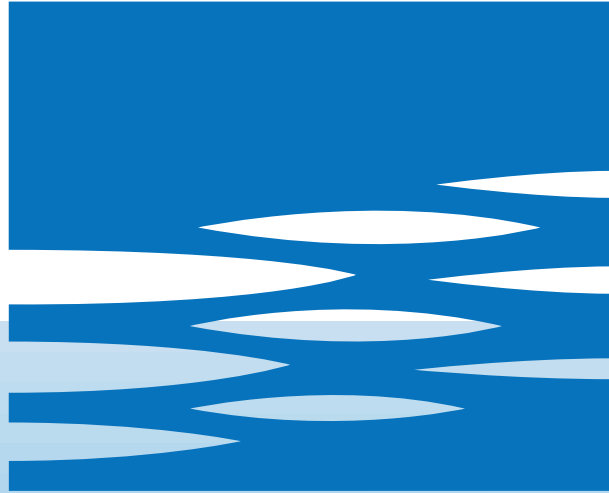




EBARA

SPECIFICATIONS

50Hz

Rev. G

EVM(.) 32-64

PUMP					
Type		EVMG	EVM	EVML	
Liquid Handled	Type of liquid	Clean water, water contains glycol and moderately aggressive fluids			
	Temperature [°C]	-15 to +120			
	Max solid content	50 ppm (Particle size 0,1-0,25mm or less)			
	Max chlorine ion density	500 ppm			
Maximum working pressure		[MPa]	1.6 / 3.0		
		[bar]	16 / 30		
Construction	Impeller	Closed centrifugal type			
	Shaft seal type	Mechanical seal			
	Bearing	Sealed ball bearing with permanent grease			
Pipe connection	Suction /Discharge	See the dimension table			
Material	Impeller	EN 1.4301(AISI 304)		EN 1.4401 (AISI 316)	
	Intermediate casing	EN 1.4301(AISI 304)		EN 1.4401 (AISI 316)	
	Bottom casing	Cast iron	ASTM CF8	ASTM CF8M	
	Casing cover	Cast iron	Cast iron + EN 1.4301 (AISI 304)	Cast iron + EN 1.4401 (AISI 316)	
	Outer casing	EN 1.4301(AISI 304)		EN 1.4401 (AISI 316)	
	Shaft	EN 1.4401 (AISI 316)			
	Liner ring	EVM32	PTFE / EN 1.4301 (AISI 304)		PTFE / EN 1.4401 (AISI 316)
		EVM45,64	PTFE / EN 1.4401 (AISI 316)		
	Motor bracket	Cast iron			
	Mechanical Seal	Silicon Carbide/Carbon/FPM			
	O-Ring	EPDM	EPDM	FPM	
Applicable standard of test		ISO 9906 annex A			

MOTOR			
Type		Electric -TEFC	
		Single phase	Three phase
Efficiency		/	IE2 from 2.2 kW up to 37 kW
No. of Poles		2	
Rotation speed [min-1]		≈ 2900	
Insulation class		Class F (class B for temperature rise)	
Protection form		IP 55	
Power rating	[kW]	2.2	2.2*37
	[HP]	3	3.0*50
Frequency [Hz]		50	
Voltage [V]		230 ± 10 %	230/400 ± 10% (up to 4 kW) 400/690 ± 10% (above 5.5 kW)
Over load protection		User to provide	
Casing material		Aluminium	
Flange mount (IEC motor)		IM B14 (up to 4 kW)	
		IM B5 (above 5.5 kW)	

