



EASY TO INSTALL
Plug And play solution



ECONOMIC SAVING
IE5 ultra-high efficiency single-phase motor with 40% energy savings compared to an IE3 motor.
IE5 motors operate at lower temperatures (up to 30°C less), which extends the lifespan of bearings and windings, while also reducing maintenance costs.



EASY TO USE
Equipped with a programmable software and, thanks to the analogic pressure sensor, the product allows to set the restart pressure.



CALPEDA FLOW
Bluetooth and WI-FI connection for pump control with CALPEDA FLOW app

Vertical multi-stage close coupled stainless steel pumps with integrated control

Construction

Vertical multi-stage stainless steel pumps with integrated VFD.

MXV-BEM: AISI 304 version.

MXV-BELM: AISI 316 version.

Complete with an integrated pressure transducer that maintains constant system pressure even during the opening and closing of user outlets.

2 and 3-pump booster sets

Suction and delivery manifolds in stainless steel AISI 304.

Connections for the installation of one G 1" connection pressure vessel

Applications

For water supply systems.

For clean liquids, without abrasives, which are non-aggressive for stainless steel (with suitable seal materials, on request).

Universal pump, for domestic use, for civil and industrial applications, for garden use and irrigation.

Features

- integrated frequency converter
- high efficiency asynchronous motor
- uniform and lower motor temperature
- motor power control
- programmable re-start pressure
- Operating pressure
- no hydraulic losses due to the measuring devices
- voltage and current control

Protections

- dry-run protection
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control

Bluetooth and Wi-Fi connection

Monitor and understand your pump's performance in real-time.

Inputs and outputs (I/O)

1 Standard 4-20mA pressure transducer

2 Two programmable digital inputs:

- Float switch
- Second duty point
- Remote on/off

3 Two digital outputs:

- Alarm
- Pump status

4 RS485 multi-pump communication

Operating conditions

Liquid temperature from 0 °C to +40 °C.

Ambient temperature up to 40° C.

Maximum permissible pressure in pump casing: 16 bar.

Continuous duty.

Motor

2-pole induction motor.

Rated speed 5400 rpm

Motor: variable speed

Frequency: 50-60 Hz

Single-phase 220-240V~50Hz/60Hz

H07RN8-F cable, 3G1.5 mm², length 1.5 m, with CEI-UNEL 47166 plug.

Insulation class F.

Protection IP X5.

- Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Special features on request

Special mechanical seal

Higher liquid or ambient temperatures.

from 0 °C up to +50 °C for MXV-BEM 25-106, 32-304 and 40-603

from 0 °C up to +110 °C for MXV-BEM 25-104, 32-303 and 40-602

Designation

Example: MXV-BE L M 32-303

MXV-B = Series

E = Electronic

L = Version in 1.4404 EN 10088 (AISI 316L)

M = Single-phase (no indication: three-phase)

32 = DN ports in mm

3 = Rated flow in m³/h

03 = Number of impellers

Materials

Components	MXV-BEM	MXV-BELM
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Suction casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Stage casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Lower cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Upper cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Spacer sleeve	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Plug	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Mechanical seal	Hard metal/Carbon/EPDM	Hard metal/Carbon/EPDM
Wear ring	PPS	PPS
O-ring	NBR	NBR
Oval Counterflanges	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)

Operating modes



Constant pressure mode

The system keeps the pressure constant when the quantity of water requested by the user changes. The user can choose the operating pressure according to his needs.



Fixed speed mode

In this mode, the pump-inverter unit operates as a traditional constant-curve pump until the motor's power limit is reached; the operating curve can be set by the user within a range of curves.

