

Thermal Oil / Hot Water Pump

Etabloc SYT/ Etaline SYT

Type Series Booklet

Etabloc SYT



Etaline SYT



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Type Series Booklet Etabloc SYT/ Etaline SYT

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Centrifugal Pumps with Shaft Seal

Thermal Oil Pumps / Hot Water Pumps

Etabloc SYT / Etaline SYT

Etabloc SYT



Etaline SYT



Main applications

- Heat transfer systems
- Hot water circulation

Fluids handled

- High-temperature hot water
- Thermal oil, mineral
- Thermal oil, synthetic

Operating data

Etabloc SYT operating properties

Characteristic	Value	Value	
		50 Hz	60 Hz
Flow rate	Q [m ³ /h]	≤ 280	≤ 337
Head	H [m]	≤ 68	≤ 99
Fluid temperature	T [°C]	≥ -30	≥ -30
Thermal oil		≤ +350	≤ +350
Fluid temperature		≤ +180	≤ +180
Hot water			
Operating pressure	p [bar]	≤ 16	≤ 16

Etaline SYT operating properties

Characteristic	Value	Value	
		50 Hz	60 Hz
Flow rate	Q [m ³ /h]	≤ 316	≤ 228
Head	H [m]	≤ 69	≤ 101
Fluid temperature	T [°C]	≥ -30	≥ -30
Thermal oil		≤ +350	≤ +350
Fluid temperature		≤ +180	≤ +180
Hot water			
Operating pressure	p [bar]	≤ 16	≤ 16

Design details

Design

- Volute casing pump
- Horizontal installation
- Vertical installation
- Back pull-out design
- Single-stage

Etabloc SYT:

- Ratings to EN 733

Pump casing

- Radially split volute casing
- Replaceable casing wear rings

Etabloc SYT:

- Volute casing with integrally cast pump feet

Etaline SYT:

- In-line design

Drive

Standard design:

- KSB surface-cooled IEC three-phase current squirrel-cage motor
- 50 Hz winding, 230 V delta configuration ≤ 2.20 kW
- 50 Hz winding, 400 V star configuration ≤ 2.20 kW
- 50 Hz winding, 400 V delta configuration ≥ 3.00 kW
- 50 Hz winding, 690 V star configuration ≥ 3.00 kW
- 60 Hz winding, 460 V star configuration ≤ 2.60 kW
- 60 Hz winding, 460 V delta configuration ≥ 3.60 kW
- Type of construction V1
- Enclosure IP55
- Duty cycle: continuous duty S1
- Thermal class F with temperature sensor, 3 PTC thermistors
- Efficiency class IE2 / IE3 to IEC 60034-30

or

- Surface-cooled KSB SuPremE motor, IEC-compatible, magnetless synchronous reluctance motor (PumpDrive required)
- Mounting points to EN 50347:2001
- Envelope dimensions to DIN V 42673-4:2011-07
- Frequency 50/60 Hz (PumpDrive input)
- Electric voltage 380 to 480 V (PumpDrive input)
- Type of construction V1
- Enclosure IP55
- Duty cycle: continuous duty S1
- Thermal class F with temperature sensor, 3 PTC thermistors
- Efficiency class IE4 to IEC 60034-30

Explosion-proof version:

- KSB surface-cooled IEC three-phase current squirrel-cage motor
- 50 Hz winding, 230 V delta configuration ≤ 1.85 kW
- 50 Hz winding, 400 V star configuration ≤ 1.85 kW
- 50 Hz winding, 400 V delta configuration ≥ 2.50 kW

- 50 Hz winding, 690 V star configuration ≥ 2.50 kW
- Type of construction V1
- Enclosure IP55
- Duty cycle: continuous duty S1
- Type of protection EEx e II
- Temperature class T3

Shaft seal

- Reinforced single mechanical seal
- To EN 12756

Impeller type

- Closed radial impeller with multiply curved vanes

Designation

Etabloc SYT

Designation example

Position																																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
E	T	B	Y	0	5	0	-	0	3	2	-	1	6	0	-	S	G	S	D	B	0	8	A	2	1	1	0	0	2	-	-	B	P	D	2	E
See name plate and data sheet																							See data sheet						-							

Designation key

Position	Code	Description
1-4	Pump type	
	ETBY	Etabloc SYT
5-16	Size, e.g.	
	050	Nominal suction nozzle diameter [mm]
	032	Nominal discharge nozzle diameter [mm]
	160	Nominal impeller diameter [mm]
17	Pump casing material	
	S	Nodular cast iron EN-GJS-400-15
18	Impeller material	
	C	Stainless steel 1.4408 / A743CF8M
	G	Cast iron EN-GJL-250 / A48CL35
19	Design	
	S	Standard
	X	Non-standard (BT3D, BT3)
20	Casing cover	
	D	Casing cover for Etabloc SYT (dead-end arrangement)
21	Shaft seal type	
	B	Dead-end arrangement, only for Etabloc SYT
22-23	Seal code, single mechanical seal	
	08	AQ1VGG M32N69
24	Scope of supply	
	A	Pump only (Fig. 0 bare-shaft pump)
	D	Pump, motor
25	Shaft unit	
	2	Shaft unit 25
26-29	Motor rating P_N [kW]	
	0075	7,50

	1320	132,00
30	Number of motor poles	
31-32	Explosion protection	
	ex	With explosion-proof motor
	--	Without explosion-proof motor

Position	Code	Description
33	Product generation	
	B	Etabloc SYT 2014
34-37	PumpDrive	
	PD2	PumpDrive 2
	PD2E	PumpDrive 2 Eco

Etaline SYT

Designation example

Position																																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
E	T	L	Y	0	3	2	-	0	3	2	-	1	6	0	-	S	G	S	D	B	0	8	A	2	1	1	0	0	2	-	-	B	P	D	2	E
See name plate and data sheet																							See data sheet													

Designation key

Position	Code	Description
1-4	Pump type	
	ETLY	Etaline SYT
5-16	Size, e.g.	
	032	Nominal suction nozzle diameter [mm]
	032	Nominal discharge nozzle diameter [mm]
	160	Nominal impeller diameter [mm]
17	Pump casing material	
	S	Nodular cast iron EN-GJS-400-15
18	Impeller material	
	G	Cast iron EN-GJL-250 / A48CL35
	C	Stainless steel 1.4408 / A743CF8M
19	Design	
	S	Standard
	X	Non-standard (BT3D, BT3)
20	Casing cover	
	D	Casing cover Etaline SYT
21	Shaft seal type	
	B	Dead-end arrangement
22-23	Seal code, single mechanical seal	
	08	AQ1VGG M32N69
24	Scope of supply	
	A	Pump only (Fig. 0 bare-shaft pump)
	D	Pump, motor
25	Shaft unit	
	2	Shaft unit 25
26-29	Motor rating P _N [kW]	
	0075	7,50

	1320	132,00
30	Number of motor poles	
31-32	Explosion protection	
	ex	With explosion-proof motor
	--	Without explosion-proof motor
33	Product generation	
	B	Etaline SYT 2014
34-37	PumpDrive	
	PD2	PumpDrive 2
	PD2E	PumpDrive 2 Eco

Materials

Overview of available materials

Part No. (⇒ Page 31)	Description	Material
102	Volute casing	Nodular cast iron EN-GJS-400-15 / 536 GR 60-40-18
161	Casing cover	Nodular cast iron EN-GJS-400-15 / 536 GR 60-40-18
210	Shaft	Chrome steel 1.4021 + QT800
230	Impeller	Grey cast iron EN-GJL-250 / A 48 CL 35B
		Chrome steel 1.4408 / A 743 GR CF8M
310	Plain bearing	Carbon
341	Drive lantern	Grey cast iron EN-GJL-250 / A 48 CL 35B
350	Bearing housing	Nodular cast iron EN-GJS-400-15 / 536 GR 60-40-18
411.10/.15	Sealing elements	BU9593/ HDR
502.01	Casing wear ring, suction side	Grey cast iron EN-GJL-250/CI
502.02	Casing wear ring, discharge side	Grey cast iron EN-GJL-250/CI
902	Studs	8.8/ 5.8
903	Plug	Steel
920	Nut	8 + A2A/ 8 + B633 SC1 TP
920	Impeller nut	8
		A4/ AISI316

Coating and preservation

- Coating and preservation to KSB standard

Product benefits

- Improved efficiency and NPSHreq by experimentally verified hydraulic design of impellers (vanes)
- Operating costs reduced by trimming the nominal impeller diameter to match the specified duty point
- Little wear, low vibration levels and excellent smooth running characteristics thanks to good suction performance and virtually cavitation-free operation across a wide operating range
- Casing sealed reliably – even in varying operating conditions – by confined casing gasket
- Extended selection chart with additional pump sizes for small flow rates
- Easy to dismantle due to back pull-out design; no need to remove the pump casing from the piping

Acceptance tests and warranty

The following acceptance tests may be performed at a surcharge:

- **Materials testing**
 - Test report 2.2
- **Final inspection**
 - Inspection certificate 3.1 to EN 10204
- **Hydraulic test**
 - The duty point of each pump is guaranteed according to ISO 9906/2B or ISO 9906/3B.
 - NPSH test
- Other inspections/tests on request

Warranties

- Warranties are given within the scope of the valid delivery conditions.

Overview of product features / selection tables

Table of fluids handled

Table of fluids handled and associated material combinations
X = standard

Fluid handled	Application limits ¹⁾	Casing/impeller materials		Shaft seal single mechanical seal
		Nodular cast iron/ grey cast iron	Nodular cast iron/ stainless steel	AQ ₁ VGG
		SG	SC	Code 08
Hot water ²⁾	t ≤ +180 °C p ≤ 16 bar	X		X
Thermal oil on mineral oil basis	t ≤ -30 to +350 °C p ≤ 16 bar	X		X
Thermal oil on synthetic basis, vapour pressure ≤ 1 bar at operating temperature ³⁾	t ≤ -30 to +350 °C p ≤ 16 bar	X		X

Pressure and temperature limits

Test pressure limits and temperature limits

Test pressure limits and temperature limits depending on the material

Material	Fluid temperature	Test pressure ⁴⁾
	[°C]	[bar]
S	-30 to +350	≤ 25

In-service pressure limits and temperature limits

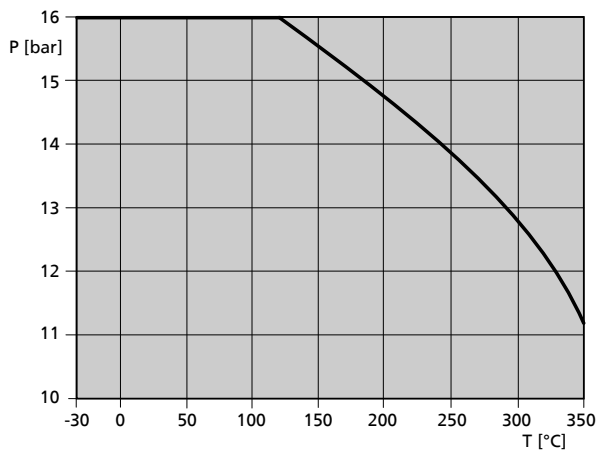


Fig. 1: Operating pressure limits and temperature limits

- 1) The inlet pressure must not fall below atmospheric pressure.
- 2) Low-salt and fully desalinated water to VdTÜV technical instruction leaflet / AGFW technical instruction leaflet TCN 1466 (VdTÜV) 5/15 (AGFW), edition 02.89
- 3) For vapour pressures > 1 bar use an Etanorm SYT pump.
- 4) The casing components are checked for leakage by means of internal pressure tests to AN 1897/75-03D00 with water.

Technical data
Etabloc SYT

Technical data

Etabloc SYT	Shaft unit	Impeller				Speed limit	
		Outlet	Inlet	Nominal diameter		Max.	Min.
			Diameter	Max.	Min.		
[mm]						[rpm]	
040-025-160	25	6,0	45,2	169	130	3600	800
040-025-200	25	6,0	45,2	209	160	3600	800
050-032-125.1	25	6,6	52,4	139	104	3600	800
050-032-160	25	8,5	60,6	174	136	3600	800
050-032-160.1	25	5,7	52,7	170	136	4400	800
050-032-200	25	7,0	62,9	209	170	3700	800
050-032-200.1	25	5,6	54,0	204	170	3800	800
065-040-160	25	13,0	70,0	174	128	4400	800
065-040-200	25	9,4	69,4	209	165	3700	800
065-050-160	25	16,9	86,9	174	128	4400	800
065-050-200	25	13,8	83,1	219	170	3600	800
080-065-160	25	21,0	92,0	174	132	3900	800
080-065-200	25	17,0	99,7	219	175	3600	800
100-080-160	25	31,6	124,0	174	138	3600	800

