



Construction

Vertical multi-stage pumps with suction and delivery connections of the same diameter and arranged along the same axis (in-line). Corrosion-resistant bearing sleeves lubricated by the pumped liquid. A pump with thrust bearing and sleeve coupling for use of any standard motor with V1 construction.

Applications

For water supply systems. For clean non-explosive liquids, without solid, filamentary or abrasive matter (with adaptation of sealing materials on request). A universal pump for civil and industrial use, for pressure-boosting systems, fire-extinguishing systems, high-pressure washing plants, irrigation, agricultural uses and sport installations.

Operating conditions

Temperature of liquid: from -15 °C to +110 °C.
Operating environment temperature: up to 40 °C.
Maximum permissible pressure in pump casing: 25 bar.

Motor

Standard-type: 2-4 pole induction motor, 50 Hz.
Classification scheme **EFF2** or **EFF1** (High efficiency) on request.
Construction IM V1 (IEC 34-7).
Insulation class F (IEC 85).
Protection IP 55 (IEC 529).
three-phase with rated voltage: up to 3 kW 230/400 V (IEC 38);
from 4 kW 400/690 V (IEC 38).

Rated speed of rotation (50 Hz): **MXV** = 2900 rpm
MXV4 = 1450 rpm.

MXV 25-2, 32-4, 40-8

All parts that come into contact with the liquid, including wet-end covers, are in chrome-nickel stainless steel AISI 304.

Materials (wetted parts)

Pos. Nr. (pag.98)	Component	Material
13.60	Flange	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
14.02	External jacket	
16.00	Suction casing	
20.00	Delivery casing	
25.02	Stage casing	
28.00	Impeller	
34.01	Lower cover	
34.02	Upper cover	
64.15	Spacer sleeve	
64.00	Pump shaft Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
64.10	Bearing sleeve	Corrosion-resistant, cemented carbide Ceramic alumina
25.03	Bearing in stage casing	
36.00	Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM.
14.54	Wear ring	PTFE
	O-rings	NBR

Direction of rotation: clockwise as seen from the motor.

Variants (to be specified when ordering)

- Pump with threaded ports (G).
- Pump with flanged ports (F).
- Pump without motor.
- Pump with standard motor.

Other variants (on request)

- With counter-flanges in chrome-nickel steel.
- O-rings FPM.
- Other mechanical seal.
- Pump with motor of Client's choice (if available).
- Single-phase motor 230 V, up to 2.2 kW.
- Other voltage ratings. Frequency 60 Hz.
- Higher or lower liquid or ambient temperatures.

MXV 50-16, 65-32, 80-48

Internal parts in contact with the liquid in chrome-nickel stainless steel, AISI 304 with pump casing and upper cover in cast iron.

Materials (wetted parts)

Pos. Nr. (pag.98)	Component	A (standard)
14.00	Pump casing	Cast iron GJL 250 EN 1561
34.02	Upper cover	
14.02	External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
25.02	Stage casing	
28.00	Impeller	
64.15	Spacer sleeve	
64.00	Pump shaft Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
64.10	Bearing sleeve	Corrosion-resistant, cemented carbide Ceramic alumina
25.03	Bearing in stage casing	
36.00	Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM
14.54	Wear ring	PTFE
	O-rings	NBR

Direction of rotation: anticlockwise as seen from the motor.

Variants (to be specified when ordering)

- Pump without motor.
- Pump with standard motor.

Other variants (on request)

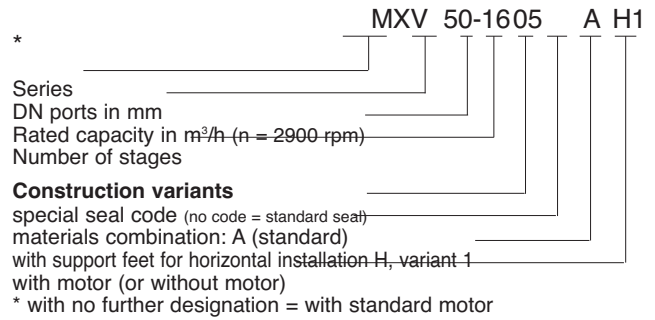
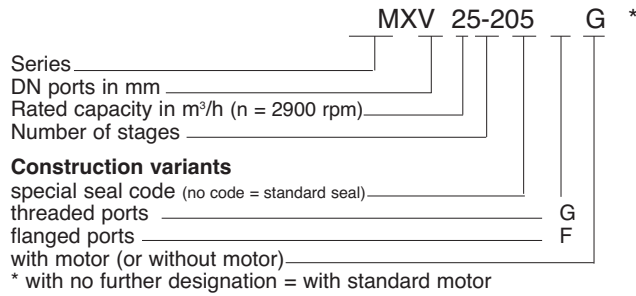
- O-rings FPM.
- Other mechanical seal.
- Pump with motor of Client's choice (if available).
- Other voltage ratings. Frequency 60 Hz.
- Pump with support feet for horizontal installation (H1 or H2).
- Support feet for horizontal installation, set.
- Welding counter-flanges, PN 25 (steel).
- Higher or lower liquid or ambient temperatures.

MXV 25-2, 32-4, 40-8

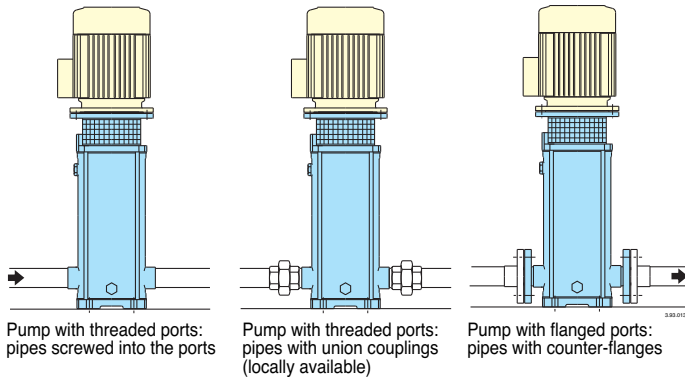
MXV 50-16, 65-32, 80-48

Designation

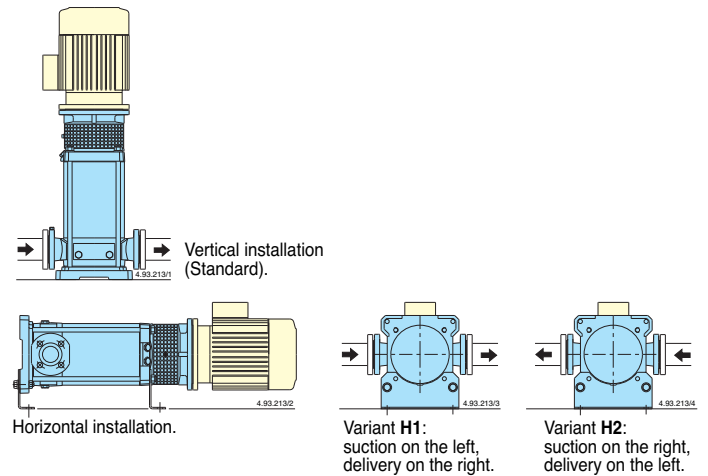
Designation



Pipe connection



Installations



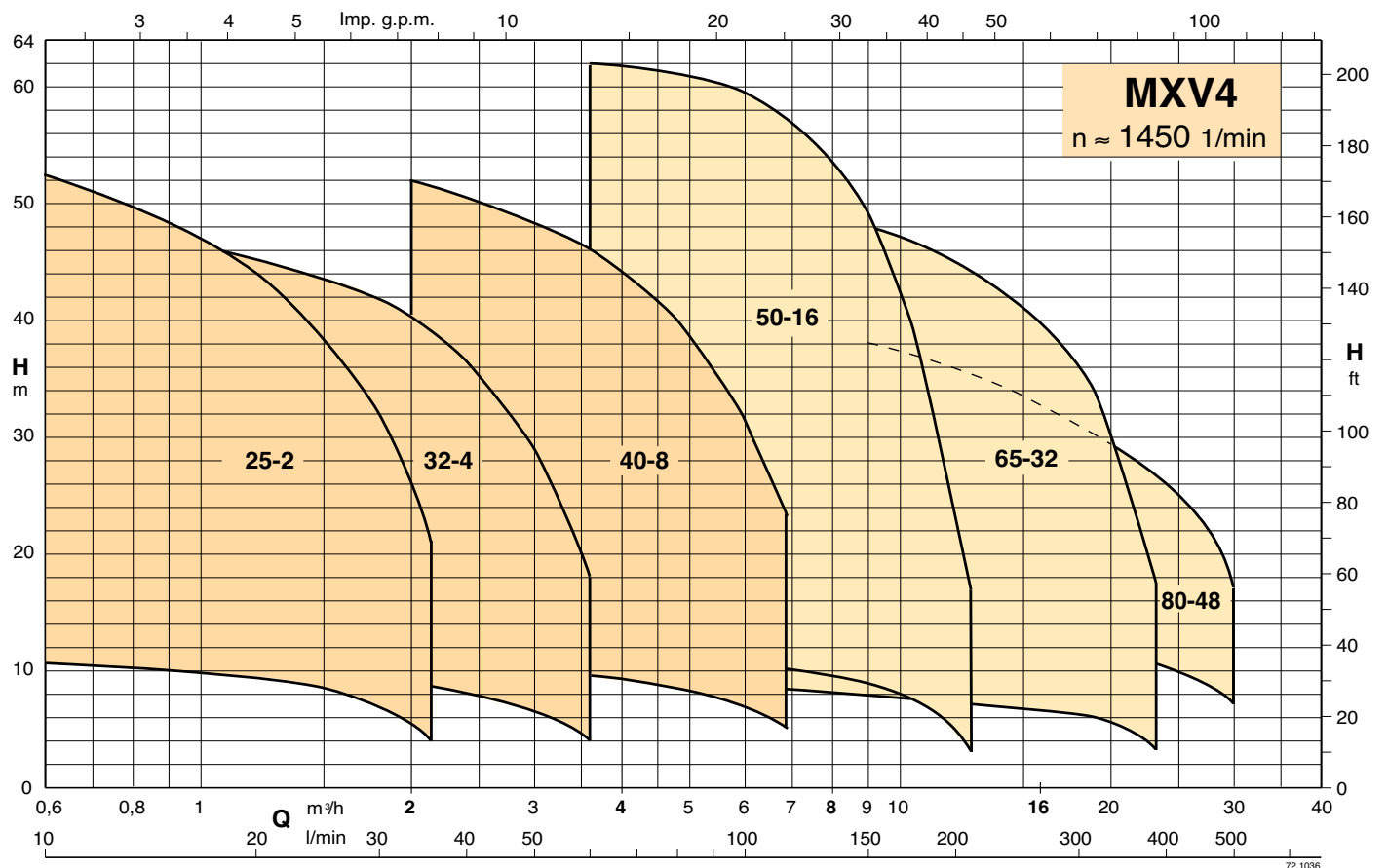
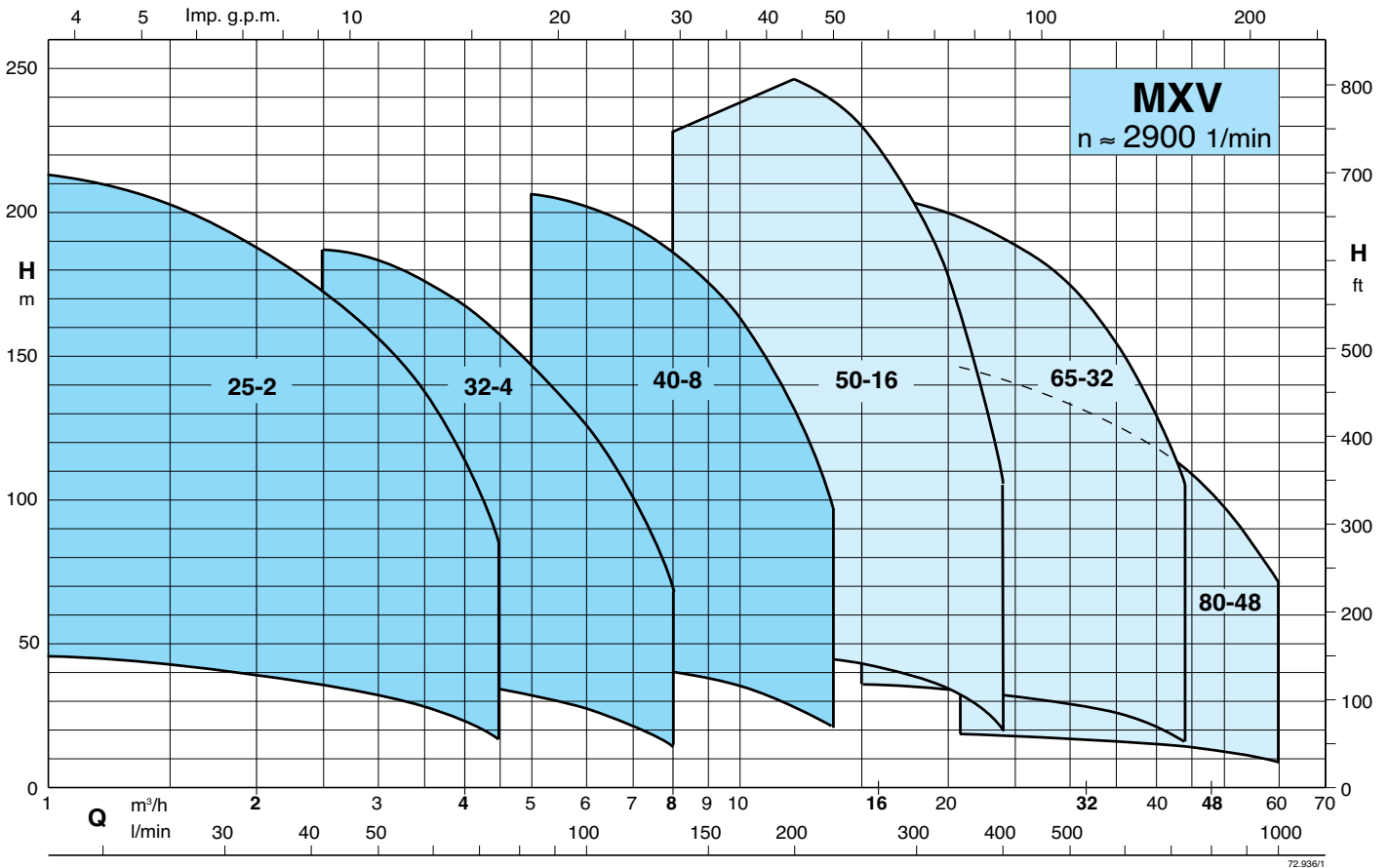
Variable parts

Pump size MXV - MXV4			Number of stages	Stage casings with bearing
25 - 204	32 - 404	40 - 804	4	1
25 - 205	32 - 405	40 - 805	5	1
25 - 206	32 - 406	40 - 806	6	1
25 - 207	32 - 407	40 - 807	7	1
25 - 208	32 - 408	40 - 808	8	1
25 - 210	32 - 410	40 - 810	10	1
25 - 212	32 - 412	40 - 811	11	2
		40 - 813	12	2
		40 - 815	13	2
25 - 214	32 - 414	40 - 813	14	2
		40 - 815	15	2
25 - 216	32 - 416		16	2
25 - 218	32 - 418		18	2
25 - 220		40 - 817	17	3
		40 - 819	19	3
			20	3

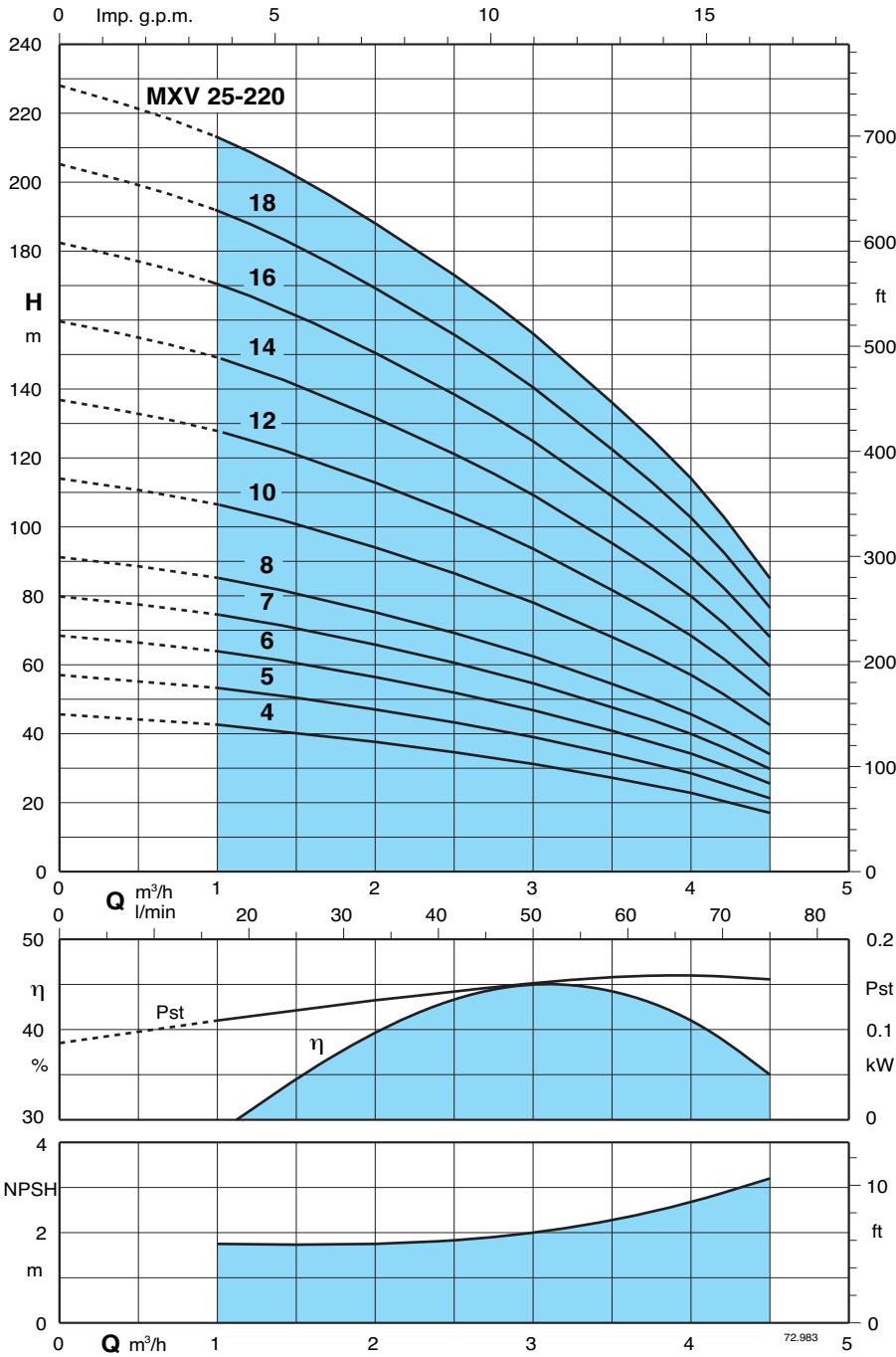
Variable parts

Pump size MXV - MXV4			Number of stages	Stage casings with bearing
50 - 1603 50 - 1604 50 - 1605 50 - 1606 50 - 1607 50 - 1608 50 - 1609 50 - 1610	65 - 3202	80 - 4801	1	1
	65 - 3203	80 - 4802	2	1
	65 - 3204	80 - 4803	3	1
	65 - 3205	80 - 4804	4	1
	65 - 3206	80 - 4805	5	1
	65 - 3207		6	1
			7	1
			8	1
			9	1
			10	1
50 - 1611 50 - 1612 50 - 1614 50 - 1616	65 - 3208 65 - 3209 65 - 3210	80 - 4806	6	2
		80 - 4807	7	2
		80 - 4808	8	2
			9	2
			10	2
			11	2
			12	2
	65 - 3212		14	2
			16	2

