

10/2010

# Pressure Boosting Sets

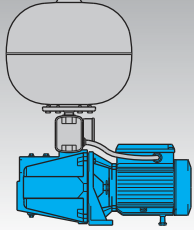
Fixed speed pump units

Variable speed pump units with frequency converter



 **calpeda**<sup>®</sup>

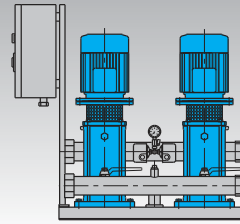
pag. 388



**MINIMAT, TURBOMAT  
CENTRIMAT, GETTOMAT**

Small automatic water systems  
with 1 pump series  
**MXH, MXP, NM, NG, NGL, NGX**

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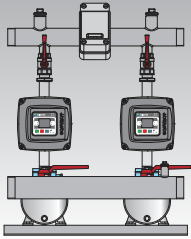
**BS2F**

Fixed speed pump pressure boosting  
sets for civil use  
with 2 **MXVB, MXV**

**BS1V1F, BS2V**

Variable speed pump pressure boosting  
sets for civil use  
with 2 **MXVB, MXV**

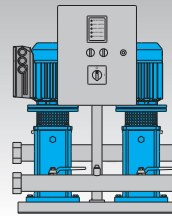
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**EASYMAT**

Constant pressure boosting sets  
with Easymat frequency converter  
with 1 or 2  
**MGP, MXP, MXH, MXSU, MXVB**

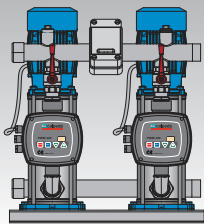
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**BS1V1F, BS2V**

Variable speed pump (on-board  
frequency converter) pressure boosting  
sets for civil use  
with 2 **MXVE**

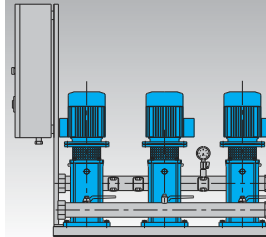
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**VARIOMAT**

Constant pressure boosting sets  
with Variomat frequency converter  
with 1 or 2 **MXH, MXSU, MXVB**

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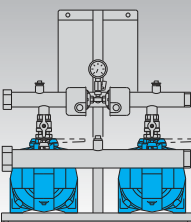
**BS3F**

Fixed speed pump pressure boosting  
sets for civil use  
with 3 **MXVB, MXV**

**BS1V2F, BS3V**

Variable speed pump pressure boosting  
sets for civil use  
with 3 **MXVB, MXV**

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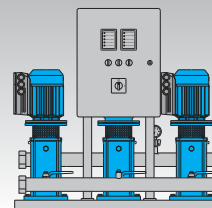
**BS2F**

Fixed speed pump pressure boosting  
sets for domestic use  
with 2 **MXH, MXP, NM, NG, NGL, NGX**

**BS1V1F, BS2V**

Variable speed pump pressure boosting  
sets for domestic use  
with 2 **MXH, MXP, NM**

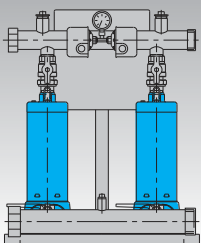
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**BS1V2F, BS3V**

Variable speed pump (on-board  
frequency converter) pressure boosting  
sets for civil use  
with 3 **MXVE**

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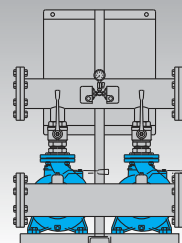
**BS2F**

Fixed speed pump Pressure boosting  
sets for domestic use  
with 2 **MXSU**

**BS1V1F, BS2V**

Variable speed pump pressure boosting  
sets for domestic use  
with 2 **MXSU**

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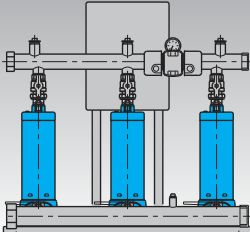
**BS2F**

Fixed speed pump pressure boosting  
sets for civil use  
with 2 **NM, NMD**

**BS1V1F, BS2V**

Variable speed pump pressure boosting  
sets for civil use  
with 2 **NM, NMD**

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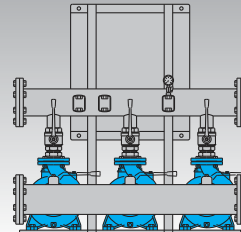
**BS3F**

Fixed speed pump Pressure boosting  
sets for domestic use  
with 3 **MXSU**

**BS1V2F, BS3V**

Variable speed pump pressure boosting  
sets for domestic use  
with 3 **MXSU**

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**BS3F**

Fixed speed pump pressure boosting  
sets for civil use  
with 3 **NM**

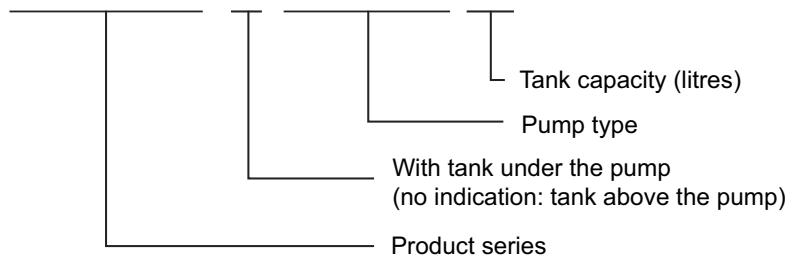
**BS1V2F, BS3V**

Variable speed pump pressure boosting  
sets for civil use  
with 3 **NM**

## Designation

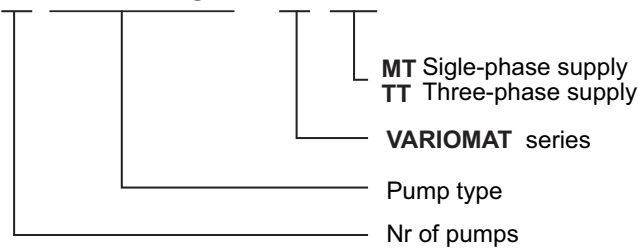
**CENTRIMAT 1/1 MXH 205E /20**

**CENTRIMAT      MXH 205E /24**



**2 MXH 204 - V MT**

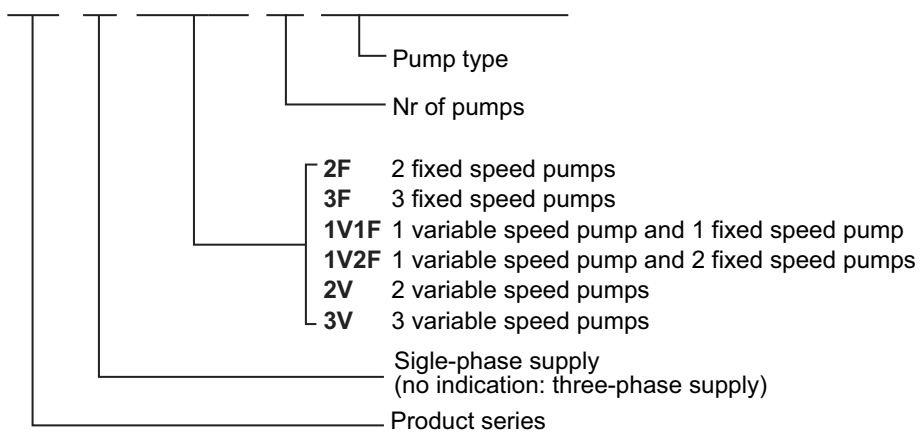
**2 MXH 204 - V TT**



**BS M 2V      2 MXV 25/204**

**BS M 1V 1F 2 MXV 25/204**

**BS M      2F 2 MXV 25/204**



**To select a Pressure Boosting Set see chap. 48 technical appendix at page 517**

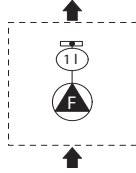
# Operation

## MINIMAT

with 1 fixed speed pump

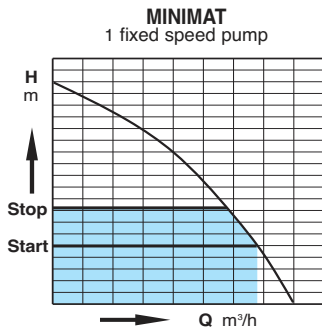
### Construction

Small pressure boosting sets with automatic operation, consisting of pump, pressure switch and 1 litre diaphragm tank.



### Operation

Pump is directly driven by the pressure switch.

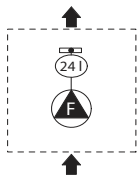


## TURBOMAT, CENTRIMAT, GETTOMAT

with 1 fixed speed pump

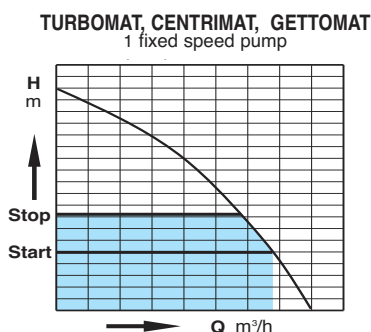
### Construction

Small pressure boosting sets with automatic operation, consisting of with pump, pressure switch, pressure gauge and diaphragm tank (24litres if above the pump, 20litres if under the pump).



### Operation

Pump is directly driven by the pressure switch.

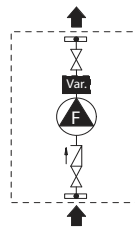


## VARIOMAT

with 1 variable speed pump

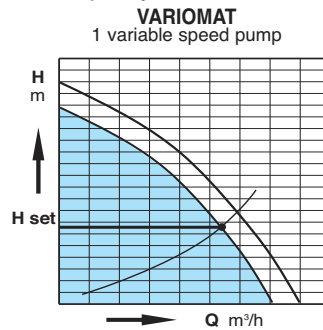
### Construction

Pressure boosting sets with automatic operation and constant pressure, consisting of a variable speed pump driven by Variomat frequency converter, with gate and non-return valves, pressure gauge, 8 litres diaphragm tank.



### Operation

Variable speed pump is directly driven by Variomat frequency converter.

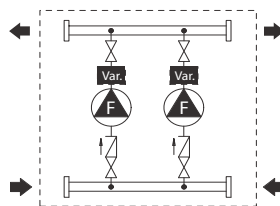


## VARIOMAT

with 2 variable speed pumps

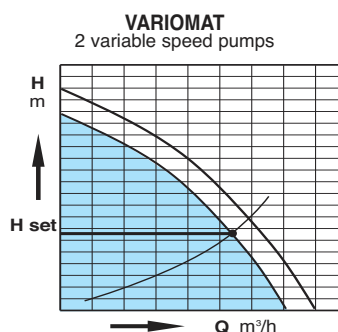
### Construction

Pressure boosting sets with automatic operation and constant pressure, made up with 2 variable speed pumps on a common baseplate driven by Variomat frequency converter, with suction and delivery manifolds, gate and non-return valves, pressure gauge, 8 litres diaphragm tank and control panel with two magnetothermal switches.



### Operation

Pumps starting in a cascade sequence, with changeover of pump starting sequence.

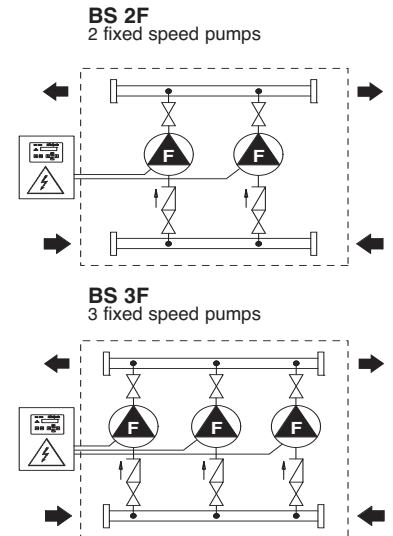


## BSF

with fixed speed pumps

### Construction

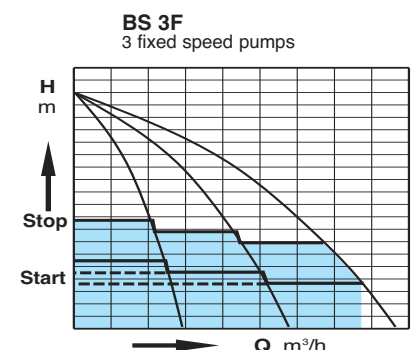
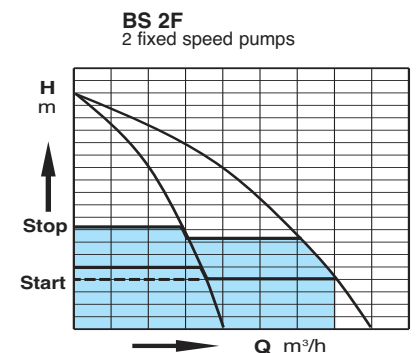
Pressure boosting sets with automatic operation, consisting in 2 and 3 pumps on a common baseplate, with suction and delivery manifolds, gate and non-return valves, pressure switches, pressure gauge, control panel and from 100 to 1000 litres diaphragm tank.



### Operation

The control panel, with electronic card, manages the pump operation, the changeover of pump starting sequence and it stops the system when there is no air in the tank (patented system).

Pumps starting in a cascade sequence, with a signal from the pressure switches.



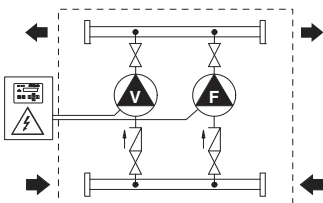
## BSV.F.

with variable and fixed speed pumps (frequency converter into the control panel)

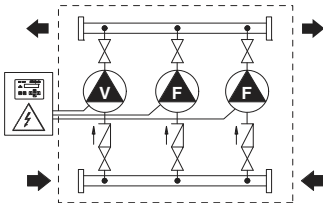
### Construction

Pressure boosting sets with automatic operation, consisting of 1 variable speed pump with frequency converter into the control panel and from 1 to 5 fixed speed pumps, assembled on a common baseplate, with suction and delivery manifolds, gate and non-return valves, pressure gauge, control panel and 20 litres diaphragm tank.

**BS 1V1F**  
2 pumps: 1 variable  
1 fixed



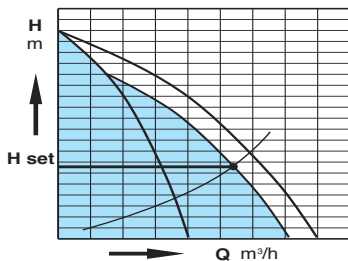
**BS 1V2F**  
3 pumps: 1 variable  
2 fixed



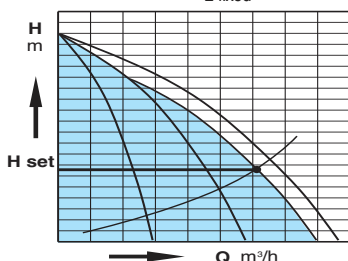
### Operation

The control panel, with electronic card, manages the pump operation, the changeover of fixed speed pumps starting sequence. Pumps starting is in a cascade sequence, with a signal from the pressure transducer. Constant pressure is guaranteed by the variable speed pumps, while fixed speed pumps start when the request is higher than the capacity of the variable speed pump.

**BS 1V1F**  
2 pumps: 1 variable  
1 fixed



**BS 1V2F**  
3 pumps: 1 variable  
2 fixed



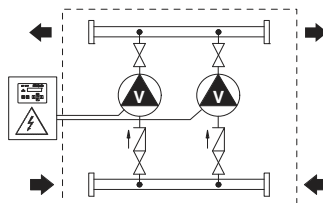
## BSV

with variable speed pumps (frequency converter into the control panel)

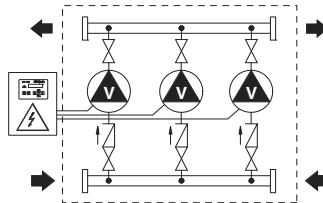
### Construction

Pressure boosting sets with automatic operation, consisting of variable speed pumps (from 1 to 6) with frequency converter on the control panel, assembled on a common baseplate, with suction and delivery manifolds, gate and non-return valves, pressure transducer, pressure gauge, control panel and 20 litres diaphragm tank.r.i.

**BS 2V**  
2 variable speed pumps



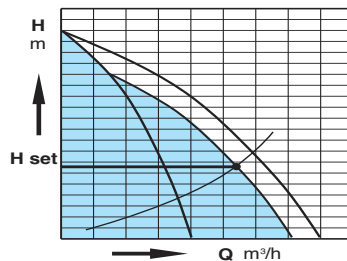
**BS 3V**  
3 variable speed pumps



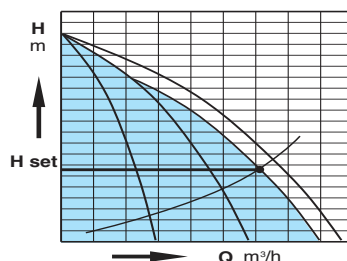
### Operation

The control panel, with electronic card, manages the pump operation, the changeover of pumps starting sequence. Pumps starting in a cascade sequence, with a signal from the pressure transducer.

**BS 2V**  
2 variable speed pumps



**BS 3V**  
3 variable speed pumps



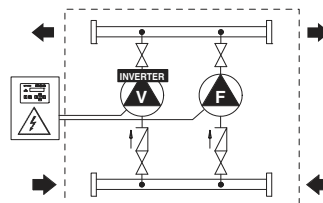
## BSV.F.

with variable speed pumps (on board frequency converter)

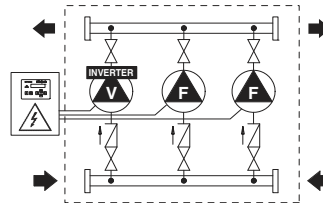
### Construction

Pressure boosting sets with automatic operation, consisting of 1 variable speed pump with frequency converter into the control panel and from 1 to 5 fixed speed pumps, assembled on a common baseplate, with suction and delivery manifolds, gate and non-return valves, pressure gauge, control panel and 20 litres diaphragm tank.

**BS 1V1F**  
2 pumps: 1 variable  
1 fixed



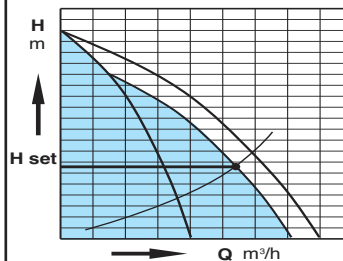
**BS 1V2F**  
3 pumps: 1 variable  
2 fixed



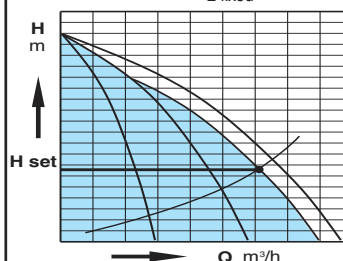
### Operation

The control panel, with electronic card, manages the pump operation, the changeover of fixed speed pumps starting sequence. Pumps starting is in a cascade sequence, with a signal from the pressure transducer. Constant pressure is guaranteed by the variable speed pumps, while fixed speed pumps start when the request is higher than the capacity of the variable speed pump.

**BS 1V1F**  
2 pumps: 1 variable  
1 fixed



**BS 1V2F**  
3 pumps: 1 variable  
2 fixed



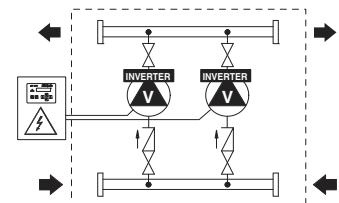
## BSV

with variable speed pumps (on board frequency converter)

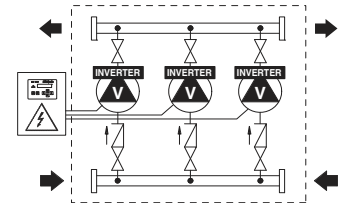
### Construction

Pressure boosting sets with automatic operation, consisting of variable speed pumps (from 1 to 6) with frequency converter on the control panel, assembled on a common baseplate, with suction and delivery manifolds, gate and non-return valves, pressure transducer, pressure gauge, control panel and 20 litres diaphragm tank.

**BS 2V**  
2 variable speed pumps



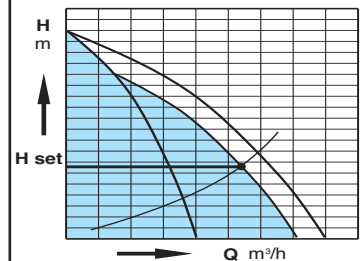
**BS 3V**  
3 variable speed pumps



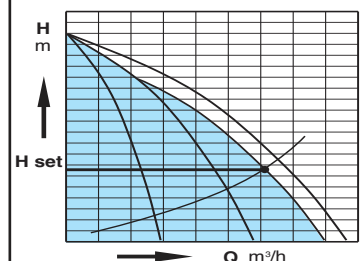
### Operation

The control panel, with electronic card, manages the pump operation, the changeover of pumps starting sequence. Pumps starting in a cascade sequence, with a signal from the pressure transducer.

**BS 2V**  
2 variable speed pumps



**BS 3V**  
3 variable speed pumps



## Fixed speed pump units

### New electrical control panels for fixed speed pump units.

New electrical control panels for pressurisation units, all with electronic card with microprocessors, for managing pump operation.

**The microprocessor** carries out continuous secure checks during all the various work phases of the pumps and incorporates all necessary functions, thus reducing electrical and electronic components inside the panel.

#### In particular:

- pumps starting in a cascade sequence according to water demand.
- changeover of pump starting sequence.
- pumps stop when there is no water in the suction.
- delay start-up of the 2nd/3rd pump in case of breakdown of pressure switch 1 or after a power cut.
- avoid pump starting in case of water hammering.
- activate the alarm when pressure 1 fails.
- activate the alarm when air cushion in the vessel drops.
- stop the pump when air cushion is over\*.

\* Patent pending

### Maximum clarity for all signals

The status of the unit can easily be identified on the front of the electronic card with the following signals:

- Power on led.
- No water led.
- Failure led.
- Pump running led (1 for each pump).
- Thermal block led (1 for each pump).
- Pump automatic operation led (1 for each pump).
- Pump stop led (1 for each pump).

### Maximum simplicity of control

The front of electronic card features the following signals and controls:

- AUT-STOP push-button (1 for each pump)
- MAN push-button (1 for each pump)
- RESET push-button.

### Optional remote control

The new panels have been designed to remotely reproduce all the electronic card signals (excluding the buttons), using RC 100 - RC 200 - RC 300 panels, connected with a simple two-pole cable.

The RA 100 panel enables a remote warning light and acoustic signal.

### Control panel for units up to 6 pumps

Using the MPS 6000 (Multi Pumps System) electronic card it is possible to control pressure units up to a maximum of 6 fixed speed pumps with a single pressure calibration.

### Automatic air supply systems

The pump control panels are completed by microprocessor controlled systems for automatic air supply in the pressure vessels by means of a compressor or solenoid valve.

### Operation

For booster sets made up to three pumps: according to the pressure decrease in the system, the pressure switches make the pumps to start in cascade mode and the starting changeover is made by the microprocessor.

For sets made of 4, 5, 6 pumps: Operation controlled by a microprocessor with signal from a pressure transducer. The pumps operate with only one pressure setting.



## Variable speed pump units with frequency converter

### New electrical control panels for variable speed pump units.

New electrical control panels for pressurisation units with variable speed pumps.

These are indispensable in all those cases where constant pressure is required and when high pressure pumps are being controlled.

All the various working phases are managed and controlled by the MPS 6000 (Multi Pumps System) electronic card with microprocessor, which can operate up to 6 pumps working simultaneously.

### Maximum clarity of signals

All the various calibration parameters appear as messages on the display of the MPS 6000 electronic card.

If there are any faults or defects a message appears on the display giving details of the problem.

### Possibility of remote control

The pump status can be displayed and the unit can be controlled by means of a special computer program.

It is possible to obtain a remote warning light and acoustic signal on the RA 100 panel.

### Constant or increased pressure

All the pumps can work with the same pressure value (set point), or, for systems with high head losses, the pressure can be increased depending on the number of pumps operating.

### Silent operation

Motors working at reduced speed and check valves that close gradually mean that operation is particularly quiet.

### Long life for pumps

All the mechanical components of the pumps and motors are stressed to a minimum, due to the variable speed operation.

### Energy savings

The motors consume only the precise level of power necessary moment to moment, in order to supply the quantity of water required by the system.

### No more high capacity vessels

The use of inverters means that high capacity pressure vessels and membrane vessels are no longer necessary. Even units with high flowrate pumps only require a small number of 20 litre membrane vessels.

### Great versatility

The great versatility of the MPS 6000 electronic card enables the construction of special units with operational logics different from those of normal pressurisation units, depending on the requirements and characteristics of the systems.

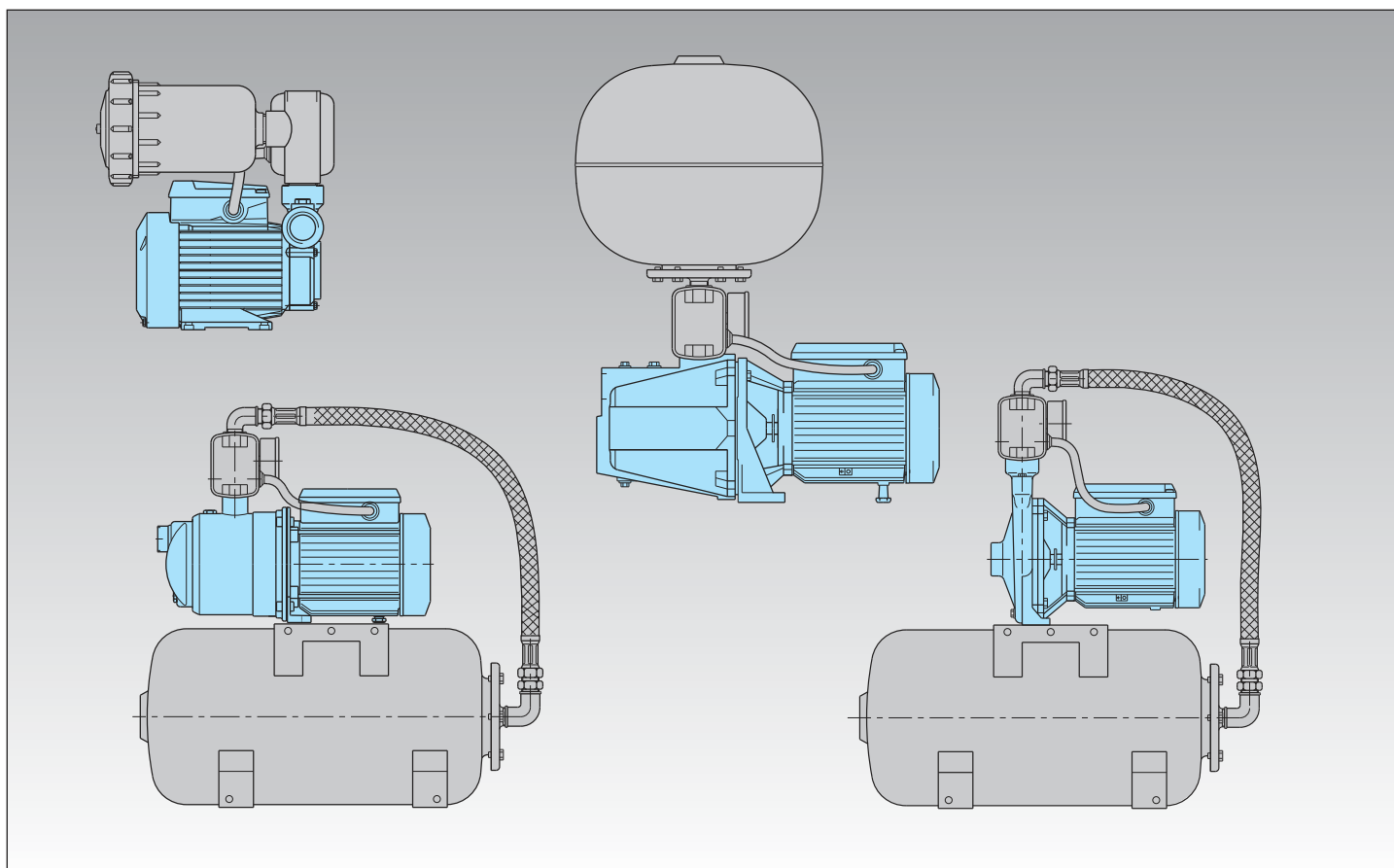
### Operation

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.



# MINIMAT - TURBOMAT - CENTRIMAT - GETTOMAT

Small automatic water systems



## Construction

Compact, automatic autoclaves for household water feeding, consisting of:

- close-coupled pump
- membrane tank
- pressure switch
- pressure gauge (excluding MINIMAT)
- special connector
- flexible pipe for systems with pump over the vessel

## Operation

According to the decrease or increase of pressure, the pressure switch determines when the pump will start or stop.

## Applications

For drawing water out a well.

As pressure boosting pump for central water systems with thermal protector (follow specifications if increasing network pressure).

## Motors

2-pole induction motors, 50 Hz,  $n=2900$  rpm.

Three-phase 230/400V  $\pm 10\%$ .

Single-phase 230V  $\pm 10\%$ , with thermal protector.

Insulation class F.

Protection IP 54.

Constructed in accordance with: IEC 60034.

Other voltages and frequencies on request.

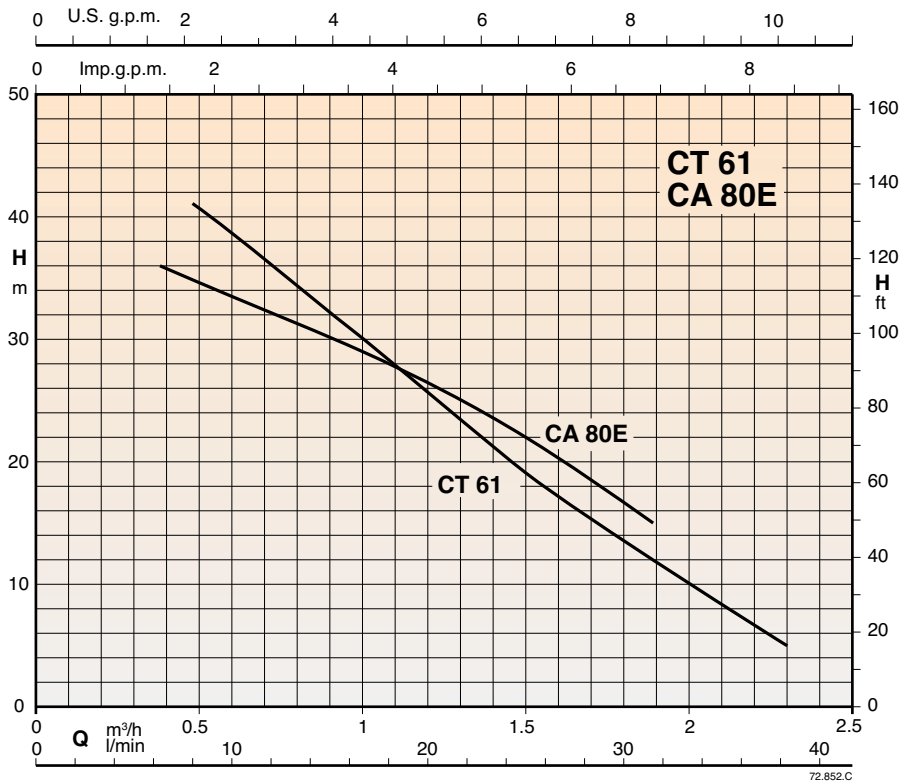
## Vessels

Spherical with capacity 24 litres, or cylindrical with capacity 20 litres, membrane type, air preordaining with pressure 0,2 bar below the minimum pressure switch rating.

Capacity of the MINIMAT vessel 1 liter.

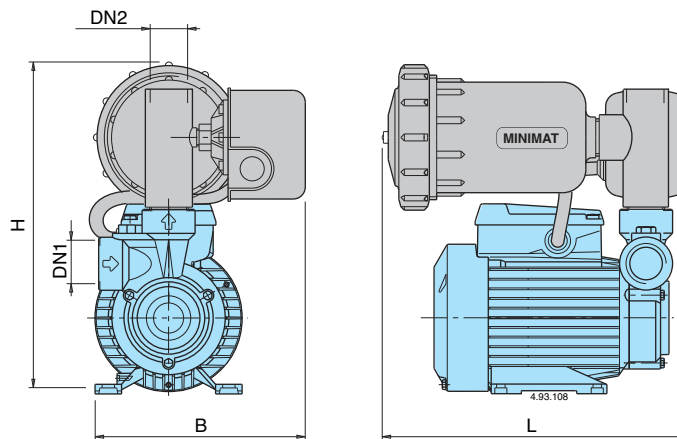


## Coverage chart



## Characteristic, dimensions and weights

### MINIMAT

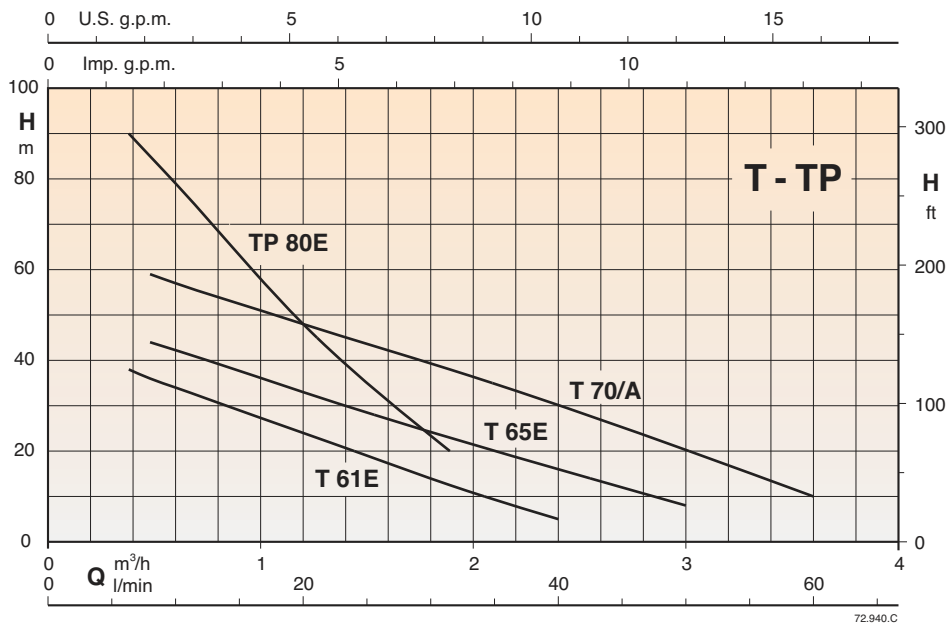


### MINIMAT

3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
CT 61/1	CTM 61/1	0,33	0,45	30	1,4÷2,8	G1	G1	180	255	280	8
CA 80E/1	CAM 80E/1	0,45	0,6	32	1,4÷2,8	G 3/4	G1	180	255	330	11,5

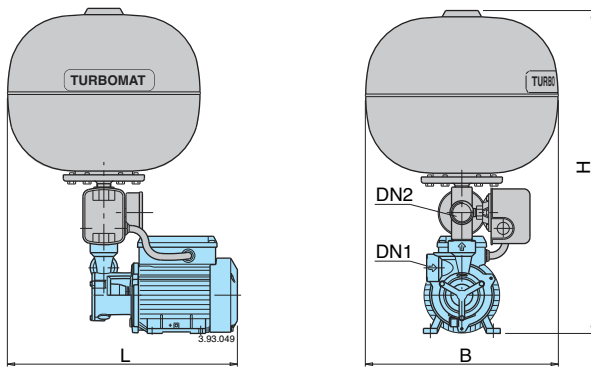
\* Maximum pump flow at minimum set pressure of pressure switch.

## Coverage chart

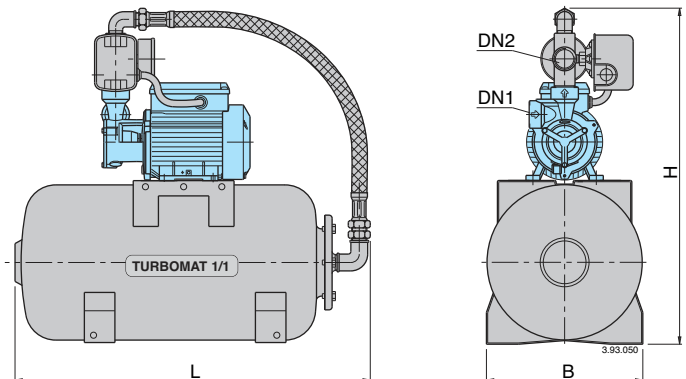


## Characteristic, dimensions and weights

### TURBOMAT



### TURBOMAT 1/1



### TURBOMAT

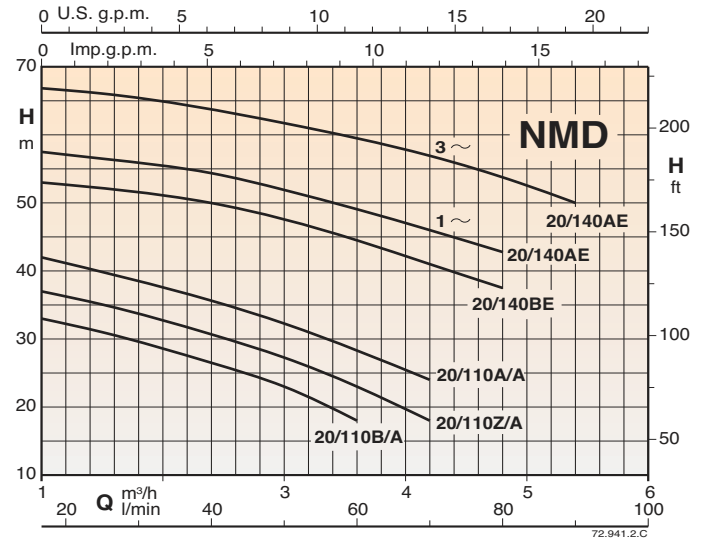
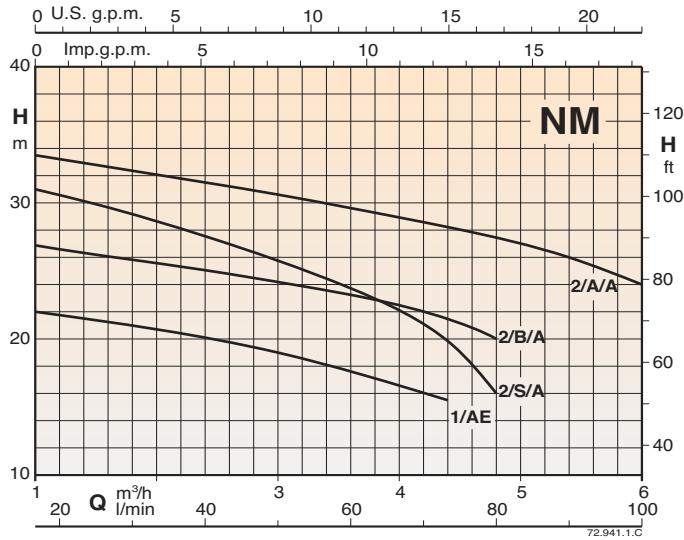
3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
T 61E/24	TM 61E/24	0,33	0,45	32	1,4÷2,8	G1	G1	360	400	560	13,3
T 65E/24	TM 65E/24	0,45	0,6	43	1,4÷2,8	G1	G1		400	560	13,3
T 70/A/24	TM 70/A/24	0,75	1	50	2,0÷3,5	G1	G1		430	575	17,7
TP 80E/24	TPM 80E/24	0,75	1	22	4,5÷6,0	G 3/4	G1		485	575	22

### TURBOMAT 1/1

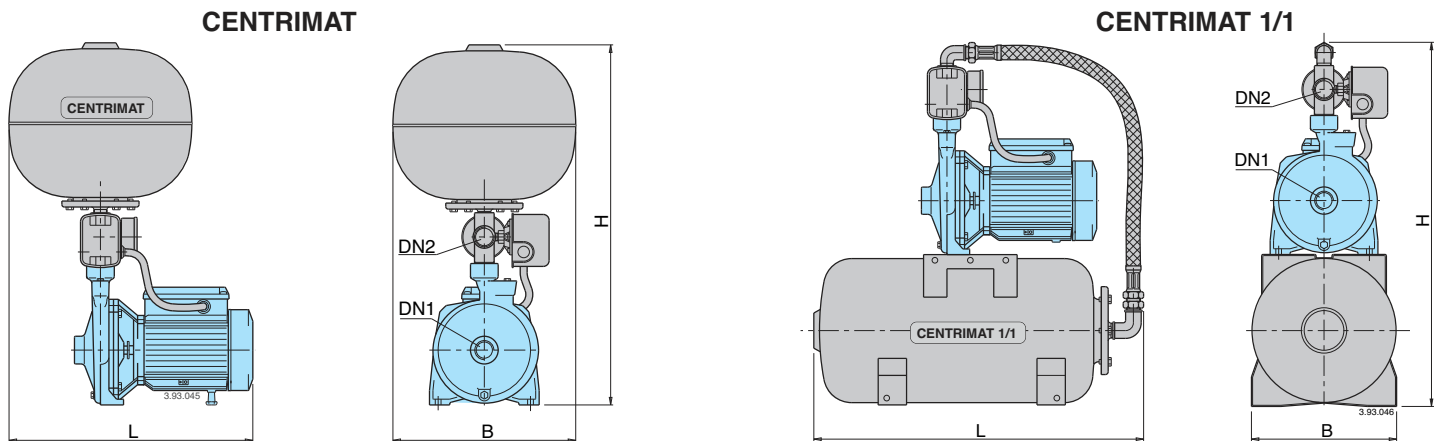
3~ 230/400V	1~ 230 V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
T 61E/20	TM 61E/20	0,33	0,45	32	1,4÷2,8	G1	G1	255	540	565	25
T 65E/20	TM 65E/20	0,45	0,6	43	1,4÷2,8	G1	G1			565	25
T 70/A/20	TM 70/A/20	0,75	1	50	2,0÷3,5	G1	G1			585	29
TP 80E/20	TPM 80E/20	0,75	1	22	4,5÷6,0	G 3/4	G1			585	32,2

\* Maximum pump flow at minimum set pressure of pressure switch.

## Coverage chart



## Characteristic, dimensions and weights



### CENTRIMAT

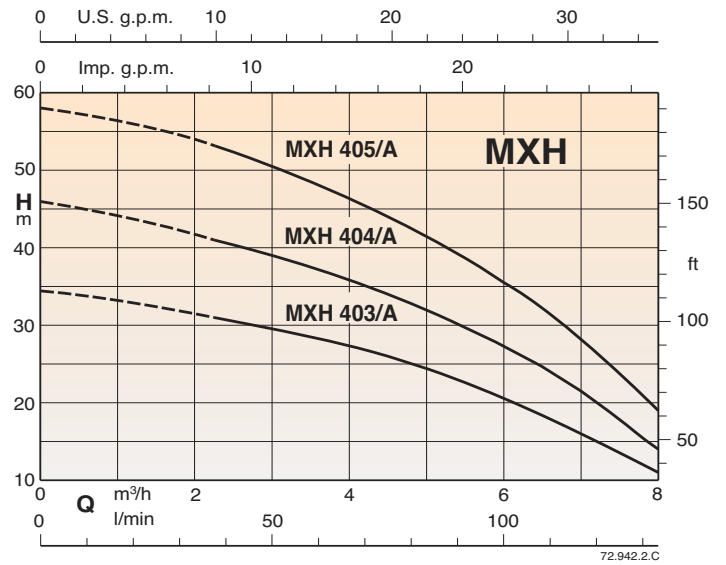
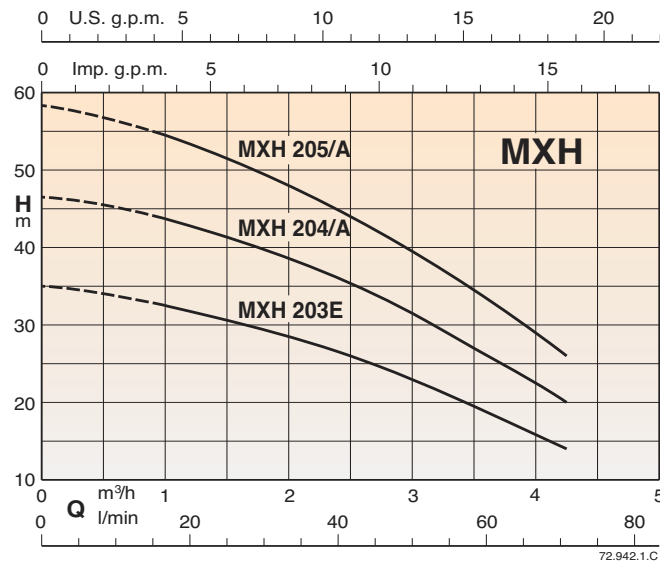
3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
NM 1/AE/24	NMM 1/AE/24	0,37	0,5	73	1,0÷1,8	G1	G1	360	400	620	17,7
NM 2/B/A/24	NMM 2/B/A/24	0,55	0,75	80	1,4÷2,4	G1	G1		440	650	21,4
NM 2/S/A/24	NMM 2/S/A/24	0,55	0,75	80	1,4÷2,8	G1	G1		440	650	21,5
NM 2/A/A/24	NMM 2/A/A/24	0,75	1	100	2,0÷3,0	G1	G1		440	650	22,7
NMD 20/110B/A/24	NMDM 20/110B/A/24	0,45	0,6	60	1,4÷2,8	G 1 1/4	G1		430	635	21,2
NMD 20/110Z/A/24	NMDM 20/110Z/A/24	0,55	0,75	70	1,8÷3,2	G 1 1/4	G1		430	635	22,3
NMD 20/110A/A/24	NMDM 20/110A/A/24	0,75	1	70	2,2÷3,6	G 1 1/4	G1		430	635	23,4
NMD 20/140BE/24	NMDM 20/140BE/24	1,1	1,5	80	3,5÷5,0	G 1 1/4	G1		510	670	30,7
NMD 20/140AE/24	NMDM 20/140AE/24	1,5	2	80	4,0÷5,5	G 1 1/4	G1	510	670	33	
		1,5	2	90	4,5÷6,0	G 1 1/4	G1	510	670	32	

### CENTRIMAT 1/1

3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
NM 1/AE/20	NMM 1/AE/20	0,37	0,5	73	1,0÷1,8	G1	G1	255	540	605	18,5
NM 2/B/A/20	NMM 2/B/A/20	0,55	0,75	80	1,4÷2,4	G1	G1			635	22,2
NM 2/S/A/20	NMM 2/S/A/20	0,55	0,75	80	1,4÷2,8	G1	G1			635	22,3
NM 2/A/A/20	NMM 2/A/A/20	0,75	1	100	2,0÷3,0	G1	G1			635	23,5
NMD 20/110B/A/20	NMDM 20/110B/A/20	0,45	0,6	60	1,4÷2,8	G 1 1/4	G1			620	22
NMD 20/110Z/A/20	NMDM 20/110Z/A/20	0,55	0,75	70	1,8÷3,2	G 1 1/4	G1			620	23,1
NMD 20/110A/A/20	NMDM 20/110A/A/20	0,75	1	70	2,2÷3,6	G 1 1/4	G1			620	24,2
NMD 20/140BE/20	NMDM 20/140BE/20	1,1	1,5	80	3,5÷5,0	G 1 1/4	G1			675	31,5
NMD 20/140AE/20	NMDM 20/140AE/20	1,5	2	80	4,0÷5,5	G 1 1/4	G1	675	33		
		1,5	2	90	4,5÷6,0	G 1 1/4	G1	675	32		

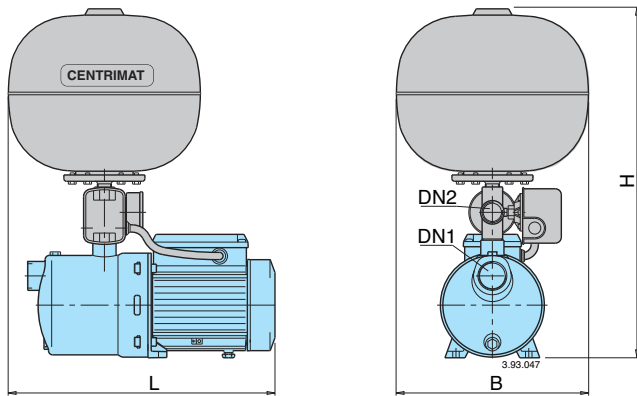
\* Maximum pump flow at minimum set pressure of pressure switch.

## Coverage chart

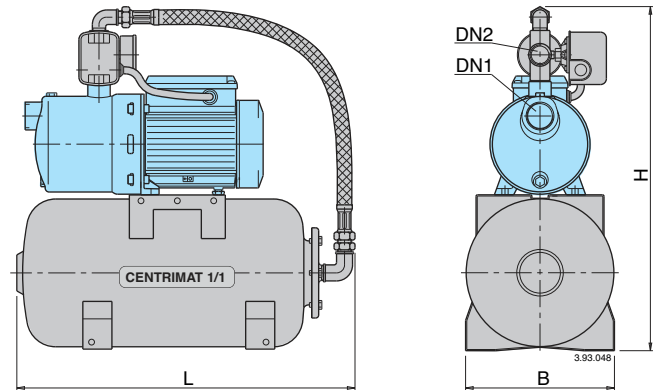


## Characteristic, dimensions and weights

### CENTRIMAT



### CENTRIMAT 1/1



### CENTRIMAT

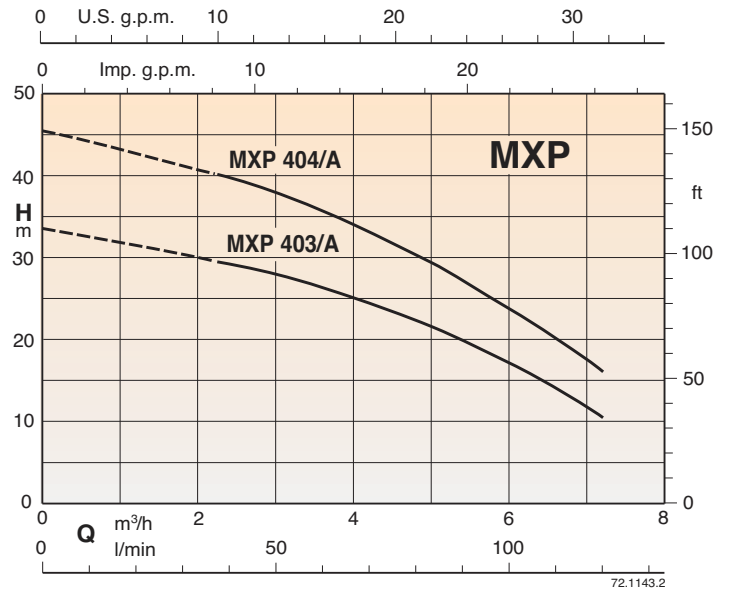
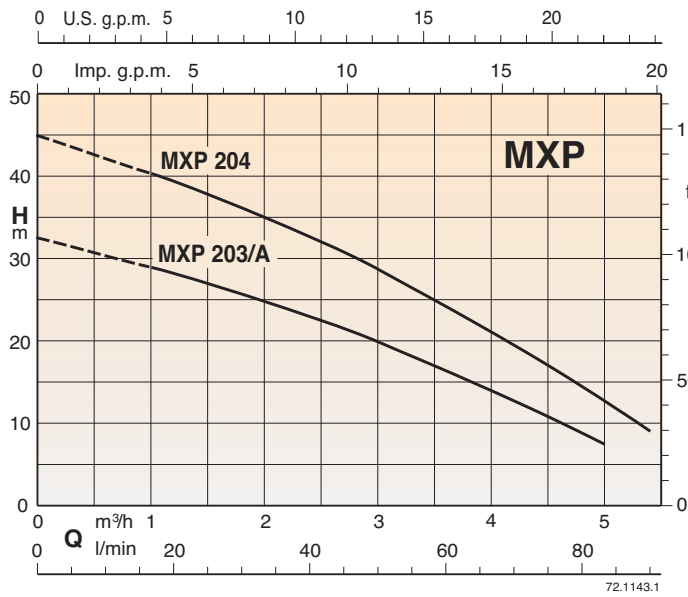
3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
MXH 203E/24	MXHM 203E/24	0,45	0,6	70	1,5÷3,0	G 11/4	G 1	360	417	590	15
MXH 204/A/24	MXHM 204/A/24	0,55	0,75	62	2,5÷4,0	G 11/4	G 1		443	590	16,5
MXH 205/A/24	MXHM 205/A/24	0,75	1	65	3,0÷4,5	G 11/4	G 1		443	590	18
MXH 403/A/24	MXHM 403/A/24	0,55	0,75	120	1,5÷3,0	G 11/4	G 1		443	590	16
MXH 404/A/24	MXHM 404/A/24	0,75	1	110	2,5÷4,0	G 11/4	G 1		443	590	17,5
MXH 405/A/24	MXHM 405/24	1,1	1,5	115	3,0÷4,5	G 11/4	G 1		502	590	23,5
		1,1	1,5	115	3,0÷4,5	G 11/4	G 1	443	590	18,5	

### CENTRIMAT 1/1

3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
MXH 203E/20	MXHM 203E/20	0,45	0,6	70	1,5÷3,0	G 11/4	G 1	255	540	600	16
MXH 204/A/20	MXHM 204/A/20	0,55	0,75	62	2,5÷4,0	G 11/4	G 1		540	600	17,5
MXH 205/A/20	MXHM 205/A/20	0,75	1	65	3,0÷4,5	G 11/4	G 1		540	600	19
MXH 403/A/20	MXHM 403/A/20	0,55	0,75	120	1,5÷3,0	G 11/4	G 1		540	600	17
MXH 404/A/20	MXHM 404/A/20	0,75	1	110	2,5÷4,0	G 11/4	G 1		540	600	18,5
MXH 405/A/20	MXHM 405/20	1,1	1,5	115	3,0÷4,5	G 11/4	G 1		540	600	24,5
		1,1	1,5	115	3,0÷4,5	G 11/4	G 1	540	600	19,5	

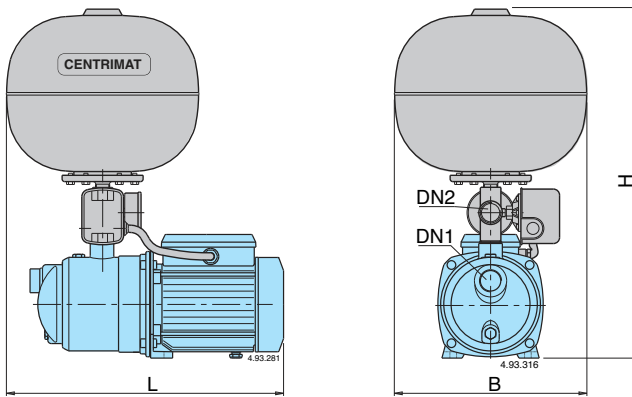
\* Maximum pump flow at minimum set pressure of pressure switch.

## Coverage chart

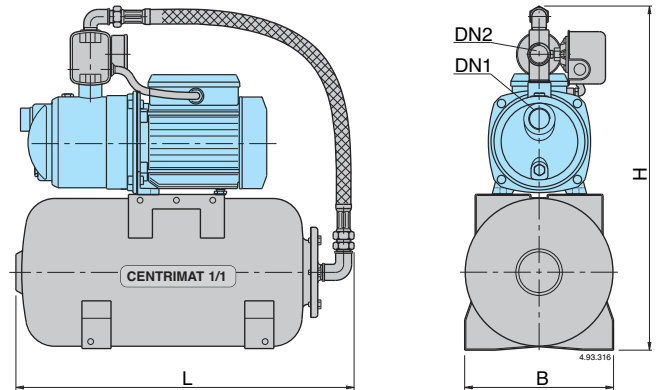


## Characteristic, dimensions and weights

### CENTRIMAT



### CENTRIMAT 1/1



### CENTRIMAT

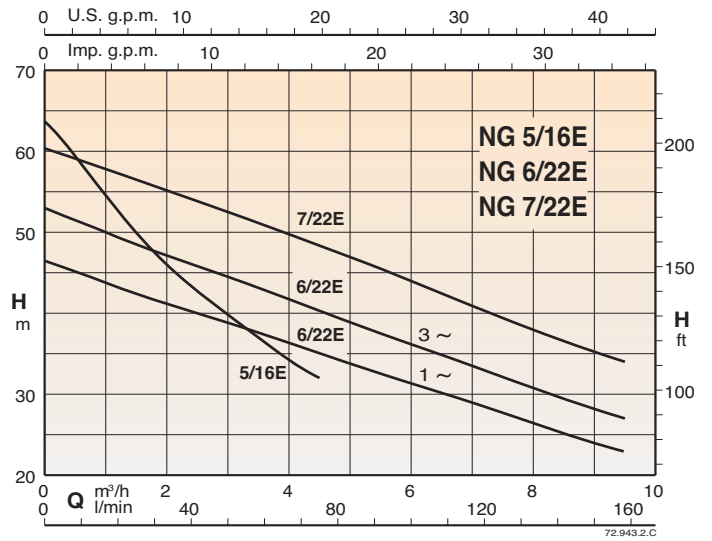
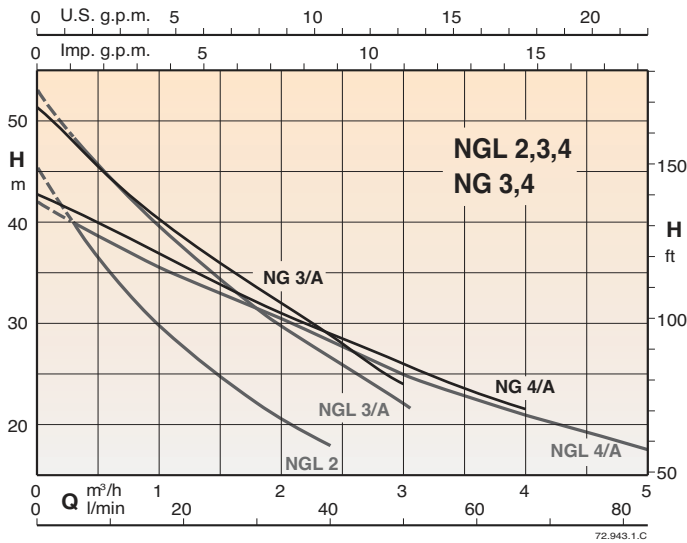
3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
MXP 203/24	MXPM 203/24	0,45	0,6	65	1,5÷2,7	G 1	G1	360	427	583	14
MXP 204/A/24	MXPM 204/A/24	0,55	0,75	70	2,0÷3,5	G 1	G1		456	583	15
MXP 403/A/24	MXPM 403/A/24	0,55	0,75	110	1,5÷2,7	G 1	G1		456	583	15
MXP 404/A/24	MXPM 404/A/24	0,75	1	110	2,0÷3,5	G 1	G1		456	583	16

### CENTRIMAT 1/1

3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
MXP 203/20	MXPM 203/20	0,45	0,6	65	1,5÷2,7	G 1	G1	255	540	593	15
MXP 204/A/20	MXPM 204/A/20	0,55	0,75	70	2,0÷3,5	G 1	G1		540	593	16
MXP 403/A/20	MXPM 403/A/20	0,55	0,75	110	1,5÷2,7	G 1	G1		540	593	16
MXP 404/A/20	MXPM 404/A/20	0,75	1	110	2,0÷3,5	G 1	G1		540	593	17

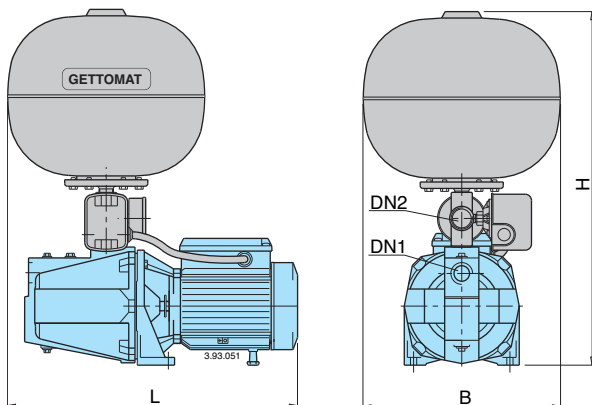
\* Maximum pump flow at minimum set pressure of pressure switch.

## Coverage chart

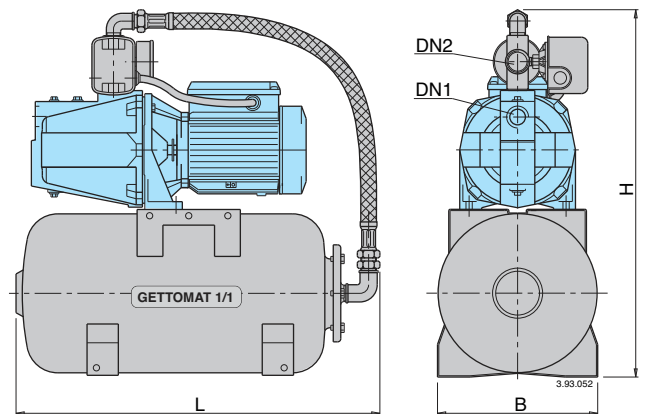


## Characteristic, dimensions and weights

GETTOMAT



GETTOMAT 1/1



### GETTOMAT

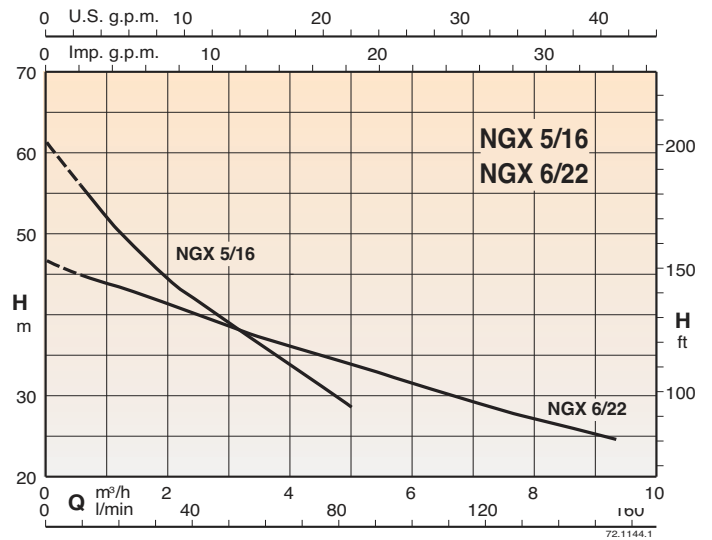
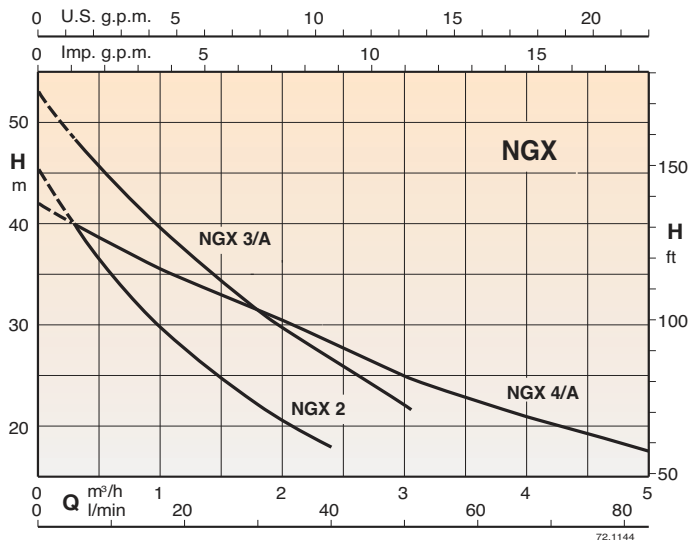
3~ 230/400V	1~ 230V	kW	HP	Q max * l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
NGL 2/24	NGLM 2/24	0,45	0,6	35	2,0÷3,5	G 1	G1	360	427	583	14,5
NGL 3/A/24	NGLM 3/A/24	0,55	0,75	45	2,5÷4,0	G 1	G1		456	583	16,5
NGL 4/A/24	NGLM 4/A/24	0,75	1	72	2,0÷3,5	G 1	G1		456	583	17,5
NG 3/A/24	NGM 3/A/24	0,55	0,75	50	2,5÷4,0	G1	G1	360	480	610	25,1
NG 4/A/24	NGM 4/A/24	0,75	1	65	2,0÷3,5	G1	G1		610	28,9	
NG 5/16E/24	NGM 5/16E/24	1,1	1,5	65	3,5÷5,0	G 1 1/2	G1	570	650	35,5	
	NGM 6/22E/24	1,5	2	140	2,5÷4,0	G 1 1/2	G1		650	37,5	
NG 6/22E/24		1,5	2	140	3,0÷4,5	G 1 1/2	G1		650	37,5	
NG 7/22E/24	-	2,2	3	150	3,5÷5,0	G 1 1/2	G1	650	39,5		

### GETTOMAT 1/1

3~ 230/400V	1~ 230V	kW	HP	Q max * l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
NGL 2/20	NGLM 2/20	0,45	0,6	35	2,0÷3,5	G 1	G1	255	593	593	15,5
NGL 3/A/20	NGLM 3/A/20	0,55	0,75	45	2,5÷4,0	G 1	G1		593	17,5	
NGL 4/A/20	NGLM 4/A/20	0,75	1	72	2,0÷3,5	G 1	G1		593	18,5	
NG 3/A/20	NGM 3/A/20	0,55	0,75	50	2,5÷4,0	G1	G1	255	610	26	
NG 4/A/20	NGM 4/A/20	0,75	1	65	2,0÷3,5	G1	G1		610	29,7	
NG 5/16E/20	NGM 5/16E/20	1,1	1,5	65	3,5÷5,0	G 1 1/2	G1	580	640	36,2	
	NGM 6/22E/20	1,5	2	140	2,5÷4,0	G 1 1/2	G1		640	38,5	
NG 6/22E/20		1,5	2	140	3,0÷4,5	G 1 1/2	G1		640	38,5	
NG 7/22E/20	-	2,2	3	150	3,5÷5,0	G 1 1/2	G1	640	40		

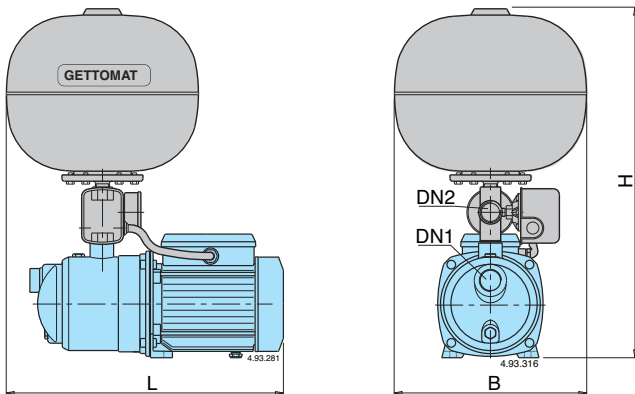
\* Maximum pump flow at minimum set pressure of pressure switch.

### Coverage chart

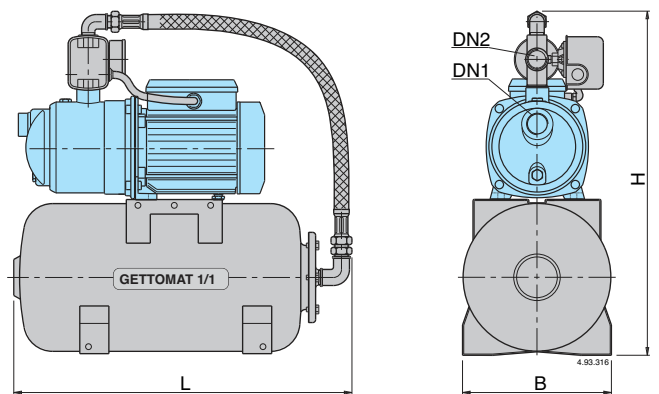


### Characteristic, dimensions and weights

GETTOMAT



GETTOMAT 1/1



### GETTOMAT

3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
NGX 2/24	NGXM 2/24	0,45	0,6	35	2,0÷3,5	G 1	G1	360	427	583	14,5
NGX 3/A/24	NGXM 3/A/24	0,55	0,75	45	2,5÷4,0	G 1	G1		456	583	16,5
NGX 4/A/24	NGXM 4/A/24	0,75	1	72	2,0÷3,5	G 1	G1	456	583	17,5	
NGX 5/16/24	NGXM 5/16/24	1,1	1,5	62	3,5÷5,0	G 1 1/4	G1	528	626	23,5	
NGX 5/16/24	NGXM 6/22/24	1,5	2	150	2,5÷4,0	G 1 1/4	G1	528	626	25,5	

### GETTOMAT 1/1

3~ 230/400V	1~ 230V	kW	HP	Q max* l/min	Pres. switch bar	DN1	DN2	mm			kg
								B	L	H	
NGX 2/20	NGXM 2/20	0,45	0,6	35	2,0÷3,5	G 1	G1	255	540	593	15,5
NGX 3/A/20	NGXM 3/A/20	0,55	0,75	45	2,5÷4,0	G 1	G1		540	593	17,5
NGX 4/A/20	NGXM 4/A/20	0,75	1	72	2,0÷3,5	G 1	G1	540	593	18,5	
NGX 5/16/20	NGXM 5/16/20	1,1	1,5	62	3,5÷5,0	G 1 1/4	G1	540	638	24,5	
NGX 6/22/20	NGXM 6/22/20	1,5	2	150	2,5÷4,0	G 1 1/4	G1	540	638	26,5	

\* Maximum pump flow at minimum set pressure of pressure switch.

# 1MXP.EM, 1MGP.EM, 1MXH.EM, 1MXSU.EM, 1MXVB.EM

Constant pressure boosting sets with **EASYMAT** frequency converter



## Execution

Constant pressure boosting sets with one pump and EASYMAT frequency converter  
Ball valve and non return valve on suction side, ball valve and pressure gauge on delivery side  
Suitable for installation of a 8-lt cylindrical pressure vessel on delivery side

### EASYMAT device:

Frequency converter installed directly on the pump delivery pipe and water cooled (patented).

Only three parameters to set at starting:

- Maximum motor current
- Working frequency
- Working pressure

### Possibility to display:

- Pressure of the system
- Working frequency
- Absorbed current
- Alarms

## Operation



### CONSTANT PRESSURE MODE:

the system keeps the pressure constant when the quantity of water requested by the user changes.  
According to the water consumption, the pump at variable speed ensures the required water quantity at the set pressure



### FIXED SPEED MODE:

the system works at a fixed speed that user can choose according to his need.

