

## Thermal Oil / Hot Water Pumps



### Automation products available:

- PumpExpert
- Hyamaster
- hyatronic

## Fields of Application

Etanorm SYT/Etanorm-RSY pumps are used in heat transfer systems (DIN 4754) or in hot water circulation systems.

## Operating Data

	Thermal oil	Hot water
Q	up to 1900 m <sup>3</sup> /h, 528 l/s	
H	up to 102 m	
t	-30 °C to +350 °C	up to +180 °C
p <sub>2</sub> <sup>1)</sup>	up to 16 bar	

1) see pressure/temperature limits, page 5

## Design

Horizontal volute casing pump, single-stage (pump size 125-500/2 double-stage), with ratings and main dimensions to EN 733 up to DN 200 / extension Etanorm-RSY, with bearing bracket, in back pull-out design.

Volute casing and impeller or casing cover with replaceable wear rings.

Volute casing with integrally cast pump feet.

## Bearings

Coupling side: grease-lubricated deep-groove ball bearing

Impeller side: Product-lubricated carbon bearing

Option: product-lubricated SiC/SiC bearing

## Shaft Seal

Mechanical seal to EN 12756.

Option: double-acting mechanical seal in tandem arrangement

## Materials

Volute casing	Nodular cast iron JS1025 <sup>2)</sup>
Discharge cover	Nodular cast iron JS1030 <sup>3)</sup>
Shaft	Chrome steel 1.4021.05 HRC 55/1.4057
Impeller	Grey cast iron JL1040 <sup>4)</sup>
Wear rings	Grey cast iron GG
Bearing bracket	Nodular cast iron JS1030 <sup>3)</sup>

2) to EN 1563: GJS-400-18-LT

3) to EN 1563: GJS-400-15

4) to EN 1561: GJL-250

## Designation

EN(RSY) 80 - 160 S Y T \*) 8

Type series Etanorm \_\_\_\_\_

Pump size, e.g. \_\_\_\_\_

Casing material nodular cast iron <sup>2)3)</sup> \_\_\_\_\_

Thermal oil/Hot water variant \_\_\_\_\_

\*) for Etanorm SYT only \_\_\_\_\_

Shaft seal, mechanical seal AQ1VGG \_\_\_\_\_

## Accessories

### Drive <sup>4)</sup>

Surface-cooled KSB-IEC three-phase squirrel cage motor

Winding: up to 2.2 kW 220-240 V/380-420 V  
for 3 kW and above 380-420 V/660-725 V

Design: IM B3

Enclosure: IP 55

Thermal class: F with temperature sensors:  
3 PTC thermistors

Operating mode: continuous operation S1  
or

surface-cooled three-phase squirrel cage motor as described  
above, but West European brand to KSB's choice.

### Coupling

Flexible coupling with/without spacer sleeve

### Contact guard

Coupling guard as per EN 294.

### Baseplate

Folded sectional steel / steel plate; welded sectional steel for  
the complete unit (pump and motor) in torsion-resistant design

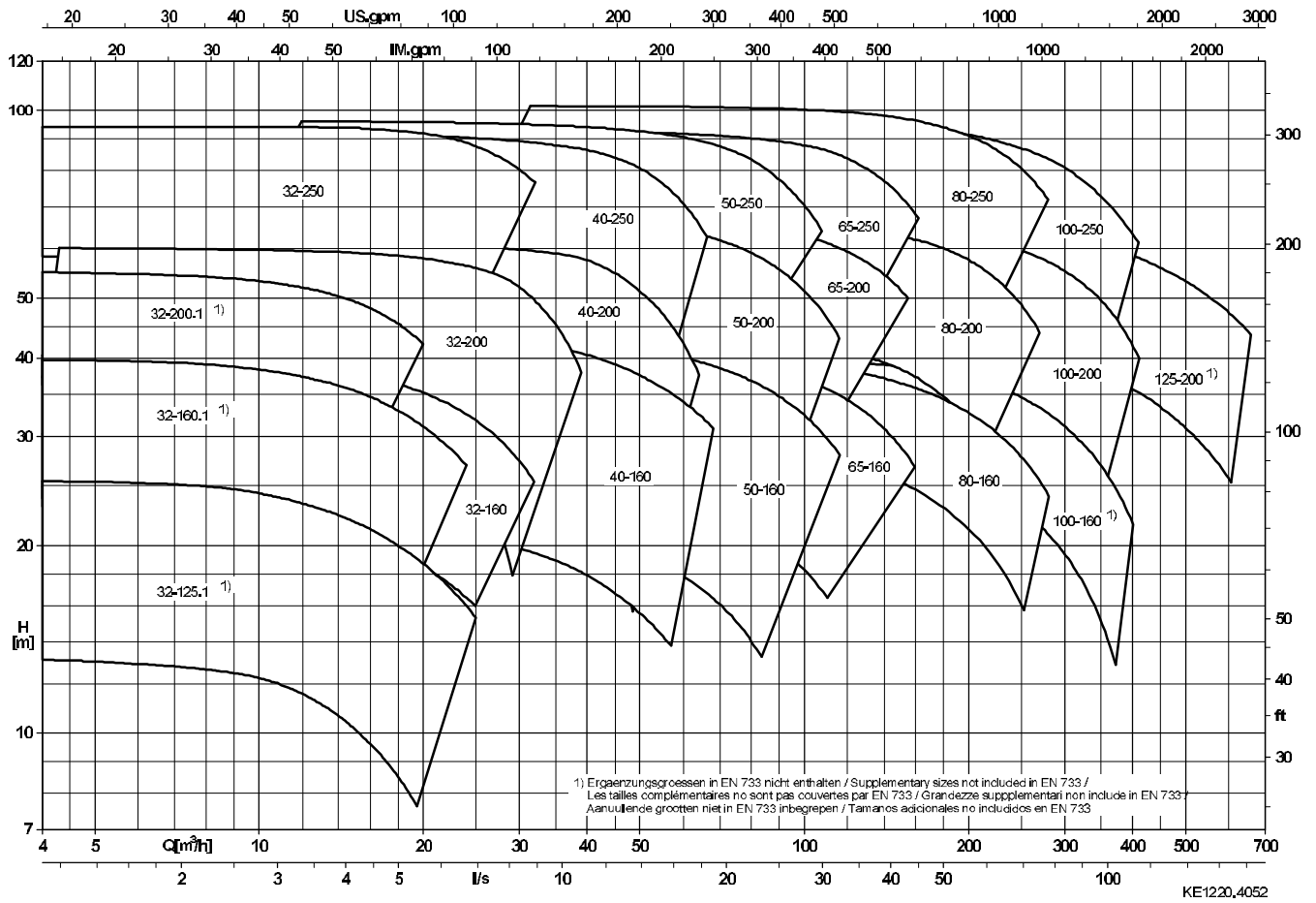
4) **⚠** If the electric motor is supplied by the customer, the cooling air **must** flow  
in axial direction towards the pump side!

Air velocity ≥ 3 m/s, measured at the drive-end bearing end plate

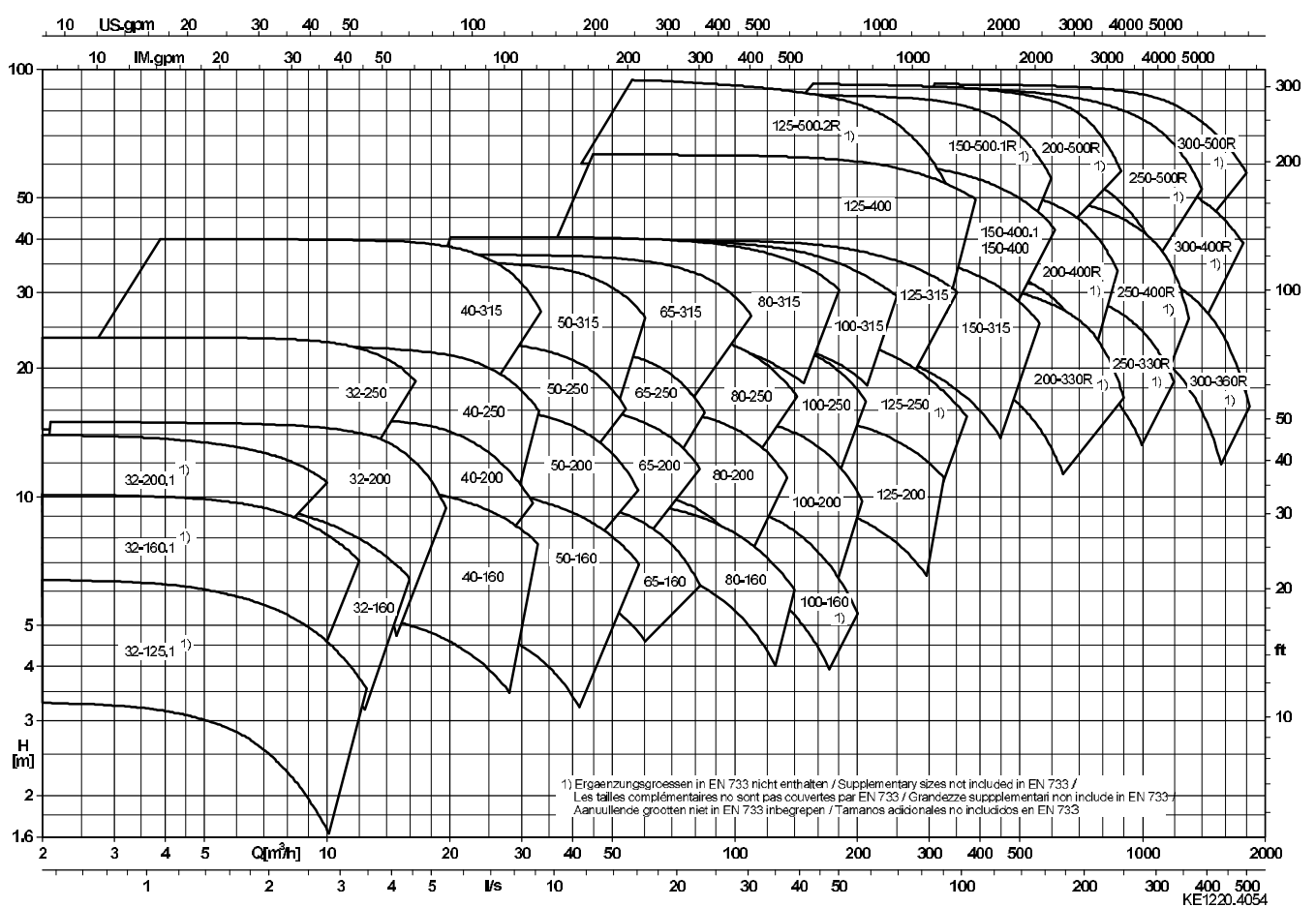
## Certification

Certified quality management ISO 9001.

