EU

E-Tech

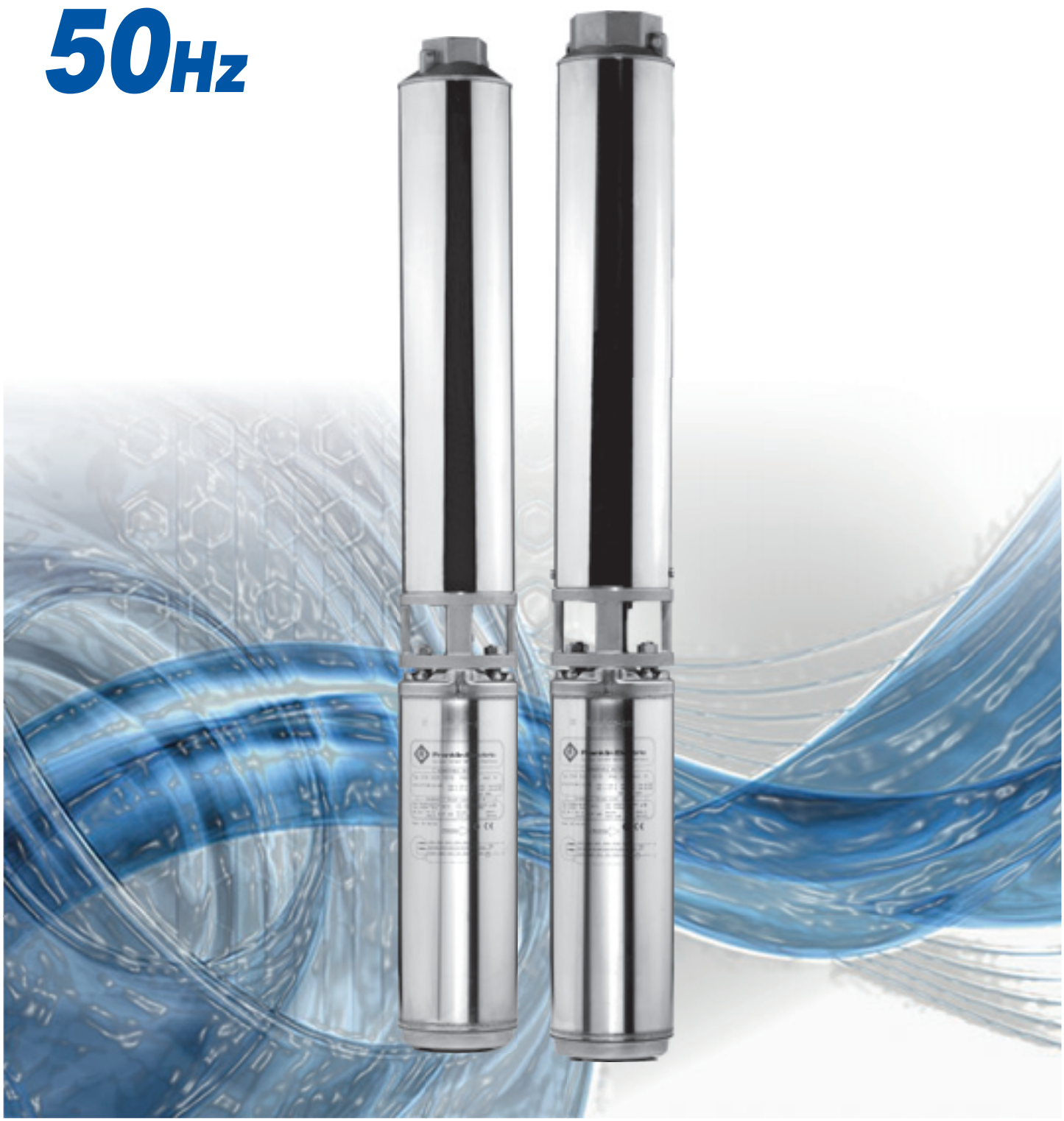
Professional

Quality Made by Franklin Electric

4” SUBMERSIBLE PUMPS

VS 1 - 2 - 4 - 6 - 8 - 10 - 15

50Hz



Series VS 1 - 2 - 4 - 6 - 8 - 10 - 15
4" Submersible Pumps

APPLICATIONS

- Municipal water works, fountains and waste water
- Water distribution and pressure boosting
- Irrigation and sprinkler systems, water treatment plants, filtration and reverse osmosis
- Industrial cooling and processing
- Mining industry, drainage and dewatering
- Fire-fighting equipment
- Water supply to and from tanks, reservoir and wells
- Lifting and distribution of a wide range of liquids
- Autoclave and cistern charge and discharge
- Turf and landscape
- Greenhouses and nurseries
- Residential and farm wells and drainage
- Food industry
- General industry

FEATURES

- Compact, reliable and suited to operate in horizontal position
- Built-in check valve to protect the pump against water hammer risk
- Floating impellers to grant a better performance and longer life for the pump against abrasion
- The hydraulic design is such to enhance the overall efficiency thus reducing energy consumption and making the pumping systems more cost effective

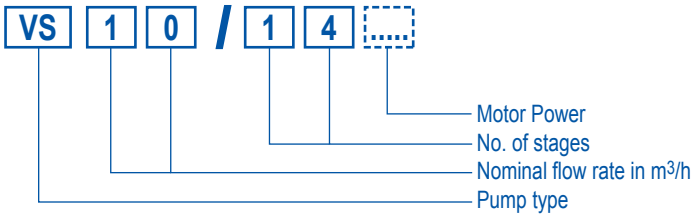
SPECIFICATIONS

- Capacities up to 24 m³/h at 50Hz
- Pumped liquid: chemically and mechanically non aggressive
- Water temperature range: from 0°C to 40°C
- Maximum allowable amount of sand 25 gr/m³, solid dimension max 2mm
- Maximum pump diameter (including cable guard): 95mm
- Outlet diameter: 1 ¼" VS1-2-4-6, 2" VS8-10-15
- Rotation: counter clockwise when looking into the discharge
- Motor adapter in compliance with NEMA standard
- Pump can work continuously in vertical or horizontal position
- Motors: see section Submersible Motors Product Overview

AVAILABLE OPTIONS

- Motor-pump : Cooling shroud, Suction shroud

PUMP IDENTIFICATION CODE



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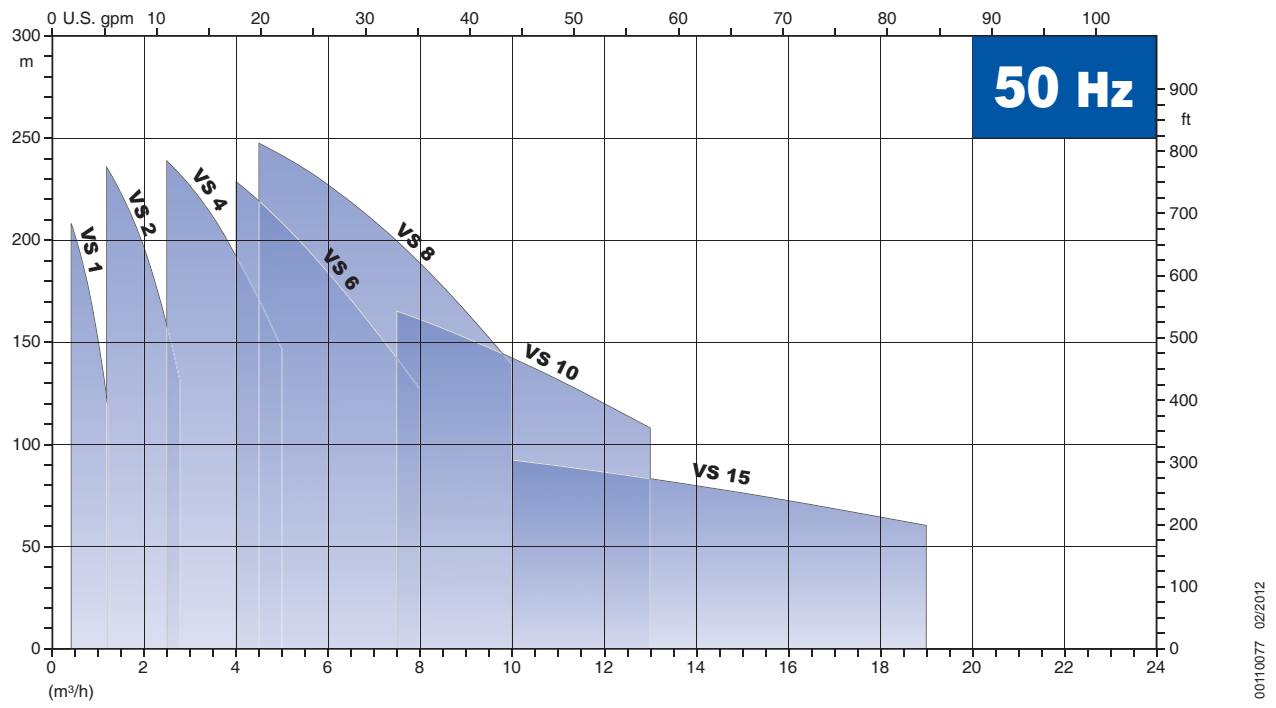


