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TDB - TDV Series

TDB 22, 35, 58, 78, 120, 170

TDV 120, 170, 220, 280

Vertical multistage electric pumps

50 Hz



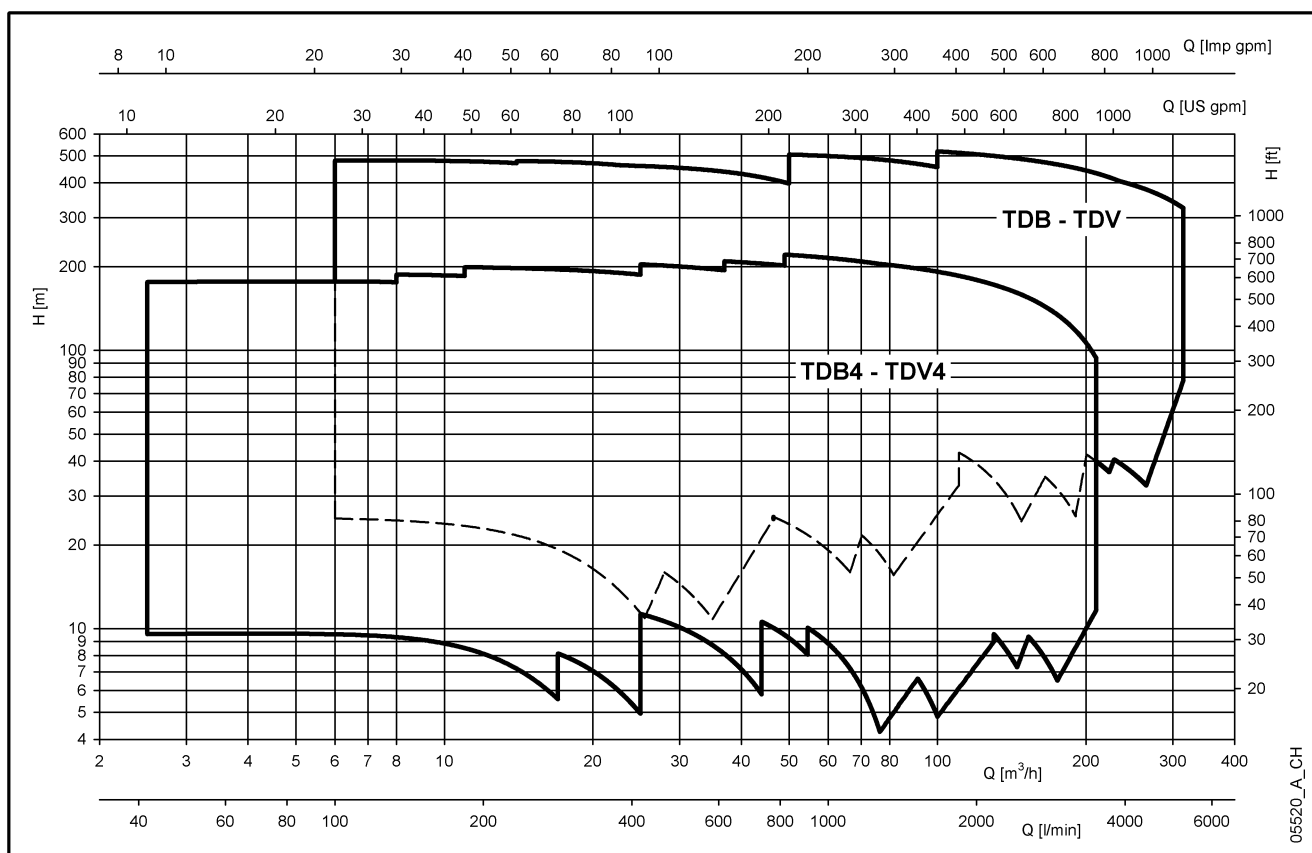
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SERIES TDB - TDV HYDRAULIC PERFORMANCE RANGE AT 50 Hz



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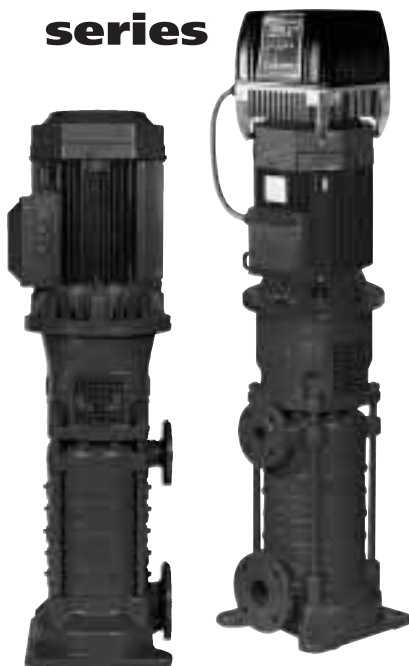
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Vertical multistage electric pumps

TDB – TDV series



- ❑ **EIGHT SIZES: TDB-TDV22,35,58,78 120,170,220,280**
- ❑ **FLOW RATE UP TO 340 m³/h**
- ❑ **HEAD OVER 500 m**
- ❑ **STANDARD MECHANICAL SEAL**
- ❑ **NORMALISED STANDARD MOTOR**
- ❑ **MODULAR CONSTRUCTION FOR OPTIMISED INTERCHANGEABILITY OF COMPONENTS**
- ❑ **DIFFUSERS SEPARATE FROM STAGE CASINGS**
- ❑ **OPERATING FLEXIBILITY WITH HYDROVAR® CONTROL SYSTEM**

MARKET SECTORS

CIVIL, INDUSTRIAL, WATER TREATMENT, HEATING, PRESSURISATION, IRRIGATION.

APPLICATIONS

- Handling water without suspended solids.
- Pressure boosting and water supply systems.
- Irrigation systems.
- Cooling circuits.
- Circulation of hot and cold water for heating, cooling and conditioning systems.
- Water supplies to boilers.
- Reverse osmosis and ultra-filtration.
- Fire-fighting.
- Washing systems.

PUMP CHARACTERISTICS

PUMP

- Vertical multistage pump fitted with closed radial impellers driven by a normalised standard motor. The pump is available in various materials and configurations and in two versions with the denomination TDB, TDV.
- **Delivery:** up to 340 m³/h.
- **Head:** over 500 m.
- **Temperature** of pumped liquid: – up to 140 °C in the standard version.
- Maximum operating **pressure:** round flanges PN10/16, PN25/40, PN63 depending on the model.
- Tested to ISO 9906 class 2.
- Direction of rotation: clockwise looking at the pump from the motor side.

MATERIALS

- **Version F:** totally made from cast iron with cast iron impellers.
- **Version FB:** totally made from cast iron with bronze impellers.
- **Version N:** totally made from AISI CF8M stainless steel.
- Other materials available on request.

MOTOR

- Short circuit squirrel cage motor, totally enclosed, fan-cooled.
- Lowara motors up to 7.5 kW (inclusive) for the 4-pole version and up to 22 kW (inclusive) for the 2-pole version. Other motor brands for higher powers.
- The performance levels of Lowara surface motors lie within what is usually referred to as efficiency class 2.
- IP55 protection.
- Class F insulation.
- Performance according to EN 60034-1
- **Standard voltage:**
 - Three-phase version: 220-240/380- 415V, 50 Hz for power ratings up to 3 kW, 380-415/660-690V, 50 Hz for power ratings higher than 3 kW.

CHARACTERISTICS OF TDB 22, 35, 58, 78, 120, 170 SERIES

- Vertical multistage pump with radial impellers.
- **TDB** construction features:
 1. Suction body with radial inlet.
 2. Pump integral with motor.
 3. Normalised standard motor according to IEC, layout V1.
 4. Motor power outputs up to 90 kW.
 5. Axial thrust absorbed by motor bearings.
- **Version F** (standard) : intermediate stages with external shell in cast iron, diffusers and impellers in cast iron.
- **Version FB**: intermediate stages with external shell in cast iron, diffusers in cast iron and impellers in bronze.
- **Version N**: totally made from AISI CF8M (molten AISI 316) stainless steel.
- Radial slide bearings in suction body, liquid-lubricated.
- Standard mechanical seal according to EN 12756 (version k), balanced or unbalanced depending on the model.
- Seal chamber dimensions according to ISO 3069.
- Inlets fitted with round flanges PN10/16, PN25/40 and PN63 depending on the type of pump.
- Standard version for temperatures up to 140 °C.

CHARACTERISTICS OF SERIES TDV 120, 170, 220, 280

- Vertical multistage pump with radial impellers.
- **TDV** construction features:
 1. Suction body with radial intake.
 2. Power transmission through elastic coupling.
 3. Normalised standard motor according to IEC, layout V1.
 4. Motor power outputs from 90 to 355 kW.
 5. Grease-lubricated axial bearing; lubricator with threaded connectors.
- **Version F** (standard): intermediate stages with external shell in cast iron, diffusers and impellers in cast iron.
- **Version FB**: intermediate stages with external shell in cast iron, diffusers in cast iron and impellers in bronze.
- **Version N**: totally made from AISI CF8M (molten AISI 316) stainless steel.
- Radial slide bearings in suction body, liquid-lubricated.
- Standard mechanical seal according to EN 12756 (version k), balanced or unbalanced depending on the model.
- Seal chamber dimensions according to ISO 3069.
- Inlets fitted with round flanges PN10/16, PN25/40 and PN63 depending on the type of pump.
- Standard version for temperatures up to 140 °C.

CONFIGURATIONS ON REQUEST

- Special voltages and frequencies.
- Different positions of inlets and motor terminal board.
- Special materials for pump, mechanical seal, elastomers and gaskets.
- High efficiency motors "efficiency class 1".

GENERAL CHARACTERISTICS TDB-TDV 2 POLES

	TDB22	TDB35	TDB58	TDB78	TDB120 TDV120	TDB170 TDV170	TDV220	TDV280
Max. efficiency flow (m³/h)	22	35	58	78	120	170	220	280
Flow range (m³/h)	6÷32	6÷45	10÷75	13÷105	20÷155	29÷210	70÷260	110÷310
Maximum pressure (bar)	48	47	47	35	22 51	18 40	55	50
Motor power (kW)	2.2÷55	3÷75	7.5÷90	7.5÷90	22÷90 110÷200	30÷90 110÷200	45÷355	45÷355
max η (%) of pump	60	66	70	74	76,5	78	78	78
Standard temperature (°C)	-10 +140							

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TDB-TDV 4 POLES

	TDB22	TDB35	TDB58	TDB78	TDB120	TDB170 TDV170	TDV220	TDV280
Max. efficiency flow (m³/h)	11	18	28	39	60	85	110	140
Flow range (m³/h)	2÷16	2÷24	5÷38	7÷55	10÷80	14÷110	35÷140	54÷190
Maximum pressure (bar)	17	17,5	18,5	20	20,5	21 22	21	21
Motor power (kW)	1.1÷11	1.1÷15	2.2÷22	2.2÷30	11÷45	11÷55 75	11÷90	11÷90
max η (%) of pump	58	64	67	72	72,5	77	76	77
Standard temperature (°C)	-10 +140							

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STANDARD VERSIONS TDB-TDV, 2 AND 4 POLES

TYPE	SUCTION BODY	DELIVERY BODY	INTERMEDIATE STAGES	DIFFUSERS	IMPELLERS	CONNECTIONS	TDB 22	TDB 35	TDB 58	TDB 78	TDB TDV 120	TDB TDV 170	TDV 220	TDV 280
F	CAST IRON GG25	CAST IRON GG25(*)	CAST IRON GG25	CAST IRON GG25	CAST IRON GG25	INLETS FITTED WITH ROUND FLANGES	•	•	•	•	•	•	•	•
FB	CAST IRON GG25	CAST IRON GG25(*)	CAST IRON GG25	CAST IRON GG25	BRONZE G-CuSn10		•	•	•	•	•	•	•	•
N	STAINLESS STEEL AISI CF8M						•	•	•	•	•	•	•	•

(*) : FOR DELIVERY PRESSURES HIGHER THAN 40 bar, THE DELIVERY BODY IS MADE FROM MODULAR CAST IRON GGG40

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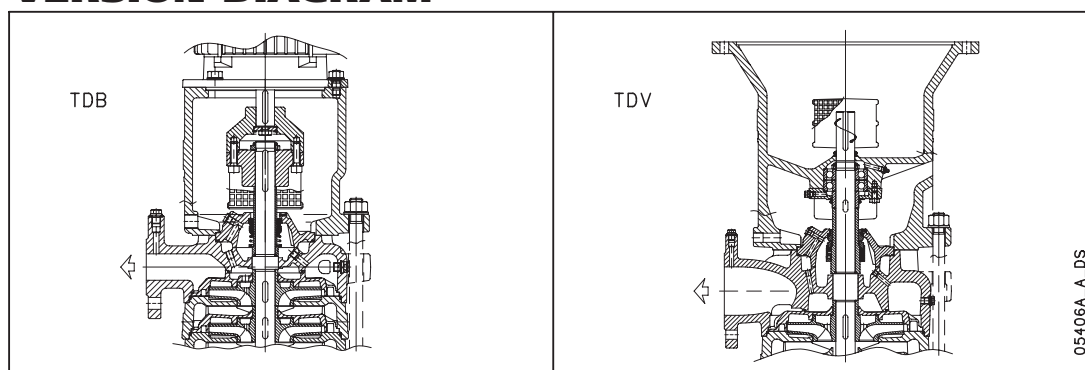
OTHER VERSIONS TDB-TDV, 2 AND 4 POLES (ON REQUEST)

TYPE	SUCTION BODY	DELIVERY BODY	INTERMEDIATE STAGES	DIFFUSERS	IMPELLERS	CONNECTIONS	TDB 22	TDB 35	TDB 58	TDB 78	TDB 120	TDB 170	TDV 220	TDV 280
FN	CAST IRON GG25	CAST IRON GG25(*)	CAST IRON GG25	CAST IRON GG25	STAINLESS STEEL AISI CF8M	INLETS FITTED WITH ROUND FLANGES	•	•	•	•	•	•	•	•
DF	CAST IRON GGG40	CAST IRON GGG40	CAST IRON GGG40	CAST IRON GG25	CAST IRON GG25		•	•	•	•	•	•	•	•
DN	CAST IRON GGG40	CAST IRON GGG40	CAST IRON GGG40	CAST IRON GG25	STAINLESS STEEL AISI CF8M		•	•	•	•	•	•	•	•
GF	CAST STEEL GS-C25	CAST STEEL GS-C25	CAST STEEL GS-C25	CAST IRON GG25	CAST IRON GG25		•	•	•	•	•	•	•	•
GN	CAST STEEL GS-C25	CAST STEEL GS-C25	CAST STEEL GS-C25	CAST IRON GG25	STAINLESS STEEL AISI CF8M		•	•	•	•	•	•	•	•

(*) : FOR DELIVERY PRESSURES HIGHER THAN 40 bar, THE DELIVERY BODY IS MADE FROM MODULAR CAST IRON GGG40

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VERSION DIAGRAM



TYPICAL APPLICATIONS

Water supply and pressure boosting

- Pressure boosting in buildings and hotels.
- Pressure booster stations, water network supplies.
- Booster packages.

Water treatment

- Ultra-filtration systems.
- Reverse osmosis systems.
- Filtration.

Industry

- Washing and cleaning plants.
- Cooling circuits.
- Mining industry.

Irrigation

- Sprinkler irrigation.

Heating, ventilation and air-conditioning

- Cooling towers.
- Refrigerators.
- Heat exchangers.
- Boilers.
- Artificial snow generators.

Main pumped liquids

- Clean liquids in general.
- Hot and cold water.
- Condensates.
- Oil-based suspensions.
- Acid or basic aqueous solutions.

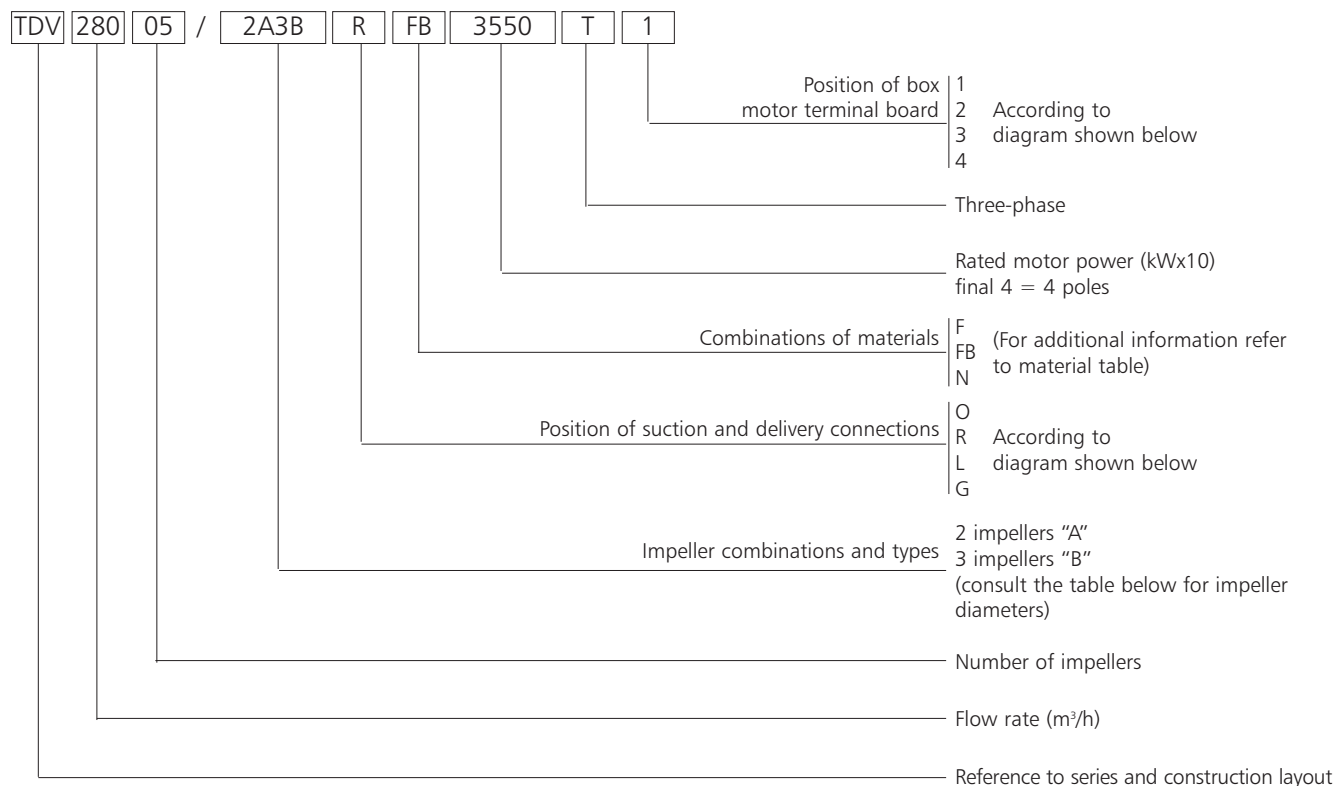




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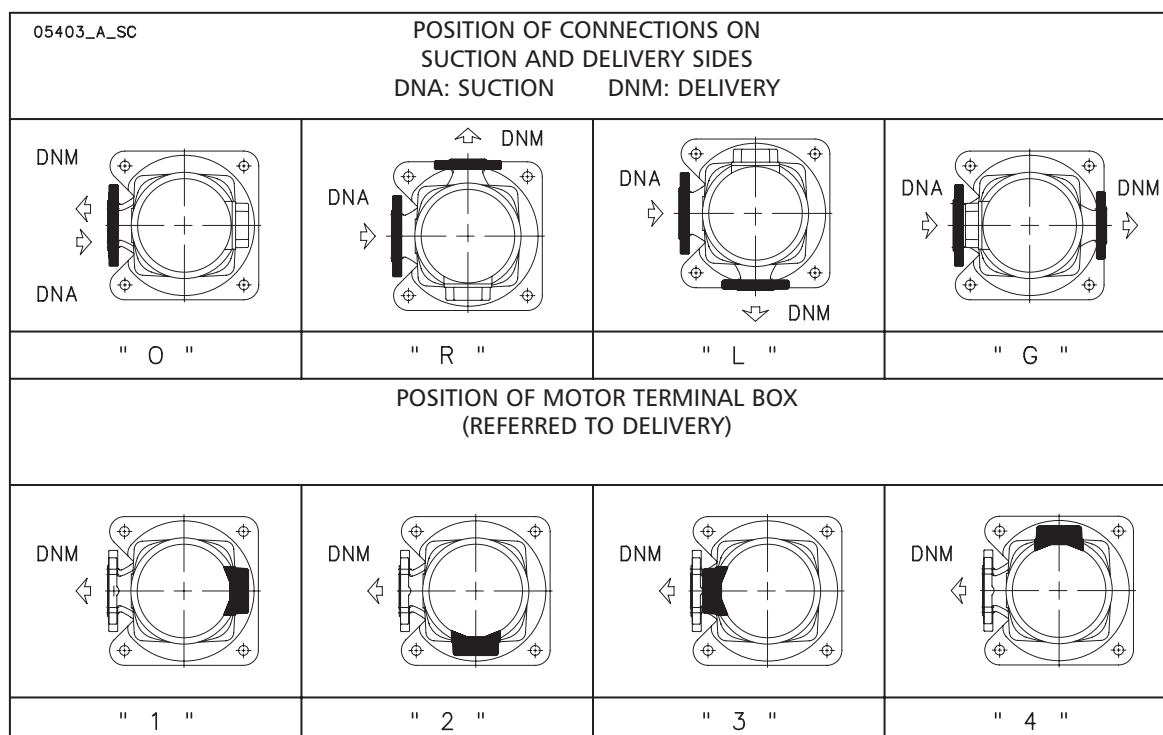
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TDB 22, 35, 78, 120, 170 - TDV 120, 170, 220, 280 SERIES ELECTRIC PUMP IDENTIFICATION CODE



ELECTRIC PUMPS TDB / TDV HYDRAULIC TYPE	IMPELLER DIAMETERS (mm) BY HYDRAULIC TYPE			
	IMPELLER A	IMPELLER B	IMPELLER C	IMPELLER D
22 - 35	170	150	130	-
58 - 78	200	178	155	-
120 - 170	240	220	200	-
220 - 280	275	255	235	215

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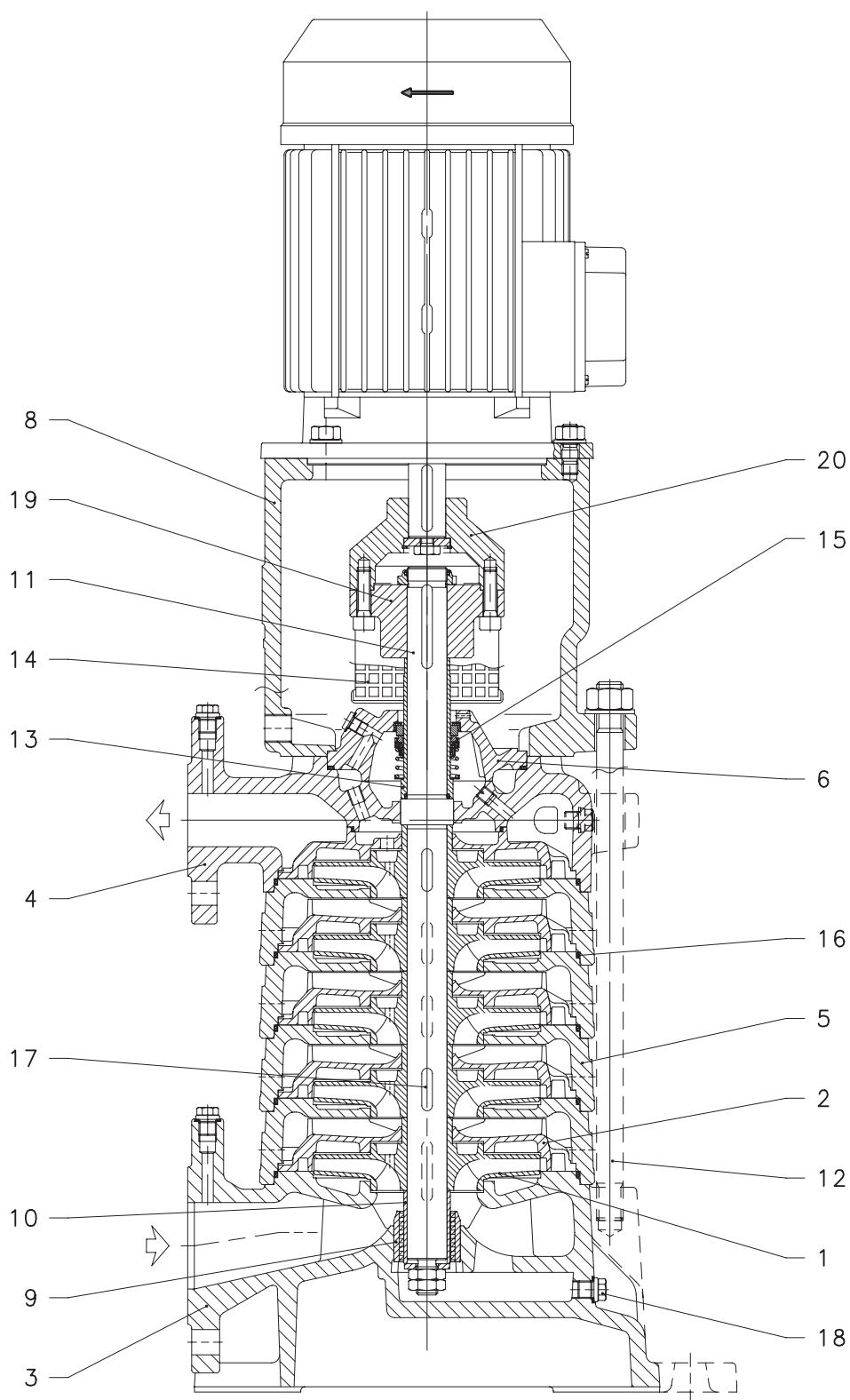




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TDB 22, 35, 58, 78, 120, 170 SERIES PUMP CROSS-SECTION AND MAIN COMPONENTS



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TDB 22, 35, 58, 78, 120, 170 SERIES
TABLE OF MATERIALS VERSION F

N°	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Impeller	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
2	Diffusers	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
3	suction body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
4	delivery body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
	delivery body PN63	Cast iron	EN 1563-GJS-400-15 (JS1072)	ASTM A536-60-40-18
5	Intermediate stage	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
6	Seal disc	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
7	Bearing cover	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
8	Sleeve	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
9	Bushing	Bronze	G-CuSn16	
10	Shaft sleeve for bushing	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
11	Shaft	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
12	Tie-rod	Carbon steel	EN ISO 898-1 8.8	F568 - Class 8.8
13	Shaft sleeve for seal	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
14	Coupling protection	Carbon steel	EN 10025-S235JRG2 (1.0038)	A570 - Grade 36
15	Mechanical seal	Carburundum / resin-impregnated carbon / EPDM (standard version)		
16	Elastomers	EPDM (standard version)		
17	Keys	Carbon steel	EN 10083-1-C45E(1.1191)	A576 - Grade 1042
18	Plugs	Carbon steel	EN ISO 898-1 5.8	A568 - Class 5.8
19	Pump side semi-coupling	Cast iron	EN 1563-GJS-400-15 (JS1072)	ASTM A536-60-40-18
20	Motor side semi-coupling	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B

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TABLE OF MATERIALS VERSION FB

N°	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Impeller	Bronze	EN 1982-G-CuSn10-C (CC480K)	UNS C90700
2	Diffusers	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
3	suction body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
4	delivery body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
	delivery body PN 63	Cast iron	EN 1563-GJS-400-15 (JS1072)	ASTM A536-60-40-18
5	Intermediate stage	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
6	Seal disc	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
7	Bearing cover	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
8	Sleeve	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
9	Bushing	Bronze	G-CuSn16	
10	Shaft sleeve for bushing	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
11	Shaft	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
12	Tie-rod	Carbon steel	EN ISO 898-1 8.8	F568 - Class 8.8
13	Shaft sleeve for seal	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
14	Coupling protection	Carbon steel	EN 10025-S235JRG2 (1.0038)	A570 - Grade 36
15	Mechanical seal	Carburundum / resin-impregnated carbon / EPDM (standard version)		
16	Elastomers	EPDM (standard version)		
17	Keys	Carbon steel	EN 10083-1-C45E(1.1191)	A576 - Grade 1042
18	Plugs	Carbon steel	EN ISO 898-1 5.8	A568 - Class 5.8
19	Pump side semi-coupling	Cast iron	EN 1563-GJS-400-15 (JS1072)	ASTM A536-60-40-18
20	Motor side semi-coupling	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B

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TABLE OF MATERIALS VERSION N

N°	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Impeller	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
2	Diffusers	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
3	suction body	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
4	delivery body	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
5	Intermediate stage	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
6	Seal disc	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
7	Bearing cover	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
8	Sleeve	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
9	Bushing	Bronze	G-CuSn16	
10	Shaft sleeve for bushing	Stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	AISI 329 LN - S31803
11	Shaft	Stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	AISI 329 LN - S31803
12	Tie-rod	Carbon steel	EN ISO 898-1 8.8	F568 - Class 8.8
13	Shaft sleeve for seal	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
14	Coupling protection	Carbon steel	EN 10025-S235JRG2 (1.0038)	A570 - Grade 36
15	Mechanical seal	Carburundum / resin-impregnated carbon / EPDM (standard version)		
16	Elastomers	EPDM (versione standard)		
17	Keys	Stainless steel	EN 10088-2-X6CrNiMoTi17-12-1 (1.4571)	A276 - Typ 316T i
18	Plugs	Stainless steel	EN 10088-2-X6CrNiMoTi17-12-1 (1.4571)	A276 - Typ 316T i
19	Pump side semi-coupling	Cast iron	EN 1563-GJS-400-15 (JS1072)	ASTM A536-60-40-18
20	Motor side semi-coupling	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B

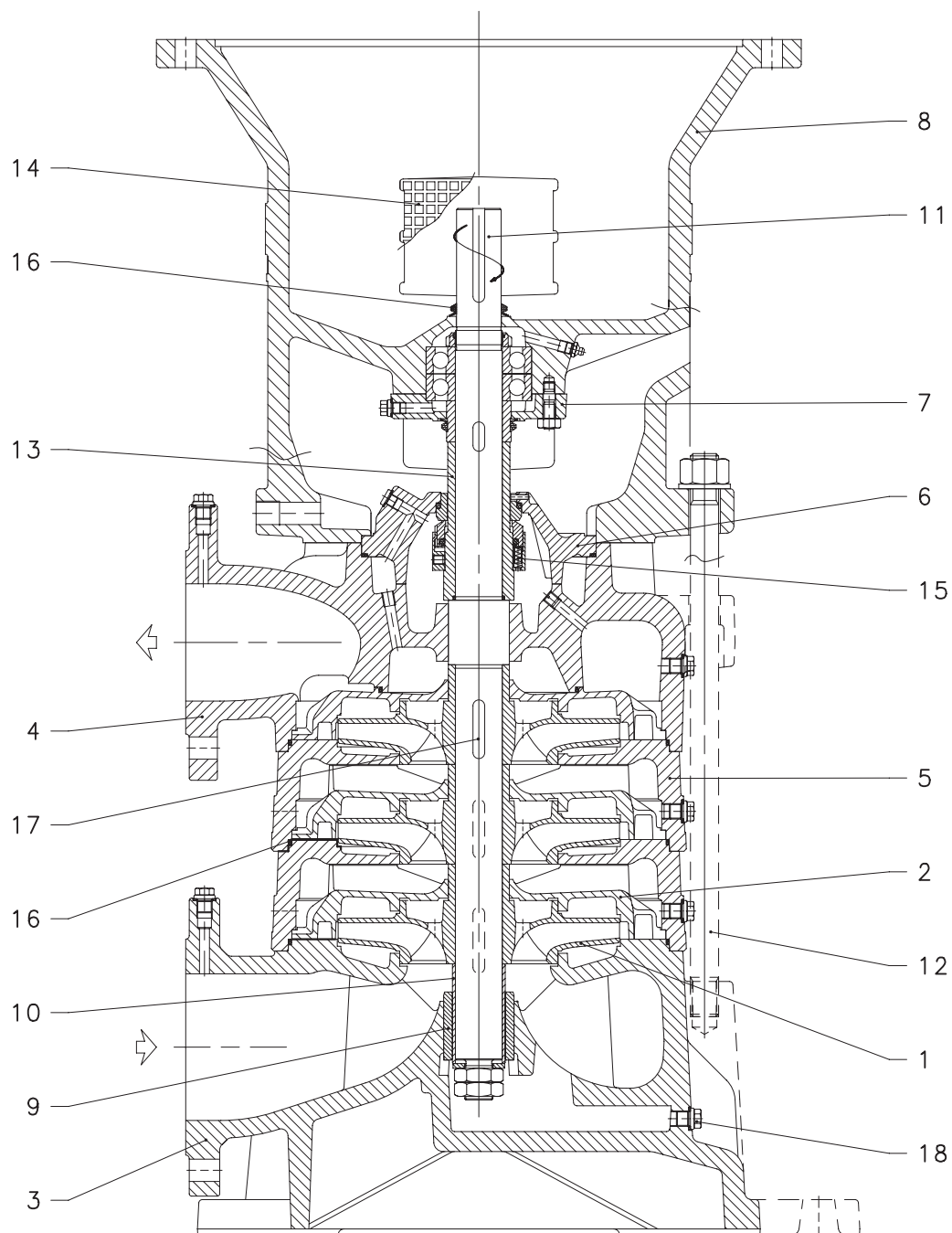
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TDV 120, 170, 220, 280 SERIES PUMP CROSS-SECTION AND MAIN COMPONENTS



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TDV 120, 170, 220, 280 SERIES
TABLE OF MATERIALS VERSION F

N°	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Impeller	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
2	Diffusers	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
3	suction body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
4	delivery body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
	delivery body PN63	Cast iron	EN 1563-GJS-400-15 (JS1072)	ASTM A536-60-40-18
5	Intermediate stage	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
6	Seal disc	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
7	Bearing cover	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
8	Sleeve	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
9	Bushing	Bronze	G-CuSn16	
10	Shaft sleeve for bushing	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
11	Shaft	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
12	Tie-rod	Carbon steel	EN ISO 898-1 8.8	F568 - Class 8.8
13	Shaft sleeve for seal	Stainless ste	EN 10088-1-X20Cr13 (1.4021)	AISI 420
14	Coupling protection	Carbon steel	EN 10025-S235JRG2 (1.0038)	A570 - Grade 36
15	Mechanical seal	Carburundum / resin-impregnated carbon / EPDM (standard version)		
16	Elastomers	EPDM (standard version)		
17	Keys	Carbon steel	EN 10083-1-C45E(1.1191)	A576 - Grade 1042
18	Plugs	Carbon steel	EN ISO 898-1 5.8	A568 - Class 5.8

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TABLE OF MATERIALS VERSION FB

N°	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Impeller	Bronze	EN 1982-G-CuSn10-C (CC480K)	UNS C90700
2	Diffusers	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
3	suction body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
4	delivery body	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
	delivery body PN63	Cast iron	EN 1563-GJS-400-15 (JS1072)	ASTM A536-60-40-18
5	Intermediate stage	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
6	Seal disc	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
7	Bearing cover	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
8	Sleeve	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
9	Bushing	Bronze	G-CuSn16	
10	Shaft sleeve for bushing	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
11	Shaft	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
12	Tie-rod	Carbon steel	EN ISO 898-1 8.8	F568 - Class 8.8
13	Shaft sleeve for seal	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
14	Coupling protection	Carbon steel	EN 10025-S235JRG2 (1.0038)	A570 - Grade 36
15	Mechanical seal	Carburundum / resin-impregnated carbon / EPDM (standard version)		
16	Elastomers	EPDM (versione standard)		
17	Keys	Carbon steel	EN 10083-1-C45E(1.1191)	A576 - Grade 1042
18	Plugs	Carbon steel	EN ISO 898-1 5.8	A568 - Class 5.8

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TABLE OF MATERIALS VERSION N

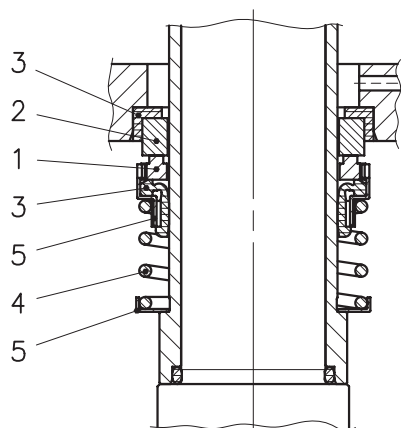
N°	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Impeller	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
2	Diffusers	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
3	suction body	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
4	delivery body	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
5	Intermediate stage	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
6	Seal disc	Stainless steel	EN 10213-4-GX5CrNiMo19-11-2 (1.4408)	ASTM CF8M (AISI316 fuso)
7	Bearing cover	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
8	Sleeve	Cast iron	EN 1561-GJL-250 (JL1040)	ASTM A4876-Class 35B
9	Bushing	Bronze	G-CuSn16	
10	Shaft sleeve for bushing	Stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	AISI 329 LN - S31803
11	Shaft	Stainless steel	EN 10088-1-X2CrNiMoN22-5-3 (1.4462)	AISI 329 LN - S31803
12	Tie-rod	Carbon steel	EN ISO 898-1 8.8	F568 - Class 8.8
13	Shaft sleeve for seal	Stainless steel	EN 10088-1-X20Cr13 (1.4021)	AISI 420
14	Coupling protection	Carbon steel	EN 10025-S235JRG2 (1.0038)	A570 - Grade 36
15	Mechanical seal	Carburundum / resin-impregnated carbon / EPDM (standard version)		
16	Elastomers	EPDM (standard version)		
17	Keys	Stainless steel	EN 10088-2-X6CrNiMoTi17-12-1 (1.4571)	A276 - Typ 316T i
18	Plugs	Stainless steel	EN 10088-2-X6CrNiMoTi17-12-1 (1.4571)	A276 - Typ 316T i

td_tdv-n_a_tm

TDB-TDV SERIES MECHANICAL SEALS, ACCORDING TO EN 12756

Mechanical seal with assembly dimensions according to EN12756 (formerly DIN 24960) and ISO 3069.

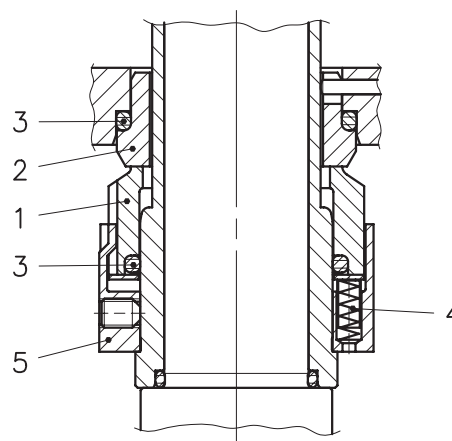
SA execution: not balanced (max 16 bar)



Type U, version L1k

05410_A_DS

SB execution: balanced (max 55 bar)



Type B, version L1k

05411_A_DS

LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
Q ₁ : Silicon Carbide	E : EPDM	G : AISI 316
B : Resin impregnated carbon	V : FPM	

tdb-tdv_ten-mec_a_tm

SEAL TYPES

TYPE	POSITION				
	1 ROTATING PART	2 FIXED PART	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS
STANDARD MECHANICAL SEAL					
Q ₁ B E G G	Q ₁	B	E	G	G
OTHER TYPES OF MECHANICAL SEAL (ON REQUEST)					
Q ₁ B V G G	Q ₁	B	V	G	G
Q ₁ Q ₁ V G G	Q ₁	Q ₁	V	G	G

tdb-tdv_tipi-ten-mec_a_tc

SEAL DIMENSIONS

PUMP TYPE	SEAL DIAMETER (mm)
TDB 22 - TDB 35	35
TDB 58 - TDB 78	43
TDB - TDV 120	53
TDB - TDV 170	53
TDV 220	60
TDV 280	60

tdb-tdv_dim-ten_a_td

MOTOR

- Closed short circuit squirrel cage motor (TEFC), totally enclosed, fan-cooled.
- Protection class IP55.
- Insulation class F.
- Performance according to EN 60034-1
- Standard Lowara motors up to 7.5 kW (inclusive) in the 4-pole version and up to 22 kW (inclusive) in the 2-pole version. Other motor brands for higher powers.
- The performance levels of normalised Lowara motors lie within what is usually referred to as efficiency class 2.

- Standard voltage, three-phase version
 - 220-240/380-415 V 50 Hz for power ratings up to 3 kW.
 - 380-415/660-690 V 50 Hz for power ratings higher than 3 kW.

Overload protection provided by the user.

The motors are fan-cooled according to EN 60034-6.

The terminal box is made from ABS techno-polymer for motors up to IM 100 and from aluminium alloy for larger sizes.

The cable gland has standard passage dimensions according to EN 50262 (metric thread) for SM motors and according to DIN 46255 (Pg thread) for LM motors.

- High efficiency motors "Eff. 1" available on request.

THREE-PHASE MOTORS FOR 50 Hz, 2-POLE TDB-TDV SERIES

MOTORE TYPE		ABSORBED CURRENT				DATA FOR 400 V 50 Hz VOLTAGE					
kW	IEC SIZE*	In (A)				min ⁻¹	Is / In	n %	cosφ	Cn Nm	Cs/Cn
		Δ 220-240 V	Y 380-415 V	Δ 380-415 V	Y 660-690 V						
2,2	90R	8,7	5,03	-	-	2860	7,32	81,1	0,78	7,34	4,12
3	100L	10,4	6,01	-	-	2885	6,96	84,4	0,85	9,92	3,09
4	112R	-	-	8,09	4,67	2890	7,70	85,3	0,84	13,2	2,80
5,5	132R	-	-	10,1	5,83	2900	9,62	87,0	0,90	18,1	3,91
7,5	132R	-	-	13,7	7,91	2900	9,73	88,1	0,90	24,7	3,99
11	160R	-	-	20,0	11,5	2925	8,98	89,7	0,88	35,9	3,43
15	160M	-	-	26,7	15,4	2940	8,72	89,7	0,90	48,7	3,49
18,5	160L	-	-	32,8	18,9	2945	9,49	90,7	0,90	60,0	3,27
22	180R	-	-	38,7	22,3	2940	9,16	91,3	0,90	71,4	3,20
30	200La	-	-	54	31,2	2950	6,8	92,5	0,87	97	2,4
37	200Lb	-	-	65	37,5	2950	7,2	92,9	0,88	120	2,5
45	225M	-	-	80	46	2960	6,7	92,9	0,88	145	2,4
55	250M	-	-	99	57	2955	6,7	93,0	0,87	178	2,4
75	280S	-	-	133	77	2960	6,8	93,8	0,87	242	2,3
90	280M	-	-	157	91	2960	7,2	94,2	0,88	290	2,3
110	315S	-	-	196	113	2970	6,2	94,2	0,86	353	2,0
132	315Ma	-	-	235	136	2970	6,0	94,3	0,86	424	2,0
160	315Mc	-	-	280	162	2975	6,0	94,9	0,87	513	2,1
200	315Md	-	-	340	196	2980	6,5	95,4	0,89	640	2,2
250	355La	-	-	418	241	2980	7,0	96,0	0,90	800	2,3
315	355Lb	-	-	526	304	2980	7,1	96,2	0,90	1008	2,2
355	355Lc	-	-	591	341	2980	7,2	96,4	0,90	1136	2,1

* R = The size of the motor casing is smaller in respect to the shaft and to the flange.

tdb-tdv-mott-2p50_b_te

THREE-PHASE MOTORS FOR 50 Hz, 4-POLE TDB-TDV SERIES

MOTOR TYPE		ABSORBED CURRENT				DATA FOR 400 V 50 Hz VOLTAGE					
kW	IEC SIZE	I _n (A)				min ⁻¹	I _s / I _n	n %	cosφ	C _n Nm	C _s /C _n
		Δ 220-240 V	Y 380-415 V	Δ 380-415 V	Y 660-690 V						
1,1	90La	4,42	2,55	-	-	1415	4,48	78,2	0,80	7,42	2,14
1,5	90Lb	5,84	3,37	-	-	1415	5,10	81,0	0,79	10,1	2,43
2,2	100La	8,16	4,71	-	-	1420	5,52	83,1	0,81	14,8	2,36
3	100Lb	11,1	6,38	-	-	1425	6,13	84,1	0,81	20,1	2,69
4	112M	-	-	8,39	4,84	1440	6,47	85,5	0,81	26,5	2,69
5,5	132S	-	-	11,4	6,58	1450	5,71	87,2	0,80	36,2	2,56
7,5	132M	-	-	15,3	8,83	1445	6,14	88,0	0,81	49,5	2,93
11	160M	-	-	22,5	13,0	1460	5,2	88,6	0,80	72	2,0
15	160L	-	-	30	17,3	1460	5,9	89,8	0,80	98	2,3
18,5	180M	-	-	37	21,4	1465	6,2	90,2	0,80	120	2,3
22	180L	-	-	42	24,2	1465	6,3	90,8	0,83	143	2,4
30	200L	-	-	58	33,5	1465	6,6	91,6	0,82	195	2,4
37	225S	-	-	68	39,3	1470	6,5	93,1	0,85	240	2,3
45	225M	-	-	80	46,2	1475	6,5	93,4	0,87	291	2,4
55	250M	-	-	97	56	1475	6,4	93,7	0,88	356	2,3
75	280S	-	-	135	78	1480	7,0	93,7	0,86	483	2,5
90	280M	-	-	157	91	1480	7,1	94,5	0,88	580	2,7

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MOTOR NOISE LEVELS

The table lists the sound pressure values (L_p) measured as per Curve A (ISO 1680)

Noise values were measured with the 50 Hz motor running idle with a tolerance of 3 dB (A).

2-POLE MOTORS

POWER	MOTOR TYPE	NOISE
kW	IEC SIZE	L _{pA} dB
2,2	90R	<70
3	100L	<70
4	112R	<70
5,5	132R	<70
7,5	132R	<70
11	160R	74
15	160M	75
18,5	160L	75
22	180R	75
30	200La	74
37	200Lb	74
45	225M	78
55	250M	84
75	280S	84
90	280M	84
110	315S	83
132	315Ma	83
160	315Mc	83
200	315Md	83
250	355La	82
315	355Lb	82
355	355Lc	82

4-POLE MOTORS

POWER	MOTOR TYPE	NOISE
kW	IEC SIZE	L _{pA} dB
1,1	90La	<70
1,5	90Lb	<70
2,2	100La	<70
3	100Lb	<70
4	112M	<70
5,5	132S	<70
7,5	132M	<70
11	160M	<70
15	160L	<70
18,5	180M	<70
22	180L	<70
30	200L	<70
37	225S	74
45	225M	74
55	250M	74
75	280S	77
90	280M	77

* R = The size of the motor casing is smaller in respect to the shaft and to the flange.

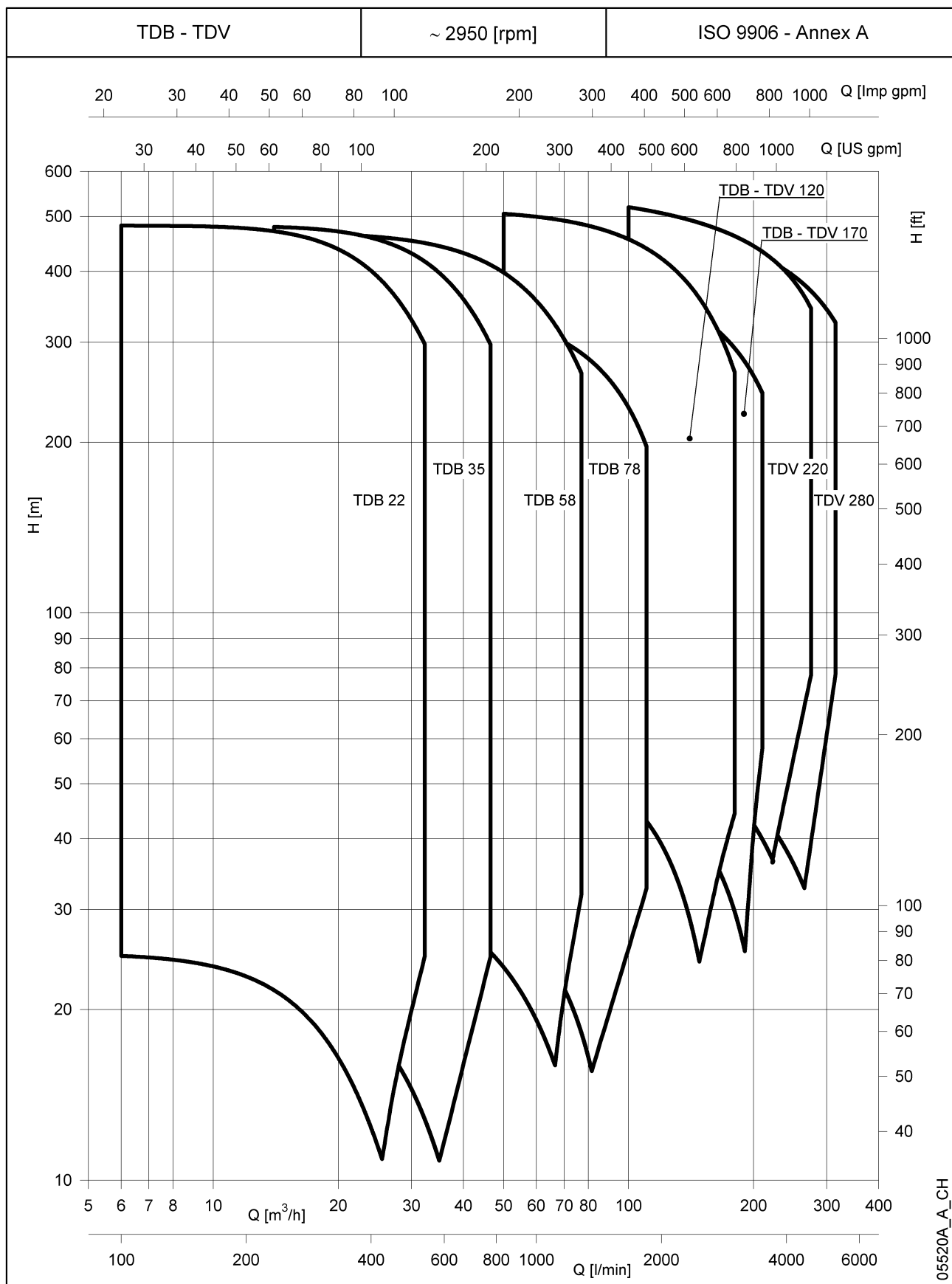
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TDB-TDV SERIES HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.