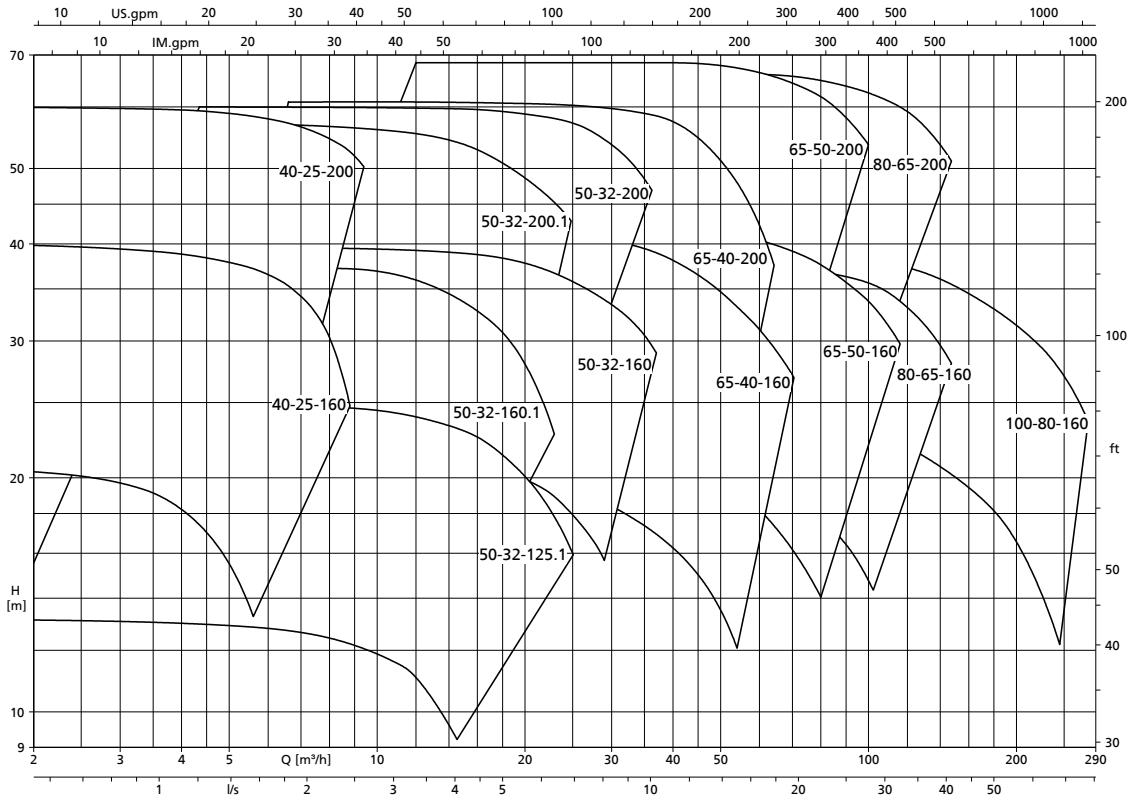
Etaline SYT

Technical data

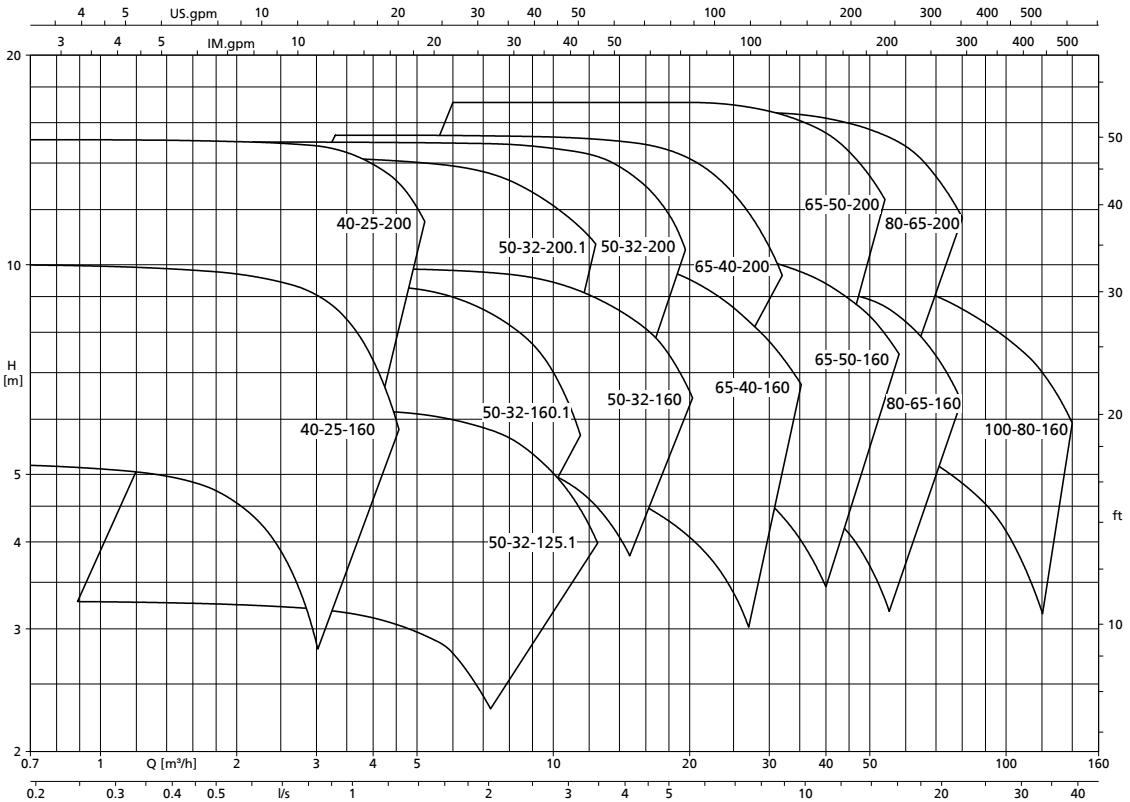
Etaline SYT	Shaft unit	Impeller				Speed limit	
		Outlet	Inlet	Nominal diameter		Max.	Min.
			Diameter	Max.	Min.		
[mm]						[rpm]	
032-032-160	25	5,7	52,7	170	136	4400	800
032-032-200	25	5,6	54,0	204	170	3800	800
040-040-160	25	8,5	60,6	174	136	3600	800
040-040-200	25	7,0	62,9	209	170	3600	800
050-050-160	25	13,0	70,0	174	128	4400	800
050-050-200	25	9,4	69,4	209	165	3600	800
065-065-160	25	16,9	86,9	174	128	4400	800
065-065-200	25	13,8	83,1	219	170	3600	800
080-080-160	25	21,0	92,0	174	132	3900	800
100-100-160	25	31,6	124,0	174	138	3600	800