Coverage chart



Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

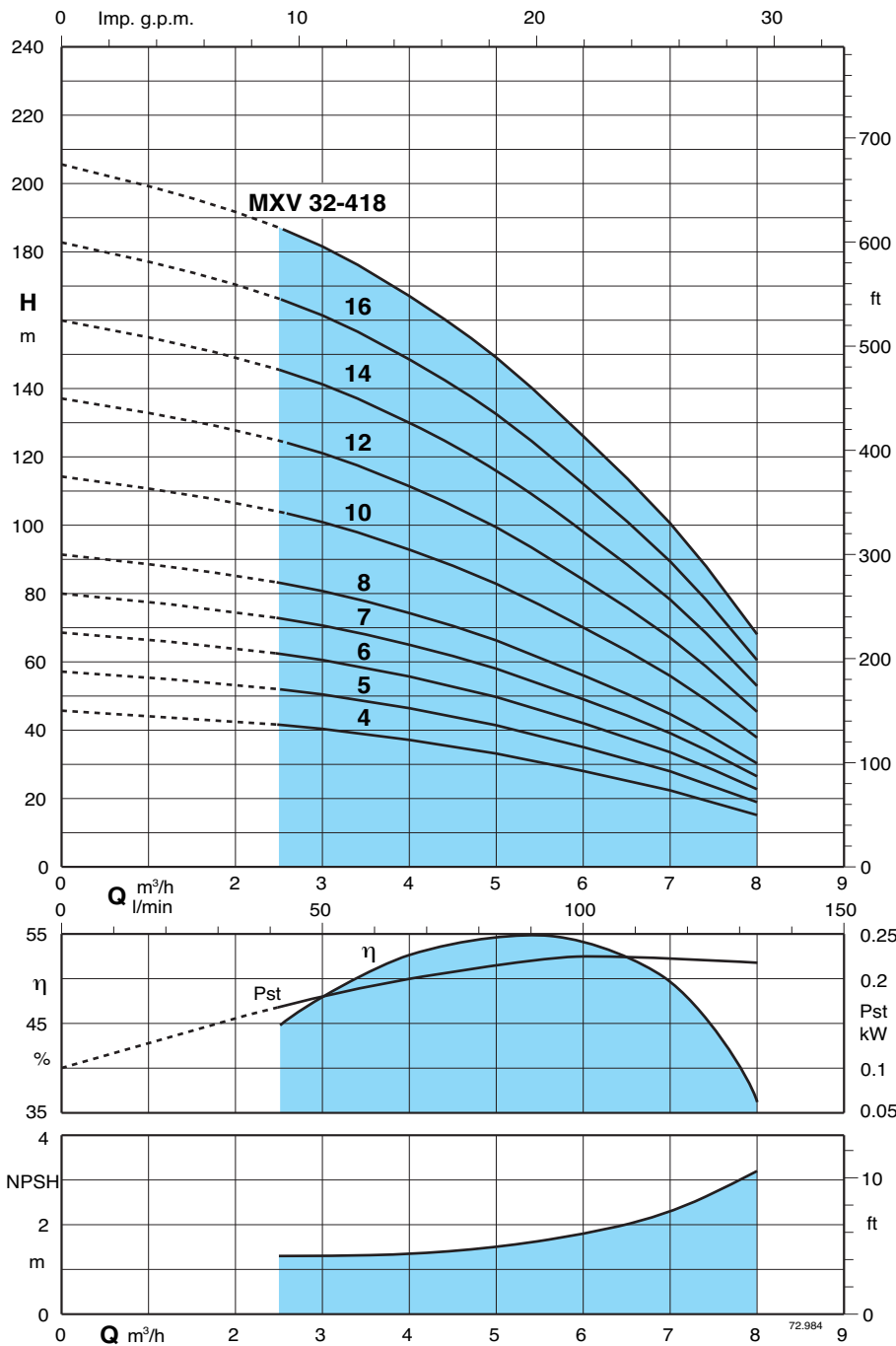
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	0	1	1,5	2	2,5	3	3,5	4	4,5
	kW	HP		H m	0	16,6	25	33,3	41,6	50	58,3	66,6
MXV 25 - 204	0,75	1	H m	44	42,5	40	37,5	34,5	31	27	22,5	17
MXV 25 - 205	0,75	1		56	53	50	47	43	39	34	28	21
MXV 25 - 206	1,1	1,5		68	63,5	60,5	56	51,5	46,5	40,5	34	25
MXV 25 - 207	1,1	1,5		79,5	74	70,5	65,5	60	54,5	47,5	39,5	30
MXV 25 - 208	1,5	2		91	85	80,5	75	69	62	54	45,5	34
MXV 25 - 210	1,5	2		114	106	101	94	86	78	68	57	42
MXV 25 - 212	2,2	3		136	127	121	112	103	93,5	81,5	68	51
MXV 25 - 214	2,2	3		159	149	141	131	121	109	95	79,5	59
MXV 25 - 216	3	4		182	170	161	150	138	124	108	91	68
MXV 25 - 218	3	4		205	191	181	169	155	140	122	102	76
MXV 25 - 220	3	4		228	213	202	188	173	156	136	114	85

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

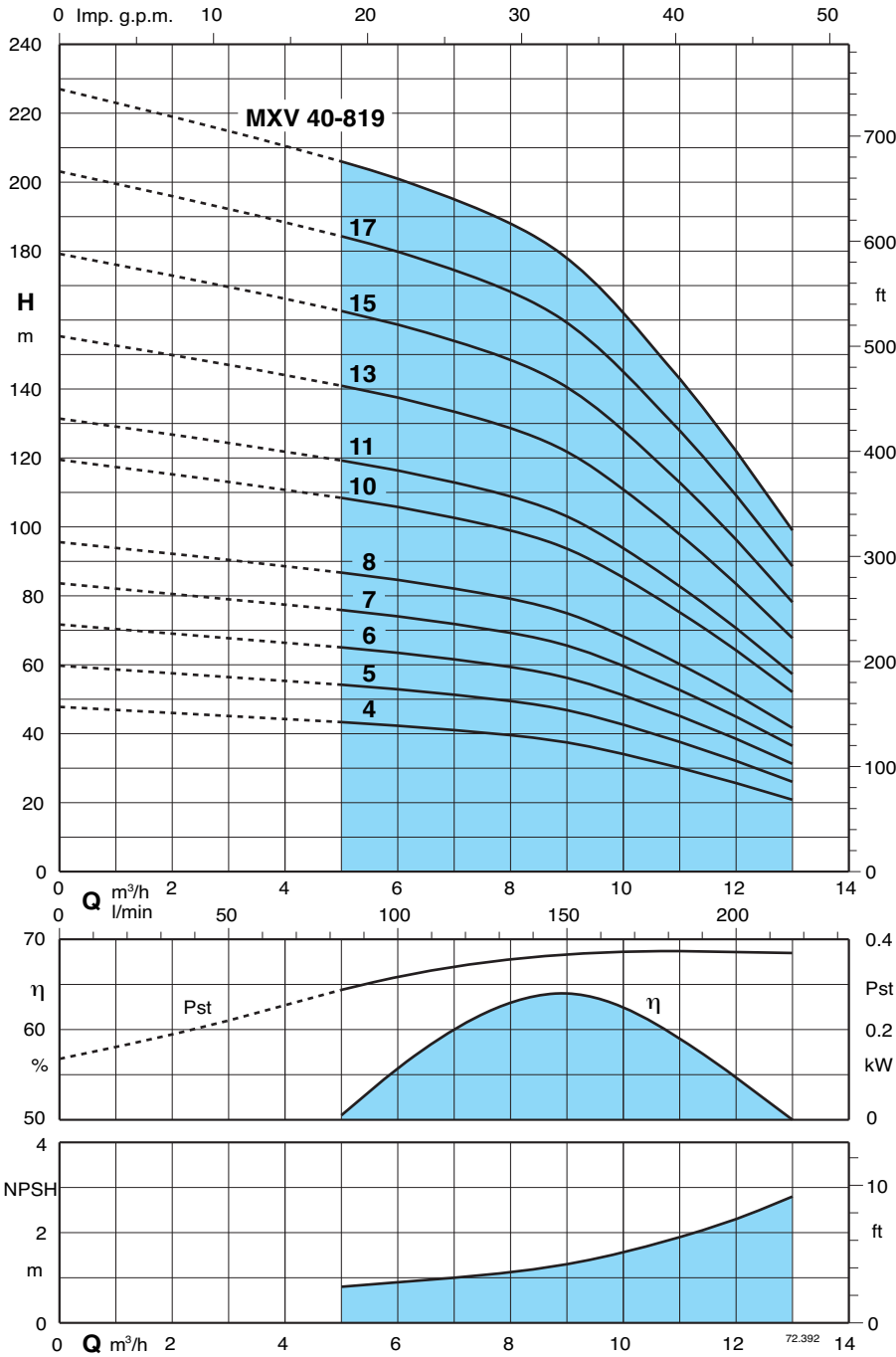
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Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	Q										
	kW	HP		0	2,5	3	3,5	4	4,5	5	6	7	8	
MXV 32 - 404	1,1	1,5	H m	0	41,6	50	58,3	66,6	75	83,3	100	116,6	133,3	
MXV 32 - 405	1,1	1,5		45	41,5	40	38,5	36,5	34,5	32,5	27,5	22	14,5	
MXV 32 - 406	1,5	2		56	51,5	50	48	46	43,5	41	34,5	27,5	18,5	
MXV 32 - 407	1,5	2		68	62	60	58	55,5	52,5	49,5	42	33,5	22,5	
MXV 32 - 408	2,2	3		79,5	72,5	70,5	68	65	61,5	58	49	39	26,5	
MXV 32 - 410	2,2	3		91	83	80,5	78	74	70	66	56	44,5	30	
MXV 32 - 412	3	4		114	104	101	97,5	93	88	83	70	56	38	
MXV 32 - 414	3	4		136	124	121	117	111	105	99,5	84	67	45,5	
MXV 32 - 416	4	5,5		159	145	141	136	130	123	116	98	78	53	
MXV 32 - 418	4	5,5		182	166	161	156	148	140	132	112	89,5	60,5	
			205	187	181	175	167	158	149	126	100	68		

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

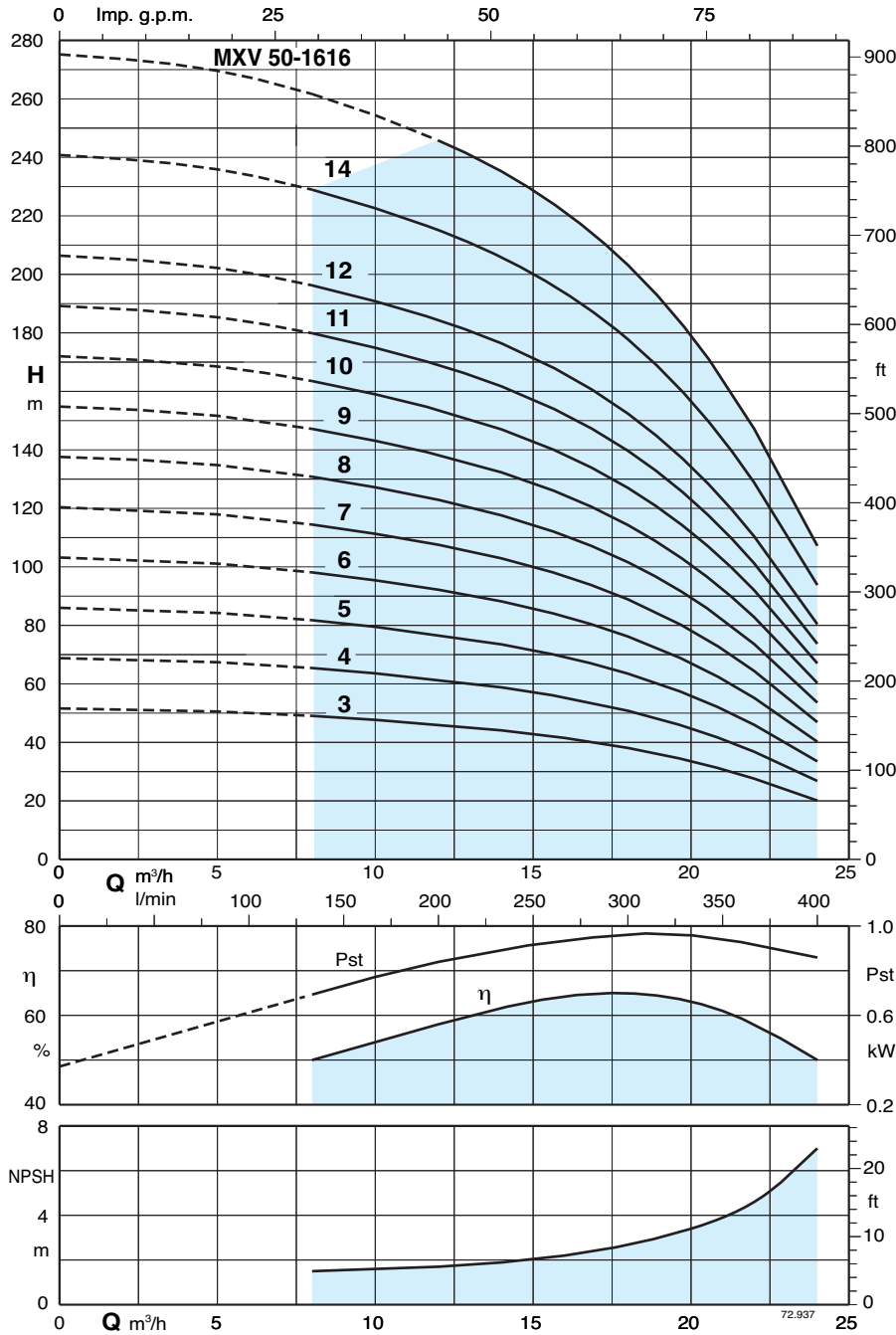
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	H m											
	kW	HP		0	5	6	7	8	9	10	11	12	13		
MXV 40 - 804	1,5	2	0	0	83,3	100	116,6	133,3	150	166,6	183,3	200	216,6		
MXV 40 - 805	2,2	3	47	43	42	41	40	37	34	30	26	21			
MXV 40 - 806	2,2	3	59	54	53	51	50	47	43	38	32	26			
MXV 40 - 807	3	4	71	65	63	62	59	56	51	45	39	31			
MXV 40 - 808	3	4	83	76	74	72	69	66	60	53	45	36			
MXV 40 - 810	4	5,5	95	87	85	82	79	75	69	60	51	42			
MXV 40 - 811	4	5,5	119	109	106	103	99	94	86	75	64	52			
MXV 40 - 813	5,5	7,5	131	119	116	113	109	103	94	83	71	57			
MXV 40 - 815	5,5	7,5	155	141	138	134	129	122	111	98	84	68			
MXV 40 - 817	7,5	10	179	163	159	154	149	141	128	113	96	78			
MXV 40 - 819	7,5	10	202	184	180	175	168	159	145	128	109	89			
			226	206	201	195	188	178	162	143	122	99			

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

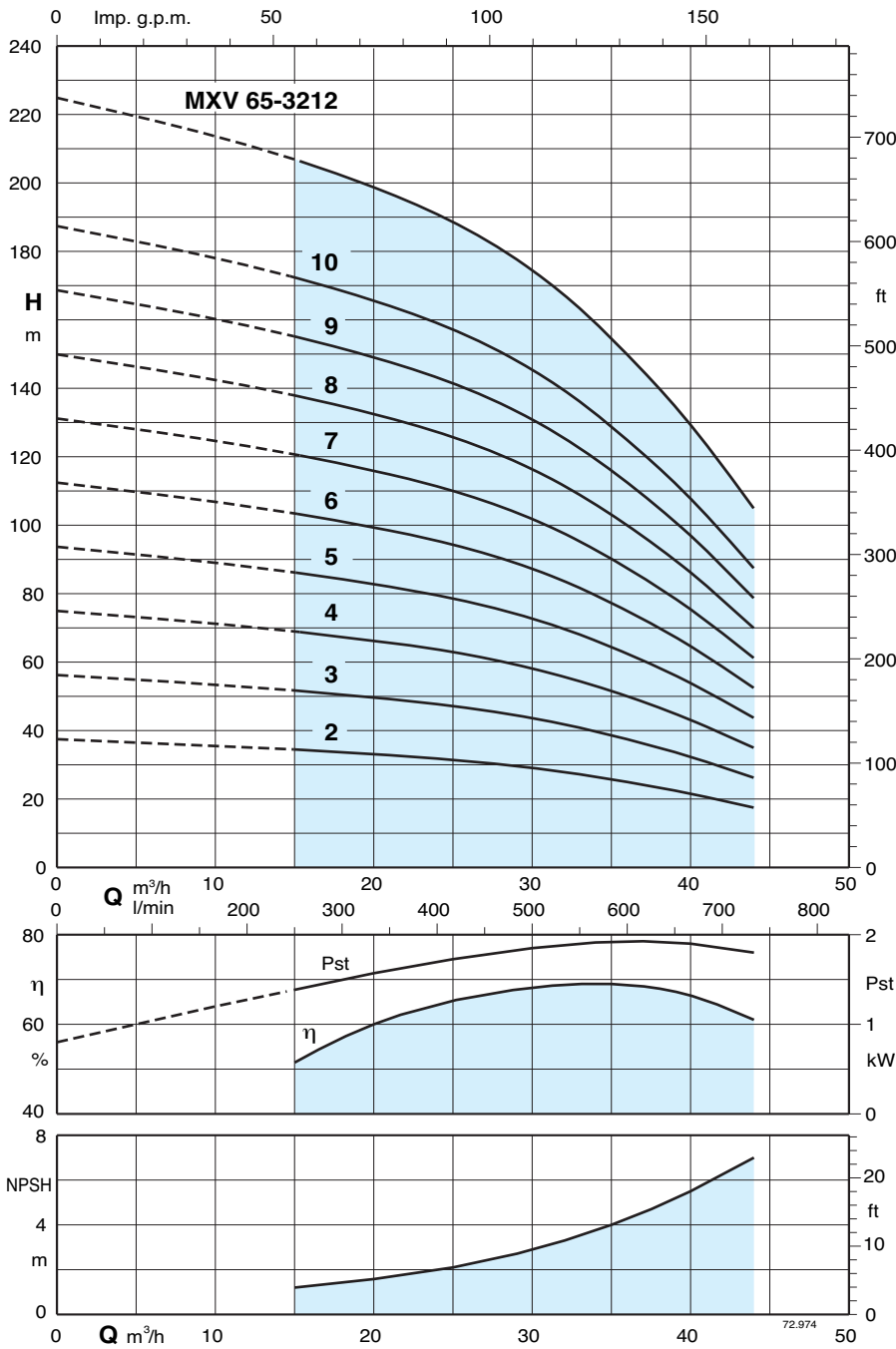
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	H m																		
	kW	HP		0	8	10	12	14	16	18	20	22	24									
MXV 50 - 1603	3	4	0	133,3	166,6	200	233	266	300	333	366	400	51	49	48	46	44	41	38	33	27	20
MXV 50 - 1604	4	5,5	0	133,3	166,6	200	233	266	300	333	366	400	69	65	63	61	59	55	51	44	37	27
MXV 50 - 1605	5,5	7,5	0	133,3	166,6	200	233	266	300	333	366	400	86	81	79	76	73	69	63	55	46	33
MXV 50 - 1606	5,5	7,5	0	133,3	166,6	200	233	266	300	333	366	400	103	98	95	92	88	83	76	67	55	40
MXV 50 - 1607	7,5	10	0	133,3	166,6	200	233	266	300	333	366	400	120	114	111	107	103	97	89	78	64	47
MXV 50 - 1608	7,5	10	0	133,3	166,6	200	233	266	300	333	366	400	138	130	127	122	117	110	101	89	73	53
MXV 50 - 1609	11	15	0	133,3	166,6	200	233	266	300	333	366	400	155	147	143	138	132	124	114	100	83	60
MXV 50 - 1610	11	15	0	133,3	166,6	200	233	266	300	333	366	400	172	163	159	153	147	138	127	111	92	67
MXV 50 - 1611	11	15	0	133,3	166,6	200	233	266	300	333	366	400	189	179	175	168	161	152	139	122	101	73
MXV 50 - 1612	15	20	0	133,3	166,6	200	233	266	300	333	366	400	206	196	190	184	176	166	152	133	110	80
MXV 50 - 1614	15	20	0	133,3	166,6	200	233	266	300	333	366	400	240	228	222	214	206	193	178	156	129	94
MXV 50 - 1616	18,5	25	0	133,3	166,6	200	233	266	300	333	366	400	275			245	235	221	203	178	147	107

