LOWARA xylem

Technical brochure
Cod. 191005681 Rev. B Ed.08/2025

50 Hz

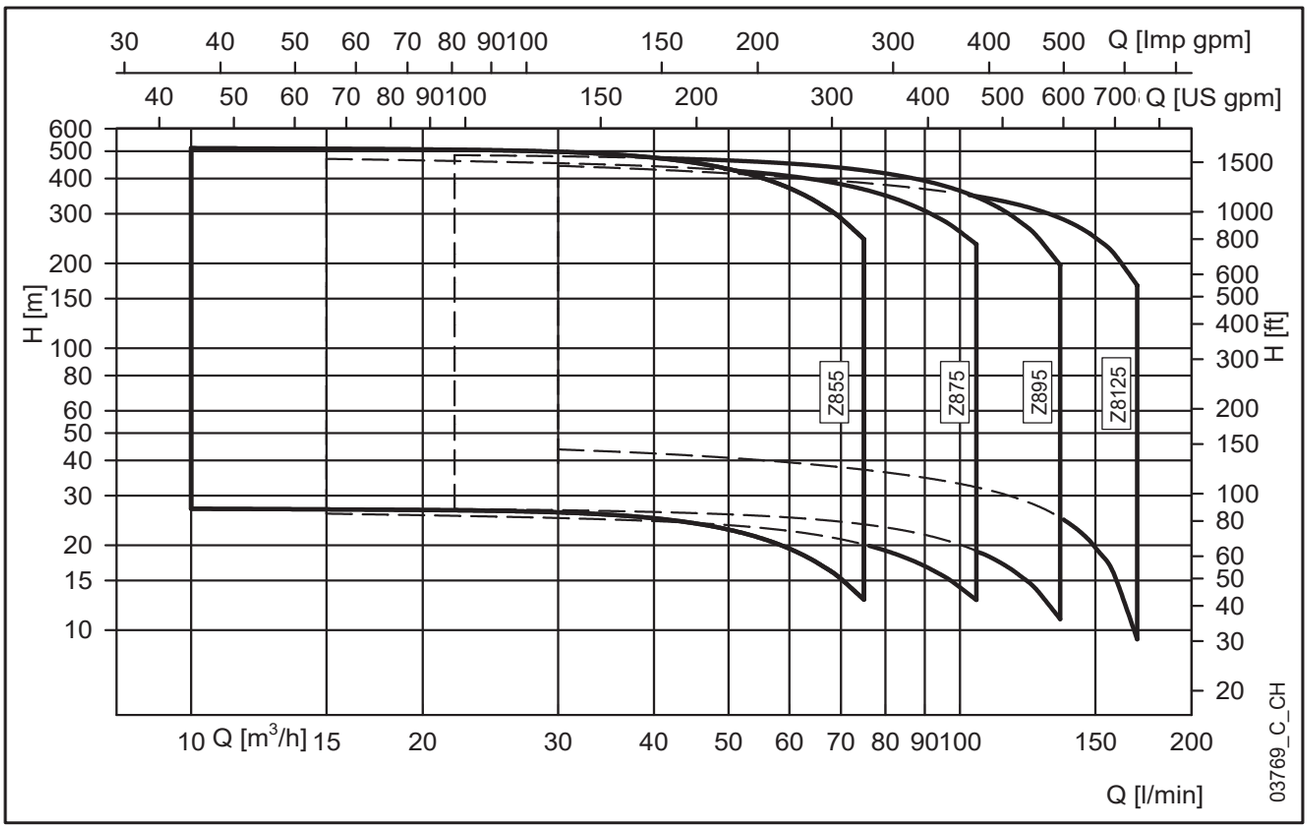
Z8, Z10, Z12 series

8” - 10” - 12” submersible electric pumps

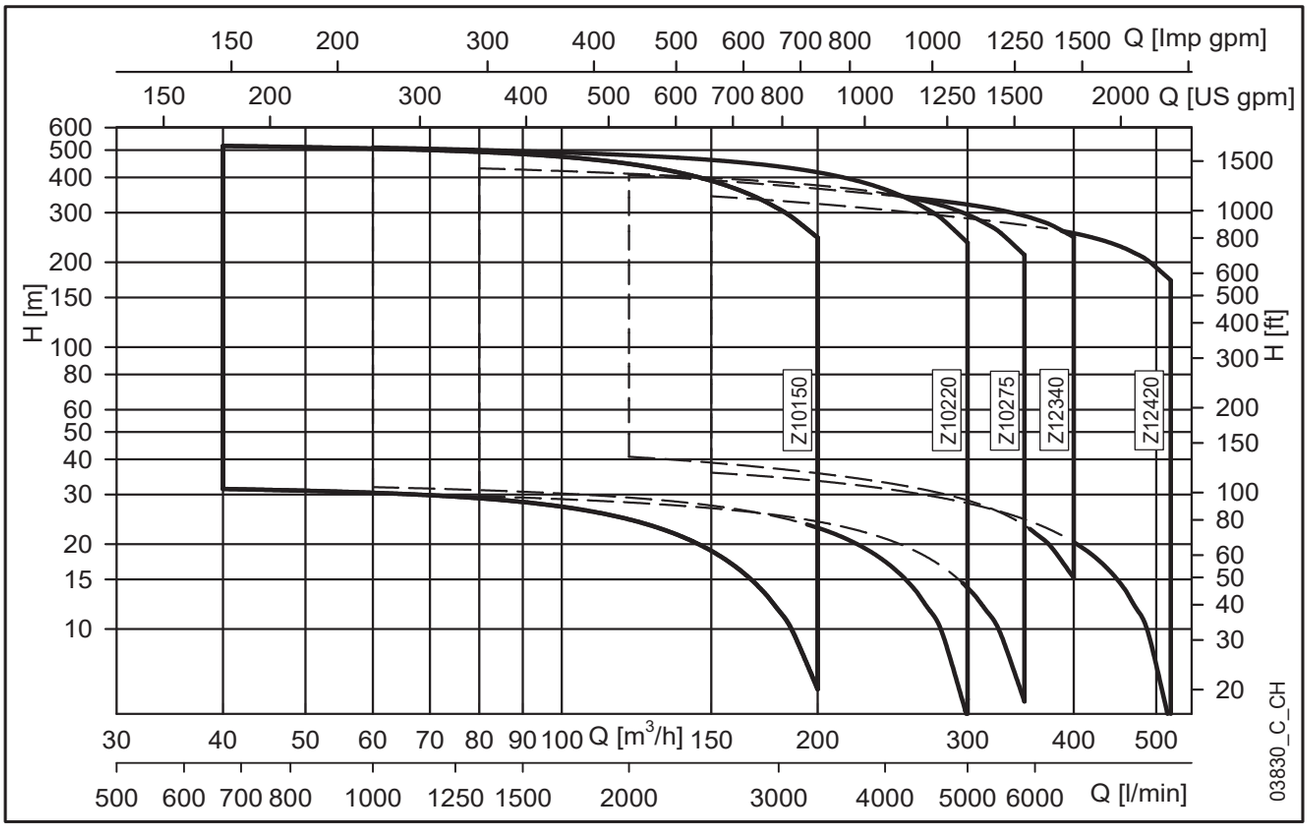
xylem

CONTENTS

HYDRAULIC PERFORMANCE RANGE
Z8 SERIES



Z10, Z12 SERIES



8” Submersible Electric Pumps

Z8 Series

MARKET SECTORS
AGRICULTURE, INDUSTRY,MUNICIPAL.

APPLICATIONS
- Water supply from deep wells.
- Pressure boosting and water distribution
- Supply of surge tanks and reservoirs.
- Firefighting and washing systems.
- Water table level control.
- Irrigation.
- Mines.

SPECIFICATIONS
- **Delivery: up to 180 m³/h.**
- **Head: up to 525 m.**
- Maximum pump overall diameter (2 cable covers included): 198 mm for all versions.
- Maximum electric pump immersion depth: 350 m.
- Maximum permissible quantity of suspended sand: 100 g/m³.
- Standard delivery outlet: Rp 5” for all versions.
- Construction materials available:
  - AISI304 stainless steel (Z8)
  - AISI316 stainless steel (ZN8)
  - **DUPLEX stainless steel (ZR8)**
  - **SUPER DUPLEX stainless steel (ZX8)**
- Horizontal installation possible. Minimum recommended inclination 3°. Motor on the lowest position.

CONSTRUCTION FEATURES
- Electric pumps sturdy and lightweight, easy maintenance and resistant to corrosion in aggressive and non-aggressive environments.
  - Impellers and diffusers made of stainless steel.
  - Delivery casing made of stainless steel.
  - Non-return valve made of stainless steel, with integrated spring.
  - Suction support made of stainless steel.
  - Shaft made of stainless steel.

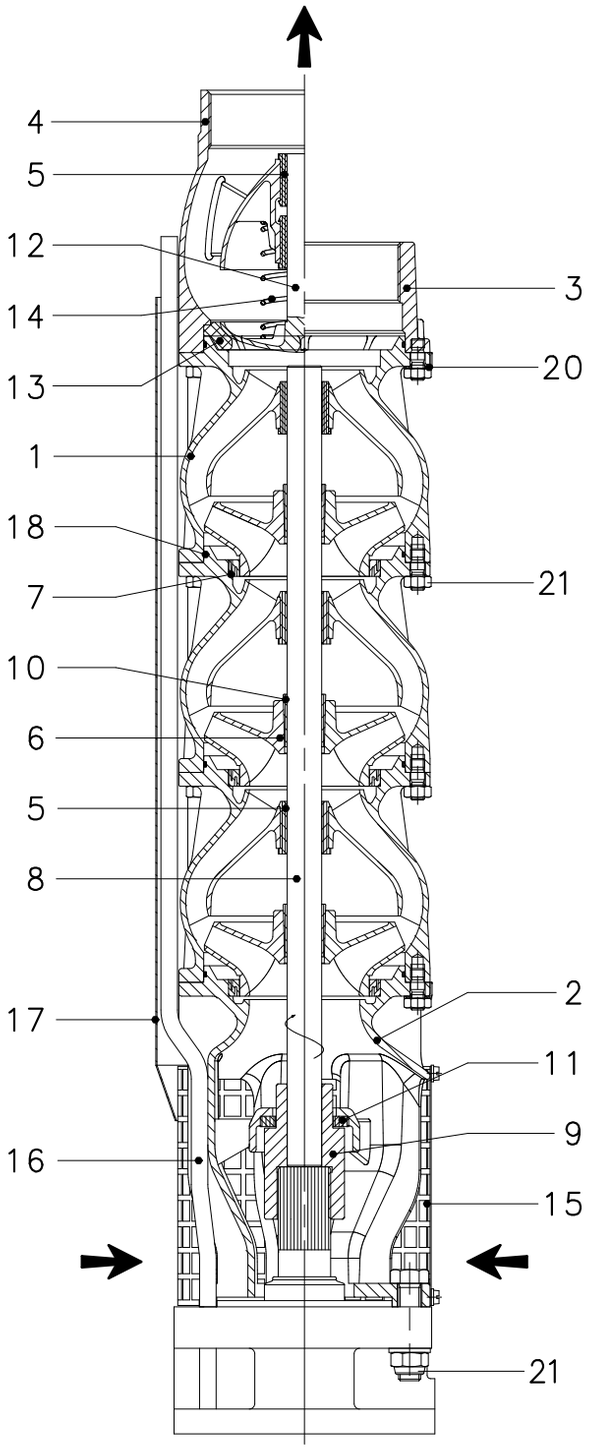
  For available material versions refer to the tables on pages 8-9.
- Guide bearing and wear rings ensure high resistance to wear and guarantee the constant and long-lasting performance of the hydraulic characteristics.
- Coupling and flange mounting dimensions meet NEMA standards.

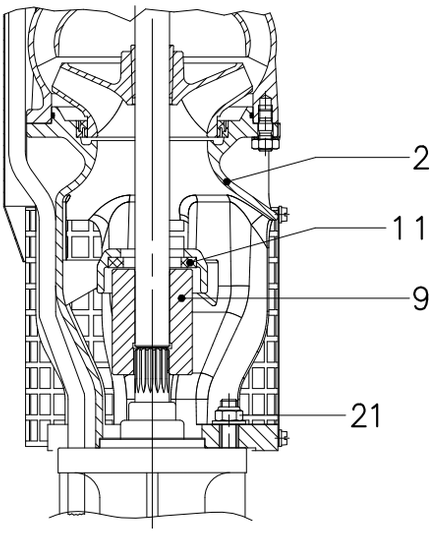
MOTORS
L6W, L8W, L10W rewindable three-phase motors with water filled winding.
- Three-phase version:
  L6W: 4 to 37 kW 380-415 V, 50Hz.
  L8W: 30 to 93 kW 380-415 V, 50Hz.
  L10W: 93 to 150 kW 380-415 V, 50Hz.
- Maximum supply voltage variations: 400V ±10% (all sizes)
- Maximum number of starts per hour: 15 (L6W), 10 (L8W) and 8 (L10W).
- Horizontal operation:
  - L6W, all versions are designed for horizontal installation, provided that the direction of the axial thrust generated by the impellers is always from the pump to the motor.
  - L8W, L10W on request for all versions.
- Maximum temperature of water in contact with motor: 25°C (all sizes).

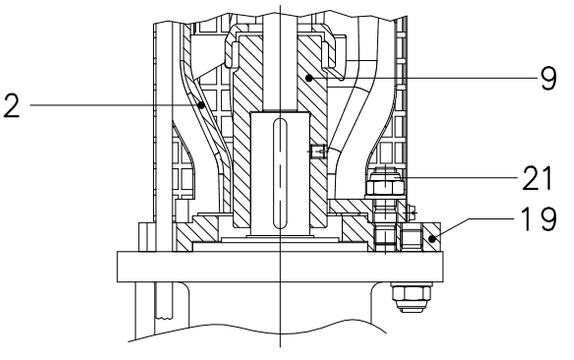
OPTIONAL FEATURES
Customized impeller diameters.

ACCESSORIES
Coupling flanges, control panels,drop cables, cable joints, cooling shrouds

Z8 SERIES
PUMP CROSS SECTION AND LIST OF COMPONENTS







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Z8 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
2	Lower support / Suction Casing	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
3	Delivery head	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
4	Valve Casing	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
5	Bearing bush	EPDM + Lubricant	-	-
6	Impeller	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
7	Wear ring	Tecnopolymer POM-C	-	-
8	Pump shaft	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431
9	Coupling	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
10	Taperlock	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
11	Thrust Bearing	PTFE + 25% carbon	-	-
12	Valve	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
13	Valve seal	NBR 90	-	-
14	Valve spring	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
15	Suction strainer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
16	Motor cable	-	-	-
17	Cable protection	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
18	Diffuser O-Ring	NBR 70	-	-
19	10" motor adapter	-	-	-
20	Clamping plate	-	-	-
21	Screw, stud, nut	Stainless steel	ISO 3506-1/2 A4-70	AISI 316

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ZN8 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
2	Lower support / Suction Casing	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
3	Delivery head	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
4	Valve Casing	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
5	Bearing bush	EPDM 70	-	-
6	Impeller	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
7	Wear ring	Technopolymer POM-C	-	-
8	Pump shaft	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
9	Coupling	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
10	Taperlock	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
11	Thrust Bearing	Guarniflon G412	-	-
12	Valve	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
13	Valve seal	EPDM 90	-	-
14	Valve spring	Stainless steel	EN 10088-X5CrNiMo 17 12 2 (1.4401)	AISI 316
15	Suction strainer	Stainless steel	EN 10088-X6CrNiMoTi 17 12 2 (1.4571)	ASTM - 316Ti
16	Motor cable	-	-	-
17	Cable protection	Stainless steel	EN 10088-X6CrNiMoTi 17 12 2 (1.4571)	ASTM - 316Ti
18	Diffuser O-Ring	EPDM 70	-	-
19	10" motor adapter	-	-	-
20	Clamping plate	Stainless steel	EN 10088-X6CrNiMoTi 17 12 2 (1.4571)	ASTM - 316Ti
21	Screw, stud, nut	Stainless steel	ISO 3506-1/2 A4-70	AISI 316

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ZR8 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Duplex stainless steel	EN 10213-4-GX2CrNiMoCuN25-6-3-3 (1.4517)	-
2	Lower support / Suction Casing	Duplex stainless steel	EN 10213-4-GX2CrNiMoCuN25-6-3-3 (1.4517)	-
3	Delivery head	Duplex stainless steel	EN 10213-4-GX2CrNiMoCuN25-6-3-3 (1.4517)	-
4	Valve Casing	Duplex stainless steel	EN 10213-4-GX2CrNiMoCuN25-6-3-3 (1.4517)	-
5	Bearing bush	EPDM + Lubricant	-	-
6	Impeller	Duplex stainless steel	EN 10213-4-GX2CrNiMoCuN25-6-3-3 (1.4517)	-
7	Wear ring	Tecnopolymer POM-C	-	-
8	Pump shaft	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
9	Coupling	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
10	Taperlock	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
11	Thrust Bearing	PTFE + 25% carbon	-	-
12	Valve	Duplex stainless steel	EN 10213-4-GX2CrNiMoCuN25-6-3-3 (1.4517)	-
13	Valve seal	NBR 90	-	-
14	Valve spring	Hastelloy C4	DIN17744-NiMo16Cr16Ti (2.4610)	N06455
15	Suction strainer	Stainless steel	EN 10088-1X1NiCrMoCu25-20-5 (1.4539)	AISI 904L
16	Motor cable	-	-	-
17	Cable protection	Stainless steel	EN 10088-1X1NiCrMoCu25-20-5 (1.4539)	AISI 904L
18	Diffuser O-Ring	NBR 70	-	-
19	10" motor adapter	-	-	-
20	Clamping plate	-	-	-
21	Screw, stud, nut	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803

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ZX8 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
2	Lower support / Suction Casing	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
3	Delivery head	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
4	Valve Casing	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
5	Bearing bush	EPDM 70	-	-
6	Impeller	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
7	Wear ring	Technopolymer POM-C	-	-
8	Pump shaft	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
9	Coupling	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
10	Taperlock	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
11	Thrust Bearing	Guarniflon G412	-	-
12	Valve	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
13	Valve seal	EPDM 90	-	-
14	Valve spring	Hastelloy C4	DIN17744-NiMo16Cr16Ti (2.4610)	N06455
15	Suction strainer	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
16	Motor cable	-	-	-
17	Cable protection	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
18	Diffuser O-Ring	EPDM 70	-	-
19	10" motor adapter	-	-	-
20	Clamping plate	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
21	Screw, stud, nut	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53

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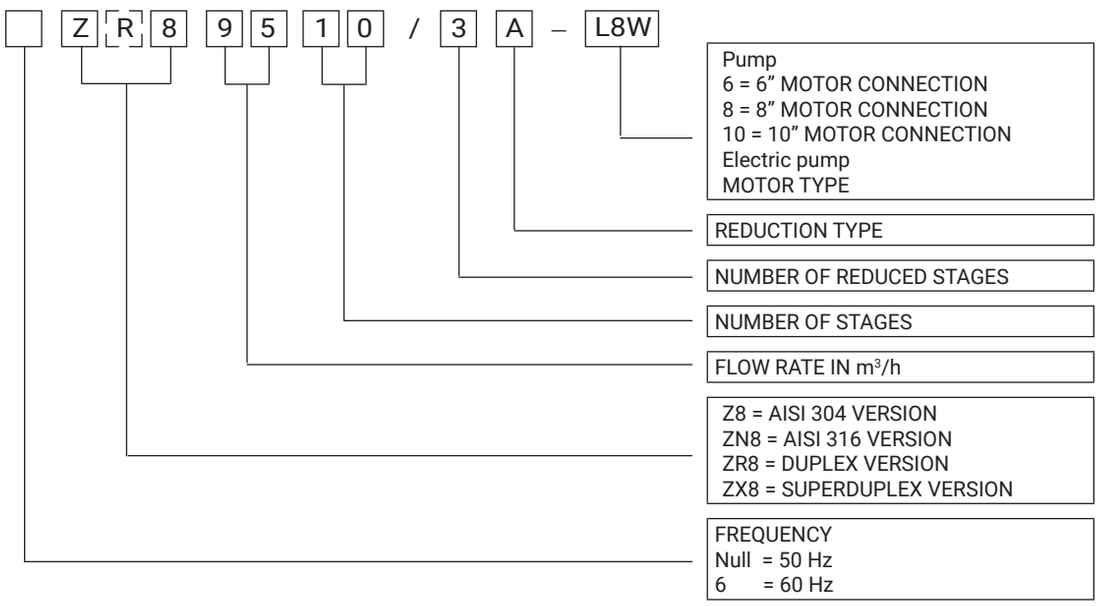
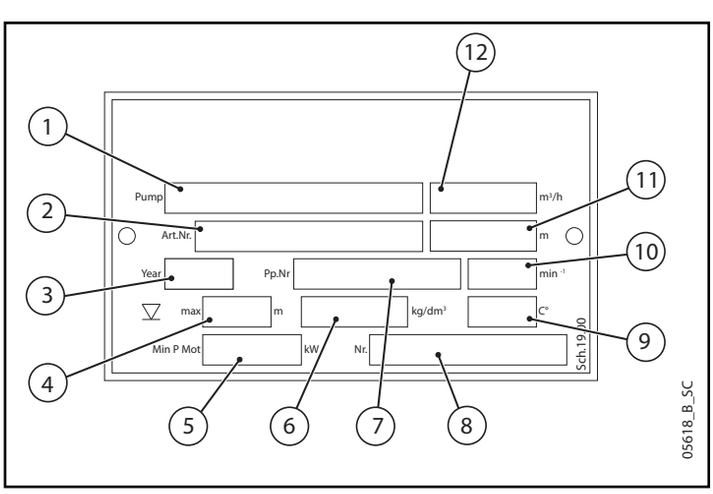
Z8 SERIES
IDENTIFICATION CODES



EXAMPLE : ZR8 9510/3A - L8W
8” electric pump, 50 Hz, made of DUPLEX, flow rate 95 m³/h, 10 stages including 3 reduced ones, coupled to an 8” L8W motor.

RATING PLATE



LEGEND

1 - Pump type

2 - Article code of the pump

3 - Year of production

4 - Max. immersion depth

5 - Min. required motor power

6 - Density of medium

7 - Data set entry for additional identification

8 - Serial number

9 - Max. water temperature

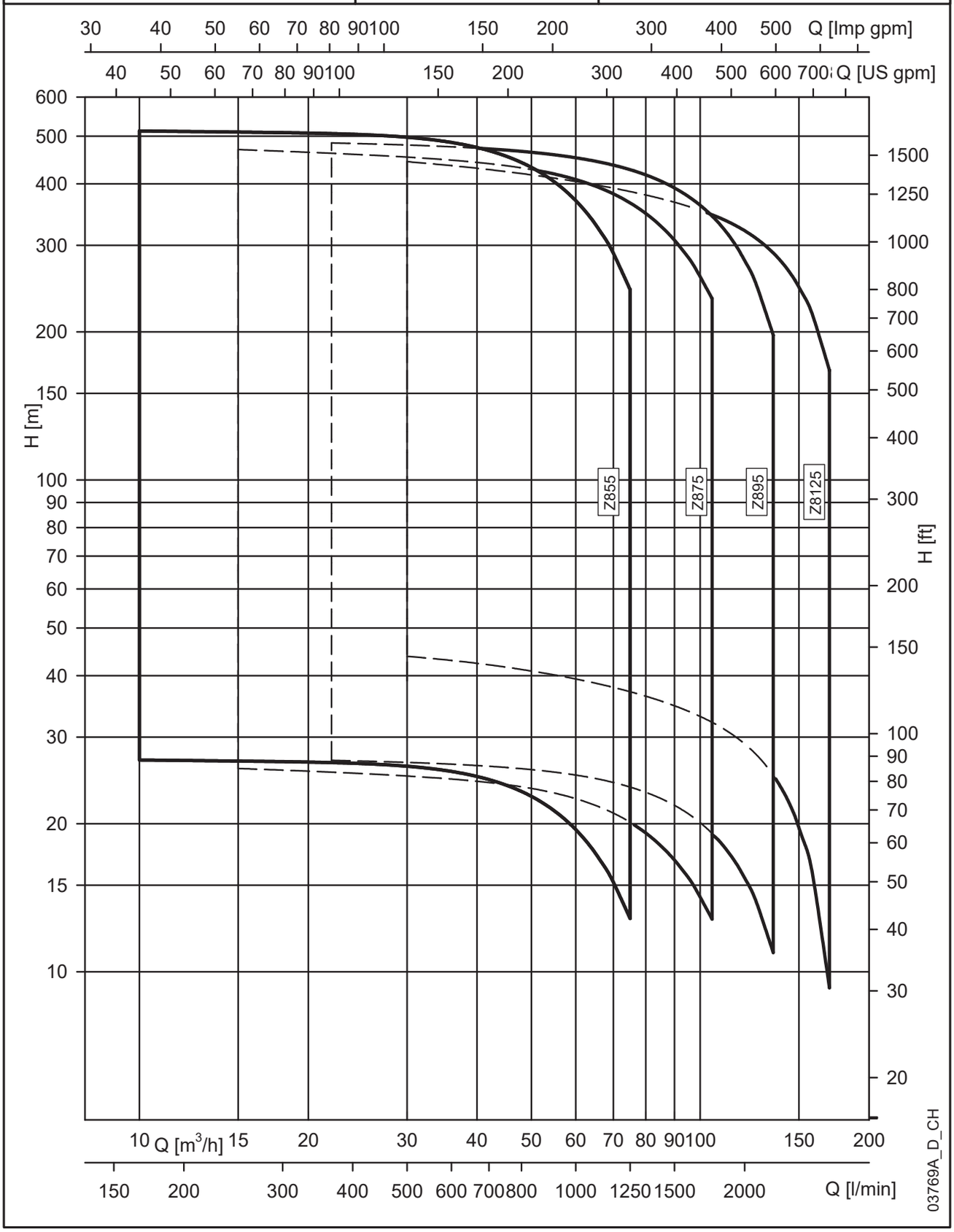
10 - Speed

11 - Head

12 - Nominal flow

Z8 SERIES
HYDRAULIC PERFORMANCE RANGE

Z8	2900 [rpm]	ISO 9906:2012 - Grade 3B



Z855: 1 TO 7 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	166,7	508,3	858,3	1200,0	1216,7	1333,3
		m^3/h 0	10	30,5	51,5	72	73	80
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z855 01	5,5	27,6	27,0	26,1	22,3	14,3	13,8	10,3
Z855 02/2A	7,5	44,1	42,9	42,0	33,3	15,8	14,9	
Z855 02/1A	7,5	49,5	48,1	47,0	39,0	22,1	21,1	
Z855 02	9,3	55,2	53,9	52,3	44,6	28,6	27,6	20,7
Z855 03/2A	11	71,4	69,3	67,8	55,5	29,8	28,3	
Z855 03	15	82,8	80,9	78,4	66,9	42,9	41,4	31,0
Z855 04/2A	15	99,0	96,3	94,0	77,9	44,1	42,2	
Z855 04	18,5	110,5	107,8	104,5	89,3	57,1	55,2	41,3
Z855 05/3A	18,5	121,0	117,5	114,9	94,6	51,9	49,5	
Z855 05/2A	22	126,5	123,1	120,1	100,3	58,4	55,9	38,7
Z855 05	22	138,1	134,8	130,7	111,6	71,4	69,0	51,6
Z855 06/2A	26	154,0	150,0	146,1	122,5	72,5	69,6	
Z855 06	30	165,7	161,7	156,8	133,9	85,7	82,8	62,0
Z855 07/2A	30	181,8	177,1	172,5	145,0	87,1	83,7	
Z855 07	30	193,3	188,7	183,0	156,2	100,0	96,7	72,3

Pump performance at 2900 rpm

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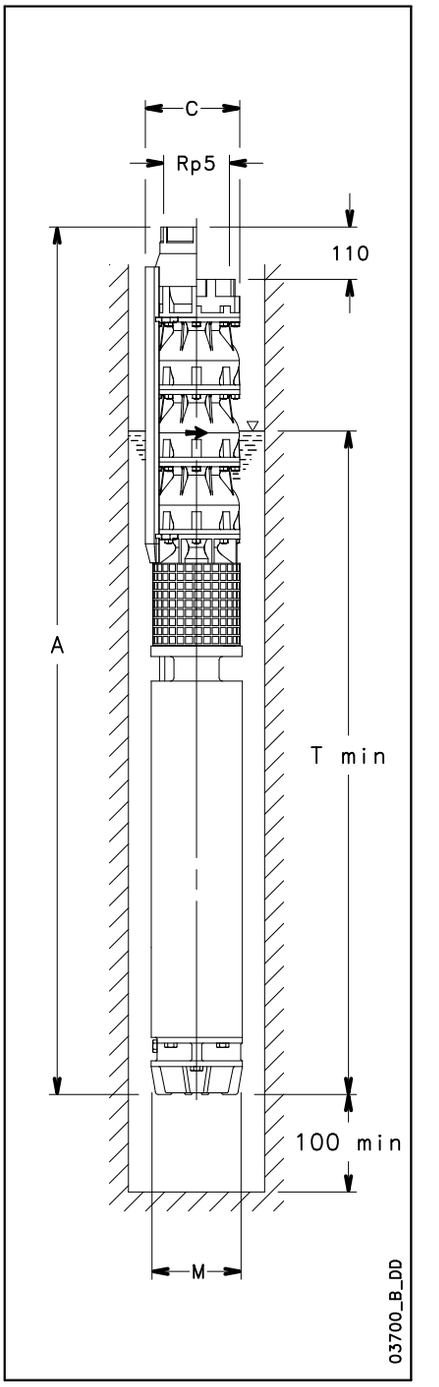


DIMENSIONS AND WEIGHTS

ELECTRO PUMP TYPE	DIMENSIONS (mm) A (4)	C (1)	M	Tmin (2)	ELECTRO PUMP WEIGHT kg (3)
Z855 01-L6W	1173	200	144	1613	68,6
Z855 02/2A-L6W	1348	200	144	1653	81,2
Z855 02/1A-L6W	1348	200	144	1653	81,2
Z855 02-L6W	1378	200	144	1683	85,2
Z855 03/2A-L6W	1553	200	144	1723	97,9
Z855 03-L6W	1663	200	144	1833	109,9
Z855 04/2A-L6W	1798	200	144	1833	118,5
Z855 04-L6W	1868	200	144	1903	126,5
Z855 05/3A-L6W	2003	200	144	1903	135,2
Z855 05/2A-L6W	2023	200	144	1943	138,2
Z855 05-L6W	2023	200	144	1943	138,2
Z855 06/2A-L6W	2248	200	144	2071	155,8
Z855 06-L6W	2248	200	144	2151	158,8
Z855 07/2A-L6W	2511	200	144	2151	167,5
Z855 07-L6W	2511	200	144	2151	167,5

z8-z855-2p50-en_d_td

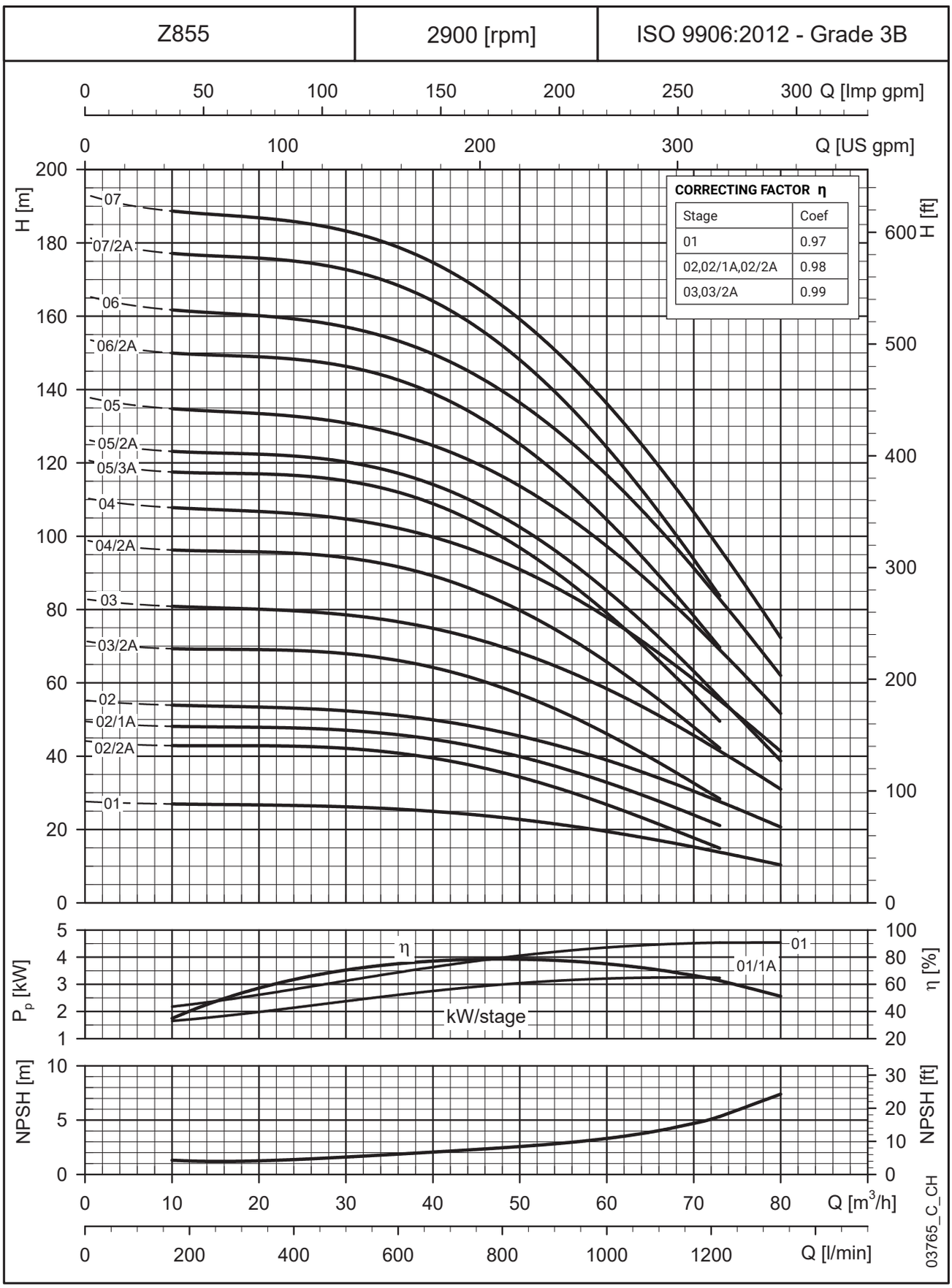
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 198 mm with L6W motor.

(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z855: 1 TO 7 STAGES
OPERATING CHARACTERISTICS



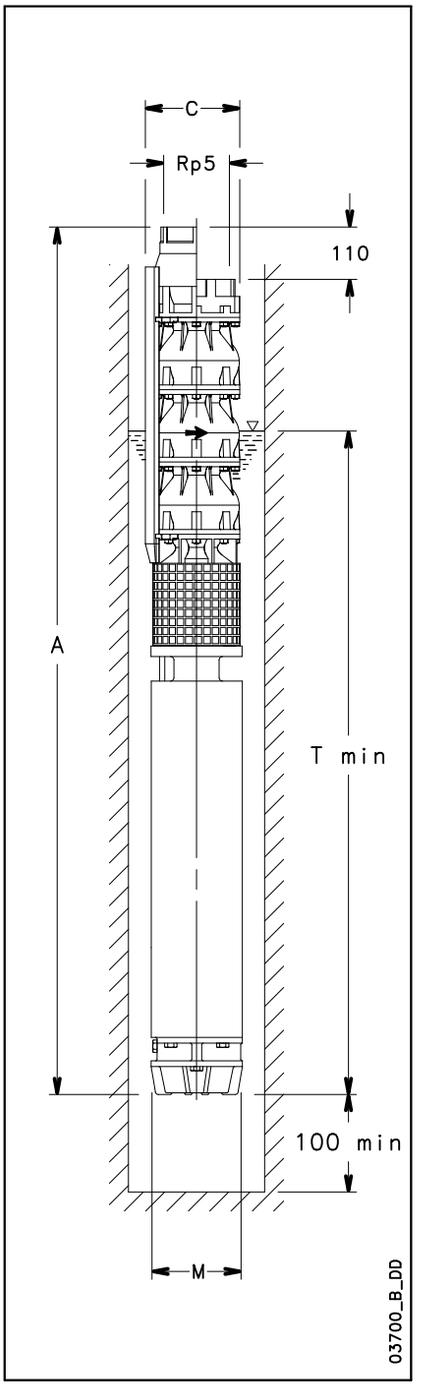
The flow resistance of the non-return valve has been considered.
These performances are valid for liquids with density ρ = 1.0 kg/dm^3 and kinematic viscosity ν = 1 mm^2/sec.

Z855: 8 TO 19 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	166,7	508,3	858,3	1200,0	1216,7	1333,3
		m^3/h 0	10	30,5	51,5	72	73	80
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z855 08/2A	37	209,5	204,1	198,6	167,4	101,4	97,6	
Z855 08	37	220,9	215,6	209,1	178,5	114,3	110,5	82,6
Z855 09/2A	37	237,0	231,1	224,8	189,7	115,7	111,4	
Z855 09	45	248,5	242,6	235,2	200,8	128,6	124,3	93,0
Z855 10/2A	45	264,4	257,8	250,7	211,8	129,8	124,9	
Z855 10	45	276,2	269,5	261,4	223,1	142,9	138,1	103,3
Z855 11/2A	45	292,5	285,1	276,9	233,4	142,8	137,5	
Z855 11	52	303,8	296,5	287,5	245,5	157,1	151,9	113,6
Z855 12	52	331,4	323,5	313,6	267,8	171,4	165,7	124,0
Z855 13	55	359,0	350,4	339,8	290,1	185,7	179,5	134,3
Z855 14	67	386,6	377,4	365,9	312,4	200,0	193,3	144,6
Z855 15	67	414,2	404,3	392,1	334,7	214,3	207,1	154,9
Z855 16	75	441,8	431,3	418,2	357,0	228,6	220,9	165,3
Z855 16	75	441,8	431,3	418,2	357,0	228,6	220,9	165,3
Z855 18	83	497,1	485,2	470,5	401,7	257,1	248,5	185,9
Z855 19	93	524,7	512,1	496,6	424,0	271,4	262,3	196,3

Pump performance at 2900 rpm

z855a-2p50-en_c_th



DIMENSIONS AND WEIGHTS

ELECTRO PUMP TYPE	DIMENSIONS (mm) A (4)	C (1)	M	Tmin (2)	ELECTRO PUMP WEIGHT kg (3)
Z855 08/2A-L6W	2756	200	144	2301	192,1
Z855 08-L6W	2756	200	144	2301	192,1
Z855 09/2A-L6W	2891	200	144	2301	200,8
Z855 09-L8W	2775	203,3	192	2195	275,1
Z855 10/2A-L8W	2910	203,3	192	2195	283,8
Z855 10-L8W	2910	203,3	192	2195	283,8
Z855 11/2A-L8W	3105	203,3	192	2195	292,4
Z855 11-L8W	3195	203,3	192	2285	312,4
Z855 12-L8W	3330	203,3	192	2285	321,1
Z855 13-L8W	3370	203,3	192	2325	335,7
Z855 14-L8W	3780	203,3	192	2465	373,4
Z855 15-L8W	3915	203,3	192	2465	382
Z855 16-L8W	4140	203,3	192	2555	407,7
Z855 17-L8W	4275	203,3	192	2555	416,3
Z855 18-L8W	4470	203,3	192	2615	438
Z855 19-L8W	4725	203,3	192	2755	471,6

z8-z855a-2p50-en_d_td

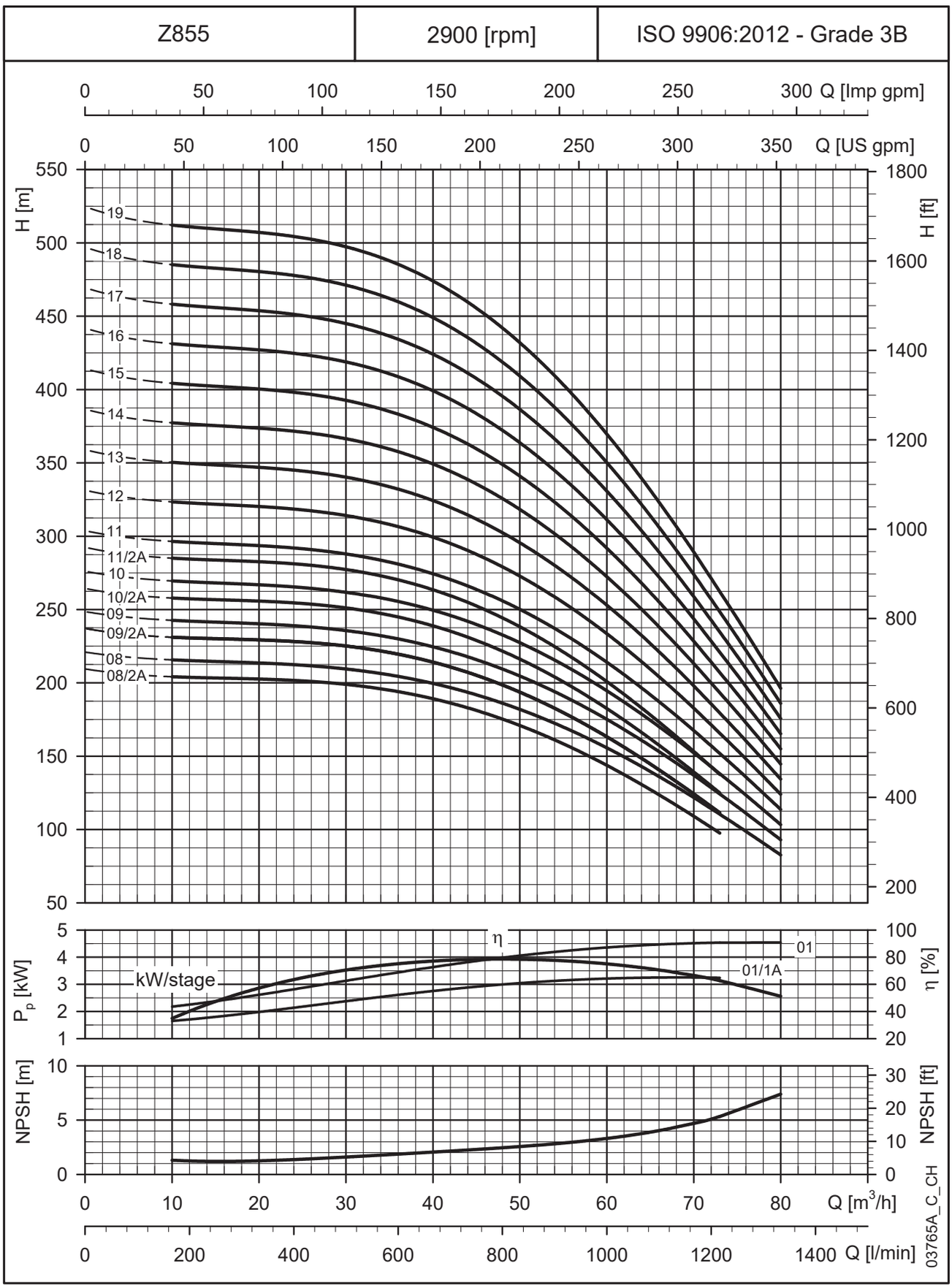
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 198 mm with L6W motor.
C = 201,5 mm with L8W motor.

(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z855: 8 TO 19 STAGES
OPERATING CHARACTERISTICS



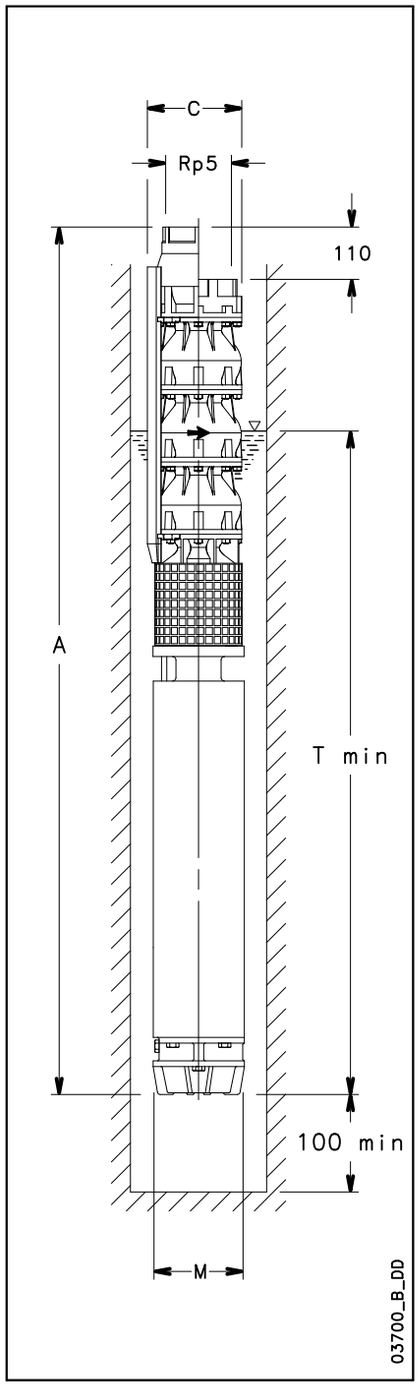
The flow resistance of the non-return valve has been considered.
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z875: 1 TO 6 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	250,0	633,3	1033,3	1416,7	1700,0	1833,3
		m^3/h 0	15	38	62	85	102	110
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z875 01	5,5	27,9	26,5	25,1	22,8	18,6	14,3	11,9
Z875 02/2A	7,5	42,3	40,1	38,1	33,2	23,6	13,8	
Z875 02/1A	9,3	49,1	46,6	44,1	39,3	30,5	21,1	
Z875 02	11	55,9	52,9	50,1	45,6	37,3	28,5	23,8
Z875 03/3A	11	63,4	60,2	57,2	49,7	35,4	20,7	
Z875 03/2A	13	70,2	66,7	63,1	55,9	42,3	28,0	
Z875 03/1A	15	77,0	73,2	69,1	62,1	49,3	35,3	
Z875 03	18,5	83,8	79,4	75,2	68,3	55,9	42,8	35,7
Z875 04/2A	18,5	98,2	93,2	88,1	78,7	61,1	42,2	
Z875 04	22	111,8	105,8	100,2	91,1	74,6	57,0	47,6
Z875 05/2A	26	126,1	119,8	113,1	101,4	79,9	56,4	
Z875 05	30	139,7	132,3	125,3	113,9	93,2	71,3	59,4
Z875 06/2A	30	154,0	146,3	138,2	124,2	98,6	70,5	
Z875 06/1A	30	160,8	152,8	144,1	130,3	105,6	77,8	
Z875 06	37	167,6	159,3	150,1	136,5	112,5	85,1	69,0

Pump performance at 2900 rpm

z875-2p50-en_d_th



DIMENSIONS AND WEIGHTS

ELECTRO PUMP TYPE	DIMENSIONS (mm) A (4)	C (1)	M	Tmin (2)	ELECTRO PUMP WEIGHT kg (3)
Z875 01-L6W	1190	200	144	1613	68,9
Z875 02/2A-L6W	1382	200	144	1653	82,2
Z875 02/1A-L6W	1412	200	144	1683	86,2
Z875 02-L6W	1452	200	144	1723	90,2
Z875 03/3A-L6W	1604	200	144	1723	99,4
Z875 03/2A-L6W	1644	200	144	1763	103,4
Z875 03/1A-L6W	1714	200	144	1833	111,4
Z875 03-L6W	1784	200	144	1903	119,4
Z875 04/2A-L6W	1936	200	144	1903	128,6
Z875 04-L6W	1956	200	144	1943	131,6
Z875 05/2A-L6W	2198	200	144	2071	149,9
Z875 05-L6W	2326	200	144	2151	152,9
Z875 06/2A-L6W	2478	200	144	2151	162,1
Z875 06/1A-L6W	2478	200	144	2151	162,1
Z875 06-L6W	2588	200	144	2301	178,1

z875-2p50-en_d_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 198 mm with L6W motor.

