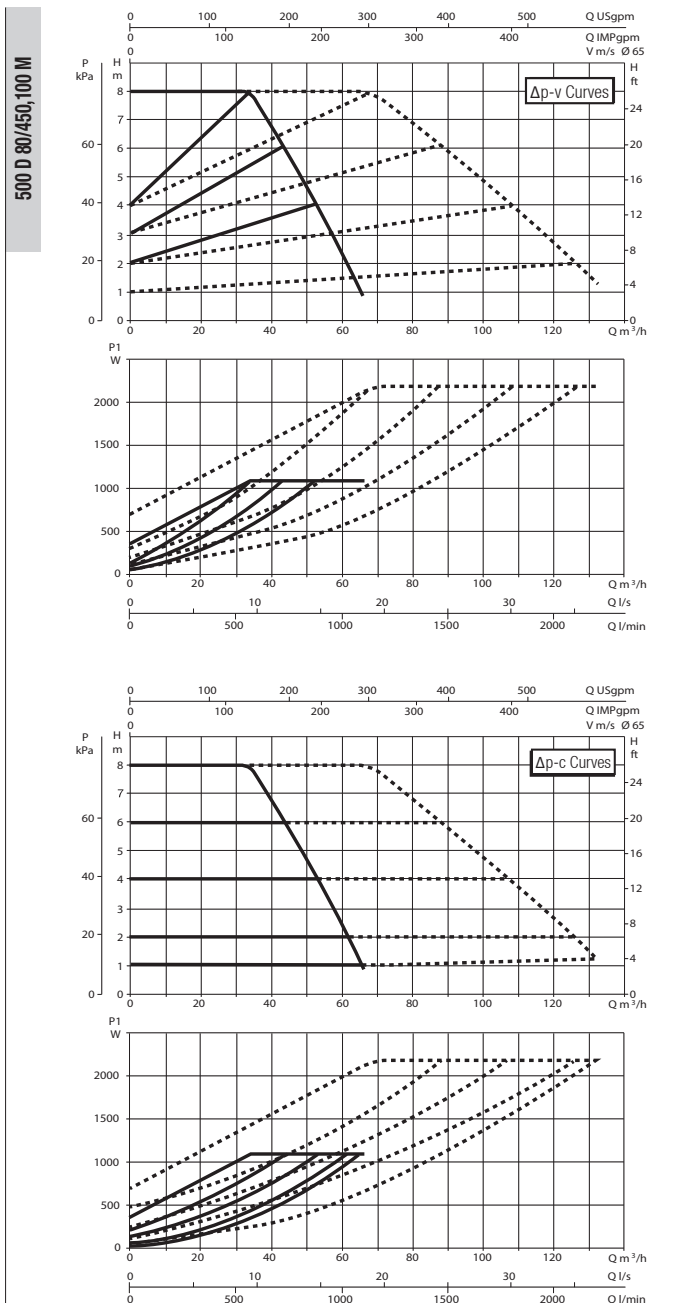
L	L1	L2	A1	B	B1	B2	D	D1	D3	D4
450	260	190	19	456	103	353	220	180	156	105

I	I1	I2	I3	M	H	H1	H2	H3	H4
135	135	200	43	12	517	490	273	265	252



# 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED PN 16

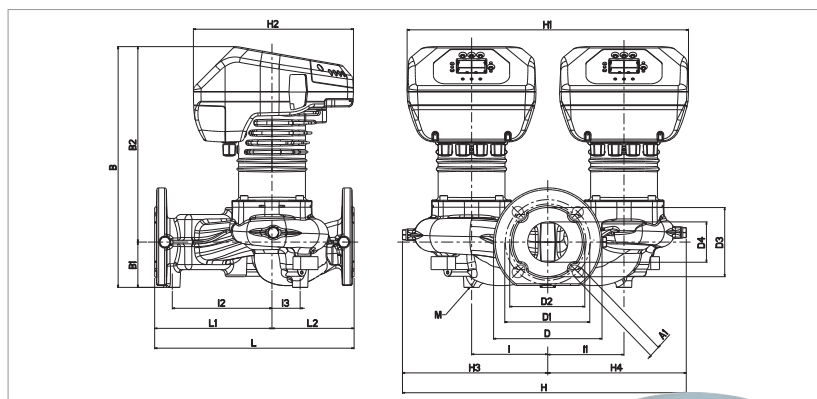
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 80/450,100 M	450	DN 100 PN 16	220/240 V	1080	4,8	EEI ≤ 0,20	m.c.w.	20	25	68
500 D 100/450,100 M	450	DN 100 PN 16	220/240 V	1380	6	EEI ≤ 0,20	m.c.w.	20	25	68

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



L	L1	L2	A1	B	B1	B2	D	D1	D3	D4
450	260	190	19	456	103	353	220	180	156	105

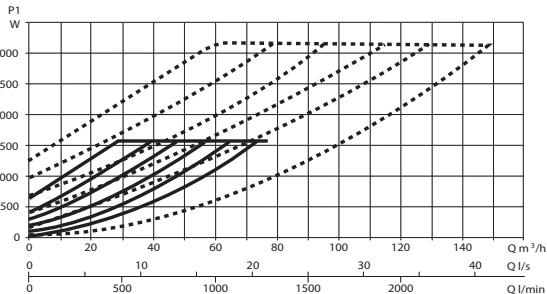
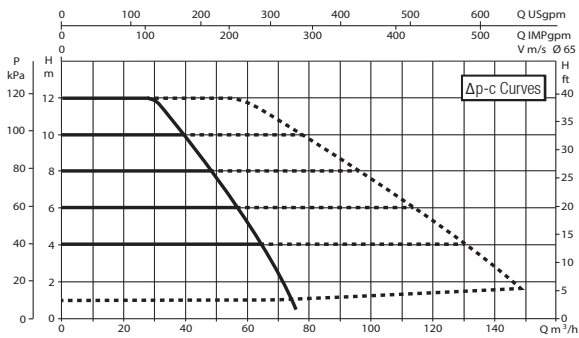
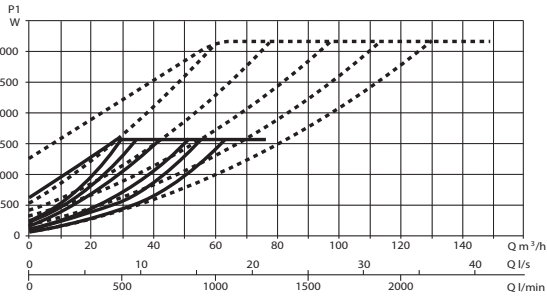
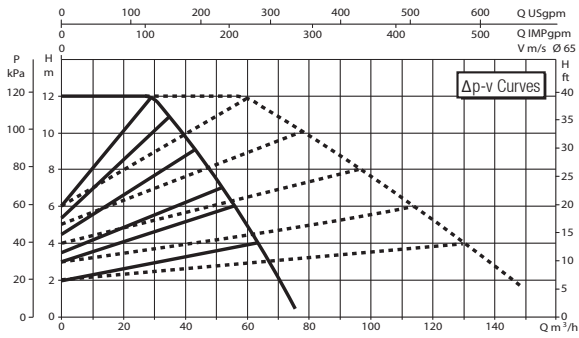
I	I1	I2	I3	M	H	H1	H2	H3	H4
135	135	200	43	12	517	490	273	265	252



