

Introduction

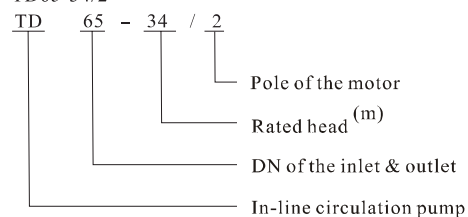
TD in-line circulation centrifugal pump is single stage, single suction centrifugal pump. We use an excellently performed hydraulic model when designing. Flow part of pump is manufactured by precision casting technology. The technology makes flow part smooth with little friction and high efficiency.

The advantage of TD series is energy saving, little noise, reliable performance. The structure is compact. It is easy to assemble and dismantle. It can be connected with pipe work directly. It is used for liquid transferring and circulation and boosting.

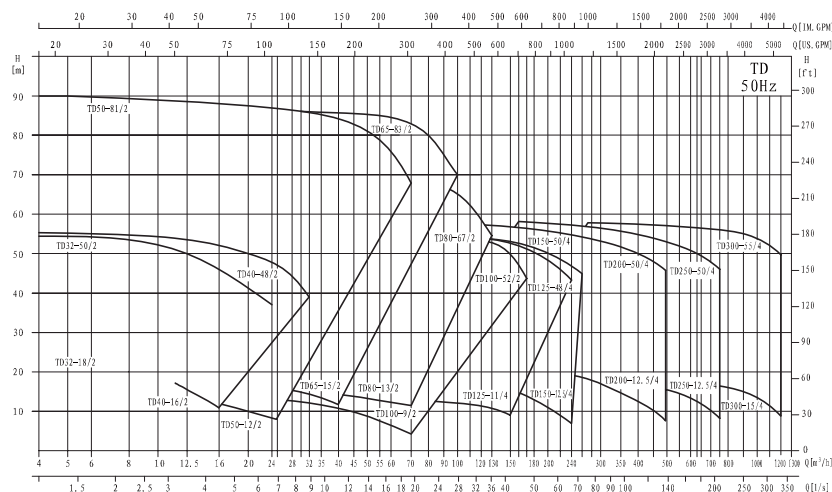
TD series pump has an innovative easy-disassemble structure design, it is no necessary to dismantle the motor when you change the mechanical seal.

Definition of Model

TD65-34/2



Performance scope



Product range

table 1

50Hz

NO.	Model	Q (m³/h)	H (m)	n (r/min)	Standard voltage (V)	
					1×220V	3×380V
					P ₂ (kW)	P ₂ (kW)
1	TD32-18/2	8	18	2900	1.1	1.1
2	TD32-21/2	12.5	21		1.5	1.5
3	TD32-25/2	12.5	25		2.2	2.2
4	TD32-32/2	12.5	32			3
5	TD32-38/2	12.5	38			4
6	TD32-50/2	12.5	50			5.5
7	TD40-16/2	12.5	16		1.1	1.1
8	TD40-20/2	12.5	20		1.5	1.5
9	TD40-18/2	20	18		2.2	2.2
10	TD40-25/2	20	25			3
11	TD40-30/2	25	30			4
12	TD40-36/2	25	36			5.5
13	TD40-48/2	25	48			7.5
14	TD50-32/2	12.5	32			3
15	TD50-38/2	12.5	38			4
16	TD50-48/2	12.5	48			5.5
17	TD50-12/2	16	12		1.1	1.1
18	TD50-15/2	20	15		1.5	1.5
19	TD50-18/2	25	18		2.2	2.2
20	TD50-24/2	25	24			3
21	TD50-28/2	30	28			4
22	TD50-35/2	30	35		5.5	
23	TD50-40/2	35	40		7.5	
24	TD50-50/2	40	50		11	
25	TD50-60/2	50	60		15	
26	TD50-70/2	50	70		18.5	
27	TD50-81/2	50	81		22	
28	TD65-36/2	25	36		5.5	
29	TD65-48/2	25	48		7.5	
30	TD65-15/2	30	15	2.2	2.2	
31	TD65-19/2	30	19		3	
32	TD65-22/2	40	22		4	
33	TD65-30/2	40	30		5.5	
34	TD65-34/2	50	34		7.5	
35	TD65-40/2	50	40		11	
36	TD65-50/2	50	50		15	
37	TD65-61/2	50	61		18.5	
38	TD65-67/2	50	67		22	
39	TD65-83/2	50	83		30	
40	TD80-13/2	50	13		3	
41	TD80-18/2	50	18		4	

Product range

table 1 (continued)

50Hz

NO.	Model	Q (m ³ /h)	H (m)	n (r/min)	Standard voltage (V)	
					1×220V	3×380V
					P ₂ (kW)	P ₂ (kW)
42	TD80-22/2	50	22	2900		5.5
43	TD80-28/2	50	28			7.5
44	TD80-40/2	50	40			11
45	TD80-48/2	50	48			15
46	TD80-30/2	80	30			11
47	TD80-38/2	80	38			15
48	TD80-47/2	80	47			18.5
49	TD80-54/2	80	54			22
50	TD80-67/2	80	67			30
51	TD100-9/2	50	9			2.2
52	TD100-15/2	60	15			4
53	TD100-17/2	80	17			5.5
54	TD100-22/2	80	22			7.5
55	TD100-27/2	100	27			11
56	TD100-33/2	100	33		15	
57	TD100-40/2	100	40		18.5	
58	TD100-48/2	100	48		22	
59	TD100-52/2	130	52		30	
60	TD125-11/4	120	11	1450		5.5
61	TD125-14/4	120	14			7.5
62	TD125-18/4	160	18	1480		11
63	TD125-22/4	160	22			15
64	TD125-28/4	160	28			18.5
65	TD125-32/4	160	32			22
66	TD125-40/4	160	40			30
67	TD125-48/4	160	48			37
68	TD150-12.5/4	200	12.5			11
69	TD150-17/4	200	17			15
70	TD150-21/4	200	21			18.5
71	TD150-25/4	200	25			22
72	TD150-33/4	200	33			30
73	TD150-40/4	200	40			37
74	TD150-50/4	200	50			45
75	TD200-15/4	300	15			18.5
76	TD200-18/4	300	18		22	
77	TD200-24/4	300	24		30	
78	TD200-30/4	300	30		37	
79	TD200-35/4	300	35		45	
80	TD200-44/4	300	44		55	
81	TD200-53/4	300	53		75	
82	TD200-12.5/4	400	12.5		22	
83	TD200-20/4	400	20		30	

Product range

table 1 (continued)

50Hz

序号	泵型号	Q [m ³ /h]	H [m]	n [r/min]	标准电机电压 [V]	
					1×220V	3×380V
					P ₂ [kW]	P ₂ [kW]
84	TD200-23/4	400	23	1480		37
85	TD200-27/4	400	27			45
86	TD200-32/4	400	32			55
87	TD200-43/4	400	43			75
88	TD200-50/4	400	50			90
89	TD250-15/4	500	15			30
90	TD250-18/4	500	18			37
91	TD250-21/4	500	21			45
92	TD250-27/4	500	27			55
93	TD250-36/4	500	36			75
94	TD250-44/4	500	44			90
95	TD250-53/4	500	53			110
96	TD250-12.5/4	630	12.5			30
97	TD250-14/4	630	14			37
98	TD250-17/4	630	17		45	
99	TD250-20/4	630	20		55	
100	TD250-26/4	630	26		75	
101	TD250-32/4	630	32		90	
102	TD250-40/4	630	40		110	
103	TD250-50/4	630	50		132	
104	TD300-15/4	900	15		55	
105	TD300-20/4	900	20		75	
106	TD300-25/4	900	25		90	
107	TD300-30/4	900	30		110	
108	TD300-35/4	900	35		132	
109	TD300-44/4	900	44		160	
110	TD300-55/4	900	55		200	

Minimum inlet pressure NPSH

In case that the pressure in pump is lower than the steam pressure used to convey liquid, the caviations will occur. To avoid caviations, a minimum pressure at the inlet side of the pump shall be guaranteed. The maximum suction can be calculated with following formula:

$$H = P_b \times 10.2 - NPSH - H_f - H_v - H_s$$

H—Maximum suction head (m)

P_b—Atmosphere pressure (bar)

In a closed system, P_b means system pressure(bar)

NPSH—Net positive suction head (m)

It can be read from the point of Max. flow rate shown on NPSH curve.

H_f—Pipeline loss at the inlet (m)

It is in accordance with pipeline possible Max. flow.

H_v—Steam pressure (m)

It depends on liquid temperature and steam pressure value.

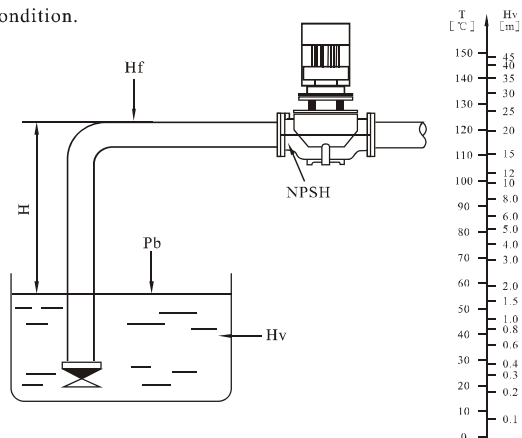
H_s—Safety margin (m)

Minimum 0.5m delivery head.

If the calculated result H is negative, the pump may run under the Max. suction head H. In case the calculated result H is negative, a delivery head of Min. inlet pressure is necessary.

Note: Normally, the above calculation will not be done. H is calculated in the following conditions:

- 1、The liquid temperature is comparatively higher;
- 2、Liquid flow exceeds rated value;
- 3、Suction head is comparatively large or inlet pipeline long;
- 4、System pressure is too low;
- 5、Bad inlet condition.



Applications

The pumped liquid is clean, thin, non-corrosive, non-flammable, and non-explosive liquid which shall not contain any solid grain and fibre that might damage the pump mechanically or chemically.

The detailed requirements on the liquid is in table2 . If the liquid viscosity or density is beyond the required level, the performance curves will descend and energy consumption will be increased.

Liquid temperature:-15℃ ~110℃

Max. Working pressure: Normal type:PN12 bar ; special type: PN 16 bar.

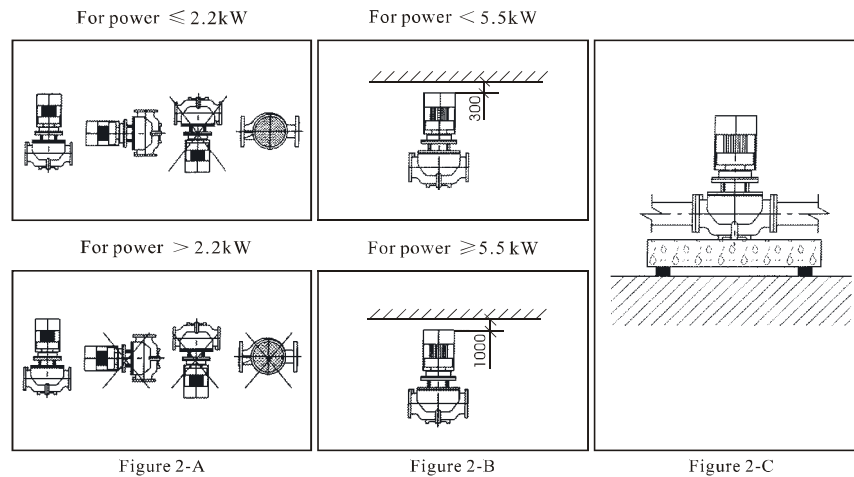
table2

	Liquid	Max. temperature	Liquid requirement	Application
Water	Groundwater	<90℃		TD pumps are applicable for urban water supply, industrial water, cooling system, and cold & hot water for regional heat supply system: 1) main circulation pump 2) mixed circuit pump 3) boiler mixed-flow pump 4) gas-fired freezer pump 5) filter pump 6) constant pressure system pump 7) urban hot water circulation
	Boiler feed water	<110℃		
	District feed water	<110℃		
	Condensate	<90℃		
	Softened water	-15℃ ~110℃		
	Alkalescent water		Weak alkalescence	
	Cooling and cutting lubricant		Additive and little impurity may damage the shaft seal	
Coolants	Hydrocarbon based antifreeze	<50℃	Little rime may damage the shaft seal	TD pumps can be used in chemical industry, pharmaceutical industry, food processing and so on. 1) liquid feeding 2) system pressure boosting 3) mixed circuit circulation pump
	Alcoholised compound	<50℃ 50%		
	30% brine(NaCl, CaCl ₂ solution, etc)	<50℃	Little rime may damage the shaft seal	
Organic solvents	Isopropyl alcohol	≤60℃	Flammable liquid	
	Propyl alcohol	≤60℃		
Oxidants	Hydrogen peroxide	≤60℃ 20%		

Installation requirements

Some detailed requirement of installation is as below, The concrete request is as following:

- 1、 If the system pipeline can support the pumps, pumps with 2.2kW motor power(including 2.2kW) can be hung in line; if the system pipeline cannot support the pumps or the pump motor power is higher than 2.2kW, the pumps must be installed in brackets or base.
- 2、 Pumps with motor power lower than 2.2kW(including 2.2kW) can be installed horizontally or vertically to the pipeline. Pumps with motor power higher than 2.2kW, can only be installed vertically to the pipeline (see 2-A).
- 3、 The pump installation shall not allow the system pipeline tensile force to be transferred to the pump body.
- 4、 The pump should be installed in the environment with sufficient cooling and the cooling air shall not be above 40°C.
- 5、 If the pumps are installed outdoors, there should be covers to protect electric components from water.
- 6、 For the convenience of maintenance, there should be enough space above and below the pumps. Minimum 300mm shall be kept for pumps with motor power lower than 5.5kW, and minimum 1000mm for pumps with motor power higher than 5.5kW. (See 2-B)
- 7、 To prevent noises and vibration and ensure the best operation, anti-vibration base shall be used in installation. Generally, cement base with the weight equal or bigger than $1.5 \times$ pump weight shall be adopted. (See 2-C).
- 8、 For TD32to TD150, pumps with bases or without bases are both available for customers requirements. (See appendix TD32-TD150 for basedimensions).