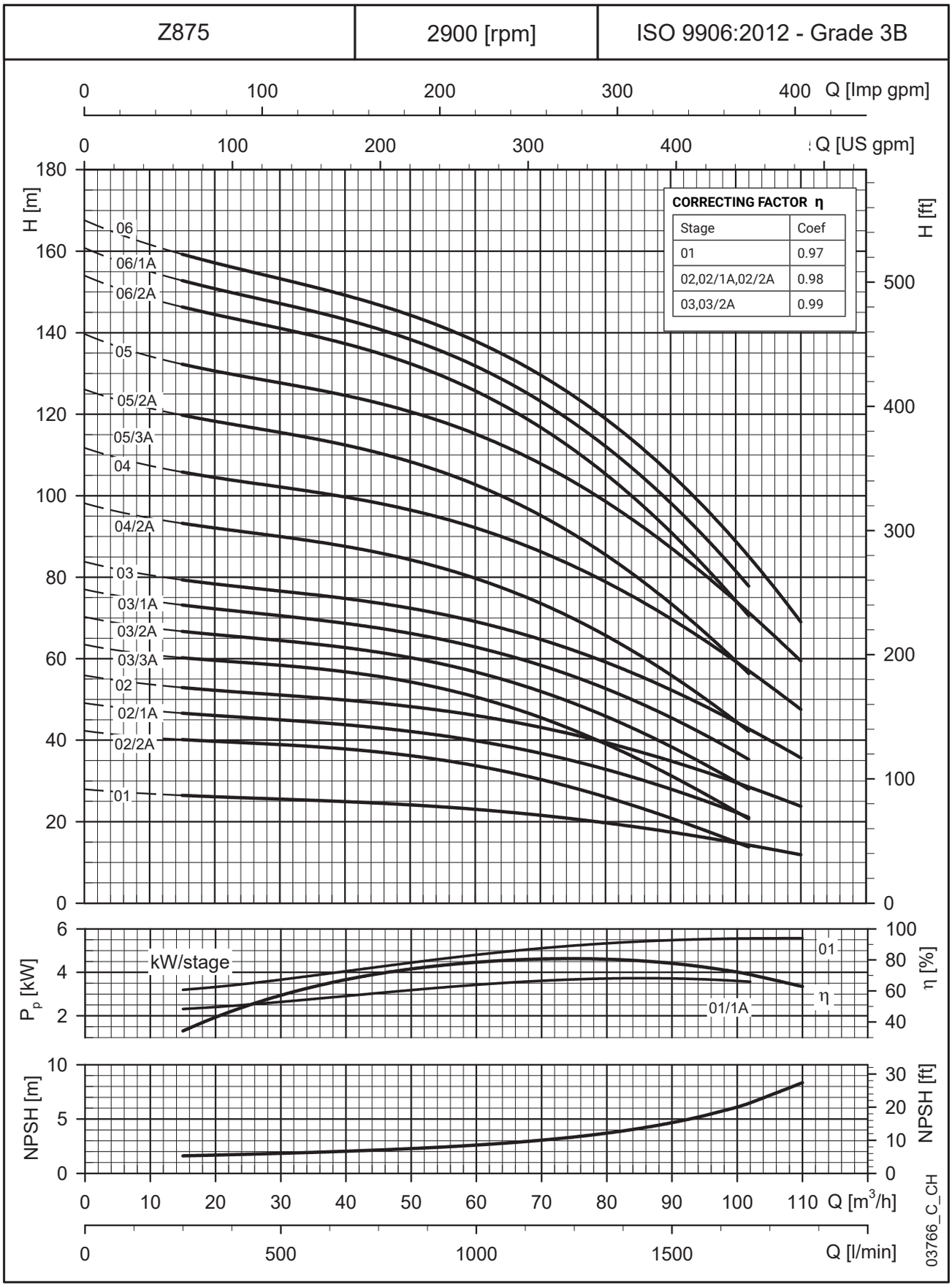
(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z875: 1 TO 6 STAGES
OPERATING CHARACTERISTICS

Z875	2900 [rpm]	ISO 9906:2012 - Grade 3B



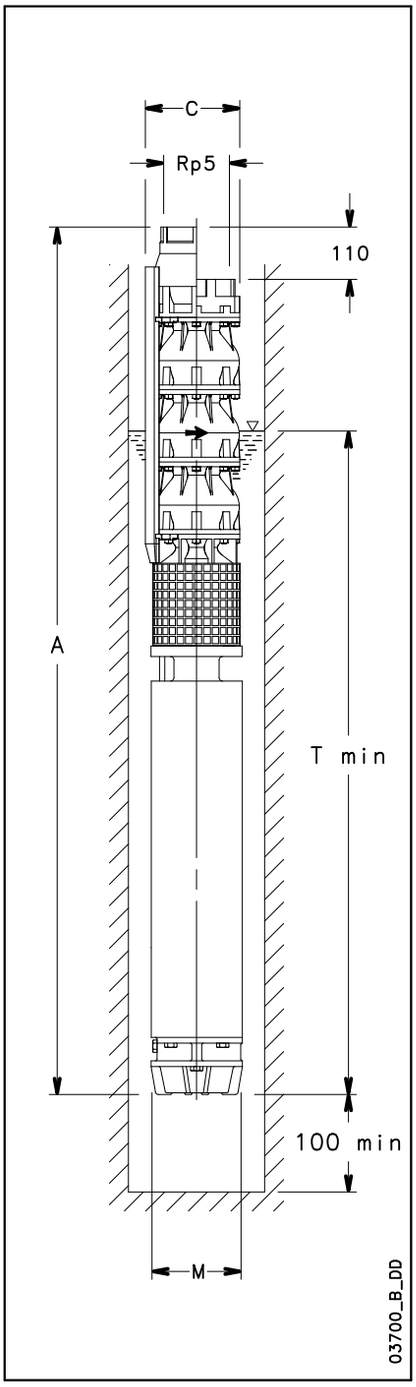
The flow resistance of the non-return valve has been considered.
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z875: 7 TO 18 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	250,0	633,3	1033,3	1416,7	1700,0	1833,3
		m^3/h 0	15	38	62	85	102	110
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z875 07/2A	37	182,0	172,9	163,2	146,9	117,4	84,7	
Z875 07	45	195,6	185,2	175,4	159,4	130,5	99,8	83,2
Z875 08/2A	45	209,9	199,4	188,2	169,7	136,1	98,9	
Z875 08	45	223,5	211,6	200,5	182,2	149,1	114,1	
Z875 09/2A	45	237,8	226,0	213,2	192,4	154,9	113,1	89,2
Z875 09/1A	52	244,6	232,4	219,1	198,6	161,8	120,4	
Z875 09	52	251,5	238,1	225,5	205,0	167,8	128,3	107,0
Z875 10/2A	52	265,8	252,5	238,2	215,1	173,6	127,3	
Z875 10	55	279,4	264,5	250,6	227,8	186,4	142,6	118,9
Z875 11/2A	55	293,7	279,0	263,2	237,9	192,4	141,5	
Z875 11	60	307,3	291,0	275,7	250,6	205,0	156,8	130,8
Z875 12	67	335,3	317,5	300,7	273,3	223,7	171,1	142,7
Z875 13	75	363,2	343,9	325,8	296,1	242,3	185,4	154,5
Z875 14	83	391,2	370,4	350,8	318,9	261,0	199,6	166,4
Z875 15	83	417,7	395,4	374,5	340,3	278,1	212,4	176,8
Z875 16	93	445,5	421,8	399,5	363,0	296,7	226,5	188,6
Z875 17	93	475,0	449,7	426,0	387,2	316,9	242,4	202,1
Z875 18	110	502,9	476,2	451,1	410,0	335,5	256,6	214,0

Pump performance at 2900 rpm

z875a-2p50-en_d_th



DIMENSIONS AND WEIGHTS

ELECTRO PUMP TYPE	DIMENSIONS (mm) A (4)	C (1)	M	Tmin (2)	ELECTRO PUMP TYPE kg (3)
Z875 07/2A-L6W	2740	200	144	2301	187,3
Z875 07-L8W	2624	203,3	192	2135	262,3
Z875 08/2A-L8W	2776	203,3	192	2135	270,9
Z875 08-L8W	2776	203,3	192	2135	270,9
Z875 09/2A-L8W	2928	203,3	192	2135	280,1
Z875 09/1A-L8W	3008	203,3	192	2215	300,1
Z875 09-L8W	3008	203,3	192	2215	300,1
Z875 10/2A-L8W	3160	203,3	192	2215	309,4
Z875 10-L8W	3190	203,3	192	2245	315,4
Z875 11/2A-L8W	3342	203,3	192	2245	324,6
Z875 11-L8W	3392	203,3	192	2295	335,6
Z875 12-L8W	3624	203,3	192	2375	362,8
Z875 13-L8W	3856	203,3	192	2455	389
Z875 14-L8W	4078	203,3	192	2545	411,3
Z875 15-L8W	4230	203,3	192	2545	420,5
Z875 16-L8W	4512	203,3	192	2655	454,7
Z875 17-L8W	4664	203,3	192	2655	464
Z875 18-L10W	4884	235	236	2702	584,2

z875a-2p50-en_e_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 198 mm with L6W motor.
C = 201,5 mm with L8W motor.

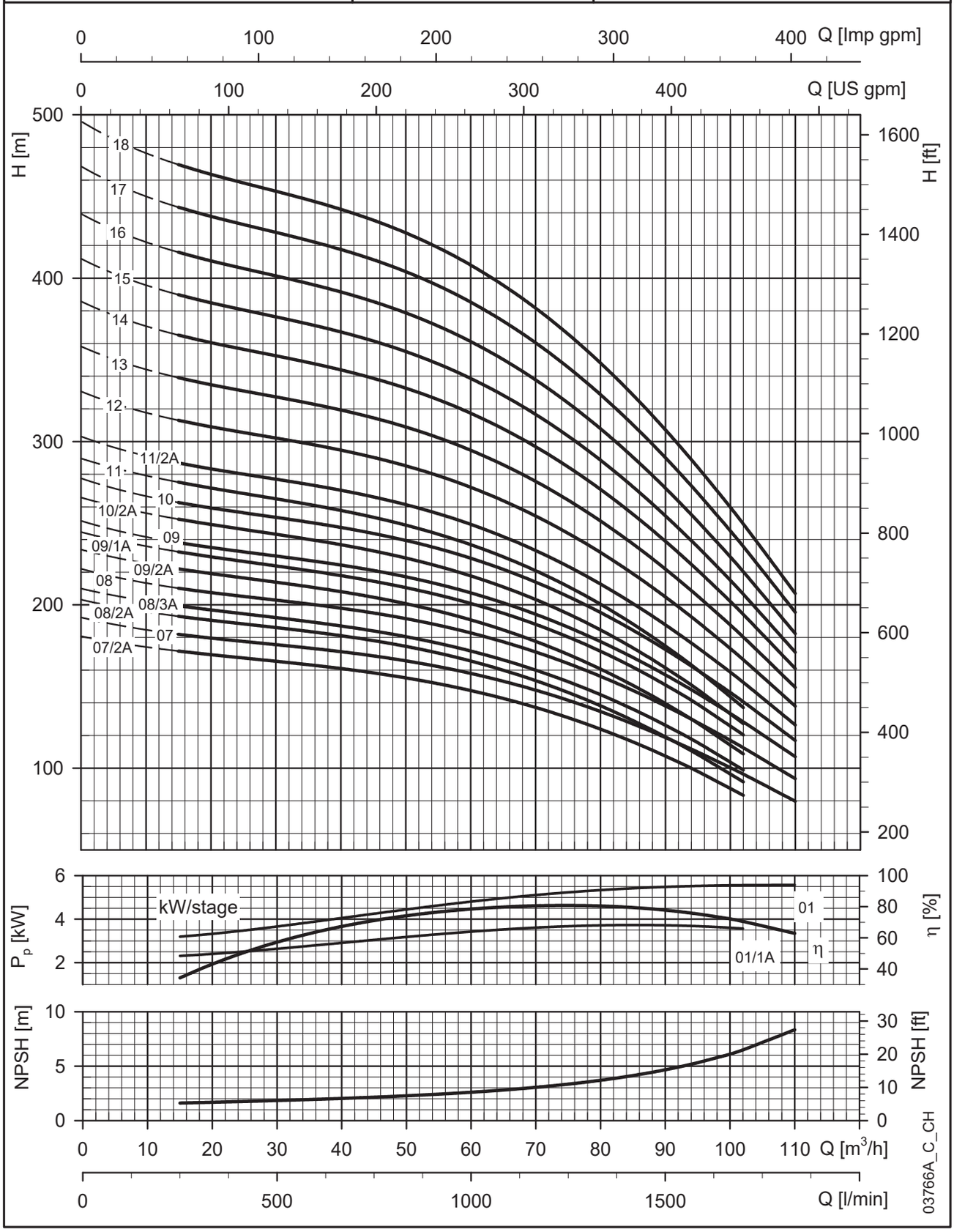
(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z875: 7 TO 18 STAGES
OPERATING CHARACTERISTICS

Z875	2900 [rpm]	ISO 9906:2012 - Grade 3B



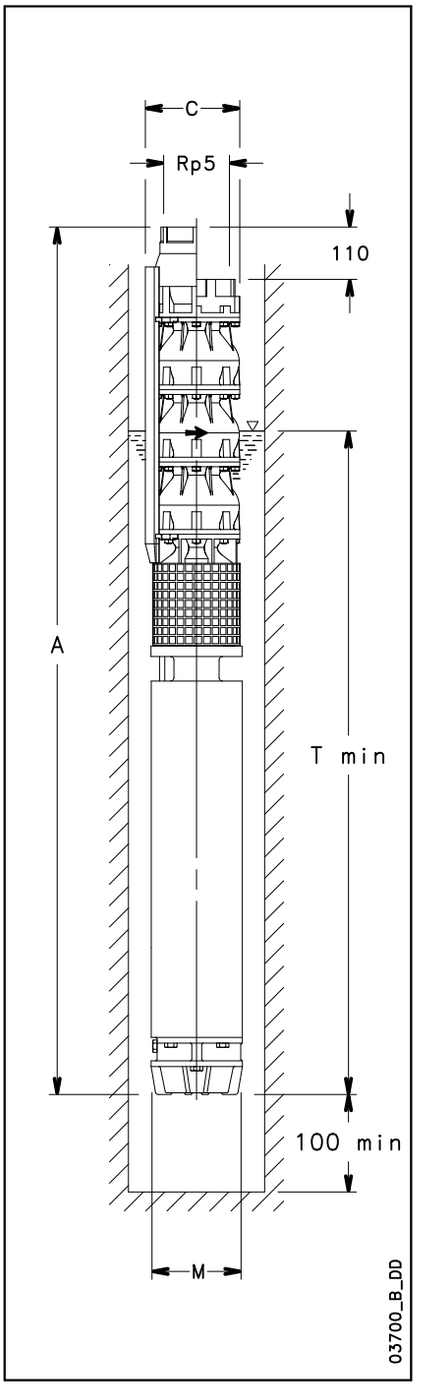
The flow resistance of the non-return valve has been considered.
These performances are valid for liquids with density ρ = 1.0 kg/dm^3 and kinematic viscosity ν = 1 mm^2/sec.

Z895: 1 TO 6 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	366,7	833,3	1300,0	1766,7	1966,7	2300,0
		m^3/h 0	22	50	78	106	118	138
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z895 01	7,5	27,5	26,9	25,8	23,4	18,9	16,1	9,9
Z895 02/2B	11	38,0	38,4	36,6	31,5	21,7	15,6	
Z895 02/2A	13	45,6	45,6	43,7	38,8	29,5	23,6	
Z895 02	15	55,0	53,8	51,5	46,8	37,8	32,2	19,8
Z895 03/2B	18,5	64,5	64,8	62,0	54,6	40,4	31,5	
Z895 03/1A	22	77,7	76,6	73,4	66,3	52,6	44,1	
Z895 03	26	82,6	80,7	77,3	70,2	56,7	48,2	29,6
Z895 04/2B	26	92,2	92,1	88,2	78,4	59,8	48,1	
Z895 04/2A	30	100,5	99,4	95,3	85,7	67,4	55,9	
Z895 04	30	110,1	107,6	103,0	93,6	75,6	64,3	39,5
Z895 05/3A	37	123,2	122,2	117,1	105,1	82,2	67,8	
Z895 05	37	137,6	134,5	128,8	117,0	94,5	80,4	
Z895 06/3A	45	150,7	149,1	142,9	128,5	101,1	83,9	
Z895 06	45	165,1	161,4	154,6	140,4	113,4	96,5	59,3

Pump performance at 2900 rpm

z895-2p50-en_c_th



DIMENSIONS AND WEIGHTS

ELETTRO POMPA TIPO	DIMENSIONI (mm) A (4)	C (1)	M	Tmin (2)	PESO ELETTRO POMPA kg (3)
Z895 01-L6W	1230	200	144	1653	72,9
Z895 02/2B-L6W	1452	200	144	1723	90,2
Z895 02/2A-L6W	1492	200	144	1763	94,2
Z895 02-L6W	1562	200	144	1833	102,2
Z895 03/2B-L6W	1784	200	144	1903	119,4
Z895 03/1A-L6W	1804	200	144	1943	122,4
Z895 03-L6W	1894	200	144	2071	131,4
Z895 04/2B-L6W	2046	200	144	2071	140,6
Z895 04/2A-L6W	2174	200	144	2151	143,6
Z895 04-L6W	2174	200	144	2151	143,6
Z895 05/3A-L6W	2436	200	144	2301	168,9
Z895 05-L6W	2436	200	144	2301	168,9
Z895 06/3A-L8W	2472	203,3	192	2135	253,1
Z895 06-L8W	2472	203,3	192	2135	253,1

z8-z895-2p50_e_td

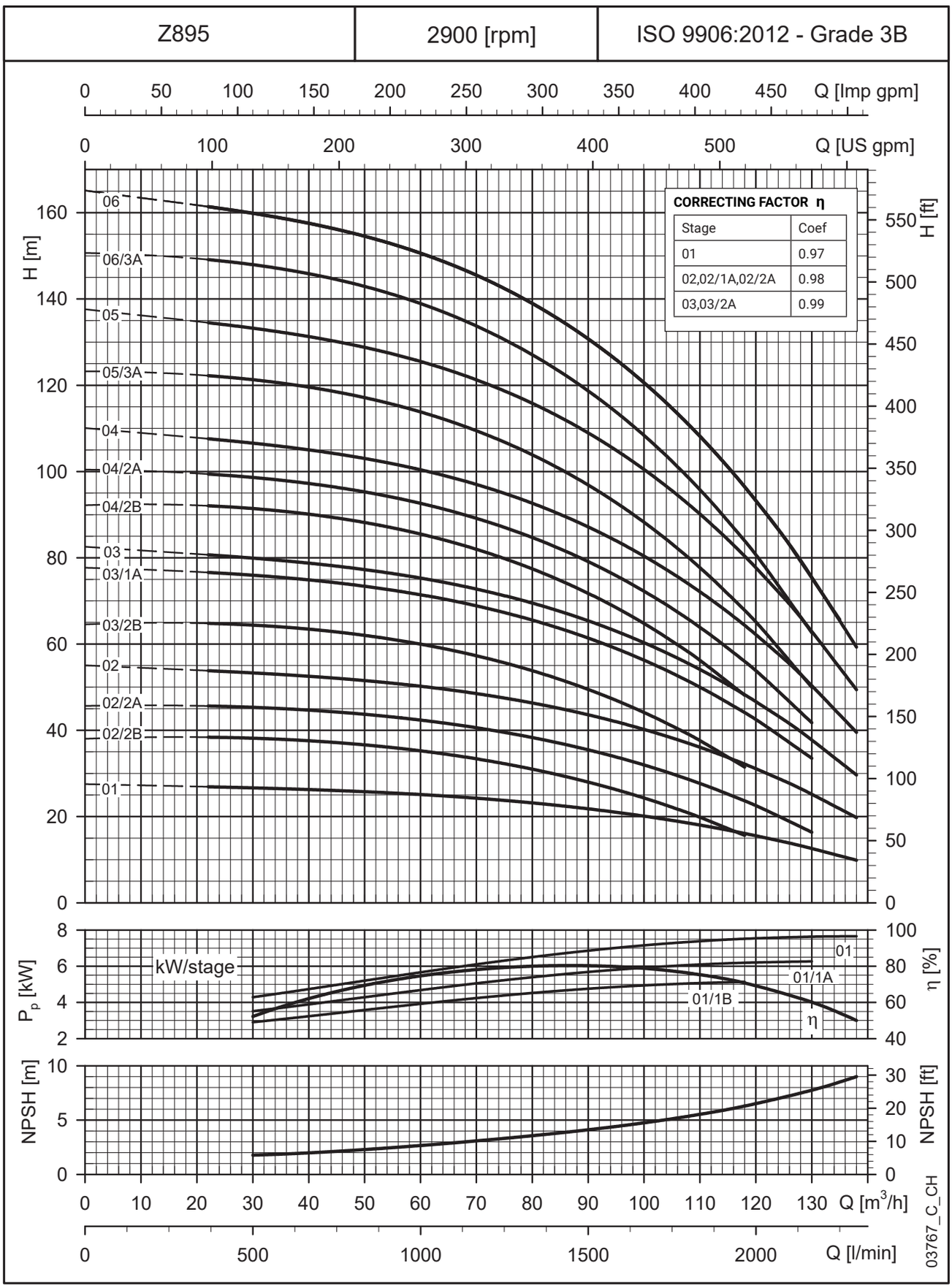
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 198 mm with L6W motor.
C = 201,5 mm with L8W motor.

(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z895: 1 TO 6 STAGES
OPERATING CHARACTERISTICS



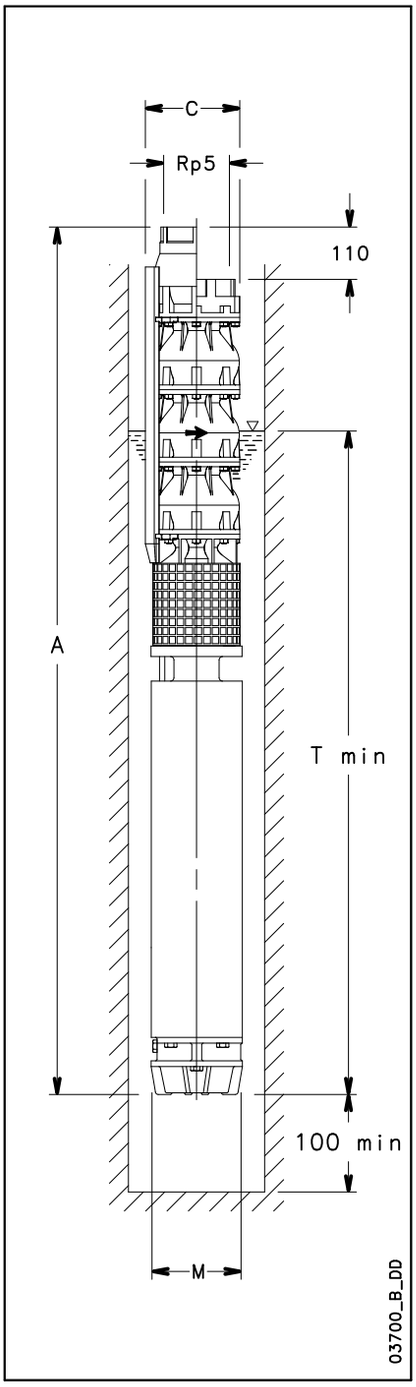
The flow resistance of the ΔHv non-return valve has been considered.
ΔHv = 0,0000533*Q² Flow resistance = **0,35** / **0,75** / **1,35** m at **80** / **120** / **160** m³/h
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z895: 7 TO 18 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	366,7	875,0	1383,3	1883,3	2166,7	2300,0
		m^3/h 0	22	52,5	83	113	130	138
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z895 07/3A	52	178,1	176,0	167,6	147,5	108,9	75,2	
Z895 07	52	192,7	188,3	179,3	159,5	121,3	88,2	69,2
Z895 08/3A	55	205,6	202,9	193,3	170,4	126,3	87,9	
Z895 08	60	220,2	215,2	204,9	182,3	138,7	100,8	79,0
Z895 09/3A	67	233,1	229,8	218,9	193,2	143,6	100,5	
Z895 09	67	247,7	242,1	230,5	205,1	156,0	113,4	88,9
Z895 10/3A	75	260,6	256,7	244,5	216,0	161,0	113,2	
Z895 10	75	275,2	269,0	256,1	227,9	173,3	126,0	98,8
Z895 11	83	302,8	295,9	281,7	250,6	190,7	138,6	108,7
Z895 12	93	330,3	322,8	307,3	273,4	208,0	151,2	118,6
Z895 13	110	357,8	349,7	332,9	296,2	225,3	163,8	128,4
Z895 14	110	385,3	376,6	358,6	319,0	242,7	176,4	138,3
Z895 15	130	412,9	403,5	384,2	341,8	260,0	189,0	148,2
Z895 16	130	440,4	430,4	409,8	364,6	277,3	201,6	158,1
Z895 17	130	467,9	457,3	435,4	387,4	294,7	214,2	167,9
Z895 18	150	495,4	484,2	461,0	410,1	312,0	226,8	177,8

Pump performance at 2900 rpm

z895a-2p50-en_d_th



DIMENSIONS AND WEIGHTS

ELECTRO PUMP TYPE	DIMENSIONS (mm) A (4)	C (1)	M	Tmin (2)	ELECTRO PUMP TYPE kg (3)
Z895 07/3A-L8W	2704	203,3	192	2215	281,7
Z895 07-L8W	2704	203,3	192	2215	281,7
Z895 08/3A-L8W	2886	203,3	192	2245	296,9
Z895 08-L8W	2936	203,3	192	2295	307,9
Z895 09/3A-L8W	3168	203,3	192	2375	335,1
Z895 09-L8W	3168	203,3	192	2375	335,1
Z895 10/3A-L8W	3400	203,3	192	2455	361,4
Z895 10-L8W	3400	203,3	192	2455	361,4
Z895 11-L8W	3642	203,3	192	2545	383,6
Z895 12-L8W	3904	203,3	192	2655	417,8
Z895 13-L10W	4124	236	236	2702	538
Z895 14-L10W	4276	236	236	2702	547,3
Z895 15-L10W	4578	236	236	2852	603,5
Z895 16-L10W	4730	236	236	2852	612,7
Z895 17-L10W	4882	236	236	2852	622
Z895 18-L10W	5164	236	236	2982	670,2

z895a-2p50-en_d_td

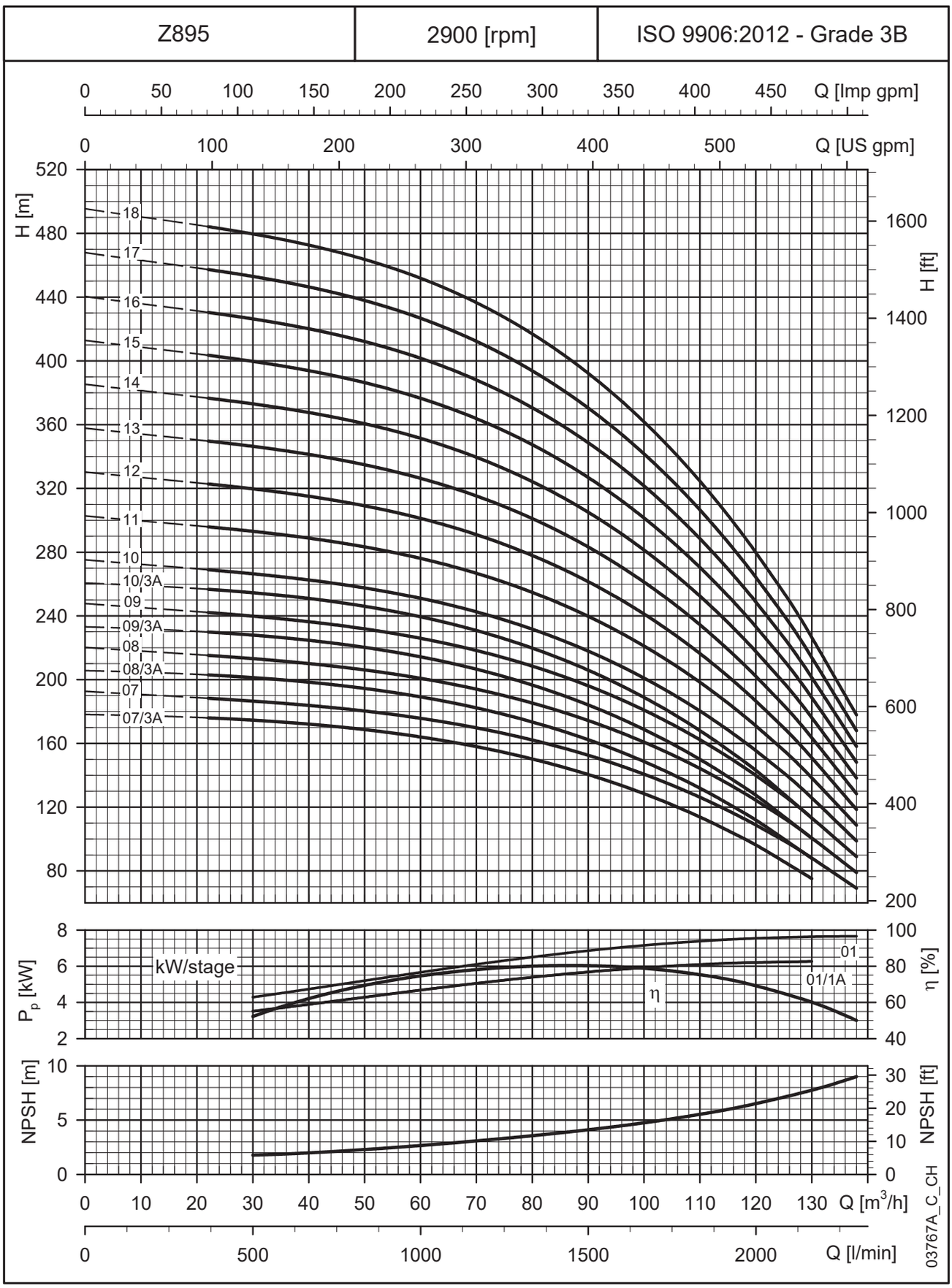
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 201,5 mm with L8W motor.
C = 236 mm with L10W motor.

(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z895: 7 TO 18 STAGES
OPERATING CHARACTERISTICS



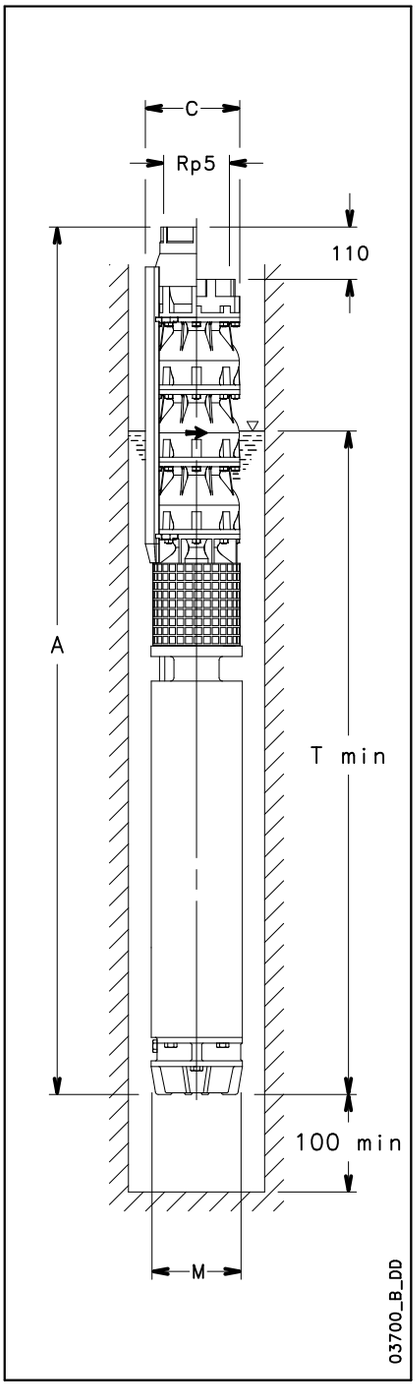
The flow resistance of the ΔHv non-return valve has been considered.
ΔHv = 0,0000533*Q² Flow resistance = **0,2** / **0,45** / **0,75** m at **60** / **90** / **120** m³/h
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z8125: 1 TO 6 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	500	1116,7	1733,3	2366,7	2600	3000
		m^3/h 0	30	67	104	142	156	180
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z8125 01	7,5	26,9	24,6	22,0	19,3	15,1	12,6	6,3
Z8125 02/2B	11	41,3	39,1	33,5	27,1	16,6	10,0	
Z8125 02/2A	13	46,9	43,8	38,3	32,3	22,8	17,0	
Z8125 02	15	53,8	49,3	44,0	38,6	30,1	25,1	12,6
Z8125 03/3A	18,5	70,3	65,6	57,4	48,5	34,2	25,6	
Z8125 03	22	80,8	73,9	65,9	57,9	45,2	37,7	19,0
Z8125 04/2B	26	94,7	88,3	77,4	65,6	46,6	35,3	
Z8125 04/2A	30	100,6	93,1	82,3	70,9	52,9	42,2	
Z8125 04	30	107,7	98,6	87,9	77,2	60,3	50,3	25,3
Z8125 05/3A	37	124,0	114,9	101,4	87,1	64,3	50,8	
Z8125 05	37	134,6	123,2	109,9	96,6	75,3	62,9	31,6
Z8125 06/3A	45	150,8	139,6	123,4	106,4	79,4	63,3	
Z8125 06	45	161,5	147,9	131,9	115,9	90,4	75,4	37,9

Pump performance at 2900 rpm

z8125-2p50-en_c_th



DIMENSIONS AND WEIGHTS

ELECTRO PUMP TYPE	DIMENSIONS (mm) A (4)	C (1)	M	Tmin (2)	ELECTRO PUMP WEIGHT kg (3)
Z8125 01-L6W	1230	200	144	1653	72,9
Z8125 02/2B-L6W	1452	200	144	1723	90,2
Z8125 02/2A-L6W	1492	200	144	1763	94,2
Z8125 02-L6W	1562	200	144	1833	102,2
Z8125 03/3A-L6W	1784	200	144	1903	119,4
Z8125 03-L6W	1804	200	144	1943	122,4
Z8125 04/2B-L6W	2046	200	144	2071	140,6
Z8125 04/2A-L6W	2046	200	144	2151	143,6
Z8125 04-L6W	2174	200	144	2151	143,6
Z8125 05/3A-L6W	2436	200	144	2301	168,9
Z8125 05-L6W	2436	200	144	2301	168,9
Z8125 06/3A-L8W	2472	203,3	192	2135	253,1
Z8125 06-L8W	2472	203,3	192	2135	253,1

z8-z8125-2p50-en_e_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 201,5 mm with L8W motor.
C = 236 mm with L10W motor.

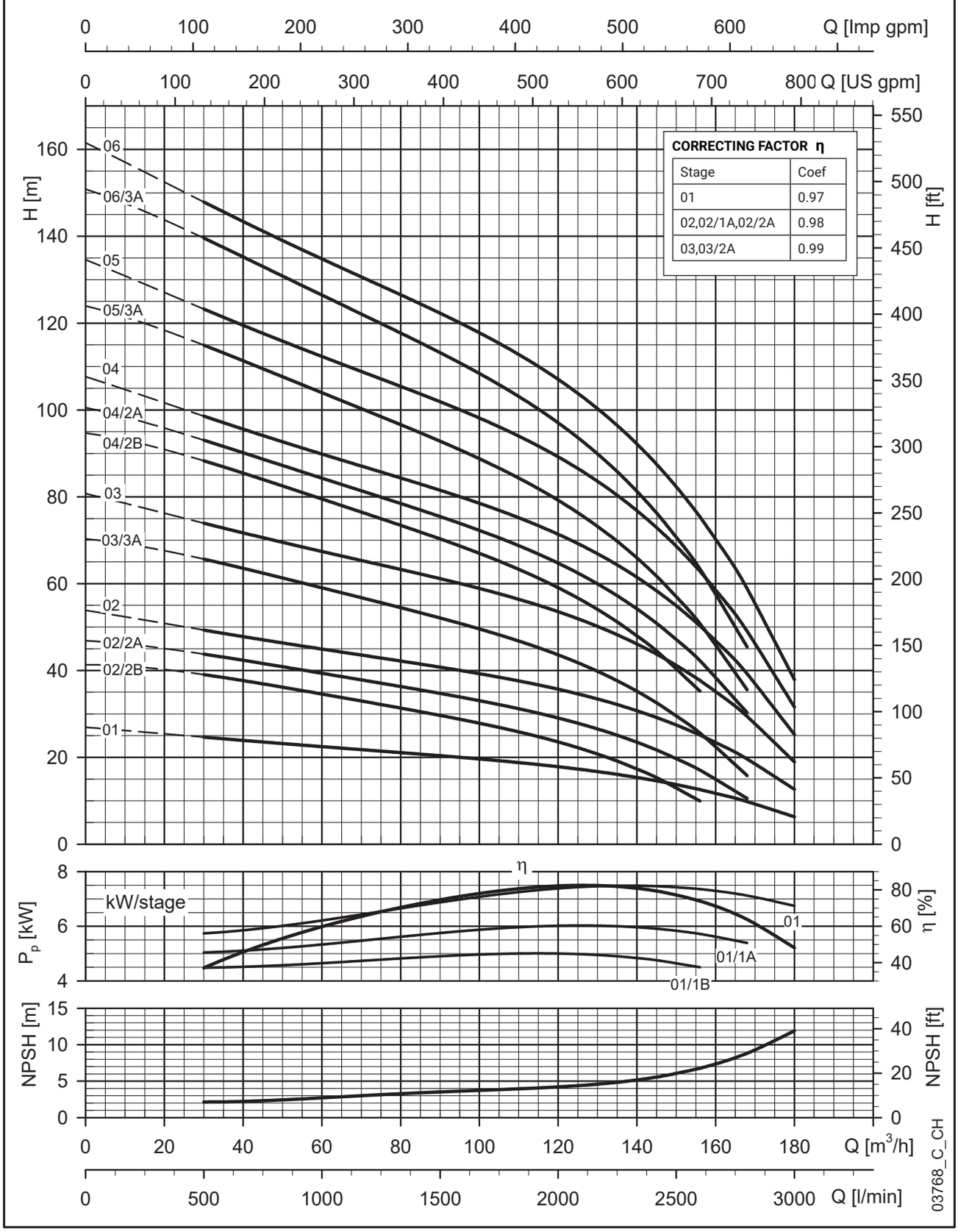
(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z8125: 1 TO 6 STAGES
OPERATING CHARACTERISTICS

Z8125	2900 [rpm]	ISO 9906:2012 - Grade 3B



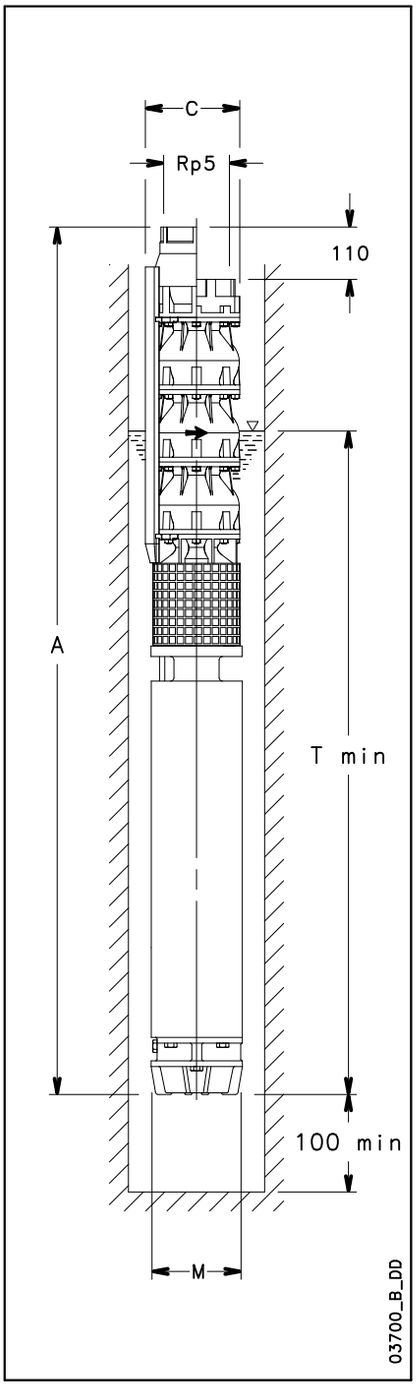
The flow resistance of the ΔHv non-return valve has been considered.
ΔHv = 0,0000533*Q² Flow resistance = **0,35** / **0,75** / **1,35** m at **80** / **120** / **160** m³/h
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z8125: 7 TO 18 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	500,0	1166,7	1816,7	2483,3	2800,0	3000,0
		m^3/h 0	30	70	109	149	168	180
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z8125 07/3A	52	177,7	164,2	143,9	122,6	85,8	55,2	
Z8125 07	52	188,4	172,5	152,4	132,2	97,3	68,7	44,2
Z8125 08/3A	55	204,7	189,0	165,7	141,5	99,9	65,2	
Z8125 08	60	215,3	197,2	174,2	151,1	111,2	78,5	50,5
Z8125 09/3A	67	231,5	213,5	187,4	160,3	113,6	74,9	
Z8125 09	67	242,3	221,8	196,0	170,0	125,2	88,3	56,9
Z8125 10/3A	75	258,4	238,2	209,2	179,2	127,6	84,7	
Z8125 10	75	269,2	246,5	217,8	188,9	139,1	98,1	63,2
Z8125 11	83	296,1	271,1	239,5	207,8	153,0	107,9	69,5
Z8125 12	93	323,0	295,8	261,3	226,7	166,9	117,7	75,8
Z8125 13	93	349,9	320,4	283,1	245,6	180,8	127,5	82,1
Z8125 14	110	376,9	345,1	304,9	264,4	194,7	137,3	88,4
Z8125 15	110	403,8	369,7	326,6	283,3	208,6	147,1	94,8
Z8125 16	130	430,7	394,4	348,4	302,2	222,5	156,9	101,1
Z8125 17	130	457,6	419,0	370,2	321,1	236,4	166,8	107,4
Z8125 18	150	484,5	443,7	392,0	340,0	250,3	176,6	113,7

Pump performance at 2900 rpm

z8125a-2p50-en_c_th



DIMENSIONS AND WEIGHTS

ELECTRO PUMP TYPE	DIMENSIONS (mm) A (4)	C (1)	M	Tmin (2)	ELECTRO PUMP WEIGHT kg (3)
Z8125 07/3A-L8W	2704	203,3	192	2215	281,7
Z8125 07-L8W	2704	203,3	192	2215	81,72
Z8125 08/3A-L8W	2886	203,3	192	2245	296,9
Z8125 08-L8W	2936	203,3	192	2295	307,9
Z8125 09/3A-L8W	3188	203,3	192	2375	335,1
Z8125 09-L8W	3188	203,3	192	2375	335,1
Z8125 10/3A-L8W	3400	203,3	192	2455	361,4
Z8125 10-L8W	3400	203,3	192	2455	361,4
Z8125 11-L8W	3662	203,3	192	2545	383,6
Z8125 12-L8W	3934	203,3	192	2685	417,8
Z8125 13-L8W	4056	203,3	192	2655	427
Z8125 14-L10W	4276	236	236	2702	547,3
Z8125 15-L10W	4428	236	236	2702	556,5
Z8125 16-L10W	4730	236	236	2852	612,7
Z8125 17-L10W	4882	236	236	2852	622
Z8125 18-L10W	5164	236	236	2982	670,2

z8125a-2p50-en_c_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 201,5 mm with L8W motor.
C = 236 mm with L10W motor.

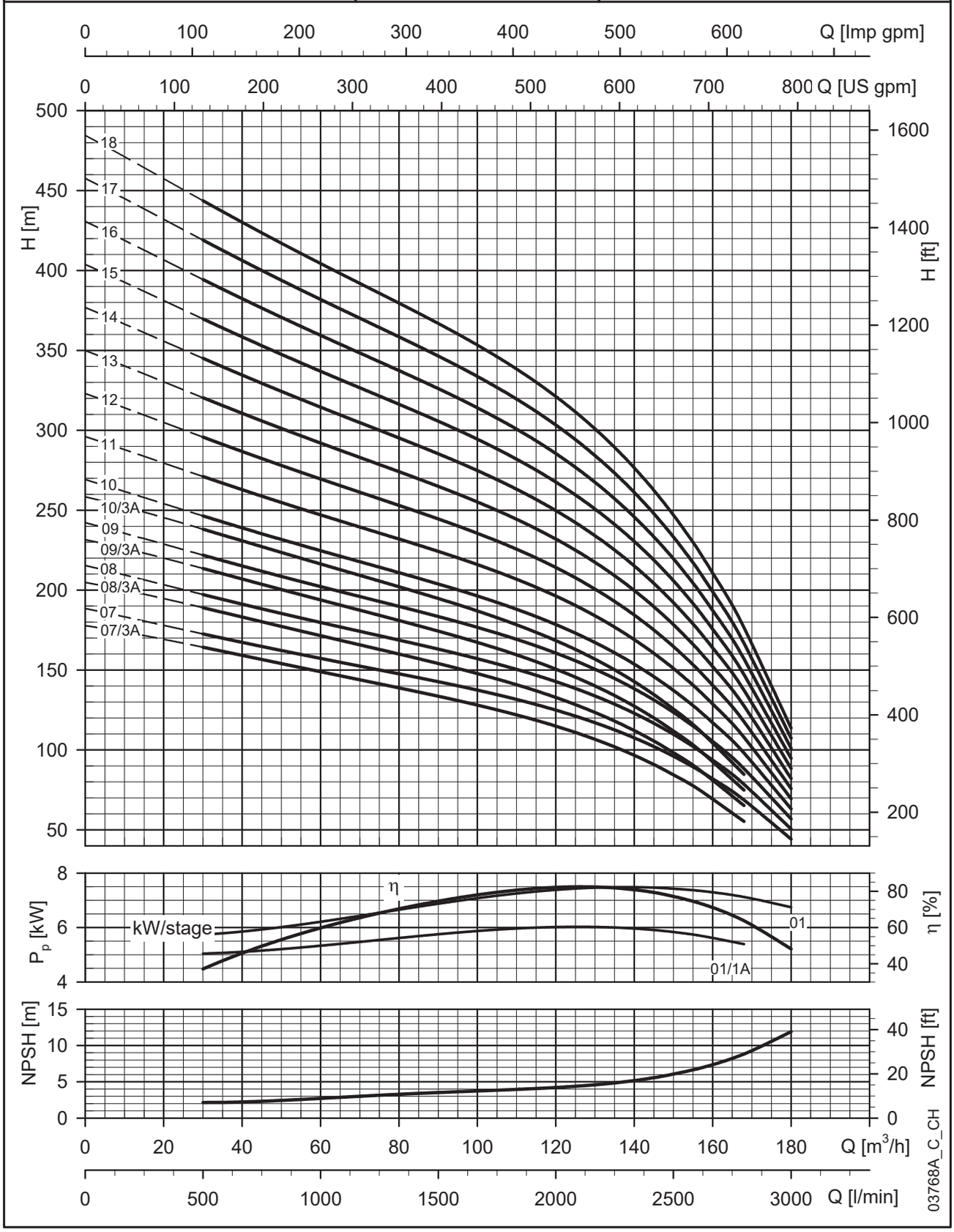
(2) T min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 110 mm and reduce weight by 4 kg.