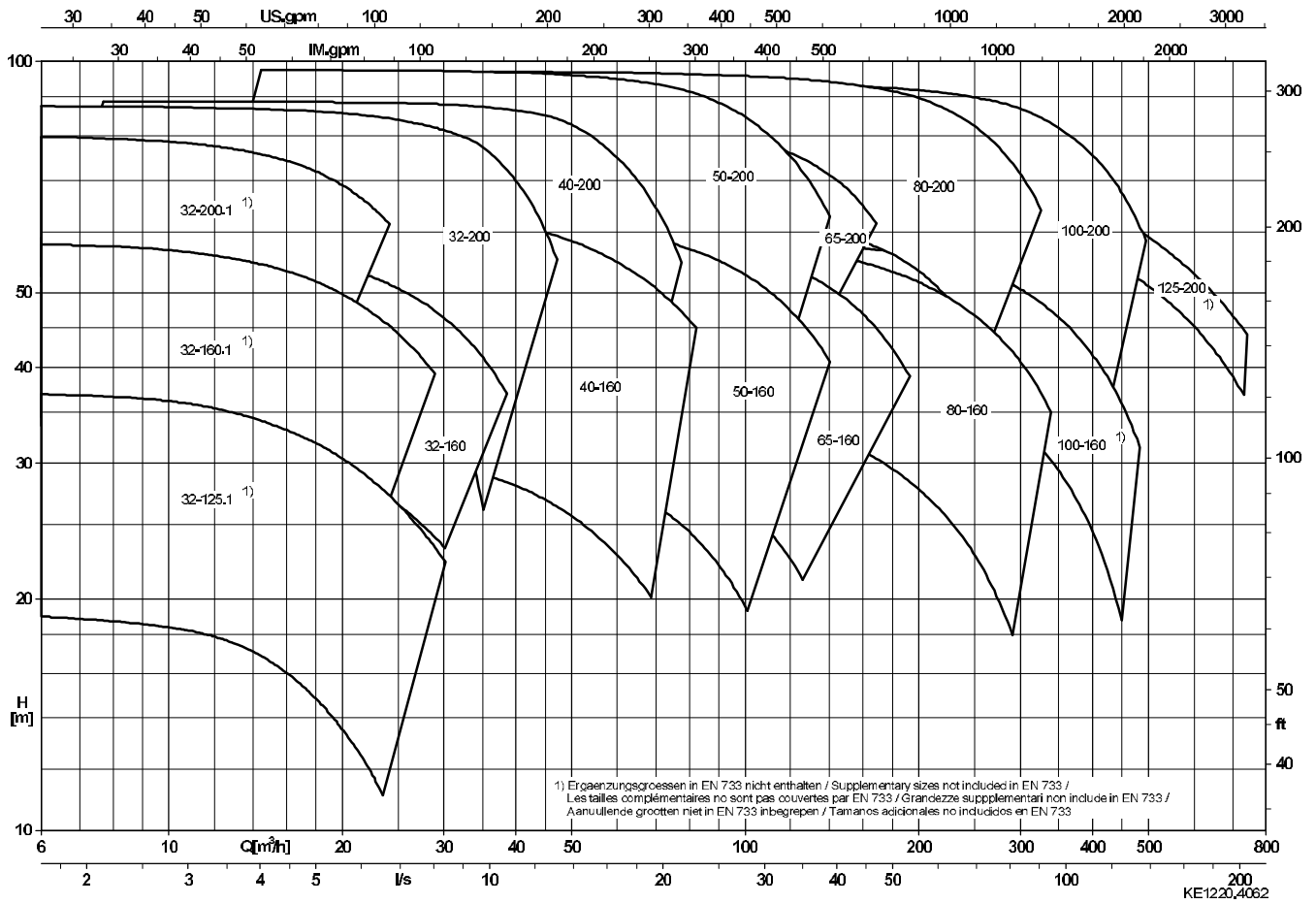
n = 2900 1/min



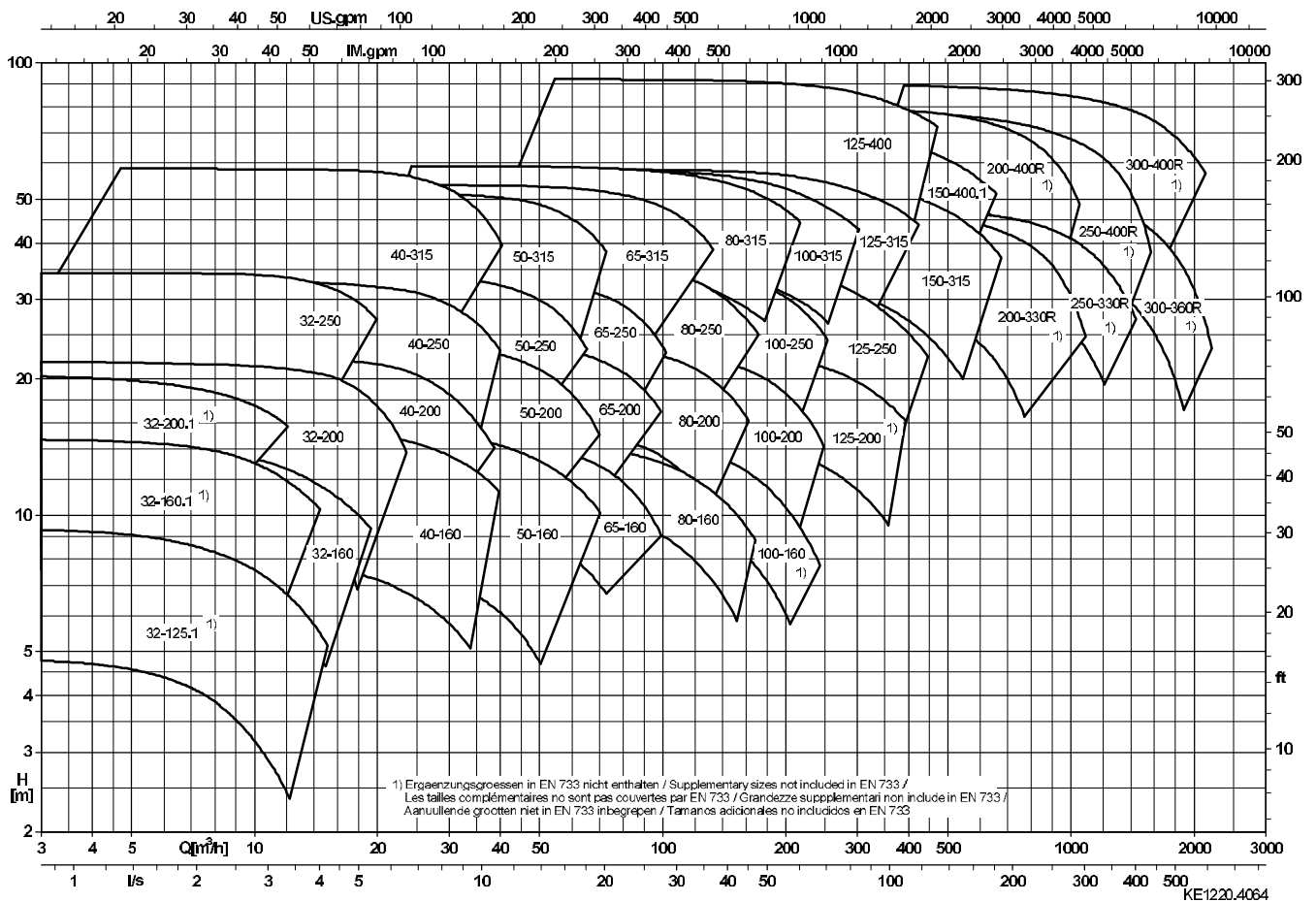
n = 1450 1/min



n = 3500 1/min



n = 1750 1/min

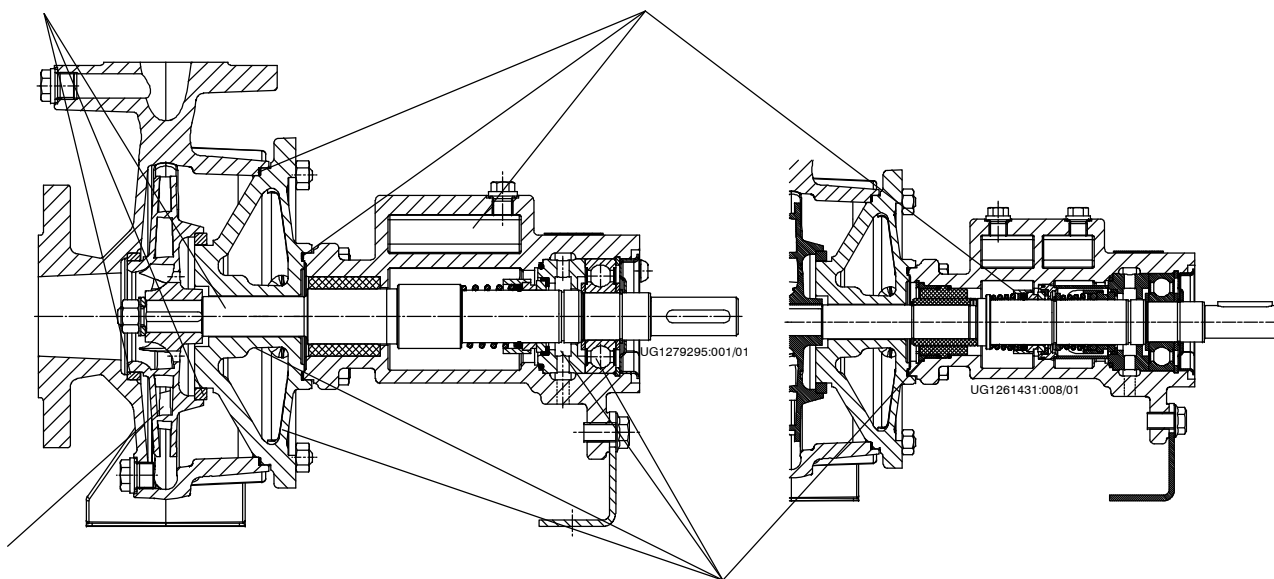


**Benefits at a glance**
**Ease to service**

Replaceable wear rings and straight-forward dismantling of bearing bracket.

**Maximum operating reliability**

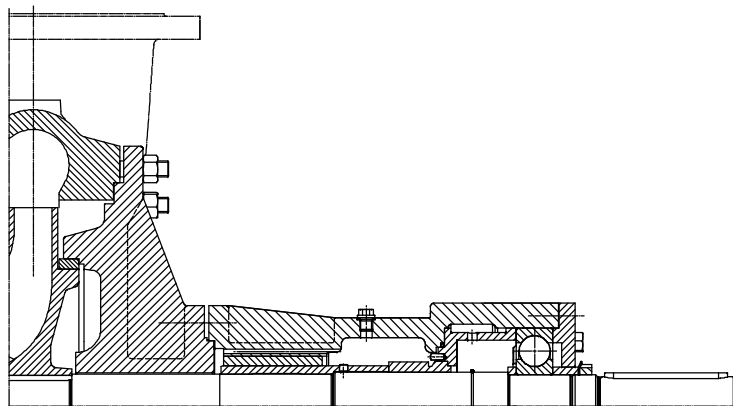
- Highly effective venting contour ensures optimum venting.
- Confined gaskets.
- Design variant with double-acting mechanical seal in tandem arrangement.
- Anti-seize carbon plain bearing lubricated by the fluid handled.


**High energy efficiency**

- Optimised hydraulic system yields high efficiency.
- Impeller trimmed to match the specified duty point.
- Suitable for variable-speed operation and equipped with IE2 motor as standard.

**Robust design**

- Sturdy discharge cover designed for high rigidity.
- Optimised heat barrier, little wear.
- Design variant with SiC/SiC bearing for high resistance.
- Reinforced deep-groove ball bearing with special grease fill for long service life.
- Optimised shaft contour ensures reliable removal of leakage.

**Etanorm-RSY**


Fluid handled	Application limits <sup>1)</sup>	Materials Casing/Impeller	Shaft seal Mechanical seal		Reference code (Etanorm SYT only)
		Nodular cast iron / Grey cast iron	single-acting, AQ <sub>1</sub> VGG	double-acting Tandem AQ <sub>1</sub> VGG / AQ <sub>1</sub> VGG	
		S			
Hot water <sup>2)</sup>	t ≤ +180 °C p ≤ 16 bar	x	x	-	SYT 8
Thermal oil on mineral oil basis	t ≤ -30 to +350 °C p ≤ 16 bar	x	x	x	SYT 8
Thermal oil on synthetic basis with vapour pressure ≤ 1 bar at operating temperature	t ≤ -30 to +350 °C p ≤ 16 bar	x	x	x	SYT 8
Thermal oil on synthetic basis with vapour pressure ≥ 1 bar at operating temperature	t ≤ -30 to +350 °C p ≤ 16 bar	x	-	x	SYT 8

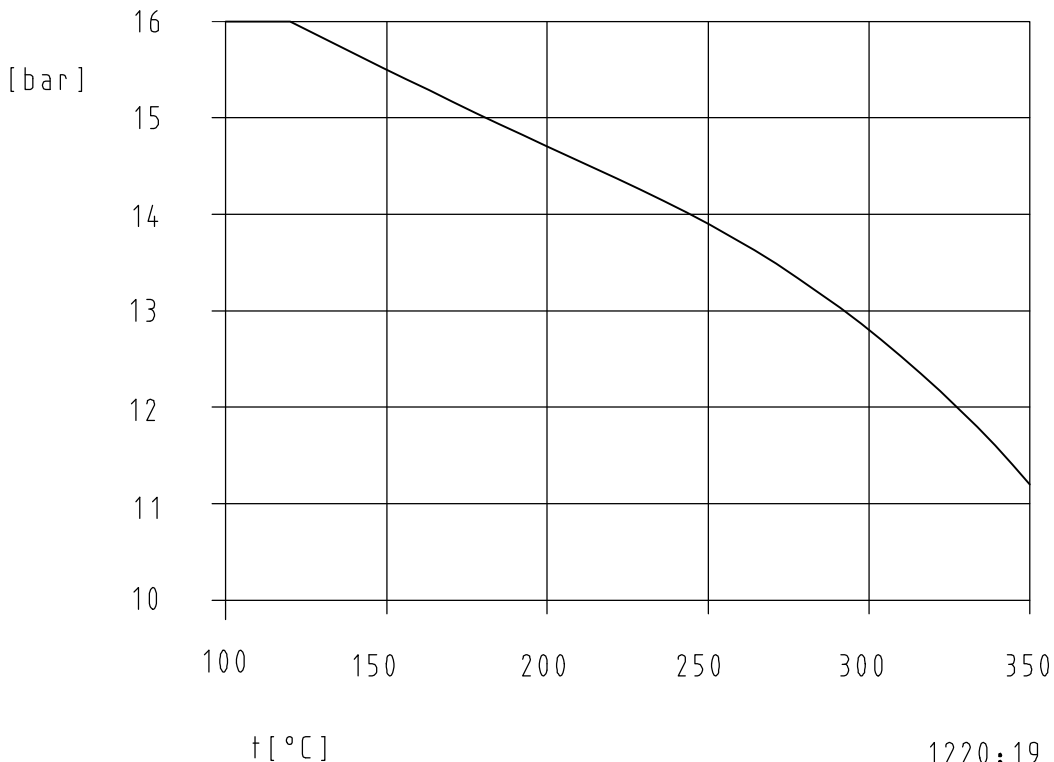
1) Inlet pressure must not fall below atmospheric pressure.

2) Low-salt or fully desalinated water to VdTÜV specification/AGFW specification TCN 1466 (VdTÜV) 5/15 (AGFW) edition 02.89

### Pressure and Temperature Limits

Etanorm SYT/Etanorm-RSY	Fluid temperature	Inlet pressure p <sub>1</sub> ≥ 1 bar	Discharge pressure p <sub>2</sub> <sup>3)</sup>
Thermal oil	-30 to +350 °C	up to 16 bar	up to 16 bar
Hot water	up to +180 °C	up to 16 bar	up to 16 bar

3) The sum of inlet pressure and head at zero flow point must not exceed 16 bar or the values given in the diagram.



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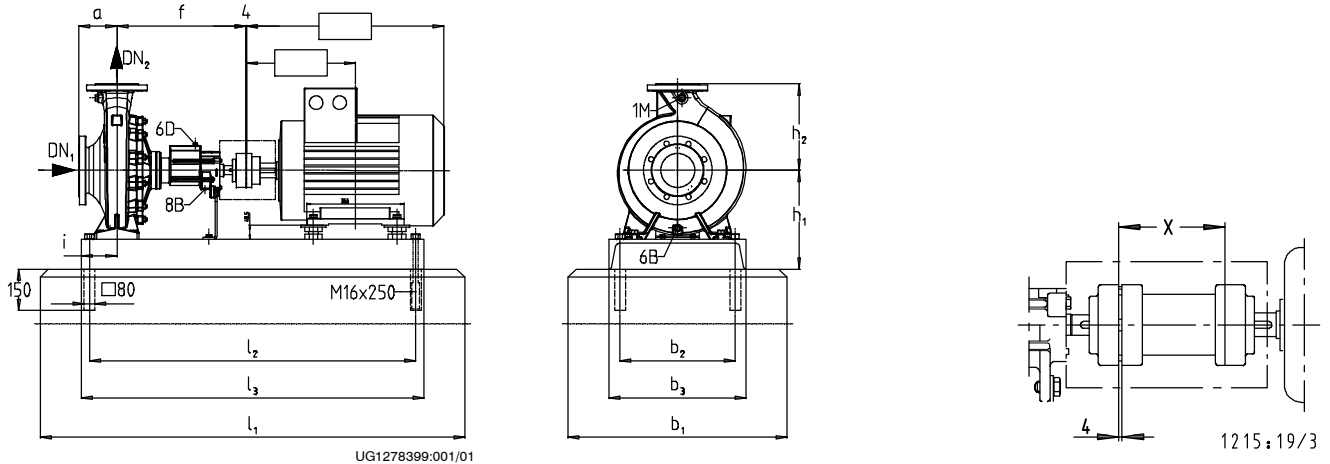
**Etanorm SYT 32-125.1 - 32-160**


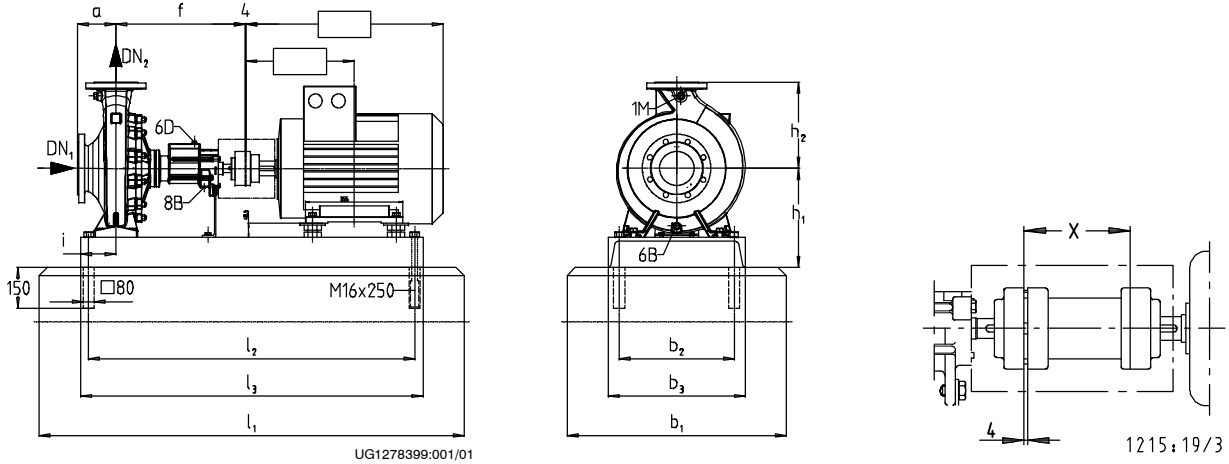
Fig. A

Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor				Fig.																			mm			
	1 / min					Sizes	DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x				
	1450	1750	2900	3500																				kW			
32-125.1	0.55	0.55	-	-	80	A	50	32	80	450	240	300	360	212	140	100	860	650	710	950	740	800	100				
	-	-	0.55	-	71	A	50	32	80	450	240	300	360	212	140	100	860	650	710	950	740	800	100				
	-	-	0.75	-	80	A	50	32	80	450	240	300	360	212	140	100	860	650	710	950	740	800	100				
	-	-	1.1	1.1	80	A	50	32	80	450	240	300	360	212	140	100	860	650	710	950	740	800	100				
	-	-	1.5	1.5	90S	A	50	32	80	450	240	300	360	212	140	100	860	650	710	950	740	800	100				
	-	-	2.2	2.2	90L	A	50	32	80	450	240	300	360	212	140	100	950	740	800	1050	840	900	100				
	-	-	3.0	3.0	100L	A	50	32	80	450	240	300	360	212	140	100	1050	840	900	1150	940	1000	100				
	-	-	4.0	4.0	112M	A	50	32	80	450	240	300	360	212	140	100	1050	840	900	1150	940	1000	100				
	-	-	5.5	5.5	132S	A	50	32	80	450	240	300	360	212	140	100	1050	840	900	1150	940	1000	100				
32-160.1	0.55	0.55	-	-	80	A	50	32	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100				
	-	0.75	-	-	80	A	50	32	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100				
	-	1.1	-	-	90S	A	50	32	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100				
	-	-	1.5	-	90S	A	50	32	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100				
	-	-	2.2	2.2	90L	A	50	32	80	450	240	300	360	232	160	100	950	740	800	1050	840	900	100				
	-	-	3.0	3.0	100L	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				
	-	-	4.0	4.0	112M	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				
	-	-	5.5	5.5	132S	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				
	-	-	7.5	7.5	132S	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				
32-200.1	0.55	-	-	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710	950	740	800	100				
	0.75	0.75	-	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710	950	740	800	100				
	1.1	1.1	-	-	90S	A	50	32	80	450	240	300	360	260	180	100	860	650	710	950	740	800	100				
	-	1.5	-	-	90L	A	50	32	80	450	240	300	360	260	180	100	950	740	800	1050	840	900	100				
	-	2.2	-	-	100L	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100				
	-	-	3.0	-	100L	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100				
	-	-	4.0	-	112M	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100				
	-	-	5.5	5.5	132S	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100				
	-	-	7.5	7.5	132S	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100				
	-	-	-	11.0	160M	A	50	32	80	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100				
	-	-	-	15.0	160M	A	50	32	80	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100				
32-160	0.55	0.55	-	-	80	A	50	32	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100				
	-	0.75	-	-	80	A	50	32	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100				
	-	1.1	-	-	90S	A	50	32	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100				
	-	-	2.2	-	90L	A	50	32	80	450	240	300	360	232	160	100	950	740	800	1050	840	900	100				
	-	-	3.0	3.0	100L	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				
	-	-	4.0	4.0	112M	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				
	-	-	-	5.5	132S	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				
	-	-	-	7.5	132S	A	50	32	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100				