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

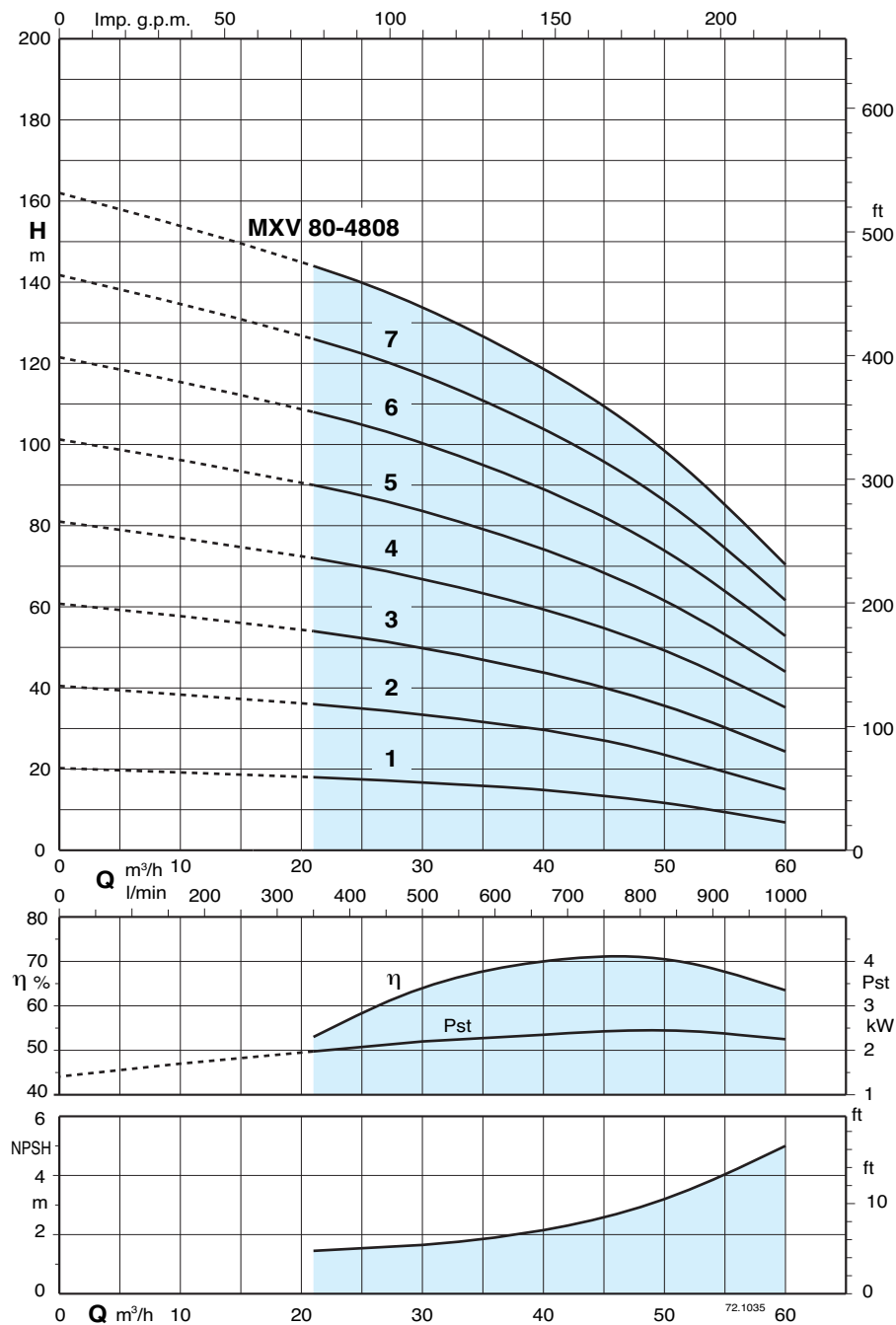
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	0	15	21	24	27	30	33	36	39	44
	kW	HP		0	250	350	400	450	500	550	600	650	733
MXV 65 - 3202	4	5,5	H m	37	34	32	31	30	29	27	24,5	22	17
MXV 65 - 3203	5,5	7,5		55,5	51	49	47,5	46	43,5	40,5	37	33,5	25,5
MXV 65 - 3204	7,5	10		75	69	65,5	63,5	61	58,5	54,5	50	45	35
MXV 65 - 3205	11	15		93,5	86	82	79,5	77	73	68	62,5	56,5	44
MXV 65 - 3206	11	15		112	103	98,5	95,5	92	87	82	75	67,5	52,5
MXV 65 - 3207	15	20		131	121	115	111	107	102	95,5	87,5	79	61,5
MXV 65 - 3208	15	20		150	138	131	127	123	116	109	100	90	70
MXV 65 - 3209	18,5	25		168	155	148	143	138	130	122	112	101	79
MXV 65 - 3210	18,5	25		187	172	164	159	154	145	136	125	112	87,5
MXV 65 - 3212	22	30		225	207	197	191	185	174	163	150	135	105

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

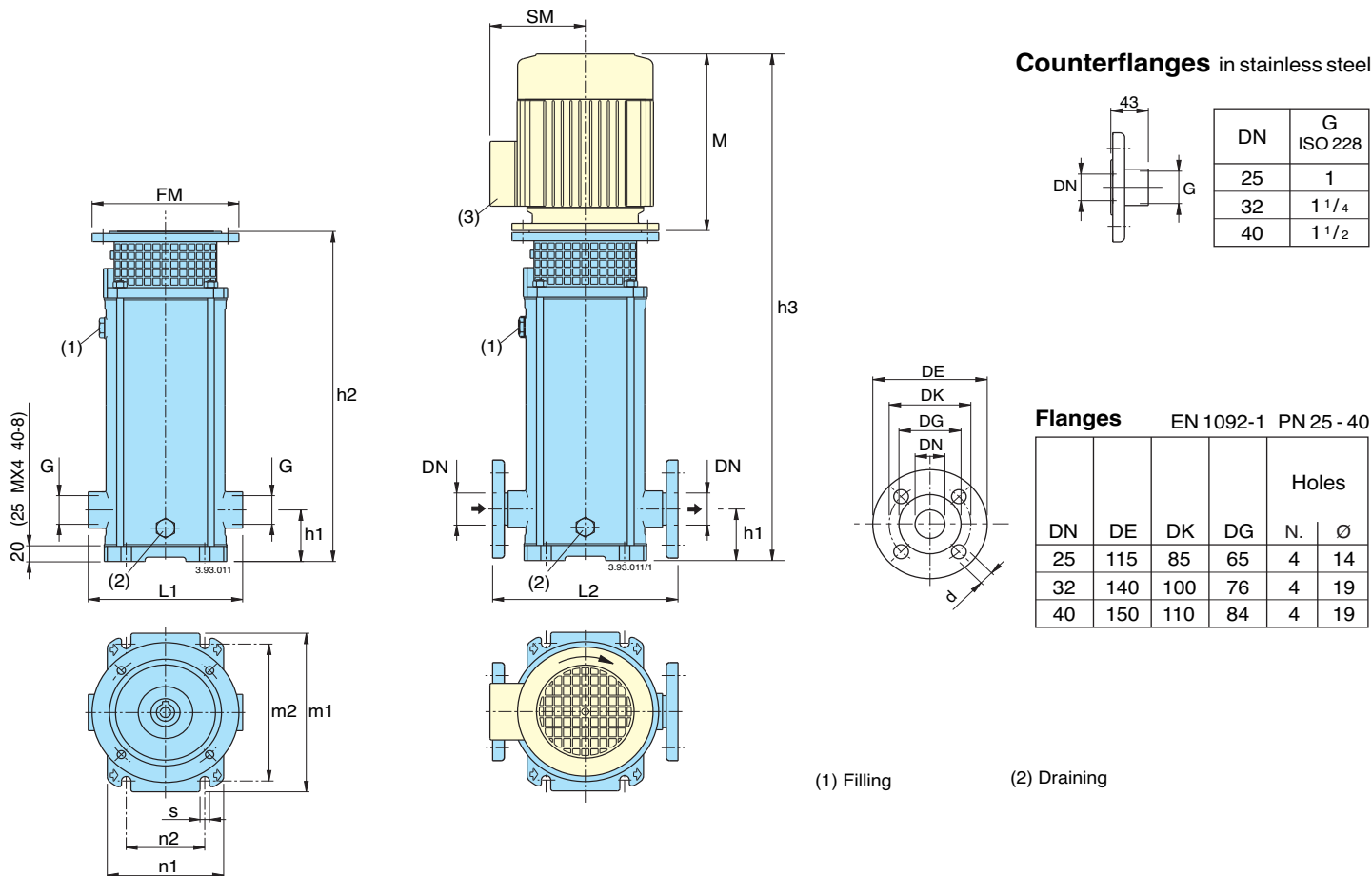
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	H m									
	kW	HP		0	21	27	33	39	45	48	51	54	60
MXV 80 - 4801	4	5,5	0	0	18	17	16	15	13	12	10,7	9,5	7
MXV 80 - 4802	5,5	7,5	21	350	36	34,5	32,5	29,5	26,5	24,5	22	20	15,5
MXV 80 - 4803	7,5	10	27	450	61	54	51	48	44	40	37	34	24,5
MXV 80 - 4804	11	15	33	550	81	72	69	65	60	55	51,5	48	35
MXV 80 - 4805	15	20	39	650	101	90	86	81	75	68,5	64,5	60	44
MXV 80 - 4806	15	20	45	750	121	108	103	97	90	82	77,5	72	53
MXV 80 - 4807	18,5	25	48	800	142	126	120	113	105	96	90	84	61,5
MXV 80 - 4808	22	30	51	850	162	144	137	129	120	109	103	96	70,5

Dimensions and weights



Pump	Motor			MXV (G) threaded ports	MXV (F) flanged ports	mm													without motor	with motor				
						G ISO 228		DN		h1	h2	(5) M	h3	FM	(5) SM	m1	m2	n1			n2	s	MXV (G) (4)	(5)
						L1	L2	DN	L2															
MXV 25-204	0,75	1	80A	G1	215	25	250	75	372	234	606	200	120	210	180	150	100	12,5	18	27				
MXV 25-205	0,75	1	80A	G1	215	25	250	75	396	234	630	200	120	210	180	150	100	12,5	19	28				
MXV 25-206	1,1	1,5	80B	G1	215	25	250	75	420	234	654	200	120	210	180	150	100	12,5	20	30				
MXV 25-207	1,1	1,5	80B	G1	215	25	250	75	444	234	678	200	120	210	180	150	100	12,5	21	31				
MXV 25-208	1,5	2	90 S	G1	215	25	250	75	478	282	760	200	128	210	180	150	100	12,5	22	35				
MXV 25-210	1,5	2	90 S	G1	215	25	250	75	526	282	808	200	128	210	180	150	100	12,5	23	36				
MXV 25-212	2,2	3	90 L	G1	215	25	250	75	574	282	856	200	128	210	180	150	100	12,5	25	41				
MXV 25-214	2,2	3	90 L	G1	215	25	250	75	622	282	904	200	128	210	180	150	100	12,5	26	42				
MXV 25-216	3	4	100 L	G1	215	25	250	75	680	313	993	250	135	210	180	150	100	12,5	29	52				
MXV 25-218	3	4	100 L	G1	215	25	250	75	728	313	1041	250	135	210	180	150	100	12,5	31	54				
MXV 25-220	3	4	100 L	G1	215	25	250	75	776	313	1089	250	135	210	180	150	100	12,5	32	55				
MXV 32-404	1,1	1,5	80 B	G1 1/4	215	32	250	75	372	234	606	200	120	210	180	150	100	12,5	19	29				
MXV 32-405	1,1	1,5	80 B	G1 1/4	215	32	250	75	396	234	630	200	120	210	180	150	100	12,5	20	30				
MXV 32-406	1,5	2	90 S	G1 1/4	215	32	250	75	430	282	712	200	128	210	180	150	100	12,5	21	34				
MXV 32-407	1,5	2	90 S	G1 1/4	215	32	250	75	454	282	736	200	128	210	180	150	100	12,5	22	35				
MXV 32-408	2,2	3	90 L	G1 1/4	215	32	250	75	478	282	760	200	128	210	180	150	100	12,5	23	39				
MXV 32-410	2,2	3	90 L	G1 1/4	215	32	250	75	526	282	808	200	128	210	180	150	100	12,5	24	40				
MXV 32-412	3	4	100 L	G1 1/4	215	32	250	75	584	313	897	250	135	210	180	150	100	12,5	27	50				
MXV 32-414	3	4	100 L	G1 1/4	215	32	250	75	632	313	945	250	135	210	180	150	100	12,5	29	52				
MXV 32-416	4	5,5	112 M	G1 1/4	215	32	250	75	680	334	1014	250	148	210	180	150	100	12,5	30	60				
MXV 32-418	4	5,5	112 M	G1 1/4	215	32	250	75	728	334	1062	250	148	210	180	150	100	12,5	31	61				
MXV 40-804	1,5	2	90 S	G1 1/2	225	40	280	80	411	282	693	200	128	246	215	190	130	14	21	34				
MXV 40-805	2,2	3	90 L	G1 1/2	225	40	280	80	441	282	723	200	128	246	215	190	130	14	22	38				
MXV 40-806	2,2	3	90 L	G1 1/2	225	40	280	80	471	282	753	200	128	246	215	190	130	14	23	39				
MXV 40-807	3	4	100 L	G1 1/2	225	40	280	80	511	313	824	250	135	246	215	190	130	14	25	48				
MXV 40-808	3	4	100 L	G1 1/2	225	40	280	80	541	313	854	250	135	246	215	190	130	14	26	49				
MXV 40-810	4	5,5	112 M	G1 1/2	225	40	280	80	601	334	935	250	148	246	215	190	130	14	28	58				
MXV 40-811	4	5,5	112 M	G1 1/2	225	40	280	80	631	334	965	250	148	246	215	190	130	14	29	59				
MXV 40-813	5,5	7,5	132 SA	G1 1/2	225	40	280	80	711	374	1085	300	167	246	215	190	130	14	35	78				
MXV 40-815	5,5	7,5	132 SA	G1 1/2	225	40	280	80	771	374	1145	300	167	246	215	190	130	14	36	79				
MXV 40-817	7,5	10	132 SB	G1 1/2	225	40	280	80	831	374	1205	300	167	246	215	190	130	14	38	91				
MXV 40-819	7,5	10	132 SB	G1 1/2	225	40	280	80	891	374	1265	300	167	246	215	190	130	14	39	92				

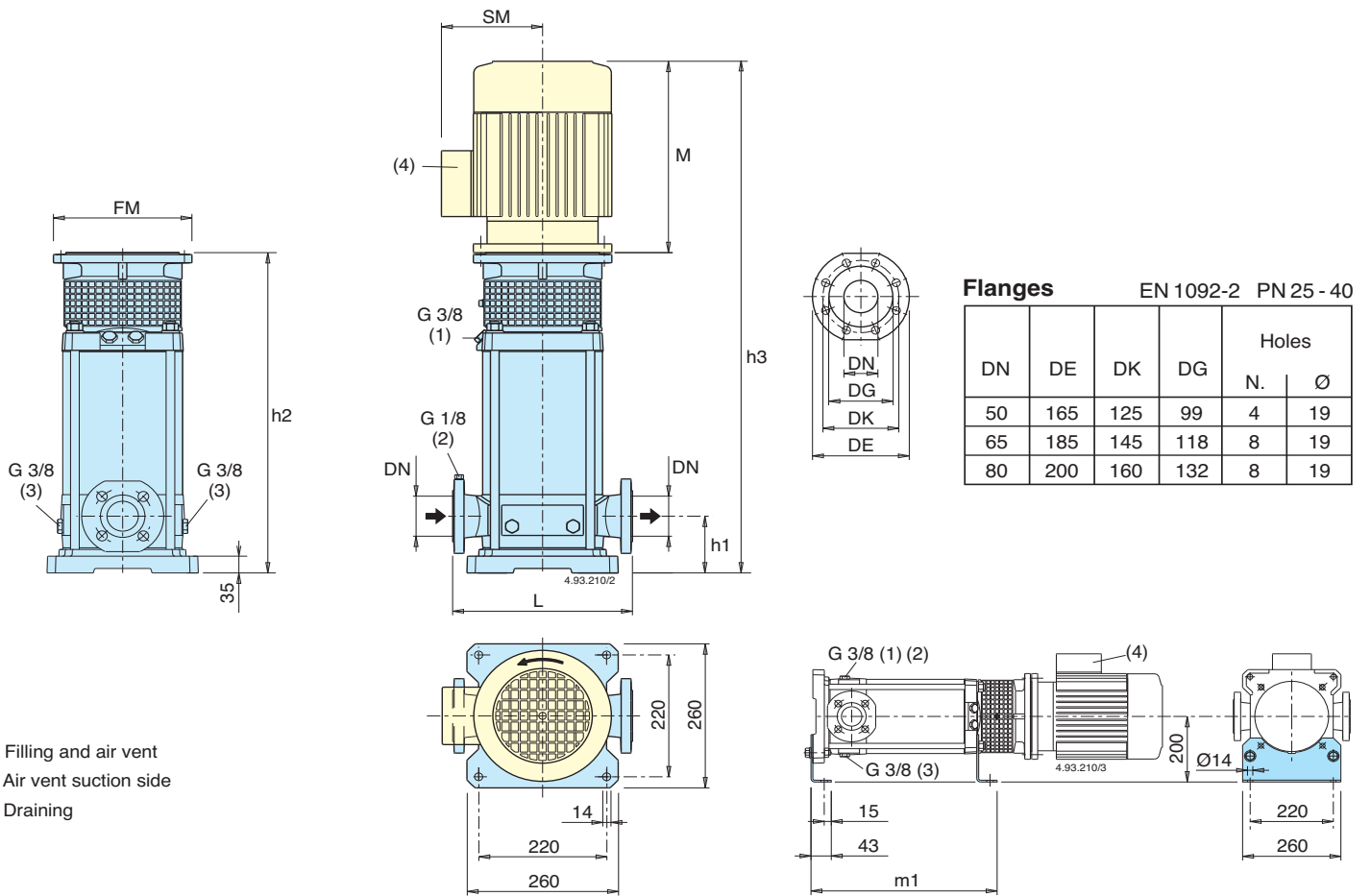
(3) Standard position of terminal box. (for other positions rotate motor through 90° or 180°)