Selection Charts

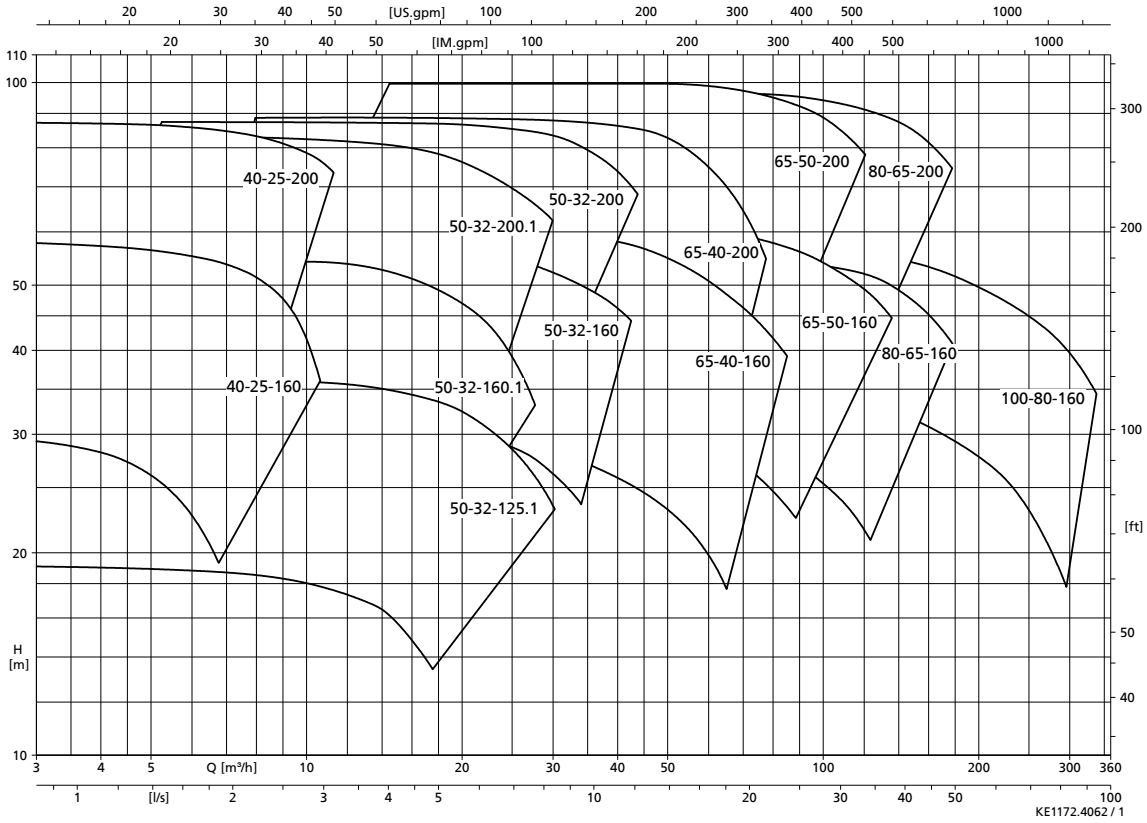
Etabloc SYT, n = 2900 rpm



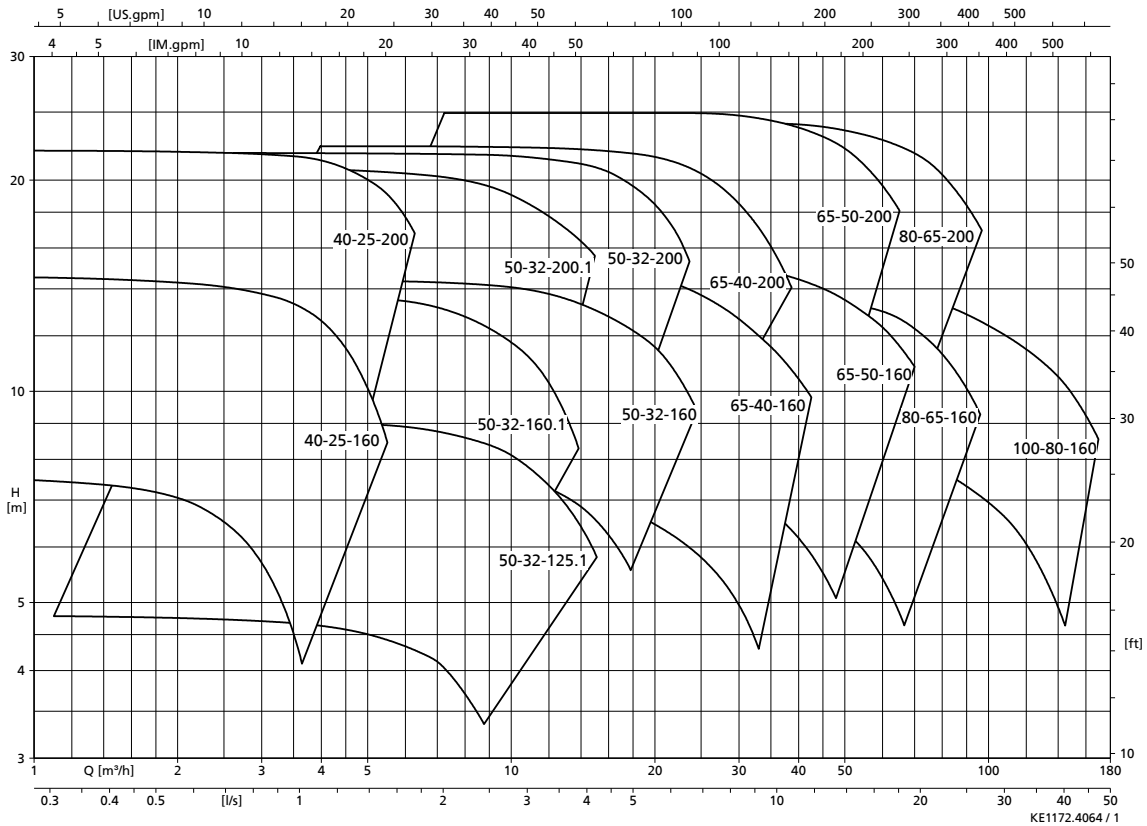
Etabloc SYT, n = 1450 rpm



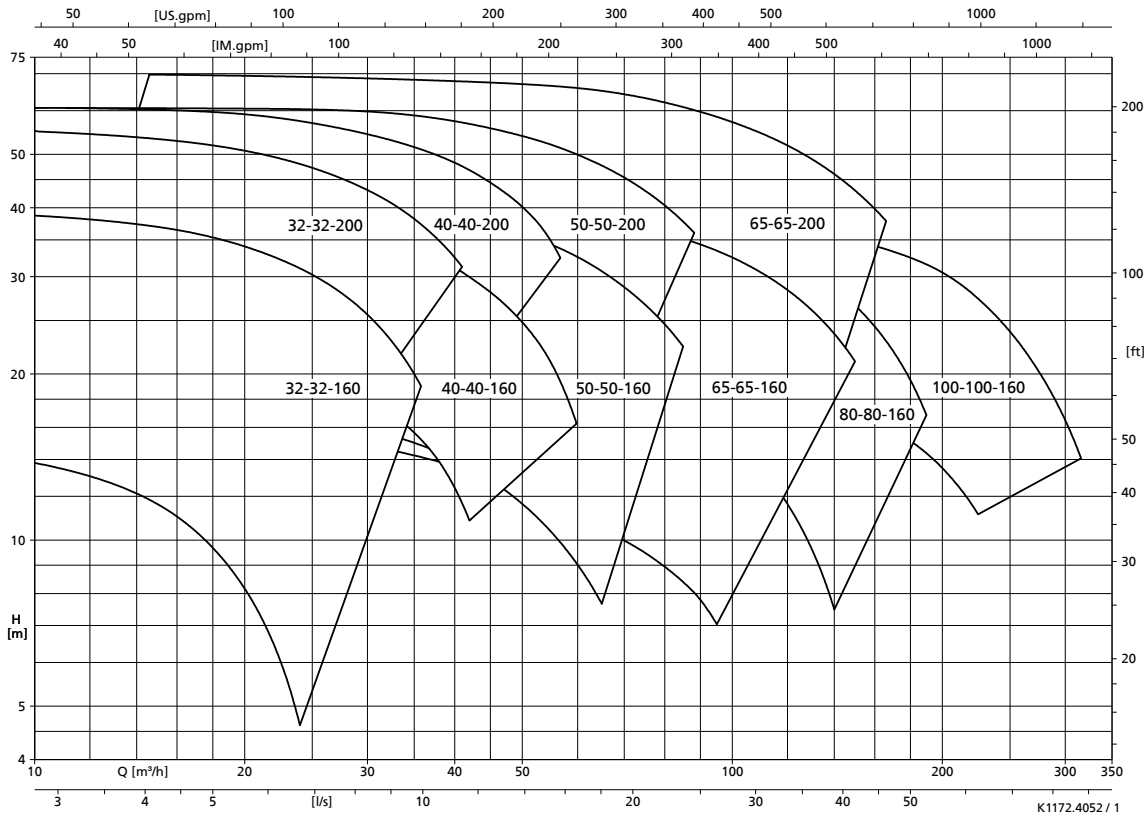
Etabloc SYT, n = 3500 rpm



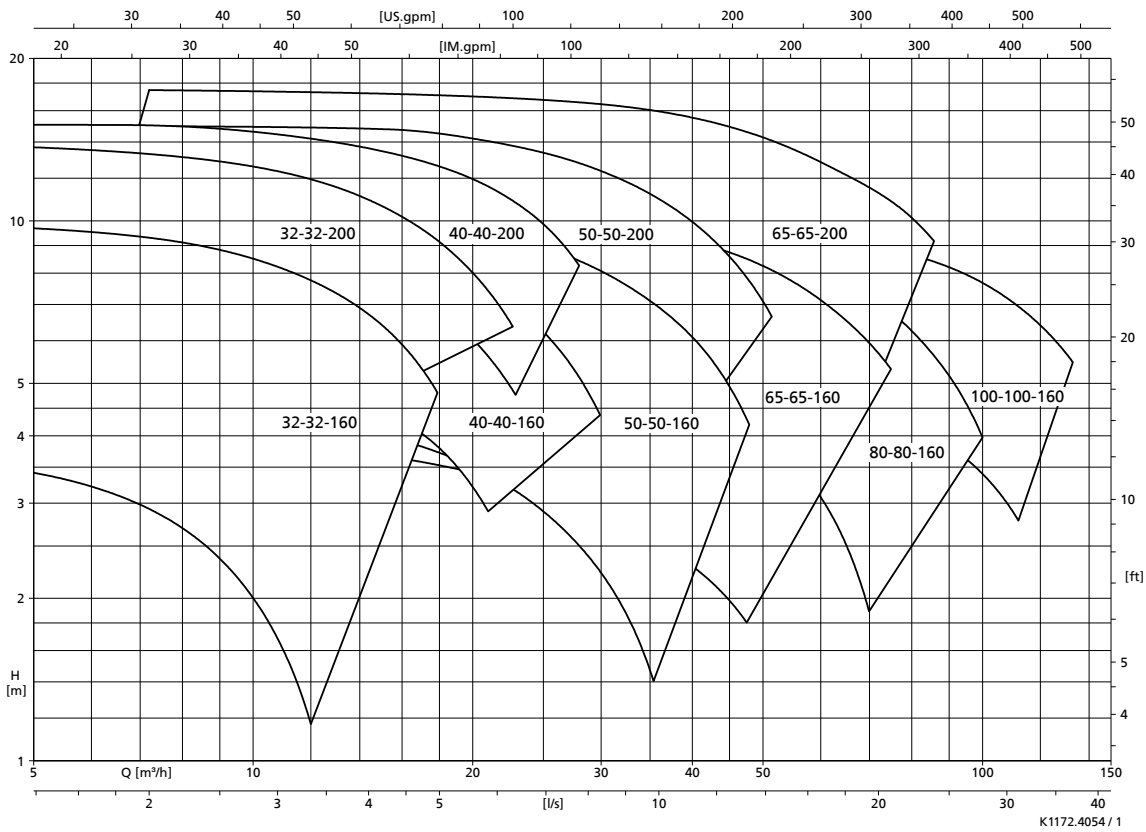
Etabloc SYT, n = 1750 rpm



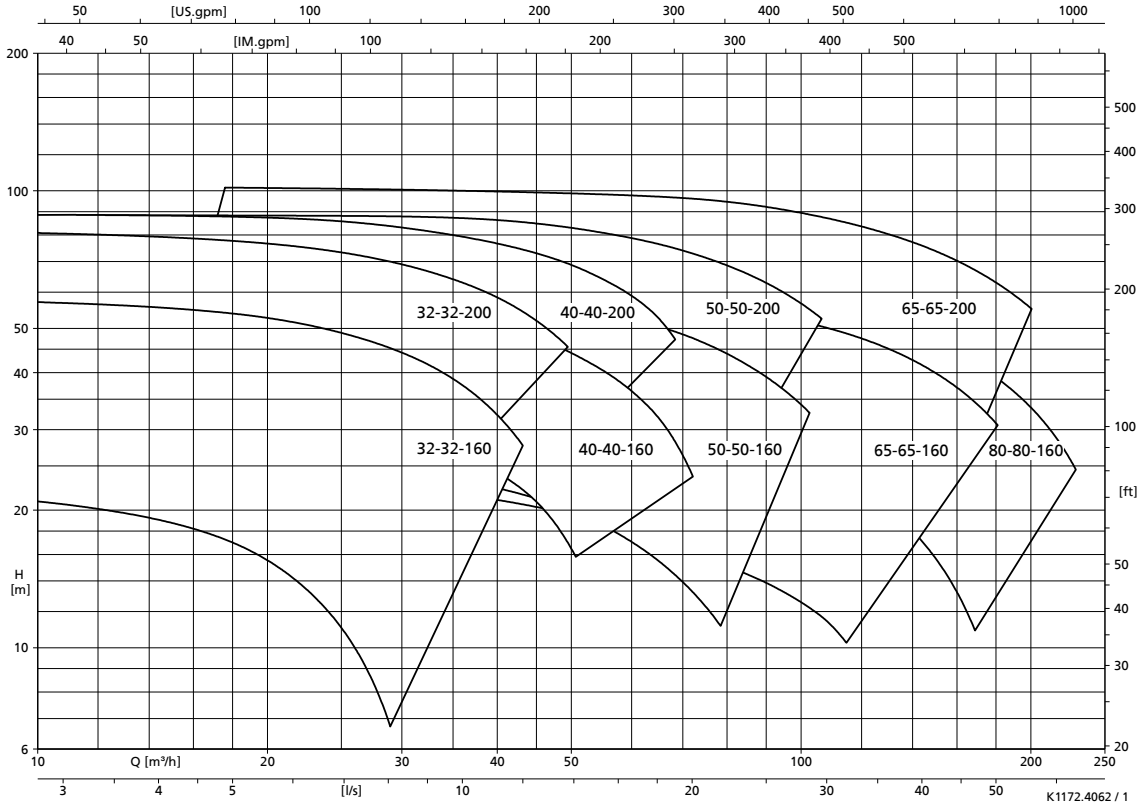
Etaline SYT, n = 2900 rpm



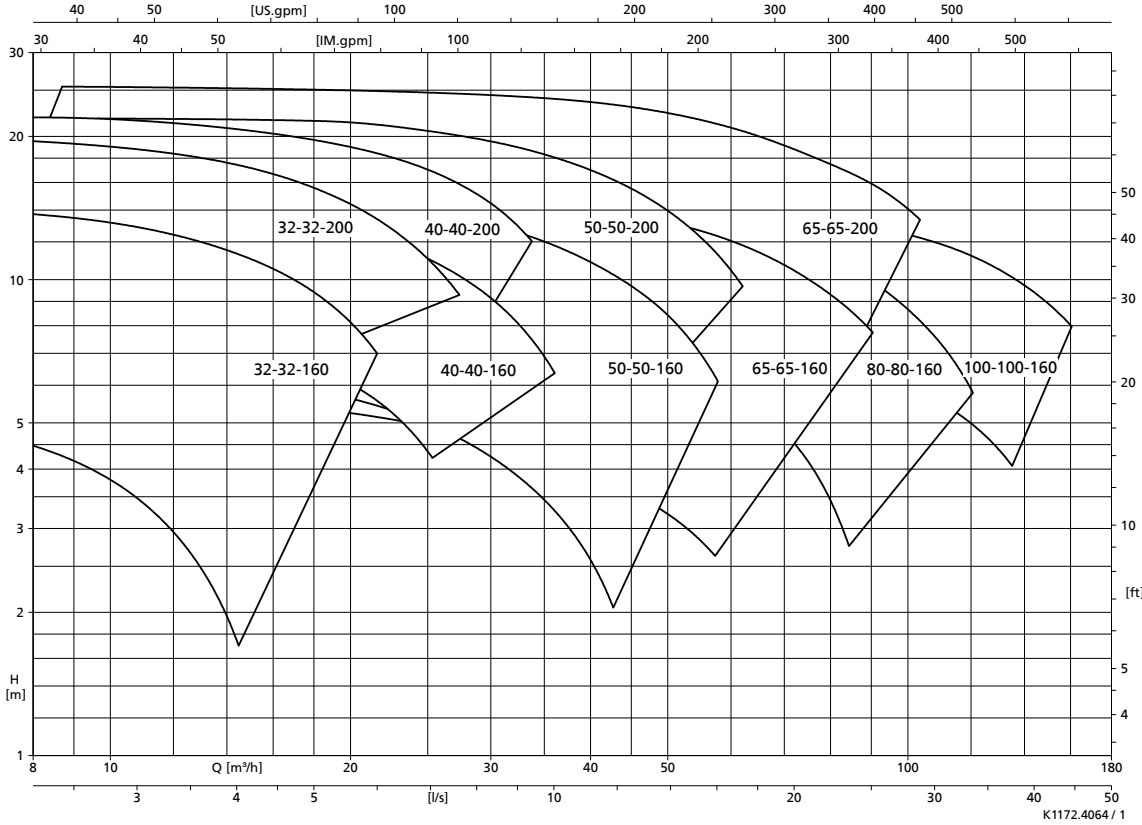
Etaline SYT, n = 1450 rpm



Etaline SYT, n = 3500 rpm



Etaline SYT, n = 1750 rpm



Dimensions and connections

Etabloc SYT, $n = 2900 \text{ rpm} / n = 3500 \text{ rpm}$

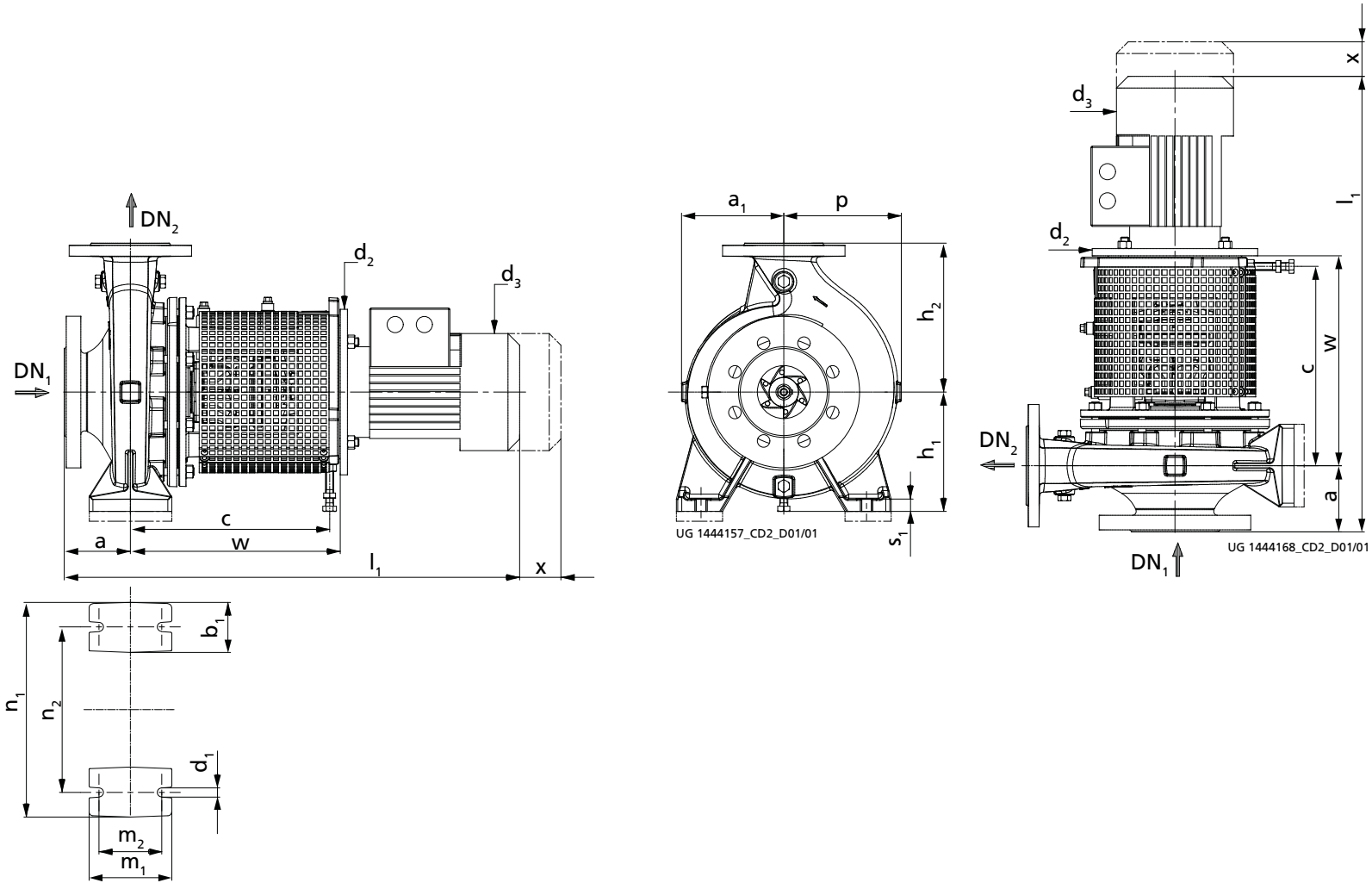


Fig. 2: Dimensions of Etabloc SYT, $n = 2900 \text{ rpm} / n = 3500 \text{ rpm}$

Dimensions

Etabloc SYT n = 2900 rpm n = 3500 rpm	Motor	P		I _N	DN ₁	DN ₂	a	a ₁	b ₁	c	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	m ₁	m ₂	n ₁	n ₂	p	s ₁	w	x		
		50 Hz	60 Hz	400 V																						
				50 Hz	[mm]																					
		[kW]	[kW]	[~A]																						
040-025-160	80M	0,75	-	1,75	40	25	80	118	50	301	14	200	162	132	160	657	100	70	240	190	118	15	322	100		
040-025-160	80M	1,10	1,27	2,41	40	25	80	118	50	301	14	200	162	132	160	671	100	70	240	190	118	15	322	100		
040-025-160	90S	1,50	1,75	3,15	40	25	80	118	50	301	14	200	190	132	160	684	100	70	240	190	118	15	322	100		
040-025-160	90L	2,20	2,55	4,46	40	25	80	118	50	301	14	200	190	132	160	710	100	70	240	190	118	15	322	100		
040-025-160	100L	-	3,45	6,09	40	25	80	118	50	301	14	250	213	132	160	744	100	70	240	190	118	15	317	100		
040-025-160	112M	-	4,55	7,82	40	25	80	118	50	301	14	250	234	132	160	768	100	70	240	190	118	15	317	100		
040-025-200	90S	1,50	-	3,15	40	25	80	142	50	301	14	200	190	160	180	684	100	70	240	190	142	15	322	100		
040-025-200	90L	2,20	-	4,46	40	25	80	142	50	301	14	200	190	160	180	710	100	70	240	190	142	15	322	100		
040-025-200	100L	3,00	3,45	6,09	40	25	80	142	50	301	14	250	213	160	180	744	100	70	240	190	142	15	317	100		
040-025-200	112M	4,00	4,55	7,82	40	25	80	142	50	301	14	250	234	160	180	768	100	70	240	190	142	15	317	100		
040-025-200	132S	5,50	6,30	10,49	40	25	80	142	50	324	14	300	266	160	180	833	100	70	240	190	142	15	340	100		
040-025-200	132S	-	8,60	14,12	40	25	80	142	50	324	14	300	266	160	180	833	100	70	240	190	142	15	340	100		
050-032-125.1	80M	0,75	-	1,75	50	32	80	116	50	301	14	200	162	112 ⁵⁾	140	657	100	70	190	140	116	15	322	100		
050-032-125.1	80M	1,10	-	2,41	50	32	80	116	50	301	14	200	162	112 ⁵⁾	140	671	100	70	190	140	116	15	322	100		
050-032-125.1	90S	1,50	-	3,15	50	32	80	116	50	301	14	200	190	112 ⁵⁾	140	684	100	70	190	140	116	15	322	100		
050-032-125.1	90L	2,20	-	4,46	50	32	80	116	50	301	14	200	190	112 ⁵⁾	140	710	100	70	190	140	116	15	322	100		
050-032-125.1	100L	-	3,45	6,09	50	32	80	116	50	301	14	250	213	112 ⁵⁾	140	744	100	70	190	140	116	15	317	100		
050-032-125.1	112M	-	4,55	7,82	50	32	80	116	50	301	14	250	234	112 ⁵⁾	140	768	100	70	190	140	116	15	317	100		
050-032-125.1	132S	-	6,30	10,49	50	32	80	116	50	324	14	300	266	112 ⁶⁾	140	833	100	70	190	140	116	15	340	100		
050-032-160	90L	2,20	-	4,46	50	32	80	118	50	301	14	200	190	132	160	710	100	70	240	190	128	15	322	100		
050-032-160	100L	3,00	3,45	6,09	50	32	80	118	50	301	14	250	213	132	160	744	100	70	240	190	128	15	317	100		
050-032-160	112M	4,00	4,55	7,82	50	32	80	118	50	301	14	250	234	132	160	768	100	70	240	190	128	15	317	100		
050-032-160	132S	-	6,30	10,49	50	32	80	118	50	324	14	300	266	132 ⁵⁾	160	833	100	70	240	190	128	15	340	100		
050-032-160	132S	-	8,60	14,12	50	32	80	118	50	324	14	300	266	132 ⁵⁾	160	833	100	70	240	190	128	15	340	100		
050-032-160.1	90S	1,50	-	3,15	50	32	80	116	50	301	14	200	190	132	160	684	100	70	240	190	121	15	322	100		
050-032-160.1	90L	2,20	2,55	4,46	50	32	80	116	50	301	14	200	190	132	160	710	100	70	240	190	121	15	322	100		
050-032-160.1	100L	3,00	3,45	6,09	50	32	80	116	50	301	14	250	213	132	160	744	100	70	240	190	121	15	317	100		
050-032-160.1	112M	4,00	4,55	7,82	50	32	80	116	50	301	14	250	234	132	160	768	100	70	240	190	121	15	317	100		
050-032-160.1	132S	-	6,30	10,49	50	32	80	116	50	324	14	300	266	132 ⁵⁾	160	833	100	70	240	190	121	15	340	100		
050-032-160.1	132S	-	8,60	14,12	50	32	80	116	50	324	14	300	266	132 ⁵⁾	160	833	100	70	240	190	121	15	340	100		
050-032-160.1	160M	-	12,6	20,41	50	32	80	116	50	356	14	300	325	132 ⁷⁾	160	1000	100	70	240	190	121	15	374	100		

- 5) Pump feet shimmed 20 mm
 6) Pump feet shimmed 40 mm
 7) Pump feet shimmed 50 mm

Etabloc SYT n = 2900 rpm n = 3500 rpm	Motor	P			I _N	DN ₁	DN ₂	a	a ₁	b ₁	c	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	m ₁	m ₂	n ₁	n ₂	p	s ₁	w	x
		50 Hz	60 Hz	400 V																					
		[kW]	[kW]	50 Hz																					
		[mm]																							
050-032-200	112M	4,00	-	7,82	50	32	80	142	50	301	14	250	234	160	180	768	100	70	240	190	143	18	317	100	
050-032-200	132S	5,50	-	10,49	50	32	80	142	50	324	14	300	266	160	180	833	100	70	240	190	143	18	340	100	