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Lowara

TDB22 SERIES HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	100	166,7	250	300	350	400	441,7	500,0	533,3	583,3
			m ³ /h 0	6	10	15	18	21	24	26,5	30	32	35
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB22 01/1C	2,2	3	24,9	24,9	23,8	20,9	18,4	15,4	12,4				
TDB22 01/1B	3	4	32,8	32,8	32,1	30,0	28,1	25,6	22,7	20,0	16,1		
TDB22 01/1A	4	5	40,3	40,1	40,0	38,9	37,6	35,8	33,4	31,1	27,4	25,2	21,8
TDB22 02/2C	4	5	49,9	49,7	47,6	41,8	36,7	30,8					
TDB22 02/1B1C	5,5	7,4	57,7	57,6	55,9	50,9	46,4	41,0	35,0	30,0			
TDB22 02/2B	7,5	10	65,5	65,6	64,2	60,0	56,1	51,2	45,3	40,0			
TDB22 02/1A1B	7,5	10	73,1	72,9	72,1	69,0	65,7	61,4	56,1	51,1	43,5	39,0	
TDB22 02/2A	11	15	80,6	80,3	80,0	77,9	75,3	71,6	66,8	62,1	54,8	50,3	43,7
TDB22 03/2B1C	7,5	10	90,5	90,4	88,0	81,0	74,5	66,6	57,7	50,0			
TDB22 03/3B	11	15	98,3	98,3	96,3	90,1	84,2	76,7	68,0	60,0			
TDB22 03/1A2B	11	15	105,8	105,7	104,2	99,0	93,8	87,0	78,7	71,1	59,5		
TDB22 03/2A1B	15	20	113,4	113,1	112,1	107,9	103,3	97,2	89,5	82,1	70,8	64,2	
TDB22 03/3A	15	20	120,9	120,4	119,9	116,8	112,9	107,4	100,2	93,2	82,1	75,5	65,5
TDB22 04/4B	15	20	131,1	131,1	128,4	120,1	112,2	102,3	90,7	80,0			
TDB22 04/1A3B	15	20	138,6	138,5	136,3	129,0	121,8	112,5	101,4	91,1			
TDB22 04/2A2B	15	20	146,2	145,8	144,2	137,9	131,4	122,8	112,2	102,1	86,9		
TDB22 04/3A1B	15	20	153,7	153,2	152,0	146,8	141,0	133,0	122,9	113,2	98,2	89,3	
TDB22 04/4A	18,5	25	161,2	160,5	159,9	155,7	150,6	143,2	133,7	124,3	109,5	100,6	
TDB22 05/1A4B	15	20	171,4	171,3	168,4	159,0	149,9	138,1	124,1	111,1			
TDB22 05/2A3B	18,5	25	178,9	178,6	176,3	167,9	159,5	148,3	134,8	122,1			
TDB22 05/3A2B	18,5	25	186,5	186,0	184,1	176,8	169,0	158,6	145,6	133,2	114,3		
TDB22 05/4A1B	22	30	194,0	193,3	192,0	185,8	178,6	168,8	156,3	144,3	125,6	114,5	
TDB22 05/5A	22	30	201,6	200,7	199,9	194,7	188,2	179,0	167,1	155,3	136,9	125,8	
TDB22 06/2A4B	22	30	211,7	211,4	208,4	198,0	187,5	173,9	157,5	142,1			
TDB22 06/3A3B	22	30	219,2	218,8	216,2	206,9	197,1	184,1	168,2	153,2			
TDB22 06/4A2B	22	30	226,8	226,1	224,1	215,8	206,7	194,3	179,0	164,3	141,7		
TDB22 06/5A1B	30	40	234,3	233,5	232,0	224,7	216,3	204,6	189,7	175,3	153,0	139,6	
TDB22 06/6A	30	40	241,9	240,8	239,9	233,6	225,9	214,8	200,5	186,4	164,3	150,9	
TDB22 07/3A4B	30	40	252,0	251,5	248,3	236,9	225,2	209,7	190,9	173,2			
TDB22 07/4A3B	30	40	259,6	258,9	256,2	245,8	234,7	219,9	201,7	184,3			
TDB22 07/5A2B	30	40	267,1	266,2	264,1	254,7	244,3	230,1	212,4	195,3	169,1		
TDB22 07/6A1B	30	40	274,6	273,6	272,0	263,6	253,9	240,4	223,2	206,4	180,3	164,8	
TDB22 07/7A	30	40	282,2	280,9	279,9	272,5	263,5	250,6	233,9	217,5	191,6	176,1	
TDB22 08/4A4B	30	40	292,3	291,7	288,3	275,8	262,8	245,5	224,3	204,3			
TDB22 08/5A3B	30	40	299,9	299,0	296,2	284,7	272,4	255,7	235,1	215,3			
TDB22 08/6A2B	30	40	307,4	306,4	304,1	293,7	282,0	265,9	245,8	226,4	196,4		
TDB22 08/7A1B	37	50	315,0	313,7	312,0	302,6	291,6	276,2	256,6	237,5	207,7		
TDB22 08/8A	37	50	322,5	321,1	319,9	311,5	301,1	286,4	267,3	248,5	219,0	201,2	
TDB22 09/5A4B	37	50	332,6	331,8	328,3	314,8	300,4	281,3	257,7	235,3			
TDB22 09/6A3B	37	50	340,2	339,2	336,2	323,7	310,0	291,5	268,5	246,4			
TDB22 09/7A2B	37	50	347,7	346,5	344,1	332,6	319,6	301,7	279,2	257,5	223,8		
TDB22 09/8A1B	37	50	355,3	353,9	352,0	341,5	329,2	312,0	290,0	268,5	235,1		
TDB22 09/9A	37	50	362,8	361,2	359,8	350,4	338,8	322,2	300,7	279,6	246,4	226,4	
TDB22 10/6A4B	37	50	372,9	371,9	368,3	353,7	338,1	317,1	291,2	266,4			
TDB22 10/7A3B	37	50	380,5	379,3	376,2	362,6	347,7	327,3	301,9	277,5			
TDB22 10/8A2B	37	50	388,0	386,6	384,1	371,5	357,3	337,5	312,6	288,5	251,2		
TDB22 10/9A1B	45	60	395,6	394,0	391,9	380,4	366,8	347,8	323,4	299,6	262,5		
TDB22 10/10A	45	60	403,1	401,3	399,8	389,3	376,4	358,0	334,1	310,7	273,8	251,5	
TDB22 11/7A4B	45	60	413,3	412,1	408,3	392,6	375,7	352,9	324,6	297,5			
TDB22 11/8A3B	45	60	420,8	419,4	416,2	401,5	385,3	363,1	335,3	308,5			
TDB22 11/9A2B	45	60	428,3	426,8	424,0	410,5	394,9	373,3	346,1	319,6	278,6		
TDB22 11/10A1B	45	60	435,9	434,1	431,9	419,4	404,5	383,6	356,8	330,7	289,9		
TDB22 11/11A	45	60	443,4	441,5	439,8	428,3	414,1	393,8	367,6	341,7	301,2	276,7	
TDB22 12/8A4B	45	60	453,6	452,2	448,3	431,6	413,4	388,7	358,0	328,5			
TDB22 12/9A3B	45	60	461,1	459,6	456,1	440,5	423,0	398,9	368,7	339,6			
TDB22 12/10A2B	45	60	468,7	466,9	464,0	449,4	432,5	409,1	379,5	350,7	305,9		
TDB22 12/11A1B	55	74	476,2	474,3	471,9	458,3	442,1	419,3	390,2	361,7	317,2		
TDB22 12/12A	55	74	483,7	481,6	479,8	467,2	451,7	429,6	401,0	372,8	328,5	301,8	

Performance complies with ISO 9906 - Annex A.

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Lowara

TDB35 SERIES HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	233,3	300	333,3	416,7	500	583,3	666,7	750,0	833,3	900
	kW	HP	m³/h 0	14	18	20	25	30	35	40	45	50	54
			H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB35 01/1C	3	4	22,6	22,0	21,1	20,3	17,8	14,5	10,8				
TDB35 01/1B	4	5	30,4	30,3	29,7	29,2	27,3	24,5	21,0	17,0			
TDB35 01/1A	5,5	7	39,8	39,9	39,5	39,2	37,9	35,9	33,1	29,8	26,0	21,9	18,8
TDB35 02/2B	7,5	10	60,8	60,5	59,3	58,3	54,6	49,0	41,9	34,0			
TDB35 02/1A1B	11	14,8	70,3	70,2	69,2	68,4	65,2	60,4	54,1	46,8	39,1		
TDB35 02/2A	11	15	79,7	79,9	79,1	78,4	75,8	71,8	66,3	59,6	52,0	43,9	37,5
TDB35 03/3B	11	15	91,3	90,8	89,0	87,5	81,9	73,5	62,9	51,0			
TDB35 03/1A2B	15	20	100,7	100,5	98,9	97,6	92,5	84,9	75,1	63,8	52,1		
TDB35 03/2A1B	15	20	110,1	110,1	108,8	107,6	103,1	96,3	87,3	76,6	65,0	53,7	
TDB35 03/3A	18,5	25	119,5	119,8	118,6	117,6	113,7	107,6	99,4	89,4	77,9	65,8	56,3
TDB35 04/1A3B	18,5	25	131,1	130,7	128,5	126,7	119,8	109,4	96,1	80,8			
TDB35 04/2A2B	18,5	25	140,5	140,4	138,4	136,8	130,4	120,8	108,2	93,6			
TDB35 04/3A1B	22	30	150,0	150,1	148,3	146,8	141,0	132,1	120,4	106,4	91,0		
TDB35 04/4A	22	30	159,4	159,7	158,2	156,8	151,6	143,5	132,6	119,2	103,9	87,8	
TDB35 05/2A3B	22	30	171,0	170,7	168,1	165,9	157,7	145,3	129,2	110,6			
TDB35 05/3A2B	30	40	180,4	180,3	178,0	176,0	168,3	156,7	141,4	123,4	104,1		
TDB35 05/4A1B	30	40	189,8	190,0	187,8	186,0	178,9	168,0	153,6	136,2	117,0		
TDB35 05/5A	30	40	199,2	199,7	197,7	196,0	189,5	179,4	165,7	149,0	129,9	109,7	
TDB35 06/3A3B	30	40	210,8	210,6	207,6	205,1	195,6	181,2	162,4	140,4			
TDB35 06/4A2B	30	40	220,2	220,3	217,5	215,2	206,2	192,5	174,5	153,2	130,1		
TDB35 06/5A1B	30	40	229,7	229,9	227,4	225,2	216,8	203,9	186,7	166,0	143,0		
TDB35 06/6A	37	50	239,1	239,6	237,3	235,3	227,4	215,3	198,9	178,8	155,9		
TDB35 07/4A3B	37	50	250,7	250,5	247,2	244,4	233,5	217,0	195,5	170,2			
TDB35 07/5A2B	37	50	260,1	260,2	257,1	254,4	244,1	228,4	207,7	183,0	156,0		
TDB35 07/6A1B	37	50	269,5	269,9	266,9	264,4	254,7	239,8	219,9	195,8	168,9		
TDB35 07/7A	37	50	278,9	279,6	276,8	274,5	265,3	251,2	232,0	208,5	181,8		
TDB35 08/5A3B	37	50	290,5	290,5	286,7	283,6	271,4	252,9	228,7	200,0			
TDB35 08/6A2B	37	50	299,9	300,2	296,6	293,6	282,0	264,3	240,8	212,8			
TDB35 08/7A1B	45	60	309,4	309,8	306,5	303,6	292,6	275,7	253,0	225,6	194,9		
TDB35 08/8A	45	60	318,8	319,5	316,4	313,7	303,2	287,0	265,2	238,3	207,8		
TDB35 09/6A3B	45	60	330,4	330,4	326,3	322,8	309,3	288,8	261,8	229,8			
TDB35 09/7A2B	45	60	339,8	340,1	336,1	332,8	319,9	300,2	274,0	242,6			
TDB35 09/8A1B	45	60	349,2	349,8	346,0	342,8	330,5	311,6	286,2	255,3	220,9		
TDB35 09/9A	55	74	358,6	359,4	355,9	352,9	341,1	322,9	298,3	268,1	233,8		
TDB35 10/7A3B	55	74	370,2	370,4	365,8	362,0	347,2	324,7	295,0	259,6			
TDB35 10/8A2B	55	74	379,6	380,0	375,7	372,0	357,8	336,1	307,1	272,3			
TDB35 10/9A1B	55	74	389,1	389,7	385,6	382,1	368,4	347,4	319,3	285,1	246,9		
TDB35 10/10A	55	74	398,5	399,4	395,4	392,1	379,0	358,8	331,5	297,9	259,8		
TDB35 11/8A3B	55	74	410,1	410,3	405,4	401,2	385,1	360,6	328,1	289,3			
TDB35 11/9A2B	55	74	419,5	420,0	415,2	411,2	395,7	371,9	340,3	302,1			
TDB35 11/10A1B	55	74	428,9	429,6	425,1	421,3	406,3	383,3	352,5	314,9	272,8		
TDB35 11/11A	75	101	438,3	439,3	435,0	431,3	416,9	394,7	364,6	327,7	285,7		
TDB35 12/9A3B	55	74	449,9	450,2	444,9	440,4	423,0	396,4	361,3	319,1			
TDB35 12/10A2B	75	101	459,3	459,9	454,8	450,4	433,6	407,8	373,4	331,9			
TDB35 12/11A1B	75	101	468,8	469,6	464,7	460,5	444,2	419,2	385,6	344,7	298,8		
TDB35 12/12A	75	101	478,2	479,2	474,5	470,5	454,8	430,6	397,8	357,5	311,7		

Performance complies with ISO 9906 - Annex A.

tdb35-2p50_a_th



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TDB58 SERIES HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	383,3	583,3	750	916,7	1000	1083,3	1166,7	1250	1333,3	1400
			m ³ /h 0	23	35	45	55	60	65	70	75	80	84
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB58 01/1C	7,5	10	34,0	32,5	29,4	25,8	21,5	19,1	16,7				
TDB58 01/1B	7,5	10	43,4	42,5	40,0	36,9	32,7	30,3	27,7	24,9	21,9		
TDB58 01/1A	11	15	54,6	53,9	51,9	48,9	44,6	42,1	39,3	36,3	33,2	30,0	27,4
TDB58 02/2C	15	20	68,0	65,0	58,8	51,7	43,0	38,3	33,4				
TDB58 02/1B1C	15	20	77,4	75,0	69,5	62,7	54,2	49,4	44,3	39,0			
TDB58 02/2B	18,5	25	86,8	84,9	80,1	73,7	65,4	60,6	55,3	49,7	43,8		
TDB58 02/1A1B	18,5	25	97,9	96,4	91,9	85,8	77,3	72,3	66,9	61,1	55,1	48,8	
TDB58 02/2A	22	30	109,1	107,8	103,8	97,8	89,2	84,1	78,5	72,5	66,3	59,9	54,9
TDB58 03/2B1C	22	30	120,8	117,4	109,5	99,6	86,9	79,7	72,0				
TDB58 03/3B	30	40	130,1	127,4	120,1	110,6	98,1	90,9	83,0	74,6			
TDB58 03/1A2B	30	40	141,3	138,8	132,0	122,6	110,0	102,6	94,6	86,0	77,0		
TDB58 03/2A1B	30	40	152,5	150,3	143,8	134,6	122,0	114,4	106,2	97,4	88,2	78,8	
TDB58 03/3A	37	50	163,7	161,7	155,7	146,7	133,9	126,2	117,8	108,8	99,5	89,9	82,3
TDB58 04/4B	30	40	173,5	169,8	160,1	147,5	130,8	121,1	110,6				
TDB58 04/1A3B	37	50	184,7	181,3	172,0	159,5	142,7	132,9	122,2	110,8			
TDB58 04/2A2B	37	50	195,9	192,7	183,9	171,5	154,7	144,7	133,8	122,3	110,1		
TDB58 04/3A1B	45	60	207,1	204,2	195,7	183,5	166,6	156,5	145,4	133,7	121,4	108,8	
TDB58 04/4A	45	60	218,2	215,6	207,6	195,5	178,5	168,2	157,0	145,1	132,6	119,9	109,8
TDB58 05/1A4B	45	60	228,1	223,7	212,0	196,4	175,5	163,2	149,9	135,7			
TDB58 05/2A3B	45	60	239,3	235,2	223,9	208,4	187,4	175,0	161,5	147,1			
TDB58 05/3A2B	55	74	250,4	246,6	235,8	220,4	199,3	186,7	173,1	158,5	143,3		
TDB58 05/4A1B	55	74	261,6	258,1	247,6	232,4	211,2	198,5	184,7	169,9	154,5	138,8	
TDB58 05/5A	55	74	272,8	269,5	259,5	244,4	223,1	210,3	196,3	181,4	165,8	149,9	137,2
TDB58 06/2A4B	55	74	282,6	277,6	263,9	245,3	220,1	205,3	189,2	172,0			
TDB58 06/3A3B	55	74	293,8	289,1	275,8	257,3	232,0	217,0	200,8	183,4	165,2		
TDB58 06/4A2B	75	101	305,0	300,5	287,7	269,3	243,9	228,8	212,4	194,8	176,4		
TDB58 06/5A1B	75	101	316,2	312,0	299,5	281,3	255,8	240,6	224,0	206,2	187,7	168,7	
TDB58 06/6A	75	101	327,3	323,4	311,4	293,3	267,7	252,4	235,6	217,6	198,9	179,8	164,7
TDB58 07/3A4B	75	101	337,2	331,5	315,8	294,2	264,7	247,3	228,4	208,2	187,1		
TDB58 07/4A3B	75	101	348,4	343,0	327,7	306,2	276,6	259,1	240,0	219,7	198,4		
TDB58 07/5A2B	75	101	359,5	354,4	339,6	318,2	288,5	270,9	251,6	231,1	209,6	187,6	
TDB58 07/6A1B	75	101	370,7	365,9	351,4	330,2	300,4	282,6	263,2	242,5	220,8	198,7	
TDB58 07/7A	75	101	381,9	377,3	363,3	342,2	312,3	294,4	274,8	253,9	232,1	209,8	192,1
TDB58 08/4A4B	75	101	391,7	385,4	367,7	343,0	309,3	289,4	267,7	244,5			
TDB58 08/5A3B	90	121	402,9	396,9	379,6	355,1	321,2	301,2	279,3	255,9	231,5		
TDB58 08/6A2B	90	121	414,1	408,3	391,5	367,1	333,1	312,9	290,9	267,3	242,7		
TDB58 08/7A1B	90	121	425,3	419,8	403,3	379,1	345,1	324,7	302,5	278,8	254,0	228,7	
TDB58 08/8A	90	121	436,5	431,2	415,2	391,1	357,0	336,5	314,1	290,2	265,2	239,8	219,6
TDB58 09/5A4B	90	121	446,3	439,3	419,6	391,9	353,9	331,4	306,9	280,8			
TDB58 09/6A3B	90	121	457,5	450,8	431,5	403,9	365,9	343,2	318,5	292,2	264,7		
TDB58 09/7A2B	90	121	468,7	462,2	443,4	416,0	377,8	355,0	330,1	303,6	275,9		

Performance complies with ISO 9906 - Annex A.

tdb58-2p50_a_th

TDB78 SERIES **HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES**

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	500	833,3	1000	1166,7	1333,3	1416,7	1500	1583,3	1700	1850
	kW	HP	m³/h 0	30	50	60	70	80	85	90	95	102	111
H = TOTAL HEAD IN COLUMN OF WATER (METRES)													
TDB78 01/1C	7,5	10	33,8	32,5	29,0	25,9	21,8	16,5					
TDB78 01/1B	11	15	44,4	43,5	40,9	38,5	35,2	31,2	28,9	26,3	23,7		
TDB78 01/1A	15	20	59,6	57,8	54,9	52,7	50,0	46,8	44,9	42,9	40,7	37,3	32,4
TDB78 02/1B1C	18,5	25	78,2	76,1	69,9	64,4	57,0	47,7	42,3				
TDB78 02/2B	22	30	88,8	87,1	81,8	76,9	70,5	62,4	57,7	52,7			
TDB78 02/1A1B	30	40	104,0	101,4	95,7	91,2	85,3	78,0	73,8	69,3	64,4	56,9	
TDB78 02/2A	37	50	119,1	115,6	109,7	105,4	100,1	93,6	89,9	85,8	81,4	74,7	64,8
TDB78 03/3B	37	50	133,2	130,6	122,6	115,4	105,7	93,6	86,6	79,0	71,0		
TDB78 03/1A2B	37	50	148,4	144,9	136,6	129,6	120,5	109,2	102,7	95,6	88,0		
TDB78 03/2A1B	45	60	163,5	159,2	150,6	143,9	135,3	124,8	118,7	112,2	105,1	94,3	
TDB78 03/3A	55	74	178,7	173,4	164,6	158,1	150,1	140,4	134,8	128,7	122,2	112,0	97,3
TDB78 04/1A3B	55	74	192,8	188,4	177,5	168,1	155,8	140,4	131,5	122,0	111,7		
TDB78 04/2A2B	55	74	207,9	202,7	191,5	182,3	170,5	156,0	147,6	138,5	128,7	113,9	
TDB78 04/3A1B	75	101	223,1	217,0	205,4	196,6	185,3	171,6	163,7	155,1	145,8	131,6	
TDB78 04/4A	75	101	238,2	231,2	219,4	210,8	200,1	187,2	179,7	171,7	162,9	149,3	129,7
TDB78 05/2A3B	75	101	252,3	246,2	232,3	220,8	205,8	187,2	176,5	164,9	152,4		
TDB78 05/3A2B	75	101	267,5	260,5	246,3	235,0	220,6	202,7	192,5	181,4	169,5	151,2	
TDB78 05/4A1B	75	101	282,6	274,8	260,3	249,3	235,4	218,3	208,6	198,0	186,5	168,9	
TDB78 05/5A	90	121	297,8	289,1	274,3	263,5	250,2	233,9	224,7	214,6	203,6	186,7	162,1
TDB78 06/3A3B	90	121	311,9	304,1	287,2	273,5	255,8	233,9	221,4	207,8	193,1		
TDB78 06/4A2B	90	121	327,0	318,3	301,2	287,7	270,6	249,5	237,5	224,4	210,2	188,6	
TDB78 06/5A1B	90	121	342,2	332,6	315,1	302,0	285,4	265,1	253,5	240,9	227,2	206,3	

Performance complies with ISO 9906 - Annex A.

tdb78-2p50_a_th

TDB-TDV120 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	833,3	1083,3	1333,3	1666,7	2000	2333,3	2500	2666,7	2833,3	3066,7
			m³/h 0	50	65	80	100	120	140	150	160	170	184
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB120 01/1C	22	30	56,7	55,6	54,1	51,6	46,5	39,1	29,0				
TDB120 01/1B	30	40	69,5	68,5	67,1	64,9	60,4	53,9	45,6	40,8	35,7		
TDB120 01/1A	37	50	85,3	84,3	82,6	80,3	76,0	70,3	63,1	59,0	54,4	49,6	42,1
TDB120 02/2C	45	60	113,4	111,2	108,2	103,3	93,1	78,1	58,1				
TDB120 02/1B1C	55	74	126,2	124,1	121,2	116,5	106,9	93,0	74,7	63,8			
TDB120 02/2B	55	74	139,1	137,0	134,3	129,8	120,8	107,9	91,2	81,6	71,3		
TDB120 02/1A1B	75	101	154,8	152,7	149,7	145,2	136,4	124,2	108,7	99,8	90,1	79,8	
TDB120 02/2A	75	101	170,6	168,5	165,2	160,5	151,9	140,5	126,2	117,9	108,9	99,1	84,2
TDB120 03/1B2C	75	101	182,9	179,7	175,3	168,2	153,4	132,1	103,7				
TDB120 03/2B1C	75	101	195,8	192,6	188,4	181,5	167,3	146,9	120,3	104,7			
TDB120 03/3B	90	121	208,6	205,4	201,4	194,8	181,2	161,8	136,8	122,5			
TDB120 03/1A2B	90	121	224,4	221,2	216,9	210,1	196,7	178,1	154,3	140,6	125,8		
TDV120 03/2A1B	110	148	240,2	237,0	232,4	225,5	212,3	194,5	171,8	158,7	144,6	129,3	
TDV120 03/3A	110	148	255,9	252,8	247,8	240,8	227,9	210,8	189,3	176,9	163,3	148,7	126,3
TDV120 04/4B	110	148	278,1	273,9	268,5	259,7	241,5	215,7	182,4	163,3			
TDV120 04/1A3B	132	177	293,9	289,7	284,0	275,0	257,1	232,1	199,9	181,4			
TDV120 04/2A2B	132	177	309,7	305,5	299,5	290,4	272,7	248,4	217,4	199,6	180,2		
TDV120 04/3A1B	160	215	325,5	321,2	315,0	305,7	288,3	264,7	234,9	217,7	199,0	178,9	
TDV120 04/4A	160	215	341,3	337,0	330,5	321,1	303,9	281,1	252,4	235,8	217,8	198,2	168,4
TDV120 05/1A4B	160	215	363,4	358,2	351,2	339,9	317,5	286,0	245,5	222,2			
TDV120 05/2A3B	160	215	379,2	373,9	366,6	355,3	333,1	302,3	263,0	240,4			
TDV120 05/3A2B	160	215	395,0	389,7	382,1	370,6	348,7	318,7	280,5	258,5	234,7		
TDV120 05/4A1B	200	268	410,8	405,5	397,6	386,0	364,3	335,0	298,0	276,7	253,4	228,4	
TDV120 05/5A	200	268	426,6	421,3	413,1	401,3	379,8	351,3	315,5	294,8	272,2	247,8	210,5
TDV120 06/2A4B	200	268	448,8	442,4	433,8	420,2	393,5	356,3	308,6	281,2			
TDV120 06/3A3B	200	268	464,5	458,2	449,2	435,6	409,1	372,6	326,1	299,3	270,3		
TDV120 06/4A2B	200	268	480,3	474,0	464,7	450,9	424,6	388,9	343,6	317,5	289,1		
TDV120 06/5A1B	200	268	496,1	489,8	480,2	466,3	440,2	405,3	361,1	335,6	307,9	278,0	
TDV120 06/6A	200	268	511,9	505,5	495,7	481,6	455,8	421,6	378,6	353,8	326,7	297,4	

Performance complies with ISO 9906 - Annex A.

tdb-tdv120-2p50_a_th

TDB-TDV170 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	1250	1666,7	2000	2333,3	2666,7	3000	3333,3	3583,3	3833,3	4033,3
			m³/h 0	75	100	120	140	160	180	200	215	230	242
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB170 01/1C	30	40	55,6	52,8	49,8	46,6	42,3	36,8	29,8				
TDB170 01/1B	37	50	67,8	66,1	63,8	61,0	57,1	52,2	46,2	39,1	33,2		
TDB170 01/1A	45/55	60/74	89,8	85,8	82,5	79,3	75,8	71,7	66,9	61,2	56,1	50,2	44,7
TDB170 02/2C	55	74	111,2	105,6	99,7	93,2	84,6	73,6	59,5				
TDB170 02/1B1C	55	74	123,4	118,9	113,7	107,5	99,4	89,0	75,9				
TDB170 02/2B	75	101	135,6	132,3	127,6	121,9	114,2	104,4	92,4	78,3	66,3		
TDB170 02/1A1B	90	121	157,6	151,9	146,3	140,3	132,9	123,8	113,1	100,3	89,3	76,8	
TDV170 02/2A	110	148	179,5	171,6	164,9	158,7	151,5	143,3	133,8	122,3	112,2	100,3	89,4
TDV170 03/2B1C	110	148	191,2	185,1	177,5	168,5	156,5	141,1	122,1	99,1			
TDV170 03/3B	110	148	203,3	198,4	191,5	182,9	171,3	156,5	138,5	117,4	99,5		
TDV170 03/1A2B	110	148	225,3	218,1	210,1	201,2	190,0	176,0	159,2	139,4	122,4		
TDV170 03/2A1B	132	177	247,3	237,7	228,8	219,6	208,6	195,5	179,9	161,5	145,3	127,0	
TDV170 03/3A	160	215	269,3	257,4	247,4	238,0	227,3	215,0	200,6	183,5	168,3	150,5	134,1
TDV170 04/1A3B	160	215	293,1	284,2	273,9	262,2	247,1	228,2	205,4	178,5	155,6		
TDV170 04/2A2B	160	215	315,1	303,9	292,6	280,6	265,7	247,7	226,1	200,6	178,5		
TDV170 04/3A1B	200	268	337,1	323,5	311,2	299,0	284,4	267,2	246,8	222,6	201,4	177,2	
TDV170 04/4A	200	268	359,1	343,2	329,9	317,3	303,1	286,7	267,5	244,7	224,4	200,6	178,7
TDV170 05/2A3B	200	268	382,9	370,0	356,4	341,5	322,8	299,9	272,3	239,7			
TDV170 05/3A2B	200	268	404,9	389,7	375,1	359,9	341,5	319,4	293,0	261,7			

Performance complies with ISO 9906 - Annex A.

tdb-tdv170-2p50_a_th



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TDV22 SERIES HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	1666,7	2000	2333,3	2666,7	3000	3333,3	3716,7	4166,7	4633,3	5000
	kW	HP	m ³ /h 0	100	120	140	160	180	200	223	250	278	300
H = TOTAL HEAD IN COLUMN OF WATER (METRES)													
TDV220 01/1D	45	60	66,5	61,0	58,2	55,0	51,2	47,0	42,4	36,5			
TDV220 01/1C	55	74	79,3	74,5	72,1	69,3	66,1	62,4	58,2	52,7	45,1		
TDV220 01/1B	75	101	94,9	90,4	88,1	85,6	82,6	79,3	75,6	70,6	63,6	54,5	
TDV220 01/1A	90	121	120,0	112,8	110,1	107,3	104,3	101,0	97,4	92,7	85,8	76,6	67,4
TDV220 02/1C1D	90	121	145,8	135,5	130,4	124,3	117,3	109,4	100,6				
TDV220 02/2C	90	121	158,6	149,0	144,3	138,7	132,2	124,8	116,4				
TDV220 02/1B1C	110	148	174,2	164,9	160,3	154,9	148,7	141,7	133,8	123,3			
TDV220 02/2B	132	177	189,8	180,8	176,3	171,1	165,2	158,6	151,2	141,2	127,1		
TDV220 02/1A1B	160	215	214,9	203,2	198,3	192,9	186,9	180,4	173,0	163,3	149,4	131,1	
TDV220 02/2A	160	215	239,9	225,6	220,3	214,6	208,6	202,1	194,9	185,3	171,6	153,3	134,7
TDV220 03/1B2C	160	215	253,5	239,4	232,4	224,2	214,8	204,1	192,0	175,9			
TDV220 03/2B1C	160	215	269,1	255,3	248,4	240,5	231,4	221,1	209,4	193,9			
TDV220 03/3B	200	268	284,7	271,2	264,4	256,7	247,9	238,0	226,8	211,8	190,7		
TDV220 03/1A2B	200	268	309,8	293,6	286,4	278,4	269,5	259,7	248,6	233,9	212,9	185,5	
TDV220 03/2A1B	250	335	334,8	316,0	308,4	300,2	291,2	281,4	270,5	255,9	235,2	207,7	
TDV220 03/3A	250	335	359,9	338,3	330,4	322,0	312,9	303,1	292,3	278,0	257,4	229,9	202,1
TDV220 04/4B	250	335	379,6	361,7	352,6	342,2	330,5	317,3	302,3	282,4			
TDV220 04/1A3B	250	335	404,7	384,0	374,6	364,0	352,2	339,0	324,2	304,5	276,5		
TDV220 04/2A2B	315	422	429,7	406,4	396,6	385,7	373,9	360,7	346,0	326,5	298,8		
TDV220 04/3A1B	315	422	454,8	428,8	418,6	407,5	395,5	382,5	367,9	348,6	321,0	284,3	
TDV220 04/4A	315	422	479,9	451,1	440,6	429,3	417,2	404,2	389,7	370,7	343,3	306,5	269,4
TDV220 05/1A4B	355	476	499,6	474,4	462,7	449,5	434,8	418,3	399,8	375,1			
TDV220 05/2A3B	355	476	524,6	496,8	484,7	471,3	456,5	440,1	421,6	397,2	362,3		
TDV220 05/3A2B	355	476	549,7	519,2	506,7	493,1	478,2	461,8	443,5	419,2	384,6		

Performance complies with ISO 9906 - Annex A.

tdv220-2p50_a_th

TDV280 SERIES HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	2166,7	2833,3	3333,3	3750	4166,7	4583,3	5000	5416,7	5666,7	6000
	kW	HP	m ³ /h 0	130	170	200	225	250	275	300	325	340	360
H = TOTAL HEAD IN COLUMN OF WATER (METRES)													
TDV280 01/1D	45	60	65,0	56,9	51,1	46,0	41,2	36,0					
TDV280 01/1C	55	74	77,1	70,0	65,2	60,9	56,7	52,0	46,6	40,6			
TDV280 01/1B	75	101	92,0	85,1	81,0	77,3	73,7	69,7	65,1	59,8	53,7		
TDV280 01/1A	90	121	112,4	107,5	103,3	99,5	95,9	91,7	87,1	81,7	75,5	71,4	65,2
TDV280 02/1C1D	90	121	142,0	126,9	116,4	106,9	97,9	88,0					
TDV280 02/2C	110	148	154,1	140,1	130,5	121,7	113,4	103,9	93,3				
TDV280 02/1B1C	110	148	169,1	155,1	146,2	138,2	130,4	121,6	111,7	100,4			
TDV280 02/2B	132	177	184,1	170,2	162,0	154,6	147,5	139,4	130,1	119,6	107,4		
TDV280 02/1A1B	160	215	204,4	192,6	184,3	176,8	169,6	161,4	152,1	141,5	129,2	121,0	
TDV280 02/2A	200	268	224,8	215,0	206,6	199,0	191,7	183,5	174,1	163,4	151,1	142,7	130,4
TDV280 03/2B1C	200	268	261,1	240,3	227,2	215,4	204,1	191,3	176,8	160,2			
TDV280 03/3B	200	268	276,1	255,3	243,0	231,9	221,2	209,0	195,2	179,3	161,1		
TDV280 03/1A2B	250	335	296,5	277,7	265,3	254,1	243,3	231,1	217,2	201,2	182,9	170,6	
TDV280 03/2A1B	250	335	316,8	300,1	287,6	276,3	265,5	253,2	239,2	223,2	204,8	192,4	
TDV280 03/3A	315	422	337,2	322,5	309,9	298,5	287,6	275,2	261,2	245,1	226,6	214,1	195,7
TDV280 04/4B	315	422	368,1	340,4	324,0	309,1	294,9	278,7	260,2	239,1			
TDV280 04/1A3B	315	422	388,5	362,8	346,3	331,4	317,0	300,8	282,2	261,0	236,6		
TDV280 04/2A2B	315	422	408,8	385,2	368,6	353,6	339,2	322,8	304,2	282,9	258,5	242,0	
TDV280 04/3A1B	355	476	429,2	407,6	390,9	375,8	361,3	344,9	326,2	304,9	280,3	263,7	
TDV280 04/4A	355	476	449,6	430,0	413,3	398,0	383,5	367,0	348,2	326,8	302,1	285,5	260,9
TDV280 05/1A4B	355	476	480,5	447,9	427,3	408,6	390,8	370,5	347,3	320,8			
TDV280 05/2A3B	355	476	500,9	470,3	449,6	430,9	412,9	392,5	369,3	342,7			

Performance complies with ISO 9906 - Annex A.

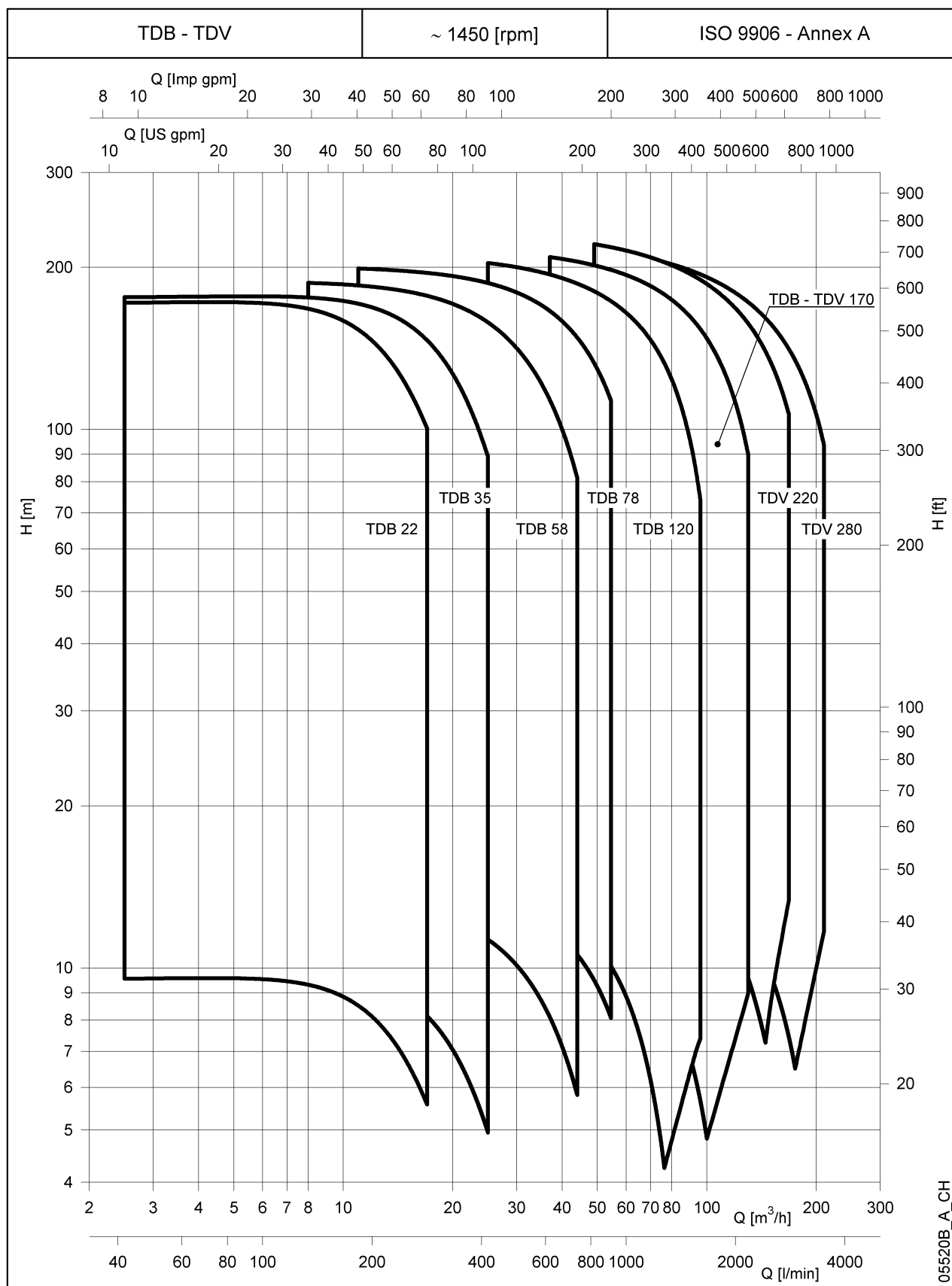
tdv280-2p50_a_th



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TDB-TDV SERIES HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES



TDB22 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	41,7	66,7	83,3	100	133,3	166,7	200	233,3	266,7	283,3
			m ³ /h 0	2,5	4	5	6	8	10	12	14	16	17
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB22 01/1A..4	1,1	1,5	9,6	9,6	9,6	9,6	9,5	9,3	8,8	8,1	7,2	6,1	5,6
TDB22 02/2A..4	1,1	1,5	19,2	19,1	19,2	19,1	19,1	18,6	17,7	16,2	14,4	12,2	11,2
TDB22 03/3A..4	1,5	2	28,9	28,7	28,7	28,7	28,6	27,9	26,5	24,4	21,6	18,4	16,7
TDB22 04/4A..4	2,2	3	38,5	38,2	38,3	38,3	38,1	37,2	35,4	32,5	28,7	24,5	22,3
TDB22 05/5A..4	3	4	48,1	47,8	47,9	47,9	47,7	46,6	44,2	40,6	35,9	30,6	27,9
TDB22 06/6A..4	3	4	57,7	57,3	57,5	57,4	57,2	55,9	53,1	48,7	43,1	36,7	33,5
TDB22 07/7A..4	4	5,4	67,4	66,9	67,0	67,0	66,7	65,2	61,9	56,9	50,3	42,8	39,1
TDB22 08/8A..4	5,5	7,4	77,0	76,5	76,6	76,6	76,3	74,5	70,8	65,0	57,5	49,0	44,7
TDB22 09/9A..4	5,5	7,4	86,6	86,0	86,2	86,2	85,8	83,8	79,6	73,1	64,7	55,1	50,2
TDB22 10/10A..4	5,5	7,4	96,2	95,6	95,8	95,7	95,3	93,1	88,5	81,2	71,9	61,2	55,8
TDB22 11/11A..4	7,5	10	105,9	105,1	105,3	105,3	104,9	102,4	97,3	89,4	79,0	67,3	61,4
TDB22 12/12A..4	7,5	10	115,5	114,7	114,9	114,9	114,4	111,7	106,1	97,5	86,2	73,4	67,0
TDB22 13/13A..4	7,5	10	125,1	124,2	124,5	124,4	124,0	121,1	115,0	105,6	93,4	79,6	72,6
TDB22 14/14A..4	7,5	10	134,7	133,8	134,1	134,0	133,5	130,4	123,8	113,7	100,6	85,7	78,1
TDB22 15/15A..4	11	15	144,3	143,3	143,7	143,6	143,0	139,7	132,7	121,9	107,8	91,8	83,7
TDB22 16/16A..4	11	15	154,0	152,9	153,2	153,2	152,6	149,0	141,5	130,0	115,0	97,9	89,3
TDB22 17/17A..4	11	15	163,6	162,5	162,8	162,7	162,1	158,3	150,4	138,1	122,2	104,0	94,9
TDB22 18/18A..4	11	15	173,2	172,0	172,4	172,3	171,6	167,6	159,2	146,2	129,3	110,2	100,5

Performance complies with ISO 9906 - Annex A.

tdb22-4p50_a_th

TDB35 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	41,7	66,7	100	150	200	250	300	333,3	366,7	416,7
			m ³ /h 0	2,5	4	6	9	12	15	18	20	22	25
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB35 01/1A..4	1,1	1,5	9,8	9,8	9,8	9,8	9,7	9,4	8,7	7,8	7,0	6,2	4,9
TDB35 02/2A..4	1,5	2	19,6	19,6	19,6	19,6	19,4	18,7	17,5	15,6	14,1	12,4	9,9
TDB35 03/3A..4	2,2	3	29,4	29,4	29,4	29,5	29,1	28,1	26,2	23,4	21,1	18,7	14,8
TDB35 04/4A..4	3	4	39,2	39,1	39,2	39,3	38,9	37,5	34,9	31,2	28,2	24,9	19,8
TDB35 05/5A..4	4	5,4	49,0	48,9	49,0	49,1	48,6	46,8	43,6	39,0	35,2	31,1	24,7
TDB35 06/6A..4	4	5,4	58,8	58,7	58,8	58,9	58,3	56,2	52,4	46,8	42,3	37,3	29,7
TDB35 07/7A..4	5,5	7,4	68,6	68,5	68,6	68,7	68,0	65,6	61,1	54,6	49,3	43,6	34,6
TDB35 08/8A..4	5,5	7,4	78,4	78,3	78,5	78,6	77,7	74,9	69,8	62,4	56,4	49,8	39,6
TDB35 09/9A..4	7,5	10	88,1	88,1	88,3	88,4	87,4	84,3	78,6	70,2	63,4	56,0	44,5
TDB35 10/10A..4	7,5	10	97,9	97,8	98,1	98,2	97,1	93,7	87,3	78,0	70,5	62,2	49,5
TDB35 11/11A..4	7,5	10	107,7	107,6	107,9	108,0	106,8	103,0	96,0	85,8	77,5	68,5	54,4
TDB35 12/12A..4	11	15	117,5	117,4	117,7	117,8	116,6	112,4	104,7	93,6	84,6	74,7	59,4
TDB35 13/13A..4	11	15	127,3	127,2	127,5	127,6	126,3	121,8	113,5	101,4	91,6	80,9	64,3
TDB35 14/14A..4	11	15	137,1	137,0	137,3	137,5	136,0	131,1	122,2	109,2	98,7	87,1	69,3
TDB35 15/15A..4	11	15	146,9	146,8	147,1	147,3	145,7	140,5	130,9	117,0	105,7	93,3	74,2
TDB35 16/16A..4	11	15	156,7	156,6	156,9	157,1	155,4	149,9	139,6	124,8	112,8	99,6	79,2
TDB35 17/17A..4	15	20	166,5	166,3	166,7	166,9	165,1	159,2	148,4	132,6	119,8	105,8	84,1
TDB35 18/18A..4	15	20	176,3	176,1	176,5	176,7	174,8	168,6	157,1	140,4	126,9	112,0	89,1

Performance complies with ISO 9906 - Annex A.

tdb35-4p50_a_th

TDB58 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	133,3	166,7	208,3	250	333,3	416,7	500	583,3	666,7	733,3
	kW	HP	m³/h 0	8	10	12,5	15	20	25	30	35	40	44
			H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB58 01/1A..4	2,2	3	13,4	13,4	13,3	13,1	12,9	12,2	11,3	10,1	8,7	7,1	5,8
TDB58 02/2A..4	3	4	26,8	26,7	26,6	26,2	25,8	24,4	22,6	20,2	17,4	14,3	11,6
TDB58 03/3A..4	4	5,4	40,2	40,1	39,9	39,4	38,7	36,7	33,9	30,3	26,1	21,4	17,4
TDB58 04/4A..4	5,5	7,4	53,5	53,5	53,1	52,5	51,5	48,9	45,2	40,5	34,9	28,6	23,2
TDB58 05/5A..4	7,5	10	66,9	66,9	66,4	65,6	64,4	61,1	56,5	50,6	43,6	35,7	29,1
TDB58 06/6A..4	11	15	80,3	80,2	79,7	78,7	77,3	73,3	67,8	60,7	52,3	42,9	34,9
TDB58 07/7A..4	11	15	93,7	93,6	93,0	91,8	90,2	85,6	79,1	70,8	61,0	50,0	40,7
TDB58 08/8A..4	11	15	107,1	107,0	106,3	104,9	103,1	97,8	90,4	80,9	69,7	57,2	46,5
TDB58 09/9A..4	15	20	120,5	120,4	119,6	118,1	116,0	110,0	101,6	91,0	78,4	64,3	52,3
TDB58 10/10A..4	15	20	133,8	133,7	132,8	131,2	128,9	122,2	112,9	101,1	87,1	71,5	58,1
TDB58 11/11A..4	15	20	147,2	147,1	146,1	144,3	141,7	134,5	124,2	111,3	95,9	78,6	63,9
TDB58 12/12A..4	18,5	25	160,6	160,5	159,4	157,4	154,6	146,7	135,5	121,4	104,6	85,7	69,7
TDB58 13/13A..4	18,5	25	174,0	173,9	172,7	170,5	167,5	158,9	146,8	131,5	113,3	92,9	75,5
TDB58 14/14A..4	22	30	187,4	187,2	186,0	183,6	180,4	171,1	158,1	141,6	122,0	100,0	81,4

Performance complies with ISO 9906 - Annex A.

tdb58-4p50_a_th

TDB78 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	183,3	250	333,3	416,7	500	583,3	666,7	750	833,3	908,3
	kW	HP	m³/h 0	11	15	20	25	30	35	40	45	50	54,5
			H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB78 01/1A..4	2,2	3	14,4	14,2	14,1	13,8	13,4	12,8	12,2	11,4	10,4	9,2	8,1
TDB78 02/2A..4	4	5,4	28,9	28,4	28,1	27,5	26,7	25,7	24,3	22,7	20,8	18,5	16,2
TDB78 03/3A..4	7,5	10	43,3	42,7	42,2	41,3	40,1	38,5	36,5	34,1	31,1	27,7	24,2
TDB78 04/4A..4	11	15	57,7	56,9	56,2	55,1	53,5	51,3	48,7	45,4	41,5	37,0	32,3
TDB78 05/5A..4	11	15	72,2	71,1	70,3	68,8	66,8	64,2	60,8	56,8	51,9	46,2	40,4
TDB78 06/6A..4	15	20	86,6	85,3	84,4	82,6	80,2	77,0	73,0	68,1	62,3	55,5	48,5
TDB78 07/7A..4	15	20	101,1	99,6	98,4	96,4	93,5	89,8	85,2	79,5	72,7	64,7	56,6
TDB78 08/8A..4	18,5	25	115,5	113,8	112,5	110,1	106,9	102,7	97,3	90,8	83,0	74,0	64,6
TDB78 09/9A..4	18,5	25	129,9	128,0	126,5	123,9	120,3	115,5	109,5	102,2	93,4	83,2	72,7
TDB78 10/10A..4	22	30	144,4	142,2	140,6	137,7	133,6	128,3	121,7	113,5	103,8	92,4	80,8
TDB78 11/11A..4	22	30	158,8	156,5	154,6	151,4	147,0	141,2	133,8	124,9	114,2	101,7	88,9
TDB78 12/12A..4	30	40	173,2	170,7	168,7	165,2	160,4	154,0	146,0	136,2	124,6	110,9	97,0
TDB78 13/13A..4	30	40	187,7	184,9	182,8	179,0	173,7	166,8	158,2	147,6	134,9	120,2	105,0
TDB78 14/14A..4	30	40	202,1	199,1	196,8	192,7	187,1	179,7	170,3	158,9	145,3	129,4	113,1

Performance complies with ISO 9906 - Annex A.