## 500 - ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS - TWIN, FLANGED PN 16

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

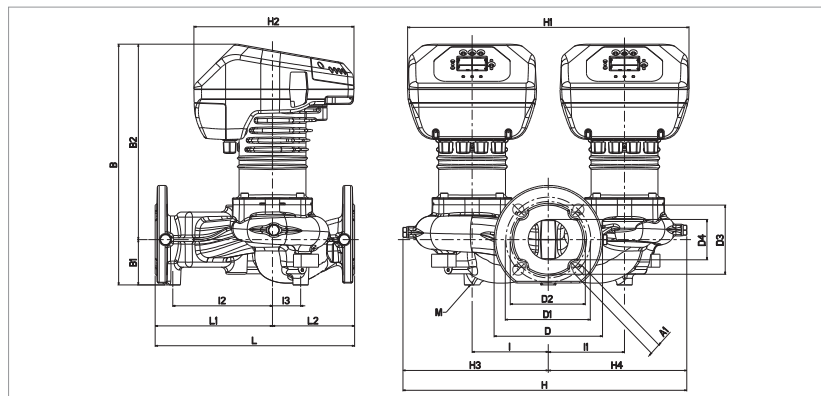
500 D 120/450,100 M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	EEI *	MINIMUM SUCTION PRESSURE			WEIGHT kg
							t°	90°	100°	
500 D 120/450,100 M	450	DN 100 PN 16	220/240 V	1560	7	EEI ≤ 0,20	m.c.w.	20	25	67,8

The parameter of reference for the more efficient circulators is EEI ≤ 0,20.



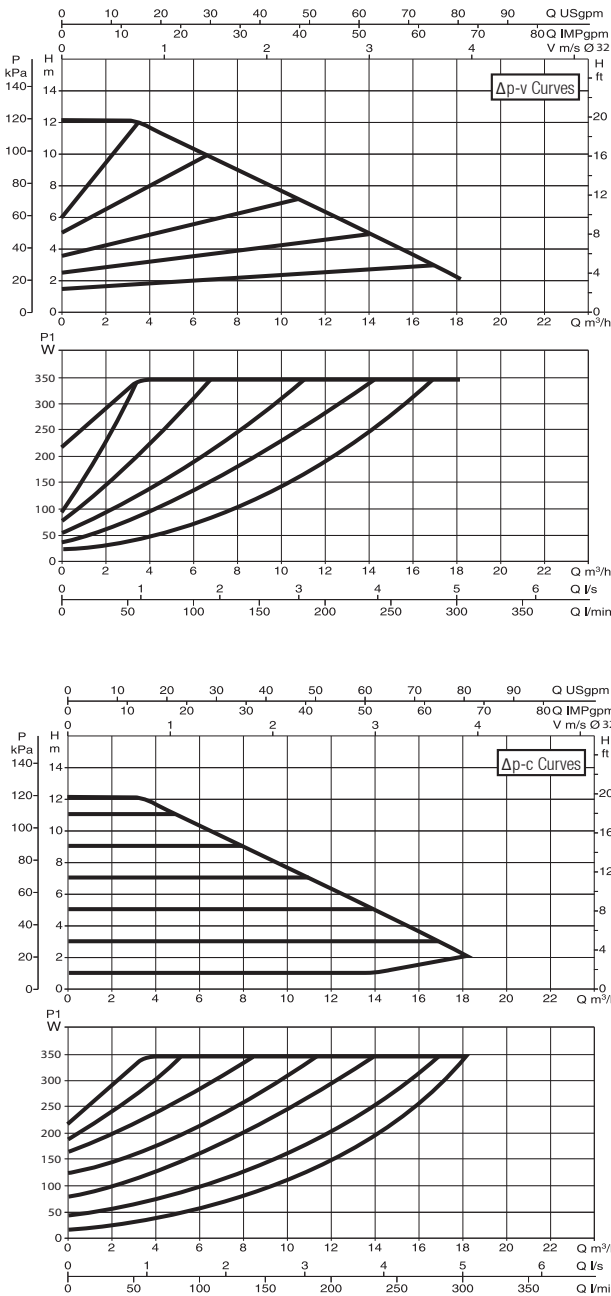
L	L1	L2	A1	B	B1	B2	D	D1	D3	D4
450	260	190	19	456	103	353	220	180	156	105

I	I1	I2	I3	M	H	H1	H2	H3	H4
135	135	200	43	12	517	490	273	265	252

# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

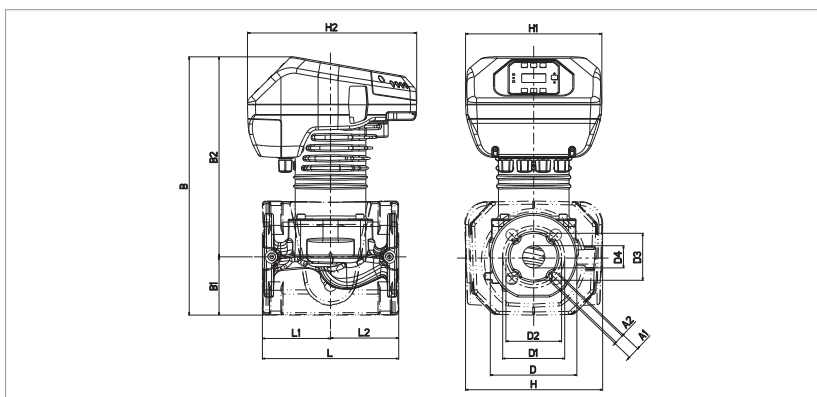
Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 120/220.32 SAN M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
500 B 120/220.32 SAN M	220	DN 32 PN 6	220/240 V	340	1,7	m.c.w.	20	25	24



L	L1	L2	A1	A2	B	B1	B2
220	110	110	19	14	417	94	323

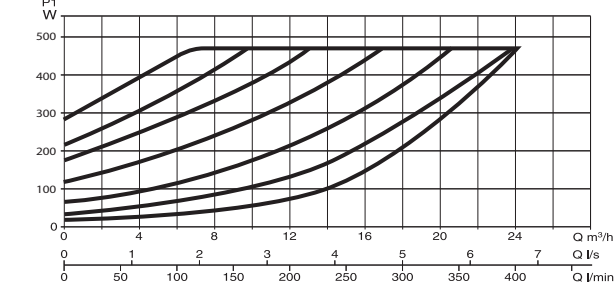
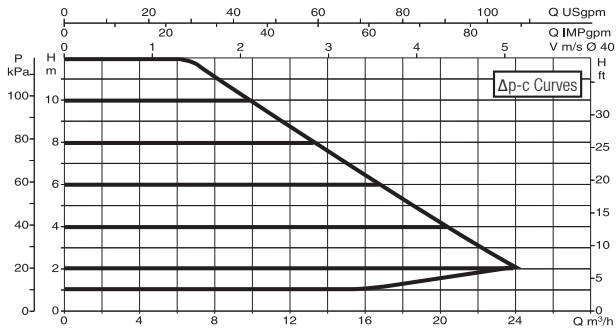
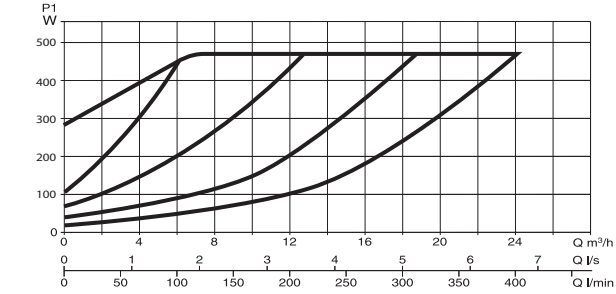
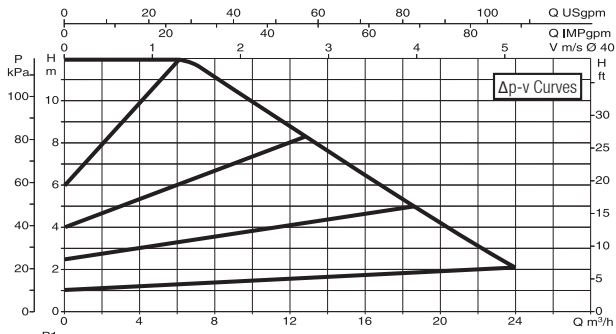
D	D1	D2	D3	D4	H	H1	H2
140	100	90	76	36	222	220	273