050-032-200	132S	7,50	8,60	14,12	50	32	80	142	50	324	14	300	266	160	180	833	100	70	240	190	143	18	340	100	
050-032-200	160M	11,0	12,6	20,41	50	32	80	142	50	356	14	350	325	160 ⁵⁾	180	1000	100	70	240	190	143	18	374	100	
050-032-200	160M	-	17,3	27,25	50	32	80	142	50	356	14	350	325	160 ⁵⁾	180	1000	100	70	240	190	143	18	374	100	
050-032-200.1	100L	3,00	-	6,09	50	32	80	142	50	301	14	250	213	160	180	744	100	70	240	190	142	18	317	100	
050-032-200.1	112M	4,00	-	7,82	50	32	80	142	50	301	14	250	234	160	180	768	100	70	240	190	142	18	317	100	
050-032-200.1	132S	5,50	6,30	10,49	50	32	80	142	50	324	14	300	266	160	180	833	100	70	240	190	142	18	340	100	
050-032-200.1	132S	7,50	8,60	14,12	50	32	80	142	50	324	14	300	266	160	180	833	100	70	240	190	142	18	340	100	
050-032-200.1	160M	-	12,6	20,41	50	32	80	142	50	356	14	350	325	160 ⁵⁾	180	1000	100	70	240	190	142	18	374	100	
050-032-200.1	160M	-	17,3	27,25	50	32	80	142	50	356	14	350	325	160 ⁵⁾	180	1000	100	70	240	190	142	18	374	100	
065-040-160	100L	3,00	-	6,09	65	40	80	119	50	301	14	250	213	132	160	744	100	70	240	190	134	15	317	100	
065-040-160	112M	4,00	-	7,82	65	40	80	119	50	301	14	250	234	132	160	768	100	70	240	190	134	15	317	100	
065-040-160	132S	5,50	6,30	10,49	65	40	80	119	50	324	14	300	266	132 ⁵⁾	160	833	100	70	240	190	134	15	340	100	
065-040-160	132S	7,50	8,60	14,12	65	40	80	119	50	324	14	300	266	132 ⁵⁾	160	833	100	70	240	190	134	15	340	100	
065-040-160	160M	-	12,6	20,41	65	40	80	119	50	356	14	350	325	132 ⁸⁾	160	1000	100	70	240	190	134	15	374	100	
065-040-160	160M	-	17,3	27,25	65	40	80	119	50	356	14	350	325	132 ⁸⁾	160	1000	100	70	240	190	134	15	374	100	
065-040-200	132S	5,50	-	10,49	65	40	100	142	50	324	14	300	266	160	180	853	100	70	265	212	155	18	340	100	
065-040-200	132S	7,50	-	14,12	65	40	100	142	50	324	14	300	266	160	180	853	100	70	265	212	155	18	340	100	
065-040-200	160M	11,0	12,6	20,41	65	40	100	142	50	356	14	350	325	160 ⁵⁾	180	1020	100	70	265	212	155	18	374	100	
065-040-200	160M	15,0	17,3	27,25	65	40	100	142	50	356	14	350	325	160 ⁵⁾	180	1020	100	70	265	212	155	18	374	100	
065-040-200	160L	18,5	21,3	33,38	65	40	100	142	50	356	14	350	325	160 ⁵⁾	180	1026	100	70	265	212	155	18	374	100	
065-040-200	180M	22,0	24,5	39,52	65	40	100	142	50	356	14	350	370	160 ⁵⁾	180	1084	100	70	265	212	155	18	374	100	
065-050-160	132S	5,50	-	10,49	65	50	100	128	50	324	14	300	266	160	180	853	100	70	265	212	149	18	340	100	
065-050-160	132S	7,50	-	14,12	65	50	100	128	50	324	14	300	266	160	180	853	100	70	265	212	149	18	340	100	
065-050-160	160M	11,0	12,6	20,41	65	50	100	128	50	356	14	350	325	160 ⁵⁾	180	1020	100	70	265	212	149	18	374	100	
065-050-160	160M	-	17,3	27,25	65	50	100	128	50	356	14	350	325	160 ⁵⁾	180	1020	100	70	265	212	149	18	374	100	
065-050-160	160L	-	21,3	33,38	65	50	100	128	50	356	14	350	325	160 ⁵⁾	180	1026	100	70	265	212	149	18	374	100	
065-050-160	180M	-	24,5	39,52	65	50	100	128	50	356	14	350	370	160 ⁵⁾	180	1084	100	70	265	212	149	18	374	100	
065-050-200	160M	11,0	-	20,41	65	50	100	144	50	356	14	350	325	160 ⁵⁾	200	1020	100	70	265	212	163	18	374	100	
065-050-200	160M	15,0	-	27,25	65	50	100	144	50	356	14	350	325	160 ⁵⁾	200	1020	100	70	265	212	163	18	374	100	
065-050-200	160L	18,5	-	33,38	65	50	100	144	50	356	14	350	325	160 ⁵⁾	200	1026	100	70	265	212	163	18	374	100	
065-050-200	180M	22,0	24,5	39,52	65	50	100	144	50	356	14	350	370	160 ⁵⁾	200	1084	100	70	265	212	163	18	374	100	

8) Pump feet shimmed 30 mm

Etabloc SYT n = 2900 rpm n = 3500 rpm	Motor	P		I _N	DN ₁	DN ₂	a	a ₁	b ₁	c	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	m ₁	m ₂	n ₁	n ₂	p	s ₁	w	x
		50 Hz	60 Hz	400 V																				
				50 Hz																				
		[kW]	[kW]	[~A]																				
[mm]																								
080-065-160	132S	7,50	-	14,12	80	65	100	132	65	324	14	300	266	160	200	853	125	95	280	212	160	18	340	100
080-065-160	160M	11,0	-	20,41	80	65	100	132	65	356	14	350	325	160 ⁵⁾	200	1020	125	95	280	212	160	18	374	100
080-065-160	160M	15,0	17,3	27,25	80	65	100	132	65	356	14	350	325	160 ⁵⁾	200	1020	125	95	280	212	160	18	374	100
080-065-160	160L	-	21,3	33,38	80	65	100	132	65	356	14	350	325	160 ⁵⁾	200	1026	125	95	280	212	160	18	374	100
080-065-160	180M	-	24,5	39,52	80	65	100	132	65	356	14	350	370	160 ⁵⁾	200	1084	125	95	280	212	160	18	374	100
080-065-200	160M	15,0	-	27,25	80	65	100	155	65	356	14	350	325	180	225	1020	125	95	320	250	178	18	374	140
080-065-200	160L	18,5	-	33,38	80	65	100	155	65	356	14	350	325	180	225	1026	125	95	320	250	178	18	374	140
080-065-200	180M	22,0	24,5	39,52	80	65	100	155	65	356	14	350	370	180	225	1084	125	95	320	250	178	18	374	140
100-080-160	160M	15,0	-	27,25	100	80	125	138	65	356	14	350	325	180	225	1045	125	95	320	250	174	18	374	140
100-080-160	160L	18,5	-	33,38	100	80	125	138	65	356	14	350	325	180	225	1051	125	95	320	250	174	18	374	140
100-080-160	180M	22,0	24,5	39,52	100	80	125	138	65	356	14	350	370	180	225	1109	125	95	320	250	174	18	374	140