Product structure and component material

The design of the pump is pump and motor.Pump part can be pulled out.The TD series are equipped with standard motor and mechanical seal.Motor is TEFC standard motor. Its major dimensions are in conformity with JB/T8680 standard.

The pump body is equal to a section of pipeline. While in maintenance, blind flange can be used to seal to pump cover which enable the normal operation of pumps.

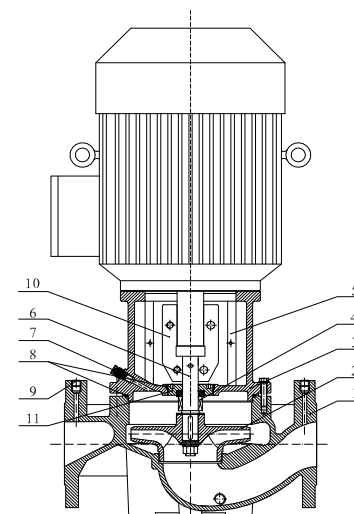
The flange connection dimension are in conformity with the related provisions PN16 in GB/T 17241.6 or ISO7005-2/DIN 2501.

The inlet and outlet diameters are inconformity with related standard dimensions.

The pump head is to connect motor and the pump. “O” ring is used to seal the pump head and the pump.

See Table 4 for component materials.

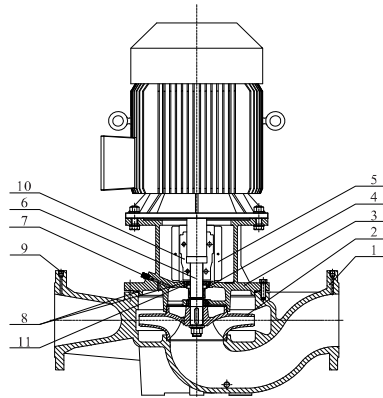
Section drawing TD32-18/2~TD125-14/4



Material TD32-18/2~TD125-14/4

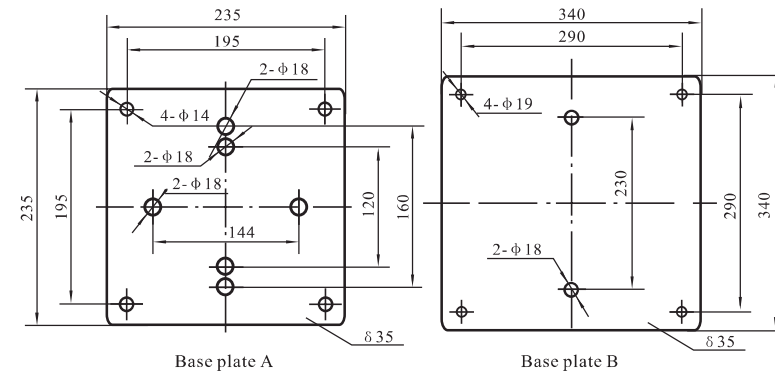
NO.	Parts	Material
1	Pump body	HT200
2	Impeller	HT200
3	Pump head	HT200
4	Mechanical seal	Carbon /Silicon Carbide
5	Guard plate	06Cr19Ni10
6	Shaft	20Cr13
7	Air release bolt	06Cr19Ni10
8	O Ring	NBR
9	Plug	06Cr19Ni10
10	Coupling	QT500-7
11	Mechanical seal base	Cast steel

**Section drawing
TD125-18/4~TD150-50/4**

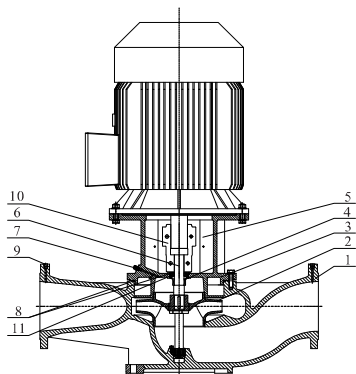


Material TD125-18/4~TD150-50/4

NO.	Parts	Material
1	Pump body	HT200
2	Impeller	HT200
3	Pump head	HT200
4	Mechanical seal	Carbon/Silicon Carbide
5	Guard plate	06Cr19Ni10
6	Shaft	20Cr13
7	Air release bolt	06Cr19Ni10
8	O ring	NBR
9	Plug	06Cr19Ni10
10	Coupling	QT500-7
11	Mechanical seal base	Cast steel



Section drawing TD200 ~ TD250



Material TD200~TD250

NO.	Parts	Material
1	Pump body	HT200
2	Impeller	HT200
3	Pump head	HT200
4	Mechanical seal	Carbon /Silicon Carbide
5	Guard plate	06Cr19Ni10
6	Shaft	20Cr13
7	Air release bolt	06Cr19Ni10
8	O ring	NBR
9	Plug	06Cr19Ni10
10	Coupling	QT500-7
11	Mechanical seal base	Cast steel

table 3

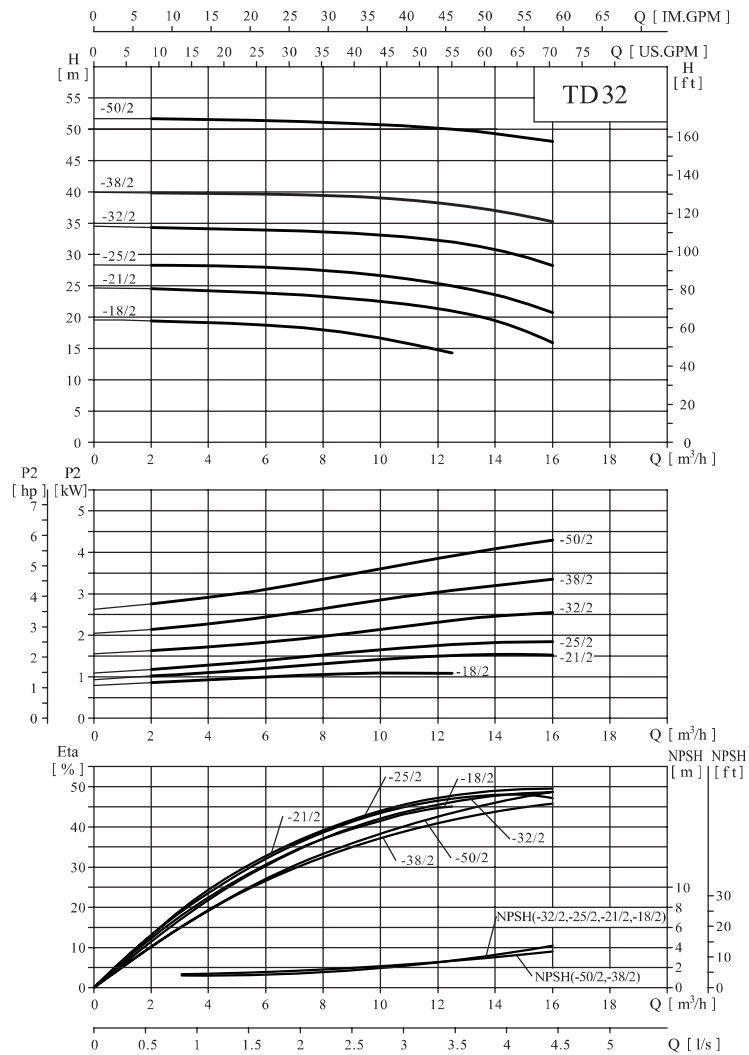
50Hz

NO.	Product model	Base plate A	NO.	Product model	Base plate A	NO.	Product model	Base plate B
1	TD32-18/2	A	27	TD50-81/2	A	53	TD100-17/2	A
2	TD32-21/2	A	28	TD65-36/2	A	54	TD100-22/2	A
3	TD32-25/2	A	29	TD65-48/2	A	55	TD100-27/2	A
4	TD32-32/2	A	30	TD65-15/2	A	56	TD100-33/2	A
5	TD32-38/2	A	31	TD65-19/2	A	57	TD100-40/2	B
6	TD32-50/2	A	32	TD65-22/2	A	58	TD100-48/2	B
7	TD40-16/2	A	33	TD65-30/2	A	59	TD100-52/2	B
8	TD40-20/2	A	34	TD65-34/2	A	60	TD125-11/4	B
9	TD40-18/2	A	35	TD65-40/2	A	61	TD125-14/4	B
10	TD40-25/2	A	36	TD65-50/2	A	62	TD125-18/4	B
11	TD40-30/2	A	37	TD65-61/2	A	63	TD125-22/4	B
12	TD40-36/2	A	38	TD65-67/2	A	64	TD125-28/4	B
13	TD40-48/2	A	39	TD65-83/2	A	65	TD125-32/4	B
14	TD50-32/2	A	40	TD80-13/2	A	66	TD125-40/4	B
15	TD50-38/2	A	41	TD80-18/2	A	67	TD125-48/4	B
16	TD50-48/2	A	42	TD80-22/2	A	68	TD150-12.5/4	B
17	TD50-12/2	A	43	TD80-28/2	A	69	TD150-17/4	B
18	TD50-15/2	A	44	TD80-40/2	A	70	TD150-21/4	B
19	TD50-18/2	A	45	TD80-48/2	A	71	TD150-25/4	B
20	TD50-24/2	A	46	TD80-30/2	A	72	TD150-33/4	B
21	TD50-28/2	A	47	TD80-38/2	A	73	TD150-40/4	B
22	TD50-35/2	A	48	TD80-47/2	A	74	TD150-50/4	B
23	TD50-40/2	A	49	TD80-54/2	A			
24	TD50-50/2	A	50	TD80-67/2	A			
25	TD50-60/2	A	51	TD100-9/2	A			
26	TD50-70/2	A	52	TD100-15/2	A			

Remark: Base plate is optional part, need to note when order.

Performance curve

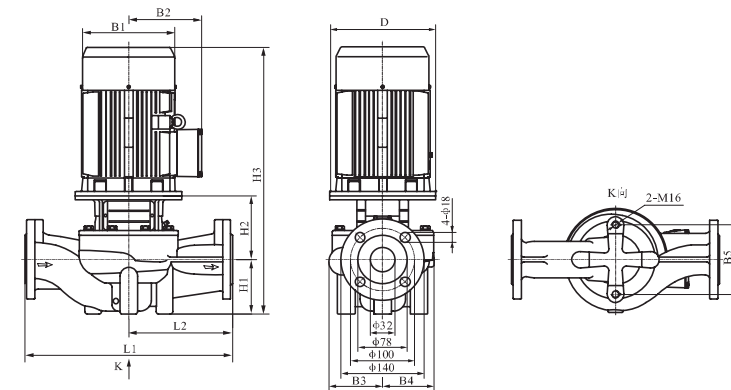
ISO9906 Annex A



Performance table

Mode	Driving motor (kW)	Q (m³/h)	2	4	6	8	10	12.5	14	16
TD32-18/2	1.1	H (m)	19.4	19.1	18.7	18	16.7	14.3		
TD32-21/2	1.5		24.5	24.2	23.9	23.3	22.5	21	19.4	15.9
TD32-25/2	2.2		28.3	28.2	28	27.5	26.7	25	23.6	20.7
TD32-32/2	3		34.3	34.2	33.9	33.6	33.1	32	30.8	28.2
TD32-38/2	4		39.8	39.8	39.7	39.4	39	38	37	35.2
TD32-50/2	5.5		51.7	51.6	51.4	51.1	50.7	50	49.3	48