MATERIAL IN CONTACT WITH THE LIQUID				
Pos.	**PARTS DESCRIPTIONS**		**MATERIAL**	
		Type	**AISI**	**DIN / EN**
10.00	**Discharge head and and screws**	Stainless steel	304	1.4301
10.01	**Valve**	Stainless steel	304	1.4301
10.02	**O-ring**	Nitrile Rubber	-	-
10.04	**Valve support**	Resine	-	-
20.00	**Outer case**	Stainless steel	304	1.4301
20.01	**Suction Strainer**	Stainless steel	304	1.4301
20.02	**Cable guard and screws**	Stainless steel	304	1.4301
20.05	**Motor adapter**	Stainless steel	304	1.4301
30.00	**Pump shaft**	Stainless steel	304	1.4301
30.01	**Coupling**	Stainless steel	304	1.4301
30.04	**Upper journal sleeve**	Stainless steel	304	1.4301
30.05	**Screw and washer**	Stainless steel	304	1.4301
30.07	**Lower spacer**	Stainless steel	304	1.4301
30.08	**Upper spacer**	Polycarbonate	-	-
40.00	**Diffusers**	Technopolymer	-	-
40.01	**Secondary bearing bush**	Resine	-	-
40.04	**Bearing bush**	Resine	-	-
40.05	**Upper bearin guide**	Resine	-	-
40.09	**Stage housing**	Stainless steel	304	1.4301
50.00	**Impeller**	Polycarbonate	-	-

VS1/2/4
TABLE OF HYDRAULIC PERFORMANCES AT 50Hz

PUMP TYPE	RATED POWER		Q = DELIVERY																	
			m³/h	0	0,3	0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	4,2	4,8	5,4	6,0	7,0
			l/sec	0	0,08	0,17	0,25	0,33	0,42	0,50	0,58	0,67	0,75	0,83	0,92	1,00	1,17	1,33	1,50	1,67	1,94
	kW	HP	H = TOTAL HEAD METERS COLUMN OF WATER [m]																	
VS 1/10	0,37	0,5		68	59	53	45	35	18												
VS 1/13	0,37	0,5		83	71	64	54	39	20												
VS 1/19	0,55	0,75		118	104	94	80	57	30												
VS 1/26	0,75	1		156	142	126	105	75	41												
VS 1/38	1,1	1,5		241	215	193	162	117	63												
VS 2/5	0,37	0,5		34				30	29	27	25	22	18	14	10						
VS 2/7	0,37	0,5		42				43	40	37	35	30	25	20	14						
VS 2/10	0,55	0,75		67				60	57	54	49	43	36	28	20						
VS 2/14	0,75	1		94				85	80	75	68	60	50	39	27						
VS 2/20	1,1	1,5		133				120	114	107	97	86	72	56	40						
VS 2/27	1,5	2		189				164	154	145	132	115	97	75	53						
VS 2/39	2,2	3		259				235	222	209	190	167	140	110	75						
VS 4/4	0,37	0,5		25						23	23	22	21	20	20	19	17	14	11	8	
VS 4/7	0,55	0,75		45						40	40	39	27	36	35	34	29	25	20	14	
VS 4/10	0,75	1		64						57	56	55	54	52	49	47	42	35	28	19	
VS 4/14	1,1	1,5		89						80	78	77	75	72	68	65	59	50	40	26	
VS 4/18	1,5	2		114						104	101	99	95	93	88	85	80	64	50	34	
VS 4/27	2,2	3		170						154	151	148	145	139	133	127	114	95	75	50	
VS 4/32	3	4		222						183	180	175	170	165	157	150	135	113	90	60	
VS 4/40	3,7	5		252						229	225	220	223	212	196	189	166	141	113	75	
VS 4/44	3,7	5		278						252	247	242	235	226	217	207	185	155	124	83	

VS 6/8
TABLE OF HYDRAULIC PERFORMANCES AT 50Hz

PUMP TYPE	RATED POWER		Q = DELIVERY																		
			m³/h	0	2,7	3,0	3,3	3,6	4,2	4,8	5,4	6,0	7,0	7,2	8,0	8,4	9,0	9,6	10,1	10,8	12,0
			l/sec	0	0,75	0,83	0,92	1,00	1,17	1,33	1,50	1,67	1,94	2,00	2,22	2,33	2,50	2,67	2,81	3,00	3,33
	kW	HP	H = TOTAL HEAD METERS COLUMN OF WATER [m]																		
VS 6/6	0,75	1		36	33	33	32	32	31	30	28	26	23	22	18	16	13				
VS 6/9	1,1	1,5		53	49	48	48	47	46	44	41	39	33	32	25	23	17				
VS 6/13	1,5	2		77	74	73	72	71	69	66	63	60	52	50	43	38	32				
VS 6/19	2,2	3		110	105	104	103	102	99	95	90	85	74	72	60	52	41				
VS 6/26	3	4		150	143	141	139	137	132	126	120	110	94	90	73	63	49				
VS 6/31	3,7	5		185	177	175	172	169	164	155	146	136	115	110	90	76	58				
VS 6/34	4	5,5		200	192	189	185	182	175	165	155	145	123	118	95	83	64				
VS 6/45	5,5	7,5		269	257	253	249	245	235	223	208	191	160	155	128	113	93				
VS 8/4	0,75	1		25				24	24	23	23	22	20	20	18	17	15	14	12	10	
VS 8/6	1,1	1,5		38				36	36	35	35	33	30	30	27	26	24	21	19	15	
VS 8/9	1,5	2		57				50	53	52	50	49	45	45	40	39	35	32	28	24	
VS 8/14	2,2	3		88				85	83	80	78	75	70	68	62	60	54	48	43	35	
VS 8/18	3	4		113				108	106	110	101	92	90	88	80	75	70	61	55	46	
VS 8/23	3,7	5		150				141	138	140	131	126	117	115	105	100	91	82	75	64	
VS 8/32	5,5	7,5		206				193	189	185	179	173	160	158	145	140	127	117	106	90	
VS 8/42	7,5	10		273				252	250	245	237	227	210	206	189	181	165	150	135	116	

VS 10
TABLE OF HYDRAULIC PERFORMANCES AT 50Hz

PUMP TYPE	RATED POWER		Q = DELIVERY																	
			m³/h	0	6,0	7,0	7,2	8,0	8,4	9,0	9,6	10,1	10,8	12,0	13,0	13,2	14,0	14,4	15,6	16,0	17,0
			l/sec	0	1,67	1,94	2,00	2,22	2,33	2,50	2,67	2,81	3,00	3,33	3,61	3,67	3,89	4,00	4,33	4,44	4,72
	kW	HP	H = TOTAL HEAD METERS COLUMN OF WATER [m]																		
VS 10/5	1,1	1,5		30	26	25	25	24	23	22	21	20	18	16	14	13	12	11	8	7	5
VS 10/7	1,5	2		42	37	36	34	33	33	31	30	28	27	23	20	20	17	16	12	11	8
VS 10/11	2,2	3		64	56	54	53	51	50	47	45	43	40	35	30	29	25	23	18	15	11
VS 10/14	3	4		82	73	69	68	66	65	61	58	56	53	45	40	38	32	32	24	21	20
VS 10/18	4	5,5		107	97	93	92	89	87	83	80	77	72	63	55	54	48	45	36	33	26
VS 10/25	5,5	7,5		150	135	130	128	124	121	117	112	108	103	91	82	80	71	68	55	50	39
VS 10/32	7,5	10		194	175	168	167	160	157	152	145	140	133	120	108	105	95	91	74	68	55