Etabloc SYT, $n = 1450 \text{ rpm} / n = 1750 \text{ rpm}$

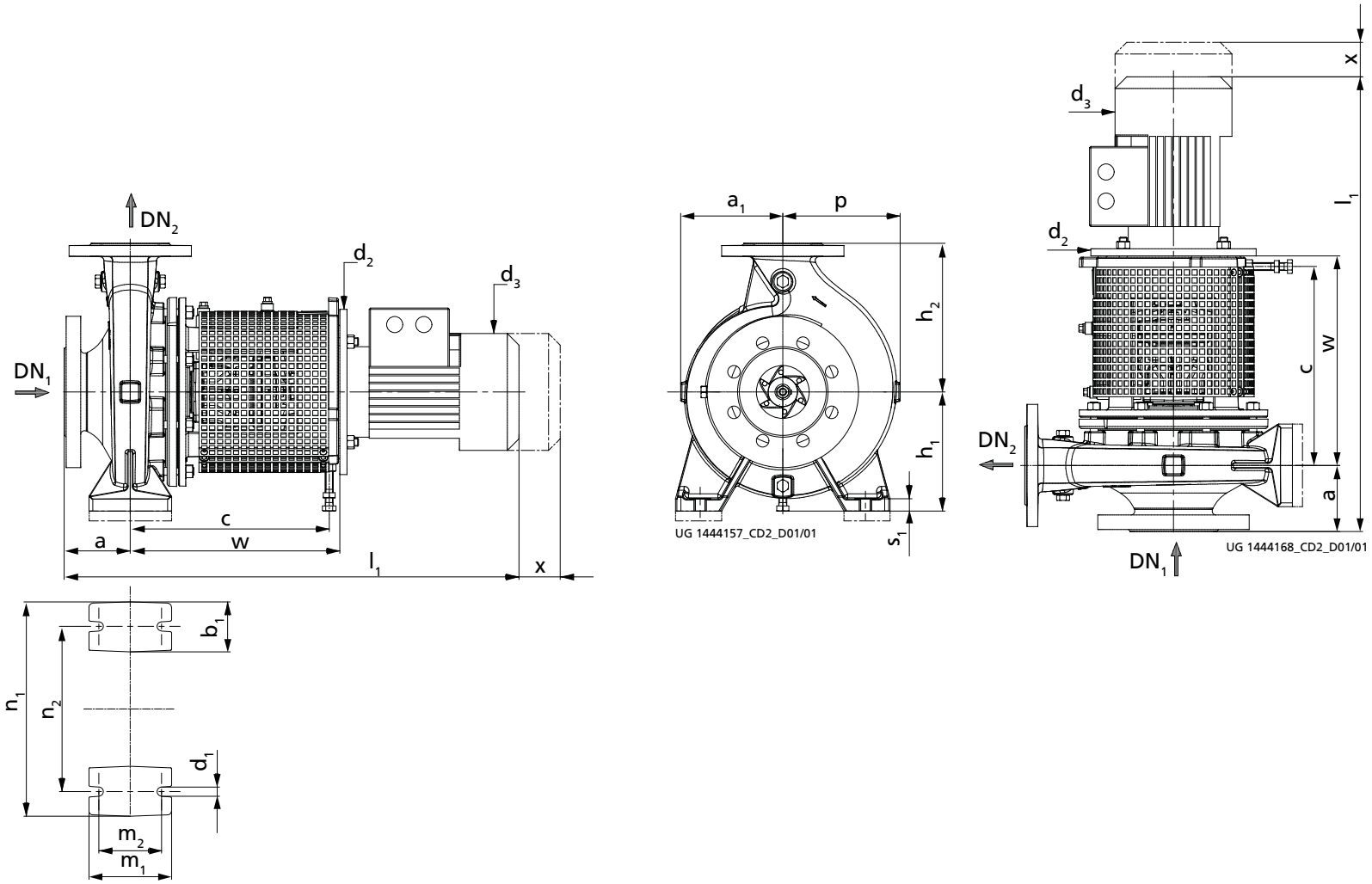


Fig. 3: Dimensions of Etabloc SYT, $n = 1450 \text{ rpm} / n = 1750 \text{ rpm}$

Dimensions

Etabloc SYT n = 1450 rpm n = 1750 rpm	Motor	P			I _N	DN ₁	DN ₂	a	a ₁	b ₁	c	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	m ₁	m ₂	n ₁	n ₂	p	s ₁	w	x
		50 Hz	60 Hz	400 V																					
				50 Hz																					
		[kW]	[kW]	[~A]	[mm]																				
040-025-160	80M	-	0,63	1,46	40	25	80	118	50	301	14	200	162	132	160	657	100	70	240	190	118	15	322	100	
040-025-160	90S	1,10	1,27	2,51	40	25	80	118	50	301	14	200	190	132	160	684	100	70	240	190	118	15	322	100	
040-025-200	80M	0,55	0,63	1,46	40	25	80	142	50	301	14	200	162	160	180	657	100	70	240	190	142	15	322	100	
040-025-200	80M	-	0,86	1,67	40	25	80	142	50	301	14	200	162	160	180	657	100	70	240	190	142	15	322	100	
040-025-200	90S	-	1,27	2,51	40	25	80	142	50	301	14	200	190	160	180	684	100	70	240	190	142	15	322	100	
050-032-125.1	80M	0,55	0,63	1,46	50	32	80	116	50	301	14	200	162	112 ⁹⁾	140	657	100	70	190	140	116	15	322	100	
050-032-125.1	90S	1,10	1,27	2,51	50	32	80	116	50	301	14	200	190	112 ⁹⁾	140	684	100	70	190	140	116	15	322	100	
050-032-160	80M	0,55	0,63	1,46	50	32	80	118	50	301	14	200	162	132	160	657	100	70	240	190	128	15	322	100	
050-032-160	80M	0,75	0,86	1,67	50	32	80	118	50	301	14	200	162	132	160	657	100	70	240	190	128	15	322	100	
050-032-160	90S	-	1,27	2,51	50	32	80	118	50	301	14	200	190	132	160	684	100	70	240	190	128	15	322	100	
050-032-160.1	80M	0,55	0,63	1,46	50	32	80	116	50	301	14	200	162	132	160	657	100	70	240	190	121	15	322	100	
050-032-160.1	80M	-	0,86	1,67	50	32	80	116	50	301	14	200	162	132	160	657	100	70	240	190	121	15	322	100	
050-032-200	80M	0,55	-	1,46	50	32	80	142	50	301	14	200	162	160	180	657	100	70	240	190	143	18	322	100	
050-032-200	80M	0,75	-	1,67	50	32	80	142	50	301	14	200	162	160	180	657	100	70	240	190	143	18	322	100	
050-032-200	90S	1,10	1,27	2,51	50	32	80	142	50	301	14	200	190	160	180	684	100	70	240	190	143	18	322	100	
050-032-200	90L	-	1,75	3,32	50	32	80	142	50	301	14	200	190	160	180	710	100	70	240	190	143	18	322	100	
050-032-200	100L	-	2,55	4,67	50	32	80	142	50	301	14	250	213	160	180	744	100	70	240	190	143	18	317	100	
050-032-200.1	80M	0,55	0,63	1,46	50	32	80	142	50	301	14	200	162	160	180	657	100	70	240	190	142	18	322	100	
050-032-200.1	80M	0,75	0,86	1,67	50	32	80	142	50	301	14	200	162	160	180	657	100	70	240	190	142	18	322	100	
050-032-200.1	90S	-	1,27	2,51	50	32	80	142	50	301	14	200	190	160	180	684	100	70	240	190	142	18	322	100	
050-032-200.1	90L	-	1,75	3,32	50	32	80	142	50	301	14	200	190	160	180	710	100	70	240	190	142	18	322	100	
065-040-160	80M	0,55	-	1,46	65	40	80	119	50	301	14	200	162	132	160	657	100	70	240	190	134	15	322	100	
065-040-160	80M	0,75	0,86	1,67	65	40	80	119	50	301	14	200	162	132	160	657	100	70	240	190	134	15	322	100	
065-040-160	90S	1,10	1,27	2,51	65	40	80	119	50	301	14	200	190	132	160	684	100	70	240	190	134	15	322	100	
065-040-160	90L	-	1,75	3,32	65	40	80	119	50	301	14	200	190	132	160	710	100	70	240	190	134	15	322	100	
065-040-160	100L	-	2,55	4,67	65	40	80	119	50	301	14	250	213	132	160	744	100	70	240	190	134	15	317	100	
065-040-200	80M	0,75	-	1,67	65	40	100	142	50	301	14	200	162	160	180	677	100	70	265	212	155	18	322	100	
065-040-200	90S	1,10	-	2,51	65	40	100	142	50	301	14	200	190	160	180	704	100	70	265	212	155	18	322	100	
065-040-200	90L	1,50	1,75	3,32	65	40	100	142	50	301	14	200	190	160	180	730	100	70	265	212	155	18	322	100	
065-040-200	100L	-	2,55	4,67	65	40	100	142	50	301	14	250	213	160	180	764	100	70	265	212	155	18	317	100	
065-040-200	100L	-	3,45	6,18	65	40	100	142	50	301	14	250	213	160	180	799	100	70	265	212	155	18	317	100	
065-050-160	80M	0,75	-	1,67	65	50	100	128	50	301	14	200	162	160	180	677	100	70	265	212	149	18	322	100	

9) Pump feet shimmed 20 mm

Etabloc SYT n = 1450 rpm n = 1750 rpm	Motor	P		I _N	DN ₁	DN ₂	a	a ₁	b ₁	c	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	m ₁	m ₂	n ₁	n ₂	p	s ₁	w	x
		50 Hz	60 Hz	400 V																				
		[kW]	[kW]	50 Hz																				
		[mm]																						
065-050-160	90S	1,10	1,27	2,51	65	50	100	128	50	301	14	200	190	160	180	704	100	70	265	212	149	18	322	100
065-050-160	90L	1,50	1,75	3,32	65	50	100	128	50	301	14	200	190	160	180	730	100	70	265	212	149	18	322	100
065-050-160	100L	-	2,55	4,67	65	50	100	128	50	301	14	250	213	160	180	764	100	70	265	212	149	18	317	100
065-050-160	100L	-	3,45	6,18	65	50	100	128	50	301	14	250	213	160	180	799	100	70	265	212	149	18	317	100
065-050-200	90L	1,50	-	3,32	65	50	100	144	50	301	14	200	190	160	200	730	100	70	265	212	163	18	322	100
065-050-200	100L	2,20	2,55	4,67	65	50	100	144	50	301	14	250	213	160	200	764	100	70	265	212	163	18	317	100
065-050-200	100L	3,00	3,45	6,18	65	50	100	144	50	301	14	250	213	160	200	799	100	70	265	212	163	18	317	100
065-050-200	112M	-	4,55	8,23	65	50	100	144	50	301	14	250	234	160	200	788	100	70	265	212	163	18	317	100
065-050-200	132S	-	6,30	11,32	65	50	100	144	50	324	14	300	266	160	200	853	100	70	265	212	163	18	340	100
080-065-160	90S	1,10	-	2,51	80	65	100	132	65	301	14	200	190	160	200	704	125	95	280	212	160	18	322	100
080-065-160	90L	1,50	1,75	3,32	80	65	100	132	65	301	14	200	190	160	200	730	125	95	280	212	160	18	322	100
080-065-160	100L	2,20	2,55	4,67	80	65	100	132	65	301	14	250	213	160	200	764	125	95	280	212	160	18	317	100
080-065-160	100L	-	3,45	6,18	80	65	100	132	65	301	14	250	213	160	200	799	125	95	280	212	160	18	317	100
080-065-160	112M	-	4,55	8,23	80	65	100	132	65	301	14	250	234	160	200	788	125	95	280	212	160	18	317	100
080-065-160	132S	-	6,30	11,32	80	65	100	132	65	324	14	300	266	160	200	853	125	95	280	212	160	18	340	100
080-065-200	100L	2,20	-	4,67	80	65	100	155	65	301	14	250	213	180	225	764	125	95	320	250	178	18	317	140
080-065-200	100L	3,00	3,45	6,18	80	65	100	155	65	301	14	250	213	180	225	799	125	95	320	250	178	18	317	140
080-065-200	112M	4,00	4,55	8,23	80	65	100	155	65	301	14	250	234	180	225	788	125	95	320	250	178	18	317	140
080-065-200	132S	-	6,30	11,32	80	65	100	155	65	324	14	300	266	180	225	853	125	95	320	250	178	18	340	140
080-065-200	132M	-	8,60	14,70	80	65	100	155	65	324	14	300	298	180	225	881	125	95	320	250	178	18	340	140
100-080-160	90L	1,50	-	3,32	100	80	125	138	65	301	14	200	190	180	225	755	125	95	320	250	174	18	322	140
100-080-160	100L	2,20	-	4,67	100	80	125	138	65	301	14	250	213	180	225	789	125	95	320	250	174	18	317	140
100-080-160	100L	3,00	3,45	6,18	100	80	125	138	65	301	14	250	213	180	225	824	125	95	320	250	174	18	317	140
100-080-160	112M	-	4,55	8,23	100	80	125	138	65	301	14	250	234	180	225	813	125	95	320	250	174	18	317	140
100-080-160	132S	-	6,30	11,32	100	80	125	138	65	324	14	300	266	180	225	878	125	95	320	250	174	18	340	140

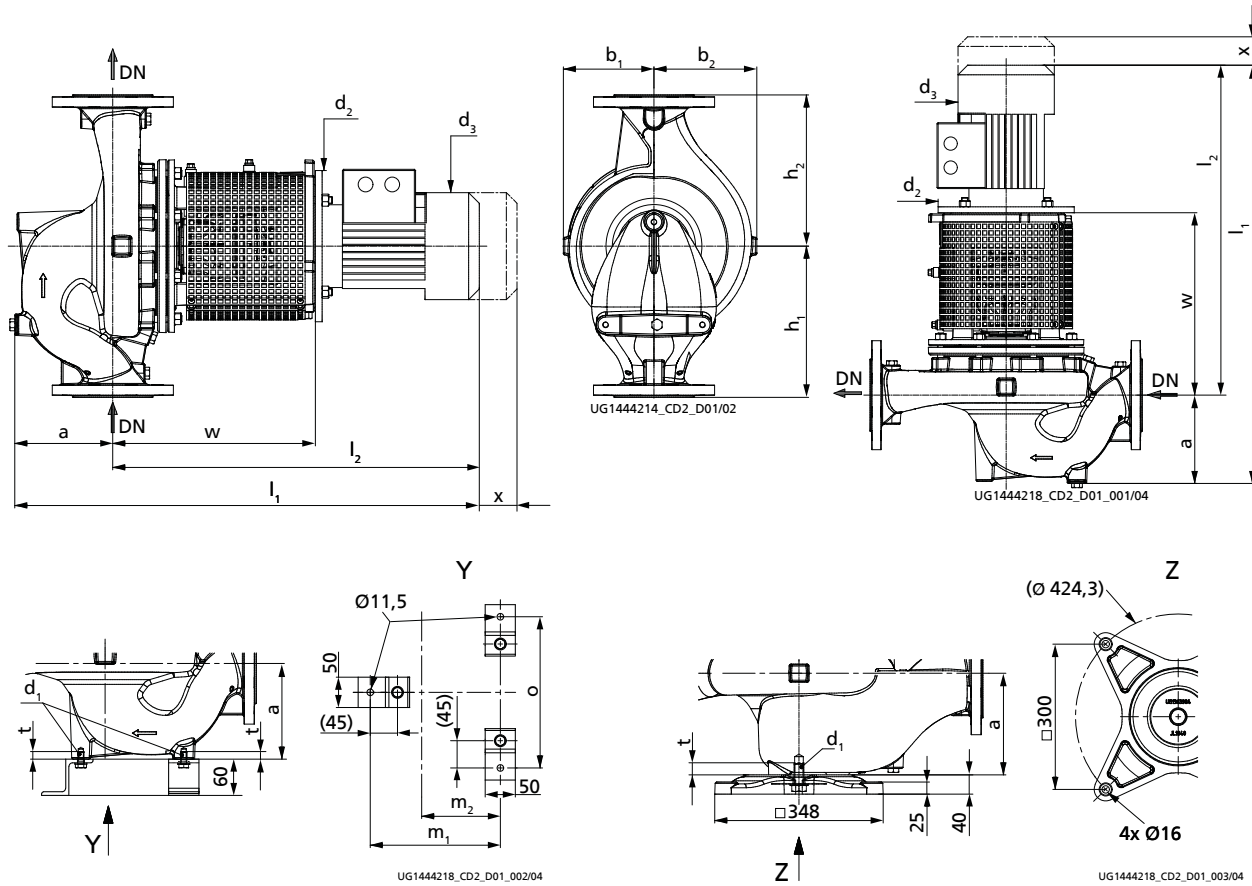
Etaline SYT, $n = 2900 \text{ rpm} / n = 3500 \text{ rpm}$