## Applications

For drawing water out of a well

As pressure boosting pump for central water systems with low pressure (follow local specifications if increasing network pressure)

## Motors

2-pole induction motors, 50Hz, n=2900 rpm, suitable for operation with frequency converter

- Single-phase 230V +/-10%
- Three-phase 230V +/-10%

Class F insulation

IP 54 protection

Execution according IEC 60034

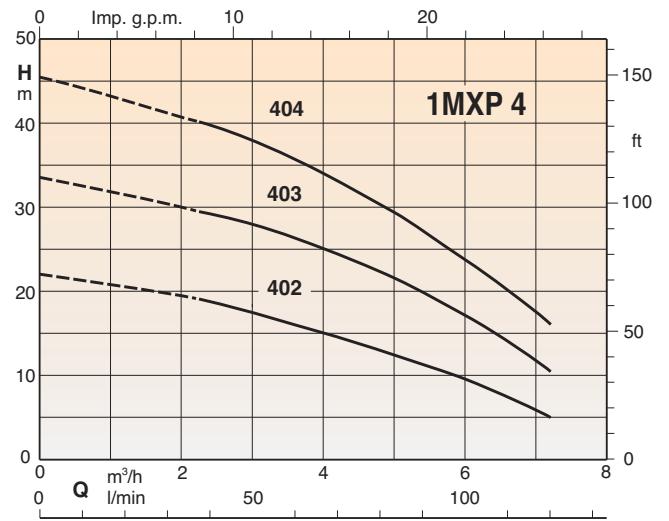
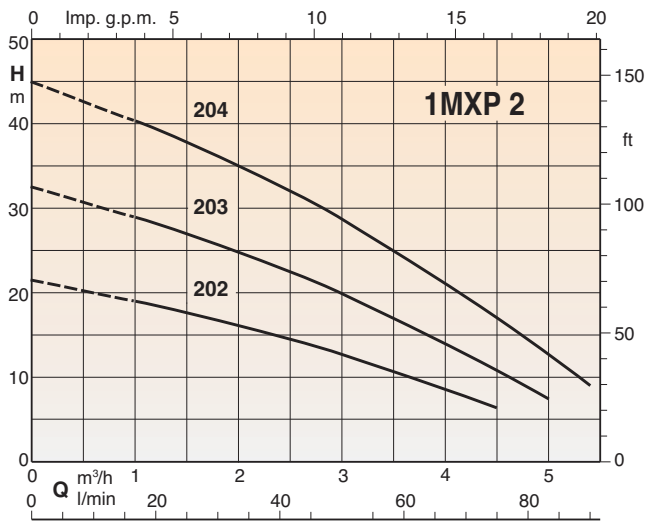
Other voltages on demand

## Pressure vessels (on demand)

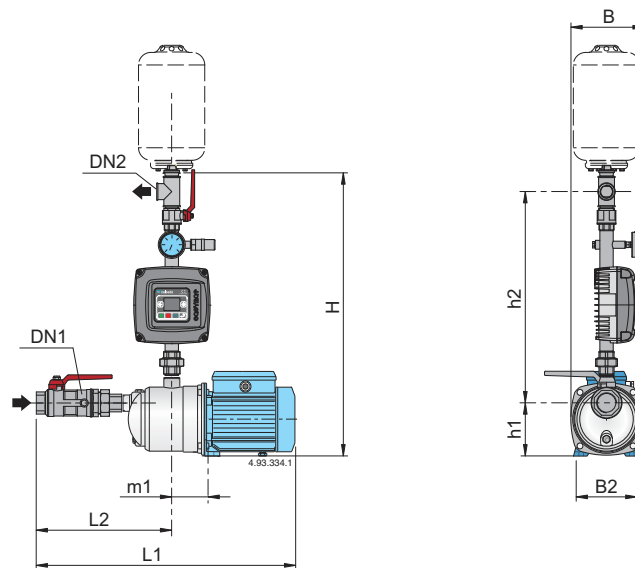
Cylindrical with capacity 8 liters, membrane type, air precharged



## Coverage chart

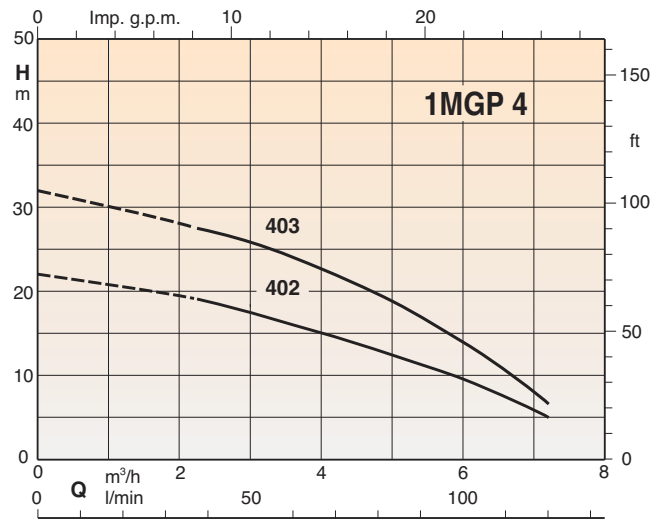
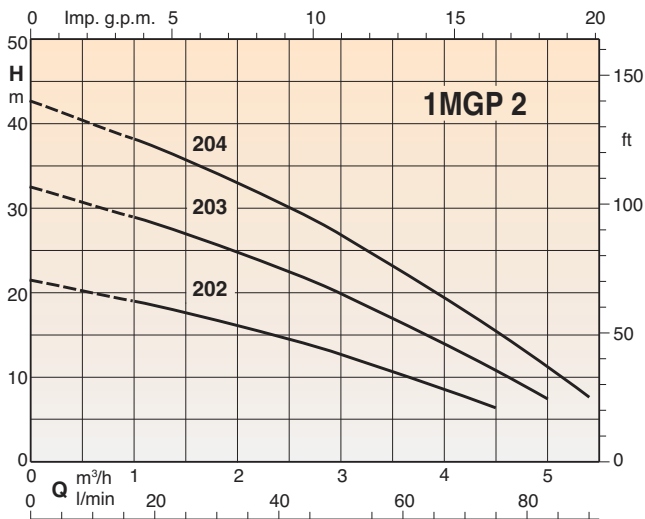


## Characteristic and dimensions

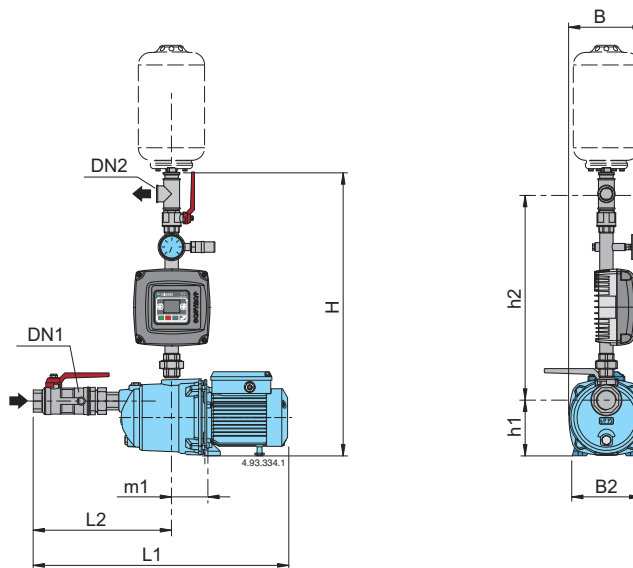


Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm									
					kW	HP			H	h1	h2	L1	L2	m1	B	B2		
1MXP 202-EMT	2,1	1,7	1MXPM 202-EMM	2,3	0,33	0,45												
1MXP 203-EMT	3,2	2,4	1MXPM 203-EMM	3	0,45	0,6	G 1	G 1	680	127	495	516	269	95	165	146		
1MXP 204/A-EMT	4	2,8	1MXPM 204/A-EMM	4,2	0,55	0,75												
1MXP 402-EMT	3,2	2,4	1MXPM 402-EMM	3	0,45	0,6												
1MXP 403/A-EMT	4	2,8	1MXPM 403/A-EMM	4,2	0,55	0,75	G 1	G 1	680	127	495	545	269	95	165	146		
1MXP 404/A-EMT	5	3,5	1MXPM 404/A-EMM	5,4	0,75	1												

## Coverage chart

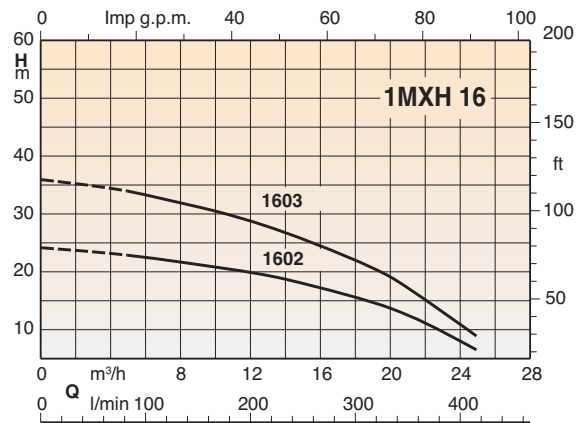
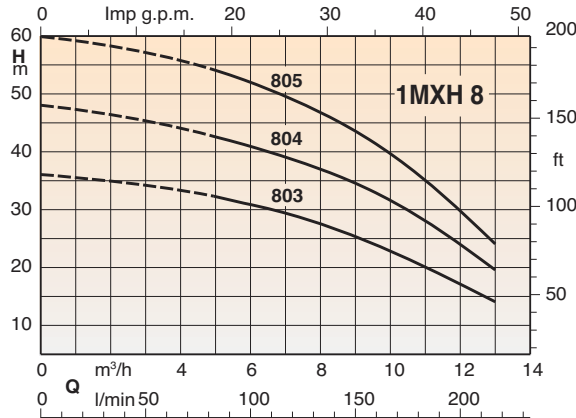
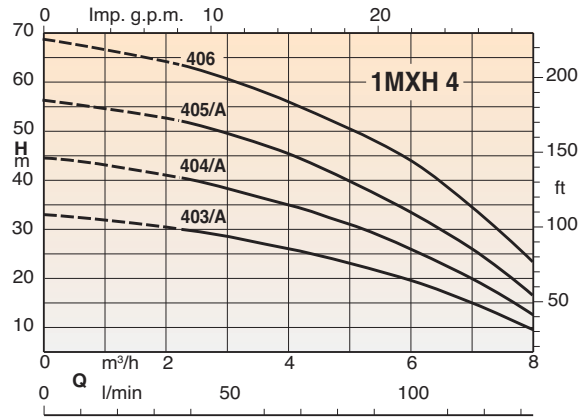
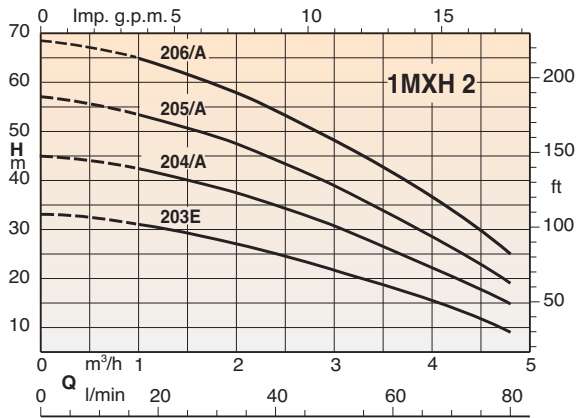


## Characteristic and dimensions

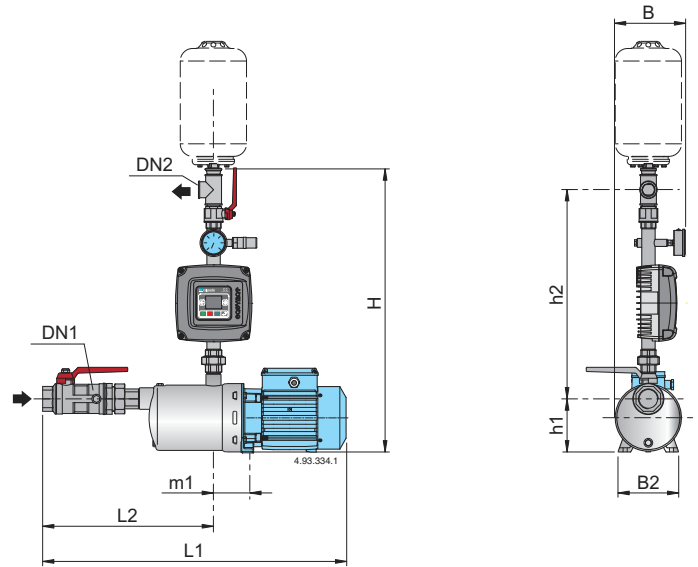


Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm									
					kW	HP			H	h1	h2	L1	L2	m1	B	B2		
1MGP 202-EMT	2,1	1,7	1MGPM 202-EMM	2,3	0,33	0,45												
1MGP 203-EMT	3,2	2,4	1MGPM 203-EMM	3	0,45	0,6	G 1	G 1	685	116	504	516	269	95	165	146		
1MGP 204-EMT	4	2,8	1MGPM 204-EMM	3,3	0,55	0,75												
1MGP 402-EMT	3,2	2,4	1MGPM 402-EMM	3	0,45	0,6	G 1	G 1	685	116	504	516	269	95	165	146		
1MGP 403-EMT	4,3	3	1MGPM 403-EMM	3,5	0,55	0,75												

## Coverage chart

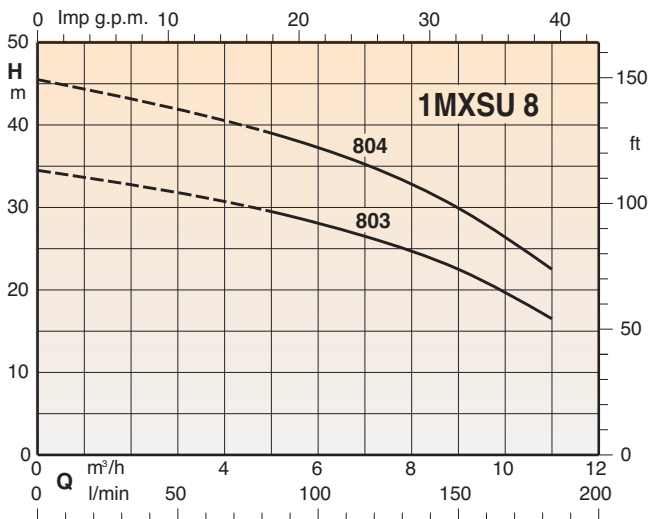
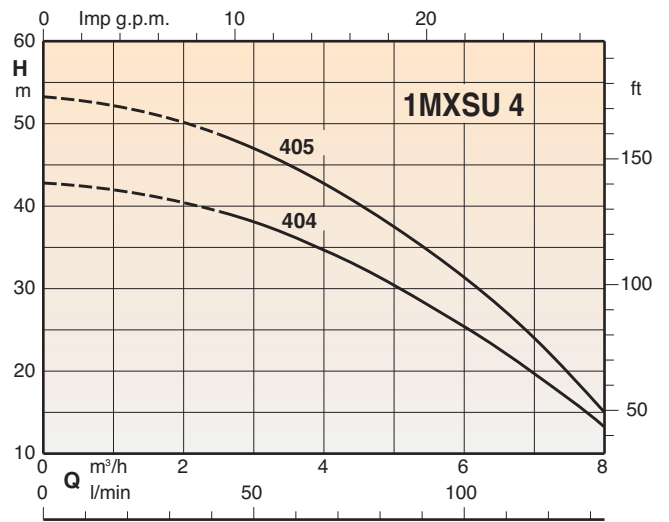
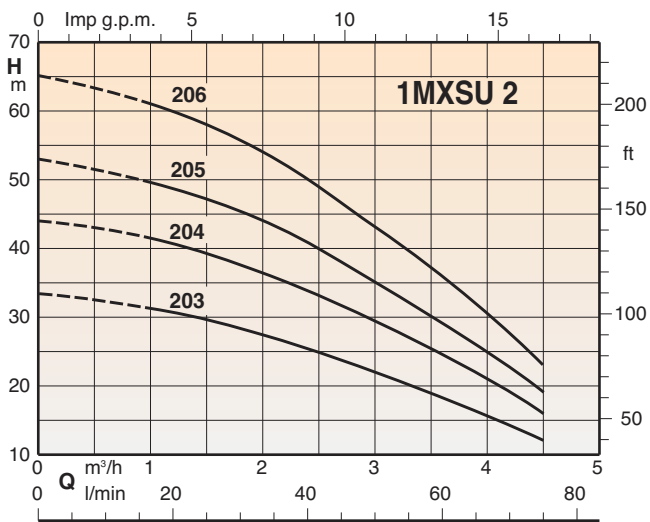


## Characteristic and dimensions

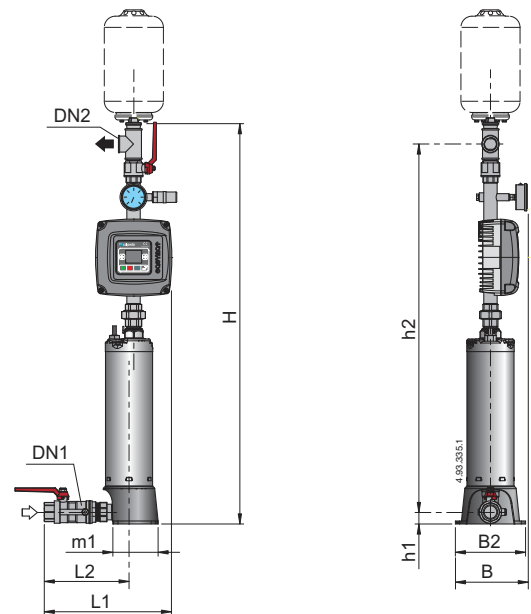


Mains: 1~ 230V Motor: 3~ 230V	mains		motor		P <sub>2</sub>		DN1	DN2	mm							
	A	A	A	A	kW	HP			H	h1	h2	L1	L2	m1	B	B2
1MXH 203E-EMT	3,2	2,4	1MXHM 203E-EMM	3	0,45	0,6	G 1 1/4	G 1	708	127	516	511	274	88	165	146
1MXH 204/A-EMT	4	2,8	1MXHM 204/A-EMM	4,2	0,55	0,75						561	298			
1MXH 205/A-EMT	5	3,5	1MXHM 205/A-EMM	5,4	0,75	1						585	322			
1MXH 206/A-EMT	6,3	4,7	1MXHM 206/A-EMM	7,4	1,1	1,5						609	346			
1MXH 403/A-EMT	4	2,8	1MXHM 403/A-EMM	4,2	0,55	0,75	G 1 1/4	G 1	708	127	516	537	274	88	165	146
1MXH 404/A-EMT	5	3,5	1MXHM 404/A-EMM	5,4	0,75	1						561	298			
1MXH 405/A-EMT	6,7	4,7	1MXHM 405/A-EMM	7,4	1,1	1,5						585	322			
1MXH 406-EMT	8	6,4			1,5	2						680	346			
1MXH 803-EMT	7,1	5	1MXHM 803-EMM	7,4	1,1	1,5	G 1 1/2	G 1	708	127	516	657	323	88	165	146
1MXH 804-EMT	8,6	6,4			1,5	2						687	353			
1MXH 805-EMT	10,7	7,5			1,8	2,5						717	383			
1MXH 1602-EMT	9,1	6,4			1,5	2	G 2	G 1 1/2	750	117	560	752	404	101	165	146
1MXH 1603-EMT	10,7	7,5			1,8	2,5						752	404			

## Coverage chart

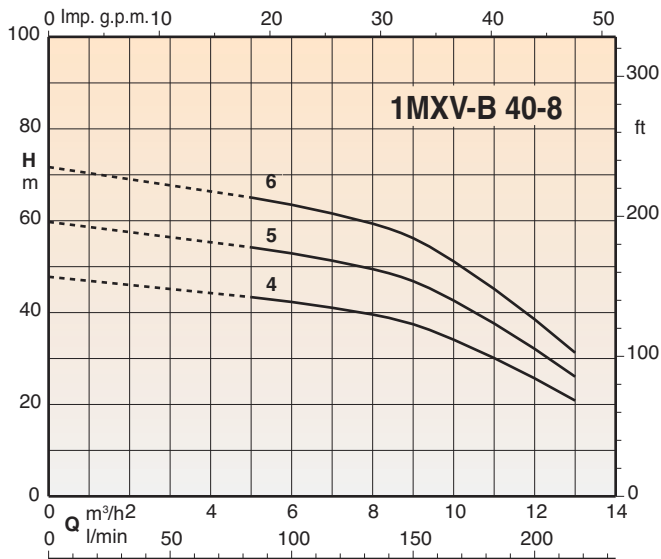
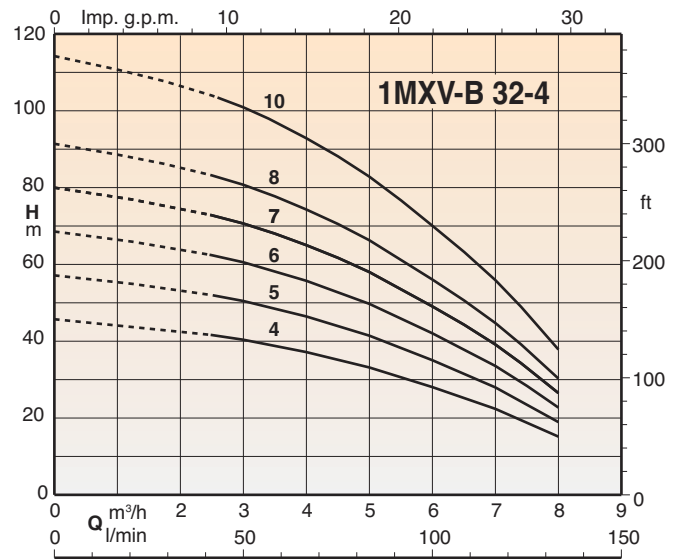
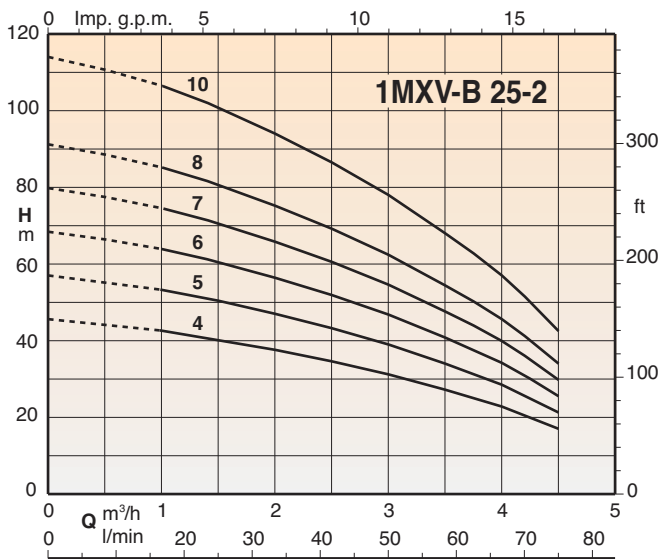


## Characteristic and dimensions

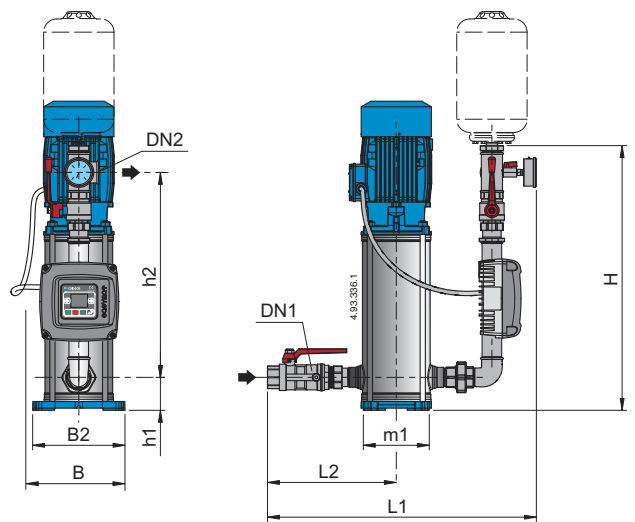


Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm									
					kW	HP			H	h1	h2	L1	L2	m1	B	B2		
1MXSU 204/A-EMT	3,9	2,7	1MXSUM 204/A-EMM	4,1	0,55	0,75			1071		973							
1MXSU 205/A-EMT	4,7	3,3	1MXSUM 205/A-EMM	5	0,75	1	G 1 1/4	G 1 1/4	1095	32	997	304	225	123	190	190		
1MXSU 206/A-EMT	5,4	3,8	1MXSUM 206/A-EMM	6	0,9	1,2			1119		1021							
1MXSU 404/A-EMT	5,4	3,8	1MXSUM 404/A-EMM	6	0,9	1,2	G 1 1/4	G 1 1/4	1071		973							
1MXSU 405/A-EMT	6,4	4,5	1MXSUM 405/A-EMM	7	1,1	1,5	G 1 1/4	G 1 1/4	1095	32	997	304	225	123	190	190		
1MXSU 803/A-EMT	6,4	4,5	1MXSUM 803/A-EMM	7	1,1	1,5	G 1 1/4	G 1 1/4	1095		997							
1MXSU 804/A-EMT	9,4	6,6			1,5	2	G 1 1/4	G 1 1/4	1095	32	997	304	225	123	190	190		

## Coverage chart



## Characteristic and dimensions



Mains: 1~ 230V Motor: 3~ 230V	mains		Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm							
	A	A			kW	HP			H	h1	h2	L1	L2	m1	B	B2
1MXV-B 25-204-EMT	5,4	4	1MXV-BM 25-204-EMM	5,8	0,75	1	G 1	G 1	577	75	437	588	262	150	218	210
1MXV-B 25-205-EMT	5,4	4	1MXV-BM 25-205-EMM	5,8	0,75	1										
1MXV-B 25-206-EMT	7,1	5	1MXV-BM 25-206-EMM	7,4	1,1	1,5										
1MXV-B 25-207-EMT	7,1	5	1MXV-BM 25-207-EMM	7,4	1,1	1,5										
1MXV-B 25-208-EMT	10,8	7,5			1,5	2										
1MXV-B 25-210-EMT	10,8	7,5			1,5	2										
1MXV-B 32-404-EMT	7,1	5	1MXV-BM 32-404-EMM	7,4	1,1	1,5	G 1 1/4	G 1 1/4	600	75	458	633	288	150	218	210
1MXV-B 32-405-EMT	7,1	5	1MXV-BM 32-405-EMM	7,4	1,1	1,5										
1MXV-B 32-406-EMT	10,8	7,5			1,5	2										
1MXV-B 32-407-EMT	10,8	7,5			1,5	2										
1MXV-B 32-408-EMT	13,2	9,15			2,2	3										
1MXV-B 32-410-EMT	13,2	9,15			2,2	3										
1MXV-B 40-804-EMT	10,8	7,5			1,5	2	G 1 1/2	G 1 1/2	623	80	470	675	318	190	246	246
1MXV-B 40-805-EMT	13,2	9,15			2,2	3										
1MXV-B 40-806-EMT	13,2	9,15			2,2	3										

# 2MXP.EM, 2MGP.EM, 2MXH.EM, 2MXSU.EM, 2MXVB.EM

Constant pressure boosting sets with **EASYMAT** frequency converter



## Execution

Constant pressure boosting sets with **EASYMAT** frequency converter made of two pumps, ball valve and non return valve on suction side, ball valve and pressure gauge on delivery side.

Suction and delivery manifolds in stainless steel AISI 304.

Suitable for installation of a 8-lt cylindrical pressure vessel on delivery side.

### **EASYMAT device:**

Frequency converter installed directly on the pump delivery pipe and water cooled (patented).

Only three parameters to set at starting:

- Maximum motor current
- Working frequency
- Working pressure

### **Possibility to display:**

- Pressure of the system
- Working frequency
- Absorbed current
- Alarms

## Operation



According to the water consumption, one or more pumps starts, all at variable speed, to ensure the required water quantity at the set pressure.

### **CONSTANT PRESSURE MODE:**

the system keeps the pressure constant when the quantity of water requested by the user changes.



### **FIXED SPEED MODE:**

the system works at a fixed speed that user can choose according to his need.

## Applications

For drawing water out of a well

As pressure boosting pump for central water systems with low pressure (follow local specifications if increasing network pressure)

## Motors

2-pole induction motors, 50Hz, n=2900 rpm, suitable for operation with frequency converter

- Single-phase 230V +/-10%
- Three-phase 230V +/-10%

Class F insulation

IP 54 protection

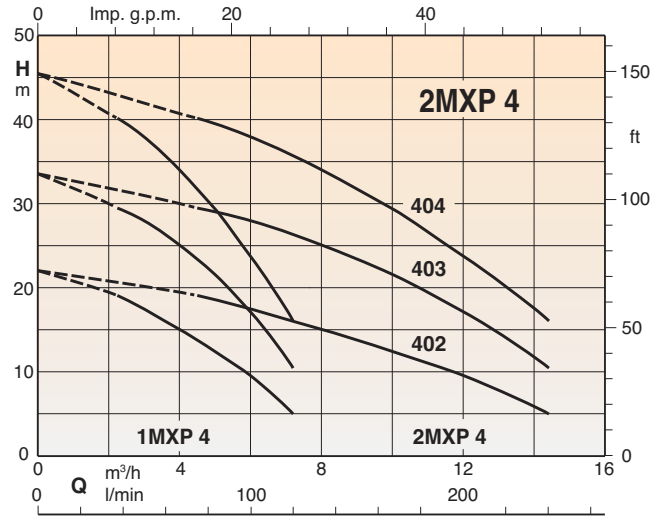
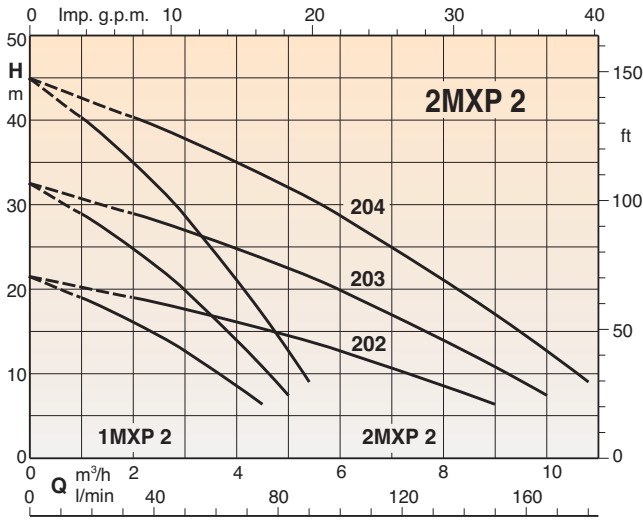
Execution according IEC 60034

Other voltages on demand

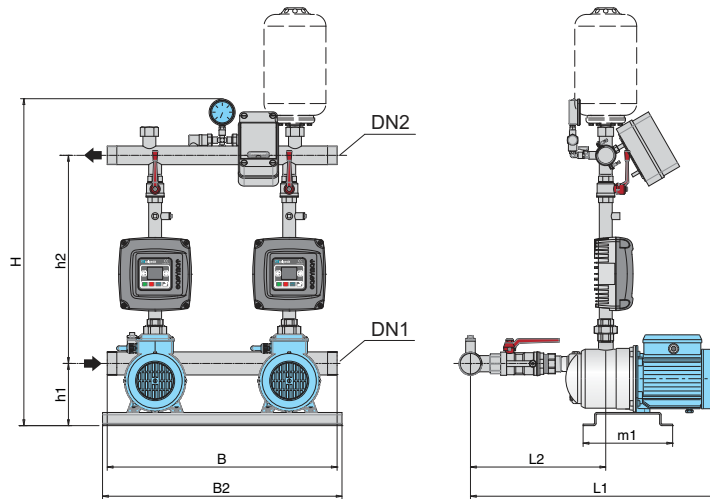
## Pressure vessels (on demand)

Cylindrical with capacity 8 liters, membrane type, air precharged

## Coverage chart

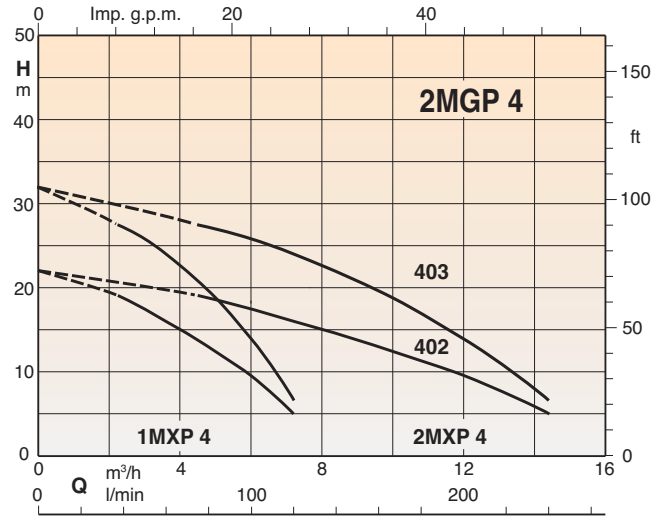
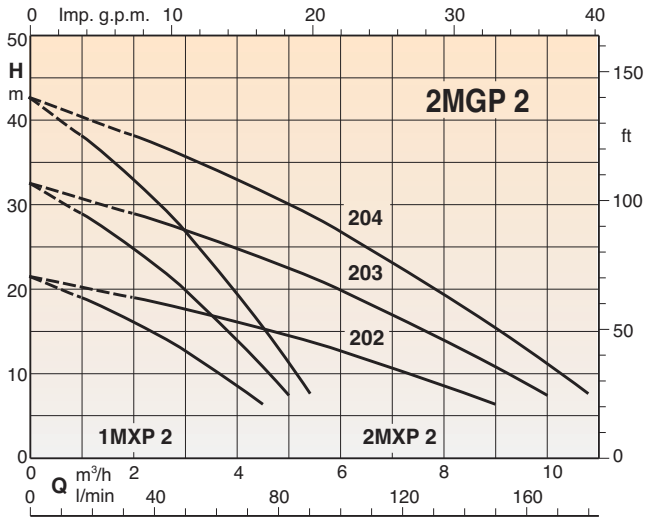


## Characteristic and dimensions

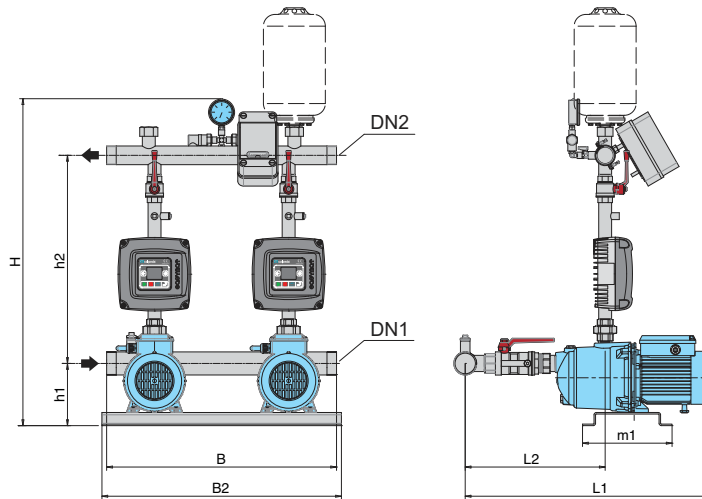


Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm									
					kW	HP			H	h1	h2	L1	L2	m1	B	B2		
2MXP 202-EMT	2 x 2,1	2 x 1,7	2MXPM 202-EMM	2 x 2,3	2 x 0,33	2 x 0,45												
2MXP 203-EMT	2 x 3,2	2 x 2,4	2MXPM 203-EMM	2 x 3	2 x 0,45	2 x 0,6	G 2	G 1 1/2	841	150	510	573	326	240	600	625		
2MXP 204/A-EMT	2 x 4	2 x 2,8	2MXPM 204/A-EMM	2 x 4,2	2 x 0,55	2 x 0,75												
2MXP 402-EMT	2 x 3,2	2 x 2,4	2MXPM 402-EMM	2 x 3	2 x 0,45	2 x 0,6												
2MXP 403/A-EMT	2 x 4	2 x 2,8	2MXPM 403/A-EMM	2 x 4,2	2 x 0,55	2 x 0,75	G 2	G 1 1/2	841	150	510	602	326	240	600	625		
2MXP 404/A-EMT	2 x 5	2 x 3,5	2MXPM 404/A-EMM	2 x 5,4	2 x 0,75	2 x 1												

## Coverage chart



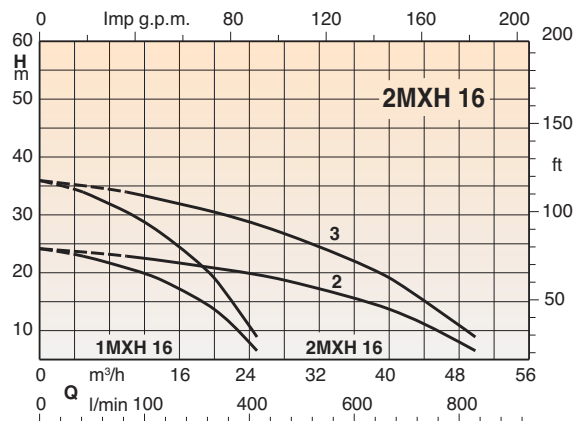
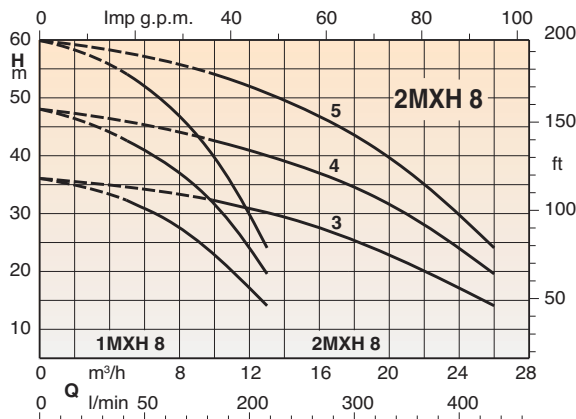
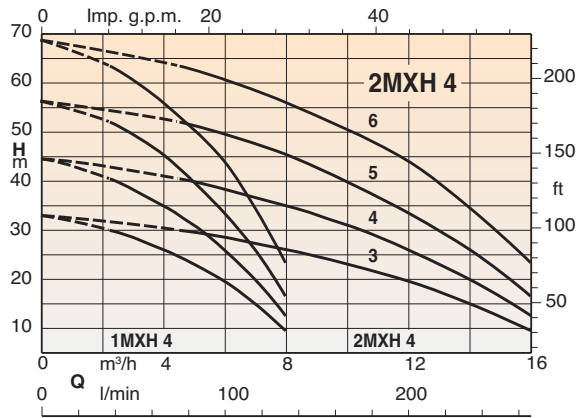
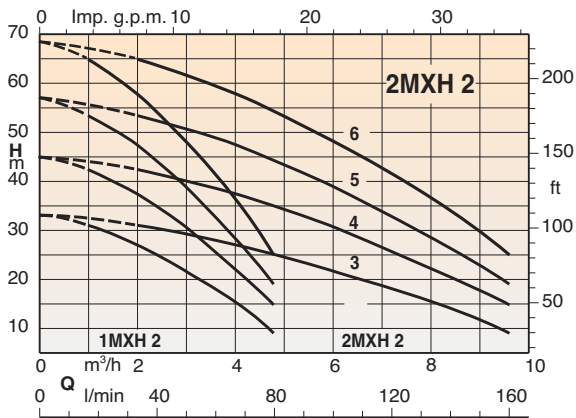
## Characteristic and dimensions



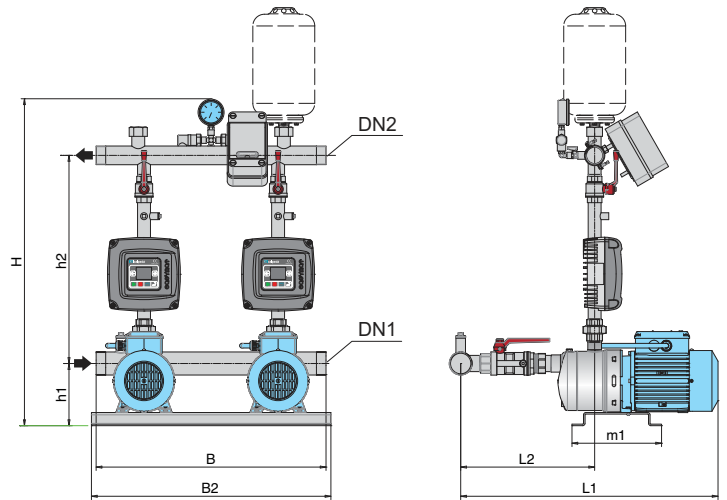
Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm							
					kW	HP			H	h1	h2	L1	L2	m1	B	B2
2MGP 202-EMT	2 x 2,1	2 x 1,7	2MGPM 202-EMM	2 x 2,3	2 x 0,33	2 x 0,45	G 2	G 1 1/2	825	150	494	573	326	240	600	625
2MGP 203-EMT	2 x 3,2	2 x 2,4	2MGPM 203-EMM	2 x 3	2 x 0,45	2 x 0,6										
2MGP 204-EMT	2 x 4	2 x 2,8	2MGPM 204-EMM	2 x 3,3	2 x 0,55	2 x 0,75										
2MGP 402-EMT	2 x 3,2	2 x 2,4	2MGPM 402-EMM	2 x 3	2 x 0,45	2 x 0,6	G 2	G 1 1/2	825	150	494	573	326	240	600	625
2MGP 403-EMT	2 x 4,3	2 x 3	2MGPM 403-EMM	2 x 3,5	2 x 0,55	2 x 0,75										



## Coverage chart

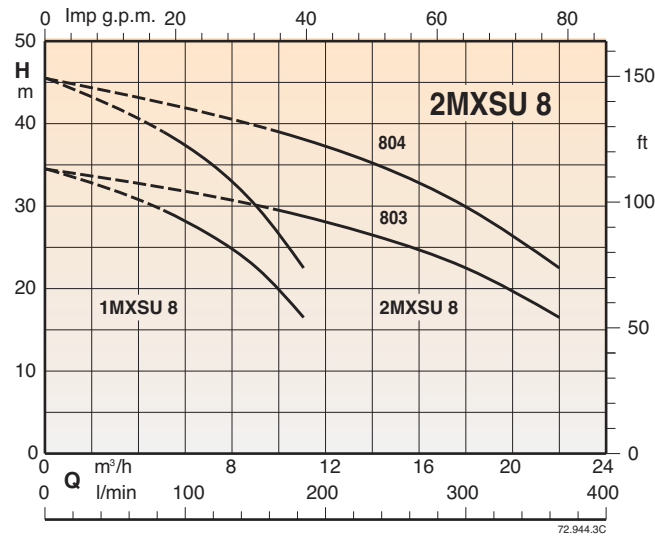
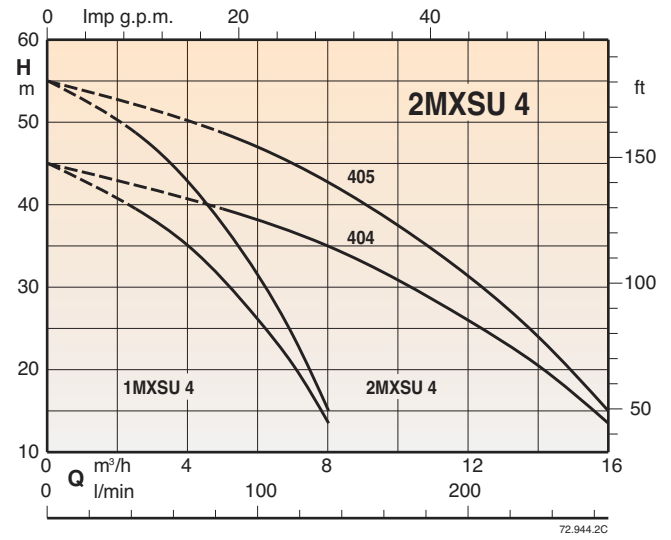
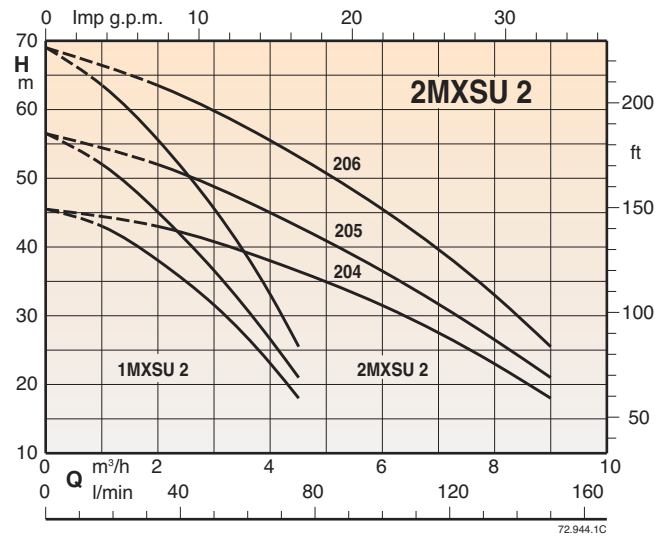


## Characteristic and dimensions

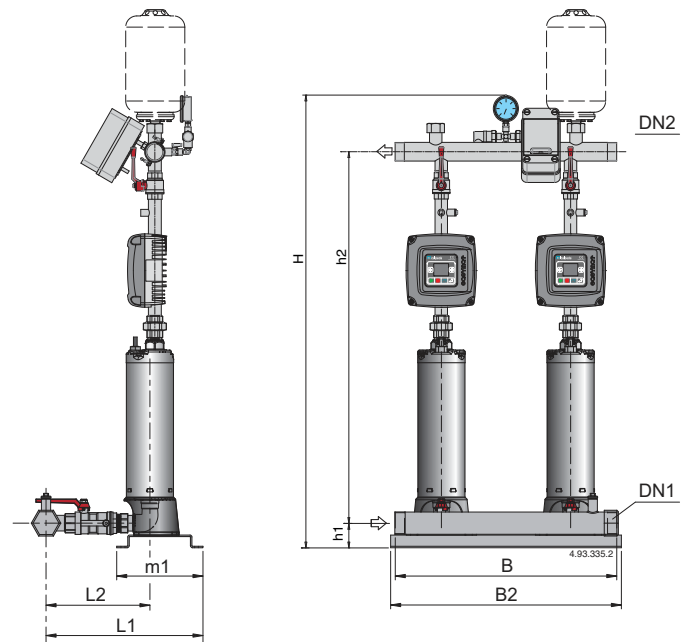


Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm							
					kW	HP			H	h1	h2	L1	L2	m1	B	B2
2MXH 203E-EMT	2 x 3,2	2 x 2,4	2MXHM 203E-EMM	2 x 3	2 x 0,45	2 x 0,6						563	326			
2MXH 204/A-EMT	2 x 4	2 x 2,8	2MXHM 204/A-EMM	2 x 4,2	2 x 0,55	2 x 0,75	G 2	G 1 1/2	848	161	506	613	350	240	600	625
2MXH 205/A-EMT	2 x 5	2 x 3,5	2MXHM 205/A-EMM	2 x 5,4	2 x 0,75	2 x 1						637	374			
2MXH 206/A-EMT	2 x 6,3	2 x 4,7	2MXHM 206/A-EMM	2 x 7,4	2 x 1,1	2 x 1,5						661	398			
2MXH 403/A-EMT	2 x 4	2 x 2,8	2MXHM 403/A-EMM	2 x 4,2	2 x 0,55	2 x 0,75						589	326			
2MXH 404/A-EMT	2 x 5	2 x 3,5	2MXHM 404/A-EMM	2 x 5,4	2 x 0,75	2 x 1	G 2	G 1 1/2	848	161	506	613	350	240	600	625
2MXH 405/A-EMT	2 x 6,7	2 x 4,7	2MXHM 405/A-EMM	2 x 7,4	2 x 1,1	2 x 1,5						637	374			
2MXH 406-EMT	2 x 8	2 x 6,4			2 x 1,5	2 x 2						732	398			
2MXH 803-EMT	2 x 7,1	2 x 5	2MXHM 803-EMM	2 x 7,4	2 x 1,1	2 x 1,5						727	393			
2MXH 804-EMT	2 x 8,6	2 x 6,4			2 x 1,5	2 x 2	G 2 1/2	G 2	854	161	512	757	423	240	600	625
2MXH 805-EMT	2 x 10,7	2 x 7,5			2 x 1,8	2 x 2,5						787	453			
2MXH 1602-EMT	2 x 9,1	2 x 6,4			2 x 1,5	2 x 2	G 3	G 2 1/2	882	151	551	829	481	240	600	625
2MXH 1603-EMT	2 x 10,7	2 x 7,5			2 x 1,8	2 x 2,5						829	481			

## Coverage chart

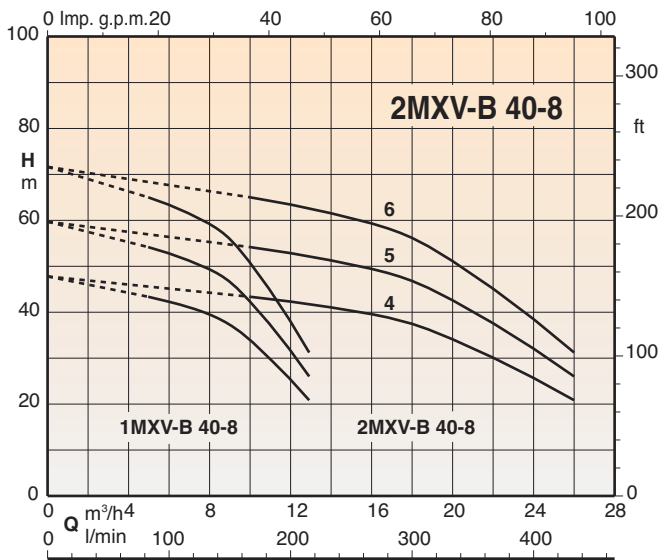
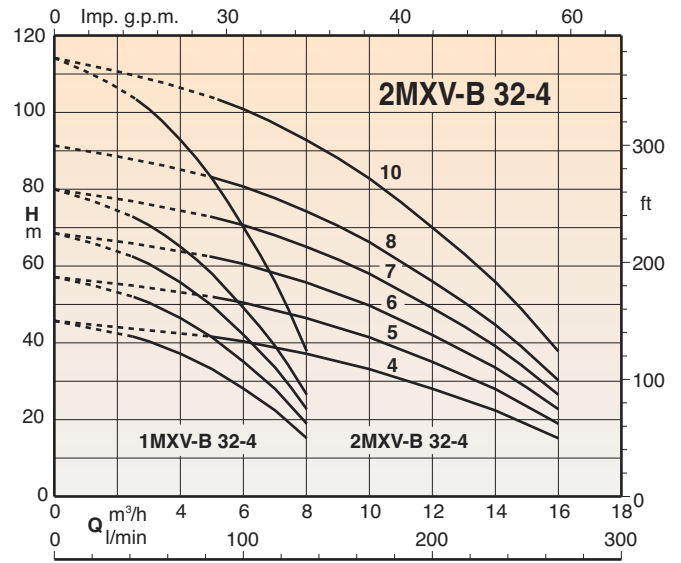
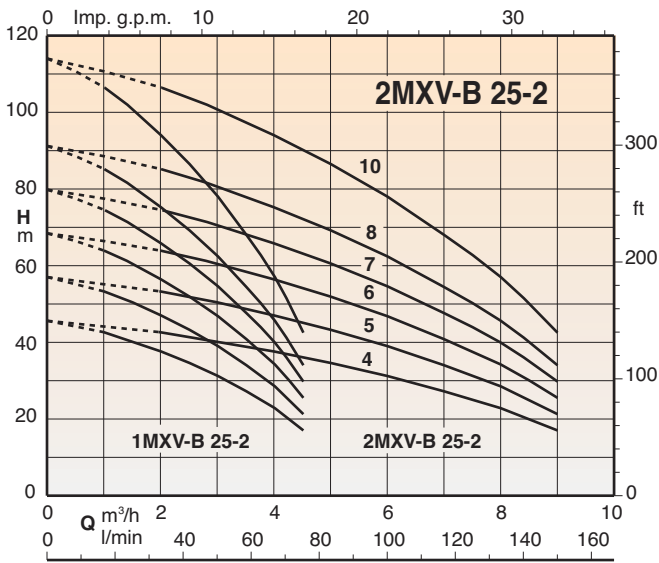


## Characteristic and dimensions

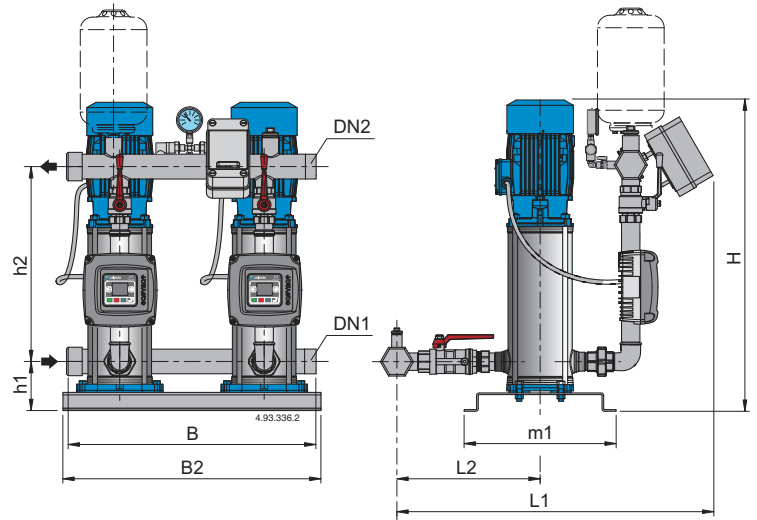


Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm									
					kW	HP			H	h1	h2	L1	L2	m1	B	B2		
2MXSU 204/A-EMT	2 x 3,9	2 x 2,7	2MXSUM 204/A-EMM	2 x 4,1	2 x 0,55	2 x 0,75			1205		958							
2MXSU 205/A-EMT	2 x 4,7	2 x 3,3	2MXSUM 205/A-EMM	2 x 5	2 x 0,75	2 x 1	G 2	G 2	1229	66	982	417	277	240	600	625		
2MXSU 206/A-EMT	2 x 5,4	2 x 3,8	2MXSUM 206/A-EMM	2 x 6	2 x 0,9	2 x 1,2			1253		1006							
2MXSU 404/A-EMT	2 x 5,4	2 x 3,8	2MXSUM 404/A-EMM	2 x 6	2 x 0,9	2 x 1,2	G 2	G 2	1205		958							
2MXSU 405/A-EMT	2 x 6,4	2 x 4,5	2MXSUM 405/A-EMM	2 x 7	2 x 1,1	2 x 1,5			1229	66	982	417	277	240	600	625		
2MXSU 803/A-EMT	2 x 6,4	2 x 4,5	2MXSUM 803/A-EMM	2 x 7	2 x 1,1	2 x 1,5	G 2	G 2	1229	66	982	417	277	240	600	625		
2MXSU 804/A-EMT	2 x 9,4	2 x 6,6			2 x 1,5	2 x 2			1229		982							

## Coverage chart



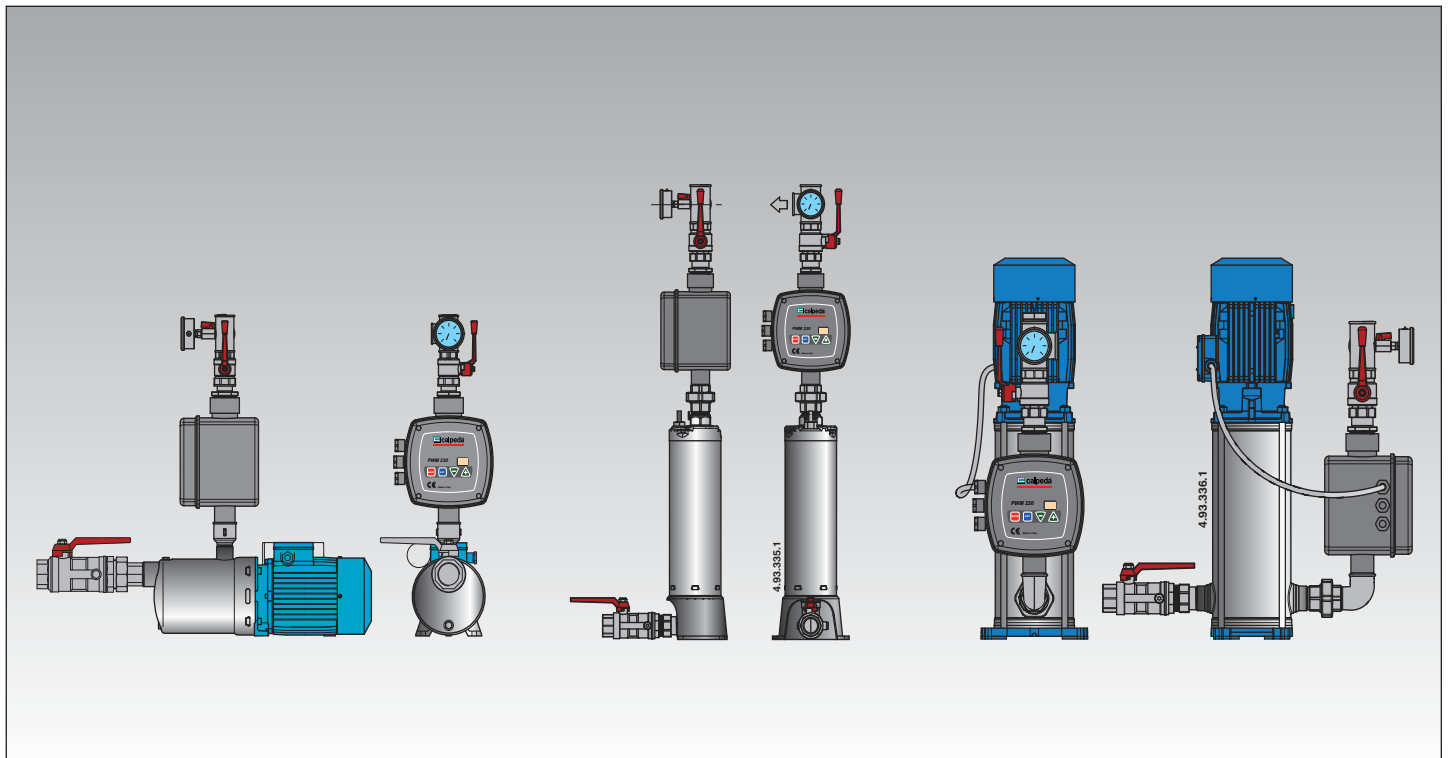
## Characteristic and dimensions



Mains: 1~ 230V Motor: 3~ 230V	mains A	motor A	Mains: 1~ 230V Motor: 1~ 230V	A	P <sub>2</sub>		DN1	DN2	mm							
					kW	HP			H	h1	h2	L1	L2	m1	B	B2
2MXV-B 25-204-EMT	2 x 5,4	2 x 4	2MXV-BM 25-204-EMM	2 x 5,8	2 x 0,75	2 x 1	G 1 1/2	G 1 1/2	727	119	461	501	315	365	600	625
2MXV-B 25-205-EMT	2 x 5,4	2 x 4	2MXV-BM 25-205-EMM	2 x 5,8	2 x 0,75	2 x 1										
2MXV-B 25-206-EMT	2 x 7,1	2 x 5	2MXV-BM 25-206-EMM	2 x 7,4	2 x 1,1	2 x 1,5										
2MXV-B 25-207-EMT	2 x 7,1	2 x 5	2MXV-BM 25-207-EMM	2 x 7,4	2 x 1,1	2 x 1,5										
2MXV-B 25-208-EMT	2 x 10,8	2 x 7,5			2 x 1,5	2 x 2										
2MXV-B 25-210-EMT	2 x 10,8	2 x 7,5			2 x 1,5	2 x 2										
2MXV-B 32-404-EMT	2 x 7,1	2 x 5	2MXV-BM 32-404-EMM	2 x 7,4	2 x 1,1	2 x 1,5	G 2	G 2	743	119	477	544	340	365	600	625
2MXV-B 32-405-EMT	2 x 7,1	2 x 5	2MXV-BM 32-405-EMM	2 x 7,4	2 x 1,1	2 x 1,5										
2MXV-B 32-406-EMT	2 x 10,8	2 x 7,5			2 x 1,5	2 x 2										
2MXV-B 32-407-EMT	2 x 10,8	2 x 7,5			2 x 1,5	2 x 2										
2MXV-B 32-408-EMT	2 x 13,2	2 x 9,15			2 x 2,2	2 x 3										
2MXV-B 32-410-EMT	2 x 13,2	2 x 9,15			2 x 2,2	2 x 3										
2MXV-B 40-804-EMT	2 x 10,8	2 x 7,5			2 x 1,5	2 x 2	G 2 1/2	G 2 1/2	765	124	495	598	388	365	600	625
2MXV-B 40-805-EMT	2 x 13,2	2 x 9,15			2 x 2,2	2 x 3										
2MXV-B 40-806-EMT	2 x 13,2	2 x 9,15			2 x 2,2	2 x 3										

# 1MXH.VT, 1MXSU.VT, 1MXVB.VT

Constant pressure boosting sets with Variomat frequency converter



## Execution

Constant pressure boosting sets with one pump and Variomat frequency converter  
Ball valve and non return valve on suction side, ball valve and pressure gauge on delivery side  
Suitable for installation of a 8-lt cylindrical pressure vessel on delivery side

### Variomat device:

Frequency converter installed directly on the pump delivery pipe and water cooled  
Only two parameters to set at starting:

- Maximum motor current
- Working pressure

### Possibility to display:

- Pressure of the system
- Working frequency
- Absorbed current
- Alarms

## Operation

According to the water consumption, the pump at variable speed ensures the required water quantity at the set pressure

## Applications

For drawing water out of a well  
As pressure boosting pump for central water systems with low pressure (follow local specifications if increasing network pressure)

## Motors

2-pole induction motors, 50Hz, n=2900 rpm, suitable for operation with frequency converter

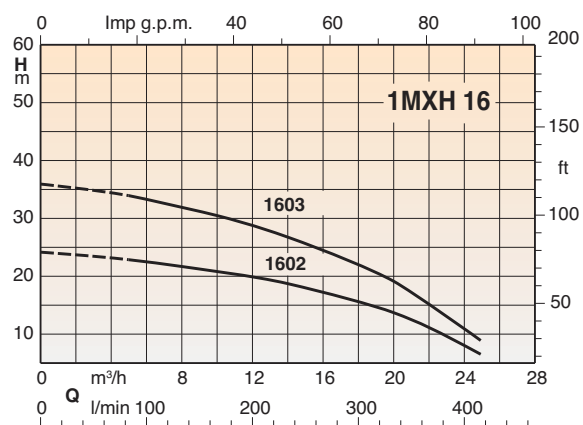
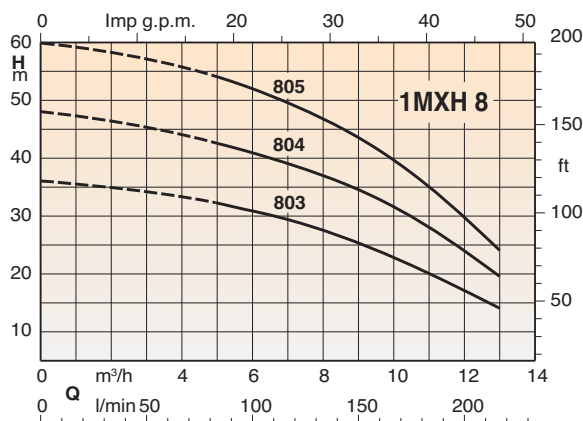
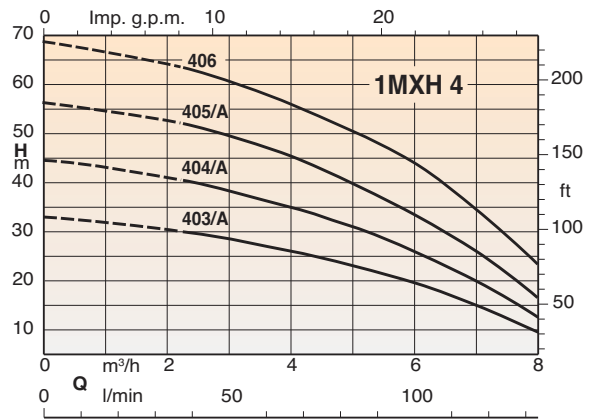
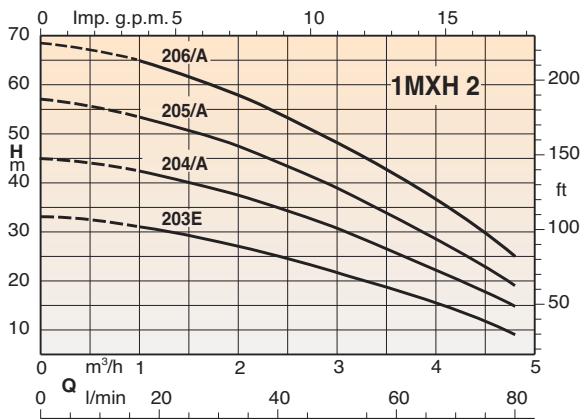
Threephase 230V +/-10%  
400V +/-10%

Class F insulation  
IP 54 protection  
Execution according IEC 60034  
Other voltages on demand

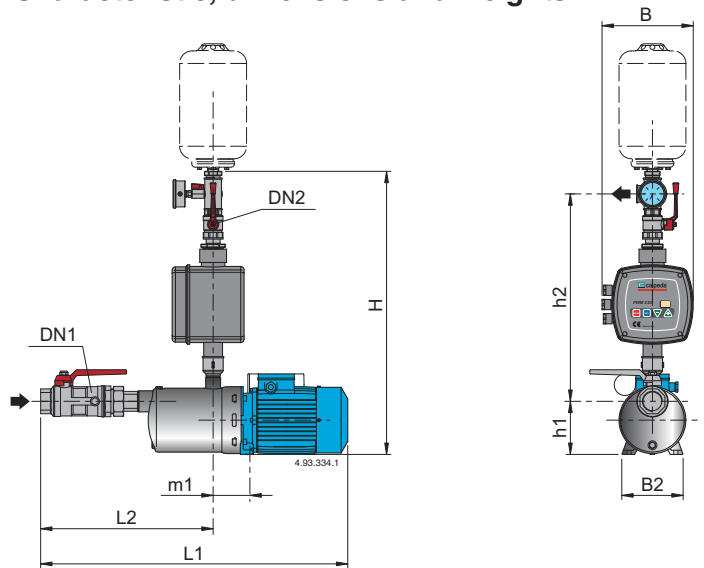
## Pressure vessels (on demand)

Cylindrical with capacity 8 liters, membrane type, air precharged

## Coverage chart

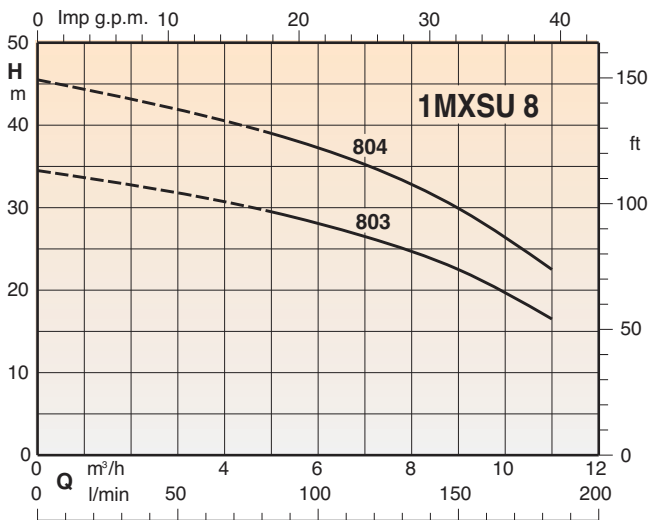
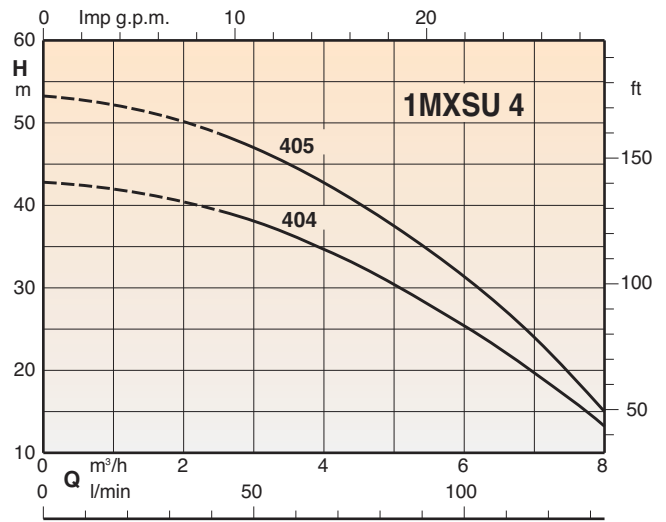
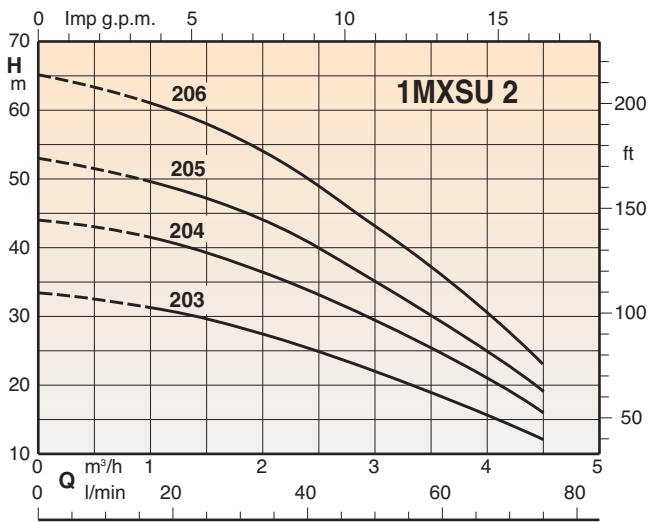


## Characteristic, dimensions and weights

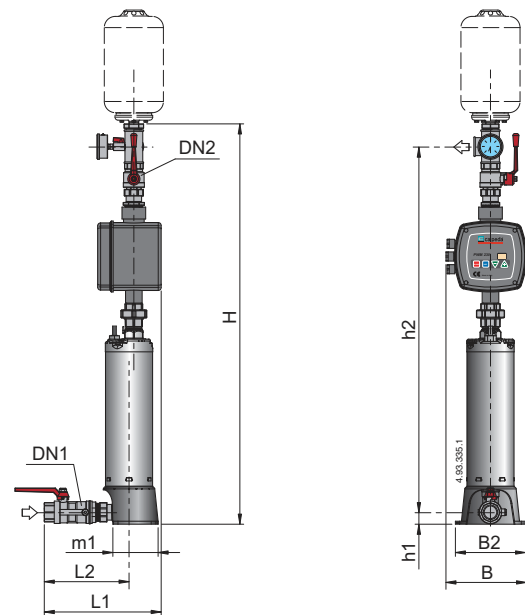


Mains: 3~ 400V Motor: 3~ 400V	A	P <sub>2</sub>		DN1	DN2	mm							
		kW	HP			H	h <sub>1</sub>	h <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	m <sub>1</sub>	B	B <sub>2</sub>
1MXH 203E-VTT	1,4	0,45	0,6	G 1 1/4	G 1	680	127	495	545	305	28	210	210
1MXH 204/A-VTT	1,6	0,55	0,75						565	330			
1MXH 205/A-VTT	2	0,75	1						590	355			
1MXH 206/A-VTT	2,7	1,1	1,5						675	375			
1MXH 403/A-VTT	1,6	0,55	0,75	G 1 1/4	G 1	680	127	495	545	305	28	210	210
1MXH 404/A-VTT	2	0,75	1						565	330			
1MXH 405/A-VTT	2,7	1,1	1,5						615	375			
1MXH 406-VTT	3,7	1,5	2						675	375			
1MXH 803-VTT	2,9	1,1	1,5	G 1 1/2	G 1	680	127	495	675	350	31	210	210
1MXH 804-VTT	3,7	1,5	2						705	380			
1MXH 805-VTT	4,3	1,8	2,5						735	410			
1MXH 1602-VTT	3,7	1,5	2	G 2	G 1 1/2	725	117	545	746	410	31	210	210
1MXH 1603-VTT	4,3	1,8	2,5						746	410			