(4) MXV (F) = MXV (G) + 1kg

(5) With standard motor

(6) Net weight

Dimensions and weights



- (1) Filling and air vent
- (2) Air vent suction side
- (3) Draining

Pump	Motor			mm									without motor	with motor
	kW	HP		DN	L	h1	h2	(6) M	h3	FM	(6) SM	m1	MXV (A) (5) kg (7)	(6) kg (7)
MXV 50-1603	3	4	100 L	50	300	90	395	313	708	250	135	322	42	65
MXV 50-1604	4	5,5	112M	50	300	90	430	334	764	250	148	357	43	73
MXV 50-1605	5,5	7,5	132SA	50	300	90	484	374	858	300	167	391	49	92
MXV 50-1606	5,5	7,5	132SA	50	300	90	519	374	893	300	167	426	51	94
MXV 50-1607	7,5	10	132SB	50	300	90	553	374	927	300	167	460	52	105
MXV 50-1608	7,5	10	132SB	50	300	90	588	374	962	300	167	495	53	106
MXV 50-1609	11	15	160MA	50	300	90	652	478	1130	350	197	529	62	134
MXV 50-1610	11	15	160MA	50	300	90	687	478	1165	350	197	564	64	136
MXV 50-1611	11	15	160MA	50	300	90	721	478	1199	350	197	598	65	137
MXV 50-1612	15	20	160MB	50	300	90	756	478	1234	350	197	633	67	152
MXV 50-1614	15	20	160MB	50	300	90	825	478	1303	350	197	702	70	155
MXV 50-1616	18,5	25	160L	50	300	90	894	478	1372	350	197	771	73	175
MXV 65-3202	4	5,5	112 M	65	320	105	407	334	741	250	148	334	45	75
MXV 65-3203	5,5	7,5	132SA	65	320	105	473	374	847	300	167	380	51	94
MXV 65-3204	7,5	10	132SB	65	320	105	519	374	893	300	167	426	53	106
MXV 65-3205	11	15	160MA	65	320	105	595	478	1073	350	197	472	62	134
MXV 65-3206	11	15	160MA	65	320	105	641	478	1119	350	197	518	64	136
MXV 65-3207	15	20	160MB	65	320	105	687	478	1165	350	197	564	66	151
MXV 65-3208	15	20	160MB	65	320	105	733	478	1211	350	197	610	68	153
MXV 65-3209	18,5	25	160L	65	320	105	779	478	1257	350	197	656	70	172
MXV 65-3210	18,5	25	160L	65	320	105	825	478	1303	350	197	702	72	174
MXV 65-3212	22	30	180M	65	320	105	917	602	1519	350	259	794	75	190
MXV 80-4801	4	5,5	112 M	80	320	105	411	334	745	250	148	338	45	75
MXV 80-4802	5,5	7,5	132SA	80	320	105	466	374	840	300	167	373	51	94
MXV 80-4803	7,5	10	132SB	80	320	105	527	374	901	300	167	434	54	107
MXV 80-4804	11	15	160MA	80	320	105	618	478	1096	350	197	495	64	136
MXV 80-4805	15	20	160MB	80	320	105	680	478	1158	350	197	557	66	151
MXV 80-4806	15	20	160MB	80	320	105	741	478	1219	350	197	618	69	154
MXV 80-4807	18,5	25	160L	80	320	105	802	478	1280	350	197	679	72	174
MXV 80-4808	22	30	180M	80	320	105	864	602	1466	350	259	741	74	189

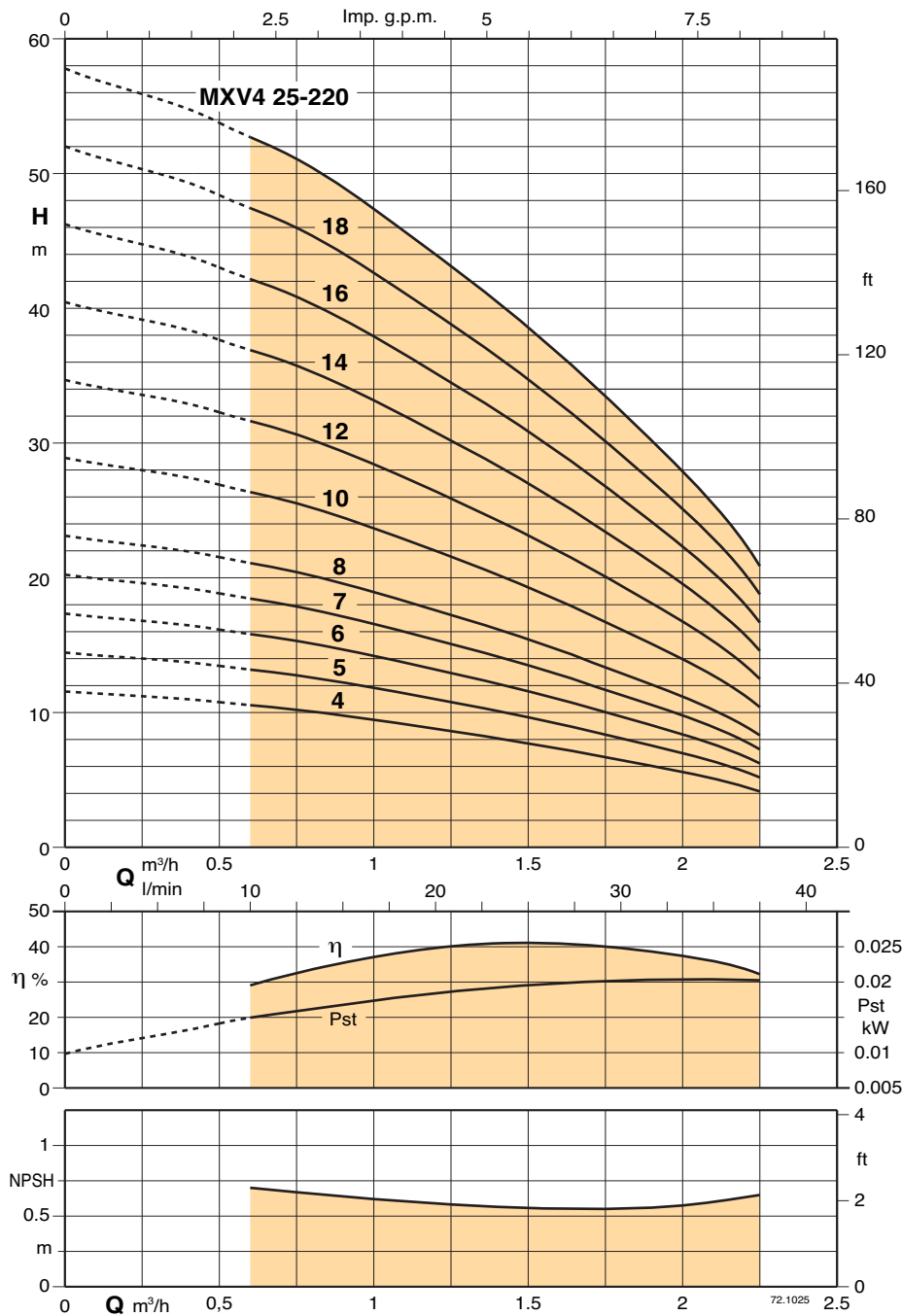
(4) Standard position of terminal box. (for other positions rotate motor through 90° or 180°)

(5) MXV (N) : + 3 kg
MXV (H) : + 3 kg

(6) With standard motor

(7) Net weight

Characteristic curves and performance $n \approx 1450$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

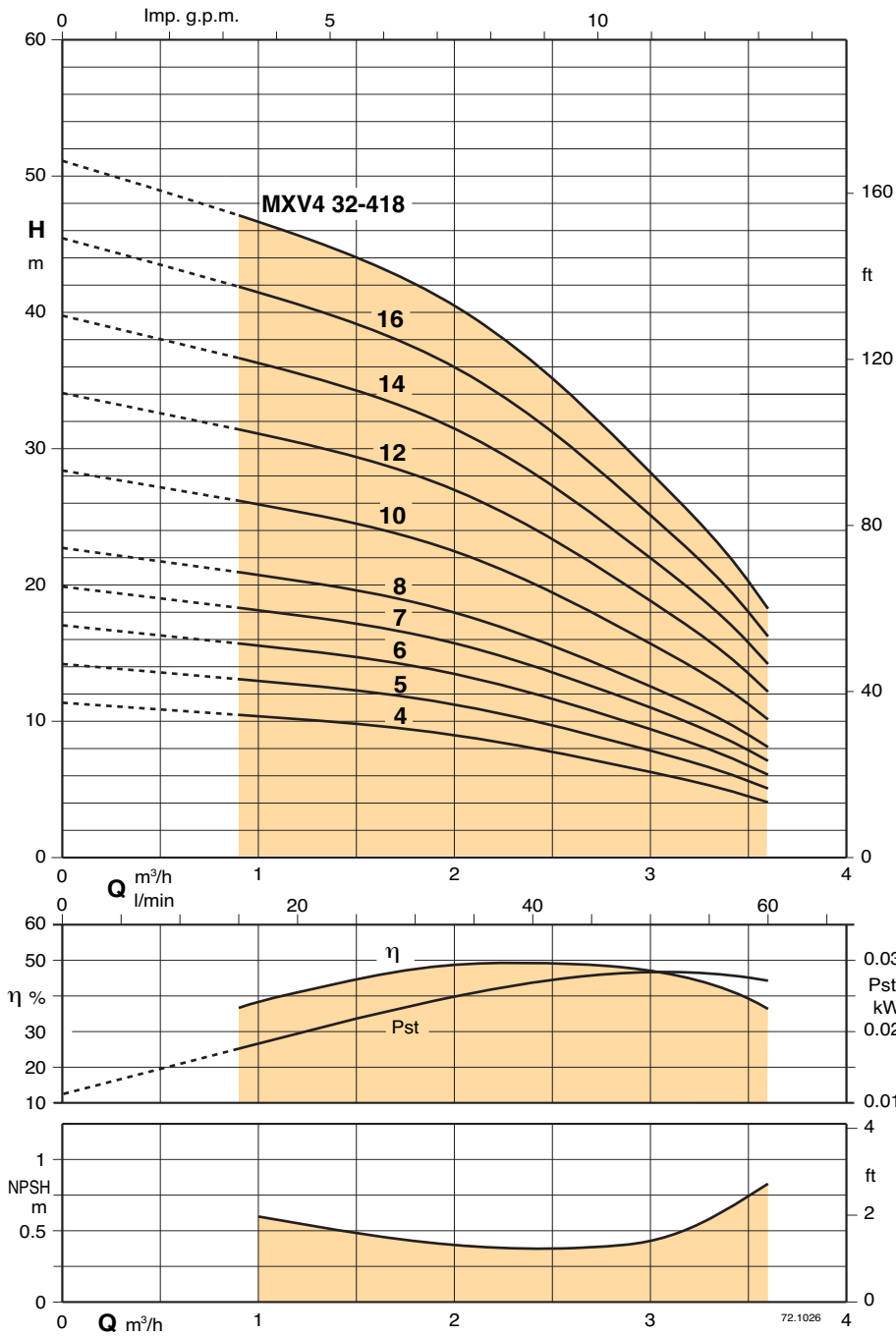
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	H m								
	kW	HP		0	0,6	0,9	1,2	1,5	1,8	2,2		
MXV4 25 - 204	0,55	0,75	0	0	10	15	20	25	30	36,6		
MXV4 25 - 205	0,55	0,75	11,5	10,5	10	9	7,5	6,5	4			
MXV4 25 - 206	0,55	0,75	14,5	13	12	11	9,5	8	5			
MXV4 25 - 207	0,55	0,75	17,5	16	14,5	13	11,5	9,5	6			
MXV4 25 - 208	0,55	0,75	20,5	18,5	17	15,5	13,5	11	7			
MXV4 25 - 210	0,55	0,75	23	21	19,5	17,5	15	13	8			
MXV4 25 - 212	0,55	0,75	29	26,5	24,5	22	19	16	10			
MXV4 25 - 214	0,55	0,75	35	31,5	29,5	26,5	23	19	12			
MXV4 25 - 216	0,55	0,75	40,5	37	34,5	31	26,5	22,5	14			
MXV4 25 - 218	0,55	0,75	46,5	42	39	35	30,5	25,5	16,5			
MXV4 25 - 220	0,55	0,75	52	47,5	44	39,5	34	29	18,5			
			58	52,5	49	44	38	32	21			

Characteristic curves and performance $n \approx 1450$ rpm



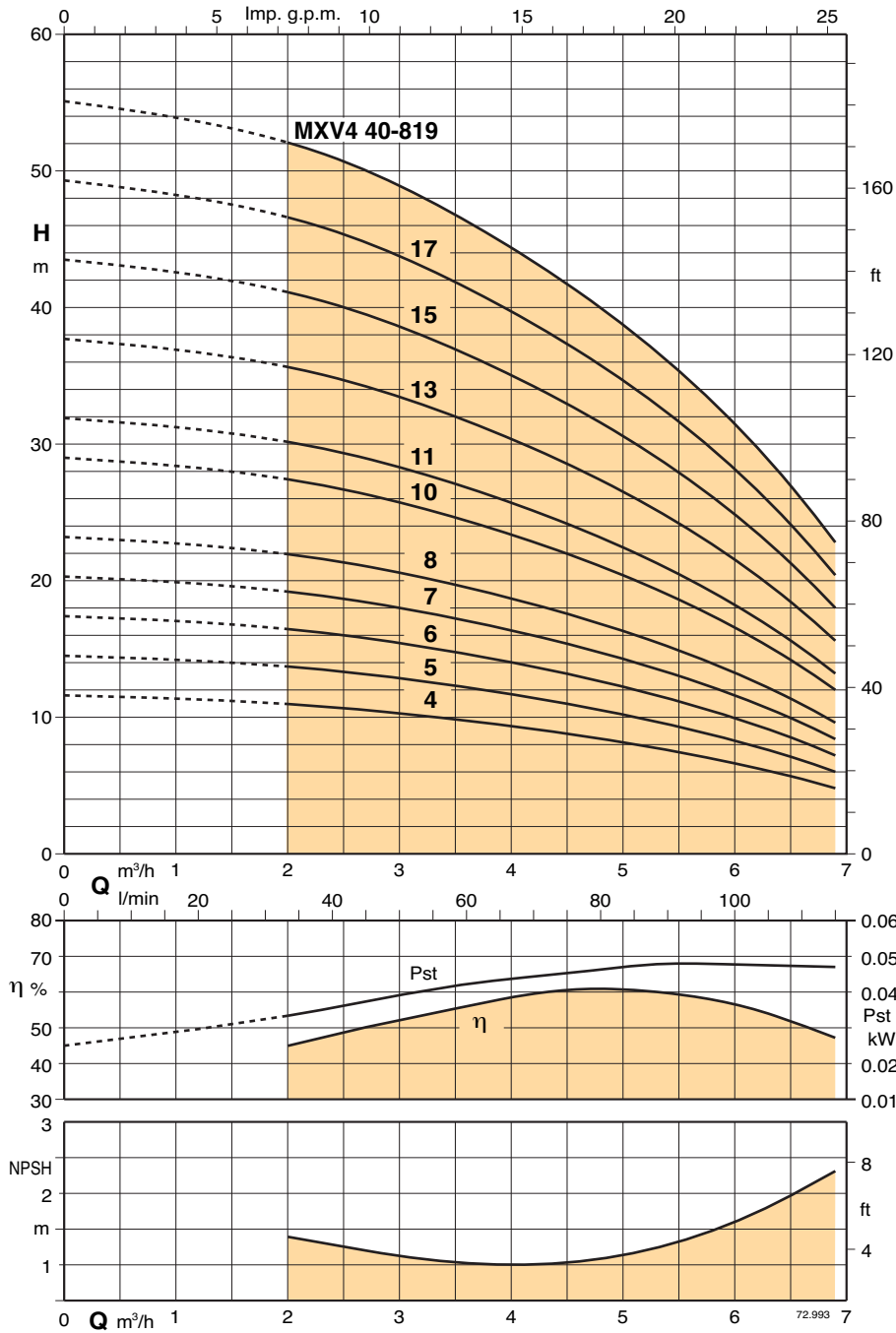
Test results with clean cold water, without gas content.
 A safety margin of + 0.5 m is recommended for the NPSH value.
 Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	H m									
	kW	HP		0	0,9	1,2	1,8	2,4	3	3,6			
MXV4 32 - 404	0,55	0,75	0	0	15	20	30	40	50	60			
MXV4 32 - 405	0,55	0,75	11	10,5	10	9,5	8	6,5	4				
MXV4 32 - 406	0,55	0,75	14	13	12,5	12	10	8	5				
MXV4 32 - 407	0,55	0,75	17	15,5	15	14	12	9,5	6				
MXV4 32 - 408	0,55	0,75	19,5	18	17,5	16,5	14	11	7				
MXV4 32 - 410	0,55	0,75	22,5	21	20	19	16	13	8				
MXV4 32 - 412	0,55	0,75	28	26	25	23,5	20	16	10				
MXV4 32 - 414	0,55	0,75	33,5	31	30	28	24	19	12				
MXV4 32 - 416	0,55	0,75	39	36,5	35	33	28	22,5	14				
MXV4 32 - 418	0,75	1	45	41,5	40	37,5	32	25,5	16				
			51	47	45	42	36	29	18				

Characteristic curves and performance $n \approx 1450$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