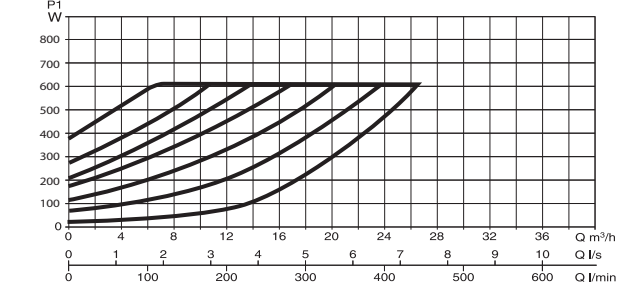
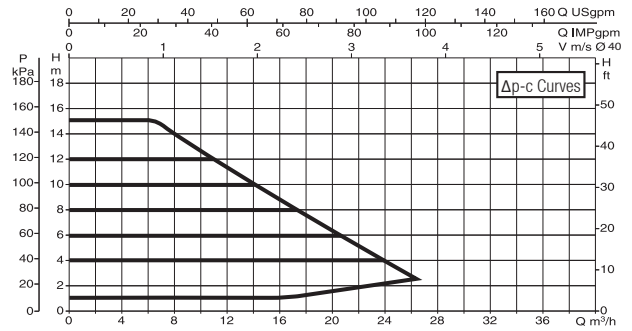
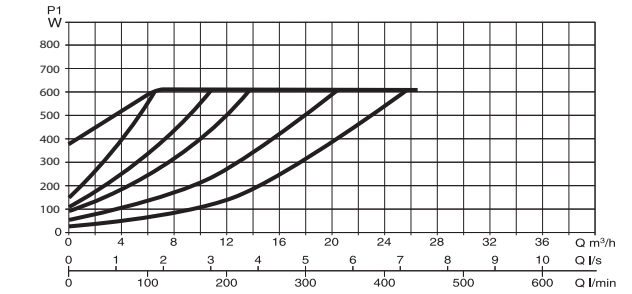
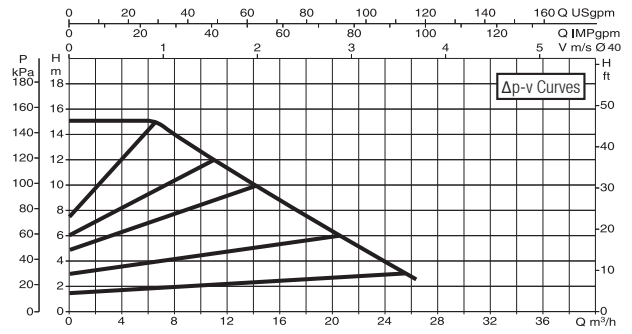
# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 120/250.40 SAN M

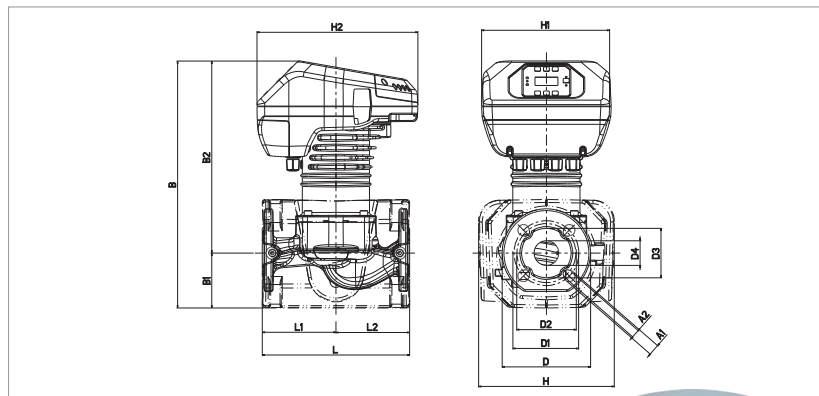


500 B 150/250.40 SAN M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
500 B 120/250.40 SAN M	250	DN 40 PN 10	220/240 V	465	2,2	m.c.w.	20	25	22
500 B 150/250.40 SAN M	250	DN 40 PN 10	220/240 V	610	2,9	m.c.w.	20	25	20



L	L1	L2	A1	A2	B	B1	B2
250	125	125	19	14	419	93	326

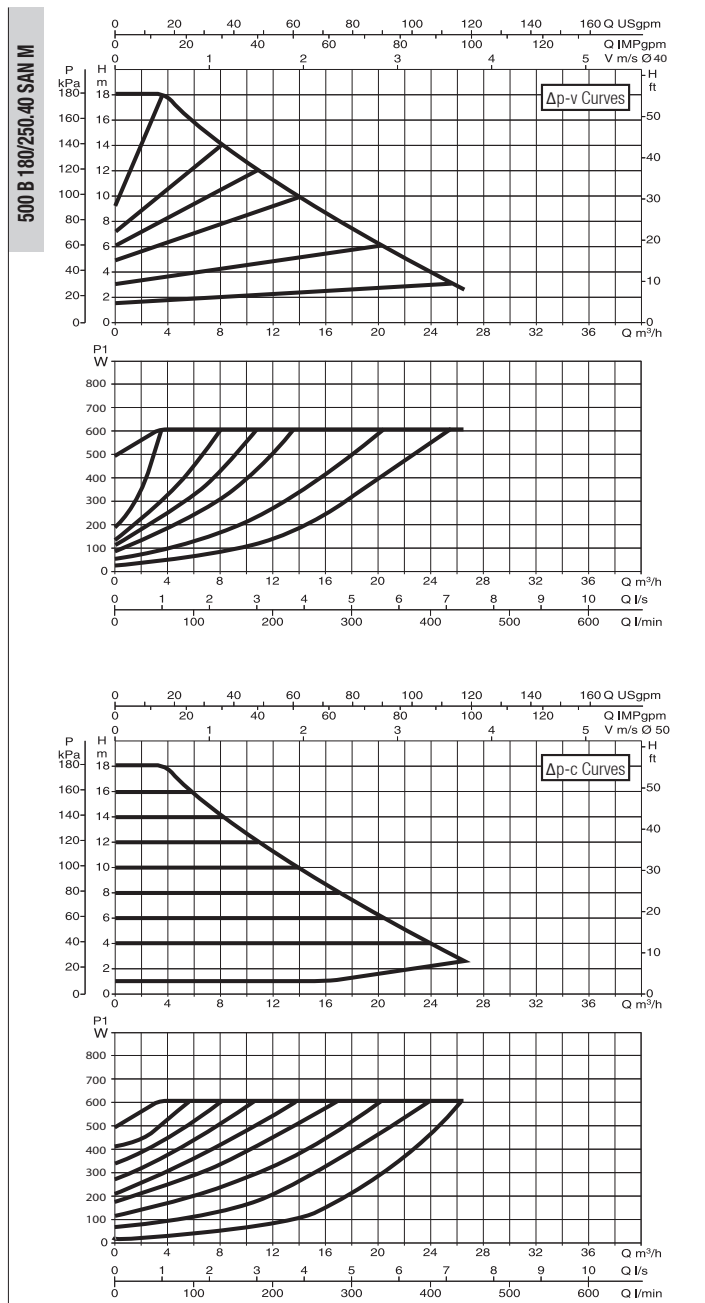
D	D1	D2	D3	D4	H	H1	H2
150	110	100	84	42	230	220	273