## Coverage chart

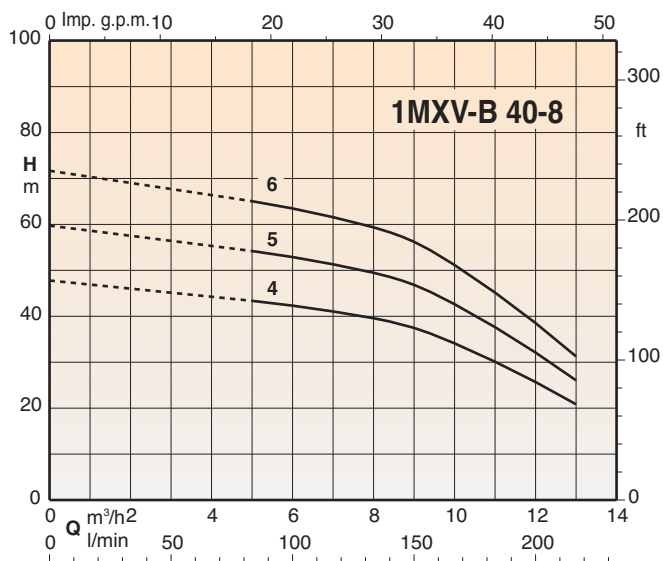
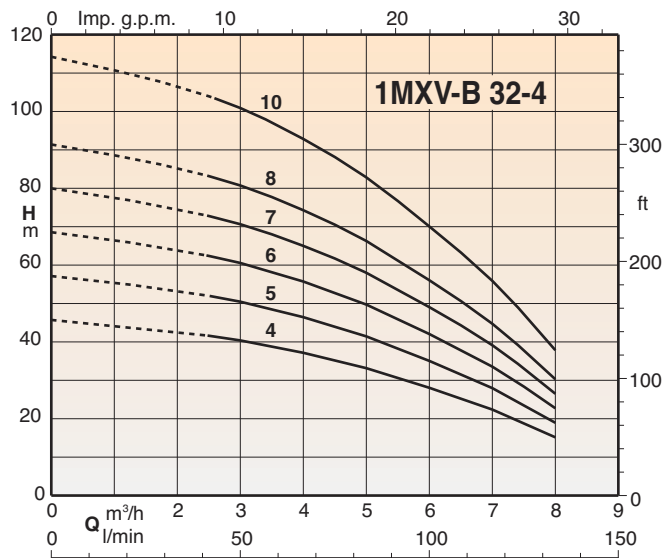
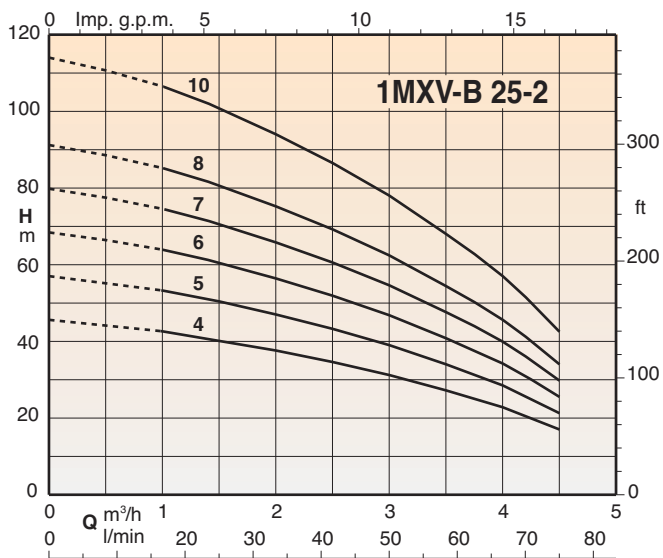


## Characteristic, dimensions and weights

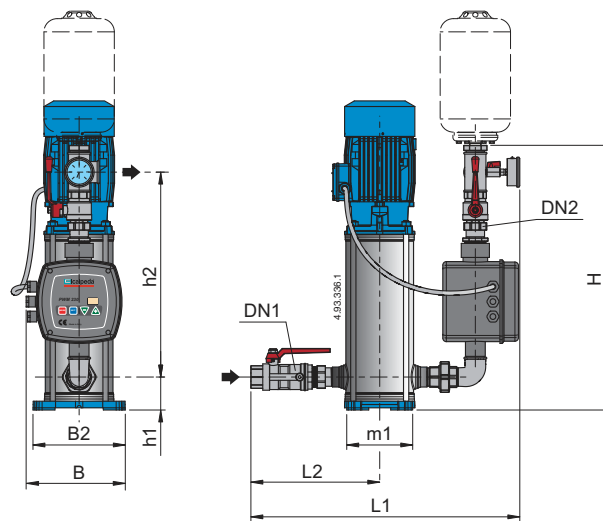


	A	P <sub>2</sub>		DN1	DN2	mm								
		kW	HP			H	h1	h2	L1	L2	m1	B	B2	
Mains: 3~ 400V Motor: 3~ 400V														
1MXSU 204-VTT	1,6	0,55	0,75			1070		1020						
1MXSU 205-VTT	1,9	0,75	1	G 1 1/4	G 1 1/4	1095	32	1045	325	285	234	210	190	
1MXSU 206-VTT	2,2	0,9	1,2			1120		1070						
1MXSU 404-VTT	2,2	0,9	1,2	G 1 1/4	G 1 1/4	1070	32	1020	325	285	234	210	190	
1MXSU 405-VTT	2,6	1,1	1,5	G 1 1/4	G 1 1/4	1095	32	1045	325	285	234	210	190	
1MXSU 803-VTT	2,6	1,1	1,5	G 1 1/4	G 1 1/4	1095	32	1045	325	285	234	210	190	
1MXSU 804-VTT	3,8	1,5	2	G 1 1/4	G 1 1/4	1095	32	1045	325	285	234	210	190	

## Coverage chart



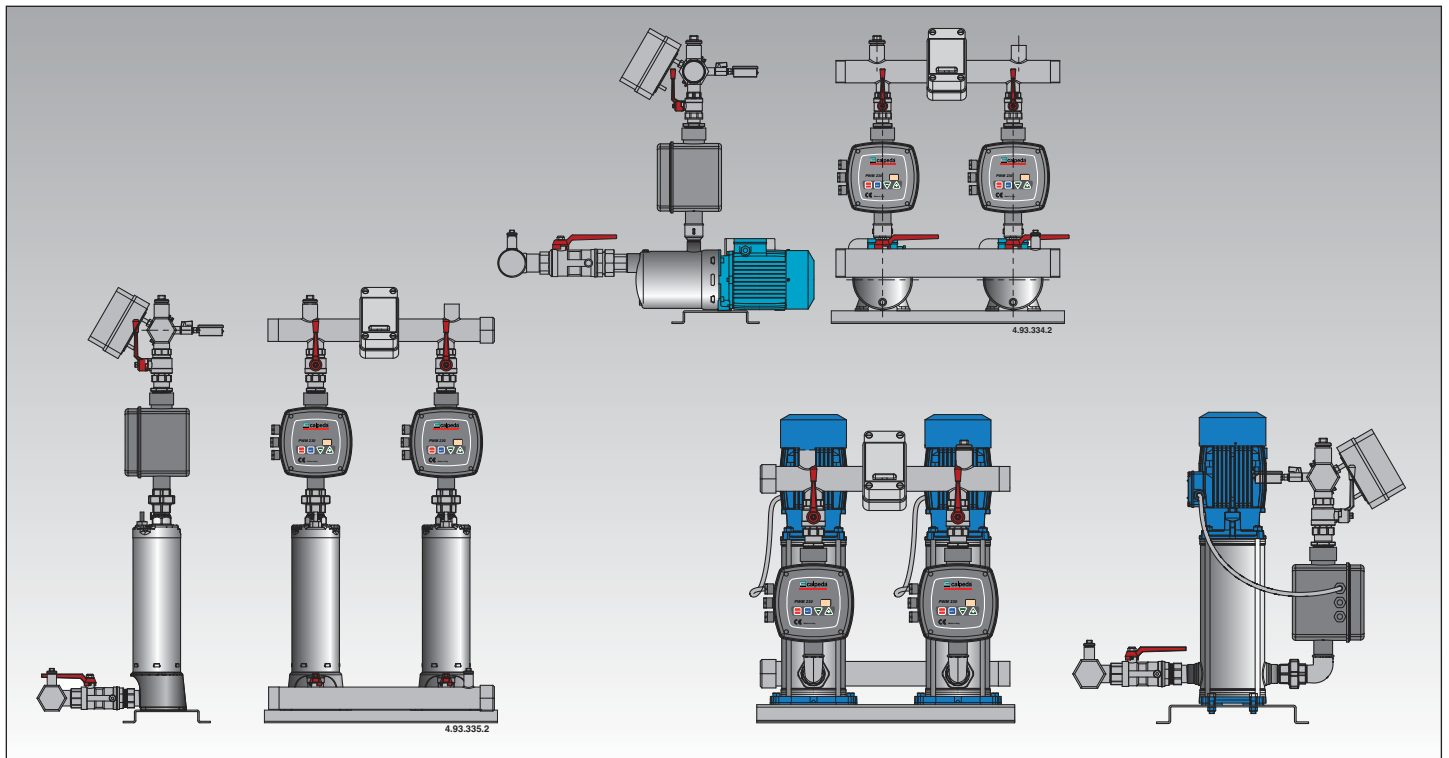
## Characteristic, dimensions and weights



Mains: 3~ 400V Motor: 3~ 400V	A	P <sub>2</sub>		DN1	DN2	mm							
		kW	HP			H	h1	h2	L1	L2	m1	B	B2
1MXV-B 25-204-VTT	2,3	0,75	1	G 1	G 1	605	75	475	565	265	150	225	210
1MXV-B 25-205-VTT	2,3	0,75	1										
1MXV-B 25-206-VTT	2,9	1,1	1,5										
1MXV-B 25-207-VTT	2,9	1,1	1,5										
1MXV-B 25-208-VTT	4,3	1,5	2										
1MXV-B 25-210-VTT	4,3	1,5	2	G 1 1/4	G 1 1/4	600	75	465	610	295	150	225	210
1MXV-B 32-404-VTT	2,9	1,1	1,5										
1MXV-B 32-405-VTT	2,9	1,1	1,5										
1MXV-B 32-406-VTT	4,3	1,5	2										
1MXV-B 32-407-VTT	4,3	1,5	2										
1MXV-B 32-408-VTT	5,3	2,2	3	G 1 1/2	G 1 1/2	670	80	525	675	345	150	225	210
1MXV-B 32-410-VTT	5,3	2,2	3										
1MXV-B 40-804-VTT	4,3	1,5	2										
1MXV-B 40-805-VTT	5,3	2,2	3										
1MXV-B 40-806-VTT	5,3	2,2	3										

# 2MXH.VT, 2MXSU.VT, 2MXVB.VT

Constant pressure boosting sets with Variomat frequency converter



## Execution

Constant pressure boosting sets with Variomat frequency converter made of two pumps, ball valve and non return valve on suction side, ball valve and pressure gauge on delivery side

Suction and delivery manifolds in stainless steel AISI 304

Suitable for installation of two 8-lt cylindrical pressure vessels on delivery side

### Variomat device:

Frequency converter installed directly on the pump delivery pipe and water cooled

Only two parameters to set at starting:

- Maximum motor current
- Working pressure

### Possibility to display:

- Pressure of the system
- Working frequency
- Absorbed current
- Alarms

## Operation

According to the water consumption, one or more pumps starts, all at variable speed, to ensure the required water quantity at the set pressure

## Applications

For drawing water out of a well

As pressure boosting pump for central water systems with low pressure (follow local specifications if increasing network pressure)

## Motors

2-pole induction motors, 50Hz, n=2900 rpm, suitable for operation with frequency converter

Threephase 230V +/-10%

400V +/-10%

Class F insulation

IP 54 protection

Execution according IEC 60034

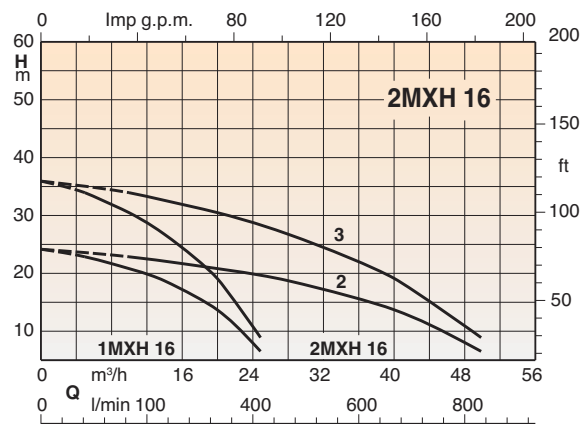
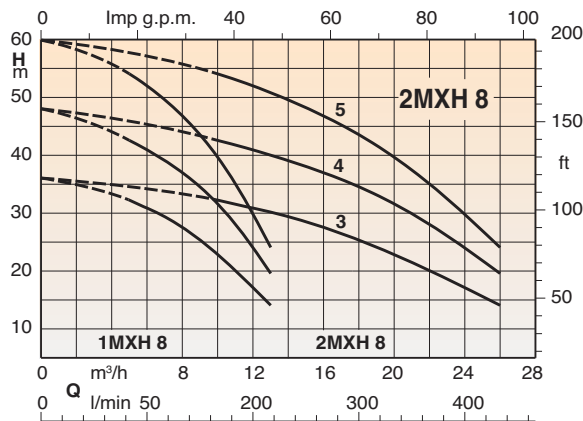
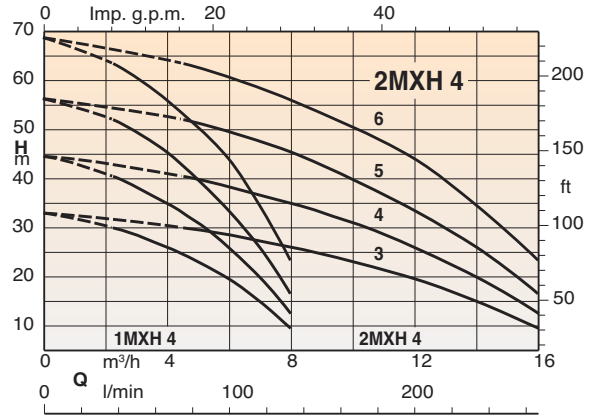
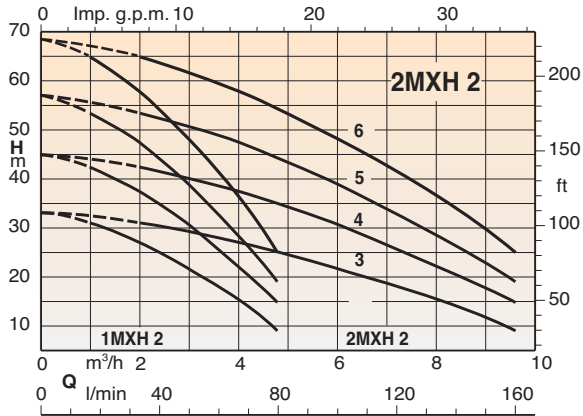
Other voltages on demand

## Pressure vessels (on demand)

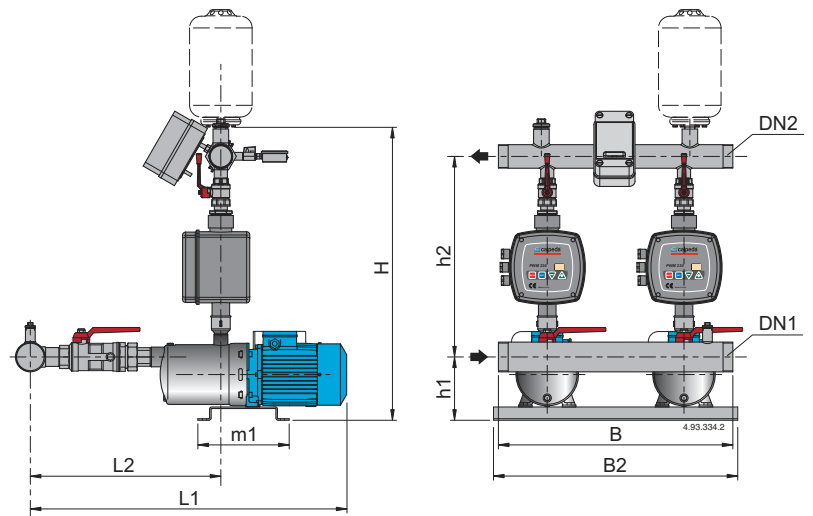
Cylindrical with capacity 8 liters, membrane type, air precharged



## Coverage chart

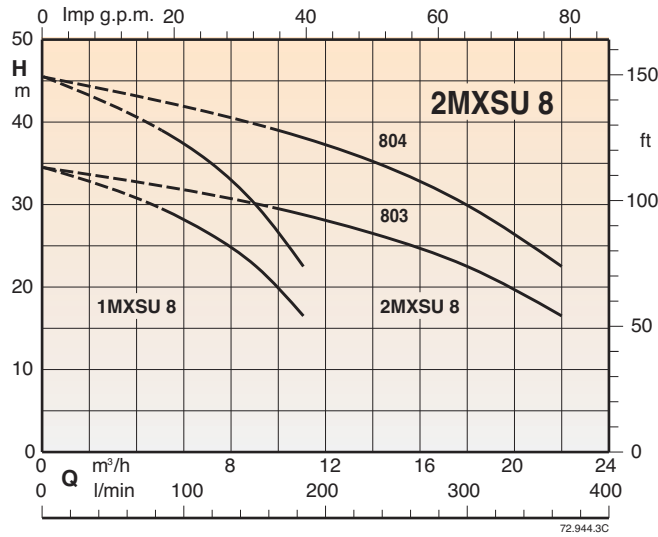
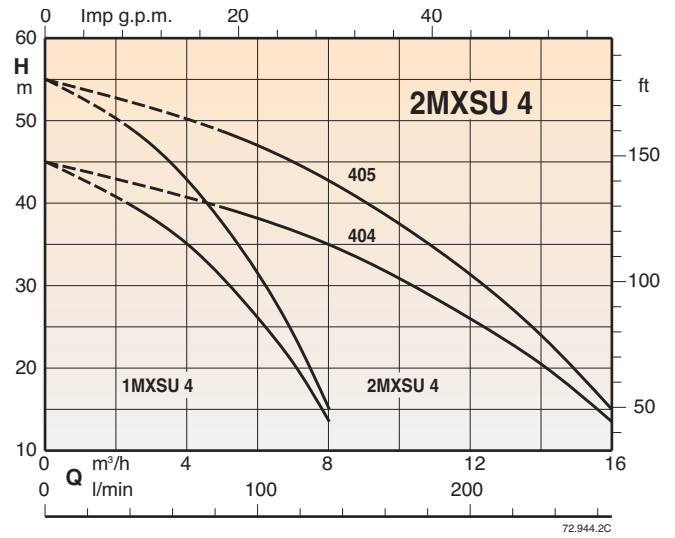
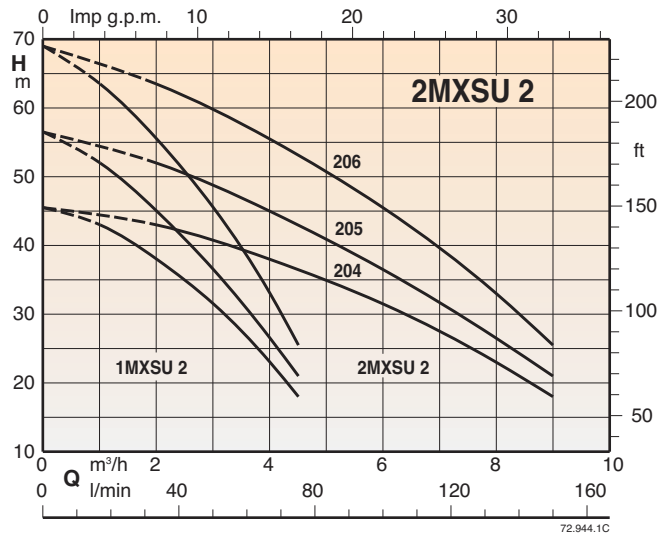


## Characteristic, dimensions and weights

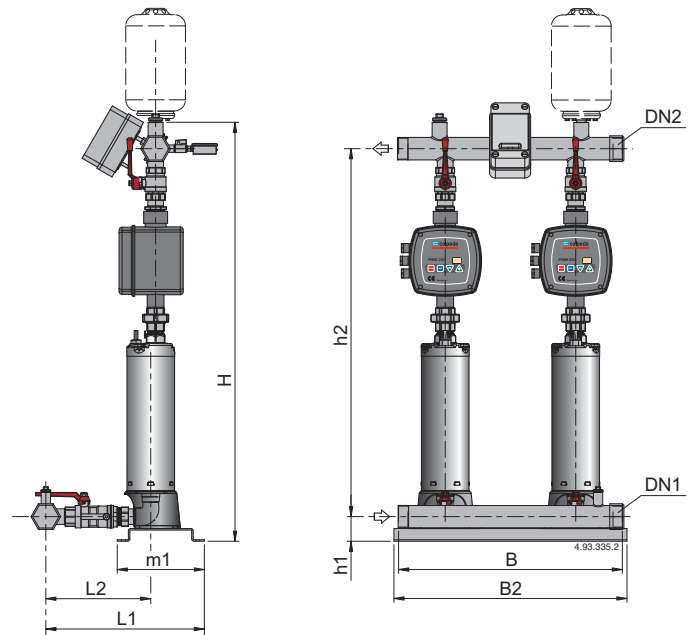


Mains: 3~400V Motor: 3~400V	A	P <sub>2</sub>		DN1	DN2	mm							
		kW	HP			H	h1	h2	L1	L2	m1	B	B2
2MXH 203E-VTT	2 x 1,4	2 x 0,45	2 x 0,6	G 2	G 1 1/2	735	162	507	570	330	234	600	625
2MXH 204/A-VTT	2 x 1,6	2 x 0,55	2 x 0,75						620	355			
2MXH 205/A-VTT	2 x 2	2 x 0,75	2 x 1						645	380			
2MXH 206/A-VTT	2 x 2,7	2 x 1,1	2 x 1,5						665	405			
2MXH 403/A-VTT	2 x 1,6	2 x 0,55	2 x 0,75	G 2	G 1 1/2	735	162	507	595	330	234	600	625
2MXH 404/A-VTT	2 x 2	2 x 0,75	2 x 1						620	355			
2MXH 405/A-VTT	2 x 2,7	2 x 1,1	2 x 1,5						645	380			
2MXH 406-VTT	2 x 3,7	2 x 1,5	2 x 2						725	405			
2MXH 803-VTT	2 x 2,9	2 x 1,1	2 x 1,5	G 2 1/2	G 2	745	162	513	750	430	234	600	625
2MXH 804-VTT	2 x 3,7	2 x 1,5	2 x 2						780	460			
2MXH 805-VTT	2 x 4,3	2 x 1,8	2 x 2,5						810	490			
2MXH 1602-VTT	2 x 3,7	2 x 1,5	2 x 2	G 3	G 2 1/2	800	152	569	830	495	234	600	625
2MXH 1603-VTT	2 x 4,3	2 x 1,8	2 x 2,5						830	495			

## Coverage chart

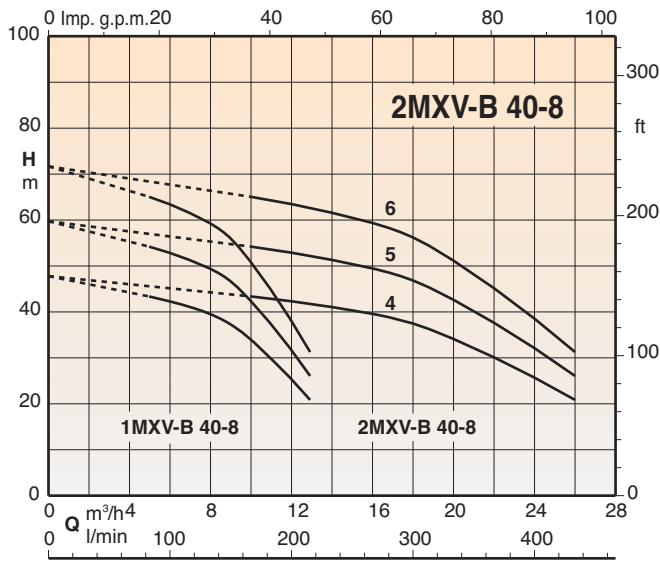
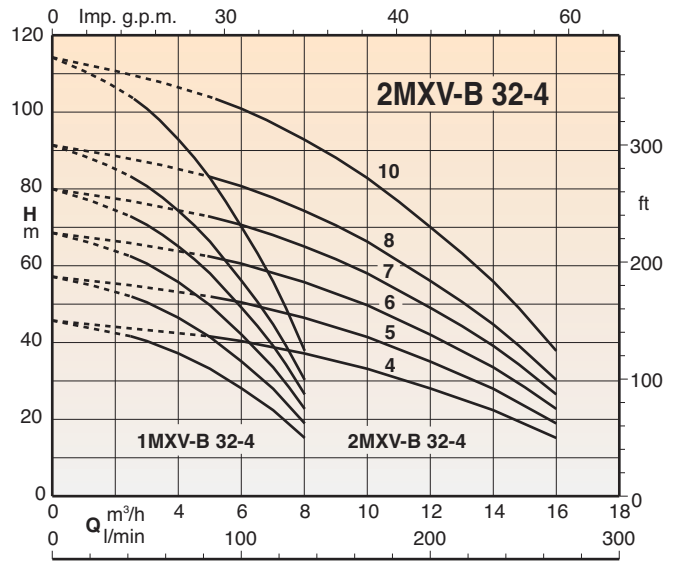
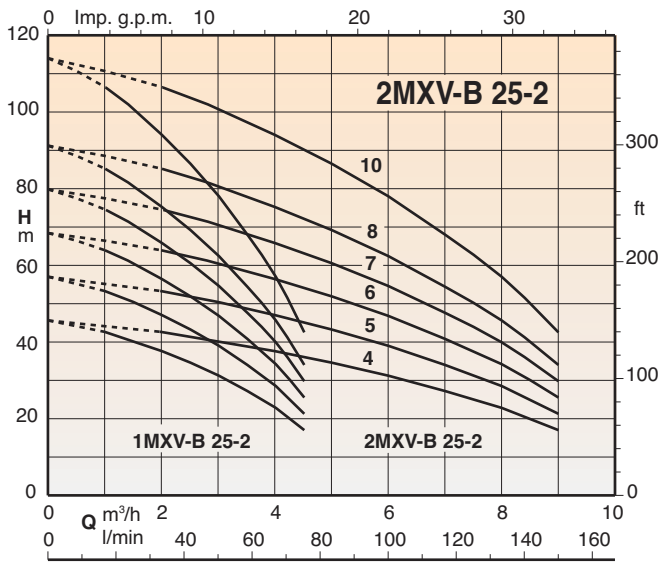


## Characteristic, dimensions and weights

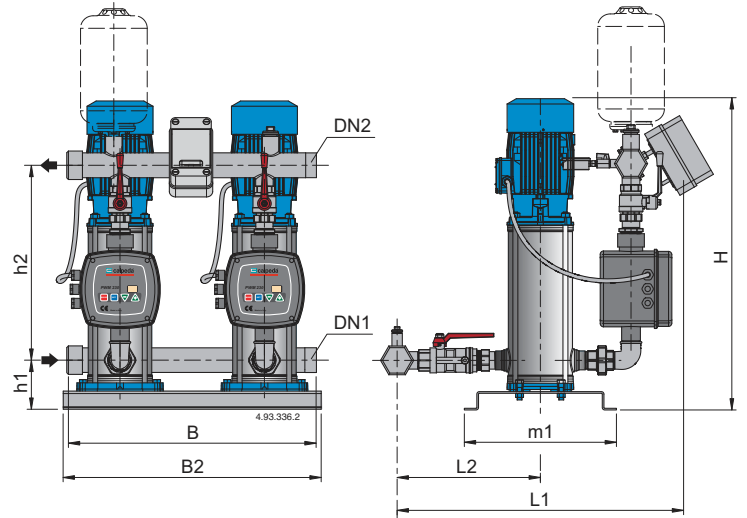


Mains: 3~ 400V Motor: 3~ 400V	A	P <sub>2</sub>		DN1	DN2	mm								
		kW	HP			H	h1	h2	L1	L2	m1	B	B2	
2MXSU 204-VTT	2 x 1,6	2 x 0,55	2 x 0,75			1125		990						
2MXSU 205-VTT	2 x 1,9	2 x 0,75	2 x 1	G 2	G 2	1150	66	1010	630	300	234	600	625	
2MXSU 206-VTT	2 x 2,2	2 x 0,9	2 x 1,2			1170		1035						
2MXSU 404-VTT	2 x 2,2	2 x 0,9	2 x 1,2	G 2	G 2	1125	66	990	630	300	234	600	625	
2MXSU 405-VTT	2 x 2,6	2 x 1,1	2 x 1,5			1150	66	1010	630	300	234	600	625	
2MXSU 803-VTT	2 x 2,6	2 x 1,1	2 x 1,5	G 2	G 2	1150	66	1010	630	300	234	600	625	
2MXSU 804-VTT	2 x 3,8	2 x 1,5	2 x 2			1150	66	1010	630	300	234	600	625	

## Coverage chart



## Characteristic, dimensions and weights

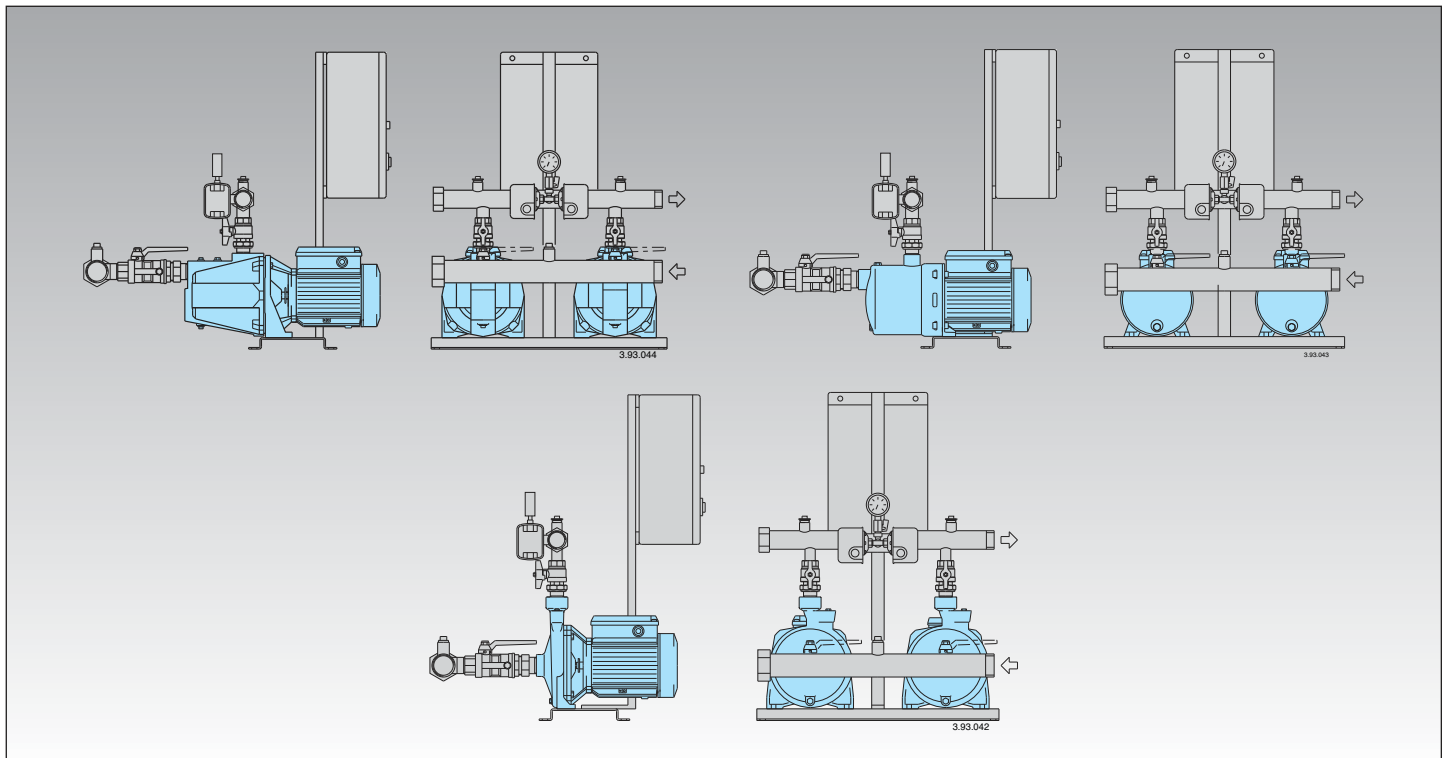


Mains: 3~ 400V Motor: 3~ 400V	A	P <sub>2</sub>		DN1	DN2	mm							
		kW	HP			H	h1	h2	L1	L2	m1	B	B2
2MXV-B 25-204-VTT	2 x 2,3	2 x 0,75	2 x 1	G 1 1/2	G 1 1/2	850	119	488	640	315	365	600	625
2MXV-B 25-205-VTT	2 x 2,3	2 x 0,75	2 x 1										
2MXV-B 25-206-VTT	2 x 2,9	2 x 1,1	2 x 1,5										
2MXV-B 25-207-VTT	2 x 2,9	2 x 1,1	2 x 1,5										
2MXV-B 25-208-VTT	2 x 4,3	2 x 1,5	2 x 2										
2MXV-B 25-210-VTT	2 x 4,3	2 x 1,5	2 x 2										
2MXV-B 32-404-VTT	2 x 2,9	2 x 1,1	2 x 1,5	G 2	G 2	850	119	473	610	345	365	600	625
2MXV-B 32-405-VTT	2 x 2,9	2 x 1,1	2 x 1,5										
2MXV-B 32-406-VTT	2 x 4,3	2 x 1,5	2 x 2										
2MXV-B 32-407-VTT	2 x 4,3	2 x 1,5	2 x 2										
2MXV-B 32-408-VTT	2 x 5,3	2 x 2,2	2 x 3										
2MXV-B 32-410-VTT	2 x 5,3	2 x 2,2	2 x 3										
2MXV-B 40-804-VTT	2 x 4,3	2 x 1,5	2 x 2	G 2 1/2	G 2 1/2	850	124	550	675	425	365	600	625
2MXV-B 40-805-VTT	2 x 5,3	2 x 2,2	2 x 3										
2MXV-B 40-806-VTT	2 x 5,3	2 x 2,2	2 x 3										



# 2 MX., 2 NM, 2 NMD, 2 NG..

Pressure boosting sets for domestic use with two electric pumps  
Fixed speed pump or **Variable speed pump (frequency converter)**



## Construction

Automatic pressure boosting plant consisting of two pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304 stainless steel.

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels.

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386).
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and two adjustable differential pressure switches.

## Operation

### BS 2F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V1F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS2V Pumps at variable speed with two frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

For drawing water out a well.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm.

- Three-phase 230/400V  $\pm 10\%$  up to 3 kW, suitable for operation with frequency converter;  
400/690V  $\pm 10\%$  for 4 kW, suitable for operation with frequency converter;
- Single-phase 230 V  $\pm 10\%$ , with thermal protector.

Insulation class F.

Protection IP 54.

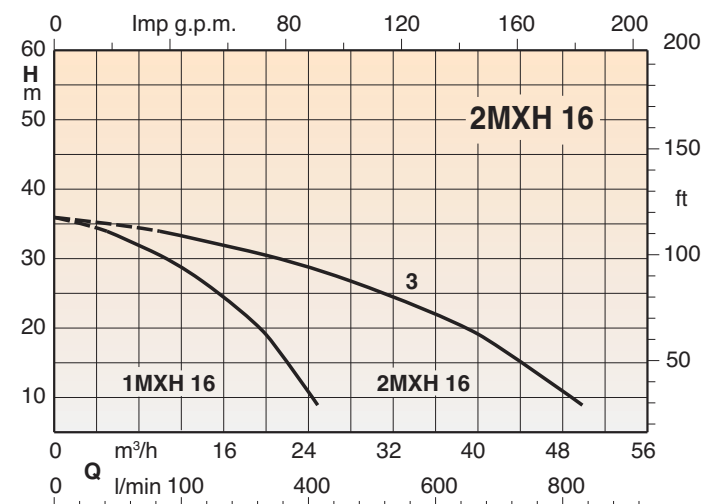
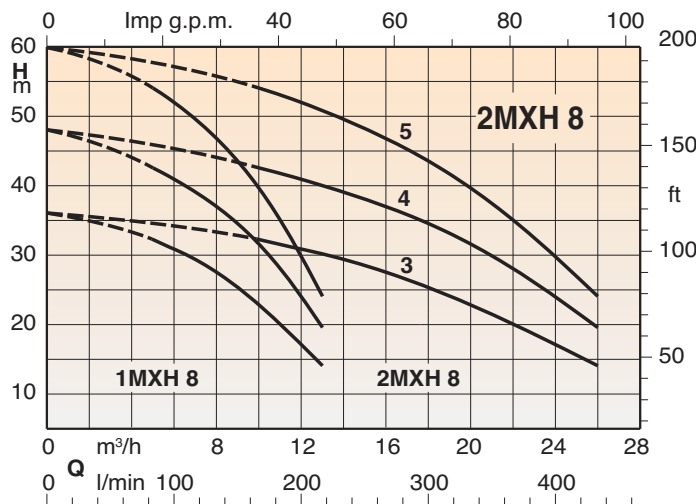
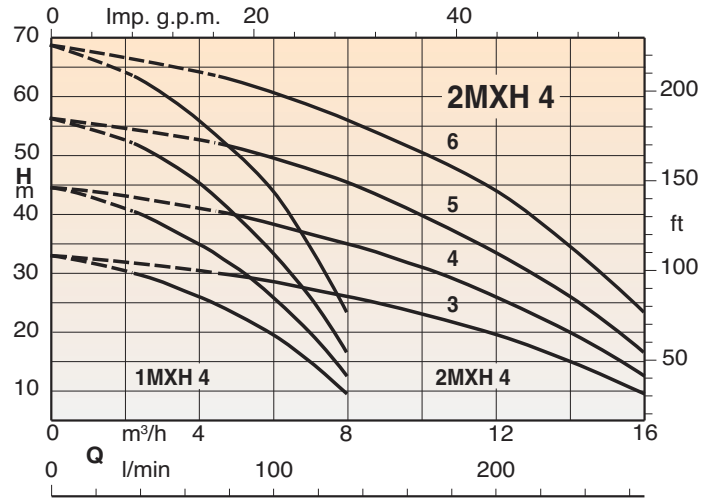
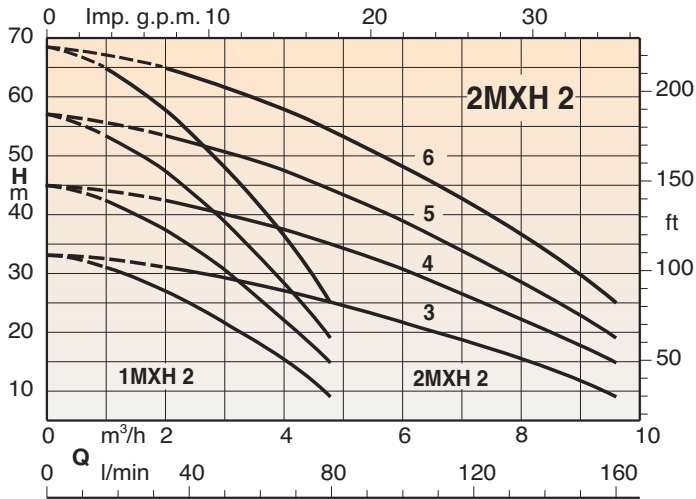
Constructed in accordance with: IEC 60034.

Other voltages and frequencies on request.

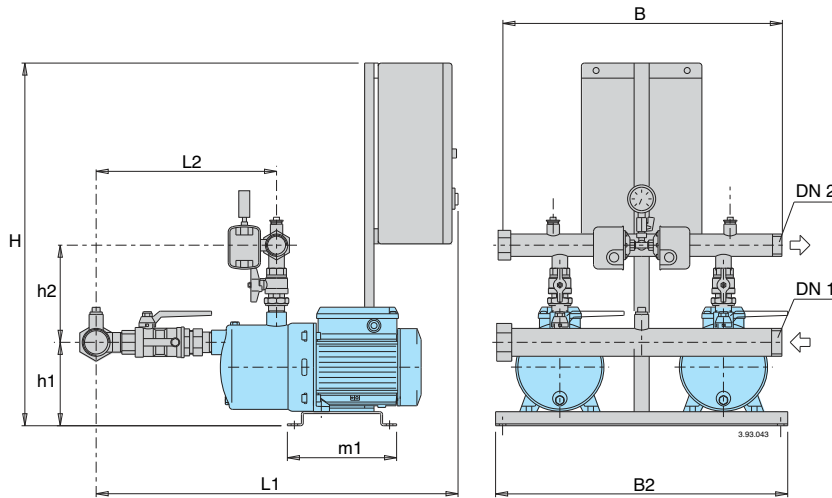
## Vessels (on request)

Cylindrical with capacity 20 litres, membrane type, air precharged.

## Coverage chart



## Characteristic, dimensions and weights



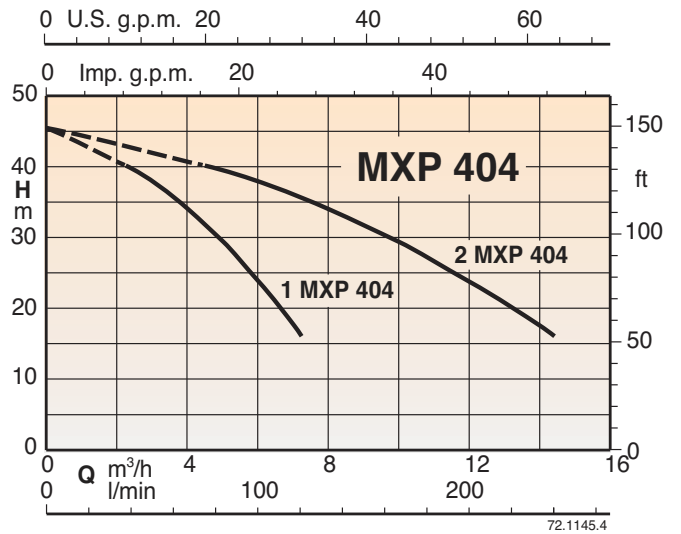
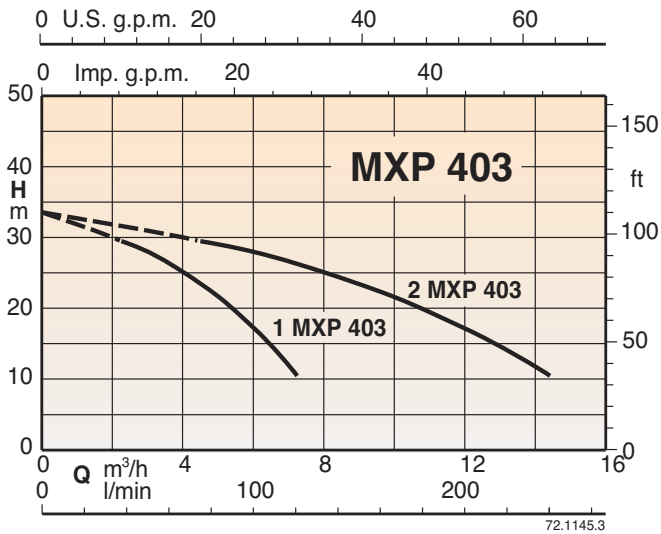
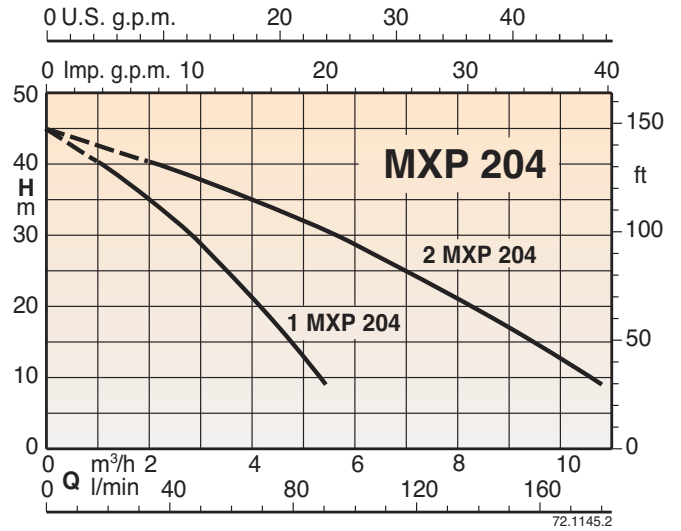
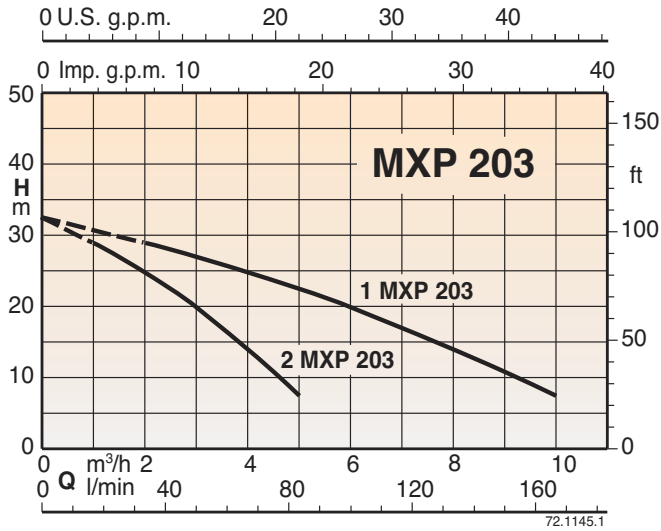
BS2F		BSM2F		Motor		Q	Pres. switch setting $i$		Manifolds		mm							Weight	Vessel	
Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	kW	HP	max* l/min	bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B	kg	Mem. litre	Vessel litre	
BS2F 2MXH 203E	BSM2F 2MXHM 203E	0,45+0,45	0,6+0,6	140	1,8÷3,0	1,4÷2,6	G 2	G 11/2	840	162	202	773	335				42	24x2	100	
BS2F 2MXH 204/A	BSM2F 2MXHM 204/A	0,55+0,55	0,75+0,75	130	2,8÷4,0	2,4÷3,6	G 2	G 11/2	840	162	202	796	358				47	24x2	100	
BS2F 2MXH 205/A	BSM2F 2MXHM 205/A	0,75+0,75	1+1	130	3,5÷5,0	3,0÷4,5	G 2	G 11/2	840	162	202	820	382				50	24x2	100	
BS2F 2MXH 206/A	BSM2F 2MXHM 206	1,1+1,1	1,5+1,5	130	4,5÷6,0	4,0÷5,5	G 2	G 11/2	840	162	202	845	406				54	24x2	100	
BS2F 2MXH 403/A	BSM2F 2MXHM 403/A	0,55+0,55	0,75+0,75	240	1,8÷3,0	1,4÷2,6	G 2	G 11/2	840	162	202	773	335				46	24x2	100	
BS2F 2MXH 404/A	BSM2F 2MXHM 404/A	0,75+0,75	1+1	220	2,8÷4,0	2,4÷3,6	G 2	G 11/2	840	162	202	796	358				49	60	100	
BS2F 2MXH 405/A	BSM2F 2MXHM 405	1,1+1,1	1,5+1,5	220	3,5÷5,0	3,0÷4,5	G 2	G 11/2	840	162	202	820	382	235	625	600	53	80	200	
BS2F 2MXH 406E	BSM2F 2MXHM 406	1,5+1,5	2+2	220	4,5÷6,0	4,0÷5,5	G 2	G 11/2	840	162	202	845	406				57	100	300	
BS2F 2MXH 803	BSM2F 2MXHM 803	1,1+1,1	1,5+1,5	430	1,8÷3,0	1,4÷2,6	G 21/2	G 2	840	162	208	866	428				61	100	300	
BS2F 2MXH 804	BSM2F 2MXHM 804	1,5+1,5	2+2	400	2,8÷4,0	2,4÷3,6	G 21/2	G 2	840	162	208	896	458				66	200	300	
BS2F 2MXH 805		1,8+1,8	2,5+2,5	400	3,5÷5,0	3,0÷4,5	G 21/2	G 2	840	162	208	926	488				68	200	500	
BS2F 2MXH 1603		1,8+1,8	2,5+2,5	760	1,8÷3,0	1,4÷2,6	G 3	G 21/2	1140	151	298	970	496				80	300	500	

\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.

BS1V1F		BSM1V1F		Motor		Manifolds		mm							Weight	Vessel
Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 3~ and 230V 1~	kW	HP	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B	kg	Membrane litre	
BS1V1F 2MXH 203E	BSM1V1F 2MXH 203E	0,45+0,45	0,6+0,6	G 2	G 11/2	1100	162	202	773	335				42	24x2	
BS1V1F 2MXH 204/A	BSM1V1F 2MXH 204/A	0,55+0,55	0,75+0,75	G 2	G 11/2	1100	162	202	796	358				47	24x2	
BS1V1F 2MXH 205/A	BSM1V1F 2MXH 205/A	0,75+0,75	1+1	G 2	G 11/2	1100	162	202	820	382				50	24x2	
BS1V1F 2MXH 206/A	BSM1V1F 2MXH 206	1,1+1,1	1,5+1,5	G 2	G 11/2	1100	162	202	845	406				54	24x2	
BS1V1F 2MXH 403/A	BSM1V1F 2MXH 403/A	0,55+0,55	0,75+0,75	G 2	G 11/2	1100	162	202	773	335				46	24x2	
BS1V1F 2MXH 404/A	BSM1V1F 2MXH 404/A	0,75+0,75	1+1	G 2	G 11/2	1100	162	202	796	358				49	24x2	
BS1V1F 2MXH 405/A	BSM1V1F 2MXH 405	1,1+1,1	1,5+1,5	G 2	G 11/2	1100	162	202	820	382	235	625	600	53	24x2	
BS1V1F 2MXH 406E	BSM1V1F 2MXH 406	1,5+1,5	2+2	G 2	G 11/2	1100	162	202	845	406				57	24x2	
BS1V1F 2MXH 803	BSM1V1F 2MXH 803	1,1+1,1	1,5+1,5	G 21/2	G 2	1100	162	208	866	428				61	24x2	
BS1V1F 2MXH 804	BSM1V1F 2MXH 804	1,5+1,5	2+2	G 21/2	G 2	1100	162	208	896	458				66	24x2	
BS1V1F 2MXH 805		1,8+1,8	2,5+2,5	G 21/2	G 2	1100	162	208	926	488				68	24x2	
BS1V1F 2MXH 1603		1,8+1,8	2,5+2,5	G 3	G 21/2	1100	151	298	970	496				80	24x2	

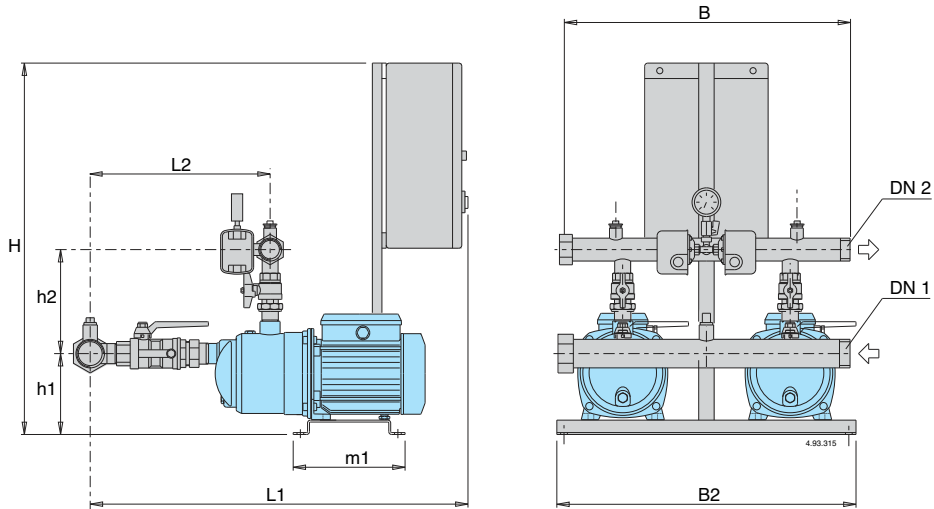
BS2V		BSM2V		Motor		Manifolds		mm							Weight	Vessel
Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 3~	kW	HP	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B	kg	Membrane litre	
BS2V 2MXH 203E	BSM2V 2MXH 203E	0,45+0,45	0,6+0,6	G 2	G 11/2	1100	162	202	773	335				42	24x2	
BS2V 2MXH 204/A	BSM2V 2MXH 204/A	0,55+0,55	0,75+0,75	G 2	G 11/2	1100	162	202	796	358				47	24x2	
BS2V 2MXH 205/A	BSM2V 2MXH 205/A	0,75+0,75	1+1	G 2	G 11/2	1100	162	202	820	382				50	24x2	
BS2V 2MXH 206/A	BSM2V 2MXH 206	1,1+1,1	1,5+1,5	G 2	G 11/2	1100	162	202	845	406				54	24x2	
BS2V 2MXH 403/A	BSM2V 2MXH 403/A	0,55+0,55	0,75+0,75	G 2	G 11/2	1100	162	202	773	335				46	24x2	
BS2V 2MXH 404/A	BSM2V 2MXH 404/A	0,75+0,75	1+1	G 2	G 11/2	1100	162	202	796	358				49	24x2	
BS2V 2MXH 405/A	BSM2V 2MXH 405	1,1+1,1	1,5+1,5	G 2	G 11/2	1100	162	202	820	382	235	625	600	53	24x2	
BS2V 2MXH 406E	BSM2V 2MXH 406	1,5+1,5	2+2	G 2	G 11/2	1100	162	202	845	406				57	24x2	
BS2V 2MXH 803	BSM2V 2MXH 803	1,1+1,1	1,5+1,5	G 21/2	G 2	1100	162	208	866	428				61	24x2	
BS2V 2MXH 804	BSM2V 2MXH 804	1,5+1,5	2+2	G 21/2	G 2	1100	162	208	896	458				66	24x2	
BS2V 2MXH 805		1,8+1,8	2,5+2,5	G 21/2	G 2	1100	162	208	926	488				68	24x2	
BS2V 2MXH 1603		1,8+1,8	2,5+2,5	G 3	G 21/2	1100	151	298	970	496				80	24x2	

## Coverage chart





## Characteristic, dimensions and weights



### BS2F BSM2F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Q <sub>max</sub> * l/min	Pres. switch setting		Manifolds		mm									Weight kg	Vessel	
		kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B	Mem.		Vessel	
BS2F 2MXP 203	BSM2F 2MXPM 203	0,45+0,45	0,6+0,6	155	1,4÷2,6	1,0÷2,2	G 2	G 1 1/2	840	151	206	793	355	235	625	600	41	24x2	100	
BS2F 2MXP 204/A	BSM2F 2MXPM 204/A	0,55+0,55	0,75+0,75	160	2,0÷3,2	1,5÷2,7	G 2	G 1 1/2	840	151	206	793	355				46	24x2	100	
BS2F 2MXP 403/A	BSM2F 2MXPM 403/A	0,55+0,55	0,75+0,75	230	1,5÷2,7	1,2÷2,4	G 2	G 1 1/2	840	151	206	793	355				46	24x2	100	
BS2F 2MXP 404/A	BSM2F 2MXPM 404/A	0,75+0,75	1+1	220	2,4÷3,6	2,0÷3,2	G 2	G 1 1/2	840	151	206	793	355				48	80	200	

\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.

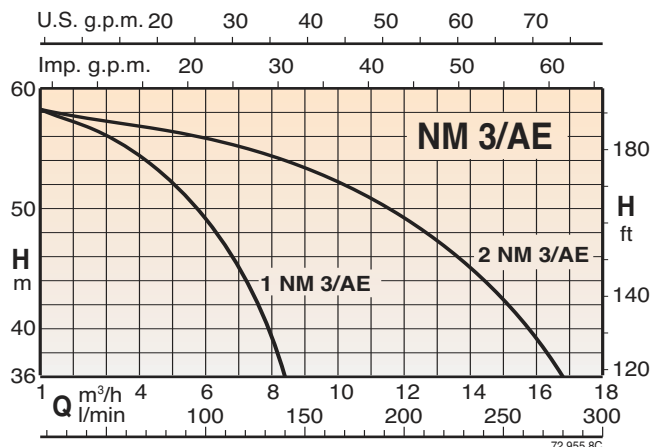
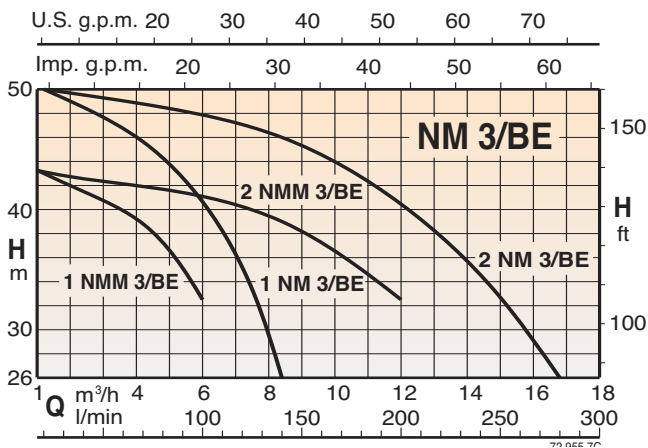
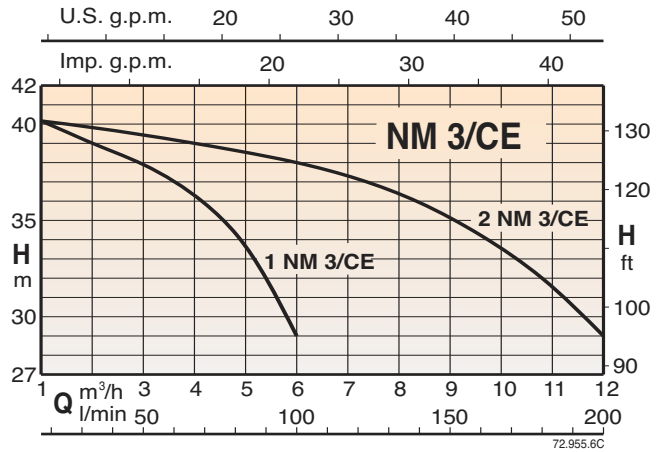
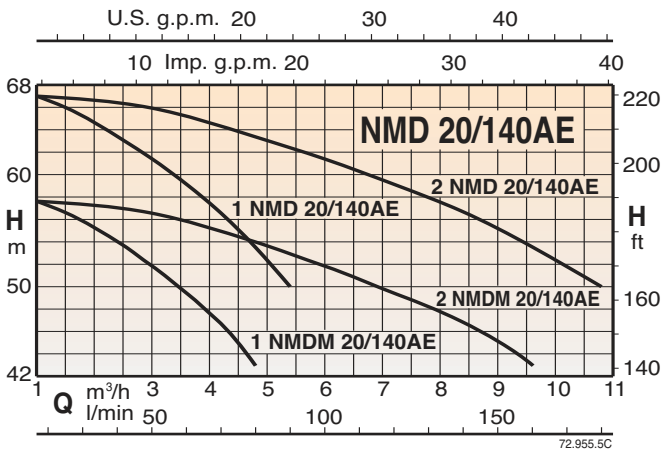
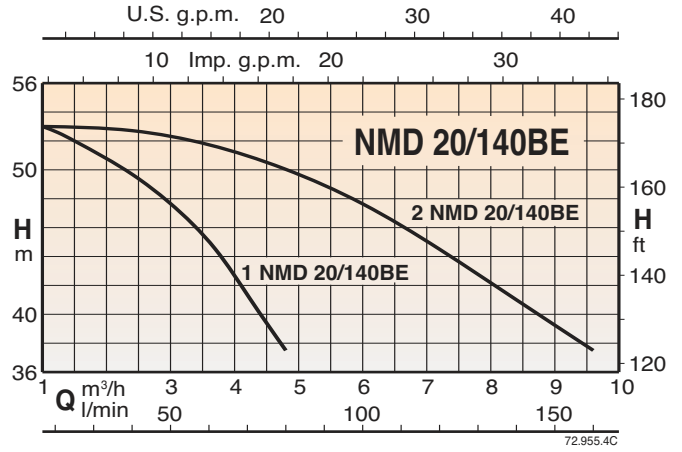
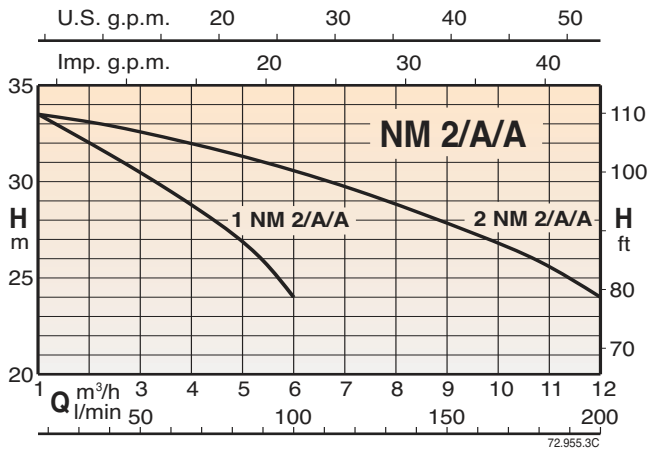
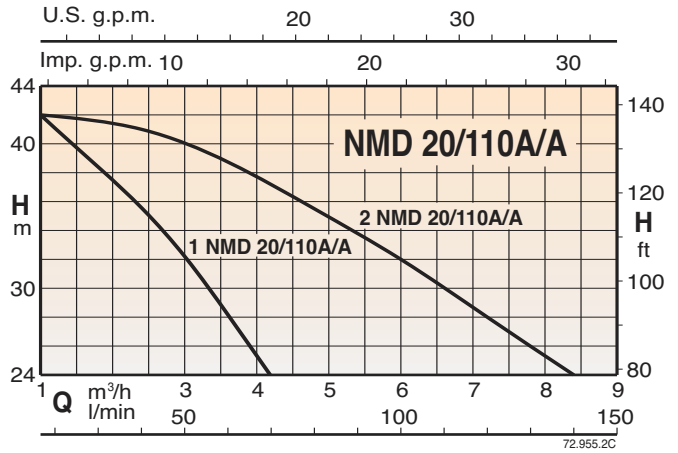
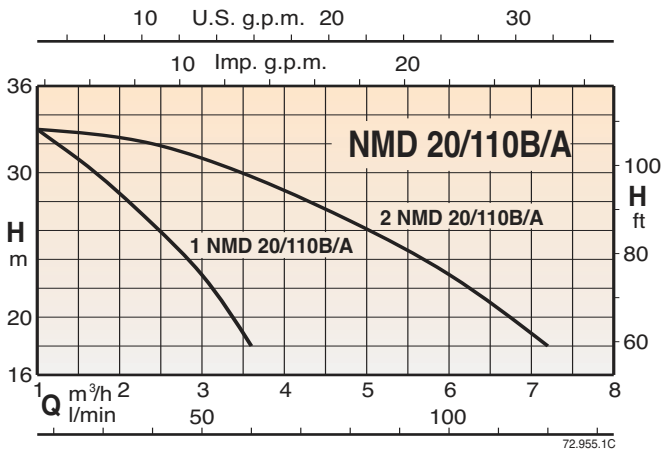
### BS1V1F BSM1V1F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 3~ and 230V 1~	Motor		Manifolds		mm									Weight kg	Vessel	
		kW	HP	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B	Membrane		litre	
BS1V1F 2MXP 203	BSM1V1F 2MXPM 203	0,45+0,45	0,6+0,6	G 2	G 1 1/2	1100	151	206	793	355	235	625	600	41	24x2		
BS1V1F 2MXP 204/A	BSM1V1F 2MXPM 204/A	0,55+0,55	0,75+0,75	G 2	G 1 1/2	1100	151	206	793	355				46	24x2		
BS1V1F 2MXP 403/A	BSM1V1F 2MXPM 403/A	0,55+0,55	0,75+0,75	G 2	G 1 1/2	1100	151	206	793	355				46	24x2		
BS1V1F 2MXP 404/A	BSM1V1F 2MXPM 404/A	0,75+0,75	1+1	G 2	G 1 1/2	1100	151	206	793	355				48	24x2		

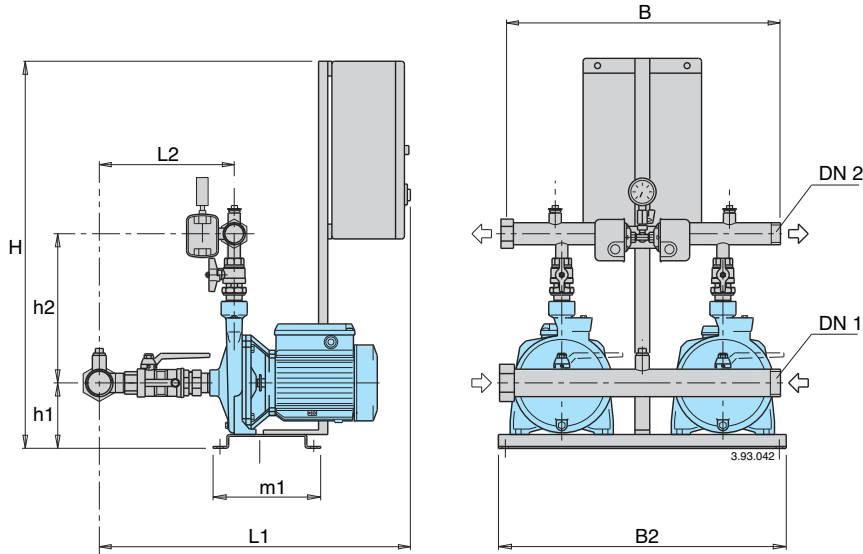
### BS2V BSM2V

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 3~	Motor		Manifolds		mm									Weight kg	Vessel	
		kW	HP	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B	Membrane		litre	
BS2V 2MXP 203	BSM2V 2MXPM 203	0,45+0,45	0,6+0,6	G 2	G 1 1/2	1100	151	206	793	355	235	625	600	41	24x2		
BS2V 2MXP 204/A	BSM2V 2MXPM 204/A	0,55+0,55	0,75+0,75	G 2	G 1 1/2	1100	151	206	793	355				46	24x2		
BS2V 2MXP 403/A	BSM2V 2MXPM 403/A	0,55+0,55	0,75+0,75	G 2	G 1 1/2	1100	151	206	793	355				46	24x2		
BS2V 2MXP 404/A	BSM2V 2MXPM 404/A	0,75+0,75	1+1	G 2	G 1 1/2	1100	151	206	793	355				48	24x2		

## Coverage chart



Characteristic, dimensions and weights



**BS2F**      **BSM2F**

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm							Weight kg	Vessel		
		kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2		B	Mem. litre	Vessel litre
BS2F 2NMD 20/110B/A	BSM2F 2NMDM 20/110B/A	0,45+0,45	0,6+0,6	120	2,0+3,0	1,7+2,7	G2	G 1½	840	129	277	670	315				51	24x2	100
BS2F 2NMD 20/110A/A	BSM2F 2NMDM 20/110A/A	0,75+0,75	1+1	130	2,8+3,8	2,5+3,5	G2	G 1½	840	129	277	670	315				55	60	100
BS2F 2NM 2/A/A	BSM2F 2NMM 2/A/A	0,75+0,75	1+1	200	2,0+3,0	1,7+2,7	G2	G 1½	840	129	295	620	262				54	80	200
BS2F 2NMD 20/140BE	BSM2F 2NMDM 20/140BE	1,1+1,1	1,5+1,5	160	3,5+5,0	3,2+4,7	G2	G 1½	840	146	295	670	320				72	80	200
	BSM2F 2NMDM 20/140AE	1,5+1,5	2+2	160	4,0+5,3	3,7+5,0	G2	G 1½	840	146	295	670	320	235	625	600	75	100	200
BS2F 2NMD 20/140AE		1,5+1,5	2+2	180	5,0+6,3	4,7+6,0	G2	G 1½	840	146	295	670	320				77	100	200
BS2F 2NM 3/CE	BSM2F 2NMM 3/CE	1,1+1,1	1,5+1,5	200	2,5+3,5	2,2+3,2	G2	G 1½	840	146	325	650	267				71	100	200
	BSM2F 2NMM 3/BE	1,5+1,5	2+2	200	3,0+4,0	2,7+3,7	G2	G 1½	840	146	325	650	267				75	100	300
BS2F 2NM 3/BE		1,5+1,5	2+2	270	3,2+4,5	2,9+4,2	G2	G 1½	840	146	325	650	267				76	100	300
BS2F 2NM 3/AE		2,2+2,2	3+3	280	4,0+5,5	3,7+5,2	G2	G 1½	840	146	325	650	267				78	200	300

\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.