VS 15
TABLE OF HYDRAULIC PERFORMANCES AT 50Hz

PUMP TYPE	RATED POWER		Q = DELIVERY																		
			m³/h	0	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
			l/sec	0	2,5	2,8	3,1	3,3	3,6	3,9	4,2	4,4	4,7	5,0	5,3	5,6	5,8	6,1	6,4	6,7	7,0
	kW	HP	H = TOTAL HEAD METERS COLUMN OF WATER [m]																		
VS 15/8	2,2	3		46	36	35	33	32	30	29	27	26	25	23	21	20	18	15	13	10	
VS 15/10	3	4		58	45	43	41	40	38	36	34	33	30	29	27	25	22	19	16	13	
VS 15/12	4	5,5		69	54	52	50	48	45	43	41	39	37	35	32	30	26	23	20	16	
VS 15/16	5,5	7,5		92	73	69	66	63	60	58	55	52	49	46	43	39	35	31	26	21	
VS 15/21	7,5	10		121	95	91	87	84	80	75	72	68	64	60	56	51	46	40	35	27	

VS 1

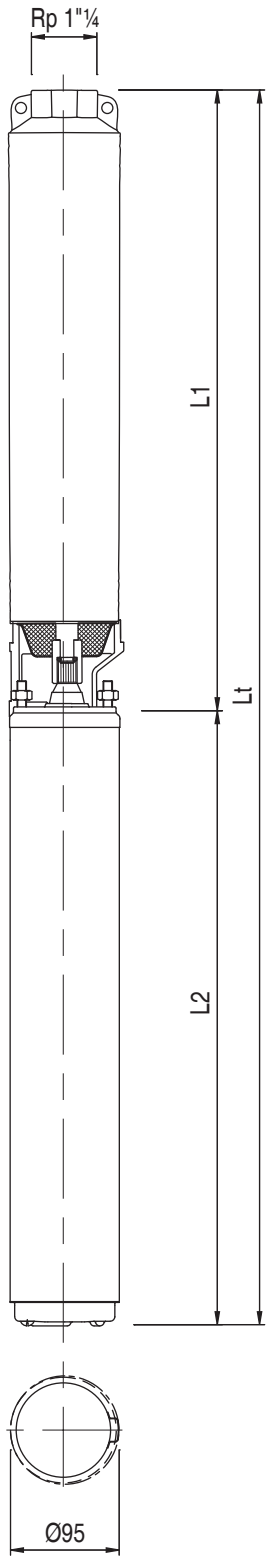
Technical data 50Hz

MEI ≥ 0,40

Pumps with Encapsulated Motor

Pump model type	Motor			Dimensions [mm]					Weight [Kg]				
	Type	kW	HP	Lt		L2		L1	Motor		Pump	Total	
				1~	3~	1~	3~		1~	3~		1~	3~
VS 1/10	E4	0,37	0,5	596	582	228	214	368	7,8	7,2	4,0	11,8	11,2
VS 1/13	E4	0,37	0,5	648	634	228	214	420	7,8	7,2	4,5	12,3	11,7
VS 1/19	E4	0,55	0,75	776	756	248	228	528	8,7	7,7	5,6	16,4	13,3
VS 1/26	E4	0,75	1	962	928	282	248	680	10,0	8,7	7,4	17,4	16,1
VS 1/38	E4	1,1	1,5	1259,5	1203,5	338,5	282,5	921	12,6	10,2	10,0	22,6	20,2

Dimensions



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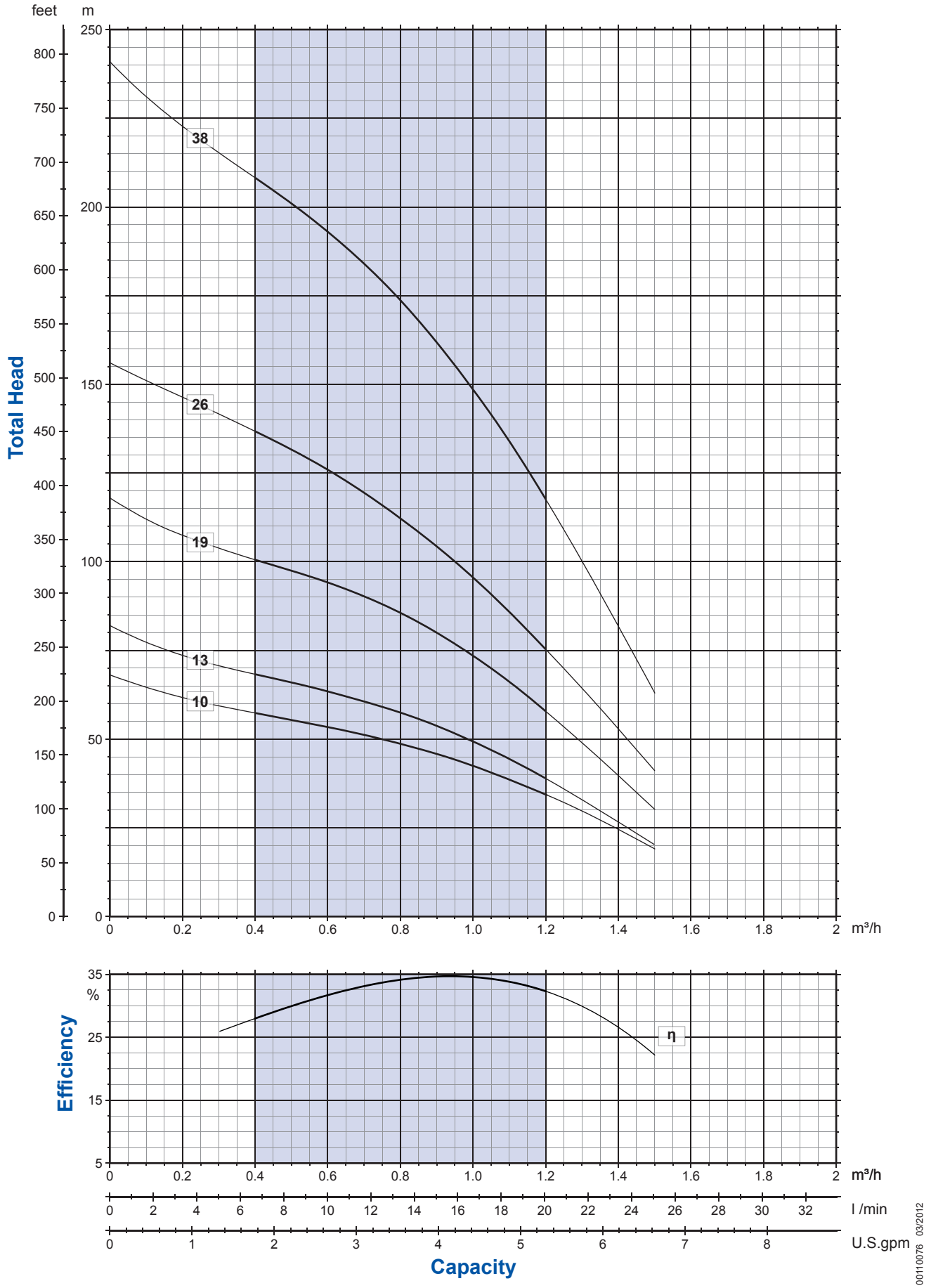
Performance curves 50Hz

VS 1

MEI ≥ 0,40



The hydraulic characteristics are guaranteed, according to ISO standard 9906, Annex A, grade 2.