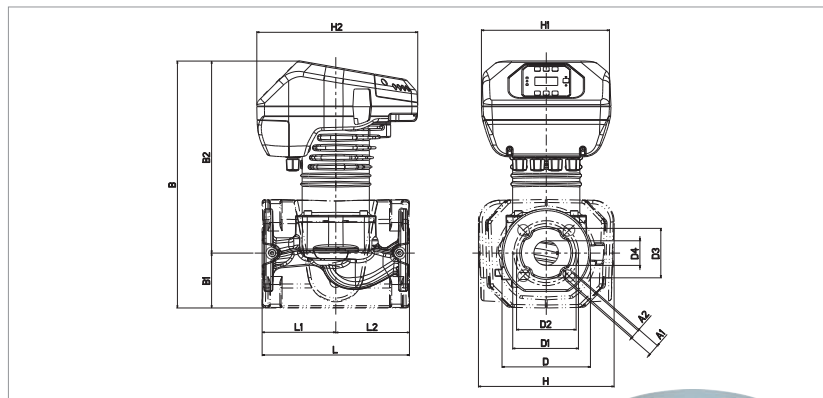
# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
<b>500 B 180/250.40 SAN M</b>	250	DN 40 PN 10	220/240 V	610	2,9	m.c.w.	20	25	20



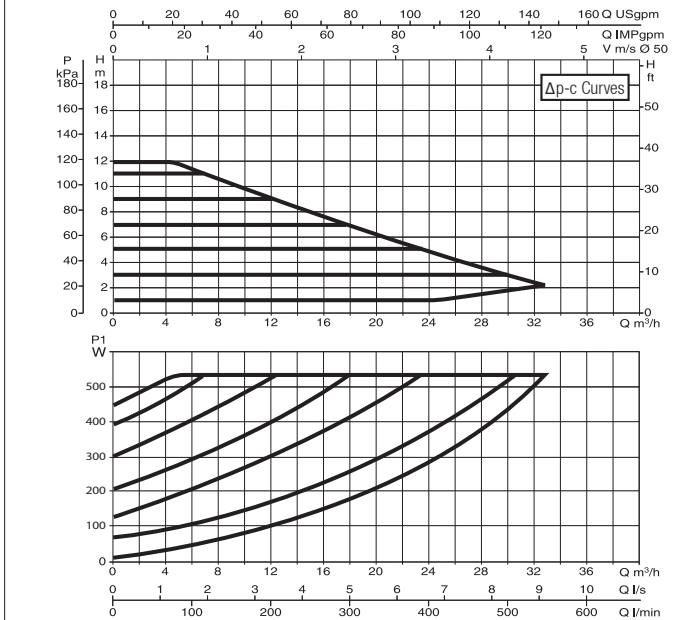
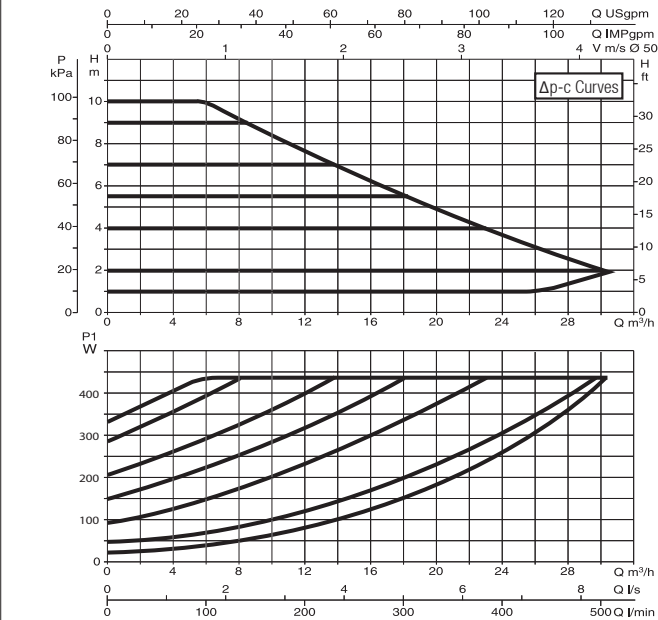
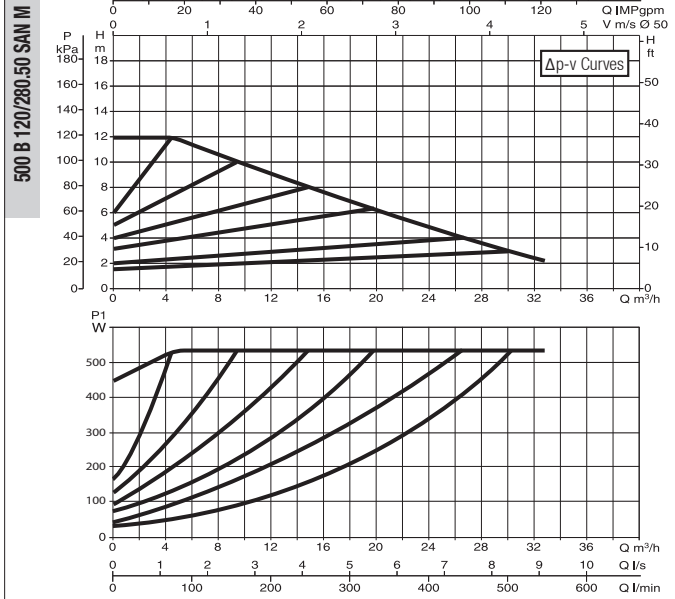
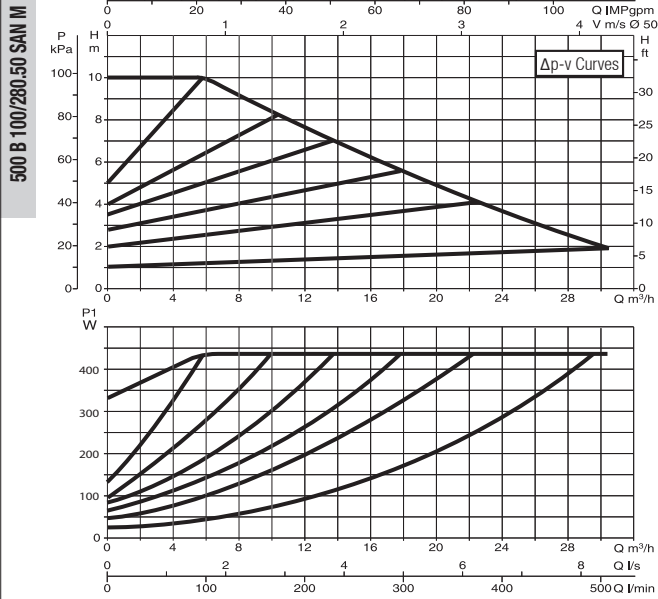
L	L1	L2	A1	A2	B	B1	B2
250	125	125	19	14	419	93	326