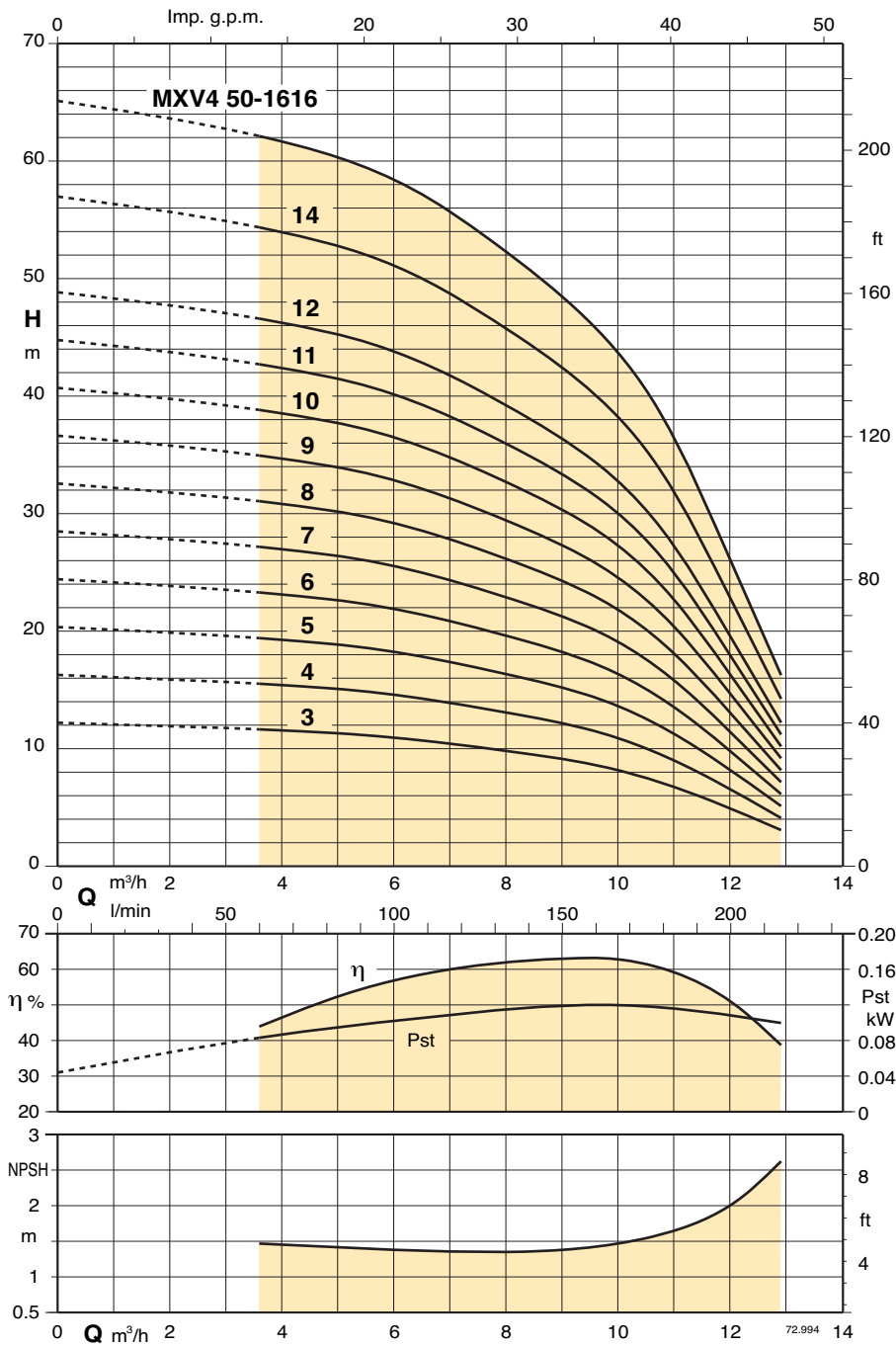
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	0	2	2,7	3,6	4,2	4,8	5,4	6	6,9
	kW	HP		0	33,5	45	60	70	80	90	100	115
MXV4 40 - 804	0,55	0,75	H m	11,5	11	10,5	9,5	9	8,5	7,5	6,5	5
MXV4 40 - 805	0,55	0,75		14,5	14	13	12	11,5	10,5	9,5	8	6
MXV4 40 - 806	0,55	0,75		17,5	16,5	16	14,5	13,5	12,5	11,5	10	7
MXV4 40 - 807	0,55	0,75		20	19	18,5	17	16	15	13,5	11,5	8,5
MXV4 40 - 808	0,55	0,75		23	22	21	19,5	18	17	15	13	9,5
MXV4 40 - 810	0,75	1		29	27,5	26	24	23	21	19	16,5	12
MXV4 40 - 811	0,75	1		32	30	29	26,5	25	23	21	18	13
MXV4 40 - 813	0,75	1		38	36	34	31,5	29,5	27	25	21,5	15,5
MXV4 40 - 815	1,1	1,5		43,5	41	39,5	36,5	34	31,5	28,5	25	18
MXV4 40 - 817	1,1	1,5		49	47	44,5	41	39	36	32	28	20,5
MXV4 40 - 819	1,1	1,5		55	52	50	46	43	40	36	31,5	23

Characteristic curves and performance $n \approx 1450$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

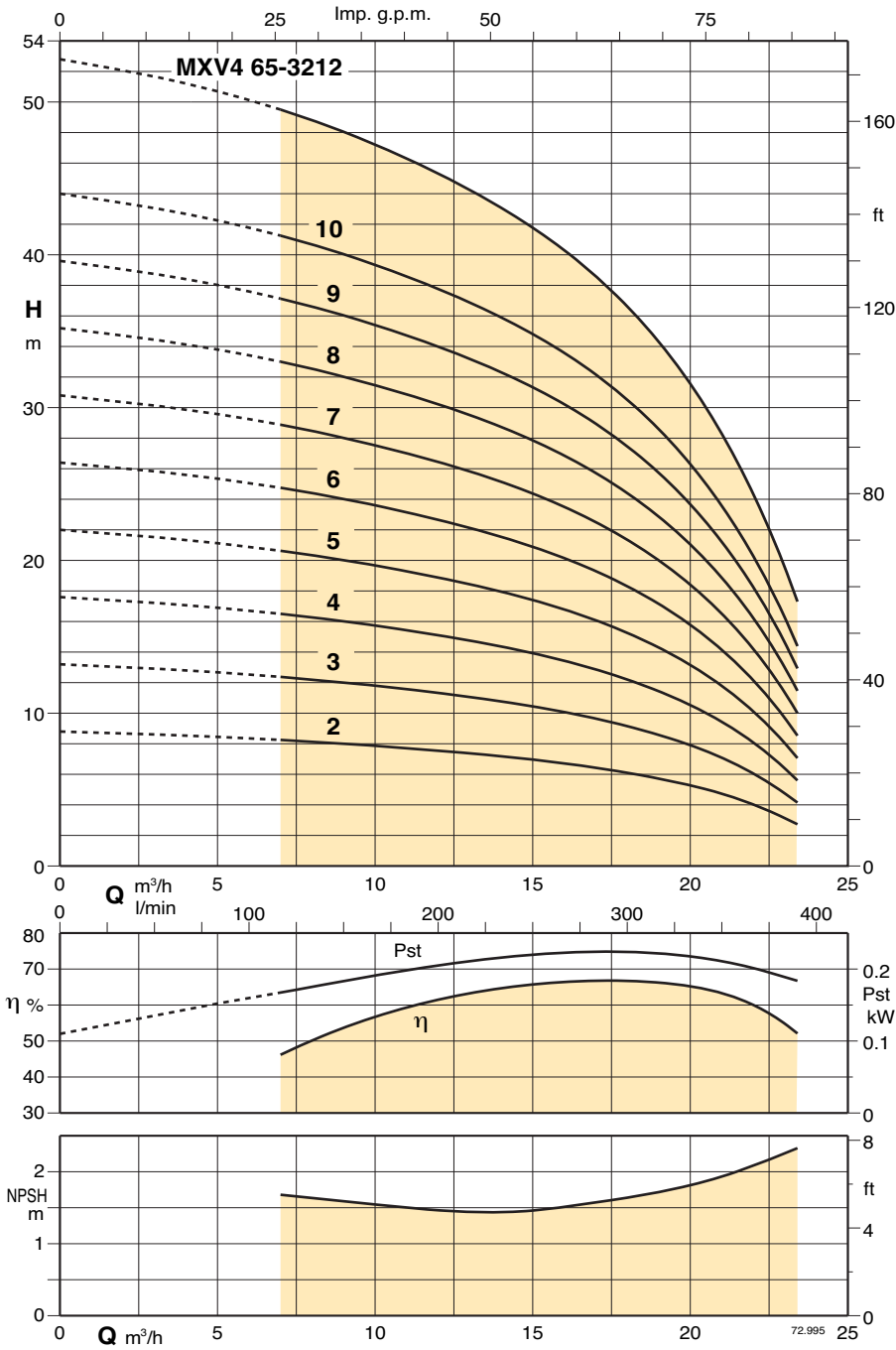
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	H m									
	kW	HP		0	3,6	4,5	6	7,5	9	10,5	12,9		
MXV4 50 - 1603	2,2	3	0	12,3	11,5	11,5	11	10	9	7,5	3		
MXV4 50 - 1604	2,2	3	3,6	16,5	15,5	15,5	14,5	13,5	12	10	4		
MXV4 50 - 1605	2,2	3	4,5	20,5	19,5	19	18,5	17	15,5	12,5	5		
MXV4 50 - 1606	2,2	3	6	24,5	23	23	22	20,5	18,5	15	6		
MXV4 50 - 1607	2,2	3	7,5	29	27	27	25,5	24	21,5	17,5	7		
MXV4 50 - 1608	2,2	3	9	33	31	30,5	29,5	27	24,5	20	8		
MXV4 50 - 1609	2,2	3	10,5	37	35	34,5	33	30,5	27,5	22,5	9		
MXV4 50 - 1610	2,2	3	12,9	41	39	38,5	36,5	34	30,5	25	10		
MXV4 50 - 1611	2,2	3		45	42,5	42	40,5	37,5	34	27,5	11,5		
MXV4 50 - 1612	2,2	3		49	46,5	46	44	41	37	30	12,5		
MXV4 50 - 1614	2,2	3		57,5	54	53,5	51,5	47,5	43	35	14,5		
MXV4 50 - 1616	3	4		65,5	62	61,5	58,5	54,5	49	40	16,5		

Characteristic curves and performance $n \approx 1450$ rpm



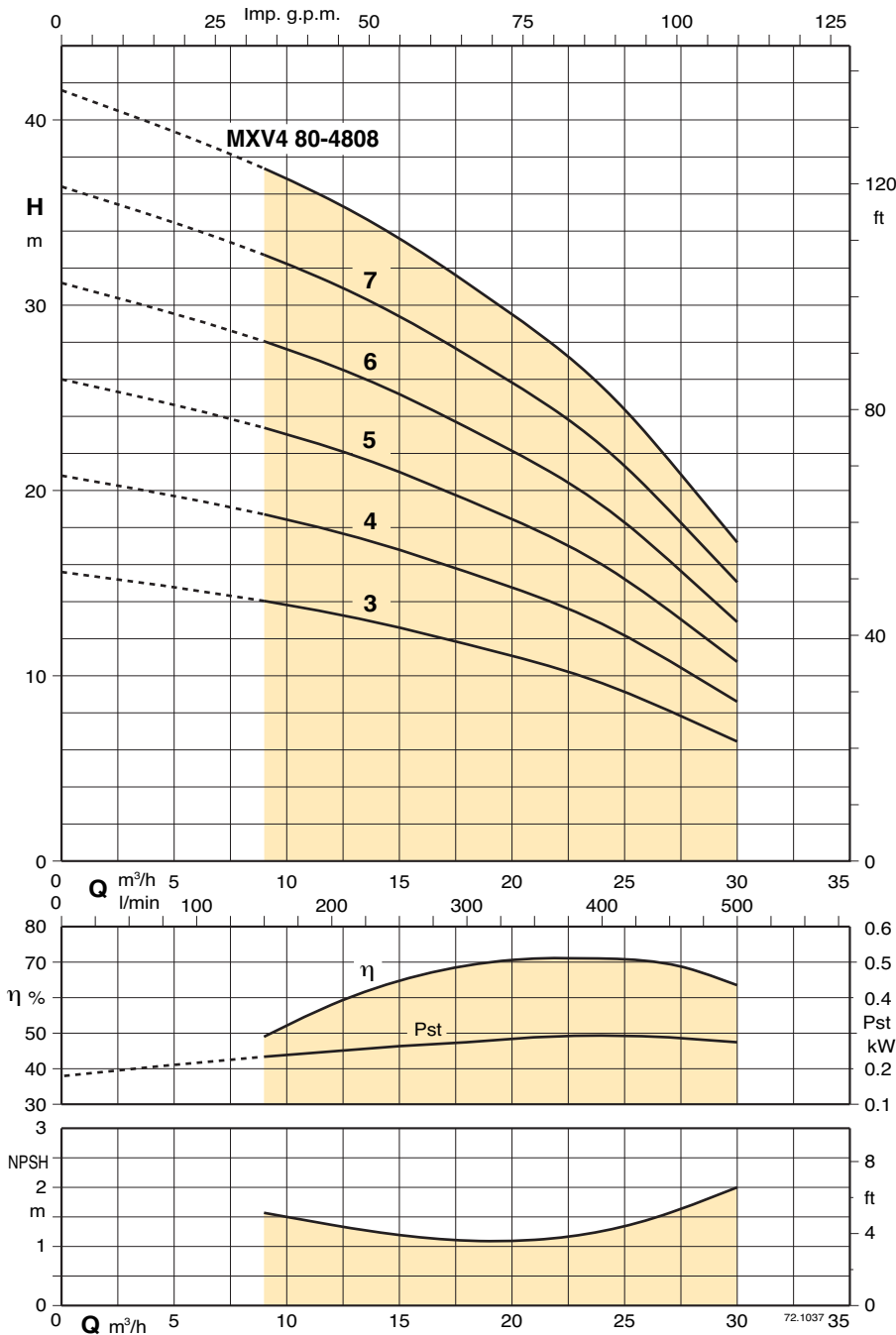
Test results with clean cold water, without gas content.
 A safety margin of + 0.5 m is recommended for the NPSH value.
 Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	H m										
	kW	HP		0	7	9	11	13	15	17	19	23,4		
MXV4 65 - 3202	2,2	3	0	116,6	150	183	216	250	283	316	390			
MXV4 65 - 3203	2,2	3	9	8,2	8	7,7	7,4	7	6,5	6	3			
MXV4 65 - 3204	2,2	3	13	12,3	12	11,5	11	10	9,5	8,5	4			
MXV4 65 - 3205	2,2	3	17,5	16,5	16	15,5	15	13,5	12,5	11,5	6			
MXV4 65 - 3206	2,2	3	22	20,5	20	19	18	17	16	14	7			
MXV4 65 - 3207	2,2	3	26	25	24	23	22	20,5	19	17	8,5			
MXV4 65 - 3208	2,2	3	31	29	28	27	25,5	24	22	20	10			
MXV4 65 - 3209	3	4	35	33	32	30,5	29,5	27	25,5	23	11,5			
MXV4 65 - 3210	3	4	39	37	36	34,5	33	30,5	28,5	25,5	13			
MXV4 65 - 3212	4	5,5	44	41	40	38,5	36,5	34	32	28,5	14,5			
			53	49	48	46	44	41	38	34	17,5			

Characteristic curves and performance $n \approx 1450$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

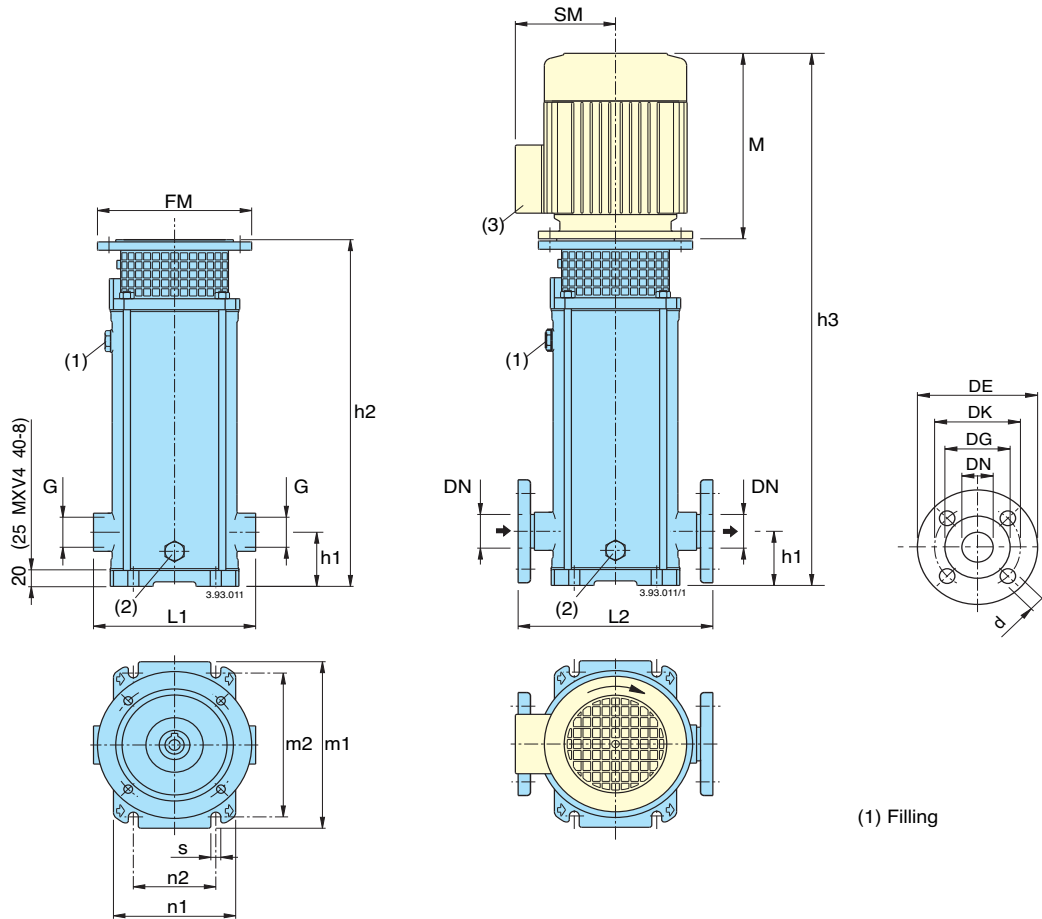
Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump type	Motor power		Q m³/h l/min	0	9	12	15	18	21	24	27	30	
	kW	HP		0	150	200	250	300	350	400	450	500	
MXV4 80 - 4803	2,2	3	H m	15,5	14	13	12,5	11,5	11	9,5	8	6,5	
MXV4 80 - 4804	2,2	3		21	19	18	17	15,5	14,5	13	11	8,5	
MXV4 80 - 4805	2,2	3		26	23,5	22	21	19,5	18	16	13,5	11	
MXV4 80 - 4806	2,2	3		31	28	26,5	25	23,5	21,5	19	16	13	
MXV4 80 - 4807	3	4		36,5	33	31	29,5	27	25	22,5	19	15	
MXV4 80 - 4808	3	4		41,5	37,5	35,5	33,5	31	29	25,5	21,5	17	

Dimensions and weights



Counterflanges in stainless steel

DN	G ISO 228
25	1
32	1 1/4
40	1 1/2

Flanges EN 1092-1 PN 25 - 40

DN	DE	DK	DG	Holes	
				N.	Ø
25	115	85	65	4	14
32	140	100	76	4	19
40	150	110	84	4	19