Performance

Single-phase

				Q = Flow								
				m³/h	0	1	1,5	2	2,5	3	4	5
Model		230V	P1	l/min		16,6	25	33,3	41,6	50	66,6	83,3
		A	kW	H (m) = Total head								
MXV-BELM	MXV-BEM 25-104 O	5,9	1,35		90	85	80,4	73,3	65,3	57,8	45	29,9
MXV-BELM	MXV-BEM 25-106 O	7,7	1,8		134,5	126,5	116,6	103,6	90,6	79,2	58,9	36

				Q = Flow								
				m³/h	0	1	2	3	4	5	6	7
Model	230V	P1	l/min	16,6		33,3	50	66,6	83,3	100	117	
	A	kW	H (m) = Total head									
MXV-BELM	MXV-BEM 32-303 O	5,9	1,35	74	72,7	69,5	61,6	51,9	42,8	34	24,1	
MXV-BELM	MXV-BEM 32-304 O	7,7	1,8	98	95,5	92,2	82,4	69,8	57,6	46,1	33,6	

				Q = Flow								
				m³/h	0	2	4	6	8	10	12	13
Model	230V	P1	l/min	33,3		66,6	100	133	167	200	217	
	A	kW	H (m) = Total head									
MXV-BELM	MXV-BEM 40-602 O	5,9	1,35	51	50	46,1	37,1	29,1	23,4	16,7	12,7	
MXV-BELM	MXV-BEM 40-603 O	7,7	1,8	75	74,7	65,7	51,7	40,5	32,7	23	17,4	

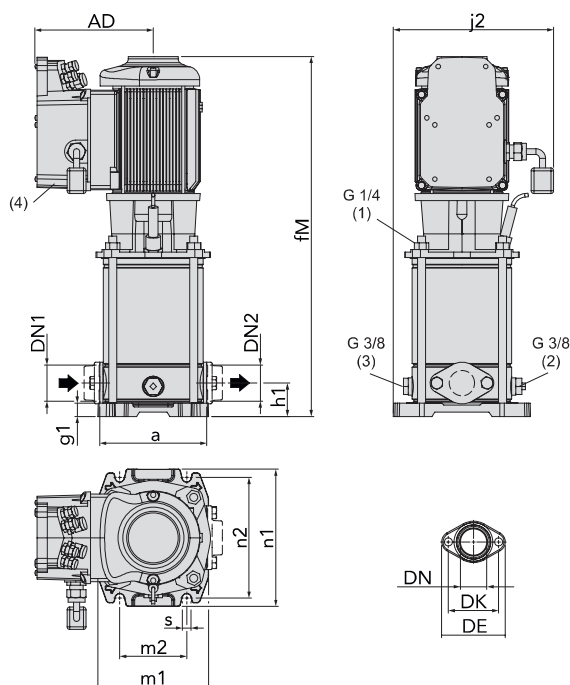
P1: Maximum power input.

H: Total head in m

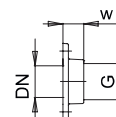
Test results with clean cold water, without gas content.