Fig. 4: Dimensions of the pump set, dimensions for fastening a vertically installed pump set to the foundation

Y	3 feet (Etaline SYT up to 080-080-160)
Z	1 foot (Etaline SYT from 100-100-160)

Dimensions

Etaline SYT n = 2900 rpm n = 3500 rpm	Motor	P		I _N	DN	a	b ₁	b ₂	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	l ₂	m ₁	m ₂	o	t	w	x
		50 Hz	60 Hz	400 V																	
				50 Hz																	
		[kW]	[kW]	[~A]																	
[mm]																					
032-032-160	80M	1,10	-	2,41	32	87	119	131	M10	200	162	180	160	678	591	175	100	190	12,5	322	100
032-032-160	90S	1,50	1,75	3,15	32	87	119	131	M10	200	190	180	160	691	604	175	100	190	12,5	322	100
032-032-160	90L	2,20	2,55	4,46	32	87	119	131	M10	200	190	180	160	717	630	175	100	190	12,5	322	100
032-032-160	100L	3,00	3,45	6,09	32	87	119	131	M10	250	213	180	160	751	664	175	100	190	12,5	317	100
032-032-160	112M	4,00	4,55	7,82	32	87	119	131	M10	250	234	180	160	775	688	175	100	190	12,5	317	100
032-032-160	132S	5,50	6,30	10,49	32	87	119	131	M10	300	266	180	160	840	753	175	100	190	12,5	340	100
032-032-160	132S	-	8,60	14,12	32	87	119	131	M10	300	266	180	160	840	753	175	100	190	12,5	340	100
032-032-200	100L	3,00	-	6,09	32	100	134	146	M10	250	213	250	190	764	664	175	100	190	12,5	317	100
032-032-200	112M	4,00	4,55	7,82	32	100	134	146	M10	250	234	250	190	788	688	175	100	190	12,5	317	100
032-032-200	132S	5,50	6,30	10,49	32	100	134	146	M10	300	266	250	190	853	753	175	100	190	12,5	340	100
032-032-200	132S	7,50	8,60	14,12	32	100	134	146	M10	300	266	250	190	853	753	175	100	190	12,5	340	100
032-032-200	160M	11,00	12,60	20,41	32	100	134	146	M10	350	325	250	190	1020	920	175	100	190	12,5	374	100
032-032-200	160M	-	17,30	27,25	32	100	134	146	M10	350	325	250	190	1020	920	175	100	190	12,5	374	100
040-040-160	90L	2,20	-	4,46	40	114	118	132	M10	200	190	180	160	744	630	165	90	190	12,5	322	100
040-040-160	100L	3,00	3,45	6,09	40	114	118	132	M10	250	213	180	160	778	664	165	90	190	12,5	317	100
040-040-160	112M	4,00	4,55	7,82	40	114	118	132	M10	250	234	180	160	802	688	165	90	190	12,5	317	100
040-040-160	132S	5,50	6,30	10,49	40	114	118	132	M10	300	266	180	160	867	753	165	90	190	12,5	340	100
040-040-160	132S	7,50	8,60	14,12	40	114	118	132	M10	300	266	180	160	867	753	165	90	190	12,5	340	100
040-040-160	160M	-	12,60	20,41	40	114	118	132	M10	350	325	180	160	1034	920	165	90	190	12,5	374	100
040-040-200	100L	3,00	-	6,09	40	110	138	150	M10	250	213	215	210	774	664	175	100	190	12,5	317	100
040-040-200	112M	4,00	-	7,82	40	110	138	150	M10	250	234	215	210	798	688	175	100	190	12,5	317	100
040-040-200	132S	5,50	-	10,49	40	110	138	150	M10	300	266	215	210	863	753	175	100	190	12,5	340	100
040-040-200	132S	7,50	8,60	14,12	40	110	138	150	M10	300	266	215	210	863	753	175	100	190	12,5	340	100
040-040-200	160M	11,00	12,60	20,41	40	110	138	150	M10	350	325	215	210	1030	920	175	100	190	12,5	374	100
040-040-200	160M	15,00	17,30	27,25	40	110	138	150	M10	350	325	215	210	1030	920	175	100	190	12,5	374	100
040-040-200	160L	-	21,30	33,38	40	110	138	150	M10	350	325	215	210	1036	926	175	100	190	12,5	374	100
050-050-160	90L	2,20	-	4,46	50	134	116	135	M10	200	190	250	190	764	630	175	100	190	12,5	322	100
050-050-160	100L	3,00	3,45	6,09	50	134	116	135	M10	250	213	250	190	798	664	175	100	190	12,5	317	100
050-050-160	112M	4,00	4,55	7,82	50	134	116	135	M10	250	234	250	190	822	688	175	100	190	12,5	317	100
050-050-160	132S	5,50	6,30	10,49	50	134	116	135	M10	300	266	250	190	887	753	175	100	190	12,5	340	100
050-050-160	132S	7,50	8,60	14,12	50	134	116	135	M10	300	266	250	190	887	753	175	100	190	12,5	340	100
050-050-160	160M	11,00	12,60	20,41	50	134	116	135	M10	350	325	250	190	1054	920	175	100	190	12,5	374	100
050-050-160	160M	-	17,30	27,25	50	134	116	135	M10	350	325	250	190	1054	920	175	100	190	12,5	374	100
050-050-200	112M	4,00	-	7,82	50	128	139	158	M10	250	234	220	220	816	688	175	100	190	12,5	317	100
050-050-200	132S	5,50	-	10,49	50	128	139	158	M10	300	266	220	220	881	753	175	100	190	12,5	340	100

Etaline SYT n = 2900 rpm n = 3500 rpm	Motor	P		I _N	DN	a	b ₁	b ₂	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	l ₂	m ₁	m ₂	o	t	w	x
		50 Hz	60 Hz	400 V																	
				50 Hz																	
		[kW]	[kW]	[~A]																	
[mm]																					
050-050-200	132S	7,50	8,60	14,12	50	128	139	158	M10	300	266	220	220	881	753	175	100	190	12,5	340	100
050-050-200	160M	11,00	12,60	20,41	50	128	139	158	M10	350	325	220	220	1048	920	175	100	190	12,5	374	100
050-050-200	160M	15,00	17,30	27,25	50	128	139	158	M10	350	325	220	220	1048	920	175	100	190	12,5	374	100
050-050-200	160L	18,50	21,30	33,38	50	128	139	158	M10	350	325	220	220	1054	926	175	100	190	12,5	374	100
050-050-200	180M	-	24,50	39,52	50	128	139	158	M10	350	370	220	220	1112	984	175	100	190	12,5	374	100
065-065-160	100L	3,00	-	6,09	65	150	114	135	M10	250	213	270	170	814	664	175	100	210	12,5	317	100
065-065-160	112M	4,00	-	7,82	65	150	114	135	M10	250	234	270	170	838	688	175	100	210	12,5	317	100
065-065-160	132S	5,50	6,30	10,49	65	150	114	135	M10	300	266	270	170	903	753	175	100	210	12,5	340	100
065-065-160	132S	7,50	8,60	14,12	65	150	114	135	M10	300	266	270	170	903	753	175	100	210	12,5	340	100
065-065-160	160M	11,00	12,60	20,41	65	150	114	135	M10	350	325	270	170	1070	920	175	100	210	12,5	374	100
065-065-160	160M	15,00	17,30	27,25	65	150	114	135	M10	350	325	270	170	1070	920	175	100	210	12,5	374	100
065-065-160	160L	18,50	21,30	33,38	65	150	114	135	M10	350	325	270	170	1076	926	175	100	210	12,5	374	100
065-065-160	180M	-	24,50	39,52	65	150	114	135	M10	350	370	270	170	1134	984	175	100	210	12,5	374	100
065-065-200	132S	7,50	-	14,12	65	131	145	168	M10	300	266	240	235	903	772	195	120	220	12,5	359	100
065-065-200	160M	11,00	12,60	20,41	65	131	145	168	M10	350	325	240	235	1070	939	195	120	220	12,5	393	100
065-065-200	160M	15,00	17,30	27,25	65	131	145	168	M10	350	325	240	235	1070	939	195	120	220	12,5	393	100
065-065-200	160L	18,50	21,30	33,38	65	131	145	168	M10	350	325	240	235	1076	945	195	120	220	12,5	393	100
065-065-200	180M	22,00	24,50	39,52	65	131	145	168	M10	350	370	240	235	1134	1003	195	120	220	12,5	393	100
080-080-160	132S	5,50	-	10,49	80	176	119	147	M10	300	266	260	180	929	753	175	100	230	12,5	340	100
080-080-160	132S	7,50	8,60	14,12	80	176	119	147	M10	300	266	260	180	929	753	175	100	230	12,5	340	100
080-080-160	160M	11,00	12,60	20,41	80	176	119	147	M10	350	325	260	180	1096	920	175	100	230	12,5	374	100
080-080-160	160M	15,00	17,30	27,25	80	176	119	147	M10	350	325	260	180	1096	920	175	100	230	12,5	374	100
080-080-160	160L	18,50	21,30	33,38	80	176	119	147	M10	350	325	260	180	1102	926	175	100	230	12,5	374	100
080-080-160	180M	-	24,50	39,52	80	176	119	147	M10	350	370	260	180	1160	984	175	100	230	12,5	374	100
100-100-160	160M	11,00	-	20,41	100	156	128	163	M20	350	325	245	205	1102	946	-	-	-	25,0	400	140
100-100-160	160M	15,00	-	27,25	100	156	128	163	M20	350	325	245	205	1102	946	-	-	-	25,0	400	140
100-100-160	160L	18,50	-	33,38	100	156	128	163	M20	350	325	245	205	1108	952	-	-	-	25,0	400	140
100-100-160	180M	22,00	-	39,52	100	156	128	163	M20	350	370	245	205	1166	1010	-	-	-	25,0	400	140

Etaline SYT, n = 1450 rpm / n = 1750 rpm

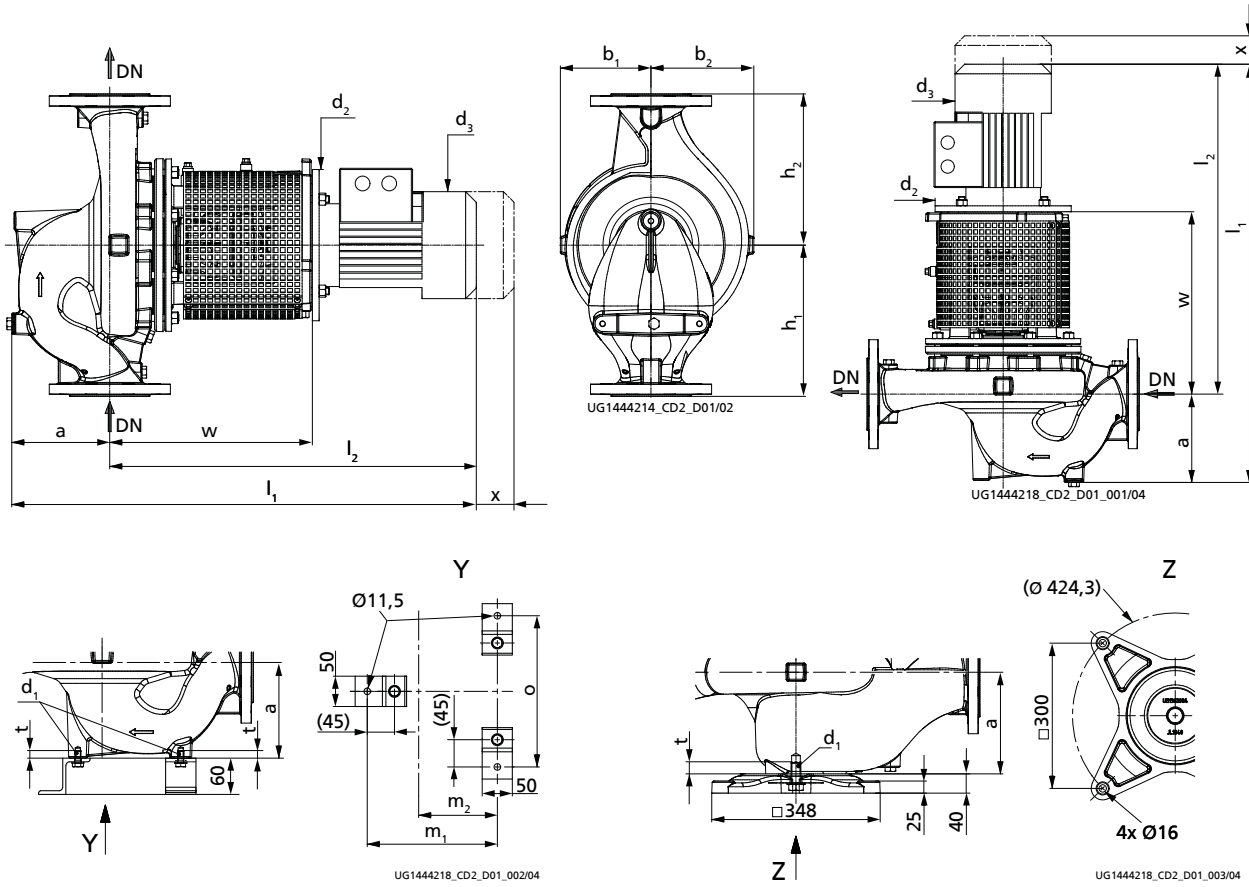


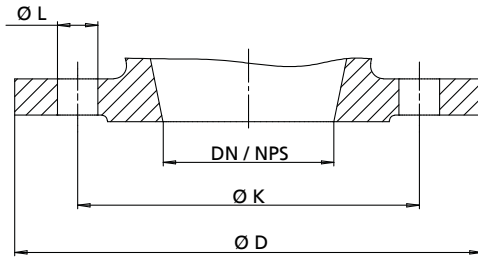
Fig. 5: Dimensions of the pump set, dimensions for fastening a vertically installed pump set to the foundation