Pump	Motor			MXV (G) threaded ports	MXV (F) flanged ports	mm													without motor	with motor
	kW	HP				G ISO 228	L1	DN	L2	h1	h2	(5) M	h3	FM	(5) SM	m1	m2	n1		
MXV4 25-204	0,55	0,75	80 A4	G1	215	25	250	75	372	234	606	200	120	210	180	150	100	12,5	18	26
MXV4 25-205	0,55	0,75	80 A4	G1	215	25	250	75	396	234	630	200	120	210	180	150	100	12,5	19	27
MXV4 25-206	0,55	0,75	80 A4	G1	215	25	250	75	420	234	654	200	120	210	180	150	100	12,5	20	28
MXV4 25-207	0,55	0,75	80 A4	G1	215	25	250	75	444	234	678	200	120	210	180	150	100	12,5	21	29
MXV4 25-208	0,55	0,75	80 A4	G1	215	25	250	75	468	234	702	200	120	210	180	150	100	12,5	22	30
MXV4 25-210	0,55	0,75	80 A4	G1	215	25	250	75	516	234	750	200	120	210	180	150	100	12,5	23	31
MXV4 25-212	0,55	0,75	80 A4	G1	215	25	250	75	564	234	798	200	120	210	180	150	100	12,5	25	33
MXV4 25-214	0,55	0,75	80 A4	G1	215	25	250	75	612	234	846	200	120	210	180	150	100	12,5	26	34
MXV4 25-216	0,55	0,75	80 A4	G1	215	25	250	75	660	234	894	200	120	210	180	150	100	12,5	28	36
MXV4 25-218	0,55	0,75	80 A4	G1	215	25	250	75	708	234	942	200	120	210	180	150	100	12,5	30	38
MXV4 25-220	0,55	0,75	80 A4	G1	215	25	250	75	756	234	990	200	120	210	180	150	100	12,5	31	39
MXV4 32-404	0,55	0,75	80 A4	G1 1/4	215	32	250	75	372	234	606	200	120	210	180	150	100	12,5	19	27
MXV4 32-405	0,55	0,75	80 A4	G1 1/4	215	32	250	75	396	234	630	200	120	210	180	150	100	12,5	20	28
MXV4 32-406	0,55	0,75	80 A4	G1 1/4	215	32	250	75	420	234	654	200	120	210	180	150	100	12,5	21	29
MXV4 32-407	0,55	0,75	80 A4	G1 1/4	215	32	250	75	444	234	678	200	120	210	180	150	100	12,5	22	30
MXV4 32-408	0,55	0,75	80 A4	G1 1/4	215	32	250	75	468	234	702	200	120	210	180	150	100	12,5	23	31
MXV4 32-410	0,55	0,75	80 A4	G1 1/4	215	32	250	75	516	234	750	200	120	210	180	150	100	12,5	25	33
MXV4 32-412	0,55	0,75	80 A4	G1 1/4	215	32	250	75	564	234	798	200	120	210	180	150	100	12,5	26	34
MXV4 32-414	0,55	0,75	80 A4	G1 1/4	215	32	250	75	612	234	846	200	120	210	180	150	100	12,5	28	36
MXV4 32-416	0,55	0,75	80 A4	G1 1/4	215	32	250	75	660	234	894	200	120	210	180	150	100	12,5	30	38
MXV4 32-418	0,75	1	80 B4	G1 1/4	215	32	250	75	708	234	942	200	120	210	180	150	100	12,5	32	42
MXV4 40-804	0,55	0,75	80 A4	G1 1/2	225	40	280	80	401	234	635	200	120	246	215	190	130	14	21	29
MXV4 40-805	0,55	0,75	80 A4	G1 1/2	225	40	280	80	431	234	665	200	120	246	215	190	130	14	22	30
MXV4 40-806	0,55	0,75	80 A4	G1 1/2	225	40	280	80	461	234	695	200	120	246	215	190	130	14	23	31
MXV4 40-807	0,55	0,75	80 A4	G1 1/2	225	40	280	80	491	234	725	200	120	246	215	190	130	14	25	33
MXV4 40-808	0,55	0,75	80 A4	G1 1/2	225	40	280	80	521	234	755	200	120	246	215	190	130	14	26	34
MXV4 40-810	0,75	1	80 B4	G1 1/2	225	40	280	80	581	234	815	200	120	246	215	190	130	14	28	38
MXV4 40-811	0,75	1	80 B4	G1 1/2	225	40	280	80	611	234	845	200	120	246	215	190	130	14	29	39
MXV4 40-813	0,75	1	80 B4	G1 1/2	225	40	280	80	671	234	905	200	120	246	215	190	130	14	31	41
MXV4 40-815	1,1	1,5	90 S4	G1 1/2	225	40	280	80	741	282	1023	200	128	246	215	190	130	14	33	46
MXV4 40-817	1,1	1,5	90 S4	G1 1/2	225	40	280	80	801	282	1083	200	128	246	215	190	130	14	35	48
MXV4 40-819	1,1	1,5	90 S4	G1 1/2	225	40	280	80	861	282	1143	200	128	246	215	190	130	14	37	50

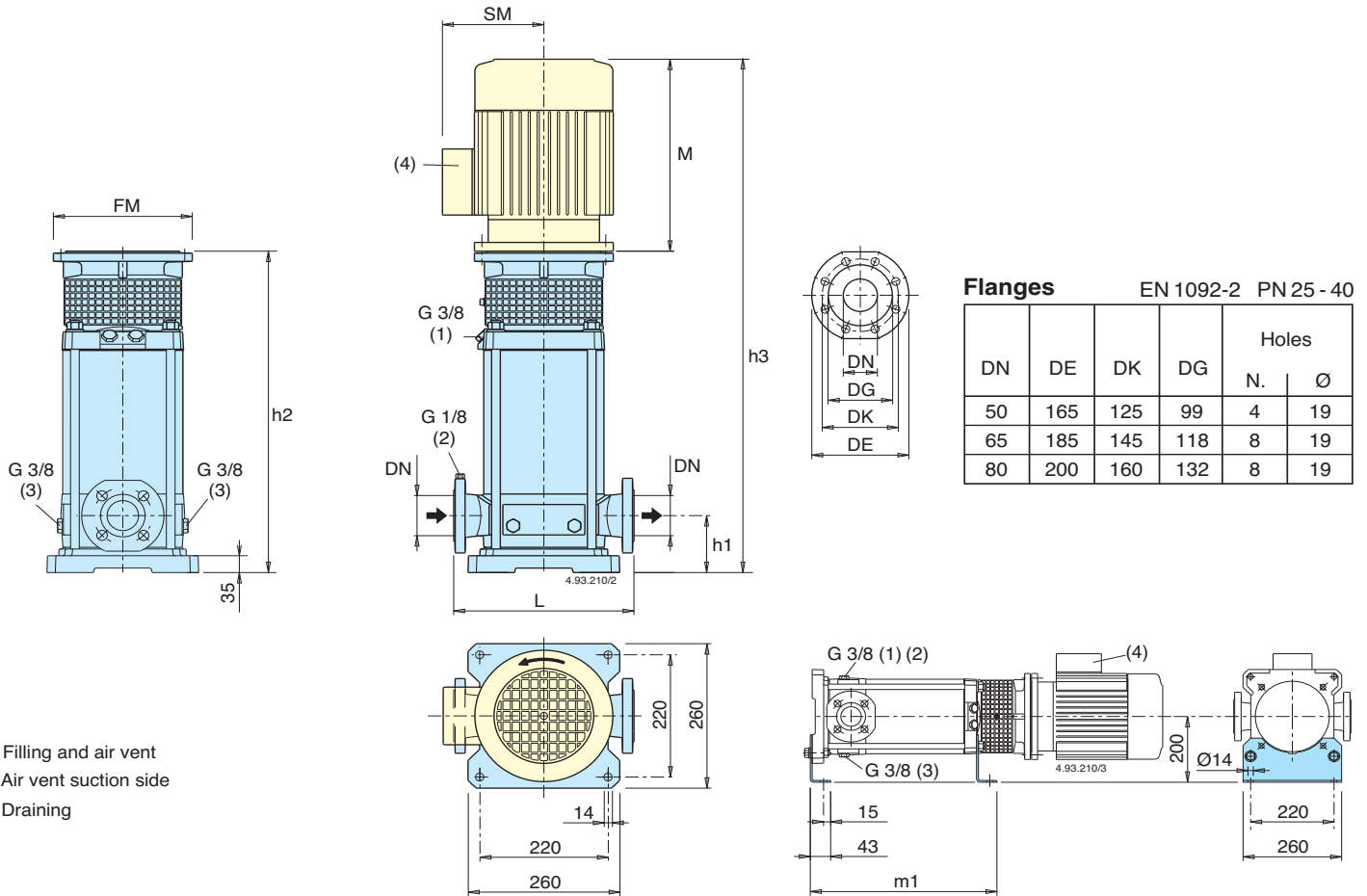
(3) Standard position of terminal box. (for other positions rotate motor through 90° or 180°)

(4) MXV (F) = MXV (G) + 1kg

(5) With standard motor

(6) Net weight

Dimensions and weights



- (1) Filling and air vent
- (2) Air vent suction side
- (3) Draining

Pump	Motor		mm										without motor	with motor
			DN	L	h1	h2	(6) M	h3	FM	(6) SM	m1	MXV (A) (5) kg (7)	(6) kg (7)	
MXV4 50-1603	2,2	3	100 LA4	50	300	90	395	313	708	250	135	322	42	66
MXV4 50-1604	2,2	3	100 LA4	50	300	90	430	313	743	250	135	357	43	67
MXV4 50-1605	2,2	3	100 LA4	50	300	90	464	313	777	250	135	391	45	69
MXV4 50-1606	2,2	3	100 LA4	50	300	90	499	313	812	250	135	426	46	70
MXV4 50-1607	2,2	3	100 LA4	50	300	90	533	313	846	250	135	460	48	72
MXV4 50-1608	2,2	3	100 LA4	50	300	90	568	313	881	250	135	495	49	73
MXV4 50-1609	2,2	3	100 LA4	50	300	90	602	313	915	250	135	529	51	75
MXV4 50-1610	2,2	3	100 LA4	50	300	90	637	313	950	250	135	564	52	76
MXV4 50-1611	2,2	3	100 LA4	50	300	90	671	313	984	250	135	598	54	78
MXV4 50-1612	2,2	3	100 LA4	50	300	90	706	313	1019	250	135	633	55	79
MXV4 50-1614	2,2	3	100 LA4	50	300	90	775	313	1088	250	135	702	58	82
MXV4 50-1616	3	4	100 LB4	50	300	90	844	313	1157	250	135	771	61	87
MXV4 65-3202	2,2	3	100 LA4	65	320	105	407	313	720	250	135	334	45	69
MXV4 65-3203	2,2	3	100 LA4	65	320	105	453	313	766	250	135	380	47	71
MXV4 65-3204	2,2	3	100 LA4	65	320	105	499	313	812	250	135	426	49	73
MXV4 65-3205	2,2	3	100 LA4	65	320	105	545	313	858	250	135	472	51	75
MXV4 65-3206	2,2	3	100 LA4	65	320	105	591	313	904	250	135	518	52	76
MXV4 65-3207	2,2	3	100 LA4	65	320	105	637	313	950	250	135	564	54	78
MXV4 65-3208	2,2	3	100 LA4	65	320	105	683	313	996	250	135	610	56	80
MXV4 65-3209	3	4	100 LB4	65	320	105	729	313	1042	250	135	656	58	84
MXV4 65-3210	3	4	100 LB4	65	320	105	775	313	1088	250	135	702	60	86
MXV4 65-3212	4	5,5	112 M4	65	320	105	867	401	1268	250	148	794	62	92
MXV4 80-4803	2,2	3	100 LA4	80	320	105	507	313	820	250	135	434	50	74
MXV4 80-4804	2,2	3	100 LA4	80	320	105	568	313	881	250	135	495	53	77
MXV4 80-4805	2,2	3	100 LA4	80	320	105	630	313	943	250	135	557	55	79
MXV4 80-4806	2,2	3	100 LA4	80	320	105	691	313	1004	250	135	618	58	82
MXV4 80-4807	3	4	100 LB4	80	320	105	752	313	1065	250	135	679	61	87
MXV4 80-4808	3	4	100 LB4	80	320	105	814	313	1127	250	135	741	63	89

(4) Standard position of terminal box. (for other positions rotate motor through 90° or 180°)

(5) MXV (N) : + 3 kg
MXV (H) : + 3 kg

(6) With standard motor

(7) Net weight

Features

Long Service Life with Standard Motor

Pump with thrust bearing without additional axial loads on the motor bearings.

Any standard motor V1 design (suitable to be lifted in vertical position) can be used, of our choice or of Client's choice.

Easy Assembly of the Motor

With the single-piece sleeve coupling the pump unit can be supplied fully assembled also without the motor. This eliminates the risk of damage caused by shifting of the pump shaft during transportation. The motor is simply inserted in the coupling and fastened to the flange without the necessity for adapting the axial position of the pump shaft.

Extra Safety

Single-piece coupling guard to be removed only by means of a tool, positioned around the lantern bracket, thus avoiding accidental pushing and rubbing against the coupling.

Low Cost Installation

Vertical construction with reduced pump height for installation in small spaces.

In-line connections to simplify the piping layout with the possibility of inserting the pump in straight pipe-lines.

Disassembly, inspection or cleaning of internal parts without removal of piping.

Robust and Reliable

Single PN 25 construction for all pump sizes.

The suction and discharge nozzles arranged in-line absorb the forces of the piping on the pump without the creation of distorting loads causing local friction and early wears.

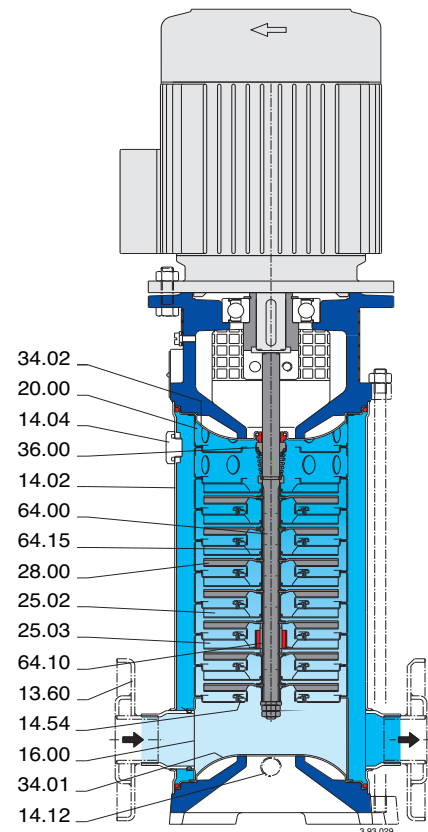
The lantern brackets compact and robust design maintains a sure alignment between rotating and fixed parts, reducing vibration.

The upper cover design prevents entrapment of air around the mechanical seal.

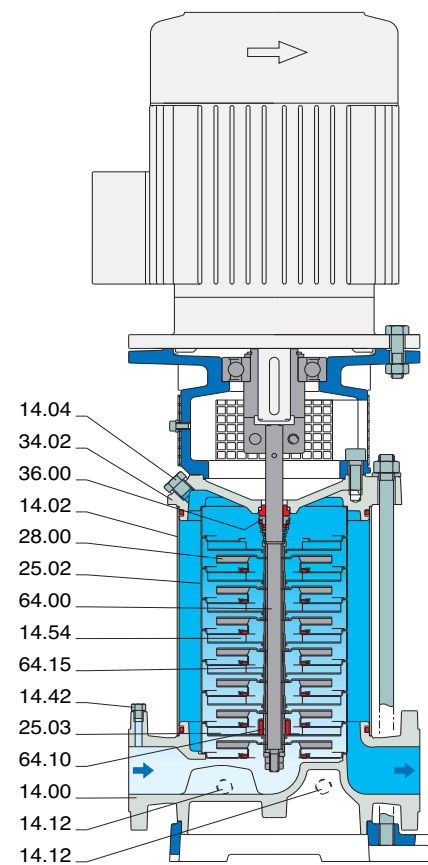
Low-Noise Operation

The water filled shroud around the stages and thick external walls, work together for low-noise operation.

Low-noise standard motor.



MXV 25-2, 32-4, 40-8



MXV 50-16, 65-32, 80-48



Construction

Vertical multi-stage pumps with suction and delivery connections of the same diameter and arranged along the same axis (in-line). Corrosion-resistant bearing sleeves lubricated by the pumped liquid. A pump with thrust bearing and sleeve coupling for use of any standard motor with V1 construction.

Applications

For water supply systems. For clean non-explosive liquids, without solid, filamentary or abrasive matter (with adaptation of sealing materials on request). A universal pump for civil and industrial use, for pressure-boosting systems, fire-extinguishing systems, high-pressure washing plants, irrigation, agricultural uses and sport installations.

Operating conditions

Temperature of liquid: from -20 °C to +120 °C.
Operating environment temperature: up to 40 °C.
Maximum permissible pressure in pump casing: 25 bar.

Motor

Standard-type: 2-4 pole induction motor, 50 Hz.
Classification scheme **EFF2** or **EFF1** (High efficiency) on request.
Construction IM V1 (IEC 34-7).
Insulation class F (IEC 85).
Protection IP 55 (IEC 529).
three-phase with rated voltage: up to 3 kW 230/400 V (IEC 38);
from 4 kW 400/690 V (IEC 38).
Rated speed of rotation (50 Hz): **MXV** = 2900 rpm

MXV 100-65, 100-90

Internal parts in contact with the liquid in chrome-nickel stainless steel, AISI 304 with pump casing and upper cover in cast iron.

Materials (wetted parts)

Pos. Nr. (pag.98)	Component	A (standard)
14.00 34.02	Pump casing Upper cover	Cast iron GJL 250 EN 1561
14.02 25.02 28.00 64.15	External jacket Stage casing Impeller Spacer sleeve	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
64.00	Pump shaft Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
64.10 25.03	Bearing sleeve Bearing in stage casing	Corrosion-resistant, cemented carbide Ceramic alumina
36.00	Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM
14.54	Wear ring	PTFE
	O-rings	NBR

Direction of rotation: anticlockwise as seen from the motor.

Variants (to be specified when ordering)

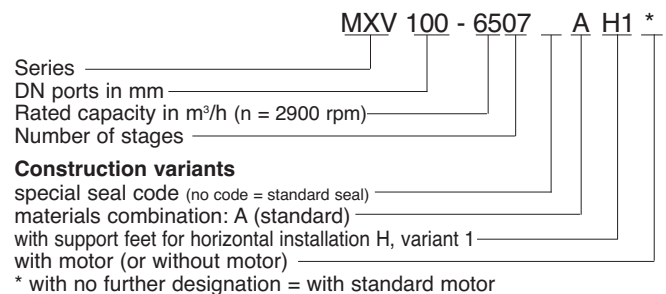
Pump without motor.
Pump with standard motor.

Other variants (on request)

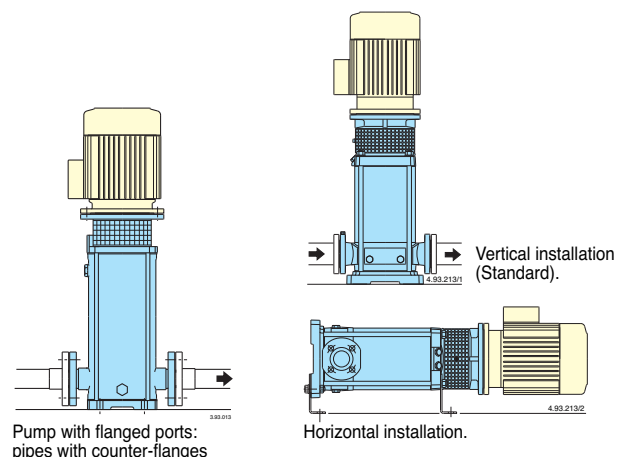
O-rings FPM.
Other mechanical seal.
Pump with motor of Client's choice (if available).
Other voltage ratings. Frequency 60 Hz.
Pump with support feet for horizontal installation (**H1** or **H2**).
Support feet for horizontal installation, set.
Welding counter-flanges, PN 25 (steel).
Higher or lower liquid or ambient temperatures.