SELECTION CHART

50Hz

Rev. G

EVM(.) 32-64

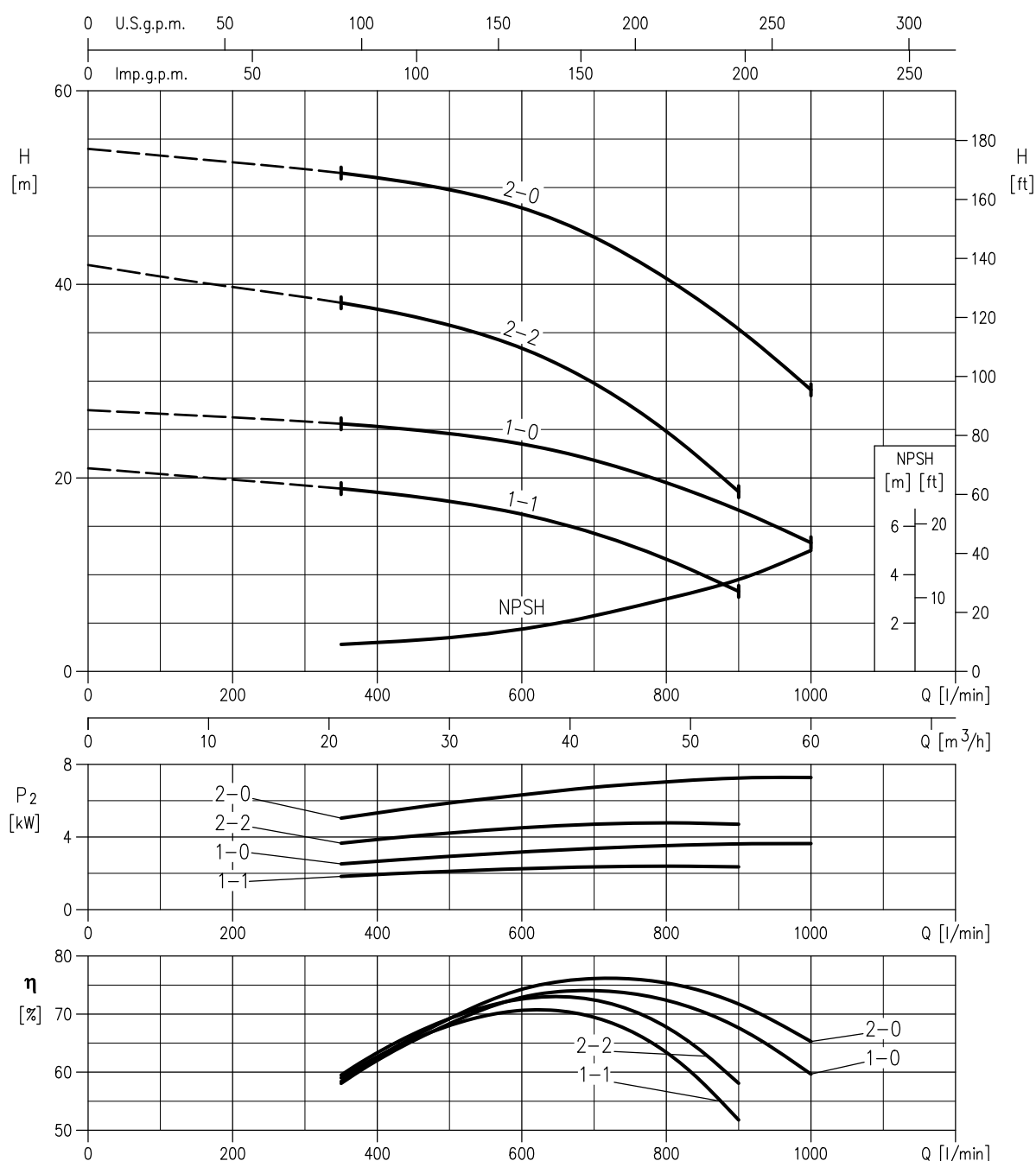
Pump Type EVM(.)	Motor			Maximum working pressure [Mpa]	Q=Capacity																			
	kW	HP	Size		l/min		200		350		500		600		700		900		1000		1200		1400	
					0	12	21	30	30	30	42	54	60	72	84									
																0	0	0	0	0	0	0	0	0
					H=Total manometric head in meters																			
32 1-0F5/2.2	2.2	3	90L	1.6	24	21.7	19.6	16.4	13.2	9.7	-	-	-	-	-	-	-	-	-	-	-	-		
32 2-2F5/3.0	3	4	100		39.8	36.9	31.6	23.5	17.4	-	-	-	-	-	-	-	-	-	-	-	-	-		
32 2-0F5/4.0	4	5.5	112		48	43.5	39.2	32.8	26.5	19.4	-	-	-	-	-	-	-	-	-	-	-	-		
32 3-3F5/5.5	5.5	7.5	132S		59.5	55.5	47.5	35.2	26.1	-	-	-	-	-	-	-	-	-	-	-	-	-		
32 3-1F5/5.5	5.5	7.5	132S		68	62	55	44.5	35.2	24.5	-	-	-	-	-	-	-	-	-	-	-	-		
32 4-3F5/7.5	7.5	10	132S		84	77	67.0	51.5	39.4	-	-	-	-	-	-	-	-	-	-	-	-	-		
32 4-1F5/7.5	7.5	10	132S		92	83.5	74.5	61	48.5	34.2	-	-	-	-	-	-	-	-	-	-	-	-		
32 5-3F5/11	11	15	160M		106	100	89	70	54	37.3	-	-	-	-	-	-	-	-	-	-	-	-		
32 5-0F5/11	11	15	160M		118	110	100	84	67	49	-	-	-	-	-	-	-	-	-	-	-	-		
32 6-3F5/11	11	15	160M		130	122	109	87	67.5	47	-	-	-	-	-	-	-	-	-	-	-	-		
32 6-2F5/11	11	15	160M		133	125	113	91.5	71.5	51	-	-	-	-	-	-	-	-	-	-	-	-		
32 7-3F5/15	15	20	160M		153	144	129	104	81	57	-	-	-	-	-	-	-	-	-	-	-	-		
32 7-0F5/15	15	20	160M		165	154	141	118	94	69	-	-	-	-	-	-	-	-	-	-	-	-		
32 8-3F5/15	15	20	160M		177	166	150	121	94.0	67	-	-	-	-	-	-	-	-	-	-	-	-		
32 8-1F5/15	15	20	160M		184	172	157	130	103	75	-	-	-	-	-	-	-	-	-	-	-	-		
32 9-3F5/18.5	18.5	25	160L	200	188	170	137	108	76.5	-	-	-	-	-	-	-	-	-	-	-	-			
32 9-0F5/18.5	18.5	25	160L	212	197	181	152	121	88.5	-	-	-	-	-	-	-	-	-	-	-	-			
32 10-3F5/18.5	18.5	25	160L	224	210	190	154	121	86.5	-	-	-	-	-	-	-	-	-	-	-	-			
32 10-2F5/18.5	18.5	25	160L	228	213	193	159	125	90.5	-	-	-	-	-	-	-	-	-	-	-	-			
32 11-3F5/22	22	30	180	247	232	210	171	134	96.5	-	-	-	-	-	-	-	-	-	-	-	-			
32 11-0F5/22	22	30	180	259	241	221	185	147	108	-	-	-	-	-	-	-	-	-	-	-	-			
32 12-3F5/22	22	30	180	271	254	230	188	148	106	-	-	-	-	-	-	-	-	-	-	-	-			
32 13-3F5/30	30	40	200	294	276	250	205	161	116	-	-	-	-	-	-	-	-	-	-	-	-			
32 13-0F5/30	30	40	200	306	285	261	219	174	128	-	-	-	-	-	-	-	-	-	-	-	-			
32 14-3F5/30	30	40	200	318	298	270	222	175	126	-	-	-	-	-	-	-	-	-	-	-	-			
32 14-0F5/30	30	40	200	330	307	281	236	188	138	-	-	-	-	-	-	-	-	-	-	-	-			
45 1-1F5/3.0	3	4	100	1.6	21.0	-	18.9	17.6	16.3	14.3	8.3	-	-	-	-	-	-	-	-	-	-			
45 1-0F5/4.0	4	5.5	112		27.0	-	25.6	24.6	23.5	21.8	16.7	13.3	-	-	-	-	-	-	-	-	-	-		
45 2-2F5/5.5	5.5	7.5	132S		42.0	-	38.1	35.8	33.4	29.8	18.6	-	-	-	-	-	-	-	-	-	-	-		
45 2-0F5/7.5	7.5	10	132S		54.0	-	51.5	50	48	45	35.4	29.1	-	-	-	-	-	-	-	-	-	-		
45 3-2F5/11	11	15	160M		69.0	-	64	61	58	53	37.3	-	-	-	-	-	-	-	-	-	-	-		
45 3-0F5/11	11	15	160M		81.0	-	77.5	75	72.5	68	54	45	-	-	-	-	-	-	-	-	-	-		
45 4-2F5/15	15	20	160M		96.0	-	90	86	82	76	56	43	-	-	-	-	-	-	-	-	-	-		
45 4-0F5/15	15	20	160M		108.0	-	103	100	96.5	91	73	60.5	-	-	-	-	-	-	-	-	-	-		
