

SL1.50.65.15.Ex.2.50B

Grundfos pump 96104120



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<https://www.lenntech.com/grundfos/SL1000/96104120/SL1-50-65-15-EX-2-50B.html>

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Position	Qty.	Description
	1	SL1.50.65.15.EX.2.50B  Product No.: On request Non-self-priming, single-stage, centrifugal pump designed for handling wastewater, process water and unscreened raw sewage. The pump is designed for intermittent and continuous operations in submerged installation. The revolutionary S-tube® impeller provides free spherical passage of solids up to 50 mm and is suitable for wastewater with a dry matter content of up to 3 %. A unique stainless-steel clamp assembling system enables quick and easy disassembly of the pump from the motor unit for service and inspection. No special tools are required. The pump is explosion-proof. Further product details Typical application is transfer of liquid, such as: - large quantities of drainage and surface water - domestic wastewater with discharge from toilets - wastewater from commercial buildings without discharge from toilets - sludge-containing industrial wastewater. The pump is ideal for pumping of the above liquids from for instance: - municipal network pumping stations - public buildings - blocks of flats - factories/industry. The pump is suitable for both temporary and permanent installation either as free-standing on ring stand or on an auto-coupling system. Pump The pump housing, motor top and impeller are made of cast iron (EN-GJL-250). The S-tube® impeller is providing free spherical passage through the impeller and pump housing and creates a natural extension of the pipework connected to the pump. The S-tube® impeller is a wet-balanced and tube-shaped channel impeller placed in a pump housing that matches the smooth tube shape leaving no obstructions or dead zones. The key to the S-tube® design is simplicity, with no cutting or moving functions that can get worn over time, thereby ensuring constant, superior efficiency. The simple design means lower life cycle costs because abrasive wear is reduced and there are fewer clogging incidents.  The shaft seal consists of two mechanical seals that ensure a reliable sealing between the pumped liquid and motor. The shaft seals are incorporated in a single-unit cartridge shaft seal system that is easy to replace in the field without use of special tools. The combination of the primary and secondary seals in a cartridge shaft seal system results in a shorter assembly length compared to conventional shaft seals. - Primary seal: Silicon carbide/silicon carbide (SiC/SiC) - Secondary seal: Carbon/Ceramics The shaft seal is bidirectional, meaning it operates correctly in case of backflow through the pump.



The pump is approved according to CE 0344-Ex-II26.

Motor

The motor is a watertight, totally encapsulated motor supplied with a 10 m power cable. The stainless steel plug is fastened with a union nut. This nut and the O-rings provide sealing against ingress of the liquid.

The plug is polyurethane-embedded, ensuring a watertight and durable seal around the leads of the cable. This prevents the ingress of water into the motor through the cable in case of cable breakage or adverse handling in connection with installation or service.

A compact motor construction with a short shaft reduces vibrations, resulting in an increased efficiency and lifetime of the shaft seal and ball bearings.

The motor features built-in thermal protection to protect the motor against overheating and ensure the reliability.

The pump is designed for speed-controlled operation to keep the energy consumption at a minimum. To avoid the risk of sedimentation in the pipes, we recommend that you operate the speed-controlled pump within a speed range of 30 % to 100 % and at a flow rate above 1 m/s.

Controls:

Moisture sensor:	without moisture sensors
Water-in-oil sensor:	without water-in-oil sensor

Liquid:

Maximum liquid temperature:	40 °C
Density:	998.2 kg/m ³

Technical:

Type of impeller:	SINGLE CHANNEL
Maximum particle size:	50 mm
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	LIPSEAL
Approvals on nameplate:	CE 0344-Ex-II26
Curve tolerance:	ISO 9906:2012 Grade 3B

Materials:

Pump housing:	EN-GJL-250 EN-GJL-250
Impeller:	EN-GJS500-7 EN-GJS500-7
Motor:	DIN W.-Nr. GG20

Installation:

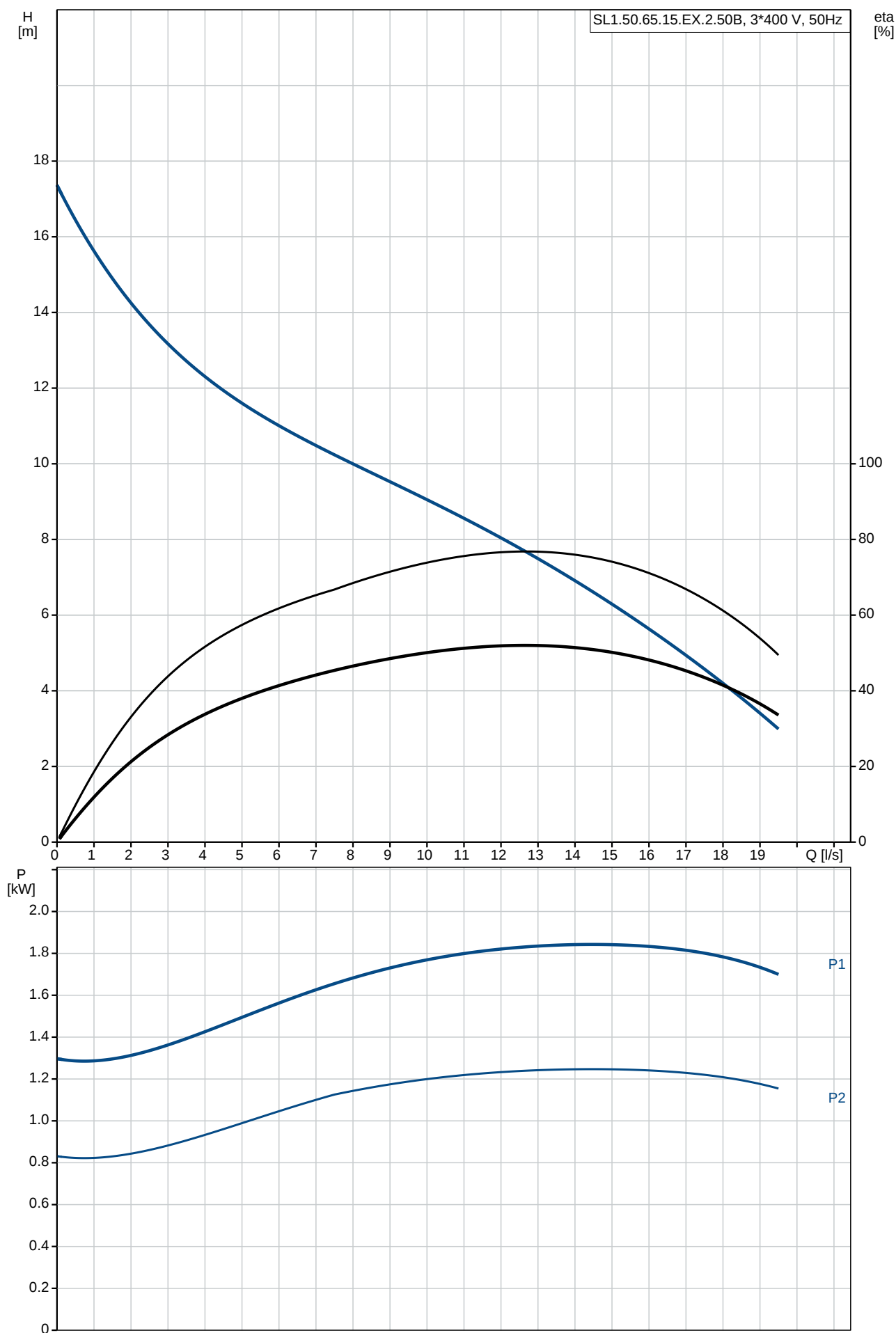
Maximum ambient temperature:	40 °C
Pump inlet:	65
Pump outlet:	65
Maximum installation depth:	10 m

Electrical data:

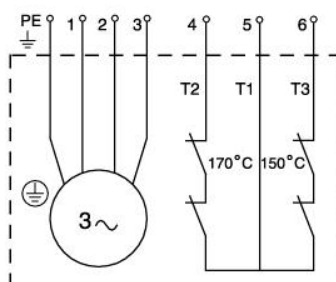
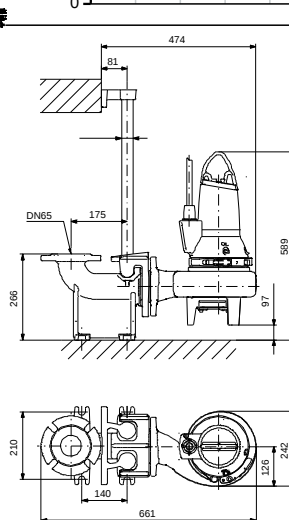
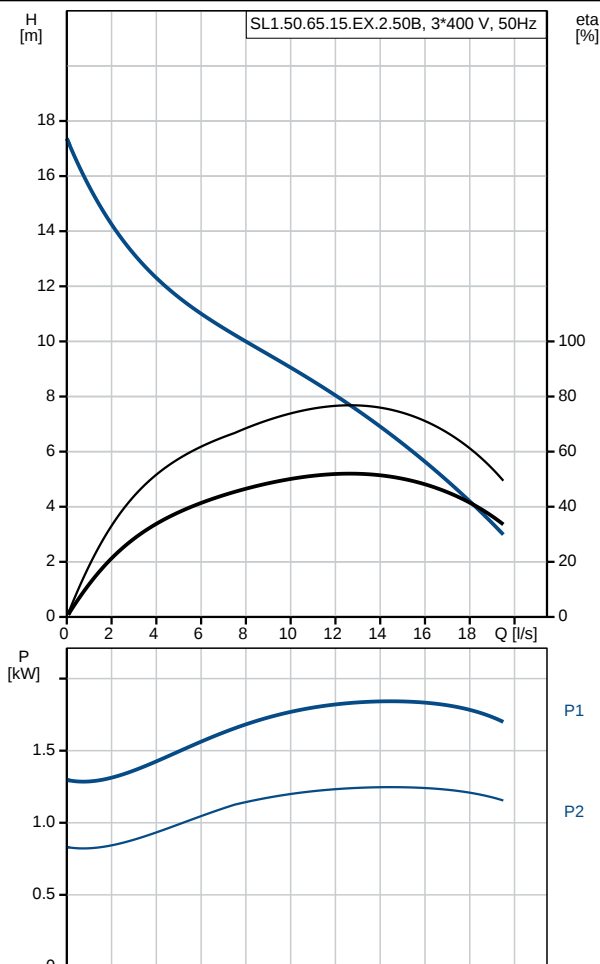
Power input - P1:	2.2 kW
Rated power - P2:	1.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 400-415 V
Voltage tolerance:	+6/-10 %
Max starts per. hour:	30
Rated current:	3.8 A
Rated current at 3/4 load:	3 A
Rated current at 1/2 load:	2.4 A
Starting current:	21 A
Rated current at no load:	1.9 A
Cos phi - power factor:	0.88

Position	Qty.	Description
		Cos phi - p.f. at 3/4 load: 0.81 Cos phi - p.f. at 1/2 load: 0.71 Rated speed: 2720 rpm Motor efficiency at full load: 67 % Motor efficiency at 3/4 load: 68 % Motor efficiency at 1/2 load: 63 % Start. method: direct-on-line Enclosure class (IEC 34-5): IP68 Insulation class (IEC 85): F Explosion proof: yes Length of cable: 10 m Cable type: H07RN-F Others: Net weight: 48 kg