D	D1	D2	D3	D4	H	H1	H2
150	110	100	84	42	230	220	273



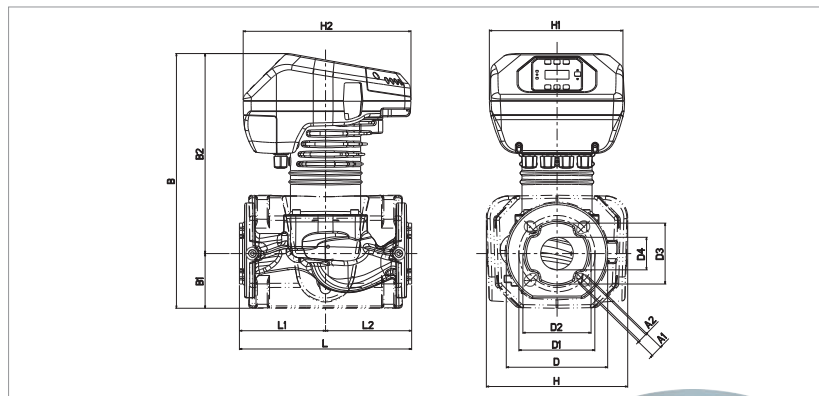
# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
500 B 100/280.50 SAN M	280	DN 50 PN 10	220/240 V	430	2,1	m.c.w.	20	25	22
500 B 120/280.50 SAN M	280	DN 50 PN 10	220/240 V	530	2,5	m.c.w.	20	25	21,8



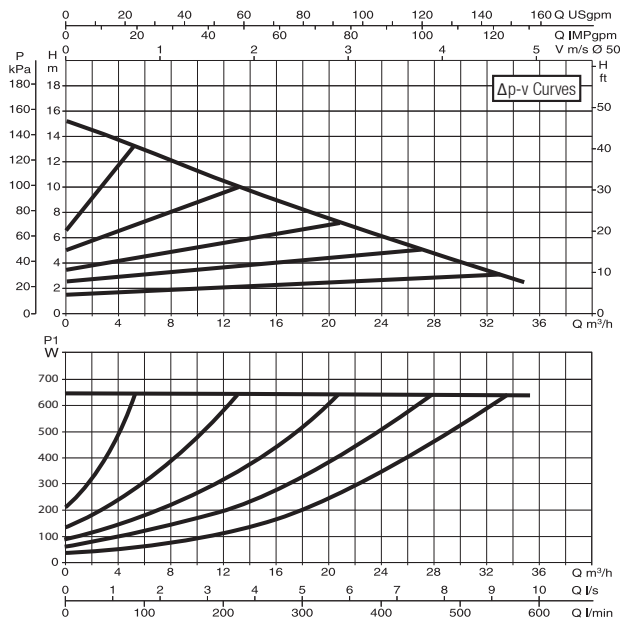
L	L1	L2	A1	A2	B	B1	B2
280	140	140	19	14	413	87	325

D	D1	D2	D3	D4	H	H1	H2
165	125	110	99	53	230	220	273

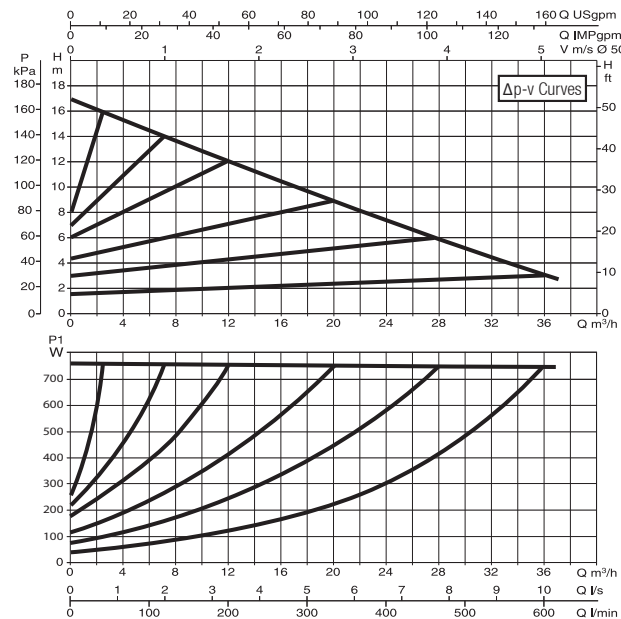
# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