45 5-2F5/18.5	18.5	25	160L		123.0	-	116	111	107	99.0	74.5	58.5	-	-	-	-	-	-	-	-	-	-		
45 5-0F5/18.5	18.5	25	160L		135.0	-	129	125	121	114	91.5	76.5	-	-	-	-	-	-	-	-	-	-		
45 6-2F5/22	22	30	180		150.0	-	142	137	131	122	93.5	74.5	-	-	-	-	-	-	-	-	-	-		
45 6-0F5/22	22	30	180		162.0	-	155	151	146	137	110	92.5	-	-	-	-	-	-	-	-	-	-		
45 7-2F5/30	30	40	200		177.0	-	168	162	155	145	112	90.5	-	-	-	-	-	-	-	-	-	-		
45 7-0F5/30	30	40	200		189.0	-	181	176	170	160	129	108	-	-	-	-	-	-	-	-	-	-		
45 8-2F5/30	30	40	200		204.0	-	194	187	180	168	131	106	-	-	-	-	-	-	-	-	-	-		
45 8-0F5/30	30	40	200	216.0	-	207	201	194	183	148	124	-	-	-	-	-	-	-	-	-	-			
45 9-2F5/30	30	40	200	231.0	-	219	212	204	191	150	122	-	-	-	-	-	-	-	-	-	-			
45 9-0F5/37	37	50	200	243.0	-	233	226	219	206	166	140	-	-	-	-	-	-	-	-	-	-			
45 10-2F5/37	37	50	200	258.0	-	245	237	229	214	168	138	-	-	-	-	-	-	-	-	-	-			
45 10-0F5/37	37	50	200	270.0	-	259	251	243	229	185	156	-	-	-	-	-	-	-	-	-	-			
64 1-1F5/4.0	4	5.5	100	1.6	23.7	-	-	21	20.4	19.7	17.5	15.9	11.4	-	-	-	-	-	-	-	-			
64 1-0F5/5.5	5.5	7.5	132S		29.3	-	-	26.6	26.1	25.4	23.7	22.3	18.5	13.5	-	-	-	-	-	-	-	-		
64 2-2F5/7.5	7.5	10	132S		47.5	-	-	42.5	41.5	40.5	36.5	33.5	25.3	-	-	-	-	-	-	-	-	-		
64 2-1F5/11	11	15	160M		53.0	-	-	48	47	46	42.5	40	32.4	23	-	-	-	-	-	-	-	-		
64 2-0F5/11	11	15	160M		58.5	-	-	53.5	53	52	49	46.5	39.5	30.6	-	-	-	-	-	-	-	-		
64 3-3F5/15	15	20	160M		71.0	-	-	64	62.5	61	55.5	51	39.3	-	-	-	-	-	-	-	-	-		
64 3-2F5/15	15	20	160M		76.5	-	-	69.5	68	66.5	61.5	57.5	46.5	32.5	-	-	-	-	-	-	-	-		
64 3-1F5/15	15	20	160M		82.5	-	-	75	74	72.5	68	64	53.5	40	-	-	-	-	-	-	-	-		
64 3-0F5/18.5	18.5	25	160L		88.0	-	-	80.5	79.5	78	74	70.5	60.5	47.5	-	-	-	-	-	-	-	-		
64 4-3F5/18.5	18.5	25	160L		100.0	-	-	91	89	87	80.5	75.5	60.5	42	-	-	-	-	-	-	-	-		
64 4-2F5/18.5	18.5	25	160L		106.0	-	-	96.5	95	93	87	81.5	67.5	49.5	-	-	-	-	-	-	-	-		
64 4-1F5/22	22	30	180		112.0	-	-	102	101	98.5	93	88	74.5	57	-	-	-	-	-	-	-	-		
64 4-0F5/22	22	30	180		117.0	-	-	108	106	104	99.0	94.5	81.5	64.5	-	-	-	-	-	-	-	-		
64 5-3F5/30	30	40	200		130.0	-	-	118	116	114	106	99.5	81.5	59.0	-	-	-	-	-	-	-	-		
64 5-2F5/30	30	40	200		135.0	-	-	124	122	119	112	106	88.5	66.5	-	-	-	-	-	-	-	-		
64 5-1F5/30	30	40	200	141.0	-	-	129	127	125	118	112	95.5	74.0	-	-	-	-	-	-	-	-			
64 5-0F5/30	30	40	200	147.0	-	-	135	133	131	124	119	103	81.5	-	-	-	-	-	-	-	-			
64 6-3F5/30	30	40	200	159.0	-	-	145	143	140	131	124	103	76.0	-	-	-	-	-	-	-	-			
64 6-2F5/30	30	40	200	165.0	-	-	151	148	146	137	130	110	83.5	-	-	-	-	-	-	-	-			
64 6-1F5/37	37	50	200	170.0	-	-	156	154	151	143	136	117	91.0	-	-	-	-	-	-	-	-			
64 6-0F5/37	37	50	200	176.0	-	-	162	160	157	149	143	124	99.0	-	-	-	-	-	-	-	-			
64 7-3F5/37	37	50	200	188.0	-	-	172	169	166	156	148	124	93.0	-	-	-	-	-	-	-	-			
64 7-2F5/37	37	50	200	194.0	-	-	178	175	172	162	154	131	101	-	-	-	-	-	-	-	-			
64 7-1F5/37	37	50	200	200.0	-	-	183	181	178	168	161	138	108	-	-	-	-	-	-	-	-			