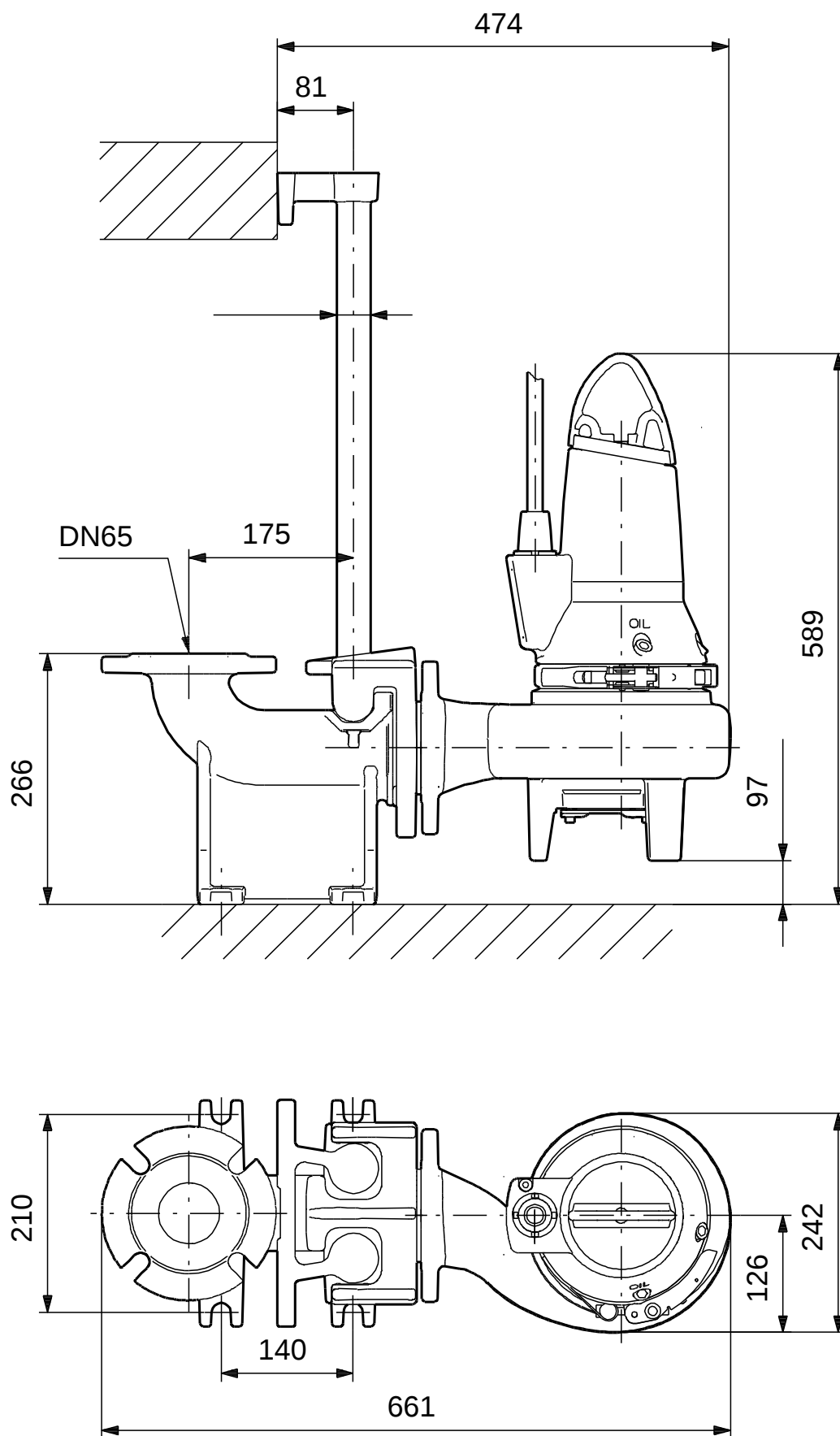
On request SL1.50.65.15.EX.2.50B 50 Hz



Description	Value
General information:	
Product name:	SL1.50.65.15.EX.2.50B
Product No:	On request
EAN number:	On request
Technical:	
Max flow:	19.5 l/s
Head max:	17 m
Type of impeller:	SINGLE CHANNEL
Maximum particle size:	50 mm
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	LIPSEAL
Approvals on nameplate:	CE 0344-Ex-II26
Curve tolerance:	ISO 9906:2012 Grade 3B
Cooling jacket:	without cooling jacket
Materials:	
Pump housing:	EN-GJL-250
	EN-GJL-250
Impeller:	EN-GJS500-7
	EN-GJS500-7
Motor:	DIN W.-Nr. GG20
Installation:	
Maximum ambient temperature:	40 °C
Pump inlet:	65
Pump outlet:	65
Maximum installation depth:	10 m
Inst dry/wet:	SUBMERGED
Installation:	vertical
Liquid:	
Maximum liquid temperature:	40 °C
Density:	998.2 kg/m ³
Electrical data:	
Power input - P1:	2.2 kW
Rated power - P2:	1.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 400-415 V
Voltage tolerance:	+6/-10 %
Max starts per. hour:	30
Rated current:	3.8 A
Rated current at 3/4 load:	3 A
Rated current at 1/2 load:	2.4 A
Starting current:	21 A
Rated current at no load:	1.9 A
Cos phi - power factor:	0.88
Cos phi - p.f. at 3/4 load:	0.81
Cos phi - p.f. at 1/2 load:	0.71
Rated speed:	2720 rpm
Motor efficiency at full load:	67 %
Motor efficiency at 3/4 load:	68 %
Motor efficiency at 1/2 load:	63 %
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Explosion proof:	yes
Motor protec:	THERMAL SWITCH
Length of cable:	10 m
Cable type:	H07RN-F
Controls:	
Control box:	not included
Moisture sensor:	without moisture sensors
Water-in-oil sensor:	without water-in-oil sensor
Others:	
Net weight:	48 kg