Tolerances according to UNI EN ISO 9906:2012

Dimensions and weight



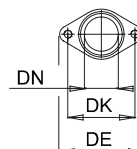
Oval Counterflanges PN 16



PN 16

DN	G	w	N.	Fori
25	1	23	2	12
32	1 1/4	23	2	12
40	1 1/2	26	2	15

Oval Flanges PN 16



PN 16

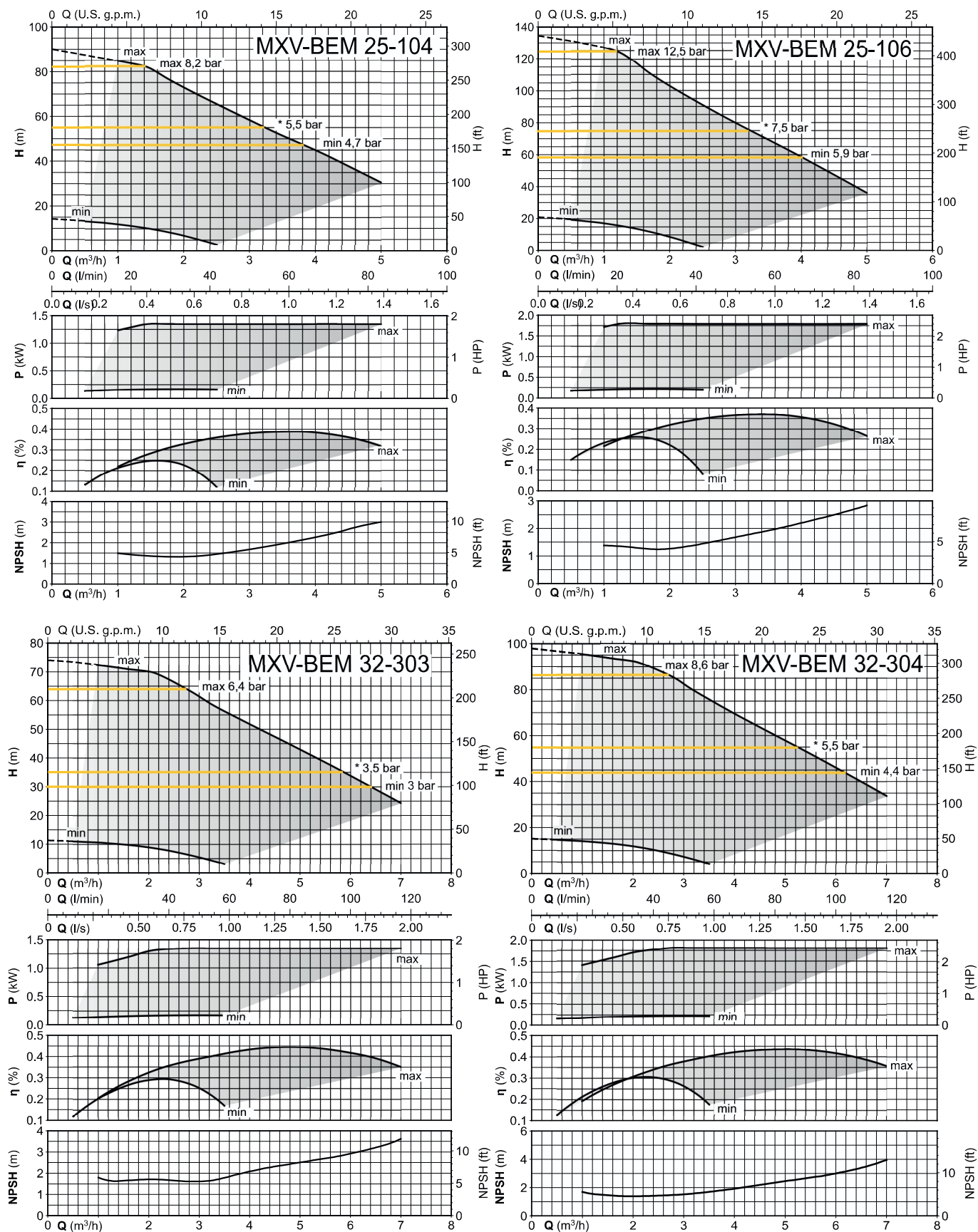
DN	DE	DK	N.	Fori
25	95	75	2	M10
32	95	75	2	M10
40	125	100	2	M12

(1) Filling | (2) Air vent suction side | (3) Draining | (4) Standard position of terminal box