PERFORMANCE CURVE

50Hz

Rev. G

EVM45 1-1 F5 3.0 (3.0kW) MEI > 0.70 no.1 impeller diameter = 127 mm
 EVM45 1-0 F5 4.0 (4.0kW) MEI > 0.70 no.1 impeller diameter = 143 mm
 EVM45 2-2 F5 5.5 (5.5kW) MEI > 0.70 no.2 impellers diameter = 127 mm
 EVM45 2-0 F5 7.5 (7.5kW) MEI > 0.70 no.2 impellers diameter = 143 mm



Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

PERFORMANCE CURVE

50Hz

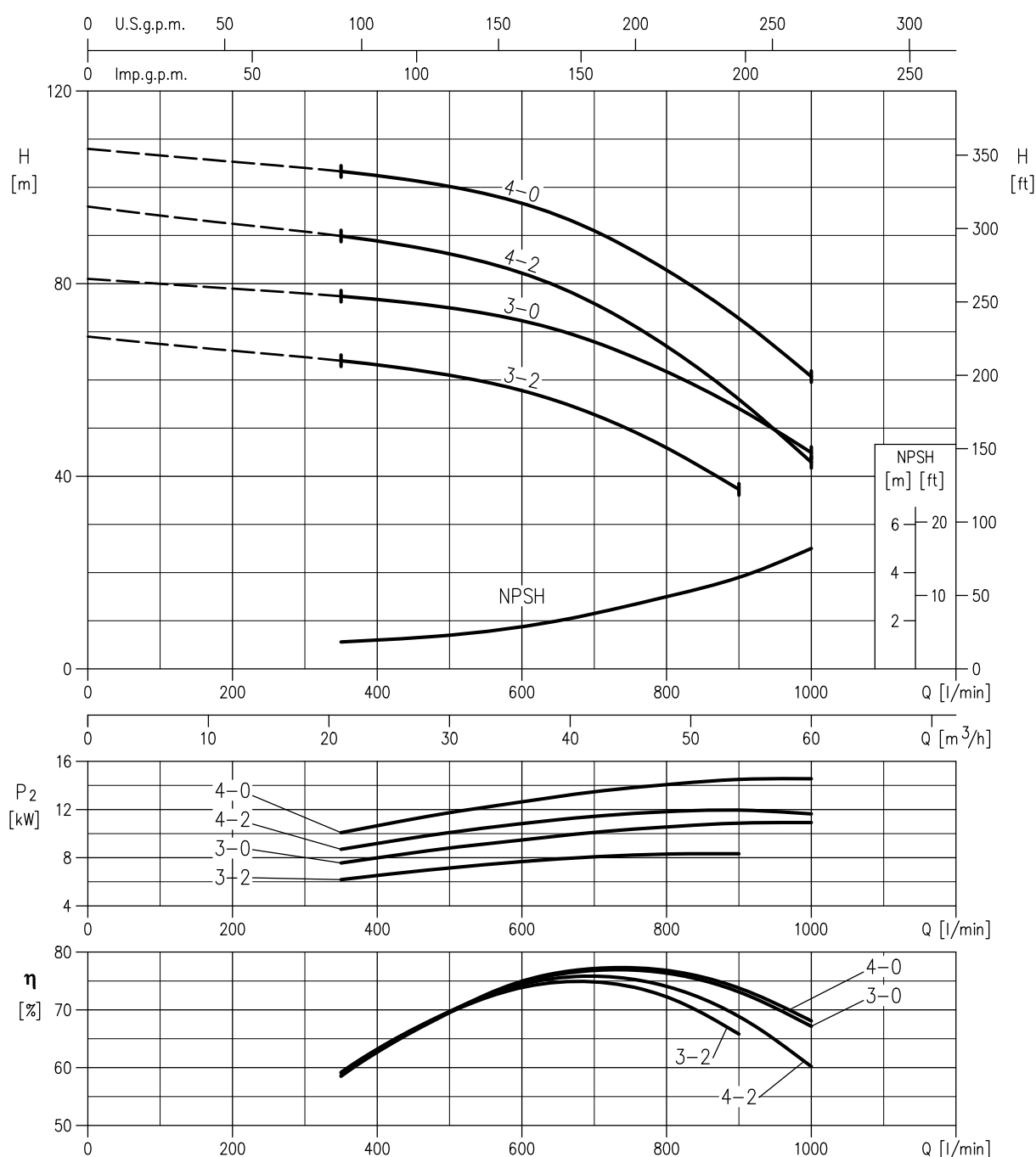
Rev. G

EVM45 3-2 F5 11 (11kW) MEI > 0.70 no.1 impeller diameter = 143 mm / no.2 impellers diameter= 127 mm