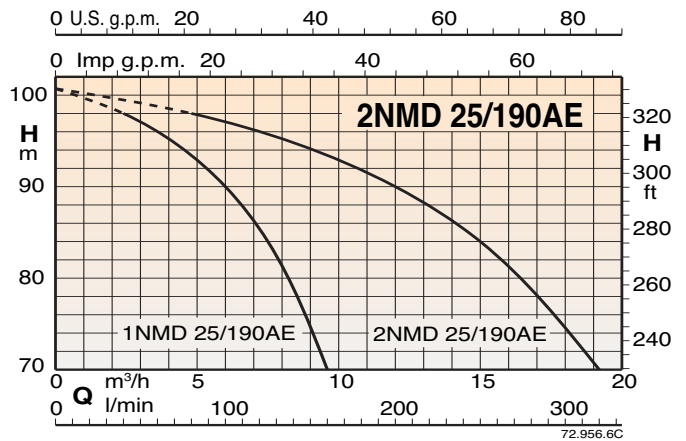
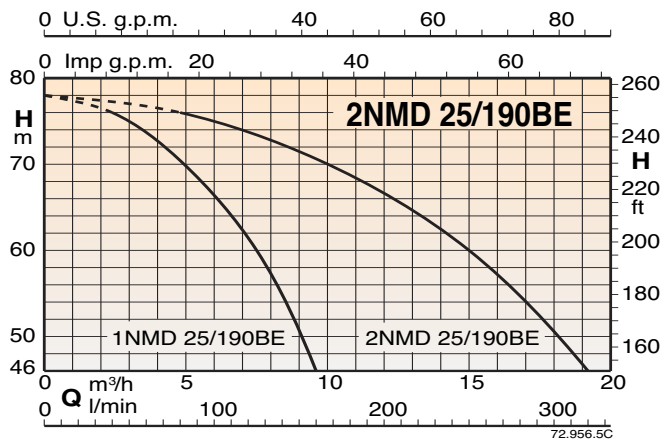
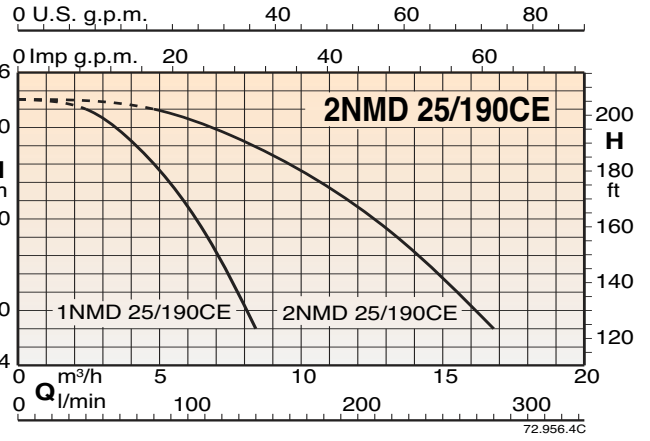
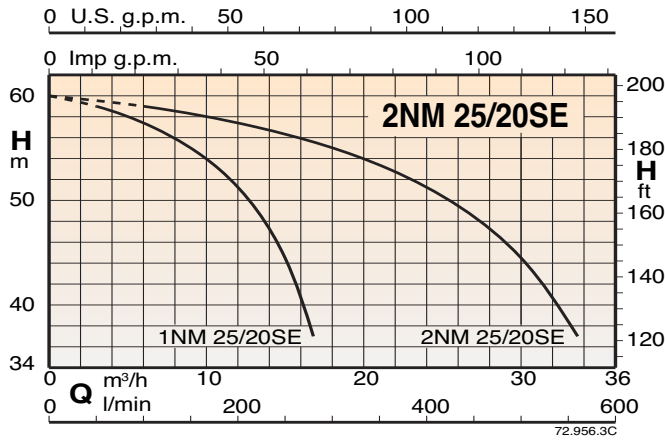
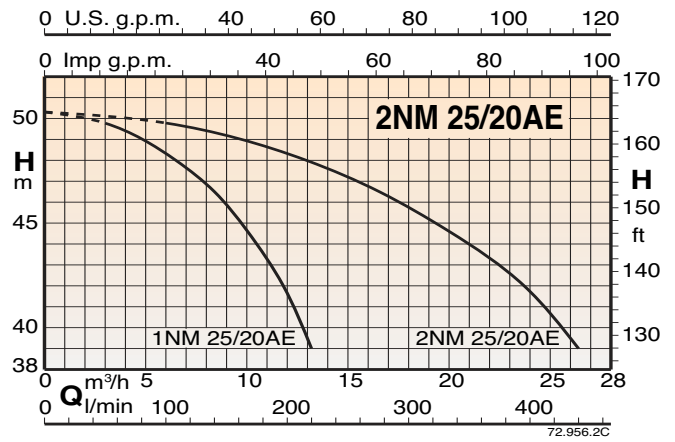
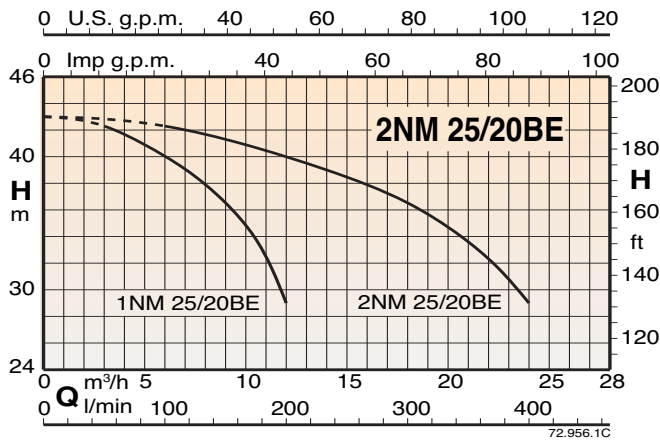
**BS1V1F**      **BSM1V1F**

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 3~ and 230V 1~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm							Weight kg	Vessel		
		kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2		B	Mem. litre	Vessel litre
BS1V1F 2NMD 20/110B/A	BSM1V1F 2NMDM 20/110B/A	0,45+0,45	0,6+0,6	120	2,0+3,0	1,7+2,7	G2	G 1½	840	129	277	670	315				51	24x2	100
BS1V1F 2NMD 20/110A/A	BSM1V1F 2NMDM 20/110A/A	0,75+0,75	1+1	130	2,8+3,8	2,5+3,5	G2	G 1½	840	129	277	670	315				55	24x2	100
BS1V1F 2NM 2/A/A	BSM1V1F 2NMM 2/A/A	0,75+0,75	1+1	200	2,0+3,0	1,7+2,7	G2	G 1½	840	129	295	620	262				54	24x2	200
BS1V1F 2NMD 20/140BE	BSM1V1F 2NMDM 20/140BE	1,1+1,1	1,5+1,5	160	3,5+5,0	3,2+4,7	G2	G 1½	840	146	295	670	320				72	24x2	200
	BSM1V1F 2NMDM 20/140AE	1,5+1,5	2+2	160	4,0+5,3	3,7+5,0	G2	G 1½	840	146	295	670	320	235	625	600	75	24x2	200
BS1V1F 2NMD 20/140AE		1,5+1,5	2+2	180	5,0+6,3	4,7+6,0	G2	G 1½	840	146	295	670	320				77	24x2	200
BS1V1F 2NM 3/CE	BSM1V1F 2NMM 3/CE	1,1+1,1	1,5+1,5	200	2,5+3,5	2,2+3,2	G2	G 1½	840	146	325	650	267				71	24x2	200
	BSM1V1F 2NMM 3/BE	1,5+1,5	2+2	200	3,0+4,0	2,7+3,7	G2	G 1½	840	146	325	650	267				75	24x2	200
BS1V1F 2NM 3/BE		1,5+1,5	2+2	270	3,2+4,5	2,9+4,2	G2	G 1½	840	146	325	650	267				76	24x2	200
BS1V1F 2NM 3/AE		2,2+2,2	3+3	280	4,0+5,5	3,7+5,2	G2	G 1½	840	146	325	650	267				78	24x2	200

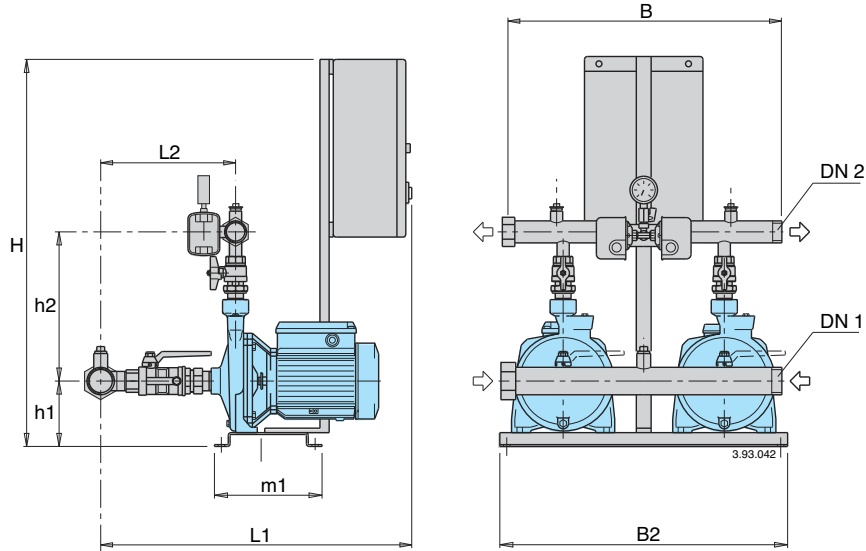
**BS2V**      **BSM2V**

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 3~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm							Weight kg	Vessel		
		kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2		B	Mem. litre	Vessel litre
BS2V 2NMD 20/110B/A	BSM2V 2NMDM 20/110B/A	0,45+0,45	0,6+0,6	120	2,0+3,0	1,7+2,7	G2	G 1½	840	129	277	670	315				51	24x2	100
BS2V 2NMD 20/110A/A	BSM2V 2NMDM 20/110A/A	0,75+0,75	1+1	130	2,8+3,8	2,5+3,5	G2	G 1½	840	129	277	670	315				55	24x2	100
BS2V 2NM 2/A/A	BSM2V 2NMM 2/A/A	0,75+0,75	1+1	200	2,0+3,0	1,7+2,7	G2	G 1½	840	129	295	620	262				54	24x2	200
BS2V 2NMD 20/140BE	BSM2V 2NMDM 20/140BE	1,1+1,1	1,5+1,5	160	3,5+5,0	3,2+4,7	G2	G 1½	840	146	295	670	320				72	24x2	200
	BSM2V 2NMDM 20/140AE	1,5+1,5	2+2	160	4,0+5,3	3,7+5,0	G2	G 1½	840	146	295	670	320	235	625	600	75	24x2	200
BS2V 2NMD 20/140AE		1,5+1,5	2+2	180	5,0+6,3	4,7+6,0	G2	G 1½	840	146	295	670	320				77	24x2	200
BS2V 2NM 3/CE	BSM2V 2NMM 3/CE	1,1+1,1	1,5+1,5	200	2,5+3,5	2,2+3,2	G2	G 1½	840	146	325	650	267				71	24x2	200
	BSM2V 2NMM 3/BE	1,5+1,5	2+2	200	3,0+4,0	2,7+3,7	G2	G 1½	840	146	325	650	267				75	24x2	200
BS2V 2NM 3/BE		1,5+1,5	2+2	270	3,2+4,5	2,9+4,2	G2	G 1½	840	146	325	650	267				76	24x2	200
BS2V 2NM 3/AE		2,2+2,2	3+3	280	4,0+5,5	3,7+5,2	G2	G 1½	840	146	325	650	267				78	24x2	200

## Coverage chart



## Characteristic, dimensions and weights



### BS2F

Mains: 400V 3~ Motor: 400V 3~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm							Weight kg	Vessel		
	kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2		B	Mem. litre	Vessel litre
BS2F 2NM 25/20BE	2,2+2,2	3+3	400	3,0÷4,0	2,7÷3,7	G 2 1/2	G 2	840	160	330	725	373				87	300	500
BS2F 2NM 25/20AE	3+3	4+4	440	3,8+4,8	3,5+4,5	G 2 1/2	G 2	840	160	330	725	373				106	500	800
BS2F 2NM 25/20SE	4+4	5,5+5,5	560	4,0÷5,5	3,5÷5,0	G 2 1/2	G 2	840	160	330	725	373				114	500	800
BS2F 2NMD 25/190CE	2,2+2,2	3+3	280	4,3+5,8	3,8+5,3	G 2 1/2	G 2	840	175	330	760	407	235	625	600	108	200	300
BS2F 2NMD 25/190BE	3+3	4+4	300	5,5+7,5	5,0+7,0	G 2 1/2	G 2	840	175	330	760	407				123	200	300
BS2F 2NMD 25/190AE	4+4	5,5+5,5	320	7,5+9,5	7,0+9,0	G 2 1/2	G 2	840	175	330	760	407				132	300	500

\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.

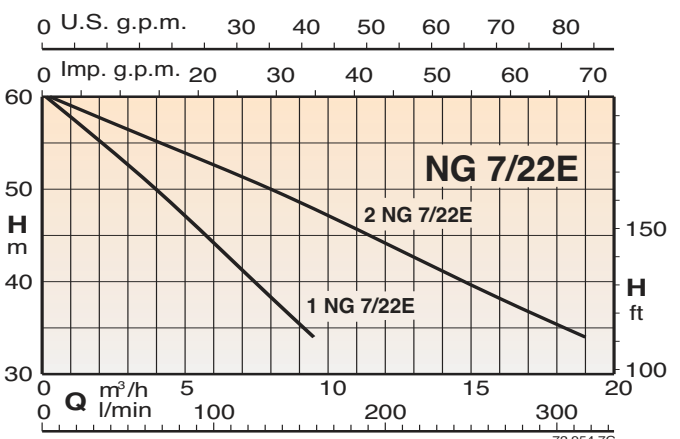
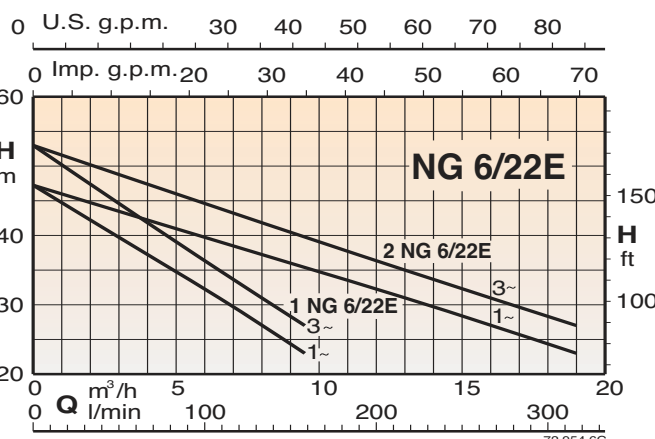
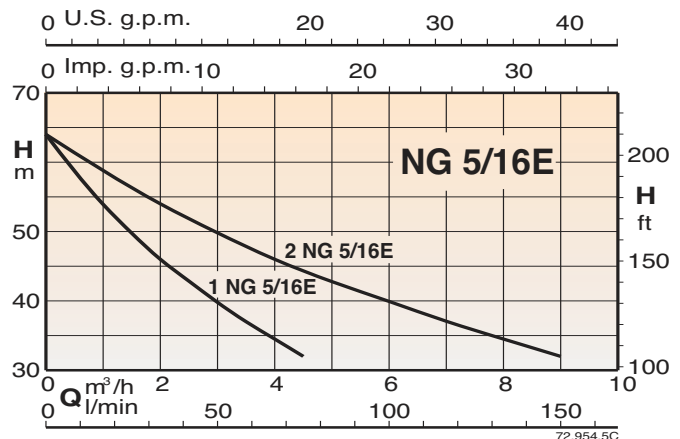
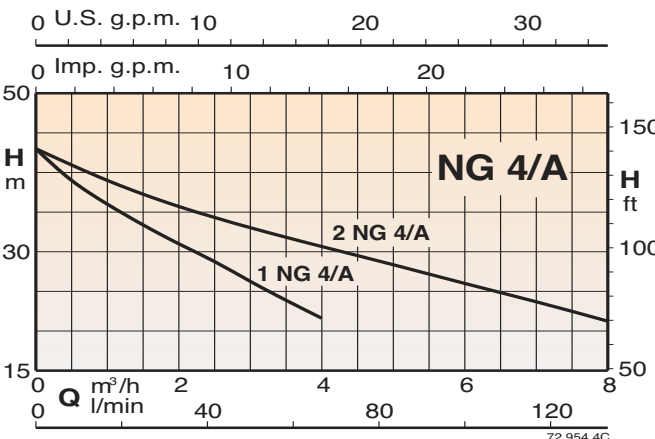
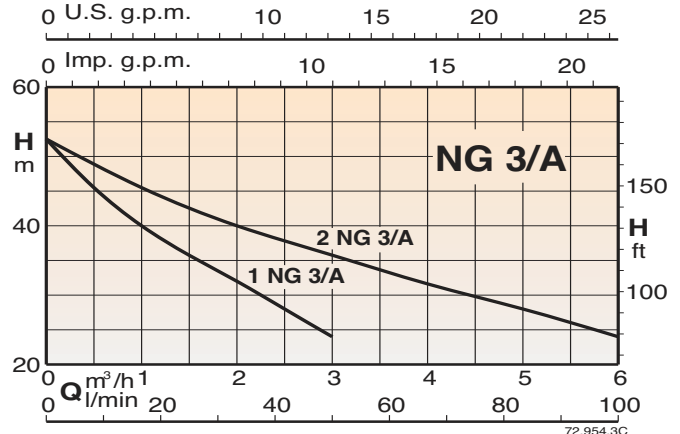
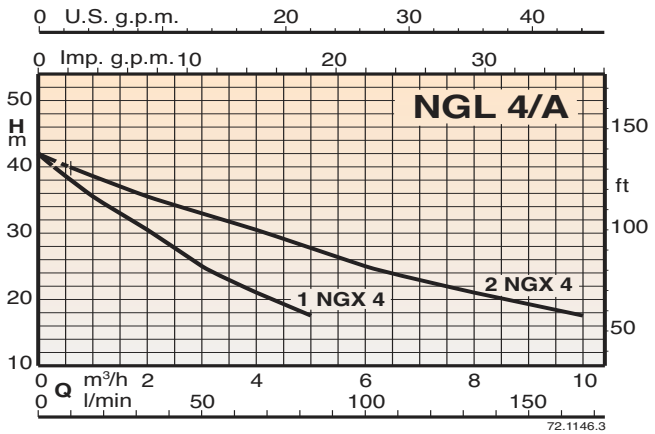
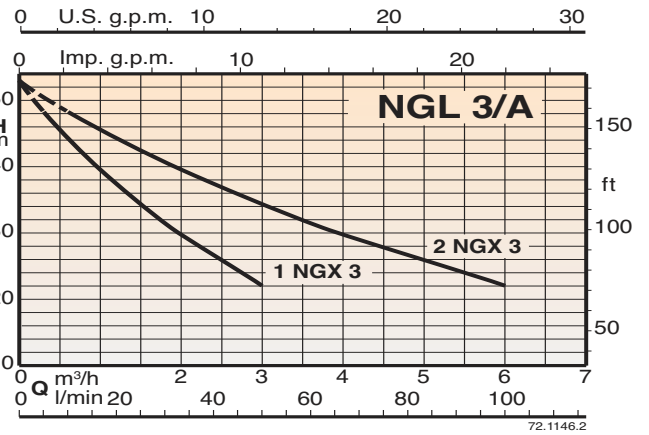
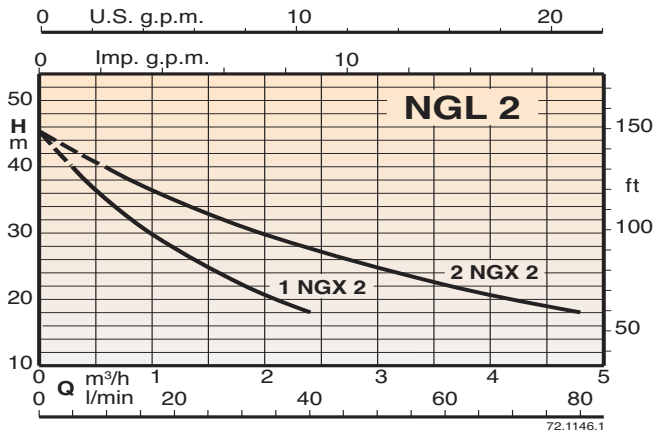
### BS1V1F

Mains: 400V 3~ Motor: 400V 3~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm							Weight kg	Vessel Membrane litre		
	kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2		B	Membrane litre	Vessel litre
BS1V1F 2NM 25/20BE	2,2+2,2	3+3	400	3,0÷4,0	2,7÷3,7	G 2 1/2	G 2	840	160	330	725	373				87	24x2	
BS1V1F 2NM 25/20AE	3+3	4+4	440	3,8+4,8	3,5+4,5	G 2 1/2	G 2	840	160	330	725	373				106	24x2	
BS1V1F 2NM 25/20SE	4+4	5,5+5,5	560	4,0÷5,5	3,5÷5,0	G 2 1/2	G 2	840	160	330	725	373				114	24x2	
BS1V1F 2NMD 25/190CE	2,2+2,2	3+3	280	4,3+5,8	3,8+5,3	G 2 1/2	G 2	840	175	330	760	407	235	625	600	108	24x2	
BS1V1F 2NMD 25/190BE	3+3	4+4	300	5,5+7,5	5,0+7,0	G 2 1/2	G 2	840	175	330	760	407				123	24x2	
BS1V1F 2NMD 25/190AE	4+4	5,5+5,5	320	7,5+9,5	7,0+9,0	G 2 1/2	G 2	840	175	330	760	407				132	24x2	

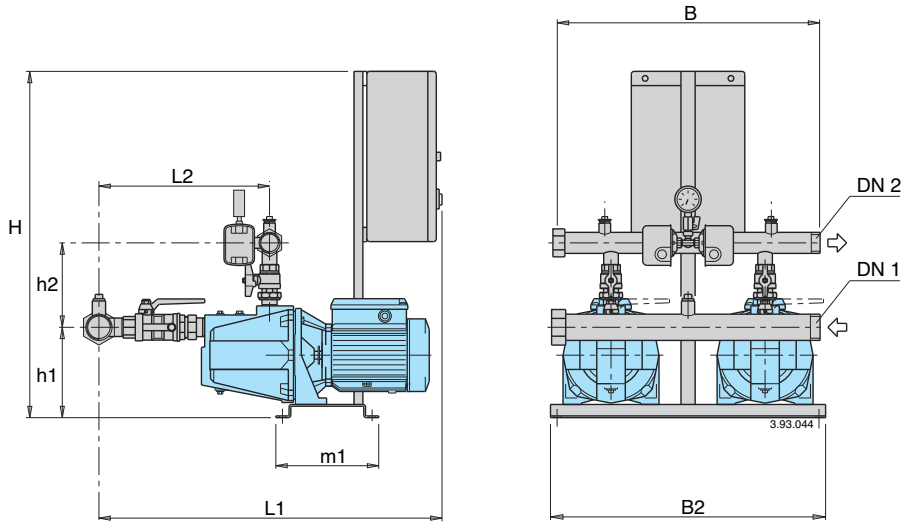
### BS2V

Mains: 400V 3~ Motor: 400V 3~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm							Weight kg	Vessel Membrane litre		
	kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2		B	Membrane litre	Vessel litre
BS2F 2NM 25/20BE	2,2+2,2	3+3	400	3,0÷4,0	2,7÷3,7	G 2 1/2	G 2	840	160	330	725	373				87	24x2	
BS2F 2NM 25/20AE	3+3	4+4	440	3,8+4,8	3,5+4,5	G 2 1/2	G 2	840	160	330	725	373				106	24x2	
BS2F 2NM 25/20SE	4+4	5,5+5,5	560	4,0÷5,5	3,5÷5,0	G 2 1/2	G 2	840	160	330	725	373				114	24x2	
BS2F 2NMD 25/190CE	2,2+2,2	3+3	280	4,3+5,8	3,8+5,3	G 2 1/2	G 2	840	175	330	760	407	235	625	600	108	24x2	
BS2F 2NMD 25/190BE	3+3	4+4	300	5,5+7,5	5,0+7,0	G 2 1/2	G 2	840	175	330	760	407				123	24x2	
BS2F 2NMD 25/190AE	4+4	5,5+5,5	320	7,5+9,5	7,0+9,0	G 2 1/2	G 2	840	175	330	760	407				132	24x2	

### Coverage chart



### Characteristic, dimensions and weights



### BS2F      BSM2F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm								Weight kg	Mem. litre	Vessel litre	
		kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B				
<b>BS2F 2NGL 2</b>	<b>BSM2F 2NGLM 2</b>	0,45+0,45	0,6+0,6	70	2,4÷3,6	2,0÷3,2	G 2	G 1 1/2	840	151	206	793	355					42	24x2	100
<b>BS2F 2NGL 3/A</b>	<b>BSM2F 2NGLM 3/A</b>	0,55+0,55	0,75+0,75	90	2,8÷4,0	2,2÷3,6	G 2	G 1 1/2	840	151	206	793	355	235	625	600		46	24x2	100
<b>BS2F 2NGL 4/A</b>	<b>BSM2F 2NGLM 4/A</b>	0,75+0,75	1+1	160	2,2÷3,4	1,8÷3,0	G 2	G 1 1/2	840	151	206	793	355					49	24x2	100

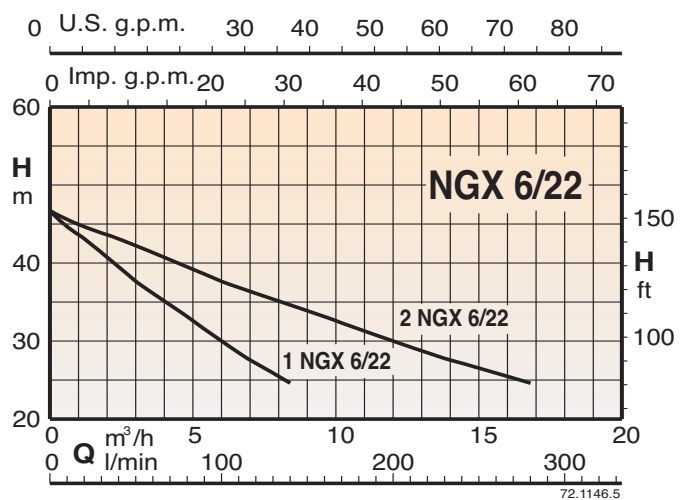
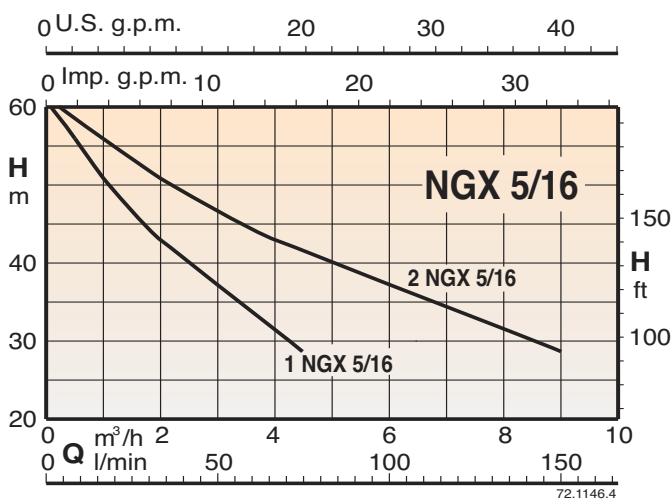
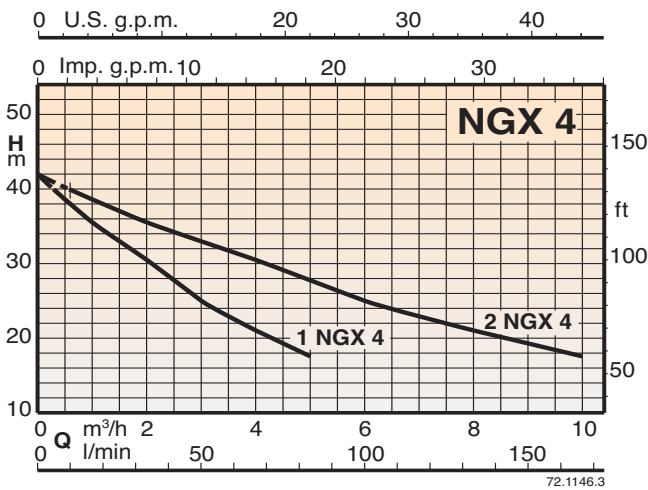
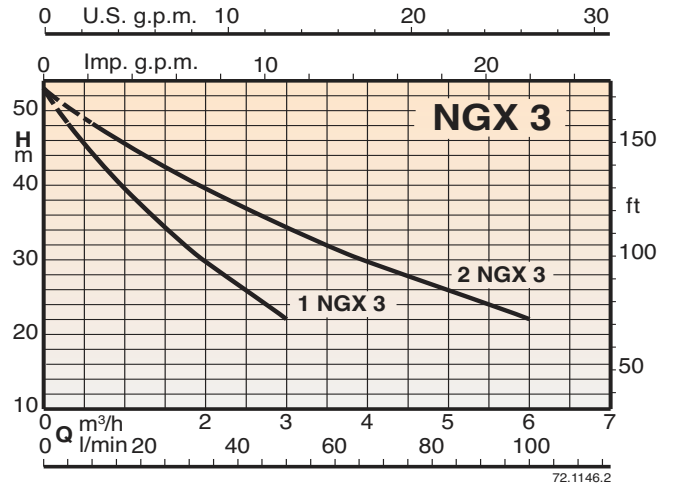
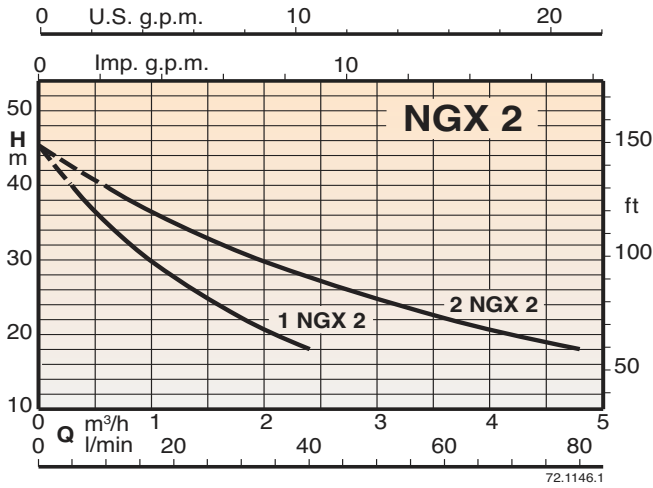
\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.

### BS2F      BSM2F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm								Weight kg	Mem. litre	Vessel litre	
		kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B				
<b>BS2F 2NG 3/A</b>	<b>BSM2F 2NGM 3/A</b>	0,55+0,55	0,75+0,75	95	3,0÷4,2	2,5÷3,7	G2	G 1 1/2	840	184	188	775	345					61	24x2	100
<b>BS2F 2NG 4/A</b>	<b>BSM2F 2NGM 4/A</b>	0,75+0,75	1+1	130	2,5÷3,7	2,1÷3,3	G2	G 1 1/2	840	184	188	775	345					62	24x2	100
<b>BS2F 2NG 5-16E</b>	<b>BSM2F 2NGM 5-16E</b>	1,1+1,1	1,5+1,5	140	3,8÷5,3	3,4÷4,9	G 2 1/2	G 1 1/2	840	200	202	935	470					86	24x2	100
	<b>BSM2F 2NGM 6-22E</b>	1,5+1,5	2+2	290	3,0÷4,2	2,5÷3,7	G 2 1/2	G 1 1/2	840	200	202	935	470	235	625	600		89	100	200
<b>BS2F 2NG 6-22E</b>		1,5+1,5	2+2	290	3,2÷4,5	2,8÷4,0	G 2 1/2	G 1 1/2	840	200	202	935	470					90	100	200
<b>BS2F 2NG 7-22E</b>		2,2+2,2	3+3	300	3,8÷5,3	3,4÷4,9	G 2 1/2	G 1 1/2	840	200	202	935	470					92	200	300

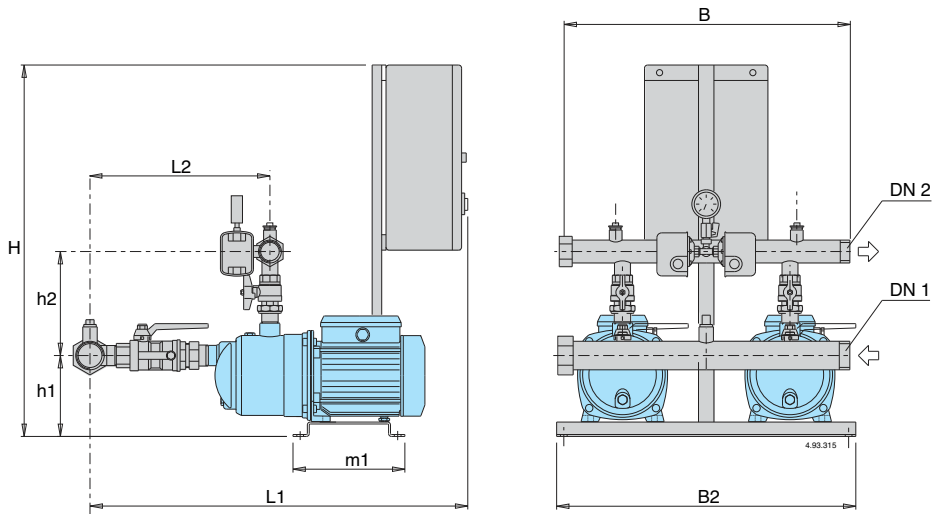
\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.

## Coverage chart





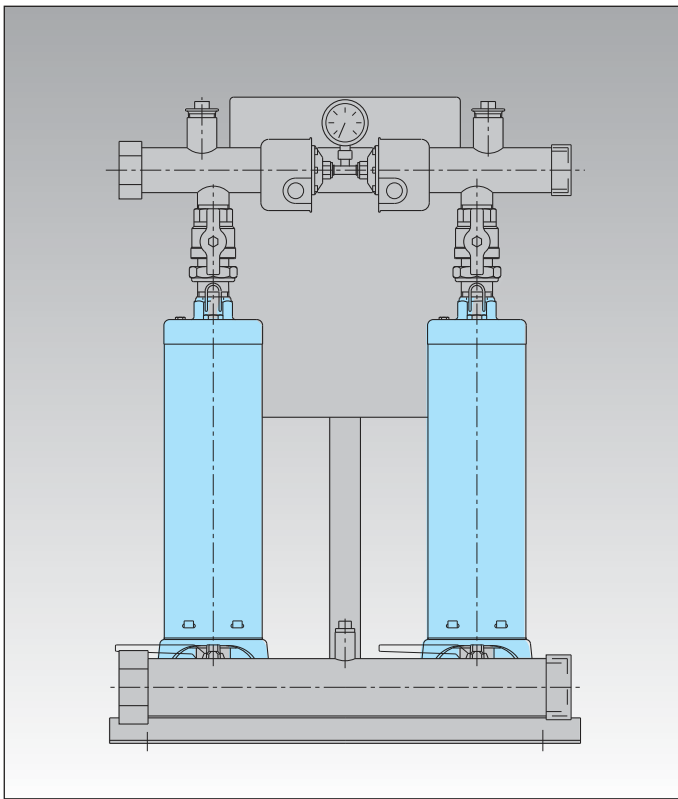
## Characteristic, dimensions and weights



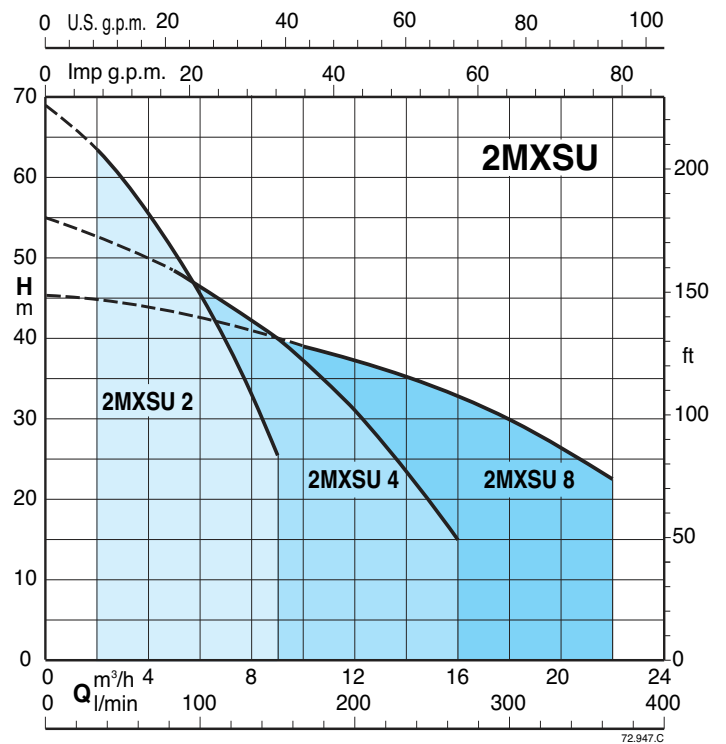
### BS2F      BSM2F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Q max* l/min	Pres. switch setting		Manifolds		mm								Weight kg	Vessel	
		kW	HP		bar	bar	DN1	DN2	H	h1	h2	L1	L2	m1	B2	B		Mem. litre	Vessel litre
<b>BS2F 2NGX 2</b>	<b>BSM2F 2NGXM 2</b>	0,45+0,45	0,6+0,6	70	2,4÷3,6	2,0÷3,2	G 2	G 1 1/2	840	151	206	793	355				42	24x2	100
<b>BS2F 2NGX 3/A</b>	<b>BSM2F 2NGXM 3/A</b>	0,55+0,55	0,75+0,75	90	2,8÷4,0	2,2÷3,6	G 2	G 1 1/2	840	151	206	793	355				46	24x2	100
<b>BS2F 2NGX 4/A</b>	<b>BSM2F 2NGXM 4/A</b>	0,75+0,75	1+1	160	2,2÷3,4	1,8÷3,0	G 2	G 1 1/2	840	151	206	793	355	235	625	600	49	24x2	100
<b>BS2F 2NGX 5-16</b>	<b>BSM2F 2NGXM 5-16</b>	1,1+1,1	1,5+1,5	140	3,4÷4,9	3,0÷4,5	G 2 1/2	G 1 1/2	840	187	212	836	380				61	24x2	100
<b>BS2F 2NGX 6-22</b>	<b>BSM2F 2NGXM 6-22</b>	1,5+1,5	2+2	280	3,0÷4,2	2,5÷3,7	G 2 1/2	G 1 1/2	840	187	212	836	380				65	100	200

\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.



Coverage chart



## Construction

Automatic pressure boosting plant consisting of two vertical multi-stage pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304 stainless steel.

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels.

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386).
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and two adjustable differential pressure switches.

## Operation

### BS 2F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V1F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS2V Pumps at variable speed with two frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm

- Three-phase 230V - 400V ± 10%, suitable for operation with frequency converter.

- Single-phase 230V ± 10%.

Insulation class F.

Protection IP 68.

Constructed in accordance with: IEC 60034.

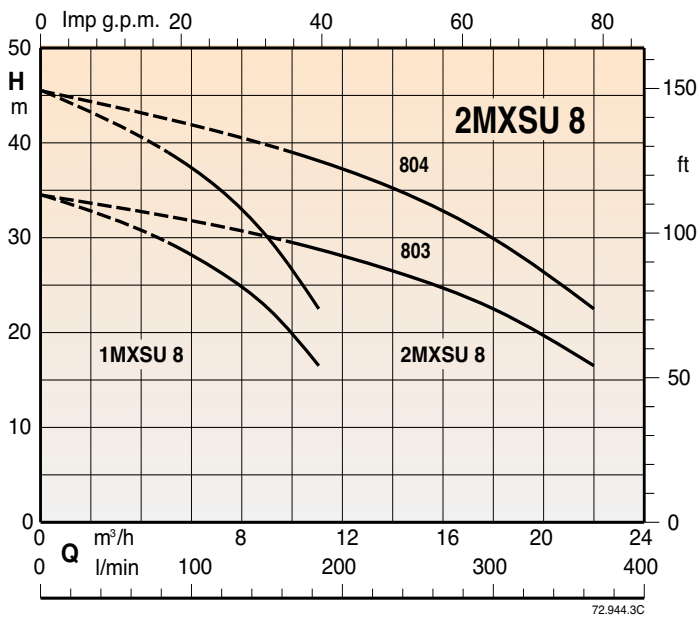
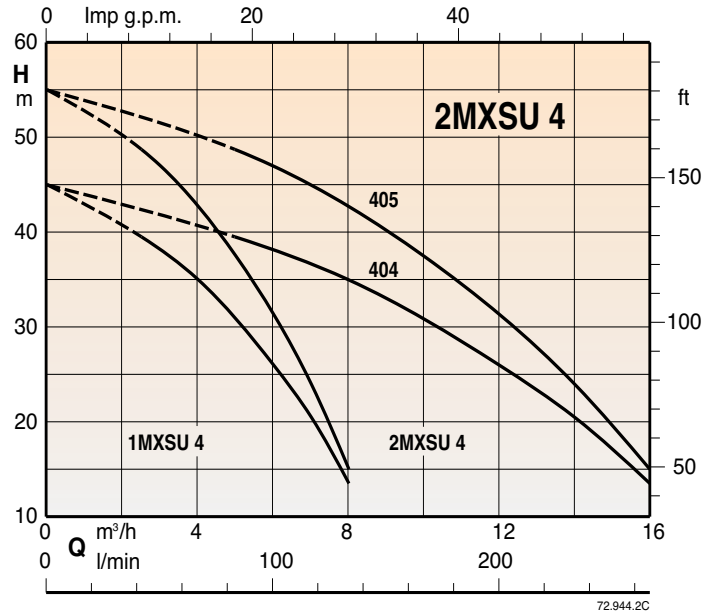
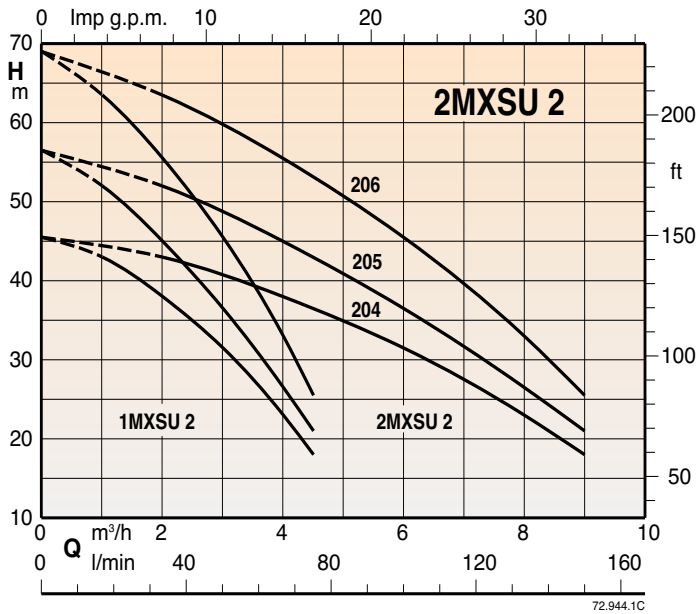
Other voltages and frequencies on request.

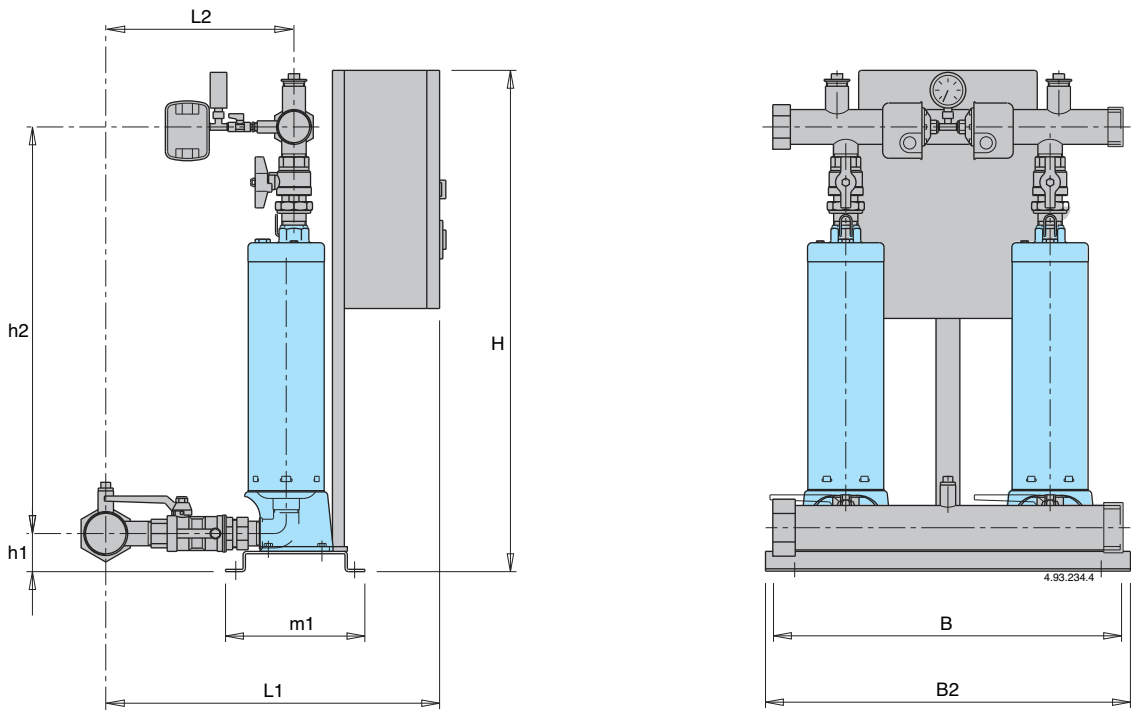
## Vessels

When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

The recommended sized are shown in the following page.

## Coverage chart





### Dimensions and weights

TYPE		DN1	DN2	mm								kg	
				H	h1	h2	L1	L2	m1	B	B2		
BS.. 2MXSU 204	BSM.. 2MXSU 204					657							50 - 50
BS.. 2MXSU 205	BSM.. 2MXSU 205	G 2	G 2	840	66	681	630	300	234	600	625		52 - 52
BS.. 2MXSU 206	BSM.. 2MXSU 206					705							54 - 55
BS.. 2MXSU 404	BSM.. 2MXSU 404					657							52 - 53
BS.. 2MXSU 405	BSM.. 2MXSU 405	G 2	G 2	840	66	681	630	300	234	600	625		53 - 54
BS.. 2MXSU 803	BSM.. 2MXSU 803					681							52 - 53
BS.. 2MXSU 804	BSM.. 2MXSU 804	G 2	G 2	840	66	681	630	300	234	600	625		57

### Performance

#### BS2F BSM2F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Pres. switch bar	Pres. switch bar	Average capacity		Maximum capacity		Membrane V. litre	Vessel litre
		kW	HP			Q l/min	H m	Q l/min	H m		
BS2F 2MXSU 204	BSM2F 2MXSU 204	0,55+0,55	0,75+0,75	2,5+4,0	2,0+3,5	98	32	145	20	40	100
BS2F 2MXSU 205	BSM2F 2MXSU 205	0,75+0,75	1+1	3,5+5,0	3,0+4,5	83	41	122	30	40	100
BS2F 2MXSU 206	BSM2F 2MXSU 206	0,9+0,9	1,2+1,2	4,5+6,0	4,0+5,5	83	51	117	40	50	100
BS2F 2MXSU 404	BSM2F 2MXSU 404	0,9+0,9	1,2+1,2	2,3+3,8	1,8+3,3	172	30	240	18	60	100
BS2F 2MXSU 405	BSM2F 2MXSU 405	1,1+1,1	1,5+1,5	3,0+4,5	2,5+4,0	172	37	230	25	80	300
BS2F 2MXSU 803	BSM2F 2MXSU 803	1,1+1,1	1,5+1,5	2,0+3,0	1,7+2,7	260	25	365	17	100	300
BS2F 2MXSU 804	BSM2F 2MXSU 804	1,5+1,5	2+2	3,0+4,0	2,5+3,5	245	34	350	25	200	300

#### BS1V1F BSM1V1F

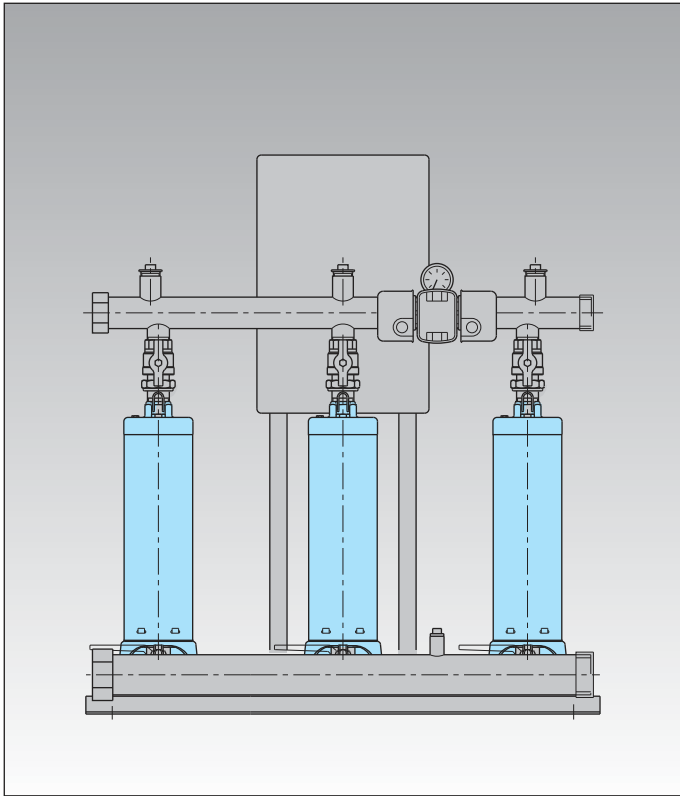
Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ (1)	Motor		Vessel Membrane litre
		kW	HP	
BS1V1F 2MXSU 204	BS1V1F 2MXSU 204	0,55 x2	0,75 x2	24x2
BS1V1F 2MXSU 205	BS1V1F 2MXSU 205	0,75 x2	1 x2	24x2
BS1V1F 2MXSU 206	BS1V1F 2MXSU 206	0,9 x2	1,2 x2	24x2
BS1V1F 2MXSU 404	BS1V1F 2MXSU 404	0,9 x2	1,2 x2	24x2
BS1V1F 2MXSU 405	BS1V1F 2MXSU 405	1,1 x2	1,5 x2	24x2
BS1V1F 2MXSU 803	BS1V1F 2MXSU 803	1,1 x2	1,5 x2	24x2
BS1V1F 2MXSU 804	BS1V1F 2MXSU 804	1,5 x2	2 x2	24x2

(1) SYSTEMS WITH:  
1 variable speed pump three-phase motor  
1 fixed speed pump single-phase motor  
Power supply to control panel  
230 V single-phase

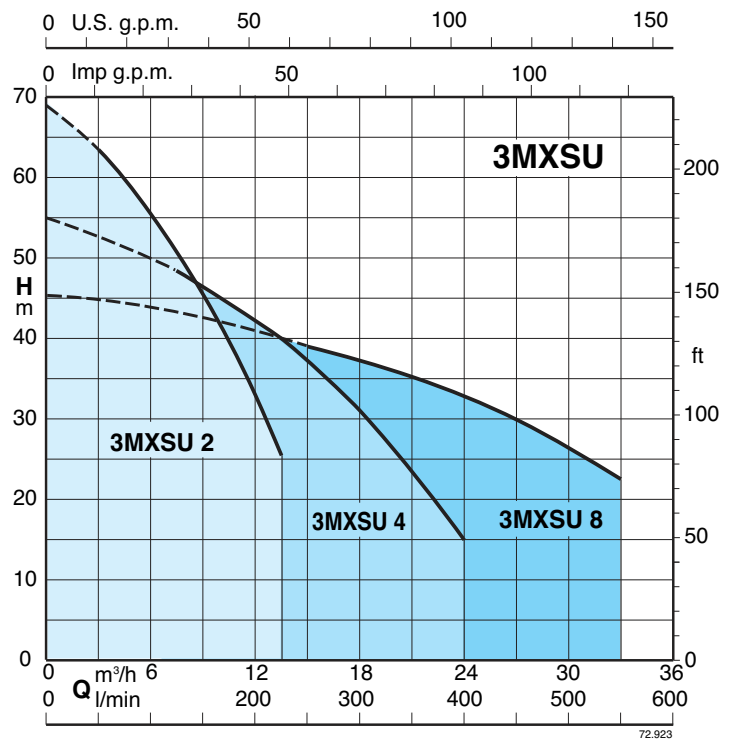
#### BS2V BSM2V

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ (1)	Motor		Vessel Membrane litre
		kW	HP	
BS2V 2MXSU 204	BSM2V 2MXSU 204	0,55 x2	0,75 x2	24x2
BS2V 2MXSU 205	BSM2V 2MXSU 205	0,75 x2	1 x2	24x2
BS2V 2MXSU 206	BSM2V 2MXSU 206	0,9 x2	1,2 x2	24x2
BS2V 2MXSU 404	BSM2V 2MXSU 404	0,9 x2	1,2 x2	24x2
BS2V 2MXSU 405	BSM2V 2MXSU 405	1,1 x2	1,5 x2	24x2
BS2V 2MXSU 803	BSM2V 2MXSU 803	1,1 x2	1,5 x2	24x2
BS2V 2MXSU 804	BSM2V 2MXSU 804	1,5 x2	2 x2	24x2

(1) Three-phase motor 230 V.  
Power supply to control panel:  
- 230 V three-phase  
- 230 V single-phase  
Frequency converter output is always 230 V three-phase.



Coverage chart



## Construction

Automatic pressure boosting plant consisting of three vertical multi-stage pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304 stainless steel.

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels.

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386).
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and three adjustable differential pressure switches.

## Operation

### BS 3F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V2F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS3V Pumps at variable speed with three frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm

- Three-phase 230V - 400V ± 10%, suitable for operation with frequency converter.

- Single-phase 230V ± 10% (on request).

Insulation class F.

Protection IP 68.

Constructed in accordance with: IEC 60034.

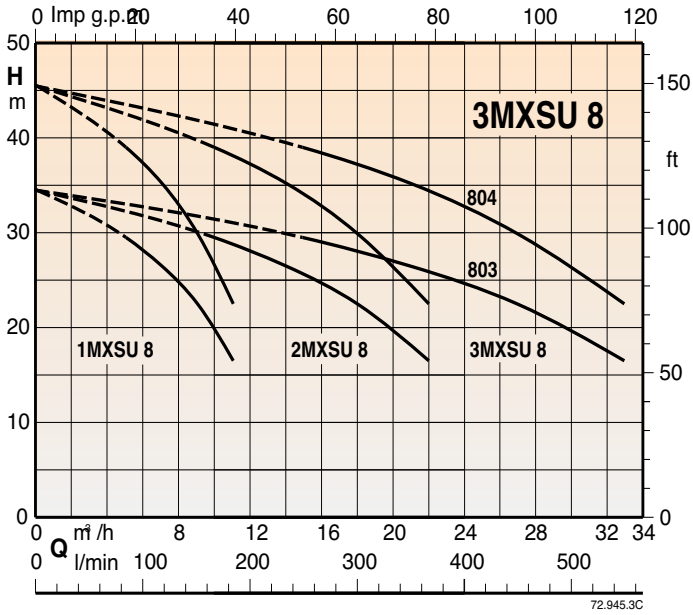
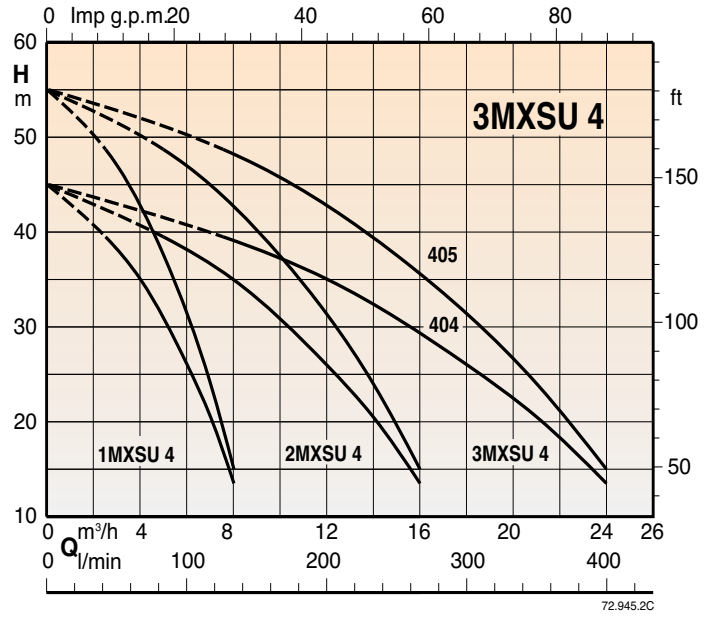
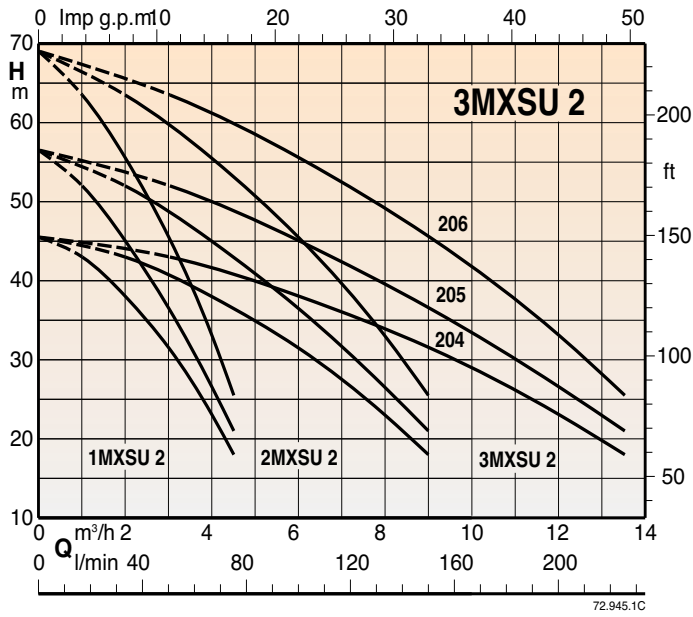
Other voltages and frequencies on request.

## Vessels

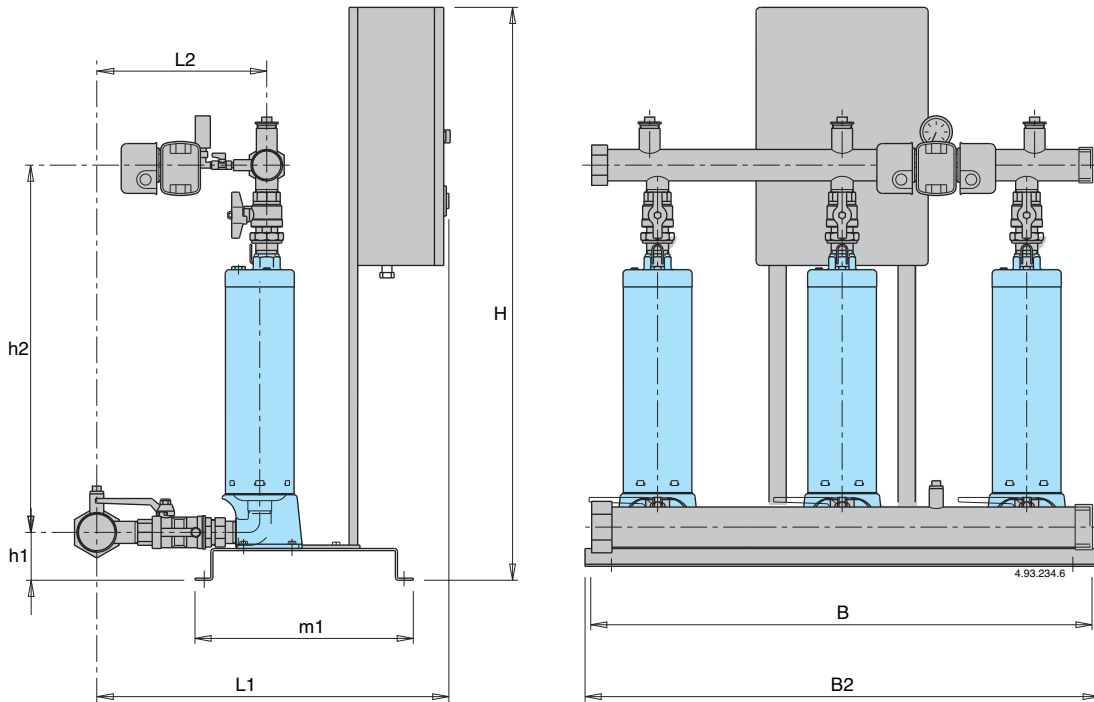
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

The recommended sized are shown in the following page.

## Coverage chart



## Dimensions and weights



TYPE	DN1	DN2	mm								kg
			H	h1	h2	L1	L2	m1	B	B2	
BS.. 3MXSU 204	G 2 1/2	G 2	1060	91	657	680	300	306	950	1000	85
BS.. 3MXSU 205					681						88
BS.. 3MXSU 206					705						91
BS.. 3MXSU 404	G 2 1/2	G 2	1060	91	657	680	300	306	950	1000	88
BS.. 3MXSU 405					681						89
BS.. 3MXSU 803	G 2 1/2	G 2	1060	91	690	680	305	306	950	1000	88
BS.. 3MXSU 804					690						96

## Performance

### BS3F

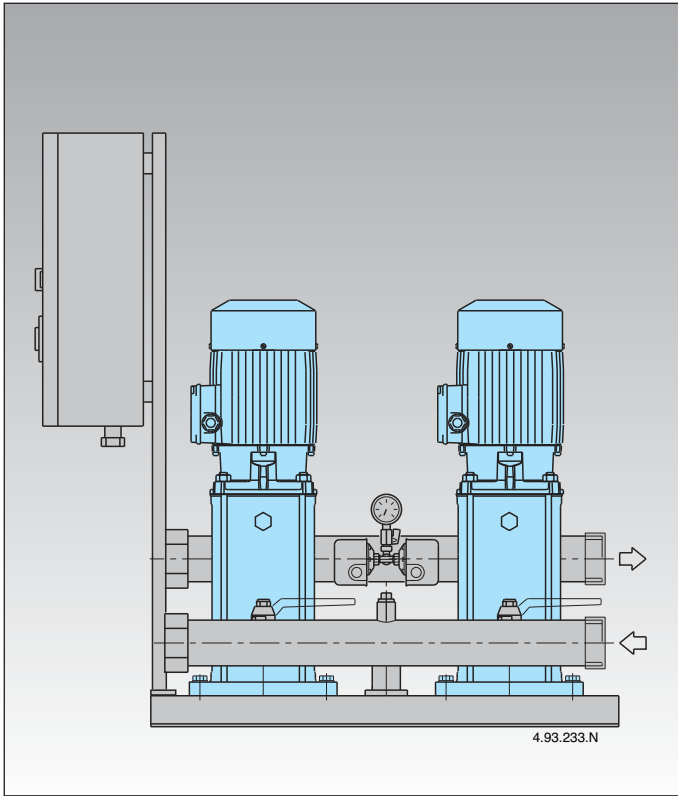
Mains: 400V 3~ Motor: 400V 3~	Motor		Pres. switch bar	Pres. switch bar	Pres. switch bar	Average capacity		Maximum capacity		Membrane V. litre	Vessel litre
	kW	HP				Q l/min	H m	Q l/min	H m		
BS3F 3MXSU 204	0,5+0,5+0,5	0,75+0,75+0,75	3,0±4,0	2,5±3,5	2,0±3,0	146	32	215	20	40	100
BS3F 3MXSU 205	0,75+0,75+0,75	1+1+1	4,0±5,0	3,5±4,5	3,0±4,0	125	41	180	30	40	100
BS3F 3MXSU 206	0,9+0,9+0,9	1,2+1,2+1,2	4,5±6,0	4,0±5,5	3,5±5,0	132	50	190	35	40	100
BS3F 3MXSU 404	0,9+0,9+0,9	1,2+1,2+1,2	2,5±4,0	2,0±3,5	1,5±3,0	268	29	390	15	60	100
BS3F 3MXSU 405	1,1+1,1+1,1	1,5+1,5+1,5	3,3±4,8	2,8±4,3	2,3±3,8	268	36	355	23	80	200
BS3F 3MXSU 803	1,1+1,1+1,1	1,5+1,5+1,5	2,2±3,0	1,8±2,7	1,5±2,4	400	25	550	15	100	200
BS3F 3MXSU 804	1,5+1,5+1,5	2+2+2	3,0±4,0	2,6±3,7	2,2±3,4	375	35	550	22	200	300

### BS1V2F

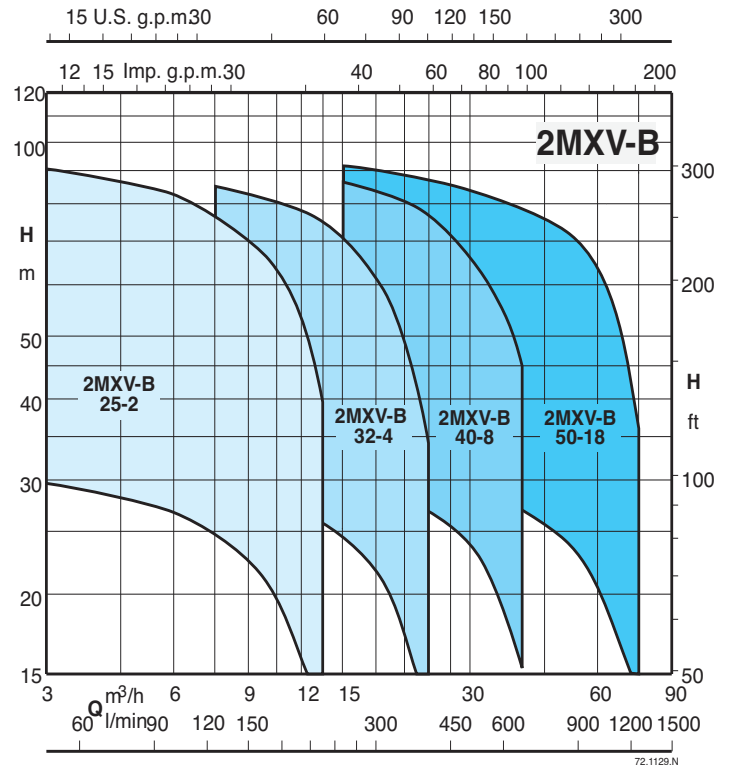
Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V2F 3MXSU 204	0,55 x3	0,75 x3	24x3
BS1V2F 3MXSU 205	0,75 x3	1 x3	24x3
BS1V2F 3MXSU 206	0,9 x3	1,2 x3	24x3
BS1V2F 3MXSU 404	0,9 x3	1,2 x3	24x3
BS1V2F 3MXSU 405	1,1 x3	1,5 x3	24x3
BS1V2F 3MXSU 803	1,1 x3	1,5 x3	24x3
BS1V2F 3MXSU 804	1,5 x3	2 x3	24x3

### BS3V

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS3V 3MXSU 204	0,55 x3	0,75 x3	24x3
BS3V 3MXSU 205	0,75 x3	1 x3	24x3
BS3V 3MXSU 206	0,9 x3	1,2 x3	24x3
BS3V 3MXSU 404	0,9 x3	1,2 x3	24x3
BS3V 3MXSU 405	1,1 x3	1,5 x3	24x3
BS3V 3MXSU 803	1,1 x3	1,5 x3	24x3
BS3V 3MXSU 804	1,5 x3	2 x3	24x3



Coverage chart



## Construction

Automatic pressure boosting plant consisting of two vertical multi-stage close coupled pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304.

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels (for 2MXV-B 25-32-40).

Connections are located on the delivery manifold for the installation of one 20 litres cylindrical vessel (for 2MXV-B 50).

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386).
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and two adjustable differential pressure switches.

## Operation

### BS 2F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V1F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS2V Pumps at variable speed with two frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm

- Three-phase 230/400V ± 10%, suitable for operation with frequency converter.

- Single-phase 230V ± 10% (up to 2,2 kW).

Insulation class F.

Protection IP 54.

Constructed in accordance with: IEC 60034.

Other voltages and frequencies on request.

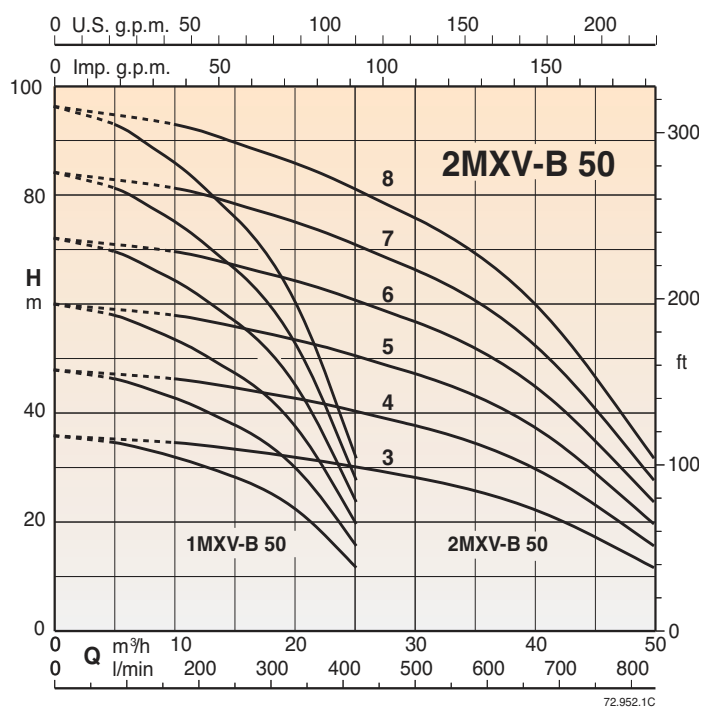
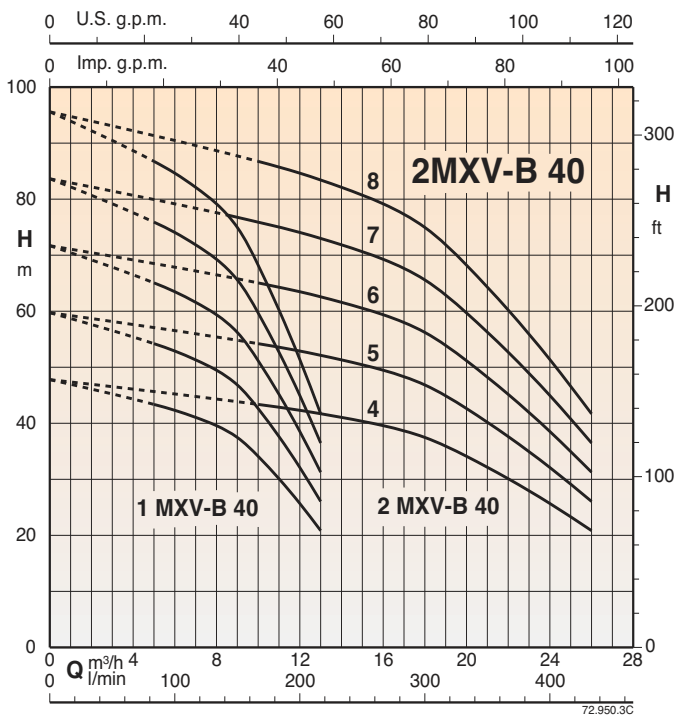
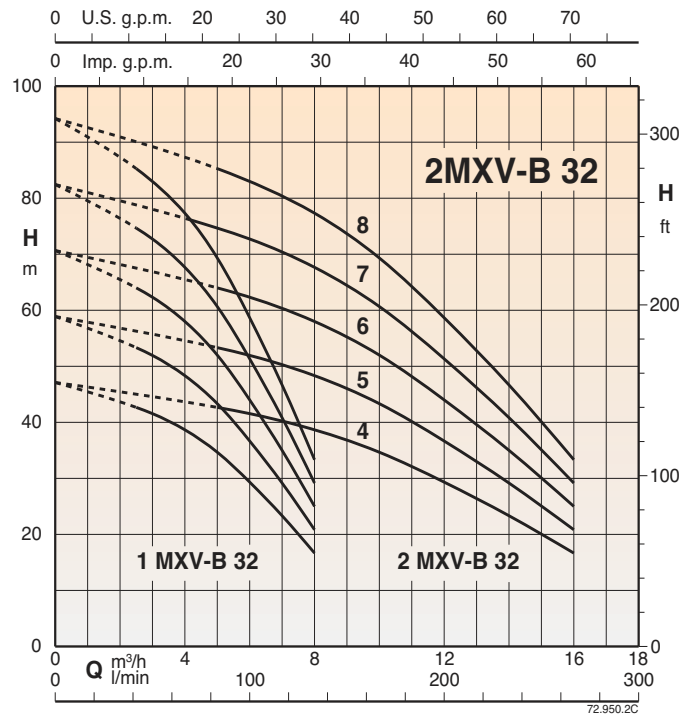
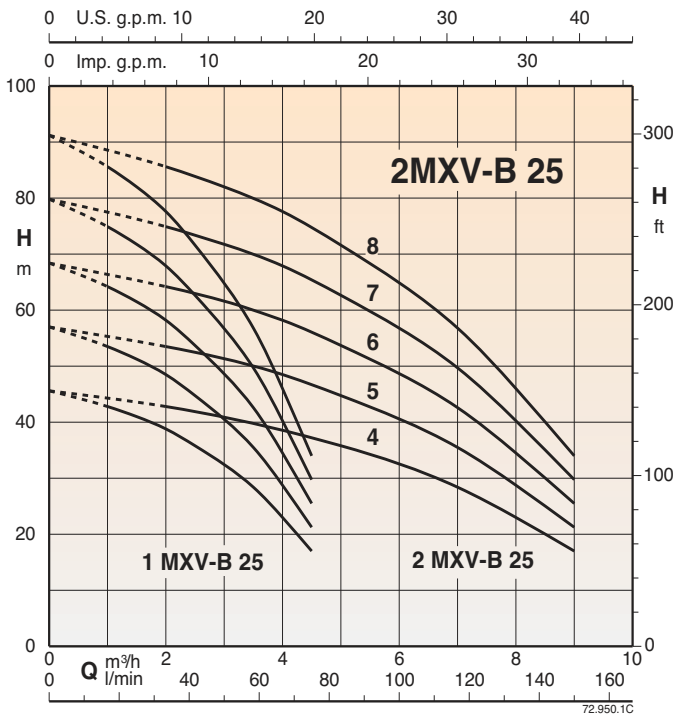
## Vessels

When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

The recommended sized are shown in the following page.