Z8125: 7 TO 18 STAGES
OPERATING CHARACTERISTICS

Z8125	2900 [rpm]	ISO 9906:2012 - Grade 3B



The flow resistance of the ΔHv non-return valve has been considered.
ΔHv = 0,0000533*Q² Flow resistance = **0,35** / **0,75** / **1,35** m at **80** / **120** / **160** m³/h
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

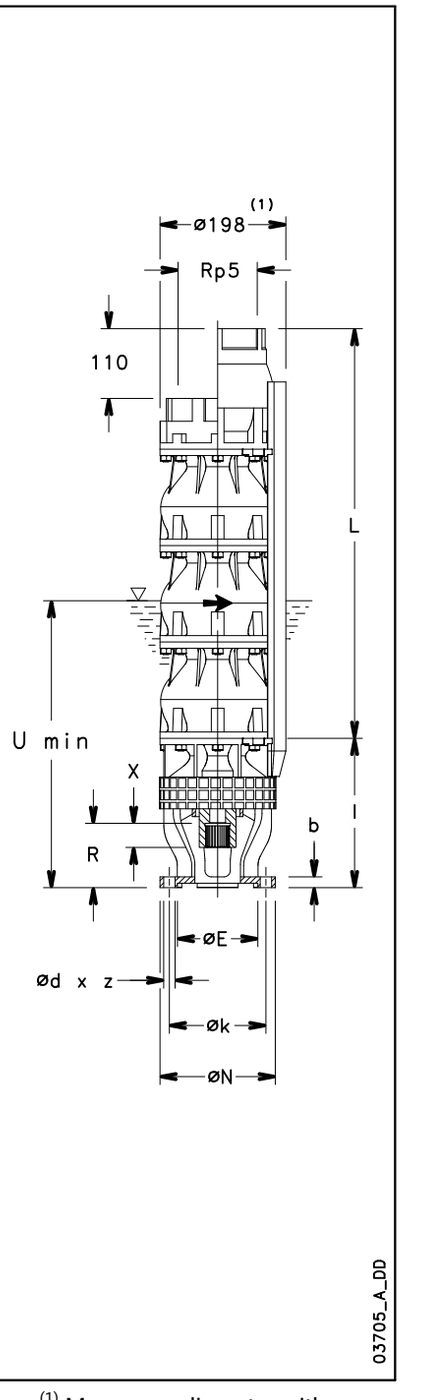
Z855
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP at 2900 min^{-1} kW	DIMENSIONS (mm)			WEIGHT
		L [3]	I	Umin [2]	kg [3]
Z855 01-6	4,6	325	235	1000	26,6
Z855 02/2A-6	6,4	460	235	1000	35,2
Z855 02/1A-6	7,7	460	235	1000	35,2
Z855 02-6	9,0	460	235	1000	35,2
Z855 03/2A-6	10,8	595	235	1000	43,9
Z855 03-6	13,3	595	235	1000	43,9
Z855 04/2A-6	15,1	730	235	1000	52,5
Z855 04-6	17,6	730	235	1000	52,5
Z855 05/3A-6	18,3	865	235	1000	61,2
Z855 05/2A-6	20,8	865	235	1000	61,2
Z855 05-6	22,0	865	235	1000	61,2
Z855 06/2A-6	23,9	1000	235	1000	69,8
Z855 06-6	26,4	1000	235	1000	69,8
Z855 07/2A-6	28,3	1135	235	1000	78,5
Z855 07-6	30,8	1135	235	1000	78,5
Z855 08/2A-6	32,7	1270	235	1000	87,1
Z855 08-6	35,2	1270	235	1000	87,1
Z855 09/2A-6	37,1	1405	235	1000	95,8
Z855 09-8	39,6	1405	235	1000	95,1
Z855 10/2A-8	41,5	1540	235	1000	103,8
Z855 10-8	44,0	1540	235	1000	103,8
Z855 11/2A-8	45,9	1675	235	1000	112,4
Z855 11-8	48,4	1675	235	1000	112,4
Z855 12-8	52,8	1810	235	1000	121,1
Z855 13-8	57,2	1945	235	1000	129,7
Z855 14-8	61,6	2080	235	1000	138,4
Z855 15-8	66,0	2215	235	1000	147
Z855 16-8	70,4	2350	235	1000	155,7
Z855 17-8	74,8	2485	235	1000	164,3
Z855 18-8	79,2	2620	235	1000	173
Z855 19-8	83,6	2755	235	1000	181,6

z855p-2p50-en_a_td

[2] U min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

[3] For pumps without non-return valve, reduce dimension L by 110 mm and reduce weight by 4 kg.



[1] Max pump diameter with 1 motor cable included

MOTOR COUPLING

MOTOR	DIMENSIONS (mm)							
	N	k	d	z	b	E H7	R	X
6" (NEMA)	182	111	13,5	4	17	76,16	73	24
8" (NEMA)	182	152,4	18	4	17	127	101,3	40
6" and 8" coupling according to NEMA standards								

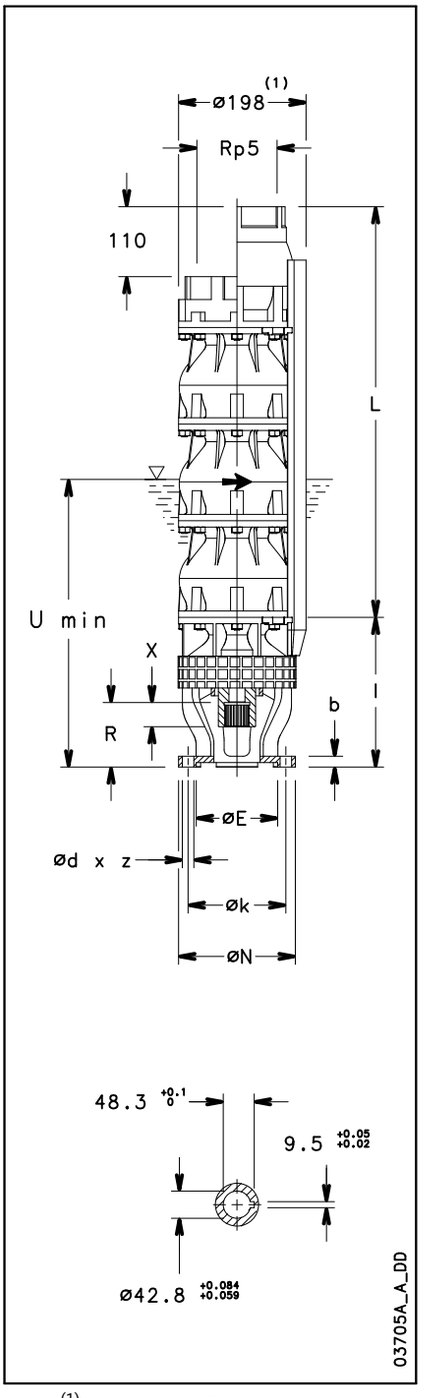
z8-mtcn-2p50-en_a_td

Z875
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP a 2900 min^{-1} kW	DIMENSIONS (mm) L [3]	l	Umin [2]	WEIGHT kg [3]
Z875 01-6	5,6	342	235	1000	26,9
Z875 02/2A-6	7,4	494	235	1000	36,2
Z875 02/1A-6	9,2	494	235	1000	36,2
Z875 02-6	11,1	494	235	1000	36,2
Z875 03/3A-6	11,1	646	235	1000	45,4
Z875 03/2A-6	12,9	646	235	1000	45,4
Z875 03/1A-6	14,7	646	235	1000	45,4
Z875 03-6	16,7	646	235	1000	45,4
Z875 04/2A-6	18,3	798	235	1000	54,6
Z875 04-6	22,3	798	235	1000	54,6
Z875 05/2A-6	23,8	950	235	1000	63,9
Z875 05-6	27,9	950	235	1000	63,9
Z875 06/2A-6	29,3	1102	235	1000	73,1
Z875 06/1A-6	31,3	1102	235	1000	73,1
Z875 06-6	33,3	1102	235	1000	73,1
Z875 07/2A-6	34,8	1254	235	1000	82,3
Z875 07-8	39,0	1254	235	1000	82,3
Z875 08/2A-8	40,4	1406	235	1000	90,9
Z875 08-8	44,6	1406	235	1000	90,9
Z875 09/2A-8	45,9	1558	235	1000	100,1
Z875 09/1A-8	47,9	1558	235	1000	100,1
Z875 9-8	50,1	1558	235	1000	100,1
Z875 10/2A-8	51,5	1710	235	1000	109,4
Z875 10-8	55,7	1710	235	1000	109,4
Z875 11/2A-8	57,0	1862	235	1000	118,6
Z875 11-8	61,3	1862	235	1000	118,6
Z875 12-8	66,8	2014	235	1000	127,8
Z875 13-8	72,4	2166	235	1000	137
Z875 14-8	78,0	2318	235	1000	146,3
Z875 15-8	83,6	2470	235	1000	155,5
Z875 16-8	89,1	2622	235	1000	164,7
Z875 17-8	94,7	2774	235	1000	174
Z875 18-10	100,3	2926	256	1000	183,2

z875p-2p50-en_c_td

[1] Max pump diameter with 1 motor cable included.
[2] U min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.
[3] For pumps without non-return valve, reduce dimension L by 110 mm and reduce weight by 4 kg.



[1] Max pump diameter with 1 motor cable included

MOTOR COUPLING

MOTOR	DIMENSIONS (mm) N	k	d	z	b	E H7	R	X
6" (NEMA)	182	111	13,5	4	17	76,16	73	24
8" (NEMA)	182	152,4	18	4	17	127	101,3	40
10"	232	190,5	M16	4	21	127	101,3	84
6" and 8" coupling according to NEMA standards								

z8a-mtcn-2p50-en_a_td

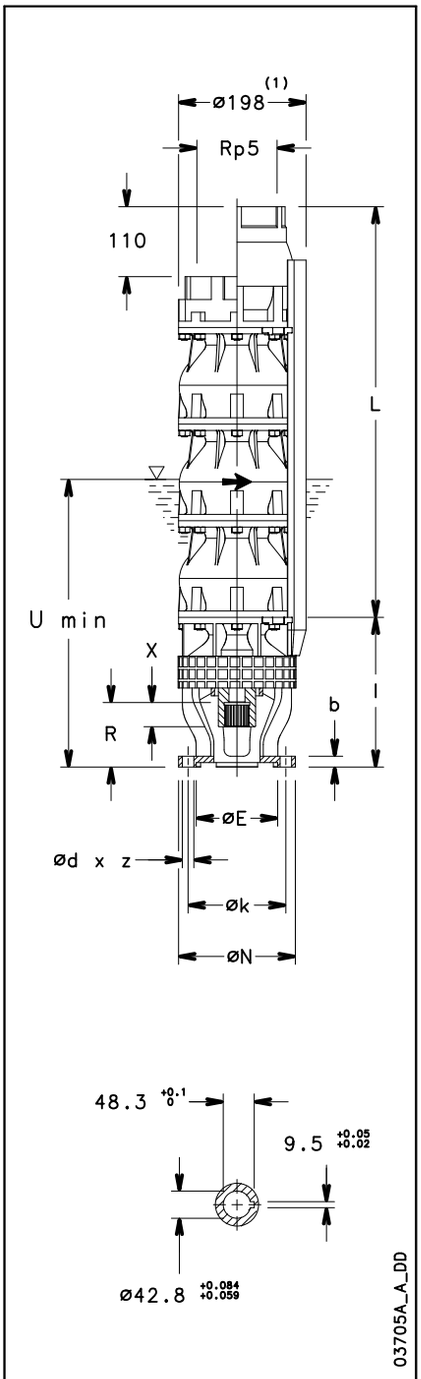
Z895
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP at 2900 min^{-1} kW	DIMENSIONS (mm)			WEIGHT
		L [3]	I	Umin [2]	kg [3]
Z895 01-6	7,7	342	235	1000	26,9
Z895 02/2B-6	10,0	494	235	1000	36,2
Z895 02/2A-6	12,8	494	235	1000	36,2
Z895 02-6	15,2	494	235	1000	36,2
Z895 03/2B-6	17,4	646	235	1000	45,4
Z895 03/1A-6	21,4	646	235	1000	45,4
Z895 03-6	22,5	646	235	1000	45,4
Z895 04/2B-6	24,6	798	235	1000	54,6
Z895 04/2A-6	27,4	798	235	1000	54,6
Z895 04-6	29,8	798	235	1000	54,6
Z895 05/3A-6	33,7	950	235	1000	63,9
Z895 05-6	37,2	950	235	1000	63,9
Z895 06/3A-8	41,1	1102	235	1000	73,1
Z895 06-8	44,6	1102	235	1000	73,1
Z895 07/3A-8	48,6	1254	235	1000	81,7
Z895 07-8	52,1	1254	235	1000	81,7
Z895 08/3A-8	56,0	1406	235	1000	90,9
Z895 08-8	59,5	1406	235	1000	90,9
Z895 09/3A-8	63,5	1558	235	1000	100,1
Z895 09-8	67,0	1558	235	1000	100,1
Z895 10/3A-8	70,9	1710	235	1000	109,4
Z895 10-8	74,4	1710	235	1000	109,4
Z895 11-8	81,8	1862	235	1000	118,6
Z895 12-8	89,3	2014	235	1000	127,8
Z895 1310	96,7	2166	256	1000	137
Z895 14-10	104,2	2318	256	1000	146,3
Z895 15-10	111,6	2470	256	1000	155,5
Z895 16-10	119,0	2622	256	1000	164,7
Z895 17-10	126,5	2774	256	1000	174
Z895 18-10	133,9	2926	256	1000	183,2

z895p-2p50-en_b_td

[2] U min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

[3] For pumps without non-return valve, reduce dimension L by 110 mm and reduce weight by 4 kg.



[1] Max pump diameter with 1 motor cable included

MOTOR COUPLING

MOTOR	DIMENSIONS (mm)							
	N	k	d	z	b	E H7	R	X
6" (NEMA)	182	111	13,5	4	17	76,16	73	24
8" (NEMA)	182	152,4	18	4	17	127	101,3	40
10"	232	190,5	M16	4	21	127	101,3	84
6" and 8" coupling according to NEMA standards								

z8a-mtcn-2p50-en_a_td

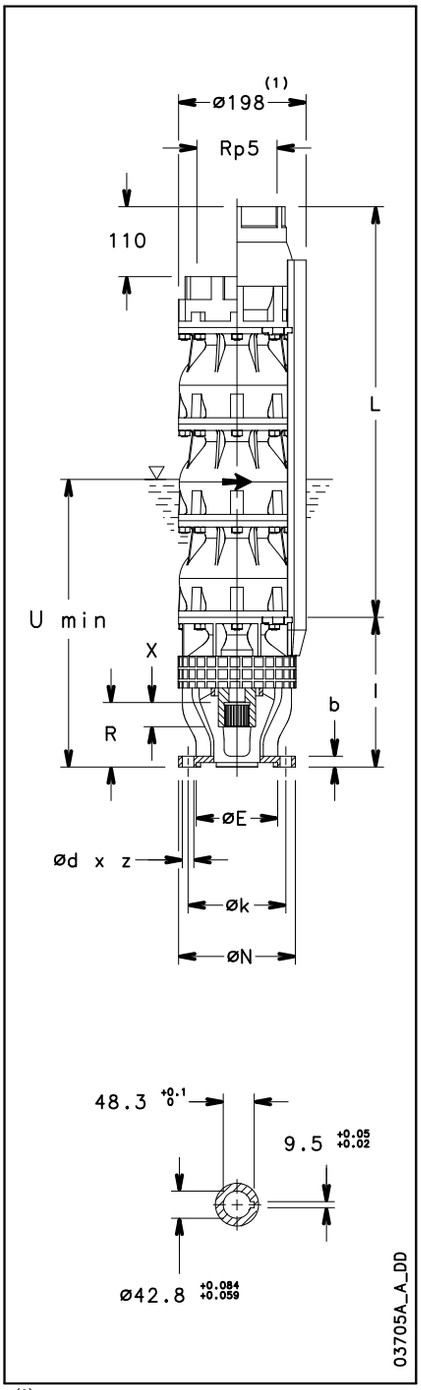
Z8125
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP at 2900 min^{-1} kW	DIMENSIONs (mm)			WEIGHT
		L [3]	I	Umin [2]	kg [3]
Z8125 01-6	7,5	342	235	1000	26,9
Z8125 02/2B-6	10,0	494	235	1000	36,2
Z8125 02/2A-6	12,2	494	235	1000	36,2
Z8125 02-6	14,8	494	235	1000	36,2
Z8125 03/3A-6	18,1	646	235	1000	45,4
Z8125 03-6	22,0	646	235	1000	45,4
Z8125 04/2B-6	24,3	798	235	1000	54,6
Z8125 04/2A-6	26,5	798	235	1000	54,6
Z8125 04-6	29,0	798	235	1000	54,6
Z8125 05/3A-6	32,5	950	235	1000	63,9
Z8125 05-6	36,3	950	235	1000	63,9
Z8125 06/3A-8	39,7	1102	235	1000	73,1
Z8125 06-8	43,5	1102	235	1000	73,1
Z8125 07/3A-8	47,0	1254	235	1000	81,7
Z8125 07-8	50,8	1254	235	1000	81,7
Z8125 08/3A-8	54,2	1406	235	1000	90,9
Z8125 08-8	58,0	1406	235	1000	90,9
Z8125 09/3A-8	61,5	1558	235	1000	100,1
Z8125 09-8	65,3	1558	235	1000	100,1
Z8125 10/3A-8	68,7	1710	235	1000	109,4
Z8125 10-8	72,5	1710	235	1000	109,4
Z8125 11-8	79,8	1862	235	1000	118,6
Z8125 12-8	87,0	2014	235	1000	127,8
Z8125 13-8	94,3	2166	235	1000	137
Z8125 14-10	101,5	2318	256	1000	146,3
Z8125 15-10	108,8	2470	256	1000	155,5
Z8125 16-10	116,0	2622	256	1000	164,7
Z8125 17-10	123,3	2774	256	1000	174
Z8125 18-10	130,5	2926	256	1000	183,2

z8125p-2p50-en_c_td

[2] U min valid only for max flow speed of 4,2 m/s.
For higher speeds please contact our sales network.

[3] For pumps without non-return valve, reduce dimension L by 110 mm and reduce weight by 4 kg.



[1] Max pump diameter with 1 motor cable included

MOTOR COUPLING

MOTOR	DIMENSIONS (mm)							
	N	k	d	z	b	E H7	R	X
6" (NEMA)	182	111	13,5	4	17	76,16	73	24
8" (NEMA)	182	152,4	18	4	17	127	101,3	40
10"	232	190,5	M16	4	21	127	101,3	84
6" and 8" coupling according to NEMA standards								

z8a-mtcn-2p50-en_a_td

10” Submersible Electric Pumps

Z10 Series

MARKET SECTORS
AGRICULTURE, INDUSTRY,MUNICIPAL.

APPLICATIONS
- Water supply from deep wells.
- Pressure boosting and water distribution
- Supply of surge tanks and reservoirs.
- Firefighting and washing systems.
- Water table level control.
- Irrigation.
- Mines.

SPECIFICATIONS
- **Delivery: up to 350 m³/h.**
- **Head: up to 546 m.**
- Maximum pump overall diameter (2 cable covers included): 271 mm for all versions.
- Maximum electric pump immersion depth: 350 m.
- Maximum permissible quantity of suspended sand: 100 g/m³.
- Standard delivery outlet: Rp 6” (according to EN 10226) for all versions.
- Construction materials available:
  - AISI304 stainless steel (Z10)
  - AISI316 stainless steel (ZN10)
  - **DUPLEX stainless steel (ZR10)**
  - **SUPER DUPLEX stainless steel (ZX10)**
- Horizontal installation possible. Minimum recommended inclination 3°. Motor on the lowest position.

CONSTRUCTION FEATURES
- Electric pumps sturdy and lightweight, easy maintenance and resistant corrosion in aggressive and non-aggressive environments.
  - Impellers and diffusers made of stainless steel.
  - Delivery casing made of stainless steel.
  - Non-return valve made of stainless steel, with integrated spring.
  - Suction support made of stainless steel.
  - Shaft made of stainless steel.

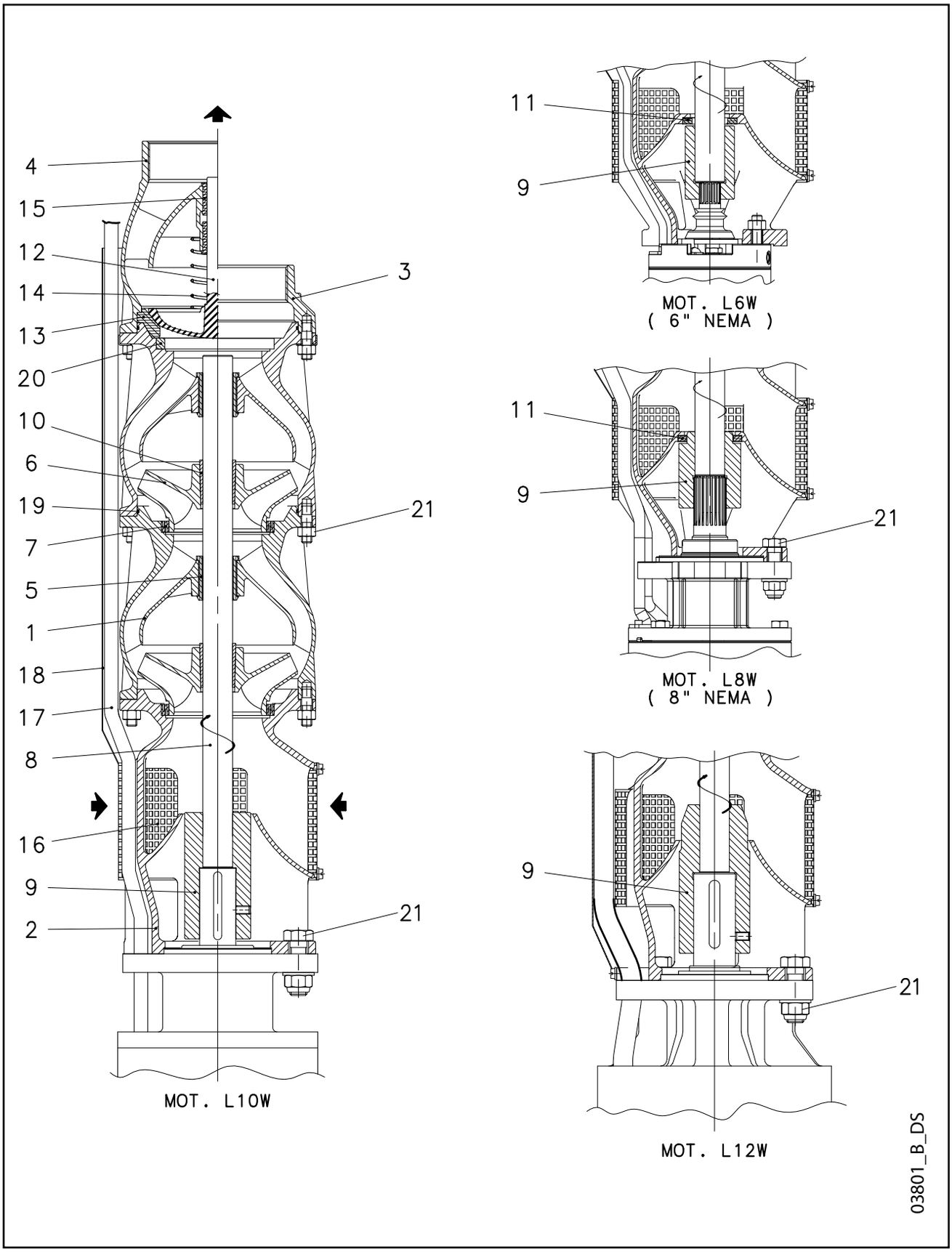
  For available material versions refer to the tables on pages 34-35.
- Coupling and flange mounting according to NEMA standard for 6” and 8” motor, with key connection for 10” and 12” motor.

MOTORS
L6W, L8W, L10W and L12W rewindable three-phase motors with water filled winding.
- Three-phase version:
  L6W: 4 to 37 kW 380-415 V, 50Hz.
  L8W: 30 to 93 kW 380-415 V, 50Hz.
  L10W: 93 to 150 kW 380-415 V, 50Hz.
  L12W: 185 to 300 kW 380-415 V,50Hz.
- Maximum supply voltage variations: 400V ±10% (all sizes)
- Maximum number of starts per hour: 15 (L6W), 10 (L8W), 8 (L10W) and 4 (L12W).
- Horizontal operation:
  - L6W, all versions are designed for horizontal installation, provided that the direction of the axial thrust generated by the impellers is always from the pump to the motor.
  - L8W, L10W and L12W on request for all versions.
- Maximum temperature of water in contact with motor: 30°C (all sizes).

OPTIONAL FEATURES
Customized impeller diameters.

ACCESSORIES
Coupling flanges, control panels,drop cables, cable joints, cooling shrouds, temperature sensor PT 100 / PTC.

Z10 SERIES
PUMP CROSS SECTION AND LIST OF COMPONENTS



Z10 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
2	Lower support / Suction Casing	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
3	Delivery head	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
4	Valve Casing	Acciaio inox	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
5	Bearing bush	EPDM + Lubricant		
6	Impeller	Stainless steel	EN 10213-GX5CrNi19-11 (1.4308)	A744-CF 8
7	Wear ring	Tecnopolymer POM-C		
8	Pump shaft	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431
9	Coupling	Stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
10	Taperlock	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
11	Thrust Bearing	PTFE + 25% carbon		
12	Valve	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
13	Valve seal	NBR 90		
14	Valve spring	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
15	Wing valve			
16	Suction strainer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
17	Motor cable			
18	Cable protection	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
19	Diffuser O-Ring	NBR 70		
20	Intermediate ring			
21	Screw, stud, nut	Stainless steel	ISO 3506-1/2 A4-70	AISI 316

z10-2p50-en_d_tm

ZN10 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
2	Lower support / Suction Casing	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
3	Delivery head	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
4	Valve Casing	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
5	Bearing bush	EPDM 70	-	-
6	Impeller	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
7	Wear ring	Technopolymer POM-C	-	-
8	Pump shaft	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
9	Coupling	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
10	Taperlock	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
11	Thrust Bearing	Guarniflon G412	-	-
12	Valve	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
13	Valve seal	EPDM 90	-	-
14	Valve spring	Stainless steel	EN 10088-X5CrNiMo 17 12 2 (1.4401)	AISI 316
15	Wing valve	-	-	-
16	Suction strainer	Stainless steel	EN 10088-X6CrNiMoTi 17 12 2 (1.4571)	ASTM - 316Ti
17	Motor cable	-	-	-
18	Cable protection	Stainless steel	EN 10088-X6CrNiMoTi 17 12 2 (1.4571)	ASTM - 316Ti
19	Diffuser O-Ring	EPDM 70	-	-
20	Intermediate ring	-	-	-
21	Screw, stud, nut	Stainless steel	ISO 3506-1/2 A4-70	AISI 316

z10-zn10-2p50-en_a_tm

ZR10 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
2	Lower support / Suction Casing	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
3	Delivery head	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
4	Valve Casing	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
5	Bearing bush	EPDM + Lubricant		
6	Impeller	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
7	Wear ring	Tecnopolimery POM-C		
8	Pump shaft	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
9	Coupling	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
10	Taperlock	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
11	Thrust Bearing	PTFE + 25% carbon		
12	Valve	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
13	Valve seal	NBR 90		
14	Valve spring	Hastelloy C4	DIN17744-NiMo16Cr16Ti (2.4610)	N06455
15	Wing valve			
16	Suction strainer	Stainless steel	EN 10088-1X1NiCrMoCu25-20-5 (1.4539)	AISI 904L
17	Motor cable			
18	Cable protection	Stainless steel	EN 10088-1X1NiCrMoCu25-20-5 (1.4539)	AISI 904L
19	Diffuser O-Ring	NBR 70		
20	Intermediate ring			
21	Screw, stud, nut	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803

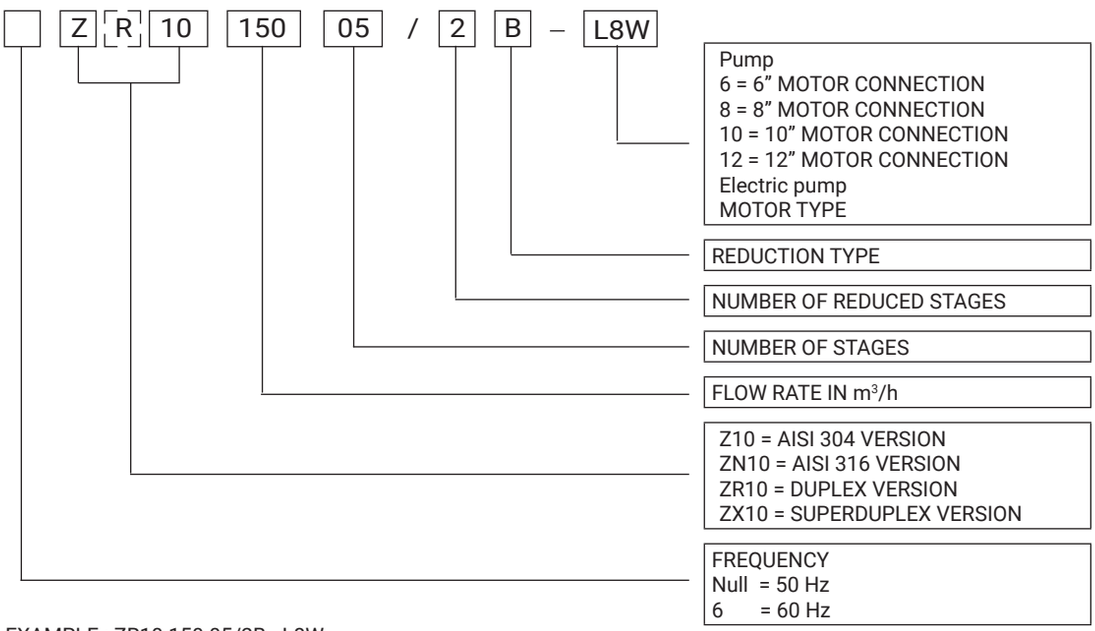
zr10-2p50-en_c_tm

ZX10 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
2	Lower support / Suction Casing	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
3	Delivery head	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
4	Valve Casing	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
5	Bearing bush	EPDM 70		
6	Impeller	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
7	Wear ring	Technopolymer POM-C		
8	Pump shaft	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
9	Coupling	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
10	Taperlock	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
11	Thrust Bearing	Guarniflon G412		
12	Valve	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
13	Valve seal	EPDM 90		
14	Valve spring	Hastelloy C4	DIN17744-NiMo16Cr16Ti (2.4610)	N06455
15	Wing valve	-	-	-
16	Suction strainer	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
17	Motor cable	-	-	-
18	Cable protection	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
19	Diffuser O-Ring	EPDM 70	-	-
20	Intermediate ring	-	-	-
21	Screw, stud, nut	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53

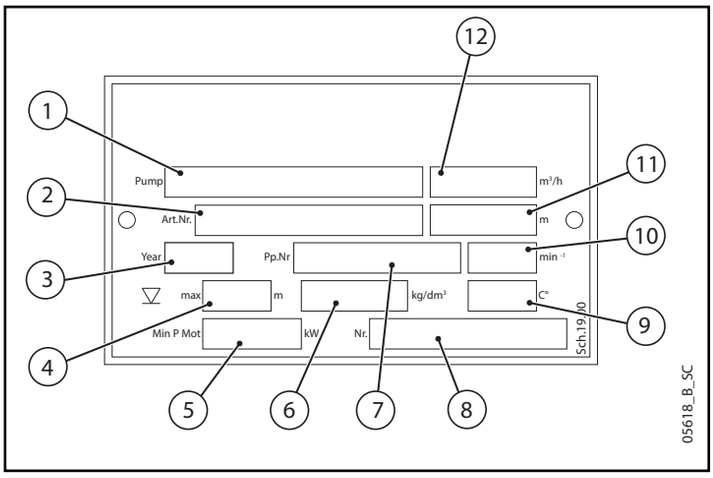
z10-zx10-2p50-en_a_tm

Z10 SERIES
IDENTIFICATION CODES



EXAMPLE : ZR10 150 05/2B - L8W
10” electric pump, 50 Hz, made of DUPLEX, flow rate 150 m³/h, 5 stages including 2 reduced ones, coupled to an 8” L8W motor.

Z10 SERIES
RATING PLATE



LEGEND

1 - Pump type

2 - Article code of the pump

3 - Year of production

4 - Max. immersion depth

5 - Min. required motor power

6 - Density of medium

7 - Data set entry for additional identification

8 - Serial number

9 - Max. water temperature

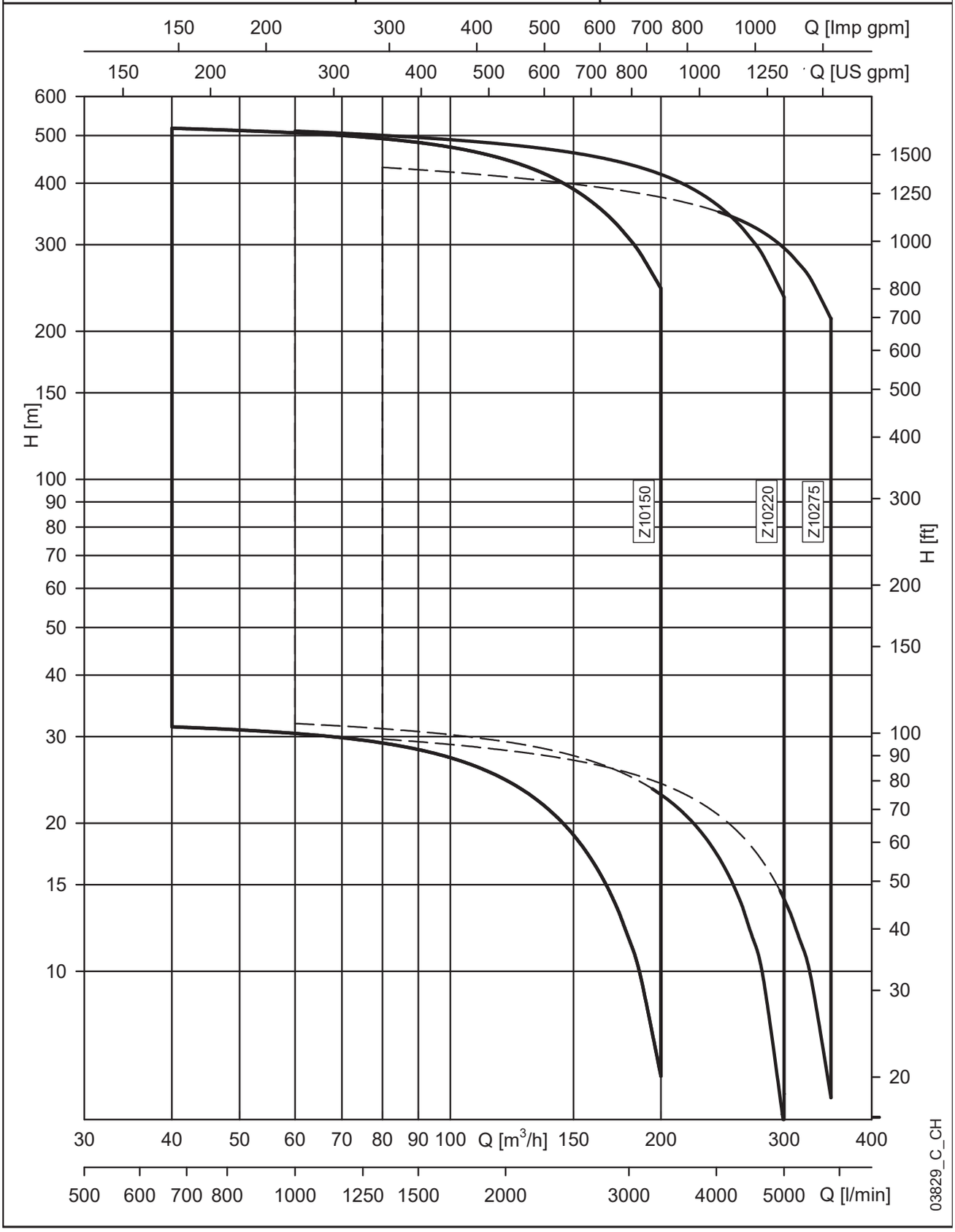
10 - Speed

11 - Head

12 - Nominal flow

Z10 SERIES
HYDRAULIC PERFORMANCE RANGE

Z10	2900 [rpm]	ISO 9906:2012 - Grade 3B

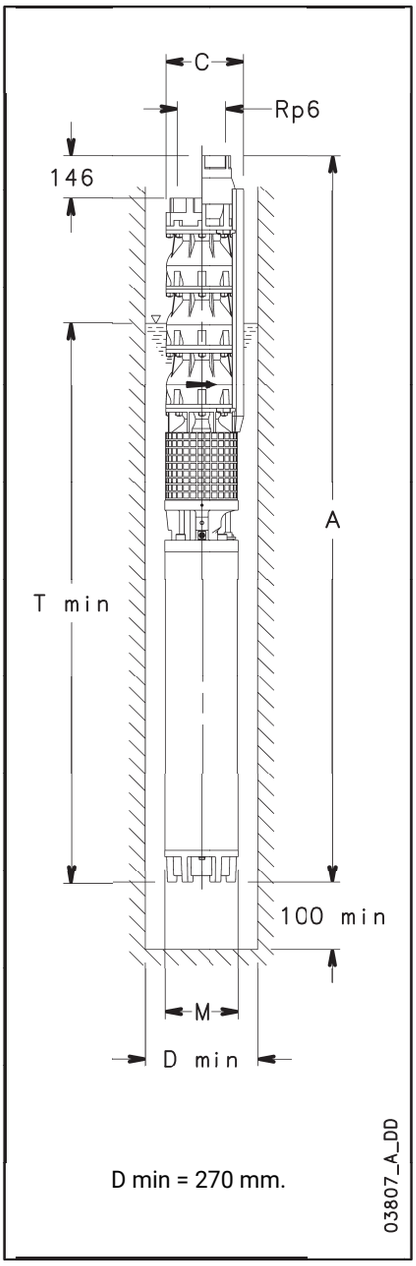


Z10150: 1 TO 3 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	666,7	1200,0	1733,3	2266,7	2800,0	3333,3
		m^3/h 0	40	72	104	136	168	200
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10150 01/1C	11	34,2	32,1	30,4	27,4	22,5	15,5	6,9
Z10150 01/1B	13	39,6	37,3	35,5	32,7	28,1	21,4	12,9
Z10150 01/1A	15	43,1	40,7	39,1	36,5	32,2	25,8	17,4
Z10150 02/2C	22	68,5	64,2	60,8	54,8	45,0	31,0	13,7
Z10150 02/2B	26	79,2	74,5	71,0	65,4	56,1	42,8	25,8
Z10150 02/2A	30	86,2	81,5	78,3	73,0	64,4	51,6	34,8
Z10150 03/2C	37	113,1	106,4	101,4	92,9	78,9	58,7	33,2
Z10150 03/2B	45	123,8	116,8	111,7	103,5	90,1	70,5	45,2
Z10150 03/2A	45	129,3	122,2	117,4	109,6	96,5	77,3	52,2
Z10150 03	52	133,7	126,6	122,0	114,5	101,9	83,0	58,1

Pump performance at 2900 rpm

z10150-2p50-1-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT кг (3)
Z10150 01/1C-L6W	11	1423	258	144	2323	103
Z10150 01/1B-L6W	13	1463	258	144	2363	107
Z10150 01/1A-L6W	15	1533	258	144	2433	115
Z10150 02/2C-L6W	22	1819	258	144	2543	146
Z10150 02/2B-L6W	26	1839	258	144	2671	155
Z10150 02/2A-L6W	30	1929	258	144	2751	158
Z10150 03/2C-L6W	37	2338	258	144	2851	200
Z10150 03/2B-L8W	45	2107	258	192	2735	270
Z10150 03/2A-L8W	45	2187	258	192	2735	270
Z10150 03-L8W	52	2267	258	192	2815	290

z10150-2p50-1-en_d_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 255 mm with L6W motor.
C = 255 mm with L8W motor.

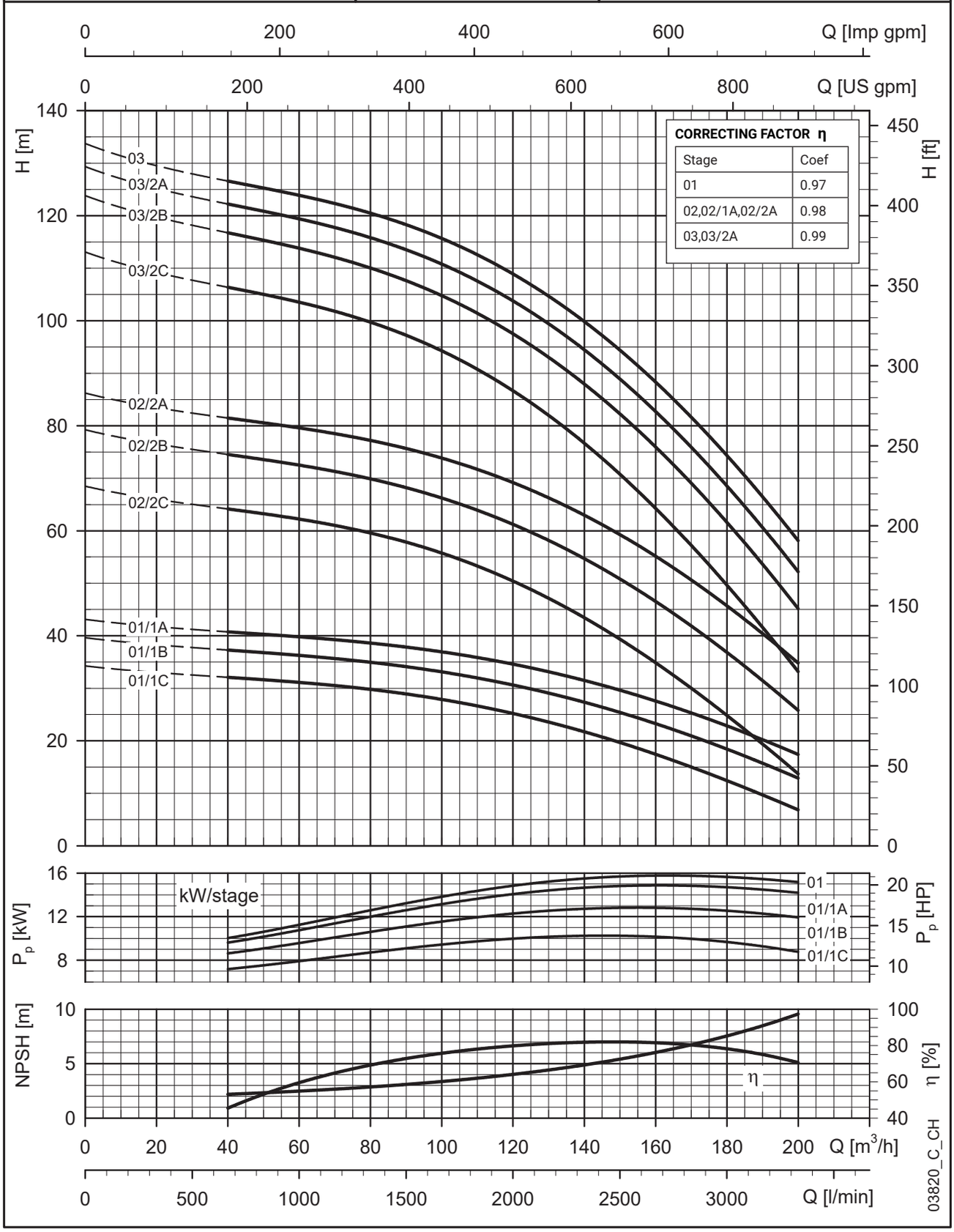
(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,3 kg.

Z10150: 1 TO 3 STAGES
OPERATING CHARACTERISTICS

Z10150	2900 [rpm]	ISO 9906:2012 - Grade 3B



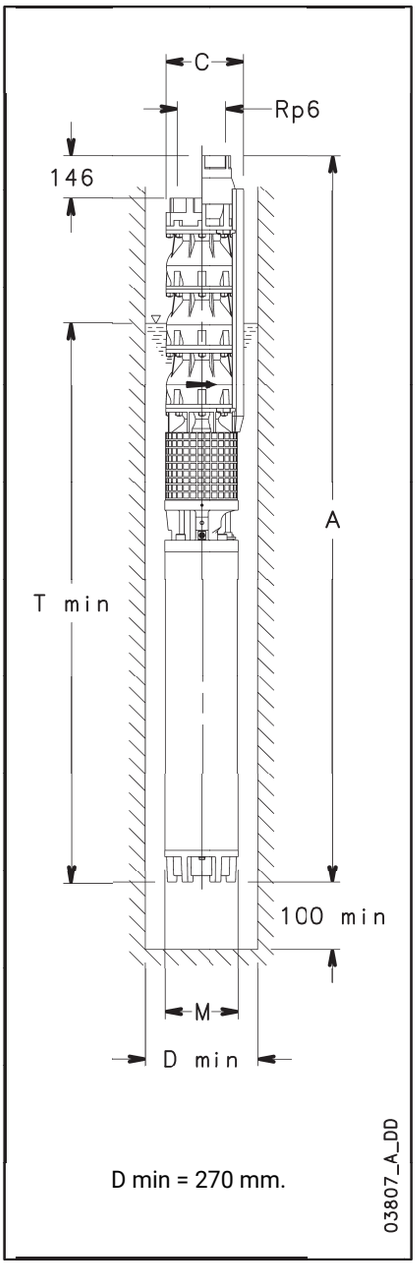
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z10150: 4 TO 6 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	666,7	1200,0	1733,3	2266,7	2800,0	3333,3
		m^3/h 0	40	72	104	136	168	200
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10150 04/2C	52	157,7	148,6	142,1	131,1	112,8	86,4	52,7
Z10150 04/2B	60	168,4	159,0	152,3	141,6	124,0	98,2	64,5
Z10150 04	67	178,3	168,8	162,6	152,7	135,8	110,7	77,5
Z10150 05/2C	67	202,2	190,8	182,7	169,2	146,7	114,0	72,1
Z10150 05/2B	75	213,0	201,2	193,0	179,8	157,9	125,9	83,9
Z10150 05	83	222,9	211,0	203,3	190,8	169,8	138,4	96,9
Z10150 06/2C	83	246,8	233,0	223,4	207,3	180,6	141,7	91,6
Z10150 06/1B	93	262,5	248,3	238,8	223,4	197,8	159,8	109,7
Z10150 06	110	267,5	253,2	244,0	229,0	203,7	166,1	116,3

Pump performance at 2900 rpm

z10150-2p50-2-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10150 04/2C-L8W	52	2578	258	192	2815	311
Z10150 04/2B-L8W	60	2648	258	192	2895	328
Z10150 04-L8W	67	2818	258	192	2975	346
Z10150 05/2C-L8W	67	2944	258	192	2975	367
Z10150 05/2B-L8W	75	3024	258	192	3055	384
Z10150 05-L8W	83	3114	258	192	3145	397
Z10150 06/2C-L8W	83	3330	258	192	3145	417
Z10150 06/1B-L8W	93	3440	258	192	3455	442
Z10150 06-L10W	110	3482	259	236	3302	558

z10150-2p50-2-en_c_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 255 mm with L8W motor.
C = 255 mm with L10W motor.