Installation sketch

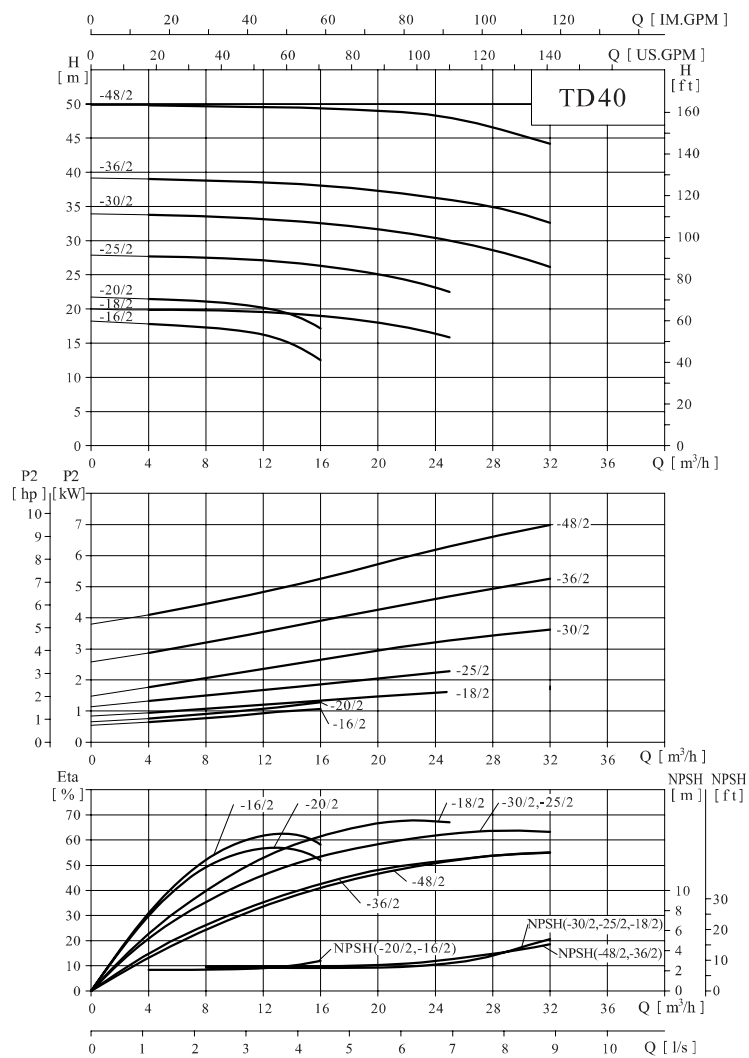


Size and weight

Model	Size(mm)											Weight (kg)
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1	L2	
TD32-18/2	120	170	142	125	117	144	100	189	540	340	170	36
TD32-21/2	140	190	155	125	117	144	100	199	592	340	170	40
TD32-25/2	140	190	155	125	117	144	100	199	592	340	170	42
TD32-32/2	160	197	165	125	117	144	100	205	619	340	170	48
TD32-38/2	160	230	188	144	144	144	100	207	642	440	220	64
TD32-50/2	200	260	208	144	144	144	100	227	737	440	220	85

Performance curve

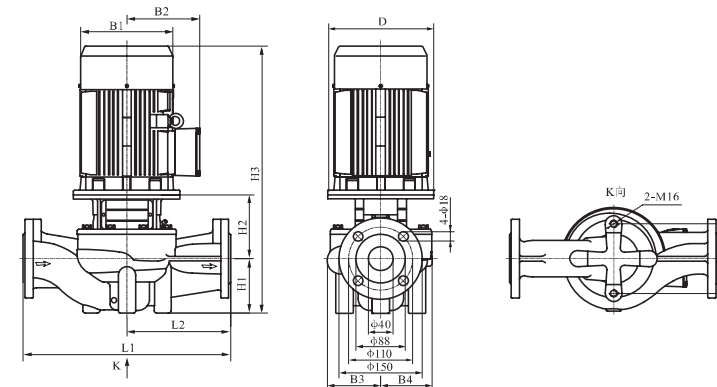
ISO9906 Annex A



Performance table

Mode	Driving motor (kW)	Q (m³/h)	4	8	12.5	16	20	25	28	32
TD40-16/2	1.1	H (m)	17.8	17.3	16	12.5				
TD40-20/2	1.5		21.5	21.1	20	17.2				
TD40-18/2	2.2		19.9	19.8	19.5	19	18	15.8		
TD40-25/2	3		27.7	27.5	27.1	26.4	25	22.5		
TD40-30/2	4		33.8	33.6	33.1	32.6	31.7	30	28.6	26.1
TD40-36/2	5.5		39	38.8	38.5	38.1	37.3	36	35	32.6
TD40-48/2	7.5		49.8	49.7	49.5	49.4	49	48	46.6	44.2

Installation sketch

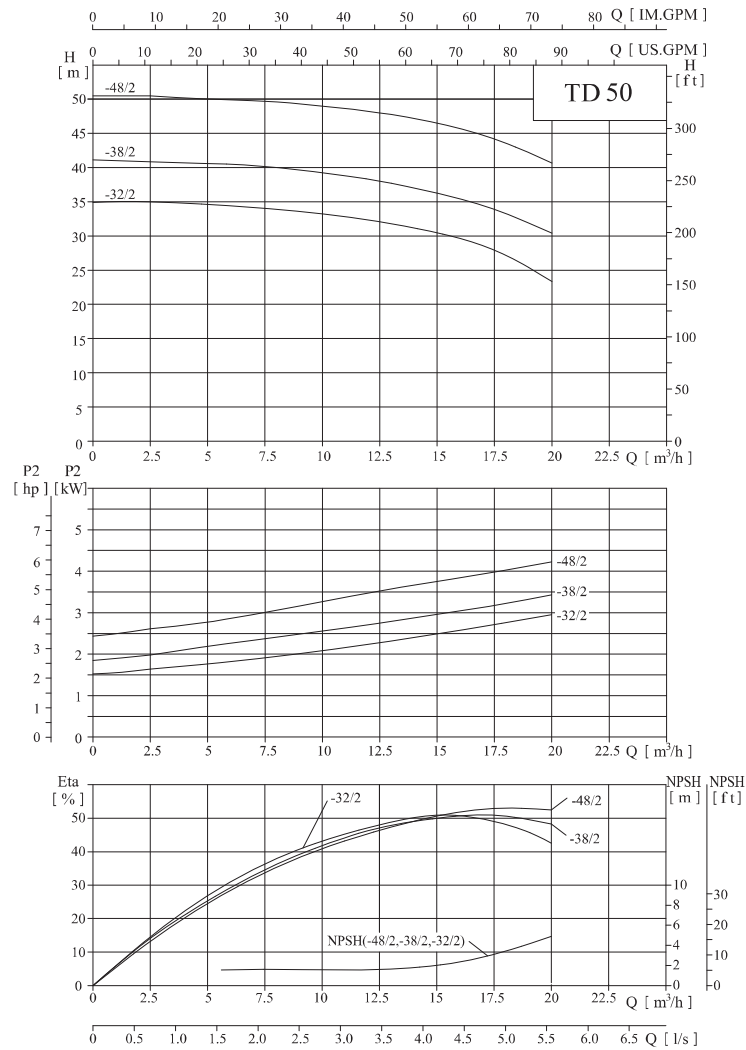


Size and weight

Model	Size(mm)											Weight (kg)
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1	L2	
TD40-16/2	120	170	142	97	96	120	68	178	497	320	160	31
TD40-20/2	140	190	155	97	96	120	68	188	549	320	160	36
TD40-18/2	140	190	155	110	95	144	100	195	588	340	170	40
TD40-25/2	160	197	165	127	115	144	100	207	621	340	170	52
TD40-30/2	160	230	188	127	115	144	100	207	642	340	170	62
TD40-36/2	200	260	208	138	125	144	110	227	747	440	220	86
TD40-48/2	200	260	208	138	125	144	110	227	747	440	220	95

Performance curve

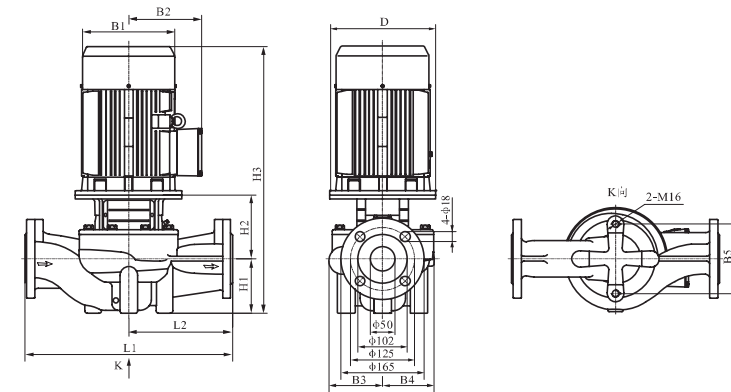
ISO9906 Annex A



Performance table

Model	Driving motor (kW)	Q (m³/h)	2.5	5	7.5	10	12.5	15	17.5	20
TD50-32/2	3	H (m)	35	34.6	34	33.2	32	30.5	27.9	23.3
TD50-38/2	4		40.8	40.6	40.2	39.2	38	36.2	33.9	30.4
TD50-48/2	5.5		50.5	50	49.7	49	48	46.5	44.2	40.7

Installation sketch

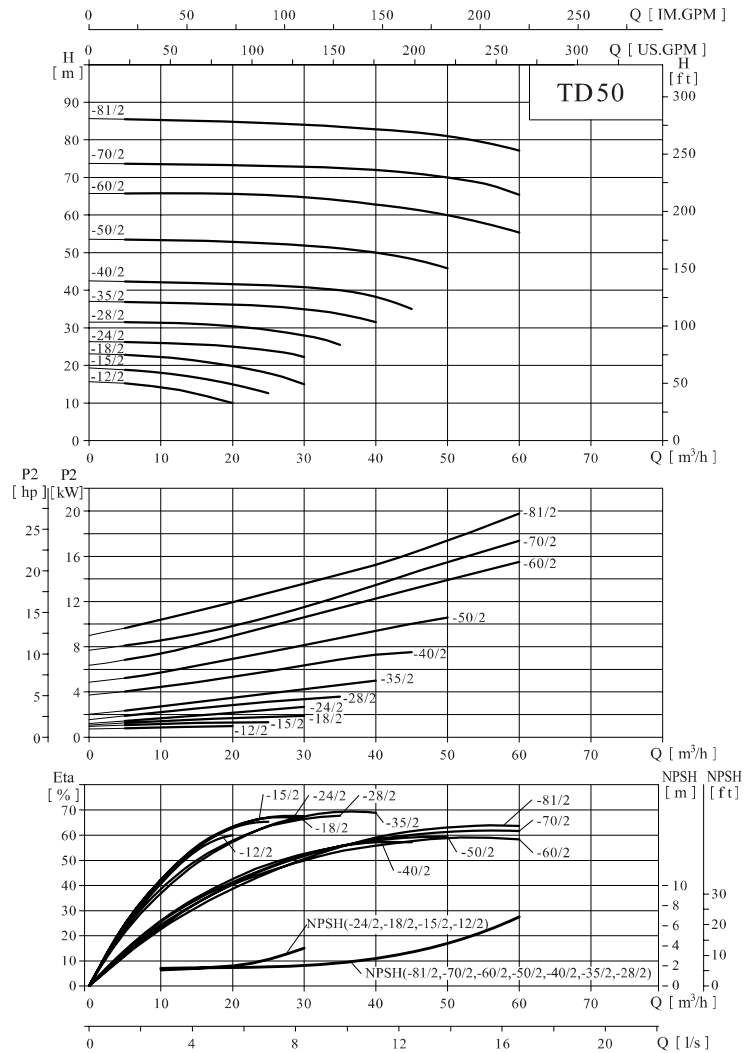


Size and weight

Model	Size(mm)											Weight (kg)
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1	L2	
TD50-32/2	160	197	165	128	128	144	105	181	600	400	200	58
TD50-38/2	160	230	188	128	128	144	105	181	621	400	200	68
TD50-48/2	200	260	208	128	128	144	105	201	716	400	200	85

Performance curve

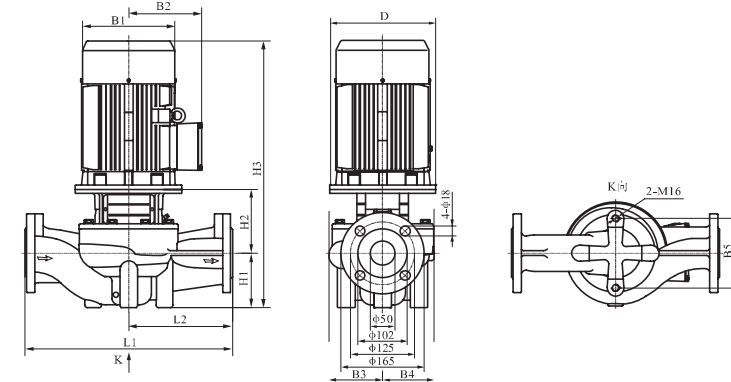
ISO9906 Annex A



Performance table

Mode	Driving motor (kW)	Q (m³/h)	5	10	16	20	25	30	35	40	45	50	60
TD50-12/2	1.1	H (m)	15.2	14.2	12	10							
TD50-15/2	1.5		18.9	18	16.5	15	12.6						
TD50-18/2	2.2		22.8	22.3	21	19.8	18	15					
TD50-24/2	3		26.2	26	25.5	25	24	22.3					
TD50-28/2	4		31.5	31.3	31	30.5	29.5	28	25.5				
TD50-35/2	5.5		36.9	36.7	36.5	36.2	35.8	35	33.7	31.5			
TD50-40/2	7.5		42.3	42.2	41.9	41.7	41.3	40.8	40	38.3	35		
TD50-50/2	11		53.5	53.4	53.1	52.9	52.5	51.9	51.1	50	48.4	45.8	
TD50-60/2	15		65.7	65.8	65.7	65.6	65.3	64.7	63.9	62.8	61.6	60	55.4
TD50-70/2	18.5		73.7	73.6	73.4	73.3	73.1	72.9	72.5	72	71.2	70	65.4
TD50-81/2	22		85.5	85.3	85	84.8	84.5	84	83.5	82.8	82.1	81	77.1