## Coverage chart



## Performance

### BS2F BSM2F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Pres. switch bar	Pres. switch bar	Average capacity		Maximum capacity		Membrane V. litre	Vessel litre
		kW	HP			Q l/min	H m	Q l/min	H m		
BS2F 2MXV-B 25-204	BSM2F 2MXV-BM 25-204	0,75+0,75	1+1	2,5±4,0	2,2±3,7	106	31	135	22	40	100
BS2F 2MXV-B 25-205	BSM2F 2MXV-BM 25-205	0,75+0,75	1+1	3,5±5,0	3,0±4,5	103	40	133	30	50	300
BS2F 2MXV-B 25-206	BSM2F 2MXV-BM 25-206	1,1+1,1	1,5+1,5	4,5±6,0	4,0±5,5	95	50	125	40	50	300
BS2F 2MXV-B 25-207	BSM2F 2MXV-BM 25-207	1,1+1,1	1,5+1,5	5,5±7,0	5,0±6,5	92	60	115	50	60	300
BS2F 2MXV-B 25-208	BSM2F 2MXV-BM 25-208	1,5+1,5	2+2	6,5±8,0	6,0±7,5	86	70	110	60	80	500
BS2F 2MXV-B 32-404	BSM2F 2MXV-BM 32-404	1,1+1,1	1,5+1,5	2,5±4,0	2,2±3,7	190	31	245	22	100	200
BS2F 2MXV-B 32-405	BSM2F 2MXV-BM 32-405	1,1+1,1	1,5+1,5	3,5±5,0	3,0±4,5	186	40	235	30	100	300
BS2F 2MXV-B 32-406	BSM2F 2MXV-BM 32-406	1,5+1,5	2+2	4,5±6,0	4,0±5,5	180	50	215	40	100	300
BS2F 2MXV-B 32-407	BSM2F 2MXV-BM 32-407	1,5+1,5	2+2	5,5±7,0	5,0±6,5	170	60	210	50	200	300
BS2F 2MXV-B 32-408		2,2+2,2	3+3	6,5±8,0	6,0±7,5	165	70	195	60	200	500
BS2F 2MXV-B 40-804	BSM2F 2MXV-BM 40-804	1,5+1,5	2+2	2,5±4,0	2,2±3,7	356	31	420	22	200	300
BS2F 2MXV-B 40-805		2,2+2,2	3+3	3,5±5,0	3,0±4,5	350	40	410	30	300	500
BS2F 2MXV-B 40-806		2,2+2,2	3+3	4,5±6,0	4,0±5,5	340	50	390	40	300	500
BS2F 2MXV-B 40-807		3+3	4+4	5,5±7,0	5,0±6,5	330	60	380	50	300	500
BS2F 2MXV-B 40-808		3+3	4+4	6,5±8,0	6,0±7,5	325	70	365	60	300	500
BS2F 2MXV-B 50-1803		2,2+2,2	3+3	1,8±3,0	1,5±2,7	660	22	780	15	500	800
BS2F 2MXV-B 50-1804		3+3	4+4	2,5±4,0	2,2±3,7	650	31	750	22	500	800
BS2F 2MXV-B 50-1805		3,7+3,7	5+5	3,5±5,0	3,0±4,5	640	40	750	30	500	800
BS2F 2MXV-B 50-1806		4+4	5,5+5,5	4,5±6,0	4,0±5,5	610	50	720	40	500	1000
BS2F 2MXV-B 50-1807		5,5+5,5	7,5+7,5	5,5±7,0	5,0±6,5	590	60	700	50	500	1000
BS2F 2MXV-B 50-1808		5,5+5,5	7,5+7,5	6,5±8,0	6,0±7,5	560	70	670	60	500	1000

### BS1V1F BSM1V1F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ (1)	Motor		Vessel Membrane litre
		kW	HP	
BS1V1F 2MXV-B 25-204	BSM1V1F 2MXV-B 25-204	0,75 x2	1 x2	24x2
BS1V1F 2MXV-B 25-205	BSM1V1F 2MXV-B 25-205	0,75 x2	1 x2	24x2
BS1V1F 2MXV-B 25-206	BSM1V1F 2MXV-B 25-206	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV-B 25-207	BSM1V1F 2MXV-B 25-207	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV-B 25-208	BSM1V1F 2MXV-B 25-208	1,5 x2	2 x2	24x2
BS1V1F 2MXV-B 32-404	BSM1V1F 2MXV-B 32-404	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV-B 32-405	BSM1V1F 2MXV-B 32-405	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV-B 32-406	BSM1V1F 2MXV-B 32-406	1,5 x2	2 x2	24x2
BS1V1F 2MXV-B 32-407	BSM1V1F 2MXV-B 32-407	1,5 x2	2 x2	24x2
BS1V1F 2MXV-B 32-408		2,2 x2	3 x2	24x2
BS1V1F 2MXV-B 40-804	BSM1V1F 2MXV-B 40-804	1,5 x2	2 x2	24x2
BS1V1F 2MXV-B 40-805		2,2 x2	3 x2	24x2
BS1V1F 2MXV-B 40-806		2,2 x2	3 x2	24x2
BS1V1F 2MXV-B 40-807		3 x2	4 x2	24x2
BS1V1F 2MXV-B 40-808		3 x2	4 x2	24x2
BS1V1F 2MXV-B 50-1803		2,2 x2	3 x2	24x1
BS1V1F 2MXV-B 50-1804		3 x2	4 x2	24x1
BS1V1F 2MXV-B 50-1805		3,7 x2	5 x2	24x1
BS1V1F 2MXV-B 50-1806		4 x2	5,5 x2	24x1
BS1V1F 2MXV-B 50-1807		5,5 x2	7,5 x2	24x1
BS1V1F 2MXV-B 50-1808		5,5 x2	7,5 x2	24x1

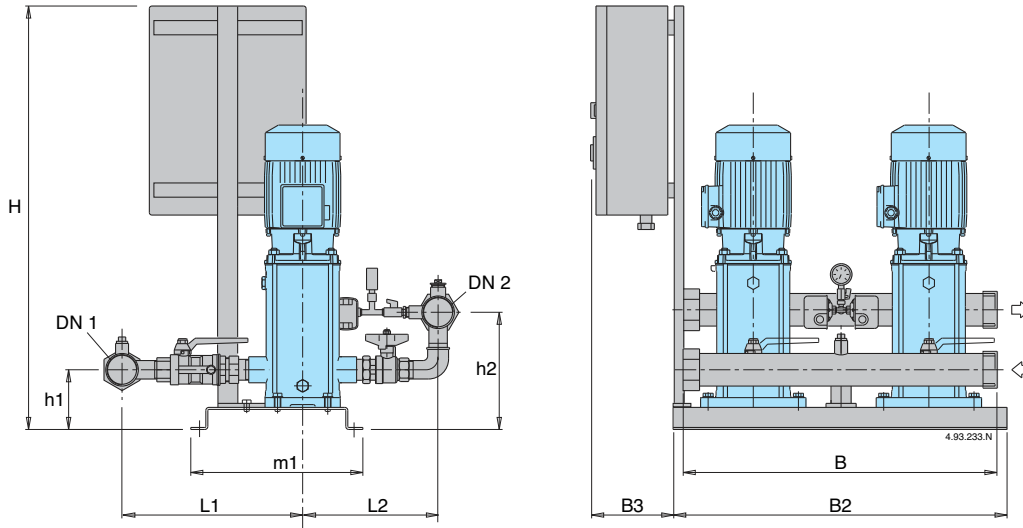
(1) SYSTEMS WITH:  
1 variable speed pump three-phase motor  
1 fixed speed pump single-phase motor  
Power supply to control panel 230 V single-phase

### BS2V BSM2V

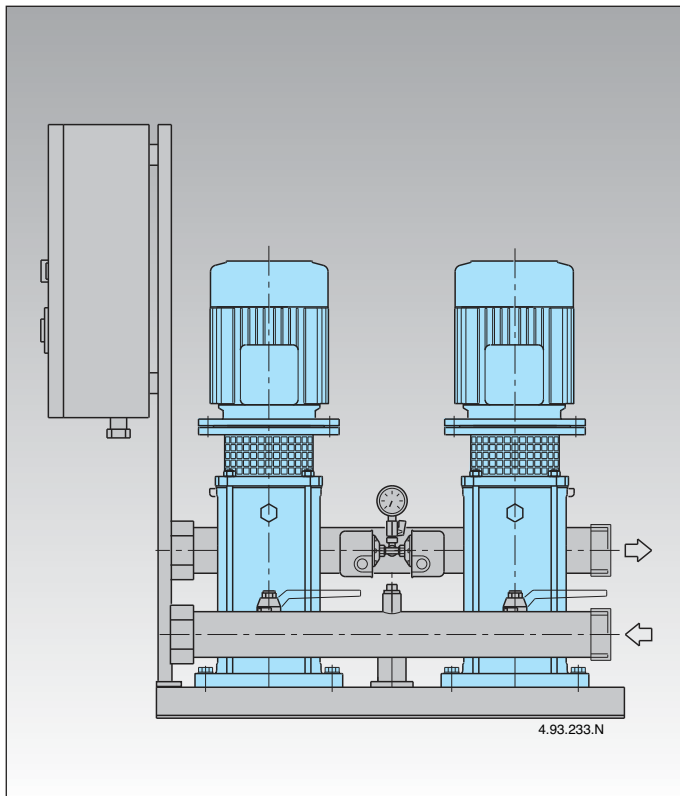
Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ (1)	Motor		Vessel Membrane litre
		kW	HP	
BS2V 2MXV-B 25-204	BSM2V 2MXV-B 25-204	0,75 x2	1 x2	24x2
BS2V 2MXV-B 25-205	BSM2V 2MXV-B 25-205	0,75 x2	1 x2	24x2
BS2V 2MXV-B 25-206	BSM2V 2MXV-B 25-206	1,1 x2	1,5 x2	24x2
BS2V 2MXV-B 25-207	BSM2V 2MXV-B 25-207	1,1 x2	1,5 x2	24x2
BS2V 2MXV-B 25-208	BSM2V 2MXV-B 25-208	1,5 x2	2 x2	24x2
BS2V 2MXV-B 32-404	BSM2V 2MXV-B 32-404	1,1 x2	1,5 x2	24x2
BS2V 2MXV-B 32-405	BSM2V 2MXV-B 32-405	1,1 x2	1,5 x2	24x2
BS2V 2MXV-B 32-406	BSM2V 2MXV-B 32-406	1,5 x2	2 x2	24x2
BS2V 2MXV-B 32-407	BSM2V 2MXV-B 32-407	1,5 x2	2 x2	24x2
BS2V 2MXV-B 32-408		2,2 x2	3 x2	24x2
BS2V 2MXV-B 40-804	BSM2V 2MXV-B 40-804	1,5 x2	2 x2	24x2
BS2V 2MXV-B 40-805		2,2 x2	3 x2	24x2
BS2V 2MXV-B 40-806		2,2 x2	3 x2	24x2
BS2V 2MXV-B 40-807		3 x2	4 x2	24x2
BS2V 2MXV-B 40-808		3 x2	4 x2	24x2
BS2V 2MXV-B 50-1803		2,2 x2	3 x2	24x1
BS2V 2MXV-B 50-1804		3 x2	4 x2	24x1
BS2V 2MXV-B 50-1805		3,7 x2	5 x2	24x1
BS2V 2MXV-B 50-1806		4 x2	5,5 x2	24x1
BS2V 2MXV-B 50-1807		5,5 x2	7,5 x2	24x1
BS2V 2MXV-B 50-1808		5,5 x2	7,5 x2	24x1

(1) Three-phase motor 230 V.  
Power supply to control panel: - 230 V three-phase  
- 230 V single-phase  
Frequency converter output is always 230 V three-phase.

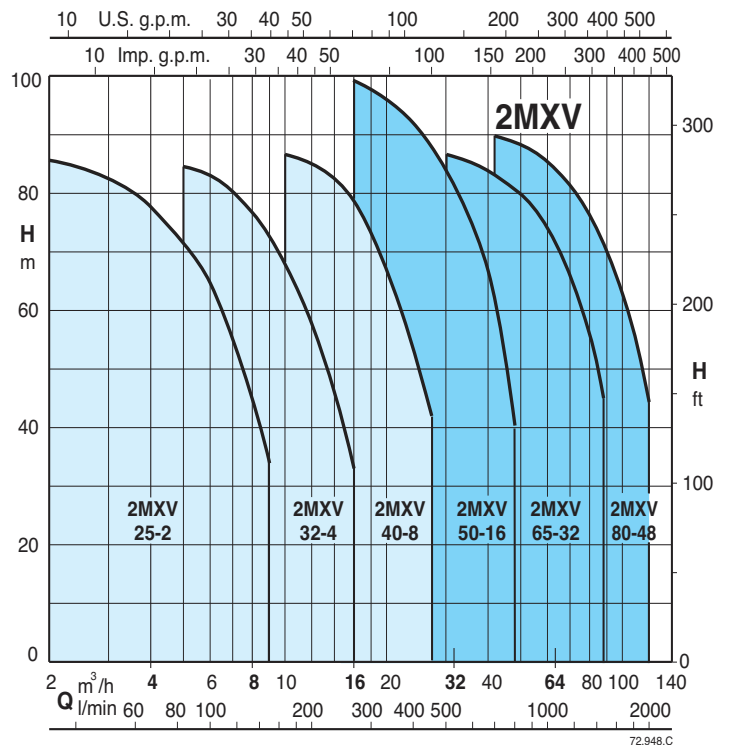
## Dimensions and weights



TYPE		DN1	DN2	mm									kg
				H	h1	h2	L1	L2	m1	B	B2	B3	
BS.. 2MXV-B 25-204	BSM.. 2MXV-BM 25-204												105
BS.. 2MXV-B 25-205	BSM.. 2MXV-BM 25-205												107
BS.. 2MXV-B 25-206	BSM.. 2MXV-BM 25-206	G 1 1/2	G 1 1/2	860	119	218	331	254	365	600	625	160	109
BS.. 2MXV-B 25-207	BSM.. 2MXV-BM 25-207												111
BS.. 2MXV-B 25-208	BSM.. 2MXV-BM 25-208												118
BS.. 2MXV-B 32-404	BSM.. 2MXV-BM 32-404												108
BS.. 2MXV-B 32-405	BSM.. 2MXV-BM 32-405												111
BS.. 2MXV-B 32-406	BSM.. 2MXV-BM 32-406	G 2	G 2	860	119	225	360	270	365	600	625	160	115
BS.. 2MXV-B 32-407	BSM.. 2MXV-BM 32-407												118
BS.. 2MXV-B 32-408													121
BS.. 2MXV-B 40-804	BSM.. 2MXV-BM 40-804												116
BS.. 2MXV-B 40-805													119
BS.. 2MXV-B 40-806		G 2 1/2	G 2 1/2	860	124	245	445	350	365	600	625	160	121
BS.. 2MXV-B 40-807													143
BS.. 2MXV-B 40-808													145
BS.. 2MXV-B 50-1803													208
BS.. 2MXV-B 50-1804													228
BS.. 2MXV-B 50-1805													238
BS.. 2MXV-B 50-1806		G 3	G 3	906	215	215	495	405	550	700	950	160	240
BS.. 2MXV-B 50-1807													262
BS.. 2MXV-B 50-1808													264



Coverage chart



## Construction

Automatic pressure boosting plant consisting of two vertical multi-stage pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304.

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels (for 2MXV 25-32-40).

Connections are located on the delivery manifold for the installation of one 20 litres cylindrical vessel (for 2MXV 50-65-80).

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386). Motor starting is D.O.L. up to 5,5 kW and Y/Δ for power rating 7,5 up to 15 kW.
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and two adjustable differential pressure switches.

## Operation

### BS 2F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V1F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS2V Pumps at variable speed with two frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm

- Three-phase 230/400V ± 10% up to 3 kW, suitable for operation with frequency converter;  
400/690V ± 10% from 4 to 15 kW, suitable for operation with frequency converter.

- Single-phase 230V ± 10% (up to 2,2 kW).

Insulation class F.

Protection IP 55.

Constructed in accordance with: IEC 60034.

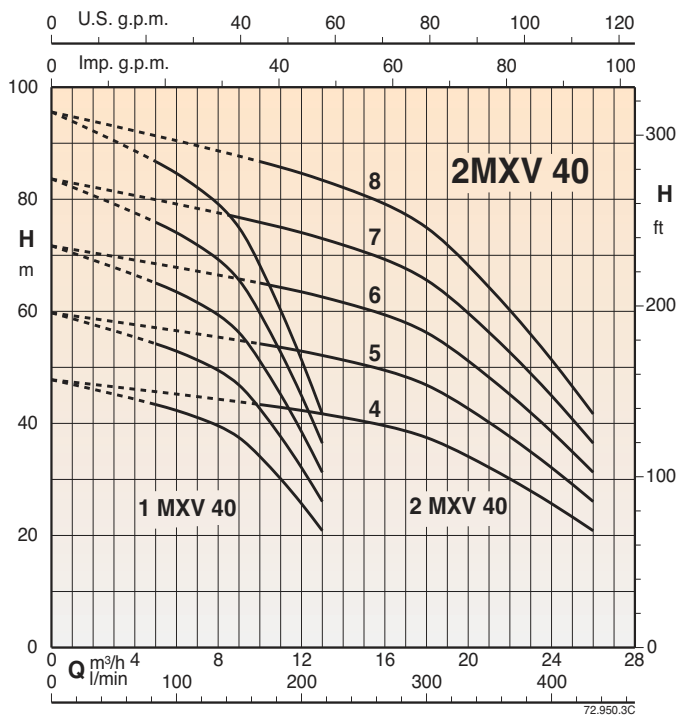
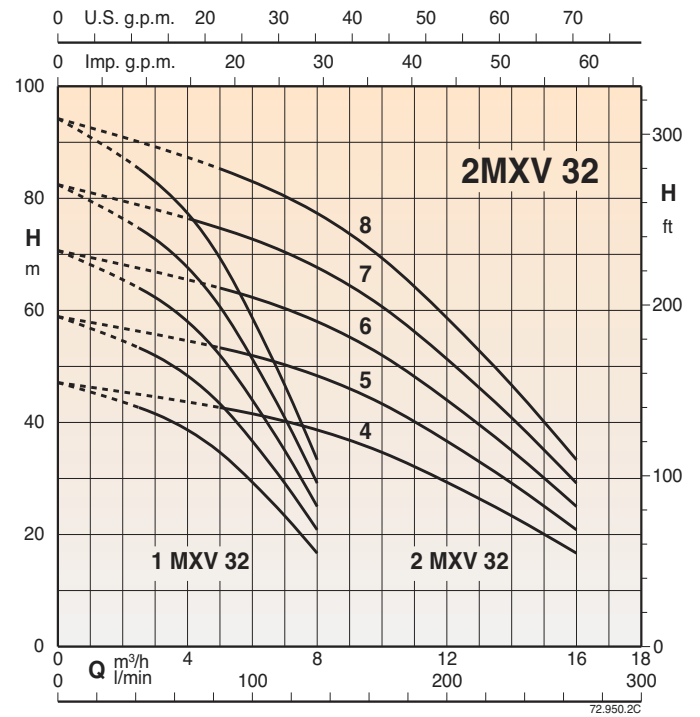
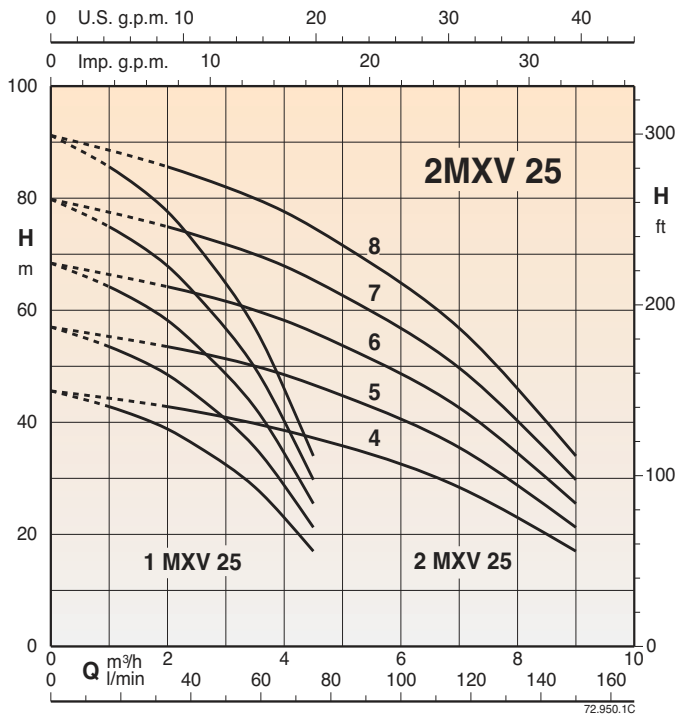
Other voltages and frequencies on request.

## Vessels

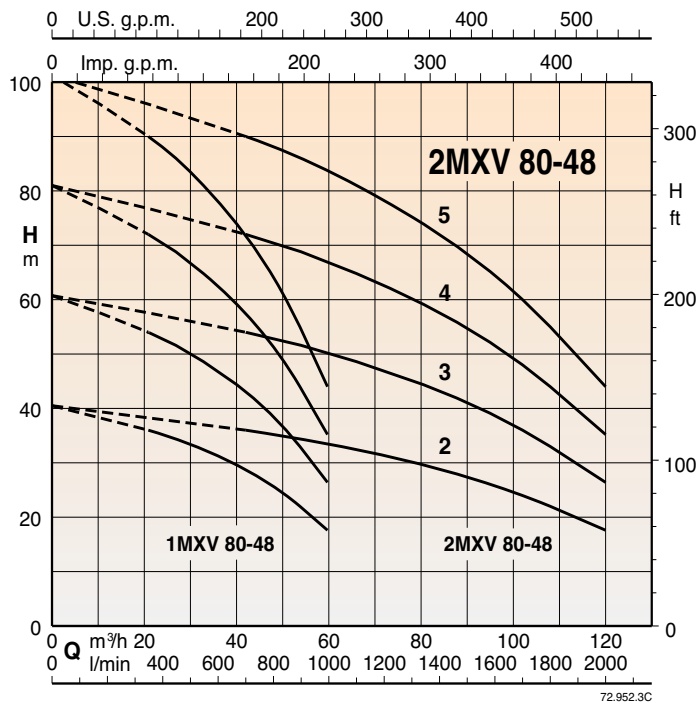
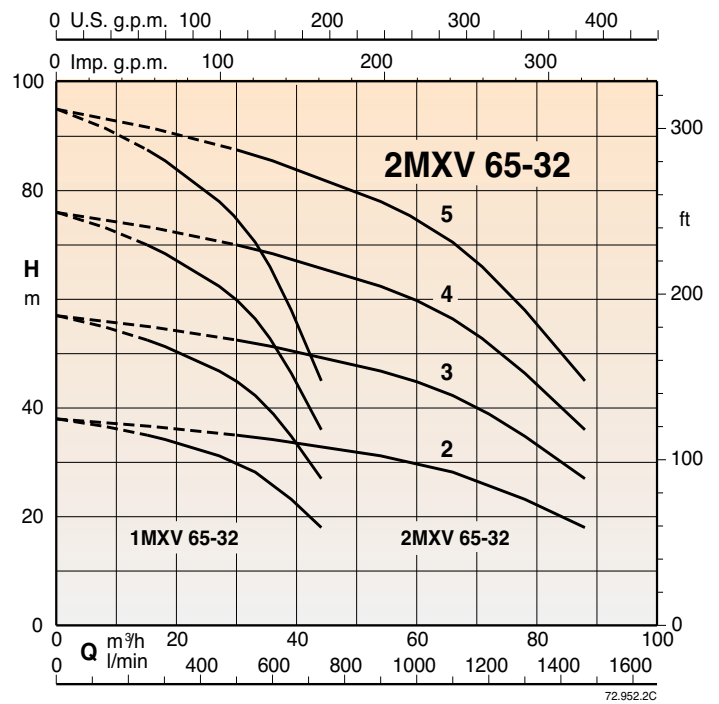
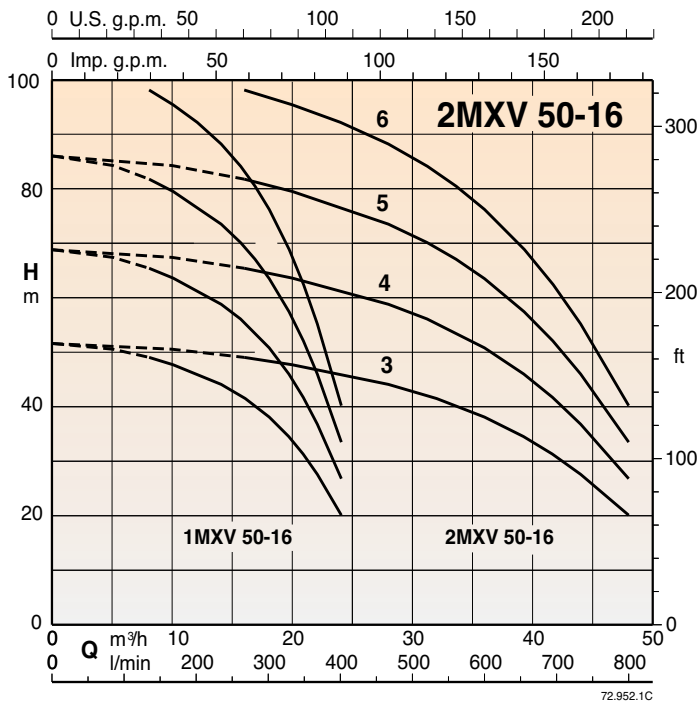
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

The recommended sized are shown in the following page.

## Coverage chart



## Coverage chart



## Performance

### BS2F

### BSM2F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ Motor: 230V 1~	Motor		Pres. switch bar	Pres. switch bar	Average capacity		Maximum capacity		Membrane V. litre	Vessel litre
		kW	HP			Q l/min	H m	Q l/min	H m		
BS2F 2MXV 25-204	BSM2F 2MXV 25-204M	0,75+0,75	1+1	2,5+4,0	2,2+3,7	106	31	135	22	40	100
BS2F 2MXV 25-205	BSM2F 2MXV 25-205M	0,75+0,75	1+1	3,5+5,0	3,0+4,5	103	40	133	30	50	300
BS2F 2MXV 25-206	BSM2F 2MXV 25-206M	1,1+1,1	1,5+1,5	4,5+6,0	4,0+5,5	95	50	125	40	50	300
BS2F 2MXV 25-207	BSM2F 2MXV 25-207M	1,1+1,1	1,5+1,5	5,5+7,0	5,0+6,5	92	60	115	50	60	300
BS2F 2MXV 25-208	BSM2F 2MXV 25-208M	1,5+1,5	2+2	6,5+8,0	6,0+7,5	86	70	110	60	80	500
BS2F 2MXV 32-404	BSM2F 2MXV 32-404M	1,1+1,1	1,5+1,5	2,5+4,0	2,2+3,7	190	31	245	22	100	200
BS2F 2MXV 32-405	BSM2F 2MXV 32-405M	1,1+1,1	1,5+1,5	3,5+5,0	3,0+4,5	186	40	235	30	100	300
BS2F 2MXV 32-406	BSM2F 2MXV 32-406M	1,5+1,5	2+2	4,5+6,0	4,0+5,5	180	50	215	40	100	300
BS2F 2MXV 32-407	BSM2F 2MXV 32-407M	1,5+1,5	2+2	5,5+7,0	5,0+6,5	170	60	210	50	200	300
BS2F 2MXV 32-408		2,2+2,2	3+3	6,5+8,0	6,0+7,5	165	70	195	60	200	500
BS2F 2MXV 40-804	BSM2F 2MXV 40-804M	1,5+1,5	2+2	2,5+4,0	2,2+3,7	356	31	420	22	200	300
BS2F 2MXV 40-805		2,2+2,2	3+3	3,5+5,0	3,0+4,5	350	40	410	30	300	500
BS2F 2MXV 40-806		2,2+2,2	3+3	4,5+6,0	4,0+5,5	340	50	390	40	300	500
BS2F 2MXV 40-807		3+3	4+4	5,5+7,0	5,0+6,5	330	60	380	50	300	500
BS2F 2MXV 40-808		3+3	4+4	6,5+8,0	6,0+7,5	325	70	365	60	300	500
BS2F 2MXV 50-1603		3+3	4+4	3,0+4,5	2,5+4,0	600	39	750	25	500	800
BS2F 2MXV 50-1604		4+4	5,5+5,5	4,5+6,0	4,0+5,5	565	51	710	40	500	1000
BS2F 2MXV 50-1605		5,5+5,5	7,5+7,5	6,0+7,5	5,5+7,0	555	70	680	55	-	1000
BS2F 2MXV 50-1606		5,5+5,5	7,5+7,5	7,5+9,0	7,0+8,5	540	83	640	70	-	1500
BS2F 2MXV 65-3202		4+4	5,5+5,5	2,2+3,4	1,8+3,0	1080	28	1460	18	-	1500
BS2F 2MXV 65-3203		5,5+5,5	7,5+7,5	3,5+5,0	3,0+4,5	1050	43	1400	30	-	1500
BS2F 2MXV 65-3204		7,5+7,5	10+10	5,0+6,5	4,5+6,0	1050	58	1300	45	-	2000
BS2F 2MXV 65-3205		11+11	15+15	6,5+8,0	6,0+7,5	1030	73	1270	60	-	3000
BS2F 2MXV 80-4802		5,5+5,5	7,5+7,5	2,3+3,5	1,8+3,0	1350	30	2000	18	-	2000
BS2F 2MXV 80-4803		7,5+7,5	10+10	3,5+5,0	3,0+4,5	1400	43	1900	30	-	3000
BS2F 2MXV 80-4804		11+11	15+15	5,0+6,5	4,5+6,0	1400	58	1800	45	-	4000
BS2F 2MXV 80-4805		15+15	20+20	6,5+8,0	6,0+7,5	1400	72	1700	60	-	5000

### BS1V1F

### BSM1V1F

Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ (1)	Motor		Vessel Membrane litri
		kW	HP	
BS1V1F 2MXV 25-204	BSM1V1F 2MXV 25-204	0,75 x2	1 x2	24x2
BS1V1F 2MXV 25-205	BSM1V1F 2MXV 25-205	0,75 x2	1 x2	24x2
BS1V1F 2MXV 25-206	BSM1V1F 2MXV 25-206	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV 25-207	BSM1V1F 2MXV 25-207	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV 25-208	BSM1V1F 2MXV 25-208	1,5 x2	2 x2	24x2
BS1V1F 2MXV 32-404	BSM1V1F 2MXV 32-404	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV 32-405	BSM1V1F 2MXV 32-405	1,1 x2	1,5 x2	24x2
BS1V1F 2MXV 32-406	BSM1V1F 2MXV 32-406	1,5 x2	2 x2	24x2
BS1V1F 2MXV 32-407	BSM1V1F 2MXV 32-407	1,5 x2	2 x2	24x2
BS1V1F 2MXV 32-408		2,2 x2	3 x2	24x2
BS1V1F 2MXV 40-804	BSM1V1F 2MXV 40-804	1,5 x2	2 x2	24x2
BS1V1F 2MXV 40-805		2,2 x2	3 x2	24x2
BS1V1F 2MXV 40-806		2,2 x2	3 x2	24x2
BS1V1F 2MXV 40-807		3 x2	4 x2	24x2
BS1V1F 2MXV 40-808		3 x2	4 x2	24x2
BS1V1F 2MXV 50-1603		3 x2	4 x2	24x1
BS1V1F 2MXV 50-1604		4 x2	5,5 x2	24x1
BS1V1F 2MXV 50-1605		5,5 x2	7,5 x2	24x1
BS1V1F 2MXV 50-1606		5,5 x2	7,5 x2	24x1
BS1V1F 2MXV 65-3202		4 x2	5,5 x2	24x1
BS1V1F 2MXV 65-3203		5,5 x2	7,5 x2	24x1
BS1V1F 2MXV 65-3204		7,5 x2	10 x2	24x1
BS1V1F 2MXV 65-3205		11 x2	15 x2	24x1
BS1V1F 2MXV 80-4802		5,5 x2	7,5 x2	24x1
BS1V1F 2MXV 80-4803		7,5 x2	10 x2	24x1
BS1V1F 2MXV 80-4804		11 x2	15 x2	24x1
BS1V1F 2MXV 80-4805		15 x2	20 x2	24x1

(1) SYSTEMS WITH:  
1 variable speed pump three-phase motor  
1 fixed speed pump single-phase motor  
Power supply to control panel  
230 V single-phase

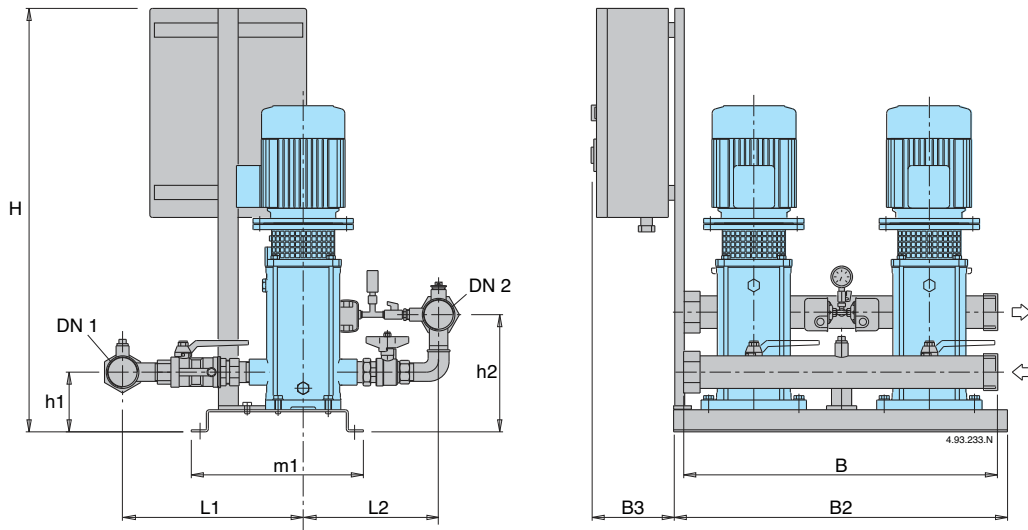
### BS2V

### BSM2V

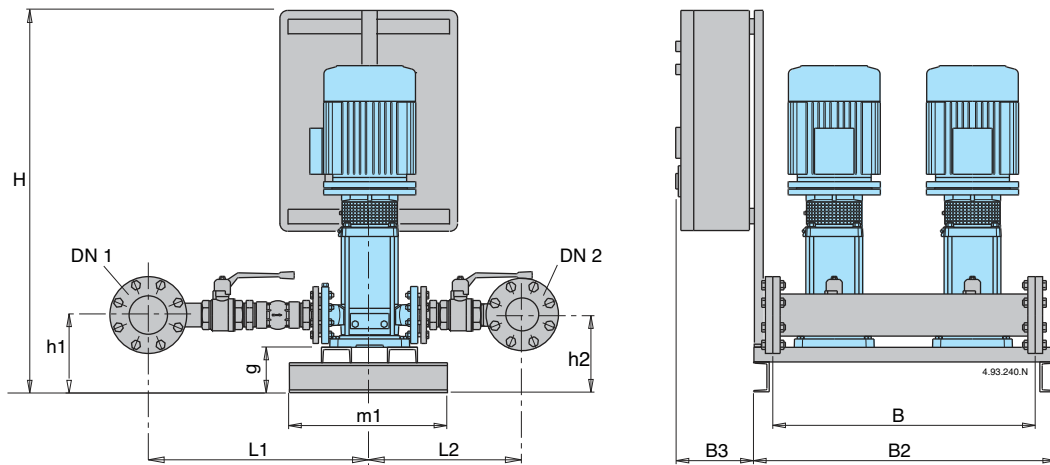
Mains: 400V 3~ Motor: 400V 3~	Mains: 230V 1~ (1)	Motor		Vessel Membrane litri
		kW	HP	
BS2V 2MXV 25-204	BSM2V 2MXV 25-204	0,75 x2	1 x2	24x2
BS2V 2MXV 25-205	BSM2V 2MXV 25-205	0,75 x2	1 x2	24x2
BS2V 2MXV 25-206	BSM2V 2MXV 25-206	1,1 x2	1,5 x2	24x2
BS2V 2MXV 25-207	BSM2V 2MXV 25-207	1,1 x2	1,5 x2	24x2
BS2V 2MXV 25-208	BSM2V 2MXV 25-208	1,5 x2	2 x2	24x2
BS2V 2MXV 32-404	BSM2V 2MXV 32-404	1,1 x2	1,5 x2	24x2
BS2V 2MXV 32-405	BSM2V 2MXV 32-405	1,1 x2	1,5 x2	24x2
BS2V 2MXV 32-406	BSM2V 2MXV 32-406	1,5 x2	2 x2	24x2
BS2V 2MXV 32-407	BSM2V 2MXV 32-407	1,5 x2	2 x2	24x2
BS2V 2MXV 32-408		2,2 x2	3 x2	24x2
BS2V 2MXV 40-804	BSM2V 2MXV 40-804	1,5 x2	2 x2	24x2
BS2V 2MXV 40-805		2,2 x2	3 x2	24x2
BS2V 2MXV 40-806		2,2 x2	3 x2	24x2
BS2V 2MXV 40-807		3 x2	4 x2	24x2
BS2V 2MXV 40-808		3 x2	4 x2	24x2
BS2V 2MXV 50-1603		3 x2	4 x2	24x1
BS2V 2MXV 50-1604		4 x2	5,5 x2	24x1
BS2V 2MXV 50-1605		5,5 x2	7,5 x2	24x1
BS2V 2MXV 50-1606		5,5 x2	7,5 x2	24x1
BS2V 2MXV 65-3202		4 x2	5,5 x2	24x1
BS2V 2MXV 65-3203		5,5 x2	7,5 x2	24x1
BS2V 2MXV 65-3204		7,5 x2	10 x2	24x1
BS2V 2MXV 65-3205		11 x2	15 x2	24x1
BS2V 2MXV 80-4802		5,5 x2	7,5 x2	24x1
BS2V 2MXV 80-4803		7,5 x2	10 x2	24x1
BS2V 2MXV 80-4804		11 x2	15 x2	24x1
BS2V 2MXV 80-4805		15 x2	20 x2	24x1

(1) Three-phase motor 230 V.  
Power supply to control panel:  
- 230 V three-phase  
- 230 V single-phase  
Frequency converter output is always 230 V three-phase.

## Dimensions and weights

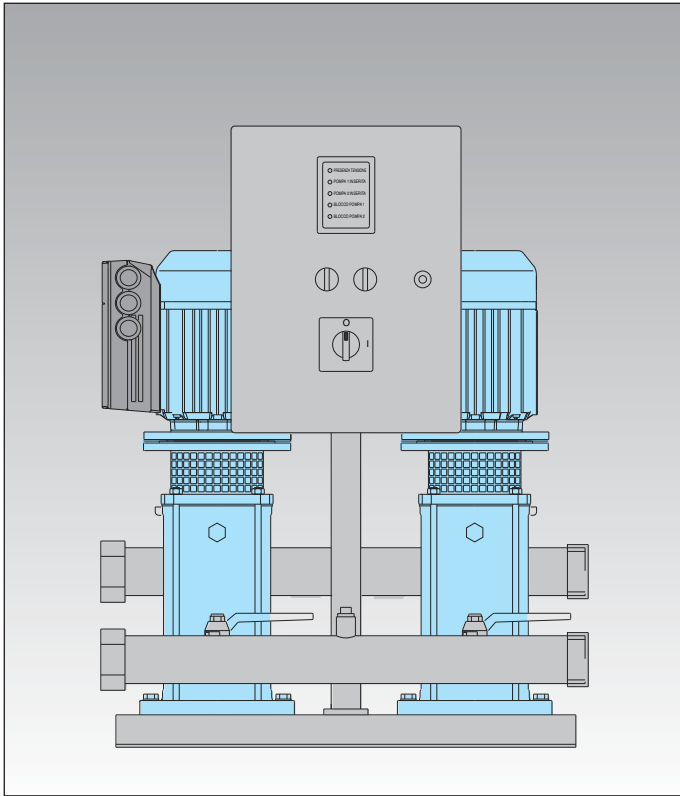


TYPE		DN1	DN2	mm									kg
				H	h1	h2	L1	L2	m1	B	B2	B3	
BS.. 2MXV 25-204	BS.. 2MXV 25-204M												110
BS.. 2MXV 25-205	BS.. 2MXV 25-205M												112
BS.. 2MXV 25-206	BS.. 2MXV 25-206M	G 1 1/2	G 1 1/2	860	119	218	331	254	365	600	625	160	114
BS.. 2MXV 25-207	BS.. 2MXV 25-207M												116
BS.. 2MXV 25-208	BS.. 2MXV 25-208M												126
BS.. 2MXV 32-404	BS.. 2MXV 32-404M												113
BS.. 2MXV 32-405	BS.. 2MXV 32-405M												115
BS.. 2MXV 32-406	BS.. 2MXV 32-406M	G 2	G 2	860	119	225	360	270	365	600	625	160	125
BS.. 2MXV 32-407	BS.. 2MXV 32-407M												127
BS.. 2MXV 32-408													137
BS.. 2MXV 40-804	BS.. 2MXV 40-804M												126
BS.. 2MXV 40-805													136
BS.. 2MXV 40-806		G 2 1/2	G 2 1/2	860	124	245	445	350	365	600	625	160	138
BS.. 2MXV 40-807													164
BS.. 2MXV 40-808													166

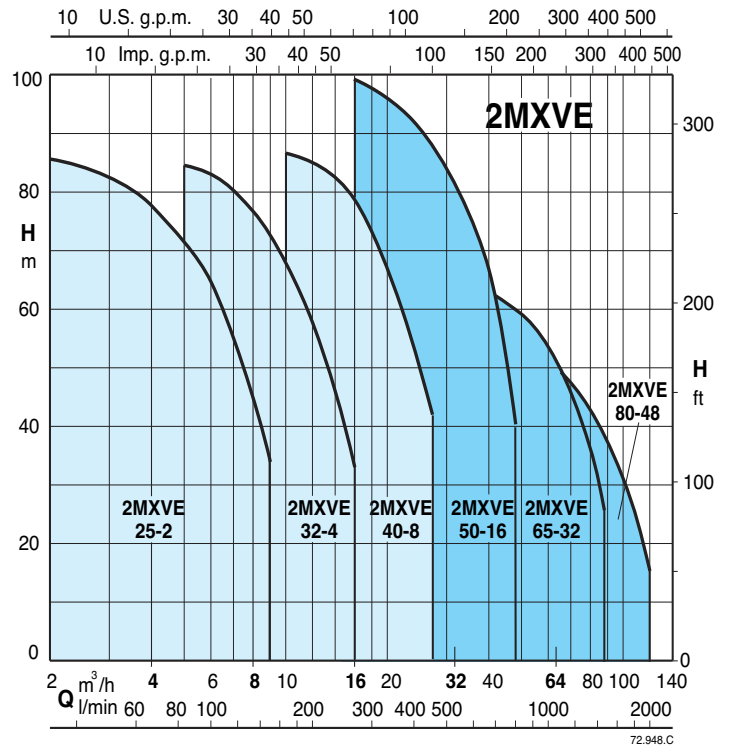


TYPE		DN1	DN2	mm									kg	
				H	h1	h2	L1	L2	B	B2	B3	m1	g	
BS.. 2MXV 50-1603											160			282
BS.. 2MXV 50-1604											160			298
BS.. 2MXV 50-1605	G 3	G 3	935	215	215	590	415	700	950	200	550	125		336
BS.. 2MXV 50-1606										200				340
BS.. 2MXV 65-3202										160				358
BS.. 2MXV 65-3203										200				396
BS.. 2MXV 65-3204	100	100	1335	230	230	660	475	750	950	250	550	125		420
BS.. 2MXV 65-3205										250				480
BS.. 2MXV 80-4802										200				408
BS.. 2MXV 80-4803										250				432
BS.. 2MXV 80-4804	125	125	1335	230	230	725	495	750	950	250	550	125		490
BS.. 2MXV 80-4805										250				520





Coverage chart



## Construction

Automatic pressure boosting plant consisting of two vertical multi-stage pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304.

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels (for 2MXVE 25-32-40).

Connections are located on the delivery manifold for the installation of one 20 litres cylindrical vessel (for 2MXVE 50-65-80).

### Electrical control boards:

- with frequency converter for variable speed pump units (see page 387).

## Operation

### BS1V1F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS2V Pumps at variable speed with two frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm

- Three-phase 230/400V ± 10% up to 3 kW;

400/690V ± 10% from 4 to 15 kW.

Insulation class F.

Protection IP 55.

Constructed in accordance with: IEC 60034.

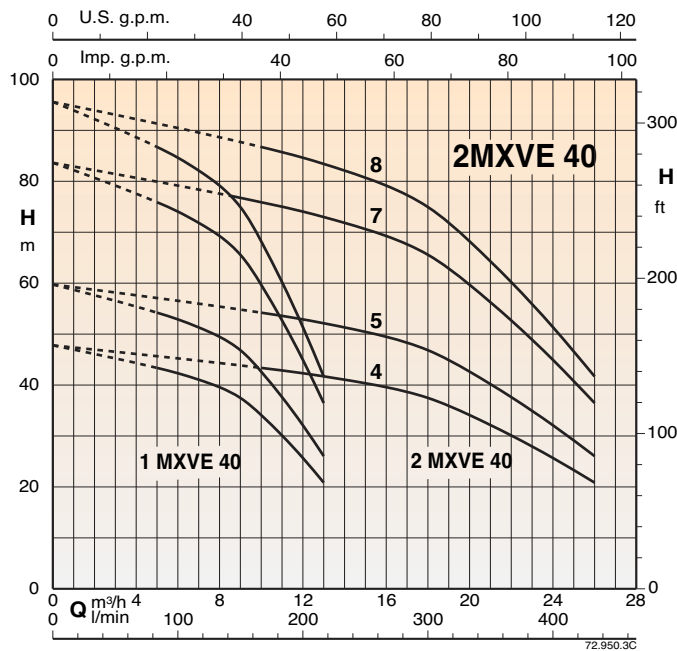
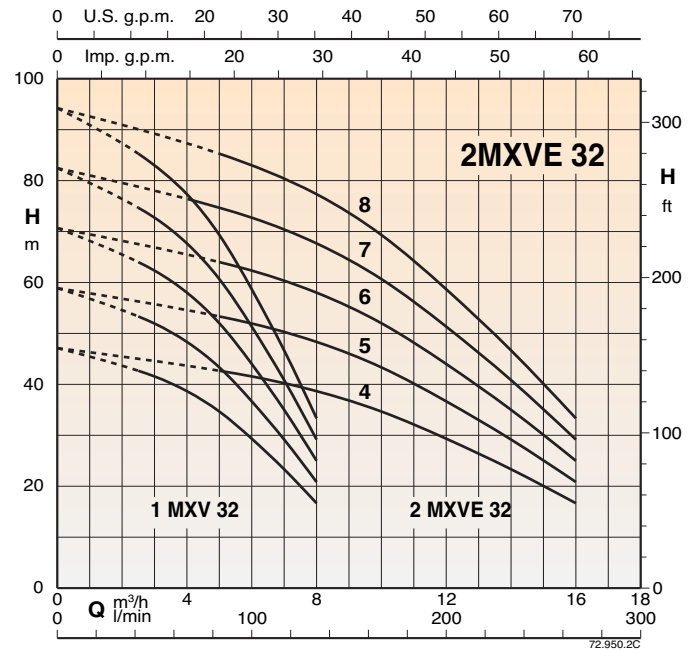
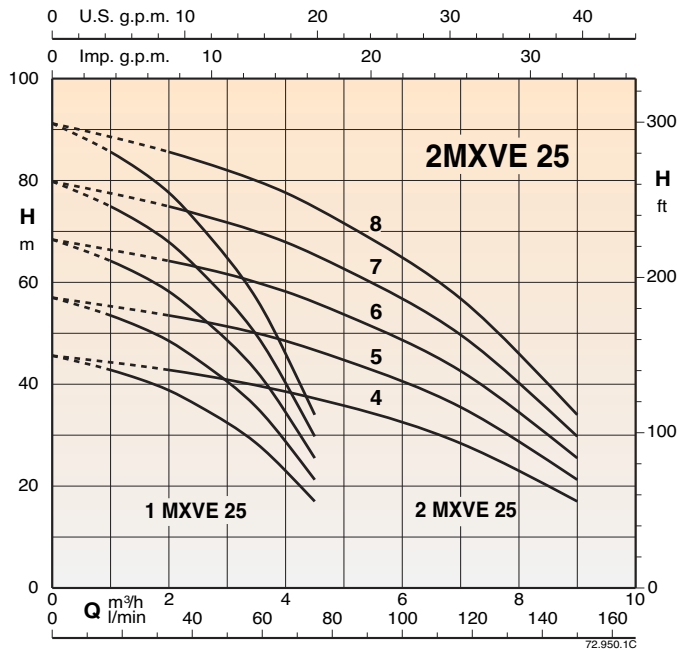
Other voltages and frequencies on request.

## Vessels

When installing the unit, connect in the delivery section to a diaphragm.

The recommended sized are shown in the following page.

## Coverage chart



## Performance

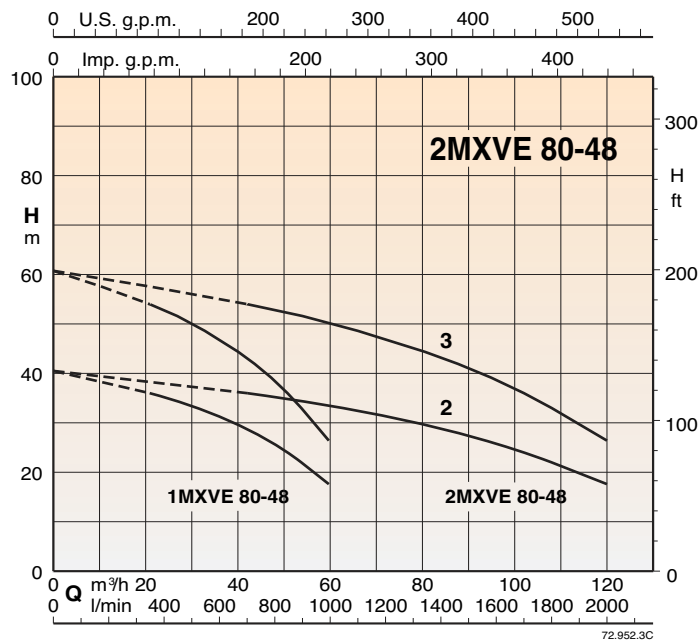
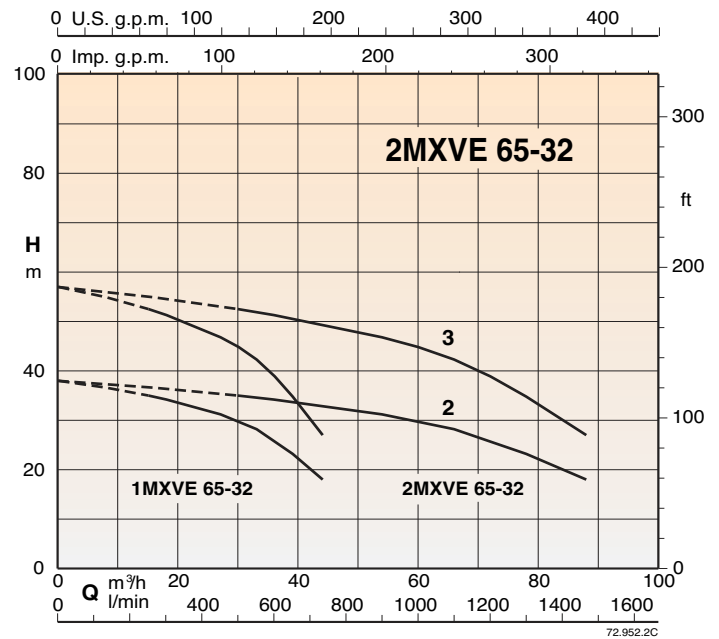
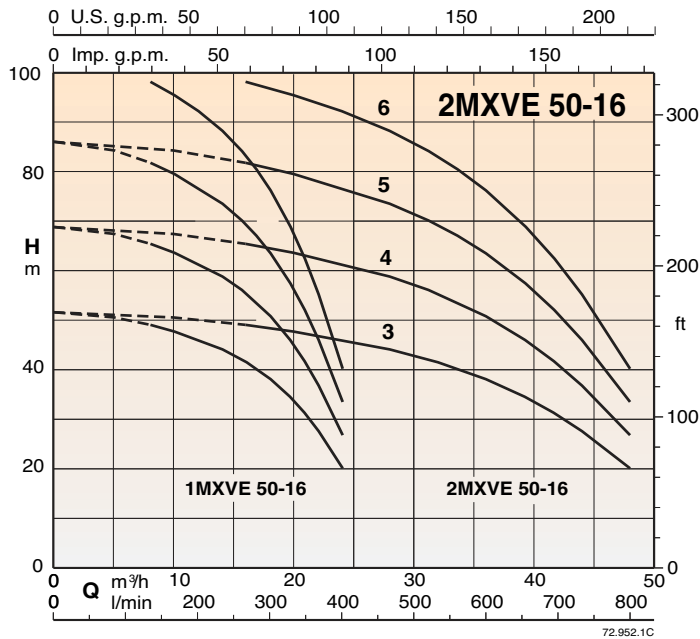
### BS1V1F

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V1F 1MXVE 25-204+1MXV 25-204	0,75+0,75	1+1	24x2
BS1V1F 1MXVE 25-205+1MXV 25-205	1,1+0,75	1,5+1	24x2
BS1V1F 1MXVE 25-206+1MXV 25-206	1,1+1,1	1,5+1,5	24x2
BS1V1F 1MXVE 25-207+1MXV 25-207	1,5+1,1	2+1,5	24x2
BS1V1F 1MXVE 25-208+1MXV 25-208	1,5+1,5	2+2	24x2
BS1V1F 1MXVE 32-404+1MXV 32-404	1,1+1,1	1,5+1,5	24x2
BS1V1F 1MXVE 32-405+1MXV 32-405	1,5+1,1	2+1,5	24x2
BS1V1F 1MXVE 32-406+1MXV 32-406	1,5+1,5	2+2	24x2
BS1V1F 1MXVE 32-407+1MXV 32-407	2,2+1,5	3+2	24x2
BS1V1F 1MXVE 32-408+1MXV 32-408	2,2+2,2	3+3	24x2
BS1V1F 1MXVE 40-804+1MXV 40-804	2,2+1,5	3+2	24x2
BS1V1F 1MXVE 40-805+1MXV 40-805	2,2+2,2	3+3	24x2
BS1V1F 1MXVE 40-807+1MXV 40-807	3+3	4+4	24x2
BS1V1F 1MXVE 40-808+1MXV 40-808	4+3	5,5+4	24x2

### BS2V

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS2V 2MXVE 25-204	0,75 x2	1 x2	24x2
BS2V 2MXVE 25-205	1,1 x2	1,5 x2	24x2
BS2V 2MXVE 25-206	1,1 x2	1,5 x2	24x2
BS2V 2MXVE 25-207	1,5 x2	2 x2	24x2
BS2V 2MXVE 25-208	1,5 x2	2 x2	24x2
BS2V 2MXVE 32-404	1,1 x2	1,5 x2	24x2
BS2V 2MXVE 32-405	1,5 x2	2 x2	24x2
BS2V 2MXVE 32-406	1,5 x2	2 x2	24x2
BS2V 2MXVE 32-407	2,2 x2	3 x2	24x2
BS2V 2MXVE 32-408	2,2 x2	3 x2	24x2
BS2V 2MXVE 40-804	2,2 x2	3 x2	24x2
BS2V 2MXVE 40-805	2,2 x2	3 x2	24x2
BS2V 2MXVE 40-807	3 x2	4 x2	24x2
BS2V 2MXVE 40-808	4 x2	5,5 x2	24x2

## Coverage chart



## Performance

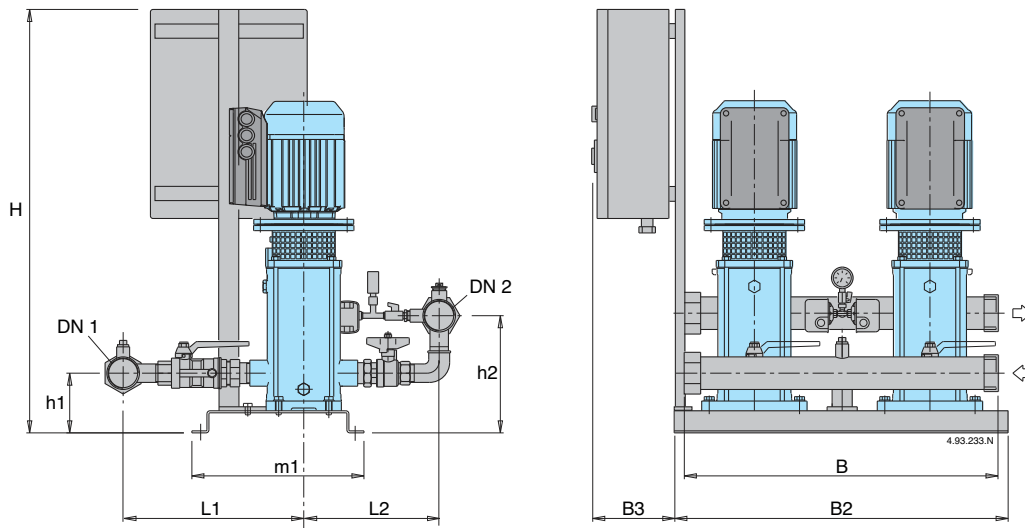
### BS1V1F

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V1F 1MXVE 50-1603+1MXV 50-1603	4+3	5,5+4	24x1
BS1V1F 1MXVE 50-1604+1MXV 50-1604	5,5+4	7,5+5,5	24x1
BS1V1F 1MXVE 50-1605+1MXV 50-1605	5,5+5,5	7,5+7,5	24x1
BS1V1F 1MXVE 50-1606+1MXV 50-1606	7,5+5,5	7,5+7,5	24x1
BS1V1F 1MXVE 65-3202+1MXV 65-3202	4+4	5,5+5,5	24x1
BS1V1F 1MXVE 65-3203+1MXV 65-3203	7,5+5,5	10+7,5	24x1
BS1V1F 1MXVE 80-4802+1MXV 80-4802	5,5+5,5	7,5+7,5	24x1
BS1V1F 1MXVE 80-4803+1MXV 80-4803	7,5+7,5	10+10	24x1

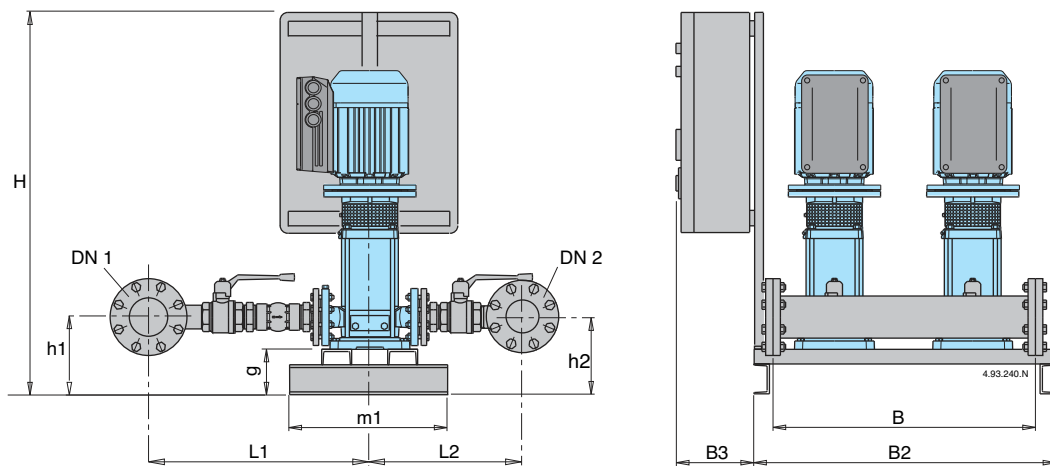
### BS2V

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS2V 2MXVE 50-1603	4 x2	5,5 x2	24x1
BS2V 2MXVE 50-1604	5,5 x2	7,5 x2	24x1
BS2V 2MXVE 50-1605	5,5 x2	7,5 x2	24x1
BS2V 2MXVE 50-1606	7,5 x2	10 x2	24x1
BS2V 2MXVE 65-3202	4 x2	5,5 x2	24x1
BS2V 2MXVE 65-3203	7,5 x2	10 x2	24x1
BS2V 2MXVE 80-4802	5,5 x2	7,5 x2	24x1
BS2V 2MXVE 80-4803	7,5 x2	10 x2	24x1

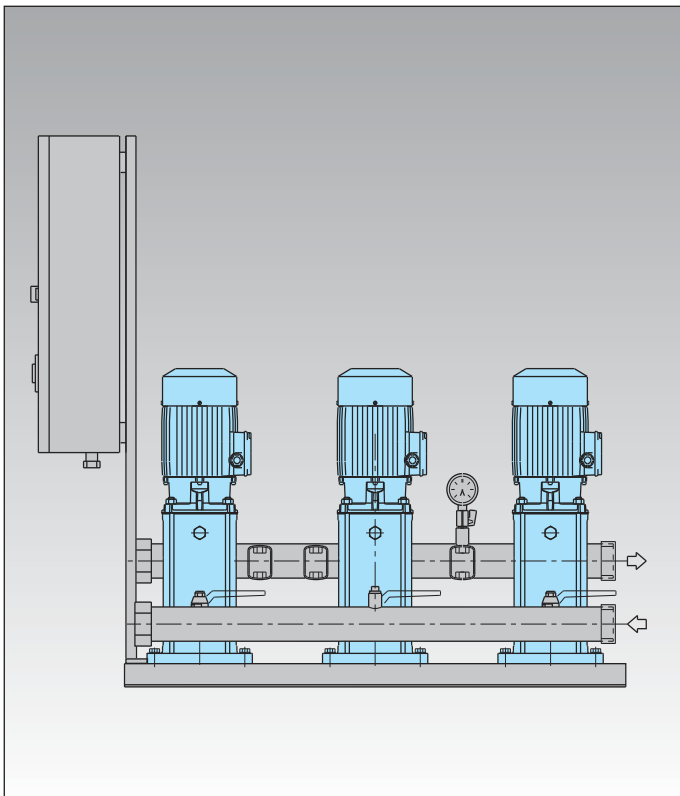
## Dimensions and weights



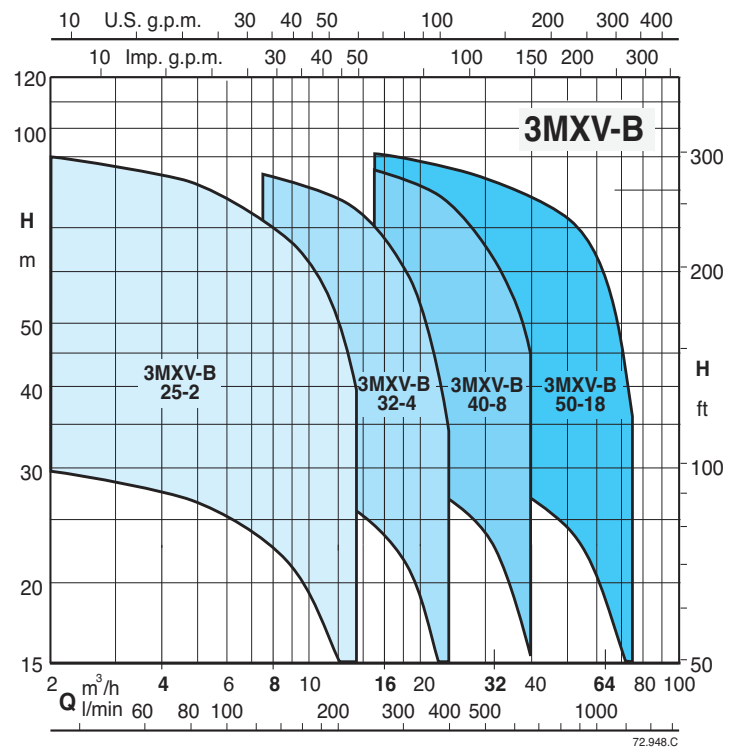
TYPE	DN1	DN2	mm									kg
			H	h1	h2	L1	L2	m1	B	B2	B3	
BS.. 2MXVE 25-204	G 1 1/2	G 1 1/2	860	119	218	331	254	365	600	625	160	110
BS.. 2MXVE 25-205												112
BS.. 2MXVE 25-206												114
BS.. 2MXVE 25-207												116
BS.. 2MXVE 25-208												126
BS.. 2MXVE 32-404	G 2	G 2	860	119	225	360	270	365	600	625	160	113
BS.. 2MXVE 32-405												115
BS.. 2MXVE 32-406												125
BS.. 2MXVE 32-407												127
BS.. 2MXVE 32-408												137
BS.. 2MXVE 40-804	G 2 1/2	G 2 1/2	860	124	245	445	350	365	600	625	160	126
BS.. 2MXVE 40-805												136
BS.. 2MXVE 40-807												164
BS.. 2MXVE 40-808												166



TYPE	DN1	DN2	mm										kg
			H	h1	h2	L1	L2	B	B2	B3	m1	g	
BS.. 2MXVE 50-1603	G 3	G 3	935	215	215	590	415	700	950	160	550	125	282
BS.. 2MXVE 50-1604										160			298
BS.. 2MXVE 50-1605										200			336
BS.. 2MXVE 50-1606										200			340
BS.. 2MXVE 65-3202	100	100	1335	230	230	660	475	750	950	160	550	125	358
BS.. 2MXVE 65-3203										200			396
BS.. 2MXVE 80-4802	125	125	1335	230	230	725	495	750	950	200	550	125	408
BS.. 2MXVE 80-4803										250			432



Coverage chart



## Construction

Automatic pressure boosting plant consisting of three vertical multi-stage close coupled pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304.

Connections are located on the delivery manifold for the installation of three 20 litres cylindrical vessels (for 3MXV-B 25-32-40).

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels (for 3MXV-B 50).

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386).
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and three adjustable differential pressure switches.

## Operation

### BS 3F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V2F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS3V Pumps at variable speed with three frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm, suitable for operation with frequency converter.

- Three-phase 230/400V ± 10%.

Insulation class F.

Protection IP 54.

Constructed in accordance with: IEC 60034.

Other voltages and frequencies on request.

## Vessels

When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

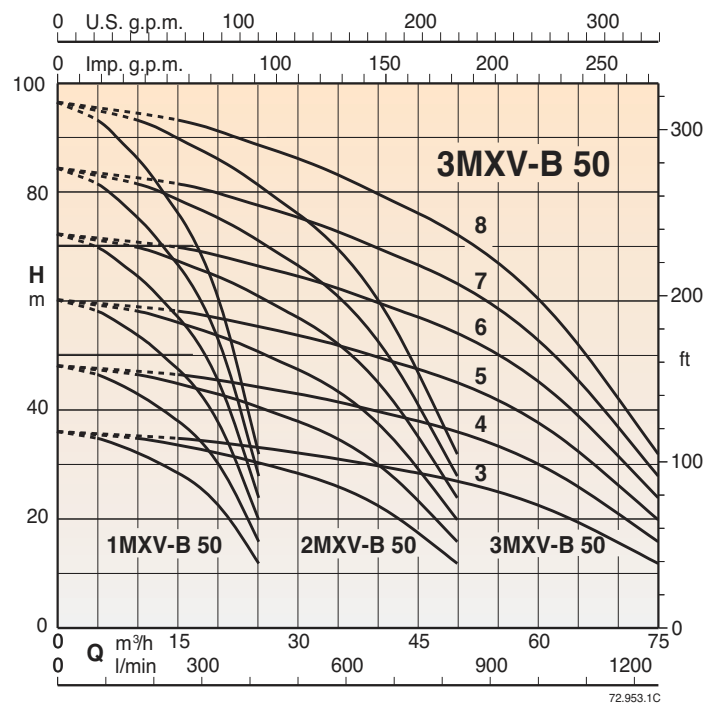
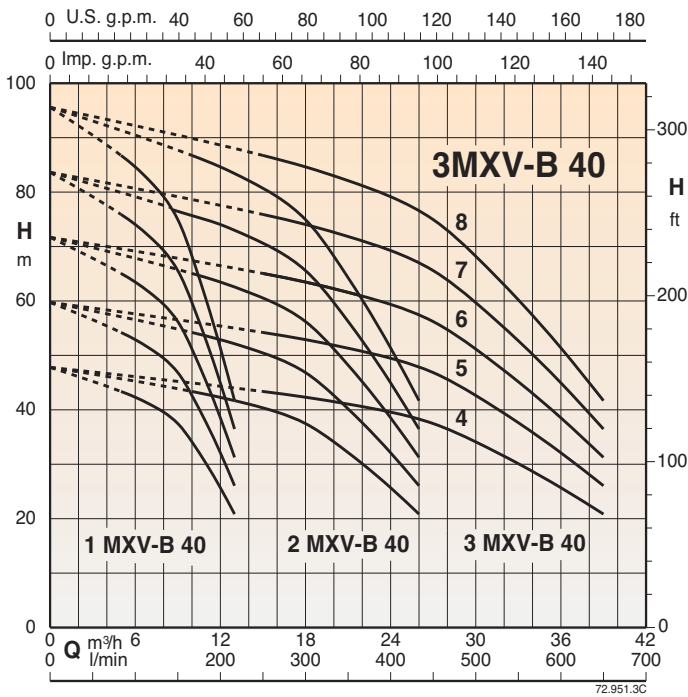
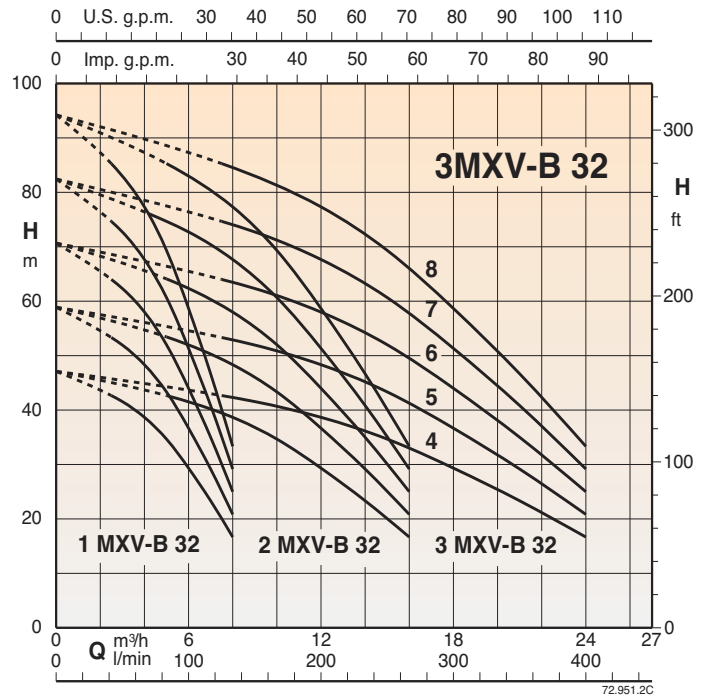
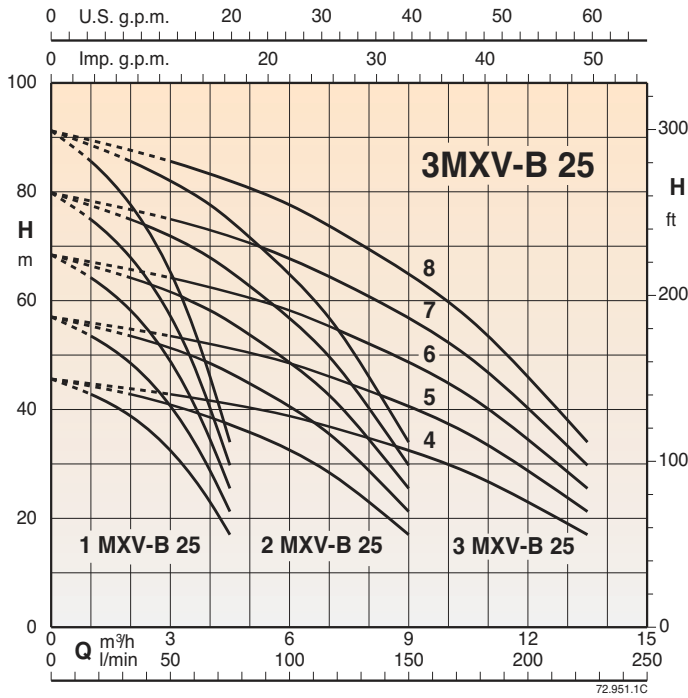
The recommended sized are shown in the following page.