VS 2

EU

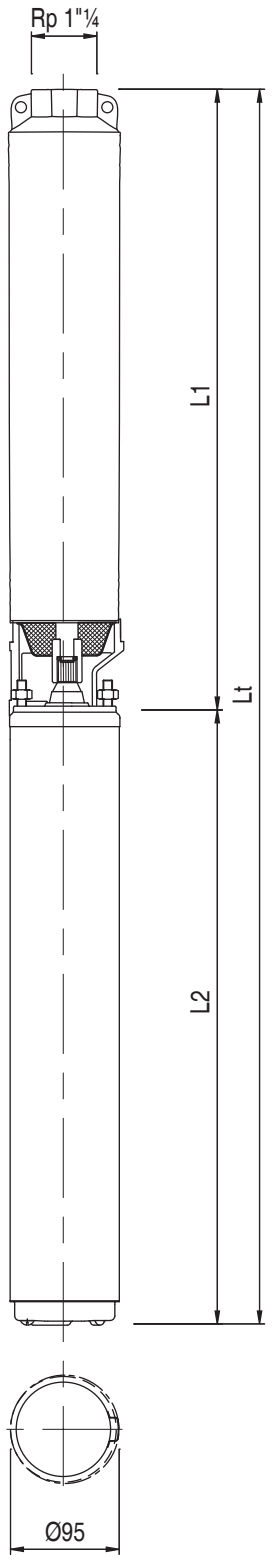
Technical data 50Hz

MEI ≥ 0,40

Pumps with Encapsulated Motor

Pump model type	Motor			Dimensions [mm]					Weight [Kg]				
	Type	kW	HP	Lt		L2		L1	Motor		Pump	Total	
				1~	3~	1~	3~		1~	3~		1~	3~
VS 2/5	E4	0,37	0,5	506	492	228	214	278	7,8	7,2	3,0	10,8	10,2
VS 2/7	E4	0,37	0,5	542	528	228	214	314	7,8	7,2	3,4	11,2	10,6
VS 2/10	E4	0,55	0,75	615	595	248	228	367	8,7	7,7	4,0	12,7	11,7
VS 2/14	E4	0,75	1	720,5	686	282,5	248	438	10,0	8,7	4,6	14,6	13,3
VS 2/20	E4	1,1	1,5	880,5	824,5	338,5	282,5	542	12,6	10,2	5,6	18,2	15,8
VS 2/27	E4	1,5	2	1044,5	1001,5	349,5	306,5	695	13,0	11,2	7,1	20,1	18,3
VS 2/39	E4	2,2	3	1370,5	1272,5	436,5	338,5	934	16,9	12,6	9,4	26,3	22,0

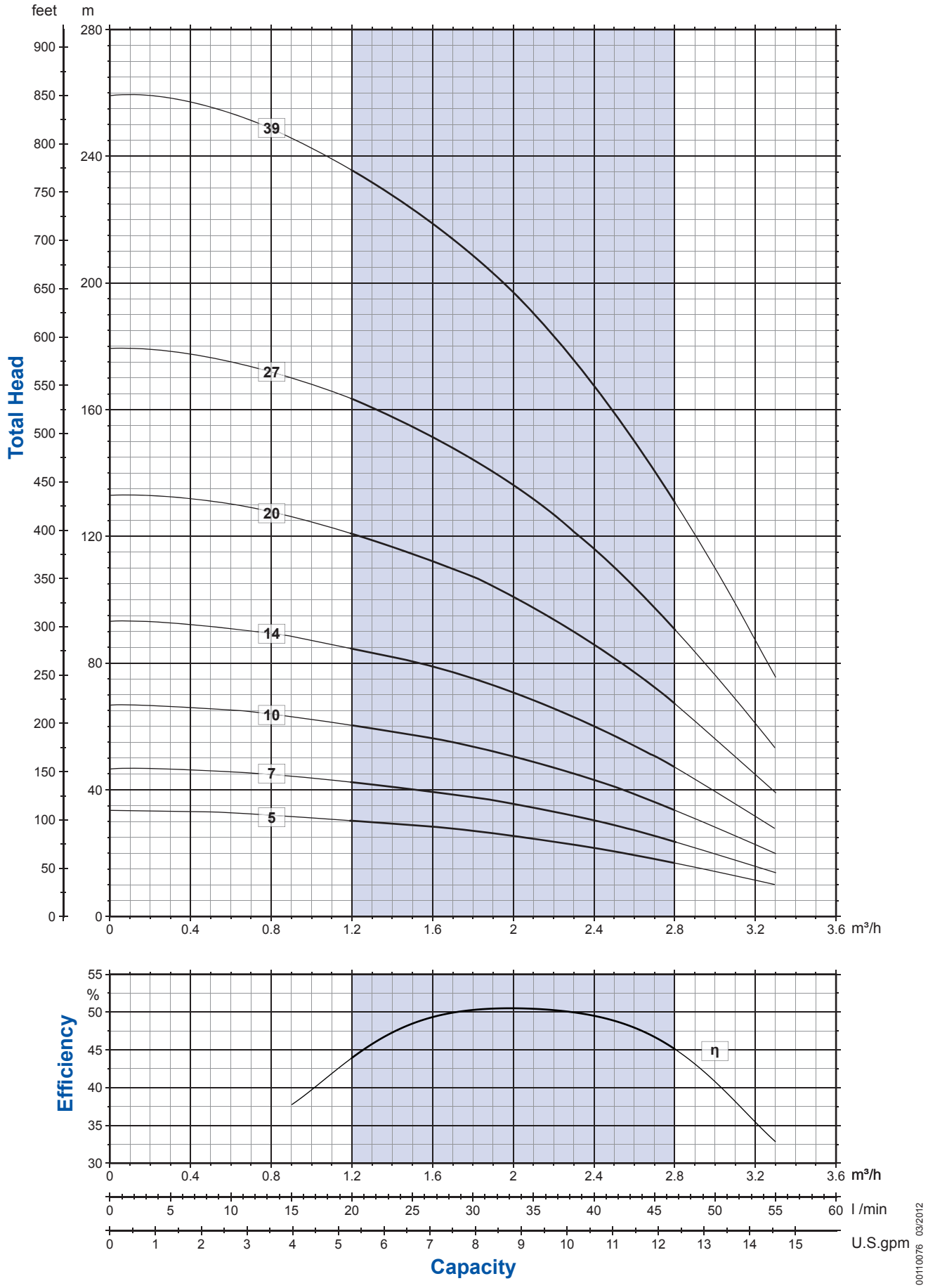
Dimensions



Performance curves 50Hz

VS 2

MEI ≥ 0,40



The hydraulic characteristics are guaranteed, according to ISO standard 9906, Annex A, grade 2.

VS 4

EU

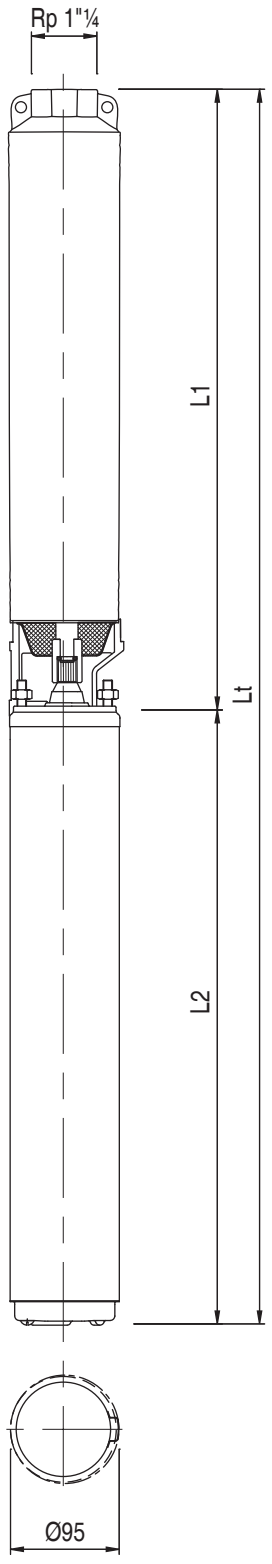
Technical data 50Hz

MEI ≥ 0,40

Pumps with Encapsulated Motor

Pump model type	Motor			Dimensions [mm]					Weight [Kg]				
	Type	kW	HP	Lt		L2		L1	Motor		Pump	Total	
				1~	3~	1~	3~		1~	3~		1~	3~
VS 4/4	E4	0,37	0,5	506	492	228	214	278	7,8	7,2	2,9	10,7	10,1
VS 4/7	E4	0,55	0,75	591	571	248	228	343	8,7	7,7	3,5	12,2	11,2
VS 4/10	E4	0,75	1	693,5	659	282,5	248	411	10,0	8,7	4,2	14,2	12,9
VS 4/14	E4	1,1	1,5	836,5	780,5	338,5	282,5	498	12,6	10,2	5,1	17,7	15,3
VS 4/18	E4	1,5	2	937,5	894,5	349,5	306,5	588	13,0	11,2	5,9	18,9	17,1
VS 4/27	E4	2,2	3	1220,5	1122,5	436,5	338,5	784	16,9	12,6	7,2	24,1	19,8
VS 4/32	E4	3	4	-	1346,5	-	393,5	953	-	15,0	9,2	-	24,2
VS 4/40	E4	3,7	5	-	1648	-	520	1128	-	19,1	10,5	-	29,6
VS 4/44	E4	3,7	5	-	1739	-	520	1219	-	19,1	11,8	-	30,9