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TDB120 SERIES HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	416,7	500	583,3	666,7	833,3	1000	1166,7	1266,7	1450	1600
			m ³ /h 0	25	30	35	40	50	60	70	76	87	96
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB120 01/1C..4	11	15	13,9	13,5	13,3	12,9	12,4	10,9	8,8	6,2	4,4		
TDB120 01/1B..4	11	15	17,2	16,6	16,3	15,9	15,5	14,3	12,6	10,4	8,9	5,5	
TDB120 01/1A..4	11	15	20,9	20,4	20,0	19,6	19,1	17,9	16,5	14,7	13,4	10,5	7,4
TDB120 02/2B..4	11	15	34,3	33,2	32,6	31,9	30,9	28,5	25,2	20,9	17,8	11,1	
TDB120 02/2A..4	11	15	41,8	40,8	40,0	39,2	38,2	35,9	33,0	29,3	26,8	20,9	14,8
TDB120 03/1A2B..4	15	20	55,2	53,6	52,6	51,5	50,1	46,4	41,7	35,5	31,1	21,5	
TDB120 03/3A..4	15	20	62,6	61,1	60,1	58,8	57,3	53,8	49,4	44,0	40,1	31,4	22,2
TDB120 04/2A2B..4	18,5	25	76,1	73,9	72,6	71,0	69,2	64,4	58,1	50,2	44,5	32,0	
TDB120 04/4A..4	18,5	25	83,5	81,5	80,1	78,4	76,4	71,7	65,9	58,7	53,5	41,8	29,6
TDB120 05/3A2B..4	22	30	97,0	94,3	92,7	90,6	88,3	82,3	74,6	64,9	57,9	42,4	
TDB120 05/5A..4	22	30	104,4	101,9	100,1	98,0	95,5	89,7	82,4	73,4	66,9	52,3	37,0
TDB120 06/4A2B..4	30	40	117,8	114,7	112,7	110,2	107,4	100,2	91,1	79,6	71,3	52,9	
TDB120 06/6A..4	30	40	125,3	122,3	120,1	117,6	114,6	107,6	98,9	88,0	80,3	62,7	44,4
TDB120 07/5A2B..4	30	40	138,7	135,1	132,7	129,8	126,5	118,2	107,6	94,2	84,6	63,4	
TDB120 07/7A..4	37	50	146,1	142,7	140,1	137,1	133,7	125,5	115,3	102,7	93,6	73,2	51,8
TDB120 08/6A2B..4	37	50	159,6	155,4	152,7	149,4	145,6	136,1	124,0	108,9	98,0	73,8	
TDB120 08/8A..4	37	50	167,0	163,0	160,2	156,7	152,8	143,4	131,8	117,4	107,0	83,6	59,2
TDB120 09/7A2B..4	45	60	180,5	175,8	172,7	169,0	164,7	154,0	140,5	123,6	111,4	84,3	
TDB120 09/9A..4	45	60	187,9	183,4	180,2	176,3	171,9	161,4	148,3	132,0	120,4	94,1	66,6
TDB120 10/8A2B..4	45	60	201,4	196,2	192,8	188,6	183,8	172,0	157,0	138,2	124,8	94,7	
TDB120 10/10A..4	45	60	208,8	203,8	200,2	195,9	191,0	179,3	164,8	146,7	133,8	104,6	74,0

Performance complies with ISO 9906 - Annex A.

tdb120-4p50_a_th

TDB-TDV170 SERIES HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	616,7	666,7	833,3	1000	1166,7	1333,3	1500	1666,7	1916,7	2166,7
			m ³ /h 0	37	40	50	60	70	80	90	100	115	130
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDB170 01/1C..4	11	15	13,5	12,8	12,7	12,0	11,1	10,0	8,6	6,8	4,8		
TDB170 01/1B..4	11	15	16,5	16,0	15,9	15,4	14,7	13,7	12,5	11,0	9,2	6,0	
TDB170 01/1A..4	11	15	22,2	20,9	20,7	20,1	19,4	18,5	17,4	16,2	14,8	12,2	9,0
TDB170 02/2B..4	11	15	33,1	32,0	31,7	30,7	29,3	27,4	25,0	22,0	18,4	11,9	
TDB170 02/2A..4	11	15	44,4	41,8	41,5	40,2	38,7	36,9	34,8	32,4	29,5	24,4	17,9
TDB170 03/1A2B..4	15	20	55,3	52,9	52,5	50,8	48,7	45,9	42,4	38,2	33,2	24,1	
TDB170 03/3A..4	18,5	25	66,6	62,7	62,2	60,3	58,1	55,4	52,3	48,6	44,3	36,5	26,9
TDB170 04/2A2B..4	22	30	77,5	73,8	73,2	71,0	68,0	64,4	59,8	54,4	47,9	36,3	
TDB170 04/4A..4	30	40	88,8	83,6	83,0	80,4	77,4	73,9	69,7	64,8	59,1	48,7	35,9
TDB170 05/3A2B..4	30	40	99,7	94,7	94,0	91,1	87,4	82,8	77,2	70,6	62,7	48,5	
TDB170 05/5A..4	30	40	111,0	104,5	103,7	100,6	96,8	92,4	87,1	81,0	73,8	60,9	44,9
TDB170 06/4A2B..4	37	50	121,9	115,6	114,7	111,2	106,8	101,3	94,7	86,8	77,5	60,7	
TDB170 06/6A..4	37	50	133,2	125,4	124,4	120,7	116,2	110,8	104,5	97,2	88,6	73,1	53,8
TDB170 07/5A2B..4	37	50	144,1	136,5	135,4	131,3	126,1	119,8	112,1	103,0	92,2	72,8	
TDB170 07/7A..4	45	60	155,4	146,3	145,2	140,8	135,5	129,3	122,0	113,4	103,4	85,3	62,8
TDB170 08/6A2B..4	45	60	166,2	157,4	156,2	151,4	145,5	138,2	129,5	119,2	107,0	85,0	
TDB170 08/8A..4	55	74	177,5	167,2	165,9	160,9	154,9	147,8	139,4	129,6	118,1	97,5	71,8
TDB170 09/7A2B..4	55	74	188,4	178,3	176,9	171,5	164,8	156,7	146,9	135,4	121,8	97,2	
TDB170 09/9A..4	55	74	199,7	188,1	186,7	181,0	174,2	166,2	156,8	145,8	132,9	109,6	80,8
TDB170 10/8A2B..4	55	74	210,6	199,2	197,7	191,6	184,2	175,2	164,4	151,6	136,5	109,4	
TDV170 10/10A..4	75	101	221,9	209,1	207,4	201,1	193,6	184,7	174,2	162,0	147,7	121,8	89,7

Performance complies with ISO 9906 - Annex A.

tdb-tdv170-4p50_a_th

TDV220 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	816,7	916,7	1166,7	1416,7	1666,7	1916,7	2166,7	2416,7	2583,3	2800
			m ³ /h 0	49	55	70	85	100	115	130	145	155	168
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDV220 01/1C..4	11	15	19,4	18,2	17,9	16,8	15,4	13,7	11,7	9,6	7,3		
TDV220 01/1B..4	11	15	23,4	22,3	21,9	20,9	19,6	18,0	16,1	14,0	11,7	10,0	
TDV220 01/1A..4	11	15	29,3	27,6	27,2	26,1	24,8	23,3	21,6	19,7	17,5	15,8	13,4
TDV220 02/2B..4	15	20	46,8	44,5	43,9	41,8	39,1	35,9	32,2	28,0	23,4	20,0	
TDV220 02/2A..4	22	30	58,6	55,2	54,4	52,2	49,6	46,6	43,2	39,3	34,9	31,6	26,7
TDV220 03/1A2B..4	30	40	76,1	72,1	71,1	67,9	63,9	59,2	53,8	47,7	40,8	35,8	
TDV220 03/3A..4	30	40	87,9	82,8	81,7	78,3	74,4	69,9	64,8	59,0	52,4	47,4	40,1
TDV220 04/2A2B..4	37	50	105,3	99,8	98,3	94,0	88,7	82,5	75,4	67,4	58,3	51,6	
TDV220 04/4A..4	45	60	117,2	110,5	108,9	104,4	99,1	93,2	86,4	78,7	69,8	63,2	53,5
TDV220 05/3A2B..4	45	60	134,6	127,4	125,5	120,0	113,5	105,8	97,0	87,0	75,8	67,4	
TDV220 05/5A..4	55	74	146,5	138,1	136,1	130,5	123,9	116,5	108,0	98,4	87,3	79,0	66,8
TDV220 06/4A2B..4	55	74	163,9	155,0	152,7	146,1	138,3	129,1	118,6	106,7	93,2	83,2	
TDV220 06/6A..4	75	101	175,8	165,7	163,3	156,6	148,7	139,7	129,6	118,0	104,8	94,8	80,2
TDV220 07/5A2B..4	75	101	193,2	182,6	180,0	172,2	163,0	152,4	140,2	126,4	110,7	99,0	
TDV220 07/7A..4	75	101	205,0	193,3	190,5	182,7	173,5	163,0	151,2	137,7	122,2	110,6	93,5
TDV220 08/6A2B..4	75	101	222,5	210,2	207,2	198,3	187,8	175,7	161,8	146,1	128,1	114,8	
TDV220 08/8A..4	90	121	234,3	220,9	217,8	208,8	198,3	186,3	172,8	157,4	139,7	126,4	106,9

Performance complies with ISO 9906 - Annex A.

tdv220-4p50_a_th

TDV280 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	RATED POWER		Q = FLOW RATE										
			l/min 0	1066,7	1333,3	1666,7	1916,7	2166,7	2416,7	2666,7	2916,7	3166,7	3500
			m ³ /h 0	64	80	100	115	130	145	160	175	190	210
	kW	HP	H = TOTAL HEAD IN COLUMN OF WATER (METRES)										
TDV280 01/1C..4	11	15	19,0	17,1	16,1	14,6	13,3	11,9	10,3	8,5	6,5		
TDV280 01/1B..4	11	15	22,8	21,1	20,2	18,9	17,8	16,5	14,9	13,2	11,1	8,8	
TDV280 01/1A..4	11	15	28,2	26,3	25,3	24,0	22,8	21,5	20,1	18,6	16,8	14,8	11,7
TDV280 02/2B..4	18,5	25	45,6	42,1	40,4	37,9	35,6	32,9	29,8	26,3	22,2	17,6	
TDV280 02/2A..4	22	30	56,4	52,6	50,7	48,0	45,6	43,1	40,3	37,1	33,6	29,6	23,4
TDV280 03/1A2B..4	30	40	73,8	68,4	65,8	61,9	58,4	54,5	50,0	44,9	39,0	32,4	
TDV280 03/3A..4	37	50	84,6	78,9	76,0	71,9	68,5	64,6	60,4	55,7	50,4	44,4	35,1
TDV280 04/2A2B..4	45	60	102,0	94,7	91,1	85,8	81,2	76,0	70,1	63,4	55,9	47,2	
TDV280 04/4A..4	45	60	112,8	105,2	101,4	95,9	91,3	86,2	80,5	74,3	67,2	59,2	46,8
TDV280 05/3A2B..4	55	74	130,2	121,0	116,5	109,8	104,0	97,6	90,3	82,0	72,7	62,0	
TDV280 05/5A..4	55	74	141,0	131,5	126,7	119,9	114,1	107,7	100,7	92,8	84,0	74,0	58,5
TDV280 06/4A2B..4	75	101	158,4	147,3	141,8	133,8	126,9	119,1	110,4	100,6	89,5	76,8	
TDV280 06/6A..4	75	101	169,2	157,7	152,1	143,9	136,9	129,3	120,8	111,4	100,8	88,8	70,2
TDV280 07/5A2B..4	75	101	186,6	173,6	167,2	157,8	149,7	140,7	130,5	119,1	106,3	91,6	
TDV280 07/7A..4	90	121	197,4	184,0	177,4	167,9	159,8	150,8	140,9	130,0	117,6	103,7	81,9
TDV280 08/6A2B..4	90	121	214,8	199,9	192,5	181,8	172,5	162,2	150,7	137,7	123,1	106,4	
TDV280 08/8A..4	90	121	225,6	210,3	202,8	191,9	182,6	172,4	161,1	148,5	134,4	118,5	93,6

Performance complies with ISO 9906 - Annex A.

tdv280-4p50_a_th

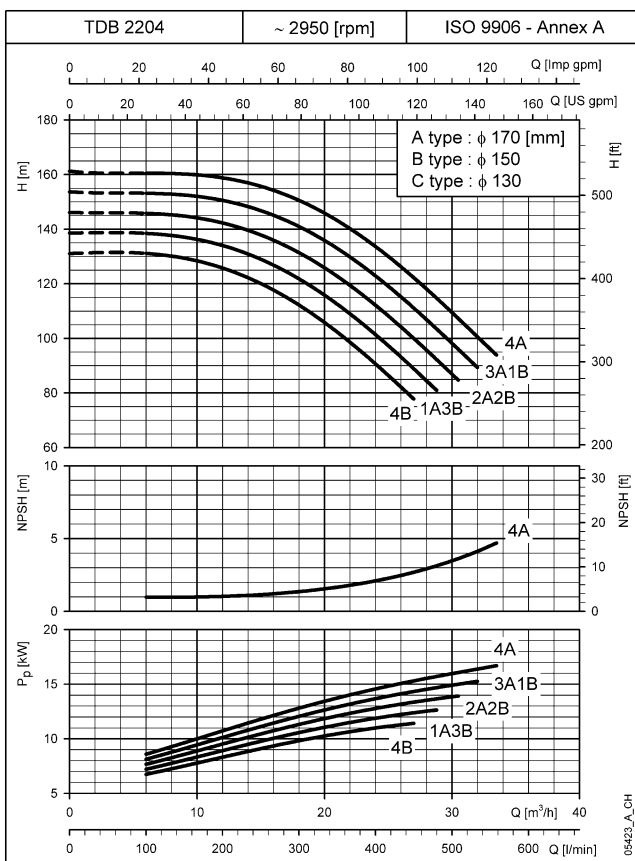
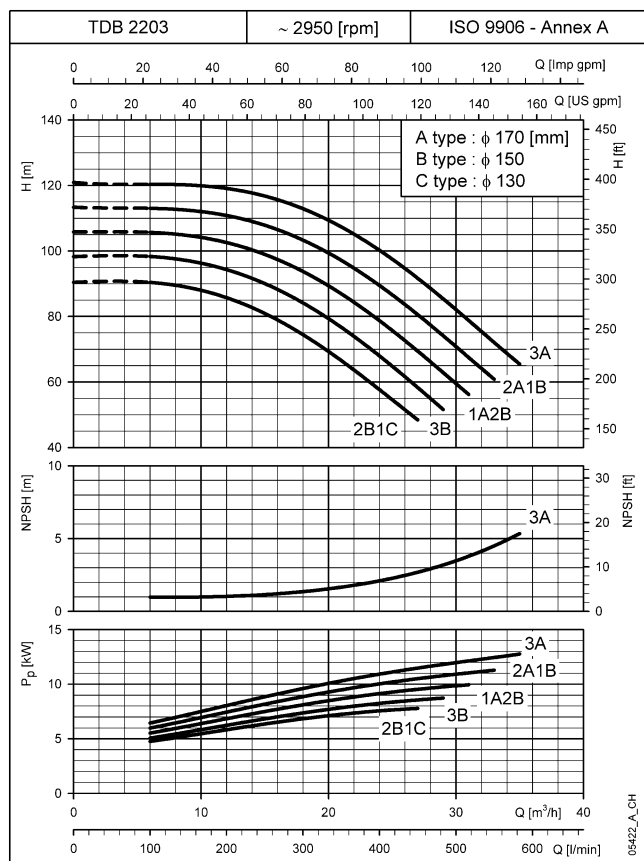
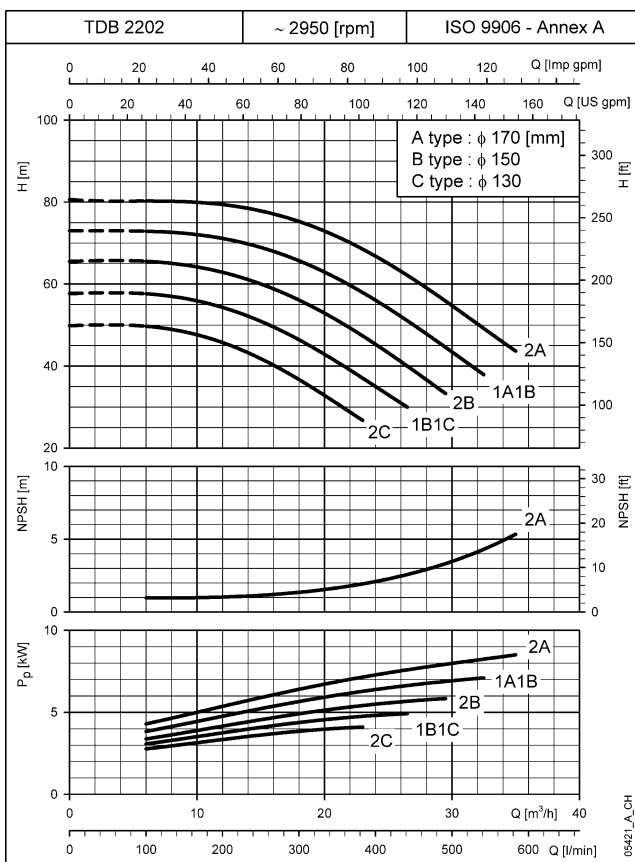
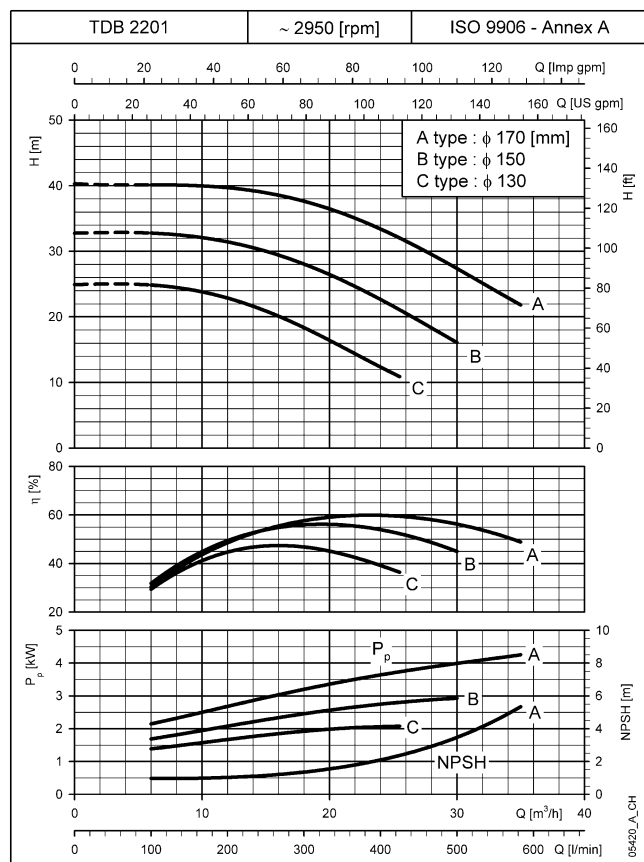


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TDB22 SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



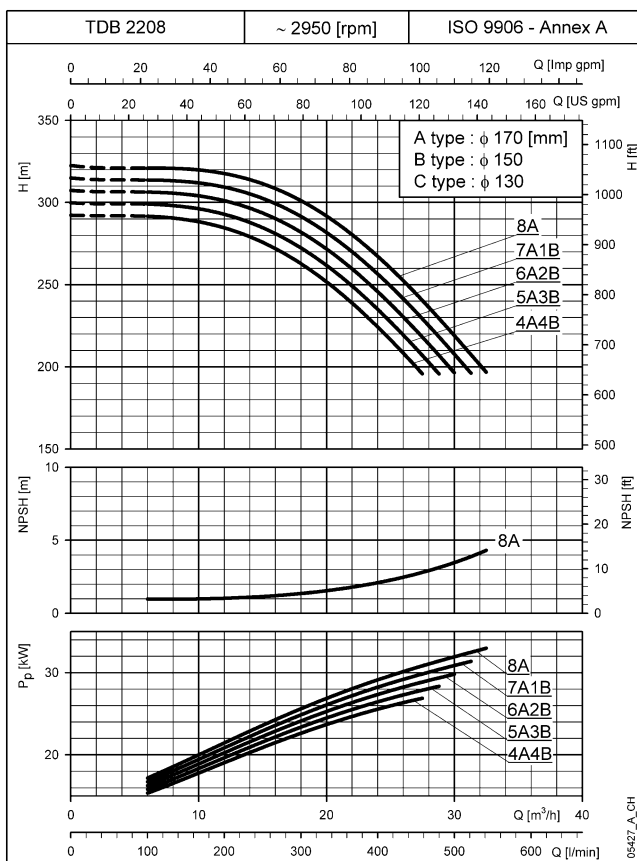
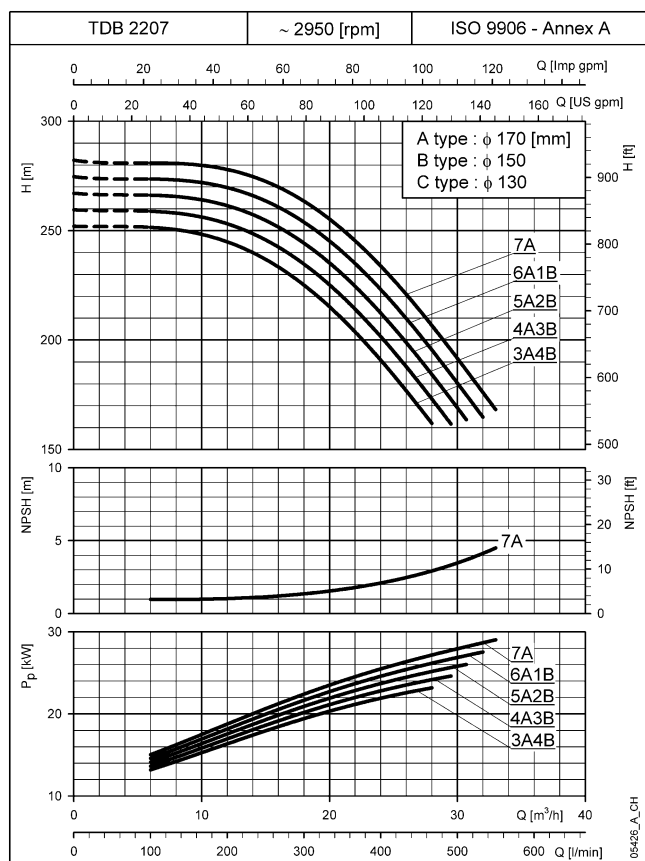
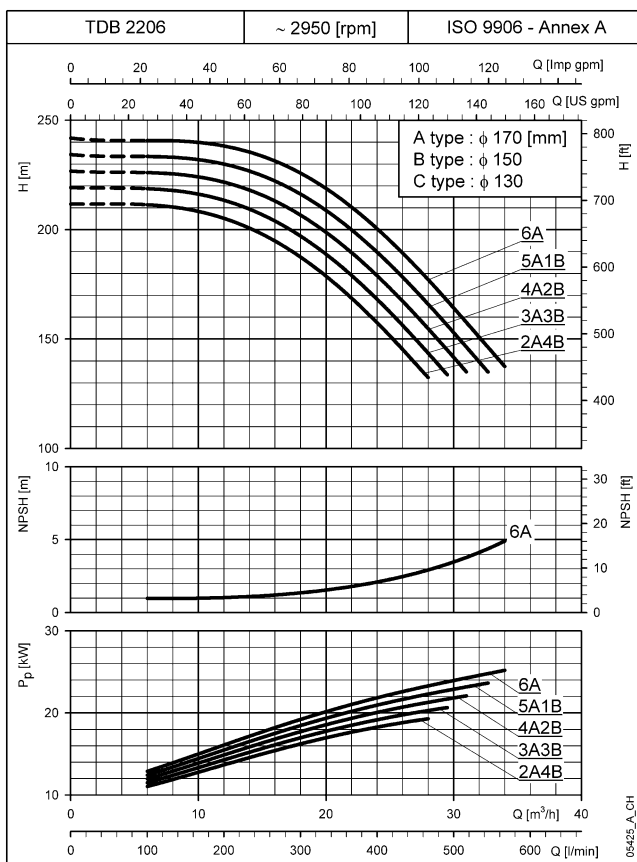
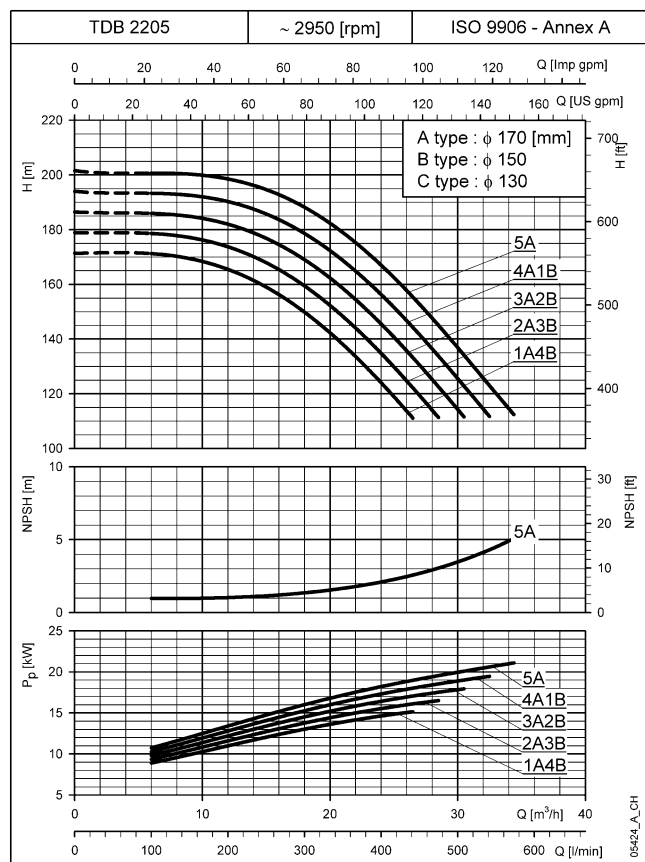
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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TDB22 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

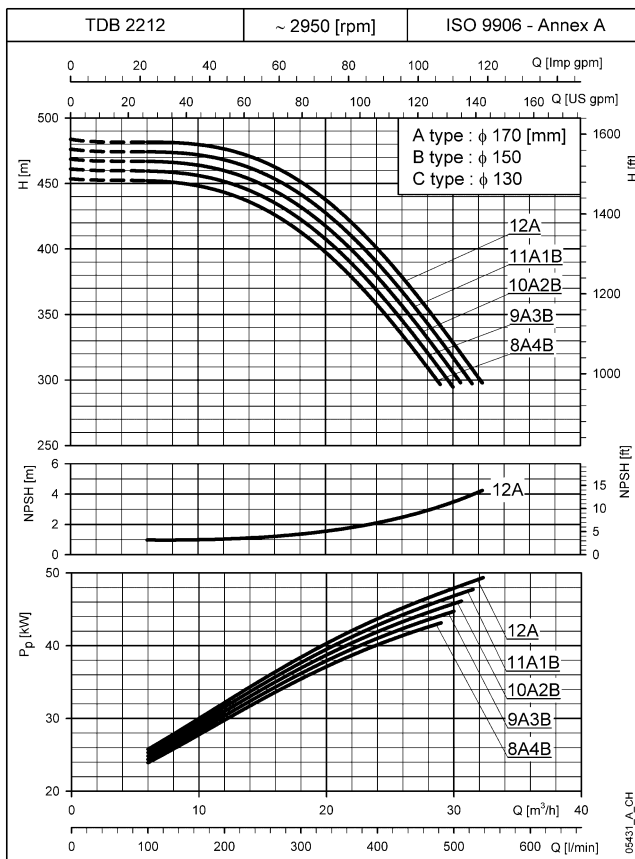
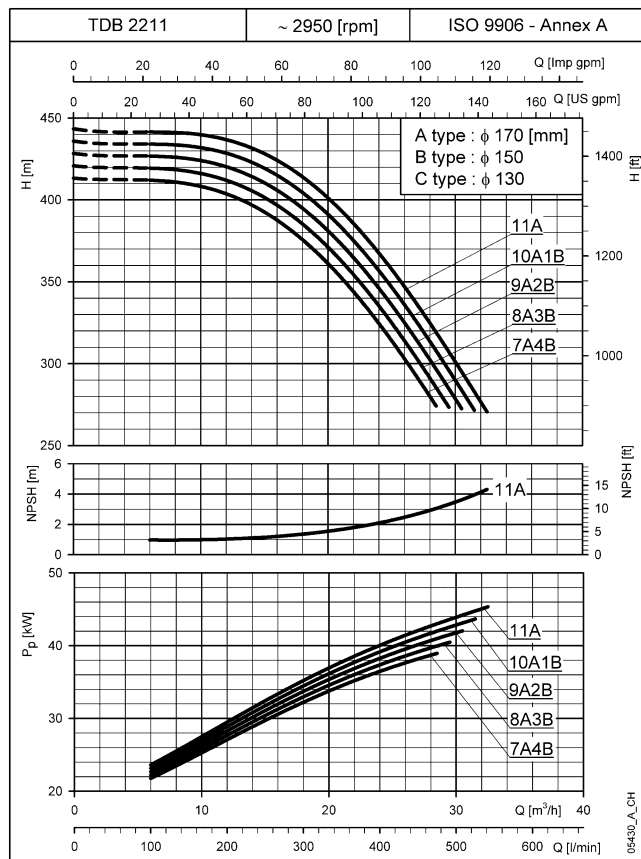
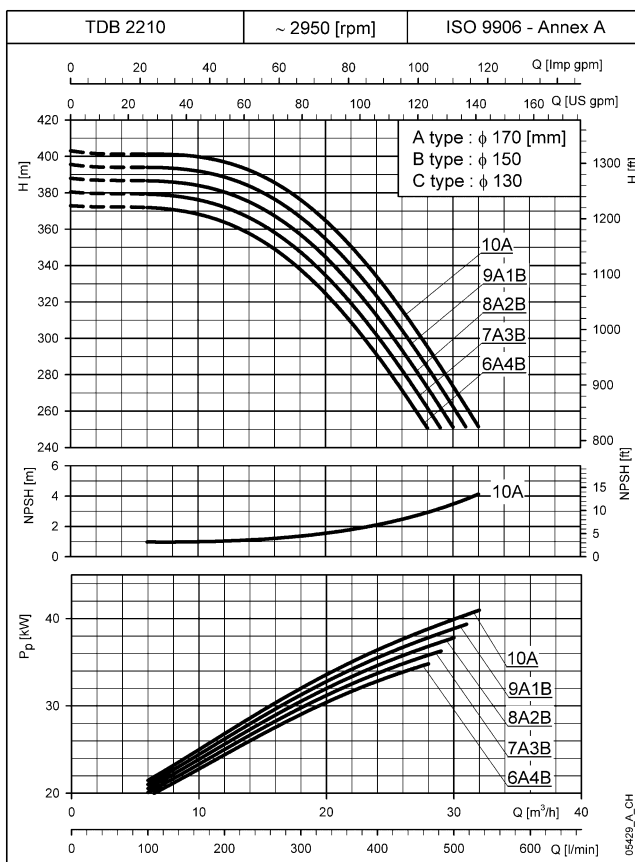
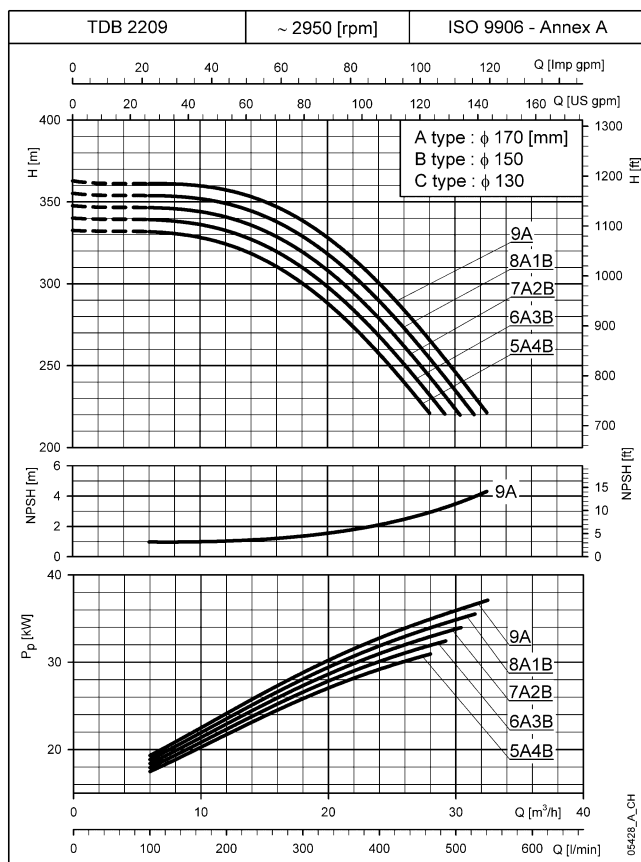


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TDB22 SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



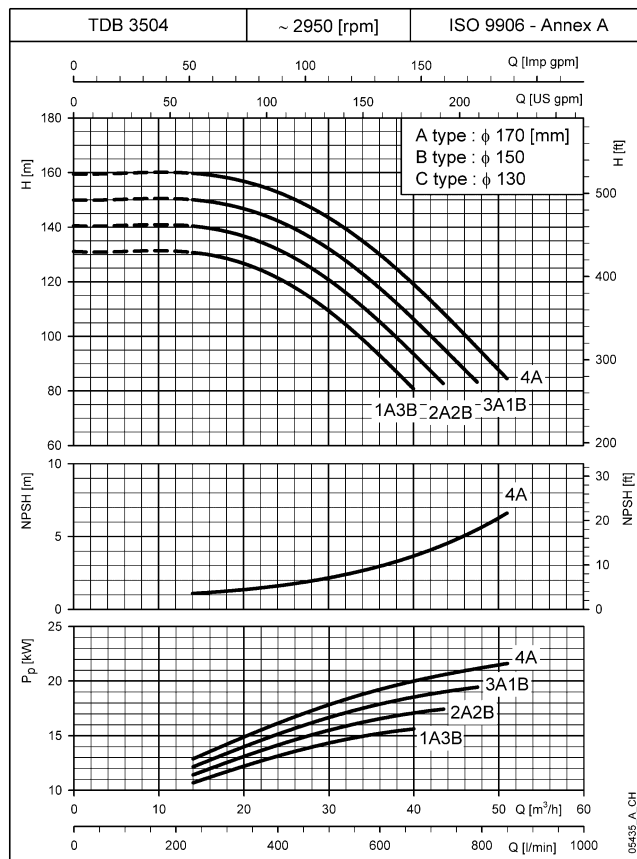
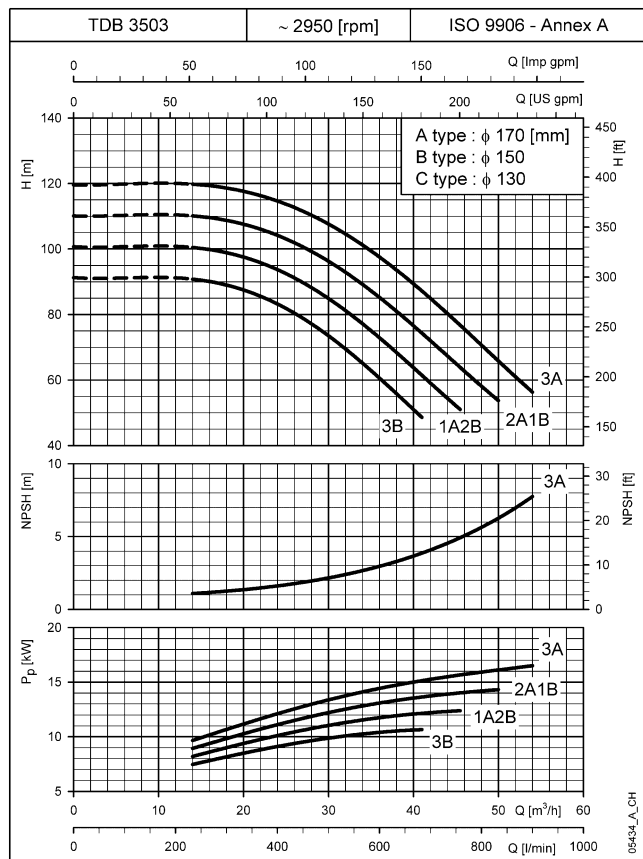
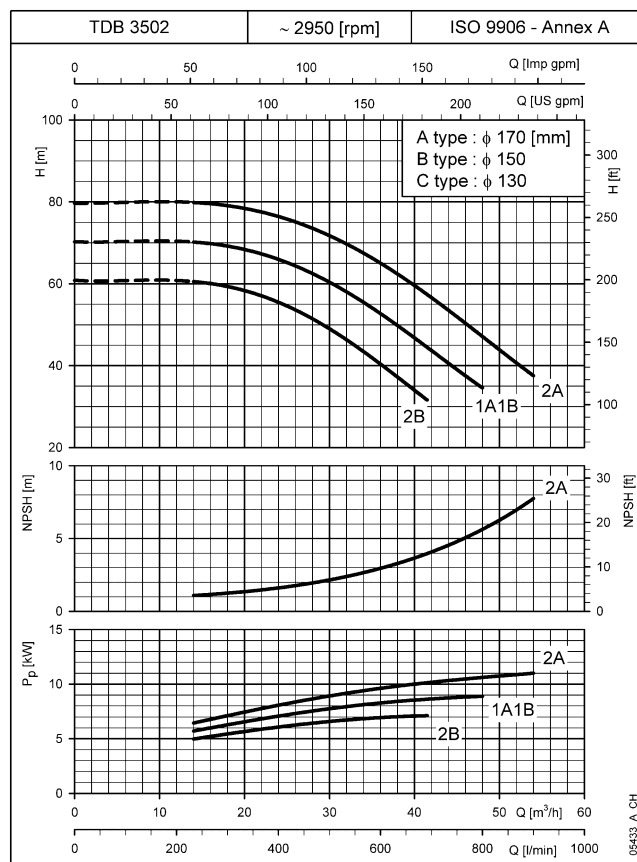
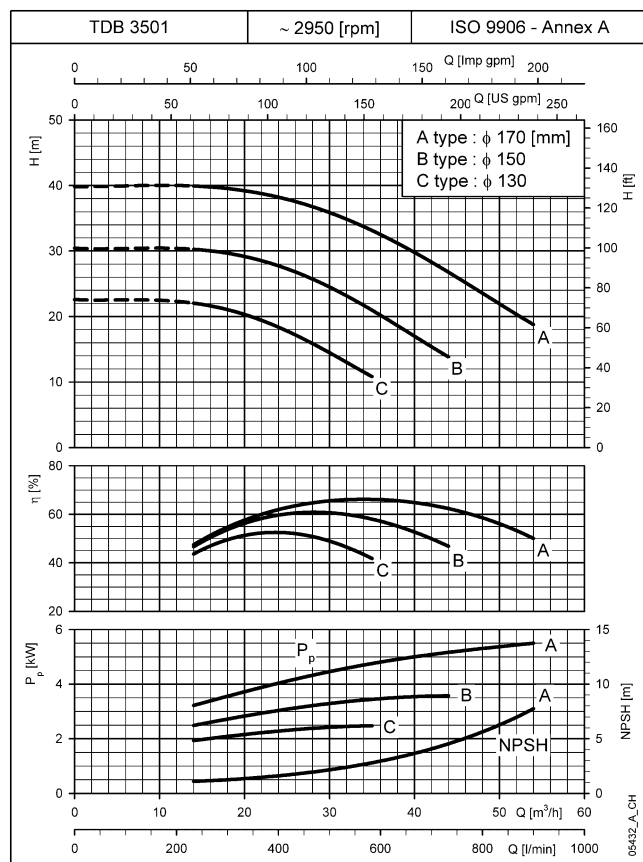
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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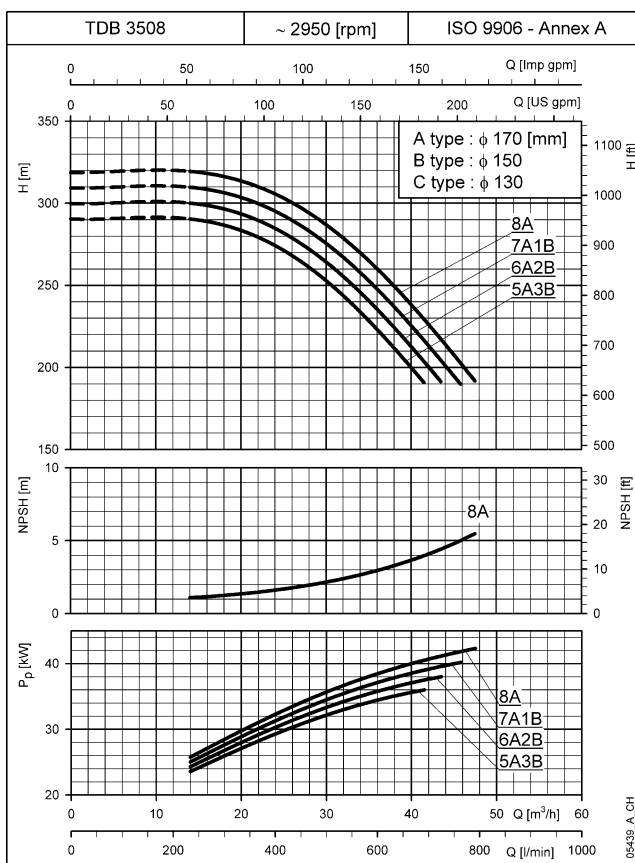
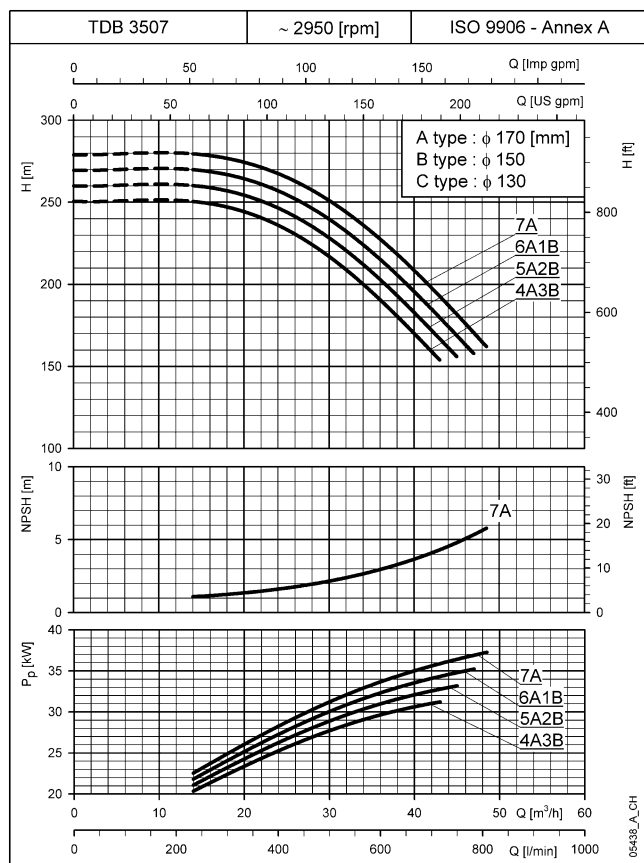
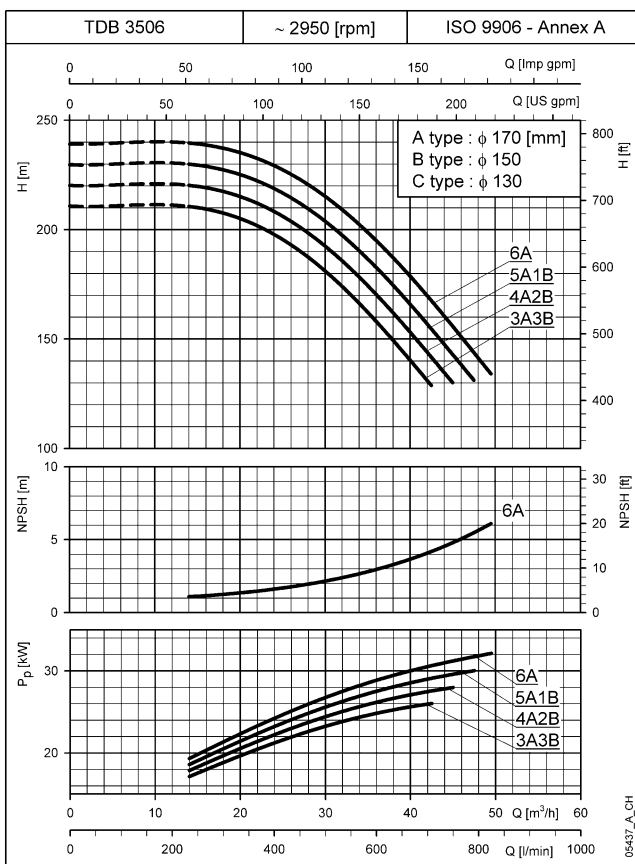
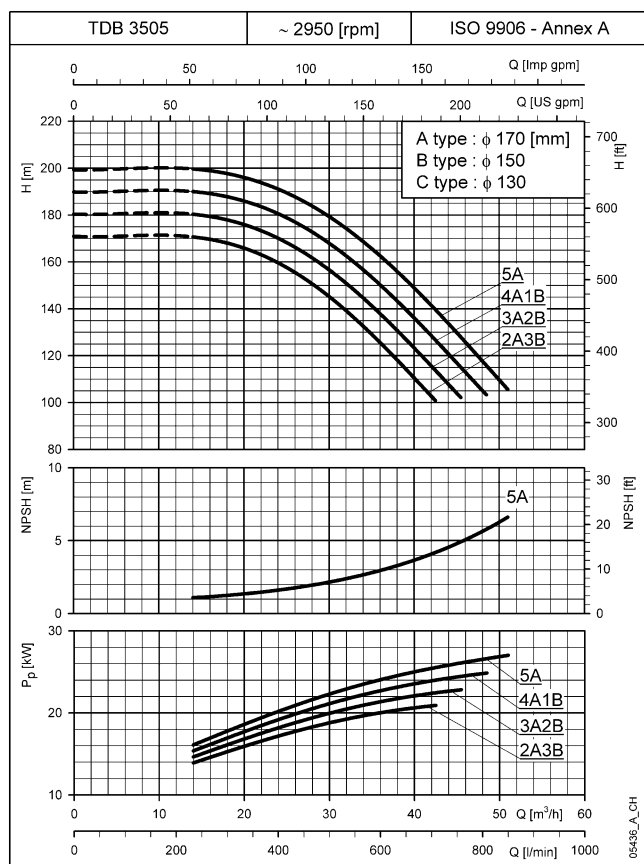
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TDB35 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB35 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