Installation sketch

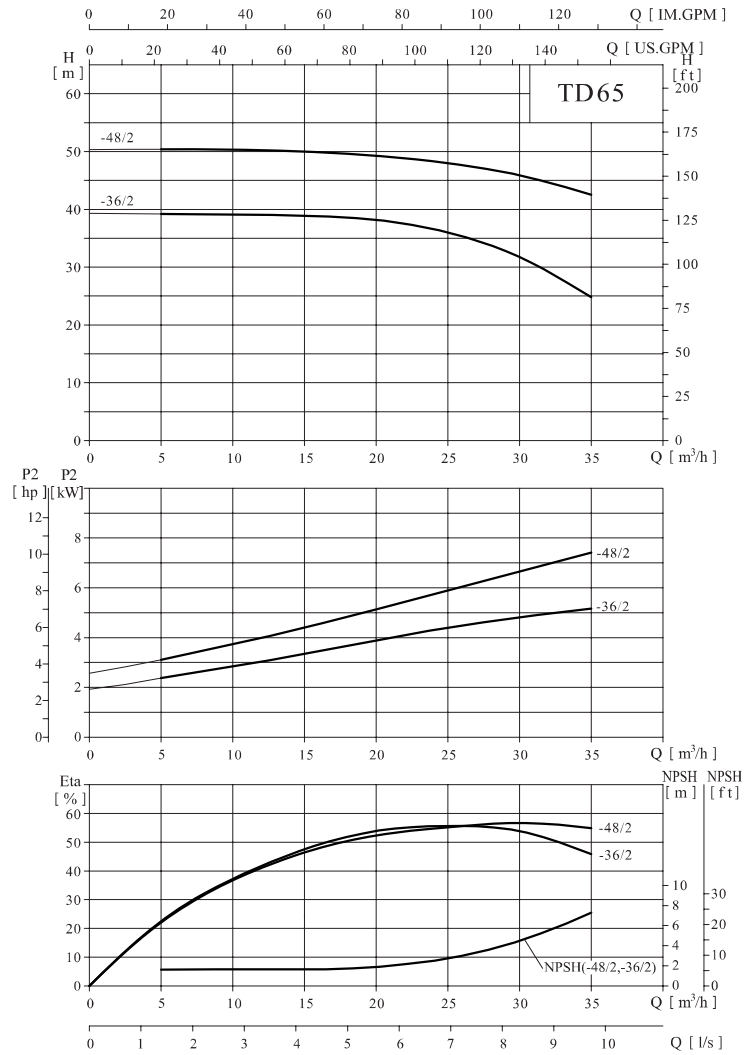


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD50-12/2	120	170	142	117	115	144	105	174	530	340	170	36
TD50-15/2	140	190	155	117	115	144	105	174	572	340	170	42
TD50-18/2	140	190	155	117	115	144	105	174	572	340	170	44
TD50-24/2	160	197	165	117	115	144	105	184	603	340	170	50
TD50-28/2	160	230	188	129	115	144	115	198	648	340	170	64
TD50-35/2	200	260	208	129	115	144	115	218	742	340	170	83
TD50-40/2	200	260	208	171	158	144	115	215	740	440	220	98
TD50-50/2	350	330	255	171	158	144	115	245	902	440	220	172
TD50-60/2	350	330	255	171	158	144	115	245	935	440	220	182
TD50-70/2	350	330	255	171	158	144	115	245	935	440	220	196
TD50-81/2	350	360	280	171	158	144	115	245	965	440	220	238

Performance curve

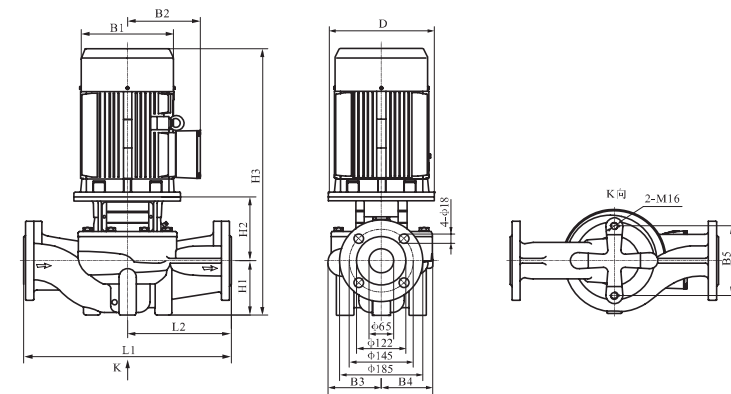
ISO9906 Annex A



Performance table

Mode	Driving motor (kW)	Q (m³/h)	5	10	15	20	25	30	35
			H (m)						
TD65-36/2	5.5		39.2	39.1	38.9	38.2	36	31.8	24.8
TD65-48/2	7.5		50.4	50.3	50	49.3	48	45.9	42.5

Installation sketch

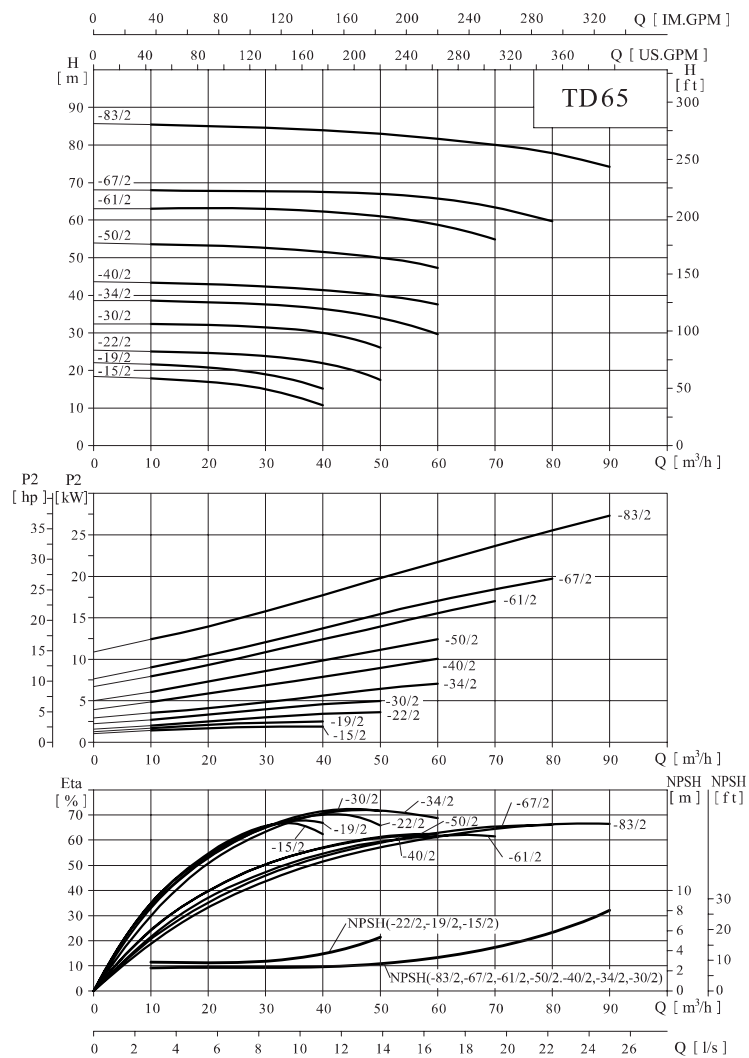


Size and weight

Model	Size(mm)											Weight (kg)
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1	L2	
TD65-36/2	200	260	208	128	128	144	105	209	724	400	200	87
TD65-48/2	200	260	208	128	128	144	105	209	724	400	200	94

Performance curve

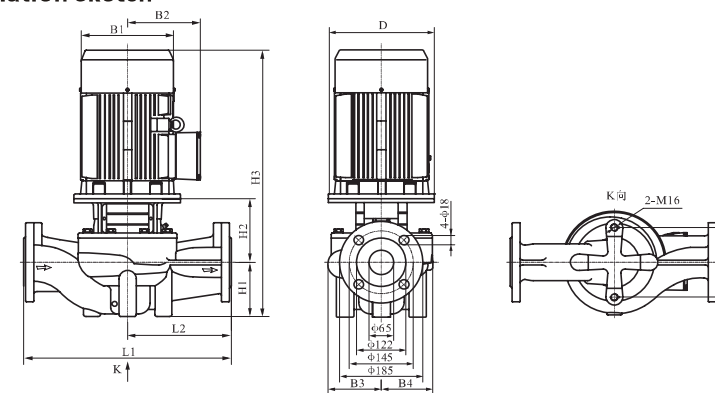
ISO9906 Annex A



Performance table

Mode	Driving motor (kW)	Q (m³/h)	10	20	30	40	50	60	70	80	90
TD65-15/2	2.2	H (m)	17.9	17	15	10.7					
TD65-19/2	3		21.7	20.8	19	15.2					
TD65-22/2	4		25.1	24.7	23.9	22	17.5				
TD65-30/2	5.5		32.4	32.1	31.5	30	26.1				
TD65-34/2	7.5		38.6	38.2	37.6	36.4	34	29.6			
TD65-40/2	11		43.4	42.9	42.3	41.4	40	37.6			
TD65-50/2	15		53.6	53.3	52.7	51.6	50	47.3			
TD65-61/2	18.5		63.1	63.2	63	62.3	61	58.8	54.8		
TD65-67/2	22		68	67.8	67.7	67.5	67	65.8	63.4	59.7	
TD65-83/2	30		85.4	85.1	84.6	83.9	83	81.7	80	77.8	74.2

Installation sketch

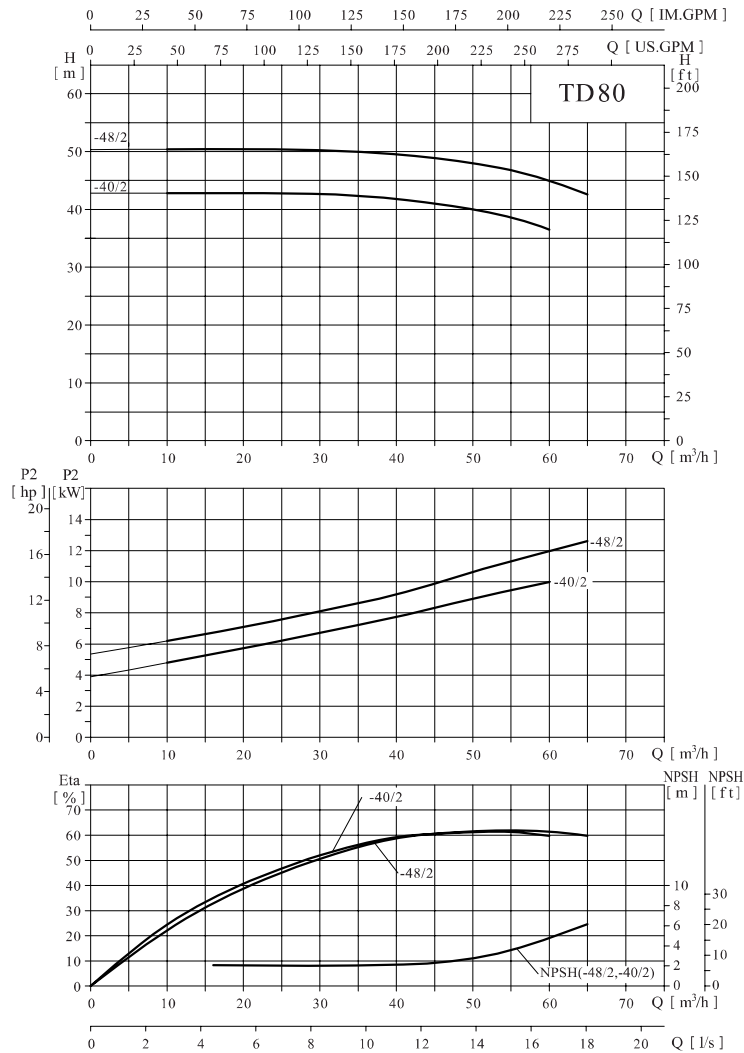


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD65-15/2	140	190	155	142	124	144	105	193	591	360	180	48
TD65-19/2	160	197	165	142	124	144	105	203	622	360	180	57
TD65-22/2	160	230	188	142	124	144	105	203	643	360	180	65
TD65-30/2	200	260	208	142	124	144	105	223	738	360	180	84
TD65-34/2	200	260	208	142	124	144	105	223	738	360	180	91
TD65-40/2	350	330	255	179	167	144	125	257	924	475	238	178
TD65-50/2	350	330	255	179	167	144	125	257	957	475	238	190
TD65-61/2	350	330	255	179	167	144	125	257	957	475	238	202
TD65-67/2	350	330	280	179	167	144	125	257	987	475	238	242
TD65-83/2	400	400	305	179	167	144	125	257	1047	475	238	298