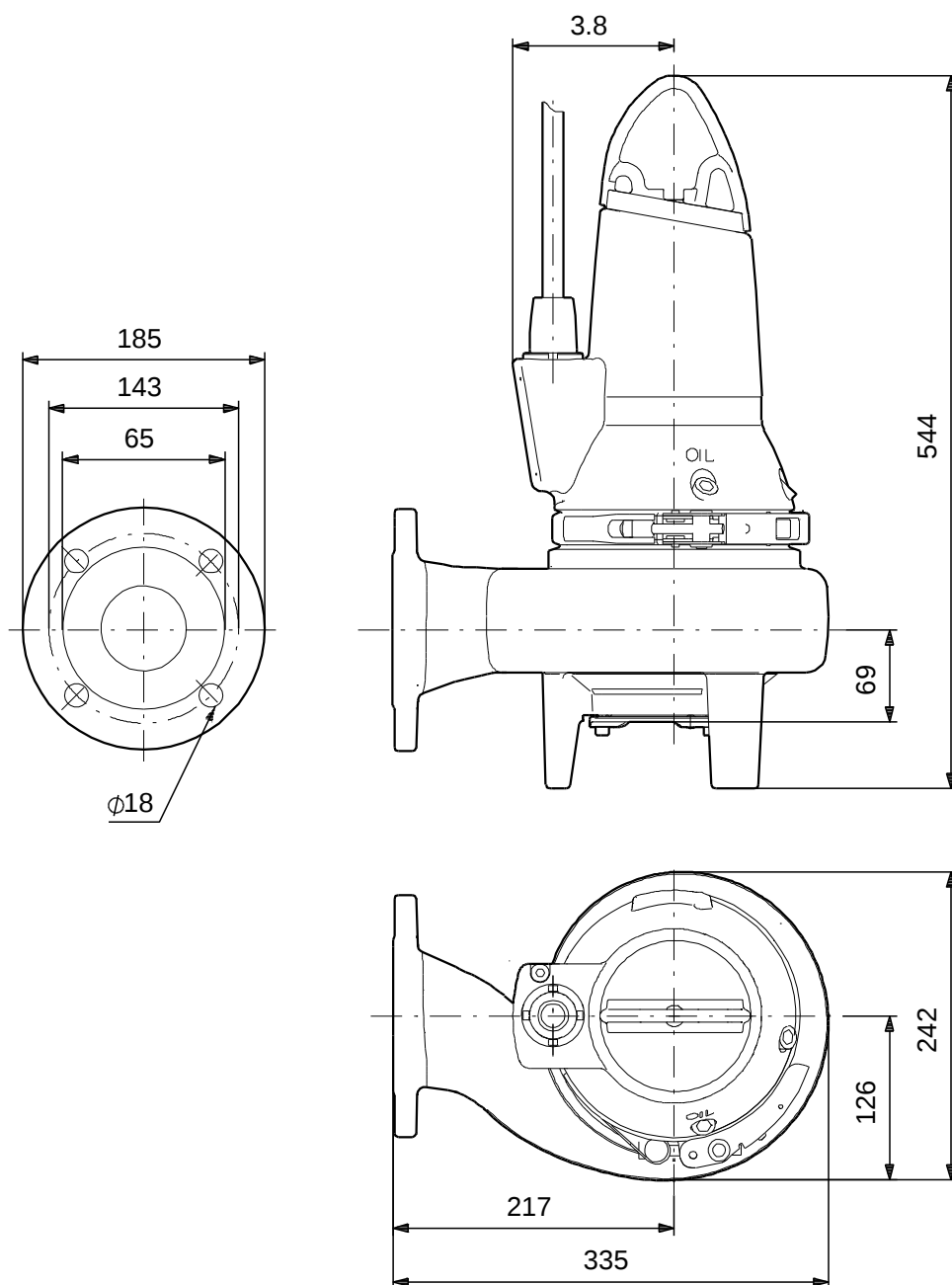


On request SL1.50.65.15.EX.2.50B 50 Hz



Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

On request SL1.50.65.15.EX.2.50B 50 Hz



Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view



Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list SL1.50.65.15.EX.2.50B, Product No. On request
Valid from 1.11.2008 (0844)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
7a	Rivet				4	pcs
9a	Key		Dimension: 5X5X12		1	pcs
26.a	O-ring		Diameter: 32		1	pcs
			Material type: NBR			
			Thickness: 4			
37	O-ring		Diameter: 164		1	pcs
			Material type: NBR			
			Thickness: 3			
37a	O-ring		Diameter: 114		2	pcs
			Material type: NBR			
			Thickness: 3			
37b	O-ring		Diameter: 86		1	pcs
			Material type: NBR			
			Thickness: 4			
49	Impeller				1	pcs
50	Pump housing				1	pcs
66	Wedge lock washer		Designation: M8 A4		1	pcs
76	Nameplate				1	pcs
92	Clamp				1	pcs
102	O-ring		Diameter: 19		1	pcs
			Material type: 72NBR872			
			Thickness: 1.5			
103	Bush				1	pcs
- 105	Shaft seal				1	pcs
58	Shaft seal retainer				1	
104	Seal ring				1	
105a	Shaft seal				1	
107	O-ring		Diameter: 47		1	
			Material type: NBR			
			Thickness: 3			
107	O-ring		Diameter: 50		1	
			Material type: NBR			
			Thickness: 3			
- 150a	Stator w/housing cpl.				1	pcs
48	Stator		Winding resistance: 4,55		1	
48a	Cover				1	
55	Stator housing				1	
66	Wedge lock washer		Designation: M8 A4		1	
154	Ball bearing				1	
158	Waved washer				1	
159	O-ring				1	
173	Cross recess Pan head screw		Designation: CROSS-HEAD SCREW		1	