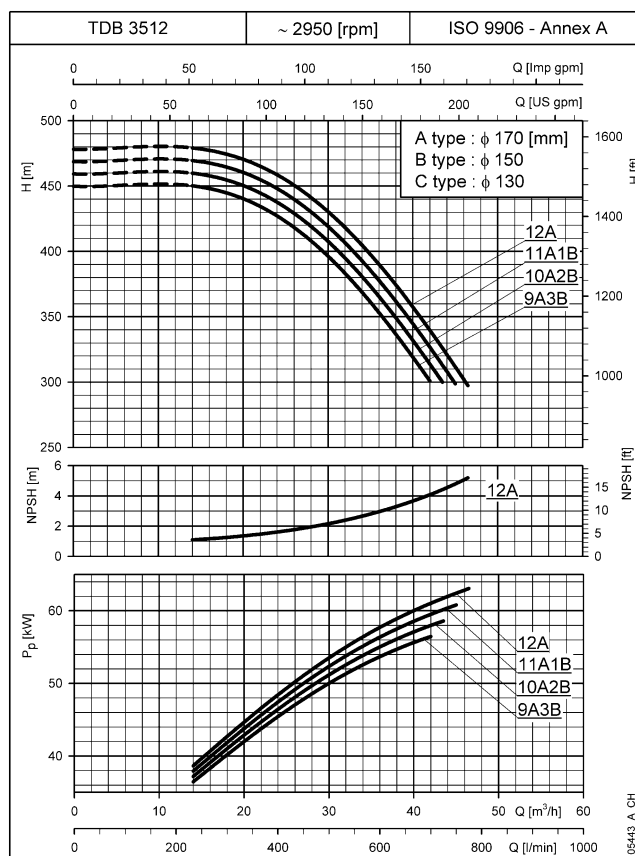
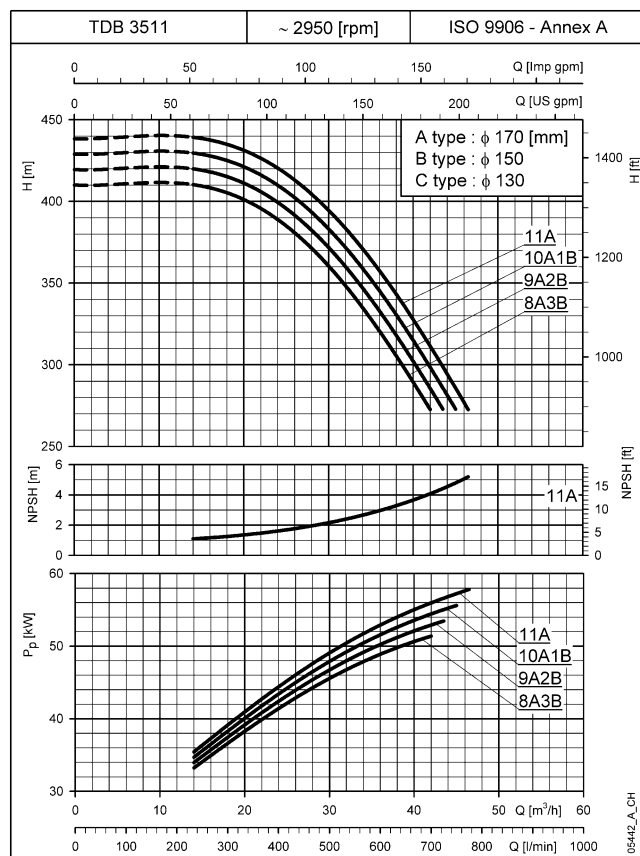
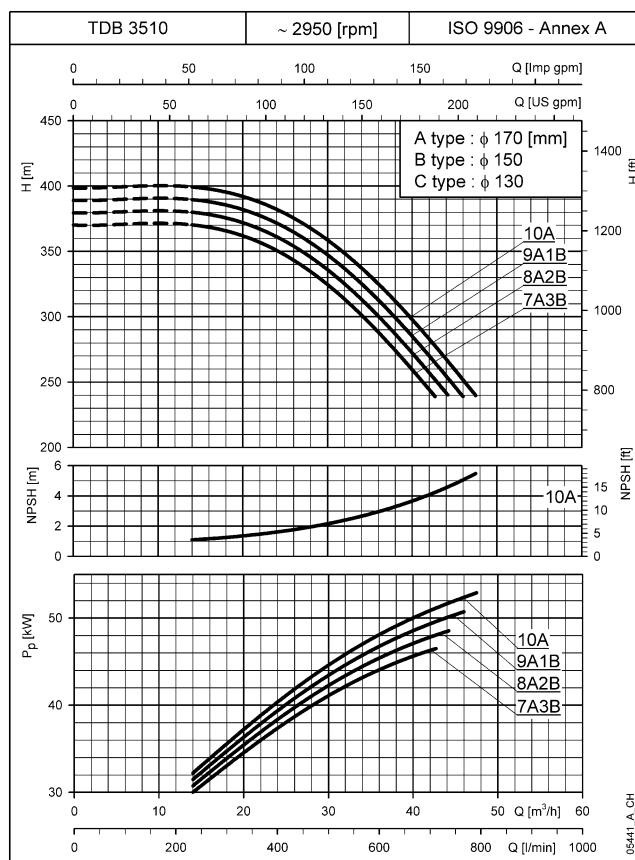
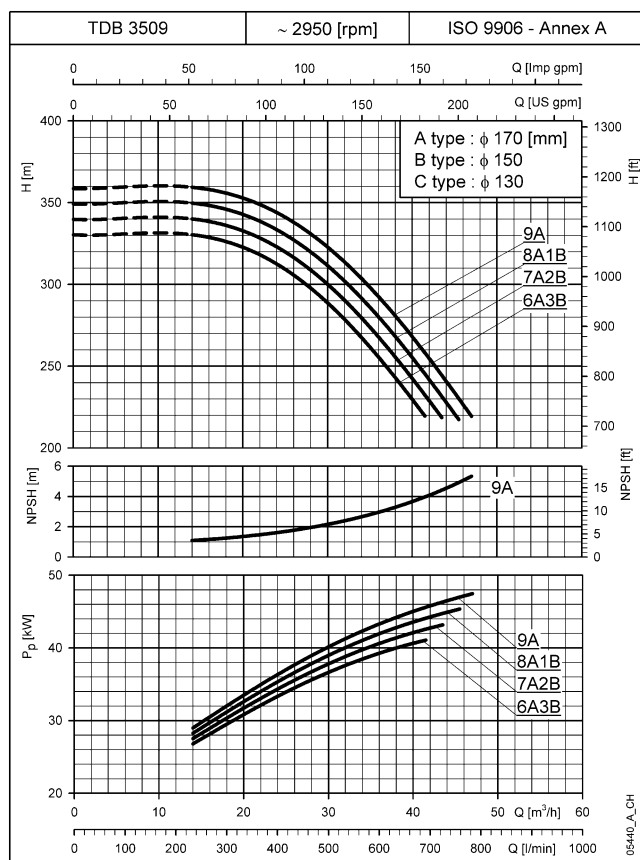
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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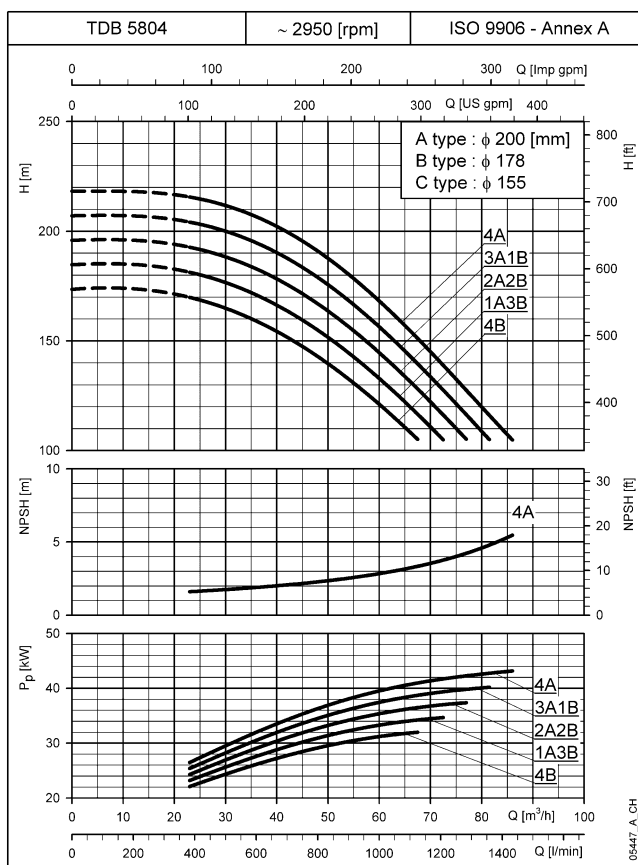
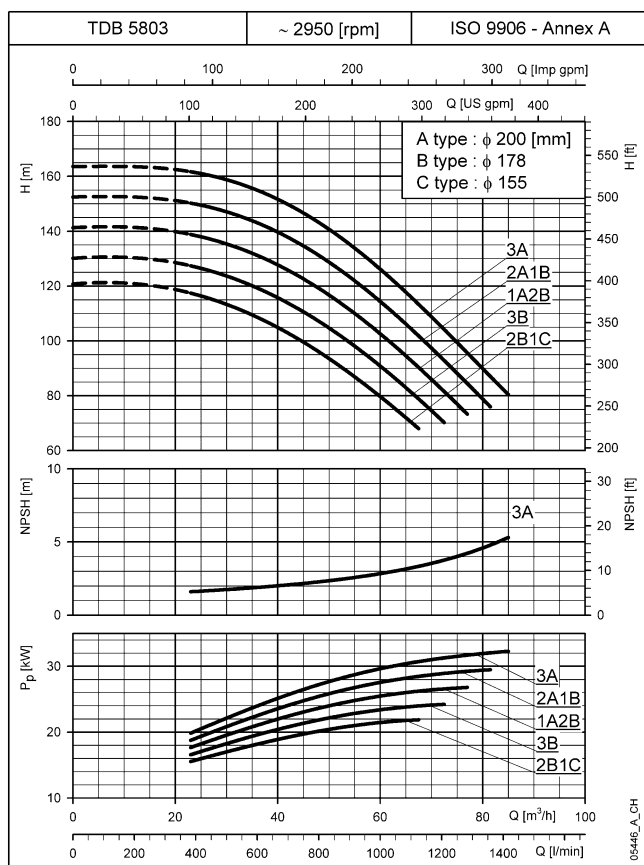
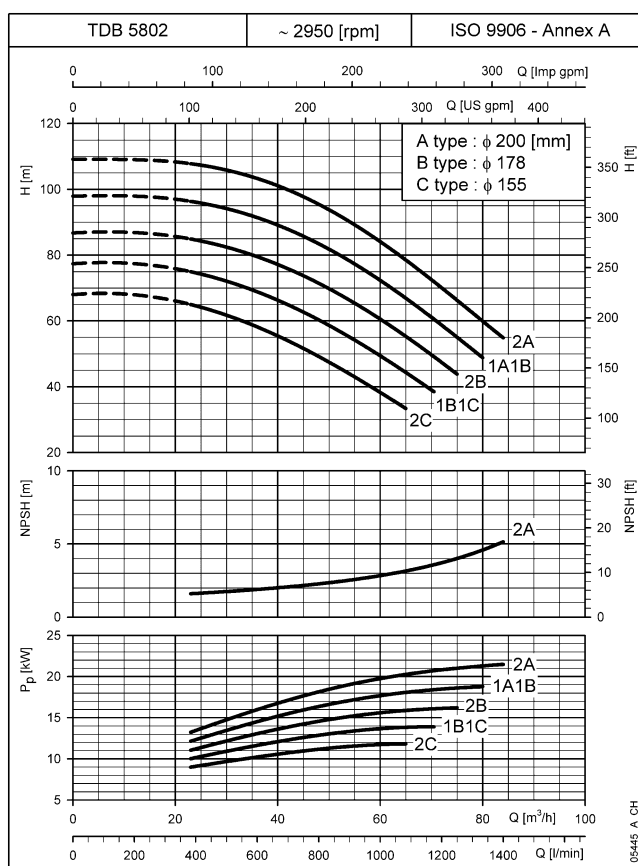
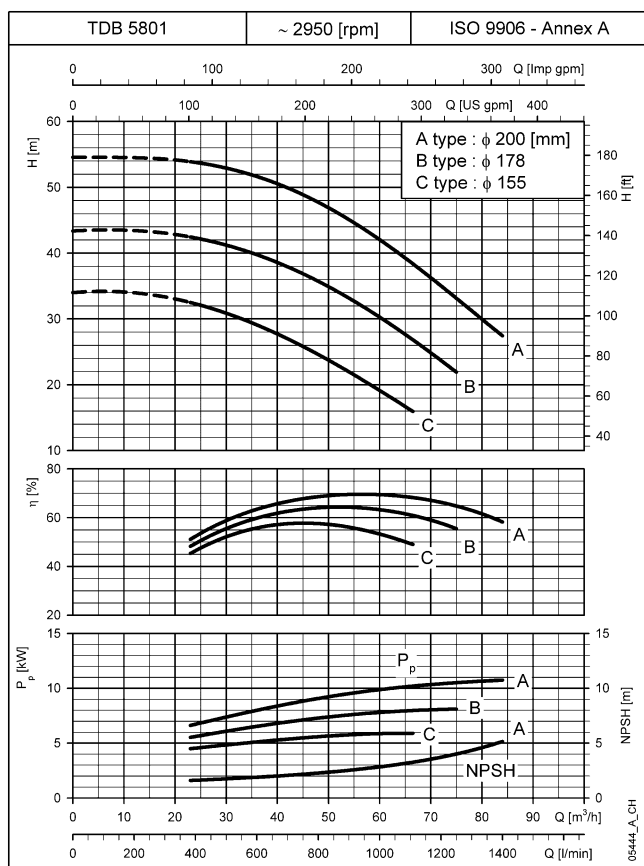
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TDB35 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB58 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



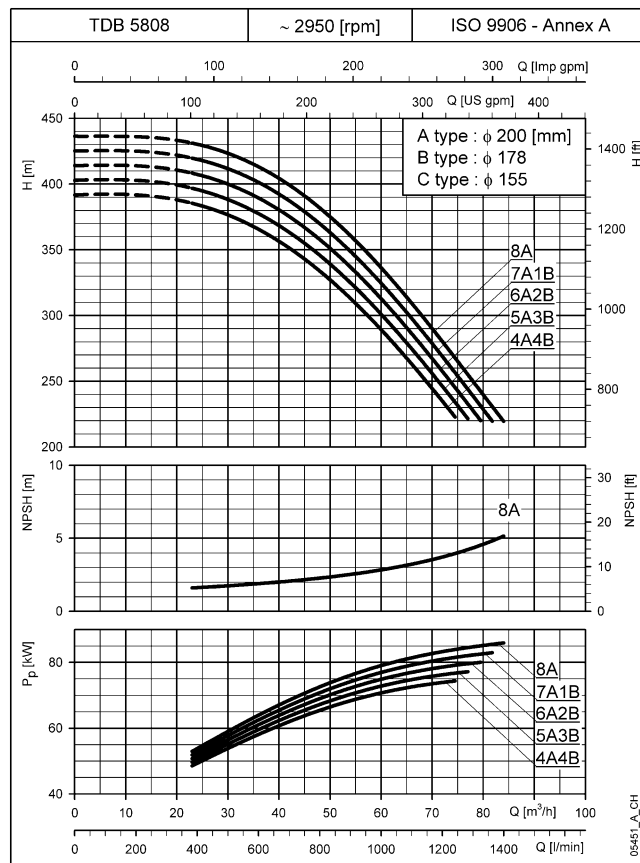
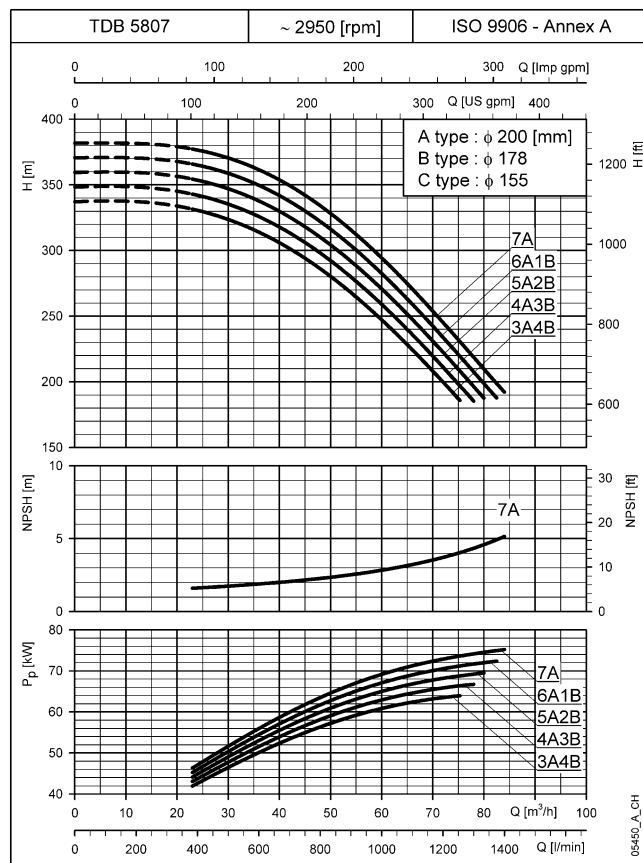
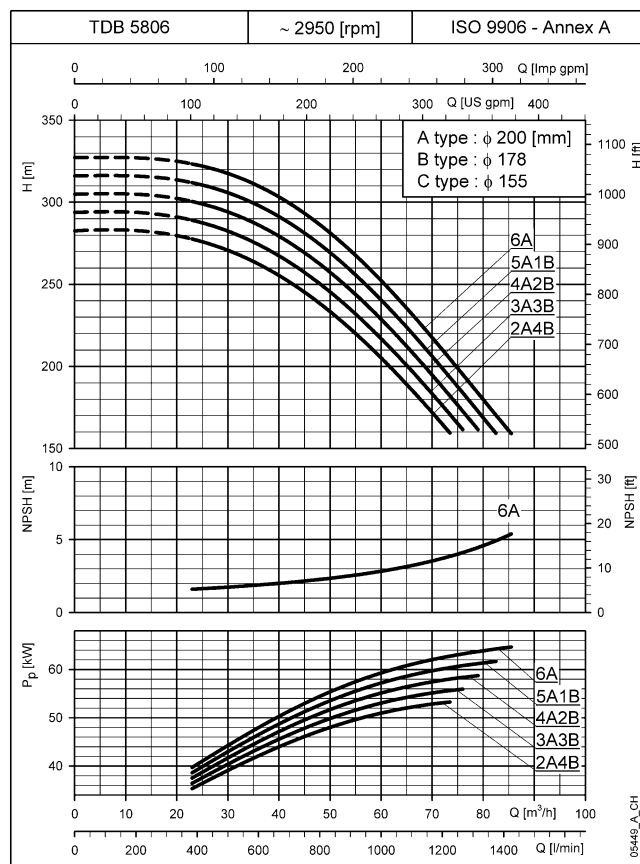
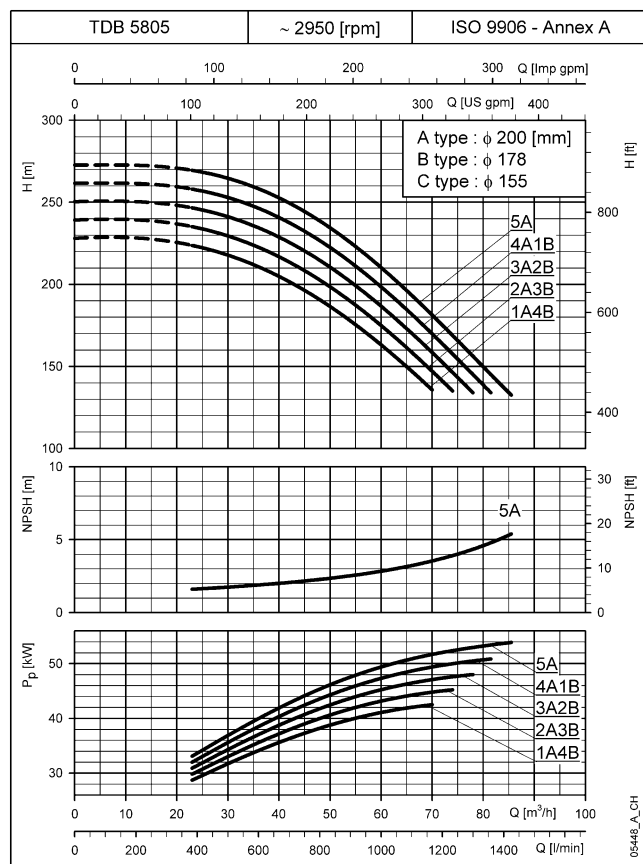
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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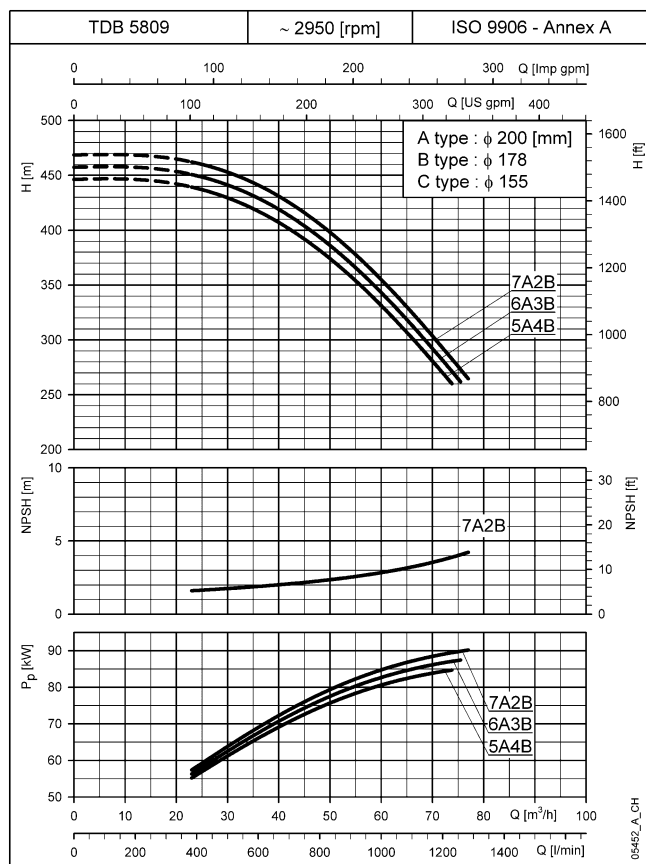
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TDB58 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



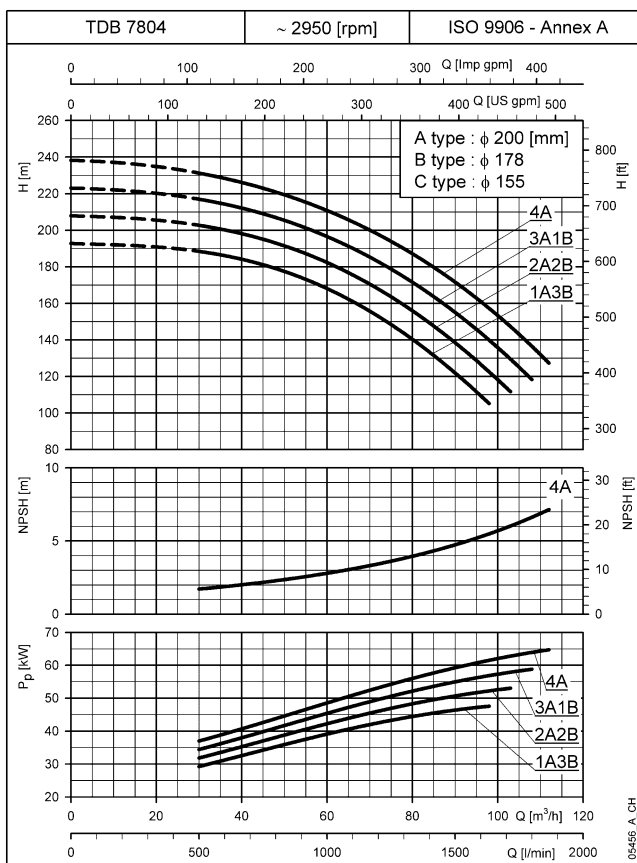
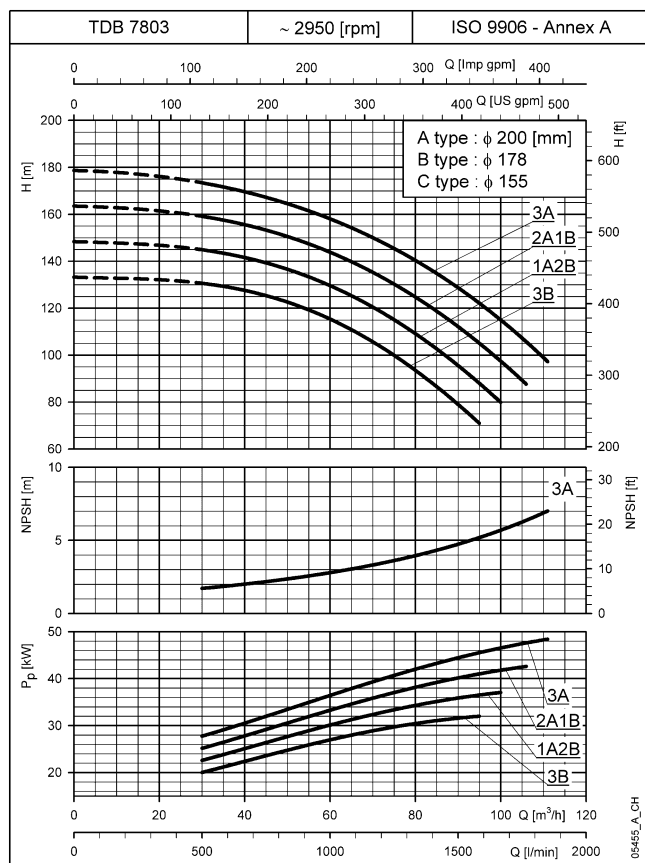
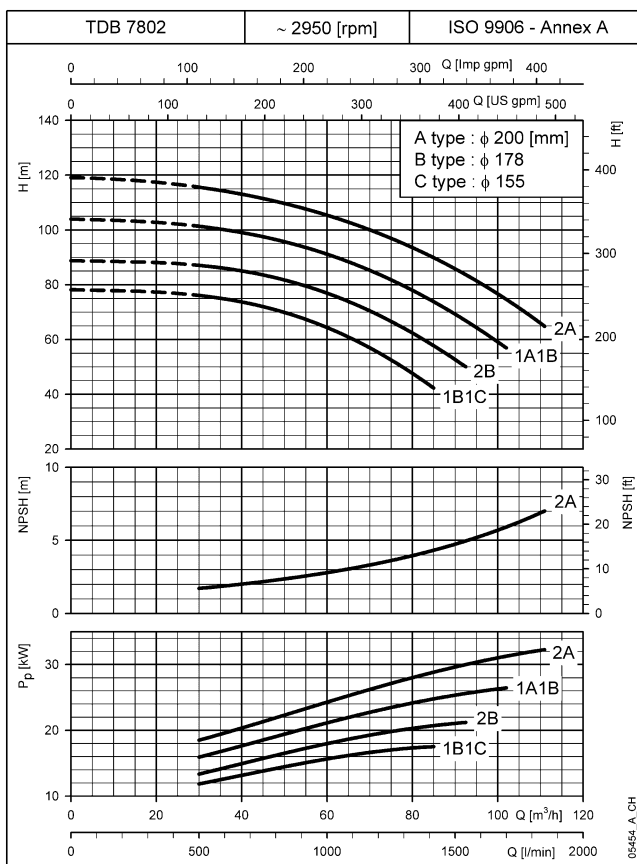
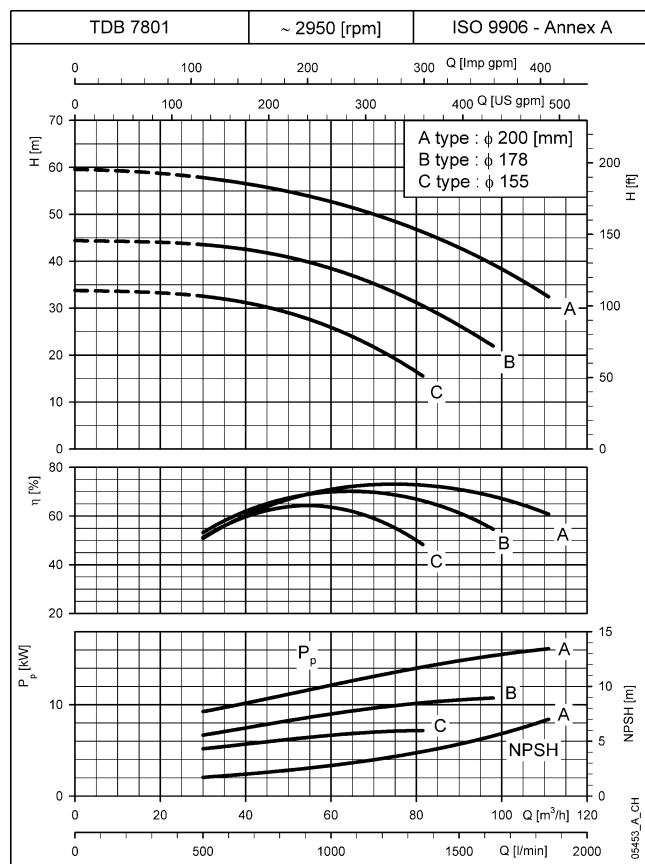
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB58 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



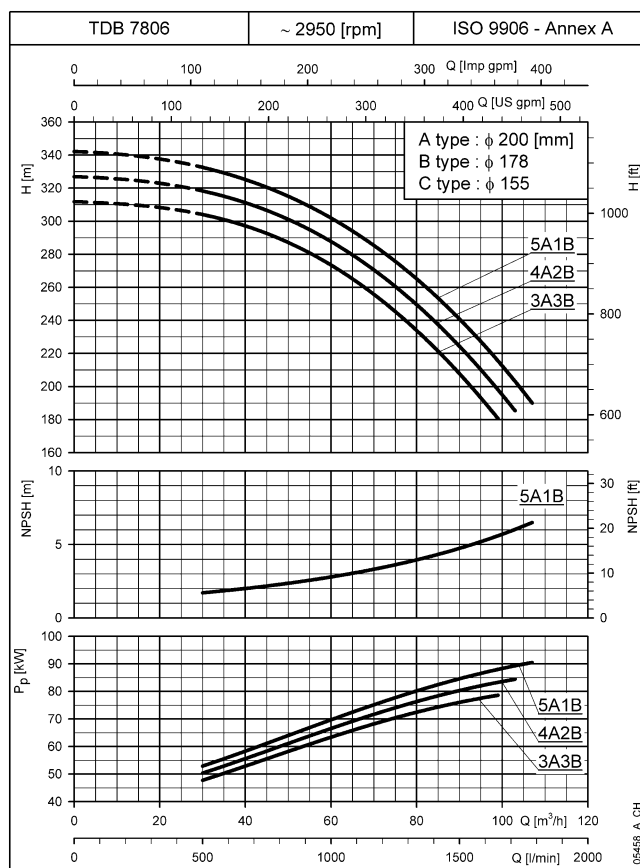
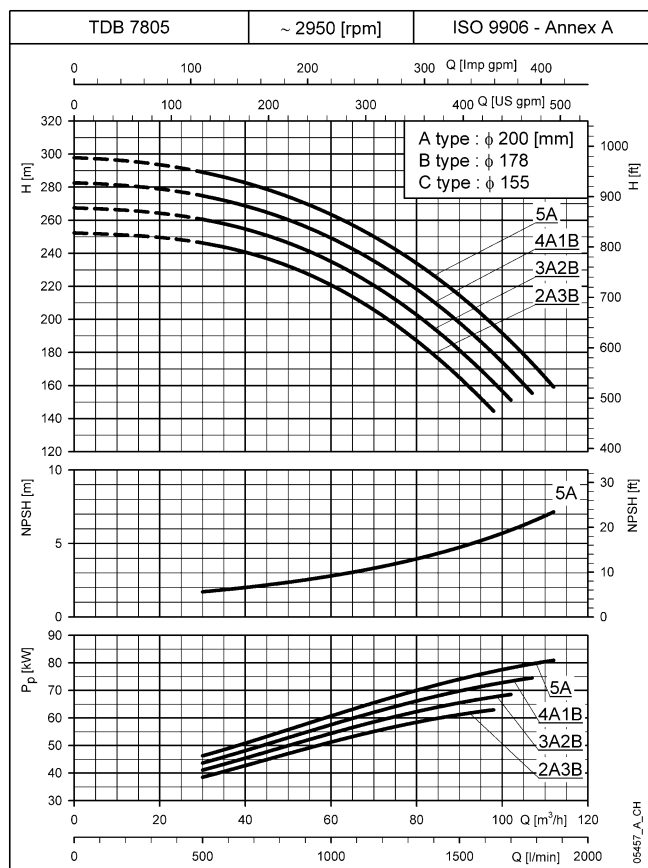
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
 These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB78 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB78 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



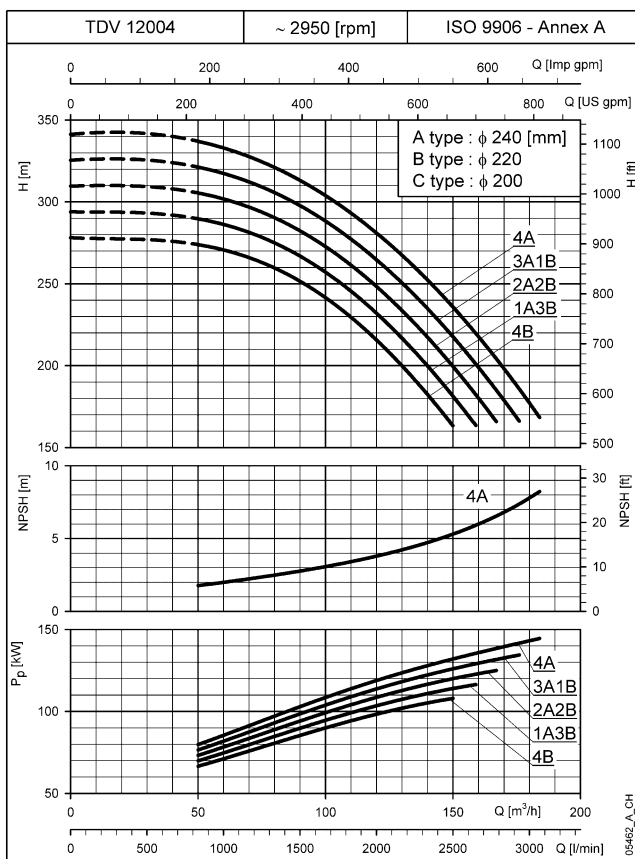
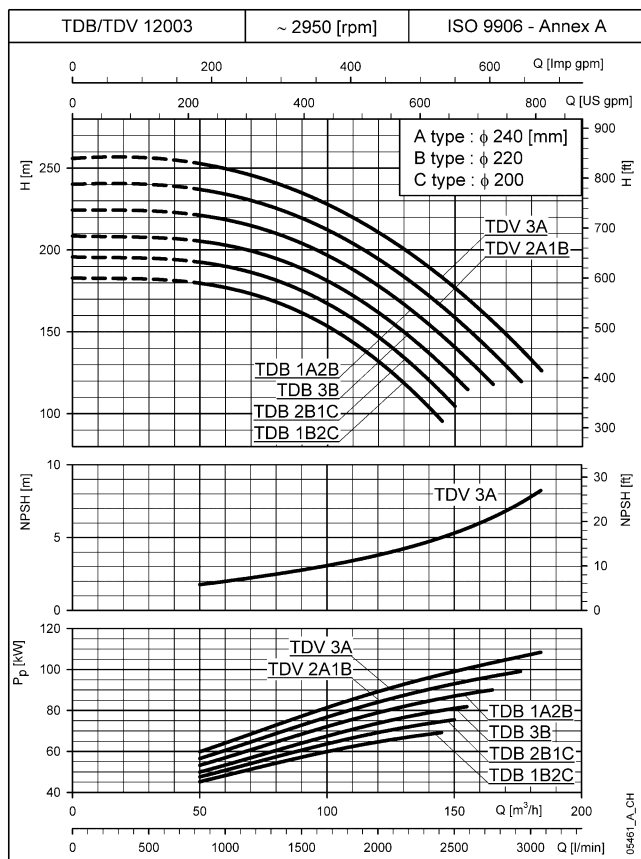
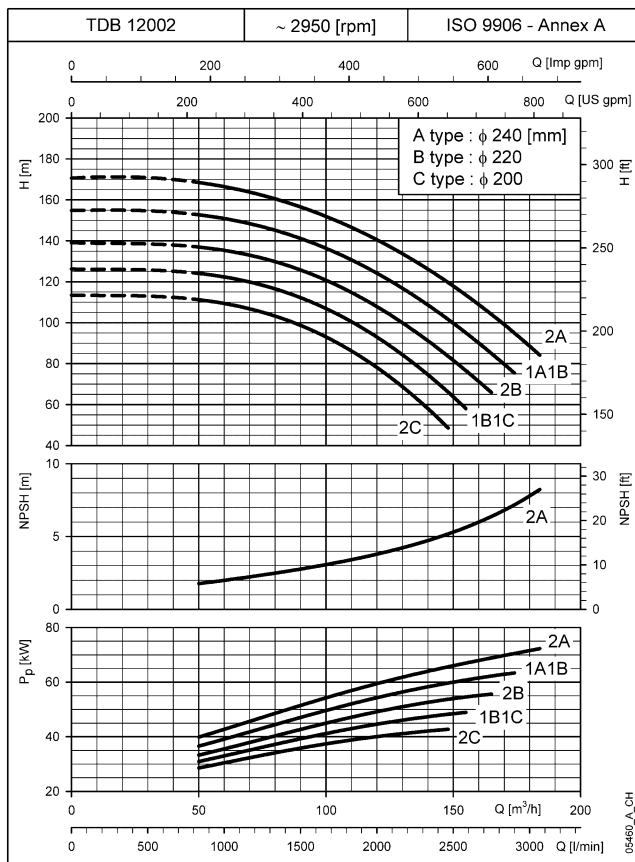
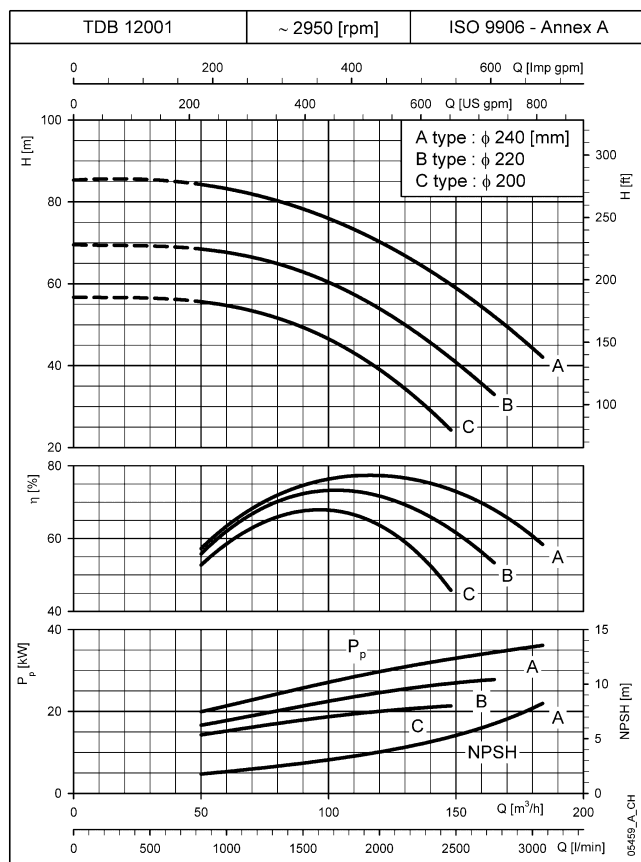
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
 These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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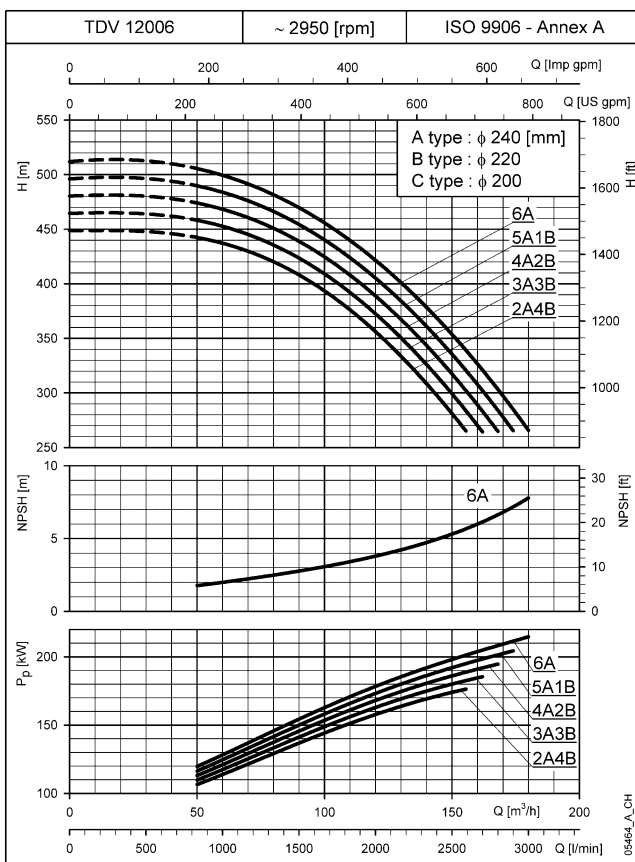
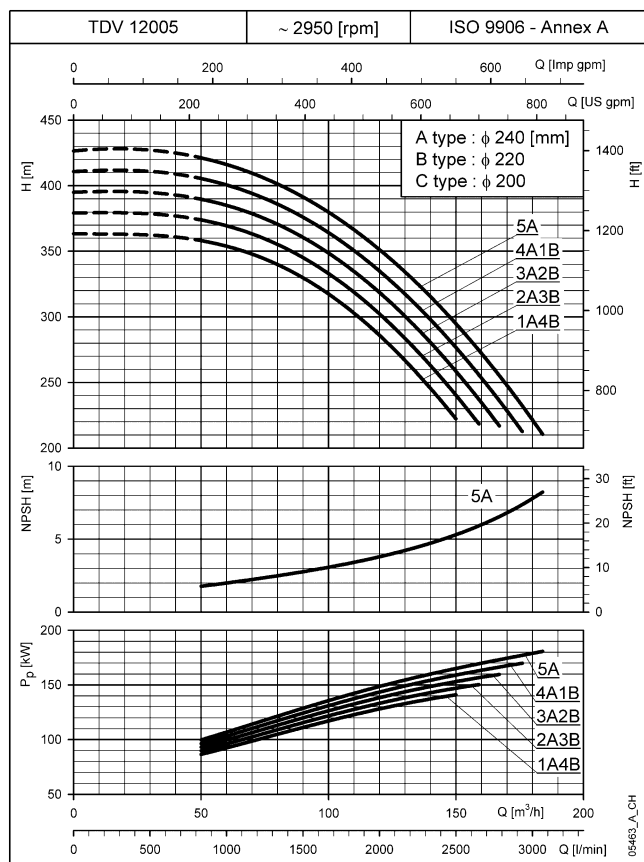
Lowara

TDB-TDV120 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



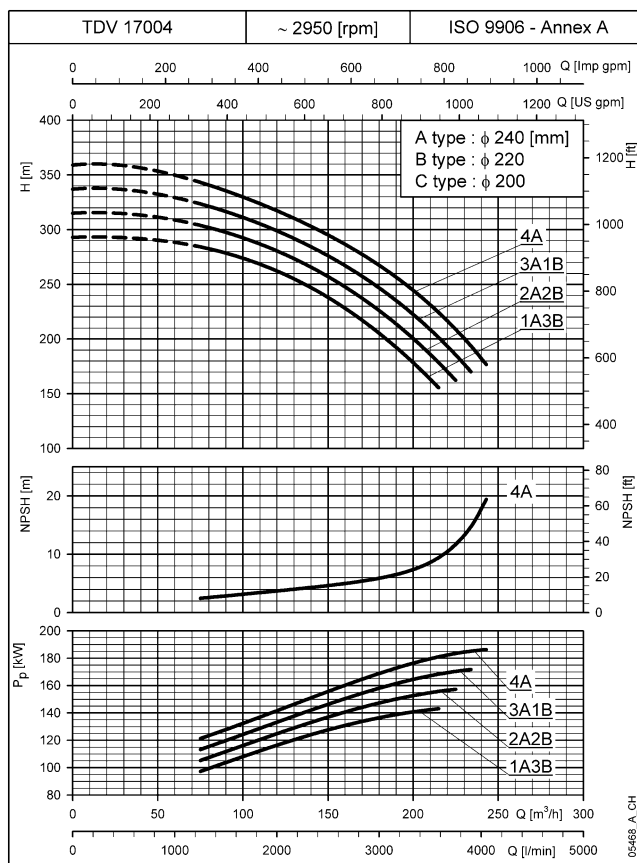
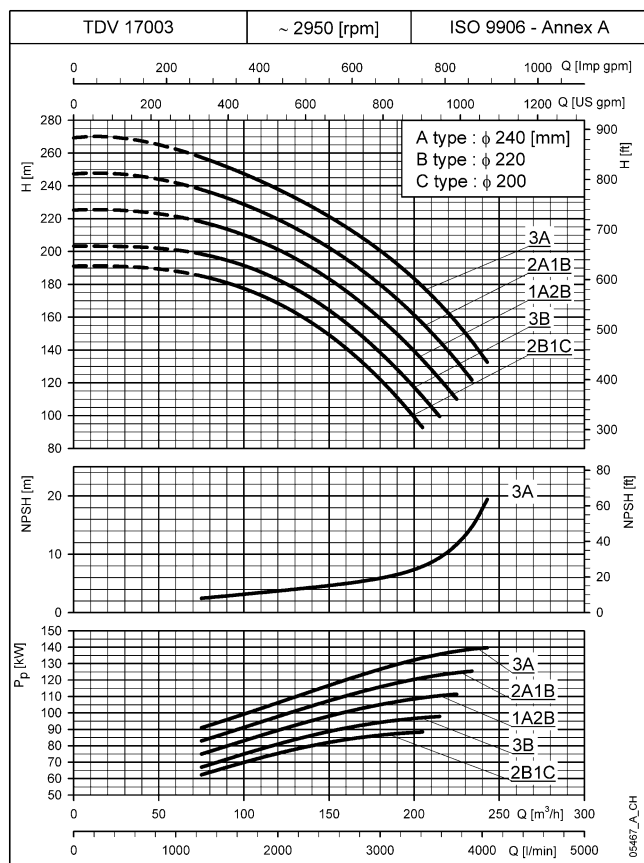
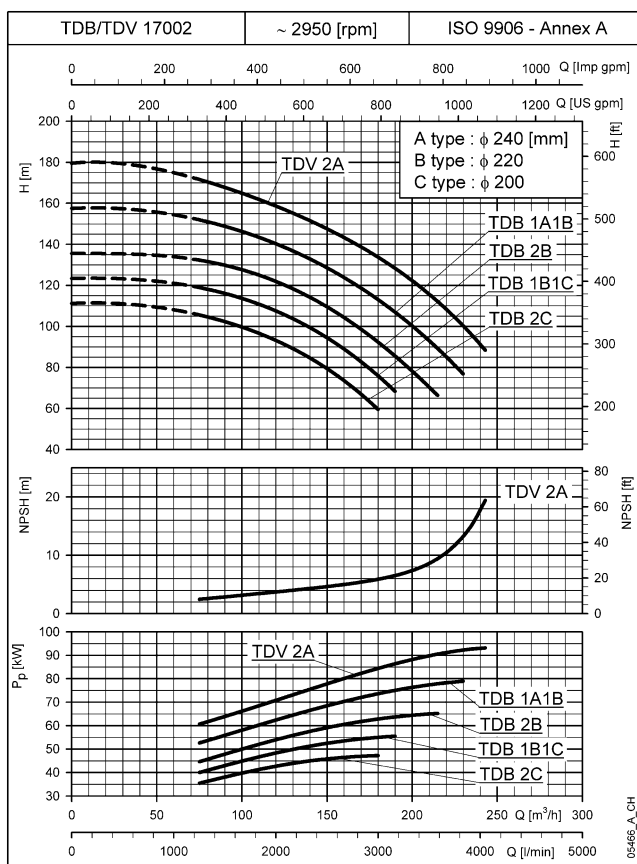
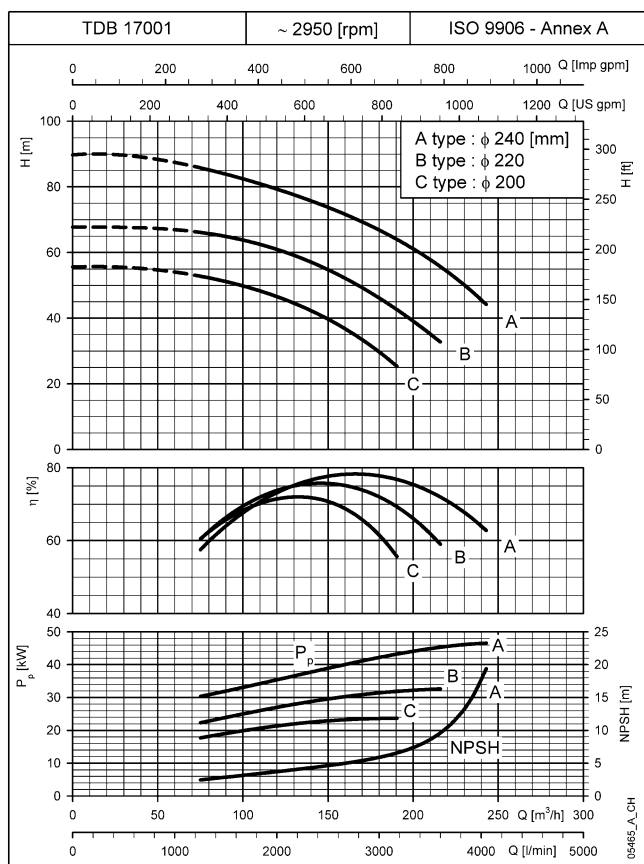
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB-TDV120 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