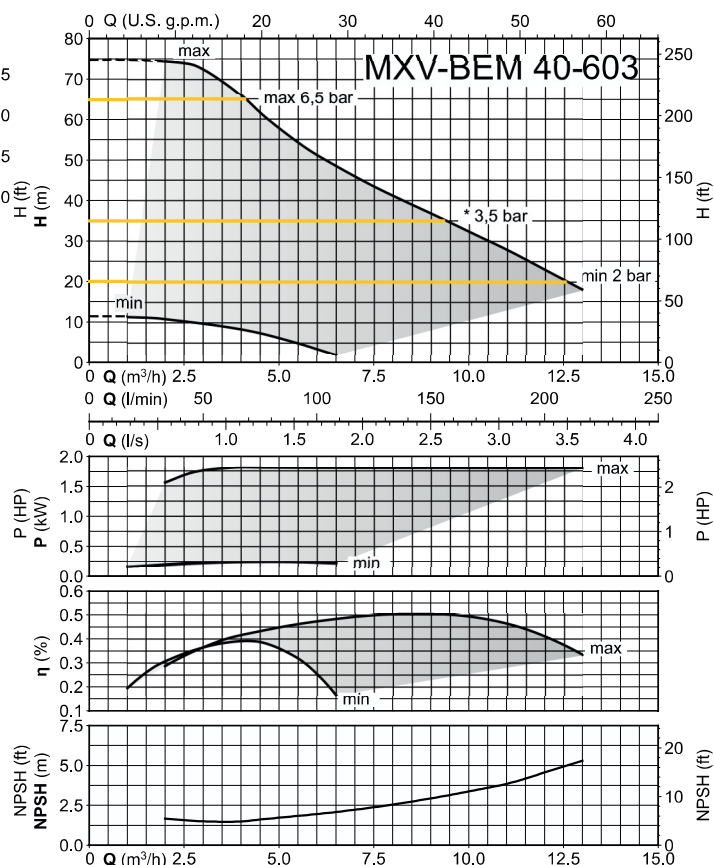
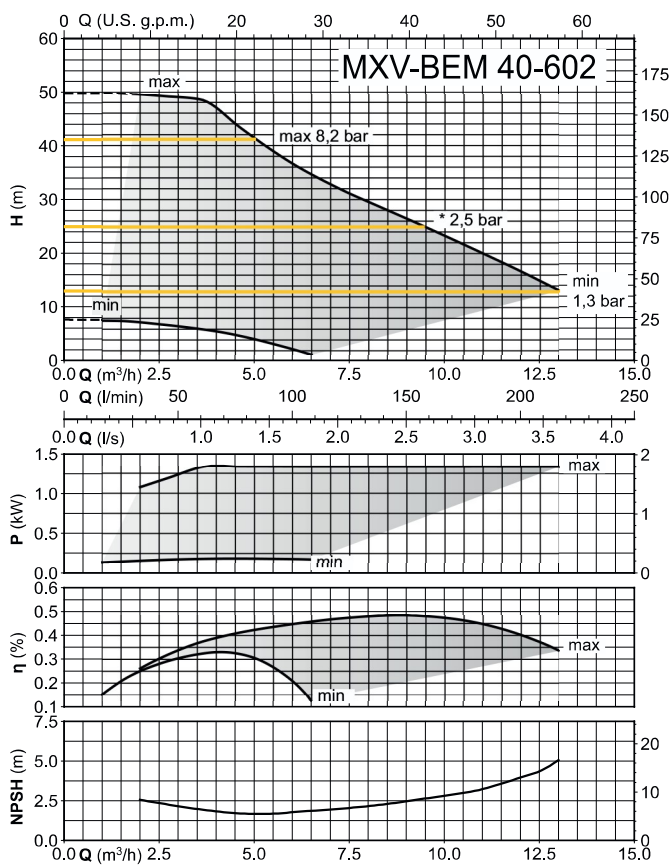
TYPE			mm											kg
	DN1	DN2	a	AD	fM	g1	h1	j2	m1	m2	n1	n2	s	Weight
MXV-BEM 25-104 O	25	25	160	177	537.5	20	50	240	165	100	205	180	13	-
MXV-BEM 25-106 O	25	25	160	177	582.5	20	50	240	165	100	205	180	13	-
MXV-BEM 32-303 O	32	32	160	177	515	20	50	240	165	100	205	180	13	21.8
MXV-BEM 32-304 O	32	32	160	177	537.5	20	50	240	165	100	205	180	13	-
MXV-BEM 40-602 O	40	40	200	177	520	30.5	80	262	190	130	250	215	14	-
MXV-BEM 40-603 O	40	40	200	177	546	30.5	80	262	190	130	250	215	14	-