EVM45 3-0 F5 11 (11kW) MEI > 0.70 no.3 impellers diameter = 143 mm

EVM45 4-2 F5 15 (15kW) MEI > 0.70 no.2 impellers diameter = 143 mm / no.2 impellers diameter= 127 mm

EVM45 4-0 F5 15 (15kW) MEI > 0.70 no.4 impellers diameter = 143 mm



Rotation speed $\approx 2930 \text{ min}^{-1}$
Test standard: ISO 9906-Annex A

PERFORMANCE CURVE

50Hz

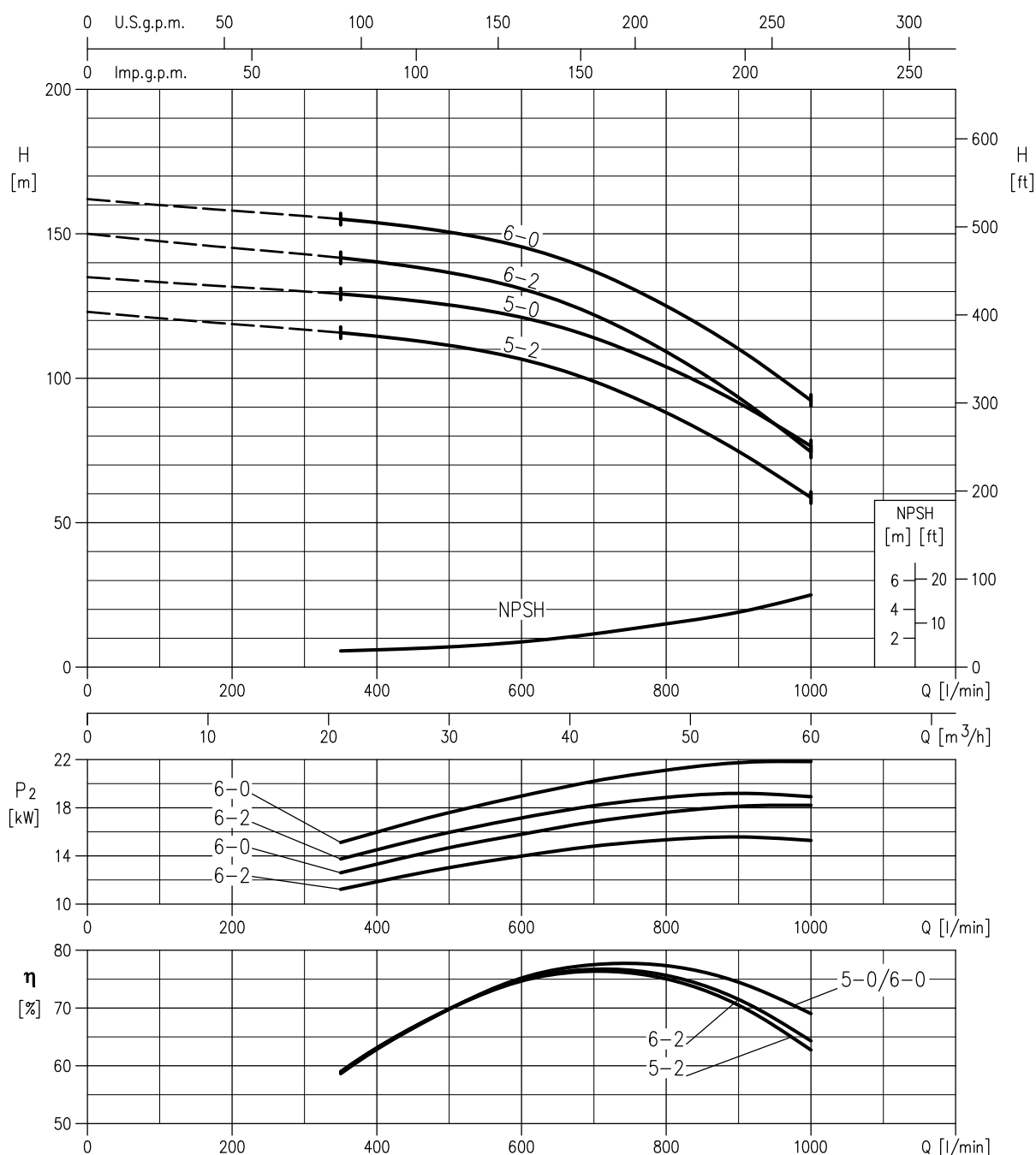
Rev. G

EVM45 5-2 F5 18.5 (18.5kW) MEI>0.70 no.3 impellers diameter = 143 mm/no.2 impellers diameter= 127 mm

EVM45 5-0 F5 18.5 (18.5kW) MEI > 0.70 no.5 impellers diameter = 143 mm

EVM45 6-2 F5 22 (22kW) MEI > 0.70 no.4 impellers diameter = 143 mm / no.2 impellers diameter= 127 mm