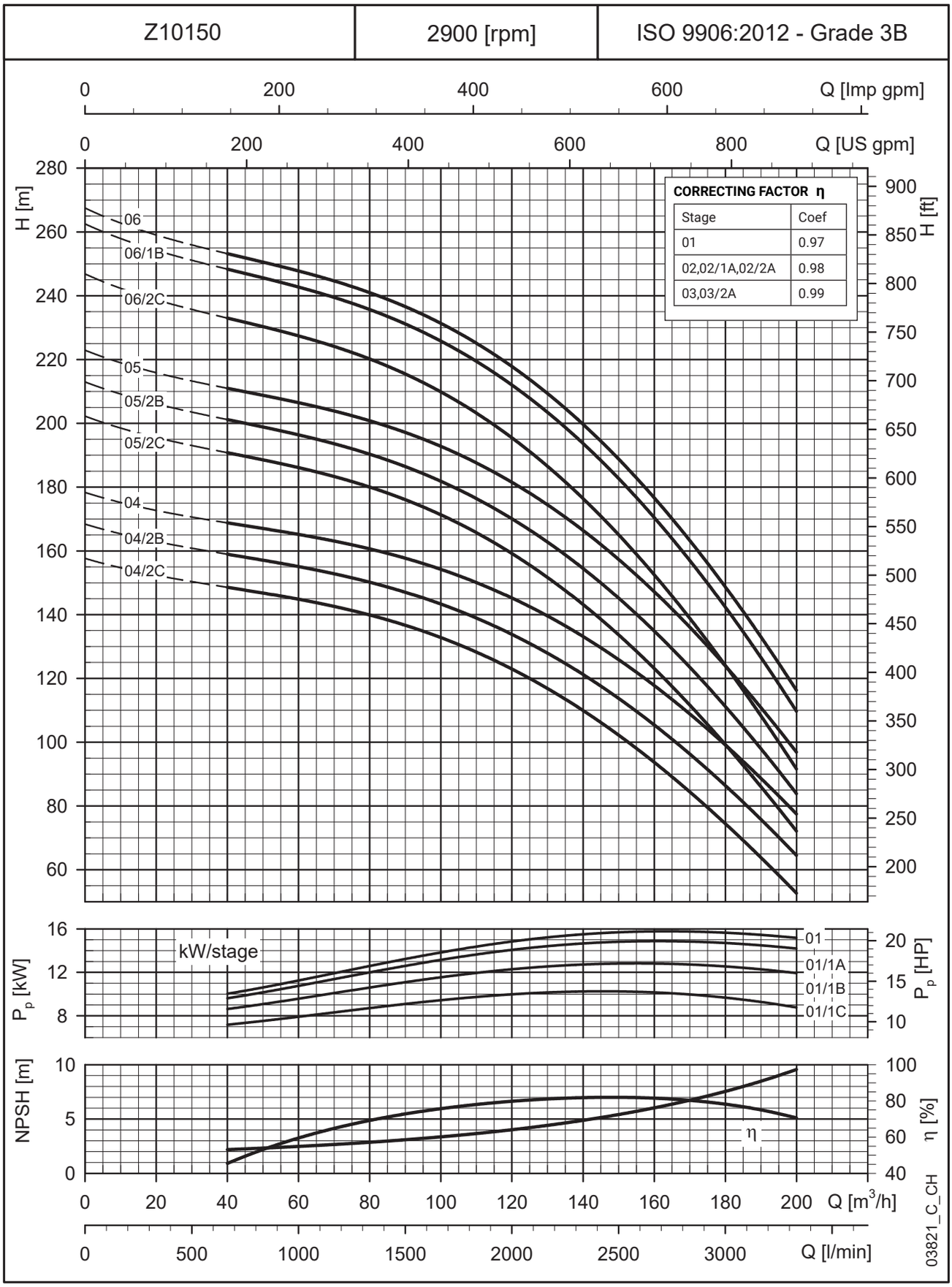
(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm andreduce weight by 8,3 kg.

Z10150: 4 TO 6 STAGES
OPERATING CHARACTERISTICS

Z10150	2900 [rpm]	ISO 9906:2012 - Grade 3B



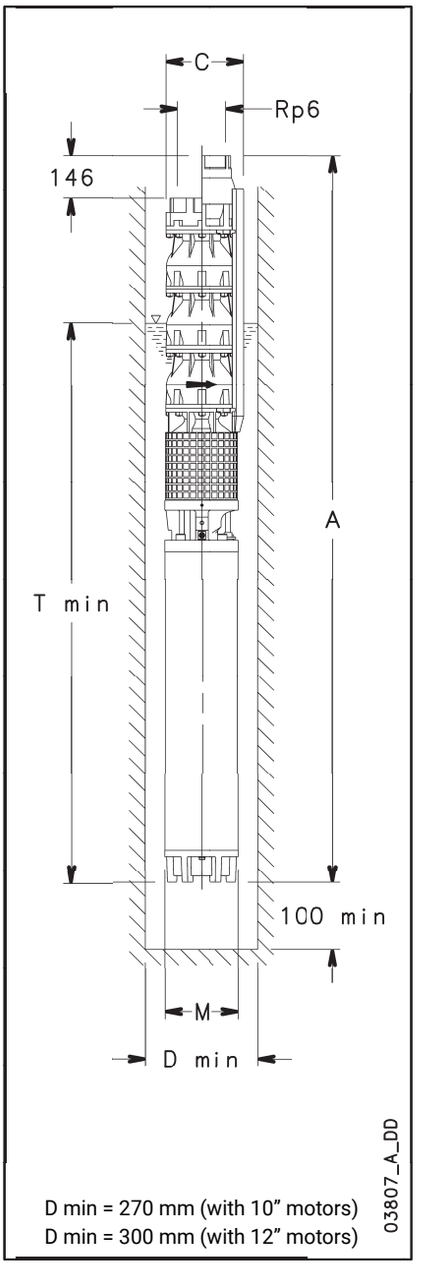
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z10150: 7 TO 12 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	666,7	1200,0	1733,3	2266,7	2800,0	3333,3
		m^3/h 0	40	72	104	136	168	200
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10150 07/3B	110	295,1	278,7	267,2	248,6	217,9	172,8	114,0
Z10150 07/1B	110	307,1	290,5	279,4	261,5	231,7	187,5	129,1
Z10150 08/3B	130	341,7	322,9	309,8	288,7	253,9	202,6	135,5
Z10150 08	130	356,6	337,6	325,3	305,3	271,7	221,4	155,0
Z10150 09/3B	150	386,3	365,1	350,5	326,9	287,8	230,3	154,9
Z10150 09	150	401,2	379,8	365,9	343,5	305,6	249,1	174,4
Z10150 10	185	445,8	422,0	406,6	381,7	339,6	276,8	193,8
Z10150 11	185	490,4	464,2	447,3	419,8	373,5	304,5	213,1
Z10150 12	220	535,0	506,4	487,9	458,0	407,5	332,1	232,5

Pump performance at 2900 rpm

z10150-2p50-3-en_b_th



D min = 270 mm (with 10” motors)
D min = 300 mm (with 12” motors)

DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10150 07/3B-L10W	110	3698	259	236	3302	579
Z10150 07/1B-L10W	110	3698	259	236	3302	579
Z10150 08/3B-L10W	130	4064	259	236	3452	647
Z10150 08-L10W	130	4064	259	236	3452	647
Z10150 09/3B-L10W	150	4410	259	236	3582	706
Z10150 09-L10W	150	4410	259	236	3582	706
Z10150 10-L12W	185	4396	283	276	3339	793
Z10150 11-L12W	185	4612	283	276	3339	814
Z10150 12-L12W	220	4978	283	276	3489	898

z10150-2p50-3-en_b_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 255 mm with L10W motor.
C = 280 mm with L12W motor.

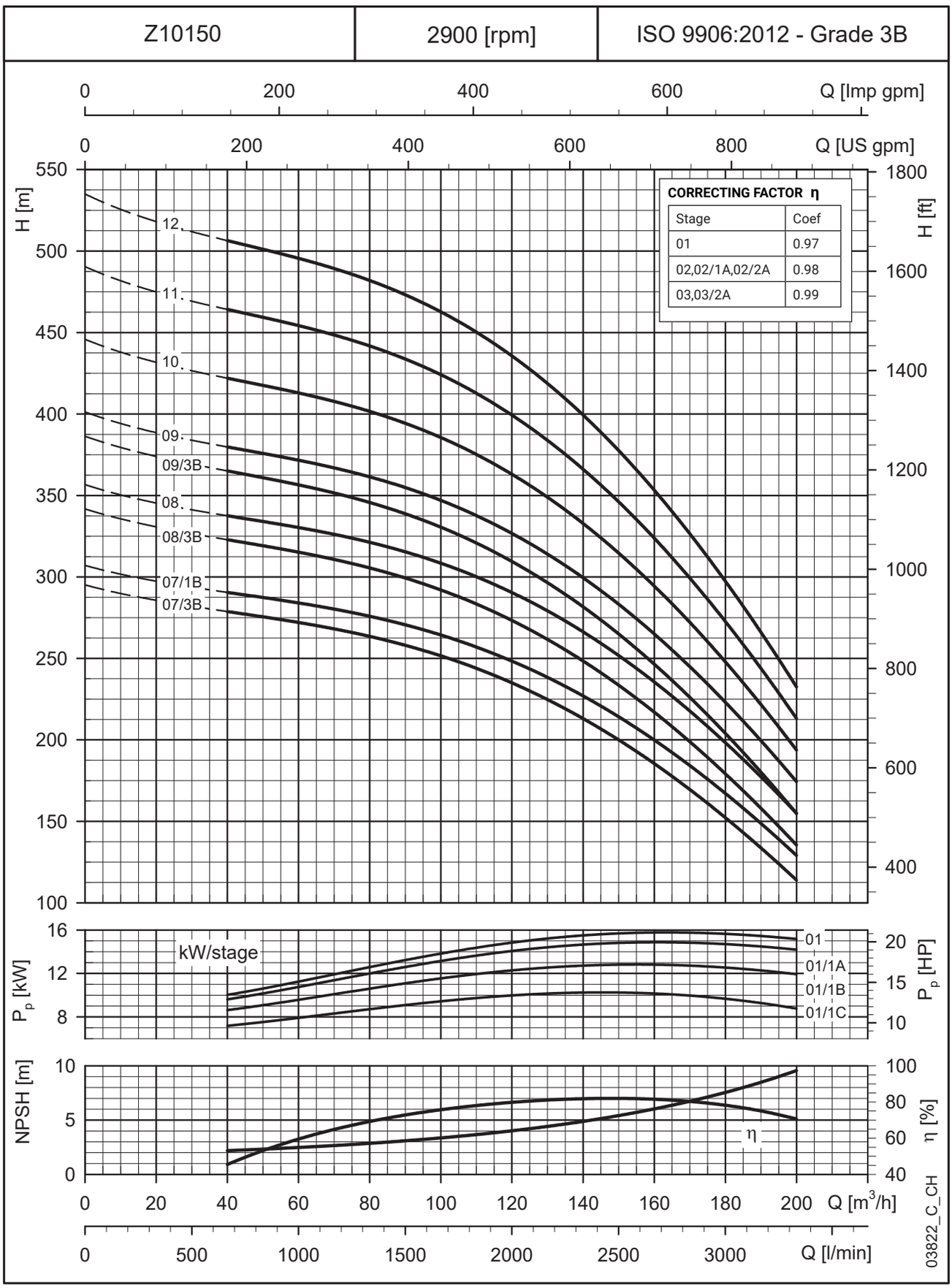
(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,3 kg.

Z10150: 7 TO 12 STAGES
OPERATING CHARACTERISTICS

Z10150	2900 [rpm]	ISO 9906:2012 - Grade 3B



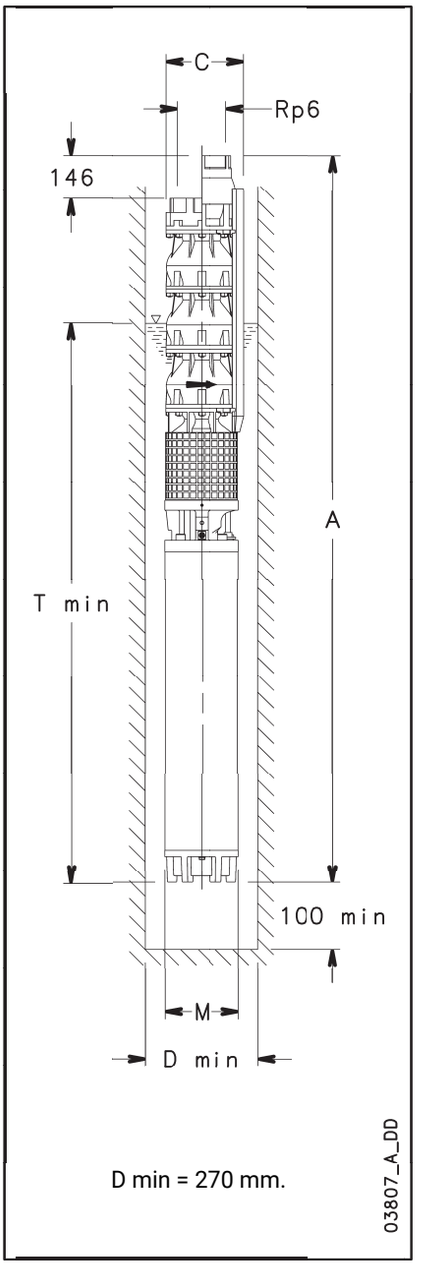
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z10220: 1 TO 3 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	1000,0	1800,0	2600,0	3400,0	4200,0	5000,0
		m^3/h 0	60	108	156	204	252	300
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10220 01/1C	15	33,2	31,1	28,7	25,5	20,6	13,1	1,2
Z10220 01/1B	18,5	38,0	35,6	33,6	30,7	26,2	19,2	8,8
Z10220 01/1A	22	42,2	39,4	37,5	34,9	30,8	24,3	14,7
Z10220 01	26	45,0	41,8	39,8	37,3	33,6	27,7	18,7
Z10220 02/2C	30	66,4	62,2	57,4	50,9	41,2	26,1	2,5
Z10220 02/2B	37	75,9	71,3	67,3	61,5	52,4	38,4	17,6
Z10220 02/2A	45	84,5	78,9	74,9	69,7	61,6	48,7	29,4
Z10220 02	52	90,0	83,6	79,6	74,7	67,2	55,4	37,3
Z10220 03/2B	60	120,8	112,9	107,0	98,8	85,9	65,9	36,3
Z10220 03/2A	67	129,1	120,3	114,4	106,8	94,9	76,1	47,9
Z10220 03	75	135,0	125,4	119,3	112,0	100,8	83,1	56,0

Pump performance at 2900 rpm

z10220-2p50-1-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10220 01/1C-L6W	15	1533	258	144	3733	114
Z10220 01/1B-L6W	18,5	1603	258	144	3803	122
Z10220 01/1A-L6W	22	1623	258	144	3843	125
Z10220 01-L6W	26	1713	258	144	3971	134
Z10220 02/2C-L6W	30	2062	258	144	4051	156
Z10220 02/2B-L6W	37	2122	258	144	4151	177
Z10220 02/2A-L8W	45	2051	258	192	4035	247
Z10220 02-L8W	52	2136	258	192	4115	267
Z10220 03/2B-L8W	60	2432	258	192	4195	304
Z10220 03/2A-L8W	67	2512	258	192	4275	322
Z10220 03-L8W	75	2592	258	192	4355	339

z10220-2p50-1-en_d_td

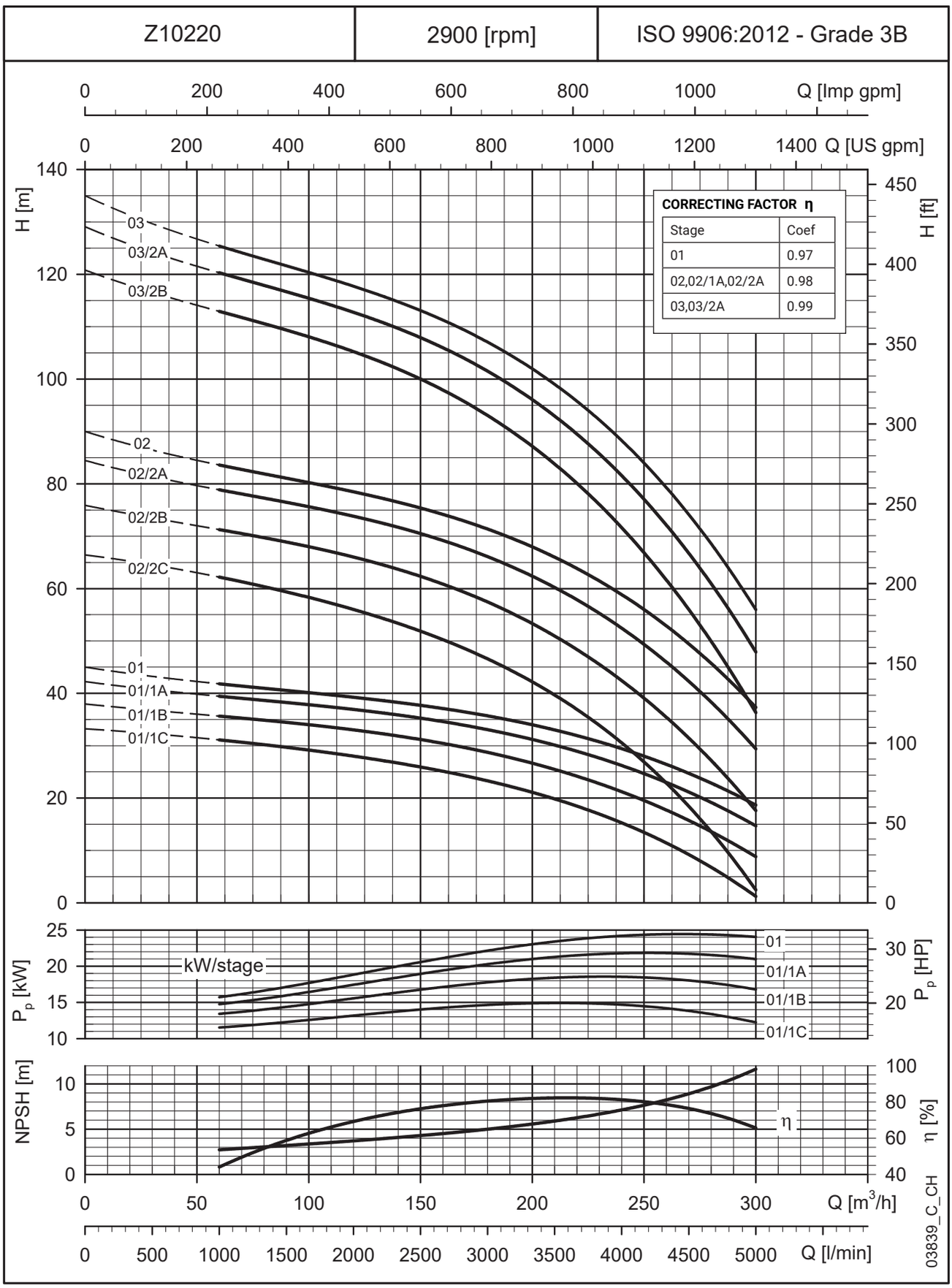
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 255 mm with L6W motor.
C = 255 mm with L8W motor.

(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,3 kg.

Z10220: 1 TO 3 STAGES
OPERATING CHARACTERISTICS



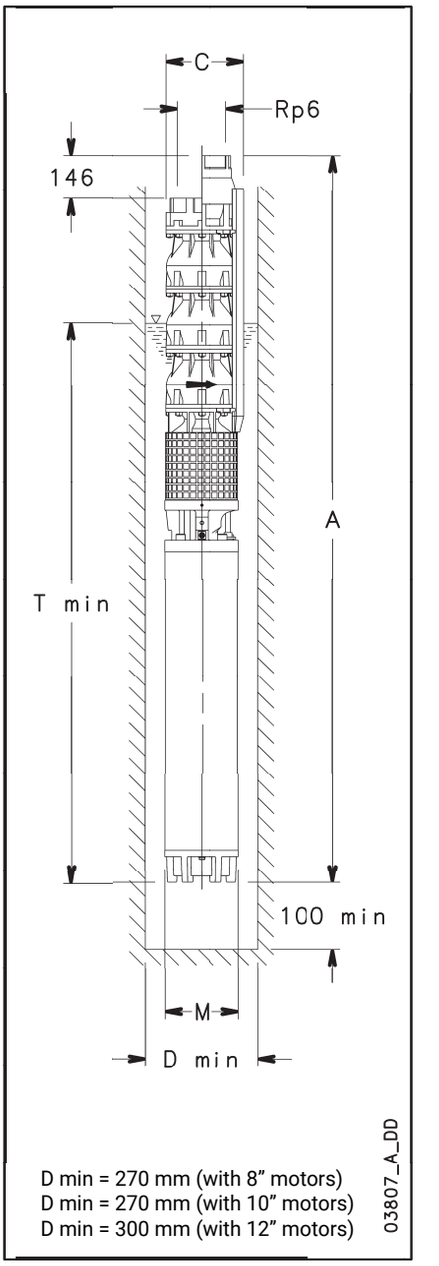
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z10220: 4 TO 7 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	1000,0	1800,0	2600,0	3400,0	4200,0	5000,0
		m^3/h 0	60	108	156	204	252	300
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10220 04/2B	83	165,9	154,8	146,9	136,2	119,5	93,5	55,1
Z10220 04/2A	93	174,5	162,4	154,5	144,5	128,8	104,0	66,6
Z10220 04	110	183,8	170,8	162,6	152,9	138,1	114,7	79,0
Z10220 05/2B	110	211,0	196,6	186,8	173,7	153,1	121,0	73,8
Z10220 05	130	225,0	209,0	198,9	186,7	168,1	138,5	93,3
Z10220 06/2B	150	258,4	240,6	228,8	213,3	188,9	150,8	94,9
Z10220 06	150	268,2	249,1	237,0	222,3	199,9	164,2	109,8
Z10220 07/2B	185	301,6	280,7	267,0	249,0	220,7	176,6	111,6
Z10220 07	185	315,0	292,6	278,5	261,4	235,3	193,9	130,6

Pump performance at 2900 rpm

z10220-2p50-2-en_b_th



D min = 270 mm (with 8” motors)
D min = 270 mm (with 10” motors)
D min = 300 mm (with 12” motors)

DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10220 04/2B-L8W	83	2968	258	192	4515	371
Z10220 04/2A-L8W	93	3108	258	192	4655	396
Z10220 04-L10W	110	3050	259	236	4602	512
Z10220 05/2B-L10W	110	3266	259	236	4602	531
Z10220 05-L10W	130	3416	259	236	4752	578
Z10220 06/2B-L10W	150	3762	259	236	4882	636
Z10220 06-L10W	150	3762	259	236	4882	636
Z10220 07/2B-L12W	185	3748	283	276	4639	722
Z10220 07-L12W	185	3748	283	276	4639	722

z10220-2p50-2-en_b_td

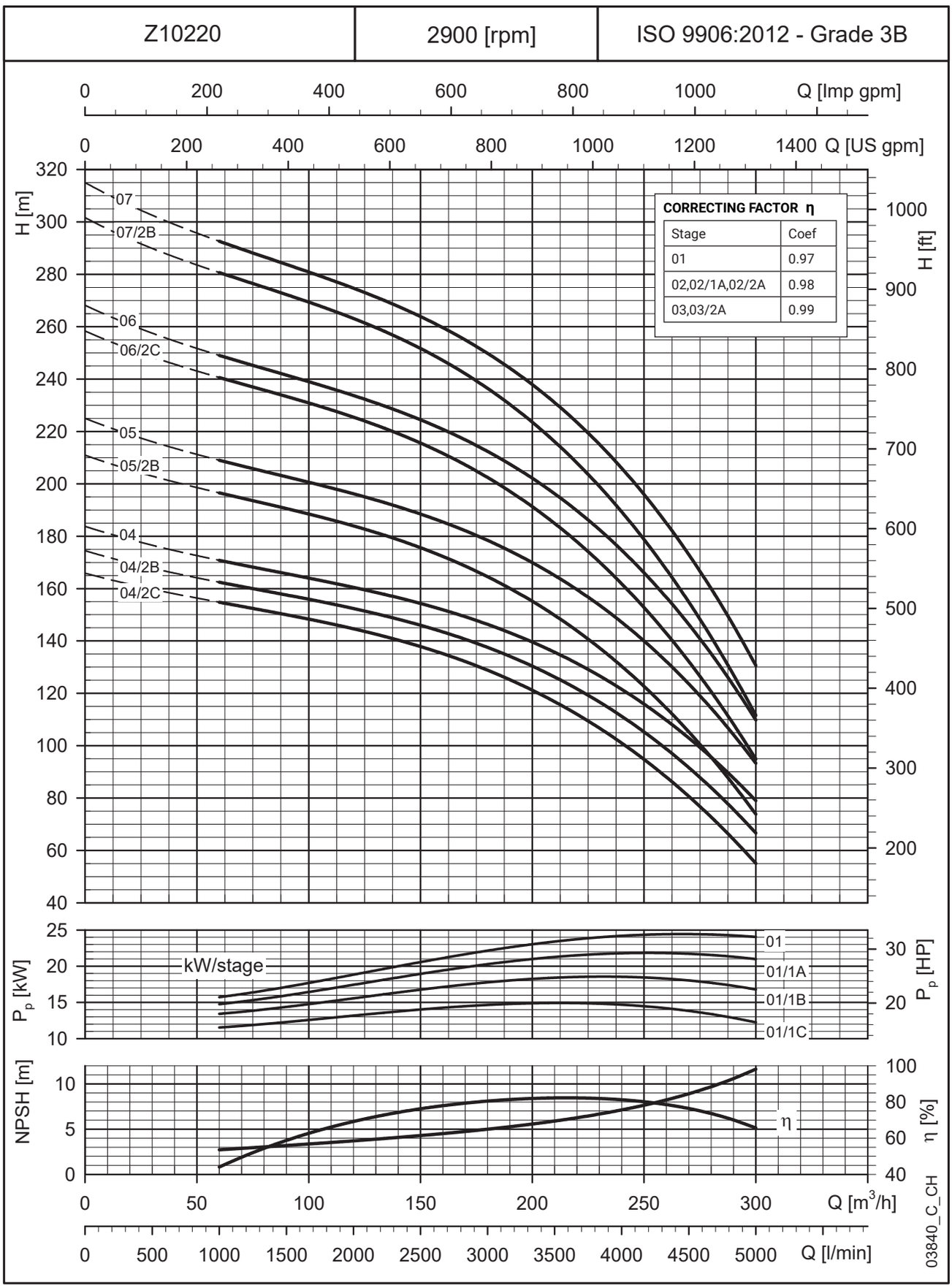
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 255 mm with L8W motor.
C = 255 mm with L10W motor
C = 280 mm with L12W motor.

(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,3 kg.

Z10220: 4 TO 7 STAGES
OPERATING CHARACTERISTICS



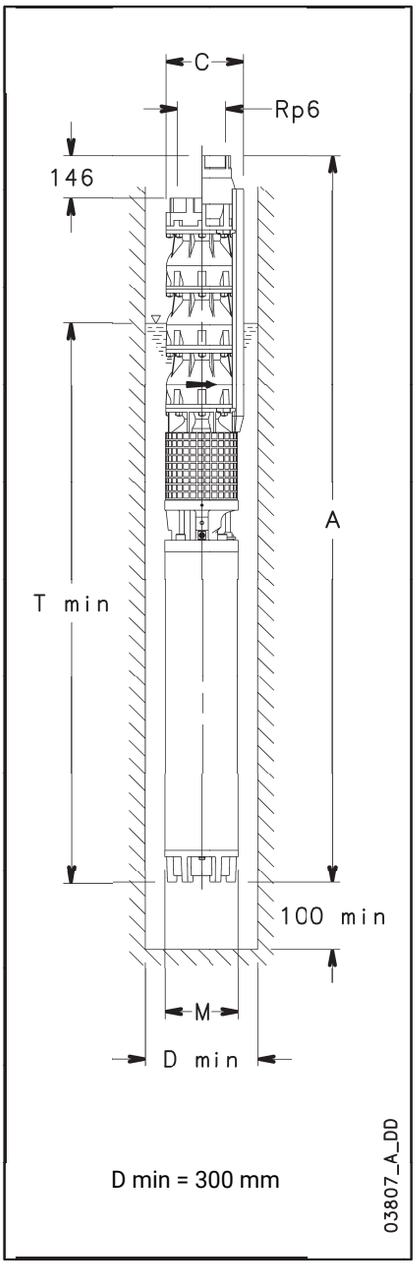
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z10220: 8 TO 12 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	1000,0	1800,0	2600,0	3400,0	4200,0	5000,0
		m^3/h 0	60	108	156	204	252	300
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10220 8/2B	185	346,7	322,4	306,8	286,4	254,3	204,1	130,3
Z10220 8	220	360,0	334,4	318,3	298,7	268,9	221,6	149,2
Z10220 9/2B	220	391,7	364,2	346,7	323,8	287,9	231,7	149,1
Z10220 9/1A	220	402,3	373,8	355,9	333,8	299,7	245,6	163,7
Z10220 10/2B	260	436,7	406,0	386,5	361,2	321,4	259,3	167,9
Z10220 10	260	450,0	418,0	397,8	373,4	336,1	276,9	186,5
Z10220 11/2B	260	481,7	447,7	426,4	398,6	355,0	286,9	186,6
Z10220 11	300	495,0	459,8	437,6	410,7	369,7	304,6	205,2
Z10220 12/2B	300	526,8	489,5	466,2	436,0	388,6	314,5	205,4

Pump performance at 2900 rpm

z10220-2p50-3-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10220 08/2B-L12W	185	3964	283	276	4639	741
Z10220 08-L12W	220	4114	283	276	4789	805
Z10220 09/2B-L12W	220	4330	283	276	4789	824
Z10220 09/1A-L12W	220	4330	283	276	4789	824
Z10220 10/2B-L12W	260	4696	283	276	4939	907
Z10220 10-L12W	260	4696	283	276	4939	907
Z10220 11/2B-L12W	260	4912	283	276	4939	927
Z10220 11-L12W	300	5062	283	276	5089	992
Z10220 12/2B-L12W	300	5278	283	276	5089	1011
Z10220 12-L12W	300	5278	283	276	5089	1011

z10220-2p50-3-en_b_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 280 mm with L12W motor.

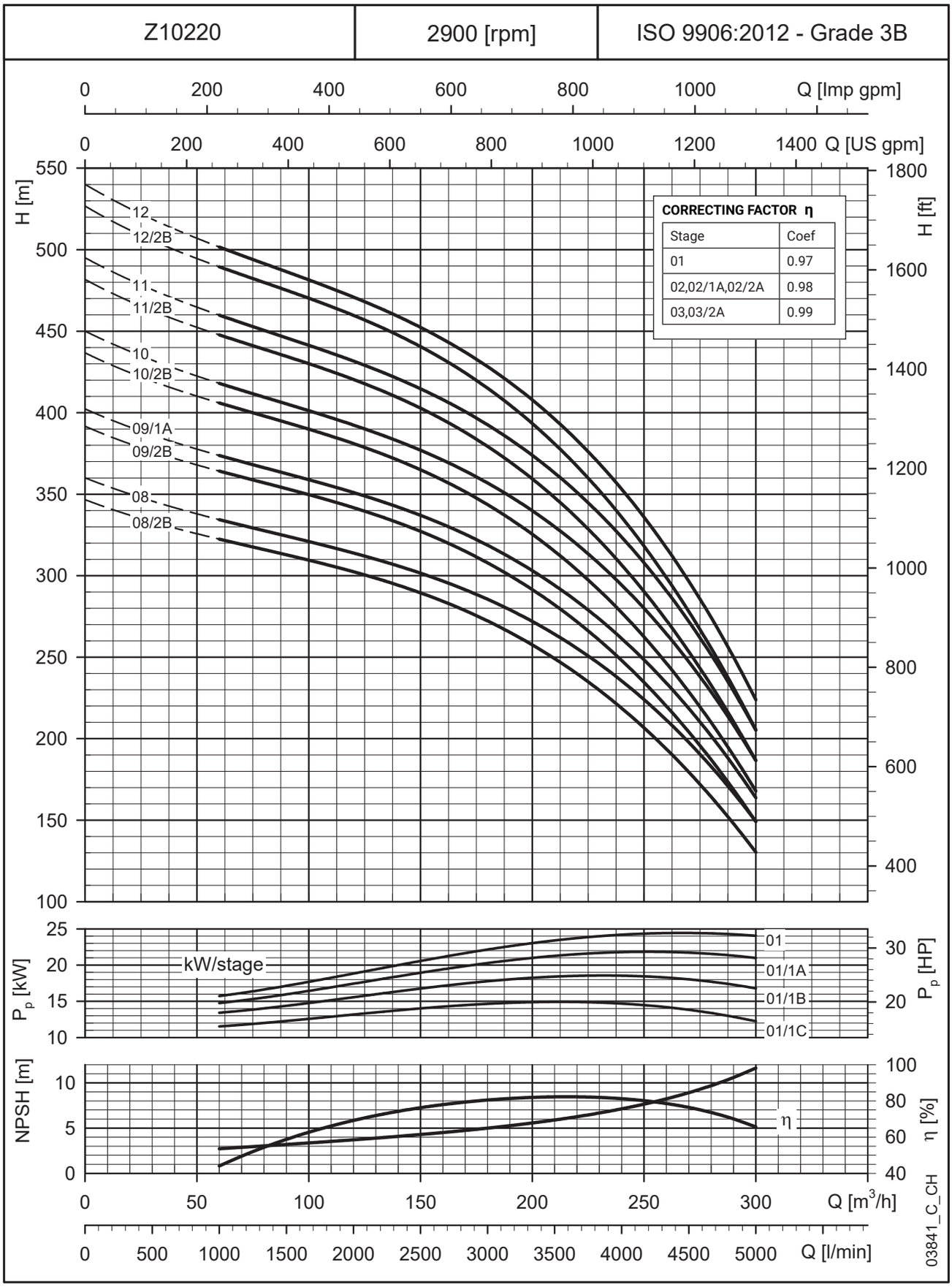
(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,3 kg.

Z10220: 8 TO 12 STAGES
OPERATING CHARACTERISTICS

Z10220	2900 [rpm]	ISO 9906:2012 - Grade 3B



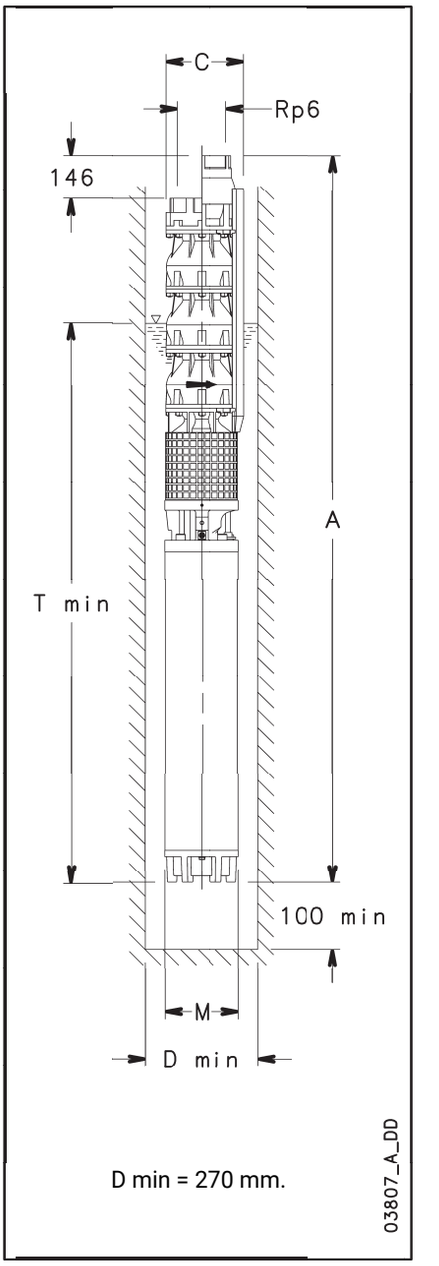
These performances are valid for liquids with density ρ = 1.0 kg/dm^3 and kinematic viscosity ν = 1 mm^2/sec.

Z10275: 1 TO 3 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	1333,3	2233,3	3133,3	4033,3	4933,3	5833,3
		m^3/h 0	80	134	188	242	296	350
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10275 01/1B	18,5	33,7	30,3	28,2	25,5	21,4	15,3	6,4
Z10275 01/1A	22	38,2	34,7	32,6	30,1	26,6	21,3	13,1
Z10275 01	30	41,6	38,6	36,5	34,3	31,4	26,8	19,0
Z10275 02/2B	37	67,4	60,6	56,4	50,9	42,9	30,7	12,8
Z10275 02/2A	45	76,3	69,5	65,2	60,2	53,2	42,5	26,3
Z10275 02	55	83,2	77,3	73,0	68,5	62,8	53,7	37,9
Z10275 03/2B	60	109,0	99,2	92,8	85,2	74,2	57,5	31,9
Z10275 03/3A	67	114,5	104,2	97,9	90,4	79,8	63,8	39,4
Z10275 03/1A	75	121,3	112,1	105,5	98,5	89,4	75,1	50,5
Z10275 03	83	124,8	115,9	109,5	102,8	94,2	80,5	56,9

Pump performance at 2900 rpm

z10275-2p50-1-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10275 01/1B-L6W	19	1603	258	144	3803	122
Z10275 01/1A-L6W	22	1623	258	144	3843	125
Z10275 01-L6W	30	1846	258	144	4051	137
Z10275 02/2B-L6W	37	2122	258	144	4151	177
Z10275 02/2A-L8W	45	2051	258	192	4035	248
Z10275 02-L8W	55	2166	258	192	4145	274
Z10275 03/2B-L8W	60	2432	258	192	4195	304
Z10275 03/3A-L8W	67	2512	258	192	4275	322
Z10275 03/1A-L8W	75	2592	258	192	4355	339
Z10275 03-L8W	83	2682	258	192	4445	352

z10275-2p50-1-en_d_td

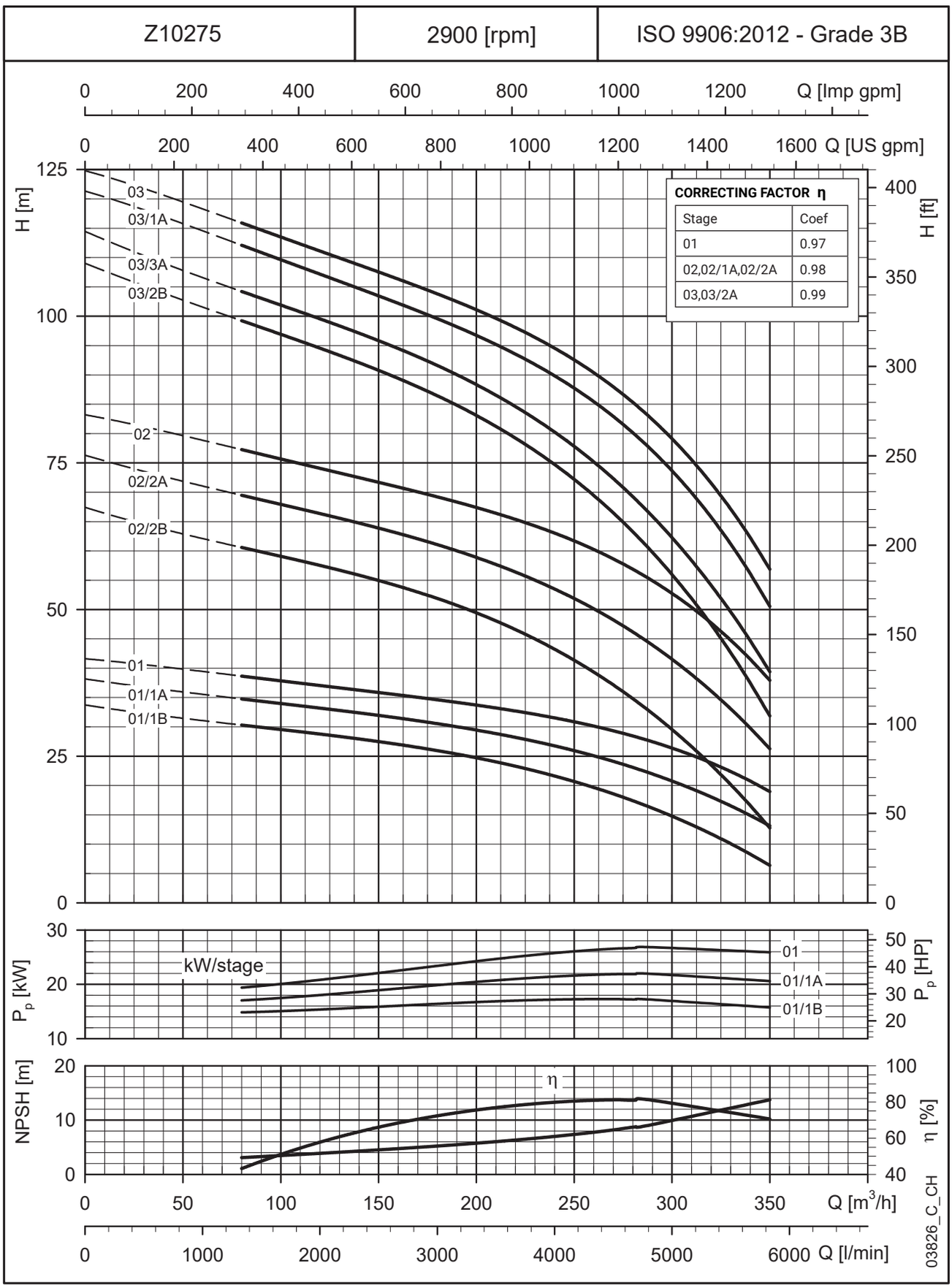
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 255 mm with L6W motor.
C = 255 mm with L8W motor.

(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,8 kg.

Z10275: 1 TO 3 STAGES
OPERATING CHARACTERISTICS



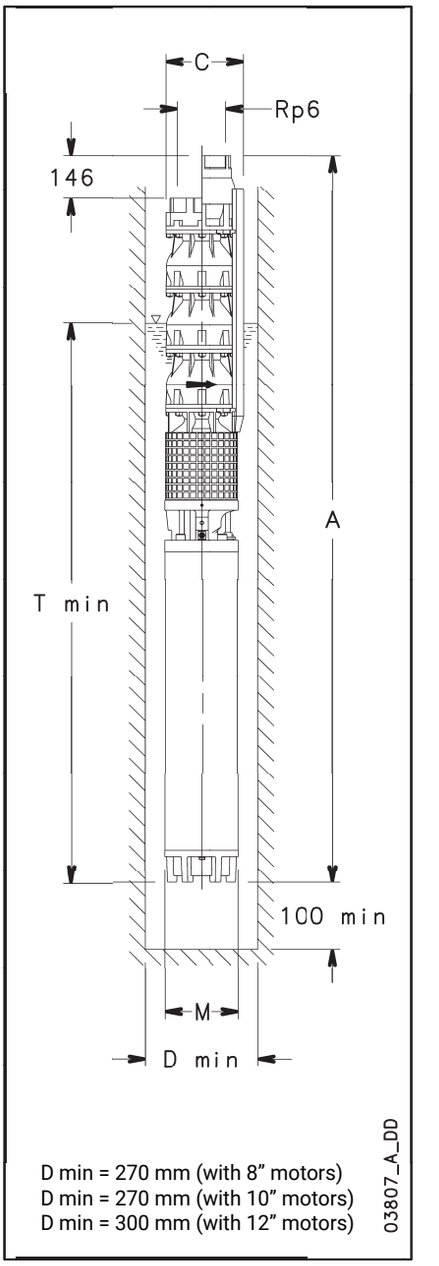
These performances are valid for liquids with density ρ = 1.0 kg/dm^3 and kinematic viscosity ν = 1 mm^2/sec.

Z10275: 4 TO 7 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	1333,3	2233,3	3133,3	4033,3	4933,3	5833,3
		m^3/h 0	80	134	188	242	296	350
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10275 04/3A	93	156,0	142,9	134,3	124,5	111,2	90,7	58,1
Z10275 04/2A	110	159,5	146,9	138,1	128,6	116,0	96,3	63,7
Z10275 04	110	166,4	154,5	145,9	137,0	125,6	107,3	75,8
Z10275 05/3A	130	197,6	181,6	170,7	158,7	142,6	117,6	76,8
Z10275 05	150	208,0	193,2	182,4	171,3	157,0	134,1	94,8
Z10275 06/3A	150	239,2	220,3	207,1	192,9	174,1	144,5	95,5
Z10275 06	185	249,6	231,8	218,9	205,5	188,4	161,0	113,8
Z10275 07/2A	185	284,2	262,9	247,3	231,1	210,3	177,1	119,8
Z10275 07	185	291,2	270,4	255,4	239,8	219,7	187,8	132,7

Pump performance at 2900 rpm

z10275-2p50-2-en_b_th



D min = 270 mm (with 8” motors)
D min = 270 mm (with 10” motors)
D min = 300 mm (with 12” motors)

DIMENSIONS AND WEIGHT

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10275 04/3A-L8W	93	3108	258	192	4655	397
Z10275 04/2A-L10W	110	3050	259	236	4602	513
Z10275 04-L10W	110	3050	259	236	4602	513
Z10275 05/3A-L10W	130	3416	259	236	4752	579
Z10275 05-L10W	150	3546	259	236	4882	618
Z10275 06/3A-L10W	150	3762	259	236	4882	638
Z10275 06-L12W	185	3532	283	276	4639	703
Z10275 07/2A-L12W	185	3748	283	276	4639	723
Z10275 07-L12W	185	3748	283	276	4639	723

z10275-2p50-2-en_c_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 255 mm with L8W motor.
C = 255 mm with L10W motor
C = 280 mm with L12W motor.