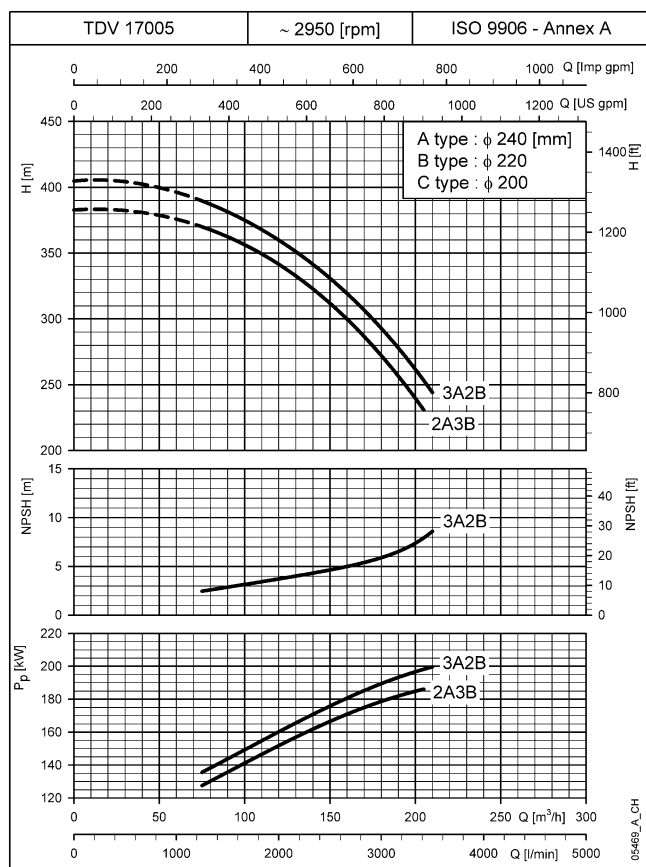
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
 These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB-TDV170 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB-TDV170 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

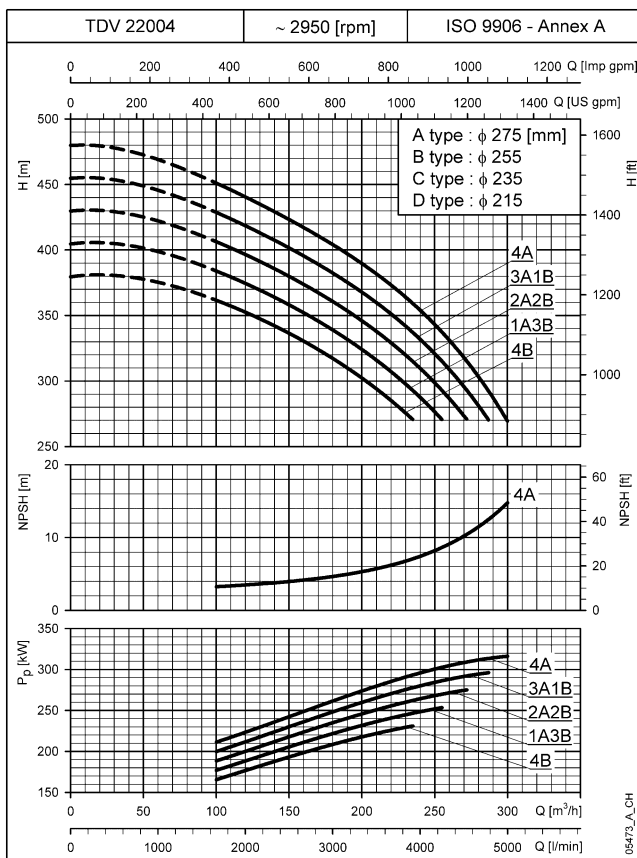
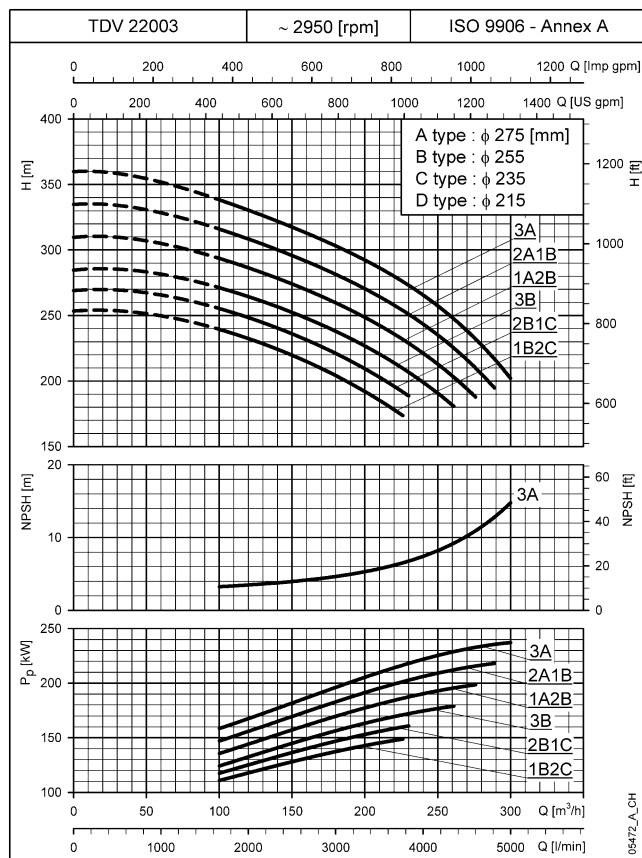
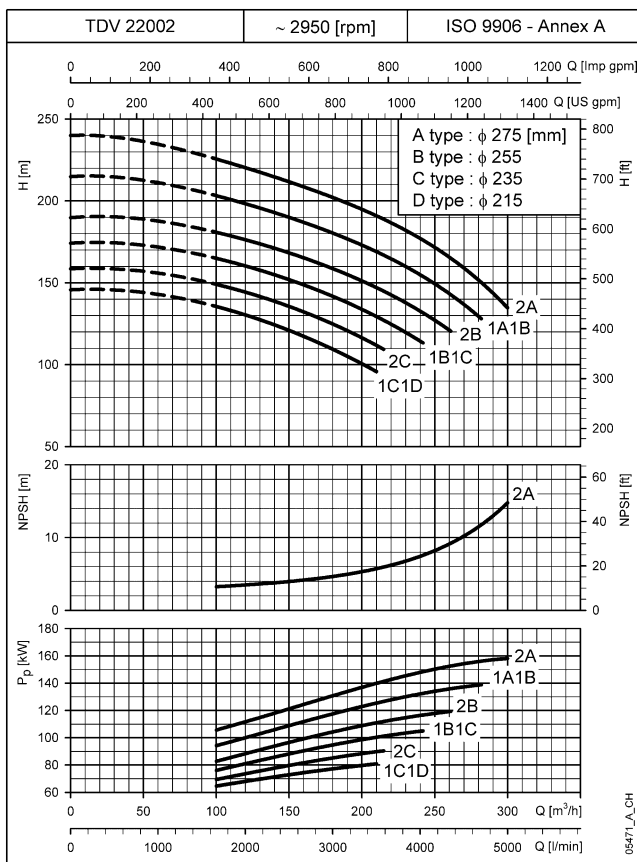
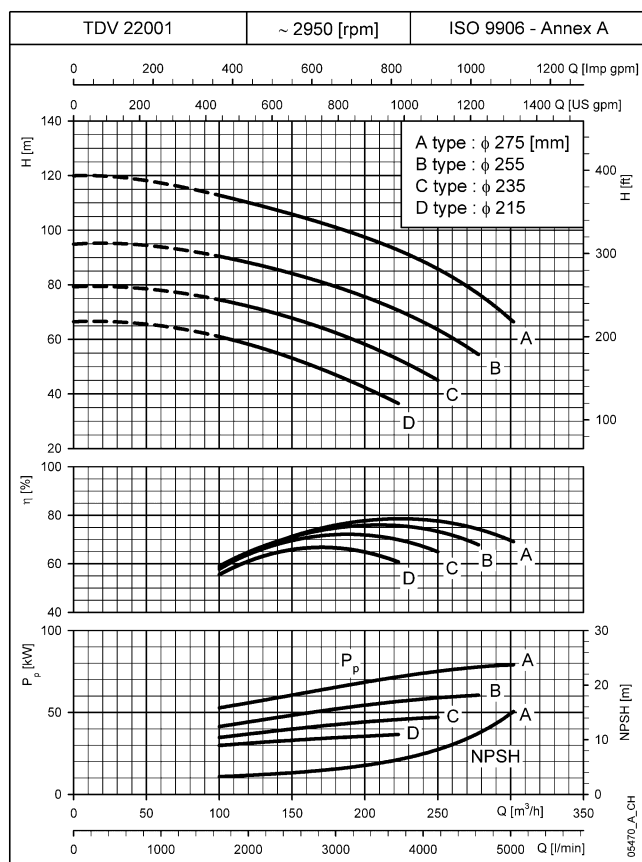


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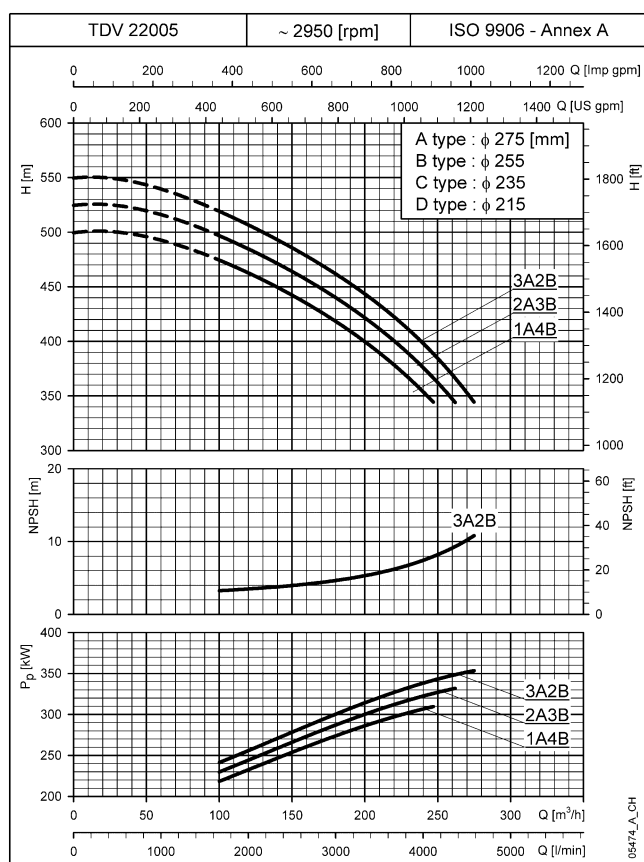
TDB-TDV220 SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB-TDV220 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

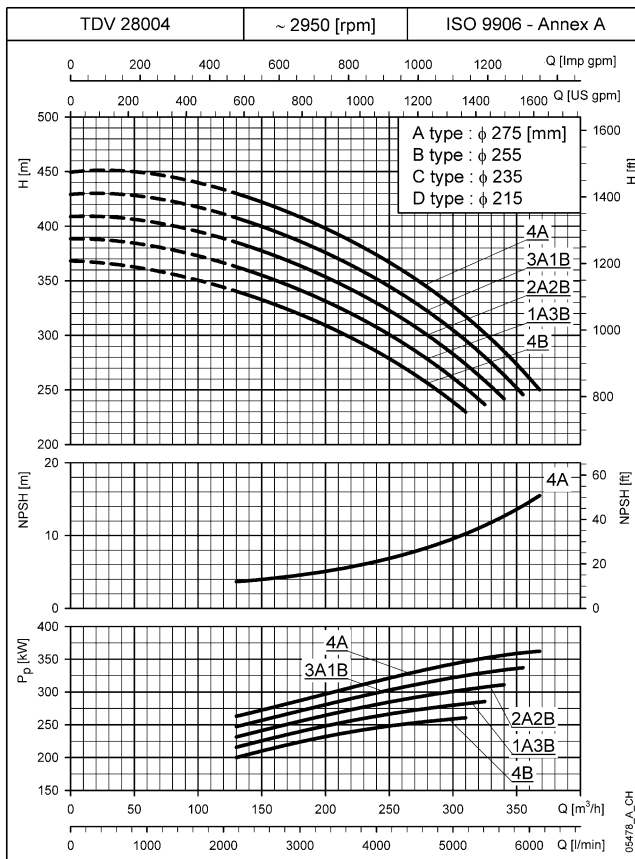
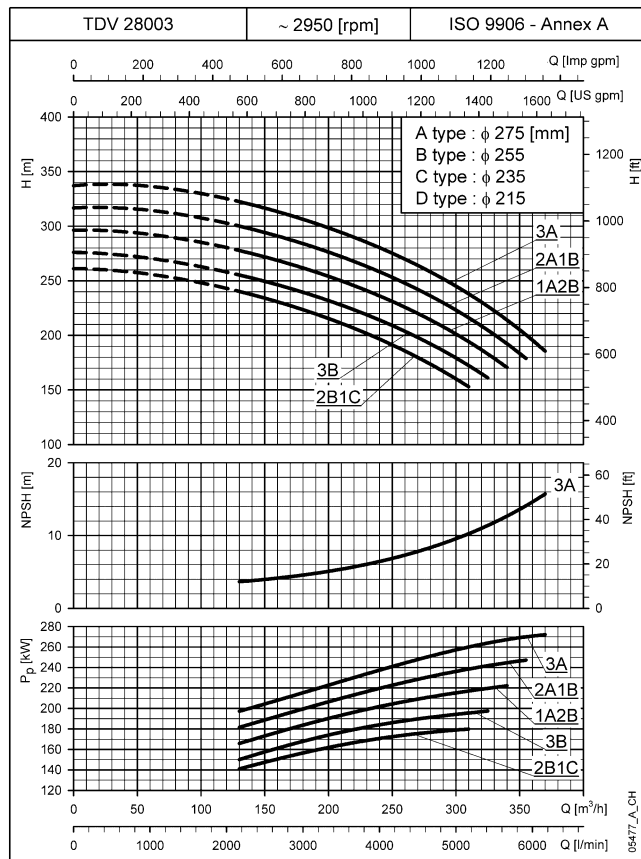
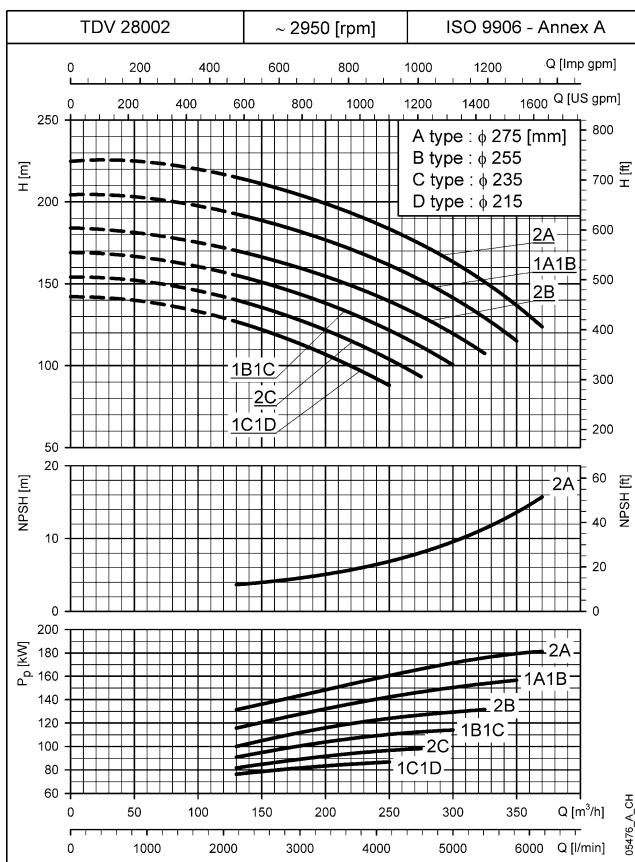
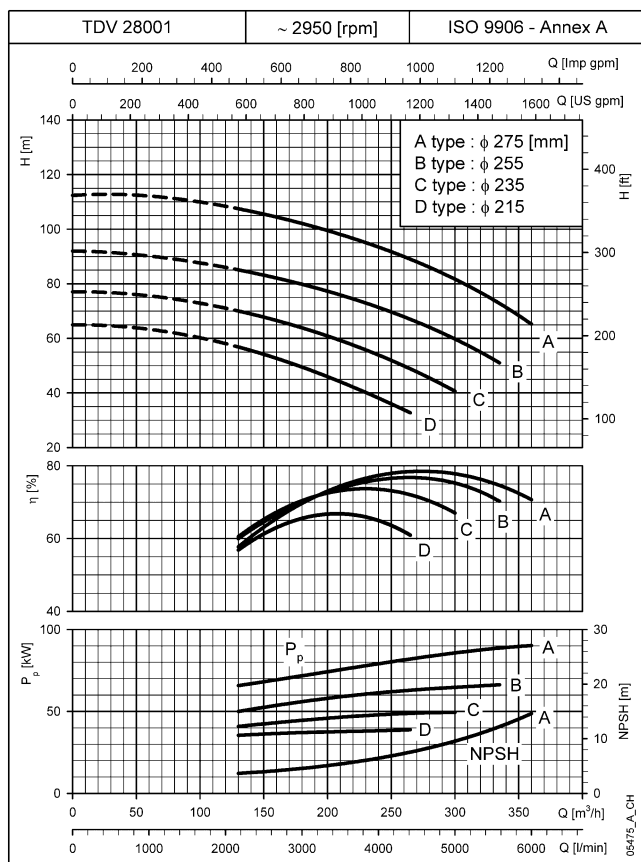


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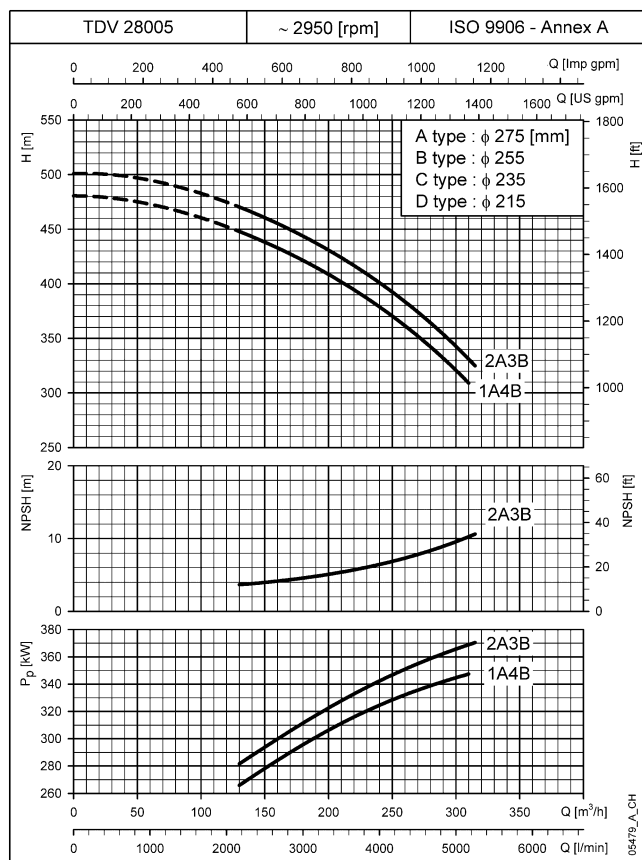
TDB-TDV280 SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



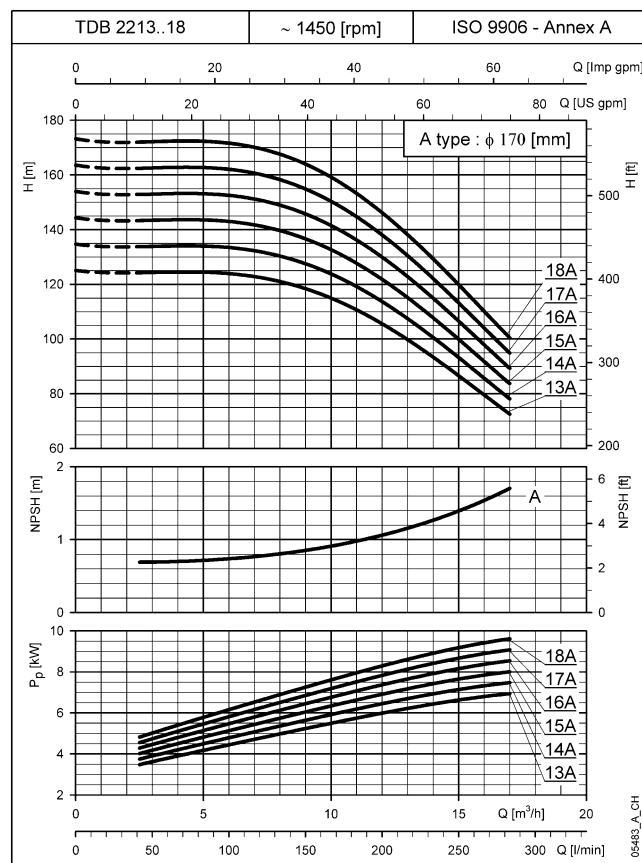
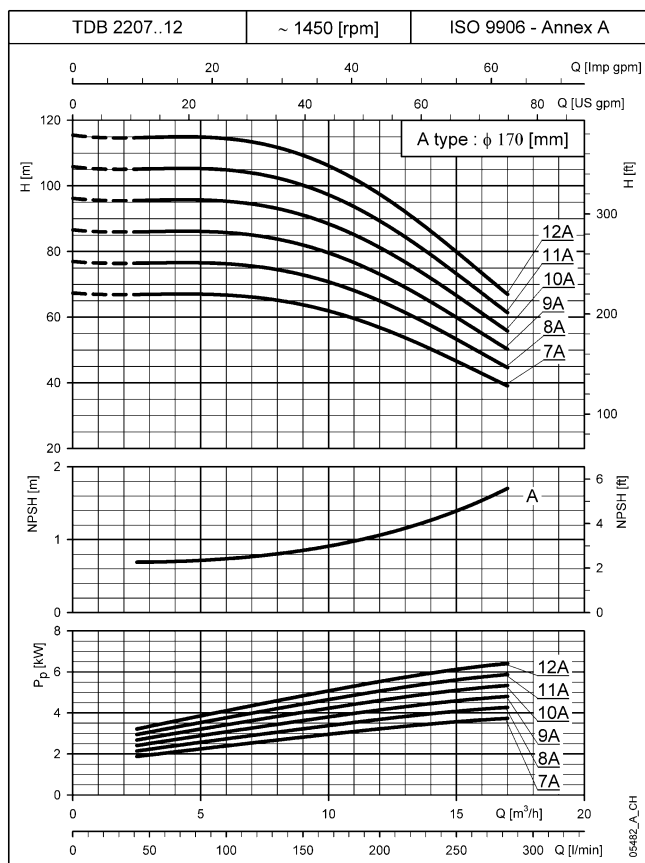
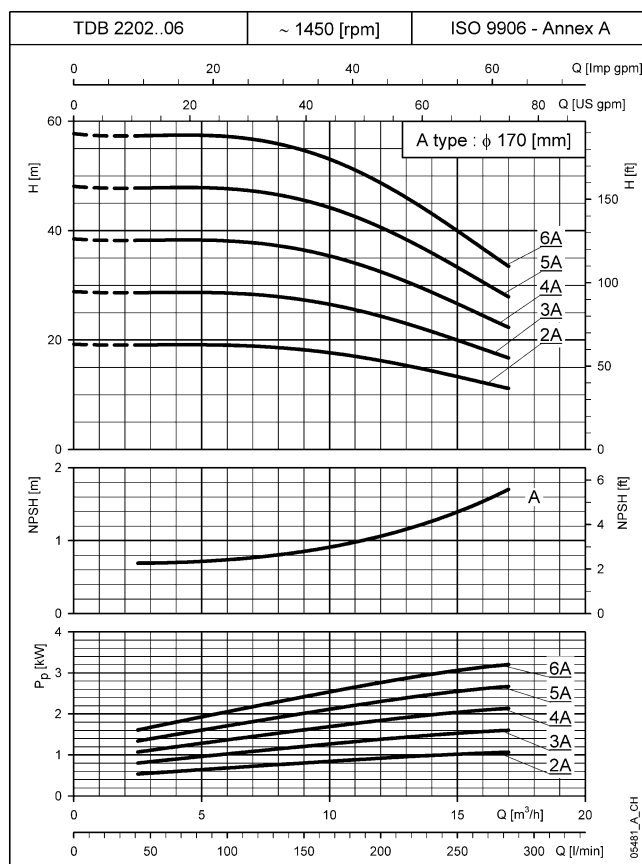
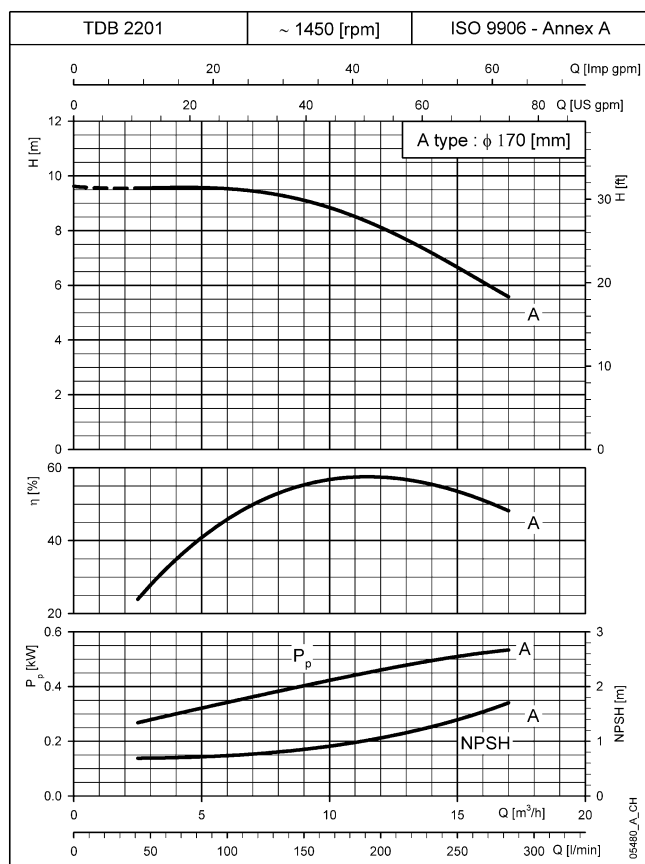
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB-TDV280 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB22..4 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



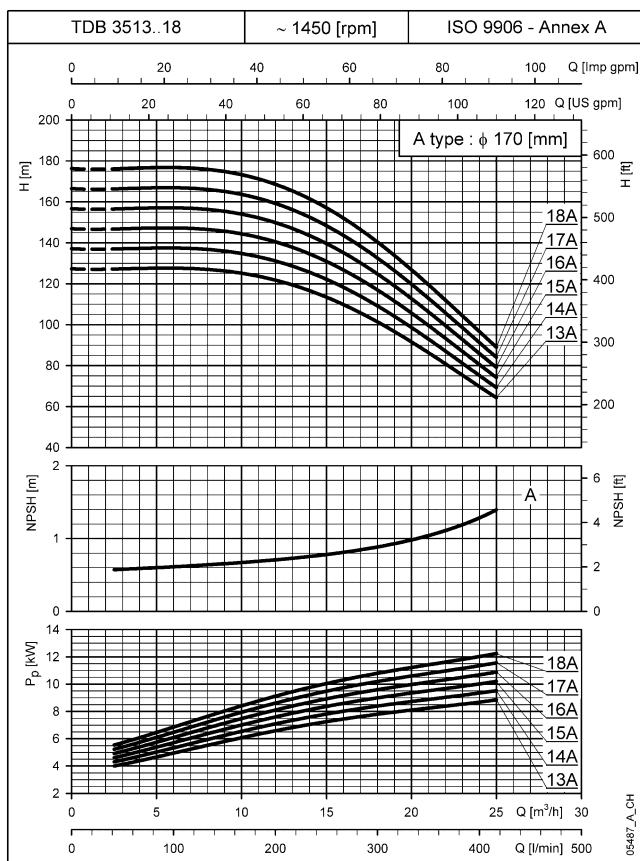
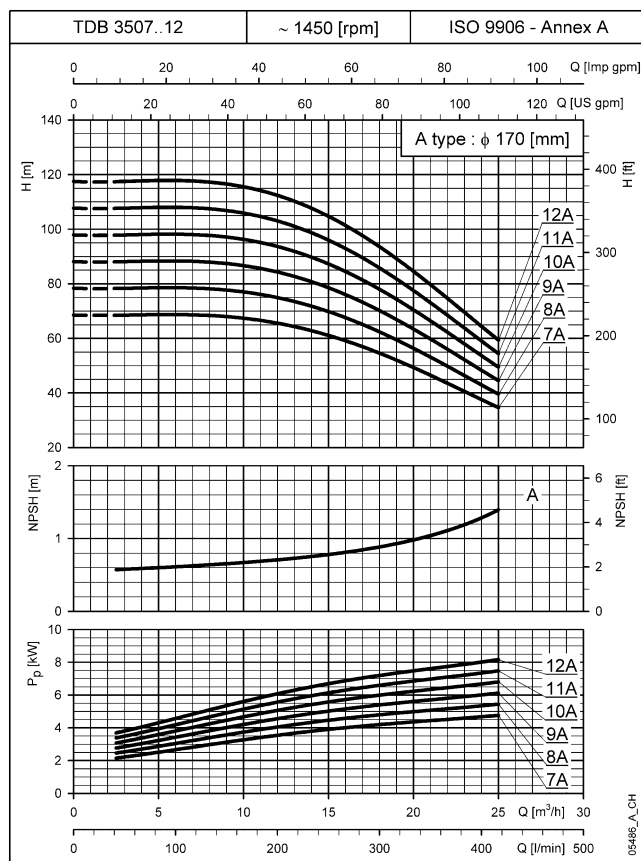
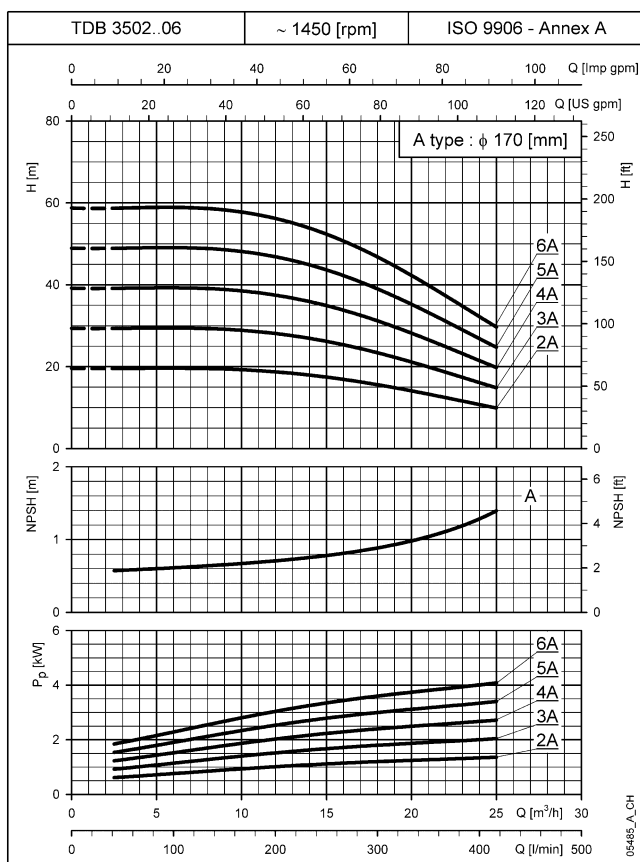
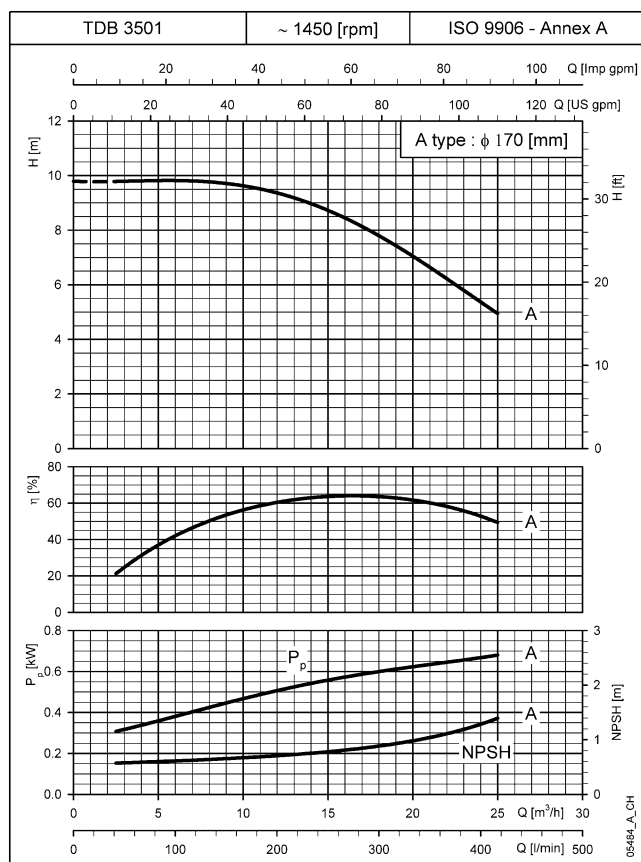
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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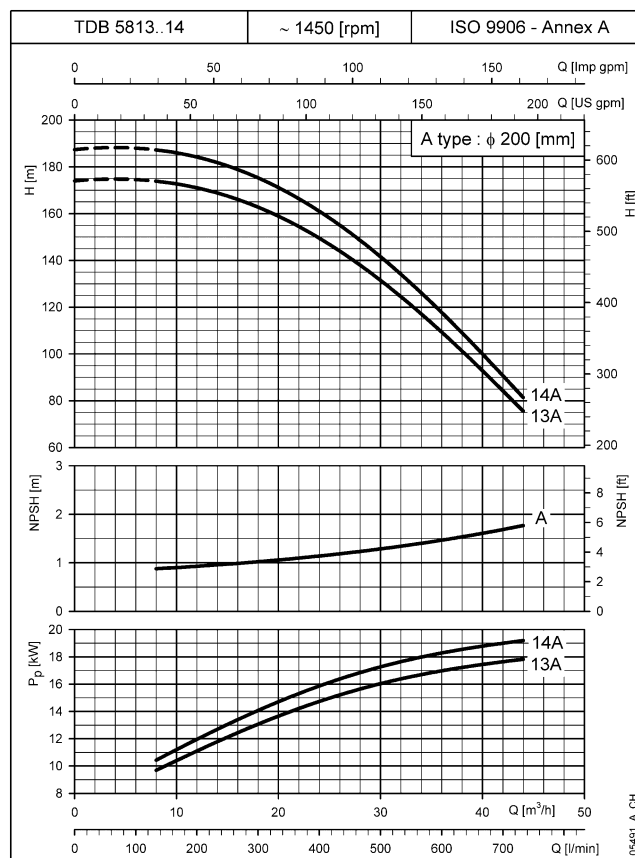
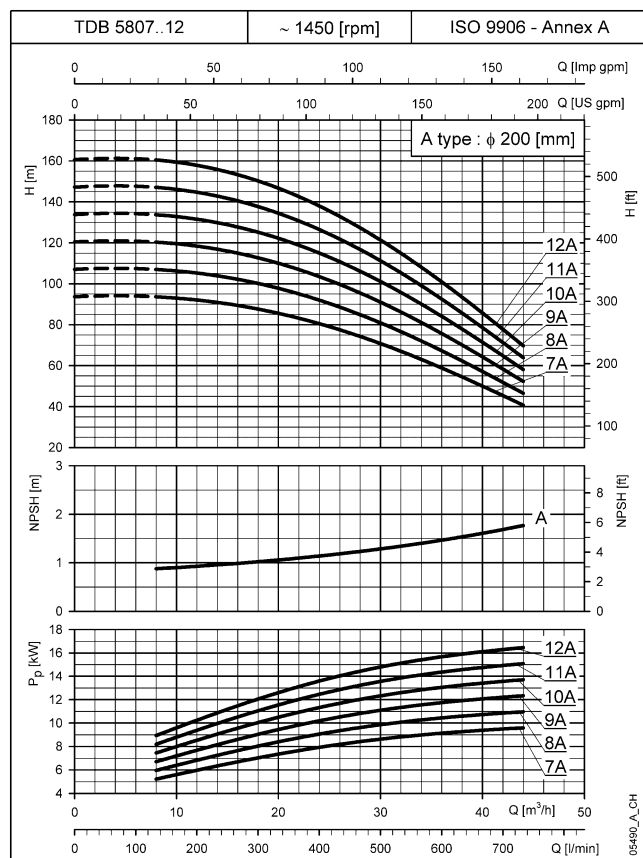
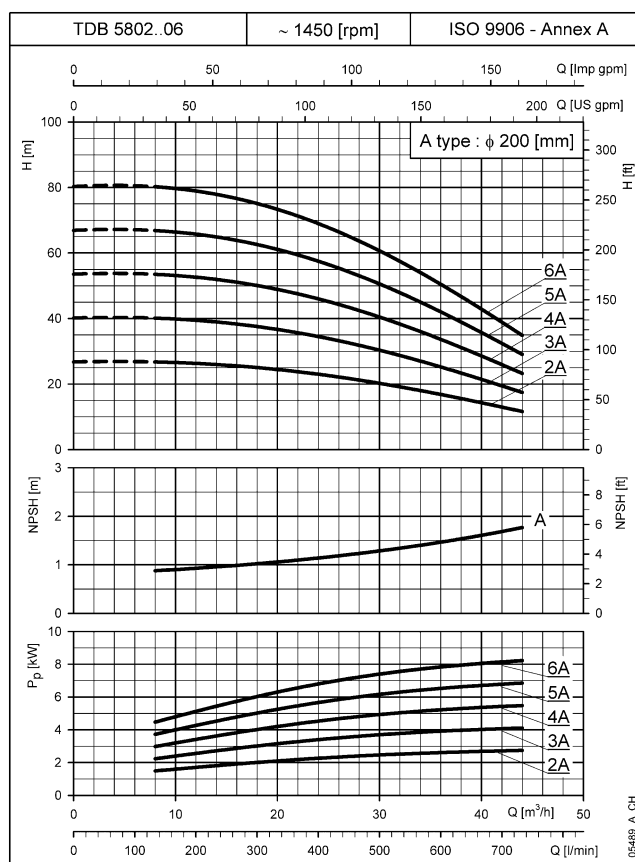
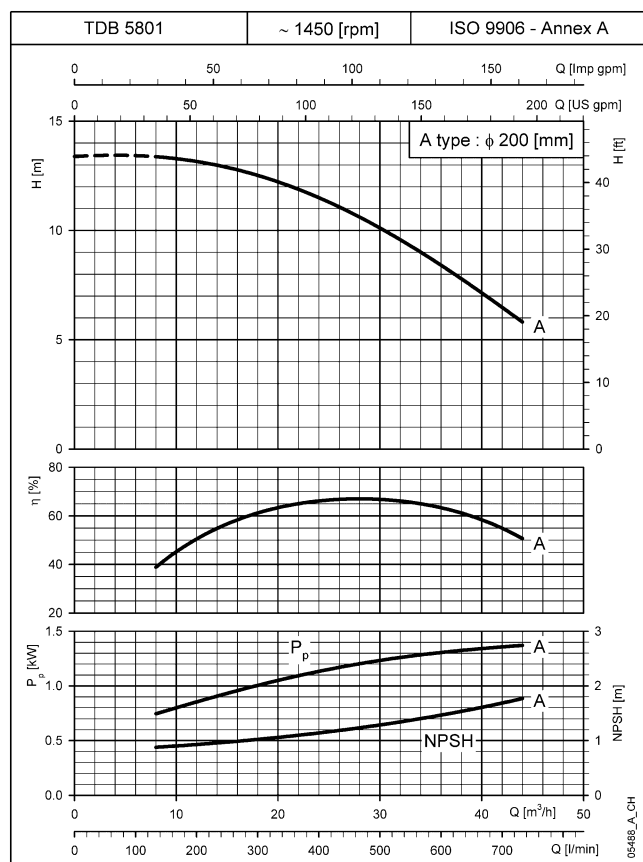
TDB35..4 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

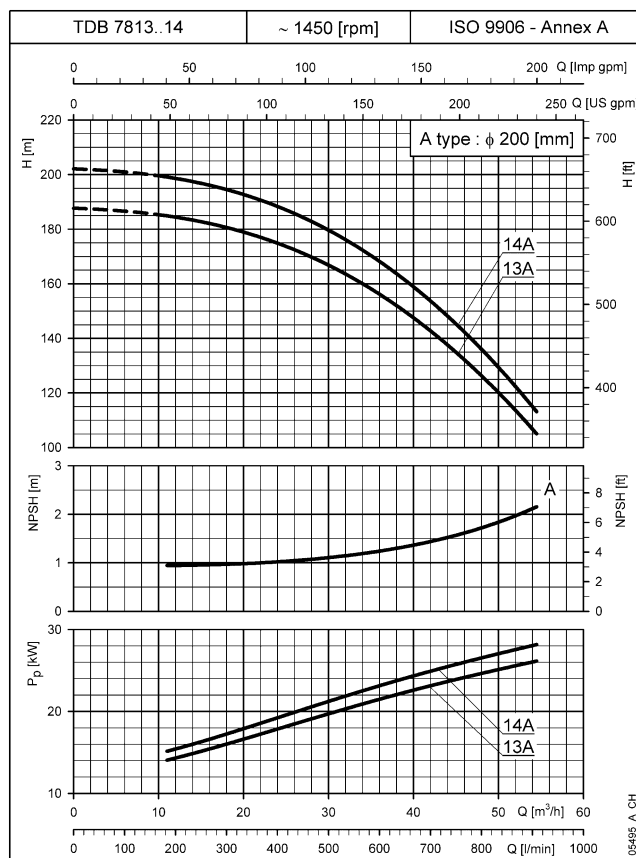
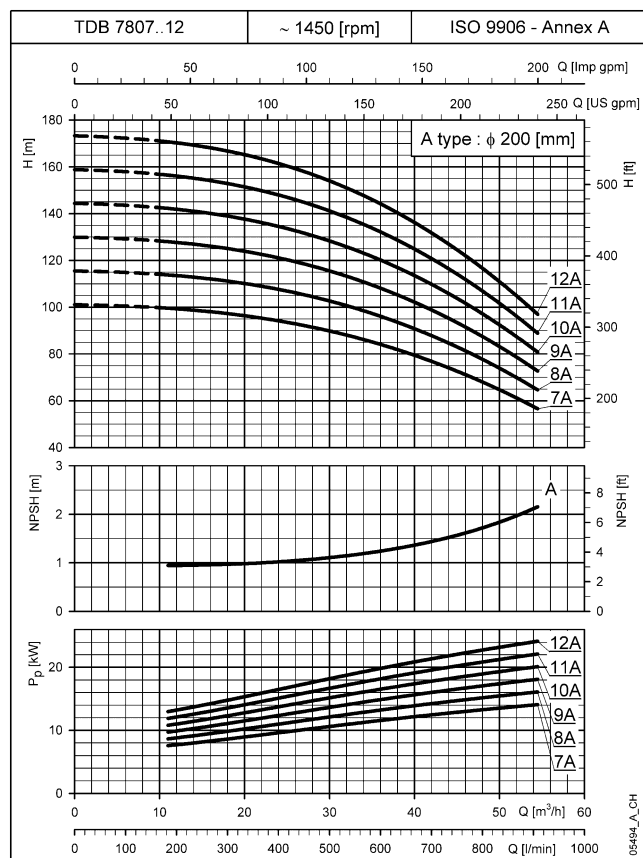
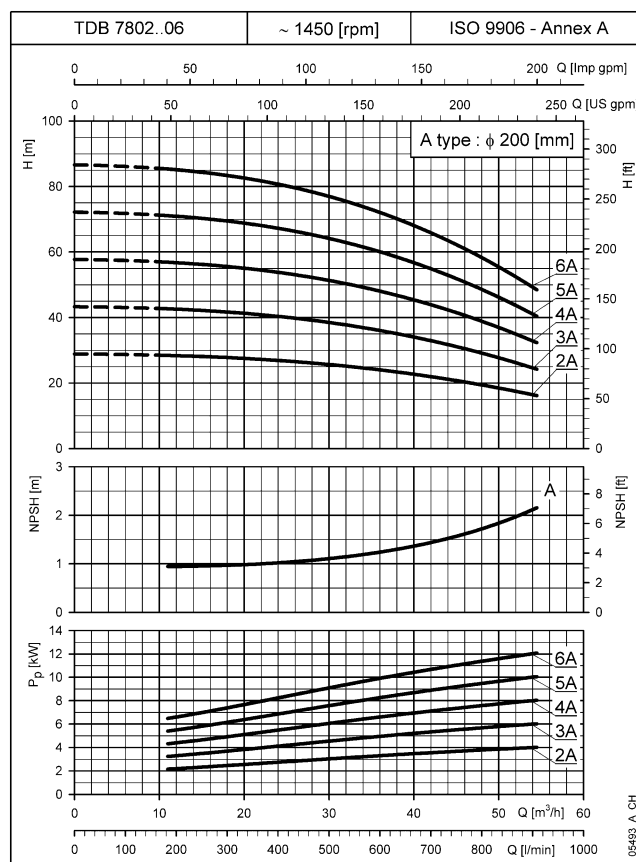
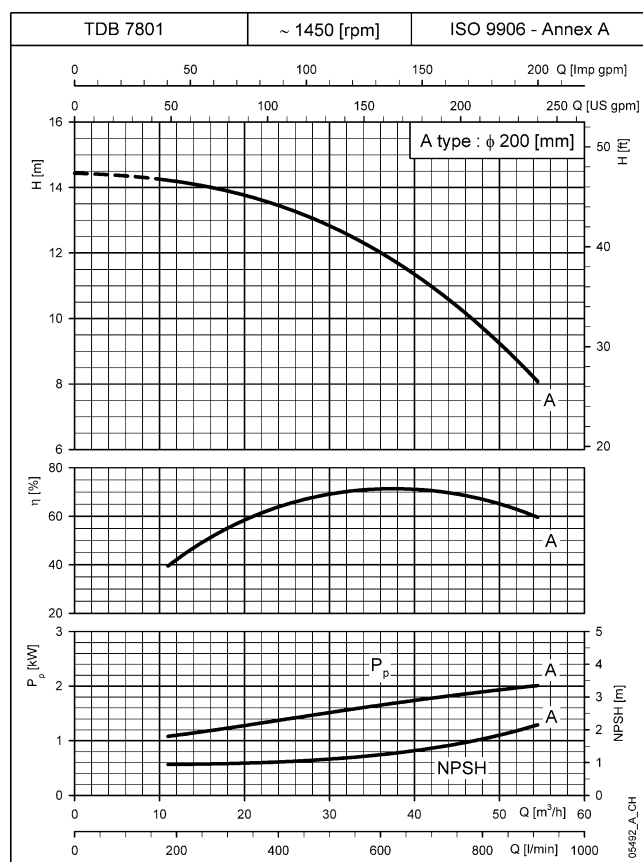
TDB58..4 SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