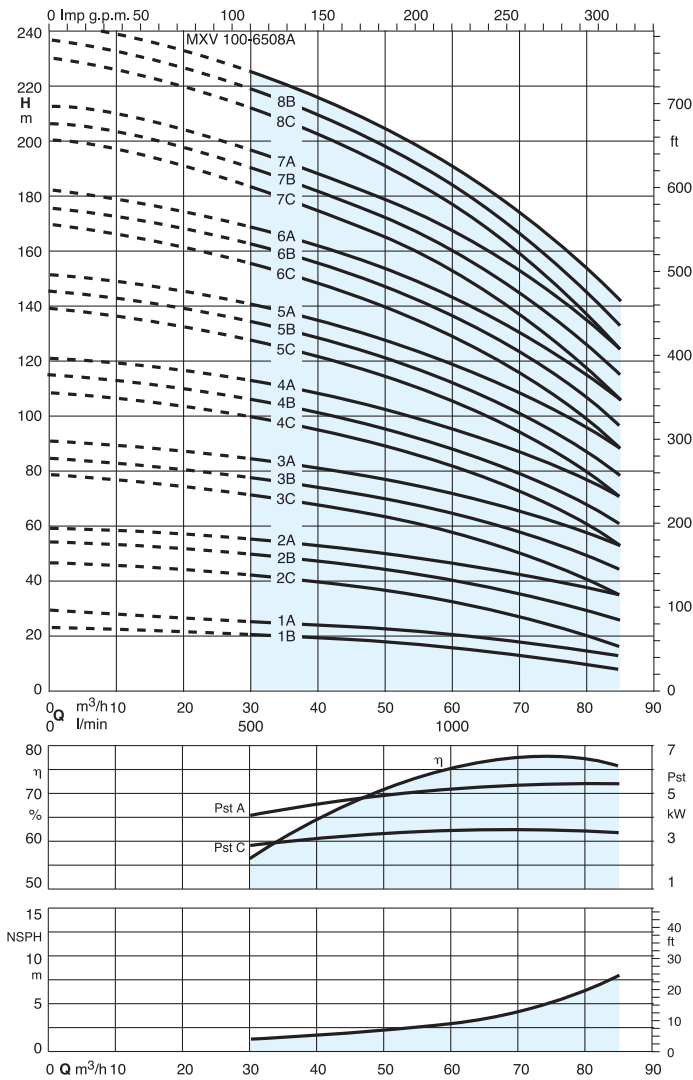
MXV 100-65, 100-90

Designation



Installations



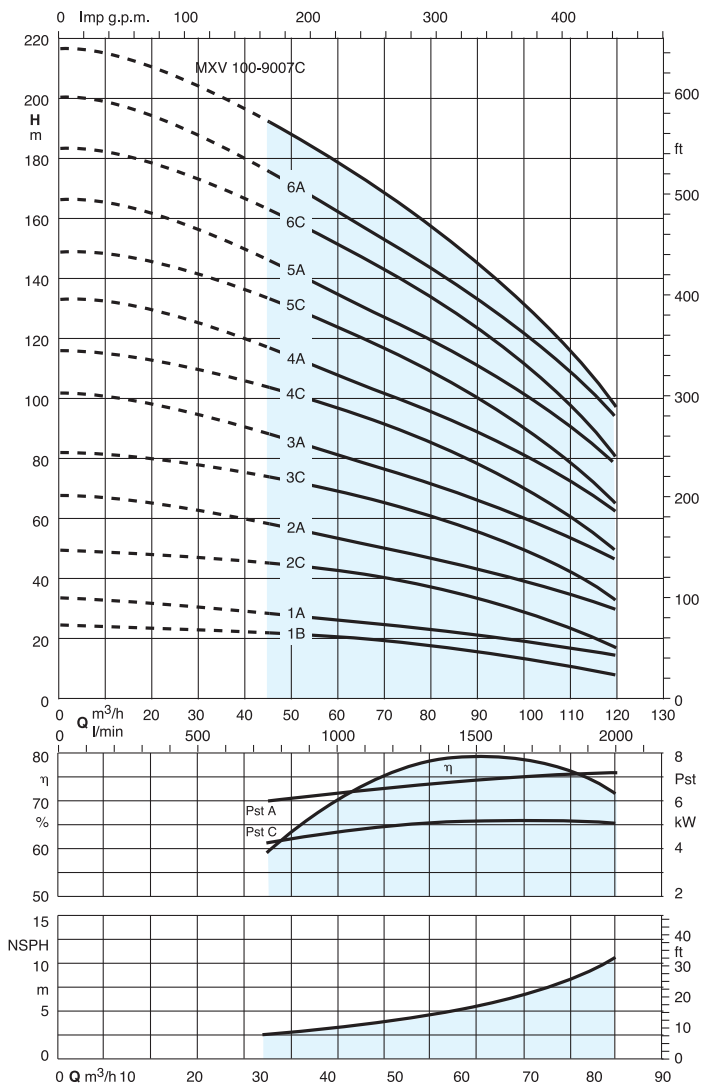


Test results with clean cold water, without gas content.
 A safety margin of + 0.5 m is recommended for the NPSH value.
 Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

Pump Type	Motor Power		l/min m ³ /h	H m											
	kW	HP		0	500	600	700	750	900	1000	1200	1300	1417		
				0	30	36	42	45	54	60	72	78	85		
MXV 100-650 1B	4	5.5		23.8	21.4	20.7	19.9	19.4	17.8	16.6	13.3	11.2	8.3		
MXV 100-650 1A	5.5	7.5		29.2	25.8	24.8	23.8	23.3	21.8	20.7	17.9	16.1	13.5		
MXV 100-650 2C	7.5	10		47.5	42.6	41.2	39.5	38.6	36	32.9	26.4	22.2	16.4		
MXV 100-650 2B	11	15		54.2	49.6	48.2	46.7	45.8	42.9	40.6	34.8	31.2	26.2		
MXV 100-650 2A	11	15		60.4	55.7	54.4	52.8	52	49.3	47.1	42	38.9	34.7		
MXV 100-650 3C	15	20		78.4	71.6	70	67	66	62	58	49	43.3	35.3		
MXV 100-650 3B	15	20		84.7	77.8	76	74	72	68	65	56	51	44		
MXV 100-650 3A	18.5	25		91.4	84.7	83	81	79	75	72	64	60	53.5		
MXV 100-650 4C	18.5	25		108.9	99.6	97	94	92	86	82	70	63	52.8		
MXV 100-650 4B	22	30		115.2	105.9	103	100	99	93	89	78	71	61.8		
MXV 100-650 4A	22	30		121.6	112.5	110	107	105	100	96	86	79	70.8		
MXV 100-650 5C	30	40		139.1	127.5	124	120	118	111	106	92	83	70.4		
MXV 100-650 5B	30	40		145.6	134	131	127	125	118	112	99	91	79.5		
MXV 100-650 5A	30	40		152	140.4	137	133	131	125	119	107	99	88.5		
MXV 100-650 6C	30	40		169.5	155.6	152	147	144	136	129	113	103	88.1		
MXV 100-650 6B	30	40		176	162	158	153	151	143	136	121	111	97.2		
MXV 100-650 6A	37	50		182.4	168.5	164	160	158	150	143	128	119	106.2		
MXV 100-650 7C	37	50		199.9	183.7	179	174	171	161	153	134	122	105.8		
MXV 100-650 7B	37	50		206.4	190.1	185	180	177	168	160	142	131	114.9		
MXV 100-650 7A	45	60		212.8	196.5	192	187	184	174	167	150	139	123.9		
MXV 100-650 8C	45	60		230.3	211.8	206	200	197	186	177	156	142	123.5		
MXV 100-650 8B	45	60		236.8	218.2	213	207	204	193	184	163	150	132.6		
MXV 100-650 8A	45	60		243.2	224.6	219	213	210	199	191	171	159	141.6		



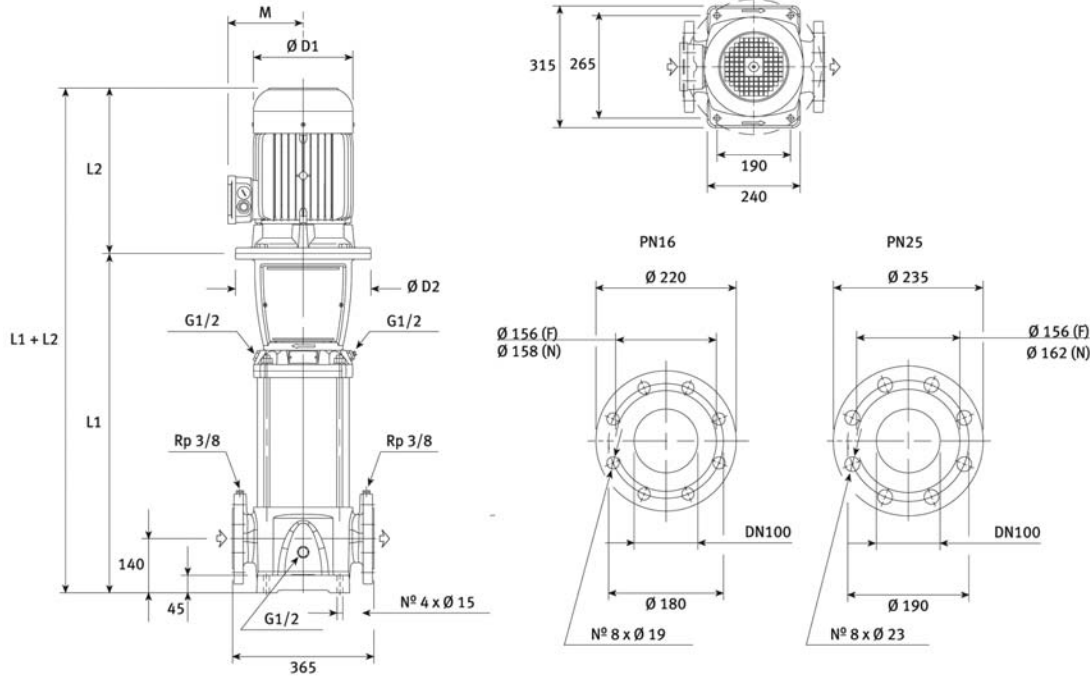
Test results with clean cold water, without gas content.
 A safety margin of + 0.5 m is recommended for the NPSH value.
 Tolerances in accordance with ISO 9906, Annex A.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

Pst = Power with reference to one stage.

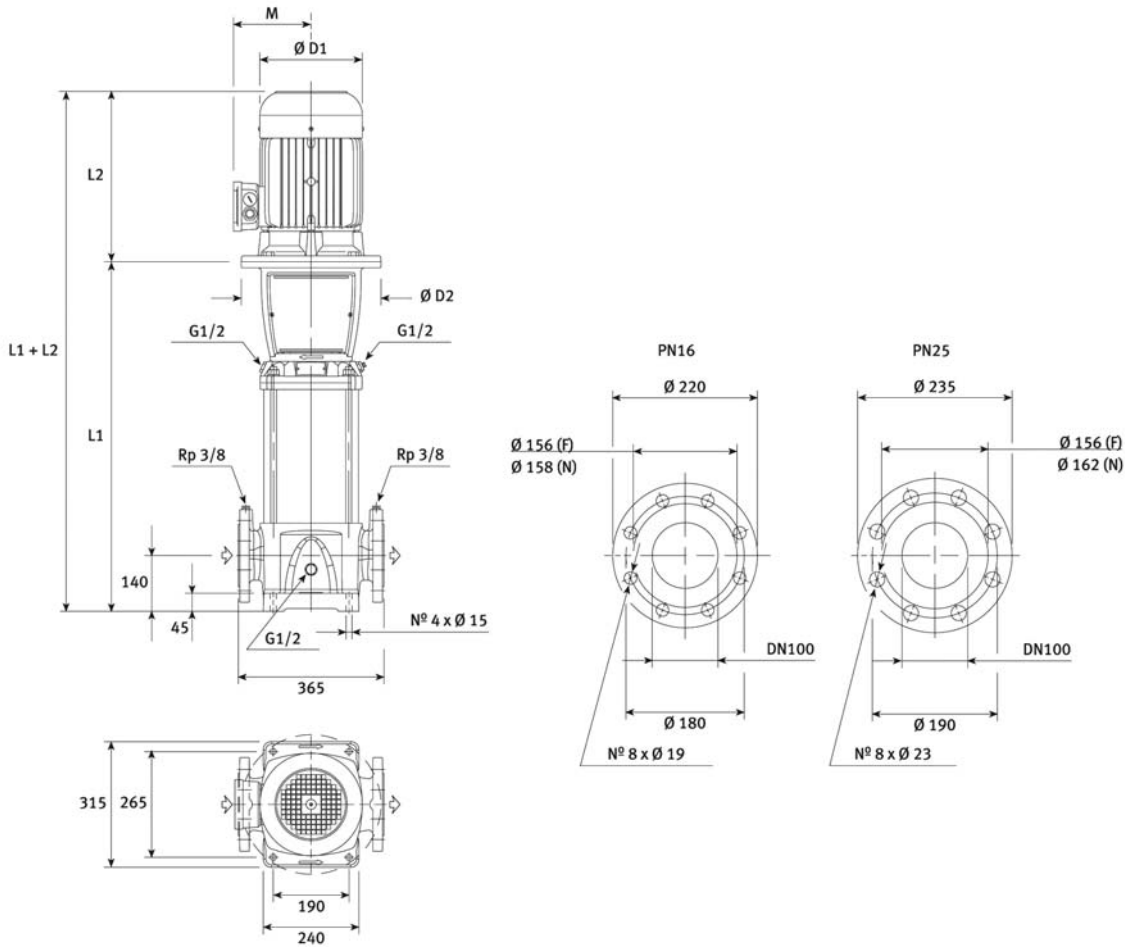
Pump Type	Motor Power		l/min m ³ /h	0	750	900	1000	1200	1300	1417	1600	1800	2000
	kW	HP		0	45	54	60	72	78	85	96	108	120
MXV 100-9001B	5.5	7.5	H m	24.5	22.2	21.5	20.9	19.4	18.5	17.3	15	11.8	7.9
MXV 100-9001A	7.5	10		33.5	28.7	27.2	26.2	24.3	23.3	22.2	20.2	17.6	14.3
MXV 100-9002C	11	15		49.4	45.1	43.7	42.5	39.6	37.9	35.5	30.9	24.6	16.8
MXV 100-9002A	15	20		67.8	58.2	55	53	49.5	47.6	45.2	41.4	36.3	29.6
MXV 100-9003C	18.5	25		82.4	74.4	72	70	65	62	59	52	43.6	32.9
MXV 100-9003A	22	30		102.2	88.2	84	81	76	73	69	63	56	46.3
MXV 100-9004C	30	40		115.7	104	100	97	90	87	82	74	63	49
MXV 100-9004A	30	40		133.1	117	112	108	101	97	92	85	75	62.5
MXV 100-9005C	37	50		149	133.2	128	124	116	111	105	95	81	64.6
MXV 100-9005A	37	50		166.4	146.3	140	135	126	121	115	106	94	78.1
MXV 100-9006C	45	60		183.3	163.1	156	152	141	135	129	117	101	81
MXV 100-9006A	45	60		200.9	175.9	168	163	151	146	139	127	113	94.2
MXV 100-9007C	45	60		216.8	192.4	184	179	167	160	152	138	120	96.7

Dimensions and weights



Pump Type	Motor		mm						Weight kg
	kW	SIZE	L1	L2	D1	D2	M	PN	
MXV 100-6501B	4	112	554	335	197	164	180	16	92.7
MXV 100-6501A	5.5	132	574	356	253	300	193	16	110.5
MXV 100-6502C	7.5	132	664	356	253	300	193	16	119.2
MXV 100-6502B	11	160	699	530	314	350	230	16	156
MXV 100-6502A	11	160	699	530	314	350	230	16	156
MXV 100-6503C	15	160	789	530	314	350	230	16	174
MXV 100-6503B	15	160	789	530	314	350	230	16	174
MXV 100-6503A	18.5	160	789	530	314	350	230	16	185
MXV 100-6504C	18.5	160	879	530	314	350	230	16	191
MXV 100-6504B	22	180	879	590	354	350	280	16	258
MXV 100-6504A	22	180	879	590	354	350	280	16	258
MXV 100-6505C	30	200	969	660	420	400	305	16	333
MXV 100-6505B	30	200	969	660	420	400	305	16	333
MXV 100-6505A	30	200	969	660	420	400	305	16	333
MXV 100-6506C	30	200	1059	660	420	400	305	25	345
MXV 100-6506B	30	200	1059	660	420	400	305	25	345
MXV 100-6506A	37	200	1059	660	420	400	305	25	360
MXV 100-6507C	37	200	1149	660	420	400	305	25	365
MXV 100-6507B	37	200	1149	660	420	400	305	25	379
MXV 100-6507A	45	225	1149	710	470	450	335	25	372
MXV 100-6508C	45	225	1239	710	470	450	335	25	377
MXV 100-6508B	45	225	1239	710	470	450	335	25	377
MXV 100-6508A	45	225	1239	710	470	450	335	25	377

Dimensions and weights



Pump Type	Motor		mm						Weight kg
	kW	SIZE	L1	L2	D1	D2	M	PN	
MXV 100-9001B	5.5	132	574	356	253	300	193	16	109.5
MXV 100-9001A	7.5	132	574	356	253	300	193	16	133
MXV 100-9002C	11	160	699	530	314	350	230	16	155
MXV 100-9002A	15	160	699	530	314	350	230	16	168
MXV 100-9003C	18.5	160	789	530	314	350	230	16	185
MXV 100-9003A	22	180	789	590	354	350	280	16	252
MXV 100-9004C	30	200	879	660	420	400	305	16	327
MXV 100-9004A	30	200	879	660	420	400	305	16	327
MXV 100-9005C	37	200	969	660	420	400	305	25	354
MXV 100-9005A	37	200	969	660	420	400	305	25	354
MXV 100-9006C	45	225	1059	710	470	450	335	25	366
MXV 100-9006A	45	225	1059	710	470	450	335	25	366
MXV 100-9007C	45	225	1149	710	470	450	335	25	371



Construction

Vertical multi-stage pumps with suction and delivery connections of the same diameter and arranged along the same axis (in-line). Corrosion-resistant bearing sleeves lubricated by the pumped liquid. A pump with thrust bearing and sleeve coupling for use of any standard motor with V1 construction.

Applications

For water supply systems.
For clean non-explosive liquids, without solid, filamentary or abrasive matter (with adaptation of sealing materials on request). A universal pump for civil and industrial use, for pressure-boosting systems, fire-extinguishing systems, high-pressure washing plants, irrigation, agricultural uses and sport installations.

Operating conditions

Temperature of liquid: from -15 °C to +110 °C.
Operating environment temperature: up to 40 °C.
Maximum permissible pressure in pump casing: 25 bar.

Motor

Standard-type: 2-4 pole induction motor, 50 Hz.
Classification scheme **EFF2** or **EFF1** (High efficiency) on request.
Construction IM V1 (IEC 34-7).
Insulation class F (IEC 85).
Protection IP 55 (IEC 529).
three-phase with rated voltage: up to 3 kW 230/400 V (IEC 38);
from 4 kW 400/690 V (IEC 38).