173a	Lock washer				1	
- 176	Plug				1	
	Pin				1	
153b	O-ring		Diameter: 28		1	
			Material type: NBR			
			Thickness: 2			
185	O-ring		Diameter: 31		1	
			Material type: NBR			
			Thickness: 2			
188.a	Hex socket head cap screw		Length (mm): 25		1	
			Thread: M8			
153	Ball bearing		Designation: 6204 2CS C3 SYN		1	pcs
154	Ball bearing				1	pcs
155	Oil chamber				1	pcs
158	Waved washer				1	pcs
162	Suction cover				1	pcs
172	Shaft w/rotor				1	pcs

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
- 181	Cable Ex				1	pcs
198	O-ring		Diameter: 34.2		1	
			Material type: NBR			
			Thickness: 3			
188.a	Hex socket head cap screw		Length (mm): 25		8	pcs
			Thread: M8			
188b	Hex socket head cap screw		Designation: INNER HEXAGON		3	pcs
			Length (mm): 25			
			Thread: M8			
189	Socket set screw		Designation: INNER HEXAGON		3	pcs
			Length (mm): 12			
			Thread: M12			
190	Lifting bracket				1	pcs
193	Hex socket head cap screw		Designation: A2-70		2	pcs
			Length (mm): 20			
			Thread: M12			
193a	Oil		Type: SHELL ONDINA 919		0	L
194	Washer		Internal diameter: 19		2	pcs
			Outer diameter: 12.2			
			Thickness: 4.4			
208	Washer		Internal diameter: 20		1	pcs
			Outer diameter: 28			
			Thickness: 2			

Disclaimer: The information about the Grundfos pump in this document may be outdated.

Data may be subject to alterations without further notice.

Please contact us to verify the data above is still accurate/up-to-date.

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