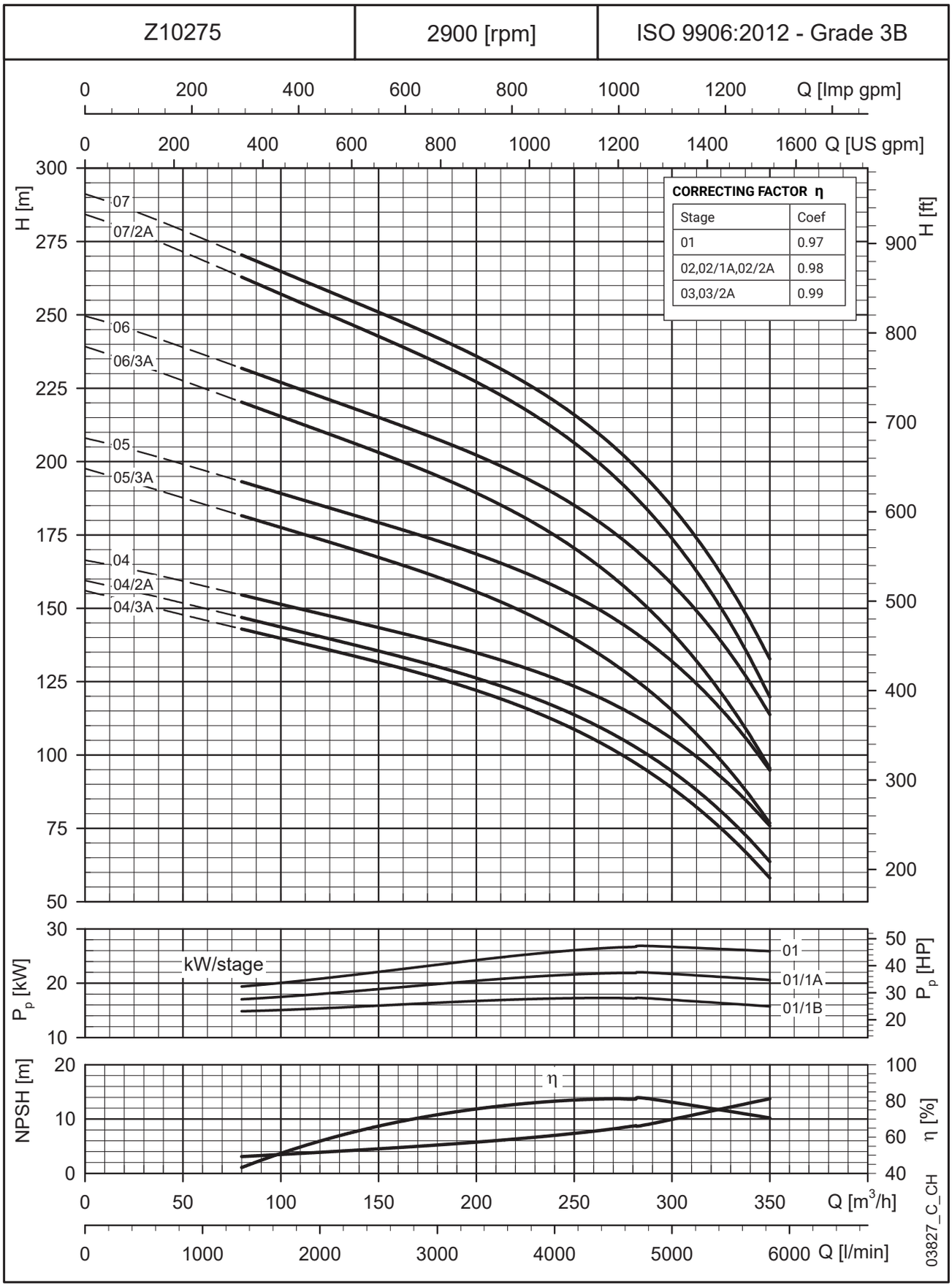
(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,8 kg.

Z10275: 4 TO 7 STAGES
OPERATING CHARACTERISTICS

Z10275	2900 [rpm]	ISO 9906:2012 - Grade 3B



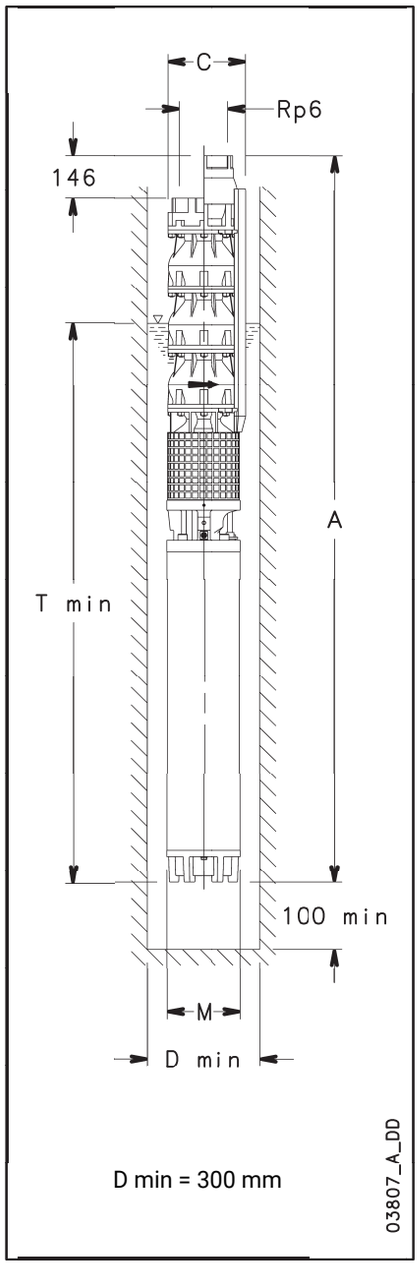
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z10275: 8 TO 11 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	1333,3	2233,3	3133,3	4033,3	4933,3	5833,3
		m^3/h 0	80	134	188	242	296	350
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z10275 08/2B	220	317,0	292,5	275,1	256,2	231,1	191,9	127,3
Z10275 08/1A	220	329,3	305,5	287,5	269,4	246,6	209,6	144,0
Z10275 09/3A	260	364,0	336,3	316,4	295,4	268,3	225,2	151,6
Z10275 09	260	374,4	347,7	328,4	308,3	282,5	241,4	170,6
Z10275 10/3A	260	405,6	375,0	352,8	329,6	299,8	252,1	170,3
Z10275 10	300	416,0	386,4	364,9	342,5	313,9	268,3	189,6
Z10275 11/1A	300	454,0	421,6	396,8	371,9	340,9	290,4	200,1

Pump performance at 2900 rpm

z10275-2p50-3-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z10275 08/2B-L12W	220	4114	283	276	4789	806
Z10275 08/1A-L12W	220	4114	283	276	4789	806
Z10275 09/3A-L12W	260	4480	283	276	4939	890
Z10275 09-L12W	260	4480	283	276	4939	890
Z10275 10/3A-L12W	260	4696	283	276	4939	909
Z10275 10-L12W	300	4846	283	276	5089	974
Z10275 11/1A-L12W	300	5062	283	276	5089	994

z10275-2p50-3-en_b_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 280 mm with L12W motor.

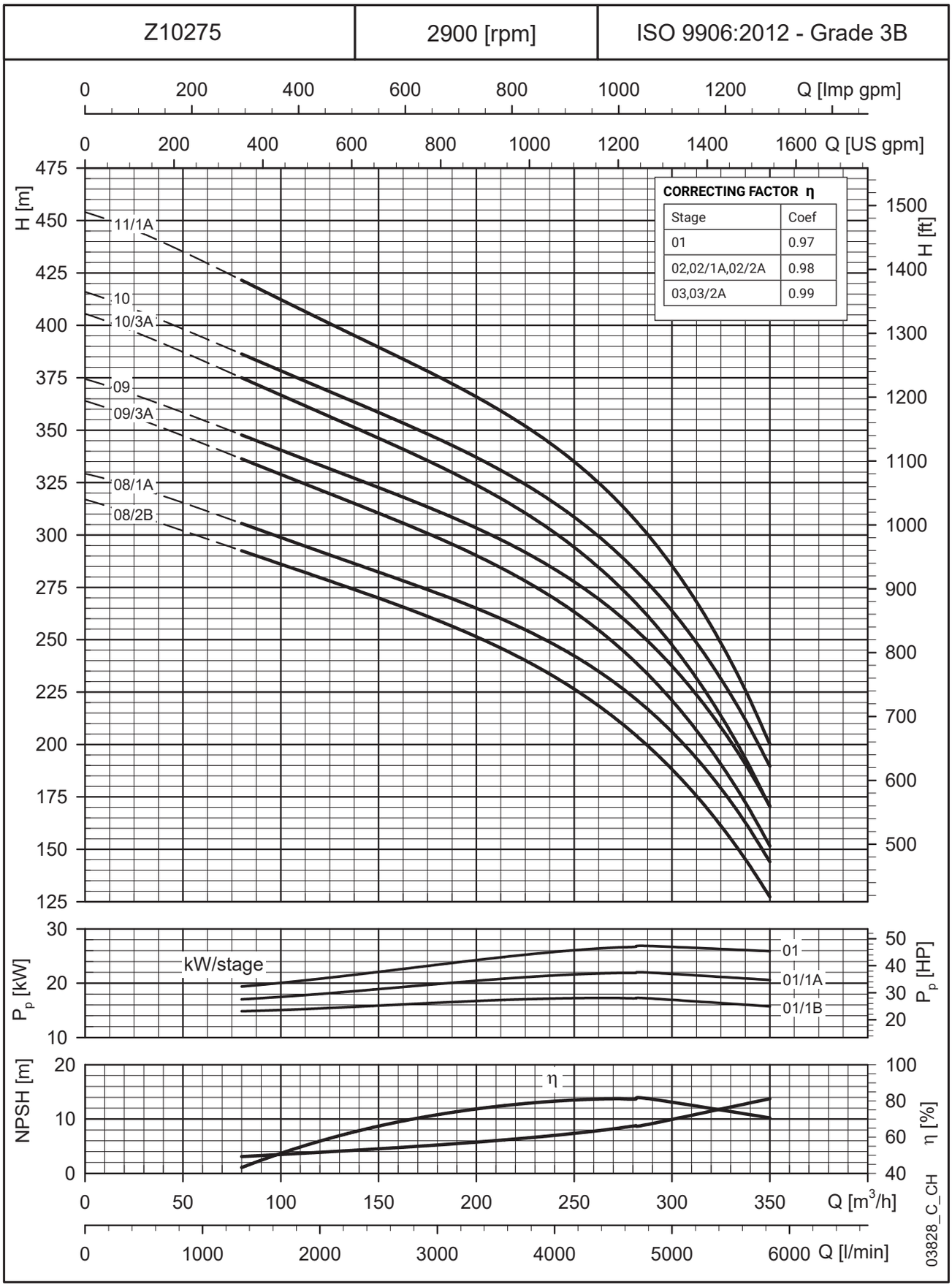
(2) T min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 146 mm and reduce weight by 8,8 kg.

Z10275: 8 TO 11 STAGES
OPERATING CHARACTERISTICS

Z10275	2900 [rpm]	ISO 9906:2012 - Grade 3B



These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z10150 SERIES
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP kW	DIMENSIONS (mm) L [4]	C [1]	U [2]	WEIGHT kg [3]	Ø MIN. WELL mm
Z10150 01/1C-6	10,3	442	258	1600	48,1	270
Z10150 01/1B-6	12,8	442	258	1600	48,1	270
Z10150 01/1A-6	14,8	442	258	1600	48,1	270
Z10150 02/2C-6	20,5	658	258	1600	68,8	270
Z10150 02/2B-6	25,7	658	258	1600	68,8	270
Z10150 02/2A-6	29,6	658	258	1600	68,8	270
Z10150 03/2C-6	36,2	874	258	1600	89,5	270
Z10150 03/2B-8	41,3	874	258	1600	89,8	270
Z10150 03/2A-8	44,4	874	258	1600	89,8	270
Z10150 03-8	46,9	874	258	1600	89,8	270
Z10150 04/2C-8	51,8	1090	258	1600	110,5	270
Z10150 04/2B-8	57,0	1090	258	1600	110,5	270
Z10150 04-8	62,6	1090	258	1600	110,5	270
Z10150 05/2C-8	67,4	1306	258	1600	131,2	270
Z10150 05/2B-8	72,6	1306	258	1600	131,2	270
Z10150 05-8	78,2	1306	258	1600	131,2	270
Z10150 06/2C-8	83,0	1522	258	1600	151,9	270
Z10150 06/1B-8	91,0	1522	258	1600	151,9	270
Z10150 06-10	93,8	1522	258	1600	156,8	270
Z10150 07/3B-10	101,1	1738	258	1600	177,5	270
Z10150 07/1B-10	106,7	1738	258	1600	177,5	270
Z10150 08/3B-10	116,7	1954	258	1600	198,2	270
Z10150 08-10	125,1	1954	258	1600	198,2	270
Z10150 09/3B-10	132,4	2170	258	1600	218,9	270
Z10150 09-10	140,8	2170	258	1600	218,9	270
Z10150 10-12	156,4	2386	271	1600	240,4	300
Z10150 11-12	172,0	2602	271	1600	261,1	300
Z10150 12-12	187,7	2818	271	1600	281,8	300

z10150p-50-en_b_td

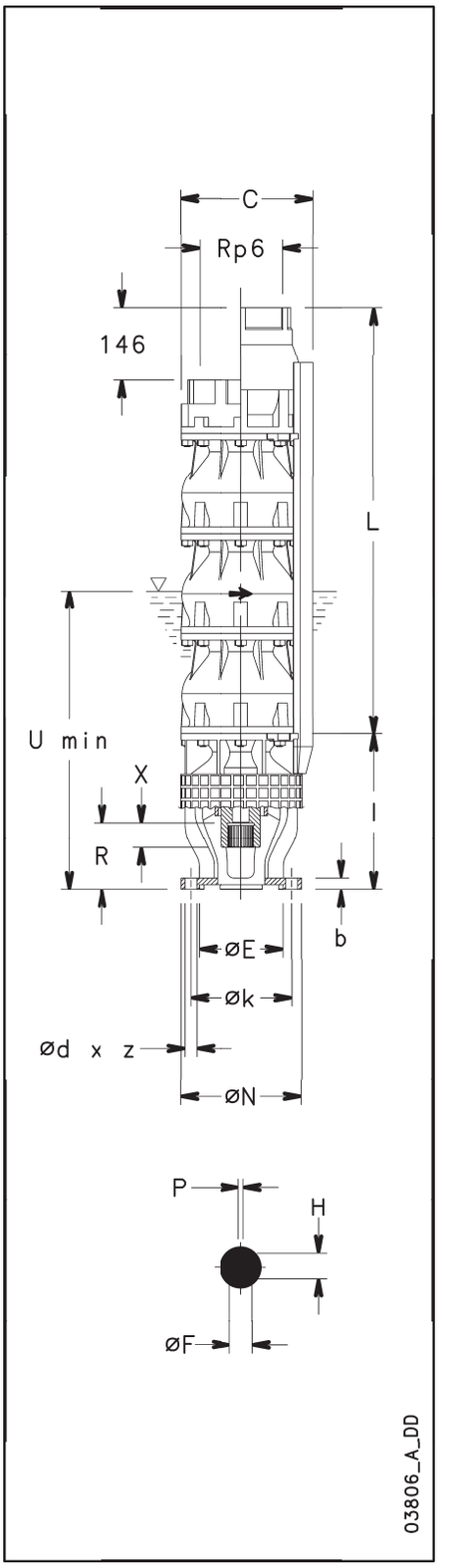
[1] Max pump diameter with 2 motor cables included.

[2] U min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.

[3] Weight with non-return valve. For pumps without non-return valve, reduce by 8,3 kg.

[4] For pumps without non-return valve, reduce dimension L by 146 mm.

The dimensions in the table are valid for pumps up to 12” and power 300kW. In other cases dimensions might differ.



MOTOR COUPLING

MOTOR CONNECTION	DIMENSIONS (mm) N	k	d	z	b	E H7	R	l
6" (NEMA)	182	111,2	13,5	4	17	76,2	73	263
8" (NEMA)	182	152,4	18	4	17	127	101,45	263
10"	232	190,5	22	4	15	127	101,45	300
12"	232	190,5	22	4	15	127	126,85	300

COUPLING	DIMENSIONS (mm) Profile of gear coupling according to NEMA NUMBER OF TEETH	DIAMETRAL PITCH	PRESSURE ANGLE	X
6" (NEMA)	15	16/32	30°	20
8" (NEMA)	23	16/32	30°	38

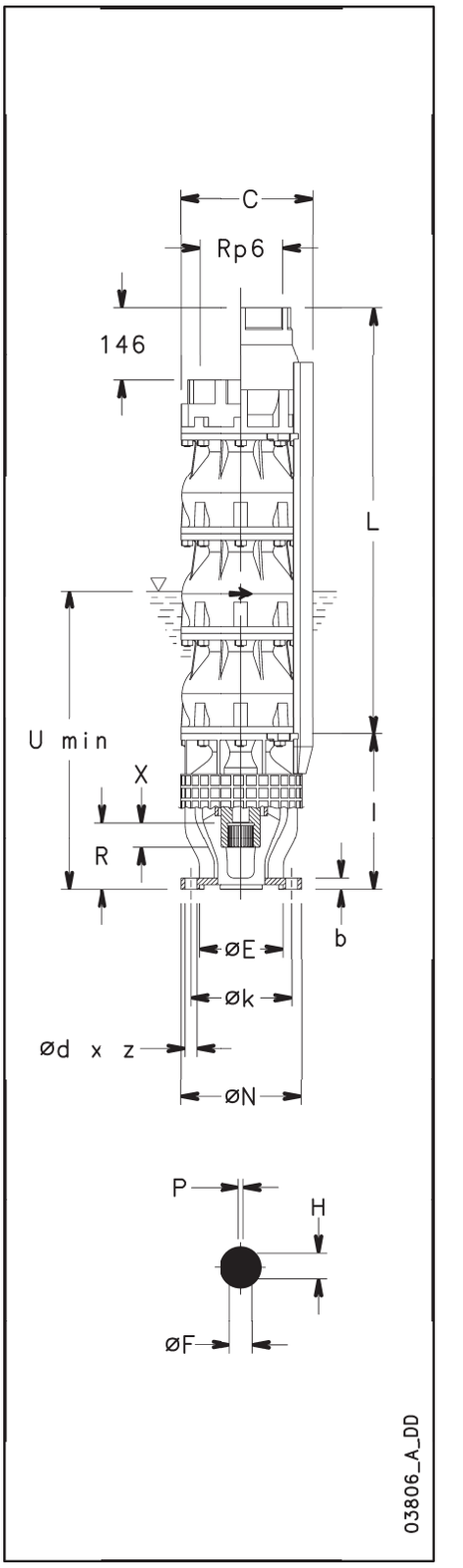
COUPLING	DIMENSIONS (mm) F +0.084 +0.059	H +0.1	P +0.05 +0.02	X
10"	42,85	47,6	9,5	84
12"	49.212	54,5	12,7	95

z10-mtcn-50-en_b_td

Z10220 SERIES
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP kW	DIMENSIONS (mm) L (4)	C (1)	U (2)	WEIGHT kg (3)	Ø MIN. WELL mm
Z10220 01/1C-6	14,6	442	258	2900	47,3	270
Z10220 01/1B-6	18	442	258	2900	47,3	270
Z10220 01/1A-6	21,5	442	258	2900	47,3	270
Z10220 01-6	24	442	258	2900	47,3	270
Z10220 02/2C-6	29,2	658	258	2900	66,6	270
Z10220 02/2B-6	36	658	258	2900	66,6	270
Z10220 02/2A-8	43	658	258	2900	66,9	270
Z10220 02-8	48	658	258	2900	66,9	270
Z10220 03/2B-8	60	874	258	2900	86,2	270
Z10220 03/2A-8	67	874	258	2900	86,2	270
Z10220 03-8	72	874	258	2900	86,2	270
Z10220 04/2B-8	84	1090	258	2900	105,5	270
Z10220 04/2A-8	91	1090	258	2900	105,5	270
Z10220 04-10	96	1090	258	2900	110,4	270
Z10220 05/2B-10	108	1306	258	2900	129,7	270
Z10220 05-10	120	1306	258	2900	129,7	270
Z10220 06/2B-10	132	1522	258	2900	149	270
Z10220 06-10	144	1522	258	2900	149	270
Z10220 07/2B-12	156	1738	271	2900	169,1	300
Z10220 07-12	168	1738	271	2900	169,1	300
Z10220 08/2B-12	180	1954	271	2900	188,4	300
Z10220 08-12	192	1954	271	2900	188,4	300
Z10220 09/2B-12	204	2170	271	2900	207,7	300
Z10220 09/1A-12	213,5	2170	271	2900	207,7	300
Z10220 10/2B-12	228	2386	271	2900	227	300
Z10220 10-12	240	2386	271	2900	227	300
Z10220 11/2B-12	252	2602	271	2900	246,3	300
Z10220 11-12	264	2602	271	2900	246,3	300
Z10220 12/2B-12	276	2818	271	2900	265,6	300
Z10220 12-12	288	2818	271	2900	265,6	300

z10220p-50-en_b_td



(1) Max pump diameter with 2 motor cables included.

(2) U min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.

(3) Weight with non-return valve. For pumps without non-return valve, reduce by 8,3 kg.

(4) For pumps without non-return valve, reduce dimension L by 146 mm.

The dimensions in the table are valid for pumps up to 12" and power 300kW. In other cases dimensions might differ.

MOTOR COUPLING

MOTOR CONNECTION	DIMENSIONS (mm) N	k	d	z	b	E H7	R	l
6" (NEMA)	182	111,2	13,5	4	17	76,2	73	263
8" (NEMA)	182	152,4	18	4	17	127	101,45	263
10"	232	190,5	22	4	15	127	101,45	300
12"	232	190,5	22	4	15	127	126,85	300

COUPLING	DIMENSIONS (mm) Profile of gear coupling according to NEMA NUMBER OF TEETH	DIAMETRAL PITCH	PRESSURE ANGLE	X
6" (NEMA)	15	16/32	30°	20
8" (NEMA)	23	16/32	30°	38

COUPLING	DIMENSIONS (mm) F +0.084 +0.059	H +0.1	P +0.05 +0.02	X
10"	42,85	47,6	9,5	84
12"	49.212	54,5	12,7	95

z10-mtcn-50-en_b_td

Z10275 SERIES
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP kW	DIMENSIONS (mm) L (4)	C (1)	U (2)	WEIGHT kg (3)	Ø MIN. WELL mm
Z10275 01/1B-6	17,3	442	258	2900	47,4	270
Z10275 01/1A-6	21,9	442	258	2900	47,4	270
Z10275 01-6	26,9	442	258	2900	47,4	270
Z10275 02/2B-6	34,6	658	258	2900	66,9	270
Z10275 02/2A-8	43,8	658	258	2900	67,2	270
Z10275 02-8	53,8	658	258	2900	67,2	270
Z10275 03/2B-8	61,5	874	258	2900	86,7	270
Z10275 03/3A-8	65,7	874	258	2900	86,7	270
Z10275 03/1A-8	75,7	874	258	2900	86,7	270
Z10275 03-8	80,7	874	258	2900	86,7	270
Z10275 04/3A-8	92,6	1090	258	2900	106,2	270
Z10275 04/2A-10	97,6	1090	258	2900	111,1	270
Z10275 04-10	107,6	1090	258	2900	111,1	270
Z10275 05/3A-10	119,5	1306	258	2900	130,6	270
Z10275 05-10	134,5	1306	258	2900	130,6	270
Z10275 06/3A-10	146,4	1522	258	2900	150,1	270
Z10275 06-12	161,4	1522	271	2900	150,1	300
Z10275 07/2A-12	178,3	1738	271	2900	170,4	300
Z10275 07-12	188,3	1738	271	2900	170,4	300
Z10275 08/2B-12	196,0	1954	271	2900	189,9	300
Z10275 08/1A-12	210,2	1954	271	2900	189,9	300
Z10275 09/3A-12	227,1	2170	271	2900	209,4	300
Z10275 09-12	242,1	2170	271	2900	209,4	300
Z10275 10/3A-12	254,0	2386	271	2900	228,9	300
Z10275 10-12	269,0	2386	271	2900	228,9	300
Z10275 11/1A-12	290,9	2602	271	2900	248,4	300

z10275p-50-en_b_td

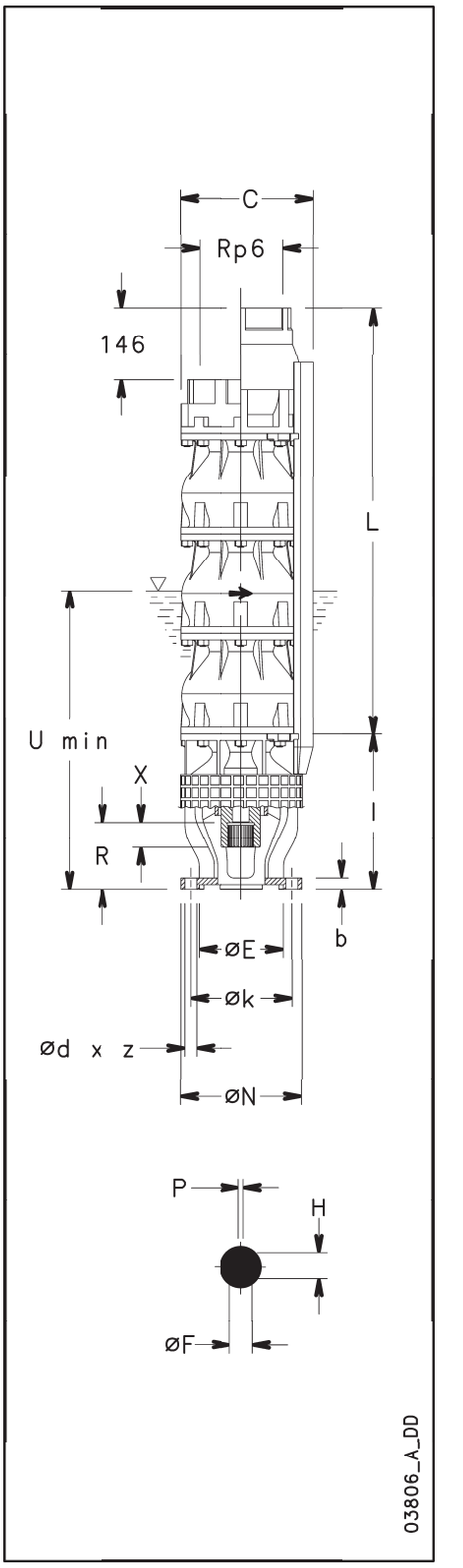
(1) Max pump diameter with 2 motor cables included.

(2) U min valid only for max flow speed of 4,5 m/s between pump and perforation pipe.

(3) Weight with non-return valve. For pumps without non-return valve, reduce by 8,8 kg.

(4) For pumps without non-return valve, reduce dimension L by 146 mm.

The dimensions in the table are valid for pumps up to 12” and power 300kW. In other cases dimensions might differ.



MOTOR COUPLING

MOTOR CONNECTION	DIMENSIONS (mm) N	k	d	z	b	E H7	R	l
6" (NEMA)	182	111,2	13,5	4	17	76,2	73	263
8" (NEMA)	182	152,4	18	4	17	127	101,45	263
10"	232	190,5	22	4	15	127	101,45	300
12"	232	190,5	22	4	15	127	126,85	300

COUPLING	DIMENSIONS (mm) Profile of gear coupling according to NEMA NUMBER OF TEETH	DIAMETRAL PITCH	PRESSURE ANGLE	X
6" (NEMA)	15	16/32	30°	20
8" (NEMA)	23	16/32	30°	38

COUPLING	DIMENSIONS (mm) F +0.084 +0.059	H +0.1	P +0.05 +0.02	X
10"	42,85	47,6	9,5	84
12"	49.212	54,5	12,7	95

z10-mtcn-50-en_b_td

12” Submersible Electric Pumps

Z12 Series

MARKET SECTORS
AGRICULTURE, INDUSTRY, MUNICIPAL.

APPLICATIONS
- Water supply from deep wells.
- Pressure boosting and water distribution
- Supply of surge tanks and reservoirs.
- Firefighting and washing systems.
- Water table level control.
- Irrigation.
- Mines.

SPECIFICATIONS
- **Delivery: up to 520 m³/h.**
- **Head: up to 452 m.**
- Maximum pump overall diameter (2 cable covers included): 302 mm for all versions.
- Maximum electric pump immersion depth: 350 m.
- Maximum permissible quantity of suspended sand: 100 g/m³.
- Standard delivery outlet: 8” NPT (according to API) for all versions.
- Construction materials available:
  - AISI304 stainless steel (Z12)
  - AISI316 stainless steel (ZN12)
  - **DUPLEX stainless steel (ZR12)**
  - **SUPER DUPLEX stainless steel (ZX12).**
- Horizontal installation possible. Minimum recommended inclination 3°. Motor on the lowest position.

CONSTRUCTION FEATURES
- Electric pumps sturdy and lightweight, easy maintenance and resistant to corrosion in aggressive and non-aggressive environments.
  - Impellers and diffusers made of stainless steel.
  - Delivery casing made of stainless steel.
  - Non-return valve made of stainless steel, with integrated spring.
  - Suction support made of stainless steel.
  - Shaft made of stainless steel.

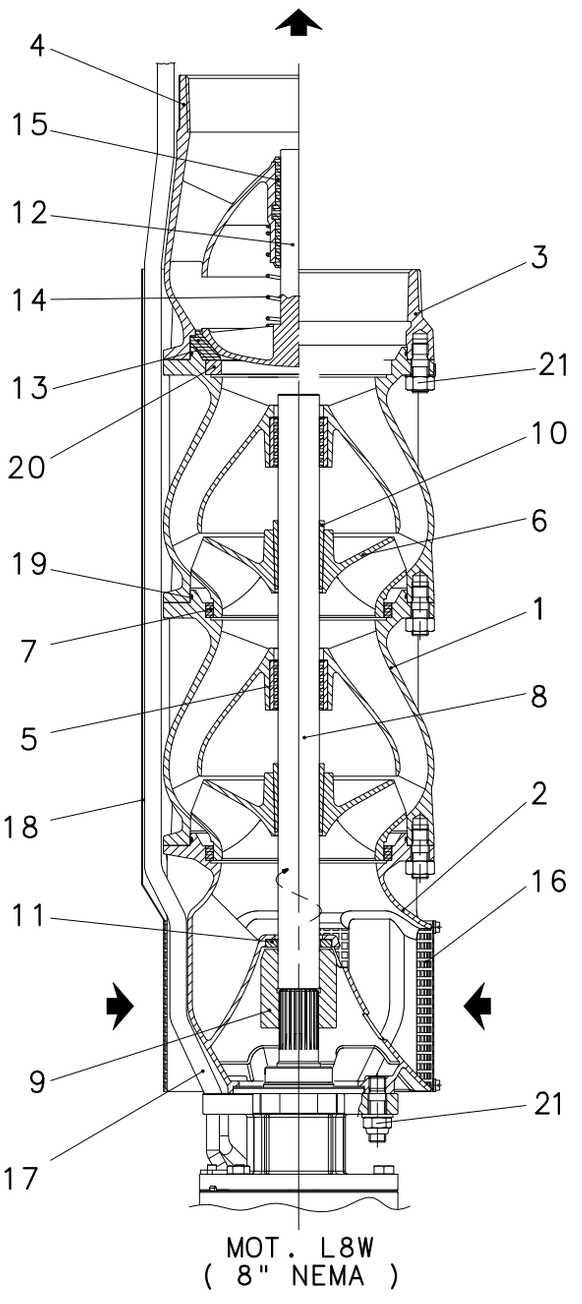
  For available material versions refer to the tables on next pages.
- Coupling and flange mounting according to NEMA standard for 6” and 8” motor, with key connection for 10” and 12” motor.

MOTORS
L8W, L10W and L12W rewindable three-phase motors with water filled winding.
- Three-phase version:
  L8W: 30 to 93 kW 380-415 V, 50Hz.
  L10W: 93 to 150 kW 380-415 V, 50Hz.
  L12W: 185 to 300 kW 380-415 V,50Hz.
- Maximum supply voltage variations: 400 V ±10% (all sizes)
- Maximum number of starts per hour: 10 (L8W) 8 (L10W) 4 (L12W).
- Horizontal operation: L8W, L10W and L12W on request for all versions.
- Maximum temperature of water in contact with motor: 30°C (all sizes).

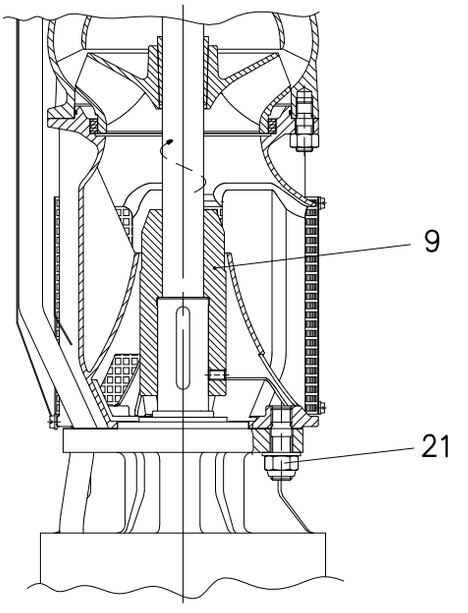
OPTIONAL FEATURES
Customized impeller diameters.

ACCESSORIES
Coupling flanges, control panels,drop cables, cable joints, cooling shrouds, temperature sensor PT 100 / PTC.

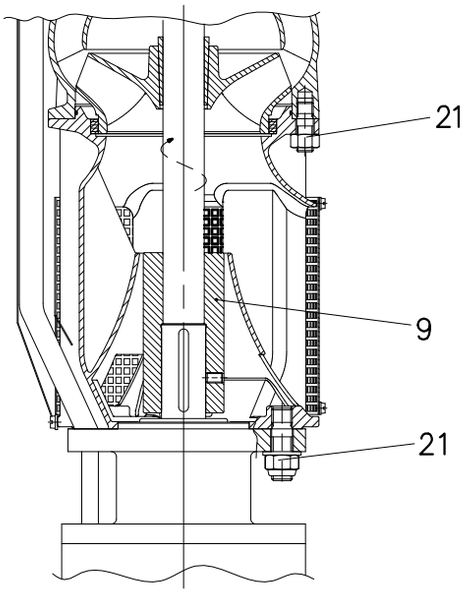
Z12 SERIES
PUMP CROSS SECTION AND LIST OF COMPONENTS



MOT. L8W
(8" NEMA)



MOT. L12W



MOT. L10W

03821_B_DS

Z12 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Acciaio inox	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
2	Lower support / Suction Casing	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
3	Delivery head	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
4	Valve Casing	Acciaio inox	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
5	Bearing bush	EPDM + Lubricant		
6	Impeller	Stainless steel	EN 10213-GX5CrNi19-11 (1.4308)	A744-CF 8
7	Wear ring	Tecnopolymer POM-C		
8	Pump shaft	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431
9	Coupling	Stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
10	Taperlock	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
11	Thrust Bearing	PTFE + 25% carbon		
12	Valve	Stainless steel	EN 10213-GX5CrNi19-10 (1.4308)	A744-CF 8
13	Valve seal	NBR 90		
14	Valve spring	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
15	Wing valve			
16	Suction strainer	Stainless steel	DIN 17440-X6CrNiMoTi17-12-2 (1.4517)	AISI 316Ti
17	Motor cable			
18	Cable protection	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
19	Diffuser O-Ring	NBR 70		
20	Intermediate ring			
21	Screw, stud, nut	Stainless steel	ISO 3506-1/2 A4-70	AISI 316

z12-2p50-en_d_tm

ZN12 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
2	Lower support / Suction Casing	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
3	Delivery head	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
4	Valve Casing	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
5	Bearing bush	EPDM 70		
6	Impeller	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
7	Wear ring	Technopolymer POM-C		
8	Pump shaft	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
9	Coupling	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
10	Taperlock	Duplex Stainless Steel	EN 10088-X2CrNiMoN 22 5 3 (1.4462)	ASTM - F51
11	Thrust Bearing	Guarniflon G412		
12	Valve	Austenitic Stainless Steel	EN 10283-GX5CrNiMo 19 11 2 (1.4408)	ASTM - CF8M
13	Valve seal	EPDM 90		
14	Valve spring	Stainless steel	EN 10088-X5CrNiMo 17 12 2 (1.4401)	AISI 316
15	Wing valve			
16	Suction strainer	Stainless steel	EN 10088-X6CrNiMoTi 17 12 2 (1.4571)	ASTM - 316Ti
17	Motor cable			
18	Cable protection	Stainless steel	EN 10088-X6CrNiMoTi 17 12 2 (1.4571)	ASTM - 316Ti
19	Diffuser O-Ring	EPDM 70		
20	Intermediate ring			
21	Screw, stud, nut	Stainless steel	ISO 3506-1/2 A4-70	AISI 316

z12-zn12-2p50-en_a_tm

ZR12 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
2	Lower support / Suction Casing	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
3	Delivery head	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
4	Valve Casing	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
5	Bearing bush	EPDM + Lubricant		
6	Impeller	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
7	Wear ring	Tecnopolimery POM-C		
8	Pump shaft	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
9	Coupling	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
10	Taperlock	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803
11	Thrust Bearing	PTFE + 25% carbon		
12	Valve	Duplex stainless steel	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
13	Valve seal	NBR 90		
14	Valve spring	Hastelloy C4	DIN17744-NiMo16Cr16Ti (2.4610)	N06455
15	Wing valve			
16	Suction strainer	Stainless steel	EN 10088-1X1NiCrMoCu25-20-5 (1.4539)	AISI 904L
17	Motor cable			
18	Cable protection	Stainless steel	EN 10088-1X1NiCrMoCu25-20-5 (1.4539)	AISI 904L
19	Diffuser O-Ring	NBR 70		
20	Intermediate ring			
21	Screw, stud, nut	Duplex stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	A276/A790-S31803

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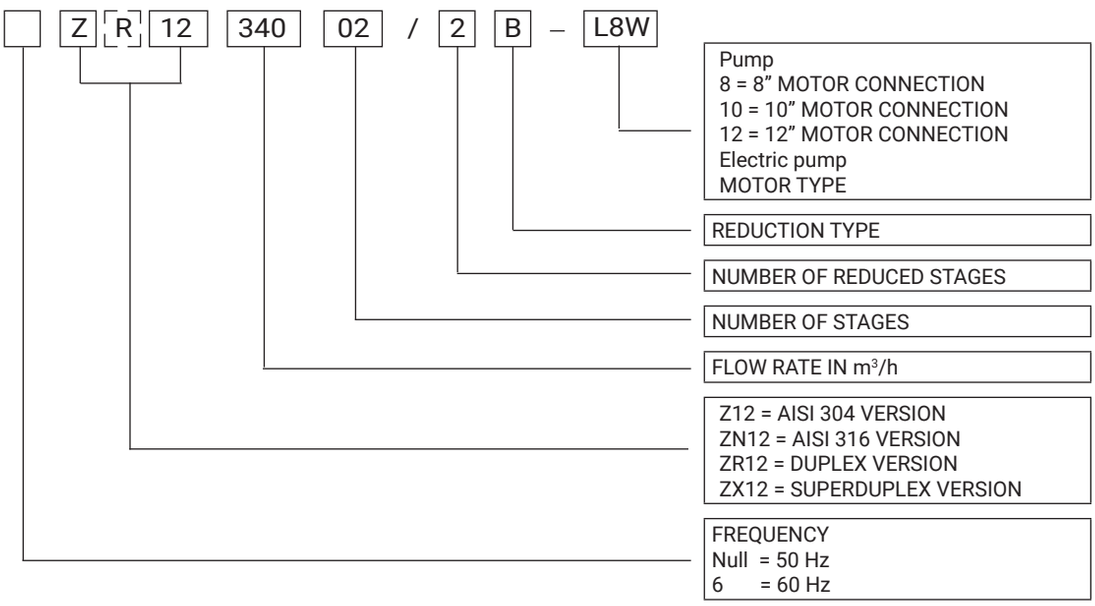
ZX12 SERIES
TABLE OF MATERIALS

REF. N°	COMPONENT	MATERIAL	DESIGNATION	
			EUROPE	USA
1	Diffuser	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
2	Lower support / Suction Casing	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
3	Delivery head	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
4	Valve Casing	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
5	Bearing bush	EPDM 70		
6	Impeller	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
7	Wear ring	Technopolymer POM-C		
8	Pump shaft	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
9	Coupling	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
10	Taperlock	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
11	Thrust Bearing	Guarniflon G412		
12	Valve	Super Duplex Stainless Steel	EN 10283-GX2CrNiMoN 26 7 4 (1.4469)	ASTM - CE3MN
13	Valve seal	EPDM 90		
14	Valve spring	Hastelloy C4	DIN17744-NiMo16Cr16Ti (2.4610)	N06455
15	Wing valve			
16	Suction strainer	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
17	Motor cable			
18	Cable protection	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53
19	Diffuser O-Ring	EPDM 70		
20	Intermediate ring			
21	Screw, stud, nut	Super Duplex Stainless Steel	EN 10088-X2CrNiMoN 25 7 4 (1.4410)	ASTM - F53

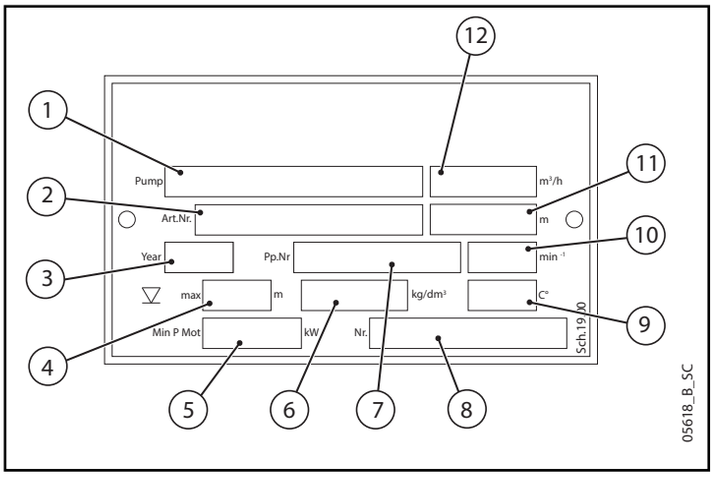
z12-zx12-2p50-en_a_tm

Z12 SERIES
IDENTIFICATION CODES



EXAMPLE : ZR12 340 02/2B - L8W
12" electric pump, 50 Hz, made of DUPLEX, flow rate 340 m³/h, 2 stages including 2 reduced ones, coupled to an 8" L8W motor.

RATING PLATE



LEGEND

1 - Pump type

2 - Article code of the pump

3 - Year of production

4 - Max. immersion depth

5 - Min. required motor power

6 - Density of medium

7 - Data set entry for additional identification

8 - Serial number

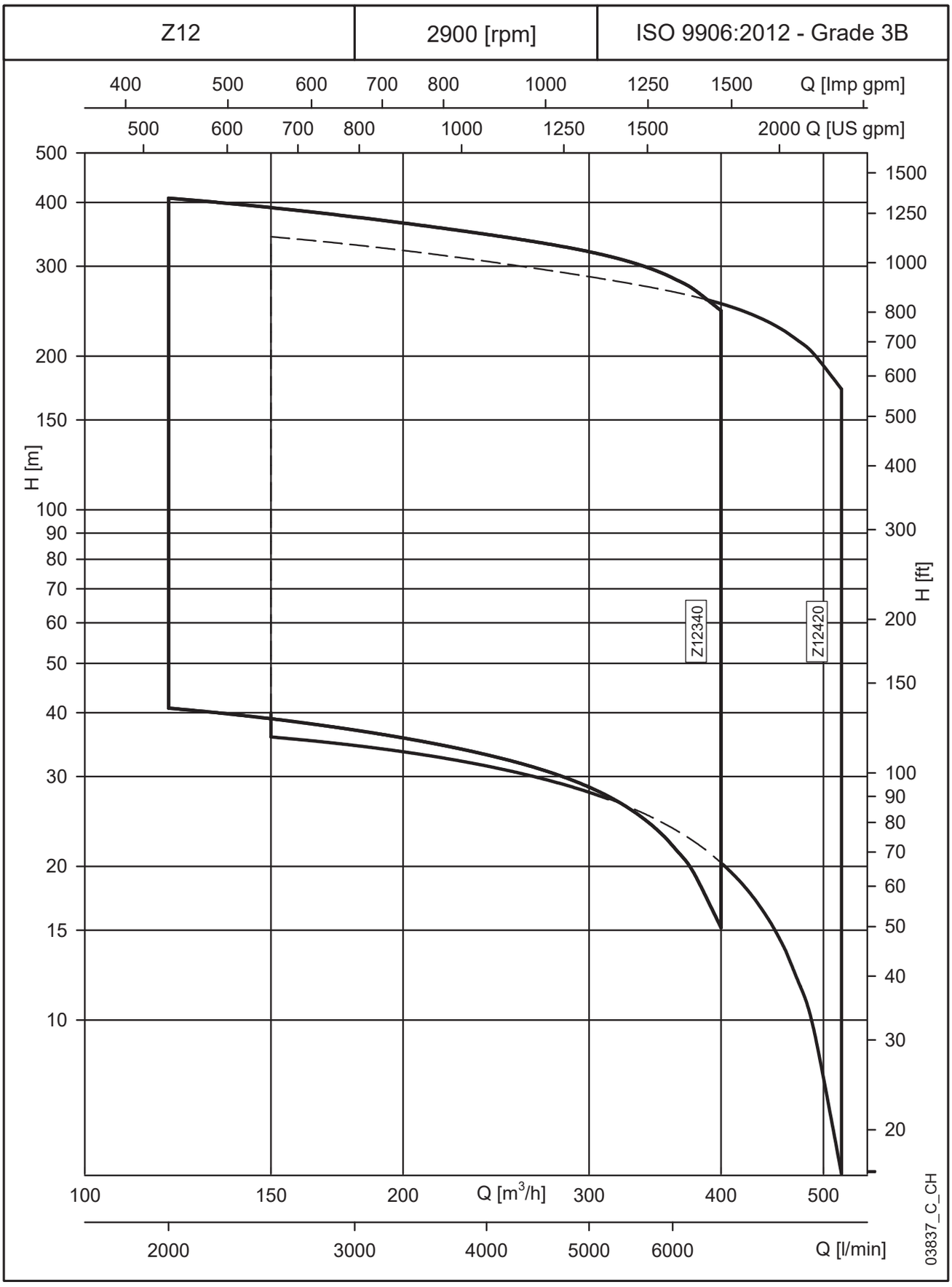
9 - Max. water temperature

10 - Speed

11 - Head

12 - Nominal flow

Z12 SERIES
HYDRAULIC PERFORMANCE RANGE

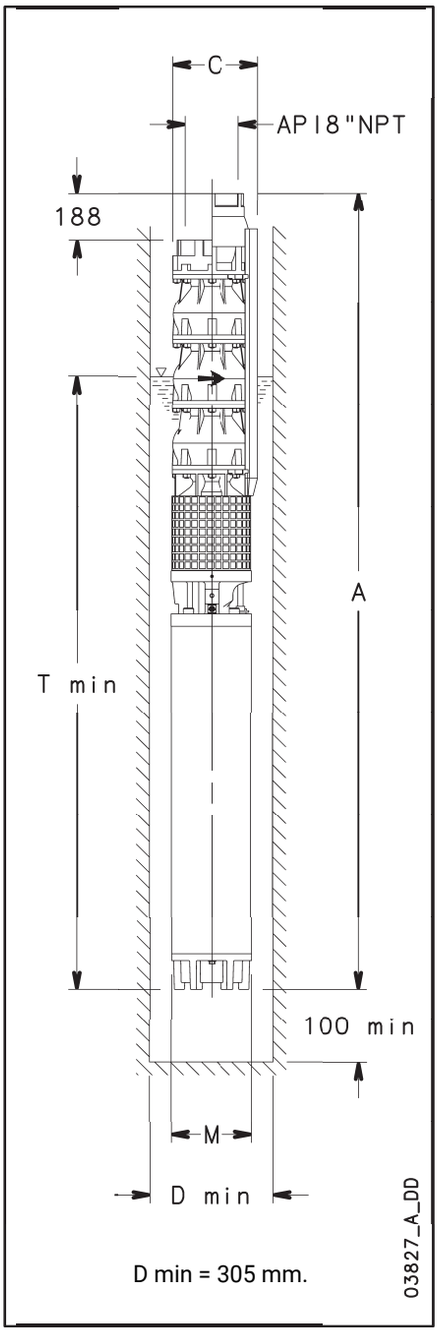


Z12340: 1 TO 2 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	2000,0	2933,3	3866,7	4800,0	5733,3	6666,7
		m^3/h 0	120	176	232	288	344	400
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z12340 01/1B	30	45,4	40,8	37,3	33,6	29,6	24,1	15,2
Z12340 01/1A	37	49,9	44,7	41,1	37,8	34,3	29,6	21,6
Z12340 01	45	55,4	49,9	46,0	42,7	39,7	36,0	29,4
Z12340 02/2C	52	82,6	75,0	67,6	59,6	50,6	38,5	19,8
Z12340 02/2B	60	90,2	81,1	73,9	66,7	58,7	47,6	29,6
Z12340 02/2A	75	100,5	90,1	82,9	76,2	69,3	59,9	44,0
Z12340 02	93	110,7	99,7	92,0	85,4	79,5	72,0	58,9

Pump performance at 2900 rpm

z12340-2p50-1-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER	DIMENSIONS (mm)				WEIGHT
	kW	A (4)	C (1)	M	T (2)	kg (3)
Z12340 01/1B-L8W	30	1775	290	192	3875	217
Z12340 01/1A-L8W	37	1855	290	192	4355	234
Z12340 01-L8W	45	1935	290	192	4035	252
Z12340 02/2C-L8W	52	2200	290	192	4115	300
Z12340 02/2B-L8W	60	2280	290	192	4195	317
Z12340 02/2A-L8W	75	2440	290	192	4355	352
Z12340 02-L8W	93	2640	290	192	4555	390

z12340-2p50-1-en_c_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 285 mm with L8W motor.