Y	3 feet (Etaline SYT up to 080-080-160)
Z	1 foot (Etaline SYT from 100-100-160)

Dimensions

Etaline SYT n = 1450 rpm n = 1750 rpm	Motor	P		I _N	DN	a	b ₁	b ₂	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	l ₂	m ₁	m ₂	o	t	w	x
		50 Hz	60 Hz	400 V																	
				50 Hz																	
		[kW]	[kW]	[~A]																	
[mm]																					
032-032-160	80M	0,55	0,63	1,46	32	87	119	131	M10	200	162	180	160	664	577	175	100	190	12,5	322	100
032-032-160	80M	0,75	0,86	1,67	32	87	119	131	M10	200	162	180	160	664	577	175	100	190	12,5	322	100
032-032-160	90S	-	1,27	2,51	32	87	119	131	M10	200	190	180	160	691	604	175	100	190	12,5	322	100
032-032-200	80M	0,55	-	1,46	32	100	134	146	M10	200	162	250	190	677	577	175	100	190	12,5	322	100
032-032-200	80M	0,75	0,86	1,67	32	100	134	146	M10	200	162	250	190	677	577	175	100	190	12,5	322	100
032-032-200	90S	1,10	1,27	2,51	32	100	134	146	M10	200	190	250	190	704	604	175	100	190	12,5	322	100
032-032-200	90L	-	1,75	3,32	32	100	134	146	M10	200	190	250	190	730	630	175	100	190	12,5	322	100
032-032-200	100L	-	2,55	4,67	32	100	134	146	M10	250	213	250	190	764	664	175	100	190	12,5	317	100
040-040-160	80M	0,55	0,63	1,46	40	114	118	132	M10	200	162	180	160	691	577	165	90	190	12,5	322	100
040-040-160	80M	0,75	0,86	1,67	40	114	118	132	M10	200	162	180	160	691	577	165	90	190	12,5	322	100
040-040-160	90S	1,10	1,27	2,51	40	114	118	132	M10	200	190	180	160	718	604	165	90	190	12,5	322	100
040-040-160	90L	-	1,75	3,32	40	114	118	132	M10	200	190	180	160	744	630	165	90	190	12,5	322	100
040-040-200	80M	0,55	-	1,46	40	110	138	150	M10	200	162	215	210	687	577	175	100	190	12,5	322	100
040-040-200	80M	0,75	0,86	1,67	40	110	138	150	M10	200	162	215	210	687	577	175	100	190	12,5	322	100
040-040-200	90S	1,10	1,27	2,51	40	110	138	150	M10	200	190	215	210	714	604	175	100	190	12,5	322	100
040-040-200	90L	1,50	1,75	3,32	40	110	138	150	M10	200	190	215	210	740	630	175	100	190	12,5	322	100
040-040-200	100L	2,20	2,55	4,67	40	110	138	150	M10	250	213	215	210	774	664	175	100	190	12,5	317	100
040-040-200	100L	-	3,45	6,18	40	110	138	150	M10	250	213	215	210	809	699	175	100	190	12,5	317	100
050-050-160	80M	0,55	0,63	1,46	50	134	116	135	M10	200	162	250	190	711	577	175	100	190	12,5	322	100
050-050-160	80M	0,75	0,86	1,67	50	134	116	135	M10	200	162	250	190	711	577	175	100	190	12,5	322	100
050-050-160	90S	1,10	1,27	2,51	50	134	116	135	M10	200	190	250	190	738	604	175	100	190	12,5	322	100
050-050-160	90L	1,50	1,75	3,32	50	134	116	135	M10	200	190	250	190	764	630	175	100	190	12,5	322	100
050-050-160	100L	-	2,55	4,67	50	134	116	135	M10	250	213	250	190	798	664	175	100	190	12,5	317	100
050-050-200	80M	0,75	-	1,67	50	128	139	158	M10	200	162	220	220	705	577	175	100	190	12,5	322	100
050-050-200	90S	1,10	1,27	2,51	50	128	139	158	M10	200	190	220	220	732	604	175	100	190	12,5	322	100
050-050-200	90L	1,50	1,75	3,32	50	128	139	158	M10	200	190	220	220	758	630	175	100	190	12,5	322	100
050-050-200	100L	2,20	2,55	4,67	50	128	139	158	M10	250	213	220	220	792	664	175	100	190	12,5	317	100
050-050-200	100L	3,00	3,45	6,18	50	128	139	158	M10	250	213	220	220	827	699	175	100	190	12,5	317	100
050-050-200	112M	-	4,55	8,23	50	128	139	158	M10	250	234	220	220	816	688	175	100	190	12,5	317	100
065-065-160	80M	0,55	0,63	1,46	65	150	114	135	M10	200	162	270	170	727	577	175	100	210	12,5	322	100
065-065-160	80M	0,75	0,86	1,67	65	150	114	135	M10	200	162	270	170	727	577	175	100	210	12,5	322	100
065-065-160	90S	1,10	1,27	2,51	65	150	114	135	M10	200	190	270	170	754	604	175	100	210	12,5	322	100
065-065-160	90L	1,50	1,75	3,32	65	150	114	135	M10	200	190	270	170	780	630	175	100	210	12,5	322	100
065-065-160	100L	2,20	2,55	4,67	65	150	114	135	M10	250	213	270	170	814	664	175	100	210	12,5	317	100
065-065-160	100L	-	3,45	6,18	65	150	114	135	M10	250	213	270	170	849	699	175	100	210	12,5	317	100

Etaline SYT n = 1450 rpm n = 1750 rpm	Motor	P		I _N	DN	a	b ₁	b ₂	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	l ₂	m ₁	m ₂	o	t	w	x
		50 Hz	60 Hz	400 V																	
				50 Hz																	
		[kW]	[kW]	[~A]																	
[mm]																					
065-065-200	90S	1,10	-	2,51	65	131	145	168	M10	200	190	240	235	754	623	195	120	220	12,5	341	100
065-065-200	90L	1,50	1,75	3,32	65	131	145	168	M10	200	190	240	235	780	649	195	120	220	12,5	341	100
065-065-200	100L	2,20	2,55	4,67	65	131	145	168	M10	250	213	240	235	814	683	195	120	220	12,5	336	100
065-065-200	100L	3,00	3,45	6,18	65	131	145	168	M10	250	213	240	235	849	718	195	120	220	12,5	336	100
065-065-200	112M	4,00	4,55	8,23	65	131	145	168	M10	250	234	240	235	838	707	195	120	220	12,5	336	100
065-065-200	132S	5,50	6,30	11,32	65	131	145	168	M10	300	266	240	235	903	772	195	120	220	12,5	359	100
065-065-200	132M	-	8,60	14,70	65	131	145	168	M10	300	298	240	235	931	800	195	120	220	12,5	359	100
080-080-160	80M	0,75	-	1,67	80	176	119	147	M10	200	162	260	180	753	577	175	100	230	12,5	322	100
080-080-160	90S	1,10	1,27	2,51	80	176	119	147	M10	200	190	260	180	780	604	175	100	230	12,5	322	100
080-080-160	90L	1,50	1,75	3,32	80	176	119	147	M10	200	190	260	180	806	630	175	100	230	12,5	322	100
080-080-160	100L	2,20	2,55	4,67	80	176	119	147	M10	250	213	260	180	840	664	175	100	230	12,5	317	100
080-080-160	100L	3,00	3,45	6,18	80	176	119	147	M10	250	213	260	180	875	699	175	100	230	12,5	317	100
080-080-160	112M	-	4,55	8,23	80	176	119	147	M10	250	234	260	180	864	688	175	100	230	12,5	317	100
100-100-160	90L	1,50	-	3,32	100	156	128	163	M20	200	190	245	205	812	656	-	-	-	25	348	140
100-100-160	100L	2,20	2,55	4,67	100	156	128	163	M20	250	213	245	205	846	690	-	-	-	25	343	140
100-100-160	100L	3,00	3,45	6,18	100	156	128	163	M20	250	213	245	205	881	725	-	-	-	25	343	140
100-100-160	112M	4,00	4,55	8,23	100	156	128	163	M20	250	234	245	205	870	714	-	-	-	25	343	140
100-100-160	132S	-	6,30	11,32	100	156	128	163	M20	300	266	245	205	935	779	-	-	-	25	366	140

Flange dimensions

Fig. 6: Flange dimensions Etabloc SYT / Etaline SYT

Flange dimensions Etabloc SYT / Etaline SYT

DN / NPS	Standard					
	EN 1092-2			ASME B 16.1		
	PN 16			Class 125		
	Ø K	Ø D	Number and Ø of holes (Ø L)	Ø K	Ø D	Number and Ø of holes (Ø L)
[mm]						
25 / NPS 1	85	115	4 × Ø14	79,2	115	4 × Ø15,7
32 / NPS 1 1/4	100	140	4 × Ø19	88,9	140	4 × Ø15,7
40 / NPS 1 1/2	110	150	4 × Ø19	98,6	150	4 × Ø15,7
50 / NPS 2	125	165	4 × Ø19	120,7	165	4 × Ø19,1
65 / NPS 2 1/2	145	185	4 × Ø19	139,7	185	4 × Ø19,1
80 ¹⁰⁾ / NPS 3	160	200 / 229 ¹¹⁾	8 × Ø19	152,4	200 / 229 ¹¹⁾	4 × Ø19,1
100 / NPS 4	180	230	8 × Ø19	190,5	230	8 × Ø19,1

NPS for DN 80 flange drilled to ASME table (Etabloc SYT only)

Etabloc SYT	Bearing housing	Material	
		SG / SC	
		DN 1	DN 2
		ASME 125	ASME 125
080-065-160	25	NPS 4	NPS 2 1/2
080-065-200	25	NPS 4	NPS 2 1/2

Flange design

Flange design by material

Material	Standard	Nominal size	Pressure class
S	EN 1092-2	DN 25 - DN 100	PN 16
	Drilled to ASME B16.1 ¹²⁾	DN 25 - DN 100	Class 125

10) DN 80 flange NPS 3 drilled to NPS 4 (only Etabloc SYT 080-065-160 / 080-065-200), see "NPS for DN 80 flange drilled to ASME" table.

11) Suction-side DN 80 flange (only Etabloc SYT 080-065-160 / 080-065-200), see "NPS for DN 80 flange drilled to ASME" table.

12) DN 80 machined like DN 100

Etabloc SYT

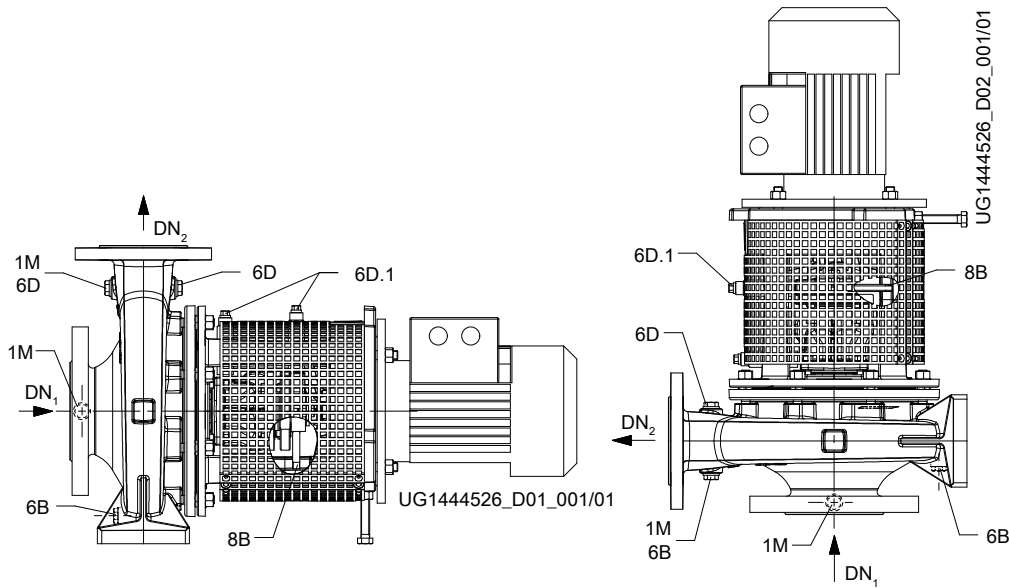


Fig. 7: Etabloc SYT connections by installation type

Connections

Connection	Description	Configuration	Position
1M	Connection for pressure gauge	Drilled and closed	Suction flange / discharge flange
6B	Fluid drain	Drilled and closed	Volute casing
6D, 6D.1	Fluid priming and venting	Drilled and closed	Volute casing / bearing housing
8B	Leakage drain	Drilled	Seal cover