# 3 MXV-B

Pressure boosting sets with three Vertical Multi-Stage Pumps  
Fixed speed pump or Variable speed pump (frequency converter)



## Coverage chart



## Performance

### BS3F

Mains: 400V 3~ Motor: 400V 3~	Motor		Pres. switch bar	Pres. switch bar	Pres. switch bar	Average capacity		Maximum capacity		Membrane V. litre	Vessel litre
	kW	HP				Q l/min	H m	Q l/min	H m		
BS3F 3MXV-B 25-204	0,75+0,75+0,75	1+1+1	2,5±4,0	2,2±3,7	1,9±3,4	165	30	220	19	40	100
BS3F 3MXV-B 25-205	0,75+0,75+0,75	1+1+1	3,5±5,0	3,2±4,7	2,9±4,4	155	40	200	29	50	300
BS3F 3MXV-B 25-206	1,1+1,1+1,1	1,5+1,5+1,5	4,5±6,0	4,2±5,7	3,9±5,4	145	50	190	39	50	300
BS3F 3MXV-B 25-207	1,1+1,1+1,1	1,5+1,5+1,5	5,5±7,0	5,2±6,7	4,9±6,4	142	60	175	49	60	300
BS3F 3MXV-B 25-208	1,5+1,5+1,5	2+2+2	6,5±8,0	6,2±7,7	5,9±7,4	132	70	170	59	80	500
BS3F 3MXV-B 32-404	1,1+1,1+1,1	1,5+1,5+1,5	2,5±4,0	2,2±3,7	1,9±3,4	303	30	395	19	100	200
BS3F 3MXV-B 32-405	1,1+1,1+1,1	1,5+1,5+1,5	3,5±5,0	3,2±4,7	2,9±4,4	280	40	350	29	100	300
BS3F 3MXV-B 32-406	1,5+1,5+1,5	2+2+2	4,5±6,0	4,2±5,7	3,9±5,4	270	50	330	39	100	300
BS3F 3MXV-B 32-407	1,5+1,5+1,5	2+2+2	5,5±7,0	5,2±6,7	4,9±6,4	260	60	310	49	200	300
BS3F 3MXV-B 32-408	2,2+2,2+2,2	3+3+3	6,5±8,0	6,2±7,7	5,9±7,4	245	70	300	59	200	500
BS3F 3MXV-B 40-804	1,5+1,5+1,5	2+2+2	2,5±4,0	2,2±3,7	1,9±3,4	550	30	650	19	200	300
BS3F 3MXV-B 40-805	2,2+2,2+2,2	3+3+3	3,5±5,0	3,2±4,7	2,9±4,4	525	40	620	29	300	500
BS3F 3MXV-B 40-806	2,2+2,2+2,2	3+3+3	4,5±6,0	4,2±5,7	3,9±5,4	510	50	600	39	300	500
BS2F 3MXV-B 40-807	3+3+3	4+4+4	5,5±7,0	5,2±6,7	4,9±6,4	500	60	580	49	300	500
BS2F 3MXV-B 40-808	3+3+3	4+4+4	6,5±8,0	6,2±7,7	5,9±7,4	490	70	560	59	300	500
BS2F 3MXV-B 50-1803	2,2+2,2+2,2	3+3+3	1,8±3,0	1,5±2,7	1,2±2,4	1160	21	1250	12	500	800
BS2F 3MXV-B 50-1804	3+3+3	4+4+4	2,5±4,0	2,2±3,7	1,9±3,4	1000	30	1200	19	500	800
BS2F 3MXV-B 50-1805	3,7+3,7+3,7	5+5+5	3,5±5,0	3,2±4,7	2,9±4,4	950	40	1130	29	500	800
BS2F 3MXV-B 50-1806	4+4+4	5,5+5,5+5,5	4,5±6,0	4,2±5,7	3,9±5,4	920	50	1100	39	500	1000
BS2F 3MXV-B 50-1807	5,5+5,5+5,5	7,5+7,5+7,5	5,5±7,0	5,2±6,7	4,9±6,4	880	60	1050	49	500	1000
BS2F 3MXV-B 50-1808	5,5+5,5+5,5	7,5+7,5+7,5	6,5±8,0	6,2±7,7	5,9±7,4	790	70	1030	59	500	1000

### BS1V2F

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V2F 3MXV-B 25-204	0,75 x3	1 x3	24x3
BS1V2F 3MXV-B 25-205	0,75 x3	1 x3	24x3
BS1V2F 3MXV-B 25-206	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV-B 25-207	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV-B 25-208	1,5 x3	2 x3	24x3
BS1V2F 3MXV-B 32-404	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV-B 32-405	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV-B 32-406	1,5 x3	2 x3	24x3
BS1V2F 3MXV-B 32-407	1,5 x3	2 x3	24x3
BS1V2F 3MXV-B 32-408	2,2 x3	3 x3	24x3
BS1V2F 3MXV-B 40-804	1,5 x3	2 x3	24x3
BS1V2F 3MXV-B 40-805	2,2 x3	3 x3	24x3
BS1V2F 3MXV-B 40-806	2,2 x3	3 x3	24x3
BS1V2F 3MXV-B 40-807	3 x3	4 x3	24x3
BS1V2F 3MXV-B 40-808	3 x3	4 x3	24x3
BS1V2F 3MXV-B 50-1803	2,2 x3	3 x3	24x2
BS1V2F 3MXV-B 50-1804	3 x3	4 x3	24x2
BS1V2F 3MXV-B 50-1805	3,7 x3	5 x3	24x2
BS1V2F 3MXV-B 50-1806	4 x3	5,5 x3	24x2
BS1V2F 3MXV-B 50-1807	5,5 x3	7,5 x3	24x2
BS1V2F 3MXV-B 50-1808	5,5 x3	7,5 x3	24x2

### BS3V

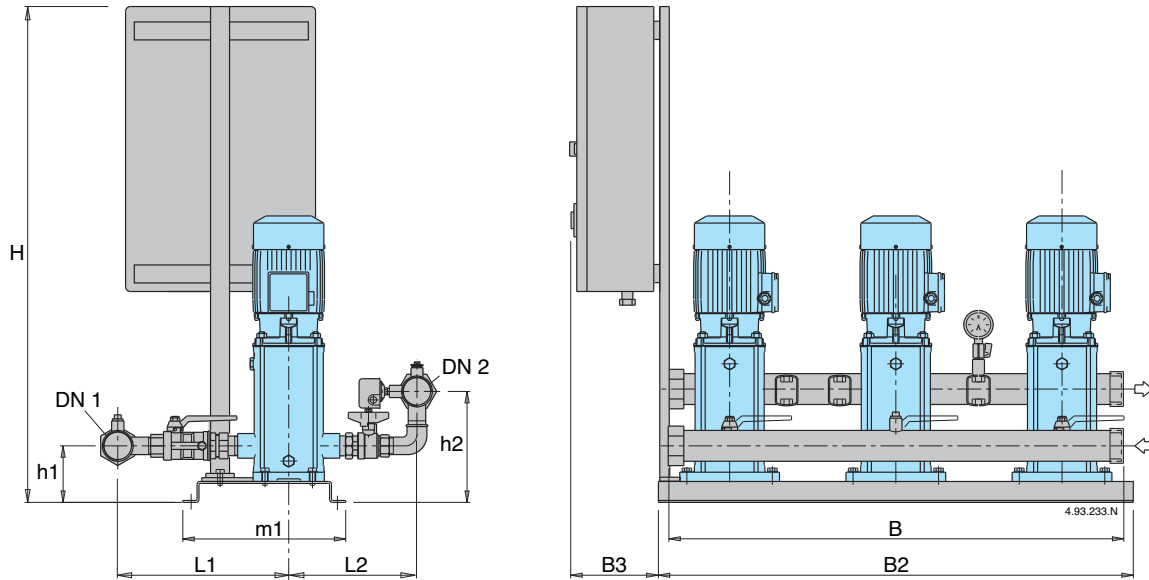
Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS3V 3MXV-B 25-204	0,75 x3	1 x3	24x3
BS3V 3MXV-B 25-205	0,75 x3	1 x3	24x3
BS3V 3MXV-B 25-206	1,1 x3	1,5 x3	24x3
BS3V 3MXV-B 25-207	1,1 x3	1,5 x3	24x3
BS3V 3MXV-B 25-208	1,5 x3	2 x3	24x3
BS3V 3MXV-B 32-404	1,1 x3	1,5 x3	24x3
BS3V 3MXV-B 32-405	1,1 x3	1,5 x3	24x3
BS3V 3MXV-B 32-406	1,5 x3	2 x3	24x3
BS3V 3MXV-B 32-407	1,5 x3	2 x3	24x3
BS3V 3MXV-B 32-408	2,2 x3	3 x3	24x3
BS3V 3MXV-B 40-804	1,5 x3	2 x3	24x3
BS3V 3MXV-B 40-805	2,2 x3	3 x3	24x3
BS3V 3MXV-B 40-806	2,2 x3	3 x3	24x3
BS3V 3MXV-B 40-807	3 x3	4 x3	24x3
BS3V 3MXV-B 40-808	3 x3	4 x3	24x3
BS3V 3MXV-B 50-1803	2,2 x3	3 x3	24x2
BS3V 3MXV-B 50-1804	3 x3	4 x3	24x2
BS3V 3MXV-B 50-1805	3,7 x3	5 x3	24x2
BS3V 3MXV-B 50-1806	4 x3	5,5 x3	24x2
BS3V 3MXV-B 50-1807	5,5 x3	7,5 x3	24x2
BS3V 3MXV-B 50-1808	5,5 x3	7,5 x3	24x2

# 3 MXV-B

Pressure boosting sets with three Vertical Multi-Stage Pumps  
Fixed speed pump or **Variable speed pump (frequency converter)**

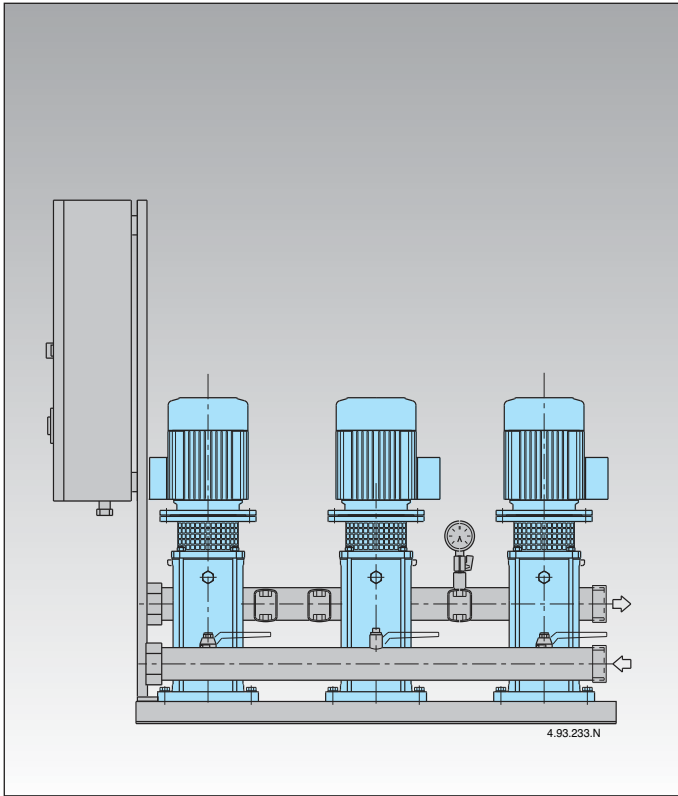


## Dimensions and weights

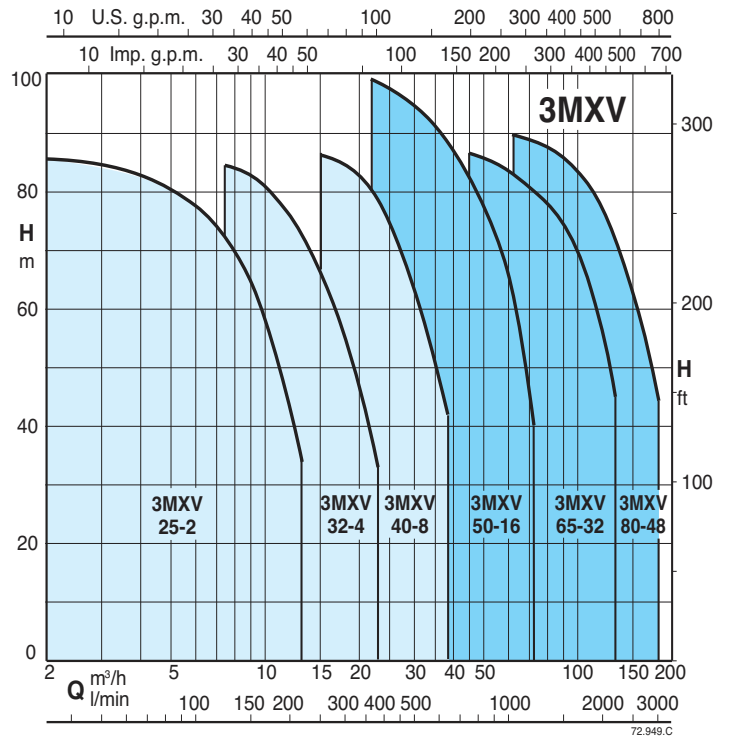


TYPE	DN1	DN2	mm									kg
			H	h1	h2	L1	L2	B	B2	B3	m1	
BS.. 3MXV-B 25-204												103
BS.. 3MXV-B 25-205												105
BS.. 3MXV-B 25-206	G 2	G 2	1060	134	233	337	254	950	1000	200	406	107
BS.. 3MXV-B 25-207												118
BS.. 3MXV-B 25-208												120
BS.. 3MXV-B 32-404												104
BS.. 3MXV-B 32-405												108
BS.. 3MXV-B 32-406	G 2 1/2	G 2 1/2	1060	134	240	368	270	950	1000	200	406	113
BS.. 3MXV-B 32-407												118
BS.. 3MXV-B 32-408												122
BS.. 3MXV-B 40-804												111
BS.. 3MXV-B 40-805												117
BS.. 3MXV-B 40-806	G 3	G 3	1060	139	260	452	350	950	1000	200	406	123
BS.. 3MXV-B 40-807												156
BS.. 3MXV-B 40-808												159
BS.. 3MXV-B 50-1803												251
BS.. 3MXV-B 50-1804												281
BS.. 3MXV-B 50-1805												296
BS.. 3MXV-B 50-1806	100	100	1090	215	215	507	418	1200	1400	200	550	299
BS.. 3MXV-B 50-1807												332
BS.. 3MXV-B 50-1808												335





Coverage chart



## Construction

Automatic pressure boosting plant consisting of three vertical multi-stage pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304.

Connections are located on the delivery manifold for the installation of three 20 litres cylindrical vessels (for 3MXV 25-32-40).

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels (for 3MXV 50-65-80).

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386). Motor starting is D.O.L. up to 5,5 kW and Y/Δ for power rating 7,5 up to 15 kW.
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and three adjustable differential pressure switches.

## Operation

### BS 3F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V2F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS3V Pumps at variable speed with three frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm, suitable for operation with frequency converter.

- Three-phase 230/400V ± 10% up to 3 kW;
- 400/690V ± 10% from 4 to 15 kW.

Insulation class F.

Protection IP 55.

Constructed in accordance with: IEC 60034.

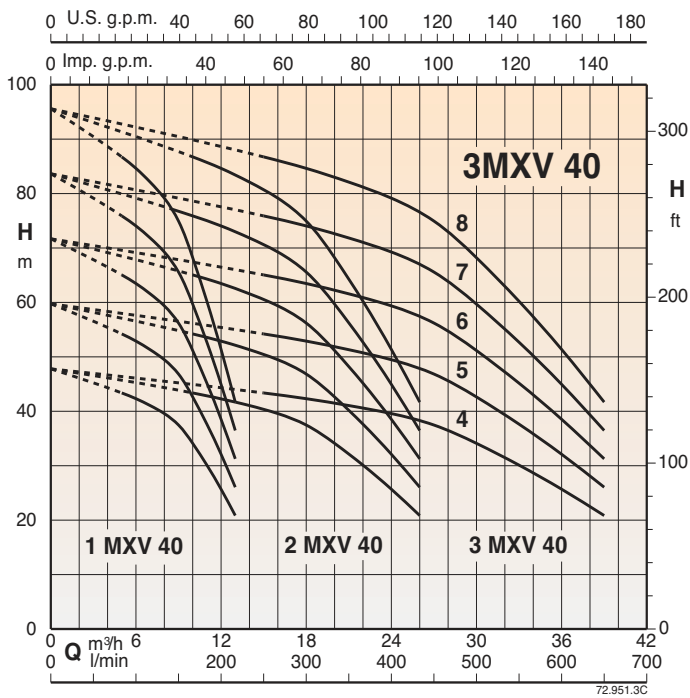
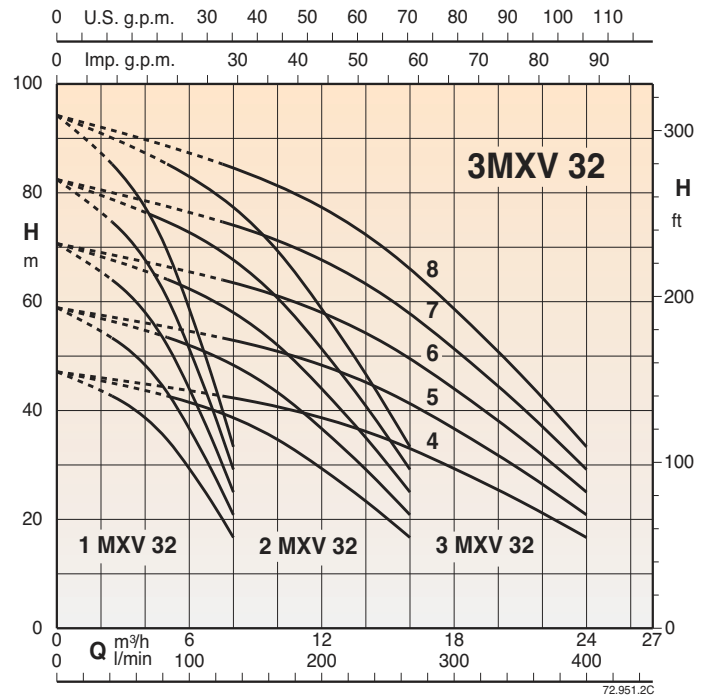
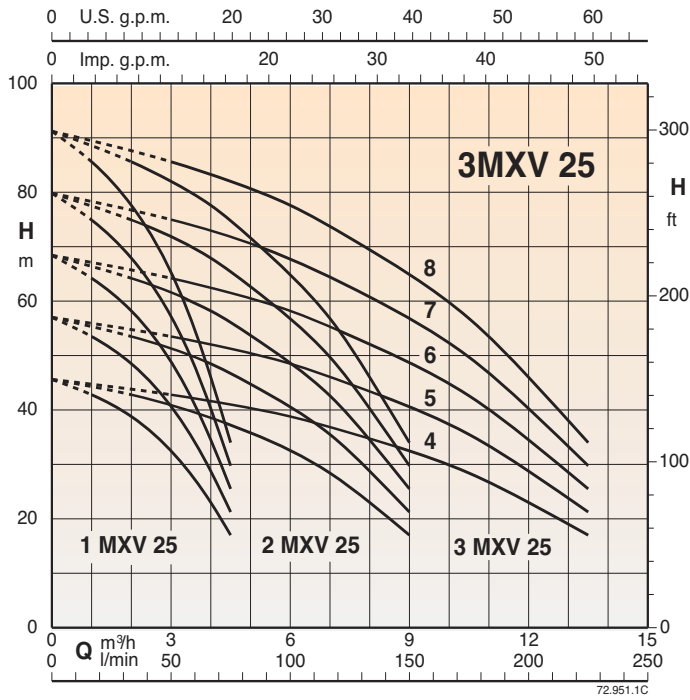
Other voltages and frequencies on request.

## Vessels

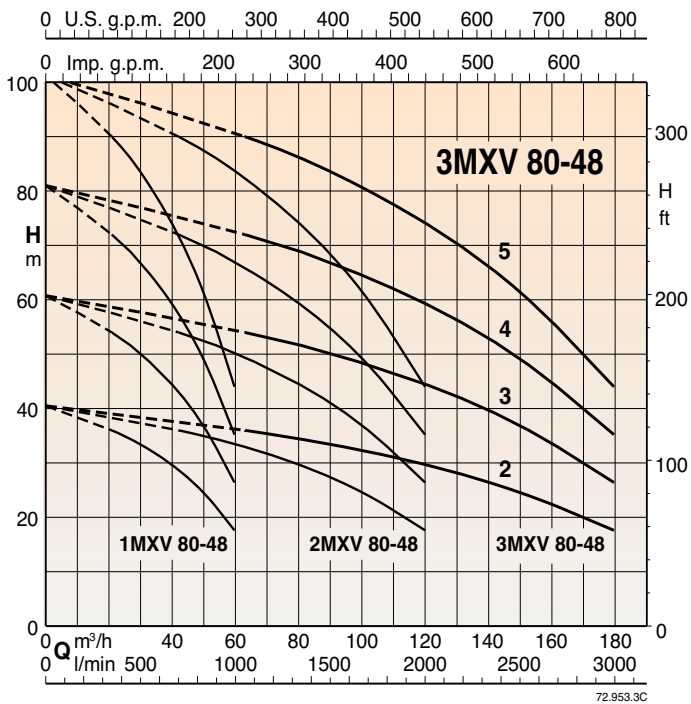
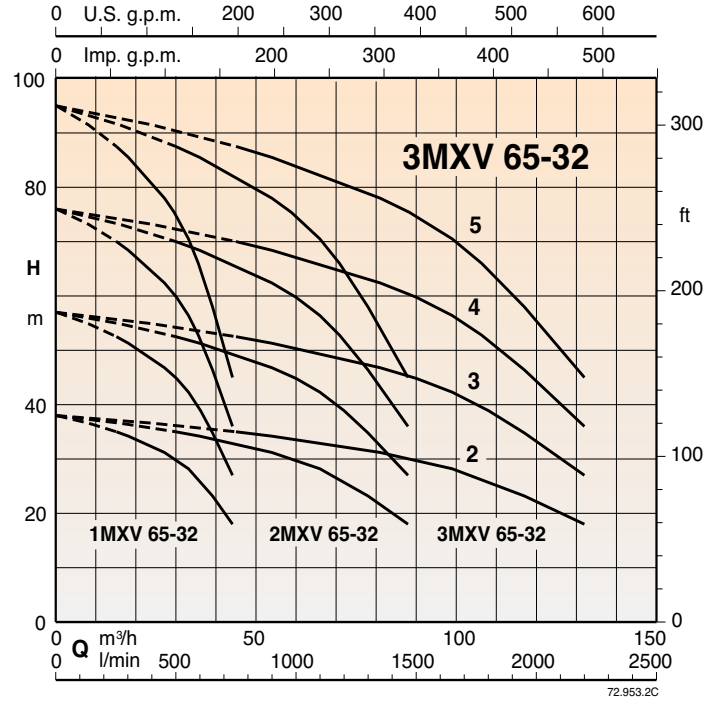
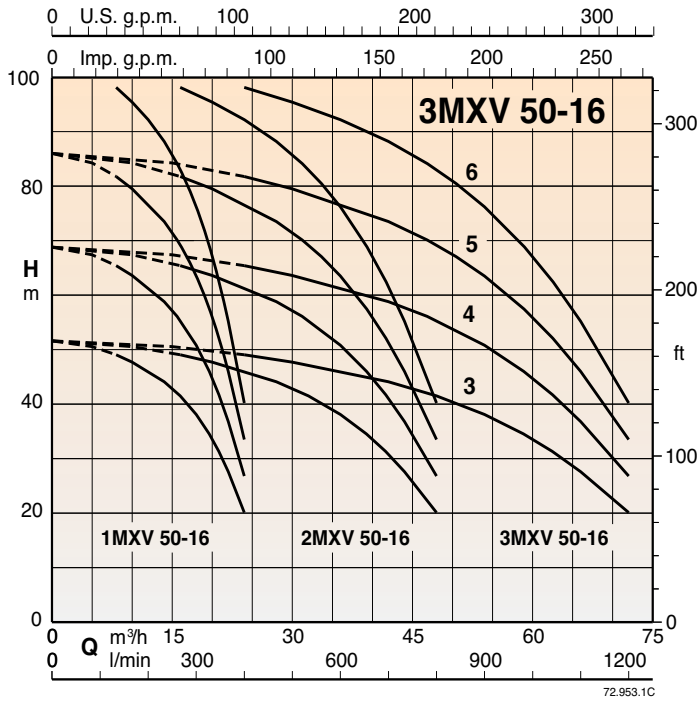
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

The recommended sized are shown in the following page.

## Coverage chart



## Coverage chart



## Performance

### BS3F

Mains: 400V 3~ Motor: 400V 3~	Motor		Pres. switch bar	Pres. switch bar	Pres. switch bar	Average capacity		Maximum capacity		Membrane V. litre	Vessel litre
	kW	HP				Q l/min	H m	Q l/min	H m		
BS3F 3MXV 25-204	0,75+0,75+0,75	1+1+1	2,5±4,0	2,2±3,7	1,9±3,4	165	30	220	19	40	100
BS3F 3MXV 25-205	0,75+0,75+0,75	1+1+1	3,5±5,0	3,2±4,7	2,9±4,4	155	40	200	29	50	300
BS3F 3MXV 25-206	1,1+1,1+1,1	1,5+1,5+1,5	4,5±6,0	4,2±5,7	3,9±5,4	145	50	190	39	50	300
BS3F 3MXV 25-207	1,1+1,1+1,1	1,5+1,5+1,5	5,5±7,0	5,2±6,7	4,9±6,4	142	60	175	49	60	300
BS3F 3MXV 25-208	1,5+1,5+1,5	2+2+2	6,5±8,0	6,2±7,7	5,9±7,4	132	70	170	59	80	500
BS3F 3MXV 32-404	1,1+1,1+1,1	1,5+1,5+1,5	2,5±4,0	2,2±3,7	1,9±3,4	303	30	395	19	100	200
BS3F 3MXV 32-405	1,1+1,1+1,1	1,5+1,5+1,5	3,5±5,0	3,2±4,7	2,9±4,4	280	40	350	29	100	300
BS3F 3MXV 32-406	1,5+1,5+1,5	2+2+2	4,5±6,0	4,2±5,7	3,9±5,4	270	50	330	39	100	300
BS3F 3MXV 32-407	1,5+1,5+1,5	2+2+2	5,5±7,0	5,2±6,7	4,9±6,4	260	60	310	49	200	300
BS3F 3MXV 32-408	2,2+2,2+2,2	3+3+3	6,5±8,0	6,2±7,7	5,9±7,4	245	70	300	59	200	500
BS3F 3MXV 40-804	1,5+1,5+1,5	2+2+2	2,5±4,0	2,2±3,7	1,9±3,4	550	30	650	19	200	300
BS3F 3MXV 40-805	2,2+2,2+2,2	3+3+3	3,5±5,0	3,2±4,7	2,9±4,4	525	40	620	29	300	500
BS3F 3MXV 40-806	2,2+2,2+2,2	3+3+3	4,5±6,0	4,2±5,7	3,9±5,4	510	50	600	39	300	500
BS3F 3MXV 40-807	3+3+3	4+4+4	5,5±7,0	5,2±6,7	4,9±6,4	500	60	580	49	300	500
BS3F 3MXV 40-808	3+3+3	4+4+4	6,5±8,0	6,2±7,7	5,9±7,4	490	70	560	59	300	500
BS3F 3MXV 50-1603	3+3+3	4+4+4	3,0±4,5	2,5±4,0	2,0±3,5	920	38	1200	20	300	500
BS3F 3MXV 50-1604	4+4+4	5,5+5,5+5,5	4,5±6,0	4,0±5,5	3,5±5,0	885	51	1120	35	500	800
BS3F 3MXV 50-1605	5,5+5,5+5,5	7,5+7,5+7,5	6,0±7,5	5,5±7,0	5,0±6,5	875	67	1060	50	500	1000
BS3F 3MXV 50-1606	5,5+5,5+5,5	7,5+7,5+7,5	7,5±9,0	7,0±8,5	6,5±8,0	860	82	1030	65	-	1000
BS3F 3MXV 65-3202	4+4+4	5,5+5,5+5,5	2,2±3,4	1,9±3,1	1,6±2,8	1620	28	2200	16	-	1500
BS3F 3MXV 65-3203	5,5+5,5+5,5	7,5+7,5+7,5	3,8±5,0	3,3±4,5	2,8±4,0	1580	42	2150	28	-	1500
BS3F 3MXV 65-3204	7,5+7,5+7,5	10+10+10	5,0±6,5	4,5±6,0	4,0±5,5	1620	57	2100	40	-	2000
BS3F 3MXV 65-3205	11+11+11	15+15+15	6,5±8,0	6,0±7,5	5,5±7,0	1620	73	2000	55	-	3000
BS3F 3MXV 80-4802	5,5+5,5+5,5	7,5+7,5+7,5	2,3±3,5	2,0±3,3	1,7±3,0	2000	30	3000	17	-	2000
BS3F 3MXV 80-4803	7,5+7,5+7,5	10+10+10	3,8±5,0	3,3±4,5	2,8±4,0	2075	44	2900	28	-	3000
BS3F 3MXV 80-4804	11+11+11	15+15+15	5,0±6,5	4,5±6,0	4,0±5,5	2072	58	2850	40	-	4000
BS3F 3MXV 80-4805	15+15+15	20+20+20	6,5±8,0	6,0±7,5	5,5±7,0	2075	73	2700	55	-	5000

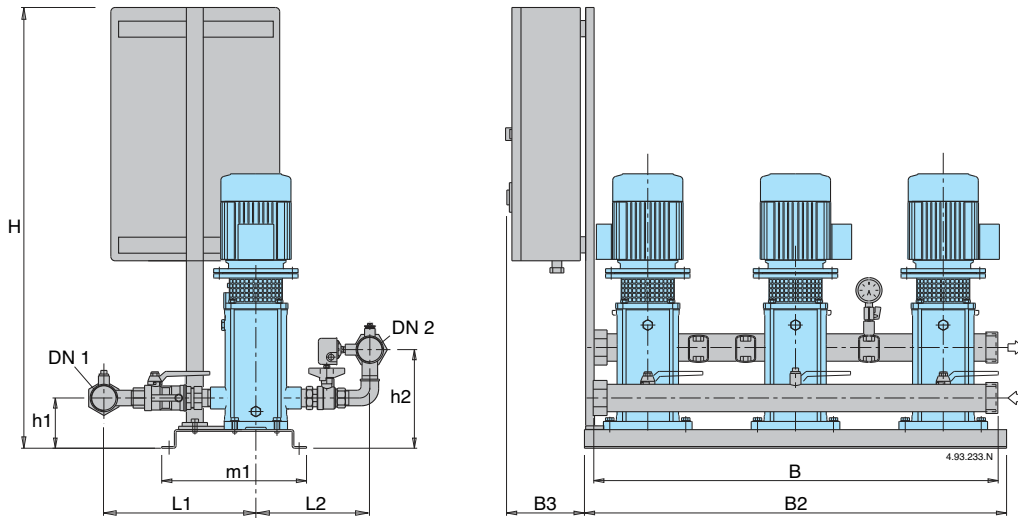
### BS1V2F

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V2F 3MXV 25-204	0,75 x3	1 x3	24x3
BS1V2F 3MXV 25-205	0,75 x3	1 x3	24x3
BS1V2F 3MXV 25-206	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV 25-207	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV 25-208	1,5 x3	2 x3	24x3
BS1V2F 3MXV 32-404	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV 32-405	1,1 x3	1,5 x3	24x3
BS1V2F 3MXV 32-406	1,5 x3	2 x3	24x3
BS1V2F 3MXV 32-407	1,5 x3	2 x3	24x3
BS1V2F 3MXV 32-408	2,2 x3	3 x3	24x3
BS1V2F 3MXV 40-804	1,5 x3	2 x3	24x3
BS1V2F 3MXV 40-805	2,2 x3	3 x3	24x3
BS1V2F 3MXV 40-806	2,2 x3	3 x3	24x3
BS1V2F 3MXV 40-807	3 x3	4 x3	24x3
BS1V2F 3MXV 40-808	3 x3	4 x3	24x3
BS1V2F 3MXV 50-1603	3 x3	4 x3	24x2
BS1V2F 3MXV 50-1604	4 x3	5,5 x3	24x2
BS1V2F 3MXV 50-1605	5,5 x3	7,5 x3	24x2
BS1V2F 3MXV 50-1606	5,5 x3	7,5 x3	24x2
BS1V2F 3MXV 65-3202	4 x3	5,5 x3	24x2
BS1V2F 3MXV 65-3203	5,5 x3	7,5 x3	24x2
BS1V2F 3MXV 65-3204	7,5 x3	10 x3	24x2
BS1V2F 3MXV 65-3205	11 x3	15 x3	24x2
BS1V2F 3MXV 80-4802	5,5 x3	7,5 x3	24x2
BS1V2F 3MXV 80-4803	7,5 x3	10 x3	24x2
BS1V2F 3MXV 80-4804	11 x3	15 x3	24x2
BS1V2F 3MXV 80-4805	15 x3	20 x3	24x2

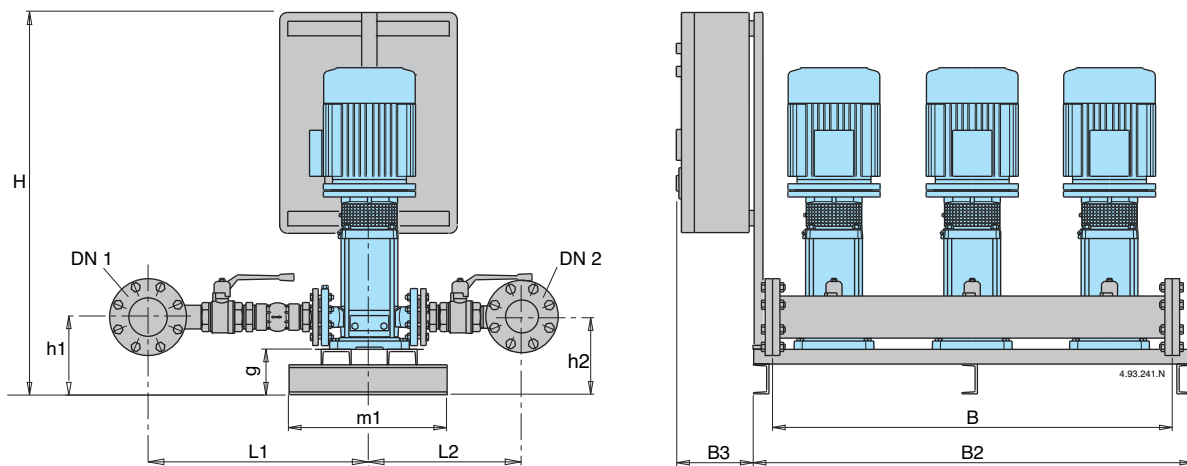
### BS3V

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS3V 3MXV 25-204	0,75 x3	1 x3	24x3
BS3V 3MXV 25-205	0,75 x3	1 x3	24x3
BS3V 3MXV 25-206	1,1 x3	1,5 x3	24x3
BS3V 3MXV 25-207	1,1 x3	1,5 x3	24x3
BS3V 3MXV 25-208	1,5 x3	2 x3	24x3
BS3V 3MXV 32-404	1,1 x3	1,5 x3	24x3
BS3V 3MXV 32-405	1,1 x3	1,5 x3	24x3
BS3V 3MXV 32-406	1,5 x3	2 x3	24x3
BS3V 3MXV 32-407	1,5 x3	2 x3	24x3
BS3V 3MXV 32-408	2,2 x3	3 x3	24x3
BS3V 3MXV 40-804	1,5 x3	2 x3	24x3
BS3V 3MXV 40-805	2,2 x3	3 x3	24x3
BS3V 3MXV 40-806	2,2 x3	3 x3	24x3
BS3V 3MXV 40-807	3 x3	4 x3	24x3
BS3V 3MXV 40-808	3 x3	4 x3	24x3
BS3V 3MXV 50-1603	3 x3	4 x3	24x2
BS3V 3MXV 50-1604	4 x3	5,5 x3	24x2
BS3V 3MXV 50-1605	5,5 x3	7,5 x3	24x2
BS3V 3MXV 50-1606	5,5 x3	7,5 x3	24x2
BS3V 3MXV 65-3202	4 x3	5,5 x3	24x2
BS3V 3MXV 65-3203	5,5 x3	7,5 x3	24x2
BS3V 3MXV 65-3204	7,5 x3	10 x3	24x2
BS3V 3MXV 65-3205	11 x3	15 x3	24x2
BS3V 3MXV 80-4802	5,5 x3	7,5 x3	24x2
BS3V 3MXV 80-4803	7,5 x3	10 x3	24x2
BS3V 3MXV 80-4804	11 x3	15 x3	24x2
BS3V 3MXV 80-4805	15 x3	20 x3	24x2

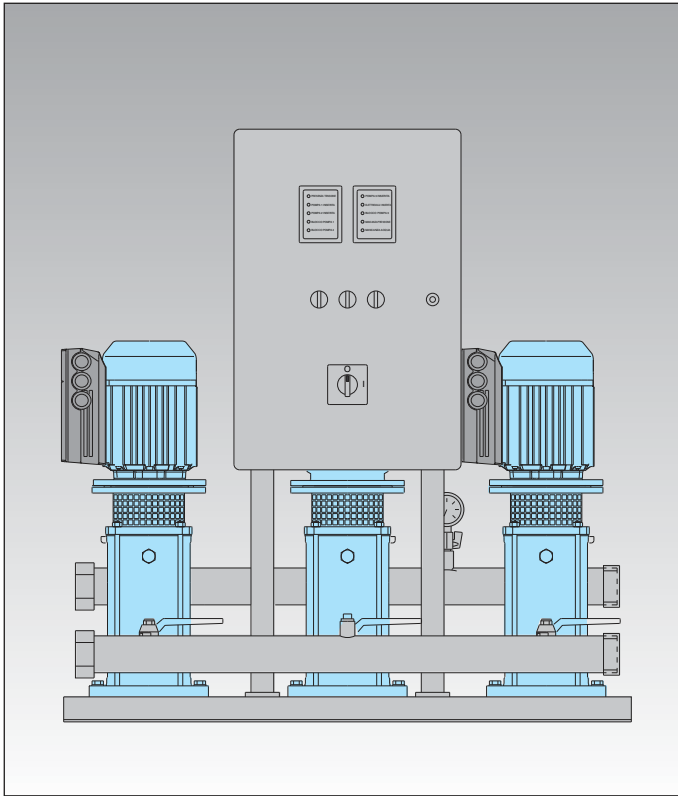
## Dimensions and weights



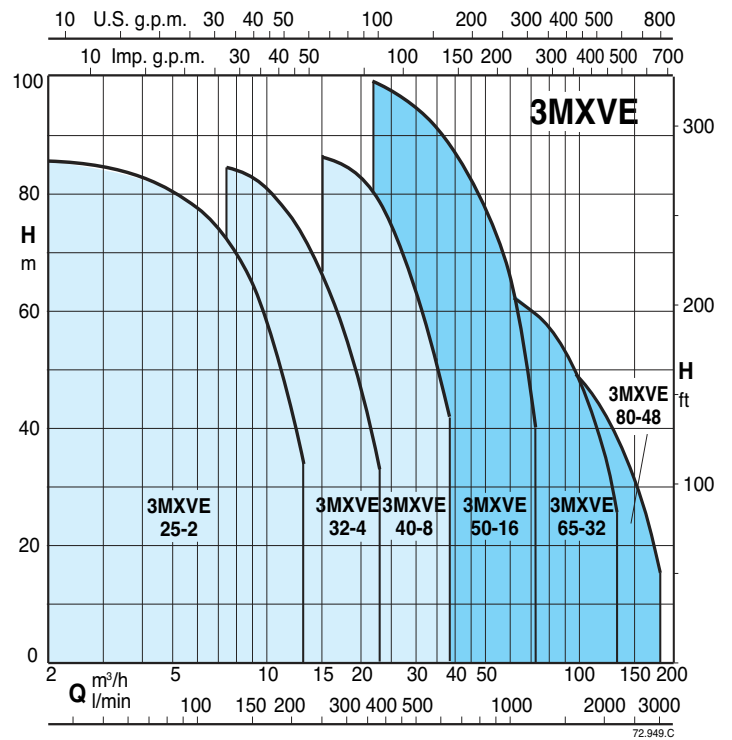
TYPE	DN1	DN2	mm									kg	
			H	h1	h2	L1	L2	B	B2	B3	m1		
BS.. 3MXV 25-204													110
BS.. 3MXV 25-205													112
BS.. 3MXV 25-206	G 2	G 2	1060	134	233	337	254	950	1000	200	406		114
BS.. 3MXV 25-207													116
BS.. 3MXV 25-208													126
BS.. 3MXV 32-404													113
BS.. 3MXV 32-405													115
BS.. 3MXV 32-406	G 2 1/2	G 2 1/2	1060	134	240	368	270	950	1000	200	406		125
BS.. 3MXV 32-407													127
BS.. 3MXV 32-408													137
BS.. 3MXV 40-804													126
BS.. 3MXV 40-805													136
BS.. 3MXV 40-806	G 3	G 3	1060	139	260	452	350	950	1000	200	406		138
BS.. 3MXV 40-807													164
BS.. 3MXV 40-808													166



TYPE	DN1	DN2	mm										kg	
			H	h1	h2	L1	L2	B	B2	B3	m1	g		
BS.. 3MXV 50-1603														362
BS.. 3MXV 50-1604														385
BS.. 3MXV 50-1605	100	100	1135	215	215	600	425	1150	1500	200	550	125		448
BS.. 3MXV 50-1606										250				454
BS.. 3MXV 65-3202			1135							200				448
BS.. 3MXV 65-3203	125	125	1135	230	230	672	487	1200	1500	250	550	125		510
BS.. 3MXV 65-3204			1535							250				546
BS.. 3MXV 65-3205			1535							250				634
BS.. 3MXV 80-4802			1135											518
BS.. 3MXV 80-4803			1535											560
BS.. 3MXV 80-4804	150	150	1535	230	230	738	508	1200	1500	250	550	125		645
BS.. 3MXV 80-4805			1535											695



Coverage chart



## Construction

Automatic pressure boosting plant consisting of three vertical multi-stage pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in AISI 304.

Connections are located on the delivery manifold for the installation of three 20 litres cylindrical vessels (for 3MXVE 25-32-40).

Connections are located on the delivery manifold for the installation of two 20 litres cylindrical vessels (for 3MXVE 50-65-80).

### Electrical control boards:

- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and two adjustable differential pressure switches.

## Operation

### BS1V2F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS3V Pumps at variable speed with three frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm, suitable for operation with frequency converter.

- Three-phase 230/400V ± 10% up to 3 kW;

400/690V ± 10% from 4 to 15 kW.

Insulation class F.

Protection IP 55.

Constructed in accordance with: IEC 60034.

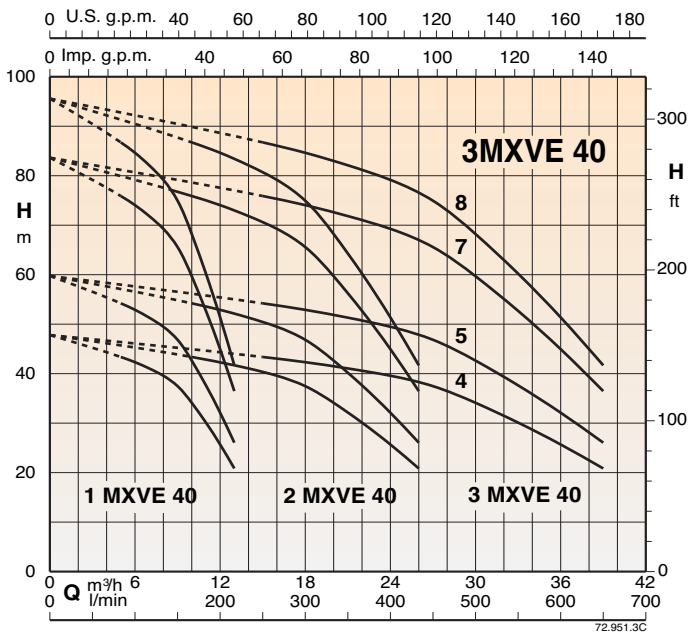
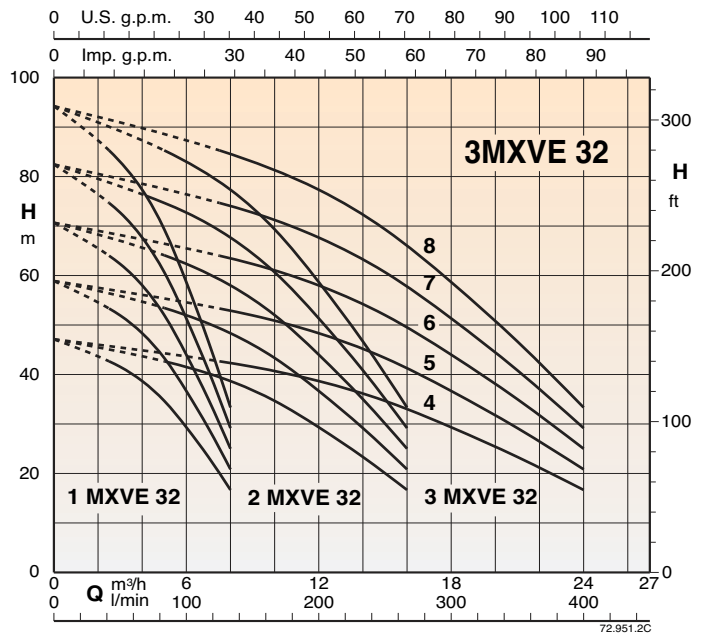
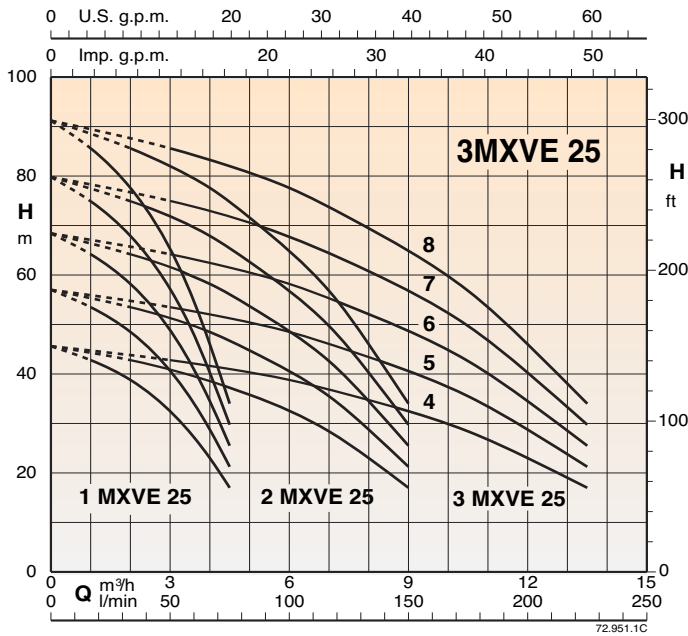
Other voltages and frequencies on request.

## Vessels

When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

The recommended sizes are shown in the following page.

## Coverage chart



## Performance

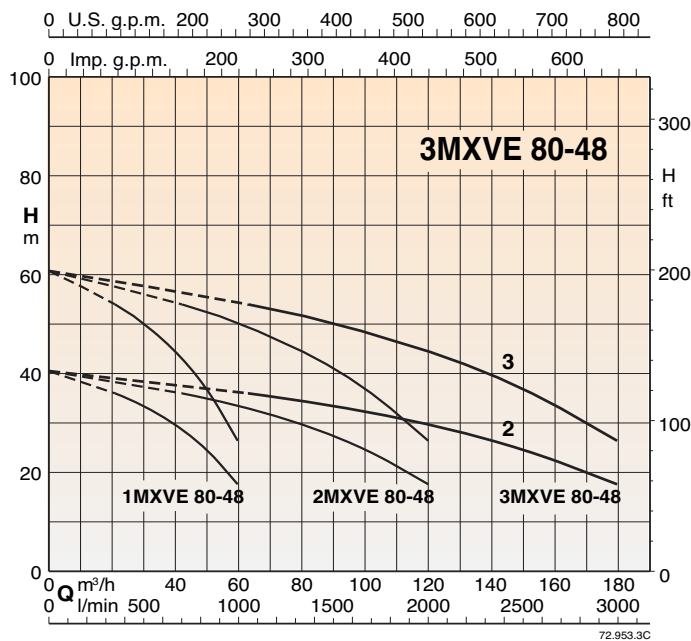
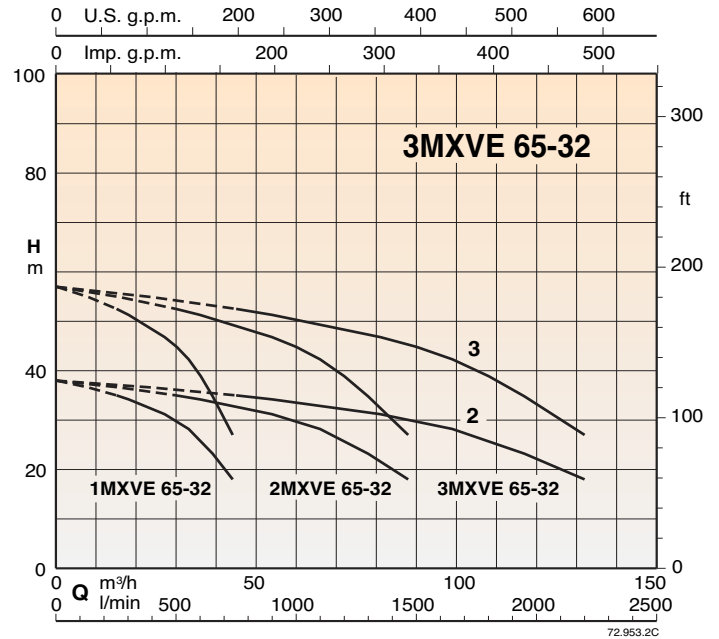
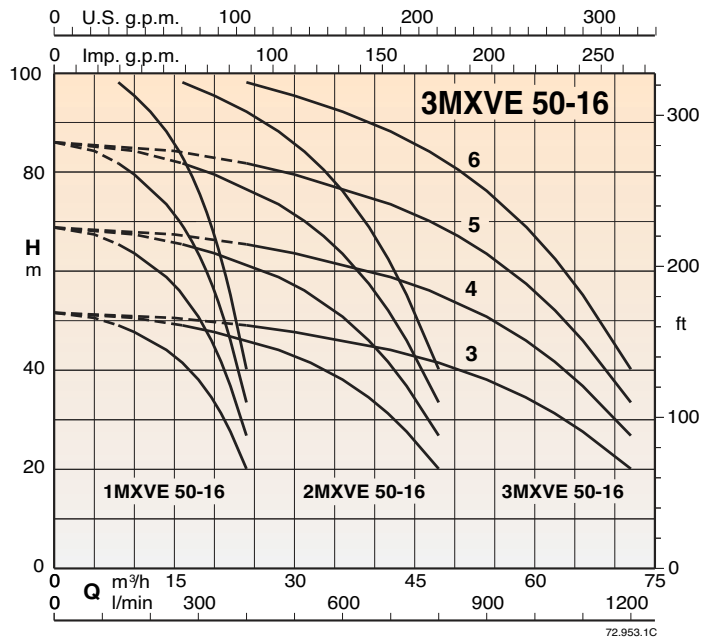
### BS1V2F

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V2F 1MXVE 25-204+2MXV 25-204	0,75+0,75x2	1+1x2	24x3
BS1V2F 1MXVE 25-205+2MXV 25-205	1,1+0,75x2	1,5+1x2	24x3
BS1V2F 1MXVE 25-206+2MXV 25-206	1,1+1,1x2	1,5+1,5x2	24x3
BS1V2F 1MXVE 25-207+2MXV 25-207	1,5+1,1x2	2+1,5x2	24x3
BS1V2F 1MXVE 25-208+2MXV 25-208	1,5+1,5x2	2+2x2	24x3
BS1V2F 1MXVE 32-404+2MXV 32-404	1,1+1,1x2	1,5+1,5x2	24x3
BS1V2F 1MXVE 32-405+2MXV 32-405	1,5+1,1x2	2+1,5x2	24x3
BS1V2F 1MXVE 32-406+2MXV 32-406	1,5+1,5x2	2+2x2	24x3
BS1V2F 1MXVE 32-407+2MXV 32-407	2,2+1,5x2	3+2x2	24x3
BS1V2F 1MXVE 32-408+2MXV 32-408	2,2+2,2x2	3+3x2	24x3
BS1V2F 1MXVE 40-804+2MXV 40-804	2,2+1,5x2	3+2x2	24x3
BS1V2F 1MXVE 40-805+2MXV 40-805	2,2+2,2x2	3+3x2	24x3
BS1V2F 1MXVE 40-807+2MXV 40-807	3+3x2	4+4x2	24x3
BS1V2F 1MXVE 40-808+2MXV 40-808	4+3x2	5,5+4x2	24x3

### BS3V

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS3V 3MXVE 25-204	0,75 x3	1 x3	24x3
BS3V 3MXVE 25-205	1,1 x3	1,5 x3	24x3
BS3V 3MXVE 25-206	1,1 x3	1,5 x3	24x3
BS3V 3MXVE 25-207	1,5 x3	2 x3	24x3
BS3V 3MXVE 25-208	1,5 x3	2 x3	24x3
BS3V 3MXVE 32-404	1,1 x3	1,5 x3	24x3
BS3V 3MXVE 32-405	1,5 x3	2 x3	24x3
BS3V 3MXVE 32-406	1,5 x3	2 x3	24x3
BS3V 3MXVE 32-407	2,2 x3	3 x3	24x3
BS3V 3MXVE 32-408	2,2 x3	3 x3	24x3
BS3V 3MXVE 40-804	2,2 x3	3 x3	24x3
BS3V 3MXVE 40-805	2,2 x3	3 x3	24x3
BS3V 3MXVE 40-807	3 x3	4 x3	24x3
BS3V 3MXVE 40-808	4 x3	5,5 x3	24x3

## Coverage chart



## Performance

### BS1V2F

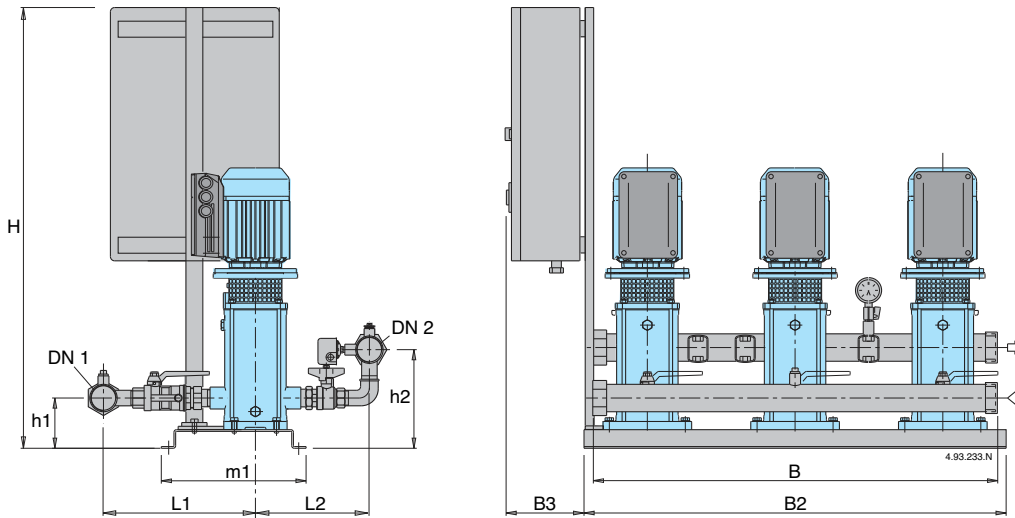
Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V2F 1MXVE 50-1603+2MXV 50-1603	4+3x2	5,5+4x2	24x2
BS1V2F 1MXVE 50-1604+2MXV 50-1604	5,5+4x2	7,5+5,5x2	24x2
BS1V2F 1MXVE 50-1605+2MXV 50-1605	5,5+5,5x2	7,5+7,5x2	24x2
BS1V2F 1MXVE 50-1606+2MXV 50-1606	7,5+5,5x2	7,5+7,5x2	24x2
BS1V2F 1MXVE 65-3202+2MXV 65-3202	4+4x2	5,5+5,5x2	24x2
BS1V2F 1MXVE 65-3203+2MXV 65-3203	7,5+5,5x2	10+7,5x2	24x2
BS1V2F 1MXVE 80-4802+2MXV 80-4802	5,5+5,5x2	7,5+7,5x2	24x2
BS1V2F 1MXVE 80-4803+2MXV 80-4803	7,5+7,5x2	10+10x2	24x2

### BS3V

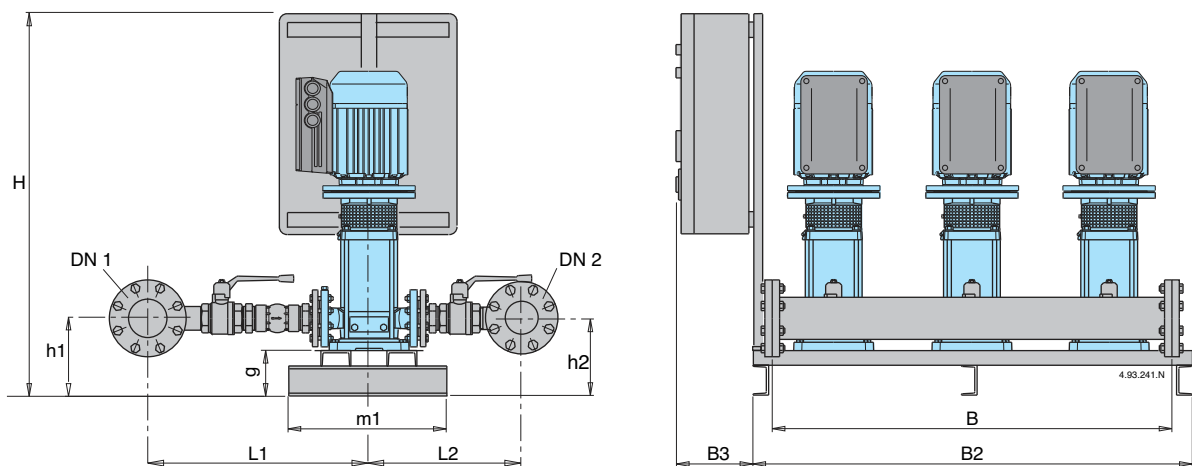
Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS3V 3MXVE 50-1603	4 x3	5,5 x3	24x2
BS3V 3MXVE 50-1604	5,5 x3	7,5 x3	24x2
BS3V 3MXVE 50-1605	5,5 x3	7,5 x3	24x2
BS3V 3MXVE 50-1606	7,5 x3	10 x3	24x2
BS3V 3MXVE 65-3202	4 x3	5,5 x3	24x2
BS3V 3MXVE 65-3203	7,5 x3	10 x3	24x2
BS3V 3MXVE 80-4802	5,5 x3	7,5 x3	24x2
BS3V 3MXVE 80-4803	7,5 x3	10 x3	24x2



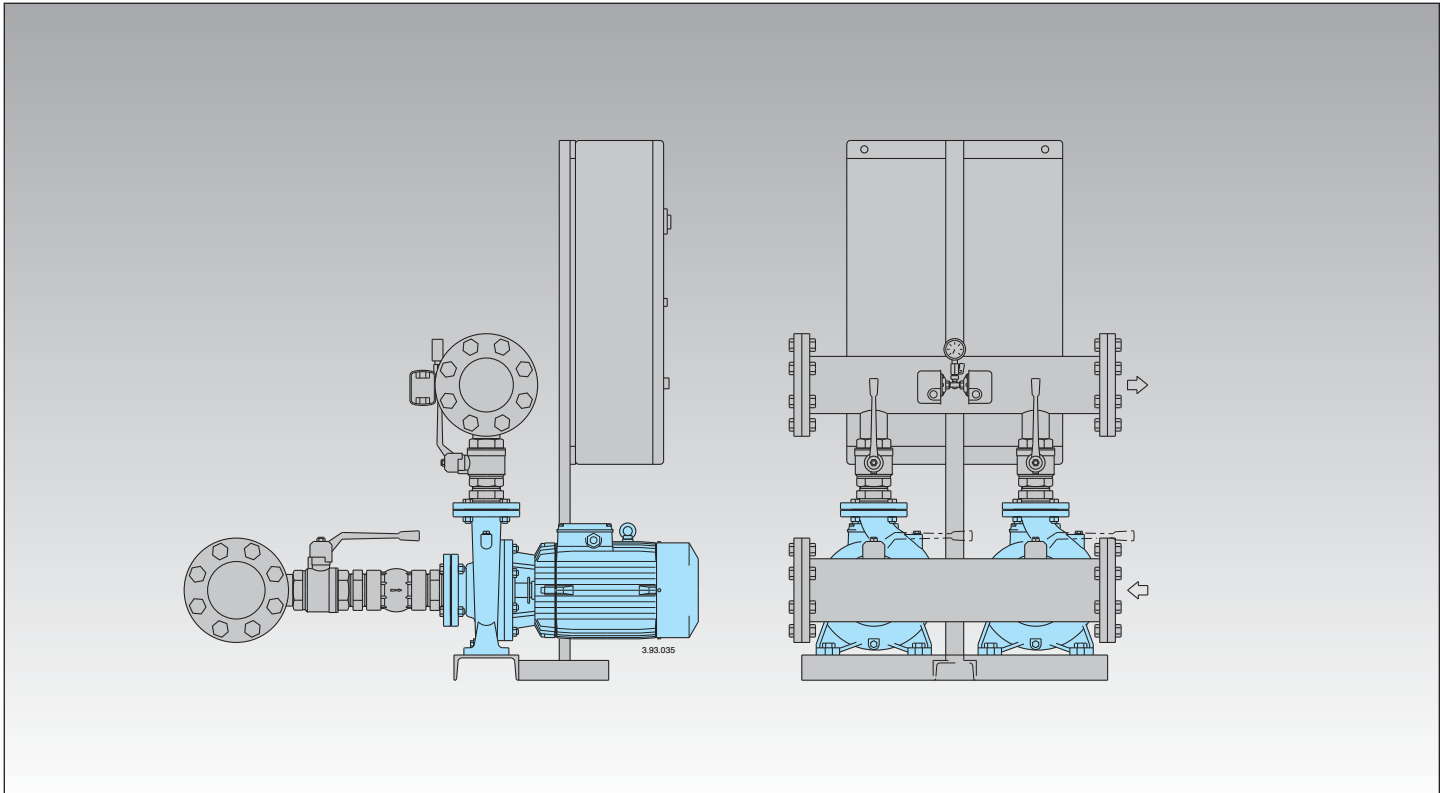
## Dimensions and weights



TYPE	DN1	DN2	mm								kg	
			H	h1	h2	L1	L2	B	B2	B3		m1
BS.. 3MXVE 25-204	G 2	G 2	1060	134	233	337	254	950	1000	200	406	110
BS.. 3MXVE 25-205												112
BS.. 3MXVE 25-206												114
BS.. 3MXVE 25-207												116
BS.. 3MXVE 25-208	G 2 1/2	G 2 1/2	1060	134	240	368	270	950	1000	200	406	126
BS.. 3MXVE 32-404												113
BS.. 3MXVE 32-405												115
BS.. 3MXVE 32-406												125
BS.. 3MXVE 32-407												127
BS.. 3MXVE 32-408	137											
BS.. 3MXVE 40-804	G 3	G 3	1060	139	260	452	350	950	1000	200	406	126
BS.. 3MXVE 40-805												136
BS.. 3MXVE 40-807												164
BS.. 3MXVE 40-808												166



TYPE	DN1	DN2	mm									kg	
			H	h1	h2	L1	L2	B	B2	B3	m1		g
BS.. 3MXVE 50-1603	100	100	1135	215	215	600	425	1150	1500	200	550	125	362
BS.. 3MXVE 50-1604										200			385
BS.. 3MXVE 50-1605										250			448
BS.. 3MXVE 50-1606										250			454
BS.. 3MXVE 65-3202	125	125	1135	230	230	672	487	1200	1500	200	550	125	448
BS.. 3MXVE 65-3203										250			510
BS.. 3MXVE 80-4802										250			518
BS.. 3MXVE 80-4803	150	150	1135	230	230	738	508	1200	1500	250	550	125	560



## Construction

Automatic pressure boosting plant consisting of two centrifugal pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in steel.

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386). Motor starting is D.O.L. up to 5,5 kW and Y/Δ for power rating 7,5 up to 55 kW.
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and two adjustable differential pressure switches.

## Operation

### BS 2F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V1F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS2V Pumps at variable speed with two frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm, suitable for operation with frequency converter.

- Three-phase 230/400V ± 10% up to 3 kW;
- 400/690V ± 10% from 4 to 55 kW.

Insulation class F.

Protection IP 54.

Constructed in accordance with: IEC 60034.

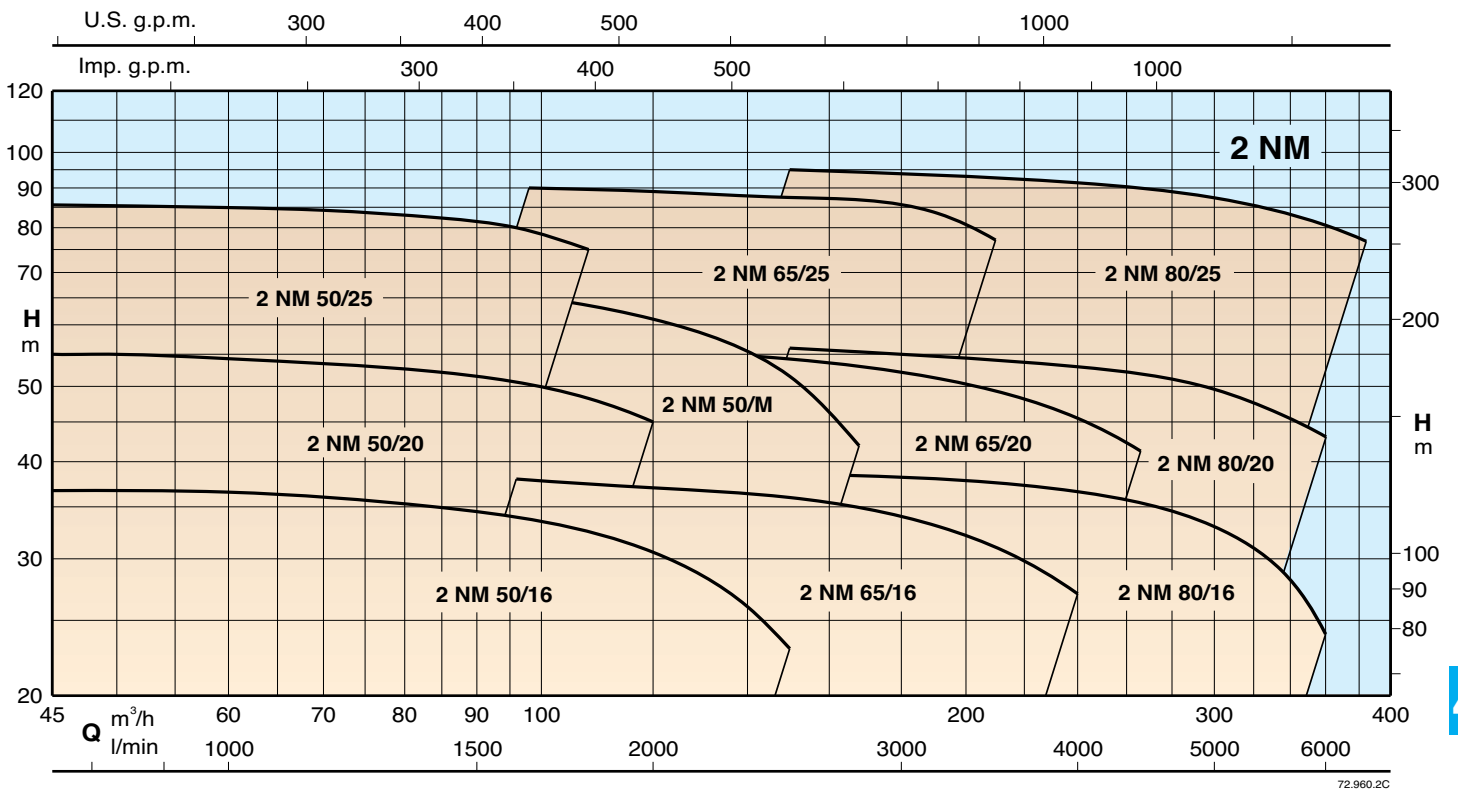
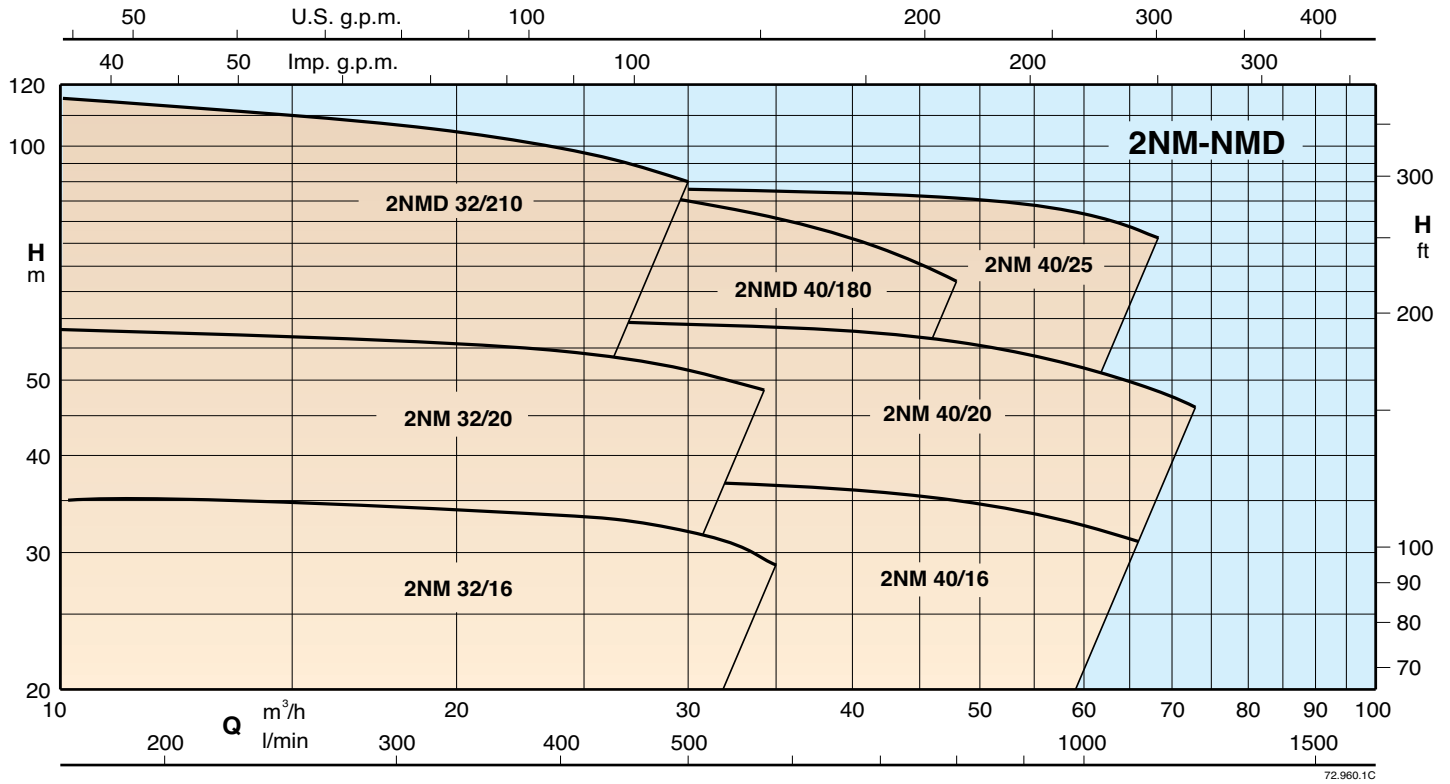
Other voltages and frequencies on request.

## Vessels

When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.

The recommended sized are shown in the following page.