Performance curve

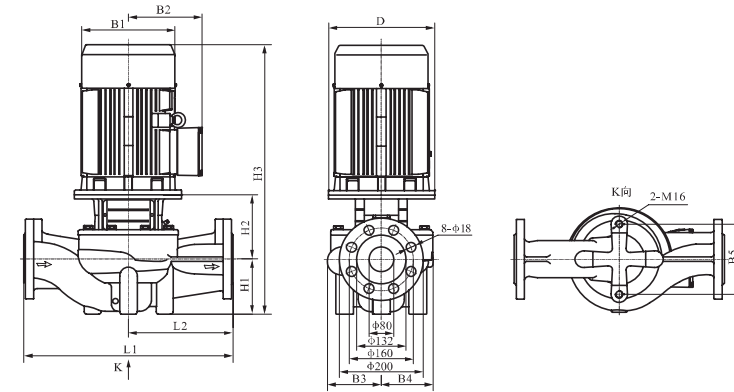
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	H (m)						
			10	20	30	40	50	60	65
TD80-40/2	11	H	42.8	42.8	42.7	41.8	40	36.5	
TD80-48/2	15	(m)	50.4	50.4	50.2	49.5	48	45	42.6

Installation sketch

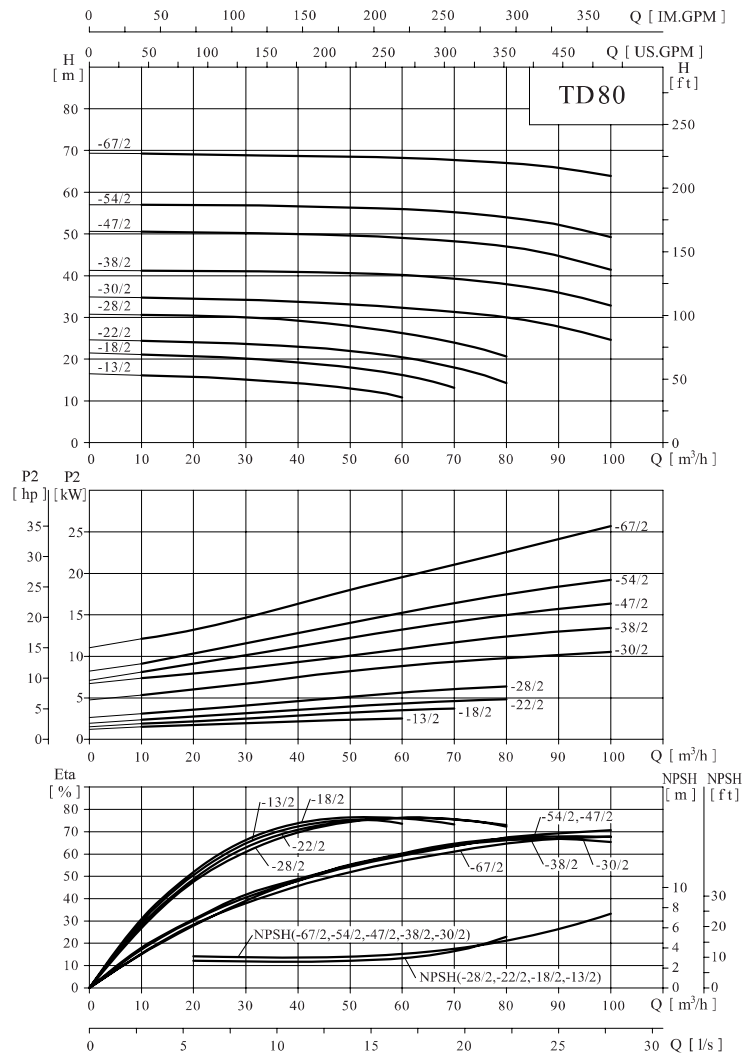


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD80-40/2	350	330	255	137	128	144	115	235	892	500	250	172
TD80-48/2	350	330	255	137	128	144	115	235	925	500	250	183

Performance curve

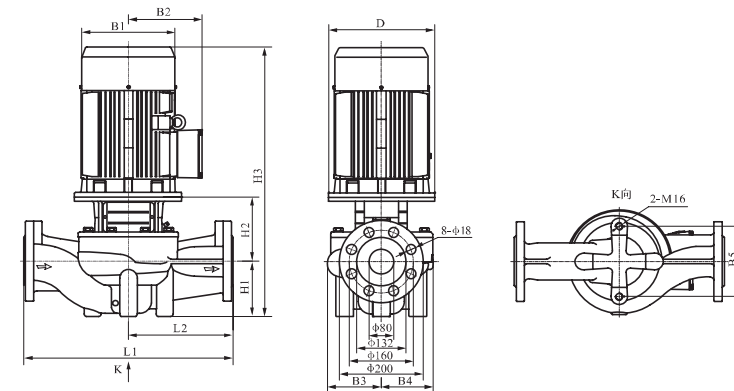
ISO9906 Annex A



Performance table

Mode	Driving motor (kW)	Q (m³/h)	10	20	30	40	50	60	70	80	90	100
TD80-13/2	3	H (m)	16.1	15.8	15.2	14.3	13	10.9				
TD80-18/2	4		21.1	20.8	20.2	19.2	18	16.2	13.2			
TD80-22/2	5.5		24.4	24.1	23.7	23	22	20.5	18	14.3		
TD80-28/2	7.5		30.6	30.4	30	29.3	28	26.3	24	20.6		
TD80-30/2	11		34.8	34.5	34.2	33.8	33.2	32.4	31.3	30	27.8	24.7
TD80-38/2	15		41.2	41.2	41.1	40.9	40.6	40.1	39.3	38	36	32.9
TD80-47/2	18.5		50.6	50.4	50	49.8	49.6	49.1	48.3	47	44.8	41.4
TD80-54/2	22		57	57	56.8	56.6	56.3	56	55.3	54	52.2	49.2
TD80-67/2	30		69.2	69	68.8	68.7	68.6	68.3	67.8	67	65.9	63.9

Installation sketch

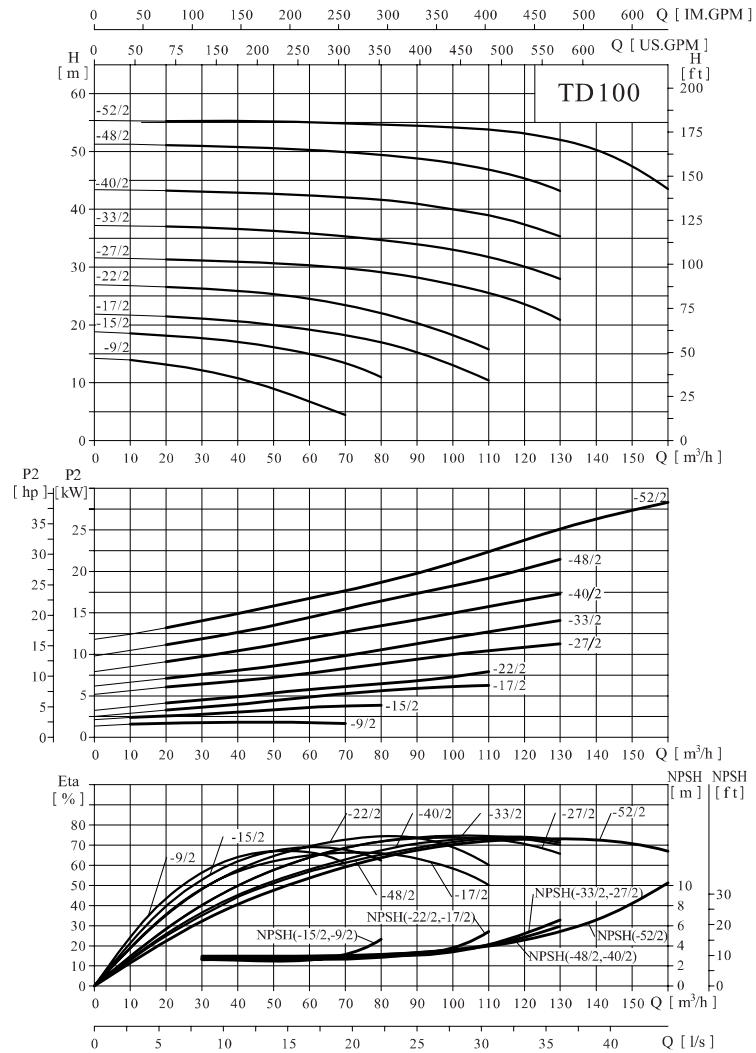


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD80-13/2	160	197	165	142	124	160	97	243	654	450	225	64
TD80-18/2	160	230	188	142	124	160	97	243	675	450	225	72
TD80-22/2	200	260	208	142	124	160	97	263	770	450	225	90
TD80-28/2	200	260	208	142	124	160	97	263	770	450	225	100
TD80-30/2	350	330	255	182	163	144	115	274	931	500	250	184
TD80-38/2	350	330	255	182	163	144	115	274	964	500	250	192
TD80-47/2	350	330	255	182	163	144	115	274	964	500	250	208
TD80-54/2	350	330	280	182	163	144	115	274	994	500	250	244
TD80-67/2	400	400	305	182	163	144	115	274	1054	500	250	302

Performance curve

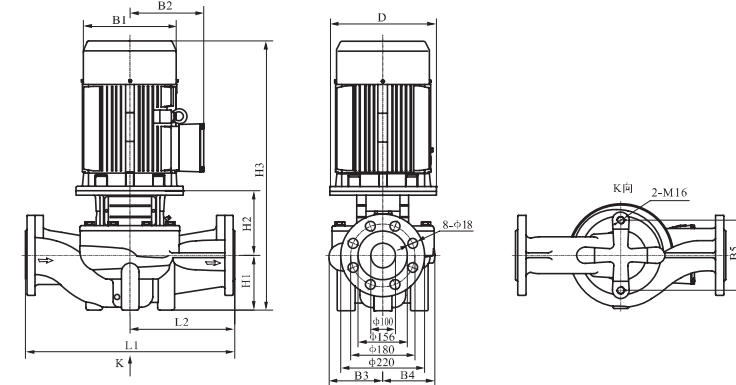
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	H (m)															
			10	20	30	40	50	60	70	80	90	100	110	120	130	145	160	
TD100-9/2	2.2		13.9	13.2	12.2	10.8	9	6.8	4.4									
TD100-15/2	4		18.6	18.2	17.7	17.1	16.2	15	13.4	11								
TD100-17/2	5.5		21.7	21.5	21.1	20.7	20	19.2	18.3	17	15.3	13	10.4					
TD100-22/2	7.5		26.8	26.6	26.3	25.9	25.3	24.5	23.4	22	20.3	18.2	15.8					
TD100-27/2	11		31.5	31.3	31.1	30.9	30.7	30.3	29.8	29.2	28.2	27	25.5	23.6	20.8			
TD100-33/2	15		37.1	37	36.8	36.6	36.2	35.8	35.3	34.7	33.9	33	31.7	30.1	27.9			
TD100-40/2	18.5		43.3	43.2	43.1	42.9	42.7	42.4	42.1	41.6	40.9	40	38.9	37.4	35.3			
TD100-48/2	22		51.2	51.1	51	50.8	50.6	50.3	49.9	49.4	48.8	48	46.9	45.3	43.2			
TD100-52/2	30		55.3	55.3	55.3	55.3	55.2	55.1	54.8	54.6	54.4	54.2	53.8	53.1	52	49	43.5	