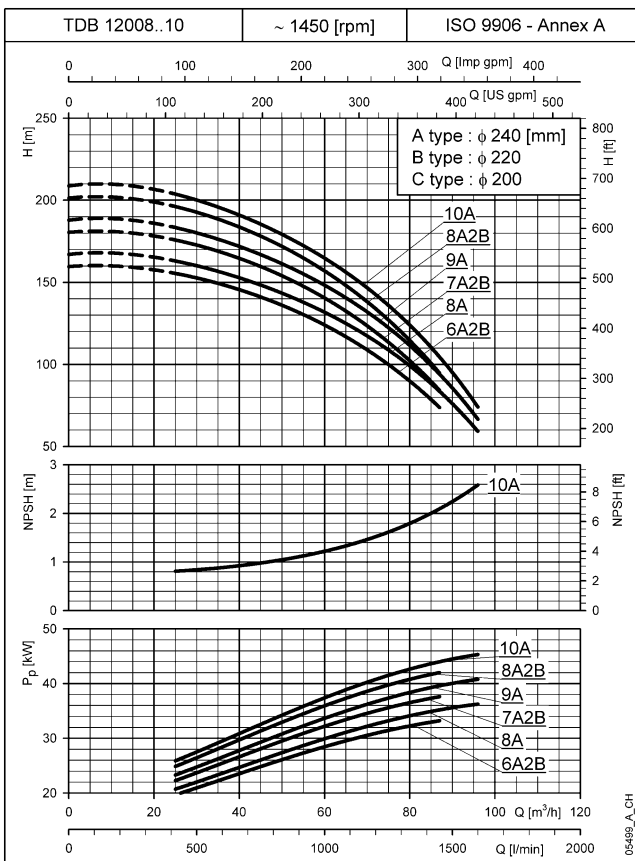
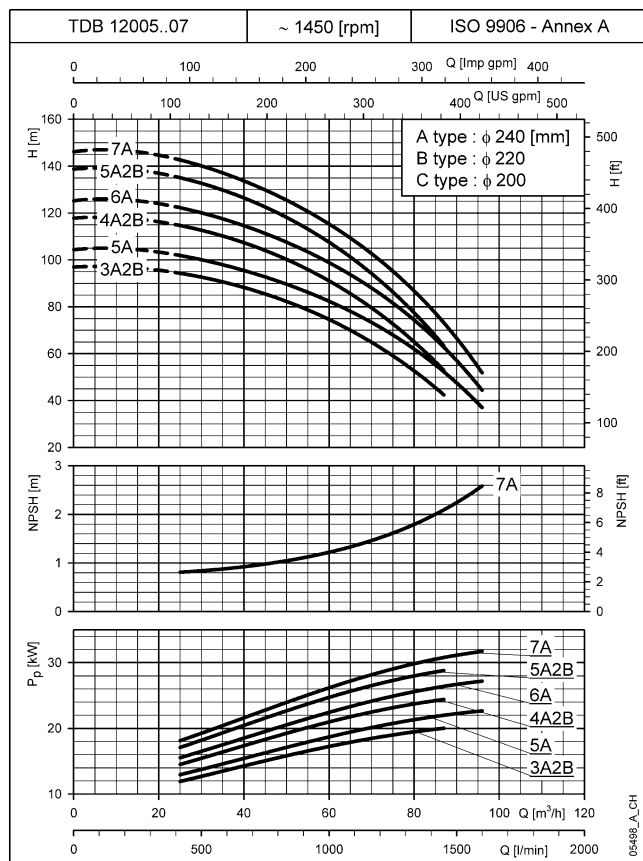
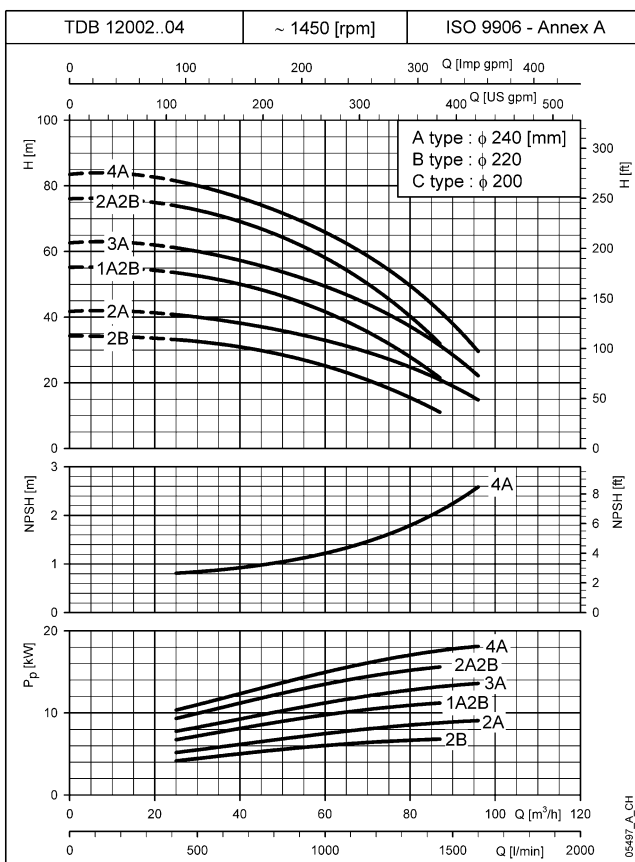
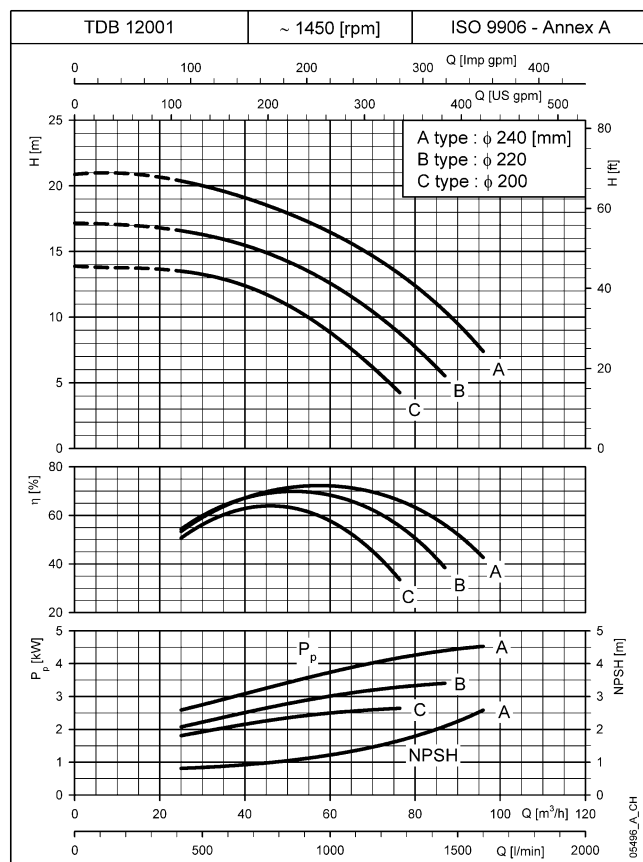
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
 These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB78..4 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB120...4 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



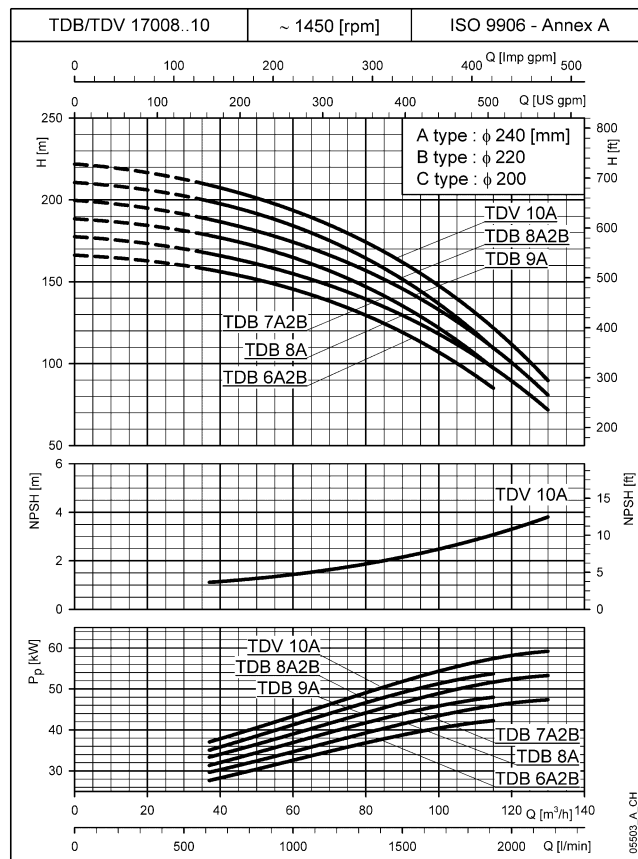
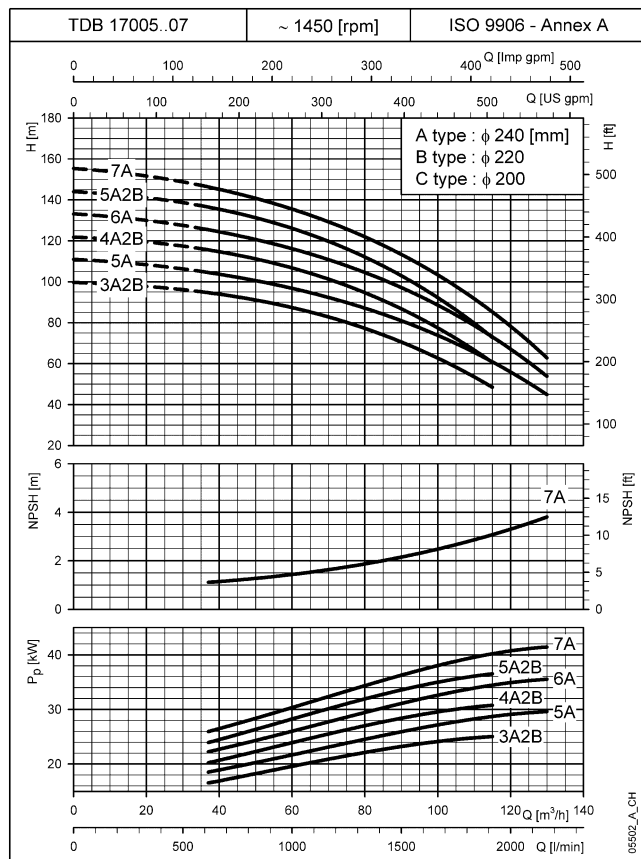
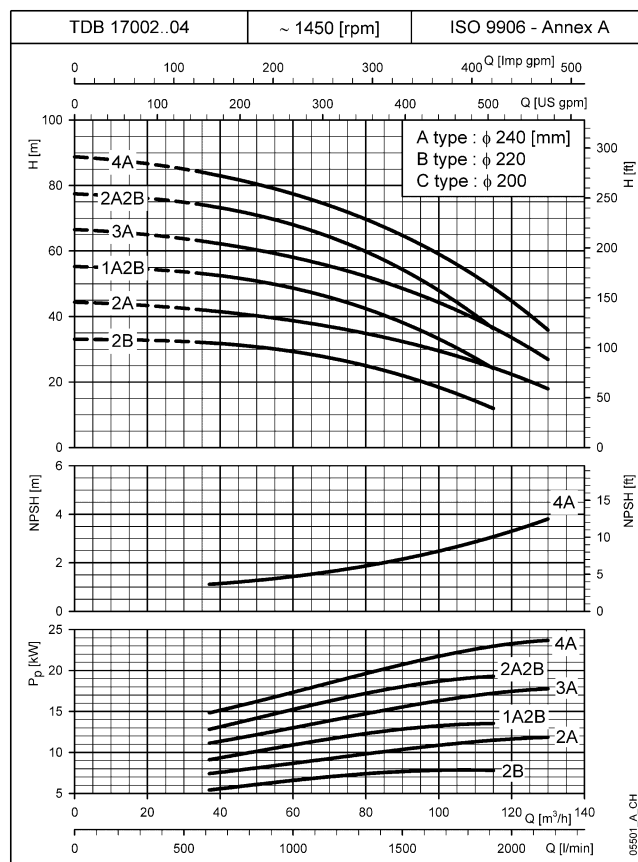
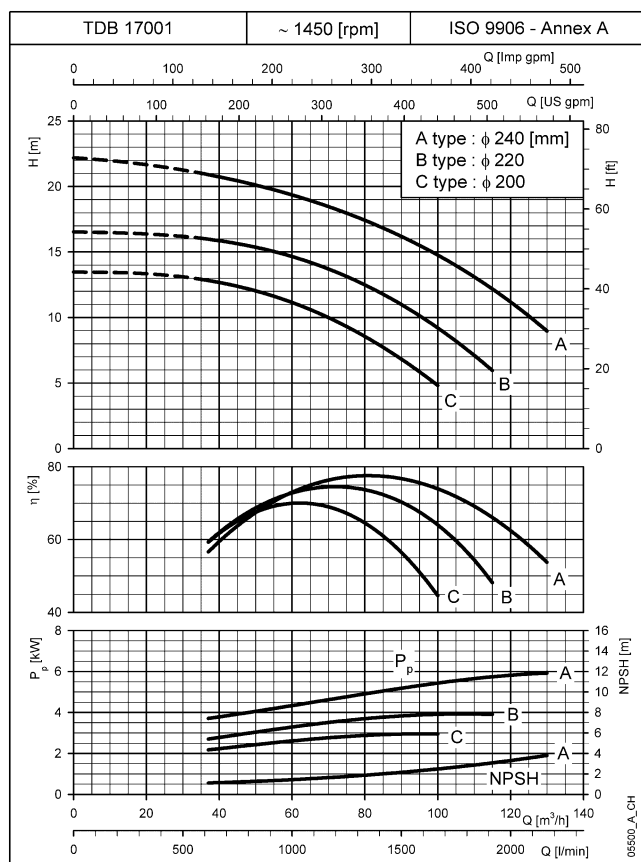
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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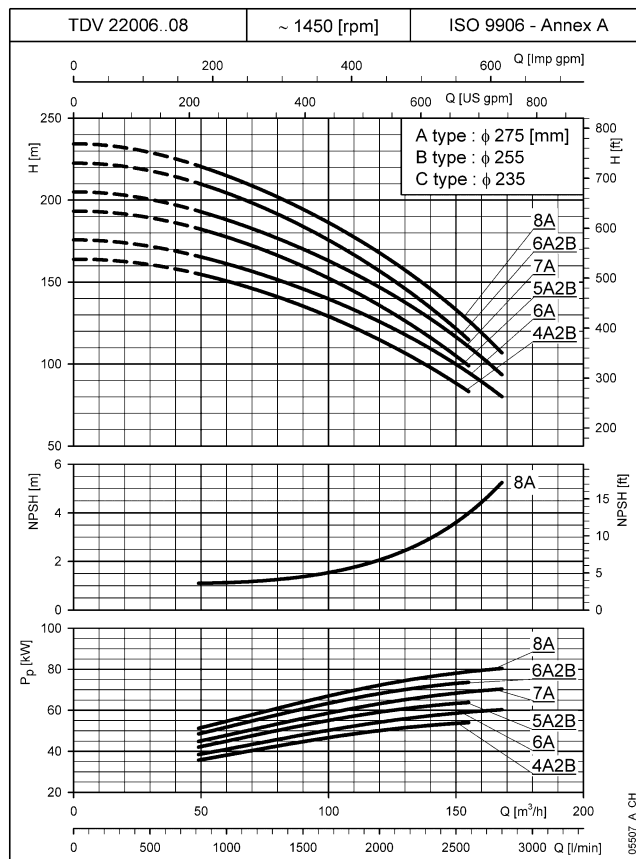
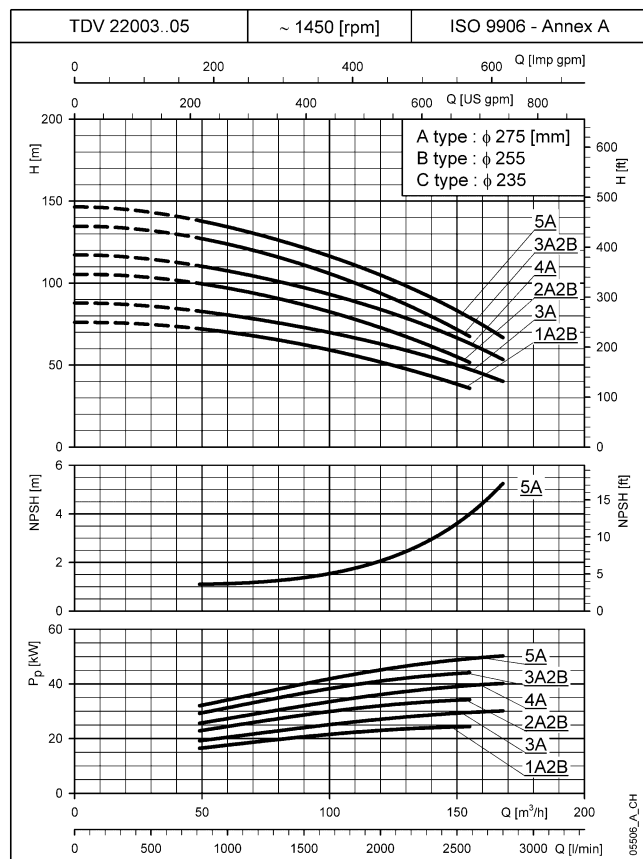
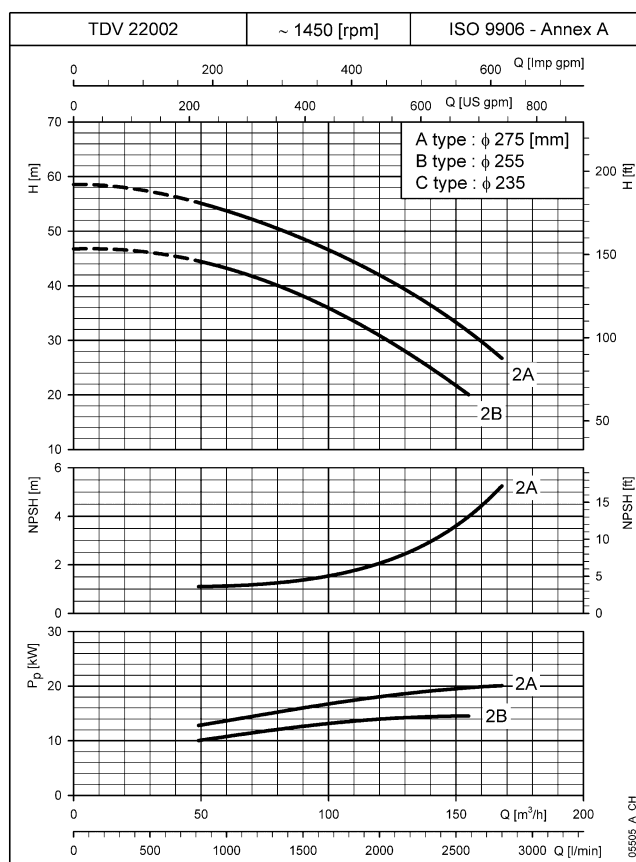
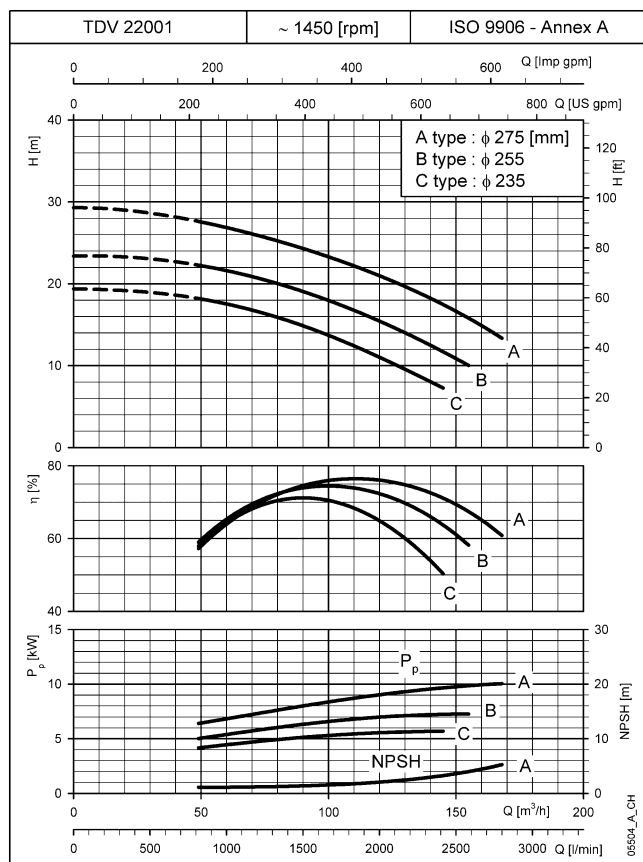
Lowara

TDB170..4 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

TDB220..4 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



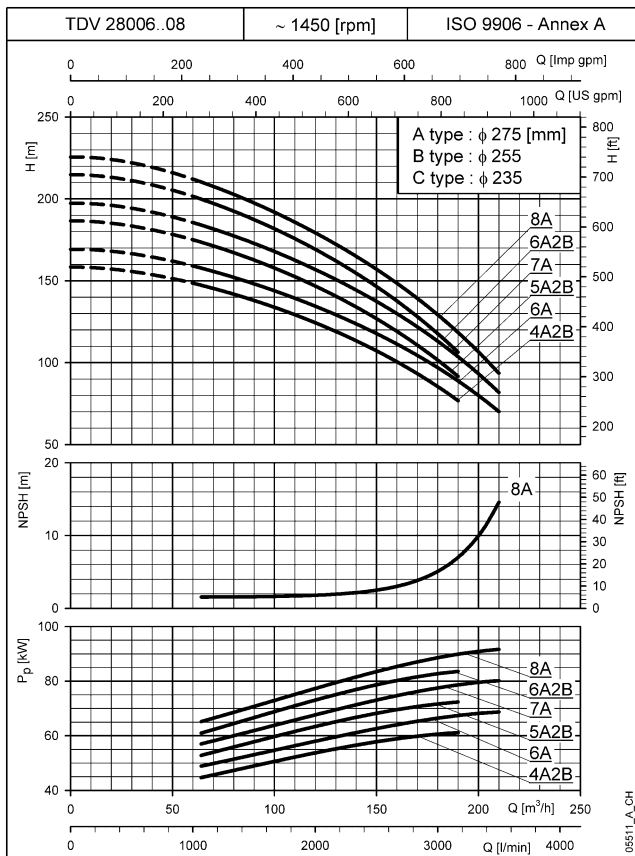
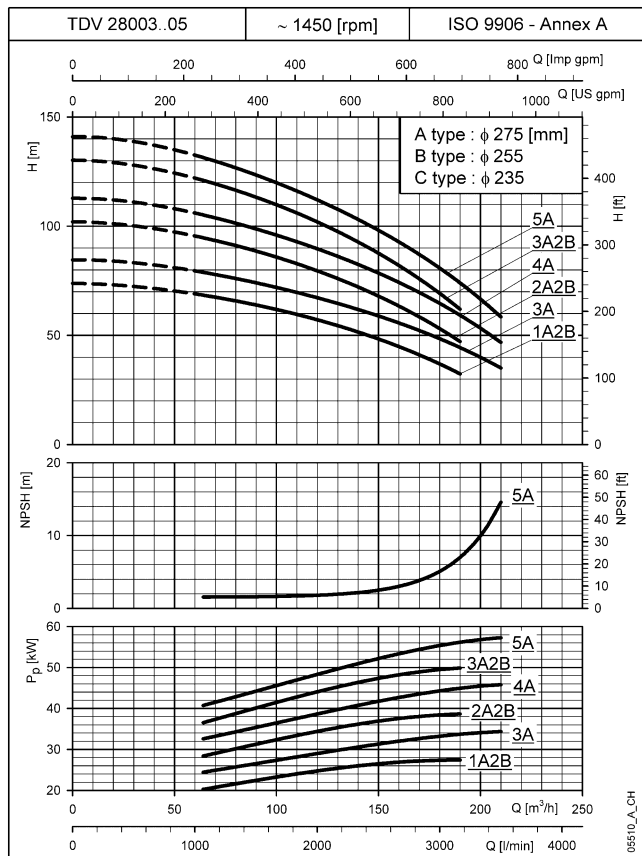
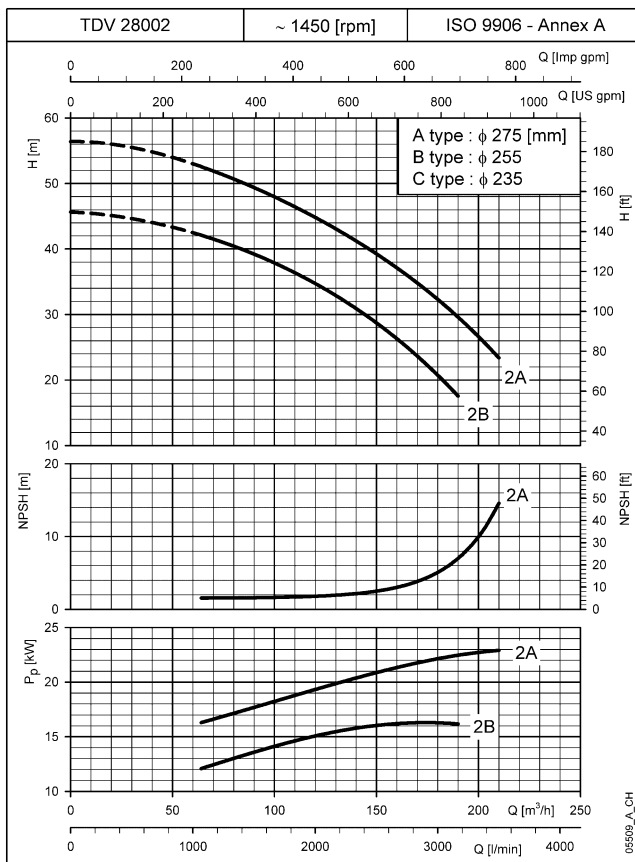
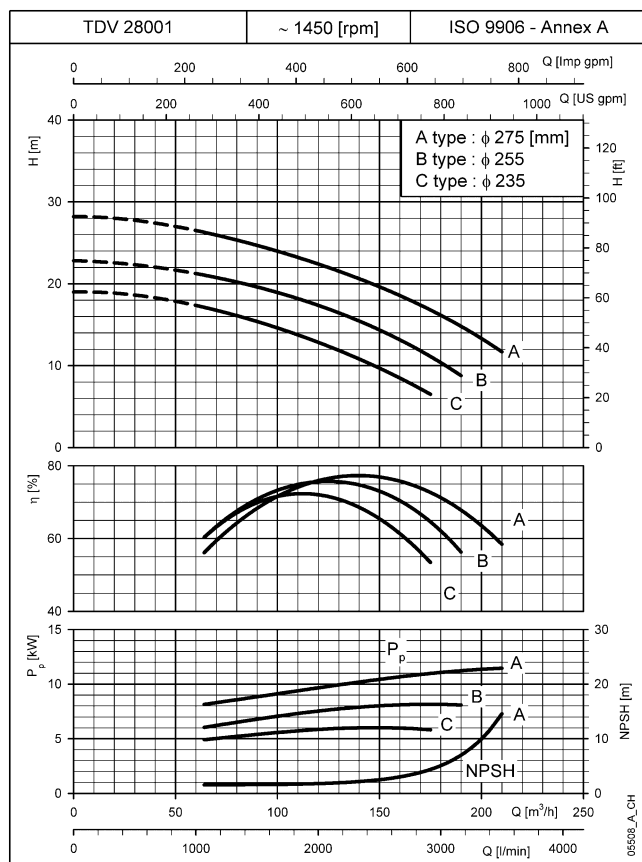
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.



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TDB280..4 SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

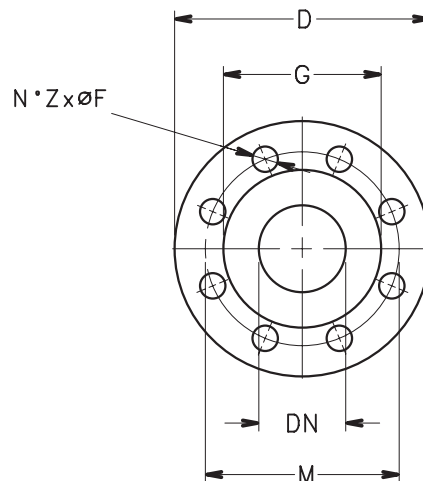


These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.
These NPSH values are valid in laboratory conditions; for practical purposes, values should be increased by a 0.5 m safety margin.

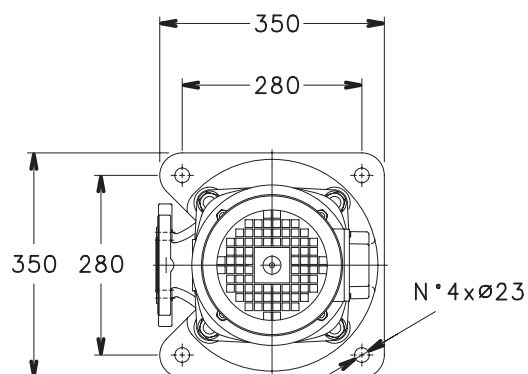
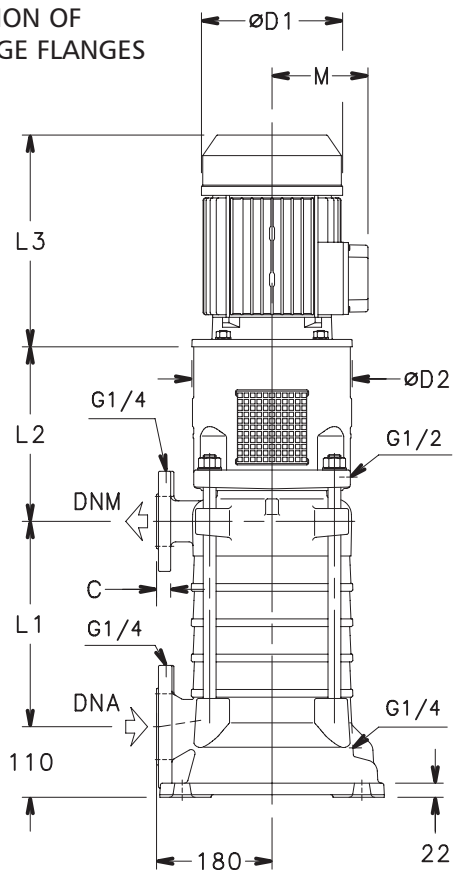
TDB22 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP FLANGES

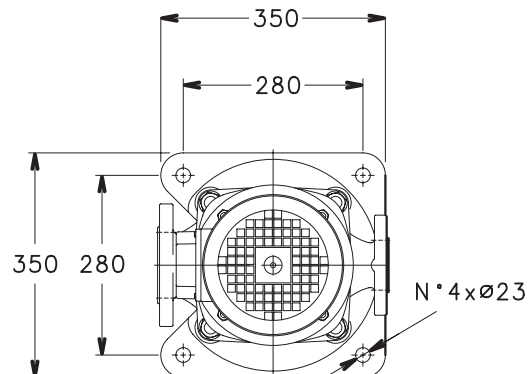
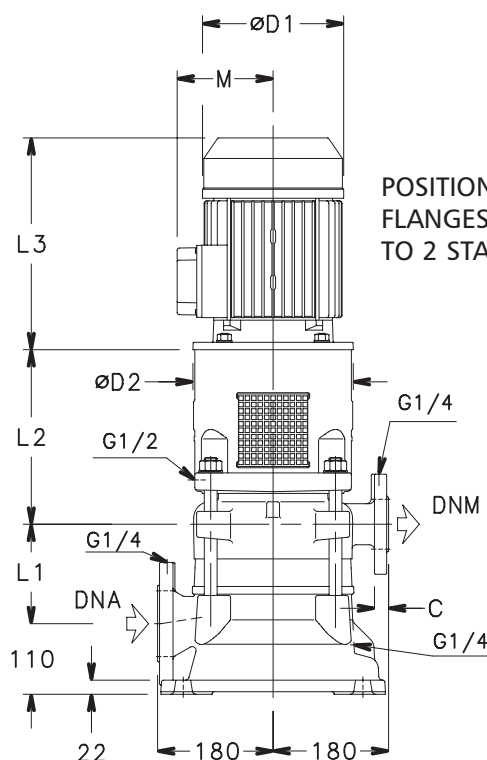
DN	PN	D	M	G	Z	F	C
DNM 40	10/16	156	110	84	4	19	22
	25/40	156	110	84	4	19	22
	63	178	125	84	4	23	28
DNA 65	10/16	191	145	118	4	19	24
	25(*)	191	145	118	8	19	24
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES





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TDB22 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC
TDB22 01/1C	2,2	90R	100	262	263	155	200	129	10	40	SA	91	104
TDB22 01/1B	3	100L	100	272	307	176	250	121	10	40	SA	91	109
TDB22 01/1A	4	112R	100	272	307	193	250	133	10	40	SA	91	113
TDB22 02/2C	4	112R	155	272	307	193	250	133	10	40	SA	101	123
TDB22 02/1B1C	5,5	132R	155	292	374	220	300	151	10	40	SA	104	139
TDB22 02/2B	7,5	132R	155	292	374	220	300	151	10	40	SA	104	145
TDB22 02/1A1B	7,5	132R	155	292	374	220	300	151	10	40	SA	104	145
TDB22 02/2A	11	160R	155	322	427	257	350	194	10	40	SA	111	178
TDB22 03/2B1C	7,5	132R	210	292	374	220	300	151	10	40	SA	114	155
TDB22 03/3B	11	160R	210	322	427	257	350	194	10	40	SA	122	189
TDB22 03/1A2B	11	160R	210	322	427	257	350	194	10	40	SA	122	189
TDB22 03/2A1B	15	160M	210	322	488	310	350	244	10	40	SA	122	219
TDB22 03/3A	15	160M	210	322	488	310	350	244	10	40	SA	122	219
TDB22 04/4B	15	160M	265	322	488	310	350	244	10	40	SA	132	229
TDB22 04/1A3B	15	160M	265	322	488	310	350	244	10	40	SA	132	229
TDB22 04/2A2B	15	160M	265	322	488	310	350	244	10	40	SA	132	229
TDB22 04/3A1B	15	160M	265	322	488	310	350	244	10	40	SA	132	229
TDB22 04/4A	18,5	160L	265	322	532	310	350	244	10	40	SA	132	247
TDB22 05/1A4B	15	160M	320	322	488	310	350	244	10	40	SB	143	240
TDB22 05/2A3B	18,5	160L	320	322	532	310	350	244	10	40	SB	143	258
TDB22 05/3A2B	18,5	160L	320	322	532	310	350	244	10	40	SB	143	258
TDB22 05/4A1B	22	180R	320	322	532	310	350	244	10	40	SB	143	263
TDB22 05/5A	22	180R	320	322	532	310	350	244	10	40	SB	143	263
TDB22 06/2A4B	22	180R	375	322	532	310	350	244	10	40	SB	153	273
TDB22 06/3A3B	22	180R	375	322	532	310	350	244	10	40	SB	153	273
TDB22 06/4A2B	22	180R	375	322	532	310	350	244	10	40	SB	153	273
TDB22 06/5A1B	30	200La	375	322	613	354	400	278	10	40	SB	155	287
TDB22 06/6A	30	200La	375	322	613	354	400	278	10	40	SB	155	287
TDB22 07/3A4B	30	200La	430	322	613	354	400	278	10	40	SB	166	298
TDB22 07/4A3B	30	200La	430	322	613	354	400	278	10	40	SB	166	298
TDB22 07/5A2B	30	200La	430	322	613	354	400	278	10	40	SB	166	298
TDB22 07/6A1B	30	200La	430	322	613	354	400	278	10	40	SB	166	298
TDB22 07/7A	30	200La	430	322	613	354	400	278	10	40	SB	166	298
TDB22 08/4A4B	30	200La	485	322	613	354	400	278	10	40	SB	176	308
TDB22 08/5A3B	30	200La	485	322	613	354	400	278	10	40	SB	176	308
TDB22 08/6A2B	30	200La	485	322	613	354	400	278	10	40	SB	176	308
TDB22 08/7A1B	37	200Lb	485	322	613	354	400	278	10	40	SB	176	318
TDB22 08/8A	37	200Lb	485	322	613	354	400	278	10	40	SB	176	318
TDB22 09/5A4B	30	200La	540	322	613	354	400	278	10	40	SB	187	319
TDB22 09/6A3B	37	200Lb	540	322	613	354	400	278	10	40	SB	187	329
TDB22 09/7A2B	37	200Lb	540	322	613	354	400	278	10	40	SB	187	329
TDB22 09/8A1B	37	200Lb	540	322	613	354	400	278	10	40	SB	187	329
TDB22 09/9A	37	200Lb	540	322	613	354	400	278	10	40	SB	187	329
TDB22/10/6A4B	37	200Lb	595	322	613	354	400	278	10	40/63	SB	197	339
TDB22 10/7A3B	37	200Lb	595	322	613	354	400	278	10	40/63	SB	197	339
TDB22 10/8A2B	37	200Lb	595	322	613	354	400	278	10	40/63	SB	197	339
TDB22 10/9A1B	45	225M	595	322	710	411	450	298	10	40/63	SB	202	420
TDB22 10/10A	45	225M	595	322	710	411	450	298	10	63	SB	202	420
TDB22 11/7A4B	45	225M	650	322	710	411	450	298	10	63	SB	212	430
TDB22 11/8A3B	45	225M	650	322	710	411	450	298	10	63	SB	212	430
TDB22 11/9A2B	45	225M	650	322	710	411	450	298	10	63	SB	212	430
TDB22 11/10A1B	45	225M	650	322	710	411	450	298	10	63	SB	212	430
TDB22 11/11A	45	225M	650	322	710	411	450	298	10	63	SB	212	430
TDB22 12/8A4B	45	225M	705	322	710	411	450	298	10	63	SB	223	441
TDB22 12/9A3B	45	225M	705	322	710	411	450	298	10	63	SB	223	441
TDB22 12/10A2B	45	225M	705	322	710	411	450	298	10	63	SB	223	441
TDB22 12/11A1B	55	250M	705	352	690	411	550	298	10	63	SB	258	483
TDB22 12/12A	55	250M	705	352	690	411	550	298	10	63	SB	258	483

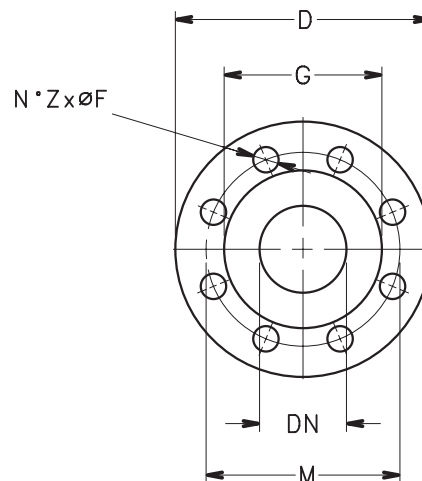
Weights refer to Version F (Cast iron)

tdb22-2p50_a_td

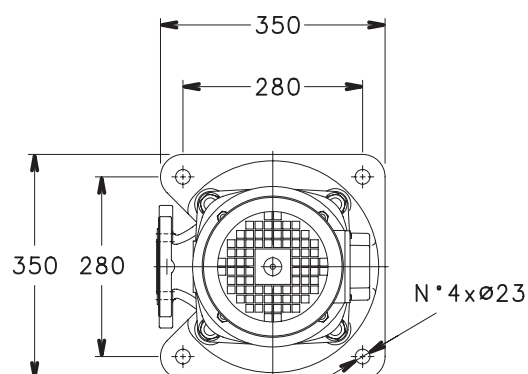
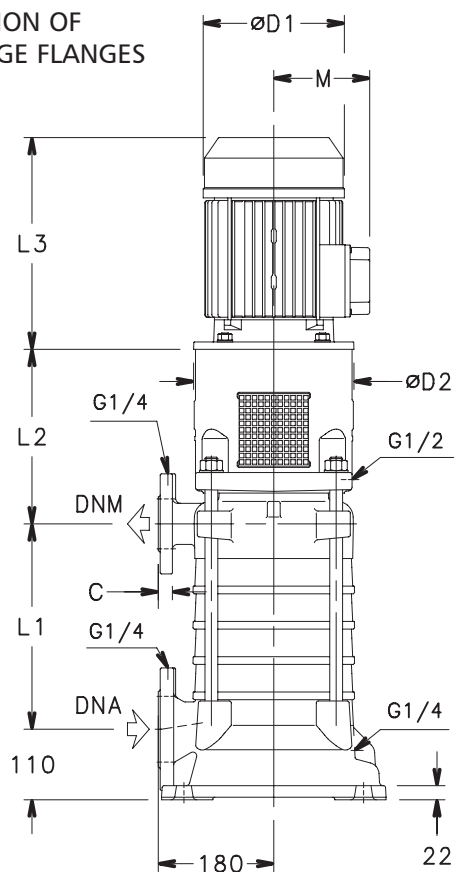
TDB35 SERIES **DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**

PUMP FLANGES

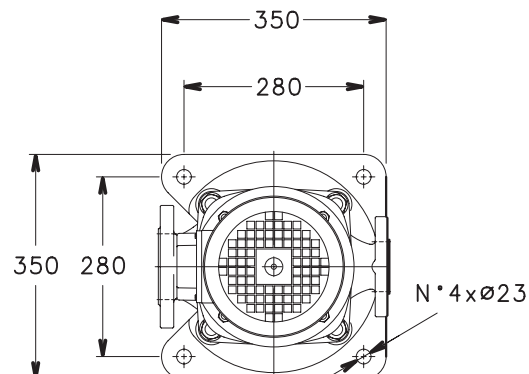
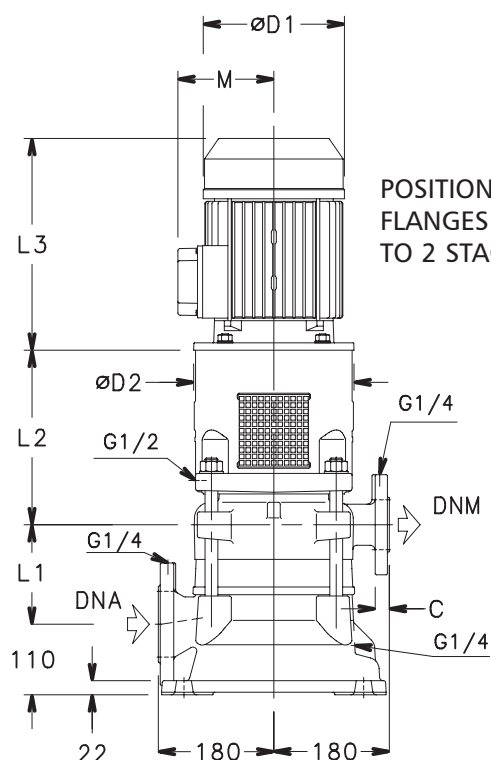
DN	PN	D	M	G	Z	F	C
DNM 40	10/16	156	110	84	4	19	22
	25/40	156	110	84	4	19	22
	63	178	125	84	4	23	28
DNA 65	10/16	191	145	118	4	19	24
	25(*)	191	145	118	8	19	24
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES



TDB35 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC
TDB35 01/1C	3	100L	100	272	307	176	250	121	10	40	SA	91	109
TDB35 01/1B	4	112R	100	272	307	193	250	133	10	40	SA	91	113
TDB35 01/1A	5.5	132R	100	292	374	220	300	151	10	40	SA	93	128
TDB35 02/2B	7.5	132R	155	292	374	220	300	151	10	40	SA	104	145
TDB35 02/1A1B	11	160R	155	322	427	257	350	194	10	40	SA	111	178
TDB35 02/2A	11	160R	155	322	427	257	350	194	10	40	SA	111	178
TDB35 03/3B	11	160R	210	322	427	257	350	194	10	40	SA	122	189
TDB35 03/1A2B	15	160M	210	322	488	310	350	244	10	40	SA	122	219
TDB35 03/2A1B	15	160M	210	322	488	310	350	244	10	40	SA	122	219
TDB35 03/3A	18.5	160L	210	322	532	310	350	244	10	40	SA	122	237
TDB35 04/1A3B	18.5	160L	265	322	532	310	350	244	10	40	SA	132	247
TDB35 04/2A2B	18.5	160L	265	322	532	310	350	244	10	40	SA	132	247
TDB35 04/3A1B	22	180R	265	322	532	310	350	244	10	40	SA	132	252
TDB35 04/4A	22	180R	265	322	532	310	350	244	10	40	SA	132	252
TDB35 05/2A3B	22	180R	320	322	532	310	350	244	10	40	SB	143	263
TDB35 05/3A2B	30	200La	320	322	613	354	400	278	10	40	SB	145	277
TDB35 05/4A1B	30	200La	320	322	613	354	400	278	10	40	SB	145	277
TDB35 05/5A	30	200La	320	322	613	354	400	278	10	40	SB	145	277
TDB35 06/3A3B	30	200La	375	322	613	354	400	278	10	40	SB	155	287
TDB35 06/4A2B	30	200La	375	322	613	354	400	278	10	40	SB	155	287
TDB35 06/5A1B	30	200La	375	322	613	354	400	278	10	40	SB	155	287
TDB35 06/6A	37	200Lb	375	322	613	354	400	278	10	40	SB	155	297
TDB35 07/4A3B	37	200Lb	430	322	613	354	400	278	10	40	SB	166	308
TDB35 07/5A2B	37	200Lb	430	322	613	354	400	278	10	40	SB	166	308
TDB35 07/6A1B	37	200Lb	430	322	613	354	400	278	10	40	SB	166	308
TDB35 07/7A	37	200Lb	430	322	613	354	400	278	10	40	SB	166	308
TDB35 08/5A3B	37	200Lb	485	322	613	354	400	278	10	40	SB	176	308
TDB35 08/6A2B	37	200Lb	485	322	613	354	400	278	10	40	SB	176	308
TDB35 08/7A1B	45	225M	485	322	710	411	450	298	10	40	SB	181	399
TDB35 08/8A	45	225M	485	322	710	411	450	298	10	40	SB	181	399
TDB35 09/6A3B	45	225M	540	322	710	411	450	298	10	40	SB	191	409
TDB35 09/7A2B	45	225M	540	322	710	411	450	298	10	40	SB	191	409
TDB35 09/8A1B	45	225M	540	322	710	411	450	298	10	40	SB	191	409
TDB35 09/9A	55	250M	540	352	690	411	550	398	10	40	SB	226	451
TDB35 10/7A3B	55	250M	595	352	690	411	550	298	10	40/63	SB	237	462
TDB35 10/8A2B	55	250M	595	352	690	411	550	298	10	40/63	SB	237	462
TDB35 10/9A1B	55	250M	595	352	690	411	550	298	10	40/63	SB	237	462
TDB35 10/10A	55	250M	595	352	690	411	550	298	10	40/63	SB	237	462
TDB35 11/8A3B	55	250M	650	352	690	411	550	298	10	63	SB	247	472
TDB35 11/9A2B	55	250M	650	352	690	411	550	298	10	63	SB	247	472
TDB35 11/10A1B	55	250M	650	352	690	411	550	298	10	63	SB	247	472
TDB35 11/11A	75	280S	650	352	819	490	550	360	10	63	SB	247	582
TDB35 12/9A3B	55	250M	705	352	690	411	550	298	10	63	SB	258	483
TDB35 12/10A2B	75	280S	705	352	819	490	550	360	10	63	SB	258	593
TDB35 12/11A1B	75	280S	705	352	819	490	550	360	10	63	SB	258	593
TDB35 12/12A	75	280S	705	352	819	490	550	360	10	63	SB	258	593

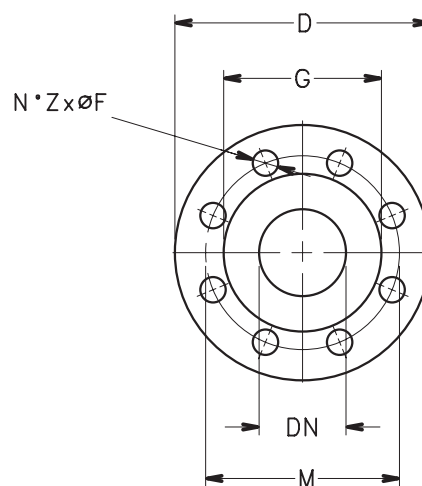
Weights refer to Version F (Cast iron)

tdb35-2p50_b_tdt

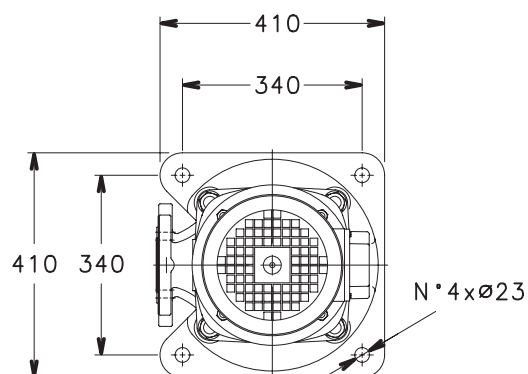
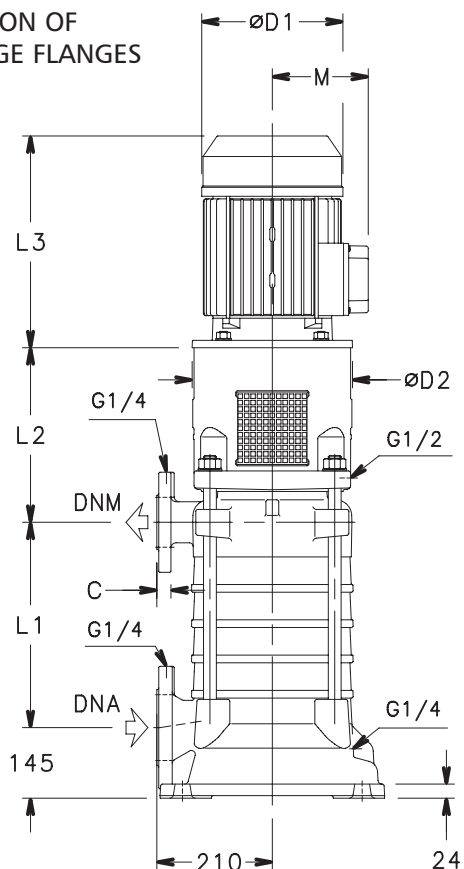
TDB58 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP FLANGES