Weight with cable length: 1,5 m

Characteristic curves



Characteristic curves



Constant pressure mode

* Factory settings

Performance

Single-phase

				Q = Flow							
				m³/h	0	2	3	4	5	6	8
Model	230V	P1	l/min	33,3		50	66,6	83,3	100	133	167
	A	kW	H (m) = Total head								
BSM2V 2 MXV-BEM 25-104O	2 X 5,9	1,35 X2	90	85	80,4	73,3	65,3	57,8	45	29,9	
BSM2V 2 MXV-BEM 25-106O	2 X 7,7	1,8 X2	134,5	126,5	116,6	103,6	90,6	79,2	58,9	36	

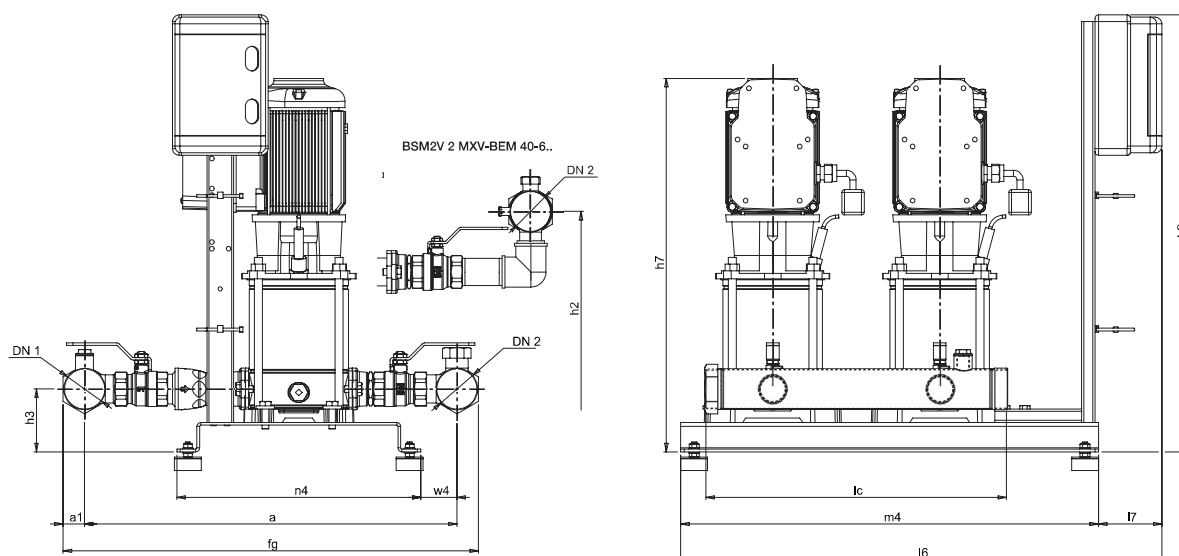
				Q = Flow							
				m³/h	0	2	4	6	8	10	12
Model	230V	P1	l/min	33,3		66,6	100	133	167	200	233
	A	kW	H (m) = Total head								
BSM2V 2 MXV-BEM 32-303O	2 X 5,9	1,35 X2		74	72,7	69,5	61,6	51,9	42,8	34	24,1
BSM2V 2 MXV-BEM 32-304O	2 X 7.7	1,8 X2		98	95.5	92.2	82.4	69.8	57.6	46.1	33.6

				Q = Flow							
				m³/h	0	4	8	12	16	20	24
Model	230V	P1	l/min	66,6		133	200	267	333	400	433
	A	kW	H (m) = Total head								
BSM2V 2 MXV-BEM 40-602O	2 X 5,9	1,35 X2		51	50	46,1	37,1	29,1	23,4	16,7	12,7
BSM2V 2 MXV-BEM 40-603O	2 X 7,7	1,8 X2		75	74,7	65,7	51,7	40,5	32,7	23	17,4