Installation sketch

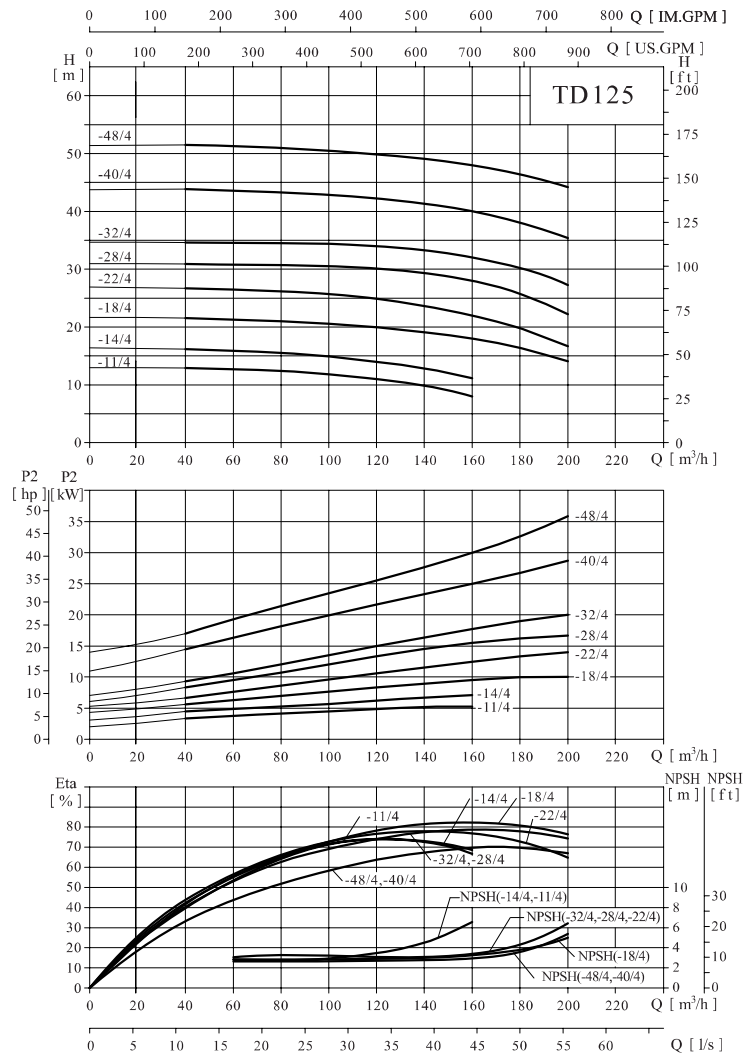


Size and weight

Model	Size(mm)											Weight (kg)
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1	L2	
TD100-9/2	140	175	155	134	101	160	105	211	609	450	225	54
TD100-15/2	160	215	190	134	101	160	105	212	652	450	225	70
TD100-17/2	200	260	205	150	117	144	140	237	787	500	250	98
TD100-22/2	200	260	205	150	117	144	140	237	787	500	250	106
TD100-27/2	350	350	255	147	123	144	140	252	934	550	275	184
TD100-33/2	350	350	255	147	123	144	140	252	967	550	275	194
TD100-40/2	350	350	255	181	152	230	140	266	981	550	275	216
TD100-48/2	350	350	280	181	152	230	140	266	1011	550	275	258
TD100-52/2	400	400	305	181	152	230	140	266	1071	550	275	312

Performance curve

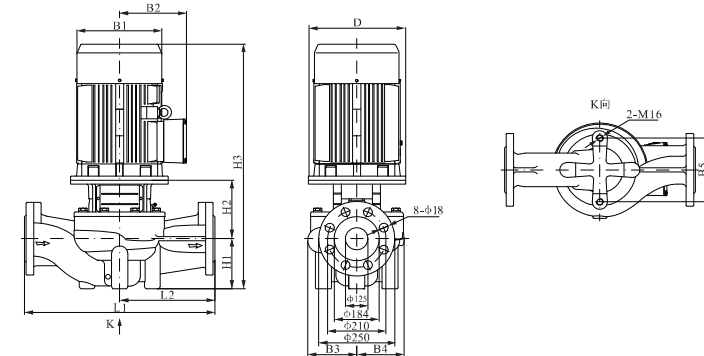
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	40	60	80	100	120	140	160	180	200
TD125-11/4	5.5	H (m)	12.9	12.7	12.4	11.8	11	9.9	8		
TD125-14/4	7.5		16.2	15.9	15.5	14.9	14	12.8	11.2		
TD125-18/4	11		21.5	21.3	21	20.6	19.9	19.1	18	16.4	14.1
TD125-22/4	15		26.7	26.5	26.2	25.7	24.9	23.7	22	19.8	16.7
TD125-28/4	18.5		30.9	30.8	30.7	30.5	30.1	29.3	28	25.8	22.2
TD125-32/4	22		34.6	34.6	34.5	34.4	34	33.3	32	30.2	27.3
TD125-40/4	30		43.9	43.6	43.3	42.9	42.2	41.3	40	38	35.4
TD125-48/4	37		51.5	51.3	51	50.5	49.9	49.1	48	46.4	44.2

Installation sketch

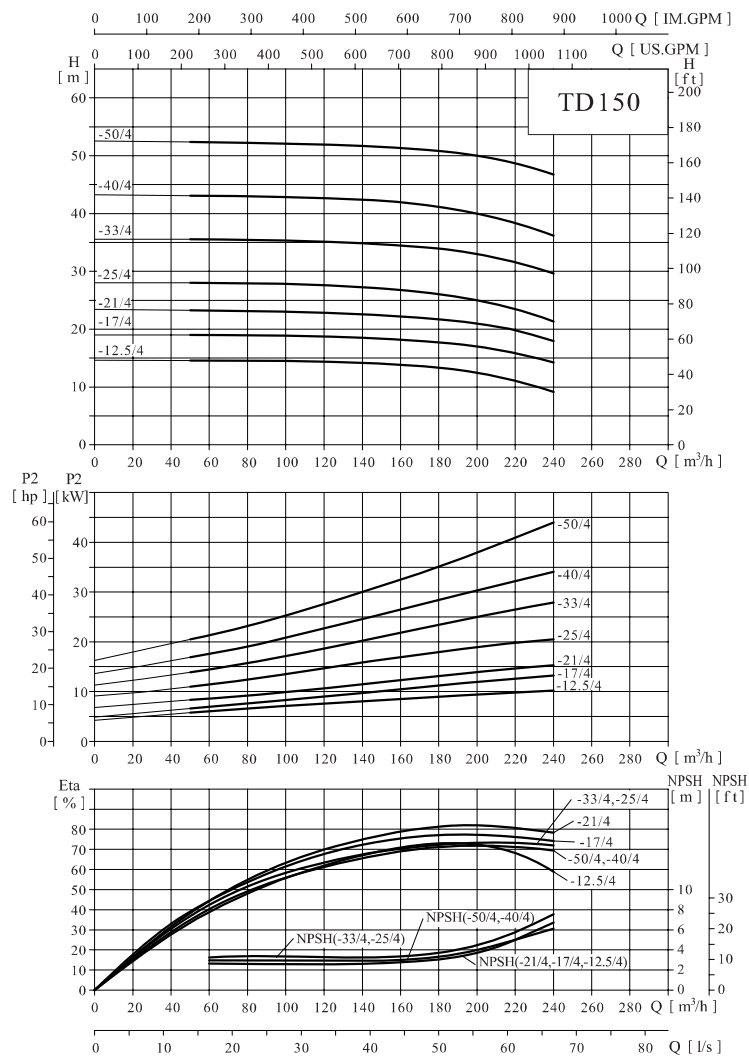


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD125-11/4	200	260	208	216	176	230	215	256	887	620	310	142
TD125-14/4	200	260	208	216	176	230	215	256	887	620	310	152
TD125-18/4	350	330	255	211	177	230	215	297	1054	800	400	258
TD125-22/4	350	330	255	236	208	230	215	297	1087	800	400	310
TD125-28/4	350	330	280	236	208	230	215	316	1106	800	400	350
TD125-32/4	350	330	280	236	208	230	215	316	1136	800	400	376
TD125-40/4	400	400	305	272	248	230	215	323	1238	800	400	462
TD125-48/4	450	450	335	272	248	230	215	323	1243	800	400	518

Performance curve

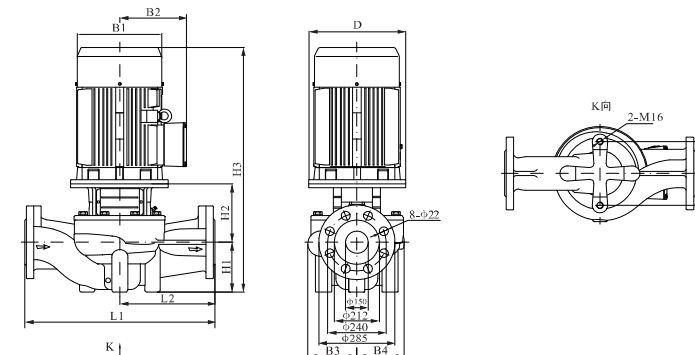
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	50	80	110	140	170	200	220	240
TD150-12.5/4	11	H (m)	14.6	14.5	14.4	14.2	13.7	12.5	11.1	9.2
TD150-17/4	15		18.8	18.8	18.7	18.5	18	17	16.1	15
TD150-21/4	18.5		23.3	23.1	22.9	22.6	22	21	19.8	17.9
TD150-25/4	22		28	28	27.8	27.3	26.5	25	23.5	21.3
TD150-33/4	30		35.5	35.4	35.2	34.8	34.2	33	31.5	29.6
TD150-40/4	37		43.1	43	42.8	42.4	41.6	40	38.4	36.2
TD150-50/4	45		52.4	52.2	52	51.7	51.1	50	48.7	46.7

Installation sketch

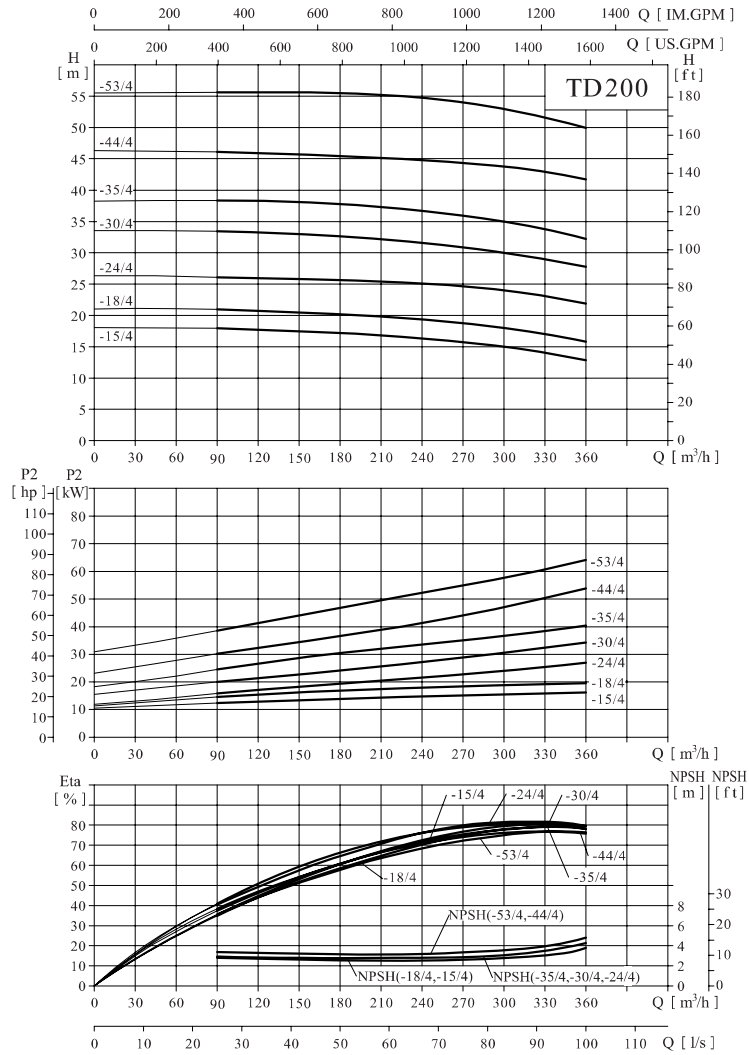


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD150-12.5/4	350	315	255	217	180	230	215	293	1050	800	400	260
TD150-17/4	350	315	255	217	180	230	215	293	1083	800	400	276
TD150-21/4	350	360	280	217	180	230	215	293	1083	800	400	314
TD150-25/4	350	360	280	238	208	230	215	293	1113	800	400	372
TD150-33/4	400	400	305	238	208	230	215	293	1208	800	400	430
TD150-40/4	450	450	335	267	248	230	230	323	1258	900	450	532
TD150-50/4	450	450	335	267	248	230	230	323	1283	900	450	556

Performance curve

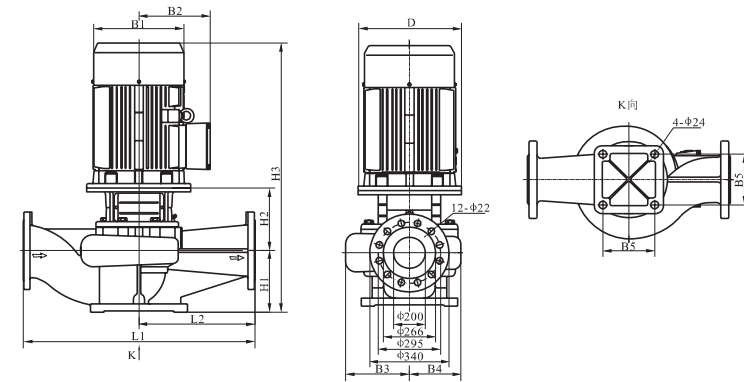
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	90	120	150	180	210	240	270	300	330	360
TD200-15/4	18.5	H (m)	18	17.7	17.5	17.2	16.8	16.4	15.8	15	14.1	12.9
TD200-18/4	22		21	20.7	20.5	20.2	19.8	19.4	18.8	18	17.1	15.8
TD200-24/4	30		26.1	26	25.8	25.7	25.4	25.1	24.6	24	23.1	21.9
TD200-30/4	37		33.4	33.2	33	32.6	32.2	31.6	30.9	30	29	27.7
TD200-35/4	45		38.3	38.3	38.1	37.8	37.3	36.7	35.9	35	33.8	32.2
TD200-44/4	55		46.3	46.1	45.9	45.6	45.4	45	44.6	44	43.1	41.9
TD200-53/4	75		55.7	55.7	55.7	55.5	55.3	54.8	54	53	51.6	50