EVM45 6-0 F5 22 (22kW) MEI > 0.70 no.6 impellers diameter = 143 mm



Rotation speed $\approx 2940 \text{ min}^{-1}$
Test standard: ISO 9906-Annex A

PERFORMANCE CURVE

50Hz

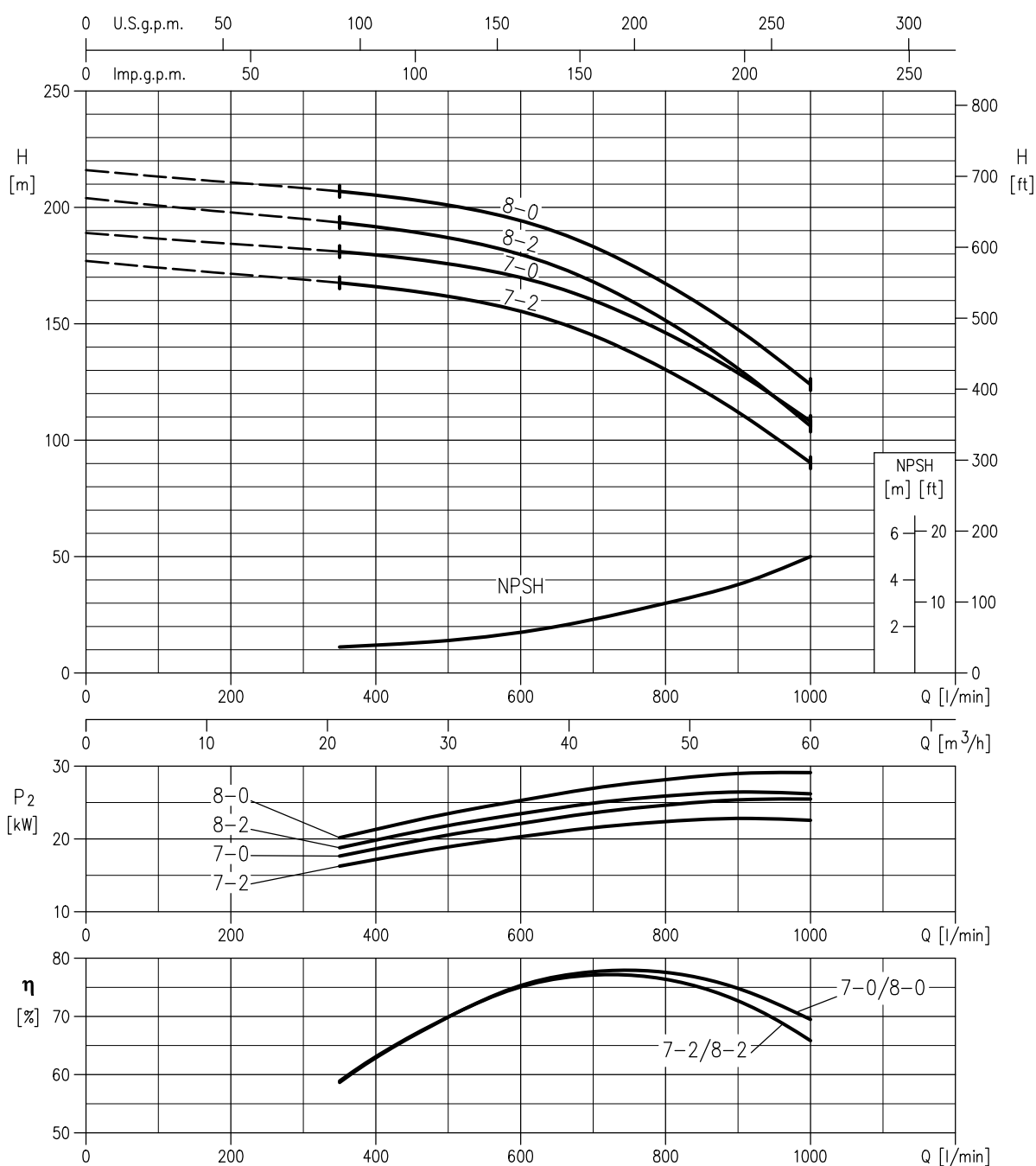
Rev. G

EVM45 7-2 F5 30 (30kW) MEI > 0.70 no.5 impellers diameter = 143 mm / no.2 impellers diameter = 127 mm

EVM45 7-0 F5 30 (30kW) MEI > 0.70 no.7 impellers diameter = 143 mm

EVM45 8-2 F5 30 (30kW) MEI > 0.70 no.6 impellers diameter = 143 mm / no.2 impellers diameter = 127 mm