P1: Maximum power input.
H: Total head in m

Test results with clean cold water, without gas content.
Tolerances according to UNI EN ISO 9906:2012

Dimensions and weight



TYPE			mm													kg
	DN1	DN2	a	a1	fG	h2	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BSM2V 2 MXV-BEM 25-104O	G 1 1/2	G 1 1/2	519	26,5	572	-	94	582	654	720	95	450	625	365	41	-
BSM2V 2 MXV-BEM 25-106O	G 1 1/2	G 1 1/2	519	26,5	572	-	94	627	654	720	95	450	625	365	41	-
BSM2V 2 MXV-BEM 32-303O	G 2	G 2	557	32	621	-	94	559	654	720	95	450	625	365	54	63,5
BSM2V 2 MXV-BEM 32-304O	G 2	G 2	557	32	621	-	94	582	654	720	95	450	625	365	54	-
BSM2V 2 MXV-BEM 40-602O	G 2 1/2	G 2 1/2	733	40	813	238	124	564	654	785	160	600	625	365	163	-
BSM2V 2 MXV-BEM 40-603O	G 2 1/2	G 2 1/2	733	40	813	238	124	590	654	785	160	600	625	365	163	-

Performance

Single-phase

				Q = Flow								
				m³/h	0	3	4,5	6	7,5	9	12	15
Model	230V	P1	l/min	50		75	100	125	150	200	250	
	A	kW	H (m) = Total head									
BSM3V 3 MXV-BEM 25-104O	3 X 5,9	1,35 X3		90	85	80,4	73,3	65,3	57,8	45	29,9	
BSM3V 3 MXV-BEM 25-106O	3 X 7,7	1,8 X3		134,5	126,5	116,6	103,6	90,6	79,2	58,9	36	

				Q = Flow								
				m³/h	0	3	6	9	12	15	18	21
Model	230V	P1	l/min	50		100	150	200	250	300	350	
	A	kW	H (m) = Total head									
BSM3V 3 MXV-BEM 32-303O	3 X 5,9	1,35 X3		74	72,7	69,5	61,6	51,9	42,8	34	24,1	
BSM3V 3 MXV-BEM 32-304O	3 X 7,7	1,8 X3		98	95,5	92,2	82,4	69,8	57,6	46,1	33,6	

				Q = Flow								
				m³/h	0	6	12	18	24	30	36	39
Model	230V	P1	l/min	100		200	300	400	500	600	650	
	A	kW	H (m) = Total head									
BSM3V 3 MXV-BEM 40-602O	3 X 5,9	1,35 X3		51	50	46,1	37,1	29,1	23,4	16,7	12,7	
BSM3V 3 MXV-BEM 40-603O	3 X 7,7	1,8 X3		75	74,7	65,7	51,7	40,5	32,7	23	17,4	

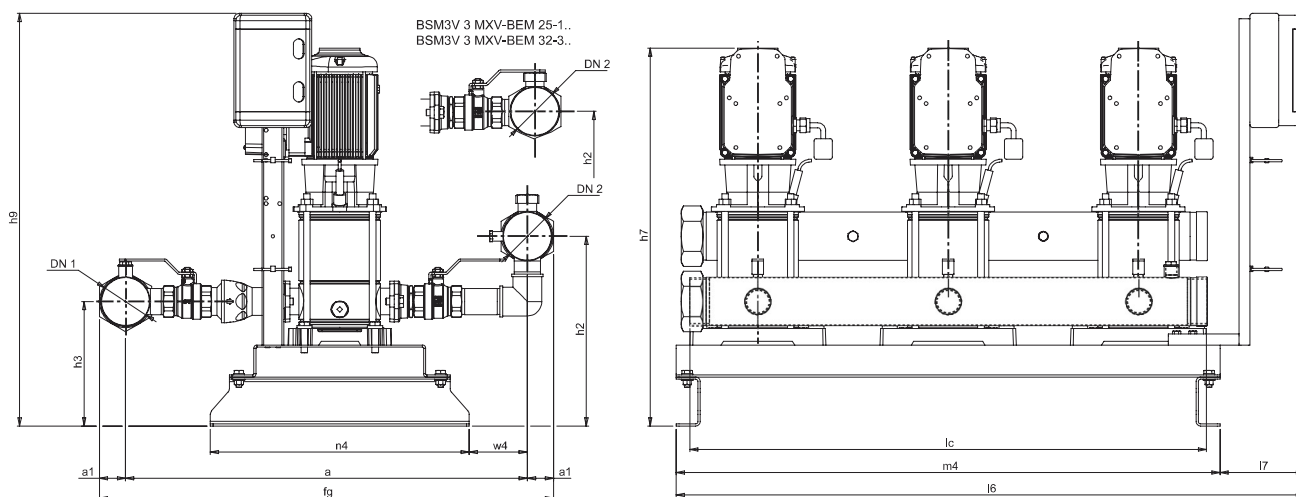
P1: Maximum power input.