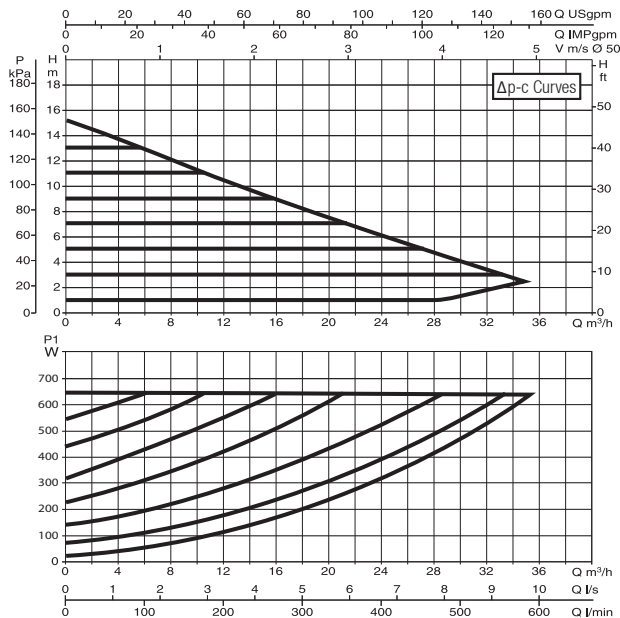
500 B 150/280.50 SAN M



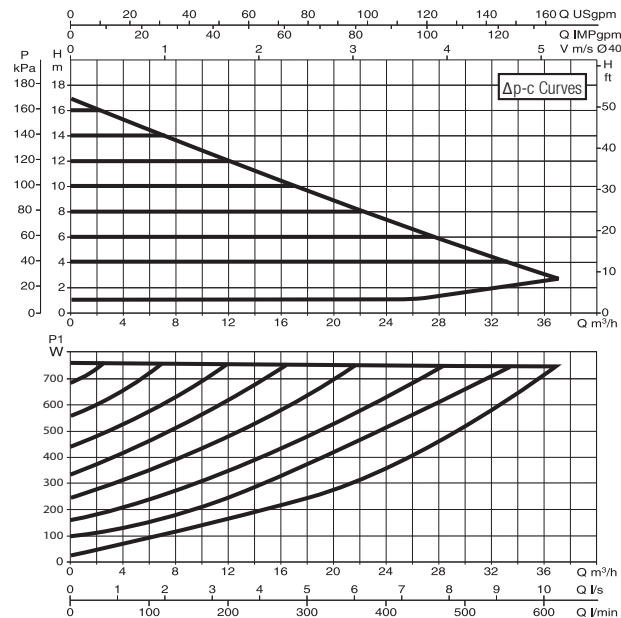
500 B 180/280.50 SAN M



500 B 150/280.50 SAN M

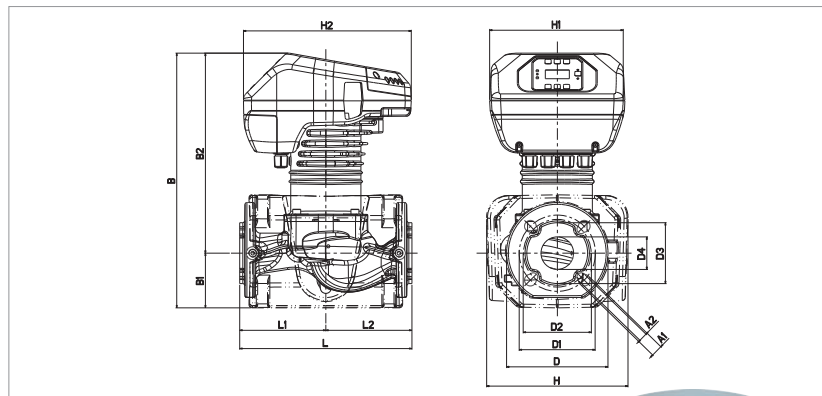


500 B 180/280.50 SAN M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
500 B 150/280.50 SAN M	280	DN 50 PN 10	220/240 V	640	3	m.c.w.	20	25	22,8
500 B 180/280.50 SAN M	280	DN 50 PN 10	220/240 V	750	3,45	m.c.w.	20	25	22,8



L	L1	L2	A1	A2	B	B1	B2
280	140	140	19	14	413	87	325

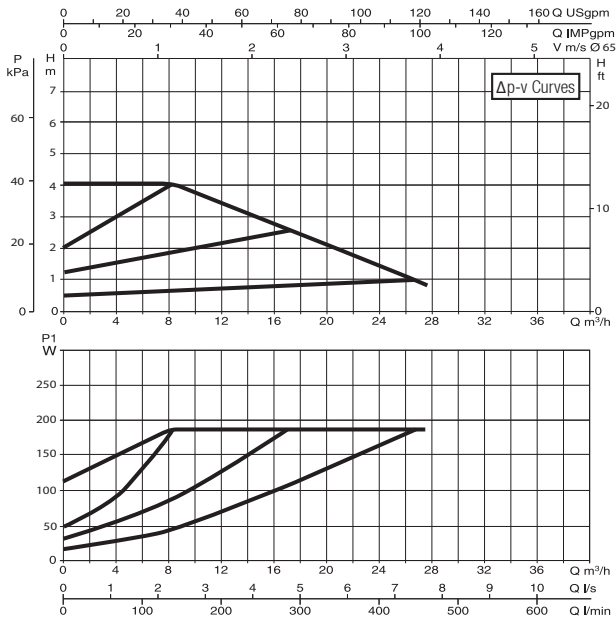
D	D1	D2	D3	D4	H	H1	H2
165	125	110	99	53	230	220	273



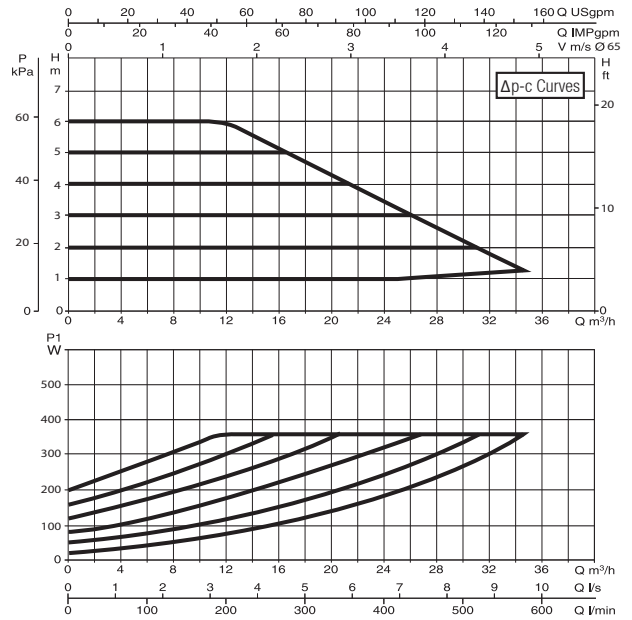
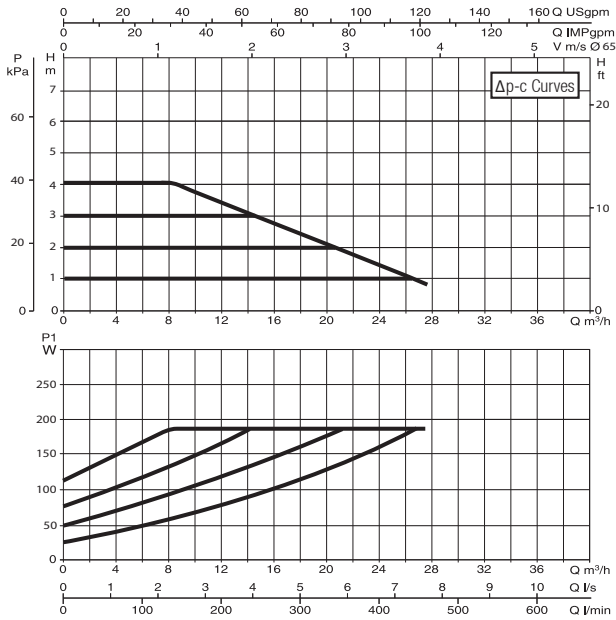
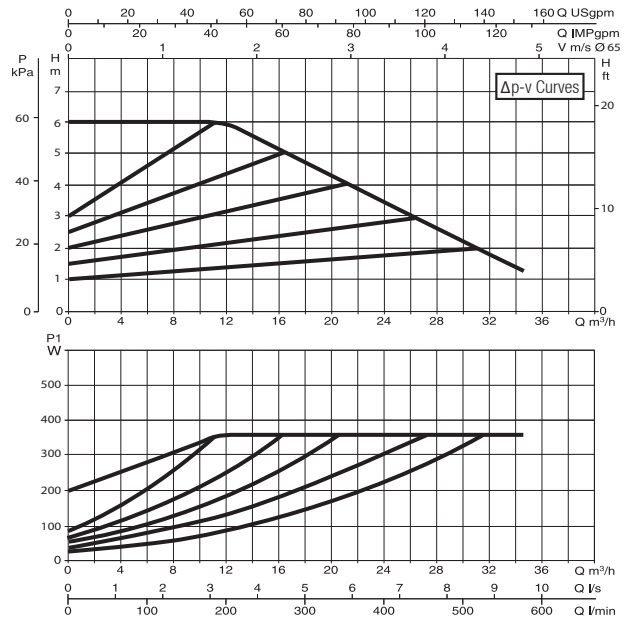
# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 40/340.65 SAN M

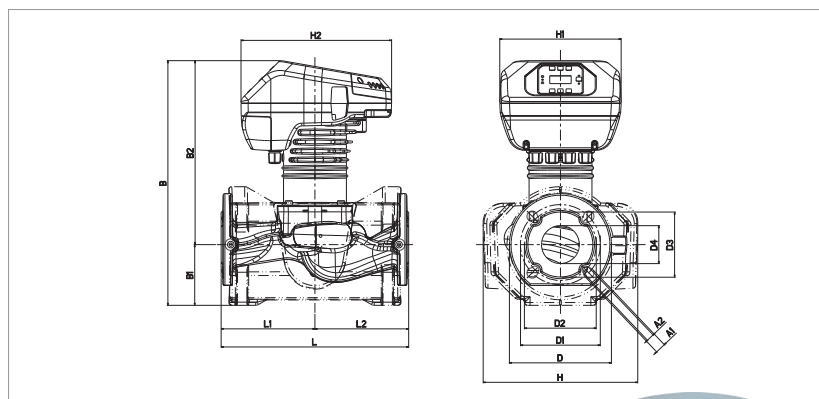


500 B 60/340.65 SAN M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
500 B 40/340.65 SAN M	340	DN 65 PN 10	220/240 V	190	1,1	m.c.w.	20	25	27
500 B 60/340.65 SAN M	340	DN 65 PN 10	220/240 V	355	1,8	m.c.w.	20	25	27,2