EVM45 8-0 F5 30 (30kW) MEI > 0.70 no.8 impellers diameter = 143 mm



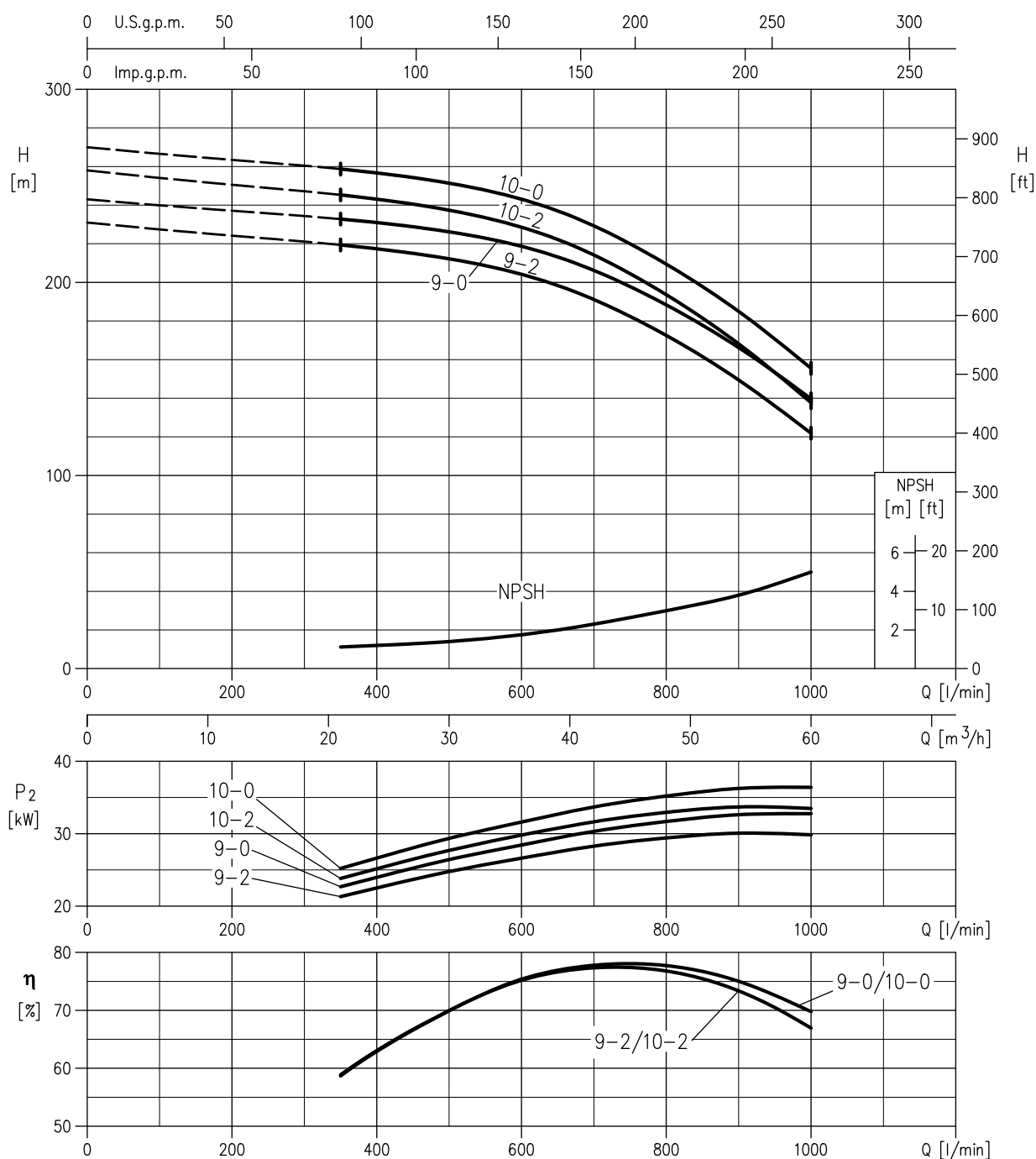
Rotation speed $\approx 2960 \text{ min}^{-1}$
Test standard: ISO 9906-Annex A

PERFORMANCE CURVE

50Hz

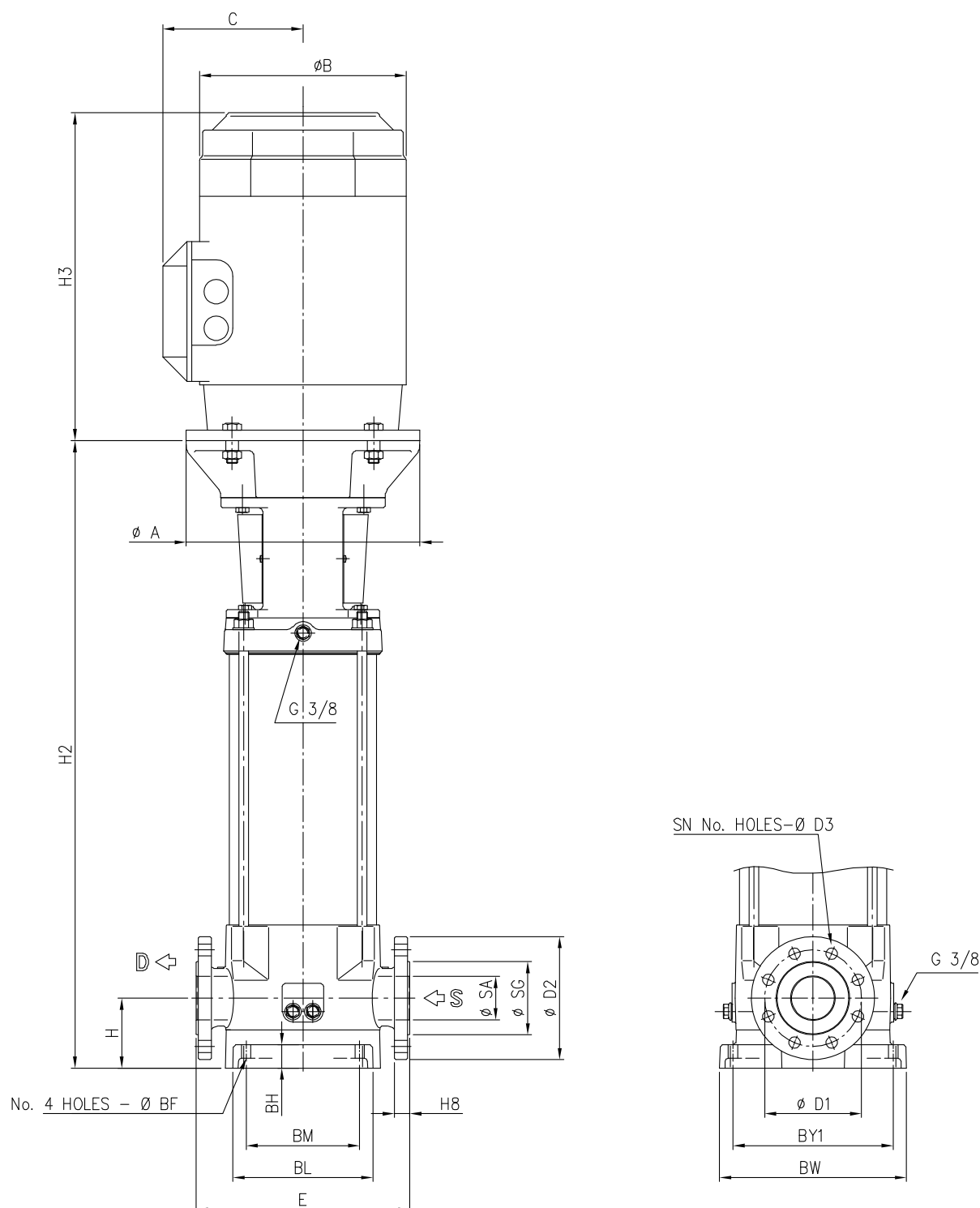
Rev. G

EVM45 9-2 F5 30 (30kW) MEI > 0.70 no.7 impellers diameter = 143 mm / no.2 impellers diameter = 127 mm
 EVM45 9-0 F5 37 (37kW) MEI > 0.70 no.9 impellers diameter = 143 mm
 EVM45 10-2 F5 37 (37kW) MEI > 0.70 no.8 impellers diameter = 143 mm / no.2 impellers diameter = 127 mm
 EVM45 10-0 F5 37 (37kW) MEI > 0.70 no.10 impellers diameter = 143 mm