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

Etanorm SYT 32-200 - 40-200



UG1278399:001/01

Fig. A

Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor					Fig.																	
	1 / min				Sizes		DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x
	1450	1750	2900	3500																			
32-200	0.55	-	-	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710	950	740	800	100
	0.75	-	-	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710	950	740	800	100
	1.1	1.1	-	-	90S	A	50	32	80	450	240	300	360	260	180	100	860	650	710	950	740	800	100
	-	1.5	-	-	90L	A	50	32	80	450	240	300	360	260	180	100	950	740	800	1050	840	900	100
	-	2.2	-	-	100L	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	-	4.0	-	112M	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	-	5.5	-	132S	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	-	7.5	7.5	132S	A	50	32	80	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	-	11.0	11.0	160M	A	50	32	80	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100
	-	-	-	15.0	160M	A	50	32	80	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100
40-160	0.55	-	-	-	80	A	65	40	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100
	0.75	0.75	-	-	80	A	65	40	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100
	1.1	1.1	-	-	90S	A	65	40	80	450	240	300	360	232	160	100	860	650	710	950	740	800	100
	-	1.5	-	-	90L	A	65	40	80	450	240	300	360	232	160	100	950	740	800	1050	840	900	100
	-	2.2	-	-	100L	A	65	40	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100
	-	-	3.0	-	100L	A	65	40	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100
	-	-	4.0	-	112M	A	65	40	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100
	-	-	5.5	5.5	132S	A	65	40	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100
	-	-	7.5	7.5	132S	A	65	40	80	450	240	300	360	232	160	100	1050	840	900	1150	940	1000	100
	-	-	11.0	11.0	160M	A	65	40	80	500	280	350	360	260	160	100	1270	1060	1120	1270	1060	1120	100
-	-	-	15.0	160M	A	65	40	80	500	280	350	360	260	160	100	1270	1060	1120	1270	1060	1120	100	
40-200	0.75	-	-	-	80	A	65	40	100	450	240	300	360	260	180	100	860	650	710	950	740	800	100
	1.1	-	-	-	90S	A	65	40	100	450	240	300	360	260	180	100	860	650	710	950	740	800	100
	1.5	1.5	-	-	90L	A	65	40	100	450	240	300	360	260	180	100	950	740	800	1050	840	900	100
	-	2.2	-	-	100L	A	65	40	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	3.0	-	-	100L	A	65	40	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	-	5.5	-	132S	A	65	40	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	-	7.5	-	132S	A	65	40	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
	-	-	11.0	11.0	160M	A	65	40	100	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100
	-	-	15.0	15.0	160M	A	65	40	100	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100
	-	-	18.5	18.5	160L	A	65	40	100	500	280	350	360	260	180	100	1270	1060	1120	1400	1190	1250	100
-	-	22.0	22.0	180M	A	65	40	100	550	320	400	360	290	180	100	1400	1190	1250	1400	1190	1250	100	

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

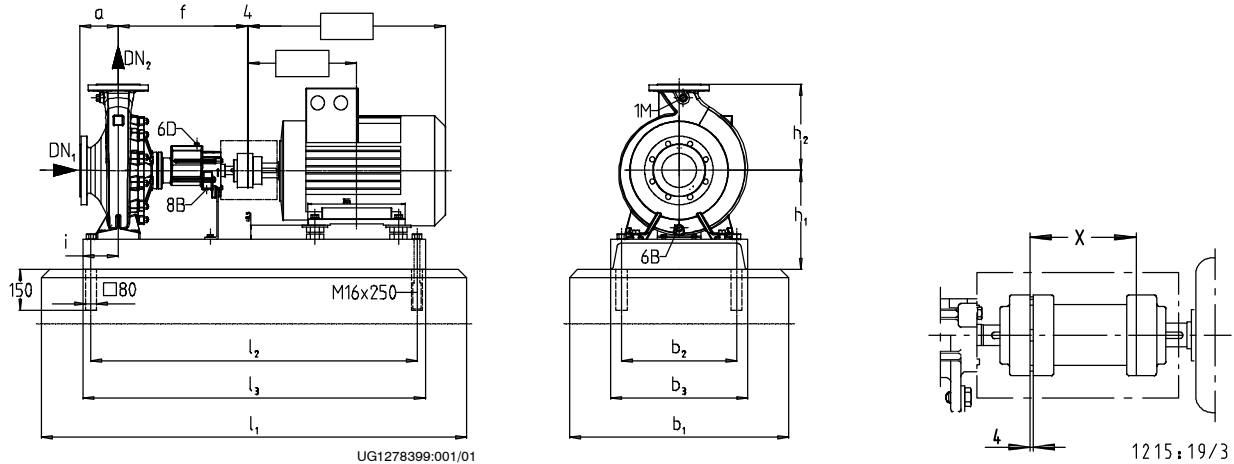
**Etanorm SYT 40-250 - 50-200**


Fig. A

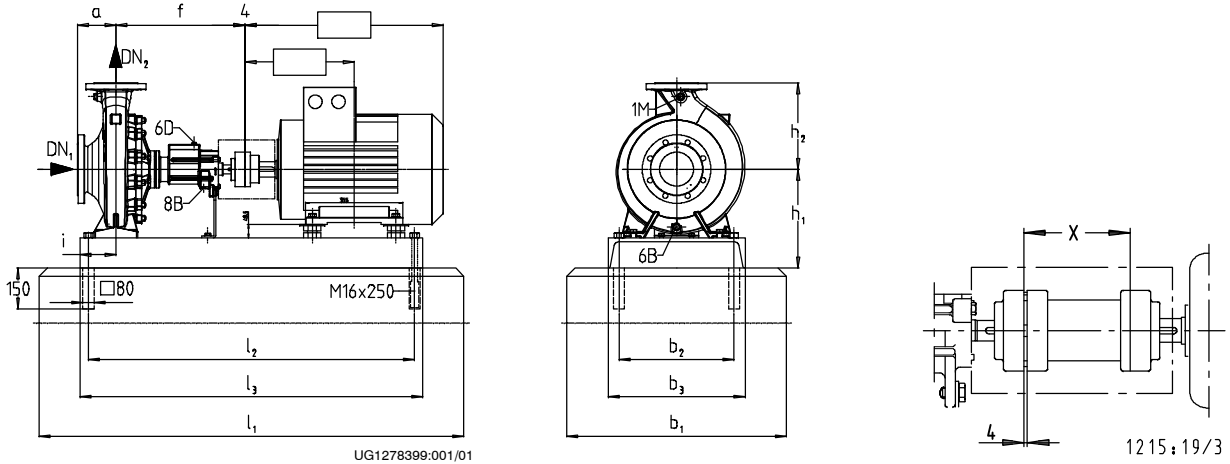
Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor 1 / min 1450   1750   2900   3500 kW				Fig.														mm				
	1450	1750	2900	3500		Sizes	DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i							
																	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x
40-250	1.1	-	-	-	90S	A	65	40	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	1.5	-	-	-	90L	A	65	40	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	2.2	2.2	-	-	100L	A	65	40	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	3.0	3.0	-	-	100L	A	65	40	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	-	4.0	-	-	112M	A	65	40	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	-	5.5	-	-	132S	A	65	40	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	-	-	11.0	-	160M	A	65	40	100	500	280	350	360	280	225	112	1270	1060	1120	1270	1060	1120	100
	-	-	15.0	-	160M	A	65	40	100	500	280	350	360	280	225	112	1270	1060	1120	1270	1060	1120	100
	-	-	18.5	-	160L	A	65	40	100	500	280	350	360	280	225	112	1270	1060	1120	1400	1190	1250	100
	-	-	22.0	-	180M	A	65	40	100	550	320	400	360	290	225	112	1400	1190	1250	1400	1190	1250	100
-	-	30.0	-	200L	A	65	40	100	550	320	400	360	310	225	112	1400	1190	1250	1400	1190	1250	100	
40-315	2.2	-	-	-	100L	A	65	40	125	500	280	350	470	325	250	112	1050	840	900	1150	940	1000	100
	3.0	-	-	-	100L	A	65	40	125	500	280	350	470	325	250	112	1050	840	900	1150	940	1000	100
	4.0	-	-	-	112M	A	65	40	125	500	280	350	470	325	250	112	1150	940	1000	1270	1060	1120	100
	5.5	5.5	-	-	132S	A	65	40	125	500	280	350	470	325	250	112	1150	940	1000	1270	1060	1120	100
	-	7.5	-	-	132M	A	65	40	125	500	280	350	470	325	250	112	1270	1060	1120	1270	1060	1120	100
	-	11.0	-	-	160M	A	65	40	125	550	320	400	470	335	250	112	1400	1190	1250	1400	1190	1250	100
	50-160	0.75	-	-	-	80	A	65	50	100	450	240	300	360	260	180	100	860	650	710	950	740	800
1.1		1.1	-	-	90S	A	65	50	100	450	240	300	360	260	180	100	860	650	710	950	740	800	100
1.5		1.5	-	-	90L	A	65	50	100	450	240	300	360	260	180	100	950	740	800	1050	840	900	100
-		2.2	-	-	100L	A	65	50	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
-		3.0	-	-	100L	A	65	50	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
-		-	5.5	-	132S	A	65	50	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
-		-	7.5	-	132S	A	65	50	100	450	240	300	360	260	180	100	1050	840	900	1150	940	1000	100
-		-	11.0	11.0	160M	A	65	50	100	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100
-		-	-	15.0	160M	A	65	50	100	500	280	350	360	260	180	100	1270	1060	1120	1270	1060	1120	100
-		-	-	18.5	160L	A	65	50	100	500	280	350	360	260	180	100	1270	1060	1120	1400	1190	1250	100
-		-	-	22.0	180M	A	65	50	100	550	320	400	360	290	180	100	1400	1190	1250	1400	1190	1250	100
50-200		1.5	-	-	-	90L	A	65	50	100	450	240	300	360	260	200	100	950	740	800	1050	840	900
	2.2	2.2	-	-	100L	A	65	50	100	450	240	300	360	260	200	100	1050	840	900	1150	940	1000	100
	3.0	3.0	-	-	100L	A	65	50	100	450	240	300	360	260	200	100	1050	840	900	1150	940	1000	100
	-	4.0	-	-	112M	A	65	50	100	450	240	300	360	260	200	100	1050	840	900	1150	940	1000	100
	-	5.5	-	-	132S	A	65	50	100	450	240	300	360	260	200	100	1050	840	900	1150	940	1000	100
	-	-	11.0	-	160M	A	65	50	100	500	280	350	360	260	200	100	1270	1060	1120	1270	1060	1120	100
	-	-	15.0	-	160M	A	65	50	100	500	280	350	360	260	200	100	1270	1060	1120	1270	1060	1120	100
	-	-	18.5	-	160L	A	65	50	100	500	280	350	360	260	200	100	1270	1060	1120	1400	1190	1250	100
	-	-	22.0	22.0	180M	A	65	50	100	550	320	400	360	290	200	100	1400	1190	1250	1400	1190	1250	100
	-	-	-	30.0	200L	A	65	50	100	550	320	400	360	310	200	100	1400	1190	1250	1400	1190	1250	100
-	-	-	37.0	200L	A	65	50	100	550	320	400	360	310	200	100	1400	1190	1250	1400	1190	1250	100	

DN = EN 1092-2/DN.../PN 16/21/JS1025/B



Etanorm SYT 50-250 - 65-200



UG1278399:001/01

12 15 : 19/3

Fig. A

Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor				Fig.														mm				
	1 / min					Sizes	DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i							
	1450	1750	2900	3500													kW	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>
50-250	2.2	-	-	-	100L	A	65	50	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	3.0	-	-	-	100L	A	65	50	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	4.0	4.0	-	-	112M	A	65	50	100	500	280	350	360	280	225	112	1050	840	900	1050	840	900	100
	-	5.5	-	-	132S	A	65	50	100	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	100
	-	7.5	-	-	132M	A	65	50	100	500	280	350	360	280	225	112	1150	940	1000	1270	1060	1120	100
	-	11.0	-	-	160M	A	65	50	100	500	280	350	360	280	225	112	1270	1060	1120	1270	1060	1120	100
	-	-	15.0	-	160M	A	65	50	100	500	280	350	360	280	225	112	1270	1060	1120	1270	1060	1120	100
	-	-	18.5	-	160L	A	65	50	100	500	280	350	360	280	225	112	1270	1060	1120	1400	1190	1250	100
	-	-	22.0	-	180M	A	65	50	100	550	320	400	360	290	225	112	1400	1190	1250	1400	1190	1250	100
	-	-	30.0	-	200L	A	65	50	100	550	320	400	360	310	225	112	1400	1190	1250	1400	1190	1250	100
-	-	37.0	-	200L	A	65	50	100	550	320	400	360	310	225	112	1400	1190	1250	1400	1190	1250	100	
50-315	3.0	-	-	-	100L	A	65	50	125	500	280	350	470	325	280	112	1050	840	900	1150	940	1000	100
	4.0	-	-	-	112M	A	65	50	125	500	280	350	470	325	280	112	1150	940	1000	1270	1060	1120	100
	5.5	-	-	-	132S	A	65	50	125	500	280	350	470	325	280	112	1150	940	1000	1270	1060	1120	100
	7.5	7.5	-	-	132M	A	65	50	125	500	280	350	470	325	280	112	1270	1060	1120	1270	1060	1120	100
	-	11.0	-	-	160M	A	65	50	125	550	320	400	470	335	280	112	1400	1190	1250	1400	1190	1250	100
	-	15.0	-	-	160L	A	65	50	125	550	320	400	470	335	280	112	1400	1190	1250	1400	1190	1250	100
	1.1	-	-	-	90S	A	80	65	100	450	240	300	360	260	200	112	860	650	710	950	740	800	100
	1.5	1.5	-	-	90L	A	80	65	100	450	240	300	360	260	200	112	950	740	800	1050	840	900	100
2.2	2.2	-	-	100L	A	80	65	100	450	240	300	360	260	200	112	1050	840	900	1150	940	1000	100	
-	3.0	-	-	100L	A	80	65	100	450	240	300	360	260	200	112	1050	840	900	1150	940	1000	100	
-	4.0	-	-	112M	A	80	65	100	450	240	300	360	260	200	112	1050	840	900	1150	940	1000	100	
-	-	7.5	-	132S	A	80	65	100	450	240	300	360	260	200	112	1050	840	900	1150	940	1000	100	
-	-	11.0	-	160M	A	80	65	100	500	280	350	360	260	200	112	1270	1060	1120	1270	1060	1120	100	
-	-	15.0	15.0	160M	A	80	65	100	500	280	350	360	260	200	112	1270	1060	1120	1270	1060	1120	100	
-	-	18.5	-	160L	A	80	65	100	500	280	350	360	260	200	112	1270	1060	1120	1400	1190	1250	100	
-	-	22.0	-	180M	A	80	65	100	550	320	400	360	290	200	112	1400	1190	1250	1400	1190	1250	100	
-	-	30.0	-	200L	A	80	65	100	550	320	400	360	310	200	112	1400	1190	1250	1400	1190	1250	100	
65-200	2.2	-	-	-	100L	A	80	65	100	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	3.0	3.0	-	-	100L	A	80	65	100	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	4.0	4.0	-	-	112M	A	80	65	100	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	-	5.5	-	-	132S	A	80	65	100	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	-	7.5	-	-	132M	A	80	65	100	500	280	350	360	280	225	112	1150	940	1000	1270	1060	1120	140
	-	-	15.0	-	160M	A	80	65	100	500	280	350	360	280	225	112	1270	1060	1120	1400	1190	1250	140
	-	-	18.5	-	160L	A	80	65	100	500	280	350	360	280	225	112	1270	1060	1120	1400	1190	1250	140
	-	-	22.0	22.0	180M	A	80	65	100	550	320	400	360	290	225	112	1400	1190	1250	1400	1190	1250	140
	-	-	30.0	30.0	200L	A	80	65	100	550	320	400	360	310	225	112	1400	1190	1250	1400	1190	1250	140
	-	-	37.0	-	200L	A	80	65	100	550	320	400	360	310	225	112	1400	1190	1250	1400	1190	1250	140