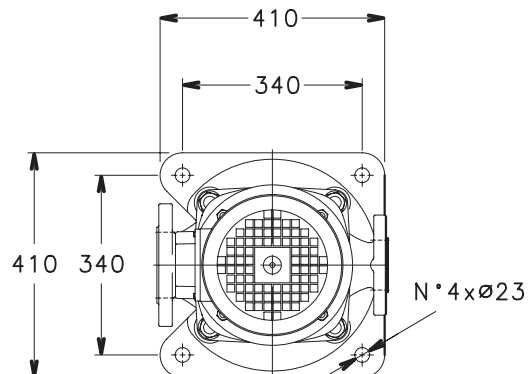
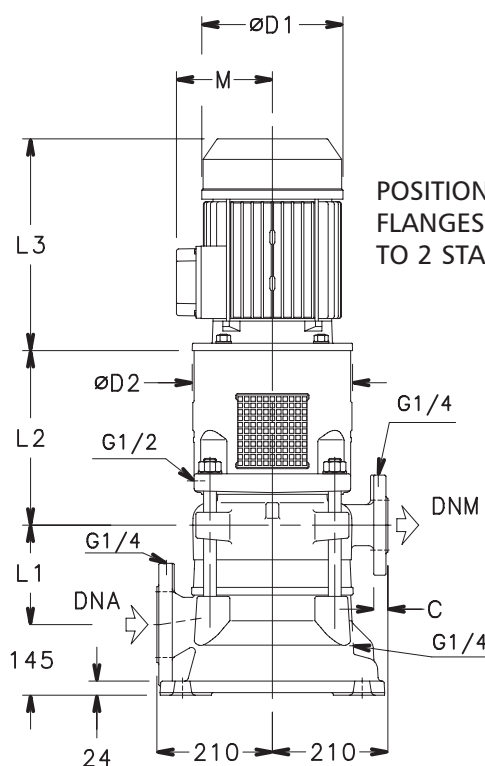
DN	PN	D	M	G	Z	F	C
DNM 65	10/16	191	145	118	4	19	24
	25/40	191	145	118	8	19	24
	63	205	160	118	8	23	28
DNA 100	10/16	235	180	156	8	19	27
	25(*)	235	190	156	8	23	27
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES



TDB58 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	TIPE	PUMP	ELECTRIC
TDB58 01/1C	7,5	132R	125	311	374	220	300	151	10	16	SA	133	174
TDB58 01/1B	7,5	132R	125	311	374	220	300	151	10	16	SA	133	174
TDB58 01/1A	11	160R	125	341	427	257	350	194	10	16	SA	143	210
TDB58 02/2C	15	160M	195	341	488	310	350	244	10	16	SA	160	257
TDB58 02/1B1C	15	160M	195	341	488	310	350	244	10	16	SA	160	257
TDB58 02/2B	18,5	160L	195	341	532	310	350	244	10	16	SA	160	275
TDB58 02/1A1B	18,5	160L	195	341	532	310	350	244	10	16	SA	160	275
TDB58 02/2A	22	180R	195	341	532	310	350	244	10	16	SA	160	280
TDB58 03/2B1C	22	180R	265	341	532	310	350	244	10	16	SA	176	296
TDB58 03/3B	30	200La	265	341	613	354	400	278	10	16/40	SA/SB	179	311
TDB58 03/1A2B	30	200La	265	341	613	354	400	278	10	16/40	SA/SB	179	311
TDB58 03/2A1B	30	200La	265	341	613	354	400	278	10	16/40	SA/SB	179	311
TDB58 03/3A	37	200Lb	265	341	613	354	400	278	10	16/40	SA/SB	179	321
TDB58 04/4B	30	200La	335	341	613	354	400	278	10	40	SB	196	328
TDB58 04/1A3B	37	200Lb	335	341	613	354	400	278	10	40	SB	196	338
TDB58 04/2A2B	37	200Lb	335	341	613	354	400	278	10	40	SB	196	338
TDB58 04/3A1B	45	225M	335	341	710	411	450	298	10	40	SB	201	419
TDB58 04/4A	45	225M	335	341	710	411	450	298	10	40	SB	201	419
TDB58 05/1A4B	45	225M	405	341	710	411	450	298	10	40	SB	217	435
TDB58 05/2A3B	45	225M	405	341	710	411	450	298	10	40	SB	217	435
TDB58 05/3A2B	55	250M	405	371	690	411	550	298	10	40	SB	227	452
TDB58 05/4A1B	55	250M	405	371	690	411	550	298	10	40	SB	227	452
TDB58 05/5A	55	250M	405	371	690	411	550	298	10	40	SB	227	452
TDB58 06/2A4B	55	250M	475	371	690	411	550	298	10	40	SB	244	469
TDB58 06/3A3B	55	250M	475	371	690	411	550	298	10	40	SB	244	469
TDB58 06/4A2B	75	280S	475	371	819	490	550	360	10	40	SB	244	579
TDB58 06/5A1B	75	280S	475	371	819	490	550	360	10	40	SB	244	579
TDB58 06/6A	75	280S	475	371	819	490	550	360	10	40	SB	244	579
TDB58 07/3A4B	75	280S	545	371	819	490	550	360	10	40	SB	260	595
TDB58 07/4A3B	75	280S	545	371	819	490	550	360	10	40/63	SB	260	595
TDB58 07/5A2B	75	280S	545	371	819	490	550	360	10	40/63	SB	260	595
TDB58 07/6A1B	75	280S	545	371	819	490	550	360	10	40/63	SB	260	595
TDB58 07/7A	75	280S	545	371	819	490	550	360	10	40/63	SB	260	595
TDB58 08/4A4B	75	280S	615	371	819	490	550	360	10	40/63	SB	277	612
TDB58 08/5A3B	90	280M	615	371	819	490	550	360	10	40/63	SB	277	655
TDB58 08/6A2B	90	280M	615	371	819	490	550	360	10	63	SB	277	655
TDB58 08/7A1B	90	280M	615	371	819	490	550	360	10	63	SB	277	655
TDB58 08/8A	90	280M	615	371	819	490	550	360	10	63	SB	277	655
TDB58 09/5A4B	90	280M	685	371	819	490	550	360	10	63	SB	293	655
TDB58 09/6A3B	90	280M	685	371	819	490	550	360	10	63	SB	293	655
TDB58 09/7A2B	90	280M	685	371	819	490	550	360	10	63	SB	293	655

Weights refer to Version F (Cast iron)

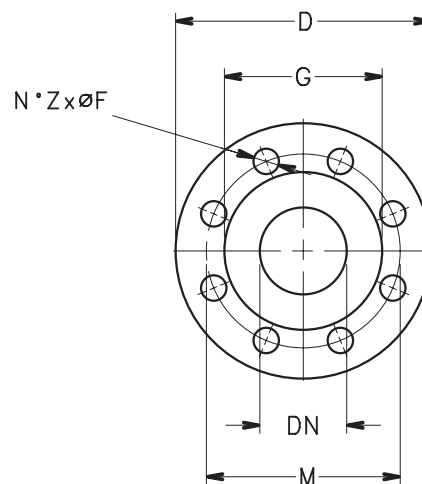
tdb58-2p50_a_td

TDB78 SERIES

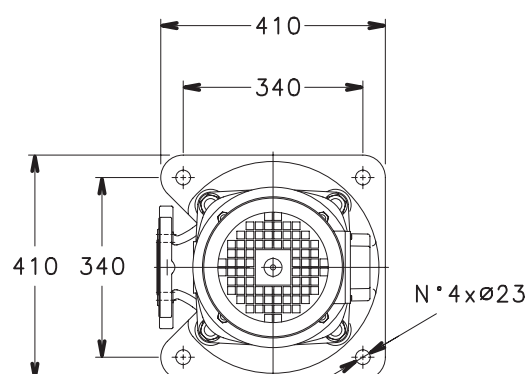
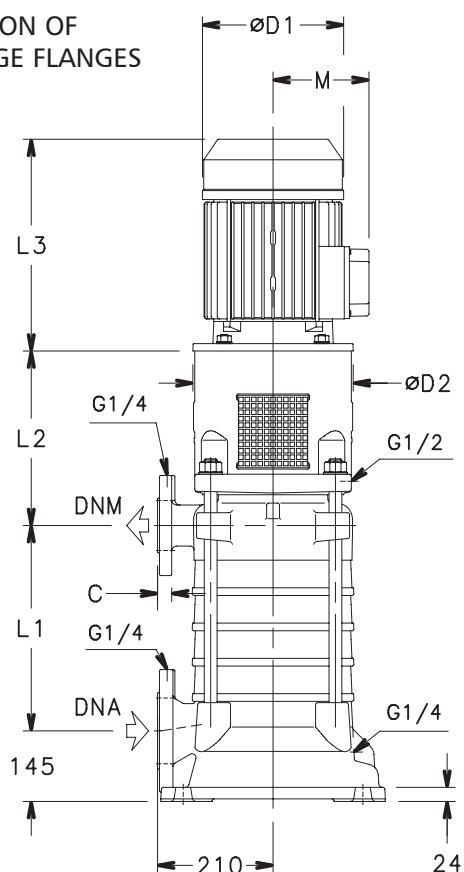
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP FLANGES

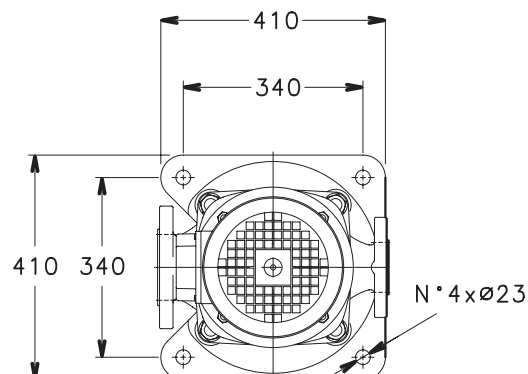
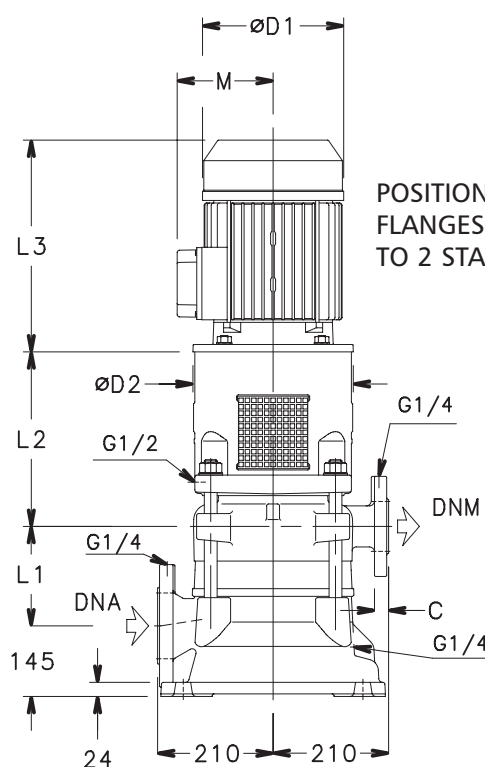
DN	PN	D	M	G	Z	F	C
DNM 65	10/16	191	145	118	4	19	24
	25/40	191	145	118	8	19	24
	63	205	160	118	8	23	28
DNA 100	10/16	235	180	156	8	19	27
	25 (*)	235	190	156	8	23	27
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES





ITT

Lowara

TDB78 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC PUMP
TDB78 01/1C	7,5	132R	125	311	374	220	300	151	10	16	SA	133	174
TDB78 01/1B	11	160R	125	341	427	257	350	194	10	16	SA	143	210
TDB78 01/1A	15	160M	125	341	488	310	350	244	10	16	SA	143	240
TDB78 02/1B1C	18,5	160L	195	341	532	310	350	244	10	16	SA	160	275
TDB78 02/2B	22	180R	195	341	532	310	350	244	10	16	SA	160	280
TDB78 02/1A1B	30	200La	195	341	613	354	400	278	10	16	SA	163	295
TDB78 02/2A	37	200Lb	195	341	613	354	400	278	10	16	SA	163	305
TDB78 03/3B	37	200Lb	265	341	613	354	400	278	10	16/40	SA/SB	179	321
TDB78 03/1A2B	37	200Lb	265	341	613	354	400	278	10	16/40	SA/SB	179	321
TDB78 03/2A1B	45	225M	265	341	710	411	450	298	10	16/40	SA/SB	184	402
TDB78 03/3A	55	250M	265	371	690	411	550	298	10	40	SB	194	419
TDB78 04/1A3B	55	250M	335	371	690	411	550	298	10	40	SB	211	436
TDB78 04/2A2B	55	250M	335	371	690	411	550	298	10	40	SB	211	436
TDB78 04/3A1B	75	280S	335	371	819	490	550	360	10	40	SB	211	546
TDB78 04/4A	75	280S	335	371	819	490	550	360	10	40	SB	211	546
TDB78 05/2A3B	75	280S	405	371	819	490	550	360	10	40	SB	227	562
TDB78 05/3A2B	75	280S	405	371	819	490	550	360	10	40	SB	227	562
TDB78 05/4A1B	75	280S	405	371	819	490	550	360	10	40	SB	227	562
TDB78 05/5A	90	280M	405	371	819	490	550	360	10	40	SB	227	605
TDB78 06/3A3B	90	280M	475	371	819	490	550	360	10	40	SB	244	622
TDB78 06/4A2B	90	280M	475	371	819	490	550	360	10	40	SB	244	622
TDB78 06/5A1B	90	280M	475	371	819	490	550	360	10	40	SB	244	622

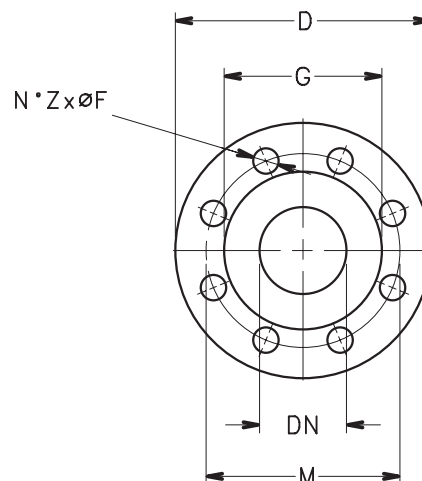
Weights refer to Version F (Cast iron)

tdb78-2p50_a_td

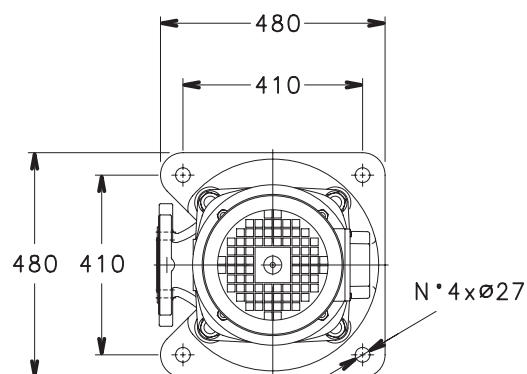
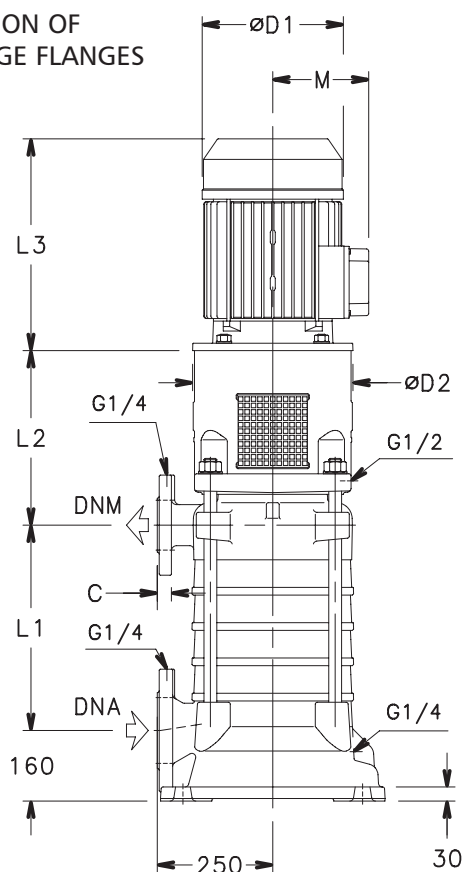
TDB-TDV120 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP FLANGES

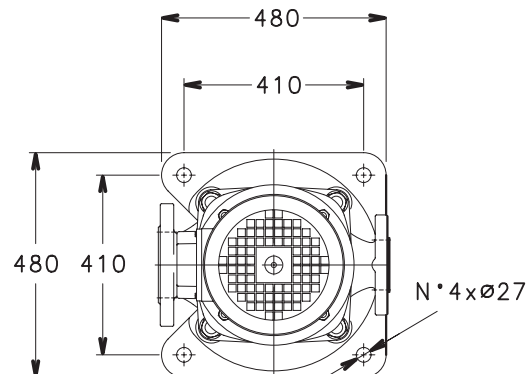
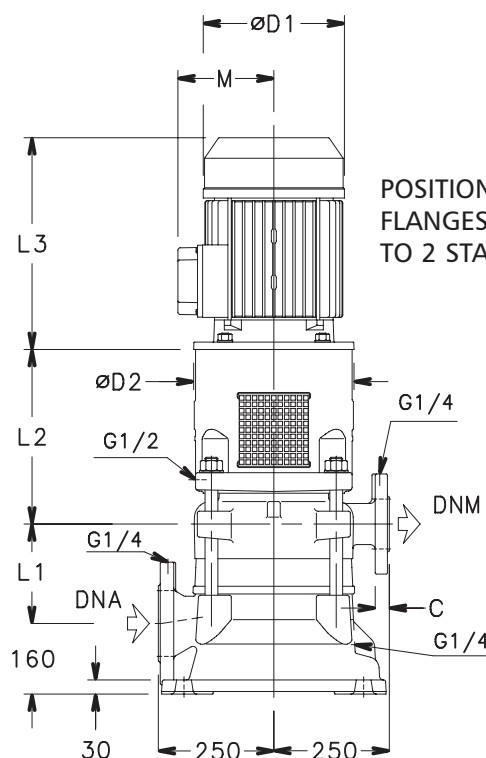
DN	PN	D	M	G	Z	F	C
DNM 100	10/16	235	180	156	8	19	27
	25/40	235	180	156	8	23	27
	63	273	200	156	8	28	32
DNA 125	10/16	279	210	184	8	19	29
	25(*)	279	220	184	8	28	29
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES



TDB-TDV120 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL Type	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC
TDB120 01/1C	22	180R	175	371	532	310	350	244	10	16	SA	270	390
TDB120 01/1B	30	200La	175	371	613	354	400	278	10	16	SA	271	403
TDB120 01/1A	37	200Lb	175	371	613	354	400	278	10	16	SA	271	413
TDB120 02/2C	45	225M	260	371	710	411	450	298	10	16	SA	304	522
TDB120 02/1B1C	55	250M	260	401	690	411	550	298	10	16/40	SA/SB	311	536
TDB120 02/2B	55	250M	260	401	690	411	550	298	10	16/40	SA/SB	311	536
TDB120 02/1A1B	75	280S	260	401	819	490	550	360	10	16/40	SA/SB	311	646
TDB120 02/2A	75	280S	260	401	819	490	550	360	10	40	SA/SB	311	646
TDB120 03/1B2C	75	280S	345	401	819	490	550	360	10	40	SB	343	678
TDB120 03/2B1C	75	280S	345	401	819	490	550	360	10	40	SB	343	678
TDB120 03/3B	90	280M	345	401	819	490	550	360	10	40	SB	343	721
TDB120 03/1A2B	90	280M	345	401	819	490	550	360	10	40	SB	343	721
TDV120 03/2A1B	110	315S	345	514	962	604	660	450	10	40	SB	394	1107
TDV120 03/3A	110	315S	345	514	962	604	660	450	10	40	SB	394	1107
TDV120 04/4B	110	315S	430	514	962	604	660	450	10	40	SB	426	1139
TDV120 04/1A3B	132	315Ma	430	514	962	604	660	450	10	40	SB	426	1139
TDV120 04/2A2B	132	315Ma	430	514	962	604	660	450	10	40	SB	426	1139
TDV120 04/3A1B	160	315Mc	430	514	962	604	660	450	10	40	SB	431	1211
TDV120 04/4A	160	315Mc	430	514	962	604	660	450	10	40	SB	431	1211
TDV120 05/1A4B	160	315Mc	515	514	962	604	660	450	10	40/63	SB	463	1243
TDV120 05/2A3B	160	315Mc	515	514	962	604	660	450	10	40/63	SB	463	1243
TDV120 05/3A2B	160	315Mc	515	514	962	604	660	450	10	40/63	SB	463	1243
TDV120 05/4A1B	200	315Md	515	514	962	604	660	485	10	63	SB	463	1303
TDV120 05/5A	200	315Md	515	514	962	604	660	485	10	63	SB	463	1303
TDV120 06/2A4B	200	315Md	600	514	962	604	660	485	10	63	SB	495	1335
TDV120 06/3A3B	200	315Md	600	514	962	604	660	485	10	63	SB	495	1335
TDV120 06/4A2B	200	315Md	600	514	962	604	660	485	10	63	SB	495	1335
TDV120 06/5A1B	200	315Md	600	514	962	604	660	485	10	63	SB	495	1335
TDV120 06/6A	200	315Md	600	514	962	604	660	485	10	63	SB	495	1335

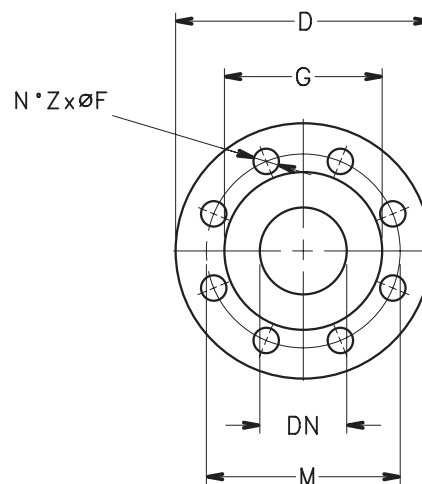
Weights refer to Version F (Cast iron)

tdb-tdv120-2p50_c_td

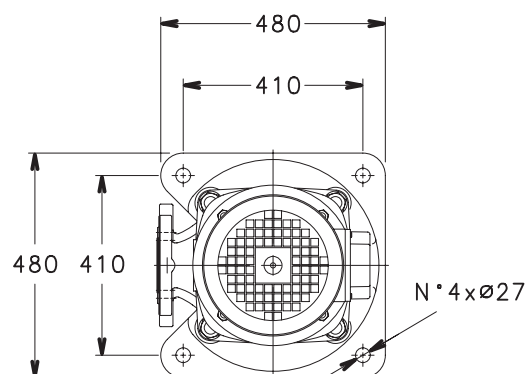
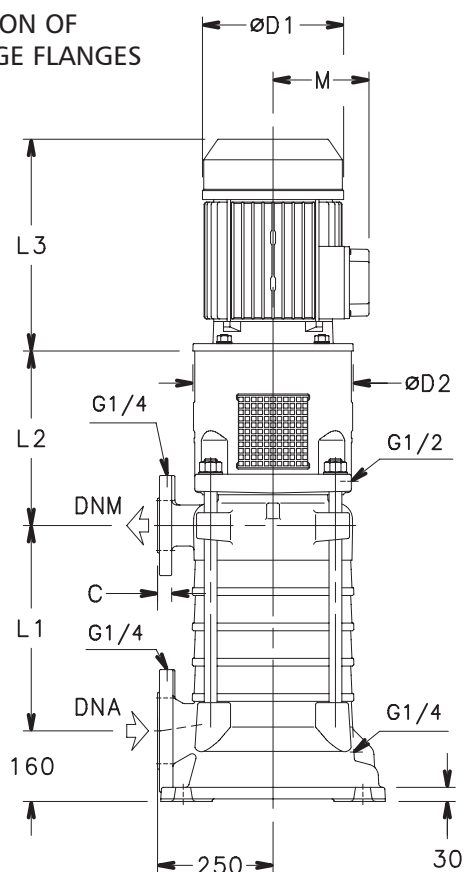
TDB-TDV170 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP FLANGES

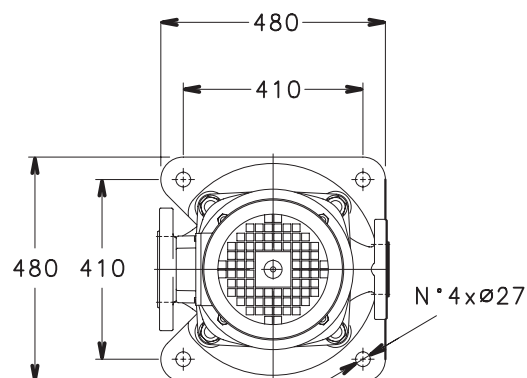
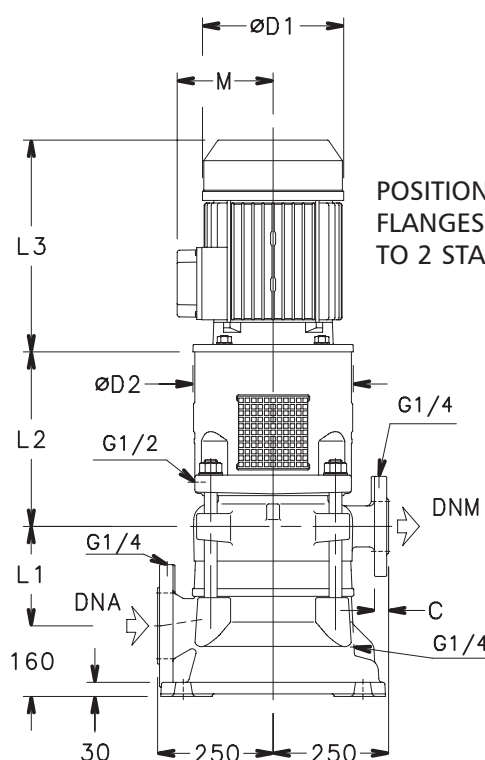
DN	PN	D	M	G	Z	F	C
DNM 100	10/16	235	180	156	8	19	27
	25/40	235	180	156	8	23	27
	63	273	200	156	8	28	32
DNA 125	10/16	279	210	184	8	19	29
	25(*)	279	220	184	8	28	29
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES





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TDB-TDV170 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL Type	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM		PUMP	ELECTRIC PUMP
TDB170 01/1C	30	200La	175	371	613	354	400	278	10	16	SA	271	403
TDB170 01/1B	37	200Lb	175	371	613	354	400	278	10	16	SA	271	413
TDB170 01/1A	45	225M	175	371	710	411	450	298	10	16	SA	272	490
TDB170 01/1A	55	250M	175	401	690	411	550	298	10	16	SA	279	504
TDB170 02/2C	55	250M	260	401	690	411	550	298	10	16/40	SA/SB	311	536
TDB170 02/1B1C	55	250M	260	401	690	411	550	298	10	16/40	SA/SB	311	536
TDB170 02/2B	75	280S	260	401	819	490	550	360	10	16/40	SA/SB	311	646
TDB170 02/1A1B	90	280M	260	401	819	490	550	360	10	16/40	SA/SB	311	689
TDV170 02/2A	110	315S	260	514	962	604	660	450	10	40	SA/SB	362	1075
TDV170 03/2B1C	110	315S	345	514	962	604	660	450	10	40	SB	394	1107
TDV170 03/3B	110	315S	345	514	962	604	660	450	10	40	SB	394	1107
TDV170 03/1A2B	110	315S	345	514	962	604	660	450	10	40	SB	394	1107
TDV170 03/2A1B	132	315Ma	345	514	962	604	660	450	10	40	SB	394	1107
TDV170 03/3A	160	315Mc	345	514	962	604	660	450	10	40	SB	399	1179
TDV170 04/1A3B	160	315Mc	430	514	962	604	660	450	10	40	SB	431	1211
TDV170 04/2A2B	160	315Mc	430	514	962	604	660	450	10	40	SB	431	1211
TDV170 04/3A1B	200	315Md	430	514	962	604	660	485	10	40	SB	431	1271
TDV170 04/4A	200	315Md	430	514	962	604	660	485	10	40/63	SB	431	1271
TDV170 05/2A3B	200	315Md	515	514	962	604	660	485	10	40/63	SB	463	1303
TDV170 05/3A2B	200	315Md	515	514	962	604	660	485	10	40/63	SB	463	1303

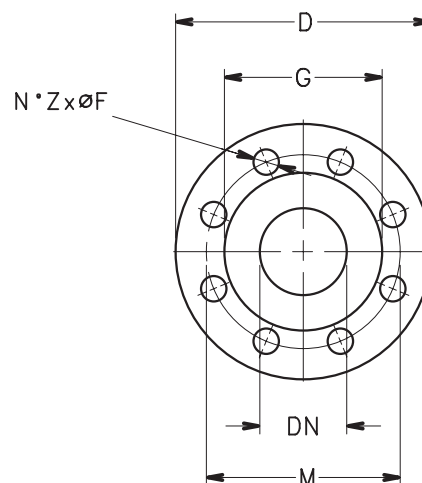
Weights refer to Version F (Cast iron)

tdb-tdv170-2p50_b_td

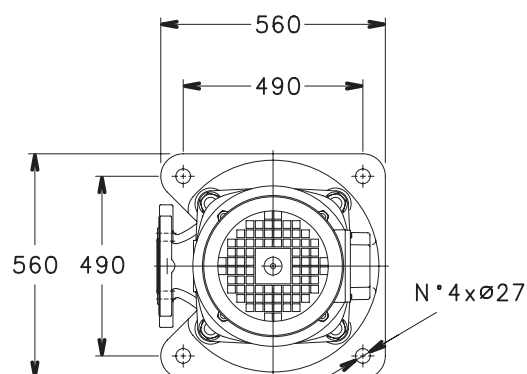
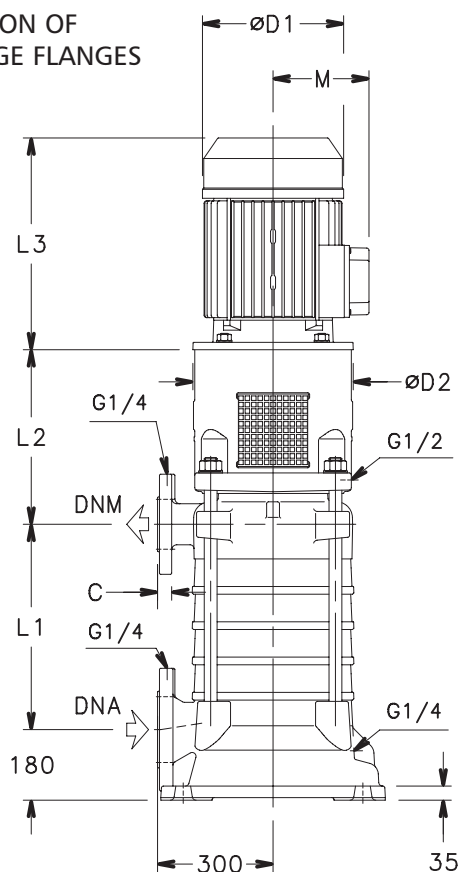
TDV220 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP FLANGES

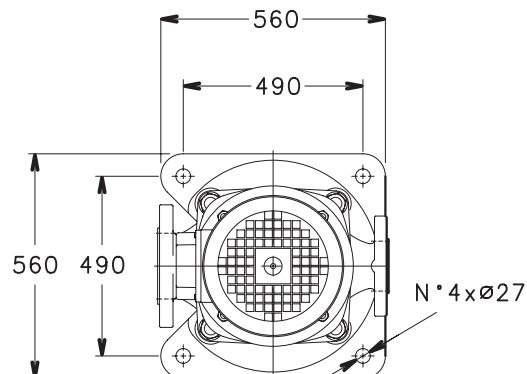
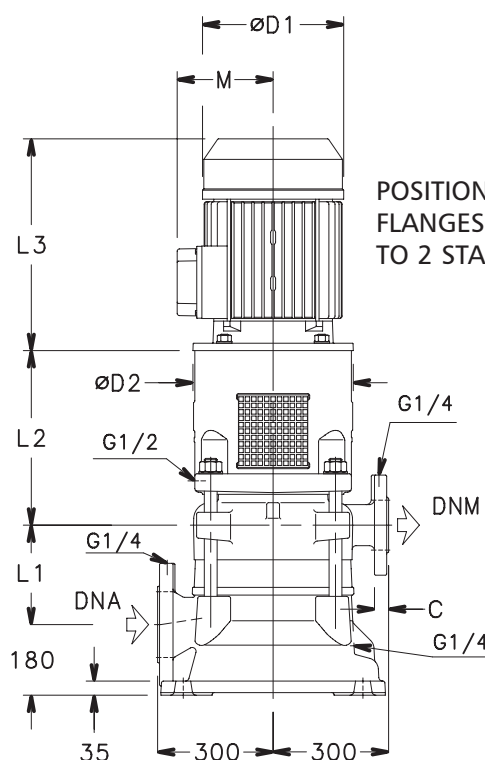
DN	PN	D	M	G	Z	F	C
DNM 125	10/16	279	210	184	8	19	29
	25/40	279	220	184	8	28	29
	63	330	240	184	8	31	35
DNA 150	10/16	300	240	211	8	23	32
	25(*)	300	250	211	8	28	32
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES





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TDV220 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL Type	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM		PUMP	ELECTRIC PUMP
TDV220 01/1D	45	225M	220	597	710	411	450	298	10	16	SA	471	689
TDV220 01/1C	55	250M	220	597	690	411	550	298	10	16	SA	479	704
TDV220 01/1B	75	280S	220	597	819	490	550	360	10	16	SA	481	816
TDV220 01/1A	90	280M	220	597	819	490	550	360	10	16/40	SA	481	859
TDV220 02/1C1D	90	280M	325	597	819	490	550	360	10	16/40	SA/SB	534	912
TDV220 02/2C	90	280M	325	597	819	490	550	360	10	16/40	SA/SB	534	912
TDV220 02/1B1C	110	315S	325	597	962	604	660	450	10	40	SA/SB	544	1257
TDV220 02/2B	132	315Ma	325	597	962	604	660	450	10	40	SA/SB	544	1257
TDV220 02/1A1B	160	315Mc	325	597	962	604	660	450	10	40	SB	549	1329
TDV220 02/2A	160	315Mc	325	597	962	604	660	450	10	40	SB	549	1329
TDV220 03/1B2C	160	315Mc	430	597	962	604	660	450	10	40	SB	602	1382
TDV220 03/2B1C	160	315Mc	430	597	962	604	660	450	10	40	SB	602	1382
TDV220 03/3B	200	315Md	430	597	962	604	660	485	10	40	SB	602	1442
TDV220 03/1A2B	200	315Md	430	597	962	604	660	485	10	40	SB	602	1442
TDV220 03/2A1B	250	355La	430	597	1335	770	800	607	10	40/63	SB	651	2271
TDV220 03/3A	250	355La	430	597	1335	770	800	607	10	40/63	SB	651	2271
TDV220 04/4B	250	355La	535	597	1335	770	800	607	10	40/63	SB	704	2324
TDV220 04/1A3B	250	355La	535	597	1335	770	800	607	10	63	SB	704	2324
TDV220 04/2A2B	315	355Lb	535	597	1335	770	800	607	10	63	SB	704	2514
TDV220 04/3A1B	315	355Lb	535	597	1335	770	800	607	10	63	SB	704	2514
TDV220 04/4A	315	355Lb	535	597	1335	770	800	607	10	63	SB	704	2514
TDV220 05/1A4B	355	355Lc	640	597	1335	770	800	607	10	63	SB	762	2792
TDV220 05/2A3B	355	355Lc	640	597	1335	770	800	607	10	63	SB	762	2792
TDV220 05/3A2B	355	355Lc	640	597	1335	770	800	607	10	63	SB	762	2792

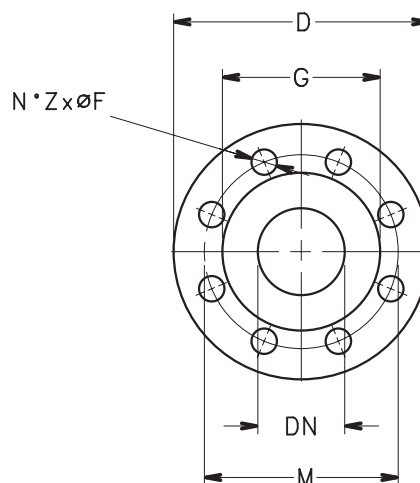
Weights refer to Version F (Cast iron)

tdv220-2p50_b_td

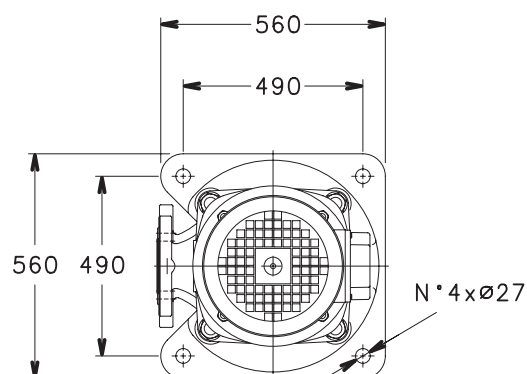
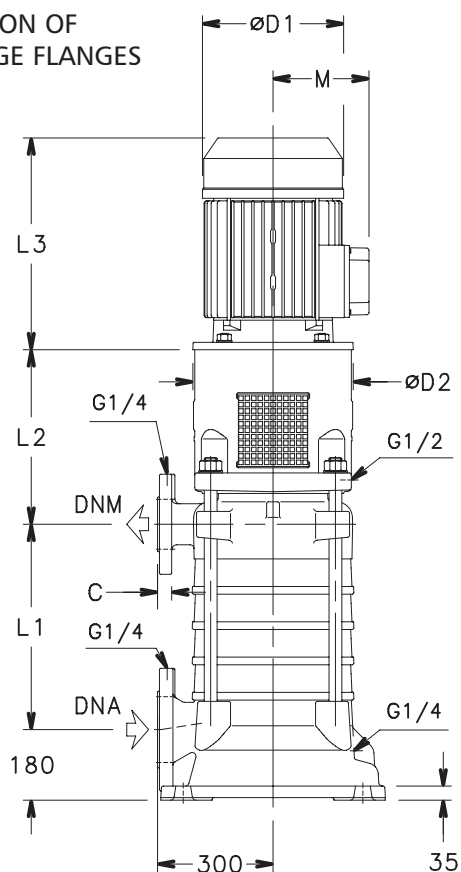
TDV280 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP FLANGES

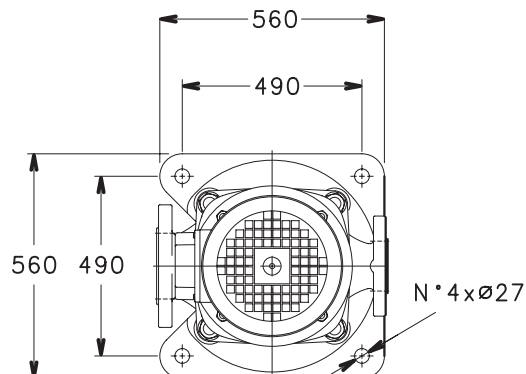
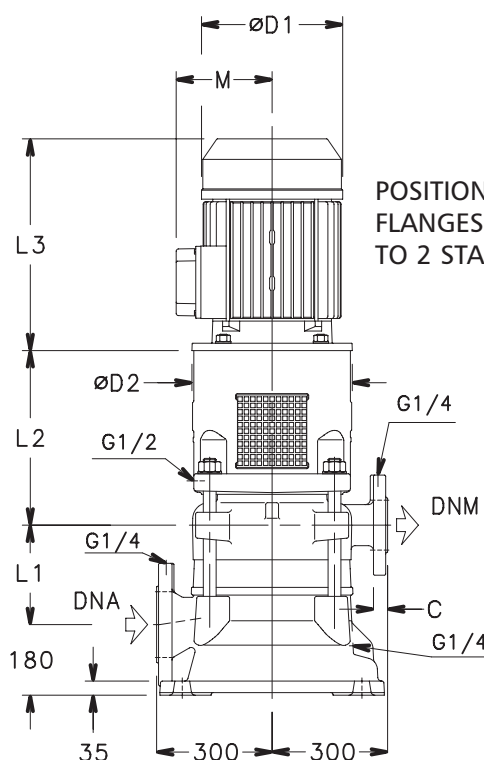
DN	PN	D	M	G	Z	F	C
DNM 125	10/16	279	210	184	8	19	29
	25/40	279	220	184	8	28	29
	63	330	240	184	8	31	35
DNA 150	10/16	300	240	211	8	23	32
	25(*)	300	250	211	8	28	32
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES





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TDV280 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL Type	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC PUMP
TDV280 01/1D	45	225M	220	597	710	411	450	298	10	16	SA	471	689
TDV280 01/1C	55	250M	220	597	690	411	550	298	10	16	SA	479	704
TDV280 01/1B	75	280S	220	597	819	490	550	360	10	16	SA	481	816
TDV280 01/1A	90	280M	220	597	819	490	550	360	10	16/40	SA	481	859
TDV280 02/1C1D	90	280M	325	597	819	490	550	360	10	16/40	SA/SB	534	912
TDV280 02/2C	110	315S	325	597	962	604	660	450	10	16/40	SA/SB	544	1257
TDV280 02/1B1C	110	315S	325	597	962	604	660	450	10	40	SA/SB	544	1257
TDV280 02/2B	132	315Ma	325	597	962	604	660	450	10	40	SA/SB	544	1257
TDV280 02/1A1B	160	315Mc	325	597	962	604	660	450	10	40	SB	549	1329
TDV280 02/2A	200	315Md	325	597	962	604	660	485	10	40	SB	549	1389
TDV280 03/2B1C	200	315Md	430	597	962	604	660	485	10	40	SB	602	1442
TDV280 03/3B	200	315Md	430	597	962	604	660	485	10	40	SB	602	1442
TDV280 03/1A2B	250	355La	430	597	1335	770	800	607	10	40	SB	651	2271
TDV280 03/2A1B	250	355La	430	597	1335	770	800	607	10	40	SB	651	2271
TDV280 03/3A	315	355Lb	430	597	1335	770	800	607	10	40/63	SB	651	2461
TDV280 04/4B	315	355Lb	535	597	1335	770	800	607	10	40/63	SB	704	2514
TDV280 04/1A3B	315	355Lb	535	597	1335	770	800	607	10	40/63	SB	704	2514
TDV280 04/2A2B	315	355Lb	535	597	1335	770	800	607	10	63	SB	704	2514
TDV280 04/3A1B	355	355Lc	535	597	1535	770	800	607	10	63	SB	709	2739
TDV280 04/4A	355	355Lc	535	597	1535	770	800	607	10	63	SB	709	2739
TDV280 05/1A4B	355	355Lc	640	597	1535	770	800	607	10	63	SB	762	2792
TDV280 05/2A3B	355	355Lc	640	597	1535	770	800	607	10	63	SB	762	2792

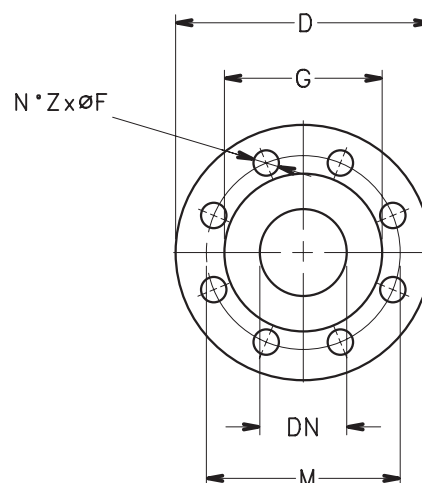
Weights refer to version F (Cast iron)

tdv280-2p50_a_td

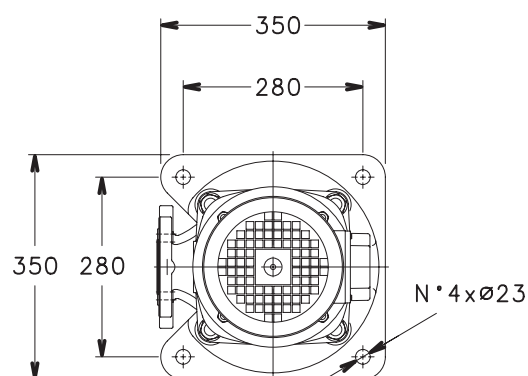
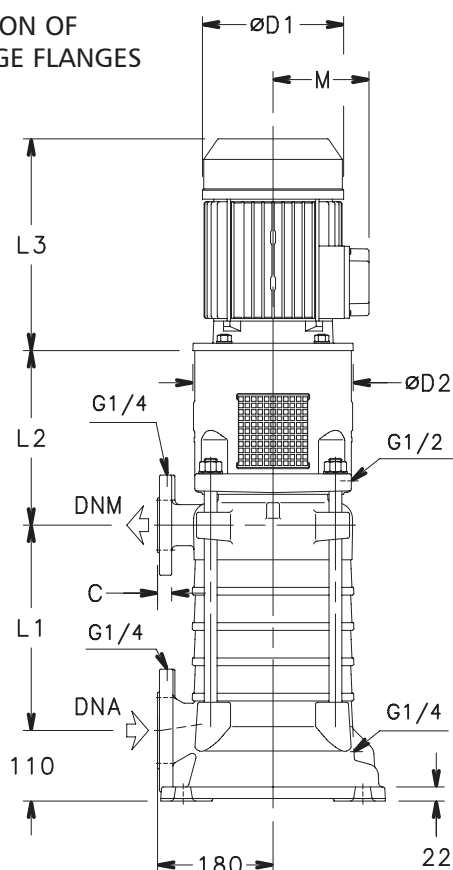
TDB22..4 - TDB35..4 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP FLANGES

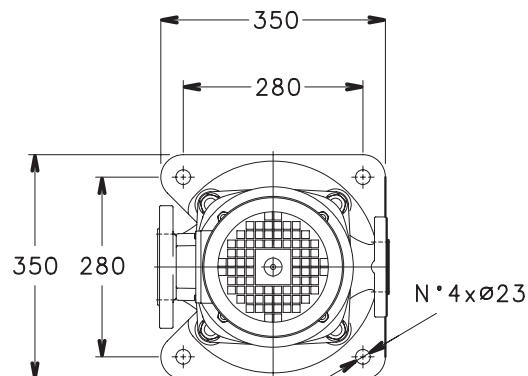
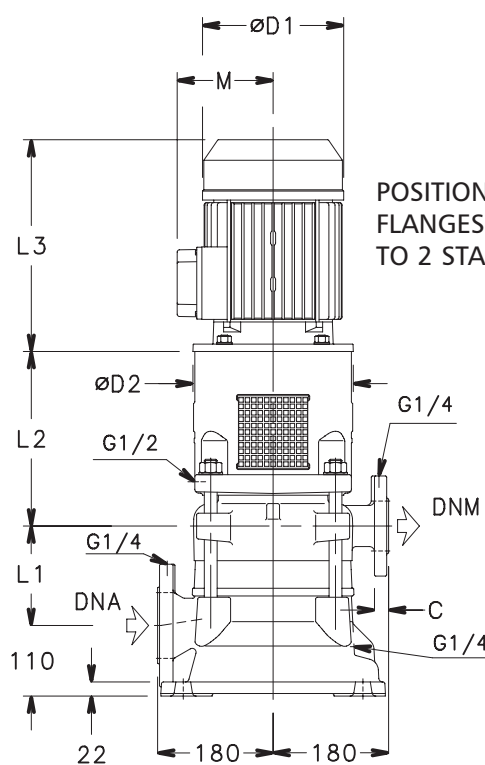
DN	PN	D	M	G	Z	F	C
DNM 40	10/16	156	110	84	4	19	22
	25/40	156	110	84	4	19	22
	63	178	125	84	4	23	28
DNA 65	10/16	191	145	118	4	19	24
	25(*)	191	145	118	8	19	24
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES



TDB22..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC
TDB22 01/1A..4	1,1	90La	100	262	281	176	200	121	10	40	SA	91	103
TDB22 02/2A..4	1,1	90La	155	262	281	176	200	121	10	40	SA	101	113
TDB22 03/3A..4	1,5	90Lb	210	262	281	176	200	121	10	40	SA	112	126
TDB22 04/4A..4	2,2	100La	265	272	307	193	250	133	10	40	SA	122	142
TDB22 05/5A..4	3	100Lb	320	272	307	193	250	133	10	40	SA	133	156
TDB22 06/6A..4	3	100Lb	375	272	307	193	250	133	10	40	SA	143	166
TDB22 07/7A..4	4	112M	430	272	330	220	250	151	10	40	SA	154	186
TDB22 08/8A..4	5,5	132S	485	292	366	257	300	194	10	40	SA	167	211
TDB22 09/9A..4	5,5	132S	540	292	366	257	300	194	10	40	SA	177	221
TDB22 10/10A..4	5,5	132S	595	292	366	257	300	194	10	40	SA	188	232
TDB22 11/11A..4	7,5	132M	650	292	404	257	300	194	10	40	SA	198	255
TDB22 12/12A..4	7,5	132M	705	292	404	257	300	194	10	40	SA	209	266
TDB22 13/13A..4	7,5	132M	760	292	404	257	300	194	10	40	SA	219	276
TDB22 14/14A..4	7,5	132M	815	292	404	257	300	194	10	40	SA	230	287
TDB22 15/15A..4	11	160M	870	322	538	314	350	258	10	40	SA	248	322
TDB22 16/16A..4	11	160M	925	322	538	314	350	258	10	40	SA	258	332
TDB22 17/17A..4	11	160M	980	322	538	314	350	258	10	40	SB	269	343
TDB22 18/18A..4	11	160M	1035	322	538	314	350	258	10	40	SB	279	353