Dimensions



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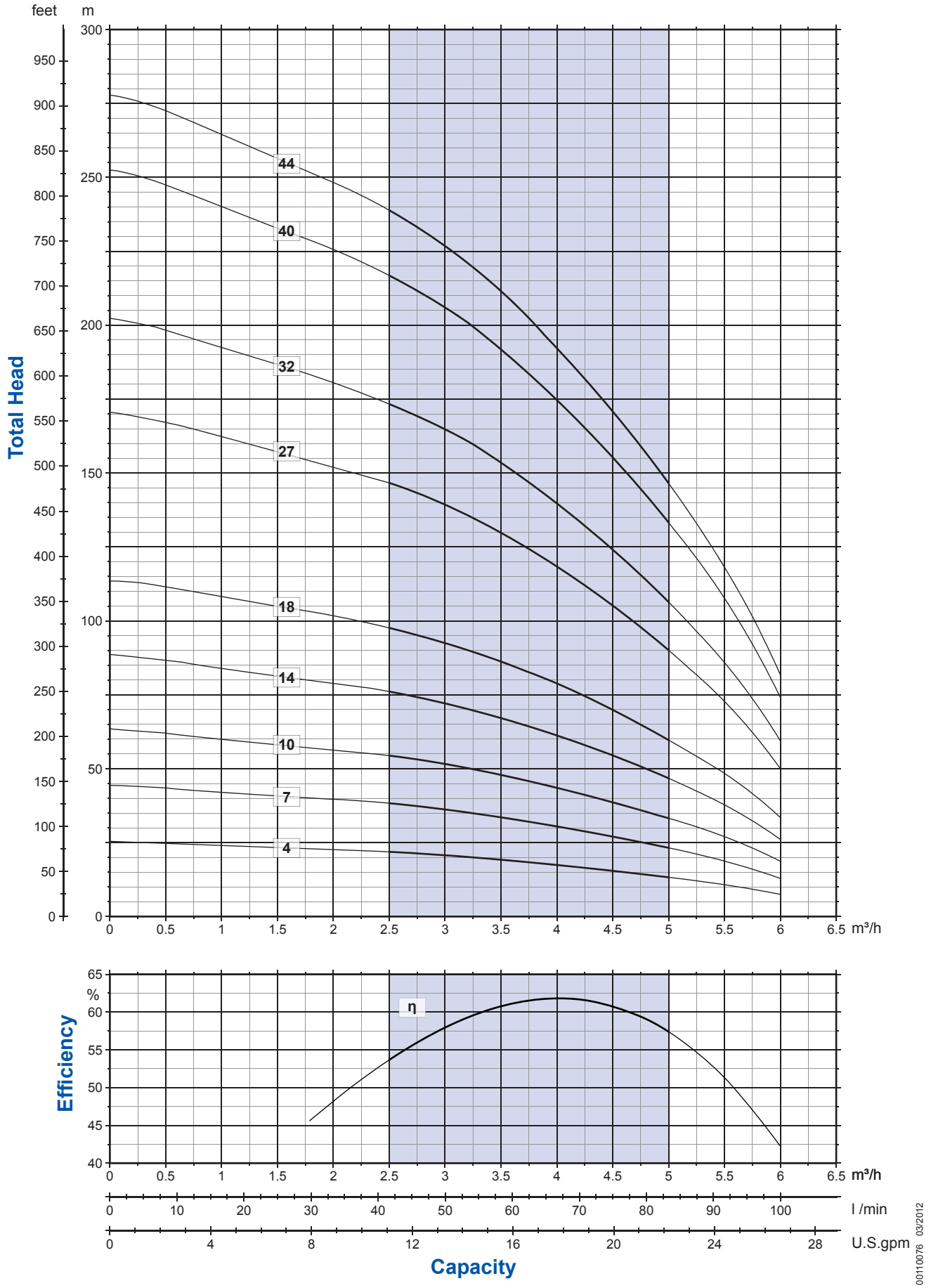
Performance curves 50Hz

VS 4

MEI ≥ 0,40



The hydraulic characteristics are guaranteed, according to ISO standard 9906, Annex A, grade 2.

VS 6

EU

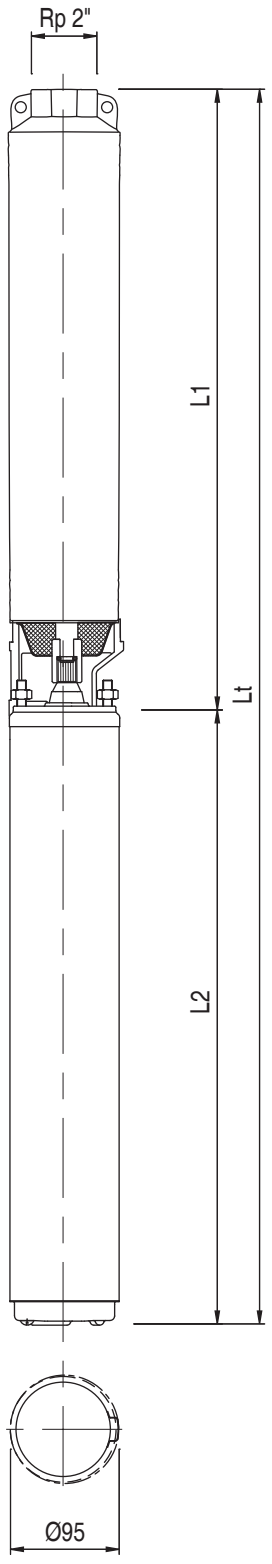
Technical data 50Hz

MEI ≥ 0,40

Pumps with Encapsulated Motor

Pump model type	Motor			Dimensions [mm]					Weight [Kg]				
	Type	kW	HP	Lt		L2		L1	Motor		Pump	Total	
				1~	3~	1~	3~		1~	3~		1~	3~
VS 6/6	E4	0,75	1	653,5	619	282,5	248	371	10,0	8,7	3,2	13,2	11,9
VS 6/9	E4	1,1	1,5	799,5	743,5	338,5	282,5	461	12,6	10,2	4,0	16,6	14,2
VS 6/13	E4	1,5	2	961,5	918,5	349,5	306,5	612	13,0	11,2	5,3	18,3	16,5
VS 6/19	E4	2,2	3	1257,5	1159,5	436,5	338,5	821	16,9	12,6	7,3	24,2	19,9
VS 6/26	E4	3	4	-	1424,5	-	393,5	1031	-	15,0	8,7	-	23,7
VS 6/31	E4	3,7	5	-	1732	-	520	1212	-	19,1	10,2	-	29,3
VS 6/34	E4	4	5,5	-	1846	-	543	1303	-	20,0	10,9	-	30,9
VS 6/45	E4	5,5	7,5	-	2283,5	-	652,5	1631	-	26,6	14,1	-	40,7