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

Etanorm SYT 65-250 - 80-160

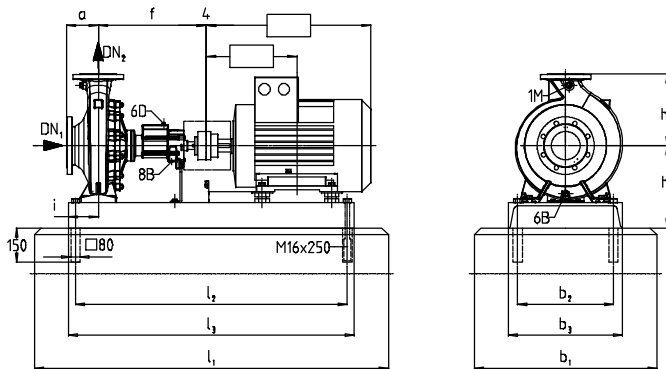


Fig. A

UG1278399:001/01

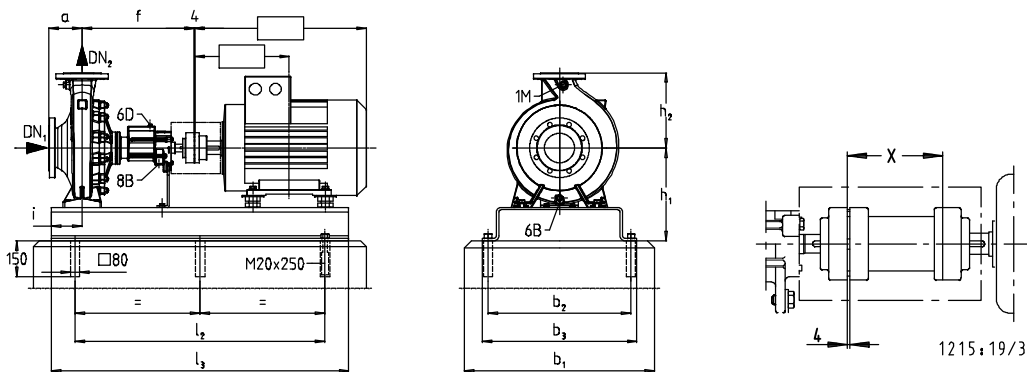


Fig. B

UG1277938:001/01

Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor 1 / min 1450   1750   2900   3500 kW				Fig.														mm				
	Sizes	DN <sub>1</sub>	DN <sub>2</sub>	a		b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x				
65-250	3.0	-	-	-	100L	A	80	65	100	550	320	400	470	310	250	130	1150	940	1000	1400	1190	1250	140
	4.0	-	-	-	112M	A	80	65	100	550	320	400	470	310	250	130	1150	940	1000	1400	1190	1250	140
	5.5	5.5	-	-	132S	A	80	65	100	550	320	400	470	310	250	130	1150	940	1000	1400	1190	1250	140
	-	7.5	-	-	132M	A	80	65	100	550	320	400	470	310	250	130	1150	940	1000	1400	1190	1250	140
	-	11.0	-	-	160M	A	80	65	100	550	320	400	470	310	250	130	1400	1190	1250	1570	1360	1420	140
	-	-	22.0	-	180M	A	80	65	100	550	320	400	470	310	250	130	1400	1190	1250	1570	1360	1420	140
	-	-	30.0	-	200L	A	80	65	100	550	320	400	470	310	250	130	1400	1190	1250	1570	1360	1420	140
	-	-	37.0	-	200L	A	80	65	100	550	320	400	470	310	250	130	1400	1190	1250	1570	1360	1420	140
	-	-	45.0	-	225M	B	80	65	100	750	550	590	470	365	250	130	1550	940	1400	1550	940	1400	140
65-315	5.5	-	-	-	132S	A	80	65	125	550	320	400	470	335	280	130	1150	940	1000	1400	1190	1250	140
	7.5	-	-	-	132M	A	80	65	125	550	320	400	470	335	280	130	1150	940	1000	1400	1190	1250	140
	11.0	11.0	-	-	160M	A	80	65	125	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
	-	15.0	-	-	160L	A	80	65	125	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
	-	18.5	-	-	180M	A	80	65	125	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
	-	22.0	-	-	180L	A	80	65	125	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
80-160	1.5	-	-	-	90L	A	100	80	125	500	280	350	360	280	225	112	1050	840	900	1050	840	900	140
	2.2	-	-	-	100L	A	100	80	125	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	3.0	3.0	-	-	100L	A	100	80	125	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	-	4.0	-	-	112M	A	100	80	125	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	-	5.5	-	-	132S	A	100	80	125	500	280	350	360	280	225	112	1050	840	900	1150	940	1000	140
	-	-	15.0	-	160M	A	100	80	125	500	280	350	360	280	225	112	1270	1060	1120	1400	1190	1250	140
	-	-	18.5	-	160L	A	100	80	125	500	280	350	360	280	225	112	1270	1060	1120	1400	1190	1250	140
	-	-	22.0	22.0	180M	A	100	80	125	550	320	400	360	290	225	112	1400	1190	1250	1400	1190	1250	140
	-	-	30.0	30.0	200L	A	100	80	125	550	320	400	360	310	225	112	1400	1190	1250	1400	1190	1250	140
	-	-	-	37.0	200L	A	100	80	125	550	320	400	360	310	225	112	1400	1190	1250	1400	1190	1250	140

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

Etanorm SYT 80-200 - 80-315

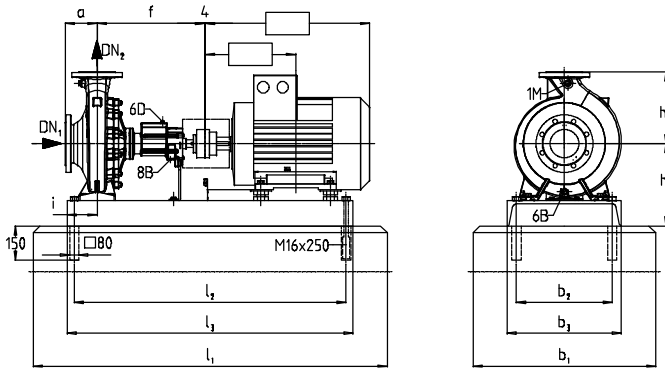


Fig. A

UG1278399:001/01

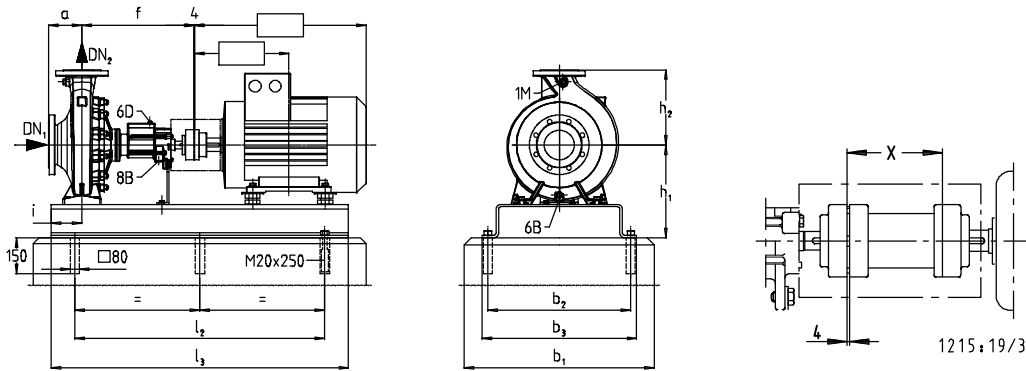


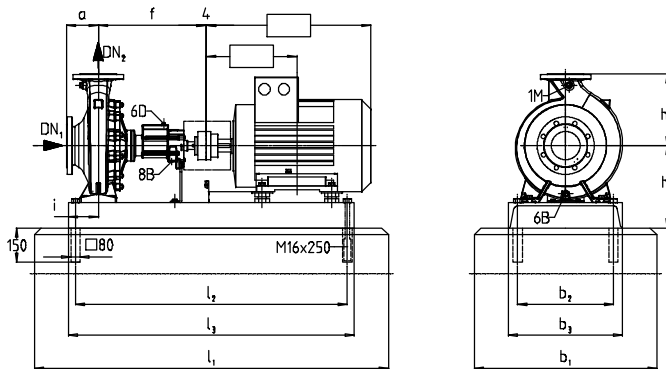
Fig. B

UG1277938:001/01

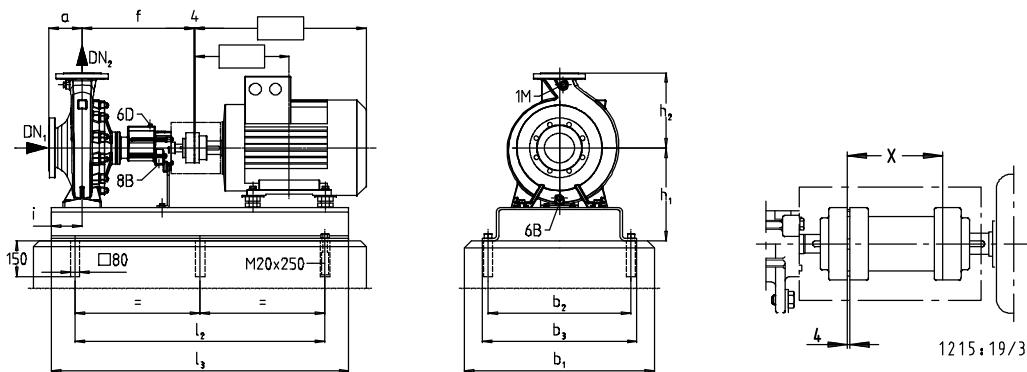
Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor				Fig.														mm				
	1450	1750	2900	3500		Sizes	DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x
80-200	2.2	-	-	-	100L	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000	1270	1060	1120	140
	3.0	-	-	-	100L	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000	1270	1060	1120	140
	4.0	-	-	-	112M	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000	1270	1060	1120	140
	5.5	5.5	-	-	132S	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000	1270	1060	1120	140
	-	7.5	-	-	132M	A	100	80	125	500	280	350	470	280	250	112	1270	1060	1120	1400	1190	1250	140
	-	11.0	-	-	160M	A	100	80	125	500	280	350	470	280	250	112	1270	1060	1120	1400	1190	1250	140
	-	-	18.5	-	160L	A	100	80	125	550	320	400	470	290	250	112	1400	1190	1250	1570	1360	1420	140
	-	-	22.0	-	180M	A	100	80	125	550	320	400	470	290	250	112	1400	1190	1250	1570	1360	1420	140
	-	-	30.0	-	200L	A	100	80	125	550	320	400	470	310	250	112	1400	1190	1250	1570	1360	1420	140
	-	-	37.0	-	200L	A	100	80	125	550	320	400	470	310	250	112	1400	1190	1250	1570	1360	1420	140
	-	-	45.0	45.0	225M	B	100	80	125	750	550	590	470	365	250	112	1550	940	1400	1550	940	1400	140
	-	-	-	55.0	250M	B	100	80	125	810	600	650	470	390	250	112	1750	1060	1600	1750	1060	1600	140
	-	-	-	75.0	280S	B	100	80	125	880	670	720	470	420	250	112	1750	1060	1600	1750	1060	1600	140
80-250	4.0	-	-	-	112M	A	100	80	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	5.5	-	-	-	132S	A	100	80	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	7.5	7.5	-	-	132M	A	100	80	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	11.0	11.0	-	-	160M	A	100	80	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	15.0	-	-	160L	A	100	80	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	18.5	-	-	180M	A	100	80	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	30.0	-	200L	A	100	80	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	37.0	-	200L	A	100	80	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	45.0	-	225M	B	100	80	125	750	550	590	470	365	280	130	1550	940	1400	1550	940	1400	140
	-	-	55.0	-	250M	B	100	80	125	810	600	650	470	390	280	130	1750	1060	1600	1750	1060	1600	140
	-	-	75.0	-	280S	B	100	80	125	880	670	720	470	420	280	130	1750	1060	1600	1750	1060	1600	140
80-315	7.5	-	-	-	132M	A	100	80	125	550	320	400	470	360	315	130	1150	940	1000	1400	1190	1250	140
	11.0	-	-	-	160M	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	15.0	-	-	-	160L	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	18.5	18.5	-	-	180M	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	-	22.0	-	-	180L	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	-	30.0	-	-	200L	B	100	80	125	750	550	590	470	390	315	130	1550	940	1400	1550	940	1400	140
-	37.0	-	-	225S	B	100	80	125	750	550	590	470	390	315	130	1550	940	1400	1550	940	1400	140	

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

**Etanorm SYT 100-160, 100-200**

**Fig. A**

UG1278399:001/01


**Fig. B**

UG1277938:001/01

Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor 1 / min 1450   1750   2900   3500 kW				Fig.																		mm
	Sizes	DN <sub>1</sub>	DN <sub>2</sub>	a		b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x				
100-160	3.0	-	-	-	100L	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	4.0	-	-	-	112M	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	-	5.5	-	-	132S	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	-	7.5	-	-	132M	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	-	-	22.0	-	180M	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	30.0	-	200L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	37.0	37.0	200L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	-	45.0	225M	B	125	100	125	750	550	590	470	365	280	130	1550	940	1400	1550	940	1400	140
	-	-	-	55.0	250M	B	125	100	125	810	600	650	470	390	280	130	1750	1060	1600	1750	1060	1600	140
	-	-	-	75.0	280S	B	125	100	125	880	670	720	470	420	280	130	1750	1060	1600	1750	1060	1600	140
100-200	4.0	-	-	-	112M	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	5.5	-	-	-	132S	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	7.5	7.5	-	-	132M	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000	1400	1190	1250	140
	-	11.0	-	-	160M	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	15.0	-	-	160L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	30	-	200L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	37	-	200L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	45	-	225M	B	125	100	125	750	550	590	470	365	280	130	1550	940	1400	1550	940	1400	140
	-	-	55	-	250M	B	125	100	125	810	600	650	470	390	280	130	1750	1060	1600	1750	1060	1600	140
	-	-	75	75	280S	B	125	100	125	880	670	720	470	420	280	130	1750	1060	1600	1750	1060	1600	140
	-	-	-	90	280M	B	125	100	125	880	670	720	470	420	280	130	1750	1060	1600	1750	1060	1600	140
-	-	-	110	315S	B	125	100	125	940	730	780	470	455	280	130	1800	1100	1650	1800	1100	1650	140	