L	L1	L2	A1	A2	B	B1	B2
340	170	170	19	14	443	110	333

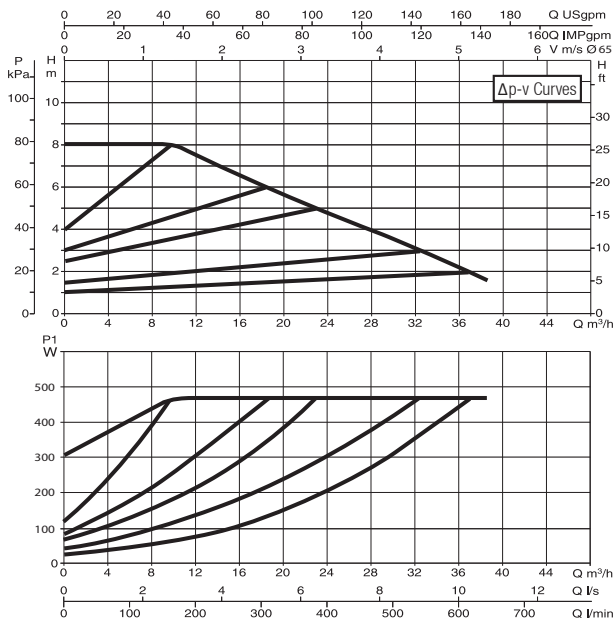
D	D1	D2	D3	D4	H	H1	H2
185	145	130	118	69	280	220	273



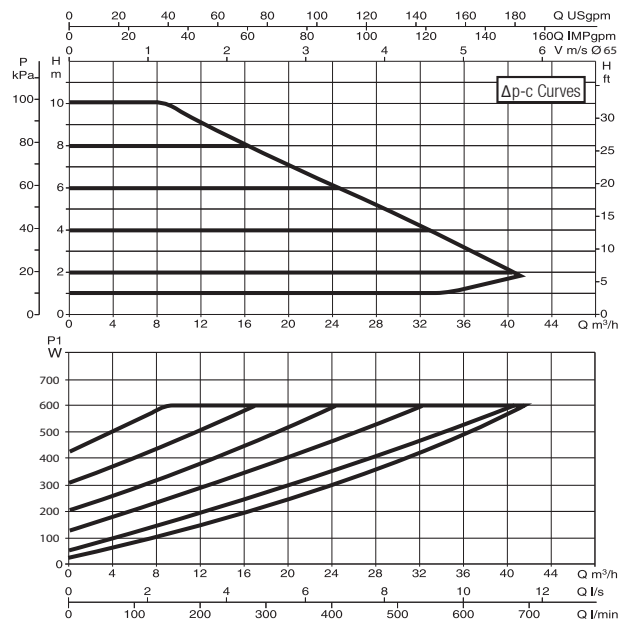
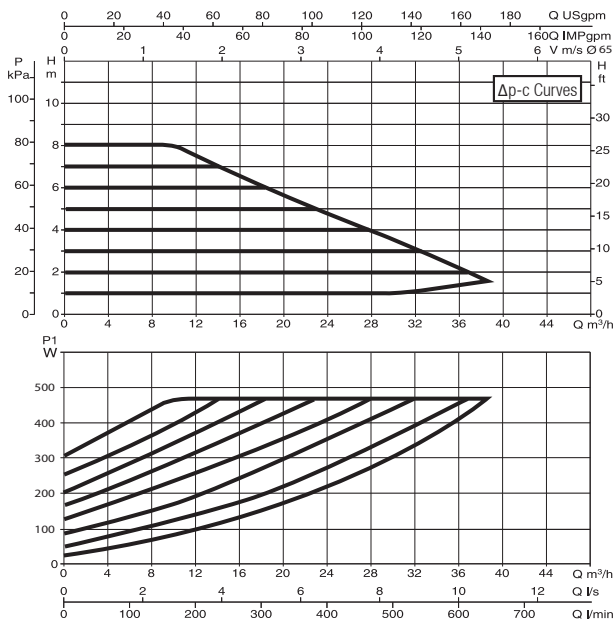
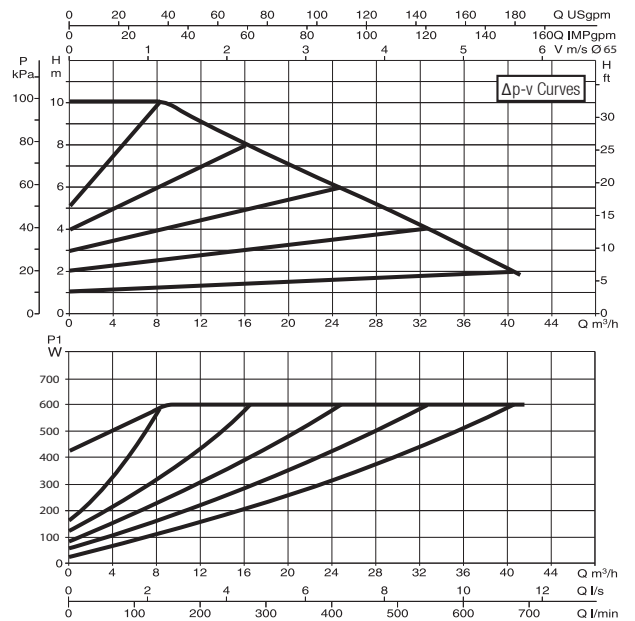
# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 80/340.65 SAN M

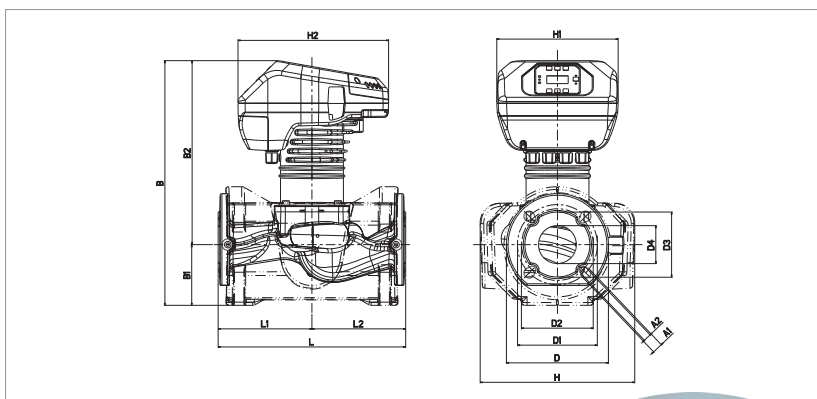


500 B 100/340.65 SAN M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
500 B 80/340.65 SAN M	340	DN 65 PN 10	220/240 V	465	2,2	m.c.w.	20	25	27,8
500 B 100/340.65 SAN M	340	DN 65 PN 10	220/240 V	590	2,8	m.c.w.	20	25	28