Dimensions



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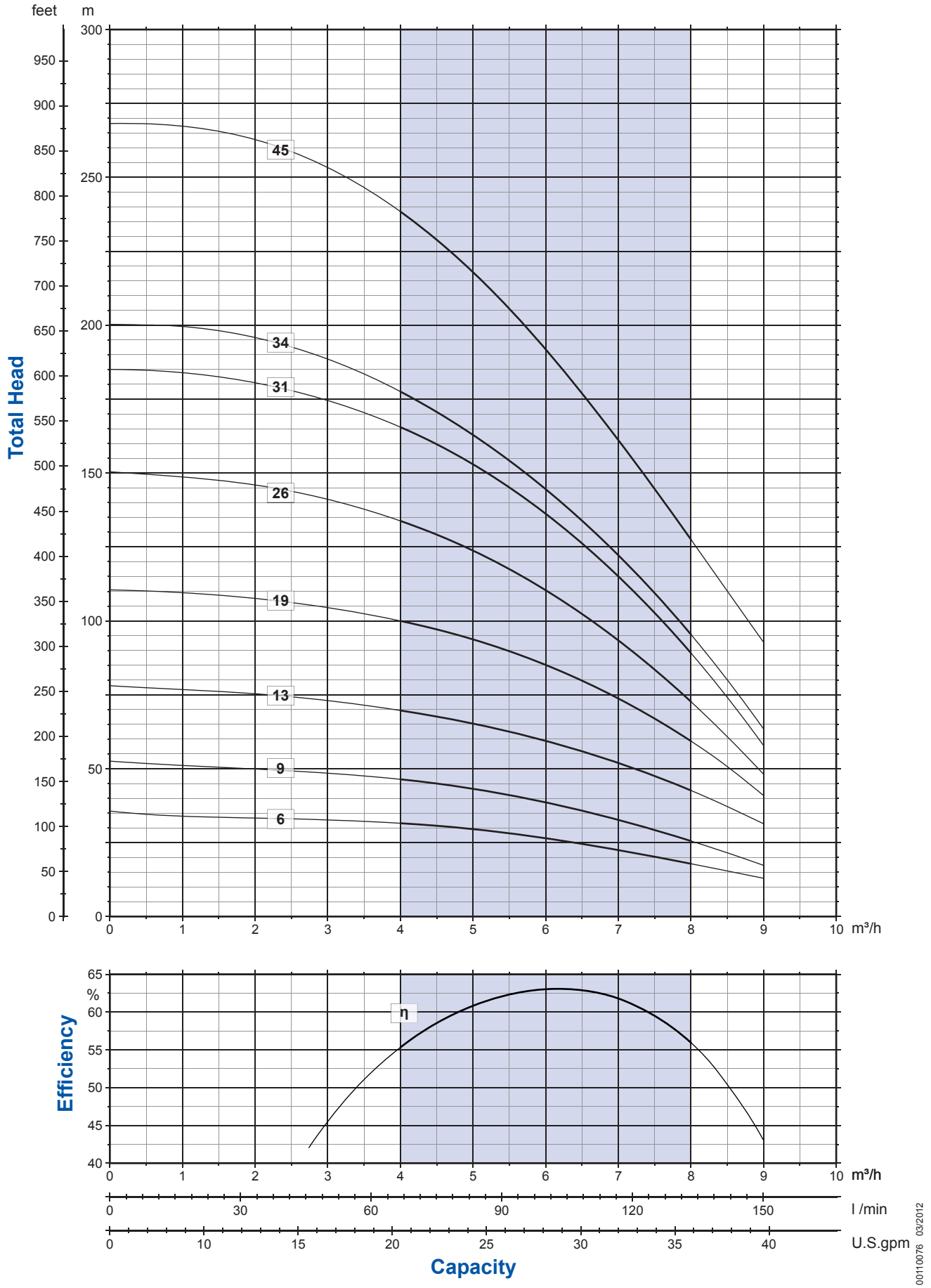
Performance curves 50Hz

VS 6

MEI ≥ 0,40



The hydraulic characteristics are guaranteed, according to ISO standard 9906, Annex A, grade 2.

VS 8

EU

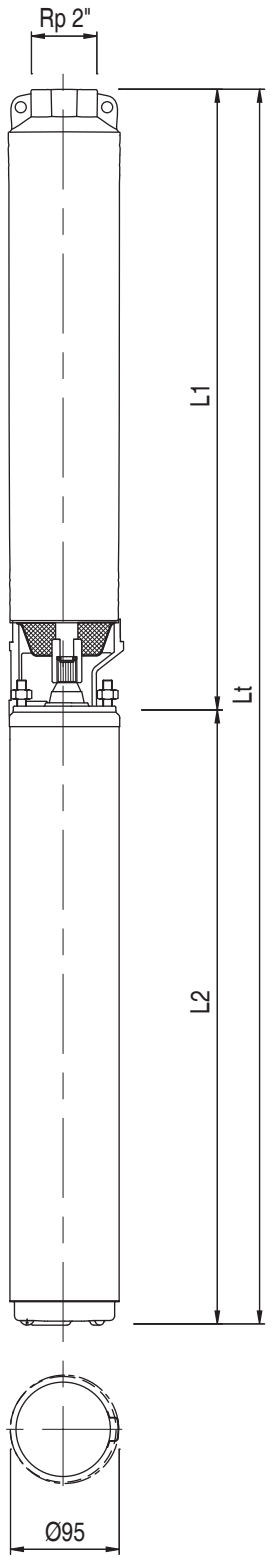
Technical data 50Hz

MEI ≥ 0,10

Pumps with Encapsulated Motor

Pump model type	Motor			Dimensions [mm]					Weight [Kg]				
	Type	kW	HP	Lt		L2		L1	Motor		Pump	Total	
				1~	3~	1~	3~		1~	3~		1~	3~
VS 8/4	E4	0,75	1	593,5	559	282,5	248	311	10,0	8,7	2,9	12,9	11,6
VS 8/6	E4	1,1	1,5	709,5	653,5	338,5	282,5	371	12,6	10,2	3,2	15,8	13,4
VS 8/9	E4	1,5	2	810,5	767,5	349,5	306,5	461	13,0	11,2	4,0	17,0	15,2
VS 8/14	E4	2,2	3	1079,5	981,5	436,5	338,5	643	16,9	12,6	5,4	22,3	18,0
VS 8/18	E4	3	4	-	1186,5	-	393,5	793	-	15,0	6,6	-	21,6
VS 8/23	E4	3,7	5	-	1463	-	520	943	-	19,1	7,7	-	26,8
VS 8/32	E4	5,5	7,5	-	1897,5	-	652,5	1245	-	26,6	10,1	-	36,7
VS 8/42	E4	7,5	10	-	2306,5	-	730,5	1576	-	30,6	12,8	-	42,4

Dimensions



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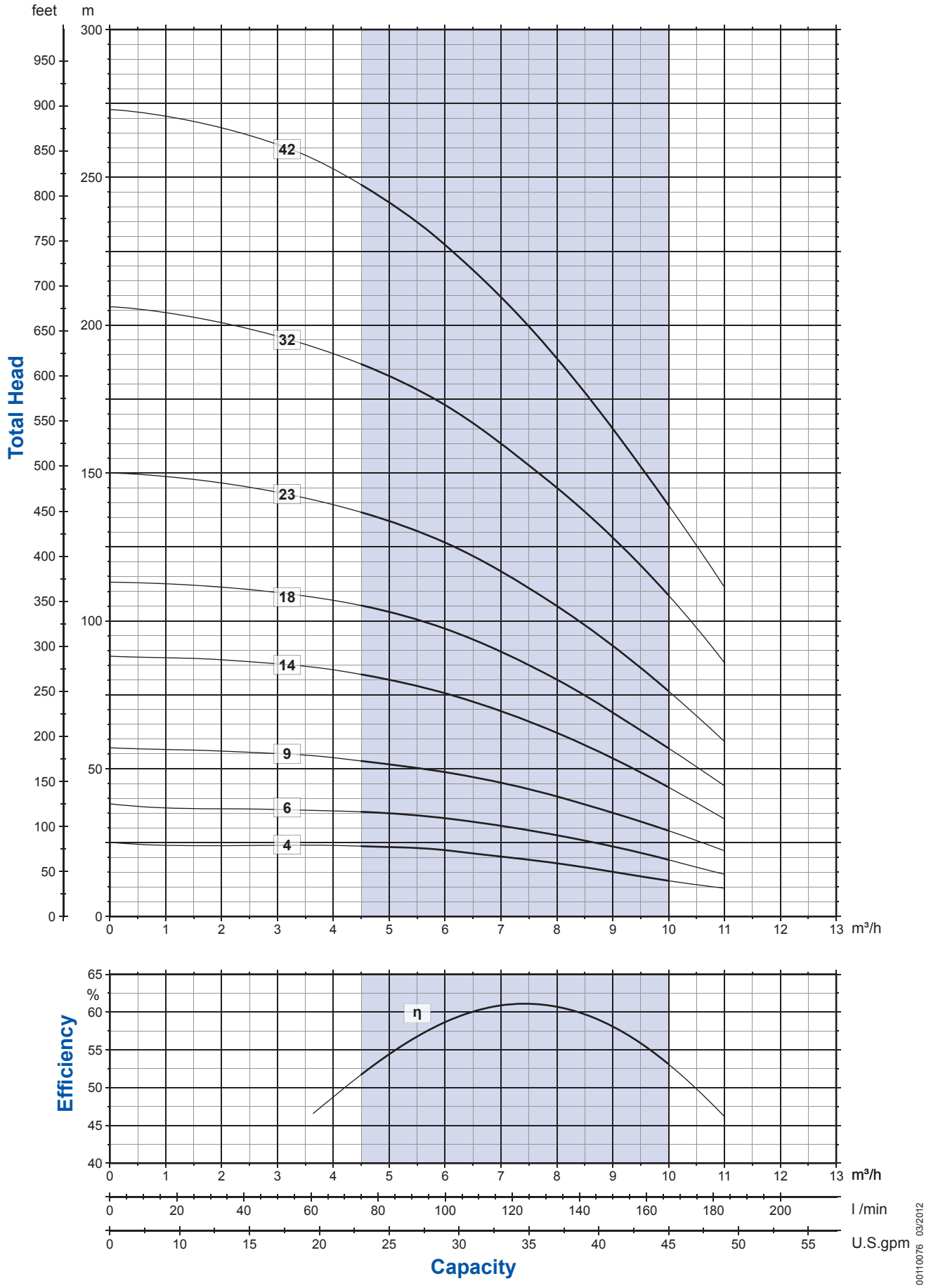
Performance curves 50Hz

VS 8

MEI ≥ 0,10



The hydraulic characteristics are guaranteed, according to ISO standard 9906, Annex A, grade 2.