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

Etanorm SYT 100-250 - 125-250

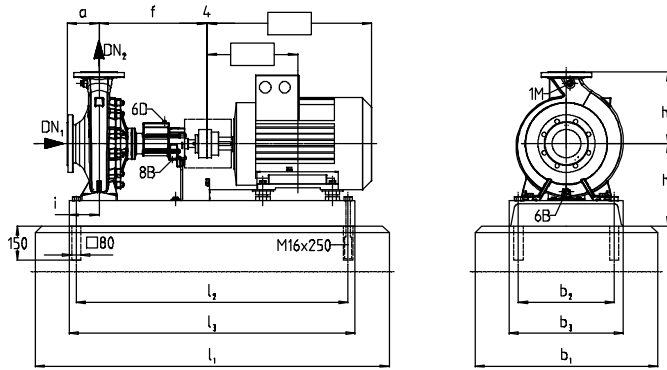


Fig. A

UG1278399:001/01

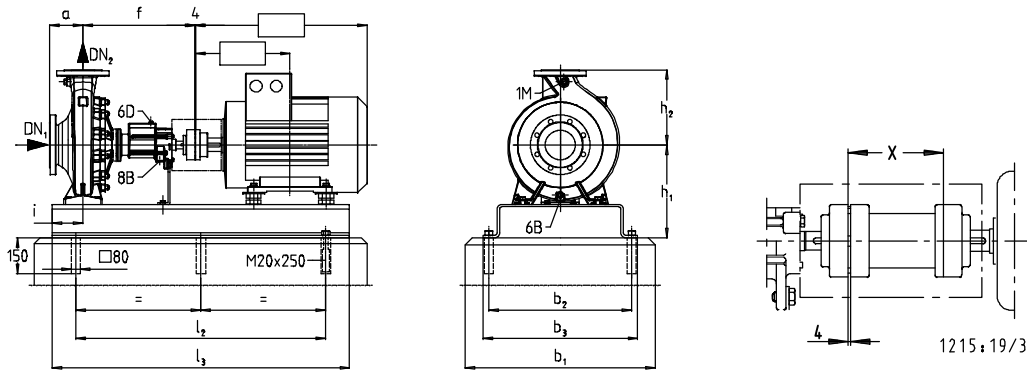


Fig. B

UG1277938:001/01

Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor				Fig.														mm				
	1450	1750	2900	3500		DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x	
100-250	7.5	-	-	-	132M	A	125	100	140	550	320	400	470	335	280	130	1150	940	1000	1400	1190	1250	140
	11.0	11.0	-	-	160M	A	125	100	140	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
	15.0	15.0	-	-	160L	A	125	100	140	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
	-	18.5	-	-	180M	A	125	100	140	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
	-	22.0	-	-	180L	A	125	100	140	550	320	400	470	335	280	130	1400	1190	1250	1570	1360	1420	140
	-	-	55	-	250M	B	125	100	140	810	600	650	470	390	280	130	1750	1060	1600	1750	1060	1600	140
	-	-	75	-	280S	B	125	100	140	880	670	720	470	420	280	130	1750	1060	1600	1750	1060	1600	140
	-	-	90	-	280M	B	125	100	140	880	670	720	470	420	280	130	1750	1060	1600	1750	1060	1600	140
	-	-	110	-	315S	B	125	100	140	940	730	780	470	455	280	130	1800	1100	1650	1800	1100	1650	140
100-315	15.0	-	-	-	160L	A	125	100	140	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	18.5	-	-	-	180M	A	125	100	140	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	22.0	-	-	-	180L	A	125	100	140	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	30.0	30.0	-	-	200L	B	125	100	140	750	550	590	470	390	315	130	1550	940	1400	1550	940	1400	140
	-	37.0	-	-	225S	B	125	100	140	750	550	590	470	390	315	130	1550	940	1400	1550	940	1400	140
	-	45.0	-	-	225M	B	125	100	140	750	550	590	470	390	315	130	1550	940	1400	1550	940	1400	140
125-200	7.5	-	-	-	132M	A	150	125	140	550	320	400	470	360	315	130	1150	940	1000	1400	1190	1250	140
	11.0	-	-	-	160M	A	150	125	140	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	15.0	15.0	-	-	160L	A	150	125	140	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	-	18.5	-	-	180M	A	150	125	140	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	-	22.0	-	-	180L	A	150	125	140	550	320	400	470	360	315	130	1400	1190	1250	1570	1360	1420	140
	-	-	55	-	250M	B	150	125	140	810	600	650	470	390	315	130	1750	1060	1600	1750	1060	1600	140
	-	-	75	-	280S	B	150	125	140	880	670	720	470	420	315	130	1750	1060	1600	1750	1060	1600	140
	-	-	90	90	280M	B	150	125	140	880	670	720	470	420	315	130	1750	1060	1600	1750	1060	1600	140
	-	-	110	110	315S	B	150	125	140	940	730	780	470	455	315	130	1800	1100	1650	1800	1100	1650	140
125-250	11.0	-	-	-	160M	A	150	125	140	550	320	400	470	360	355	130	1400	1190	1250	1570	1360	1420	140
	15.0	-	-	-	160L	A	150	125	140	550	320	400	470	360	355	130	1400	1190	1250	1570	1360	1420	140
	18.5	18.5	-	-	180M	A	150	125	140	550	320	400	470	360	355	130	1400	1190	1250	1570	1360	1420	140
	-	22	-	-	180L	A	150	125	140	550	320	400	470	360	355	130	1400	1190	1250	1570	1360	1420	140
	-	30	-	-	200L	B	150	125	140	750	550	590	470	390	355	130	1550	940	1400	1550	940	1400	140
	-	37	-	-	225S	B	150	125	140	750	550	590	470	390	355	130	1550	940	1400	1550	940	1400	140

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

Etanorm SYT 125-315 - 150-400.1

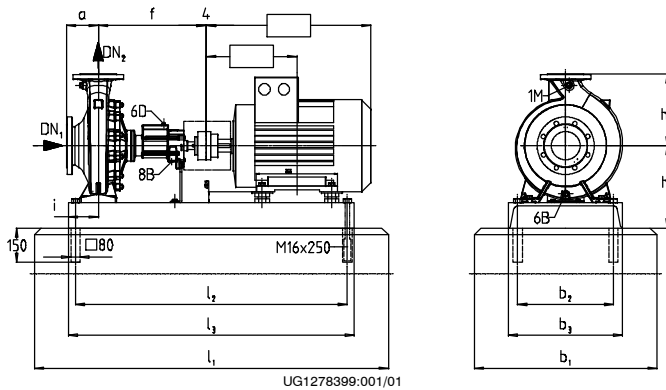


Fig. A

UG1278399:001/01

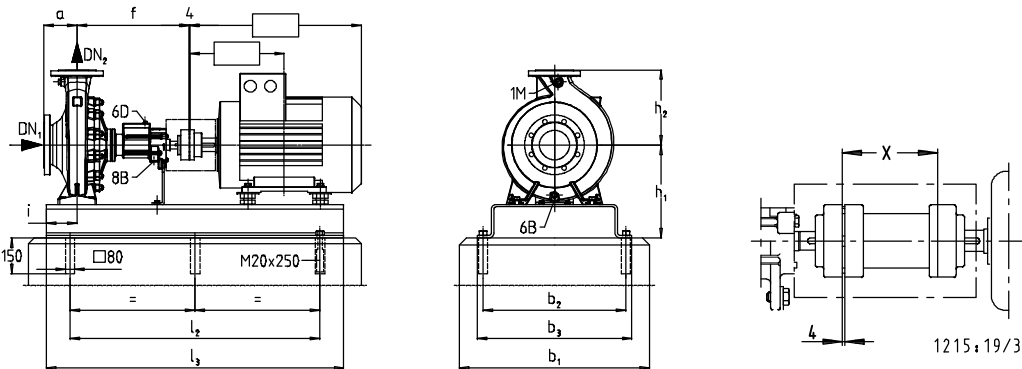


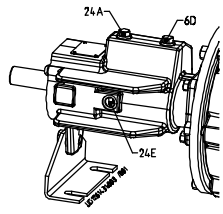
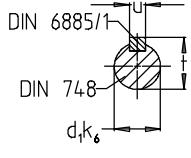
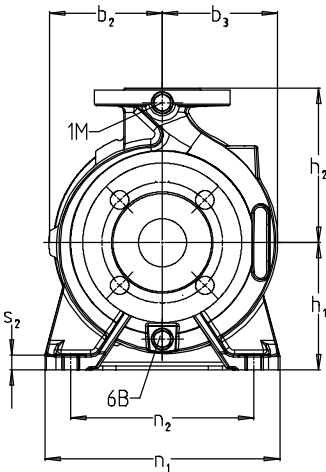
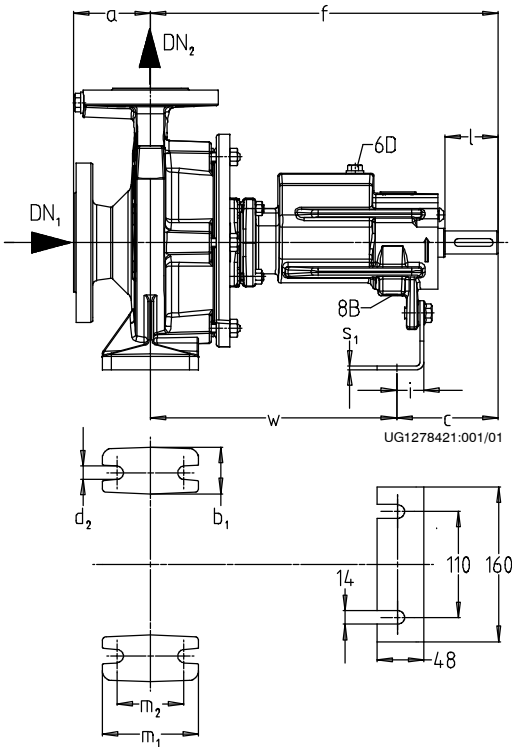
Fig. B

UG1277938:001/01

Tolerances of connecting dimensions as per EN 735

Etanorm SYT	Motor				Fig.														mm				
	1 / min					Sizes																	
	1450	1750	2900	3500			DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	x
125-315	18.5	-	-	-	180M	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600	1750	1060	1600	140
	22	-	-	-	180L	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600	1750	1060	1600	140
	30	-	-	-	200L	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600	1750	1060	1600	140
	37	37	-	-	225S	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600	1750	1060	1600	140
	-	45	-	-	225M	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600	1750	1060	1600	140
	-	55	-	-	250M	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600	1750	1060	1600	140
-	75	-	-	280S	B	150	125	140	880	670	720	530	420	355	112	1750	1060	1600	1750	1060	1600	140	
125-400	30	-	-	-	200L	B	150	125	140	810	600	650	530	455	400	112	1750	1060	1600	1750	1060	1600	140
	37	-	-	-	225S	B	150	125	140	810	600	650	530	455	400	112	1750	1060	1600	1750	1060	1600	140
	45	-	-	-	225M	B	150	125	140	810	600	650	530	455	400	112	1750	1060	1600	1750	1060	1600	140
	55	55	-	-	250M	B	150	125	140	810	600	650	530	455	400	112	1750	1060	1600	1750	1060	1600	140
	75	75	-	-	280S	B	150	125	140	880	670	720	530	455	400	112	1750	1060	1600	1750	1060	1600	140
	-	90	-	-	280M	B	150	125	140	880	670	720	530	455	400	112	1750	1060	1600	1750	1060	1600	140
-	110	-	-	315S	B	150	125	140	940	730	780	530	455	400	112	1800	1100	1650	1800	1100	1650	140	
150-315	22	-	-	-	180L	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600	1750	1060	1600	140
	30	-	-	-	200L	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600	1750	1060	1600	140
	37	37	-	-	225S	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600	1750	1060	1600	140
	45	45	-	-	225M	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600	1750	1060	1600	140
	-	55	-	-	250M	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600	1750	1060	1600	140
	-	75	-	-	280S	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600	1750	1060	1600	140
-	90	-	-	280M	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600	1750	1060	1600	140	
150-400.1	37	-	-	-	225S	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600	1750	1060	1600	140
	45	-	-	-	225M	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600	1750	1060	1600	140
	55	-	-	-	250M	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600	1750	1060	1600	140
	75	75	-	-	280S	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600	1750	1060	1600	140
	90	90	-	-	280M	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600	1750	1060	1600	140
	-	110	-	-	315S	B	200	150	160	940	730	780	530	455	450	112	1800	1100	1650	1800	1100	1650	140

DN = EN 1092-2/DN.../PN 16/21/JS1025/B

**Etanorm SYT**


Version with double-acting mechanical seal

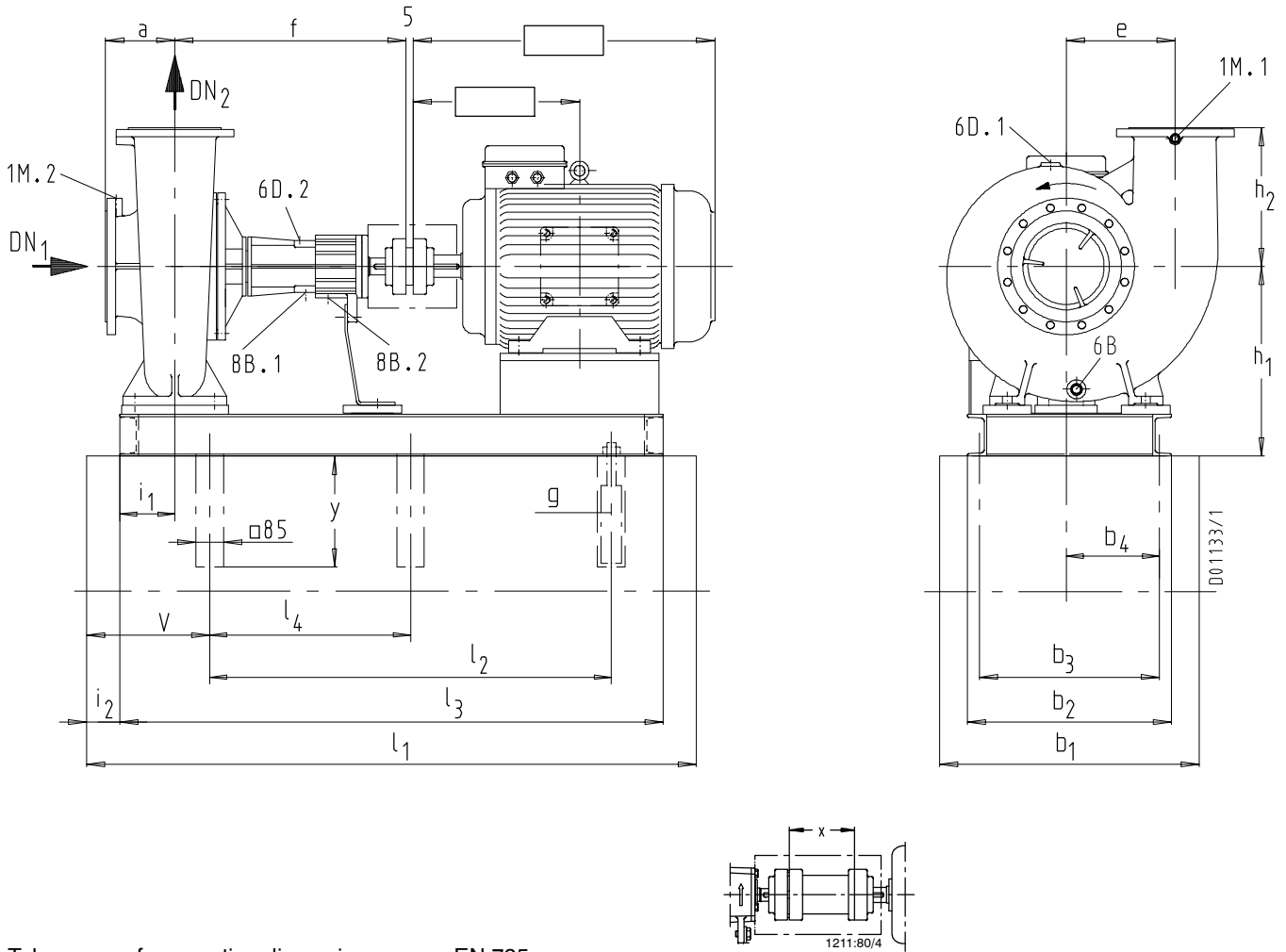
1 M	Druckmessgerät / Pressure gauge / Indicateur de pression / Manomètre / Manometro / Manometer
6 B	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide pompé / Scarico del liquido convogliato / Vloeistof- aftap
6 D	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et purge d'air du liquide pompé / Riempimento del liquido convogliato spurgo dell'aria / Vloeistof vullen en ontluften
8 B	Leckflüssigkeit-Ablass / Leakage drain / Vidange liquide de fuite / Uscita del liquido di fuga / Salida del liquido de fugas / lekvloeistof afvoer
24 A	Quenchflüssigkeit Austritt / Quench liquid out / Liquide quench sortie / Liquido di quench Uscita / Salida del liquido "quench"
24 B	Quenchflüssigkeit Eintritt / Quench liquid in / Liquide quench entrée / Liquido di quench Entrada / Entrada del liquido "quench"