Installation sketch

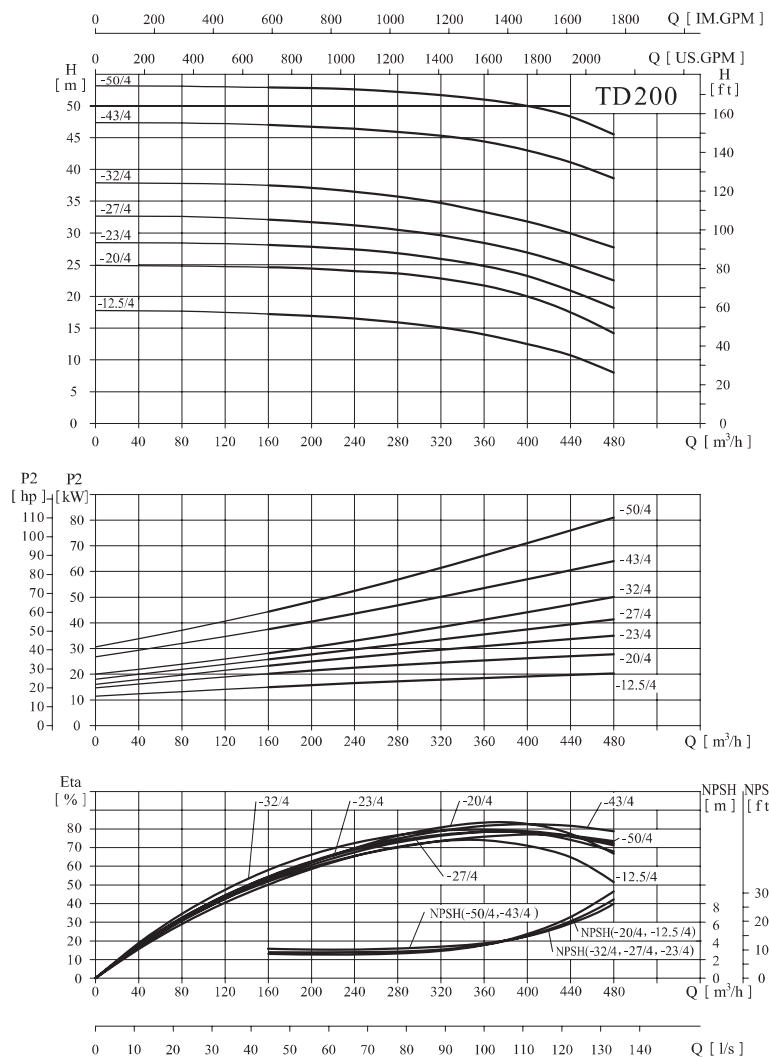


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD200-15/4	350	360	280	278	219	360	270	343	1188	1000	500	420
TD200-18/4	350	360	280	278	219	360	270	343	1218	1000	500	440
TD200-24/4	400	400	305	303	252	360	270	343	1313	1100	550	538
TD200-30/4	450	450	335	303	252	360	270	373	1348	1100	550	590
TD200-35/4	450	450	335	303	252	360	270	373	1373	1100	550	630
TD200-44/4	550	490	370	315	269	360	270	388	1423	1100	550	768
TD200-53/4	550	550	410	315	269	360	270	388	1486	1100	550	902

Performance curve

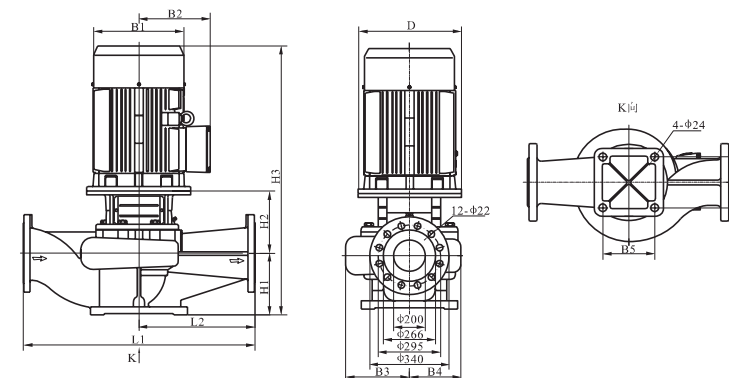
ISO9906 Annex A



Performance table

Mode	Driving motor (kW)	Q (m³/h)	160	200	240	280	320	360	400	440	480
TD200-12.5/4	22	H (m)	17.2	16.9	16.5	15.9	15.1	14	12.5	10.7	8
TD200-20/4	30		24.6	24.4	24	23.6	22.8	21.7	20	17.5	14.2
TD200-23/4	37		28.1	27.8	27.4	26.8	25.9	24.8	23	20.9	18.2
TD200-27/4	45		32.1	31.7	31.2	30.5	29.6	28.4	27	24.9	22.5
TD200-32/4	55		37.5	37.1	36.5	35.7	34.7	33.3	32	29.9	27.7
TD200-43/4	75		47	46.7	46.4	45.9	45.3	44.4	43	41.1	38.6
TD200-50/4	90		52.9	52.8	52.6	52.2	51.7	51	50	48.3	45.5

Installation sketch

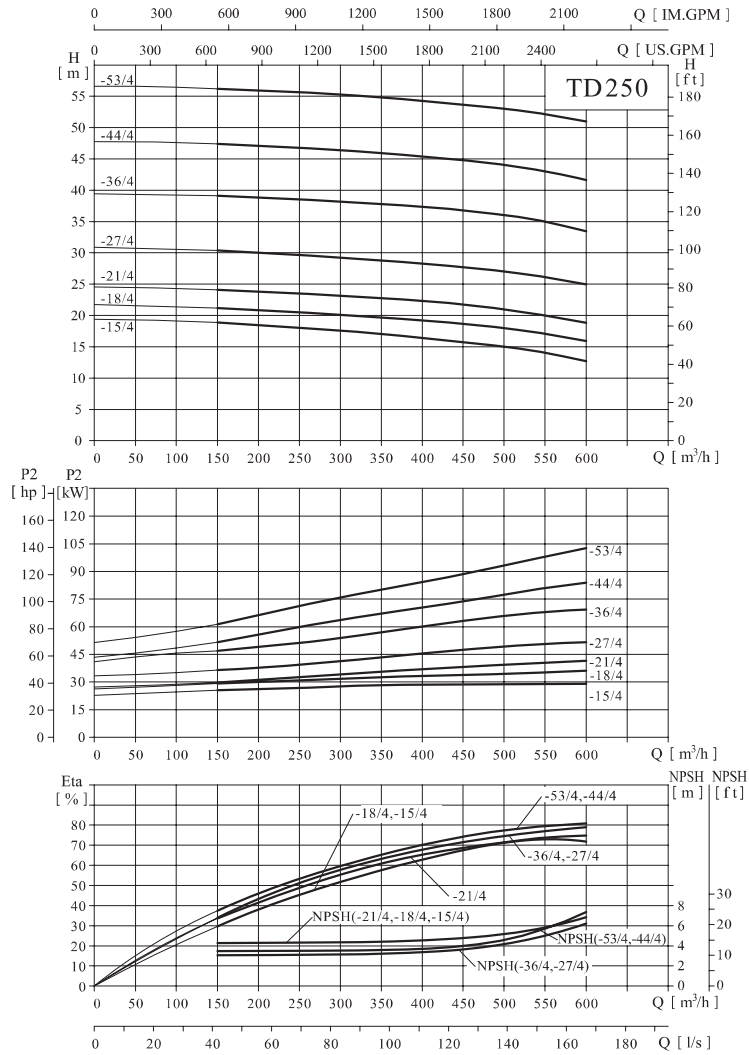


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD200-12.5/4	350	360	280	278	219	360	270	343	1218	1000	500	440
TD200-20/4	400	400	305	278	219	360	270	343	1313	1000	500	506
TD200-23/4	450	450	335	303	252	360	270	373	1348	1100	550	589
TD200-27/4	450	450	335	303	252	360	270	373	1373	1100	550	630
TD200-32/4	550	490	370	303	252	360	270	373	1408	1100	550	720
TD200-43/4	550	550	410	315	269	360	270	388	1486	1100	550	900
TD200-50/4	550	550	410	315	269	360	270	388	1538	1100	550	970

Performance curve

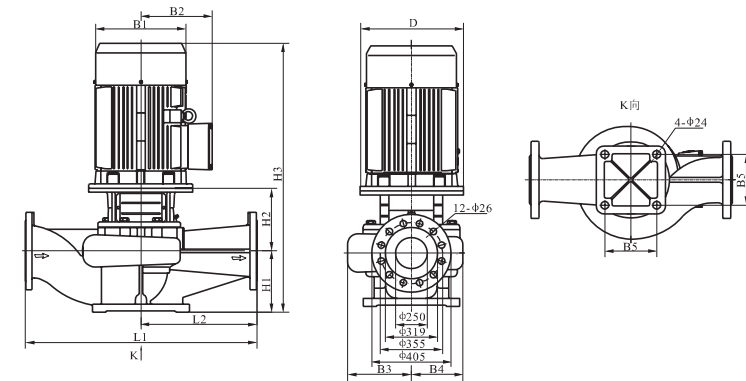
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	150	200	250	300	350	400	450	500	550	600
TD250-15/4	30	H (m)	18.8	18.4	18	17.6	17.1	16.4	15.8	15	14.1	12.7
TD250-18/4	37		21.2	20.9	20.5	20.1	19.7	19.2	18.7	18	17.1	15.9
TD250-21/4	45		24.1	23.8	23.5	23.1	22.8	22.3	21.8	21	20	18.8
TD250-27/4	55		30.3	30	29.6	29.2	28.8	28.3	27.7	27	26.1	24.9
TD250-36/4	75		39.1	38.8	38.5	38.2	37.8	37.3	36.8	36	35	33.4
TD250-44/4	90		47.4	47.1	46.8	46.4	45.9	45.4	44.8	44	43	41.6
TD250-53/4	110		56.2	55.9	55.6	55.3	54.8	54.3	53.7	53	52.1	50.9

Installation sketch

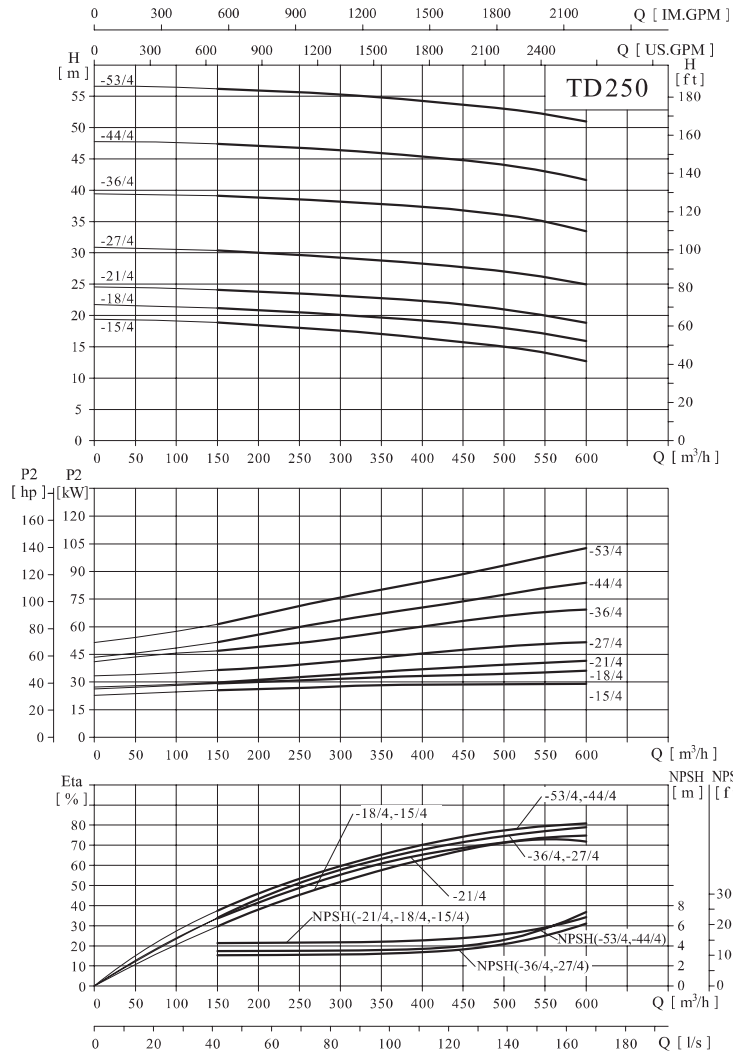


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD250-15/4	400	400	305	316	243	390	300	393	1393	1100	550	564
TD250-18/4	450	450	335	316	243	390	300	423	1428	1100	550	636
TD250-21/4	450	450	335	316	243	390	300	423	1453	1100	550	660
TD250-27/4	550	490	365	329	264	440	300	438	1503	1100	550	802
TD250-36/4	550	550	370	329	264	440	300	438	1568	1100	550	949
TD250-44/4	550	550	410	347	292	440	305	461	1646	1200	600	1065
TD250-53/4	660	625	530	347	292	440	305	461	1826	1200	600	1292