H: Total head in m

Test results with clean cold water, without gas content.

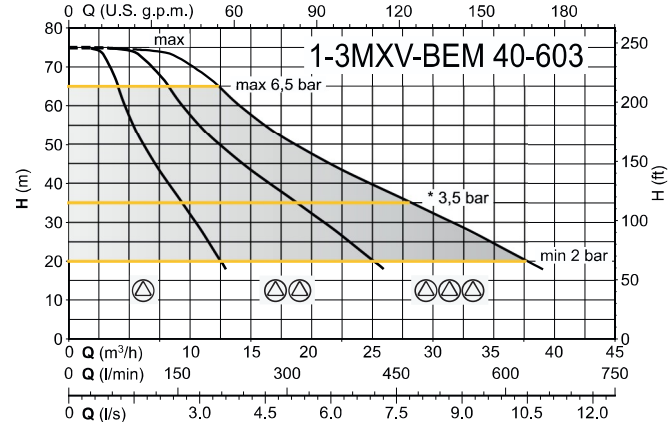
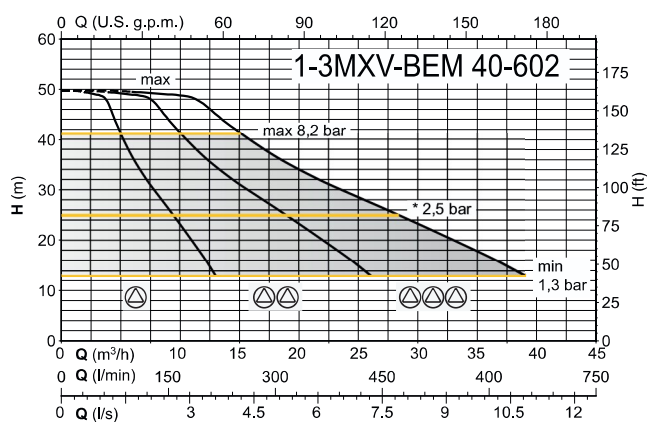
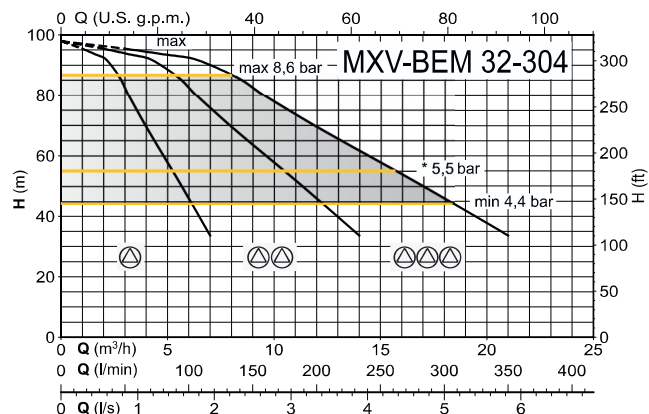
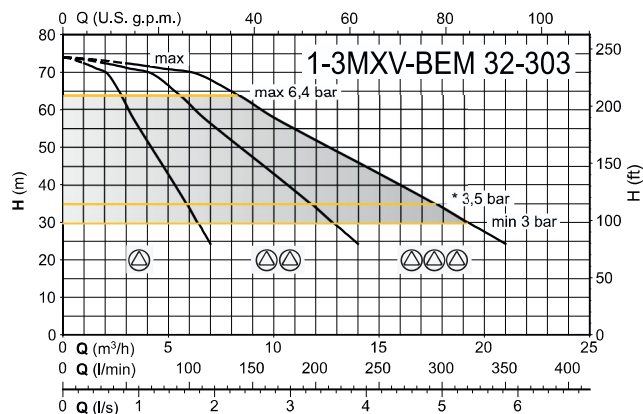
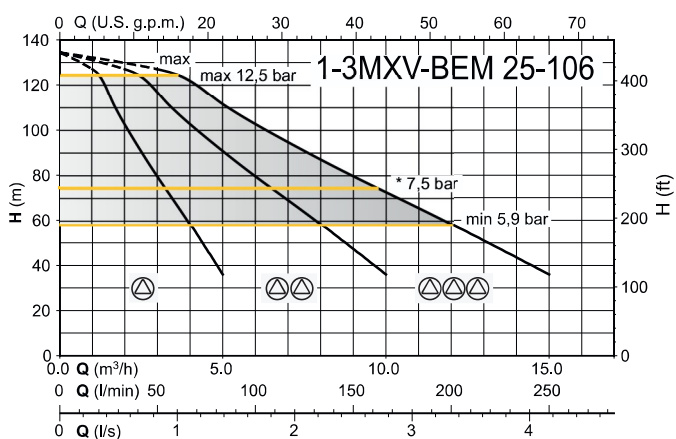
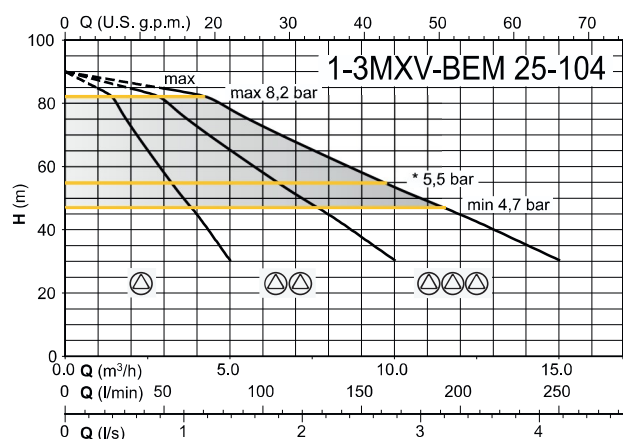
Tolerances according to UNI EN ISO 9906:2012

Dimensions and weight



TYPE			mm													kg
	DN1	DN2	a	a1	fG	h2	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BSM3V 3 MXV-BEM 25-104O	G 2	G 2	531	32	595	199	199	685	759	960	160	750	800	476	-	-
BSM3V 3 MXV-BEM 25-106O	G 2	G 2	531	32	595	199	199	732	759	960	160	750	800	476	-	-
BSM3V 3 MXV-BEM 32-303O	G 2 1/2	G 2 1/2	574	40	654	199	199	664	759	960	160	750	800	476	8	-
BSM3V 3 MXV-BEM 32-304O	G 2 1/2	G 2 1/2	574	40	654	199	199	687	759	960	160	750	800	476	8	115,1
BSM3V 3 MXV-BEM 40-602O	G 3	G 3	739	48	835	349	229	669	759	1155	155	950	1000	476	107	-
BSM3V 3 MXV-BEM 40-603O	G 3	G 3	739	48	835	349	229	695	759	1155	155	950	1000	476	107	-

Characteristic curves



 Constant pressure mode

* Factory settings