## Tolerances of connecting dimensions as per EN 735

Etanorm SYT	DN <sub>1</sub>	DN <sub>2</sub>	a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	c	d <sub>1</sub> k <sub>6</sub>	d <sub>2</sub>	f	h <sub>1</sub>	h <sub>2</sub>	i	l	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	s <sub>1</sub>	s <sub>2</sub>	t	u	w	mm	
																								1 M 6 B	6 D 8 B
32-125.1	50	32	80	50	113	113	100	24	14	360	112	140	23	50	100	70	190	140	4	15	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
32-160.1	50	32	80	50	116	125	100	24	14	360	132	160	23	50	100	70	240	190	4	15	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
32-200.1	50	32	80	50	128	137	100	24	14	360	160	180	25	50	100	70	240	190	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
32-160	50	32	80	50	113	125	100	24	14	360	132	160	23	50	100	70	240	190	4	15	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
32-200	50	32	80	50	132	141	100	24	14	360	160	180	25	50	100	70	240	190	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
32-250	50	32	100	65	170	176	100	24	14	360	180	225	25	50	125	95	320	250	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
40-160	65	40	80	50	115	131	100	24	14	360	132	160	23	50	100	70	240	190	4	15	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
40-200	65	40	100	50	115	131	100	24	14	360	160	180	25	50	100	70	265	212	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
40-250	65	40	100	65	165	178	100	24	14	360	180	225	25	50	125	95	320	250	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
40-315	65	40	125	65	194	283	130	32	14	470	225	250	24	80	125	95	345	280	6	18	35	10	340	G <sup>3/8</sup>	G <sup>1/4</sup>
50-160	65	50	100	50	126	147	100	24	14	360	160	180	25	50	100	70	265	212	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
50-200	65	50	100	50	145	165	100	24	14	360	160	200	25	50	100	70	265	212	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
50-250	65	50	100	65	168	184	100	24	14	360	180	225	25	50	125	95	320	250	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
50-315	65	50	125	65	200	216	130	32	14	470	225	280	24	80	125	95	345	280	6	18	35	10	340	G <sup>3/8</sup>	G <sup>1/4</sup>
65-160	80	65	100	65	130	158	100	24	14	360	160	200	25	50	125	95	280	212	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
65-200	80	65	100	65	154	177	100	24	14	360	180	225	25	50	125	95	320	250	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
65-250	80	65	100	80	180	200	130	32	19	470	200	250	24	80	160	120	360	280	6	20	35	10	340	G <sup>3/8</sup>	G <sup>1/4</sup>
65-315	80	65	125	80	208	229	130	32	19	470	225	280	24	80	160	120	400	315	6	20	35	10	340	G <sup>3/8</sup>	G <sup>1/4</sup>
80-160	100	80	125	65	153	192	100	24	14	360	180	225	25	50	125	95	320	250	6	18	27	8	260	G <sup>3/8</sup>	G <sup>1/4</sup>
80-200	100	80	125	65	161	189	130	32	14	470	180	250	24	80	125	95	345	280	6	18	35	10	340	G <sup>3/8</sup>	G <sup>1/4</sup>
80-250	100	80	125	80	184	210	130	32	19	470	200	280	24	80	160	120	400	315	6	18	35	10	340	G <sup>3/8</sup>	G <sup>1/4</sup>
80-315	100	80	125	80	220	244	130	32	19	470	250	315	24	80	160	120	400	315	6	20	35	10	340	G <sup>3/8</sup>	G <sup>1/4</sup>
100-160	125	100	125	80	178	225	130	32	19	470	200	280	24	80	160	120	360	280	6	18	35	10	340	G <sup>1/2</sup>	G <sup>1/4</sup>
100-200	125	100	125	80	173	213	130	32	19	470	200	280	24	80	160	120	360	280	6	18	35	10	340	G <sup>1/2</sup>	G <sup>1/4</sup>
100-250	125	100	140	80	190	220	130	32	19	470	225	280	24	80	160	120	400	315	6	18	35	10	340	G <sup>1/2</sup>	G <sup>1/4</sup>
100-315	125	100	140	80	225	255	130	32	19	470	250	315	24	80	160	120	400	315	6	18	35	10	340	G <sup>1/2</sup>	G <sup>1/4</sup>
125-200	150	125	140	80	195	244	130	32	19	470	250	315	24	80	160	120	400	315	6	20	35	10	340	G <sup>1/2</sup>	G <sup>1/4</sup>
125-250	150	125	140	80	226	275	130	32	19	470	250	355	24	80	160	120	400	315	6	20	35	10	340	G <sup>1/2</sup>	G <sup>1/4</sup>
125-315	150	125	140	100	238	278	160	42	24	530	280	355	25	110	200	150	500	400	6	20	45	12	370	G <sup>1/2</sup>	G <sup>1/4</sup>
125-400	150	125	140	100	275	306	160	42	24	530	315	400	25	110	200	150	500	400	6	20	45	12	370	G <sup>1/2</sup>	G <sup>1/4</sup>
150-315	200	150	160	100	255	303	160	42	24	530	280	400	25	110	200	150	550	450	6	20	45	12	370	G <sup>1/2</sup>	G <sup>1/4</sup>
150-400.1	200	150	160	100	285	325	160	42	24	530	315	450	25	110	200	150	550	450	6	20	45	12	370	G <sup>1/2</sup>	G <sup>1/4</sup>

DN = EN 1092-2/DN.../PN 16/21/JS1025/B "G" = ISO 228/1

Etanorm-RSY 200-330 - 200-500



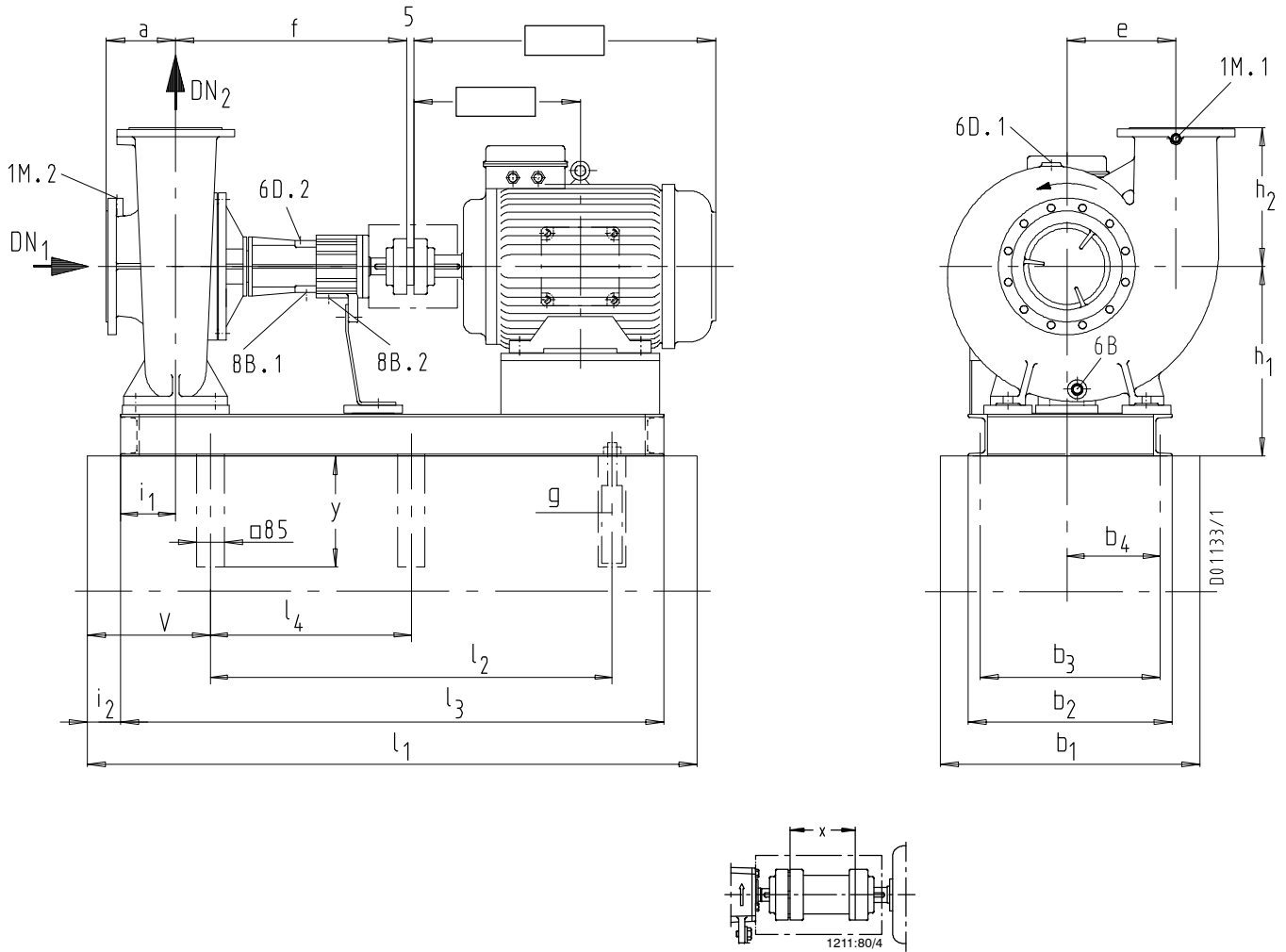
Tolerances of connecting dimensions as per EN 735

Etanorm-RSY	M IP 55		Sizes																					mm										
	960 1160	1450 1750		1/min kW	1) DN <sub>1</sub>	1) DN <sub>2</sub>	a	e	f	g	h <sub>2</sub>	i <sub>1</sub>	y	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	v	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	v
200-330	11.0	--	160L	250	200	200	315	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	900	650	605	333	550	110	2000	1250	1780		280	200
200-330	15.0	18.5	180M	250	200	200	315	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	900	650	605	333	550	110	2000	1250	1780		280	200
200-330	15.0	22.0	180L	250	200	200	315	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	900	650	605	333	550	110	2000	1250	1780		280	200
200-330	18.5	--	200L	250	200	200	315	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	1010	760	710	385	570	110	2100	1300	1880		330	200
200-330	22.0	30.0	200L	250	200	200	315	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	1010	760	710	385	570	110	2100	1300	1880		330	200
200-330	--	37.0	225S	250	200	200	315	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	1010	760	710	385	570	110	2100	1300	1880		330	200
200-330	30.0	45.0	225M	250	200	200	315	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	1010	760	710	385	570	110	2100	1300	1880		330	200
200-330	--	55.0	250M	250	200	200	315	715	M20x400	400	170	450	900	650	605	333	550	110	2000	1250	1780	280	1110	860	810	435	590	110	2260	1450	2040		330	200
200-330	--	75.0	280S	250	200	200	315	715	M20x400	400	170	450	900	650	605	333	550	110	2000	1250	1780	280	1110	860	810	435	590	110	2260	1450	2040		330	200
200-330	--	90.0	280M	250	200	200	315	715	M20x400	400	170	450	1010	760	710	385	570	110	2100	1300	1880	330	1110	860	810	435	590	110	2260	1450	2040		330	200
200-330	--	110.0	315S	250	200	200	315	715	M20x400	400	170	450	1010	760	710	385	570	110	2100	1300	1880	330	1110	860	800	430	610	110	2450	1650	2230	825	330	200
200-400	18.5	--	200L	250	200	180	290	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	1010	760	710	385	570	110	2100	1300	1880		330	200
200-400	22.0	--	200L	250	200	180	290	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	1010	760	710	385	570	110	2100	1300	1880		330	200
200-400	30.0	--	225M	250	200	180	290	715	M20x400	400	170	450	820	570	525	293	550	115	1920	1150	1695	285	1010	760	710	385	570	110	2100	1300	1880		330	200
200-400	37.0	--	250M	250	200	180	290	715	M20x400	400	170	450	900	650	605	333	550	110	2000	1250	1780	280	1110	860	810	435	590	110	2260	1450	2040		330	200
200-400	45.0	75.0	280S	250	200	180	290	715	M20x400	400	170	450	900	650	605	333	550	110	2000	1250	1780	280	1110	860	810	435	590	110	2260	1450	2040		330	200
200-400	55.0	90.0	280M	250	200	180	290	715	M20x400	400	170	450	1010	760	710	385	570	110	2100	1300	1880	330	1110	860	810	435	590	110	2260	1450	2040		330	200
200-400	75.0	110.0	315S	250	200	180	290	715	M20x400	400	170	450	1010	760	710	385	570	110	2100	1300	1880	330	1110	860	800	430	610	110	2450	1650	2230	825	330	200
200-400	--	132.0	315M	250	200	180	290	715	M20x400	400	170	450	1110	860	810	435	590	110	2260	1450	2040	330	1110	860	800	430	610	110	2450	1650	2230	825	330	200
200-500	30.0	--	225M	250	200	200	387	715	M20x400	450	195	450	1010	760	710	385	670	110	2000	1200	1780	330	1010	760	710	385	670	110	2100	1300	1880		330	200
200-500	37.0	--	250M	250	200	200	387	715	M20x400	450	195	450	1010	760	710	385	670	110	2000	1200	1780	330	1110	860	810	435	690	110	2260	1450	2040		330	200
200-500	45.0	--	280S	250	200	200	387	715	M20x400	450	195	450	1010	760	710	385	670	110	2100	1300	1880	330	1110	860	810	435	690	110	2260	1450	2040		330	200
200-500	55.0	--	280M	250	200	200	387	715	M20x400	450	195	450	1010	760	710	385	670	110	2100	1300	1880	330	1110	860	810	435	690	110	2260	1450	2040		330	200
200-500	75.0	--	315S	250	200	200	387	715	M20x400	450	195	450	1110	860	810	435	690	110	2260	1450	2040	330	1110	860	800	430	710	110	2450	1650	2230	825	330	200
200-500	--	110.0	315S	250	200	200	387	715	M20x400	450	195	450	1110	860	810	435	690	110	2260	1450	2040	330	1110	860	800	430	710	110	2450	1650	2230	825	330	200
200-500	90.0	132.0	315M	250	200	200	387	715	M20x400	450	195	450	1110	860	810	435	690	110	2260	1450	2040	330	1110	860	800	430	710	110	2450	1650	2230	825	330	200