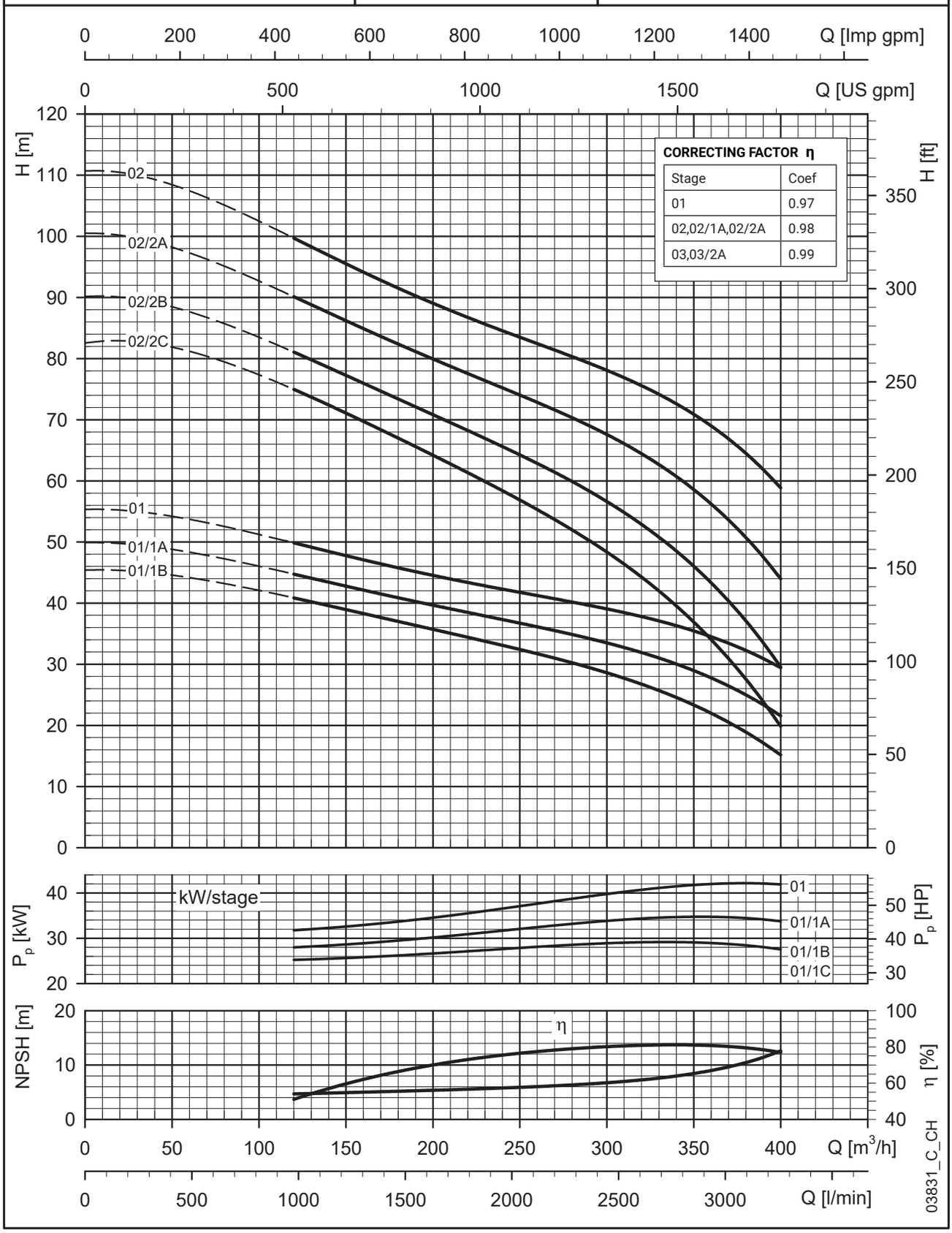
(2) T min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 188 mm and reduce weight by 16,7 kg.

Z12340: 1 TO 2 STAGES
OPERATING CHARACTERISTICS

Z12340	2900 [rpm]	ISO 9906:2012 - Grade 3B



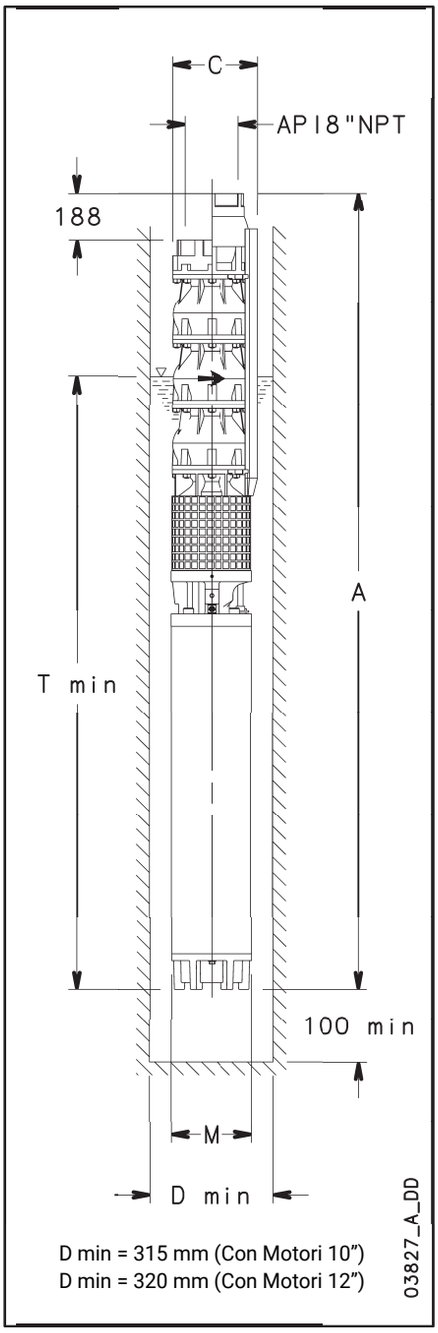
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z12340: 3 TO 4 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	2000,0	2933,3	3866,7	4800,0	5733,3	6666,7
		m^3/h 0	120	176	232	288	344	400
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z12340 03/2C	110	136,6	123,5	112,3	101,1	89,1	73,3	48,2
Z12340 03/3A	110	152,9	137,2	126,3	116,1	105,8	91,9	68,4
Z12340 03/1A	130	163,1	146,9	135,4	125,4	116,2	104,2	83,0
Z12340 03	150	168,9	152,4	140,7	130,7	121,7	110,6	91,4
Z12340 04/2B	150	204,3	184,1	169,1	155,2	141,2	122,9	92,3
Z12340 04/2A	185	214,1	192,7	177,5	164,1	151,5	134,8	105,8
Z12340 04	185	224,5	202,4	186,9	173,6	161,6	146,7	121,1

Pump performance at 2900 rpm

z12340-2p50-2-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER	DIMENSIONS (mm				WEIGHT
	kW	A (4)	C (1)	M	T (2)	kg (3)
Z12340 03/2C-L10W	110	2984	302	236	4602	531
Z12340 03/3A-L10W	110	2984	302	236	4602	531
Z12340 03/1A-L10W	130	3134	302	236	4752	578
Z12340 03-L10W	150	3264	302	236	4882	617
Z12340 04/2B-L10W	150	3499	302	236	4882	644
Z12340 04/2A-L12W	185	3256	306	276	4639	710
Z12340 04-L12W	185	3256	306	276	4639	710

z12340-2p50-2-en_b_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 293 mm with L10W motor.
C = 300 mm with L12W motor.

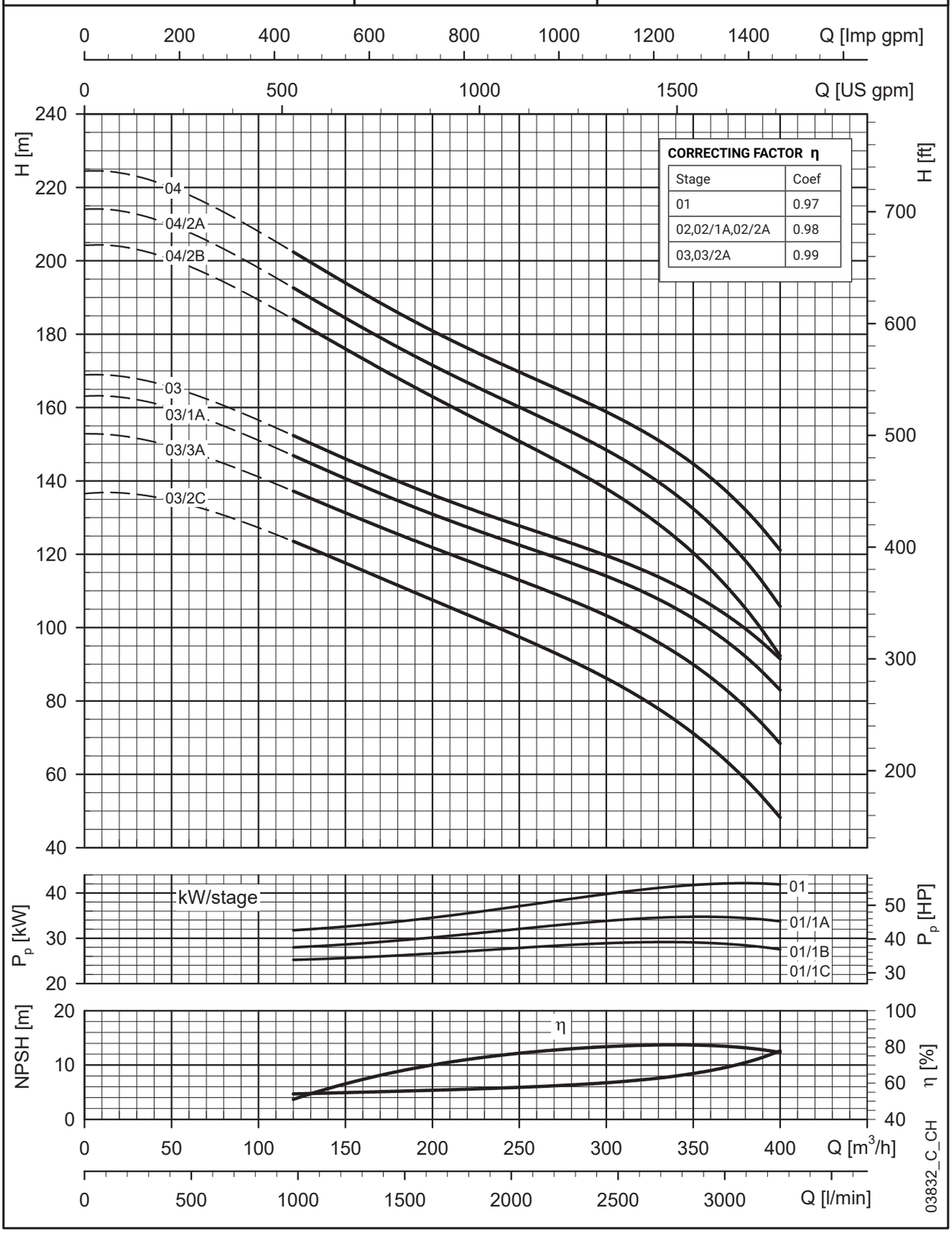
(2) T min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 188 mm and reduce weight by 16,7 kg.

Z12340: 3 TO 4 STAGES
OPERATING CHARACTERISTICS

Z12340	2900 [rpm]	ISO 9906:2012 - Grade 3B



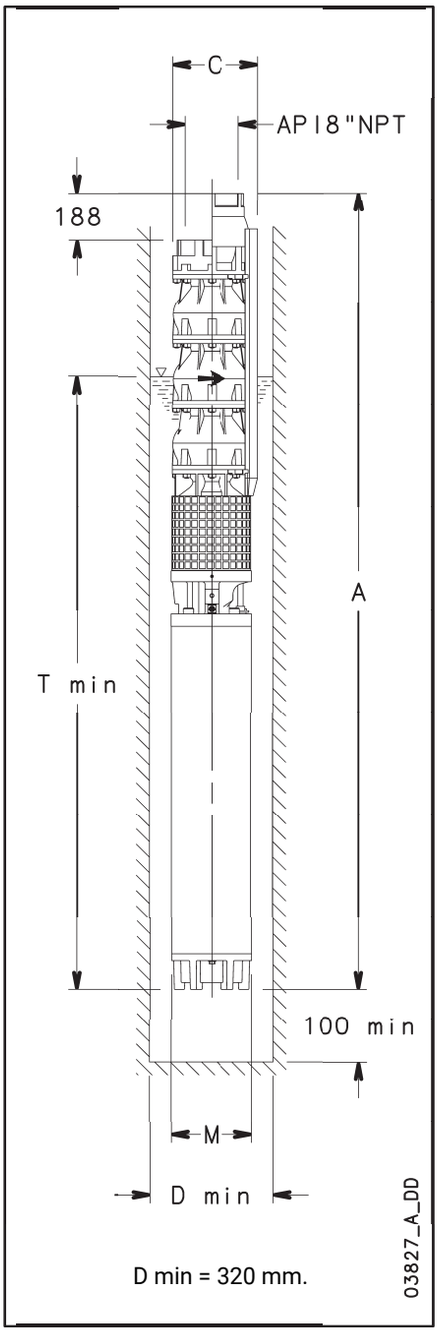
These performances are valid for liquids with density ρ = 1.0 kg/dm^3 and kinematic viscosity ν = 1 mm^2/sec.

Z12340: 5 TO 8 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	2000,0	2933,3	3866,7	4800,0	5733,3	6666,7
		m^3/h 0	120	176	232	288	344	400
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z12340 05/2B	220	262,1	236,4	217,5	200,2	183,3	161,3	124,5
Z12340 05/2A	220	272,0	245,1	225,9	209,2	193,5	173,3	138,0
Z12340 05	220	282,5	254,9	235,5	218,7	203,6	185,1	153,5
Z12340 06/2B	260	318,6	287,4	264,6	243,9	224,0	198,4	155,1
Z12340 06/2A	260	328,5	296,0	272,9	252,9	234,3	210,4	168,5
Z12340 06	260	339,0	305,9	282,6	262,4	244,4	222,2	184,1
Z12340 07/3A	300	378,5	340,8	314,2	290,7	268,8	240,2	190,2
Z12340 07	300	395,5	356,9	329,7	306,1	285,1	259,2	214,8
Z12340 08/3A	350	436,3	393,1	362,4	335,6	310,7	278,5	222,2
Z12340 08	350	452,0	407,9	376,8	349,9	325,8	296,2	245,5

Pump performance at 2900 rpm

z12340-2p50-3-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z12340 05/2B-L12W	220	3641	306	276	4789	801
Z12340 05/2A-L12W	220	3641	306	276	4789	801
Z12340 05-L12W	220	3641	306	276	4789	801
Z12340 06/2B-L12W	260	4026	306	276	4939	893
Z12340 06/2A-L12W	260	4026	306	276	4939	893
Z12340 06-L12W	260	4026	306	276	4939	893
Z12340 07/3A-L12W	300	4411	306	276	5089	985
Z12340 07-L12W	300	4411	306	276	5089	985
Z12340 08/3A-**	350	-	-	-	-	-
Z12340 08-**	350	-	-	-	-	-

** For power above 350 kW please contact our sales network.

z12340-2p50-3-en_b_td

(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 300 mm with L12W motor.

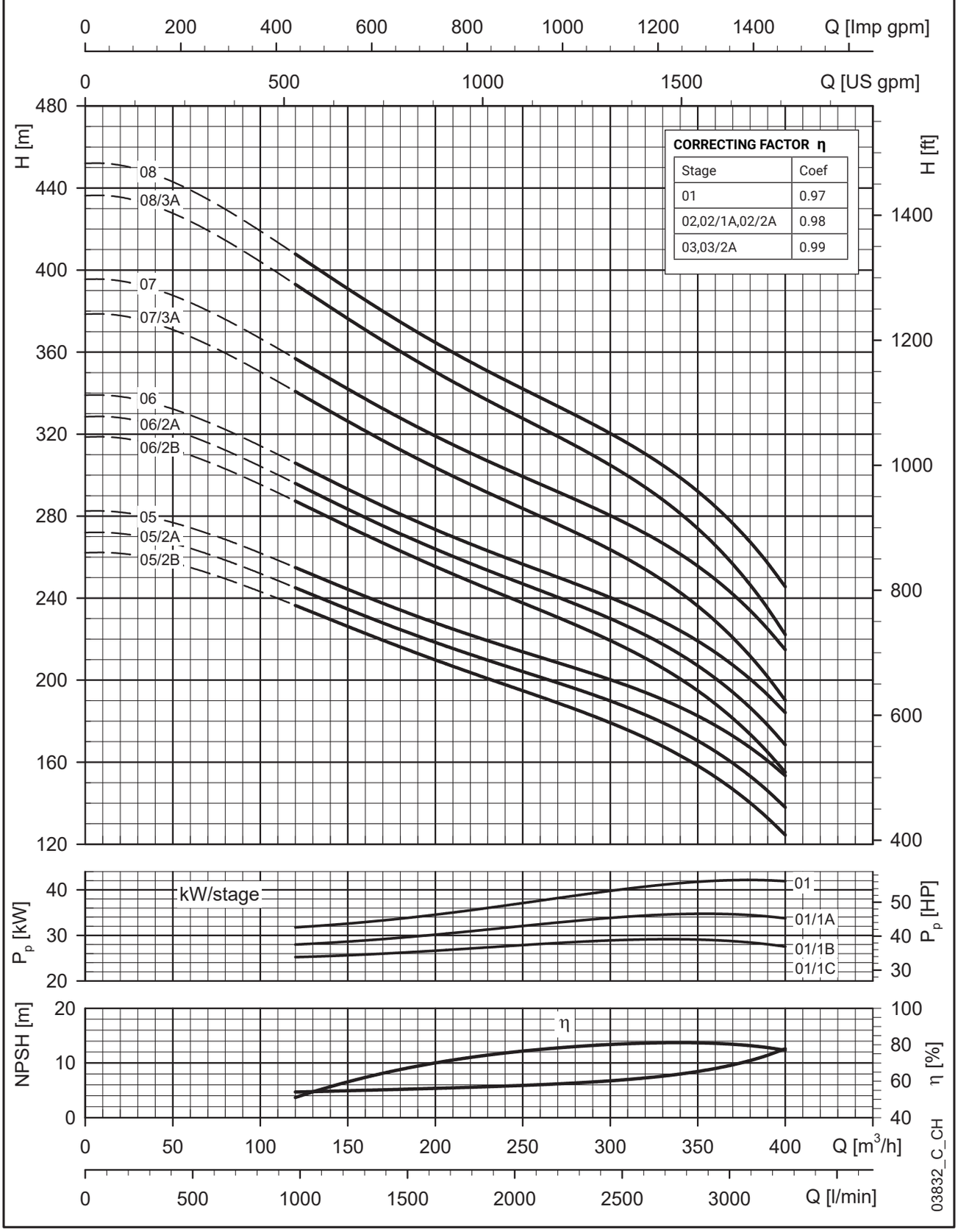
(2) T min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 188 mm and reduce weight by 16,7 kg.

Z12340: 5 TO 8 STAGES
OPERATING CHARACTERISTICS

Z12340	2900 [rpm]	ISO 9906:2012 - Grade 3B



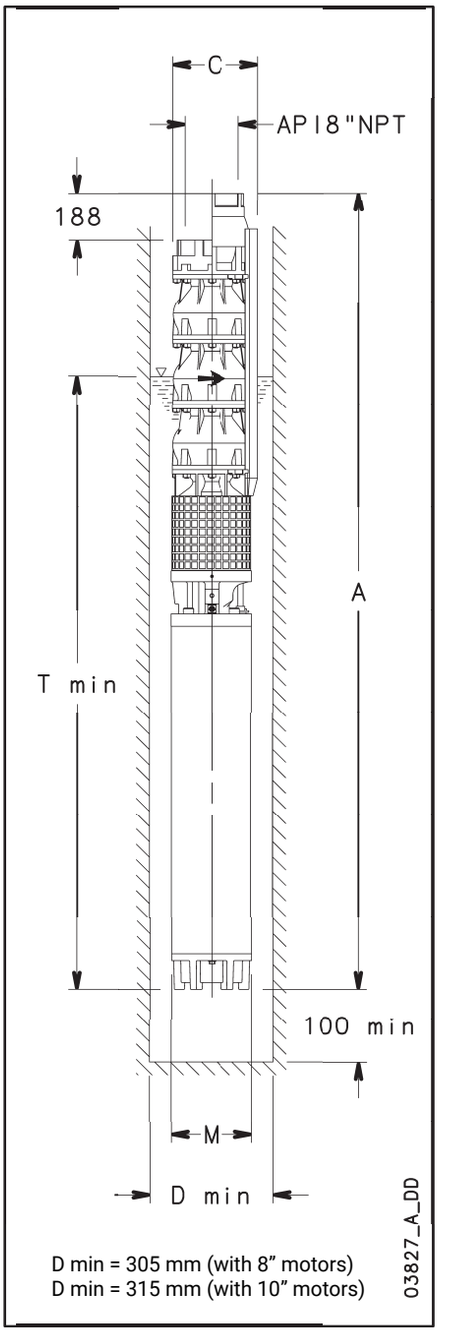
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z12420: 1 TO 2 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	2500,0	3733,3	4966,7	6200,0	7433,3	8666,7
		m^3/h 0	150	224	298	372	446	520
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z12420 01/1C	30	38,8	35,9	32,3	28,1	22,8	15,5	4,4
Z12420 01/1B	37	44,0	40,1	36,4	32,6	28,3	22,1	11,9
Z12420 01/1A	45	49,3	44,8	40,8	37,1	33,5	28,4	18,9
Z12420 01	52	52,1	47,5	43,3	39,7	36,4	31,7	22,8
Z12420 02/2C	60	77,0	71,2	64,1	55,6	45,1	30,4	8,1
Z12420 02/2B	75	88,7	80,8	73,4	65,7	57,1	44,9	24,5
Z12420 02/2A	93	99,3	90,2	82,2	74,9	67,6	57,4	38,6
Z12420 02	110	106,4	97,2	88,7	81,3	74,7	65,6	48,4

Pump performance at 2900 rpm

z12420-2p50-1-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z12420 01/1C-L8W	30	1775	290	192	3875	217
Z12420 01/1B-L8W	37	1855	290	192	3955	234
Z12420 01/1A-L8W	45	1935	290	192	4035	252
Z12420 01-L8W	52	1965	290	192	4115	272
Z12420 02/2C-L8W	60	2280	290	192	4195	317
Z12420 02/2B-L8W	75	2440	290	192	4355	352
Z12420 02/2A-L8W	93	2640	290	192	4555	390
Z12420 02-L10W	110	2749	302	236	4602	504

z12420-2p50-1-en_c_td

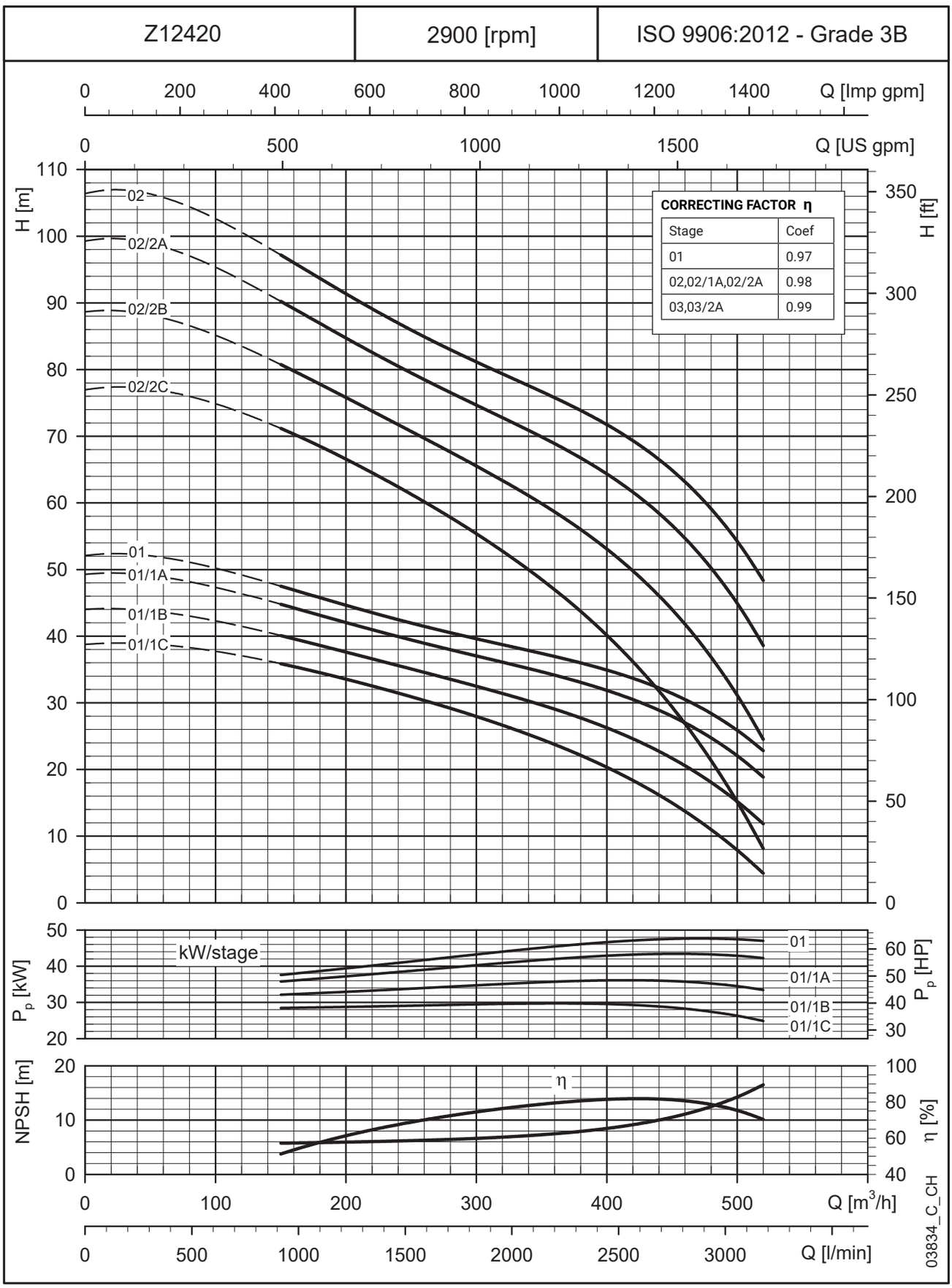
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 285 mm with L8W motor.
C = 293 mm with L10W motor.

(2) T min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 188 mm and reduce weight by 16,7 kg.

Z12420: 1 TO 2 STAGES
OPERATING CHARACTERISTICS



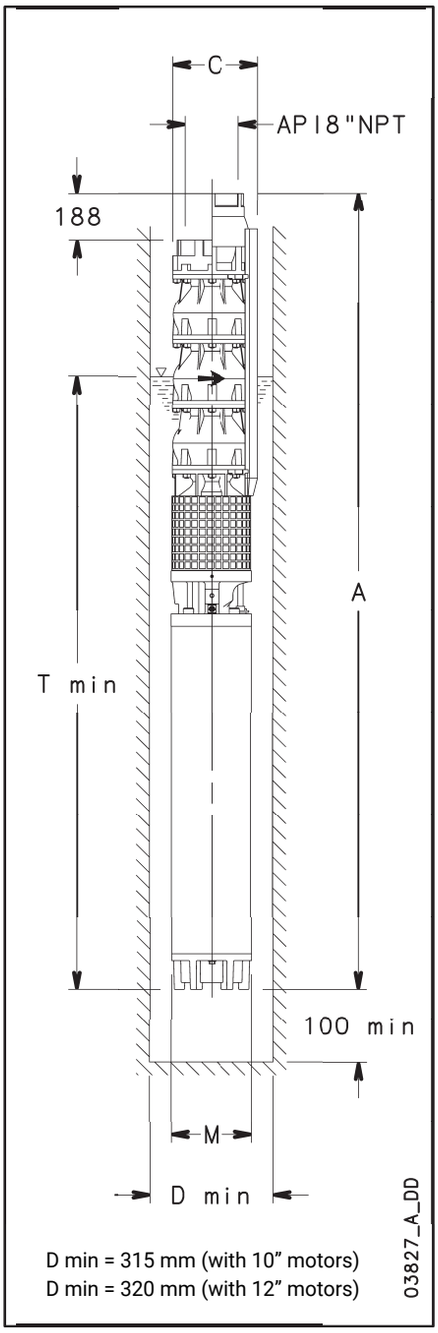
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z12420: 3 TO 4 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	2500,0	3733,3	4966,7	6200,0	7433,3	8666,7
		m^3/h 0	150	224	298	372	446	520
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z12420 03/2C	110	131,9	121,4	110,2	97,8	83,7	64,9	36,4
Z12420 03/2B	130	143,1	130,6	119,0	107,6	95,5	78,8	50,8
Z12420 03/3A	150	151,0	137,4	125,2	114,1	103,3	88,1	60,5
Z12420 03	150	159,6	145,8	133,0	122,0	112,0	98,4	72,5
Z12420 04/3B	185	188,1	171,6	156,3	141,0	124,6	101,9	63,8
Z12420 04/3A	185	204,2	186,0	169,5	154,8	140,6	120,9	84,6
Z12420 04	220	215,1	196,6	179,4	164,6	151,2	133,2	99,4

Pump performance at 2900 rpm

z12420-2p50-2-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z12420 03/2C-L10W	110	2984	302	236	4602	531
Z12420 03/2B-L10W	130	3134	302	236	4752	577
Z12420 03/3A-L10W	150	3264	302	236	4882	617
Z12420 03-L10W	150	3264	302	236	4882	617
Z12420 04/3B-L12W	185	3256	306	276	4639	710
Z12420 04/3A-L12W	185	3256	306	276	4639	710
Z12420 04-L12W	220	3406	306	276	4789	774

z12420-2p50-2-en_b_td

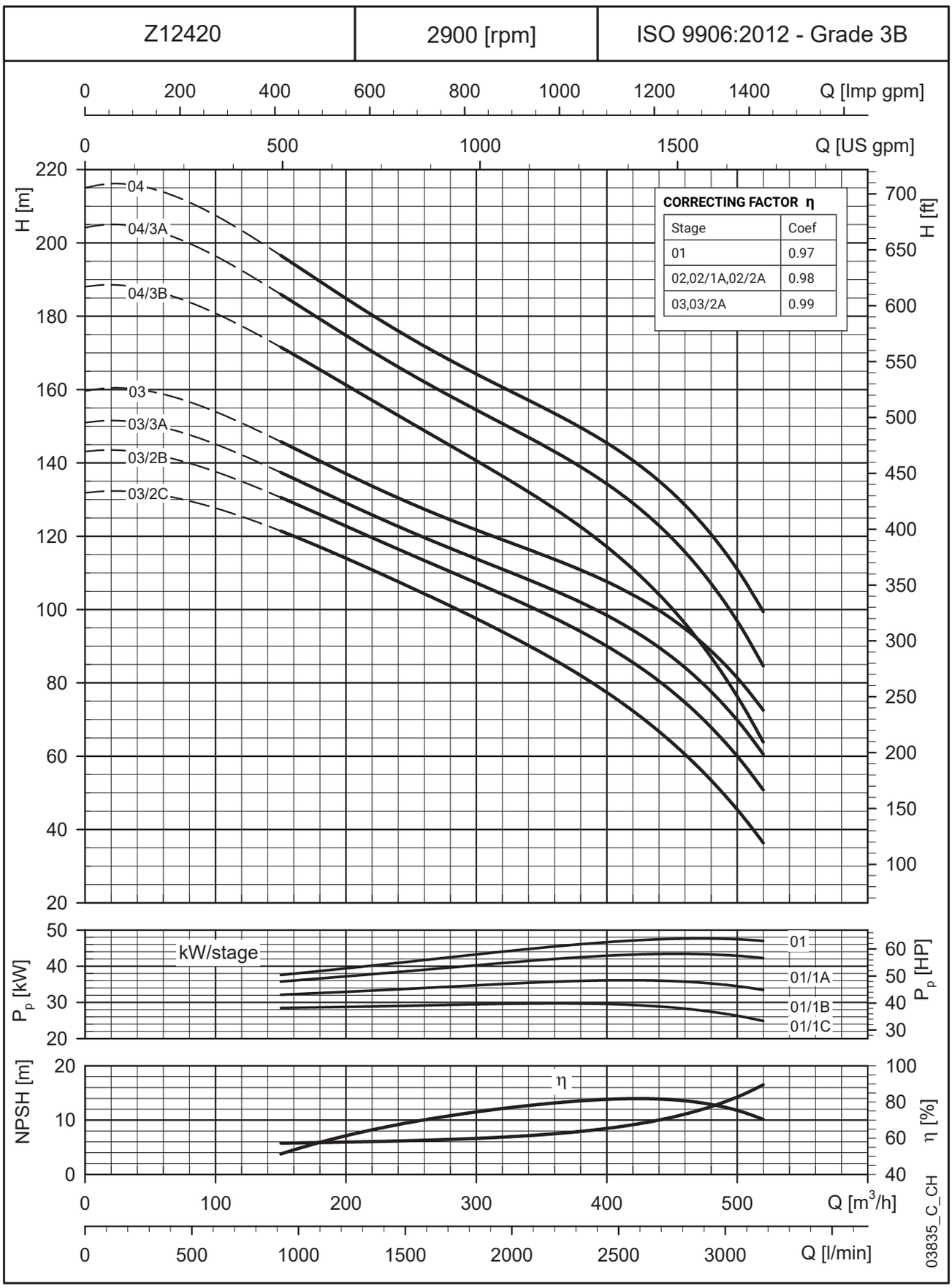
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 293 mm with L10W motor.
C = 300 mm with L12W motor.

(2) T min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 188 mm and reduce weight by 16,7 kg.

Z12420: 3 TO 4 STAGES
OPERATING CHARACTERISTICS



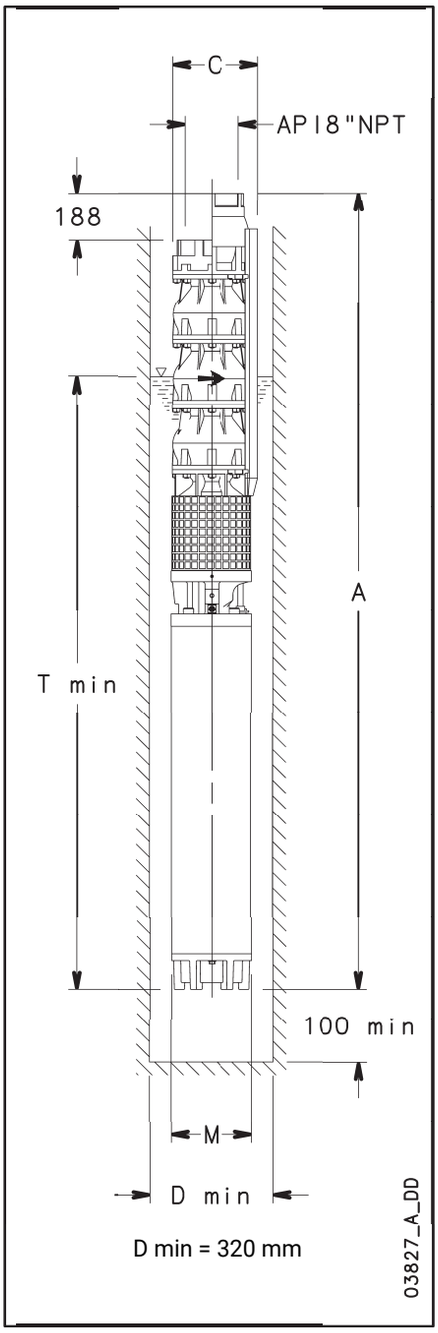
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

Z12420: 5 TO 7 STAGES
OPERATING CHARACTERISTICS

PUMP TYPE	MOTOR POWER kW	Q = DELIVERY l/min 0	2500,0	3733,3	4966,7	6200,0	7433,3	8666,7
		m^3/h 0	150	224	298	372	446	520
		H = TOTAL HEAD METRES COLUMN OF WATER						
Z12420 05/2B	260	251,3	229,5	209,5	190,5	171,5	145,9	102,2
Z12420 05	260	267,9	244,8	223,4	204,9	188,2	165,7	123,2
Z12420 06/2B	300	304,9	278,5	254,3	231,6	209,0	178,9	127,3
Z12420 06	300	320,4	292,7	267,1	245,0	224,9	197,8	146,4
Z12420 07/2B	350	358,5	327,4	299,0	272,6	246,6	212,0	152,4
Z12420 07	350	375,1	342,7	312,8	286,9	263,5	232,0	172,4

Pump performance at 2900 rpm

z12420-2p50-3-en_b_th



DIMENSIONS AND WEIGHTS

ELECTRIC PUMP TYPE	RATED POWER kW	DIMENSIONS (mm) A (4)	C (1)	M	T (2)	WEIGHT kg (3)
Z12420 05/2B-L12W	260	3791	306	276	4939	865
Z12420 05-L12W	260	3791	306	276	4939	865
Z12420 06/2B-L12W	300	4176	306	276	5089	958
Z12420 06-L12W	300	4176	306	276	5089	958
Z12420 07/2B-**	350	-	-	-	-	-
Z12420 07-**	350	-	-	-	-	-

** For power above 350 kW please contact our sales network.

z12420-2p50-3-en_b_td

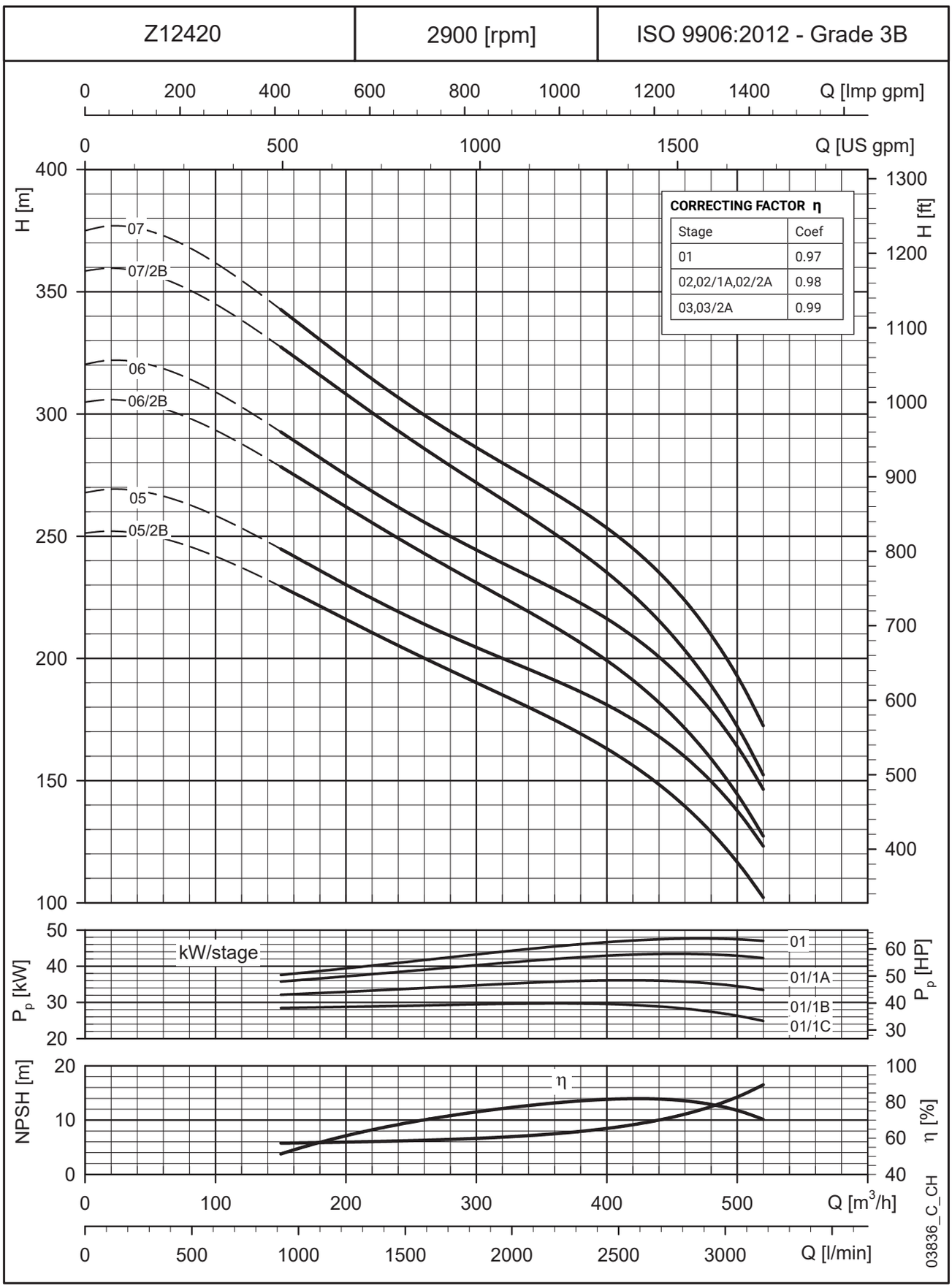
(1) Max electric pump diameter with 2 motor cables included.
In case of 1 motor cable C = 300 mm with L12W motor.

(2) T min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.
In case this velocity is exceeded, please contact our sales network.

(3) Without cables.

(4) For pumps without non-return valve, reduce dimension A by 188 mm and reduce weight by 16,7 kg.

Z12420: 5 TO 7 STAGES
OPERATING CHARACTERISTICS

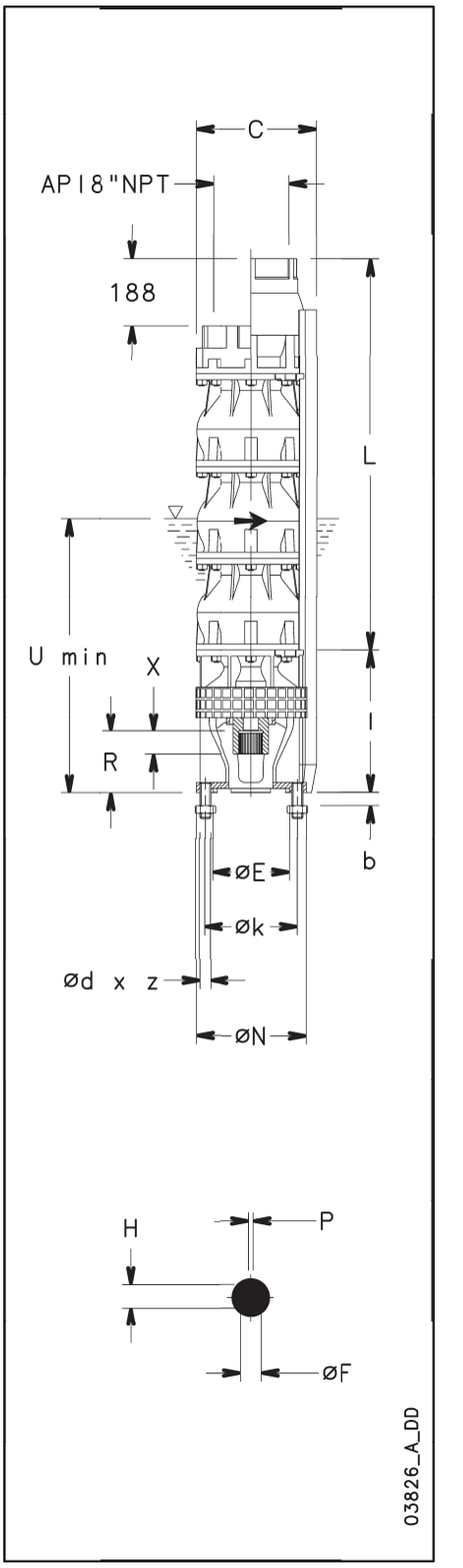


These performances are valid for liquids with density ρ = 1.0 kg/dm^3 and kinematic viscosity ν = 1 mm^2/sec.

Z12340 SERIES
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP kW	DIMENSIONS (mm) L [4]	C [1]	U [2]	WEIGHT kg [3]	Ø MIN. WELL mm
Z12340 01/1B-8	29,2	510	290	2900	72	305
Z12340 01/1A-8	34,9	510	290	2900	72	305
Z12340 01-8	42,6	510	290	2900	72	305
Z12340 02/2C-8	50,5	745	290	2900	99,3	305
Z12340 02/2B-8	57,2	745	290	2900	99,3	305
Z12340 02/2A-8	70,5	745	290	2900	99,3	305
Z12340 02-8	84,2	745	290	2900	99,3	305
Z12340 03/2C-10	94,6	980	302	2900	129,4	315
Z12340 03/3A-10	109,1	980	302	2900	129,4	315
Z12340 03/1A-10	124,5	980	302	2900	129,4	315
Z12340 03-10	132,4	980	302	2900	129,4	315
Z12340 04/2B-10	147,4	1215	302	2900	156,7	315
Z12340 04/2A-12	159,6	1215	302	2900	157,5	320
Z12340 04-12	173,8	1215	302	2900	157,5	320
Z12340 05/2B-12	193,3	1450	302	2900	184,8	320
Z12340 05/2A-12	205,2	1450	302	2900	184,8	320
Z12340 05-12	219,5	1450	302	2900	184,8	320
Z12340 06/2B-12	235,2	1685	302	2900	212,1	320
Z12340 06/2A-12	246,5	1685	302	2900	212,1	320
Z12340 06-12	260,7	1685	302	2900	212,1	320
Z12340 07/3A-12	280,0	1920	302	2900	239,4	320
Z12340 07-12	301,0	1920	302	2900	239,4	320
Z12340 08/3A-12	333,1	2155	302	2900	266,7	320
Z12340 08-12	354,8	2155	302	2900	266,7	320

z12340p-50-en_b_td



[1] Max pump diameter with 2 motor cables included.

[2] U min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.

[3] Weight with non-return valve. For pumps without non-return valve, reduce by 16,7 kg.

[4] For pumps without non-return valve, reduce dimension L by 188 mm.

The dimensions in the table are valid for pumps up to 12" and power 300 kW. In other cases dimensions might differ.