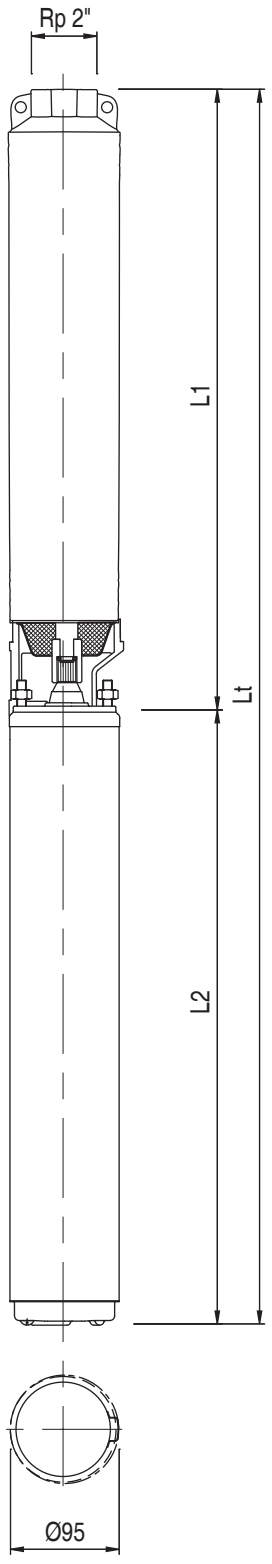
VS 10

Technical data 50Hz

Pumps with Encapsulated Motor

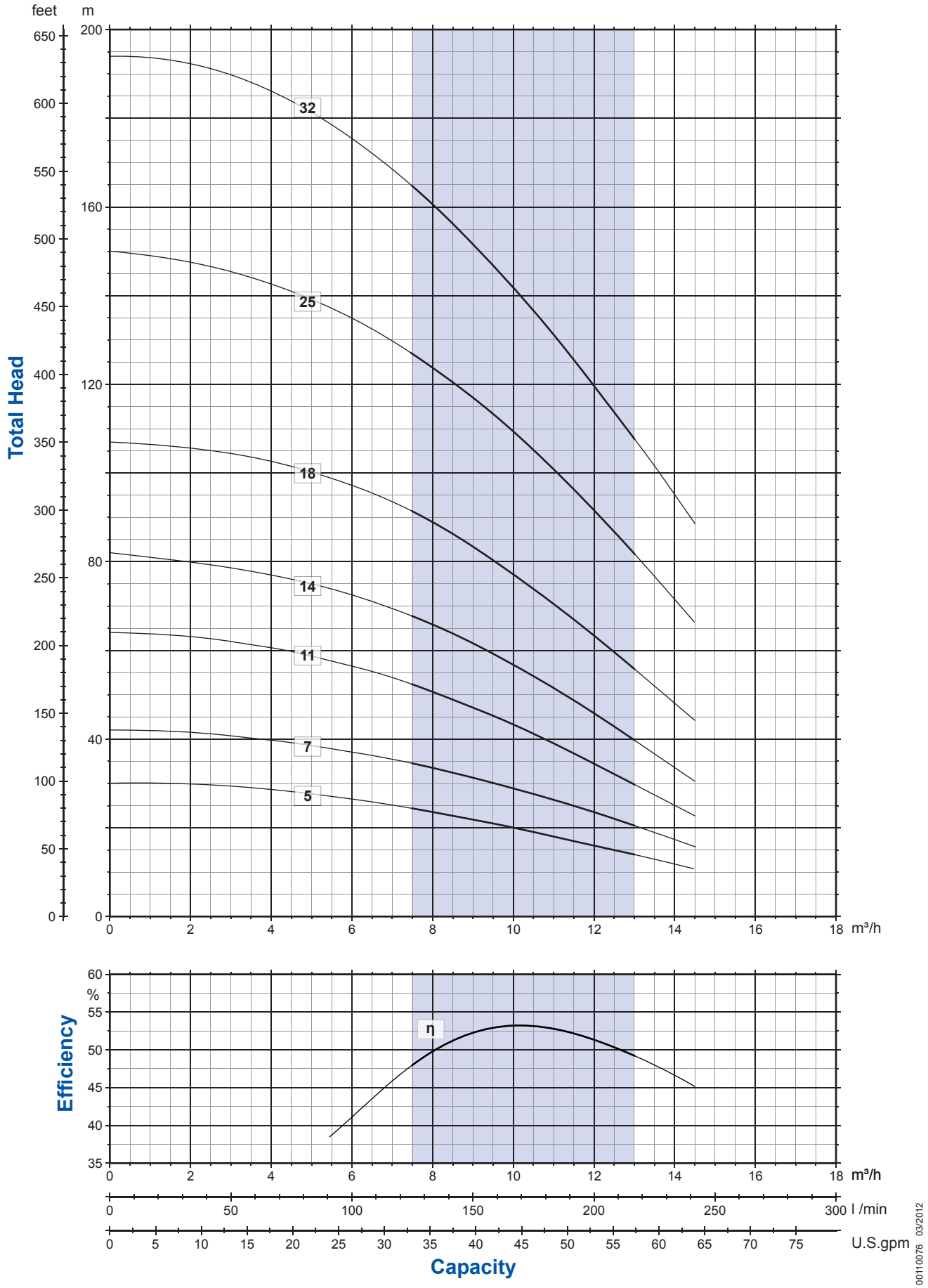
Pump model type	Motor			Dimensions [mm]					Weight [Kg]				
	Type	kW	HP	Lt		L2		L1	Motor		Pump	Total	
				1~	3~	1~	3~		1~	3~		1~	3~
VS 10/5	E4	1,1	1,5	778,5	722,5	338,5	282,5	440	12,6	10,2	3,7	16,3	13,9
VS 10/7	E4	1,5	2	890,5	847,5	349,5	306,5	541	13,0	11,2	4,4	17,4	15,6
VS 10/11	E4	2,2	3	1209,5	111,5	436,5	338,5	773	16,9	12,6	6,3	23,2	18,9
VS 10/14	E4	3	4	-	1316,5	-	393,5	923	-	15,0	7,6	-	22,6
VS 10/18	E4	4	5,5	-	1696	-	543	1153	-	20,0	9,4	-	29,4
VS 10/25	E4	5,5	7,5	-	2188,5	-	652,5	1536	-	26,6	12,4	-	39,0
VS 10/32	E4	7,5	10	-	2648,5	-	730,5	1918	-	30,6	15,8	-	46,4

Dimensions



00114087 02/2012

Performance curves 50Hz



The hydraulic characteristics are guaranteed, according to ISO standard 9906, Annex A, grade 2.

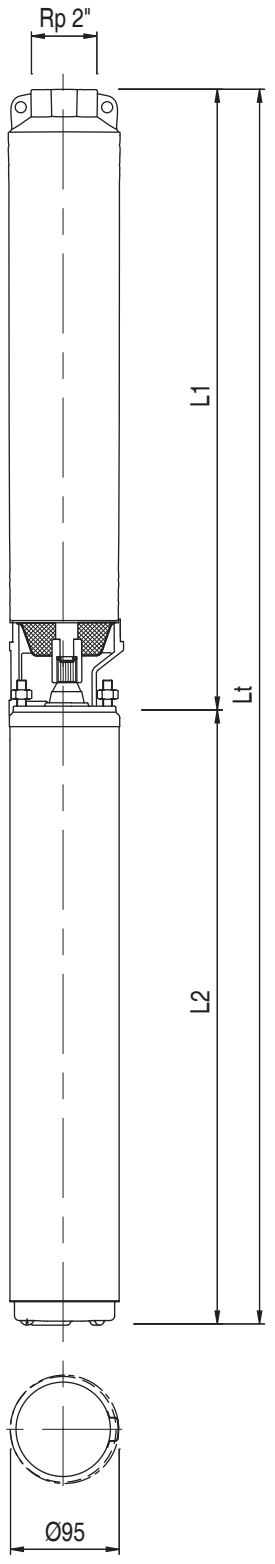
VS 15

Technical data 50Hz

Pumps with Encapsulated Motor

Pump model type	Motor			Dimensions [mm]					Weight [Kg]				
	Type	kW	HP	Lt		L2		L1	Motor		Pump	Total	
				1~	3~	1~	3~		1~	3~		1~	3~
VS 15/8	E4	2,2	3	1122,5	1024,5	436,5	338,5	686	16,9	12,6	5,4	22,3	18,0
VS 15/10	E4	3	4	-	1226,5	-	393,5	833	-	15,0	6,4	-	21,4
VS 15/12	E4	4	5,5	-	1515	-	543	981	-	20,0	7,4	-	27,4
VS 15/16	E4	5,5	7,5	-	1927,5	-	652,5	1275	-	26,6	9,5	-	36,1
VS 15/21	E4	7,5	10	-	2373,5	-	730,5	1643	-	30,6	12,1	-	42,7