Rotation speed $\approx 2960 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

EVM(.) 32-64



See dimensions pages 404,405,406

DIMENSIONS TABLE EVM(.) 45

Pump Type EVM	Pmax. [MPa] 2)	Motor Size	Dimensions [mm]																			Weight [kg]		
			H	H2	H3 1) 3~	E	B 1) 3~	C 1) 3~	BM	BL	BY1	BW	SA	SG	D1	D2	H8	SN	D3	BF	BH	A	Pump	Pump + motor
45 1-1F5/3.0	1.6	100	140	525	306	365	196	155	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	160	71.0	93.8
45 1-0F5/4.0	1.6	112	140	525	306	365	196	155	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	160	73.0	95.8
45 2-2F5/5.5	1.6	132	140	618	328	365	220	161	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	300	81.0	119.6
45 2-0F5/7.5	1.6	132	140	618	328	365	220	161	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	300	81.0	121.4
45 3-2F5/11	1.6	160M	140	821	403	365	248	195	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	99.0	161.5
45 3-0F5/11	1.6	160M	140	821	403	365	248	195	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	99.0	161.5
45 4-2F5/15	2.5	160M	140	893	498	365	317	238	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	108.0	195.1
45 4-0F5/15	2.5	160M	140	893	498	365	317	238	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	108.0	195.1
45 5-2F5/18.5	2.5	160L	140	965	542	365	317	238	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	128.0	225.5
45 5-0F5/18.5	2.5	160L	140	965	542	365	317	238	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	128.0	225.5
45 6-2F5/22	2.5	180	140	1037	577	365	360	268	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	133.0	296.0
45 6-0F5/22	2.5	180	140	1037	577	365	360	268	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	133.0	296.0
45 7-2F5/30	2.5	200	140	1124	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	139.0	367.0
45 7-0F5/30	2.5	200	140	1124	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	139.0	367.0
45 8-2F5/30	2.5	200	140	1196	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	146.0	374.0
45 8-0F5/30	2.5	200	140	1196	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	146.0	374.0
45 9-2F5/30	2.5	200	140	1269	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	151.0	379.0
45 9-0F5/37	2.5	200	140	1269	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	151.0	393.0
45 10-2F5/37	3.0	200	140	1341	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	156.0	398.0
45 10-0F5/37	3.0	200	140	1341	658	365	399	300	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	156.0	398.0

1) AEG motor dimensions

2) 1,6 MPa=16 bar

2,5 MPa=25 bar

3,0 MPa=30 bar

PACKING TABLE EVM(.) 45

PUMP TYPE EVM(.)	PUMPS						PUMPS WITH MOTOR ~3					
	Packing [mm]			Weight [kgf] EVM(G)	Weight [kgf] EVM(L)	Pack Type	PACKING [mm]			Weight [kgf] EVM(G)	Weight [kgf] EVM(L)	Pack Type
	X	Y	Z				X	Y	Z			
45 1-1F5/3.0	400	400	780	69	76	2	400	400	1047	93.5	100.5	2
45 1-0F5/4.0	400	400	780	71	78	2	400	400	1047	106.6	110.1	2
45 2-2F5/5.5	400	400	780	79	86	2	400	400	1047	131.4	137.6	2
45 2-0F5/7.5	400	400	780	79	86	2	400	400	1047	131.4	138.4	2
45 3-2F5/11	400	400	1047	97	106	2	500	1540	540	190.5	199.5	3
45 3-0F5/11	400	400	1047	97	106	2	500	1540	540	190.5	199.5	3
45 4-2F5/15	400	400	1047	105	115	2	500	1540	540	186.1	196.1	3
45 4-0F5/15	400	400	1047	105	115	2	500	1540	540	186.1	196.1	3
45 5-2F5/18.5	400	400	1240	126	138	2	610	1750	593	227.5	239.5	3
45 5-0F5/18.5	400	400	1240	126	138	2	610	1750	593	227.5	239.5	3
45 6-2F5/22	400	400	1240	130	143	2	610	1750	593	279.0	292.0	3
45 6-0F5/22	400	400	1240	130	143	2	610	1750	593	279.0	292.0	3
45 7-2F5/30	480	480	1297	136	149	2	635	2130	587	396.0	409.0	3
45 7-0F5/30	480	480	1297	136	149	2	635	2130	587	396.0	409.0	3
45 8-2F5/30	500	1350	545	147	160	3	635	2130	587	403.0	416.0	3
45 8-0F5/30	500	1350	545	147	160	3	635	2130	587	403.0	416.0	3
45 9-2F5/30	500	1350	545	151	165	3	635	2130	587	407.0	421.0	3
45 9-0F5/37	610	1750	593	158	172	3	635	2130	587	421.0	435.0	3
45 10-2F5/37	610	1750	593	162	177	3	635	2130	587	425.0	440.0	3
45 10-0F5/37	610	1750	593	162	177	3	635	2130	587	425.0	440.0	3