MOTOR COUPLING

MOTOR CONNECTION	DIMENSIONS (mm)) N	k	d	z	b	E H7	R	l
8" (NEMA)	185	152,4	M16	4	20	127	101,45	240
10"	232	190,5	M20	4	22	127	101,45	300
12"	232	190,5	M20	4	23	127	126,85	300

COUPLING	DIMENSIONS (mm) Profile of gear coupling according to NEMA NUMBER OF TEETH	DIAMETRAL PITCH	PRESSURE ANGLE	X
8" (NEMA)	23	16/32	30°	38

COUPLING	DIMENSIONS (mm) F	H	P	X
10"	42.85 h6	47,6	9,5	86
12"	49.212 h6	54,5	12,7	95

z12-mtcn-50-en_a_td

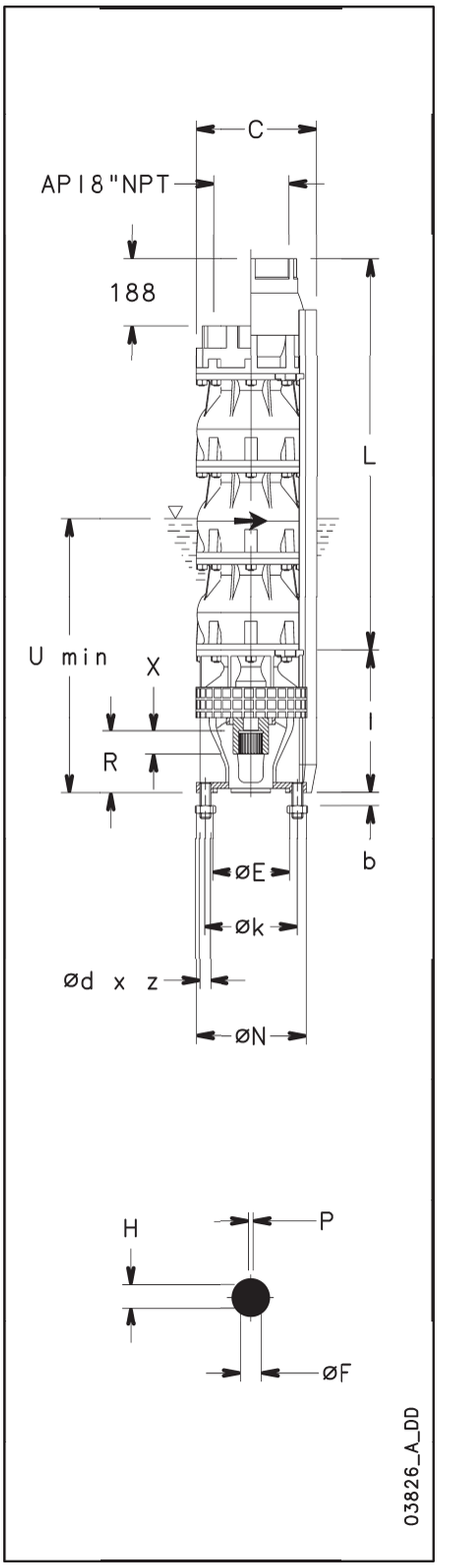
Z12420 SERIES
PUMP DIMENSIONS AND WEIGHTS

PUMP TYPE	MAX POWER ABSORBED BY PUMP kW	DIMENSIONS (mm) L (4)	C (1)	U (2)	WEIGHT kg (3)	Ø MIN. WELL mm
Z12420 01/1C-8	29,7	510	290	2900	72	305
Z12420 01/1B-8	35,4	510	290	2900	72	305
Z12420 01/1A-8	43,1	510	290	2900	72	305
Z12420 01-8	47,0	510	290	2900	72	305
Z12420 02/2C-8	58,2	745	290	2900	99,3	305
Z12420 02/2B-8	71,5	745	290	2900	99,3	305
Z12420 02/2A-8	86,2	745	290	2900	99,3	305
Z12420 02-10	98,5	745	302	2900	102,1	315
Z12420 03/2C-10	109,6	980	302	2900	129,4	315
Z12420 03/2B-10	122,8	980	302	2900	129,4	315
Z12420 03/3A-10	134,1	980	302	2900	129,4	315
Z12420 03-10	147,8	980	302	2900	129,4	315
Z12420 04/3B-12	161,3	1215	302	2900	157,5	320
Z12420 04/3A-12	184,3	1215	302	2900	157,5	320
Z12420 04-12	200,1	1215	302	2900	157,5	320
Z12420 05/2B-12	223,1	1450	302	2900	184,8	320
Z12420 05-12	247,6	1450	302	2900	184,8	320
Z12420 06/2B-12	269,8	1685	302	2900	212,1	320
Z12420 06-12	291,0	1685	302	2900	212,1	320
Z12420 07/2B-12	325,4	1920	302	2900	239,4	320
Z12420 07-12	350,2	1920	302	2900	239,4	320

z12420p-50-en_b_td

(1) Max pump diameter with 2 motor cables included.
(2) U min valid only for max flow speed of 6,8 m/s between pump and perforation pipe.
(3) Weight with non-return valve. For pumps without non-return valve, reduce by 16,7 kg.
(4) For pumps without non-return valve, reduce dimension L by 188 mm.

The dimensions in the table are valid for pumps up to 12” and power 300 kW. In other cases dimensions might differ.



MOTOR COUPLING

MOTOR CONNECTION	DIMENSIONS (mm)) N	k	d	z	b	E H7	R	l
8" (NEMA)	185	152,4	M16	4	20	127	101,45	240
10"	232	190,5	M20	4	22	127	101,45	300
12"	232	190,5	M20	4	23	127	126,85	300

COUPLING	DIMENSIONS (mm) Profile of gear coupling according to NEMA NUMBER OF TEETH	DIAMETRAL PITCH	PRESSURE ANGLE	X
8" (NEMA)	23	16/32	30°	38

COUPLING	DIMENSIONS (mm) F	H	P	X
10"	42.85 h6	47,6	9,5	86
12"	49.212 h6	54,5	12,7	95

z12-mtcn-50-en_a_td

ACCESSORIES

COMBINATION TABLE MOTOR - CONTROL PANEL
L6C MOTOR SERIES

MOTOR TYPE L6C - 6" THREE--PHASE	RATED POWER		RATED CURRENT 380-415 V	CONTROL PANEL TYPE					
	kW	HP	A	Q1D/...	Q3D/...	Q3I/...	Q3A/...	Q3Y/...	Q3SF/...
	4	5,5	11,0	...55	...40-75	...40-75	...40-75	...40-75	-
	5,5	7,5	14,6	...75	...40-75	...40-75	...40-75	...40-75	-
	7,5	10	18,3	...92	...75-92	...75-92	...75-92	...75-92	...150
	9,3	12,5	22,8	...110	...92-110	...92-110	...92-110	...92-110	...150
	11	15	26,0	...150	...110-150	...110-150	...110-150	...110-150	...150
	15	20	34,2	-	...150-185	...150-185	...150-185	...150-185	...185
	18,5	25	42,0	-	...185-220	...185-220	...185-220	...185-220	...220
	22	30	47,5	-	...185-220	...185-220	...185-220	...185-220	...300
	30	40	63,5	-	...300-370	...300-370	...300-370	...300-370	...370
	37	50	80,0	-	-	...370-450	...370-450	...370-450	...450

For different voltages, please contact our sales network.

L6c-2p50-en_g_tc

L6W MOTOR SERIES

MOTOR TYPE L6W - 6" THREE-PHASE	RATED POWER		RATED CURRENT 380-415 V	PANEL TYPE					
	kW	HP	A	Q1D/...	Q3D/...	Q3I/...	Q3A/...	Q3Y/...	Q3SF/...
	4	5,5	9,89	...55	...40-75	...40-75	...40-75	...40-75	-
	5,5	7,5	12,7	...75	...40-75	...40-75	...40-75	...40-75	-
	7,5	10	17,0	...92	...75-92	...75-92	...75-92	...75-92	...150
	9,3	12,5	20,5	...110	...92-110	...92-110	...92-110	...92-110	...150
	11	15	24,2	...150	...110-150	...110-150	...110-150	...110-150	...150
	13	17,5	28,1	-	...110-150	...110-150	...110-150	...110-150	...150
	15	20	32,1	-	...150-185	...150-185	...150-185	...150-185	...185
	18,5	25	38,5	-	...185-220	...185-220	...185-220	...185-220	...220
	22	30	47,3	-	...220-300	...220-300	...220-300	...220-300	...300
	26	35	56,5	-	...220-300	...220-300	...220-300	...220-300	...300
	30	40	63,8	-	...300-370	...300-370	...300-370	...300-370	...370
	37	50	81,8	-	-	...370-450	...370-450	...370-450	...450
MOTOR TYPE	4	5,5	10,5	...55	...40-75	...40-75	...40-75	...40-75	-
L6W HT - 6"	5,5	7,5	13,4	...75	...40-75	...40-75	...40-75	...40-75	-
THREE-PHASE	7,5	10	17,3	...92	...75-92	...75-92	...75-92	...75-92	...150
	9,3	12,5	20,8	...110	...92-110	...92-110	...92-110	...92-110	...150
	11	15	23,9	...150	...110-150	...110-150	...110-150	...110-150	...150
	13	17,5	28,4	-	...110-150	...110-150	...110-150	...110-150	...150
	15	20	32,5	-	...150-185	...150-185	...150-185	...150-185	...185
	18,5	25	41,6	-	...185-220	...185-220	...185-220	...185-220	...220
	22	30	49,7	-	...220-300	...220-300	...220-300	...220-300	...300
	26	35	55,8	-	...220-300	...220-300	...220-300	...220-300	...300
	30	40	68,8	-	...300-370	...300-370	...300-370	...300-370	...370

For different voltages, please contact our sales network.

L6w-2p50-en_e_tc

COMBINATION TABLE MOTOR - CONTROL PANEL
L8W MOTOR SERIES

MOTOR TYPE L8W - 8" THREE-PHASE	RATED POWER		RATED CURRENT 380-415 V	CONTROL PANEL TYPE					
	kW	HP	A	Q1D/...	Q3D/...	Q3I/...	Q3A/...	Q3Y/...	Q3SF/...
	30	40	64,5	-	...300-370	...300-370	...300-370	-	...370
	37	50	80	-	-	...370-450	...370-450	-	...450
	45	60	95,9	-	-	...450-550	...450-550	-	...550
	52	70	110	-	-	...550-750	...550-750	-	...750
	55	75	118	-	-	...550-750	...550-750	-	...750
	60	80	127	-	-	...550-750	...550-750	-	...750
	67	90	140	-	-	...750-900	...750-900	-	...900
	75	100	155	-	-	...750-900	...750-900	-	...900
	83	110	171	-	-	...750-900	...750-900	-	...1100
	93	125	189	-	-	...900-1100	...900-1100	-	...1100
MOTOR TYPE L8W HT - 8" THREE-PHASE	30	40	63,7	-	...300-370	...300-370	...300-370	-	...370
	37	50	77	-	-	...370-450	...370-450	-	...450
	45	60	94,7	-	-	...450-550	...450-550	-	...550
	52	70	111	-	-	...550-750	...550-750	-	...750
	55	75	116	-	-	...550-750	...550-750	-	...750
	60	80	125	-	-	...550-750	...550-750	-	...750
	67	90	137	-	-	...750-900	...750-900	-	...900
	75	100	153	-	-	...750-900	...750-900	-	...900
	83	110	168	-	-	...750-900	...750-900	-	...1100

For different voltages, please contact our sales network.

L8w-2p50-en_f_tc

L10W MOTOR SERIES

MOTOR TYPE L10W - 10" THREE-PHASE	RATED POWER		RATED CURRENT 380-415 V	CONTROL PANEL TYPE					
	kW	HP	A	Q1D/...	Q3D/...	Q3I/...	Q3A/...	Q3Y/...	Q3SF/...
	93	125	191	-	-	...900-1100	...900-1100	-	...1100
	110	150	221	-	-	...1100-1320	...1100-1320	-	...1320
	130	175	262	-	-	...1320-1600	...1320-1600	-	...1600
	150	200	298	-	-	...1600-2000	...1600-2000	-	...2000
MOTOR TYPE L10W HT - 10" THREE-PHASE	83	110	172,0	-	-	...750-900	...750-900	-	...1100
	93	125	189	-	-	...900-1100	...900-1100	-	...1100
	110	150	225,0	-	-	...1100-1320	...1100-1320	-	...1320
	130	175	261	-	-	...1320-1600	...1320-1600	-	...1600

Per tensioni diverse contattare la nostra rete di vendita.

L10w-2p50-en_f_tc

L12W MOTOR SERIES

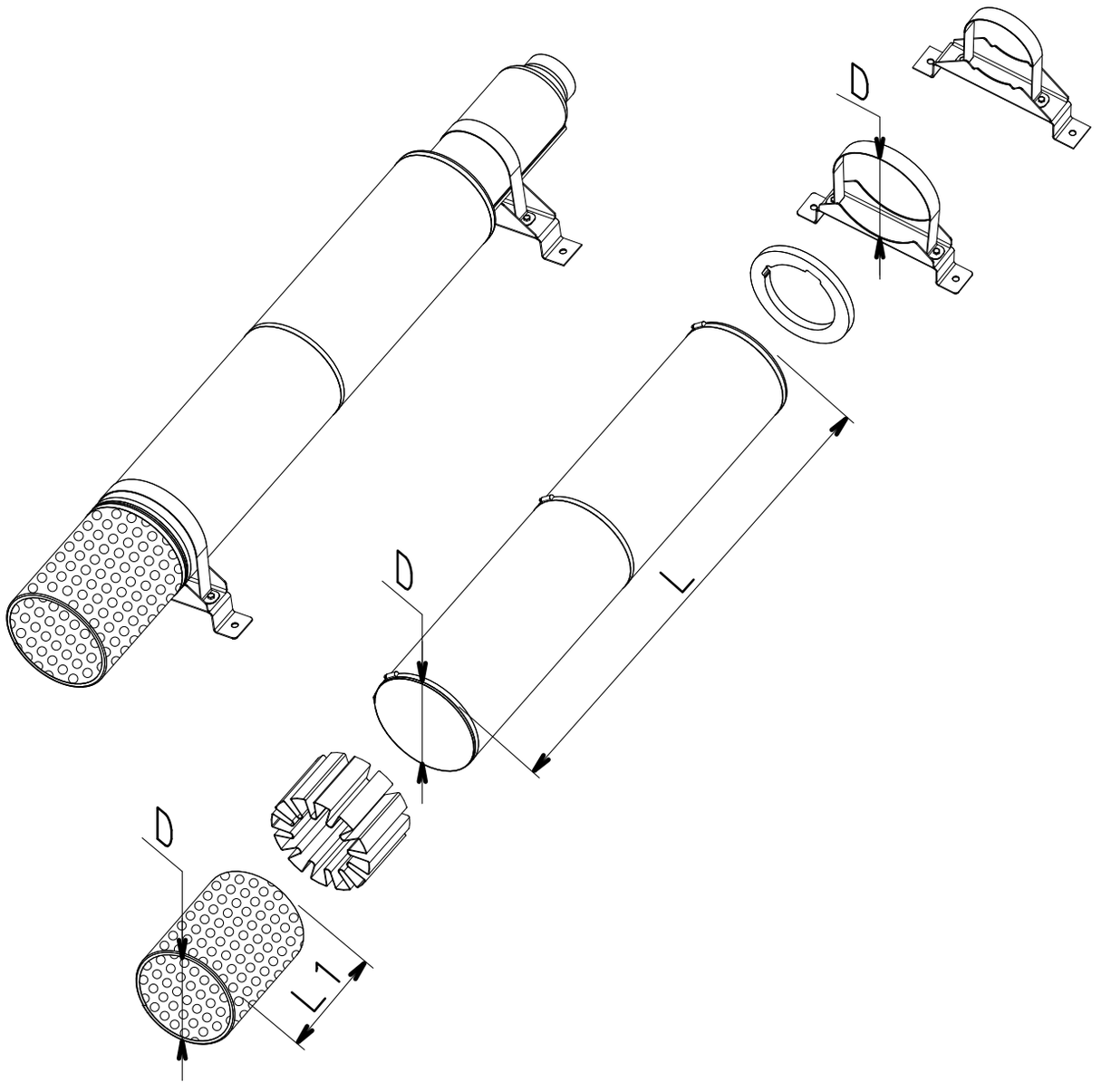
MOTOR TYPE L10W - 10" THREE-PHASE	RATED POWER		RATED CURRENT 380-415 V	CONTROL PANEL TYPE					
	kW	HP	A	Q1D/...	Q3D/...	Q3I/...	Q3A/...	Q3Y/...	Q3SF/...
	185	250	378	-	-	...1600-2000	...1600-2000	-	(1)
	220	300	438	-	-	...2000-2500	...2000-2500	-	(1)
	260	350	512	-	-	...2500-3150	...2500-3150	-	(1)
	300	400	621	-	-	(1)	(1)	-	(1)
MOTOR TYPE L10W HT - 10"	150	200	303	-	-	...1600-2000	...1600-2000	-	...2000
	185	250	368	-	-	...1600-2000	...1600-2000	-	(1)
	220	300	431	-	-	...2000-2500	...2000-2500	-	(1)

(1) = on request

For different voltages, please contact our sales network.

L12w-2p50-en_f_tc

Z8, Z10, Z12 SERIES
COOLING SHROUDS



01890_B_DD

Z8 SERIES
COOLING SHROUDS

PUMP TYPE	MOTOR TYPE				COOLING SET		
	L6C	L6W	L8W	L10W	SHROUD (D x L)	FILTER (D x L1)	BRACKETS (D)
Z855 Z875	5,5	5,5			D225X1000	D225X192	D225 - 2PZ
	7,5	7,5					
	9,3	9,3					
	11	11					
	-	13					
	15	15			D225X1250	D225X192	D225 - 2PZ
	18,5	18,5					
	22	22					
	-	26			D225X1500	D225X192	D225 - 3PZ
	30	30					
	37	37					
Z895 Z8125	7,5	7,5			D256X1000	D256X325	D256 - 2PZ
	11	11					
	-	13					
	15	15			D256X1250	D256X325	D256 - 2PZ
	18,5	18,5					
	22	22					
	-	26			D256X1500	D256X325	D256 - 3PZ
	30	30					
	37	37					
Z855 Z875			30		D256X1500	D256X325	D256 - 3PZ
			37				
			45				
			52				
			55				
			60		D256X1750	D256X325	D256 - 3PZ
			67				
			75				
			83		D256X2000	D256X325	D256 - 3PZ
			93				
Z895 Z8125			30		D285X1500	D285X385	D285 - 3PZ
			37				
			45				
			52				
			55				
			60		D285X1750	D285X385	D285 - 3PZ
			67				
			75				
			83		D285X2000	D285X385	D285 - 3PZ
			93				
Z855 Z875				93	D285X2250	D285X385	D285 - 3PZ
				110			
				130			
				150			
Z895 Z8125				93	D330X2250	D330X385	D330 - 3PZ
				110			
				130			
				150			

Z8-kit-raf50-en_c_ta

Z10, Z12 SERIES
COOLING SHROUDS

PUMP TYPE	MOTOR TYPE					COOLING SET		
	L6C	L6W	L8W	L10W	L12W	SHROUD (D x L)	FILTER (D x L1)	BRACKETS (D)
Z10150	11	11				D285X1000	D285X385	D285 - 2PZ
	-	13						
Z10150 Z10220	15	15				D285X1000	D285X385	D285 - 2PZ
	18,5	18,5				D285X1250	D285X385	D285 - 2PZ
	22	22						
	-	26						
	30	-						
	-	30				D285X1500	D285X385	D285 - 3PZ
	37	37						
Z10275	18,5	18,5				D330X1250	D330X385	D330 - 2PZ
	22	22						
	-	26						
	30	-						
	-	30				D330X1500	D330X385	D330 - 3PZ
	37	37						
Z10150 Z10220			30			D330X1250	D330X385	D330 - 2PZ
			37					
			45			D330X1500	D330X385	D330 - 3PZ
			52					
			55					
			60					
			67			D330X1800	D330X385	D330 - 3PZ
			75					
			83					
			93			D330X2000	D330X385	D330 - 3PZ
Z10275 Z12340			30			D380X1250	D380X385	D380 - 2PZ
			37					
			45			D380X1500	D380X385	D380 - 3PZ
			52					
			55					
			60					
			67			D380X1750	D380X385	D380 - 3PZ
			75					
			83					
			93			D380X2000	D380X385	D380 - 3PZ
Z12420			30			D420X1250	D420X400	D420 - 2PZ
			37					
			45			D420X1500	D420X400	D420 - 3PZ
			52					
			55					
			60					
			67			D420X1750	D420X400	D420 - 3PZ
			75					
			83					
			93			D420X2000	D420X400	D420 - 3PZ

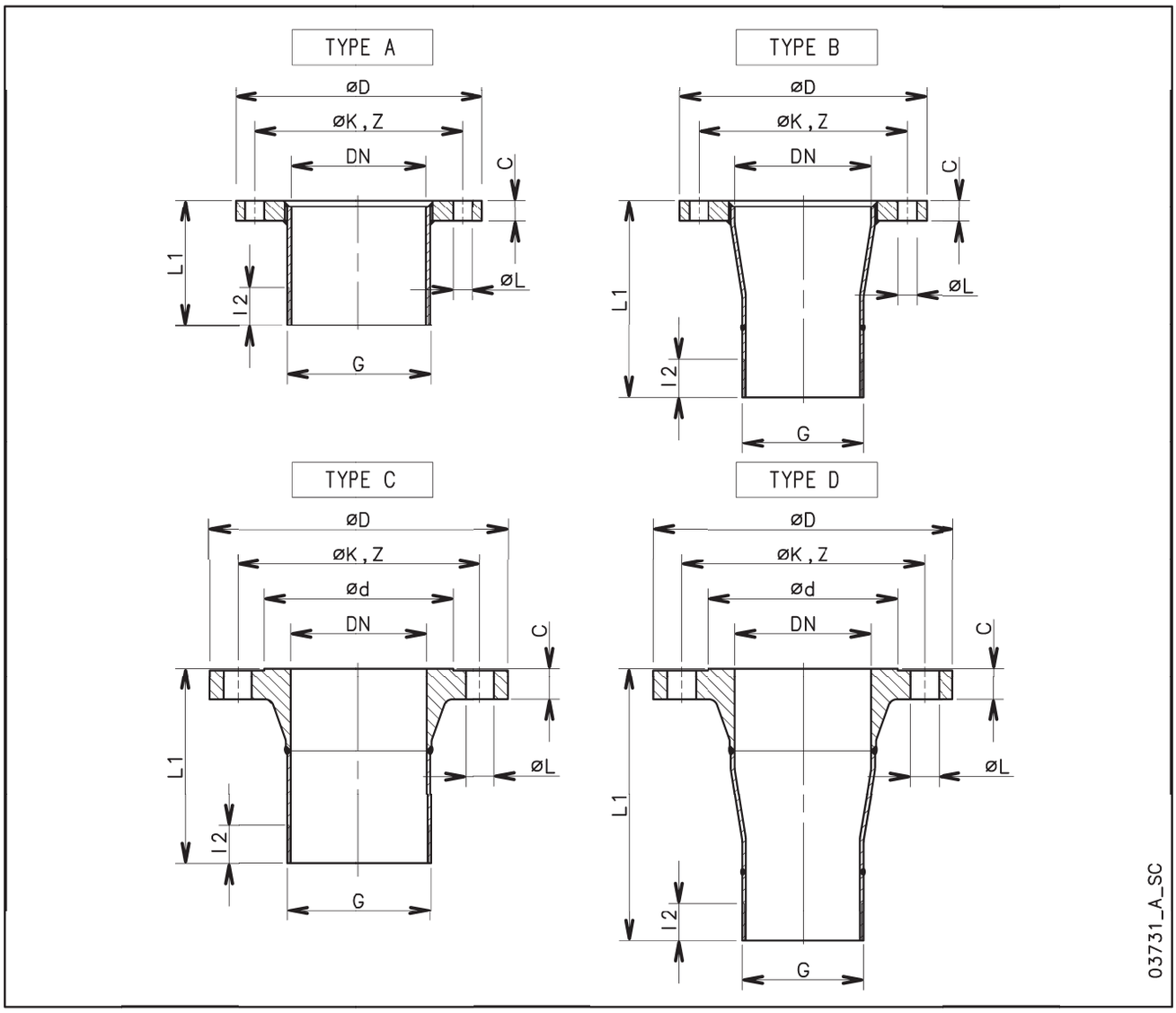
Material : Stainless steel EN 10088-1 - X5CrNi18-10 (1.4301) AISI 304. (Other materials available on request).

Z10, Z12 SERIES
COOLING SHROUDS

PUMP TYPE	MOTOR TYPE					COOLING SET		
	L6C	L6W	L8W	L10W	L12W	SHROUD (D x L)	FILTER (D x L1)	BRACKETS (D)
Z10150				110		D330X2000	D330X385	D330 - 3PZ
				130				
				150		D330X2250	D330X385	D330 - 3PZ
Z10220 Z10275				110		D380X2000	D380X385	D380- 3PZ
				130				
				150		D380X2250	D380X385	D380 - 3PZ
Z12340				110		D420X2000	D420X400	D420 - 3PZ
				130				
				150		D420X2250	D420X400	D420 - 3PZ
Z12420				110		D450X2000	D450X420	D450 - 3PZ
				130				
				150		D450X2250	D450X420	D450 - 3PZ
Z10150 Z10220					185	D380X2000	D380X385	D380 - 3PZ
					220	D380X2250	D380X385	D380 - 3PZ
Z10220					260	D380X2250	D380X385	D380 - 3PZ
					300	D380X2500	D380X385	D380 - 3PZ
Z10275					185	D420X2000	D420X400	D420 - 3PZ
					220	D420X2250	D420X400	D420 - 3PZ
					260			
					300	D420X2500	D420X400	D420 - 3PZ
Z12340					185	D450X2000	D450X420	D450 - 3PZ
					220	D450X2250	D450X420	D450 - 3PZ
					260			
					300	D450X2500	D450X420	D450 - 3PZ
Z12420					185	D480X2000	D480X420	D480 - 3PZ
					220	D480X2250	D480X420	D480 - 3PZ
					260			
					300	D480X2500	D480X420	D480 - 3PZ

Material : Stainless steel EN 10088-1 - X5CrNi18-10 (1.4301) AISI 304. (Other materials available on request).

Z8 SERIES
DIMENSIONS OF THREADED FLANGES ACCORDING TO EN 1092-1*

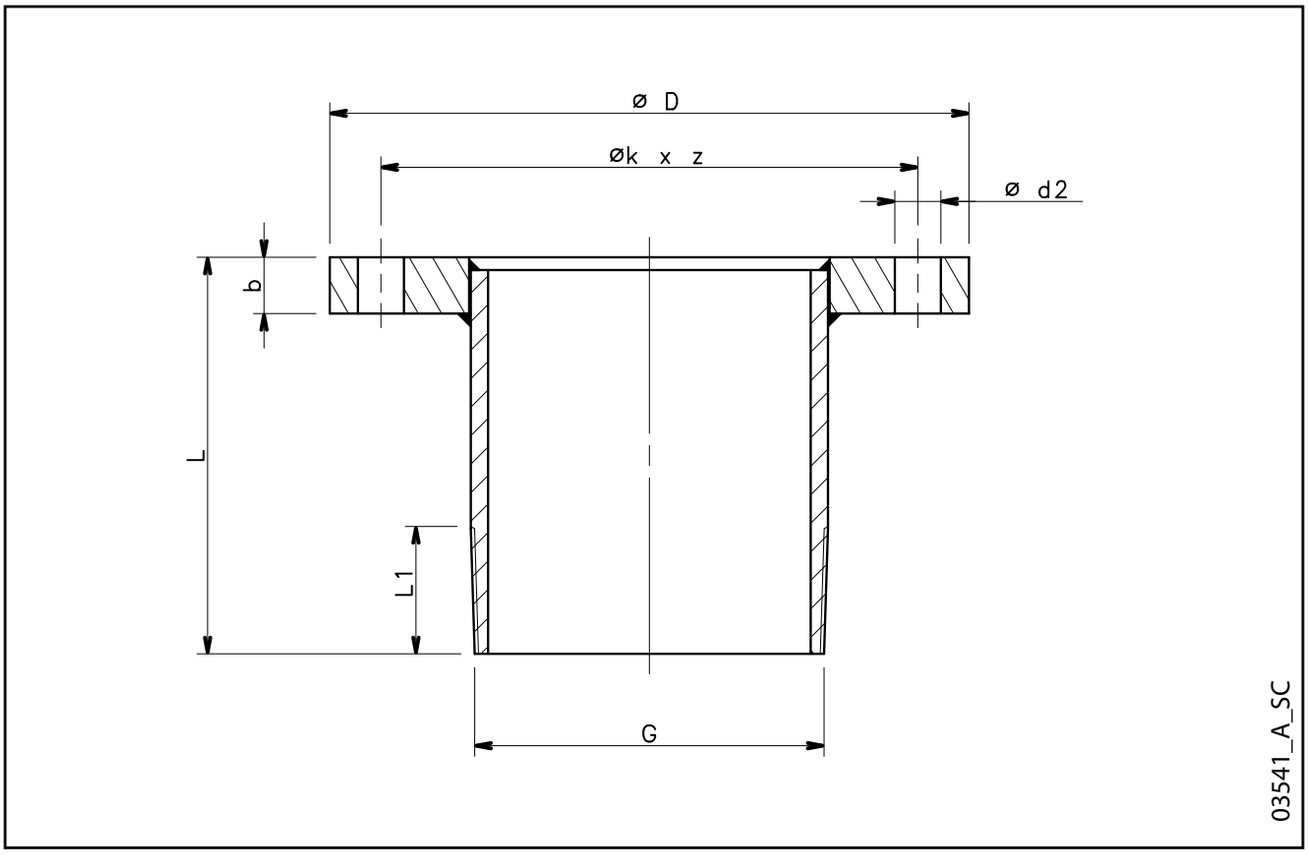


PUMP TYPE	THREADING ISO 7-1 G	Dimensions (mm)										
		DN	PN	Ø D	Ø d	Ø K	Z	Ø L	C	L1	I2	TYPE
Z855 Z875 Z895 Z8125	R 5	125	10÷16	250	-	210	8	18	22	108	44	A
		125	25÷40	270	188	220	8	26	26	168	44	C
		125	63	295	188	240	8	30	34	188	44	C
		150	10÷16	285	-	240	8	22	22	248	44	B
		150	25÷40	300	218	250	8	26	28	315	44	D
		150	63	345	218	280	8	33	36	335	44	D

* Flanges according to ASME B16.5 are available on request.

z8-flange-en_b_td

Z10 SERIES
DIMENSIONS OF THREADED FLANGES



FLANGES ACCORDING TO EN 1092-1

PUMP TYPE	THREADING G	Dimensions (mm)									
		DN	PN	Ø D	Ø d	Ø k	b	Ø d2	Z	L	L1
Z10150 Z10220 Z10275	EN 10226-1 R 6	150	10 ÷ 16	285	212	240	22	22	8	198	40
		150	25 ÷ 40	300	218	250	28	26	8	218	40
		150	63	345	218	280	36	33	8	238	40
		200	10	340	268	295	24	22	8	357	40
		200	16	340	268	295	24	22	12	357	40
		200	25	360	278	310	30	26	12	375	40
		200	40	375	285	320	34	30	12	383	40
		200	63	415	285	345	42	36	12	405	40

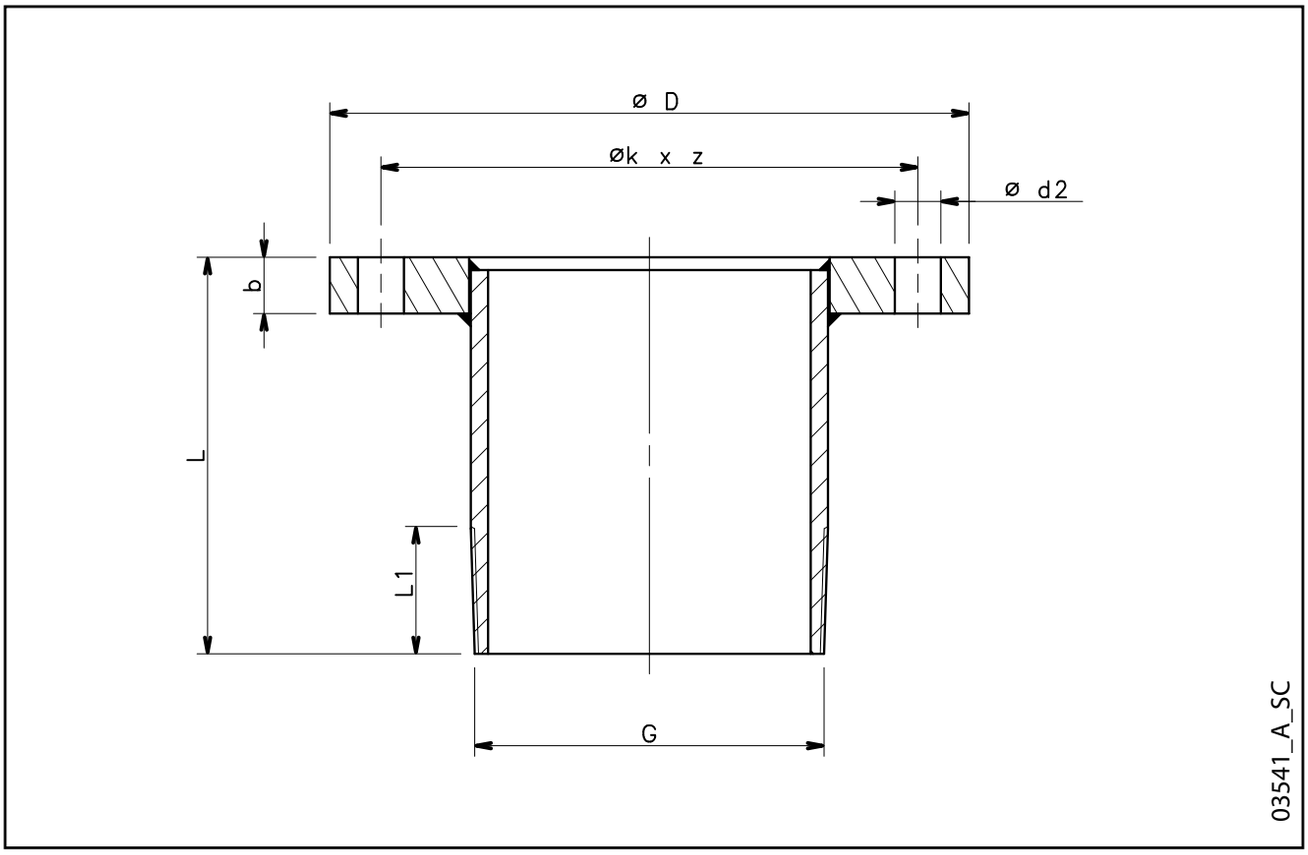
FLANGES ACCORDING TO ASME B16.5

PUMP TYPE	THREADING G	Dimensions (mm)									
		DN	Class	Ø D	Ø d	Ø k	b	Ø d2	Z	L	L1
Z10150 Z10220 Z10275	EN 10226-1 R 6	6"	150	280	216	241	25	22	8	232	40
		6"	300	317	216	270	37	22	12	242	40
		6"	600	356	216	292	54	29	12	266	40
		8"	150	343	270	298	28	22	8	397	40
		8"	300	381	270	330	41	25	12	406	40
		8"	600	419	270	349	62	32	12	434	40

Material : Stainless steel EN 10088-1 - X6CrNiMoTi17-12-2 (1.4571) AISI 316Ti. (Other materials available on request).

z-flange-r-en_c_td

Z12 SERIES
DIMENSIONS OF THREADED FLANGES ACCORDING TO EN 1092-1

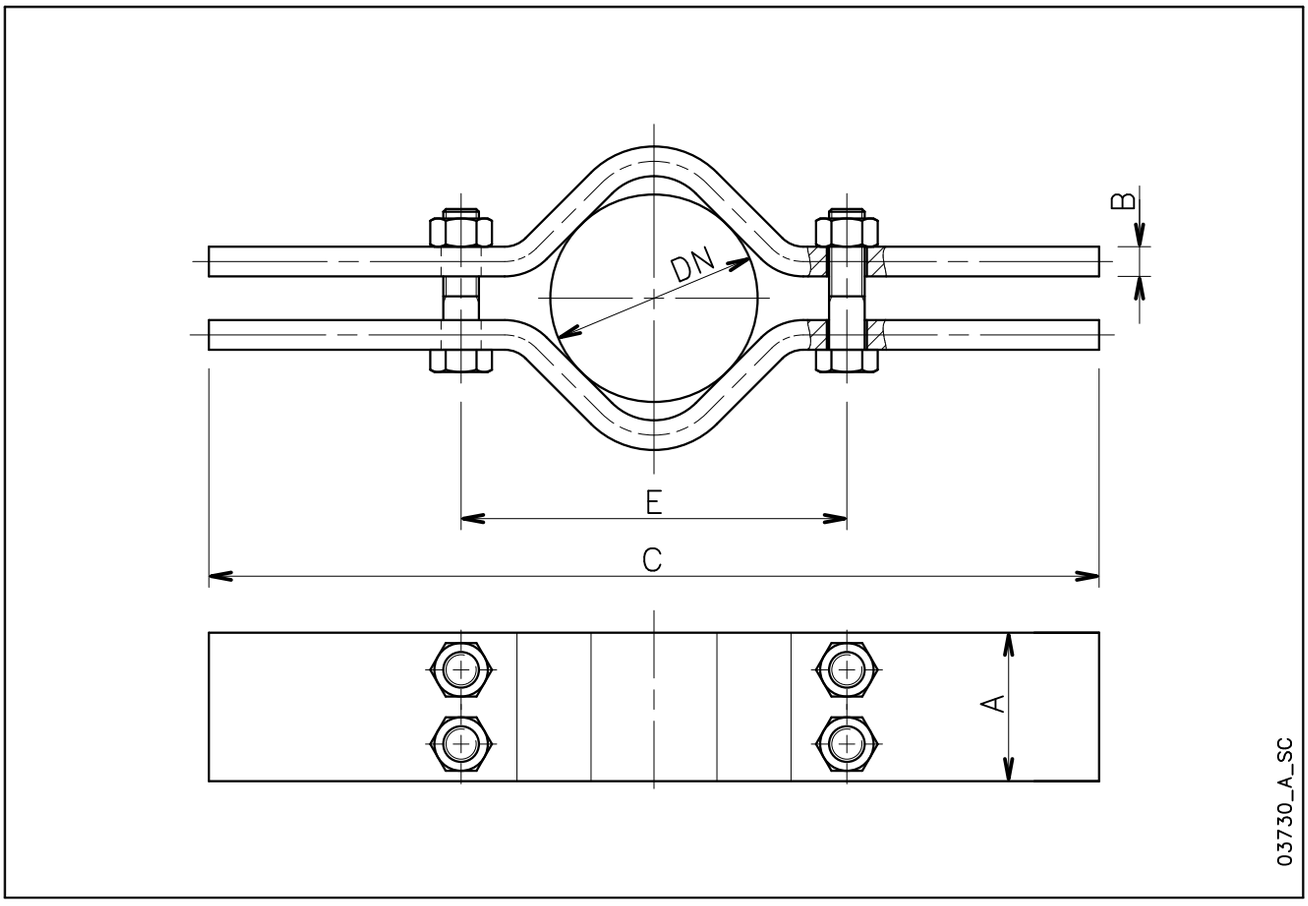


PUMP TYPE	THREADING G	Dimensions (mm)									
		DN	PN	Ø D	Ø d	Ø k	b	Ø d2	Z	L	L1
Z12340 Z12420	ANSI B1.20.1 API 8 NPT	200	10	340	-	295	26	22	8	150	55
		200	16	340	-	295	30	22	12	150	55
		200	25	360	-	310	34	26	12	150	55
		200	40	375	-	320	40	30	12	150	55
		200	63	415	-	345	42	36	12	150	55

Material : Stainless steel EN 10088-1 - X6CrNiMoTi17-12-2 (1.4571) AISI 316Ti. (Other materials available on request).

z-flange-api-en_c_td

Z8, Z10, Z12 SERIES
CARRYING CLAMPS



NOMINAL PIPE DIAMETER DN		CARRYING CLAMPS						PIPE WEIGHT		
		Dimensions (mm)					Pmax (1)	Flanged	Threaded	Water
		A	B	C	E	SCREW	kg	kg/m	kg/m	kg/m
65	R 2 1/2"	50	15	600	130	M16x90	1300	6,7	8,0	3,3
80	R 3"	80	15	600	180	M20x70	3400	8,4	10,5	5,0
100	R 4"	80	15	600	180	M20x110	3400	20,5	15,0	7,9
125	R 5"	100	20	600	260	M24x90	7250	27,5	18,5	12,3
150	R 6"	100	20	600	260	M24x130	7250	33,0	22,0	17,6
175	R 7"	120	25	800	360	M30x110	9750	27,0	25,5	24,0
200	R 8"	120	25	800	360	M30x150	9750	33,0	34,0	31,5
250	R 10"	120	25	800	360	M30x220	9750	48,0	48,0	49,0

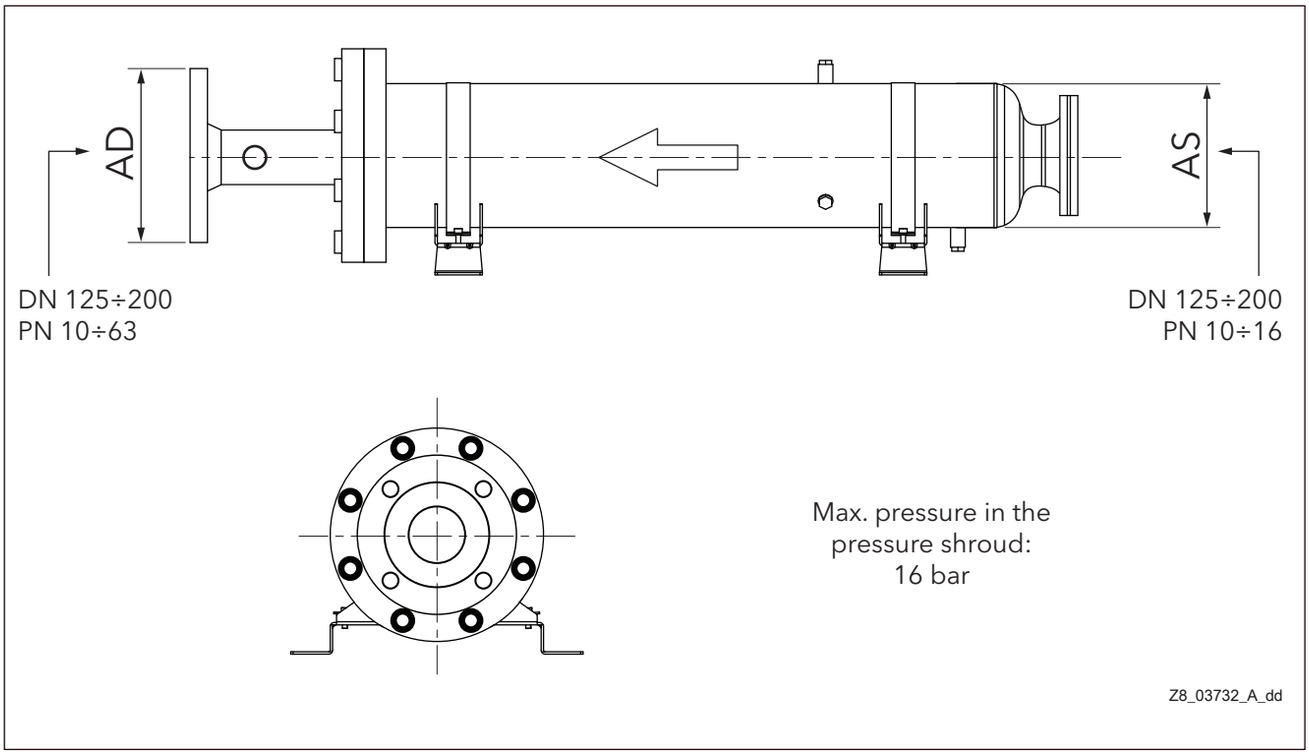
1) Max admissible weight.

clamp-en_b_td

NOTE. Two sets of clamps are necessary for the installation of one unit.

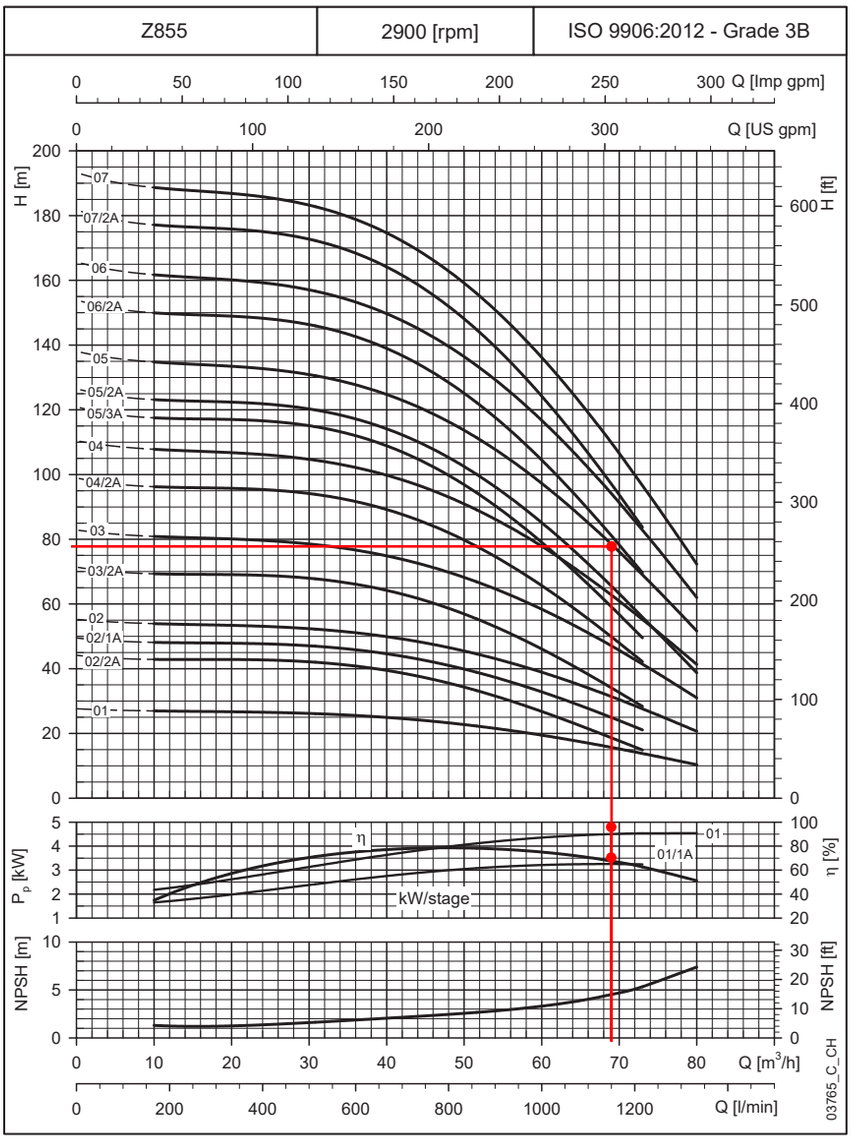
Material : EN 10027-1-S235JR (1.0038) painted.

Z8, Z10, Z12 SERIES
BOOSTER SHROUD



Z8, Z10, Z12 SERIES
ABSORBED POWER WITH REDUCED DIAMETER IMPELLER

The power absorbed by each model can be calculated starting from the power curve of each impeller: standard, type A, type B and type C.



To see the absorbed power of a pump, it's important to read properly the working curves shown in the charts.

Example:
Pump type: Z855 06/2A: model with 6 impellers, 4 standard and 2 type A, as per the nomenclature on page 10.