## Coverage chart



## Performance

### BS2F

Mains: 400V 3~ Motor: 400V 3~	Motor		Q max* l/min	Total head m	Pres. switch bar	Pres. switch bar	S.Membrana litre	Vessel litre
	kW	HP						
BS2F 2NM 32/16BE	1,5+1,5	2+2	560	29,5	2,2÷2,8	2,0÷2,6	500	1000
BS2F 2NM 32/16AE	2,2+2,2	3+3	560	35,5	2,7÷3,4	2,5÷3,2	500	1000
BS2F 2NM 32/20CE	3+3	4+4	560	45	3,2÷4,2	3,0÷4,0	500	750
BS2F 2NM 32/20AE	4+4	5,5+5,5	560	57,5	4,5÷5,5	4,0÷5,0	---	2000
BS2F 2NMD 32/210DE	4+4	5,5+5,5	440	71	5,0÷7,0	4,5÷6,5	500	1000
BS2F 2NMD 32/210CE	5,5+5,5	7,5+7,5	500	84	6,0÷8,0	5,5÷7,5	500	1000
BS2F 2NMD 32/210BE	7,5+7,5	10+10	500	104	8,0÷10	7,5÷9,5	---	1500
BS2F 2NMD 32/210AE	9,2+9,2	12,5+12,5	500	114	9,5÷11	9,0÷10,5	---	1500
BS2F 2NMD 40/180DE	4+4	5,5+5,5	800	60	4,0÷5,5	3,5÷5,0	500	1000
BS2F 2NMD 40/180CE	5,5+5,5	7,5+7,5	800	69	5,0÷6,5	4,5÷6,0	500	1000
BS2F 2NMD 40/180BE	7,5+7,5	10+10	800	87	6,7÷8,2	6,2÷7,7	---	1500
BS2F 2NMD 40/180AE	9,2+9,2	12,5+12,5	800	94	7,5÷9,0	7,0÷8,5	---	2000
BS2F 2NM 40/16B/A	3+3	4+4	1000	31,5	2,2÷2,8	2,0÷2,6	---	2000
BS2F 2NM 40/16A/A	4+4	5,5+5,5	1100	37	2,8÷3,5	2,6÷3,3	---	3000
BS2F 2NM 40/20BE	5,5+5,5	7,5+7,5	1100	51,5	3,8÷4,8	3,3÷4,3	---	3000
BS2F 2NM 40/20AE	7,5+7,5	10+10	1400	59	4,5÷5,5	4,0÷5,0	---	3000
BS2F 2NM 40/25B/A	11+11	15+15	1100	71,5	5,9÷6,9	5,6÷6,6	---	5000
BS2F 2NM 40/25A/A	15+15	20+20	1100	88	7,5÷8,5	7,2÷8,2	---	5000
BS2F 2NM 50/16B/A	5,5+5,5	7,5+7,5	2200	31	1,9÷2,9	1,5÷2,5	---	3000
BS2F 2NM 50/16A/A	7,5+7,5	10+10	2500	36,5	2,4÷3,4	2,0÷3,0	---	4000
BS2F 2NM 50/20B/A	9,2+9,2	12,5+12,5	2000	48	3,5÷4,5	3,2÷4,2	---	5000
BS2F 2NM 50/20A/A	11+11	15+15	2000	55	4,2÷5,2	4,0÷5,0	---	5000
BS2F 2NM 50/25C/A	11+11	15+15	1800	60,5	4,5÷5,5	4,0÷5,0	---	5000
BS2F 2NM 50/25B/A	15+15	20+20	1800	71	5,8÷6,8	5,5÷6,5	---	5000
BS2F 2NM 50/25A/A	18,5+18,5	25+25	1800	86	6,8÷7,8	6,5÷7,5	---	5000
BS2F 2NM 50M/EE	11+11	15+15	2500	48	3,5÷4,5	3,0÷4,0	---	5000
BS2F 2NM 50M/DE	15+15	20+20	2800	57	4,0÷5,2	3,5÷4,7	---	5000
BS2F 2NM 50M/CE	18,5+18,5	25+25	2800	68	5,0÷6,5	4,5÷6,0	---	5000
BS2F 2NM 65/16BE	11+11	15+15	4000	33,5	2,0÷3,0	1,7÷2,7	---	5000
BS2F 2NM 65/16AE	15+15	20+20	4000	38	2,5÷3,5	2,2÷3,2	---	5000
BS2F 2NM 65/20CE	15+15	20+20	4400	44	3,0÷4,0	2,5÷3,5	---	5000
BS2F 2NM 65/20BE	18,5+18,5	25+25	4400	50	3,6÷4,6	3,2÷4,2	---	5000
BS2F 2NM 65/200AE	22+22	30+30	4400	56,5	4,2÷5,2	3,8÷4,8	---	5000
BS2F 2NM 65/250CE	22+22	30+30	3600	64	5,0÷6,0	4,6÷5,6	---	5000
BS2F 2NM 65/250BE	30+30	40+40	3600	79,5	6,6÷7,6	6,2÷7,2	---	5000
BS2F 2NM 65/250AE	37+37	50+50	3600	90	7,7÷8,7	7,3÷8,3	---	5000
BS2F 2NM 80/16BE	15+15	20+20	6000	34	2,5÷3,5	2,0÷3,0	---	5000
BS2F 2NM 80/16AE	18,5+18,5	25+25	6000	38,5	2,0÷3,0	1,7÷2,7	---	5000
BS2F 2NM 80/200BE	22+22	30+30	6000	46,5	3,3÷4,3	3,0÷4,0	---	5000
BS2F 2NM 80/200AE	30+30	40+40	6000	56	4,3÷5,3	4,0÷5,0	---	5000
BS2F 2NM 80/250EE	22+22	30+30	6000	51	3,8÷4,8	3,2÷4,2	---	5000
BS2F 2NM 80/250DE	30+30	40+40	6400	65	4,5÷6,0	4,0÷5,5	---	5000
BS2F 2NM 80/250CE	37+37	50+50	6400	73,5	5,5÷7,0	5,0÷6,5	---	5000
BS2F 2NM 80/250BE	45+45	60+60	6400	84	6,5÷8,0	6,0÷7,5	---	5000
BS2F 2NM 80/250AE	55+55	75+75	6400	95	8,0÷9,0	7,5÷8,5	---	5000

\* Maximum pumps flow at minimum set pressure of 2<sup>nd</sup> pressure switch.

## Performance

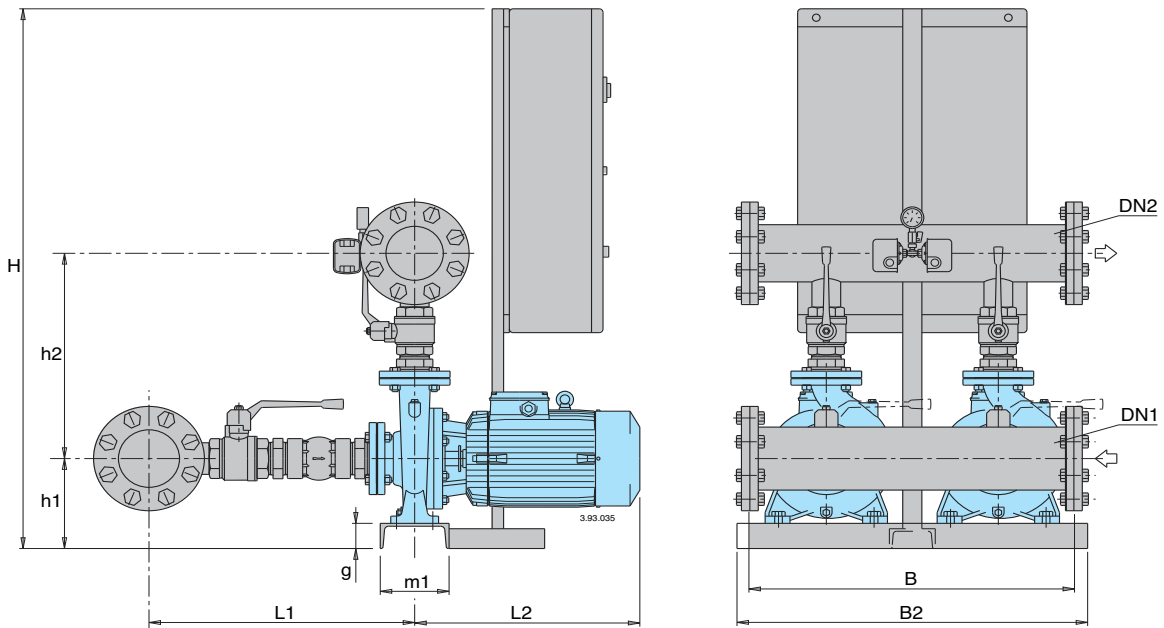
### BS1V1F

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V1F 2NM 32/16BE	1,5 x2	2 x2	24
BS1V1F 2NM 32/16AE	2,2 x2	3 x2	24
BS1V1F 2NM 32/20CE	3 x2	4 x2	24
BS1V1F 2NM 32/20AE	4 x2	5,5 x2	24
BS1V1F 2NMD 32/210DE	4 x2	5,5 x2	24
BS1V1F 2NMD 32/210CE	5,5 x2	7,5 x2	24
BS1V1F 2NMD 32/210BE	7,5 x2	10 x2	24
BS1V1F 2NMD 32/210AE	9,2 x2	12,5 x2	24
BS1V1F 2NMD 40/180DE	4 x2	5,5 x2	24
BS1V1F 2NMD 40/180CE	5,5 x2	7,5 x2	24
BS1V1F 2NMD 40/180BE	7,5 x2	10 x2	24
BS1V1F 2NMD 40/180AE	9,2 x2	12,5 x2	24
BS1V1F 2NM 40/16B/A	3 x2	4 x2	24
BS1V1F 2NM 40/16A/A	4 x2	5,5 x2	24
BS1V1F 2NM 40/20BE	5,5 x2	7,5 x2	24
BS1V1F 2NM 40/20AE	7,5 x2	10 x2	24
BS1V1F 2NM 40/25B/A	11 x2	15 x2	24
BS1V1F 2NM 40/25A/A	15 x2	20 x2	24
BS1V1F 2NM 50/16B/A	5,5 x2	7,5 x2	24
BS1V1F 2NM 50/16A/A	7,5 x2	10 x2	24
BS1V1F 2NM 50/20B/A	9,2 x2	12,5 x2	24
BS1V1F 2NM 50/20A/A	11 x2	15 x2	24
BS1V1F 2NM 50/25C/A	11 x2	15 x2	24
BS1V1F 2NM 50/25B/A	15 x2	20 x2	24
BS1V1F 2NM 50/25A/A	18,5 x2	25 x2	24
BS1V1F 2NM 50M/EE	11 x2	15 x2	24
BS1V1F 2NM 50M/DE	15 x2	20 x2	24
BS1V1F 2NM 50M/CE	18,5 x2	25 x2	24
BS1V1F 2NM 65/16BE	11 x2	15 x2	24
BS1V1F 2NM 65/16AE	15 x2	20 x2	24
BS1V1F 2NM 65/20CE	15 x2	20 x2	24
BS1V1F 2NM 65/20BE	18,5 x2	25 x2	24
BS1V1F 2NM 65/200AE	22 x2	30 x2	24
BS1V1F 2NM 65/250CE	22 x2	30 x2	24
BS1V1F 2NM 65/250BE	30 x2	40 x2	24
BS1V1F 2NM 65/250AE	37 x2	50 x2	24
BS1V1F 2NM 80/16BE	15 x2	20 x2	24
BS1V1F 2NM 80/16AE	18,5 x2	25 x2	24
BS1V1F 2NM 80/200BE	22 x2	30 x2	24
BS1V1F 2NM 80/200AE	30 x2	40 x2	24
BS1V1F 2NM 80/250EE	22 x2	30 x2	24
BS1V1F 2NM 80/250DE	30 x2	40 x2	24
BS1V1F 2NM 80/250CE	37 x2	50 x2	24
BS1V1F 2NM 80/250BE	45 x2	60 x2	24
BS1V1F 2NM 80/250AE	55 x2	75 x2	24

### BS2V

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS2V 2NM 32/16BE	1,5 x2	2 x2	24
BS2V 2NM 32/16AE	2,2 x2	3 x2	24
BS2V 2NM 32/20CE	3 x2	4 x2	24
BS2V 2NM 32/20AE	4 x2	5,5 x2	24
BS2V 2NMD 32/210DE	4 x2	5,5 x2	24
BS2V 2NMD 32/210CE	5,5 x2	7,5 x2	24
BS2V 2NMD 32/210BE	7,5 x2	10 x2	24
BS2V 2NMD 32/210AE	9,2 x2	12,5 x2	24
BS2V 2NMD 40/180DE	4 x2	5,5 x2	24
BS2V 2NMD 40/180CE	5,5 x2	7,5 x2	24
BS2V 2NMD 40/180BE	7,5 x2	10 x2	24
BS2V 2NMD 40/180AE	9,2 x2	12,5 x2	24
BS2V 2NM 40/16B/A	3 x2	4 x2	24
BS2V 2NM 40/16A/A	4 x2	5,5 x2	24
BS2V 2NM 40/20BE	5,5 x2	7,5 x2	24
BS2V 2NM 40/20AE	7,5 x2	10 x2	24
BS2V 2NM 40/25B/A	11 x2	15 x2	24
BS2V 2NM 40/25A/A	15 x2	20 x2	24
BS2V 2NM 50/16B/A	5,5 x2	7,5 x2	24
BS2V 2NM 50/16A/A	7,5 x2	10 x2	24
BS2V 2NM 50/20B/A	9,2 x2	12,5 x2	24
BS2V 2NM 50/20A/A	11 x2	15 x2	24
BS2V 2NM 50/25C/A	11 x2	15 x2	24
BS2V 2NM 50/25B/A	15 x2	20 x2	24
BS2V 2NM 50/25A/A	18,5 x2	25 x2	24
BS2V 2NM 50M/EE	11 x2	15 x2	24
BS2V 2NM 50M/DE	15 x2	20 x2	24
BS2V 2NM 50M/CE	18,5 x2	25 x2	24
BS2V 2NM 65/16BE	11 x2	15 x2	24
BS2V 2NM 65/16AE	15 x2	20 x2	24
BS2V 2NM 65/20CE	15 x2	20 x2	24
BS2V 2NM 65/20BE	18,5 x2	25 x2	24
BS2V 2NM 65/200AE	22 x2	30 x2	24
BS2V 2NM 65/250CE	22 x2	30 x2	24
BS2V 2NM 65/250BE	30 x2	40 x2	24
BS2V 2NM 65/250AE	37 x2	50 x2	24
BS2V 2NM 80/16BE	15 x2	20 x2	24
BS2V 2NM 80/16AE	18,5 x2	25 x2	24
BS2V 2NM 80/200BE	22 x2	30 x2	24
BS2V 2NM 80/200AE	30 x2	40 x2	24
BS2V 2NM 80/250EE	22 x2	30 x2	24
BS2V 2NM 80/250DE	30 x2	40 x2	24
BS2V 2NM 80/250CE	37 x2	50 x2	24
BS2V 2NM 80/250BE	45 x2	60 x2	24
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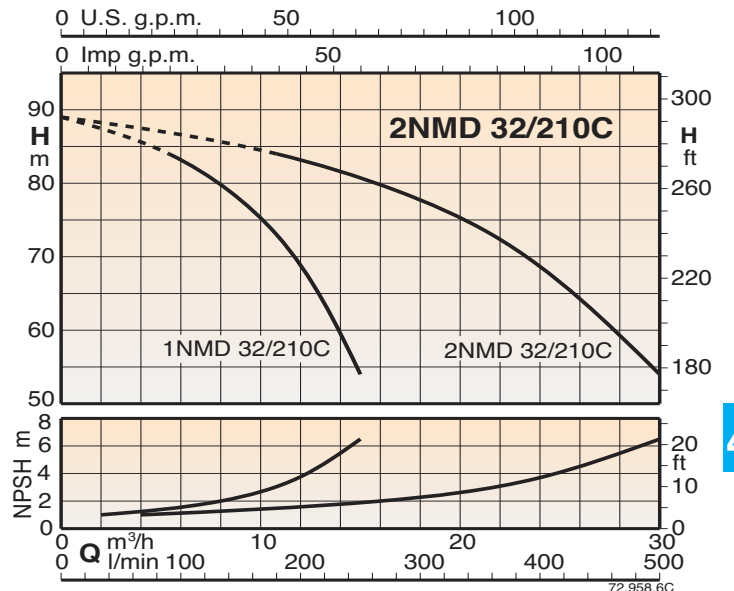
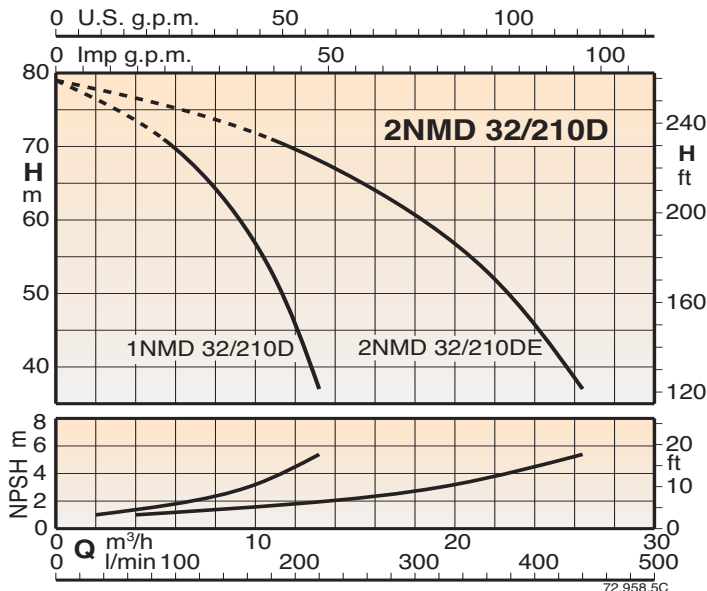
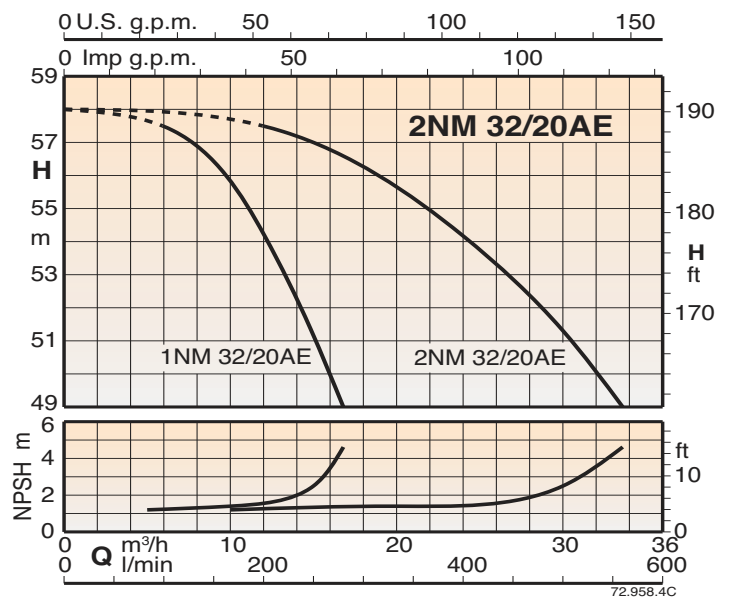
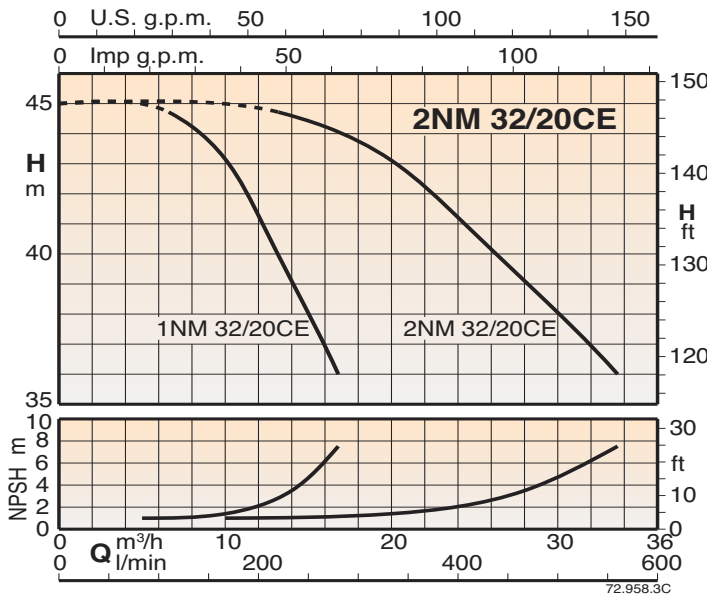
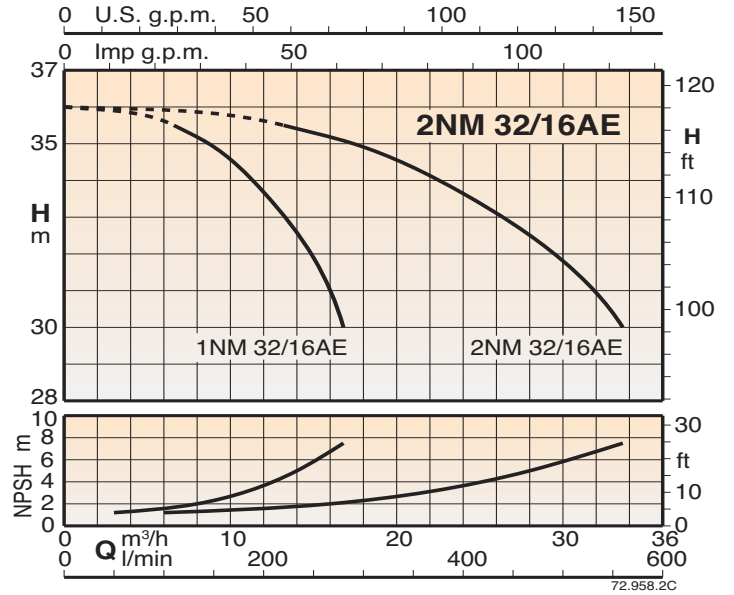
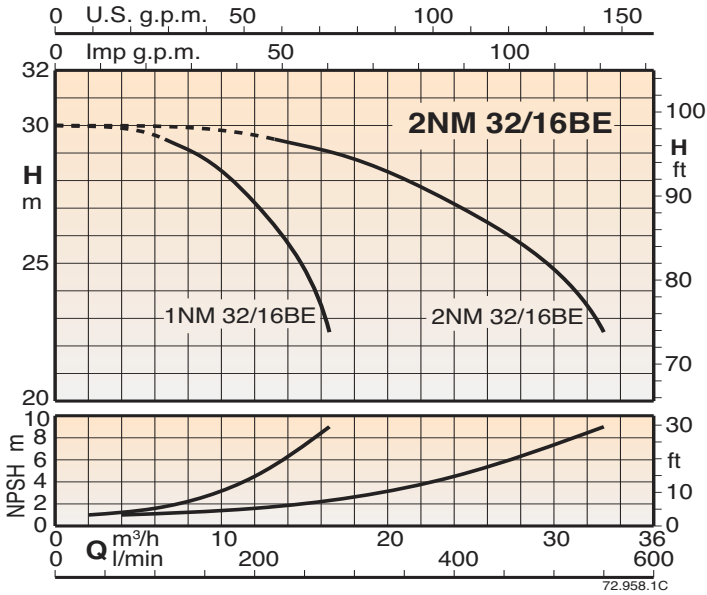
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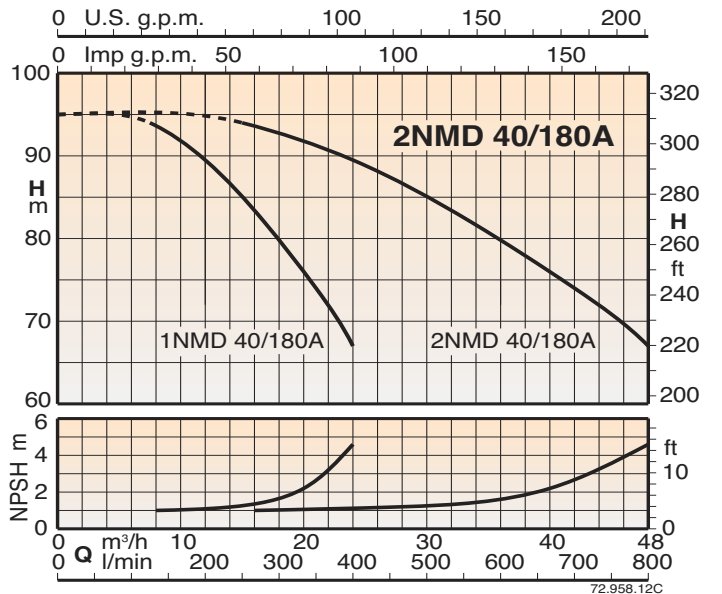
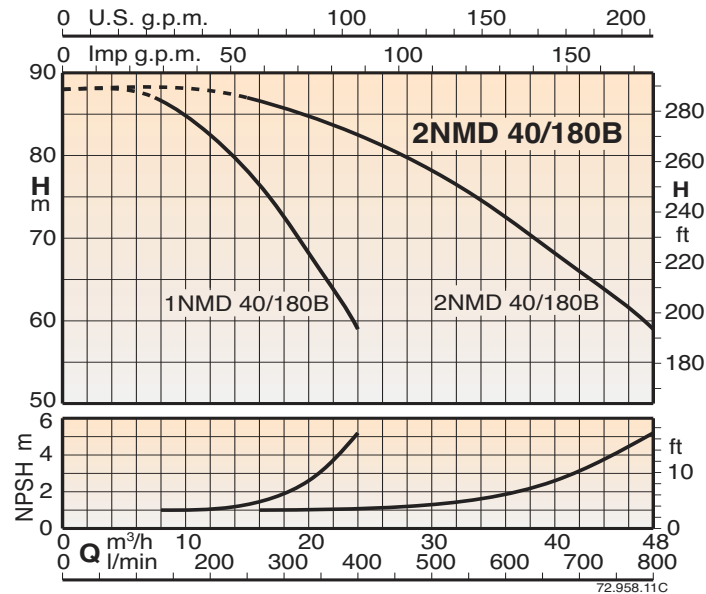
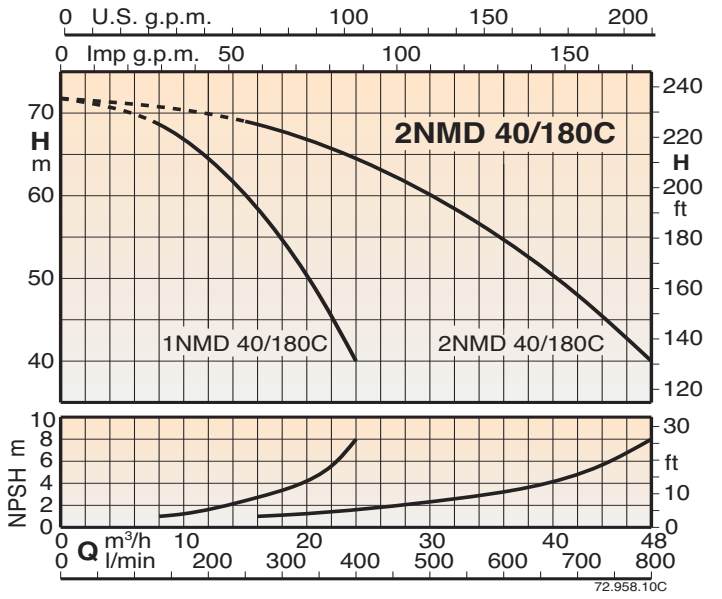
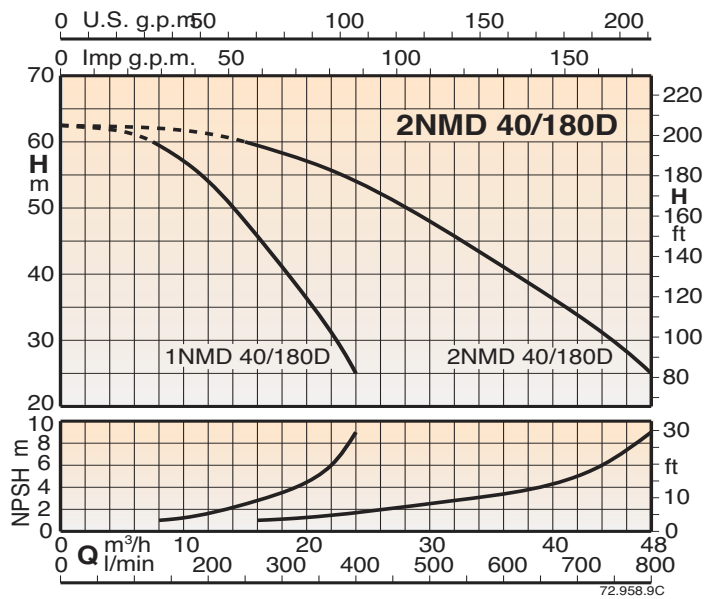
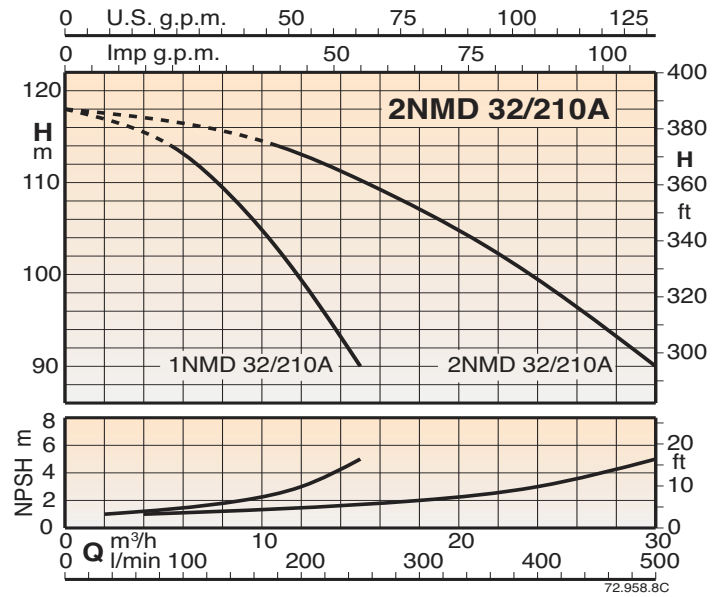
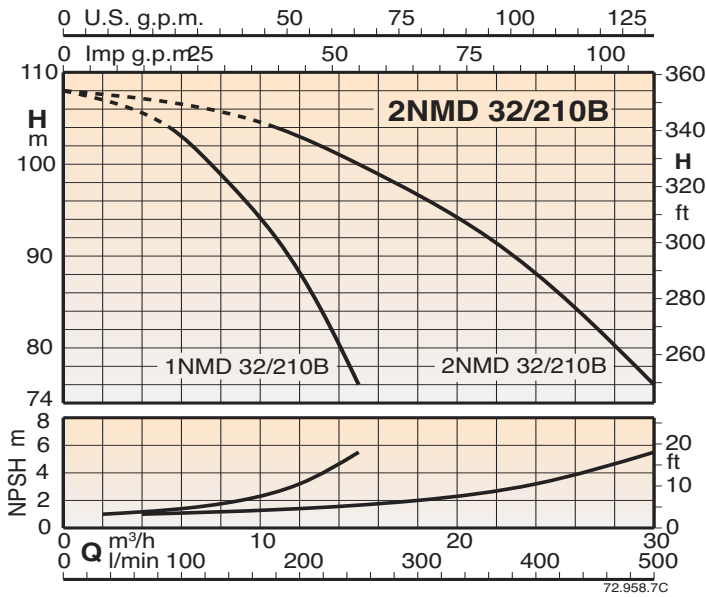
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			H	h1	h2	L2	L1	B	B2	m1	g
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BS.. 2NM 32/16AE				195							
BS.. 2NM 32/20CE	G 3	G 2 1/2	835	195	365	390	490	600	625	235	5
BS.. 2NM 32/20AE				217							
BS.. 2NMD 32/210DE	G 3	G 2 1/2	865	155	380	415	480	700	800	400	5
BS.. 2NMD 32/210CE				182		440					
BS.. 2NMD 32/210BE				182		440					
BS.. 2NMD 32/210AE				217		515					
BS.. 2NMD 40/180DE	G 3	G 2 1/2	865	155	460	410	500	700	800	400	5
BS.. 2NMD 40/180CE				182		435					
BS.. 2NMD 40/180BE				182		435					
BS.. 2NMD 40/180AE				217		510					
BS.. 2NM 40/16B/A	100	80	855	187	380	390	570	820	800	400	5
BS.. 2NM 40/16A/A											
BS.. 2NM 40/20BE	100	80	1055	215	400	425	590	820	800	400	5
BS.. 2NM 40/20AE											
BS.. 2NM 40/25B/A	100	80	1360	240	440	540	590	820	900	140	60
BS.. 2NM 40/25A/A						590					
BS.. 2NM 50/16B/A	125	100	1055	215	435	425	600	820	900	120	55
BS.. 2NM 50/16A/A											
BS.. 2NM 50/20B/A	125	100	1355	215	455	540	600	820	900	120	55
BS.. 2NM 50/20A/A											
BS.. 2NM 50/25C/A	125	100	1360	240	480	545	600	820	900	140	60
BS.. 2NM 50/25B/A						595					
BS.. 2NM 50/25A/A						620					
BS.. 2NM 50M/EE						600					
BS.. 2NM 50M/DE	150	125	1385	217	495	650	825	920	900	240	85
BS.. 2NM 50M/CE						675					
BS.. 2NM 65/16BE	200	150	1360	220	525	540	720	920	900	140	60
BS.. 2NM 65/16AE						590					
BS.. 2NM 65/20CE	200	150	1360	240	550	590	720	920	900	140	60
BS.. 2NM 65/20BE						615				140	60
BS.. 2NM 65/200AE						720				300	100
BS.. 2NM 65/250CE						720				300	100
BS.. 2NM 65/250BE	200	150	1600	260	575	720	1100	1200	300	100	100
BS.. 2NM 65/250AE						845					
BS.. 2NM 80/16BE	250	200	1360	240	615	555	700	1050	1100	140	60
BS.. 2NM 80/16AE						620					
BS.. 2NM 80/200BE	250	200	1600	260	640	720	700	1050	1100	300	100
BS.. 2NM 80/200AE											
BS.. 2NM 80/250EE	250	200	1600	260	670	720	700	1200	1300	300	100
BS.. 2NM 80/250DE						720				300	100
BS.. 2NM 80/250CE						845				400	110
BS.. 2NM 80/250BE						845				400	110
BS.. 2NM 80/250AE						845				400	110

\* Cabinet version

## Coverage chart

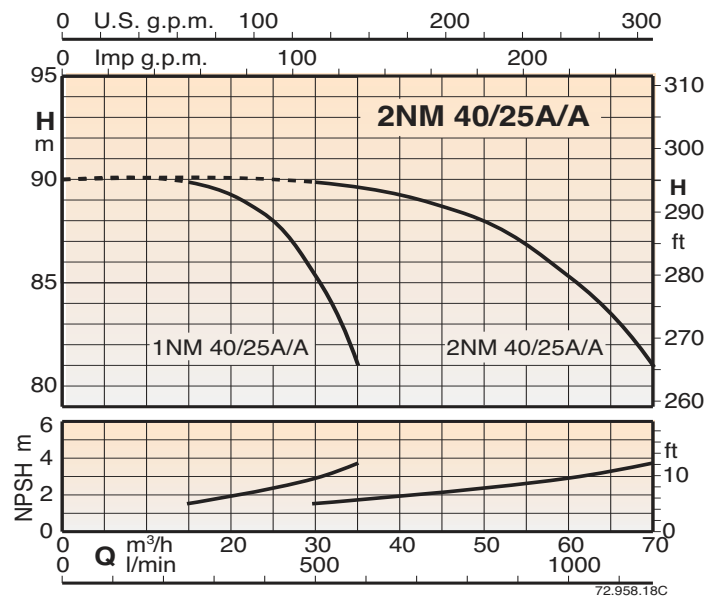
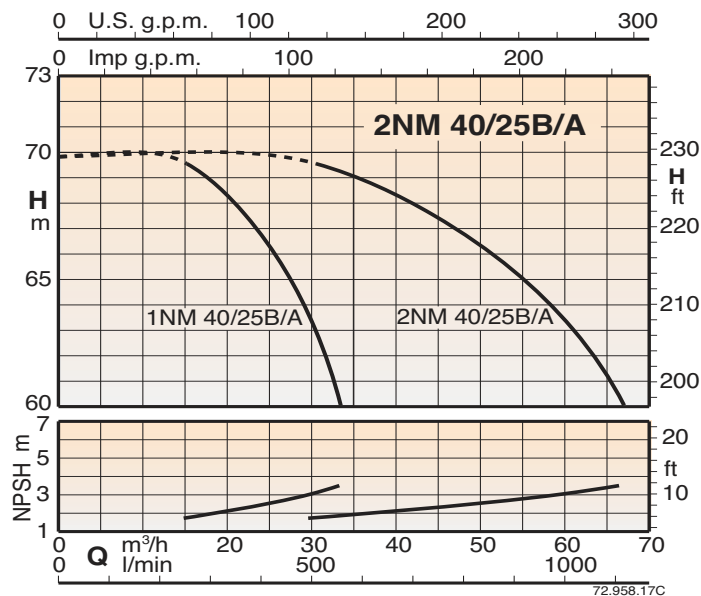
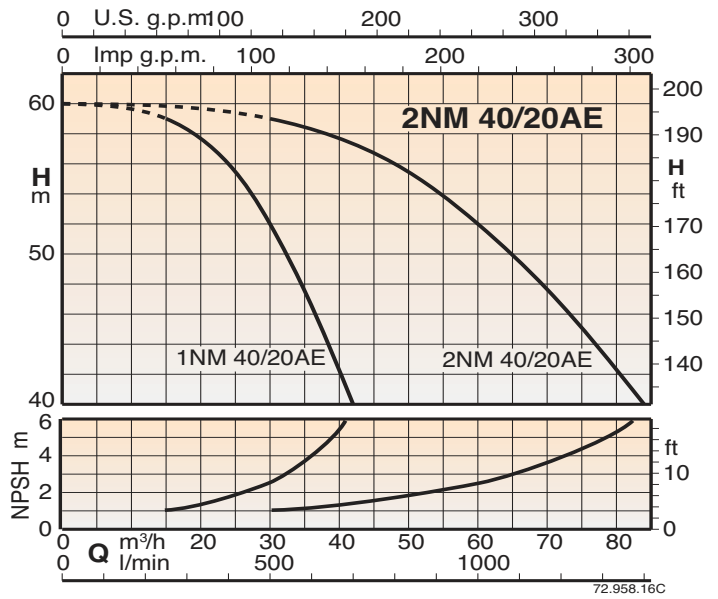
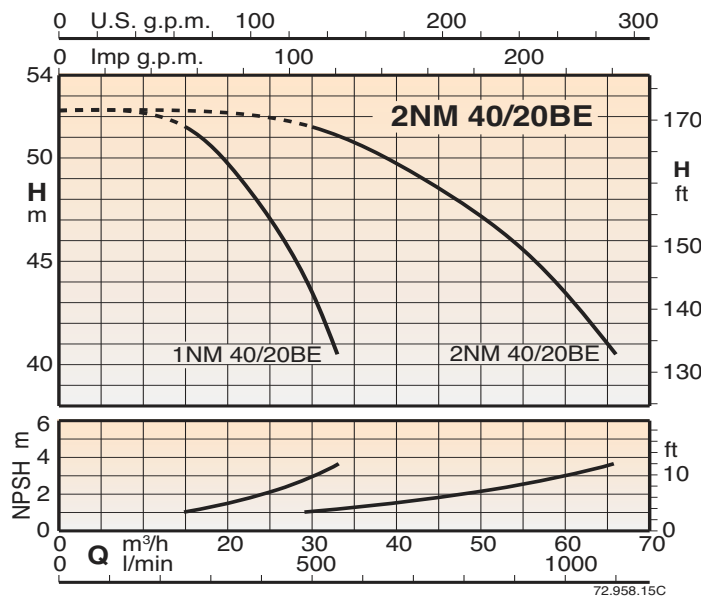
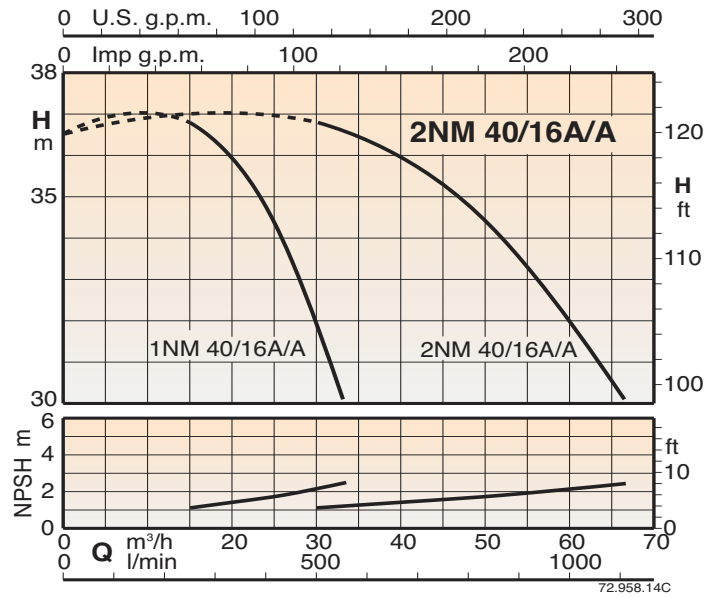
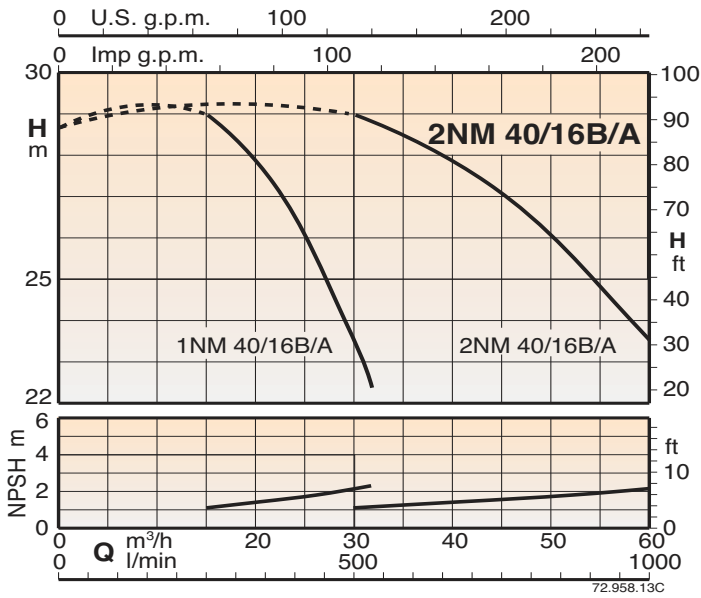


## Coverage chart

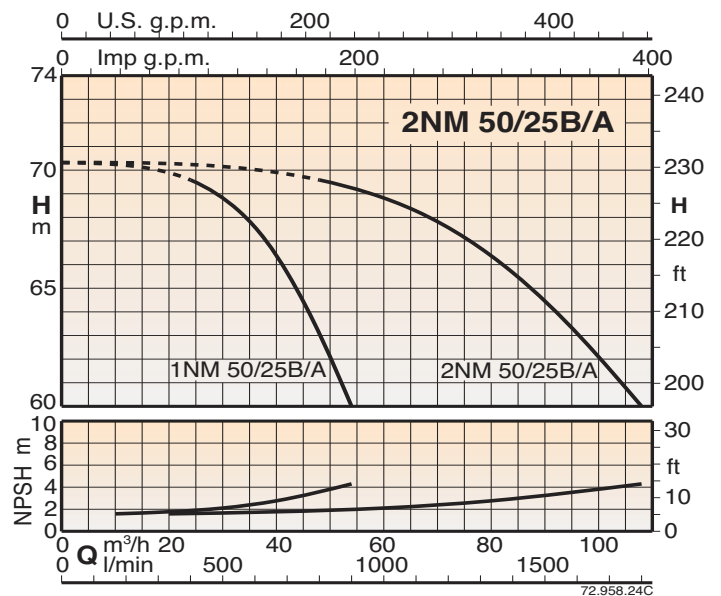
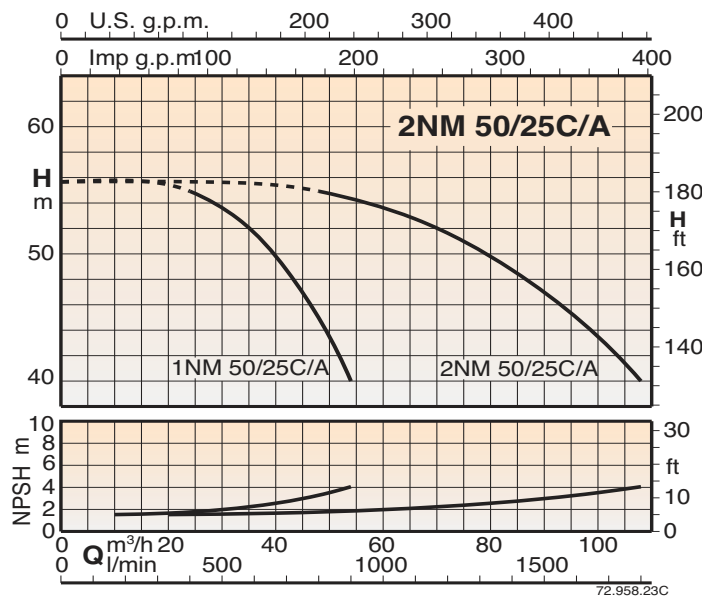
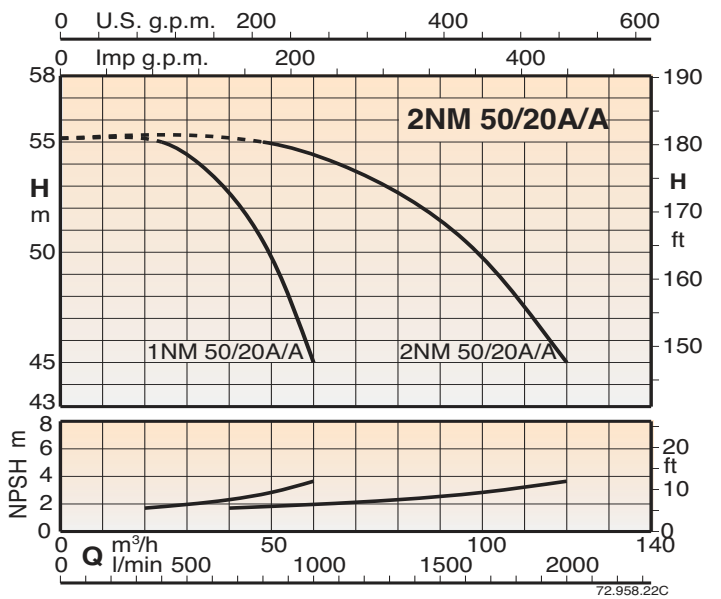
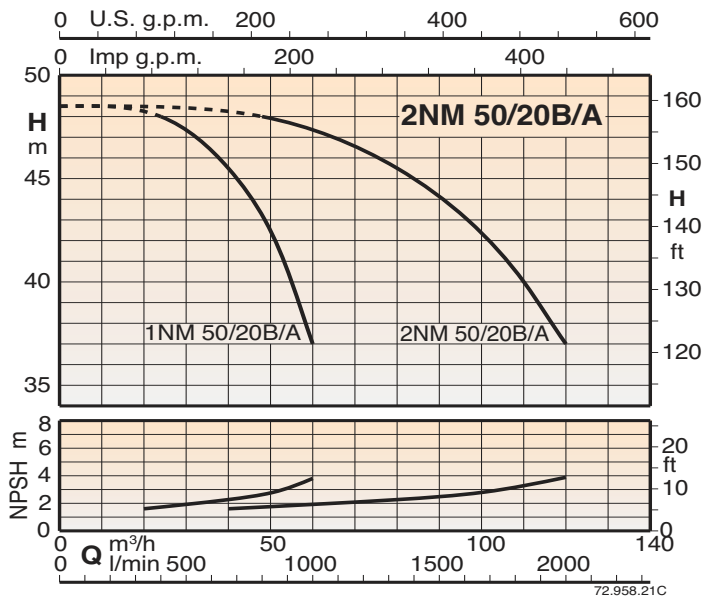
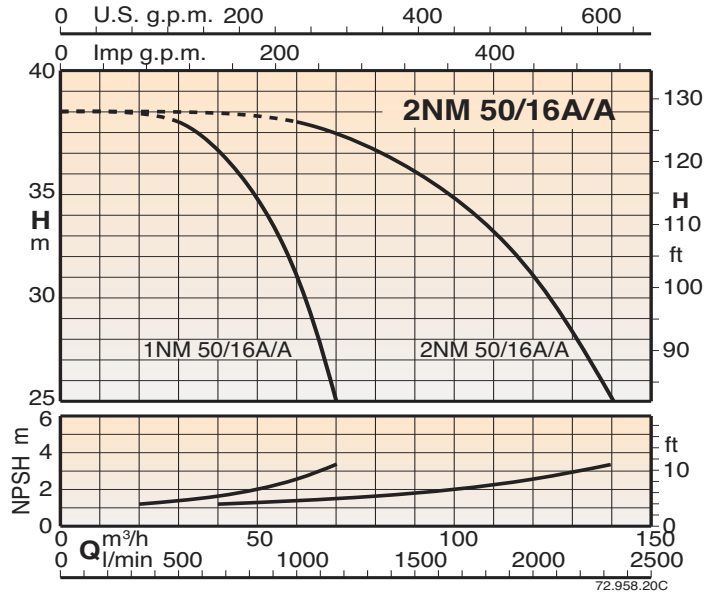
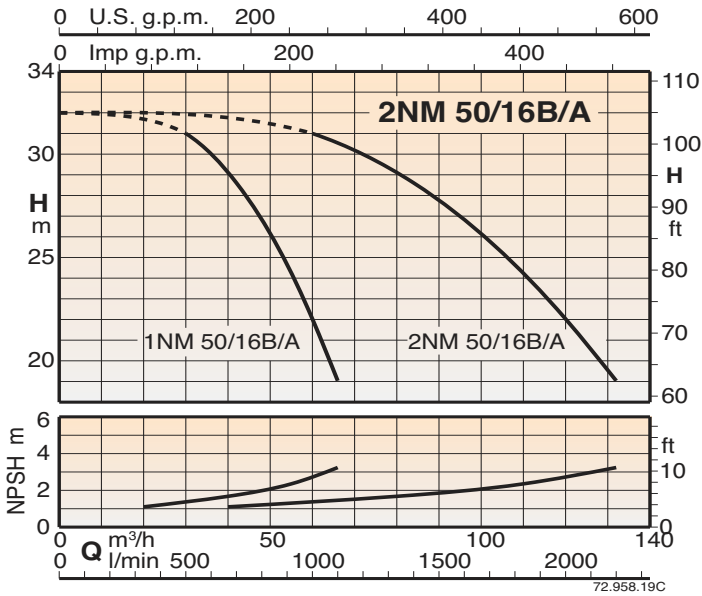




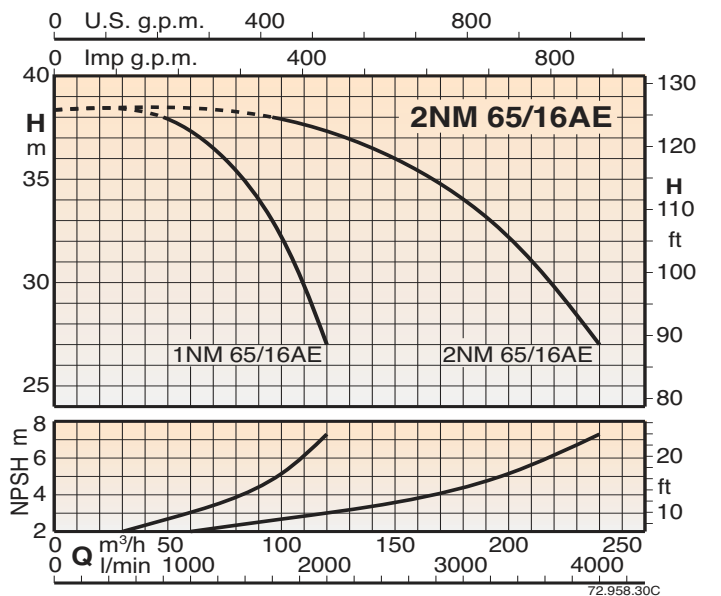
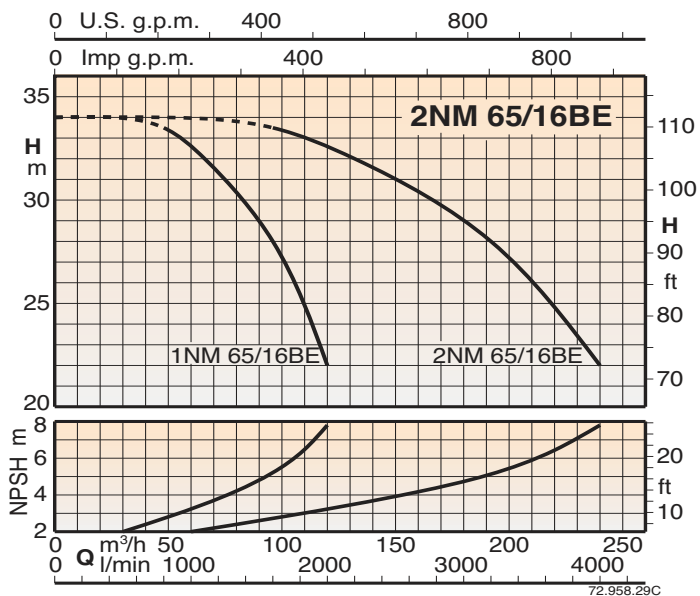
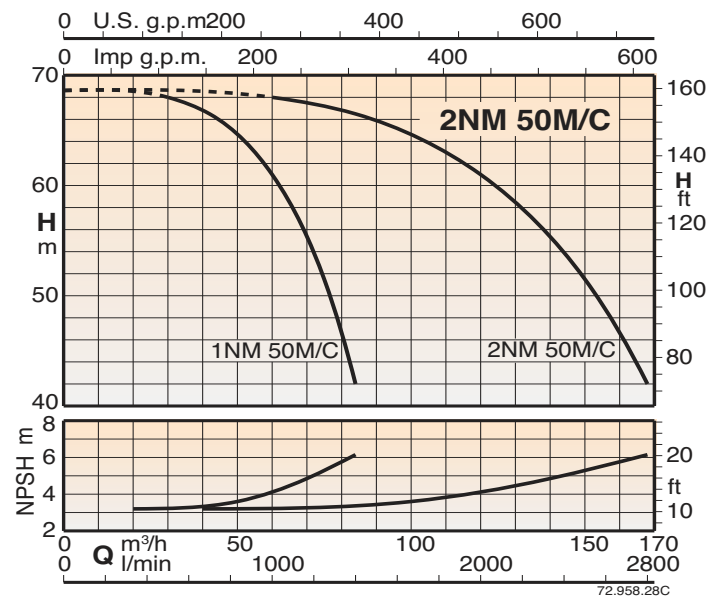
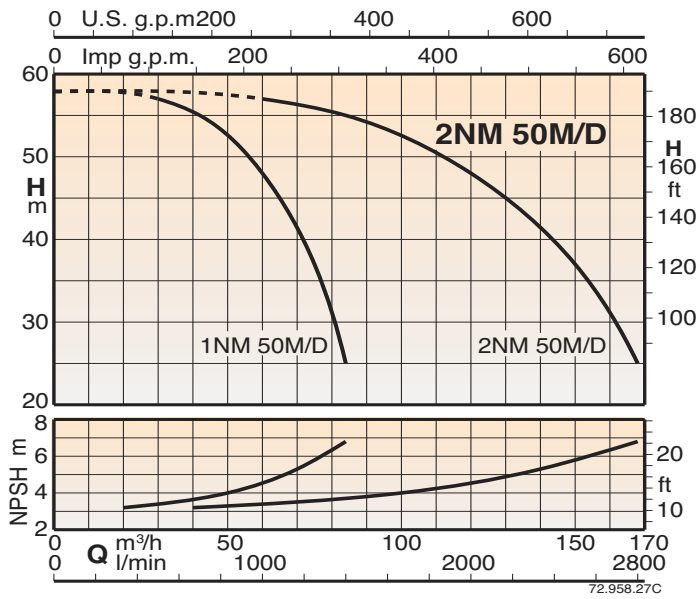
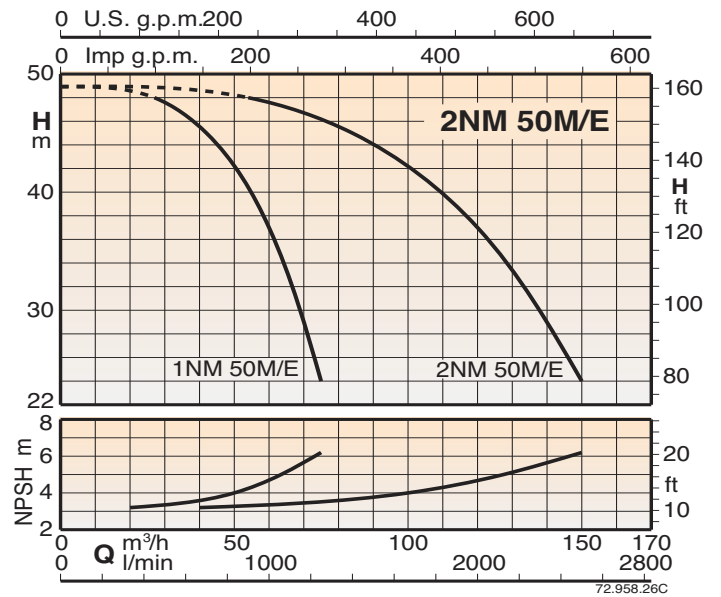
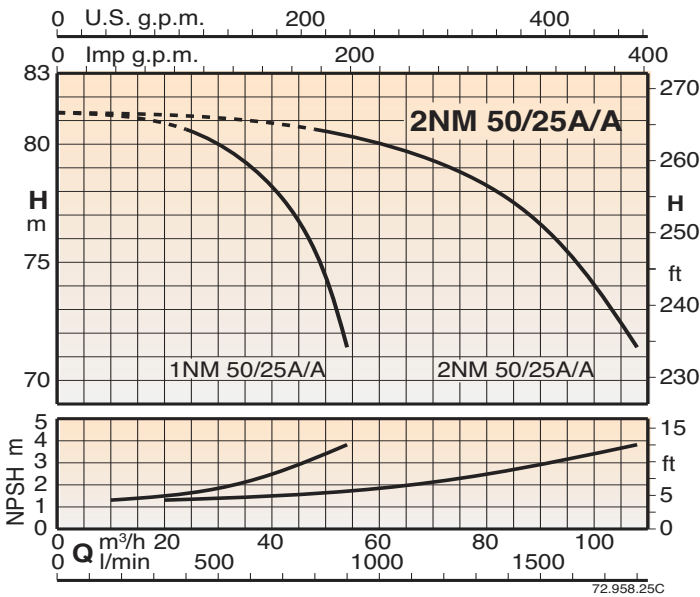
## Coverage chart



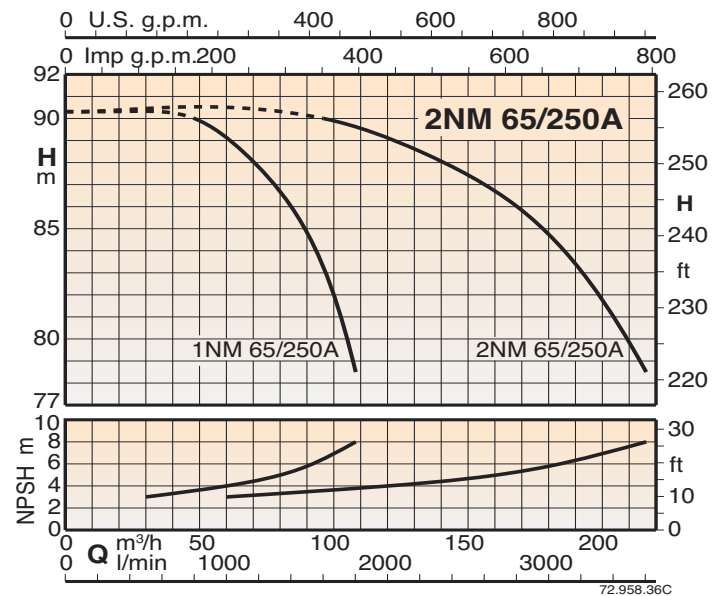
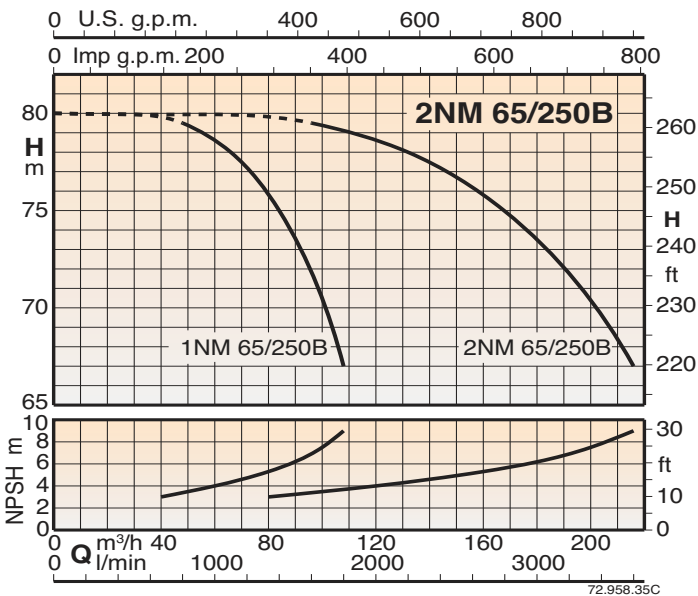
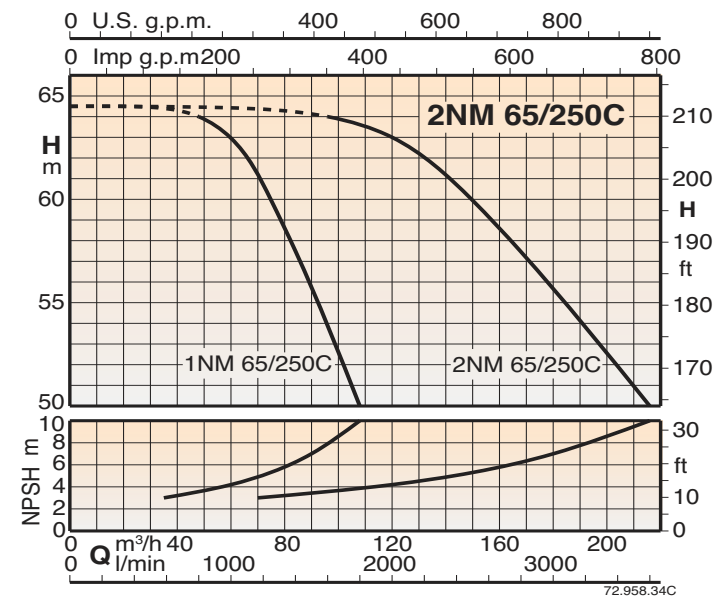
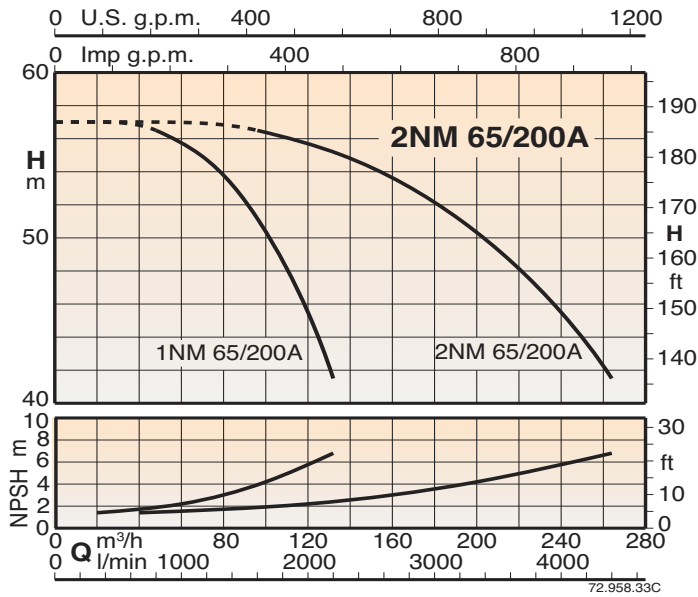
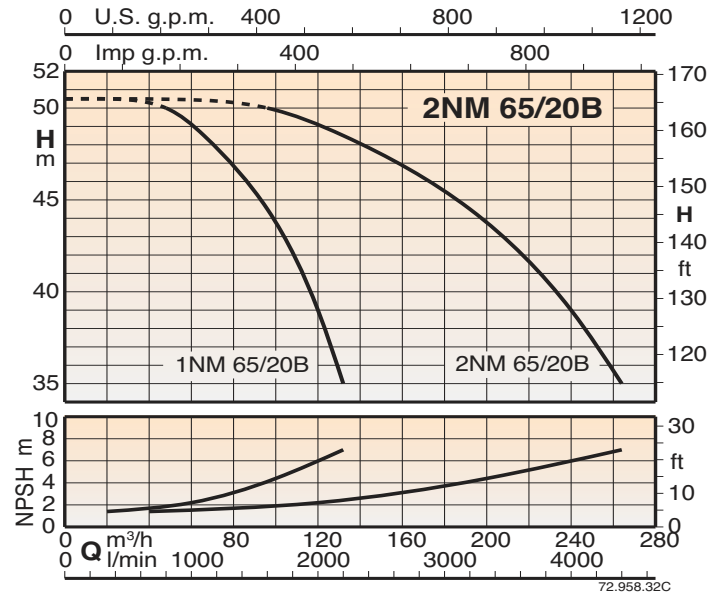
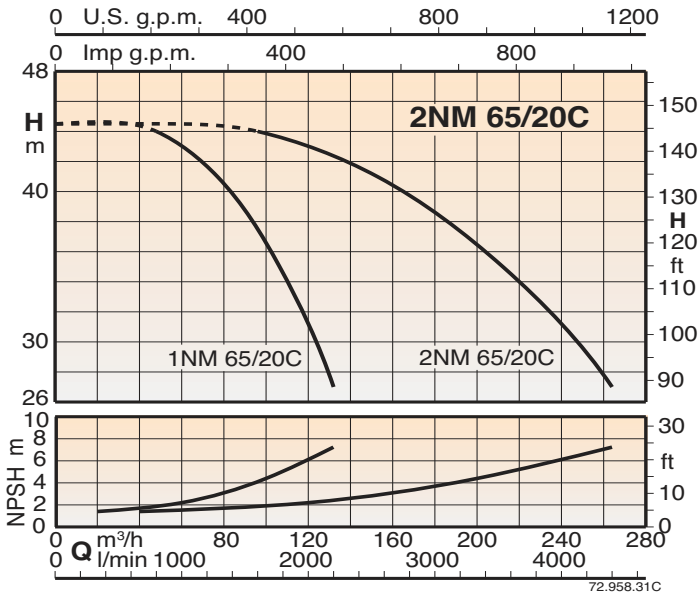
**Coverage chart**



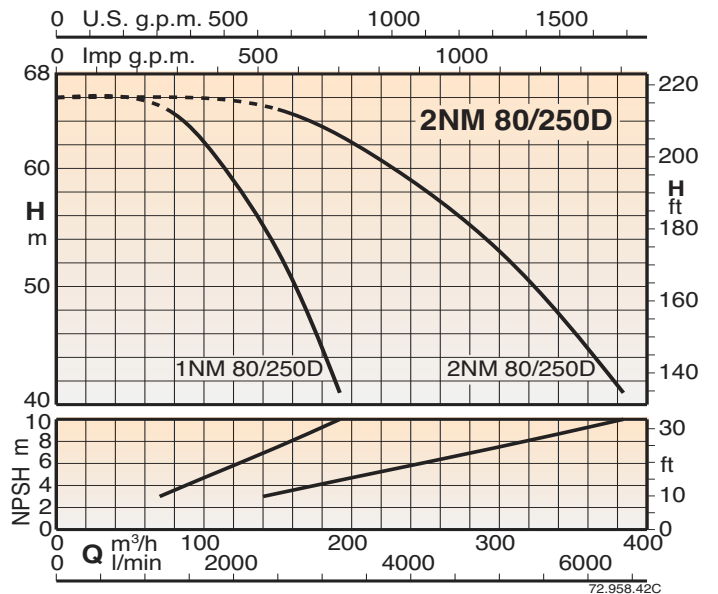
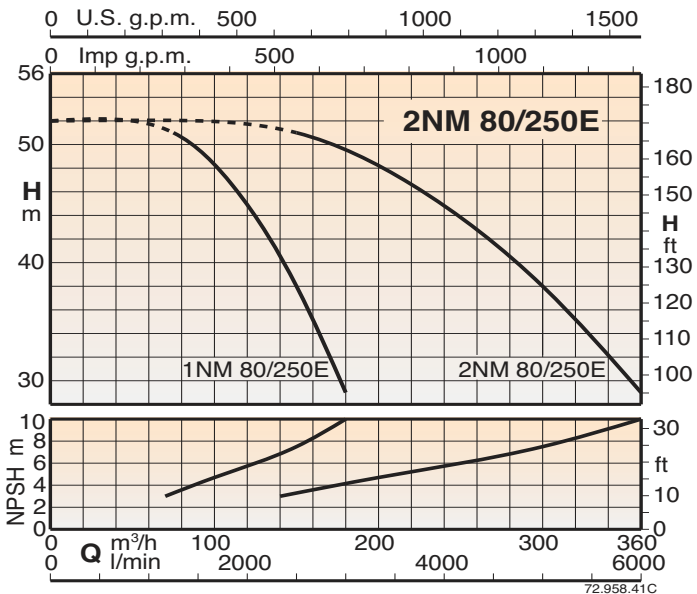
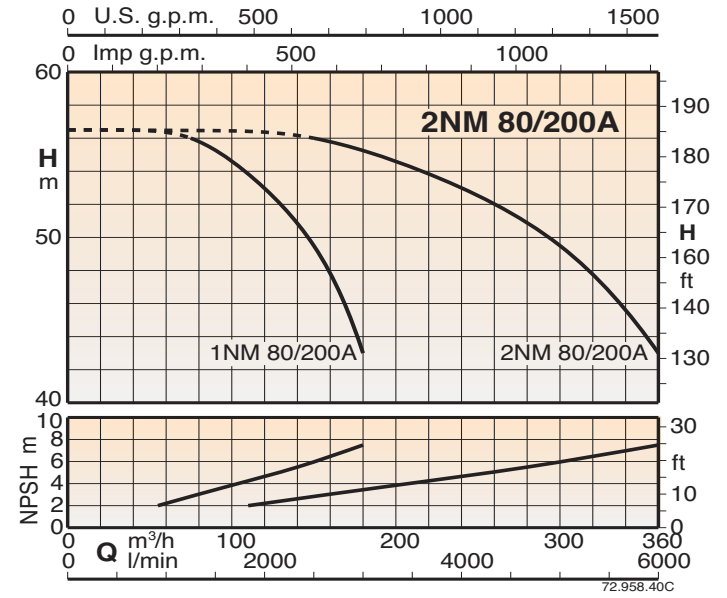
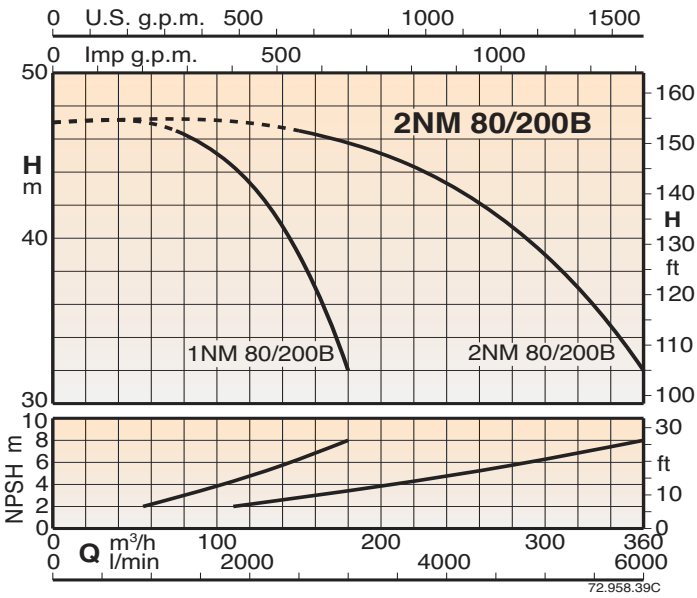
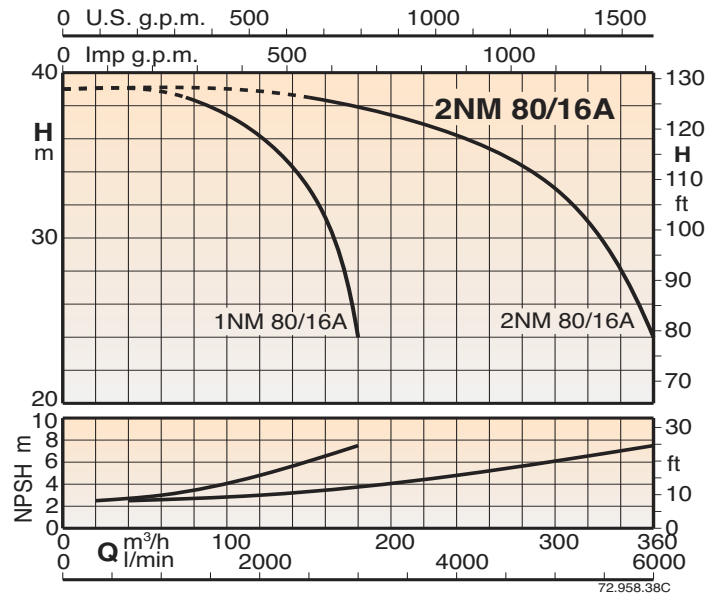
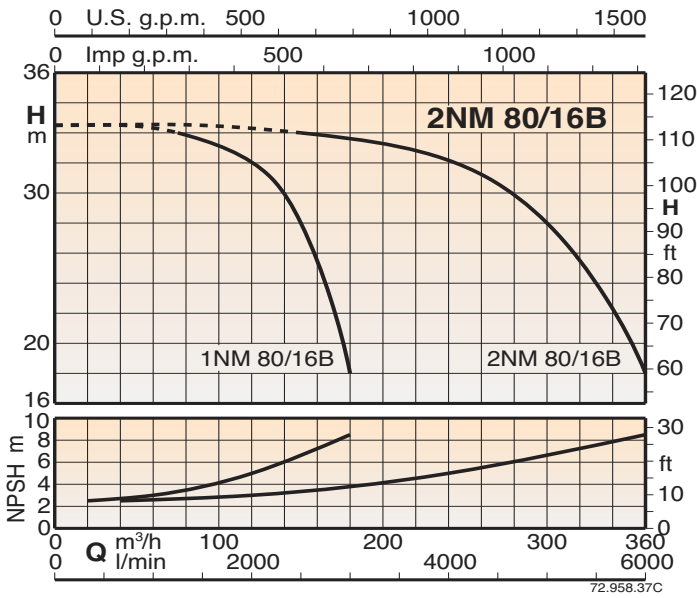
Coverage chart