1) DN = EN 1092-2/DN.../PN 16/21/GJS-400-18-LT/B



Etanorm-RSY 250-330 - 250-500



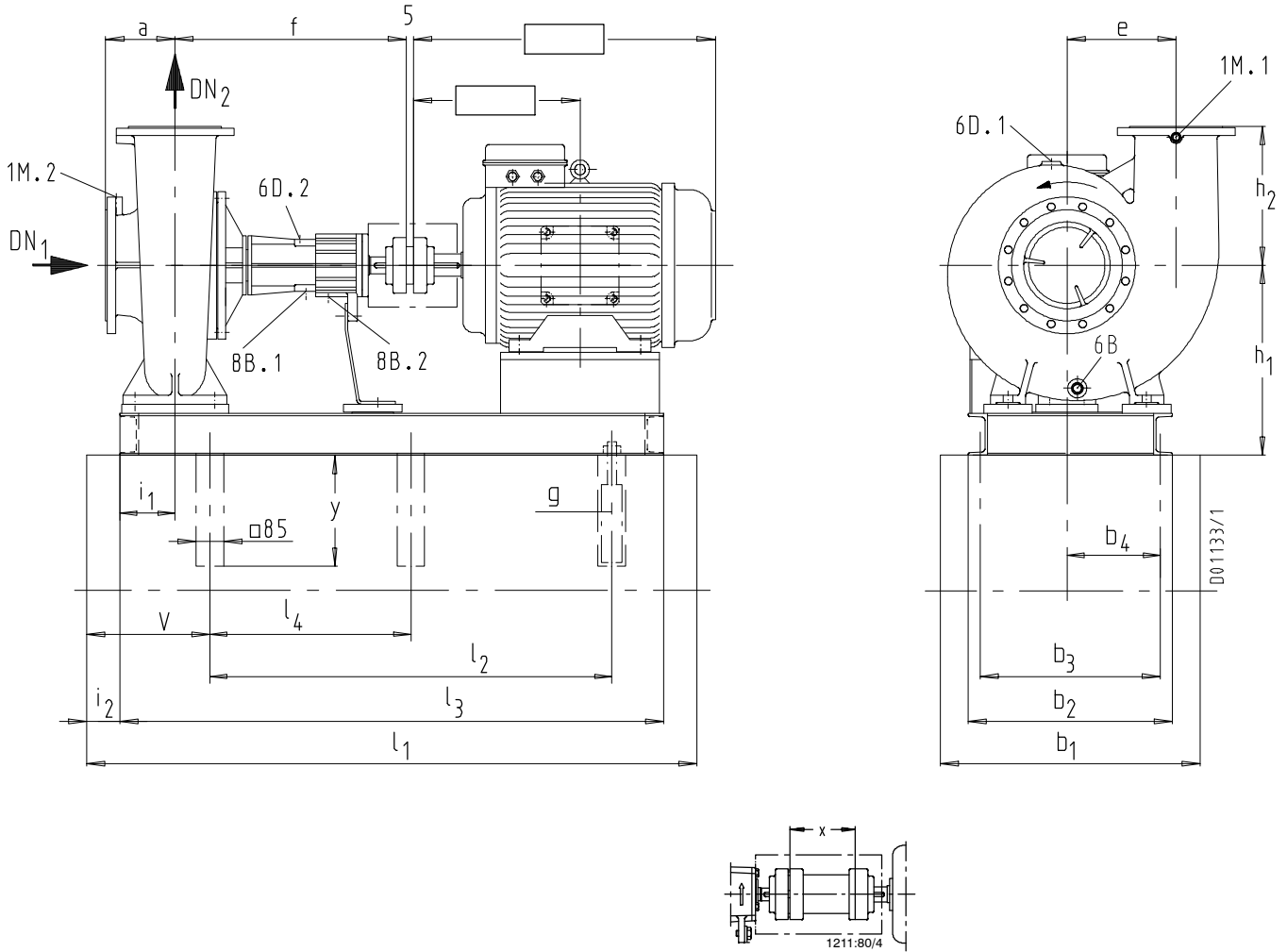
Tolerances of connecting dimensions as per EN 735

mm

Etanorm-RSY	M IP 55 960 1450 1160 1750	1/min kW	Sizes																															
			1)	1)	a	e	f	g	h <sub>2</sub>	i <sub>1</sub>	y	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	v	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	v	x	
			DN <sub>1</sub>	DN <sub>2</sub>																														
250-330	15.0	--	180L	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	115	1920	1150	1695	310	1010	760	710	395	620	110	2100	1300	1880		330	200
250-330	18.5	--	200L	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	115	1920	1150	1695	310	1010	760	710	395	620	110	2100	1300	1880		330	200
250-330	22.0	--	200L	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	115	1920	1150	1695	310	1010	760	710	395	620	110	2100	1300	1880		330	200
250-330	37.0	--	225S	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	110	2000	1200	1780	330	1010	760	710	395	620	110	2100	1300	1880		330	200
250-330	30.0	--	225M	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	110	2000	1200	1780	330	1010	760	710	395	620	110	2100	1300	1880		330	200
250-330	37.0	55.0	250M	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	110	2000	1200	1780	330	1110	860	810	445	640	110	2240	1450	2040		330	200
250-330	45.0	75.0	280S	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	110	2100	1300	1880	330	1110	860	810	445	640	110	2240	1450	2040		330	200
250-330	--	90.0	280M	250	250	250	345	715	M20x400	400	195	450	1010	760	710	395	620	110	2100	1300	1880	330	1110	860	810	445	640	110	2240	1450	2040		330	200
250-330	--	110.0	315S	250	250	250	345	715	M20x400	400	195	450	1110	860	810	445	640	110	2260	1450	2040	330	1110	860	800	440	660	110	2450	1650	2230	825	330	200
250-330	--	132.0	315M	250	250	250	345	715	M20x400	400	195	450	1110	860	810	445	640	110	2260	1450	2040	330	1110	860	800	440	660	110	2450	1650	2230	825	330	200
250-400	18.5	--	200L	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	115	1920	1150	1695	310	1010	760	710	385	620	110	2100	1300	1880		330	200
250-400	22.0	--	200L	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	115	1920	1150	1695	310	1010	760	710	385	620	110	2100	1300	1880		330	200
250-400	37.0	--	225S	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	110	2000	1200	1780	330	1010	760	710	385	620	110	2100	1300	1880		330	200
250-400	30.0	--	225M	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	110	2000	1200	1780	330	1010	760	710	385	620	110	2100	1300	1880		330	200
250-400	37.0	--	250M	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	110	2000	1200	1780	330	1110	860	810	435	640	110	2260	1450	2040		330	200
250-400	45.0	--	280S	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	110	2100	1300	1880	330	1110	860	810	435	640	110	2260	1450	2040		330	200
250-400	--	75.0	280M	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	110	2100	1300	1880	330	1110	860	810	435	640	110	2260	1450	2040		330	200
250-400	55.0	90.0	315S	300	250	180	335	715	M20x400	480	195	450	1010	760	710	385	620	110	2100	1300	1880	330	1110	860	810	435	640	110	2260	1450	2040		330	200
250-400	75.0	110.0	315M	300	250	180	335	715	M20x400	480	195	450	1110	860	810	435	640	110	2260	1450	2040	330	1110	860	800	430	660	110	2450	1650	2230	825	330	200
250-400	--	132.0	315M	300	250	180	335	715	M20x400	480	195	450	1110	860	810	435	640	110	2260	1450	2040	330	1110	860	800	430	660	110	2450	1650	2230	825	330	200
250-500	45.0	--	280S	300	250	225	425	715	M20x400	500	220	450	1110	860	810	445	690	110	2260	1450	2040	330	1110	860	810	445	690	110	2260	1450	2040		330	200
250-500	55.0	--	280M	300	250	225	425	715	M20x400	500	220	450	1110	860	810	445	690	110	2260	1450	2040	330	1110	860	800	440	710	110	2450	1650	2230	825	330	200
250-500	75.0	--	315S	300	250	225	425	715	M20x400	500	220	450	1110	860	810	445	690	110	2260	1450	2040	330	1110	860	800	440	710	110	2450	1650	2230	825	330	200
250-500	90.0	--	315M	300	250	225	425	715	M20x400	500	220	450	1110	860	810	445	690	110	2260	1450	2040	330	1110	860	800	440	710	110	2450	1650	2230	825	330	200

1) DN = EN 1092-2/DN.../PN 16/21/GJS-400-18-LT/B

Etanorm-RSY 300-360 - 300-500

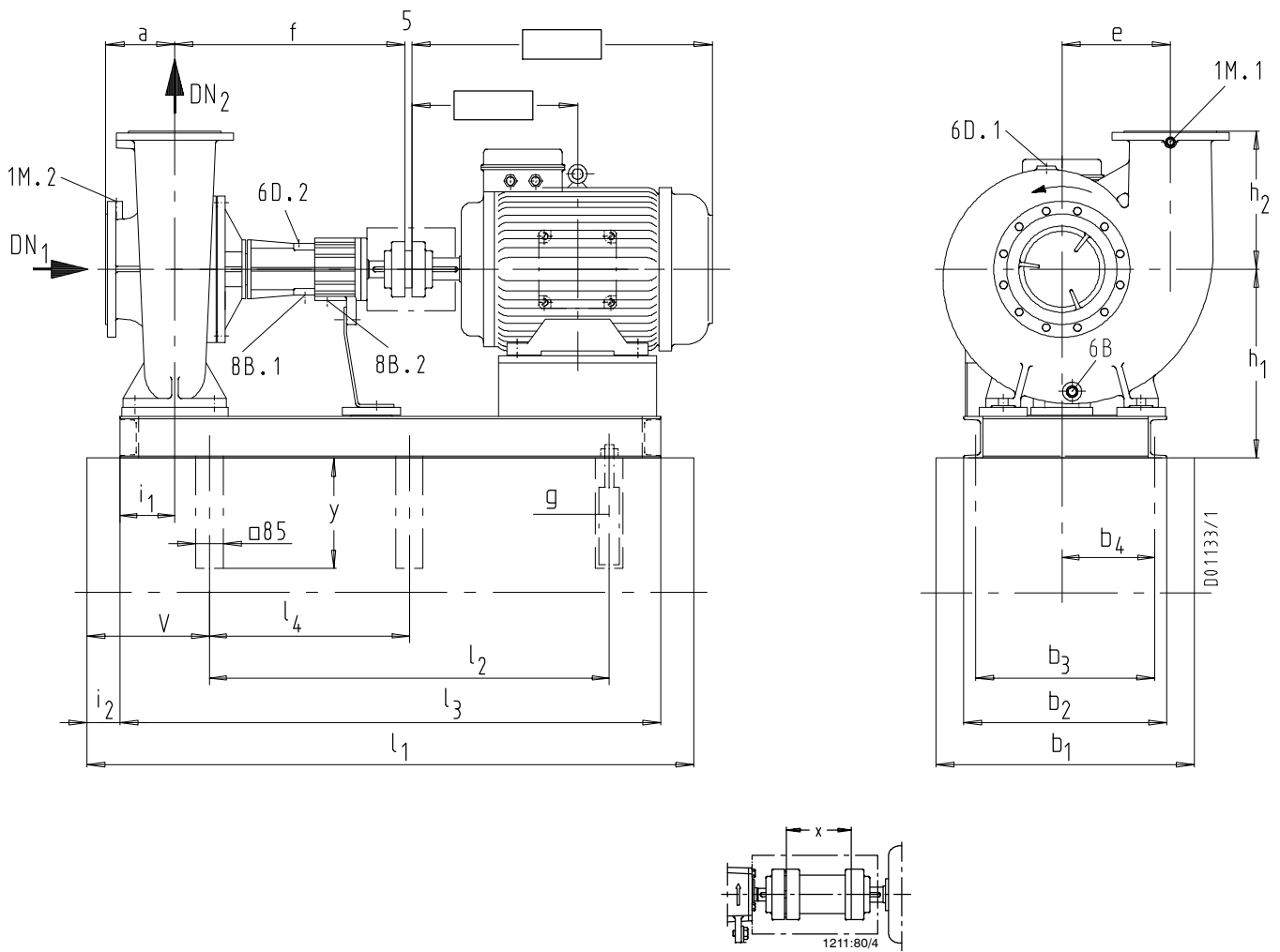


Tolerances of connecting dimensions as per EN 735

Etanorm-RSY	M IP 55		Sizes																																		mm
	960 1160	1450 1750	DN1	DN2																																	
					1/min kW	1)	1)	a	e	f	g	h <sub>2</sub>	i <sub>1</sub>	y	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	v	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	v	x	
300-360	30.0	-	225M	300	300	300	387	717	M20x400	450	220	450	1010	760	710	395	730	110	2000	1200	1780	330	1110	860	810	445	750	110	2260	1450	2040		330	250			
300-360	37.0	-	250M	300	300	300	387	717	M20x400	450	220	450	1010	760	710	395	730	110	2100	1300	1880	330	1110	860	810	445	750	110	2250	1450	2040		330	250			
300-360	45.0	-	280S	300	300	300	387	717	M20x400	450	220	450	1010	760	710	395	730	110	2100	1300	1880	330	1110	860	800	440	750	110	2450	1650	2230	825	330	250			
300-360	55.0	90.0	280M	300	300	300	387	717	M20x400	450	220	450	1010	760	710	395	730	110	2100	1300	1880	330	1110	860	800	440	750	110	2450	1650	2230	825	330	250			
300-360	75.0	110.0	315S	300	300	300	387	717	M20x400	450	220	450	1110	860	810	445	750	110	2260	1450	2040	330	1110	860	800	440	750	110	2450	1650	2230	825	330	250			
300-360	-	132.0	315M	300	300	300	387	717	M20x400	450	220	450	1110	860	810	445	750	110	2260	1450	2040	330	1110	860	800	440	750	110	2450	1650	2230	825	330	250			
300-400	37.0	-	250M	350	300	300	425	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	810	455	750	110	2260	1450	2040		330	250			
300-400	45.0	-	280S	350	300	300	425	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	800	450	770	110	2450	1650	2230	825	330	250			
300-400	55.0	-	280M	350	300	300	425	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	800	450	770	110	2450	1650	2230	825	330	250			
300-400	75.0	-	315S	350	300	300	425	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	800	450	770	110	2450	1650	2230	825	330	250			
300-400	-	110.0	315S	350	300	300	425	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	800	450	770	110	2450	1650	2230	825	330	250			
300-400	90.0	132.0	315M	350	300	300	425	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	800	450	770	110	2450	1650	2230	825	330	250			
300-500	75.0	-	315S	350	300	300	450	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	800	450	770	110	2450	1650	2230	825	330	250			
300-500	75.0	-	315M	350	300	300	450	715	M20x400	500	220	450	1110	860	810	455	750	110	2260	1450	2040	330	1110	860	800	450	770	110	2450	1650	2230	825	330	250			