Duty point:
- Flow rate: 70 m3/h
- Head: 79,8 m

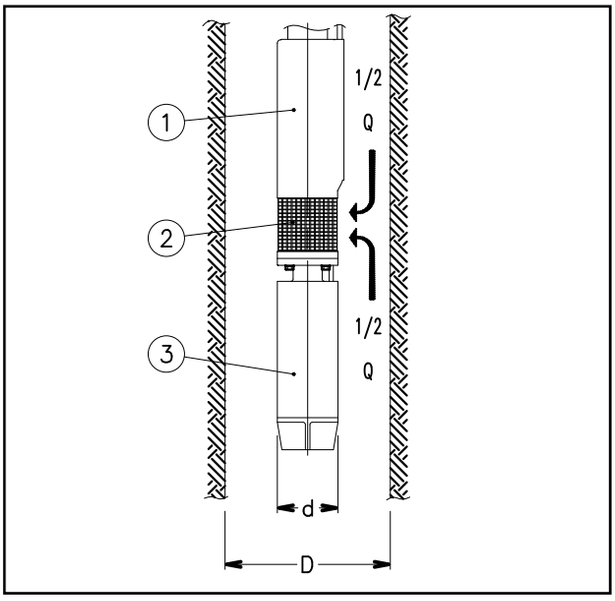
From the graph on page 13 you can see:
- the power absorbed by a standard impeller: 4,4 kW
- the power absorbed by a type A impeller: 3,1 kW.

from which
P STD-impellers = 4 x 4,3 = 17,2 kW
P A-impellers = 2 x 3,2 = 6,4 kW

The total power is:
P STD-impellers + P A-impellers = 23,6 kW

TECHNICAL APPENDIX

CALCULATING THE SPEED OF THE FLUID THAT FLOWS AROUND A SUBMERGED MOTOR AND SIZING OF THE COOLING SLEEVE



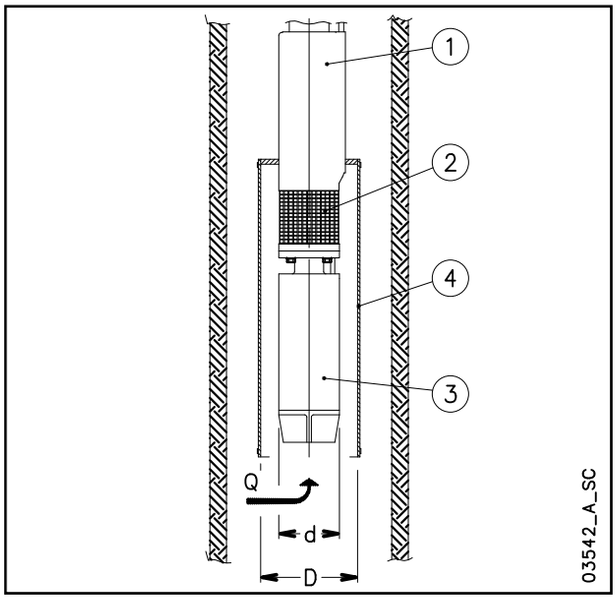
The following formula is used to verify whether the speed of the fluid that flows around the motor of a submersible pump is high enough to guarantee the proper cooling of the motor:

$$v = \frac{\frac{Q}{2}}{\pi \cdot (\frac{D^2}{4} - \frac{d^2}{4})}$$

Where:
-Q in [m^3/s] is the operating flow rate of the electric pump; only half of this flow is taken into account, because the fluid which is sucked into the area of the filter (2), comes from the motor side (3) as well as from the pump side (1);
-D in [m] is the diameter of the well;
-d in [m] is the diameter of the motor (3);
-v in [m/s] is the calculated speed of the fluid that flows around the motor.

Now, compare the speed thus calculated (v) with the minimum speed required for correct cooling of the motor (v_m): if $v \geq v_m$ it means that the motor is properly cooled, if $v < v_m$ will be necessary to mount a cooling sleeve (4).

Example:
An electric pump OZ630/12
(motor diameter d = 0.144 m) operates in an 8” well (well diameter D = 0.203 m)
with flow rateQ = 20 m^3/h = 0.0055 m^3/s.
Speed of fluid v = (0.0055/2) / {π·[(0.203)²/4 − (0.144)²/4]} = 0.17 m/s.
The minimum speed required for proper motor cooling is v_m = 0.20 m/s.
Because $v < v_m$, it will be necessary to mount a cooling sleeve.



The following formula is used to determine the maximum diameter of a cooling sleeve to be mounted on a submersible motor:

$$D = \sqrt{4 \cdot \left(\frac{Q}{v \cdot \pi} + \frac{d^2}{4} \right)}$$

Where:
-Q in [m^3/s] is the operating flow rate of the electric pump; the entire flow is taken into account because the fluid comes from the motor side (3) only;
-D in [m] corresponds to the diameter of the cooling sleeve (4);
-d in [m] corresponds to the diameter of the motors(3);
-v_m in [m/s] is the minimum speed of the fluid that flows around the motor.

If the electric pump operates at different flow rate, the minimum flow rate must be taken into account for calculating the diameter of the cooling sleeve.

Example:
A motor coupled to the electric pump OZ615/24 (motor diameter d = 0.144 m), which operates with flow rate Q = 15 m^3/h = 0.0042 m^3/s,
requires a minimum speed of the fluid of
v_m = 0.20 m/s.
Cooling sleeve diameter D = {4·[(0.0042/(0.2·π)+(0.144)²/4] }$^{0.5}$ = 0.217 m.

TECHNICAL APPENDIX

ASYNCHRONOUS MOTOR STARTING SYSTEMS

Direct

Suitable for low-power motors.
The starting current (Is) is much higher than the rated current (In).
Starting current Is = In x 4 ÷ 8
Starting torque Ts = Tn x 2 ÷ 3

Indirect

• Star/Delta

The starting current (Is) is three times less than the direct starting current.
Starting current Is = In x 1.3 ÷ 2.7
Starting torque Ts = Tn x 0.7 ÷ 1
In the star to delta changeover phase (approx. 70 ms) the motor is not supplied and tends to reduce its rotation speed.
In the case of submersible electric pumps with power above 10 HP, the modest mass of the rotor causes a slowdown at changeover, so that the initial Star supply phase is rendered partially useless.
In such cases we recommend using impedance panels or an autotransformer.

• Impedances

The motor is started with a voltage which is lower than the rated one, and which is obtained by means of impedances.
The Lowara panels use impedances which cut down to 70% the starting voltage.
The switch to the rated voltage takes place without any interruptions of the power supply.

Rated voltage Un = 400 V
Starting voltage Us = Un x 0,7 = 280 V

Starting current

$$Is = In \times 4 \div 8 \times \left(\frac{Us}{Un}\right) = In \times 3 \div 6$$

Starting torque

$$Ts = Tn \times 2 \div 3 \times \left(\frac{Us}{Un}\right)^2 = Tn \times 1 \div 1{,}5$$

Autotransformer

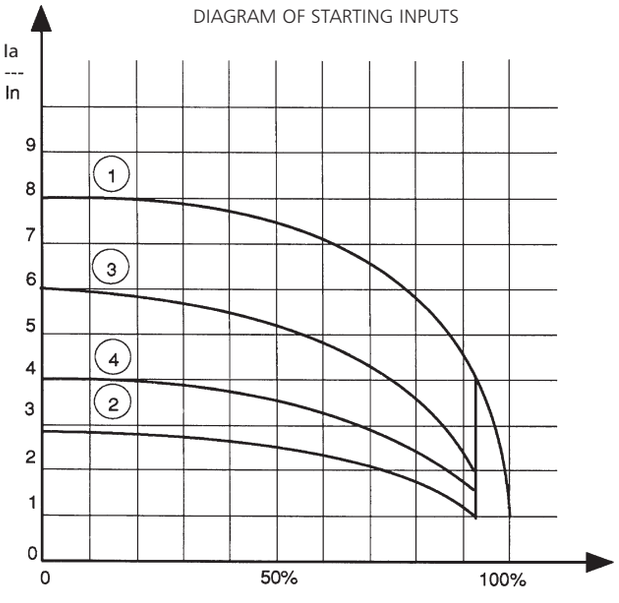
The pump is started with a voltage which is lower than the rated one.
The Lowara panels use an autotransformer with a voltage that is 70% the value of the line voltage.
The switch to the rated voltage occurs without any interruptions of the power supply.
Rated voltage Un = 400 V

Starting current

$$Is = In \times 4 \div 8 \times \left(\frac{Us}{Un}\right) = In \times 3 \div 6$$

Starting torque

$$Ts = Tn \times 2 \div 3 \times \left(\frac{Us}{Un}\right)^2 = Tn \times 1 \div 1{,}5$$



1 = Direct
2 = Star-Delta
3 = Impedances
4 = Autotransformer

WATER REQUIREMENTS IN CIVIL USERS

Determination of the water requirement depends on the type of users and contemporaneity factor. The calculation may be subject to regulations, standards or customs that may vary from country to country. The calculation method shown below is an example based on practical experience, designed to provide a reference value and not a substitute for detailed analytical calculation.

Water requirements in condominiums.

The **consumption table** shows the maximum values for each delivery point, depending on the plumbing amenities.

MAXIMUM CONSUMPTION FOR EACH DELIVERY POINT

TYPE	CONSUMPTION (l/min)
Sink	9
Dishwasher	10
Washing machine	12
Shower	12
Bathtub	15
Washbasin	6
Bidet	6
Flush tank WC	6
Controlled flushing system WC	90

The **sum of the water consumption values** of each delivery point determines the maximum theoretical requirement, which must be reduced according to the **contemporaneity coefficient,** because in actual fact the delivery points are never used all together.

$$f = \frac{1}{\sqrt{(0{,}857 \times Nr \times Na)}}$$ Coefficient for apartments with one bathroom and flush tank WC

$$f = \frac{1}{\sqrt{(0{,}857 \times Nr \times Na)}}$$ Coefficient for apartments with one bathroom and controlled flushing system WC

$$f = \frac{1{,}03}{\sqrt{(0{,}545 \times Nr \times Na)}}$$ Coefficient for apartments with two bathrooms and flush tank WC

$$f = \frac{0{,}8}{\sqrt{(0{,}727 \times Nr \times Na)}}$$ Coefficient for apartments with two bathrooms and controlled flushing system WC

f= coefficient; Nr= number of delivery points; Na= number of apartments

The **table of water requirements in civil users** shows the maximum contemporaneity flow-rate values based on the **number of apartments** and the type of WC for apartments with one bathroom and two bathrooms. As regards apartments with one bathroom, 7 drawing points have been taken into consideration, while 11 points have been considered for apartments with two bathrooms. If the number of drawing points or apartments is different, use the formulas to **calculate** the requirement.

TABLE OF WATER REQUIREMENTS IN CIVIL USERS

NUMBER OF APARTMENTS	WITH FLUSH TANK WC		WITH CONTROLLED FLUSHING SYSTEM WC	
	1	2	1	2
	FLOW RATE (l/min)			
1	32	40	60	79
2	45	56	85	111
3	55	68	105	136
4	63	79	121	157
5	71	88	135	176
6	78	97	148	193
7	84	105	160	208
8	90	112	171	223
9	95	119	181	236
10	100	125	191	249
11	105	131	200	261
12	110	137	209	273
13	114	143	218	284
14	119	148	226	295
15	123	153	234	305
16	127	158	242	315
17	131	163	249	325
18	134	168	256	334
19	138	172	263	343
20	142	177	270	352
21	145	181	277	361
22	149	185	283	369
23	152	190	290	378
24	155	194	296	386
25	158	198	302	394
26	162	202	308	401
27	165	205	314	409
28	168	209	320	417
29	171	213	325	424
30	174	217	331	431
35	187	234	357	466
40	200	250	382	498
45	213	265	405	528
50	224	280	427	557
55	235	293	448	584
60	245	306	468	610
65	255	319	487	635
70	265	331	506	659
75	274	342	523	682
80	283	354	540	704
85	292	364	557	726
90	301	375	573	747
95	309	385	589	767
100	317	395	604	787
120	347	433	662	863
140	375	468	715	932
160	401	500	764	996
180	425	530	811	1056
200	448	559	854	1114

For seaside resorts, a flow rate increased by at least 20% must be considered.

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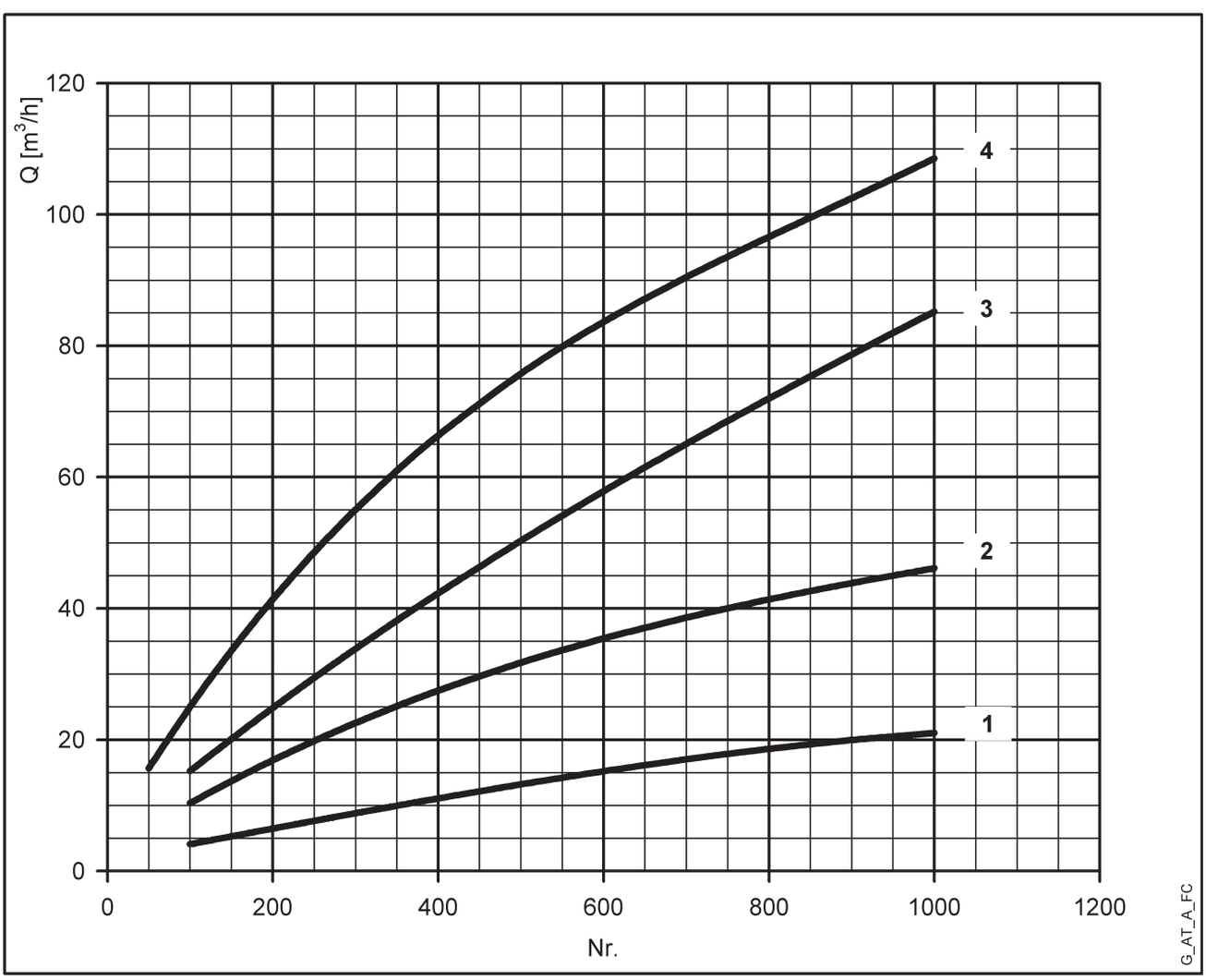
WATER REQUIREMENTS FOR COMMUNITY BUILDINGS

The requirements of buildings intended for specific uses, such as **offices, residential units, hotels, department stores, nursing homes** and so on, are different from those of condominiums, and both their global daily water consumption and the maximum contemporaneity flow rate are usually greater.
The **diagram of water requirements for community buildings** shows the maximum contemporaneity flow rate of some types of communities, for guidance.
These requirements must be determined case by case with the utmost accuracy, using analytical calculation methods,according to particular needs and local provisions.



For seaside resorts, the flow rate must be increased by at least 20%.
1= Offices (N. of people)
2= Department stores (N. of people)
3= Nursing homes (N. of beds)
4= Hotels, residences (N. of beds)

NPSH

The minimum operating values that can be reached at the pump suction end are limited by the onset of cavitation.

Cavitation is the formation of vapour-filled cavities within liquids where the pressure is locally reduced to a critical value, or where the local pressure is equal to, or just below the vapour pressure of the liquid.

The vapour-filled cavities flow with the current and when they reach a higher pressure area the vapour contained in the cavities condenses. The cavities collide, generating pressure waves that are transmitted to the walls. These, being subjected to stress cycles, gradually become deformed and yield due to fatigue. This phenomenon, characterized by a metallic noise produced by the hammering on the pipe walls, is called incipient cavitation.

The damage caused by cavitation may be magnified by electrochemical corrosion and a local rise in temperature due to the plastic deformation of the walls. The materials that offer the highest resistance to heat and corrosion are alloy steels, especially austenitic steel. The conditions that trigger cavitation may be assessed by calculating the total net suction head, referred to in technical literature with the acronym NPSH (Net Positive Suction Head).

The NPSH represents the total energy (expressed in m.) of the liquid measured at suction under conditions of incipient cavitation, excluding the vapour pressure (expressed in m.) that the liquid has at the pump inlet.

To find the static height hz at which to install the machine under safe conditions, the following formula must be verified:

hp + hz ≥ (NPSHr + 0.5) + hf + hpv ①

where:

hp is the absolute pressure applied to the free liquid surface in the suction tank, expressed in m. of liquid; hp is the quotient between the barometric pressure and the specific weight of the liquid.

hz is the suction lift between the pump axis and the free liquid surface in the suction tank, expressed in m.; hz is negative when the liquid level is lower than the pump axis.

hf is the flow resistance in the suction line and its accessories, such as: fittings, foot valve, gate valve, elbows, etc.

hpv is the vapour pressure of the liquid at the operating temperature, expressed in m. of liquid. hpv is the quotient between the Pv vapour pressure and the liquid's specific weight.

0,5 is the safety factor.

The maximum possible suction head for installation depends on the value of the atmospheric pressure (i.e. the elevation above sea level at which the pump is installed) and the temperature of the liquid.

To help the user, with reference to water temperature (4° C) and to the elevation above sea level, the following tables show the drop in hydraulic pressure head in relation to the elevation above sea level, and the suction loss in relation to temperature.

Water temperature (°C)	20	40	60	80	90	110	120
Suction loss (m)	0,2	0,7	2,0	5,0	7,4	15,4	21,5

Elevation above sea level (m)	500	1000	1500	2000	2500	3000
Suction loss (m)	0,55	1,1	1,65	2,2	2,75	3,3

Friction loss is shown in the tables at pages 117-118 of this catalogue. To reduce it to a minimum, especially in cases of high suction head (over 4-5 m.) or within the operating limits with high flow rates, we recommend using a suction line having a larger diameter than that of the pump's suction port.
It is always a good idea to position the pump as close as possible to the liquid to be pumped.

Make the following calculation:

Liquid: water at ~15°C γ = 1 kg/dm^3
Flow rate required: 30 m^3/h
Head for required delivery: 43 m.
Suction lift: 3,5 m.
The selection is an FHE 40-200/75 pump whose NPSH required value is, at 30 m^3/h, di 2,5 m.

For water at 15 °C

hp = Pa / γ = 10,33m, hpv = Pv / γ = 0,174m (0,01701 bar)

The Hf flow resistance in the suction line with foot valves is ~ 1,2 m.
By substituting the parameters in formula ①with the numeric values above, we have:

10,33 + (-3,5) ≥ (2,5 + 0,5) + 1,2 + 0,17

from which we have: 6,8 > 4,4

The relation is therefore verified.

TECHNICAL APPENDIX VAPOUR PRESSURE ps VAPOUR PRESSURE AND ρ DENSITY OF WATER TABLE

t	T	ps	ρ
°C	K	bar	kg/dm³
0	273,15	0,00611	0,9998
1	274,15	0,00657	0,9999
2	275,15	0,00706	0,9999
3	276,15	0,00758	0,9999
4	277,15	0,00813	1,0000
5	278,15	0,00872	1,0000
6	279,15	0,00935	1,0000
7	280,15	0,01001	0,9999
8	281,15	0,01072	0,9999
9	282,15	0,01147	0,9998
10	283,15	0,01227	0,9997
11	284,15	0,01312	0,9997
12	285,15	0,01401	0,9996
13	286,15	0,01497	0,9994
14	287,15	0,01597	0,9993
15	288,15	0,01704	0,9992
16	289,15	0,01817	0,9990
17	290,15	0,01936	0,9988
18	291,15	0,02062	0,9987
19	292,15	0,02196	0,9985
20	293,15	0,02337	0,9983
21	294,15	0,24850	0,9981
22	295,15	0,02642	0,9978
23	296,15	0,02808	0,9976
24	297,15	0,02982	0,9974
25	298,15	0,03166	0,9971
26	299,15	0,03360	0,9968
27	300,15	0,03564	0,9966
28	301,15	0,03778	0,9963
29	302,15	0,04004	0,9960
30	303,15	0,04241	0,9957
31	304,15	0,04491	0,9954
32	305,15	0,04753	0,9951
33	306,15	0,05029	0,9947
34	307,15	0,05318	0,9944
35	308,15	0,05622	0,9940
36	309,15	0,05940	0,9937
37	310,15	0,06274	0,9933
38	311,15	0,06624	0,9930
39	312,15	0,06991	0,9927
40	313,15	0,07375	0,9923
41	314,15	0,07777	0,9919
42	315,15	0,08198	0,9915
43	316,15	0,09639	0,9911
44	317,15	0,09100	0,9907
45	318,15	0,09582	0,9902
46	319,15	0,10086	0,9898
47	320,15	0,10612	0,9894
48	321,15	0,11162	0,9889
49	322,15	0,11736	0,9884
50	323,15	0,12335	0,9880
51	324,15	0,12961	0,9876
52	325,15	0,13613	0,9871
53	326,15	0,14293	0,9862
54	327,15	0,15002	0,9862

t	T	ps	ρ
°C	K	bar	kg/dm³
55	328,15	0,15741	0,9857
56	329,15	0,16511	0,9852
57	330,15	0,17313	0,9846
58	331,15	0,18147	0,9842
59	332,15	0,19016	0,9837
60	333,15	0,1992	0,9832
61	334,15	0,2086	0,9826
62	335,15	0,2184	0,9821
63	336,15	0,2286	0,9816
64	337,15	0,2391	0,9811
65	338,15	0,2501	0,9805
66	339,15	0,2615	0,9799
67	340,15	0,2733	0,9793
68	341,15	0,2856	0,9788
69	342,15	0,2984	0,9782
70	343,15	0,3116	0,9777
71	344,15	0,3253	0,9770
72	345,15	0,3396	0,9765
73	346,15	0,3543	0,9760
74	347,15	0,3696	0,9753
75	348,15	0,3855	0,9748
76	349,15	0,4019	0,9741
77	350,15	0,4189	0,9735
78	351,15	0,4365	0,9729
79	352,15	0,4547	0,9723
80	353,15	0,4736	0,9716
81	354,15	0,4931	0,9710
82	355,15	0,5133	0,9704
83	356,15	0,5342	0,9697
84	357,15	0,5557	0,9691
85	358,15	0,5780	0,9684
86	359,15	0,6011	0,9678
87	360,15	0,6249	0,9671
88	361,15	0,6495	0,9665
89	362,15	0,6749	0,9658
90	363,15	0,7011	0,9652
91	364,15	0,7281	0,9644
92	365,15	0,7561	0,9638
93	366,15	0,7849	0,9630
94	367,15	0,8146	0,9624
95	368,15	0,8453	0,9616
96	369,15	0,8769	0,9610
97	370,15	0,9094	0,9602
98	371,15	0,9430	0,9596
99	372,15	0,9776	0,9586
100	373,15	1,0133	0,9581
102	375,15	1,0878	0,9567
104	377,15	1,1668	0,9552
106	379,15	1,2504	0,9537
108	381,15	1,3390	0,9522
110	383,15	1,4327	0,9507
112	385,15	1,5316	0,9491
114	387,15	1,6362	0,9476
116	389,15	1,7465	0,9460
118	391,15	1,8628	0,9445

t	T	ps	ρ
°C	K	bar	kg/dm³
120	393,15	1,9854	0,9429
122	395,15	2,1145	0,9412
124	397,15	2,2504	0,9396
126	399,15	2,3933	0,9379
128	401,15	2,5435	0,9362
130	403,15	2,7013	0,9346
132	405,15	2,867	0,9328
134	407,15	3,041	0,9311
136	409,15	3,223	0,9294
138	411,15	3,414	0,9276
140	413,15	3,614	0,9258
145	418,15	4,155	0,9214
155	428,15	5,433	0,9121
160	433,15	6,181	0,9073
165	438,15	7,008	0,9024
170	433,15	7,920	0,8973
175	448,15	8,924	0,8921
180	453,15	10,027	0,8869
185	458,15	11,233	0,8815
190	463,15	12,551	0,8760
195	468,15	13,987	0,8704
200	473,15	15,550	0,8647
205	478,15	17,243	0,8588
210	483,15	19,077	0,8528
215	488,15	21,060	0,8467
220	493,15	23,198	0,8403
225	498,15	25,501	0,8339
230	503,15	27,976	0,8273
235	508,15	30,632	0,8205
240	513,15	33,478	0,8136
245	518,15	36,523	0,8065
250	523,15	39,776	0,7992
255	528,15	43,246	0,7916
260	533,15	46,943	0,7839
265	538,15	50,877	0,7759
270	543,15	55,058	0,7678
275	548,15	59,496	0,7593
280	553,15	64,202	0,7505
285	558,15	69,186	0,7415
290	563,15	74,461	0,7321
295	568,15	80,037	0,7223
300	573,15	85,927	0,7122
305	578,15	92,144	0,7017
310	583,15	98,70	0,6906
315	588,15	105,61	0,6791
320	593,15	112,89	0,6669
325	598,15	120,56	0,6541
330	603,15	128,63	0,6404
340	613,15	146,05	0,6102
350	623,15	165,35	0,5743
360	633,15	186,75	0,5275
370	643,15	210,54	0,4518
374,15	647,30	221,20	0,3154

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TABLE OF FLOW RESISTANCE IN 100 m OF STRAIGHT CAST IRON PIPELINE (HAZEN-WILLIAMS FORMULA C=100)

FLOW RATE			NOMINAL DIAMETER in mm and inches															
m^3/h	l/min		15 1/2"	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2"	65 2 1/2"	80 3"	100 4"	125 5"	150 6"	175 7"	200 8"	250 10"	300 12"	350 14"	400 16"
0,6	10	v	0,94	0,53	0,34	0,21	0,13												
		hr	16	3,94	1,33	0,40	0,13												
0,9	15	v	1,42	0,80	0,51	0,31	0,20												
		hr	33,9	8,35	2,82	0,85	0,29												
1,2	20	v	1,89	1,06	0,68	0,41	0,27	0,17											
		hr	57,7	14,21	4,79	1,44	0,49	0,16											
1,5	25	v	2,36	1,33	0,85	0,52	0,33	0,21											
		hr	87,2	21,5	7,24	2,18	0,73	0,25											
1,8	30	v	2,83	1,59	1,02	0,62	0,40	0,25											
		hr	122	30,1	10,1	3,05	1,03	0,35											
2,1	35	v	3,30	1,86	1,19	0,73	0,46	0,30											
		hr	162	40,0	13,5	4,06	1,37	0,46											
2,4	40	v		2,12	1,36	0,83	0,53	0,34	0,20										
		hr		51,2	17,3	5,19	1,75	0,59	0,16										
3	50	v		2,65	1,70	1,04	0,66	0,42	0,25										
		hr		77,4	26,1	7,85	2,65	0,89	0,25										
3,6	60	v		3,18	2,04	1,24	0,80	0,51	0,30										
		hr		108	36,6	11,0	3,71	1,25	0,35										
4,2	70	v		3,72	2,38	1,45	0,93	0,59	0,35										
		hr		144	48,7	14,6	4,93	1,66	0,46										
4,8	80	v		4,25	2,72	1,66	1,06	0,68	0,40										
		hr		185	62,3	18,7	6,32	2,13	0,59										
5,4	90	v			3,06	1,87	1,19	0,76	0,45	0,30									
		hr			77,5	23,3	7,85	2,65	0,74	0,27									
6	100	v			3,40	2,07	1,33	0,85	0,50	0,33									
		hr			94,1	28,3	9,54	3,22	0,90	0,33									
7,5	125	v			4,25	2,59	1,66	1,06	0,63	0,41									
		hr			142	42,8	14,4	4,86	1,36	0,49									
9	150	v				3,11	1,99	1,27	0,75	0,50	0,32								
		hr				59,9	20,2	6,82	1,90	0,69	0,23								
10,5	175	v				3,63	2,32	1,49	0,88	0,58	0,37								
		hr				79,7	26,9	9,07	2,53	0,92	0,31								
12	200	v				4,15	2,65	1,70	1,01	0,66	0,42								
		hr				102	34,4	11,6	3,23	1,18	0,40								
15	250	v				5,18	3,32	2,12	1,26	0,83	0,53	0,34							
		hr				154	52,0	17,5	4,89	1,78	0,60	0,20							
18	300	v					3,98	2,55	1,51	1,00	0,64	0,41							
		hr					72,8	24,6	6,85	2,49	0,84	0,28							
24	400	v					5,31	3,40	2,01	1,33	0,85	0,54	0,38						
		hr					124	41,8	11,66	4,24	1,43	0,48	0,20						
30	500	v					6,63	4,25	2,51	1,66	1,06	0,68	0,47						
		hr					187	63,2	17,6	6,41	2,16	0,73	0,30						
36	600	v						5,10	3,02	1,99	1,27	0,82	0,57	0,42					
		hr						88,6	24,7	8,98	3,03	1,02	0,42	0,20					
42	700	v						5,94	3,52	2,32	1,49	0,95	0,66	0,49					
		hr						118	32,8	11,9	4,03	1,36	0,56	0,26					
48	800	v						6,79	4,02	2,65	1,70	1,09	0,75	0,55					
		hr						151	42,0	15,3	5,16	1,74	0,72	0,34					
54	900	v						7,64	4,52	2,99	1,91	1,22	0,85	0,62					
		hr						188	52,3	19,0	6,41	2,16	0,89	0,42					
60	1000	v							5,03	3,32	2,12	1,36	0,94	0,69	0,53				
		hr							63,5	23,1	7,79	2,63	1,08	0,51	0,27				
75	1250	v							6,28	4,15	2,65	1,70	1,18	0,87	0,66				
		hr							96,0	34,9	11,8	3,97	1,63	0,77	0,40				
90	1500	v							7,54	4,98	3,18	2,04	1,42	1,04	0,80				
		hr							134	48,9	16,5	5,57	2,29	1,08	0,56				
105	1750	v							8,79	5,81	3,72	2,38	1,65	1,21	0,93				
		hr							179	65,1	21,9	7,40	3,05	1,44	0,75				
120	2000	v								6,63	4,25	2,72	1,89	1,39	1,06	0,68			
		hr								83,3	28,1	9,48	3,90	1,84	0,96	0,32			
150	2500	v								8,29	5,31	3,40	2,36	1,73	1,33	0,85			
		hr								126	42,5	14,3	5,89	2,78	1,45	0,49			
180	3000	v									6,37	4,08	2,83	2,08	1,59	1,02	0,71		
		hr									59,5	20,1	8,26	3,90	2,03	0,69	0,28		
210	3500	v									7,43	4,76	3,30	2,43	1,86	1,19	0,83		
		hr									79,1	26,7	11,0	5,18	2,71	0,91	0,38		
240	4000	v									8,49	5,44	3,77	2,77	2,12	1,36	0,94		
		hr									101	34,2	14,1	6,64	3,46	1,17	0,48		
300	5000	v										6,79	4,72	3,47	2,65	1,70	1,18		
		hr										51,6	21,2	10,0	5,23	1,77	0,73		
360	6000	v										8,15	5,66	4,16	3,18	2,04	1,42		
		hr										72,3	29,8	14,1	7,33	2,47	1,02		
420	7000	v											6,61	4,85	3,72	2,38	1,65	1,21	
		hr											39,6	18,7	9,75	3,29	1,35	0,64	
480	8000	v											7,55	5,55	4,25	2,72	1,89	1,39	
		hr											50,7	23,9	12,49	4,21	1,73	0,82	
540	9000	v											8,49	6,24	4,78	3,06	2,12	1,56	1,19
		hr											63,0	29,8	15,5	5,24	2,16	1,02	0,53
600	10000	v												6,93	5,31	3,40	2,36	1,73	1,33
		hr												36,2	18,9	6,36	2,62	1,24	0,65

The hr values must be multiplied by:

0,71 for galvanized or painted steel pipes

0,54 for stainless steel or copper pipes

0,47 for PVC or PE pipes

hr = flow resistance for 100 m of straight pipeline (m)

V = water speed (m/s)

G-at-pct-en_b_th

FLOW RESISTANCE

TABLE OF FLOW RESISTANCE IN BENDS, VALVES AND GATES

The flow resistance is calculated using the equivalent pipeline length method according to the table below:

ACCESSORY TYPE	DN											
	25	32	40	50	65	80	100	125	150	200	250	300
	Equivalent pipeline length (m)											
45° bend	0,2	0,2	0,4	0,4	0,6	0,6	0,9	1,1	1,5	1,9	2,4	2,8
90° bend	0,4	0,6	0,9	1,1	1,3	1,5	2,1	2,6	3,0	3,9	4,7	5,8
90° smooth bend	0,4	0,4	0,4	0,6	0,9	1,1	1,3	1,7	1,9	2,8	3,4	3,9
Union tee or cross	1,1	1,3	1,7	2,1	2,6	3,2	4,3	5,3	6,4	7,5	10,7	12,8
Gate valve	-	-	-	0,2	0,2	0,2	0,4	0,4	0,6	0,9	1,1	1,3
Foot check valve	1,1	1,5	1,9	2,4	3,0	3,4	4,7	5,9	7,4	9,6	11,8	13,9
Non return valve	1,1	1,5	1,9	2,4	3,0	3,4	4,7	5,9	7,4	9,6	11,8	13,9

G-a-pcv-en_b_th

The table is valid for the Hazen Williams coefficient C = 100 (cast iron pipework):
- For steel pipework, multiply the values by 1.41.
- For stainless steel, copper and coated cast iron pipework, multiply the values by 1.85.

When the **equivalent pipeline length** has been determined, the flow resistance is obtained from the table of flow resistance.
The values given are guideline values which are bound to vary slightly according to the model, especially for gate valves and non-return valves, for which it is a good idea to check the values supplied by the manufacturers.

VOLUMETRIC CAPACITY

Litres per minute l/min	Cubic metres per hour m^3/h	Cubic feet per hour ft^3/h	Cubic feet per minute ft^3/min	Imperial gallon per minute Imp. gal/min	U.S. gallon per minute US gal/min
1,0000	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	**1,0000**	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	**1,0000**	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	**1,0000**	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	**1,0000**	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	**1,0000**

PRESSURE AND HEAD

Newton per square metre N/m^2	kilo Pascal kPa	bar bar	Pound force per square inch psi	Metre of water m H_2O	Millimetre of mercury mm Hg
1,0000	0,0010	1×10^{-5}	$1,45 \times 10^{-4}$	$1,02 \times 10^{-4}$	0,0075
1 000,0000	**1,0000**	0,0100	0,1450	0,1020	7,5006
1×10^5	100,0000	**1,0000**	14,5038	10,1972	750,0638
6 894,7570	6,8948	0,0689	**1,0000**	0,7031	51,7151
9 806,6500	9,8067	0,0981	1,4223	**1,0000**	73,5561
133,3220	0,1333	0,0013	0,0193	0,0136	**1,0000**

LENGTH

Millimetre mm	Centimetre cm	Metre m	Inch in	Foot ft	Yard yd
1,0000	0,1000	0,0010	0,0394	0,0033	0,0011
10,0000	**1,0000**	0,0100	0,3937	0,0328	0,0109
1 000,0000	100,0000	**1,0000**	39,3701	3,2808	1,0936
25,4000	2,5400	0,0254	**1,0000**	0,0833	0,0278
304,8000	30,4800	0,3048	12,0000	**1,0000**	0,3333
914,4000	91,4400	0,9144	36,0000	3,0000	**1,0000**

VOLUME

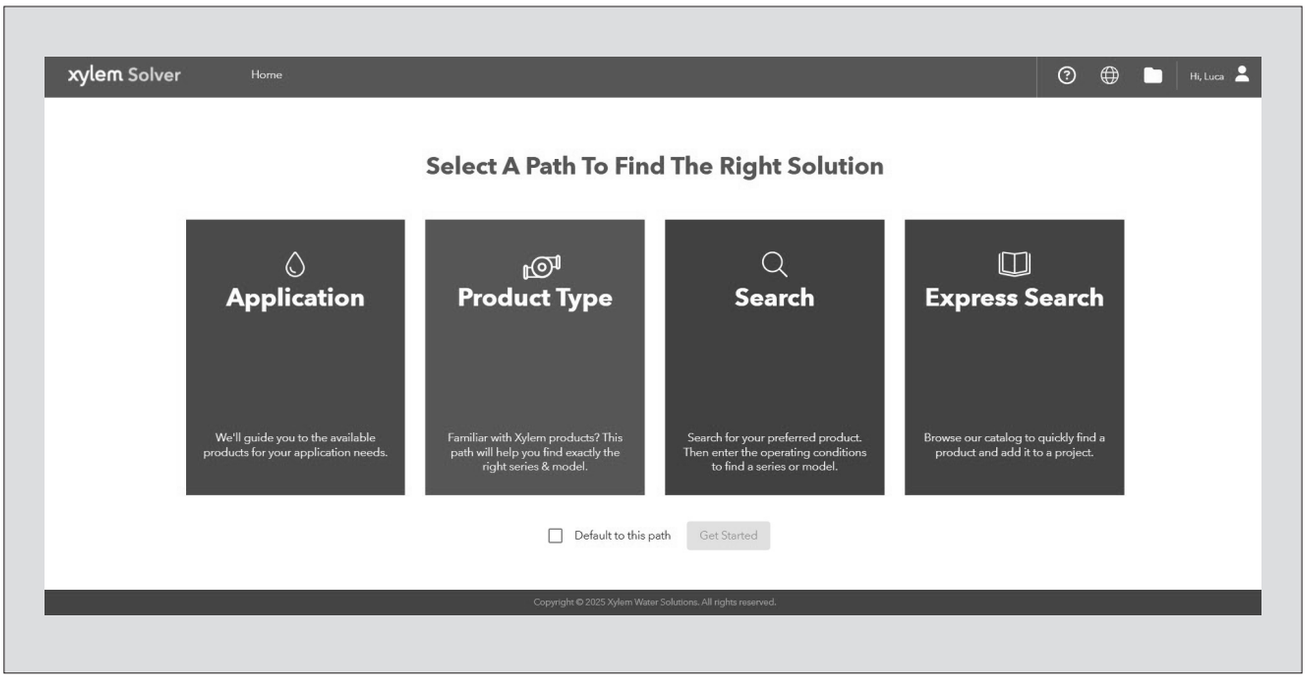
Cubic metre m^3	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft^3
1,0000	1 000,0000	1×10^6	219,9694	264,1720	35,3147
0,0010	**1,0000**	1 000,0000	0,2200	0,2642	0,0353
1×10^{-6}	0,0010	**1,0000**	$2,2 \times 10^{-4}$	$2,642 \times 10^{-4}$	$3,53 \times 10^{-5}$
0,0045	4,5461	4 546,0870	**1,0000**	1,2009	0,1605
0,0038	3,7854	3 785,4120	0,8327	**1,0000**	0,1337
0,0283	28,3168	28 316,8466	6,2288	7,4805	**1,0000**

TEMPERATURE

Water	Kelvin K	Celsius °C	Fahrenheit °F	
icing	273,1500	0,0000	32,0000	$°F = °C \times \frac{9}{5} + 32$
boiling	373,1500	100,0000	212,0000	$°C = (°F - 32) \times \frac{5}{9}$

G-at_pp-en_b_sc

FURTHER PRODUCT SELECTION AND DOCUMENTATION
Xylem Solver



Xylem Solver is pump solution selection software with an extensive online database of product information across the entire Xylem range of pumps and related products, with multiple search options and helpful project management facilities. The system holds up-to-date product information on thousands of products and accessories.

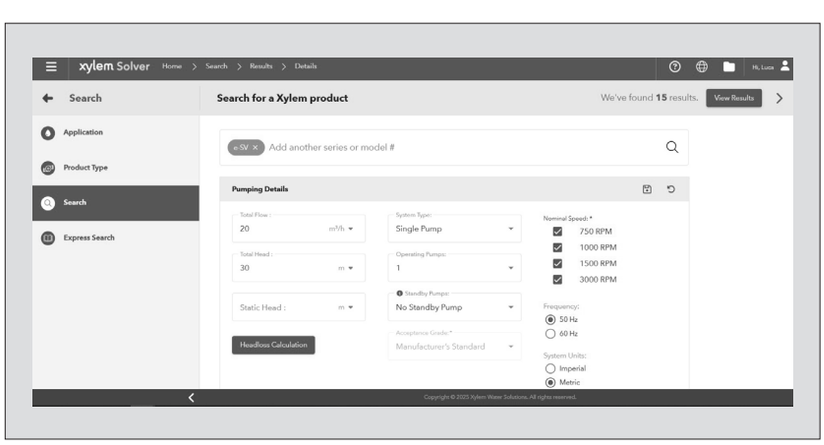
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Xylem products.

The search can be made by:

- Application
- Product type
- Duty point

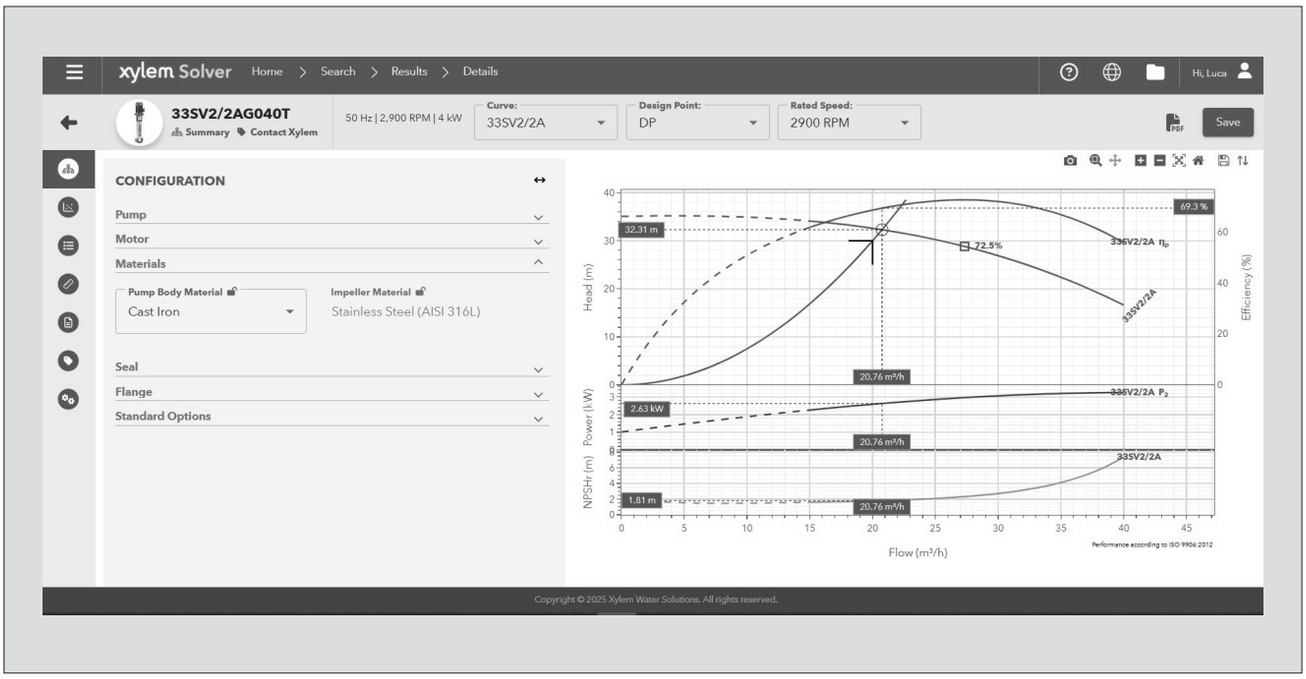
Xylem Solver gives a detailed output:

- List with search results in which you can compare up to four products
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf, stp and BIM files



Once a product series has been selected, input design criteria to select pumps that meet the design requirements.

FURTHER PRODUCT SELECTION AND DOCUMENTATION
Xylem Solver



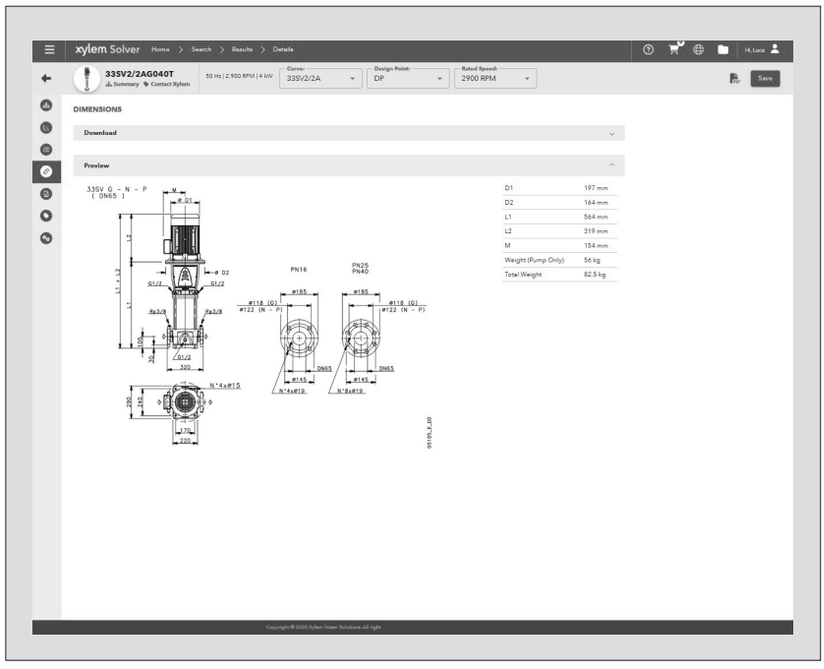
The detailed output makes it easy to select the optimal pump from the given alternatives.

The best way to work with Xylem Solver is to create a personal account. This makes it possible to:

- Set own standard units
- Create and save projects

Every registered user has a proper space, where all projects are saved.

For more information about Xylem Solver please contact our sales network or visit **https://solver.xylem.com.**



The dimensions tab shows technical drawings, dimensions, and CAD files when available.

Xylem |'zīləm|

1) the tissue in plants that brings water and nutrients upward from the roots.

2) a leading global water solutions company.

Xylem is the connective tissue and system in plants which cleanses and transports water from the root to where it is needed most to sustain life.

And this is the essence of Xylem as a company. We are committed to driving sustainable impact by ensuring our connected technologies and solutions support our customers and the communities they serve, to tackle the water challenges that matter most to them.

For more information on how Xylem can help you, visit xylem.com.

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