Weights refer to Version F (Cast iron)

tdb22-4p50_a_td

TDB35..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC
TDB35 01/1A..4	1,1	90La	100	262	281	176	200	121	10	40	SA	91	103
TDB35 02/2A..4	1,5	90Lb	155	262	281	176	200	121	10	40	SA	101	115
TDB35 03/3A..4	2,2	100La	210	272	307	193	250	133	10	40	SA	112	132
TDB35 04/4A..4	3	100Lb	265	272	307	193	250	133	10	40	SA	122	145
TDB35 05/5A..4	4	112M	320	272	330	220	250	151	10	40	SA	133	165
TDB35 06/6A..4	4	112M	375	272	330	220	250	151	10	40	SA	143	175
TDB35 07/7A..4	5,5	132S	430	292	366	257	300	194	10	40	SA	156	200
TDB35 08/8A..4	5,5	132S	485	292	366	257	300	194	10	40	SA	167	211
TDB35 09/9A..4	7,5	132M	540	292	404	257	300	194	10	40	SA	177	234
TDB35 10/10A..4	7,5	132M	595	292	404	257	300	194	10	40	SA	188	245
TDB35 11/11A..4	7,5	132M	650	292	404	257	300	194	10	40	SA	198	255
TDB35 12/12A..4	11	160M	705	322	538	314	350	258	10	40	SA	216	290
TDB35 13/13A..4	11	160M	760	322	538	314	350	258	10	40	SA	227	301
TDB35 14/14A..4	11	160M	815	322	538	314	350	258	10	40	SA	237	311
TDB35 15/15A..4	11	160M	870	322	538	314	350	258	10	40	SA	248	322
TDB35 16/16A..4	11	160M	925	322	538	314	350	258	10	40	SA	258	332
TDB35 17/17A..4	15	160M	980	322	538	314	350	258	10	40	SB	269	357
TDB35 18/18A..4	15	160M	1035	322	538	314	350	258	10	40	SB	279	367

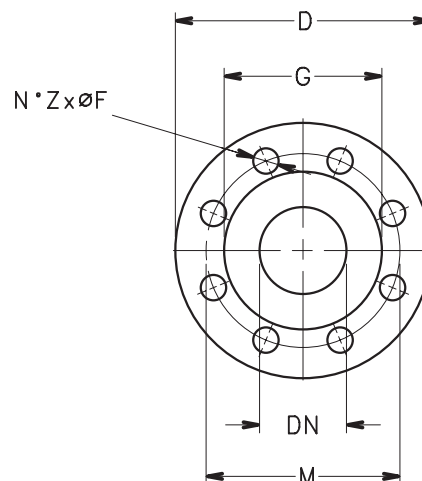
Weights refer to Version F (Cast iron)

tdb35-4p50_a_td

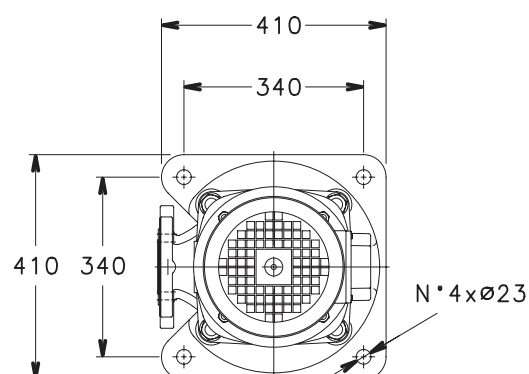
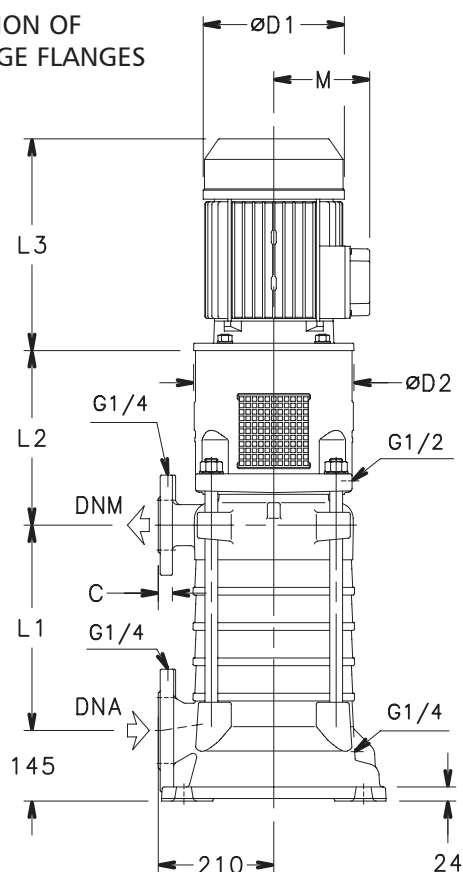
TDB58..4 - TDB78..4 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP FLANGES

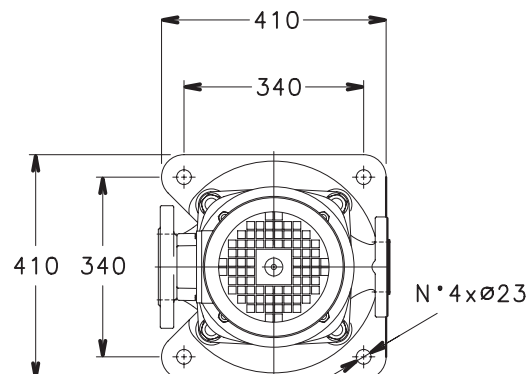
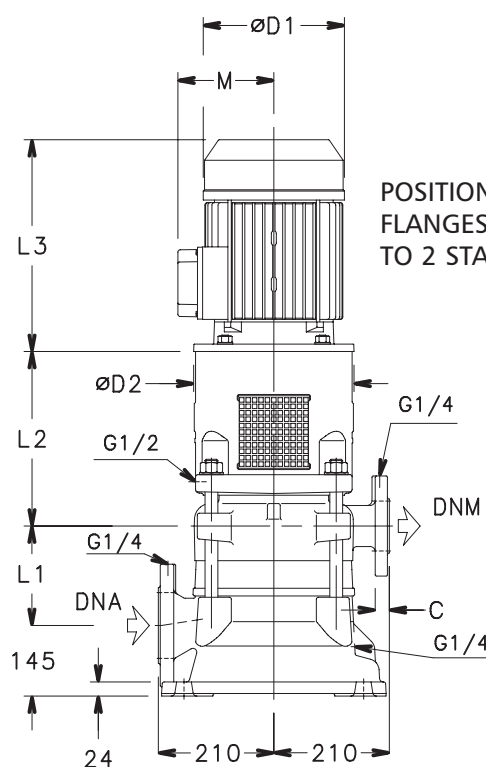
DN	PN	D	M	G	Z	F	C
DNM 65	10/16	191	145	118	4	19	24
	25/40	191	145	118	8	19	24
	63	205	160	118	8	23	28
DNA 100	10/16	235	180	156	8	19	27
	25(*)	235	190	156	8	23	27
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES



TDB58..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL Type	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC
TDB58 01/1A..4	2,2	100La	125	291	307	193	250	133	10	16	SA	130	150
TDB58 02/2A..4	3	100Lb	195	291	307	193	250	133	10	16	SA	147	170
TDB58 03/3A..4	4	112M	265	291	330	220	250	151	10	16	SA	163	195
TDB58 04/4A..4	5,5	132S	335	311	366	257	300	194	10	16	SA	183	227
TDB58 05/5A..4	7,5	132M	405	311	404	257	300	194	10	16	SA	199	256
TDB58 06/6A..4	11	160M	475	341	538	314	350	258	10	16	SA	226	300
TDB58 07/7A..4	11	160M	545	341	538	314	350	258	10	16	SA	242	316
TDB58 08/8A..4	11	160M	615	341	538	314	350	258	10	16	SA	259	333
TDB58 09/9A..4	15	160L	685	341	538	314	350	258	10	16	SA	275	363
TDB58 10/10A..4	15	160L	755	341	538	314	350	258	10	16	SA	292	380
TDB58 11/11A..4	15	160L	825	341	538	314	350	258	10	16	SA	308	396
TDB58 12/12A..4	18,5	180M	895	341	538	314	350	258	10	40	SB	325	425
TDB58 13/13A..4	18,5	180M	965	341	538	314	350	258	10	40	SB	341	441
TDB58 14/14A..4	22	180L	1035	341	613	354	350	278	10	40	SB	358	480

Weights refer to Version F (Cast iron)

tdb58-4p50_a_td

TDB78..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL Type	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC
TDB78 01/1A..4	2,2	100La	125	291	307	193	250	133	10	16	SA	130	150
TDB78 02/2A..4	4	112M	195	291	330	220	250	151	10	16	SA	147	179
TDB78 03/3A..4	7,5	132M	265	311	404	257	300	194	10	16	SA	166	223
TDB78 04/4A..4	11	160M	335	341	538	314	350	258	10	16	SA	193	267
TDB78 05/5A..4	11	160M	405	341	538	314	350	258	10	16	SA	209	283
TDB78 06/6A..4	15	160L	475	341	538	314	350	258	10	16	SA	226	314
TDB78 07/7A..4	15	160L	545	341	538	314	350	258	10	16	SA	242	330
TDB78 08/8A..4	18,5	180M	615	341	538	314	350	258	10	16	SA	259	359
TDB78 09/9A..4	18,5	180M	685	341	538	314	350	258	10	16	SA	275	375
TDB78 10/10A..4	22	180L	755	341	613	354	350	278	10	16	SA	292	414
TDB78 11/11A..4	22	180L	825	341	613	354	350	278	10	40	SB	308	430
TDB78 12/12A..4	30	200L	895	341	613	354	400	278	10	40	SB	328	474
TDB78 13/13A..4	30	200L	965	341	613	354	400	278	10	40	SB	344	490
TDB78 14/14A..4	30	200L	1035	341	613	354	400	278	10	40	SB	361	507

Weights refer to Version F (Cast iron)

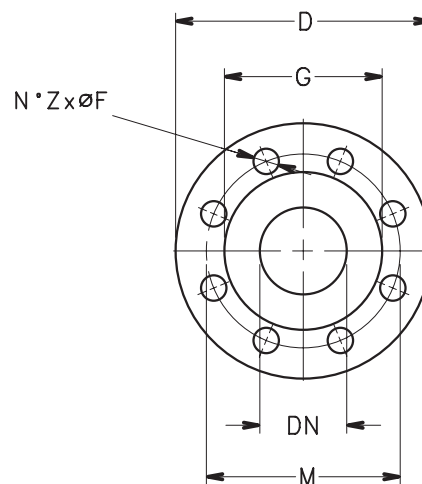
tdb78-4p50_a_td

TDB120..4 - TDB-TDV170..4 SERIES

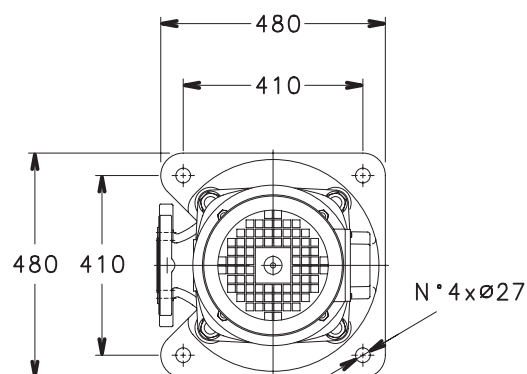
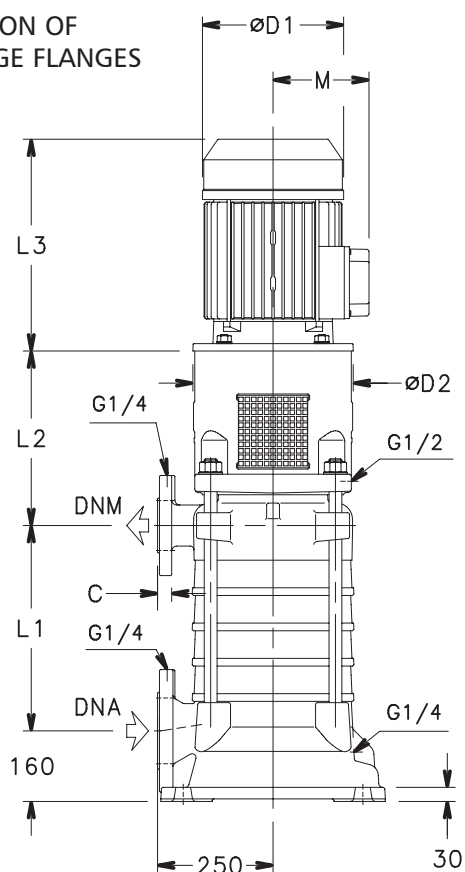
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP FLANGES

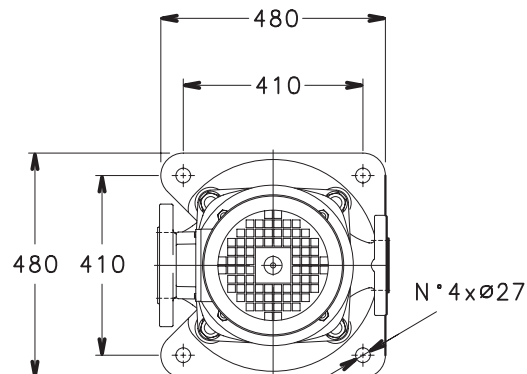
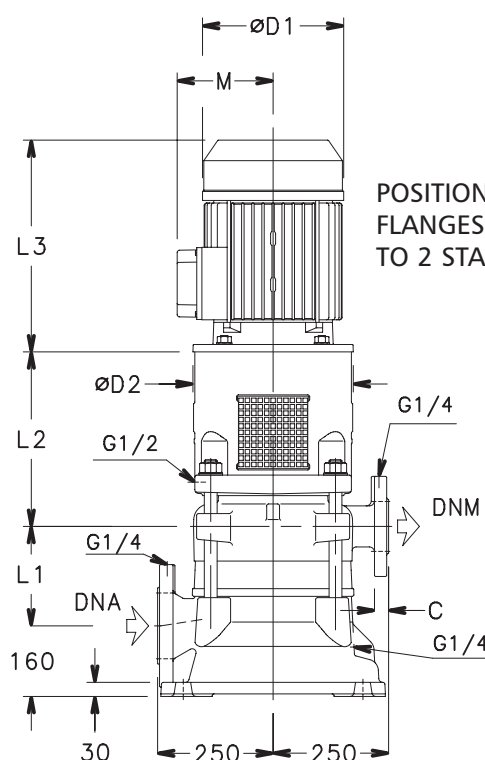
DN	PN	D	M	G	Z	F	C
DNM 100	10/16	235	180	156	8	19	27
	25/40	235	180	156	8	23	27
	63	273	200	156	8	28	32
DNA 125	10/16	279	210	184	8	19	29
	25(*)	279	220	184	8	28	29
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES



TDB120..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC PUMP
TDB120 01/1C..4	11	160M	175	371	538	314	350	258	10	16	SA	270	344
TDB120 01/1B..4	11	160M	175	371	538	314	350	258	10	16	SA	270	344
TDB120 01/1A..4	11	160M	175	371	538	314	350	258	10	16	SA	270	344
TDB120 02/2B..4	11	160M	260	371	538	314	350	258	10	16	SA	302	376
TDB120 02/2A..4	11	160M	260	371	538	314	350	258	10	16	SA	302	376
TDB120 03/1A2B..4	15	160L	345	371	538	314	350	258	10	16	SA	334	422
TDB120 03/3A..4	15	160L	345	371	538	314	350	258	10	16	SA	334	422
TDB120 04/2A2B..4	18.5	180M	430	371	538	314	350	258	10	16	SA	366	466
TDB120 04/4A..4	18.5	180M	430	371	538	314	350	258	10	16	SA	366	466
TDB120 05/3A2B..4	22	180L	515	371	613	354	350	278	10	16	SA	398	520
TDB120 05/5A..4	22	180L	515	371	613	354	350	278	10	16	SA	398	520
TDB120 06/4A2B..4	30	200L	600	371	613	354	400	278	10	16	SA	431	552
TDB120 06/6A..4	30	200L	600	371	613	354	400	278	10	16	SA	431	577
TDB120 07/5A2B..4	30	200L	685	371	613	354	400	278	10	16	SA	463	609
TDB120 07/7A..4	37	225S	685	401	690	411	450	298	10	16	SA	468	675
TDB120 08/6A2B..4	37	225S	770	401	690	411	450	298	10	40	SB	500	707
TDB120 08/8A..4	37	225S	770	401	690	411	450	298	10	40	SB	500	707
TDB120 09/7A2B..4	45	225M	855	401	690	411	450	298	10	40	SB	532	762
TDB120 09/9A..4	45	225M	855	401	690	411	450	298	10	40	SB	532	762
TDB120 10/8A2B..4	45	225M	940	401	690	411	450	298	10	40	SB	564	794
TDB120 10/10A..4	45	225M	940	401	690	411	450	298	10	40	SB	564	794

Weights refer to Version F (Cast iron)

tdb120-4p50_b_td

TDB-TDV170..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC PUMP
TDB170 01/1C..4	11	160M	175	371	538	314	350	258	10	16	SA	270	344
TDB170 01/1B..4	11	160M	175	371	538	314	350	258	10	16	SA	270	344
TDB170 01/1A..4	11	160M	175	371	538	314	350	258	10	16	SA	270	344
TDB170 02/2B..4	11	160M	260	371	538	314	350	258	10	16	SA	302	376
TDB170 02/2A..4	11	160M	260	371	538	314	350	258	10	16	SA	302	376
TDB170 03/1A2B..4	15	160L	345	371	538	314	350	258	10	16	SA	334	422
TDB170 03/3A..4	18,5	180M	345	371	538	314	350	258	10	16	SA	334	434
TDB170 04/2A2B..4	22	180L	430	371	613	354	350	278	10	16	SA	366	488
TDB170 04/4A..4	30	200L	430	371	613	354	400	278	10	16	SA	367	513
TDB170 05/3A2B..4	30	200L	515	371	613	354	400	278	10	16	SA	399	545
TDB170 05/5A..4	30	200L	515	371	613	354	400	278	10	16	SA	399	545
TDB170 06/4A2B..4	37	225S	600	401	690	411	450	298	10	16	SA	436	643
TDB170 06/6A..4	37	225S	600	401	690	411	450	298	10	16	SA	436	643
TDB170 07/5A2B..4	37	225S	685	401	690	411	450	298	10	16	SA	468	675
TDB170 07/7A..4	45	225M	685	401	690	411	450	298	10	40	SB	468	698
TDB170 08/6A2B..4	45	225M	770	401	690	411	450	298	10	40	SB	500	730
TDB170 08/8A..4	55	250M	770	401	690	411	550	298	10	40	SB	503	767
TDB170 09/7A2B..4	55	250M	855	401	690	411	550	298	10	40	SB	535	799
TDB170 09/9A..4	55	250M	855	401	690	411	550	298	10	40	SB	535	799
TDB170 10/8A2B..4	55	250M	940	401	690	411	550	298	10	40	SB	567	831
TDV170 10/10A..4	75	280S	940	514	819	490	550	360	10	40	SB	611	973

Weights refer to Version F (Cast iron)

tdb-tdv170-4p50_a_td



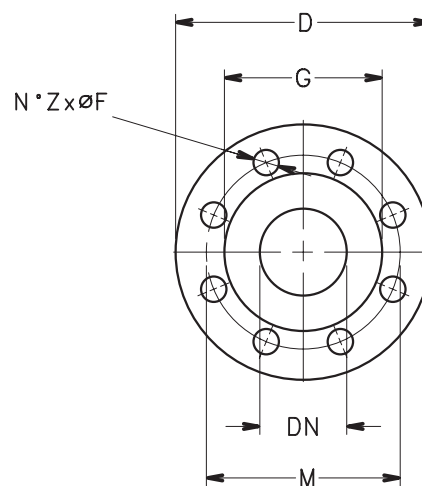
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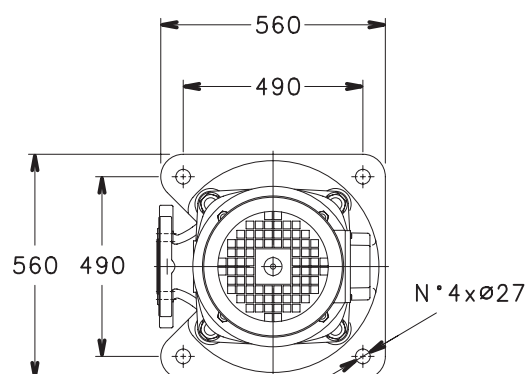
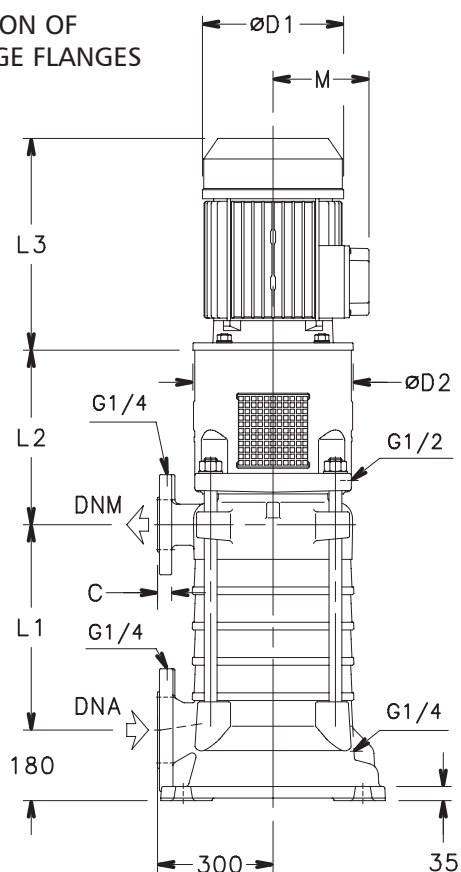
TDV220..4, TDV280..4 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP FLANGES

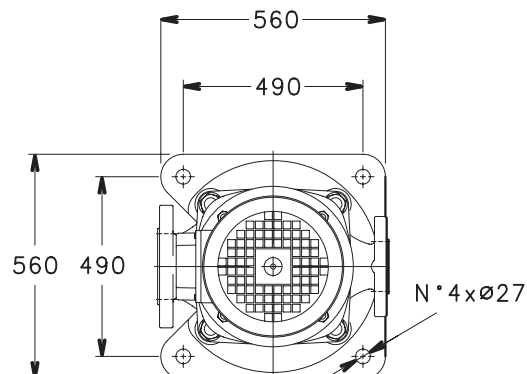
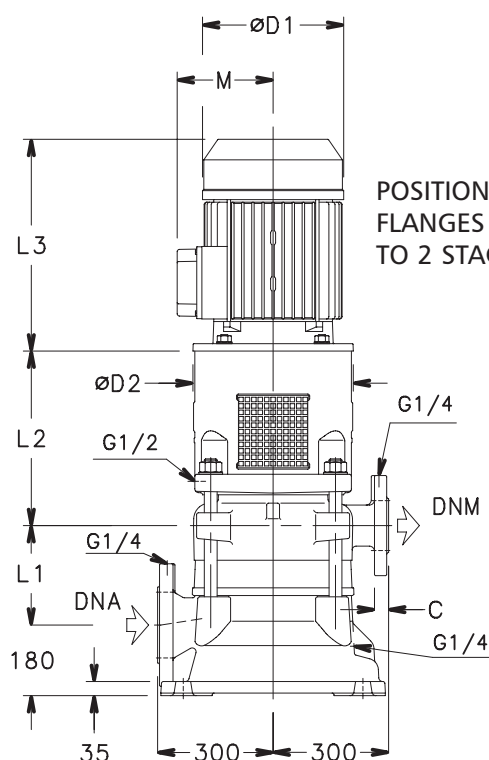
DN	PN	D	M	G	Z	F	C
DNM 125	10/16	279	210	184	8	19	29
	25/40	279	220	184	8	28	29
	63	330	240	184	8	31	35
DNA 150	10/16	300	240	211	8	23	32
	25(*)	300	250	211	8	28	32
	ON REQUEST						



POSITION OF 3-STAGE FLANGES



POSITION OF FLANGES UP TO 2 STAGES



05405_A_DD

TDV220..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC PUMP
TDV220 01/1C..4	11	160M	220	567	538	314	350	258	10	16	SA	461	535
TDV220 01/1B..4	11	160M	220	567	538	314	350	258	10	16	SA	461	535
TDV220 01/1A..4	11	160M	220	567	538	314	350	258	10	16	SA	461	535
TDV220 02/2B..4	15	160L	325	567	538	314	350	258	10	16	SA	514	602
TDV220 02/2A..4	22	180L	325	567	613	354	350	278	10	16	SA	514	636
TDV220 03/1A2B..4	30	200L	430	567	613	354	400	278	10	16	SA	569	715
TDV220 03/3A..4	30	200L	430	567	613	354	400	278	10	16	SA	569	715
TDV220 04/2A2B..4	37	225S	535	597	690	411	450	298	10	16	SA	631	838
TDV220 04/4A..4	45	225M	535	597	690	411	450	298	10	16	SA	631	861
TDV220 05/3A2B..4	45	225M	640	597	690	411	450	298	10	16	SA	684	914
TDV220 05/5A..4	55	250M	640	597	690	411	400	298	10	16	SA	693	957
TDV220 06/4A2B..4	55	250M	745	597	690	411	450	298	10	40	SB	746	1010
TDV220 06/6A..4	75	280S	745	597	819	490	550	360	10	40	SB	751	1113
TDV220 07/5A2B..4	75	280S	850	597	819	490	550	360	10	40	SB	804	1166
TDV220 07/7A..4	75	280S	850	597	819	490	550	360	10	40	SB	804	1166
TDV220 08/6A2B..4	75	280S	955	597	819	490	550	360	10	40	SB	857	1219
TDV220 08/8A..4	90	280M	955	597	819	490	550	360	10	40	SB	857	1284

Weights refer to Version F (Cast iron)

tdv220-4p50_a_td

TDV280..4 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE	MOTOR		DIMENSIONS (mm)						PN FLANGES		MECH. SEAL	WEIGHT kg	
	kW	Size	L1	L2	L3	D1	D2	M	DNA	DNM	Type	PUMP	ELECTRIC PUMP
TDV280 01/1C..4	11	160M	220	567	538	314	350	258	10	16	SA	461	535
TDV280 01/1B..4	11	160M	220	567	538	314	350	258	10	16	SA	461	535
TDV280 01/1A..4	11	160M	220	567	538	314	350	258	10	16	SA	461	535
TDV280 02/2B..4	18,5	180M	325	567	538	314	350	258	10	16	SA	514	614
TDV280 02/2A..4	22	180L	325	567	613	354	350	278	10	16	SA	514	636
TDV280 03/1A2B..4	30	200L	430	567	613	354	400	278	10	16	SA	569	715
TDV280 03/3A..4	37	225S	430	597	690	411	450	298	10	16	SA	578	785
TDV280 04/2A2B..4	45	225M	535	597	690	411	450	298	10	16	SA	631	861
TDV280 04/4A..4	45	225M	535	597	690	411	450	298	10	16	SA	631	861
TDV280 05/3A2B..4	55	250M	640	597	690	411	550	298	10	16	SA	693	957
TDV280 05/5A..4	55	250M	640	597	690	411	550	298	10	16	SA	693	957
TDV280 06/4A2B..4	75	280S	745	597	819	490	550	360	10	40	SB	751	1113
TDV280 06/6A..4	75	280S	745	597	819	490	550	360	10	40	SB	751	1113
TDV280 07/5A2B..4	75	280S	850	597	819	490	550	360	10	40	SB	804	1166
TDV280 07/7A..4	90	280M	850	597	819	490	550	360	10	40	SB	804	1231
TDV280 08/6A2B..4	90	280M	955	597	819	490	550	360	10	40	SB	857	1284
TDV280 08/8A..4	90	280M	955	597	819	490	550	360	10	40	SB	857	1284

Weights refer to Version F (Cast iron)

tdv280-4p50_a_td



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TECHNICAL APPENDIX

TDB-TDV SERIES PRESSURE / TEMPERATURE RANGES (EN 1092-2) MAXIMUM PERMITTED WORKING PRESSURE (BODY AND FLANGES)

DIAGRAM FOR VERSIONS F, FB (FN)

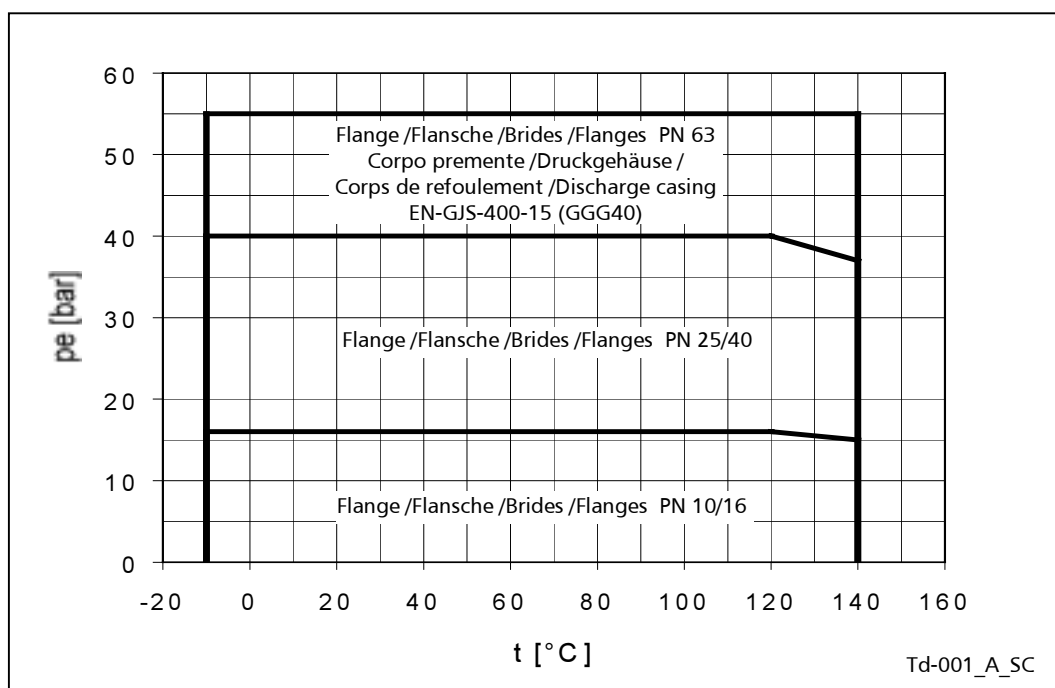
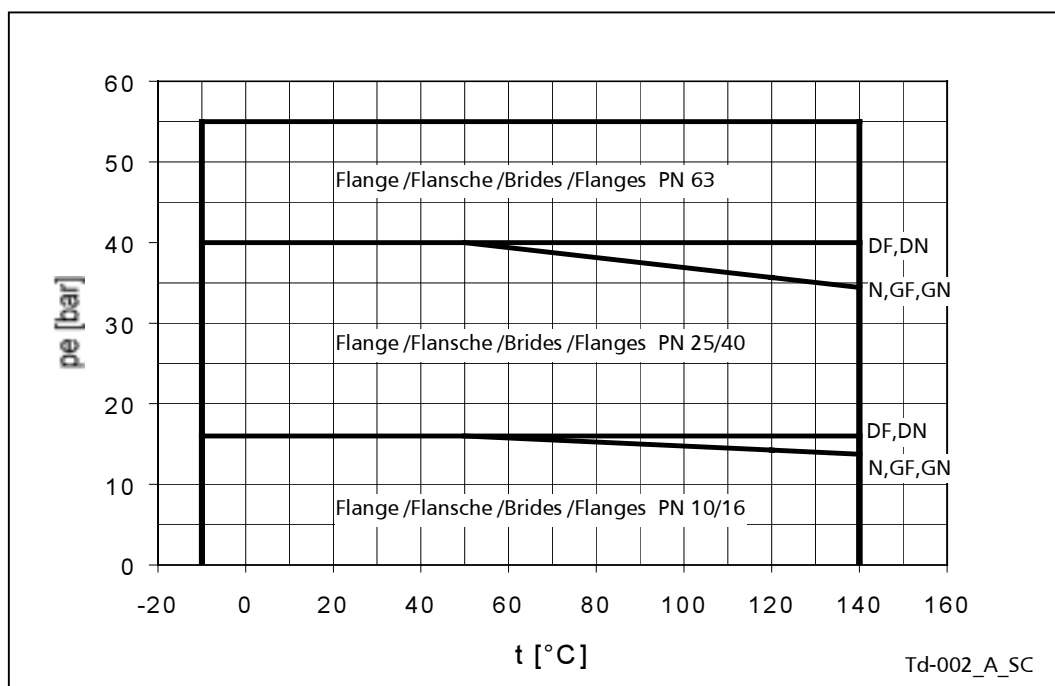


DIAGRAM FOR VERSIONS N (DF, DN, GF, GN)



MAXIMUM PERMITTED WORKING TEMPERATURE PE =
PUMP INLET PRESSURE (SUCTION SIDE) + HEAD AT Q=0 m³/h

TDB-TDV SERIES
FORCES AND MOMENTS ON SUCTION AND DELIVERY SIDE SLEEVES

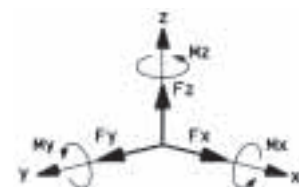
F_x : direct force along x-axis (pump shaft).

F_y, F_z : direct forces along y- and z-axis.

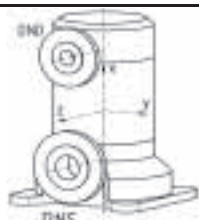
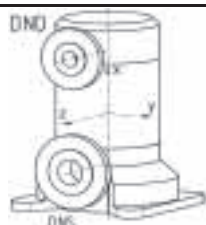
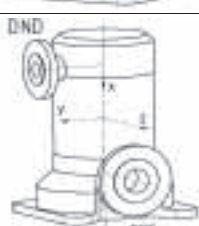
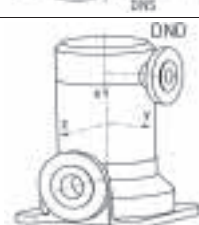
M_x : moment around x-axis.

M_y, M_z : moment around y- and z-axis.

The forces and moments indicated in the table, as well as their respective sums, must not be exceeded.



$$\Sigma F = \sqrt{(F_x^2 + F_y^2 + F_z^2)} \quad [N] \quad \Sigma M = \sqrt{(M_x^2 + M_y^2 + M_z^2)} \quad [Nm]$$

PUMP TYPE	TDB22 TDB35	TDB58 TDB78	TDB/TDV120 TDB/TDV170	TDB220 TDB280
PERMITTED FORCES AND MOMENTS ON DNS SUCTION SLEEVES				
	F _x	560	900	1130
	F _y	510	810	1010
	F _z	620	1010	1250
	ΣF	980	1580	1970
	M _x	350	440	570
	M _y	200	260	350
	M _z	260	330	440
	ΣM	480	610	800
PERMITTED FORCES AND MOMENTS ON DND SUCTION SLEEVES				
	F _x	330	560	900
	F _y	300	510	810
	F _z	380	620	1010
	ΣF	590	980	1580
	M _x	280	350	440
	M _y	140	200	260
	M _z	190	260	330
	ΣM	370	480	610
	F _x	330	560	900
	F _y	300	510	810
	F _z	380	620	1010
	ΣF	590	980	1580
	M _x	280	350	440
	M _y	140	200	260
	M _z	190	260	330
	ΣM	370	480	610
	F _x	330	560	900
	F _y	380	620	1010
	F _z	300	510	810
	ΣF	590	980	1580
	M _x	280	350	440
	M _y	140	200	260
	M _z	190	260	330
	ΣM	370	480	610
	F _x	330	560	900
	F _y	380	620	1010
	F _z	300	510	810
	ΣF	590	980	1580
	M _x	280	350	440
	M _y	140	200	260
	M _z	190	260	330
	ΣM	370	480	610

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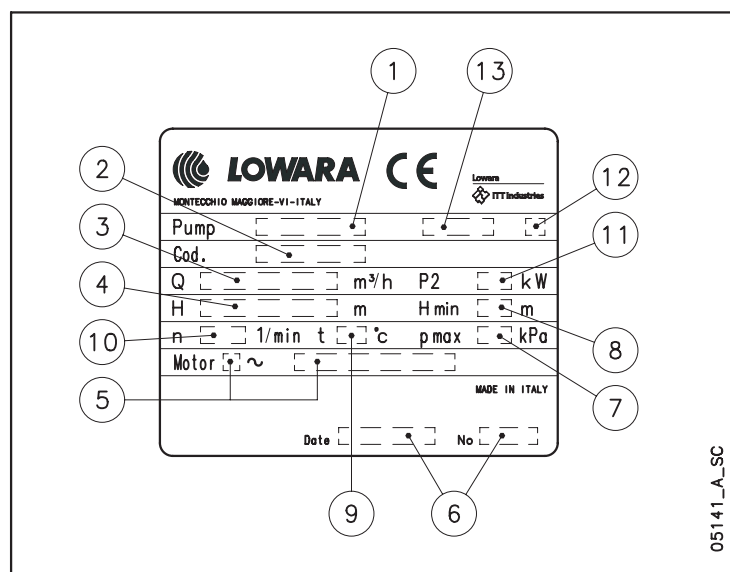
TDB-TDV SERIES FORCES AND MOMENTS ON SUCTION AND DELIVERY SIDE SLEEVES

The Forces and Moments applied must respect the following relationship:

$$(\sum F_{\text{calculated}} / \sum F_{\text{max, permitted}})^2 + (\sum M_{\text{calculated}} / \sum M_{\text{max, permitted}})^2 \leq 2$$

This relationship must be checked if the load on one of the sleeves exceeds the values indicated in the table.

TDB-TDV SERIES NAME PLATE



KEY

1. Electric pump type
2. Code
3. Flow rate range
4. Head range
5. Motor type
6. Production data and serial number
7. Maximum operating pressure*
8. Minimum head
9. Maximum operating pressure*
10. Speed
11. Rated power
12. O-ring material code
13. Mechanical seal material code



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TDB SERIES MOMENTS OF INERTIA

PUMP TYPE	NUMBER OF STAGES	MOMENTS OF INERTIA (WITH COUPLING) I [Kgm ²]					
		CAST IRON IMPELLER (GG25)		BRONZE IMPELLER (G-CuSn10)		STAINLESS STEEL IMPELLER (AISI CF8M)	
		Without water	Filled with water	Without water	Filled with water	Without water	Filled water
TDB22 TDB35	1	0,0112	0,0119	0,0120	0,0127	0,0115	0,0122
	2	0,0152	0,0166	0,0168	0,0182	0,0158	0,0172
	3	0,0191	0,0212	0,0215	0,0236	0,0200	0,0221
	4	0,0230	0,0258	0,0262	0,0290	0,0242	0,0270
	5	0,0270	0,0305	0,0310	0,0345	0,0285	0,0320
	6	0,0309	0,0351	0,0357	0,0399	0,0327	0,0369
	7	0,0349	0,0398	0,0405	0,0454	0,0370	0,0419
	8	0,0388	0,0444	0,0452	0,0508	0,0412	0,0468
	9	0,0427	0,0490	0,0499	0,0562	0,0454	0,0517
	10	0,0467	0,0537	0,0547	0,0617	0,0497	0,0567
	11	0,0506	0,0583	0,0594	0,0671	0,0539	0,0616
	12	0,0545	0,0629	0,0641	0,0725	0,0581	0,0665
	13	0,0585	0,0676	0,0689	0,078	0,0624	0,0715
	14	0,0624	0,0722	0,0736	0,0834	0,0666	0,0764
	15	0,0663	0,0768	0,0783	0,0888	0,0708	0,0813
	16	0,0703	0,0815	0,0831	0,0943	0,0751	0,0863
	17	0,0742	0,0861	0,0878	0,0997	0,0793	0,0912
	18	0,0781	0,0907	0,0925	0,1051	0,0835	0,0961
TDB58 TDB78	1	0,0155	0,0176	0,0173	0,0191	0,0162	0,0180
	2	0,0240	0,0276	0,0270	0,0306	0,0248	0,0284
	3	0,0322	0,0376	0,0367	0,0421	0,0334	0,0388
	4	0,0404	0,0476	0,0464	0,0536	0,0420	0,0492
	5	0,0486	0,0576	0,0561	0,0651	0,0506	0,0596
	6	0,0567	0,0675	0,0657	0,0765	0,0591	0,0699
	7	0,0649	0,0775	0,0754	0,088	0,0677	0,0803
	8	0,0731	0,0875	0,0851	0,0995	0,0763	0,0907
	9	0,0813	0,0975	0,0948	0,111	0,0860	0,1011
	10	0,0895	0,1075	0,1045	0,1225	0,0935	0,1115
	11	0,0976	0,1174	0,1141	0,1339	0,1020	0,1218
	12	0,1058	0,1274	0,1238	0,1454	0,1106	0,1322
	13	0,1140	0,1374	0,1335	0,1569	0,1192	0,1426
	14	0,1222	0,1474	0,1432	0,1684	0,1278	0,1530
TDB120 TDB170	1	0,0351	0,0409	0,0405	0,0463	0,0371	0,0429
	2	0,0625	0,0741	0,0733	0,0849	0,0665	0,0781
	3	0,0898	0,1072	0,1060	0,1234	0,0958	0,1132
	4	0,1172	0,1404	0,1388	0,162	0,1252	0,1484
	5	0,1446	0,1736	0,1716	0,2006	0,1546	0,1836
	6	0,1719	0,2067	0,2043	0,2391	0,1839	0,2187
	7	0,1993	0,2399	0,2371	0,2777	0,2133	0,2539
	8	0,2267	0,2731	0,2699	0,3163	0,2427	0,2891
	9	0,2540	0,3062	0,3026	0,3548	0,2720	0,3242
	10	0,2814	0,3394	0,3354	0,3934	0,3014	0,3594

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TDV SERIES MOMENTS OF INERTIA

PUMP TYPE	NUMBER OF STAGES	MOMENTS OF INERTIA (WITH COUPLING) I [Kgm ²]					
		CAST IRON IMPELLER (GG25)		BRONZE IMPELLER (G-CuSn10)		STAINLESS STEEL IMPELLER (AISI CF8M)	
		Without water	Filled with water	Without water	Filled with water	Without water	Filled with water
TDV120 TDV170	1	0,0287	0,0345	0,0341	0,0399	0,0307	0,0365
	2	0,0561	0,0677	0,0669	0,0785	0,0601	0,0717
	3	0,0835	0,1009	0,0997	0,1171	0,0895	0,1069
	4	0,1108	0,1340	0,1324	0,1556	0,1188	0,1420
	5	0,1382	0,1672	0,1652	0,1942	0,1482	0,1772
	6	0,1656	0,2004	0,198	0,2328	0,1776	0,2124
	7	0,1929	0,2335	0,2307	0,2713	0,2069	0,2475
	8	0,2203	0,2667	0,2635	0,3099	0,2363	0,2827
	9	0,2477	0,2999	0,2963	0,3485	0,2657	0,3179
	10	0,2750	0,3330	0,3290	0,3870	0,2950	0,3530
TDV220 TDV280	1	0,0574	0,0691	0,0692	0,0809	0,0629	0,0746
	2	0,1107	0,1341	0,1343	0,1577	0,1217	0,1451
	3	0,1640	0,1991	0,1994	0,2345	0,1805	0,2156
	4	0,2173	0,2641	0,2645	0,3113	0,2393	0,2861
	5	0,2706	0,3291	0,3296	0,3881	0,2981	0,3566
	6	0,3239	0,3941	0,3947	0,4649	0,3569	0,4271
	7	0,3773	0,4592	0,4599	0,5418	0,4158	0,4977
	8	0,4306	0,5242	0,5250	0,6186	0,4746	0,5682

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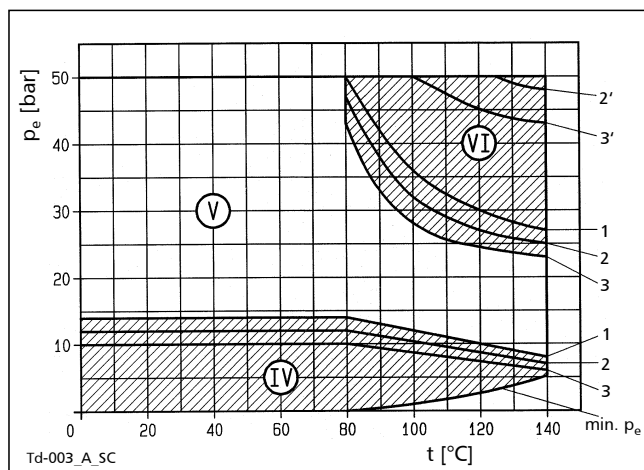
TDB-TDV SERIES MECHANICAL SEAL SELECTION DIAGRAM, API-PLAN 1 (11)

TAB. 1: LIMIT CURVES (depending on pump hydraulics and motor speed)

PUMP TYPE	MOTOR	
	1450 min ⁻¹	2950 min ⁻¹
TDB22 TDB35	1	2
TDB58 TDB78	1	2
TDB-TDV120 TDB-TDV170	1	3
TDV220 TDV280	2	3

td_diag1_a_td

DIAG. 1: PRESSURE-TEMPERATURE DIAGRAM FOR MECHANICAL SEAL SELECTION



TAB. 2: TYPE OF MECHANICAL SEAL

AREA	TYPE OF MECHANICAL SEAL
IV	SA (UNBALANCED) Max 16 bar
V	SB (BALANCED) Max 55 bar
VI	SPECIAL VERSION Only on request

td_diag2_a_td

KEY

- min Pe: minimum pressure on mechanical seal
- 2', 3': maximum permitted pressure on mechanical seal.
- 1, 2, 3: pressure-temperature separation curves between areas IV, V, VI.

$$P_e = P_z + (P_p/j) \times (j-1) \text{ [bar]}$$

where:

P_z = inlet pressure of suction side [bar]

P_p = maximum pump head for $Q = 0 \text{ m}^3/\text{h}$ corresponding to the number of stages j .

j = number of stages.

TDB-TDV SERIES MECHANICAL SEAL SELECTION DIAGRAM, API-PLAN 1 (11)

The calculated value of P_e [bar] together with water temperature (°C), identifies a point which lies in one of the 3 areas (IV, V, VI) indicated in diagram 1.

Table 2 shows the most suitable seal.

GENERAL CONSIDERATIONS:

These diagrams and selection tables are valid for clean water (only < 10 mg/l) or water for feeding boilers, partially or totally demineralised.

If the water temperature exceeds 80 °C , minimum inlet pressure must be guaranteed.

If the selection falls in area VI, please contact your local sales office.

SELECTION EXAMPLE:

Electric pump: Lowara TDB 3507/7A, motor 37 kw , 2p , 50 Hz

Liquid : clean water at 60 °C.

Pressure of system at pump inlet $P_z = 3$ bar.

A) TAB.1 shows that the limit curve is curve 2.. This curve defines the separation limit between areas IV and V and between areas V and VI.

B) $P_e = P_z + (P_p / j) \times (j-1)$ where $P_z = 3$ bar , $P_p = 28$ bar , $j = 7$ of which $P_e = 3 + (28 / 7) \times 6 = 27$ bar.

C) From DIAG.1, with $P_e = 27$ bar (y-axis) and $T = 60$ °C (x-axis), the point of intersection lies in area V.

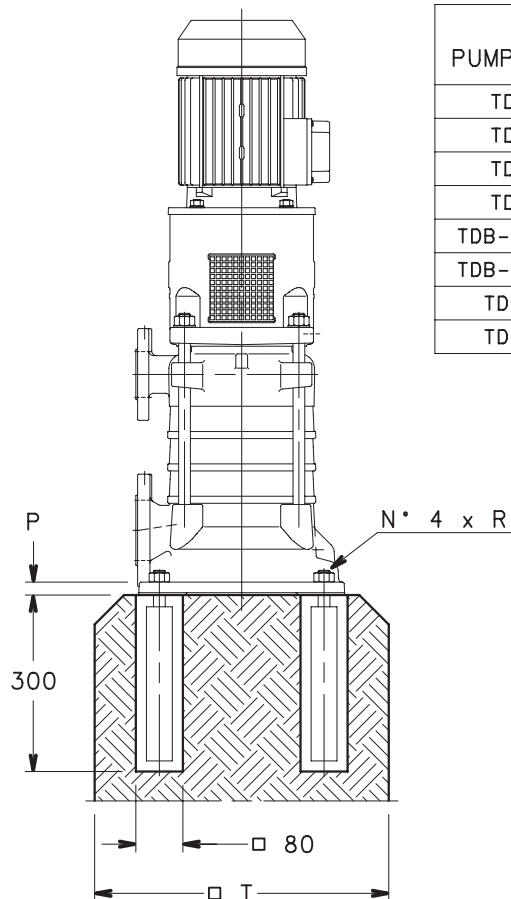
D) TAB.2 shows that the most suitable seal is SB (Balanced).



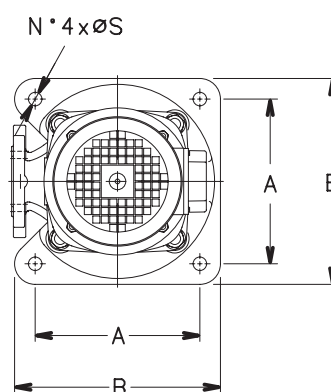
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TDB-TDV SERIES FIXING BOLTS AND TORQUE SETTING



PUMP TYPE	A	B	P	S	T	R	
						Ø x L	Nm
TDB22	280	350	22	23	500	M20x300	150
TDB35							
TDB58							
TDB78	340	410	24	23	580	M20x300	150
TDB-TDV120							
TDB-TDV170							
TDV220	490	560	35	27	800	M24x300	250
TDV280							



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