L	L1	L2	A1	A2	B	B1	B2
340	170	170	19	14	443	110	333

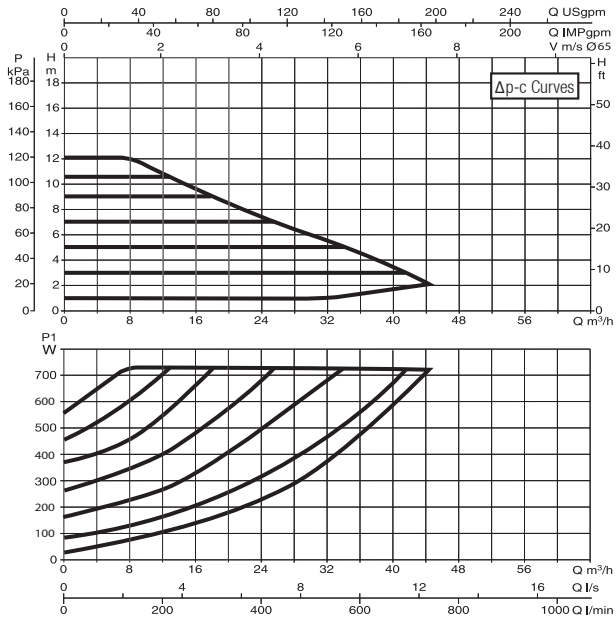
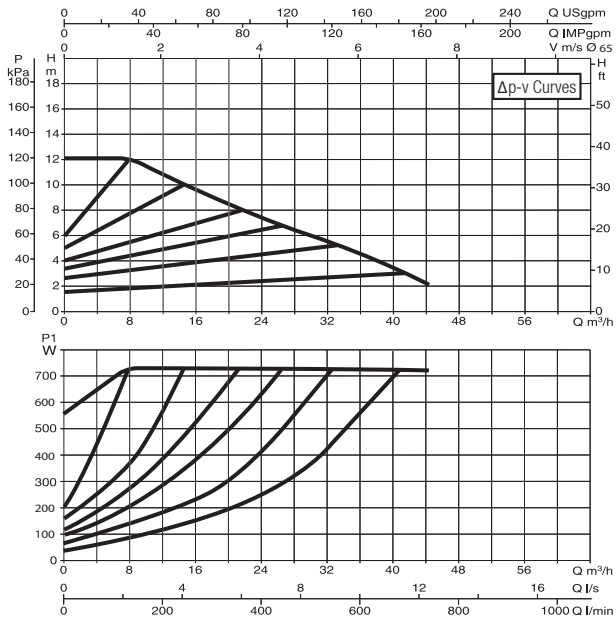
D	D1	D2	D3	D4	H	H1	H2
185	145	130	118	69	280	220	273



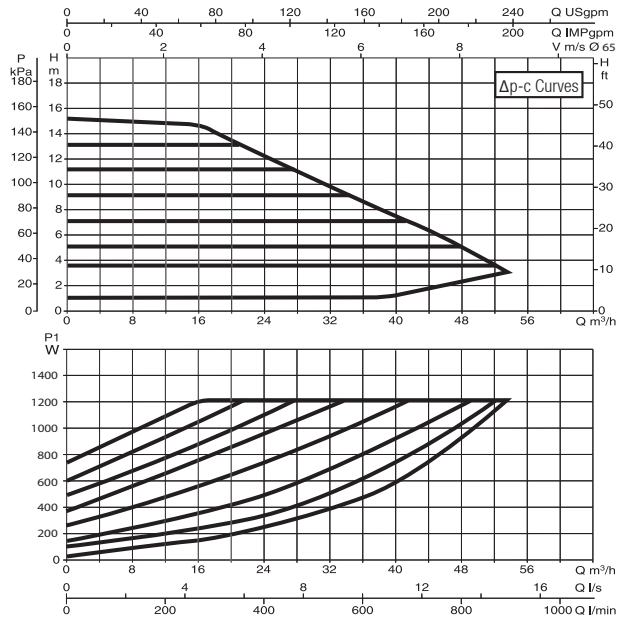
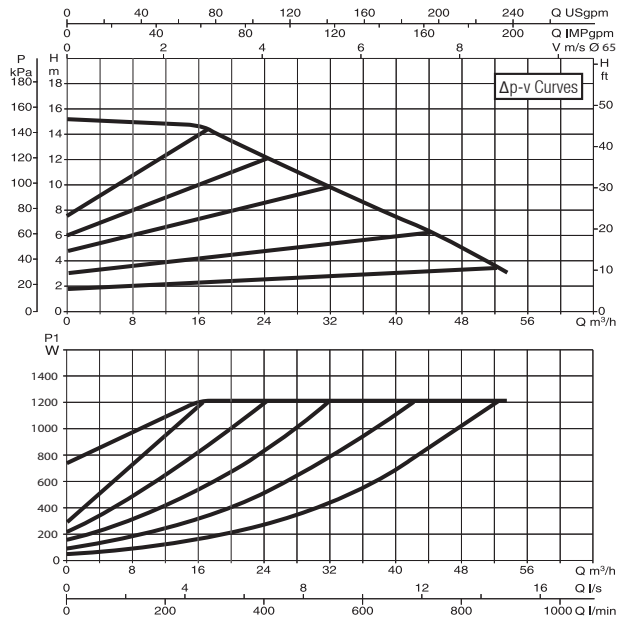
# 500 SAN - ELECTRONIC CIRCULATORS FOR SANITARY WATER SYSTEMS - SINGLE, FLANGED

Pumped liquid temperature range: from -10 °C to +110 °C - Maximum operating pressure: 16 bar (1600 kPa)

500 B 120/340.65 SAN M

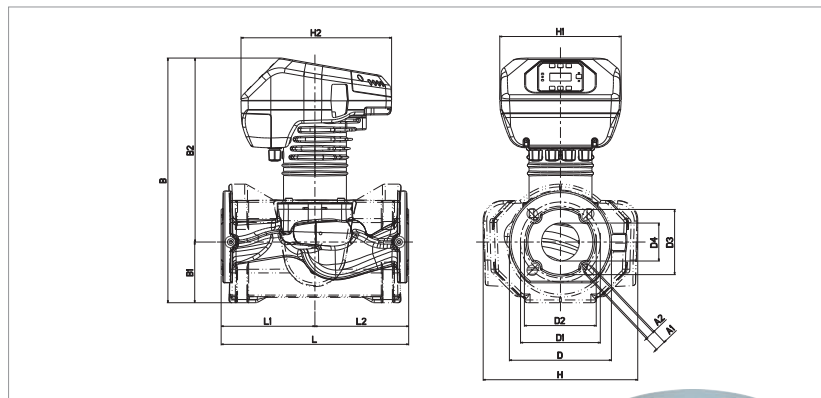


500 B 150/340.65 SAN M



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

MODEL	CENTRE DISTANCE mm	COUNTER FLANGES ON REQUEST	POWER INPUT 50/60 Hz	P1 MAX W	In A	MINIMUM SUCTION PRESSURE			WEIGHT kg
						t°	90°	100°	
500 B 120/340.65 SAN M	340	DN 65 PN 10	220/240 V	730	3,45	m.c.w.	20	25	28,2
500 B 150/340.65 SAN M	340	DN 65 PN 10	220/240 V	1210	5,5	m.c.w.	20	25	30



L	L1	L2	A1	A2	B	B1	B2
340	170	170	19	14	443	110	333

D	D1	D2	D3	D4	H	H1	H2
185	145	130	118	69	280	220	273