Dimensions



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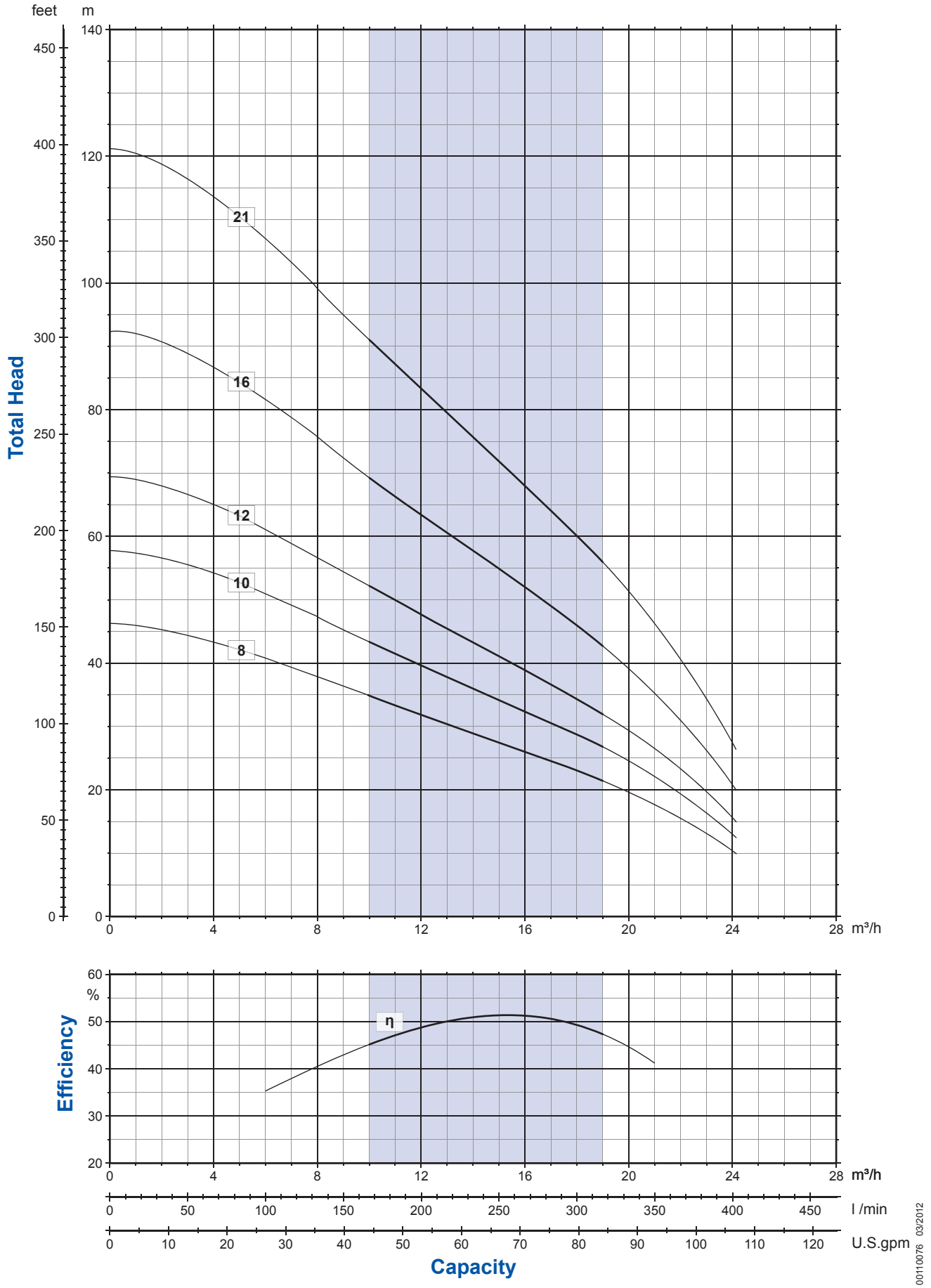
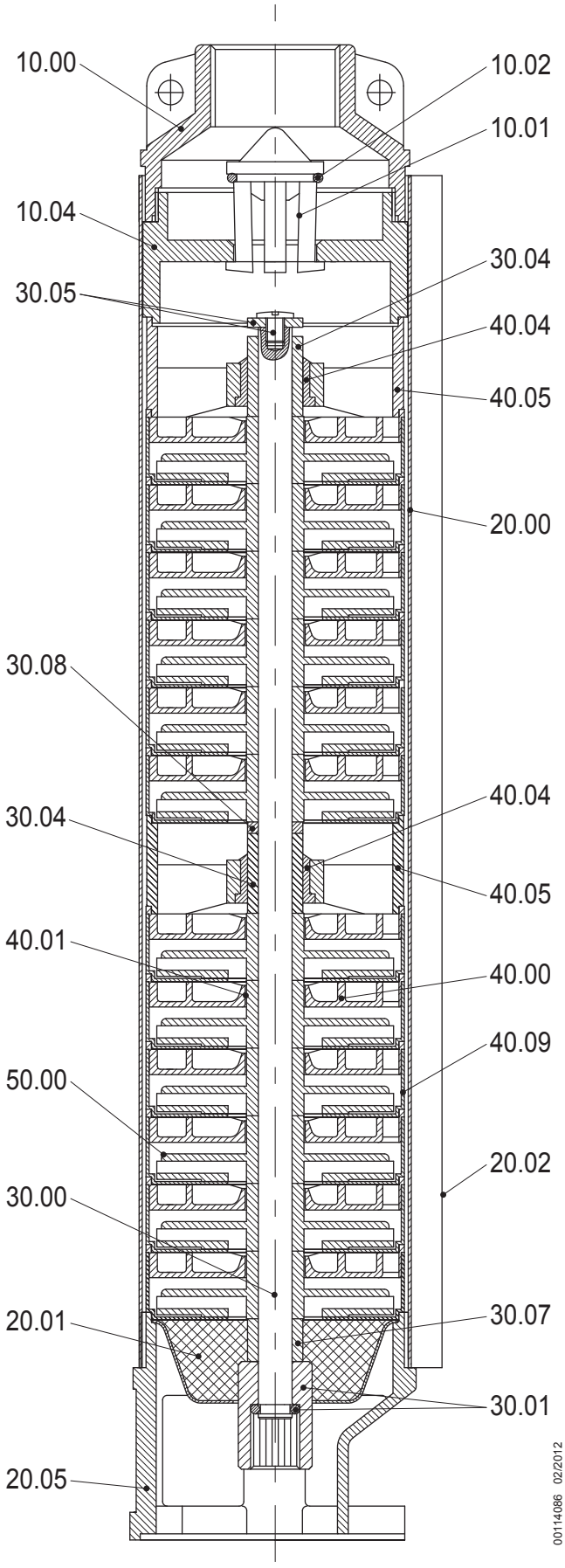
Performance curves 50Hz

VS 15



The hydraulic characteristics are guaranteed, according to ISO standard 9906, Annex A, grade 2.

Section and List of Main Components
VS 1/2/4/6/8/10/15



Ref. N.	Description
10 00	Discharge head
10 01	Valve
10 02	O-ring
10 04	Valve support
20 00	Outer case
20 01	Suction strainer
20 02	Cable guard and screws
20 05	Motor adapter
30 00	Pump shaft
30 01	Coupling
30 04	Upper / Intermediate journal sleeve
30 05	Screw and washer
30 07	Lower spacer
30 08	Upper spacer
40 00	Diffusers
40 01	Secondary bearing bush
40 04	Bearing bush
40 05	Upper / Intermediate bearing guide
40 09	Stage housing
50 00	Impeller