Performance curve

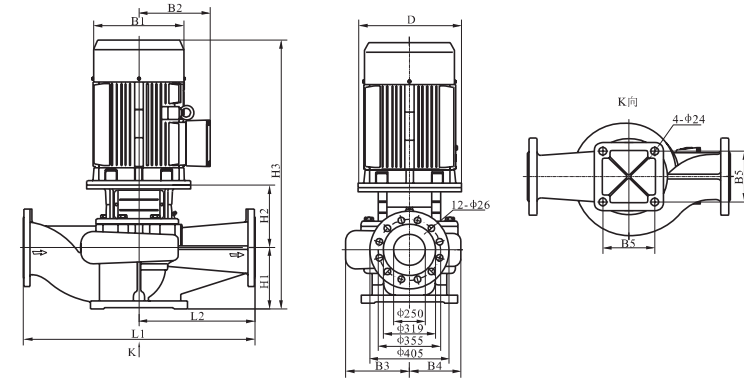
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	150	200	250	300	350	400	450	500	550	600
TD250-15/4	30	H (m)	18.8	18.4	18	17.6	17.1	16.4	15.8	15	14.1	12.7
TD250-18/4	37		21.2	20.9	20.5	20.1	19.7	19.2	18.7	18	17.1	15.9
TD250-21/4	45		24.1	23.8	23.5	23.1	22.8	22.3	21.8	21	20	18.8
TD250-27/4	55		30.3	30	29.6	29.2	28.8	28.3	27.7	27	26.1	24.9
TD250-36/4	75		39.1	38.8	38.5	38.2	37.8	37.3	36.8	36	35	33.4
TD250-44/4	90		47.4	47.1	46.8	46.4	45.9	45.4	44.8	44	43	41.6
TD250-53/4	110		56.2	55.9	55.6	55.3	54.8	54.3	53.7	53	52.1	50.9

Installation sketch

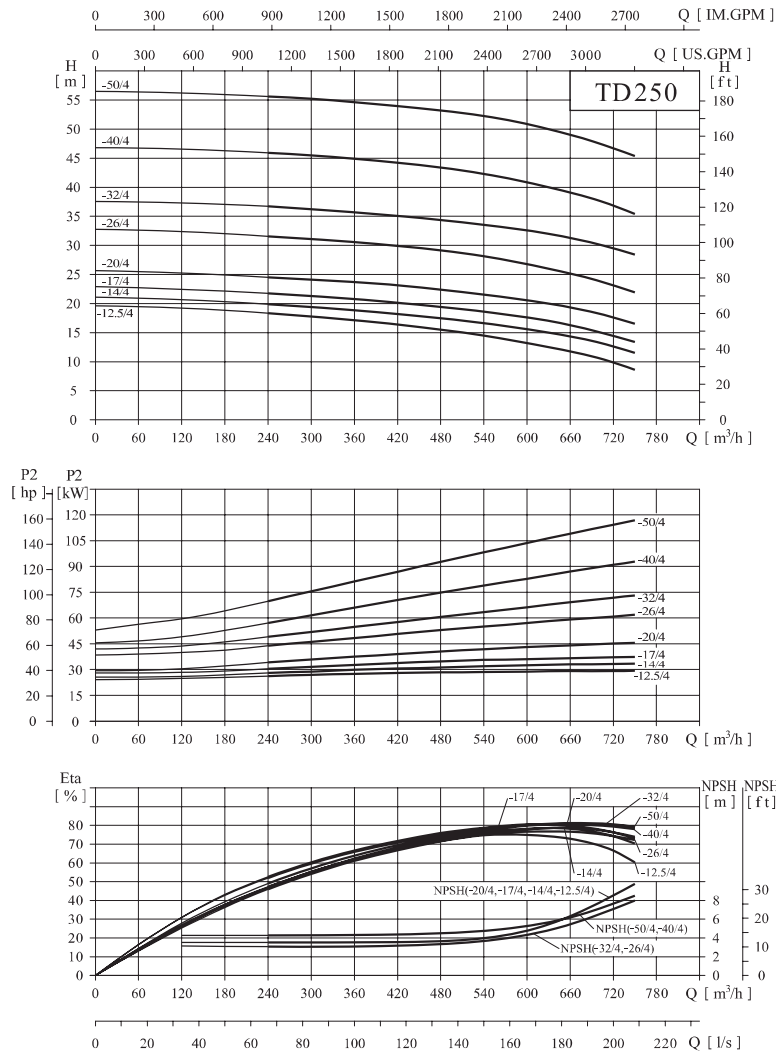


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD250-15/4	400	400	305	316	243	390	300	393	1393	1100	550	564
TD250-18/4	450	450	335	316	243	390	300	423	1428	1100	550	636
TD250-21/4	450	450	335	316	243	390	300	423	1453	1100	550	660
TD250-27/4	550	490	365	329	264	440	300	438	1503	1100	550	802
TD250-36/4	550	550	370	329	264	440	300	438	1568	1100	550	949
TD250-44/4	550	550	410	347	292	440	305	461	1646	1200	600	1065
TD250-53/4	660	625	530	347	292	440	305	461	1826	1200	600	1292

Performance curve

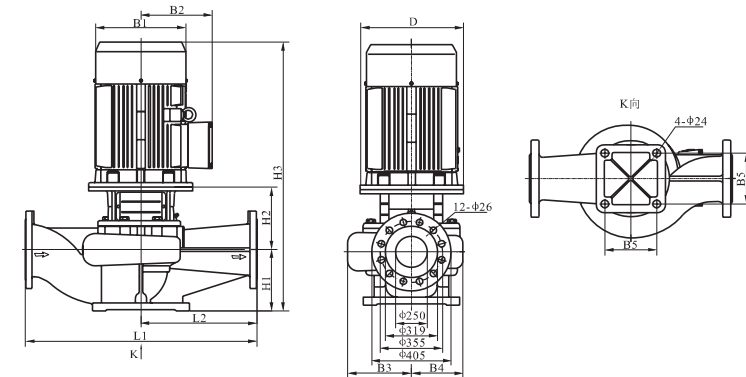
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	240	300	360	420	480	540	600	630	660	720	750
TD250-12.5/4	30	H (m)	18.4	17.9	17.2	16.4	15.5	14.5	13.2	12.5	11.8	9.9	8.7
TD250-14/4	37		20	19.5	18.9	18.2	17.5	16.6	15.6	14	13.4	12.6	11.6
TD250-17/4	45		21.8	21.3	20.8	20.1	19.4	18.6	17.6	17	16.3	14.4	13.4
TD250-20/4	55		24.5	24.1	23.7	23.1	22.4	21.5	20.5	20	19.3	17.6	16.5
TD250-26/4	75		31.7	31.1	30.6	29.9	29.1	28.2	26.8	26	25.2	23.1	21.9
TD250-32/4	90		36.7	36.3	35.7	35.1	34.3	33.5	32.6	32	31.3	29.5	28.4
TD250-40/4	110		46	45.5	44.9	44.2	43.4	42.3	40.8	40	39.1	36.8	35.5
TD250-50/4	132		55.6	55.2	54.6	53.9	53.2	52.3	50.9	50	49	46.7	45.4

Installation sketch

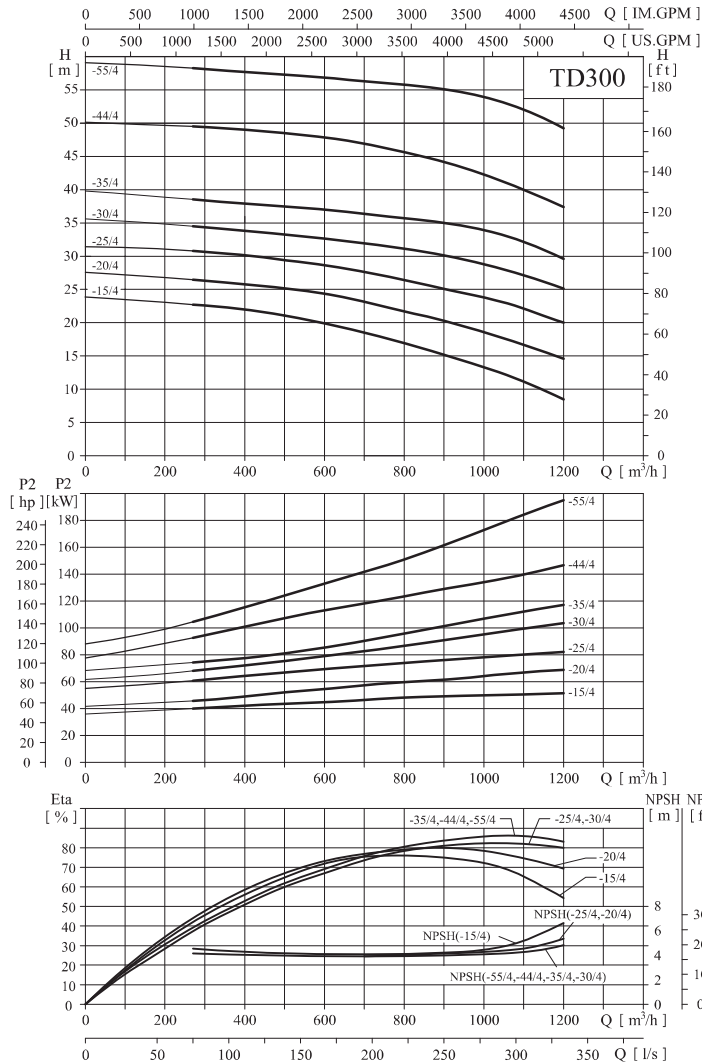


Size and weight

Model	Size(mm)										Weight (kg)	
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1		L2
TD250-12.5/4	400	400	305	316	243	390	300	393	1393	1100	550	563
TD250-14/4	450	450	335	316	243	390	300	423	1428	1100	550	635
TD250-17/4	450	450	335	316	243	390	300	423	1453	1100	550	659
TD250-20/4	550	490	370	316	243	390	300	423	1503	1100	550	759
TD250-26/4	550	550	410	329	264	440	300	438	1568	1100	550	948
TD250-32/4	550	550	410	329	264	440	300	438	1618	1100	550	1017
TD250-40/4	660	625	530	347	292	440	305	461	1826	1200	600	1290
TD250-50/4	660	625	530	347	292	440	305	461	1946	1200	600	1400

Performance curve

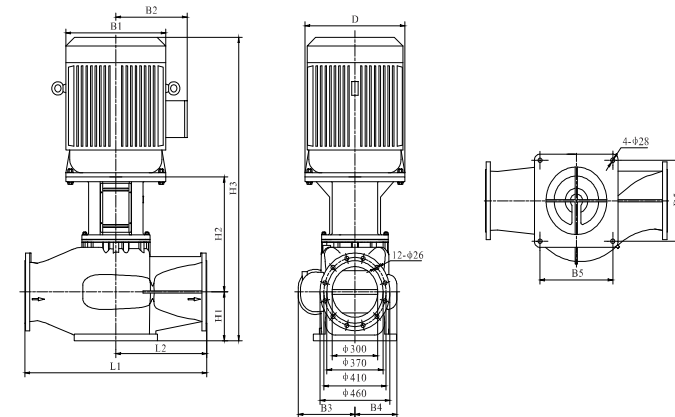
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Performance table

Mode	Driving motor (kW)	Q (m³/h)	270	360	450	630	750	900	1080	1200
TD300-15/4	55	H (m)	22.7	22.3	21.6	19.5	17.8	15	11.6	8.5
TD300-20/4	75		26.4	26	25.5	24.1	22.4	20	17.1	14.5
TD300-25/4	90		30.8	30.4	29.8	28.2	27.1	25	22.5	20
TD300-30/4	110		34.5	34	33.5	32.4	31.6	30	27.5	25
TD300-35/4	132		38.6	38.1	37.8	36.9	36	35	32.6	29.6
TD300-44/4	160		49.5	49.2	48.8	47.6	46.3	44	40.5	37.5
TD300-55/4	200		58.2	57.9	57.6	56.7	56.1	55	52.5	49.2

Installation sketch



Size and weight

Model	Size(mm)											Weight (kg)
	D	B1	B2	B3	B4	B5	H1	H2	H3	L1	L2	
TD300-15/4	550	490	365	345	250	440	290	649	1720	1200	600	907
TD300-20/4	550	550	400	345	250	440	290	649	1770	1200	600	1075
TD300-25/4	550	550	400	380	280	480	290	659	1850	1200	600	1230
TD300-30/4	660	625	550	380	280	480	290	699	2000	1200	600	1570
TD300-35/4	660	625	550	380	280	480	290	699	2150	1200	600	1650
TD300-44/4	660	625	550	380	295	480	290	702	2150	1200	600	1790
TD300-55/4	660	625	550	380	295	480	290	702	2150	1200	600	1905