Etabloc SYT connections

Etabloc SYT	Connection		
	Volute casing	Bearing housing / seal cover	
	1M, 6B, 6D	6D.1	8B
040-025-160	G 1/4	G 1/8	R 1/4
040-025-200	G 1/4	G 1/8	R 1/4
050-032-125.1	G 1/4	G 1/8	R 1/4
050-032-160	G 1/4	G 1/8	R 1/4
050-032-160.1	G 1/4	G 1/8	R 1/4
050-032-200	G 1/4	G 1/8	R 1/4
050-032-200.1	G 1/4	G 1/8	R 1/4
065-040-160	G 1/4	G 1/8	R 1/4
065-040-200	G 1/4	G 1/8	R 1/4
065-050-160	G 1/4	G 1/8	R 1/4
065-050-200	G 1/4	G 1/8	R 1/4
080-065-160	G 3/8	G 1/8	R 1/4
080-065-200	G 3/8	G 1/8	R 1/4
100-080-160	G 3/8	G 1/8	R 1/4

Etaline SYT

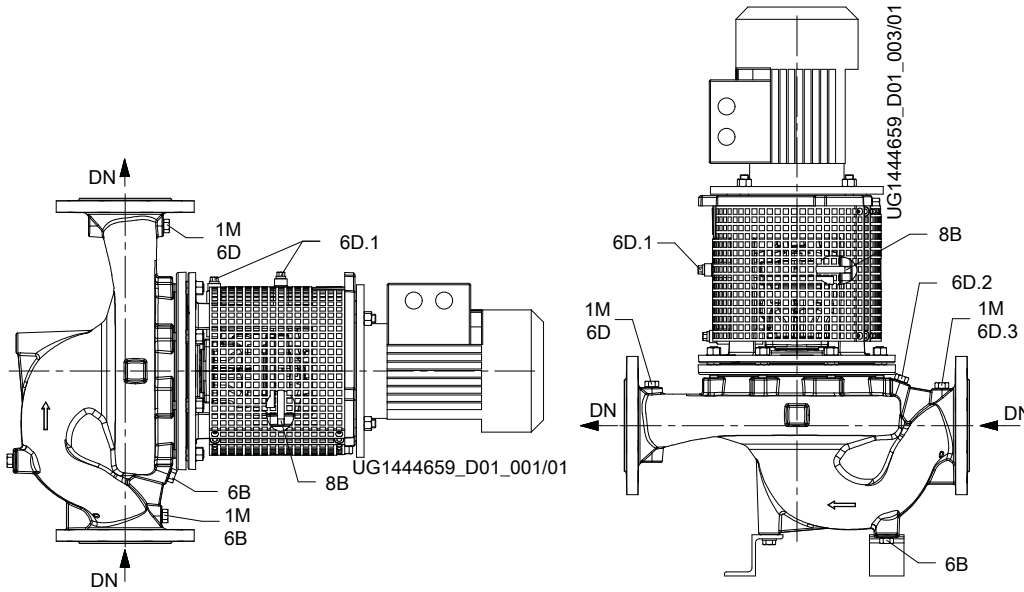


Fig. 8: Etaline SYT connections by installation type

Connections

Connection	Description	Configuration	Position
1M	Connection for pressure gauge	Drilled and closed	Suction flange / discharge flange
6B	Fluid drain	Drilled and closed	Volute casing
6D, 6D.1, 6D.2, 6D.3	Fluid priming and venting	Drilled and closed	Volute casing / bearing housing
8B	Leakage drain	Drilled	Seal cover

Etaline SYT connections

Etaline SYT	Connection		
	Volute casing	Bearing housing / seal cover	
	1M, 6B, 6D, 6D.2, 6D.3	6D.1	8B
032-032-160	G 1/4	G 1/8	R 1/4
032-032-200	G 1/4	G 1/8	R 1/4
040-040-160	G 1/4	G 1/8	R 1/4
040-040-200	G 1/4	G 1/8	R 1/4
050-050-160	G 1/4	G 1/8	R 1/4
050-050-200	G 1/4	G 1/8	R 1/4
065-065-160	G 1/4	G 1/8	R 1/4
065-065-200	G 1/4	G 1/8	R 1/4
080-080-160	G 3/8	G 1/8	R 1/4
100-100-160	G 3/8	G 1/8	R 1/4

Installation types

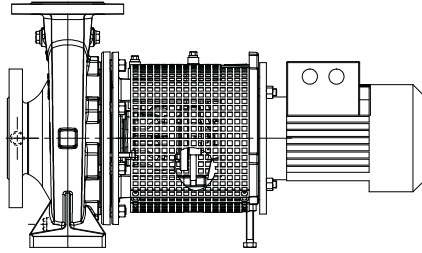


Fig. 9: Horizontal installation, Etabloc SYT

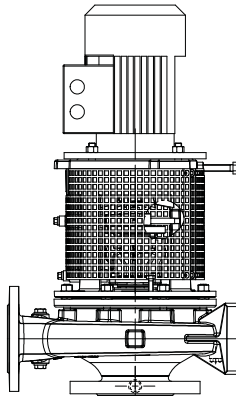


Fig. 10: Vertical installation, Etabloc SYT

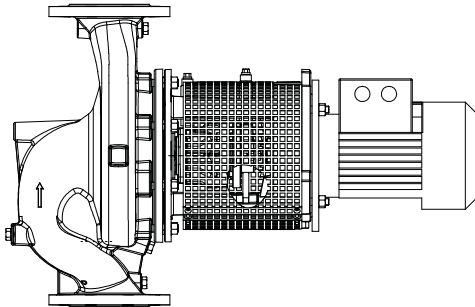


Fig. 11: Horizontal installation, Etaline SYT

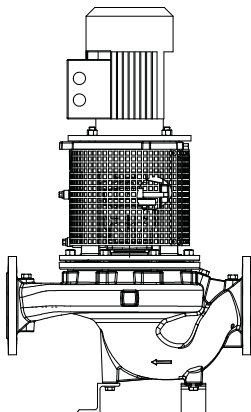


Fig. 12: Vertical installation, Etaline SYT

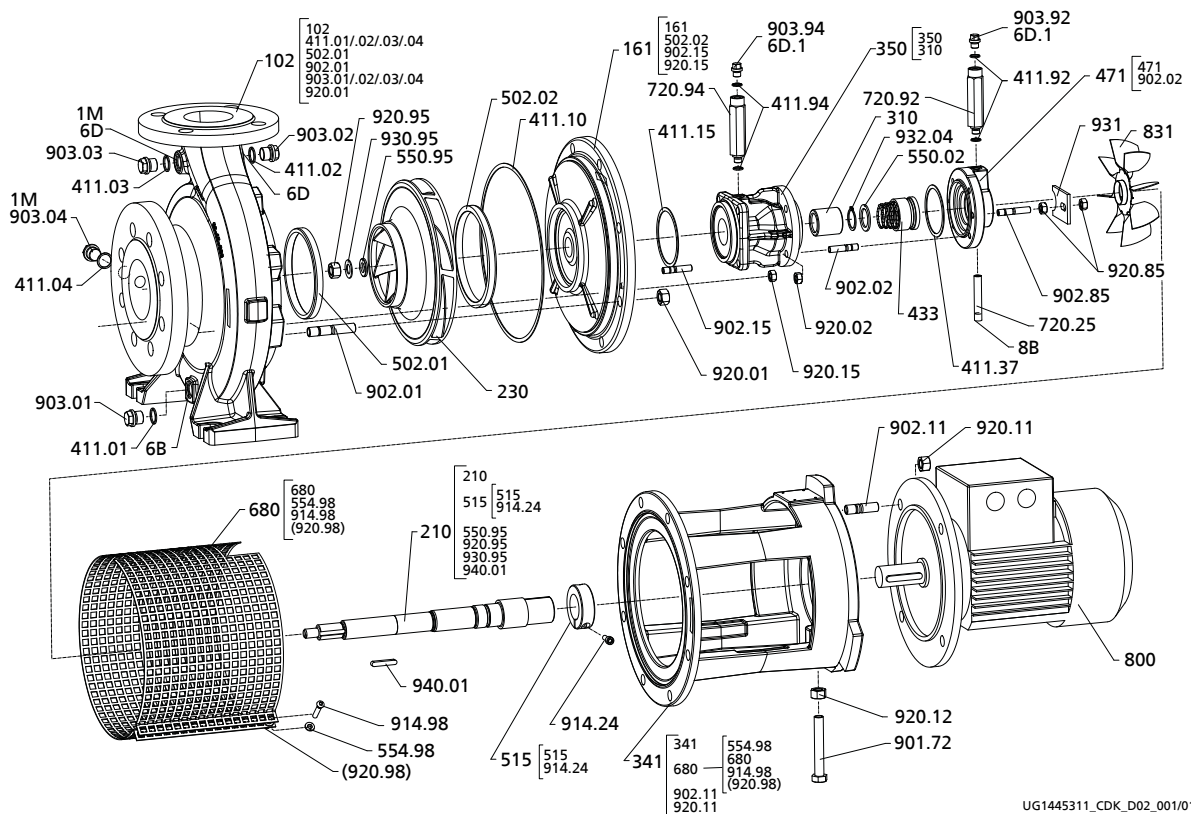
Scope of supply

Depending on the model, the following items are included in the scope of supply:

- Pump
- Drive
- Pump foot for vertical installation of the drive

General Assembly Drawings

Etabloc SYT exploded view



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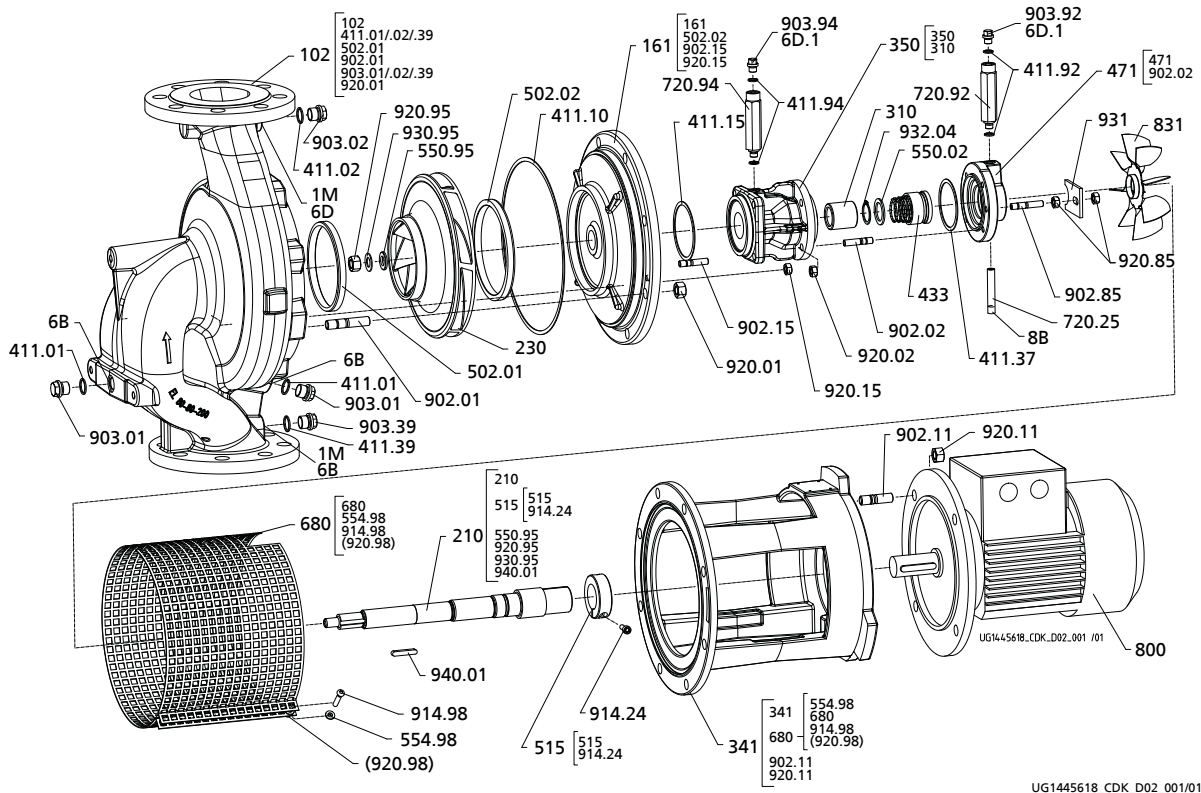
Fig. 13: Etabloc SYT exploded view

[Supplied in packaging units only
() Not available as individual spare part

List of components

Part No.	Description	Part No.	Description
102	Volute casing	720.25/.92/.94	Fitting
161	Casing cover	800	Motor
210	Shaft	831	Fan impeller
230	Impeller	901.72	Hexagon head bolt
310	Plain bearing	902.01/.02/.11/.15/.85	Stud
341	Drive lantern	903.01/.02/.03/.04/.92/.94	Screw plug
350	Bearing housing	914.24	Hexagon socket head cap screw
411.01/.02/.03/.04/.10/.15/.37/.92/.94	Joint ring	914.98	Pan head screw
433	Mechanical seal	920.01/.02/.11/.12/.15/.85/.95	Hexagon nut
471	Seal cover	920.98	Blind rivet nut
502.01/.02	Casing wear ring	930.95	Spring washer
515	Taper lock ring	931	Lock washer
550.02/.95	Disc	932.04	Circlip
554.98	Lock washer	940.01	Key
680	Guard		

Etaline SYT exploded view



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Fig. 14: Etaline SYT exploded view

[Supplied in packaging units only
() Not available as individual spare part

List of components

Part No.	Description	Part No.	Description
102	Volute casing	680	Guard
161	Casing cover	720.25/92/94	Fitting
210	Shaft	800	Motor
230	Impeller	831	Fan impeller
310	Plain bearing	902.01/02/11/15/85	Stud
341	Drive lantern	903.01/02/39/92/94	Screw plug
350	Bearing housing	914.24	Hexagon socket head cap screw
411.01/02/10/15/37/39/92/94	Joint ring	914.98	Pan head screw
433	Mechanical seal	920.01/02/11/15/85/95	Hexagon nut
471	Seal cover	920.98	Blind rivet nut
502.01/02	Casing wear ring	930.95	Spring washer
515	Taper lock ring	931	Lock washer
550.02/95	Disc	932.04	Circlip
554.98	Lock washer	940.01	Key

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