1) DN = EN 1092-2/DN.../PN 16/21/GJS-400-18-LT/B

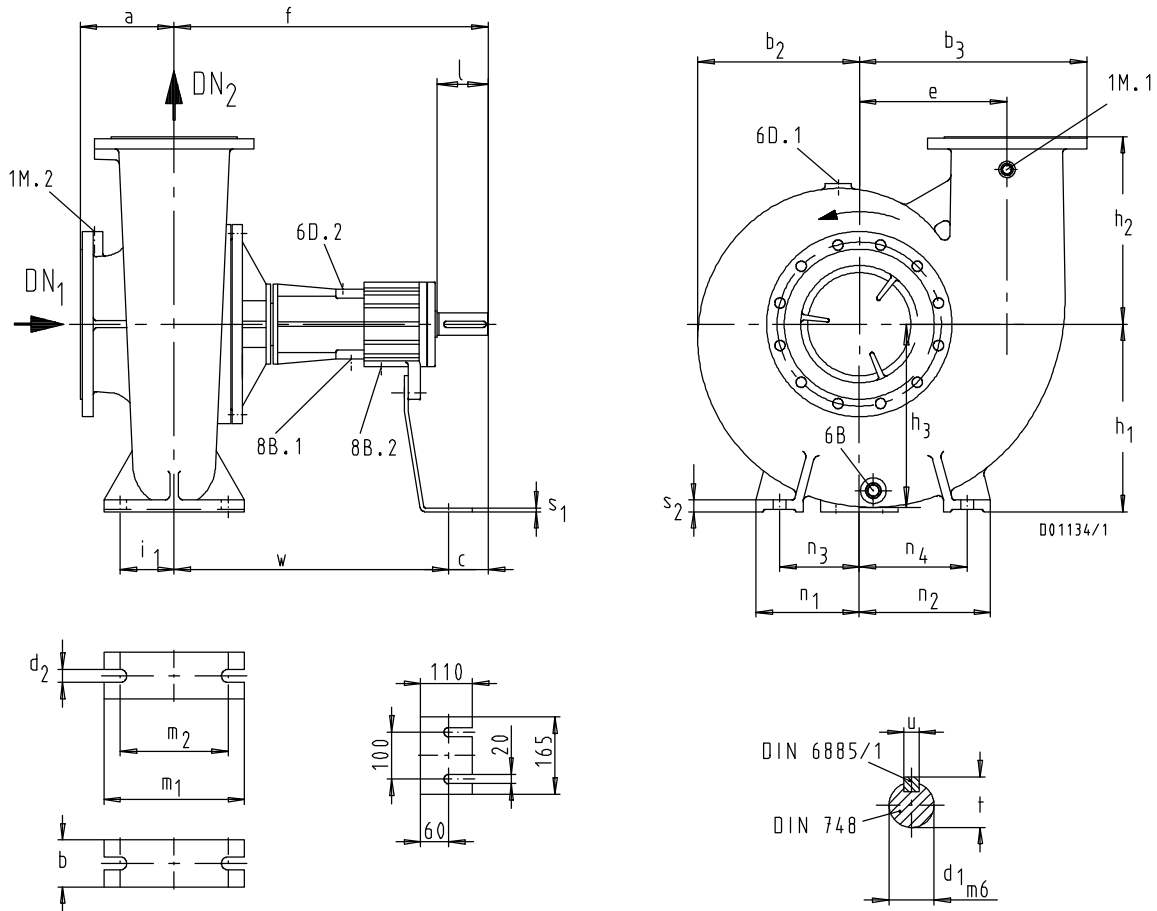
Etanorm-RSY 125-500/2, 150-500.1



Tolerances of connecting dimensions as per EN 735

Etanorm-RSY	M IP 55 960 1450 1160 1750	1/min kW	Sizes																																
				<sup>1)</sup> DN <sub>1</sub>	<sup>1)</sup> DN <sub>2</sub>	a	e	f	g	h <sub>2</sub>	i	y	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	v	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	i <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	v	x	
125-500/2	11.0	-	160L	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	115	1920	1150	1695	310	310	200	
125-500/2	18.5	-	180M	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	115	1920	1150	1695	310	310	200	
125-500/2	15.0	-	180L	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	900	650	805	318	505	110	2000	1250	1780	280	280	200	
125-500/2	18.5	-	200L	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	110	2100	1300	1880	330	200		
125-500/2	22.0	-	200L	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	110	2100	1300	1880	330	200		
125-500/2	-	30.0	200L	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	110	2100	1300	1880	330	200		
125-500/2	-	37.0	225S	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	110	2100	1300	1880	330	200		
125-500/2	30.0	45.0	225M	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	110	2100	1300	1880	330	200		
125-500/2	37.0	55.0	250M	150	125	245	270	703	M20x400	300	145	450	1010	760	710	370	525	115	1920	1150	1695	310	1010	760	710	370	525	110	2100	1300	1880	330	200		
125-500/2	45.0	75.0	280S	150	125	245	270	703	M20x400	300	145	450	900	650	605	318	505	110	2000	1250	1780	280	1110	860	810	420	545	110	2260	1450	2040	330	200		
125-500/2	55.0	90.0	280M	150	125	245	270	703	M20x400	300	145	450	900	650	605	318	505	110	2000	1250	1780	280	1110	860	810	420	545	110	2260	1450	2040	330	200		
150-500.1	18.5	-	200L	200	150	315	715	M20x400	450	170	450	820	570	525	272	550	115	1920	1150	1695	285	1010	760	710	365	570	110	2100	1300	1880	330	200			
150-500.1	22.0	-	200L	200	150	315	715	M20x400	450	170	450	820	570	525	272	550	115	1920	1150	1695	285	1010	760	710	365	570	110	2100	1300	1880	330	200			
150-500.1	37.0	-	225S	200	150	315	715	M20x400	450	170	450	820	570	525	272	550	115	1920	1150	1695	285	1010	760	710	365	570	110	2100	1300	1880	330	200			
150-500.1	30.0	-	225M	200	150	315	715	M20x400	450	170	450	820	570	525	272	550	115	1920	1150	1695	285	1010	760	710	365	570	110	2100	1300	1880	330	200			
150-500.1	37.0	-	250M	200	150	315	715	M20x400	450	170	450	900	650	605	313	550	110	2000	1250	1780	280	1110	860	810	415	590	110	2260	1450	2040	330	200			
150-500.1	45.0	-	280S	200	150	315	715	M20x400	450	170	450	900	650	605	313	550	110	2000	1250	1780	280	1110	860	810	415	590	110	2260	1450	2040	330	200			
150-500.1	-	75.0	280S	200	150	315	715	M20x400	450	170	450	900	650	605	313	550	110	2000	1250	1780	280	1110	860	810	415	590	110	2260	1450	2040	330	200			
150-500.1	55.0	90.0	280M	200	150	315	715	M20x400	450	170	450	1010	760	710	365	570	110	2100	1300	1880	330	1110	860	810	415	590	110	2260	1450	2040	330	200			
150-500.1	75.0	110.0	315S	200	150	315	715	M20x400	450	170	450	1010	760	710	365	570	110	2100	1300	1880	330	1110	860	800	410	610	110	2450	1650	2230	825	330	200		
150-500.1	-	132.0	315M	200	150	315	715	M20x400	450	170	450	1110	860	810	415	590	110	2260	1450	2040	330	1110	860	800	410	610	110	2450	1650	2230	825	330	200		

1) DN = EN 1092-2/DN.../PN 16/21/GJS-400-18-LT/B

**Etanorm-RSY**


1 M.1/2	Druckmessgerät / Pressure gauge / Indicateur de pression / Manometro / Aparato manometrico / Manometer	G 1/2 <sup>2)</sup>
6 B	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide véhiculé / Scarico del liquido convogliato / Vaciado del líquido de impulsión / aftap, pomphuis	G 1/2 <sup>2)3)</sup> / G 3/4 <sup>2)</sup>
6 D.1	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et dégazage de liquide véhiculé / Riempimento e scarico del liquido convogliato / Llenado y desaireación del líquido de impulsión / vul en ontlichting	G 1/2 <sup>2)3)</sup> / G 3/4 <sup>2)</sup>
6 D.2	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et dégazage de liquide véhiculé / Riempimento e scarico del liquido convogliato / Llenado y desaireación del líquido de impulsión / vul en ontlichting	G 1/4
8 B.1	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide véhiculé / Scarico del liquido convogliato / Vaciado del líquido de impulsión / aftap, pomphuis	G 1/4
8 B.2	Leckflüssigkeit-Ablass / Leakage drain / Vidange liquide de fuite / Uscita del liquido di fuga / Salida del líquido de fugas / lekvloeistof afvoer	G 1/4

2) G = ISO 228/1

3) bei Baugröße 125-500/2 / for pump sizes 125-500/2 / pour tailles des pompes 125-500/2 / para tamaños de bomba 125-500/2 / nelle grandezza 125-500/2 / bij Bouwgrootte 125-500/2

**Tolerances of connecting dimensions as per EN 735**

Etanorm-RSY	DN <sub>1</sub> <sup>1)</sup>	DN <sub>2</sub> <sup>1)</sup>	mm																									
			a	b	b <sub>2</sub>	b <sub>3</sub>	c	d <sub>1m6</sub>	d <sub>2</sub>	e	f	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	i <sub>1</sub>	l	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	n <sub>3</sub>	n <sub>4</sub>	s <sub>1</sub>	s <sub>2</sub>	t	u	w	
125-500/2	150	125	245	120	290	400	121	60	24	270	703	355	300	297	95	140	250	190	270	300	220	250	6	22	64	18	582	
150-500.1	200	150	150	100	300	470	115	60	28	315	715	400	450	359	115	140	300	230	240	260	190	210	6	25	64	18	600	
200-330	250	200	200	100	360	485	120	60	28	315	715	400	400	390	115	140	300	230	220	280	170	230	8	25	64	18	595	
200-400	250	200	180	130	340	460	120	60	28	290	715	400	400	358	115	140	300	230	220	280	155	215	8	25	64	18	595	
200-500	250	200	200	130	410	560	115	60	28	387	715	500	450	497	140	140	350	280	320	380	255	315	20	25	64	18	600	
250-330	250	250	250	130	400	550	120	60	34	345	715	450	400	445	140	140	350	280	310	390	245	325	10	25	64	18	595	
250-400	300	250	180	130	360	540	120	60	34	335	715	450	480	400	140	140	350	280	320	380	255	315	10	25	64	18	595	
250-500	300	250	225	130	420	630	115	60	34	425	715	500	500	514	162.5	140	400	325	360	440	295	375	20	32	64	18	600	
300-360	300	300	300	160	460	640	122	60	34	387	717	560	450	505	162.5	140	400	325	310	390	230	310	20	32	64	18	595	
300-400	350	300	300	160	460	650	120	60	34	425	715	560	500	540	162.5	140	400	325	350	450	270	370	20	32	64	18	595	
300-500	350	300	300	160	470	690	115	60	34	450	715	560	500	581	162.5	140	400	325	350	450	270	370	20	32	64	18	600	

1) DN = EN 1092-2/DN.../PN 16/21/GJS-400-18-LT/B

**Etanorm SYT**
**Recommended Spare Parts Stock for 2 Years' Continuous Operation to DIN 24296**

Part No.	Description	Number of pumps (including stand-by pumps)							Quantity of spare parts
		2	3	4	5	6 and 7	8 and 9	10 and more	
210	Shaft	1	1	1	2	2	2	20 %	
230	Impeller (incl. casing wear ring 502.2)	1	1	1	2	2	2	20 %	
310	Plain bearing	2	3	4	5	7	9	100 %	
321	Radial ball bearing	1	1	2	2	2	3	25 %	
330	Bearing bracket <sup>1)</sup>	-	-	-	-	-	1	2 off	
433	Mechanical seal <sup>2)</sup>	1	1	2	2	3	3	25 %	
502.1/.2	Casing wear ring	1	1	1	2	2	2	20 %	
411.3/.4	Joint ring	4	6	8	8	9	12	150 %	
412	O-ring <sup>3)</sup>	4	6	8	8	9	10	100 %	
-	Torque-transmitting coupling element (set)	1	1	2	2	3	4	30 %	

- 1) Complete bearing bracket. Example of a pump set with single-acting mechanical seal and carbon plain bearing: shaft 210, plain bearing 310, radial ball bearing 321, bearing bracket 330, bearing cover 360, joint ring 411.1, O-ring 412.1, mechanical seal 433, seat ring holder 476, disc 550.1/.2/.3, hexagon head bolt 901.1, screwed plug 903, plug 916, hexagonnut 920.3, spring washer 930, circlip 932.1/.2
- 2) For double-acting mechanical seals double the quantity.
- 3) For double-acting mechanical seal: parts 412.1 and 412.2

**Interchangeability of pump components**

Components featuring the same number in a column are interchangeable.

Etanorm SYT	Shaft unit	Etabloc SYT	Etaline SYT	Description															
				Discharge cover	Support foot 1)	Shaft 1)	Impeller	Plain bearing	Radial ball bearing 1)	Bearing bracket 1)	Bearing housing 2)	Bearing cover 1)	Mechanical seal 1)3)	Mechanical seal 2)	Seal cover 2)	Seat ring holder 1)	Casing wear ring suction side	Casing wear ring discharge side	
				Part No.	163	183	210	230	310	321	330	350	360	433	433	471	476	502.1	502.2
32-125.5	25	32-125.1/.	-	1	1	1	O	O	1	1	1	1	1	1	3	1	1	1	X
32-160.1	25	32-160.1/.	40-160/..	1	2	1	1	O	1	1	1	1	1	1	3	1	1	1	3
32-200.1	25	32-200.1/.	40-200/..	2	3	1	2	O	1	1	1	1	1	1	3	1	1	1	3
32-160	25	32-160/..	50-160/..	1	2	1	1	O	1	1	1	1	1	1	3	1	1	1	3
32-200	25	32-200/..	50-200/..	2	3	1	2	O	1	1	1	1	1	1	3	1	1	1	3
32-250	25	-	-	3	4	1	O	2	1	1	-	1	1	-	-	1	1	10	
40-160	25	40-160/..	65-160/..	1	2	1	O	O	1	1	1	1	1	1	3	1	1	2	3
40-200	25	40-200/..	65-200/..	2	3	1	O	O	1	1	1	1	1	1	3	1	1	O	3
40-250	25	-	-	3	4	1	O	2	1	1	-	1	1	-	-	1	2	10	
40-315	35	-	-	O	7	2	O	3	2	2	-	2	2	-	-	2	2	13	
50-160	25	50-160/..	80-160/..	1	3	1	O	O	1	1	1	1	1	1	3	1	1	3	3
50-200	25	50-200/..	80-200/..	2	3	1	O	O	1	1	1	1	1	1	3	1	1	3	3
50-250	25	-	-	3	4	1	O	2	1	1	-	1	1	-	-	1	3	10	
50-315	35	-	-	7	7	2	O	3	2	2	-	2	2	-	-	2	4	11	
65-160	25	65-160/..	100-160/..	4	3	1	O	O	1	1	1	1	1	1	3	1	1	4	5
65-200	25	65-200/..	-	O	4	1	O	O	1	1	-	1	1	-	-	1	4	5	
65-250	35	-	-	O	5	2	O	3	2	2	-	2	2	-	-	2	5	13	
65-315	35	-	-	7	7	2	O	3	2	2	-	2	2	-	-	2	5	11	
80-160	25	80-160/..	100-170/..	4	4	1	O	O	1	1	-	1	1	-	-	1	6	5	
80-200	35	-	-	5	O	2	O	3	2	2	-	2	2	-	-	2	6	11	
80-250	35	-	-	6	5	2	O	3	2	2	-	2	2	-	-	2	6	11	
80-315	35	-	-	7	6	2	O	3	2	2	-	2	2	-	-	2	6	11	
100-160	35	-	-	5	5	2	O	3	2	2	-	2	2	-	-	2	7	11	
100-200	35	-	-	5	5	2	O	3	2	2	-	2	2	-	-	2	7	11	
100-250	35	-	-	6	7	2	O	3	2	2	-	2	2	-	-	2	7	11	
100-315	35	-	-	7	6	2	O	3	2	2	-	2	2	-	-	2	7	11	
125-200	35	-	-	O	6	2	O	3	2	2	-	2	2	-	-	2	8	O	
125-250	35	-	-	O	6	2	O	3	2	2	-	2	2	-	-	2	8	O	
125-315	55	-	-	8	9	3	O	3	3	3	-	3	3	-	-	3	8	12	
125-400	55	-	-	9	8	3	O	3	3	3	-	3	3	-	-	3	8	12	
150-315	55	-	-	8	9	3	O	3	3	3	-	3	3	-	-	3	9	12	
150-400.1	55	-	-	10	8	3	O	3	3	3	-	3	3	-	-	3	9	-	

- 1) Etanorm SYT only  
 2) Etabloc SYT/Etaline SYT only  
 3) Single-acting mechanical seal 433 not interchangeable with double-acting mechanical seal 433.1/.2

Components differ       Component not fitted

**Etanorm-RSY**
**Recommended Spare Parts Stock for 2 Years' Continuous Operation**

Part No.	Description	Number of pumps (including stand-by pumps)						
		2	3	4	5	6 and 7	8 and 9	10 and more
		Quantity of spare parts						
171	Diffuser <sup>1)</sup>	1	1	1	2	2	2	20 %
210	Shaft	1	1	1	2	2	2	20 %
230	Impeller <sup>2)</sup>	1	1	1	2	2	2	20 %
321	Radial ball bearing	1	1	2	2	3	4	100 %
330	Bearing bracket	-	-	-	-	-	1	2 off
400./...	Gasket (set)	4	6	8	8	9	12	150 %
412	O-Ring <sup>1)</sup>	4	6	8	8	9	12	150 %
433	Mechanical seal	1	1	2	2	2	3	25 %
502.01/.02	Casing wear ring	2	2	2	3	3	4	50 %
---	Torque-transmitting coupling element (set)	1	1	2	2	3	4	30 %

1) Etanorm-RSY 125-500/2 only

2) Etanorm-RSY 125-500/2 double quantity

3) Bearing bracket cpl., consisting of: shaft 210, radial ball bearing 321, bearing cover 360.02, joint ring 411.11/.20/.21/.85, O-ring 412.82/.83, mechanical seal 433, seat ring holder 476, ring 550.32, spacer ring 504.01/.02, bearing sleeve 529.21, bearing bush 545.21, grooved pin 561.52, screwed plug 903.20/.21/.85, hex. nut 920.04, keywayed nut 920.21, impeller nut 922, key 940.01/.02, lockwasher 931.01

**Interchangeability of Component Parts**

Etanorm-RSY	Shaft unit	Description													
		Volute casing	Casing cover	Support foot (carbon bearings only)	Shaft	Impeller	Radial ball bearing	Bearing bracket (carbon bearing)	Bearing cover (without fan)	Mechanical seal	Seat ring holder	Casing wear ring, suction-side	Casing wear ring, discharge-side	Bearing sleeve (carbon bearing)	Bearing bush (carbon bearing)
		Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.	Part-No.
		102	161	183	210	230	321	330	360.02	433	476	501.01	501.02	529.21	545.21
125-500/2	65	0	0	0	0	0	1	1	1	1	1	0	0	1	1
150-500.1	65	0	1	0	1	0	1	1	1	1	1	1	1	1	1
200-330	65	0	4	0	1	0	1	1	1	1	1	0	4	1	1
200-400	65	0	0	0	1	0	1	1	1	1	1	2	2	1	1
200-500	65	0	1	0	1	0	1	1	1	1	1	0	1	1	1
250-330	65	0	0	0	1	0	1	1	1	1	1	0	4	1	1
250-400	65	0	0	0	1	0	1	1	1	1	1	0	1	1	1
250-500	65	0	2	0	1	0	1	1	1	1	1	0	1	1	1
300-360	65	0	3	0	1	0	1	1	1	1	1	0	1	1	1
300-400	65	0	3	0	1	0	1	1	1	1	1	3	1	1	1
300-500	65	0	2	0	1	0	1	1	1	1	1	3	1	1	1

Components differ

1
1

Same components