Rated speed of rotation (50 Hz): **MXV** = 2900 rpm
MXV4 = 1450 rpm.

MXV 25-2, 32-4, 40-8

All parts that come into contact with the liquid, including wet-end covers, are in chrome-nickel-molybdenum stainless steel AISI 316L.

Materials (wetted parts)

Pos. Nr. (pag.102)	Component	Material
13.60	Flange	Chrome-nickel-molybdenum steel 1.4401 EN 10088 (AISI 316L)
14.02	External jacket	
16.00	Suction casing	
20.00	Delivery casing	
25.02	Stage casing	
28.00	Impeller	
34.01	Lower cover	
34.02	Upper cover	
64.15	Spacer sleeve	
64.00	Pump shaft Plug	Chrome-nickel-molybdenum steel 1.4401 EN 10088 (AISI 316L)
64.10	Bearing sleeve	Corrosion-resistant, cemented carbide Ceramic alumina
25.03	Bearing in stage casing	
36.00	Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM.
14.54	Wear ring	PTFE
	O-rings	NBR

Direction of rotation: clockwise as seen from the motor.

Variants (to be specified when ordering)

- Pump with threaded ports (G).
- Pump with flanged ports (F).
- Pump without motor.
- Pump with standard motor.

Other variants (on request)

- With counter-flanges in chrome-nickel steel.
- O-rings FPM.
- Other mechanical seal.
- Pump with motor of Client's choice (if available).
- Single-phase motor 230 V, up to 2.2 kW.
- Other voltage ratings. Frequency 60 Hz.
- Higher or lower liquid or ambient temperatures.

MXV 50-16, 65-32, 80-48

Internal parts in contact with the liquid with pump casing and upper cover in chrome-nickel-molybdenum stainless steel AISI 316L.

Materials (wetted parts)

Pos. Nr. (pag.102)	Component	Material
14.00	Pump casing	Chrome-nickel-molybdenum steel 1.4401 EN 10088 (AISI 316L)
34.02	Upper cover	
14.02	External jacket	Chrome-nickel-molybdenum steel 1.4401 EN 10088 (AISI 316L)
25.02	Stage casing	
28.00	Impeller	
64.15	Spacer sleeve	
64.00	Pump shaft Plug	Chrome-nickel-molybdenum steel 1.4401 EN 10088 (AISI 316L)
64.10	Bearing sleeve	Corrosion-resistant, cemented carbide Ceramic alumina
25.03	Bearing in stage casing	
36.00	Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM
14.54	Wear ring	PTFE
	O-rings	NBR

Direction of rotation: anticlockwise as seen from the motor.

Variants (to be specified when ordering)

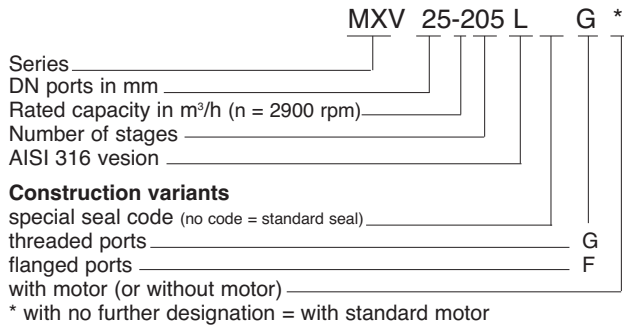
- Pump without motor.
- Pump with standard motor.

Other variants (on request)

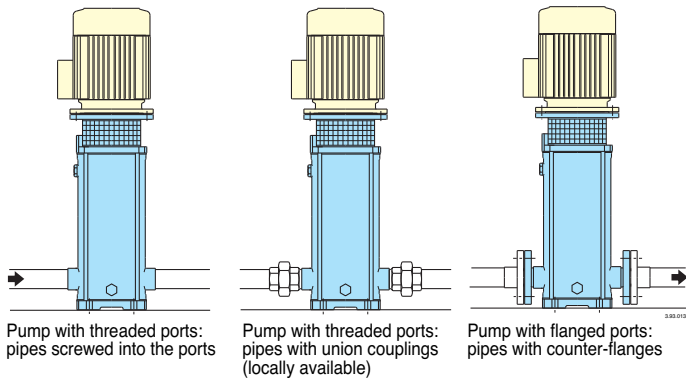
- O-rings FPM.
- Other mechanical seal.
- Pump with motor of Client's choice (if available).
- Other voltage ratings. Frequency 60 Hz.
- Pump with support feet for horizontal installation (**H1** or **H2**).
- Support feet for horizontal installation, set.
- Welding counter-flanges, PN 25 (steel).
- Higher or lower liquid or ambient temperatures.

MXV 25-2, 32-4, 40-8

Designation

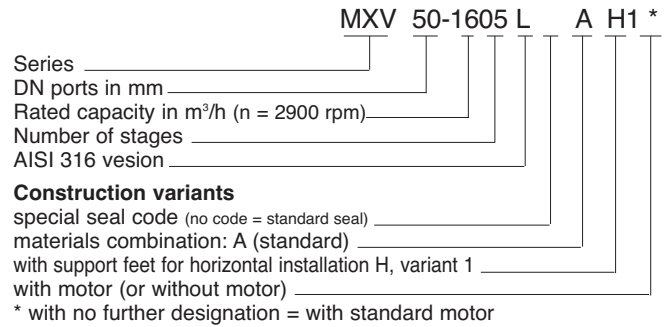


Pipe connection

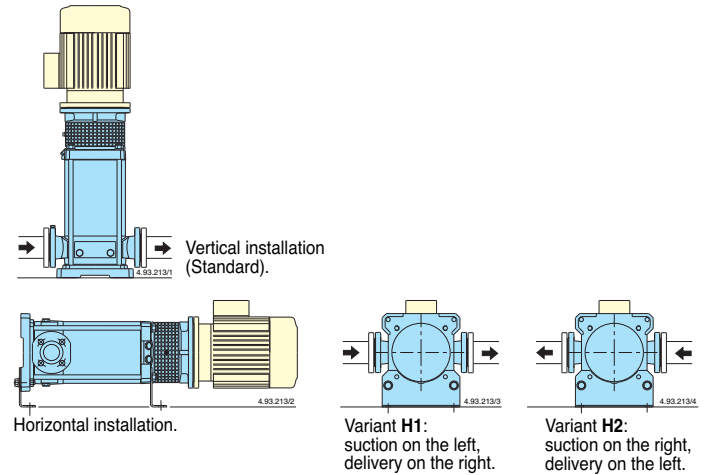


MXV 50-16, 65-32, 80-48

Designation



Installations



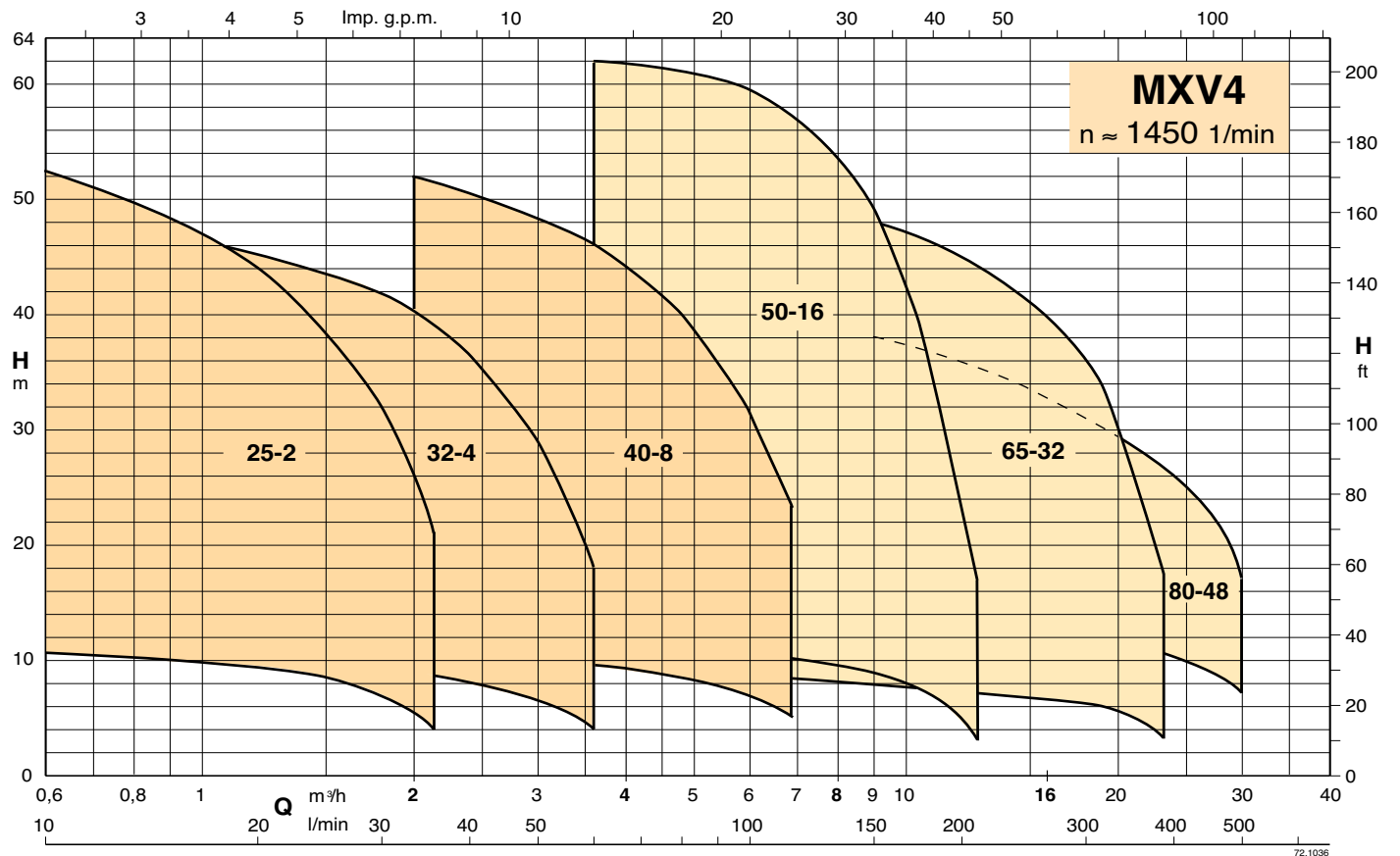
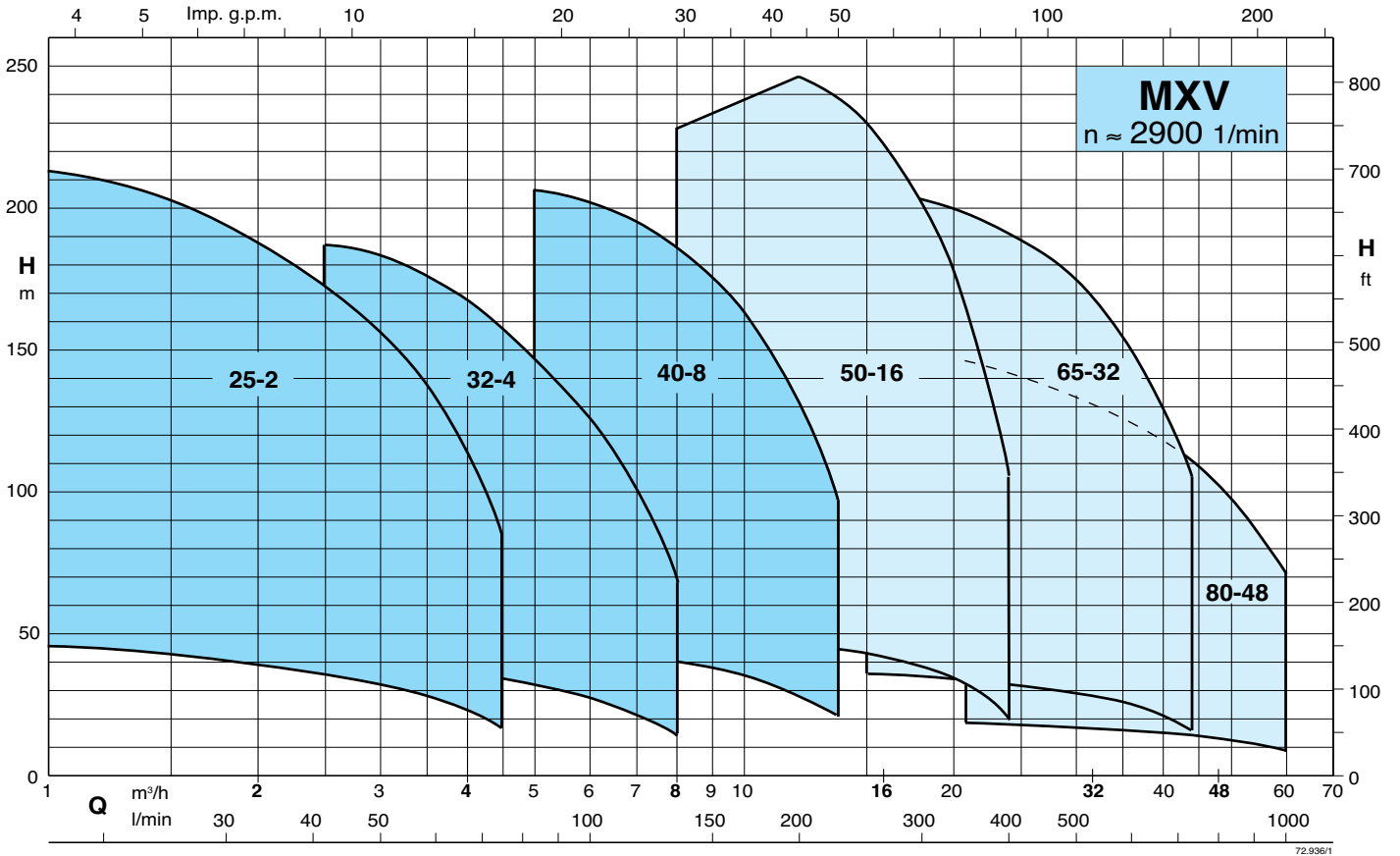
Variable parts

Pump size MXV - MXV4			Number of stages	Stage casings with bearing
25 - 204	32 - 404	40 - 804	4	1
25 - 205	32 - 405	40 - 805	5	1
25 - 206	32 - 406	40 - 806	6	1
25 - 207	32 - 407	40 - 807	7	1
25 - 208	32 - 408	40 - 808	8	1
25 - 210	32 - 410	40 - 810	10	1
25 - 212	32 - 412	40 - 811	11	2
		40 - 813	12	2
25 - 214	32 - 414	40 - 815	13	2
			14	2
25 - 216	32 - 416		15	2
25 - 218	32 - 418		16	2
		40 - 817	17	2
		40 - 819	18	2
25 - 220			19	3
			20	3

Variable parts

Pump size MXV - MXV4			Number of stages	Stage casings with bearing
		80 - 4801	1	1
		80 - 4802	2	1
50 - 1603	65 - 3202	80 - 4803	3	1
50 - 1604	65 - 3203	80 - 4804	4	1
50 - 1605	65 - 3204	80 - 4805	5	1
50 - 1606	65 - 3205		6	1
50 - 1607	65 - 3206		7	1
50 - 1608	65 - 3207		8	1
50 - 1609			9	1
50 - 1610			10	1
		80 - 4806	6	2
		80 - 4807	7	2
	65 - 3208	80 - 4808	8	2
	65 - 3209		9	2
	65 - 3210		10	2
50 - 1611			11	2
50 - 1612			12	2
50 - 1614	65 - 3212		14	2
50 - 1616			16	2

Coverage chart



For characteristic curves, dimensions and weights see cap. 11

Features

Long Service Life with Standard Motor

Pump with thrust bearing without additional axial loads on the motor bearings.

Any standard motor V1 design (suitable to be lifted in vertical position) can be used, of our choice or of Client's choice.

Easy Assembly of the Motor

With the single-piece sleeve coupling the pump unit can be supplied fully assembled also without the motor. This eliminates the risk of damage caused by shifting of the pump shaft during transportation. The motor is simply inserted in the coupling and fastened to the flange without the necessity for adapting the axial position of the pump shaft.

Extra Safety

Single-piece coupling guard to be removed only by means of a tool, positioned around the lantern bracket, thus avoiding accidental pushing and rubbing against the coupling.

Low Cost Installation

Vertical construction with reduced pump height for installation in small spaces.

In-line connections to simplify the piping layout with the possibility of inserting the pump in straight pipe-lines.

Disassembly, inspection or cleaning of internal parts without removal of piping.

Robust and Reliable

Single PN 25 construction for all pump sizes.

The suction and discharge nozzles arranged in-line absorb the forces of the piping on the pump without the creation of distorting loads causing local friction and early wears.

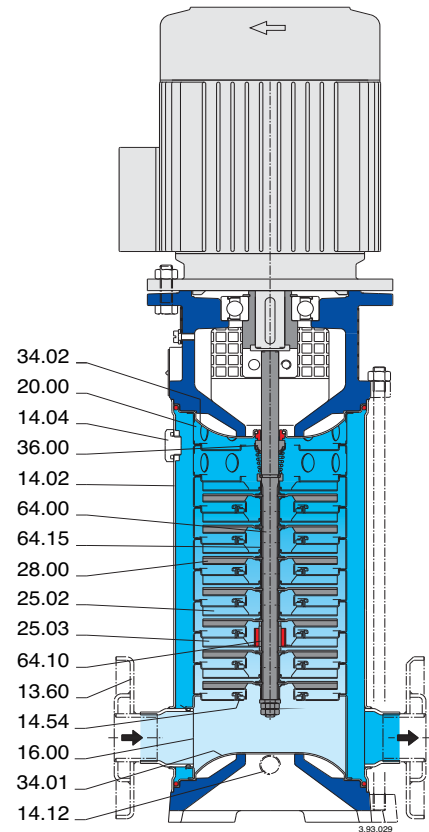
The lantern brackets compact and robust design maintains a sure alignment between rotating and fixed parts, reducing vibration.

The upper cover design prevents entrapment of air around the mechanical seal.

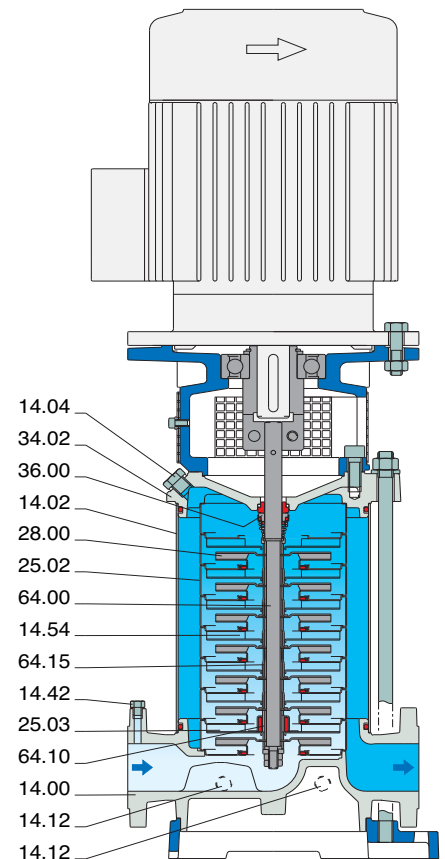
Low-Noise Operation

The water filled shroud around the stages and thick external walls, work together for low-noise operation.

Low-noise standard motor.



MXV 25-2, 32-4, 40-8



MXV 50-16, 65-32, 80-48