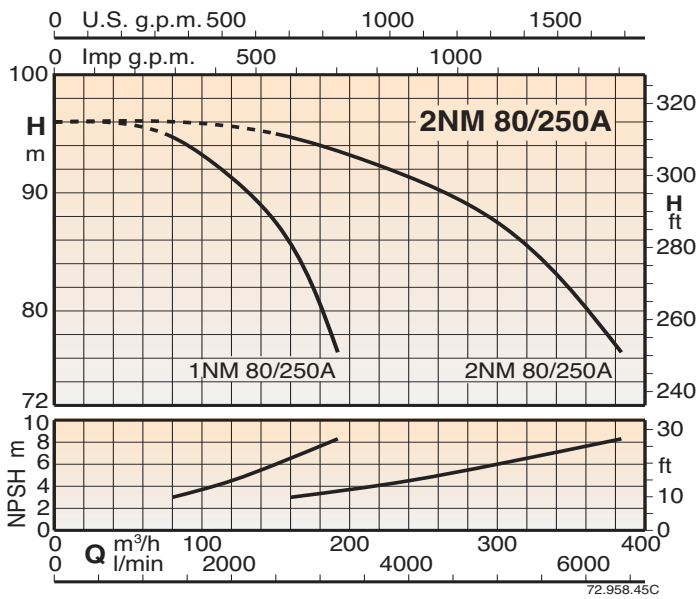
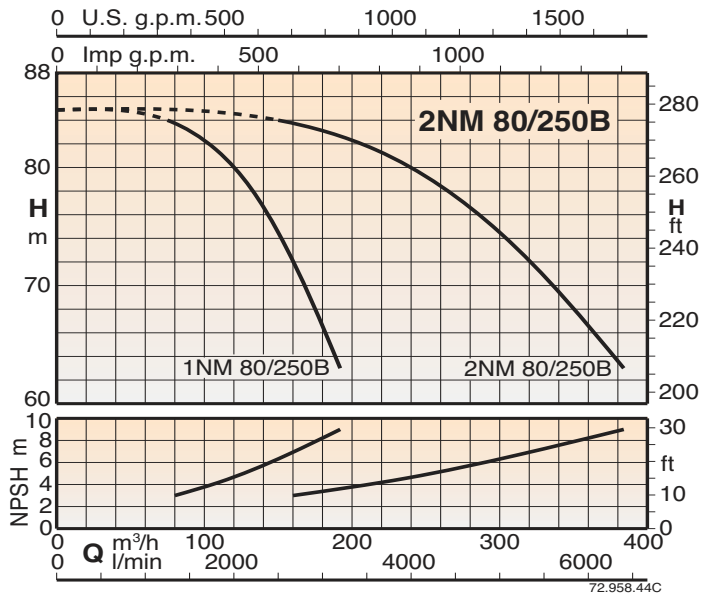
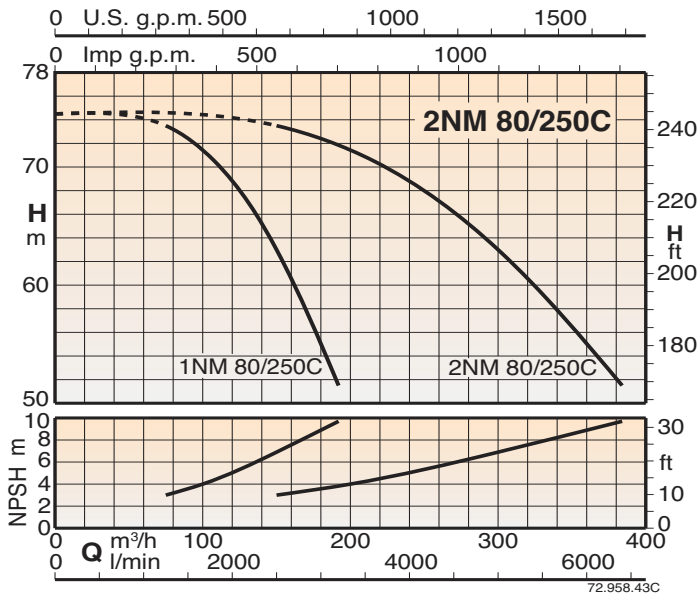
**Coverage chart**

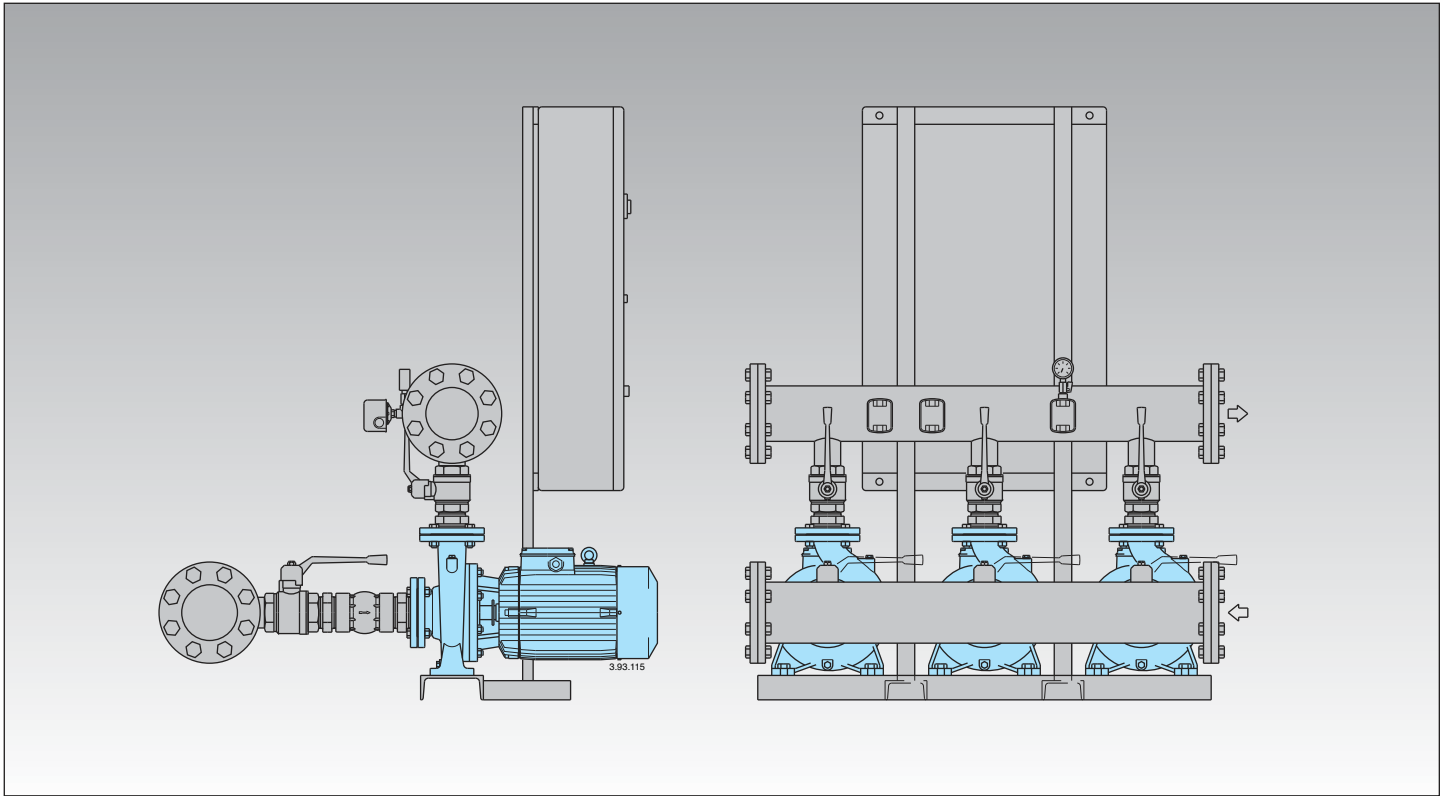


## Coverage chart



## Coverage chart





## Construction

Automatic pressure boosting plant consisting of three centrifugal pumps complete with ball, non return valve on the suction side and ball valves on the discharge side.

Suction and delivery manifolds are in steel.

### Electrical control boards:

- with microprocessor for fixed speed pump units (see page 386). Motor starting is D.O.L. up to 5,5 kW and Y/Δ for power rating 7,5 up to 55 kW.
- with frequency converter for variable speed pump units (see page 387).

The unit includes one pressure gauge and three adjustable differential pressure switches.

## Operation

### BS 3F Fixed speed pump

Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

### BS1V2F Pumps at variable speed with one frequency converter

According to the water consumption, one or more pumps start, one at variable speed and the others at fixed speed, to grant the water quantity required at the set pressure.

### BS3V Pumps at variable speed with three frequency converter

Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

## Applications

To supply water in civil and industrial buildings.

As pressure boosting pump to increase water pressure when needed (follow local rules).

## Motors

2-pole induction motors, 50 Hz, n = 2900 rpm, suitable for operation with frequency converter.

- Three-phase 230/400V ± 10% up to 3 kW;  
400/690V ± 10% from 4 to 55 kW.

Insulation class F.

Protection IP 54.

Constructed in accordance with: IEC 60034.

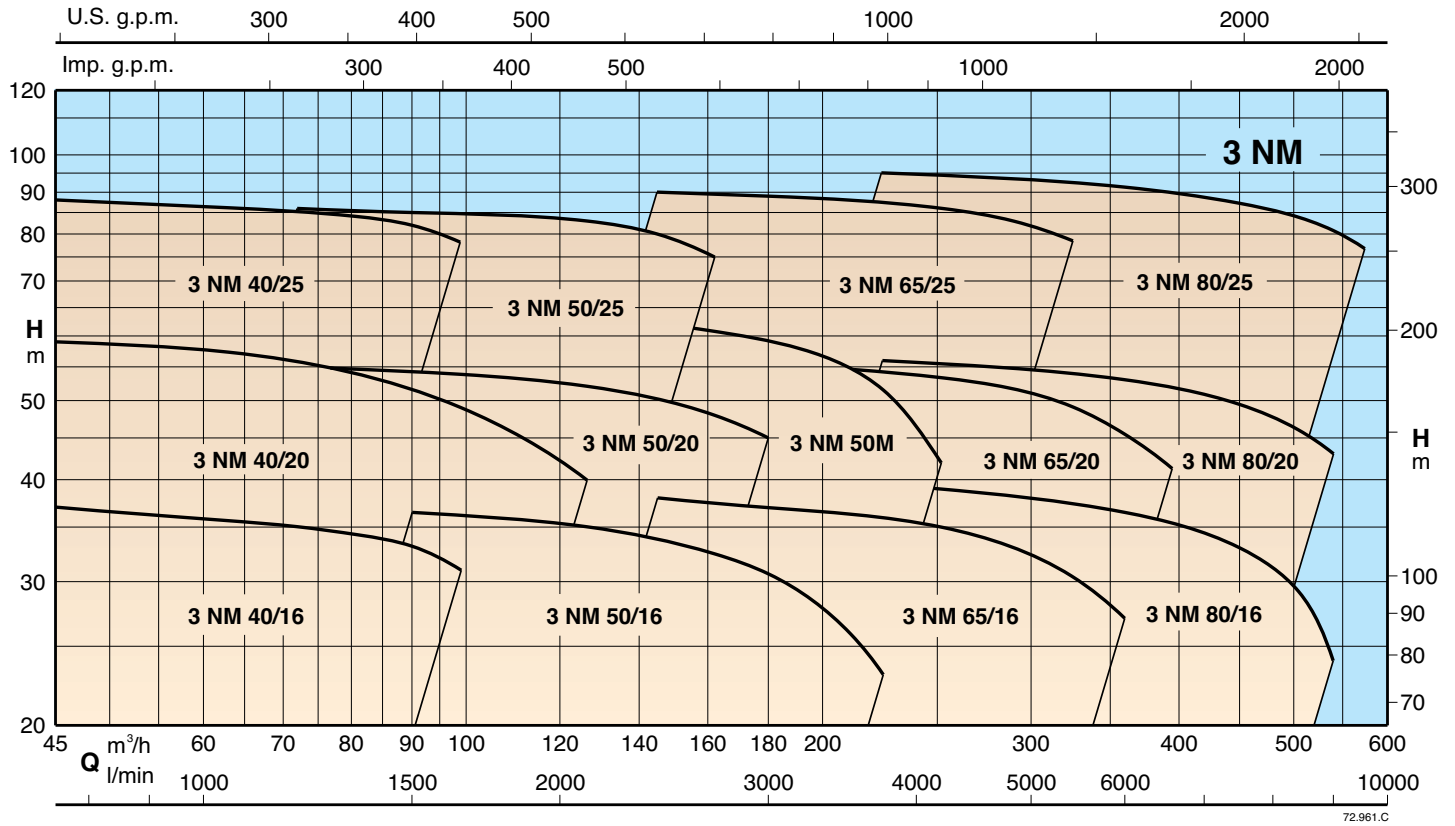
Other voltages and frequencies on request.

## Vessels

When installing the unit, connect in the delivery section to an air cushion vessel.

The recommended sized are shown in the following page.

## Coverage chart





### Performance

#### BS3F

Mains: 400V 3~ Motor: 400V 3~	Motor		Q max* l/min	Total head m	Pres. switch bar	Pres. switch bar	Pres. switch bar	Vessel litre
	kW	HP						
BS3F 3NM 40/16B/A	3+3+3	4+4+4	1500	31,5	2,3÷3,0	2,0÷2,7	1,7÷2,4	2000
BS3F 3NM 40/16A/A	4+4+4	5,5+5,5+5,5	1650	37	2,8÷3,5	2,6÷3,3	2,4÷3,1	3000
BS3F 3NM 40/20BE	5,5+5,5+5,5	7,5+7,5+7,5	1650	51,5	3,8÷4,8	3,5÷4,5	3,2÷4,2	3000
BS3F 3NM 40/20AE	7,5+7,5+7,5	10+10+10	2100	59	4,5÷5,5	4,2÷5,2	3,9÷4,9	3000
BS3F 3NM 40/25B/A	11+11+11	15+15+15	1650	71,5	5,9÷6,9	5,7÷6,7	5,5÷6,5	5000
BS3F 3NM 40/25A/A	15+15+15	20+20+20	1650	88	7,5÷8,5	7,3÷8,3	7,1÷8,1	5000
BS3F 3NM 50/16B/A	5,5+5,5+5,5	7,5+7,5+7,5	3300	31	1,9÷2,9	1,7÷2,7	1,5÷2,5	3000
BS3F 3NM 50/16A/A	7,5+7,5+7,5	10+10+10	3750	36,5	2,4÷3,4	2,2÷3,2	2,0÷3,0	4000
BS3F 3NM 50/20B/A	9,2+9,2+9,2	12,5+12,5+12,5	3000	48	3,5÷4,5	3,3÷4,3	3,0÷4,0	5000
BS3F 3NM 50/20A/A	11+11+11	15+15+15	3000	55	4,2÷5,2	4,0÷5,0	3,8÷4,8	5000
BS3F 3NM 50/25C/A	11+11+11	15+15+15	2700	60,5	4,5÷5,5	4,0÷5,0	3,5÷4,5	5000
BS3F 3NM 50/25B/A	15+15+15	20+20+20	2700	71	5,8÷6,8	5,6÷6,6	5,4÷6,4	5000
BS3F 3NM 50/25A/A	18,5+18,5+18,5	25+25+25	2700	86	6,8÷7,8	6,6÷7,6	6,4÷7,4	5000
BS3F 3NM 50M/EE	11+11+11	15+15+15	3500	48	3,5÷4,5	3,3÷4,3	3,0÷4,0	5000
BS3F 3NM 50M/DE	15+15+15	20+20+20	3800	57	4,2÷5,2	3,9÷4,9	3,5÷4,5	5000
BS3F 3NM 50M/CE	18,5+18,5+18,5	25+25+25	4200	68	5,5÷6,5	4,0÷5,0	4,5÷5,5	5000
BS3F 3NM 65/16BE	11+11+11	15+15+15	6000	33,5	2,0÷3,0	1,8÷2,8	1,6÷2,6	5000
BS3F 3NM 65/16AE	15+15+15	20+20+20	6000	38	2,5÷3,5	2,3÷3,3	2,1÷3,1	5000
BS3F 3NM 65/20CE	15+15+15	20+20+20	6600	44	3,0÷4,0	2,7÷3,7	2,4÷3,4	5000
BS3F 3NM 65/20BE	18,5+18,5+18,5	25+25+25	6600	50	3,6÷4,6	3,3÷4,3	3,0÷4,0	5000
BS3F 3NM 65/200AE	22+22+22	30+30+30	6600	56,5	4,2÷5,2	3,9÷4,9	3,6÷4,6	5000
BS3F 3NM 65/250CE	22+22+22	30+30+30	5400	64	5,0÷6,0	4,7÷5,7	4,4÷5,4	5000
BS3F 3NM 65/250BE	30+30+30	40+40+40	5400	79,5	6,6÷7,6	6,3÷7,3	6,0÷7,0	5000
BS3F 3NM 65/250AE	37+37+37	50+50+50	5400	90	7,7÷8,7	7,4÷8,4	7,1÷8,1	5000
BS3F 3NM 80/16BE	15+15+15	20+20+20	9000	34	2,5÷3,5	2,2÷3,2	1,9÷2,9	5000
BS3F 3NM 80/16AE	18,5+18,5+18,5	25+25+25	9000	38,5	2,0÷3,0	1,8÷2,8	1,6÷2,6	5000
BS3F 3NM 80/200BE	22+22+22	30+30+30	9000	46,5	3,3÷4,3	3,1÷4,1	2,9÷3,9	5000
BS3F 3NM 80/200AE	30+30+30	40+40+40	9000	56	4,3÷5,3	4,1÷5,1	3,9÷4,9	5000
BS3F 3NM 80/250EE	22+22+22	30+30+30	9000	51	3,8÷4,8	3,4÷4,4	3,0÷4,0	5000
BS3F 3NM 80/250DE	30+30+30	40+40+40	9600	65	5,0÷6,0	4,5÷5,5	4,0÷5,0	5000
BS3F 3NM 80/250CE	37+37+37	50+50+50	9600	73,5	6,0÷7,0	5,5÷6,5	5,0÷6,0	5000
BS3F 3NM 80/250BE	45+45+45	60+60+60	9600	84	7,0÷8,0	6,5÷7,5	6,0÷7,0	5000
BS3F 3NM 80/250AE	55+55+55	75+75+75	9600	95	8,0÷9,0	7,6÷8,6	7,2÷8,2	5000

Maximum pumps flow at minimum set pressure of 3<sup>rd</sup> pressure switch.

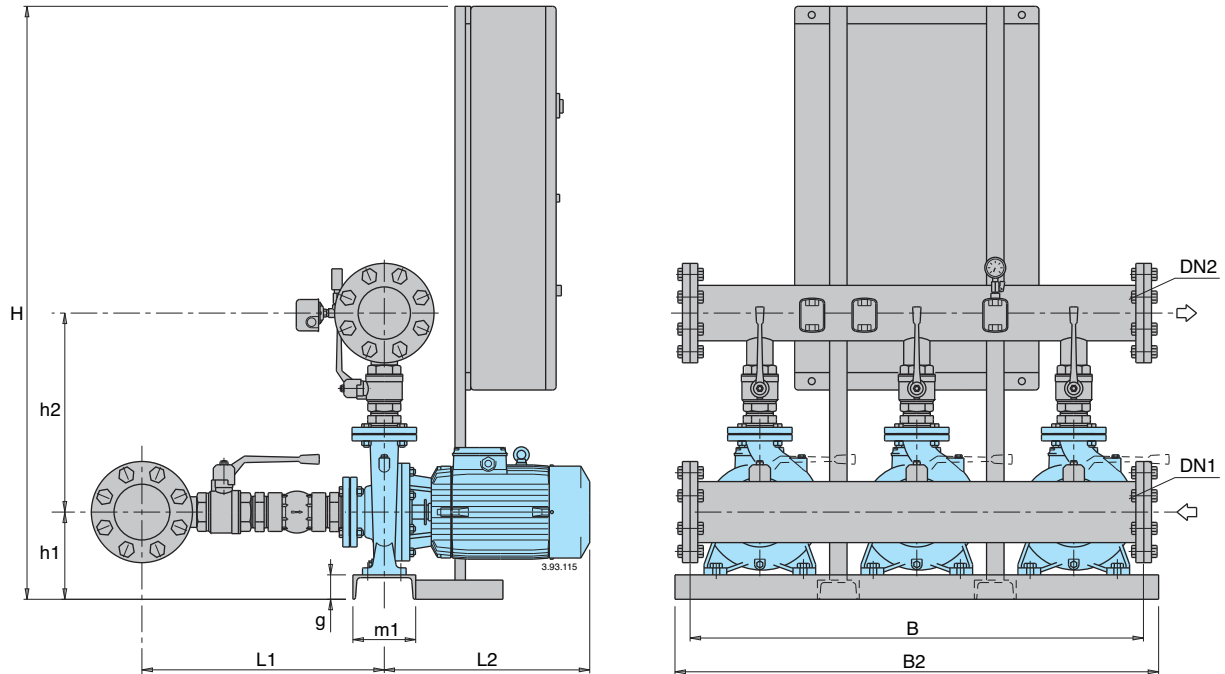
#### BS1V2F

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS1V2F 3NM 40/16B/A	3 x3	4 x3	24
BS1V2F 3NM 40/16A/A	4 x3	5,5 x3	24
BS1V2F 3NM 40/20BE	5,5 x3	7,5 x3	24
BS1V2F 3NM 40/20AE	7,5 x3	10 x3	24
BS1V2F 3NM 40/25B/A	11 x3	15 x3	24
BS1V2F 3NM 40/25A/A	15 x3	20 x3	24
BS1V2F 3NM 50/16B/A	5,5 x3	7,5 x3	24
BS1V2F 3NM 50/16A/A	7,5 x3	10 x3	24
BS1V2F 3NM 50/20B/A	9,2 x3	12,5 x3	24
BS1V2F 3NM 50/20A/A	11 x3	15 x3	24
BS1V2F 3NM 50/25C/A	11 x3	15 x3	24
BS1V2F 3NM 50/25B/A	15 x3	20 x3	24
BS1V2F 3NM 50/25A/A	18,5 x3	25 x3	24
BS1V2F 3NM 50M/EE	11 x3	15 x3	24
BS1V2F 3NM 50M/DE	15 x3	20 x3	24
BS1V2F 3NM 50M/CE	18,5 x3	25 x3	24
BS1V2F 3NM 65/16BE	11 x3	15 x3	24
BS1V2F 3NM 65/16AE	15 x3	20 x3	24
BS1V2F 3NM 65/20CE	15 x3	20 x3	24
BS1V2F 3NM 65/20BE	18,5 x3	25 x3	24
BS1V2F 3NM 65/200AE	22 x3	30 x3	24
BS1V2F 3NM 65/250CE	22 x3	30 x3	24
BS1V2F 3NM 65/250BE	30 x3	40 x3	24
BS1V2F 3NM 65/250AE	37 x3	50 x3	24
BS1V2F 3NM 80/16BE	15 x3	20 x3	24
BS1V2F 3NM 80/16AE	18,5 x3	25 x3	24
BS1V2F 3NM 80/200BE	22 x3	30 x3	24
BS1V2F 3NM 80/200AE	30 x3	40 x3	24
BS1V2F 3NM 80/250EE	22 x3	30 x3	24
BS1V2F 3NM 80/250DE	30 x3	40 x3	24
BS1V2F 3NM 80/250CE	37 x3	50 x3	24
BS1V2F 3NM 80/250BE	45 x3	60 x3	24
BS1V2F 3NM 80/250AE	55 x3	75 x3	24

#### BS3V

Mains: 400V 3~ Motor: 400V 3~	Motor		Vessel Membrane litre
	kW	HP	
BS3V 3NM 40/16B/A	3 x3	4 x3	24
BS3V 3NM 40/16A/A	4 x3	5,5 x3	24
BS3V 3NM 40/20BE	5,5 x3	7,5 x3	24
BS3V 3NM 40/20AE	7,5 x3	10 x3	24
BS3V 3NM 40/25B/A	11 x3	15 x3	24
BS3V 3NM 40/25A/A	15 x3	20 x3	24
BS3V 3NM 50/16B/A	5,5 x3	7,5 x3	24
BS3V 3NM 50/16A/A	7,5 x3	10 x3	24
BS3V 3NM 50/20B/A	9,2 x3	12,5 x3	24
BS3V 3NM 50/20A/A	11 x3	15 x3	24
BS3V 3NM 50/25C/A	11 x3	15 x3	24
BS3V 3NM 50/25B/A	15 x3	20 x3	24
BS3V 3NM 50/25A/A	18,5 x3	25 x3	24
BS3V 3NM 50M/EE	11 x3	15 x3	24
BS3V 3NM 50M/DE	15 x3	20 x3	24
BS3V 3NM 50M/CE	18,5 x3	25 x3	24
BS3V 3NM 65/16BE	11 x3	15 x3	24
BS3V 3NM 65/16AE	15 x3	20 x3	24
BS3V 3NM 65/20CE	15 x3	20 x3	24
BS3V 3NM 65/20BE	18,5 x3	25 x3	24
BS3V 3NM 65/200AE	22 x3	30 x3	24
BS3V 3NM 65/250CE	22 x3	30 x3	24
BS3V 3NM 65/250BE	30 x3	40 x3	24
BS3V 3NM 65/250AE	37 x3	50 x3	24
BS3V 3NM 80/16BE	15 x3	20 x3	24
BS3V 3NM 80/16AE	18,5 x3	25 x3	24
BS3V 3NM 80/200BE	22 x3	30 x3	24
BS3V 3NM 80/200AE	30 x3	40 x3	24
BS3V 3NM 80/250EE	22 x3	30 x3	24
BS3V 3NM 80/250DE	30 x3	40 x3	24
BS3V 3NM 80/250CE	37 x3	50 x3	24
BS3V 3NM 80/250BE	45 x3	60 x3	24
BS3V 3NM 80/250AE	55 x3	75 x3	24

### Dimensions

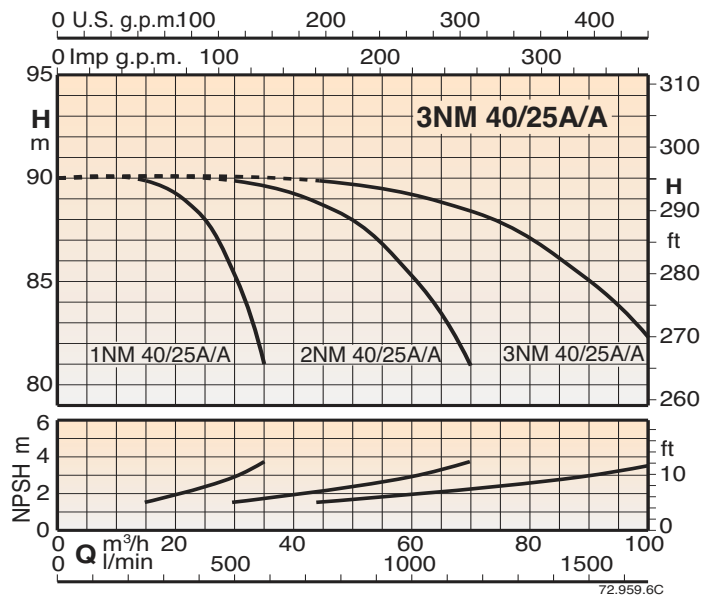
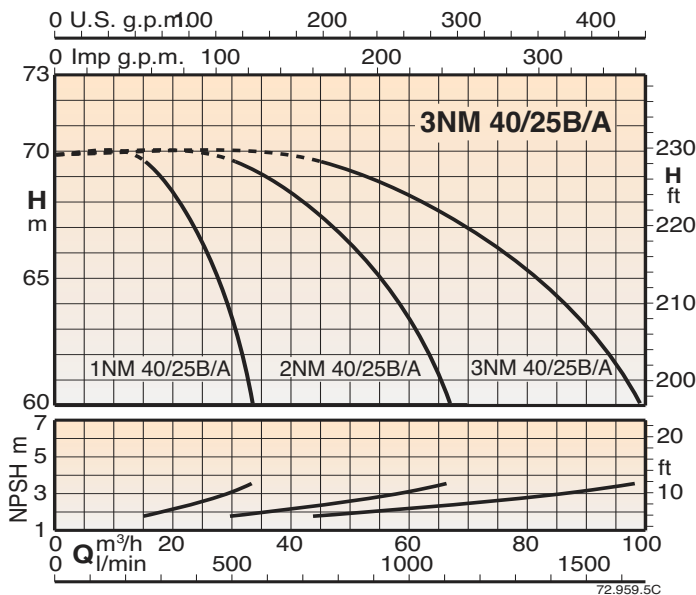
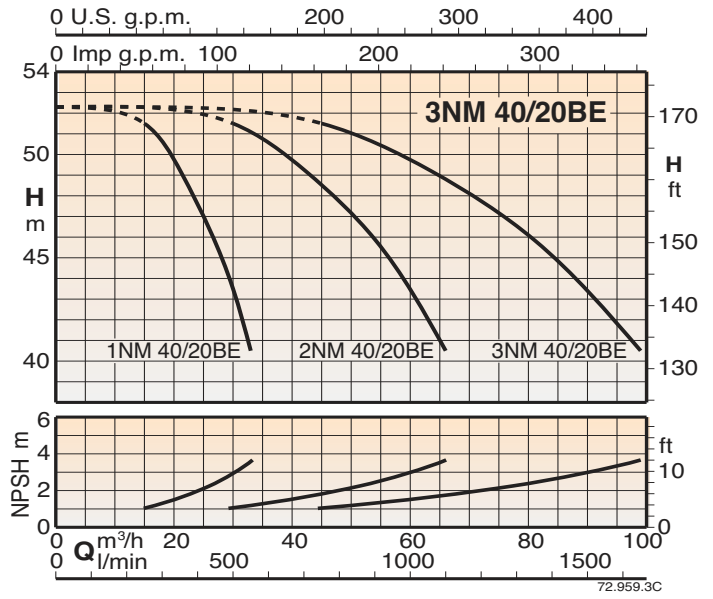
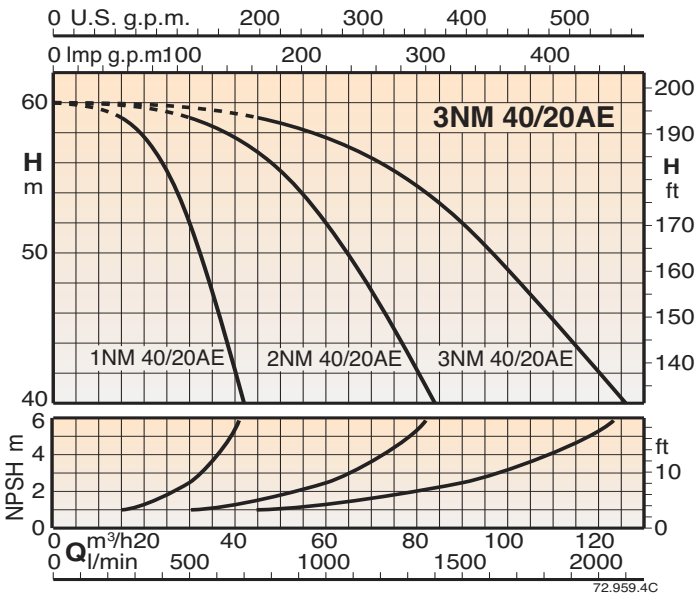
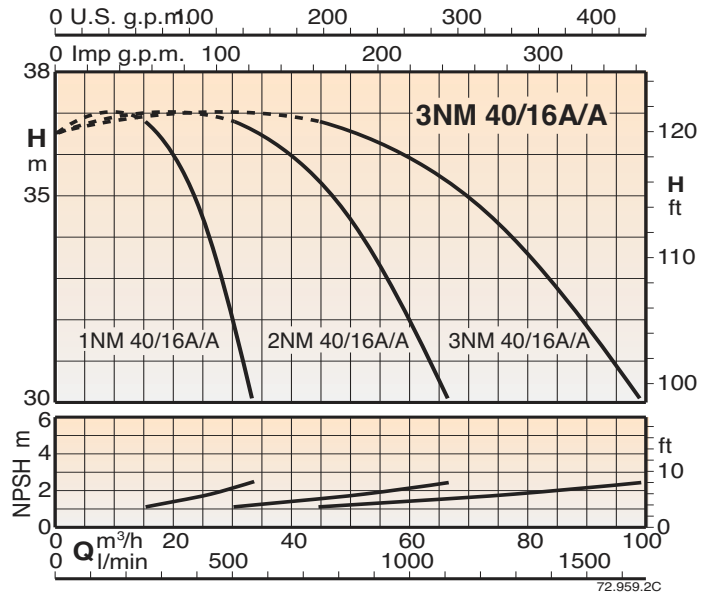
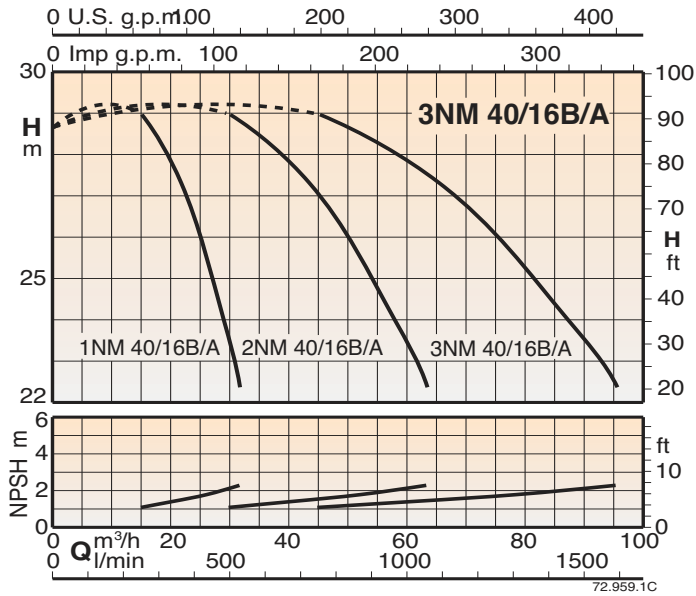


TYPE	DN1	DN2	mm									
			H	h1	h2	L2	L1	B	B2	m1	g	
BS.. 3NM 40/16B/A BS.. 3NM 40/16A/A	125	100	1055	187	390	390	583	1200	1350	120	55	
BS.. 3NM 40/20BE BS.. 3NM 40/20AE	125	100	1355	215	410	425	603	1200	1350	120	55	
BS.. 3NM 40/25B/A BS.. 3NM 40/25A/A	125	100	1560	240	450	540 590	603	1400	1550	140	60	
BS.. 3NM 50/16B/A BS.. 3NM 50/16A/A	150	125	1355	215	448	425	613	1200	1350	120	55	
BS.. 3NM 50/20B/A BS.. 3NM 50/20A/A	150	125	1555	215	468	540	613	1200	1350	120	55	
BS.. 3NM 50/25C/A BS.. 3NM 50/25B/A BS.. 3NM 50/25A/A	150	125	1560 1560 1760	240	493	545 595 620	613	1400	1550	140	60	
BS.. 3NM 50M/EE BS.. 3NM 50M/DE BS.. 3NM 50M/CE	200	150	1585 1585 1785	217	508	600 650 675	855	1400	1450	240	85	
BS.. 3NM 65/16BE BS.. 3NM 65/16AE	250	200	1560	220	555	540 590	750	1500	1550	140	60	
BS.. 3NM 65/20CE BS.. 3NM 65/20BE BS.. 3NM 65/200AE	250	200	1560 1760 1800	240 240 260	580	590 615 720	750	1500	1550	140 140 300	60 60 100	
BS.. 3NM 65/250CE BS.. 3NM 65/250BE BS.. 3NM 65/250AE	250	200	1800 1800 1810	260 260 310	605	720 720 845	750	1800	1900	300 300 400	100 100 110	
BS.. 3NM 80/16BE BS.. 3NM 80/16AE	300 <sup>(1)</sup>	250	1560 1760	240	645	595 620	725	1500	1550	140	60	
BS.. 3NM 80/200BE BS.. 3NM 80/200AE	300 <sup>(1)</sup>	250	1800	260	670	720	725	1500	1550	300	100	
BS.. 3NM 80/250EE BS.. 3NM 80/250DE BS.. 3NM 80/250CE BS.. 3NM 80/250BE BS.. 3NM 80/250AE	300 <sup>(1)</sup>	250	1800 1800 1810 1800* 1800*	260 260 310 310 310	700	720 720 845 845 845	725	1800	1900	300 300 400 400 400	100 100 110 110 110	

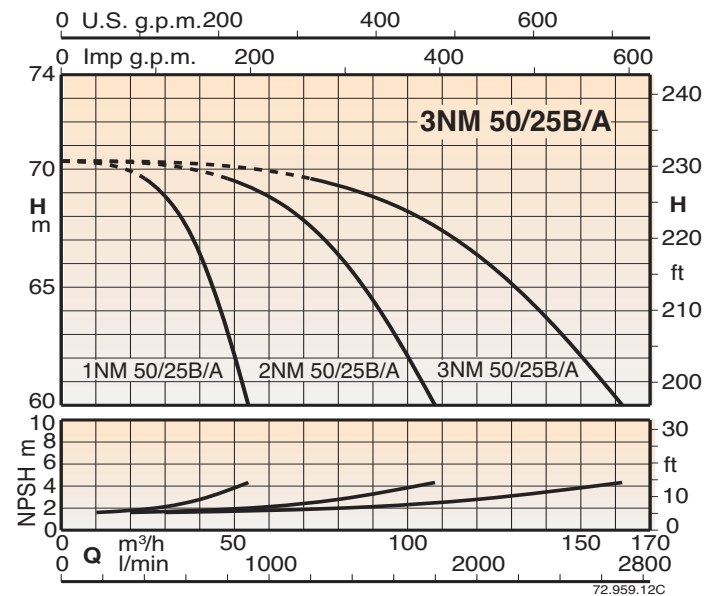
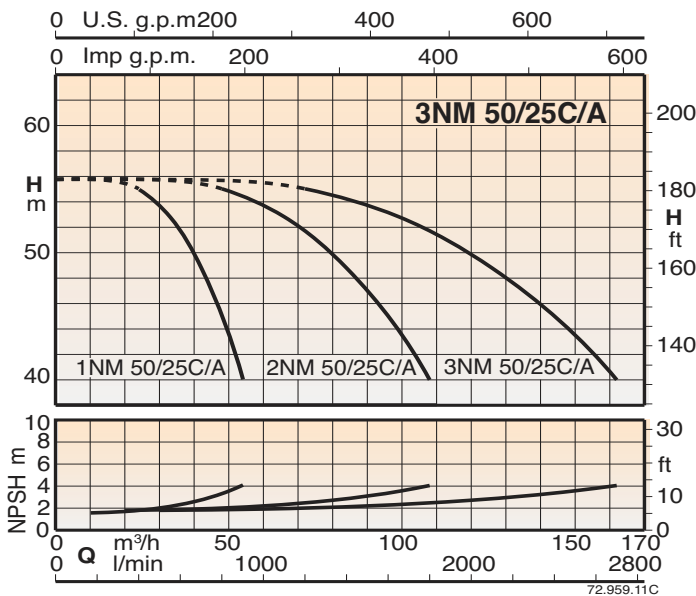
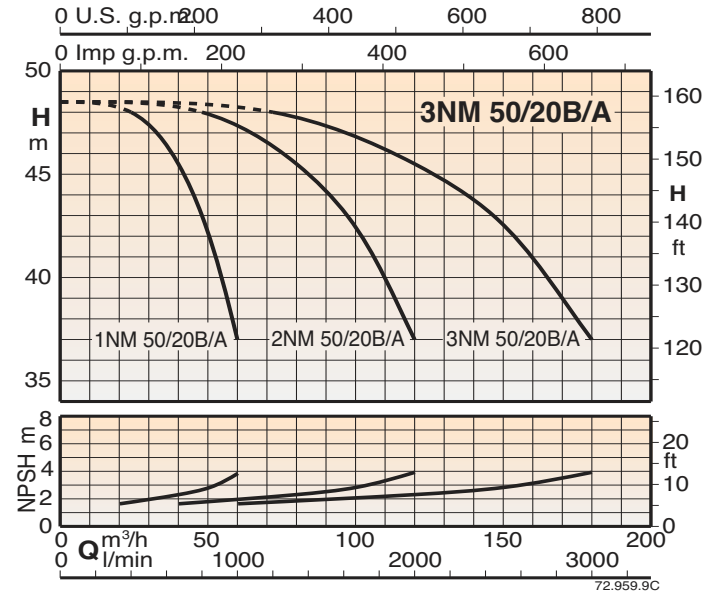
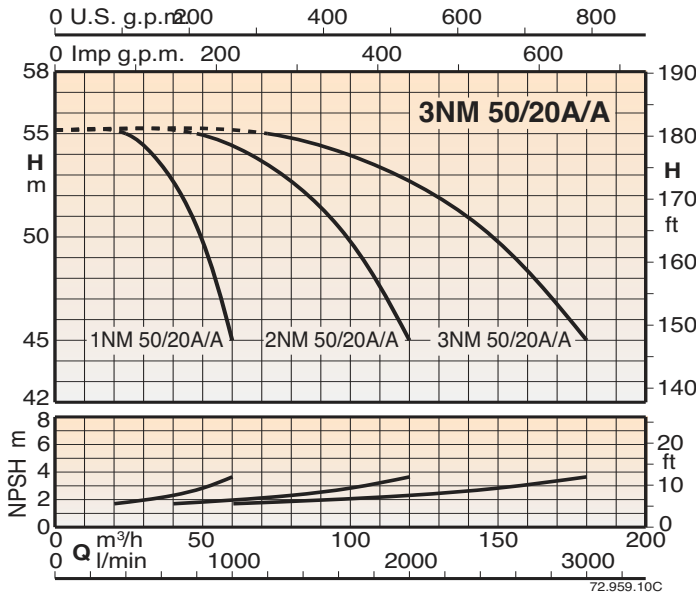
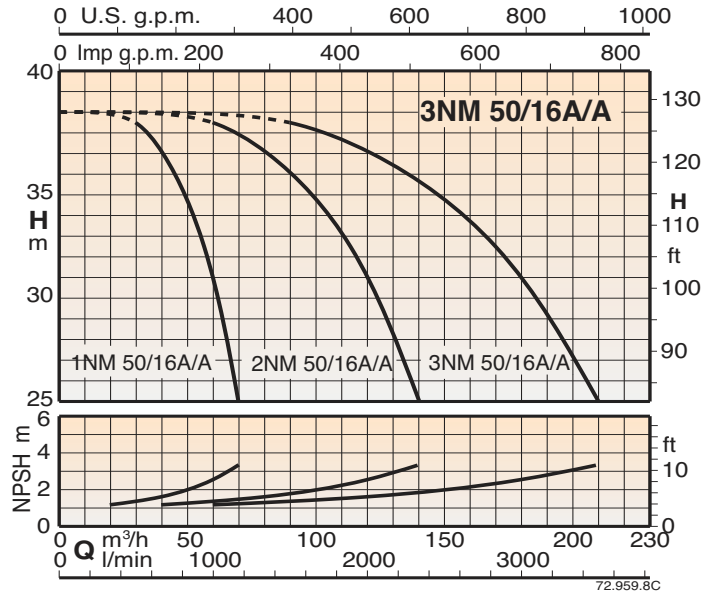
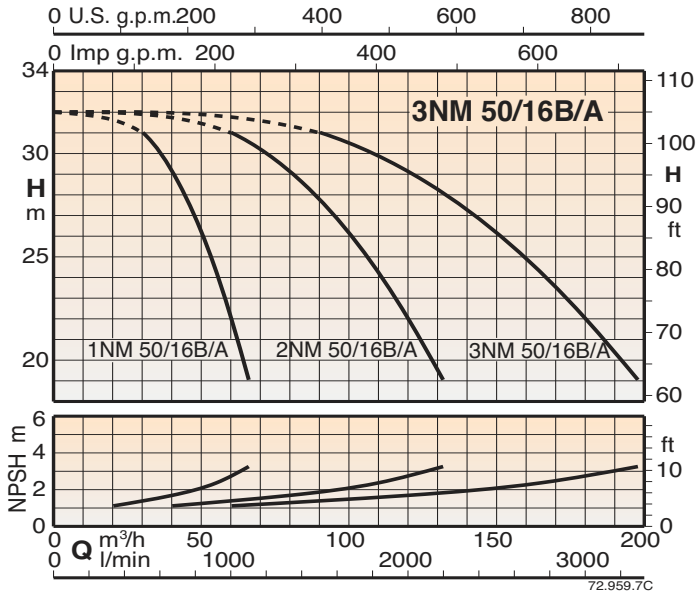
<sup>(1)</sup> Only on request

\* Cabinet version

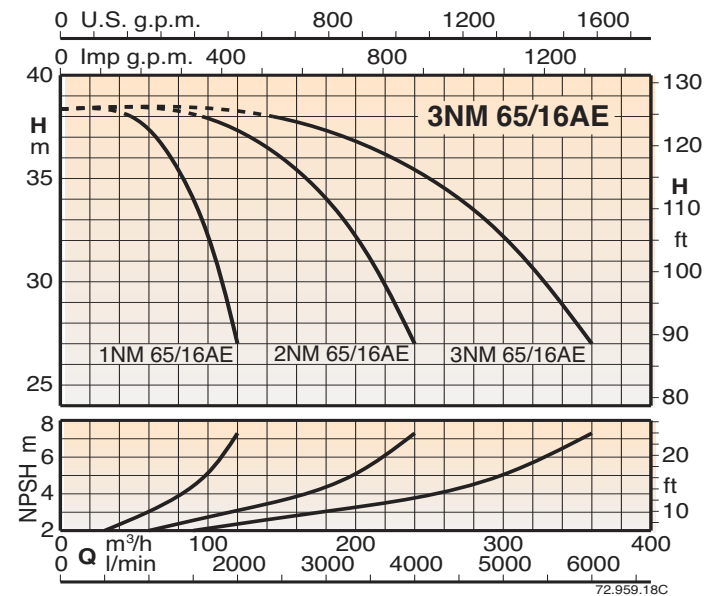
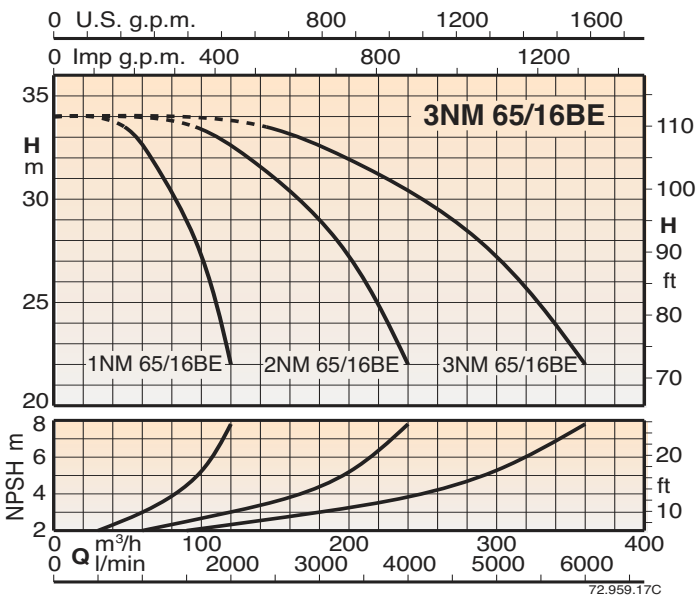
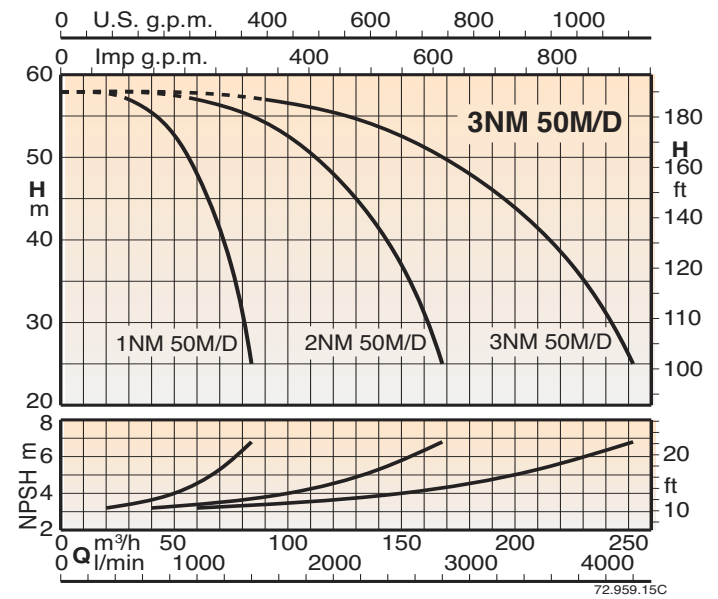
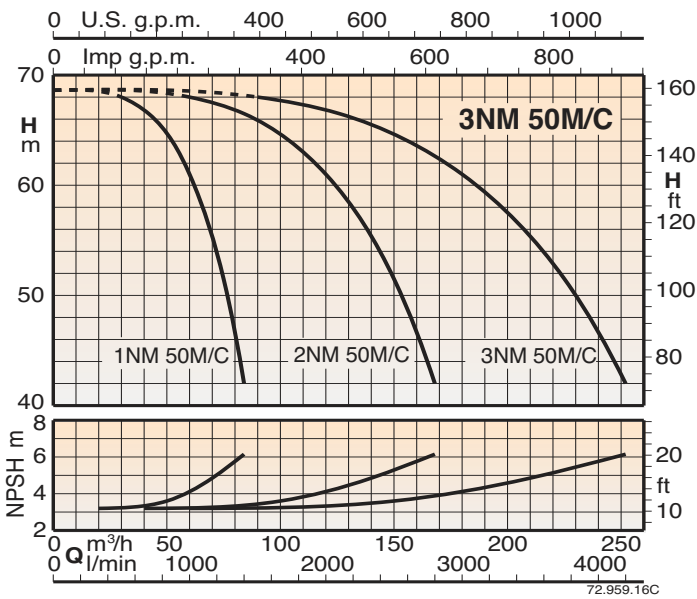
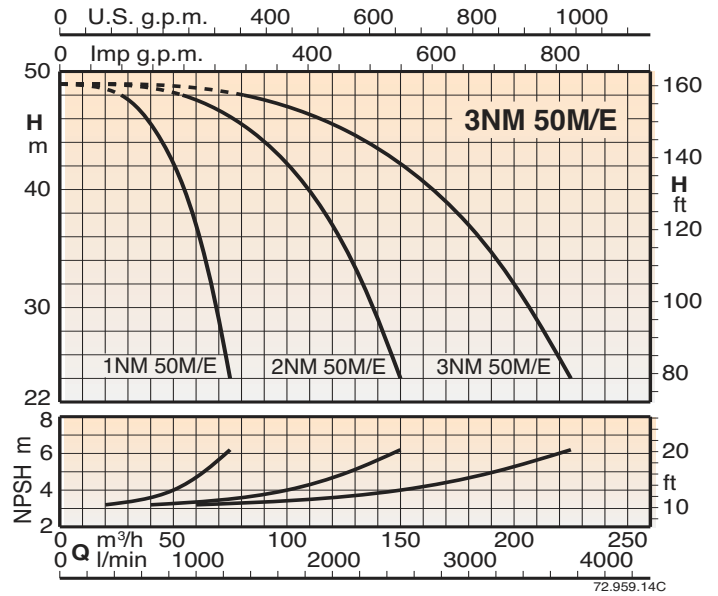
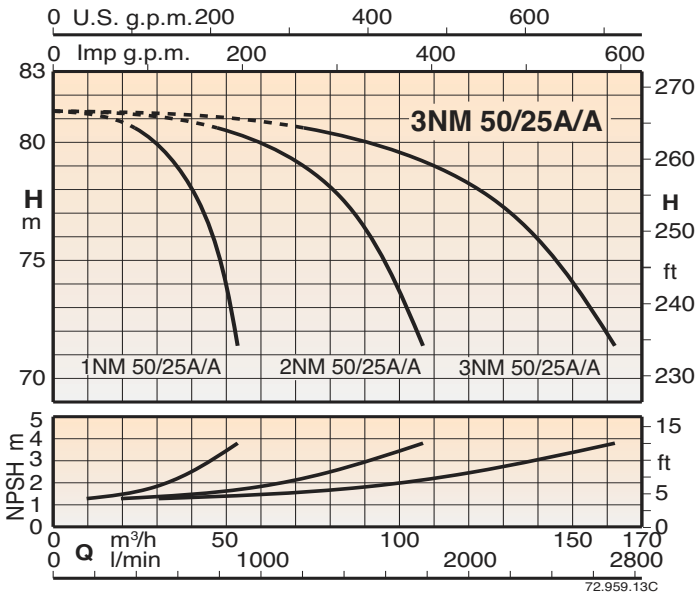
### Coverage chart



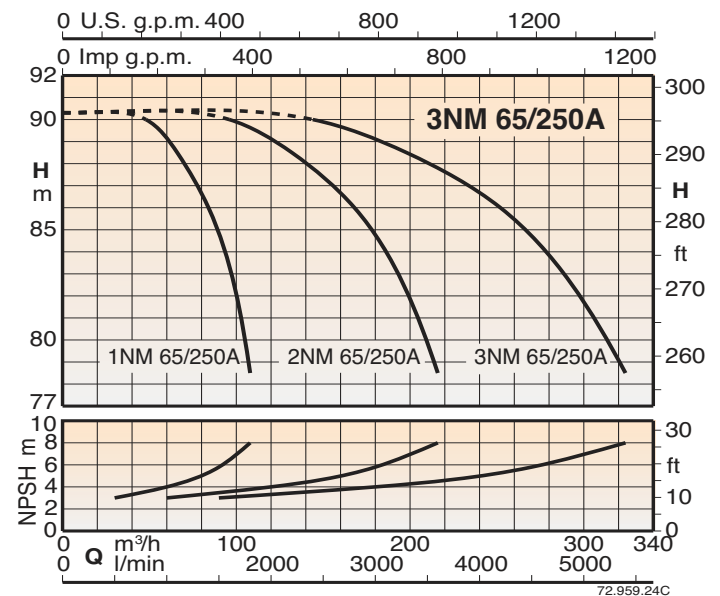
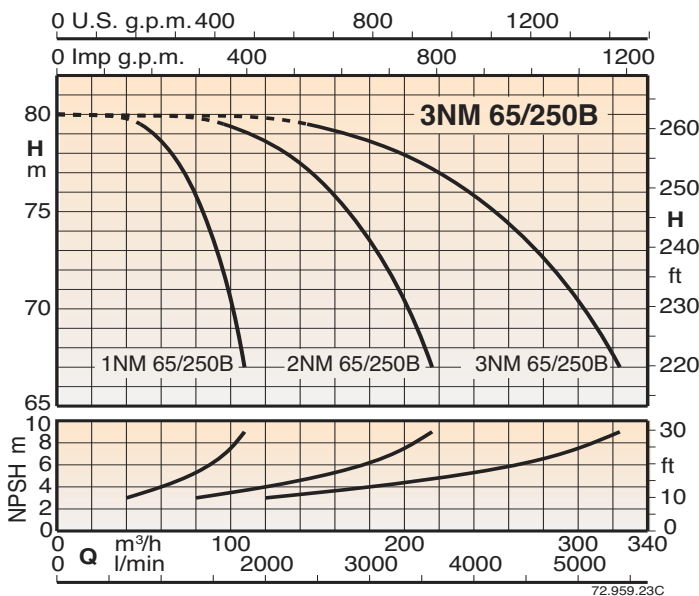
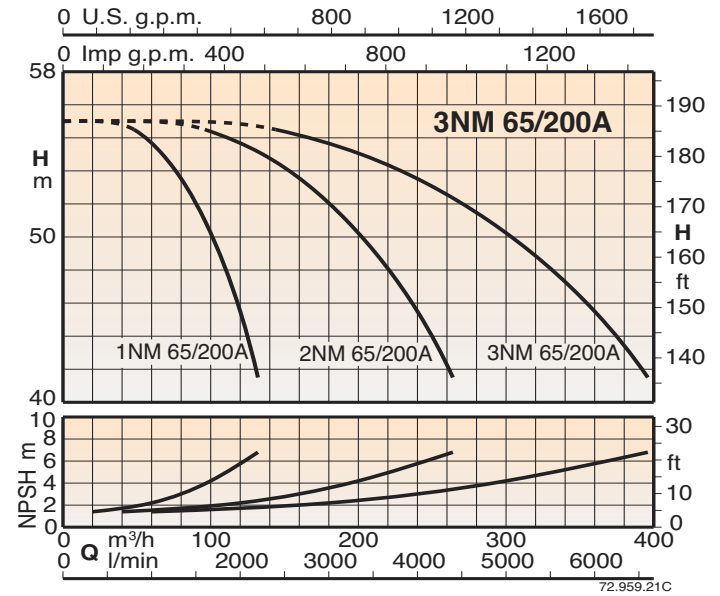
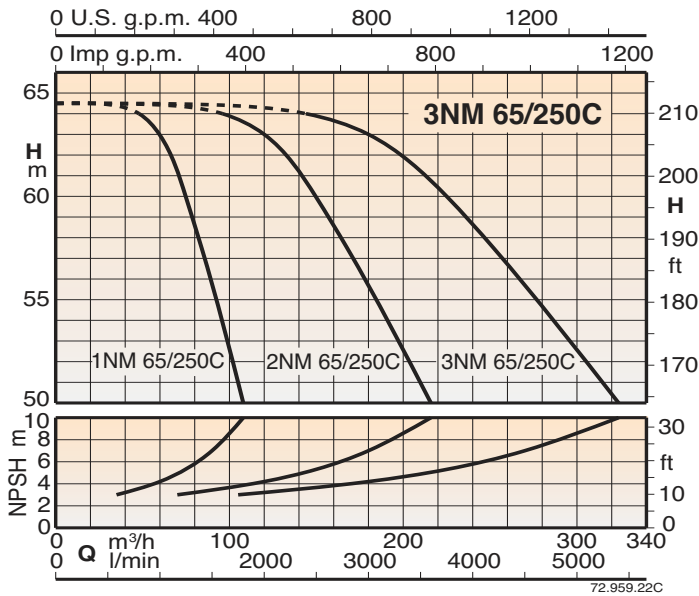
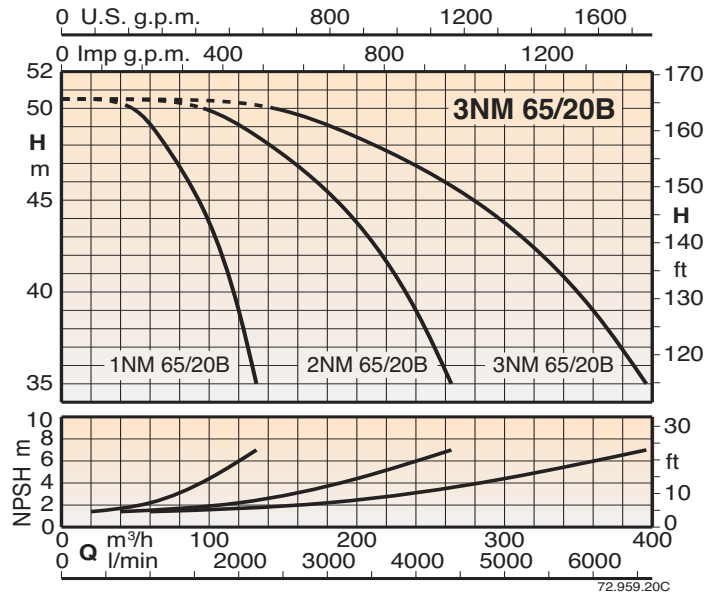
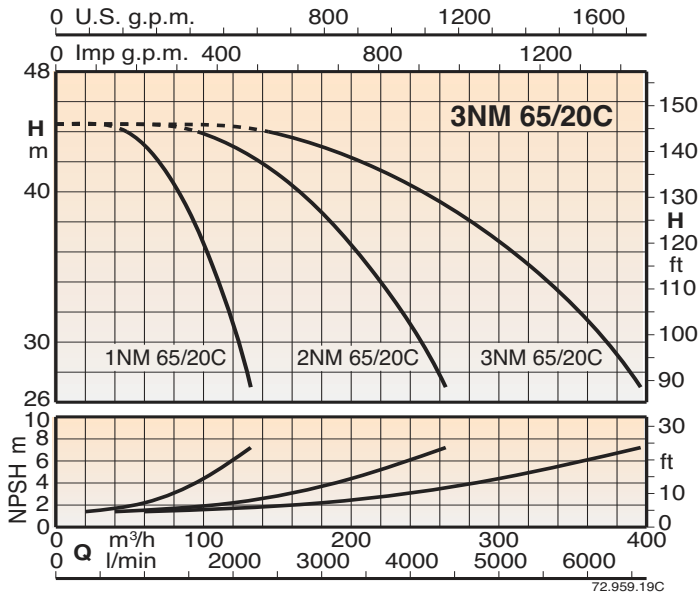
## Coverage chart



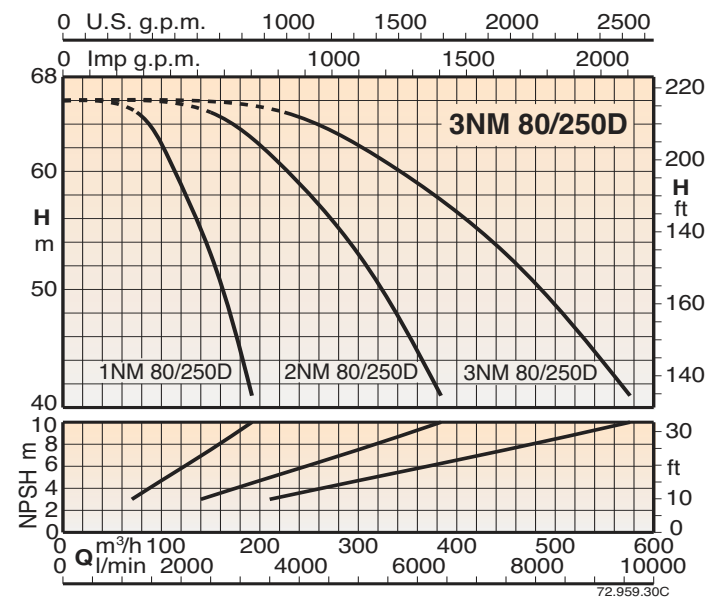
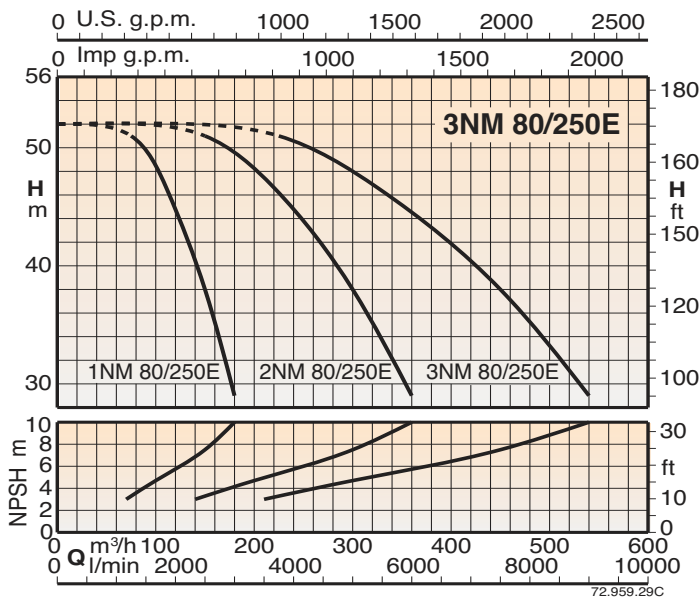
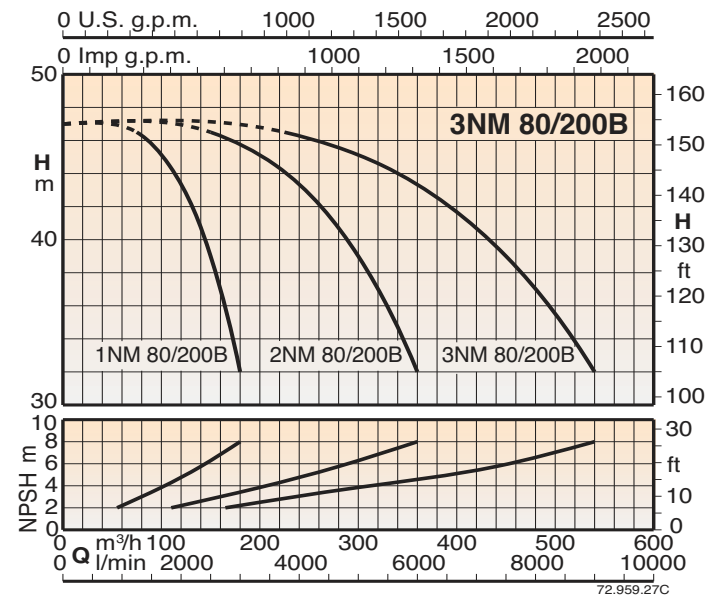
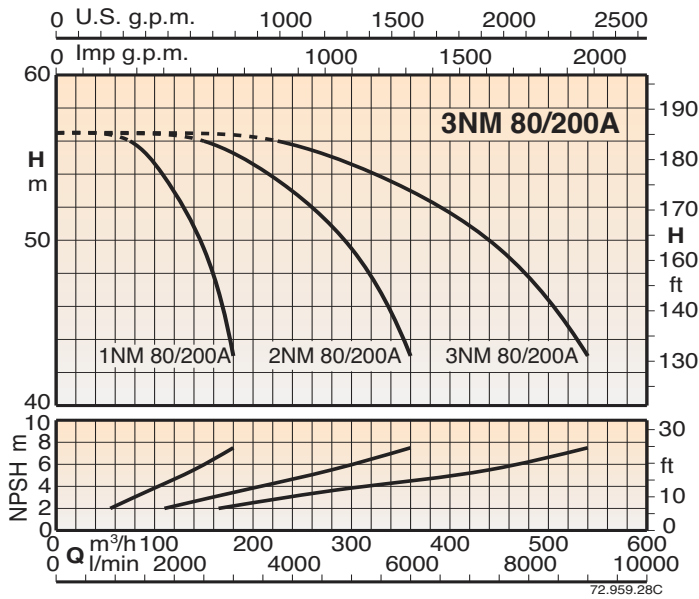
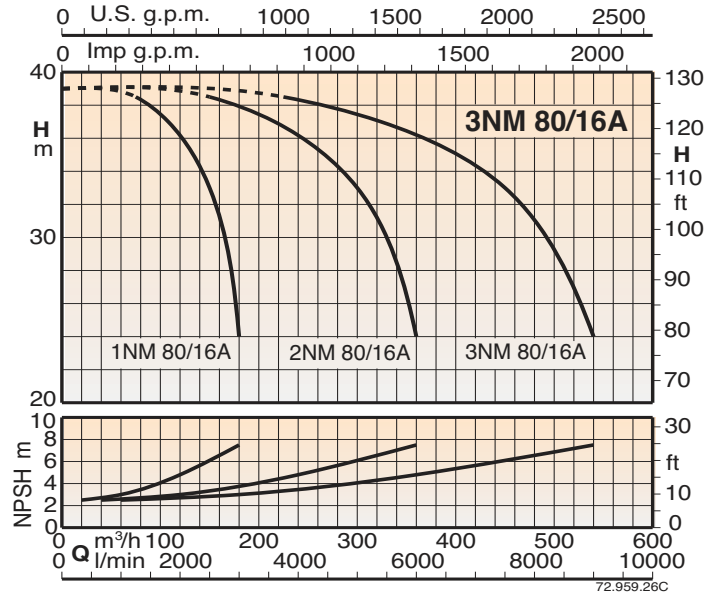
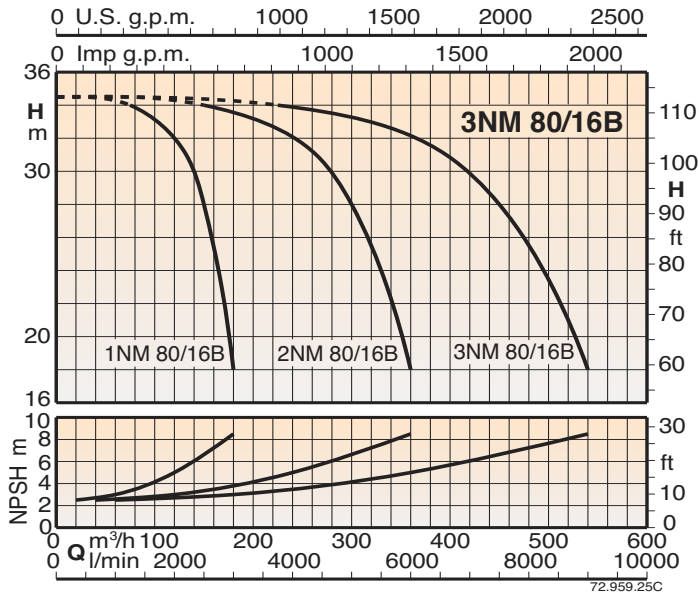
### Coverage chart



## Coverage chart



## Coverage chart



## Coverage chart

