

MDG.09.1.2 1x230V

Grundfos pump 97901136



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<https://www.lenntech.com/grundfos/MULDOUB/97901136/MDG-09-1-2.html>

info@lenntech.com

tel. +31 152 610 900

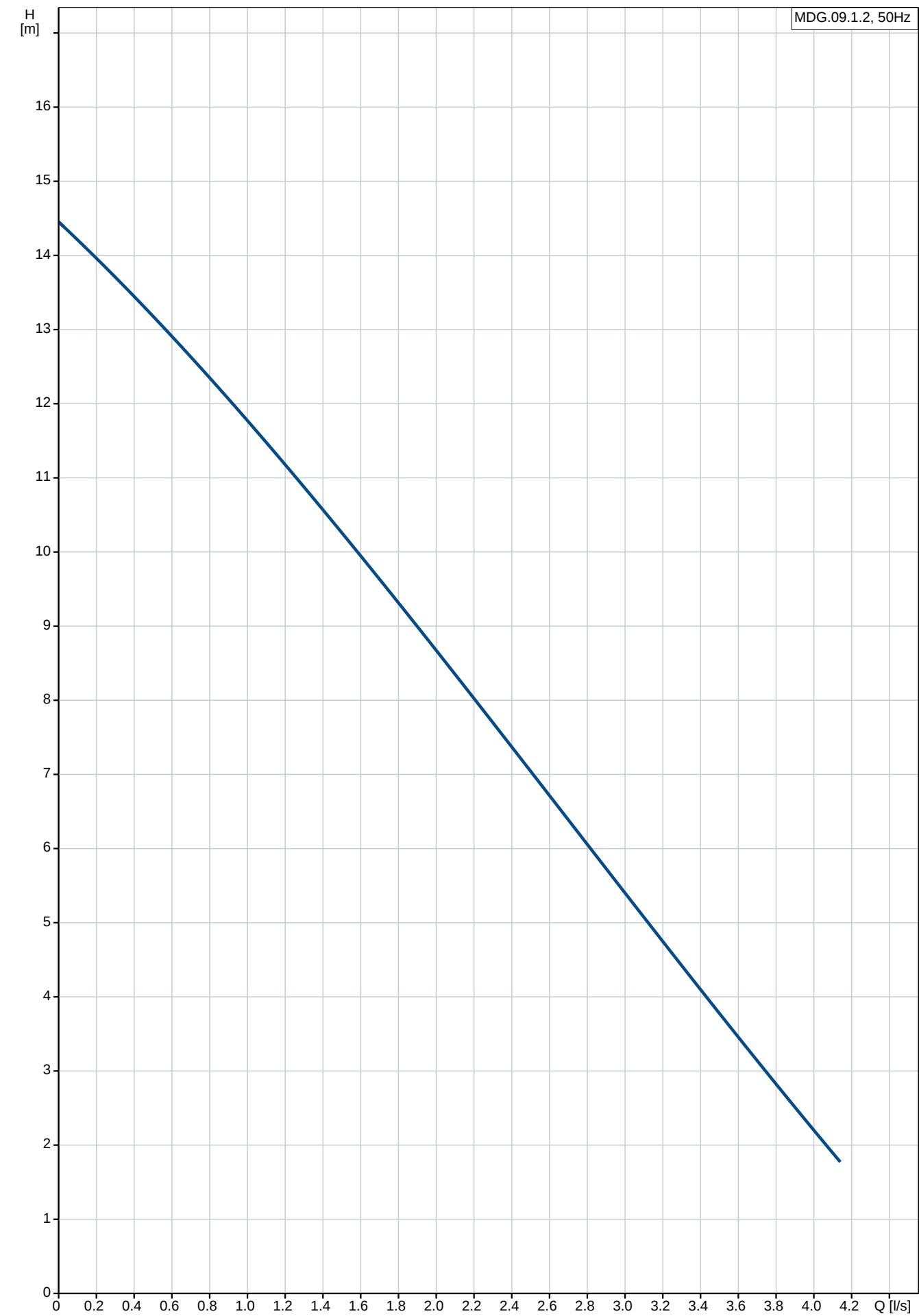
fax. +31 152 616 289

Position	Qty.	Description
	1	MDG.09.1.2  Note! Product picture may differ from actual product Product No.: On request Supplied as complete unit ready for installation, the Multilift consist of a fully integrated collecting tank with two grinder pumps and submersible motors mounted on the collecting tank and a pre-wired Controller incl. a level sensor. (Non-return valves and discharge pipes are available as accessories) The fully integrated collecting tank has all necessary ports for the connection of inlet pipe, discharge pipe, vent pipe and a manually operated diaphragm pump (accessory). The collecting tank contains 7 inlet sockets around it's shape. The back inlet DN100 is placed on a patented inlet disk to connect all inlet pipe levels (centre) between 180 and 315mm stepless. DN100 and DN50 inlet sockets on each side. DN150, DN50 sockets on the top of the tank. Multilift corrosion free polyethylen collecting tanks are gas- and odour-proof as well as watertight , reduction of residual water and less sedimentation by chamfered bottom design. The grinder pump with Vortex impeller, submersible motor, oil chamber with physiological harmless oil filling between a mechanical cartridge shaft seal. Pumps discharges with inner threads of 1 1/4 inch. An LC221 controller with microprocessor is equipped with display for full monitoring possibilities. The pump and sensor are connected to the controller with 10m cable and tube length. The power supply cable is 1,5m with plug (incl. phase inverter for 3 phase motor) Contactless, piezo resistive pressure sensor pluggable inside the cabinet, monitored by controller, accurate to the millimetre shown on display. Blockage free pressure tube inside the tank without movable parts inside wastewater. The controller offer thermal motor protection and monitoring of pump operation. The thermal motor protection consists of thermal switches in the winding. Controller functions: • on/off, regular and failure changeover of two grinder pump based on a continuous signal from a piezo-resistive sensor • motor protection via motor-protective circuit breaker and/or current measurement as well as connection of thermal switches. • dry running motor protection via run-time limitation with a following emergency operation • 24h automatic test runs during long periods of inactivity • setting of delay times: - stopping delay (time from the stop level is reached till the pumped is stopped) - starting delay (time from the start level is reached till the pumped is started) - alarm delay (time from a fault appears till an alarm is indicated) to prevents short-time high-level alarm in case of temporary high inflow to the tank. • automatic current measurement for alarm indications • operating indication of: - operating mode (auto, manual) - operating hours - impulses (number of starts)

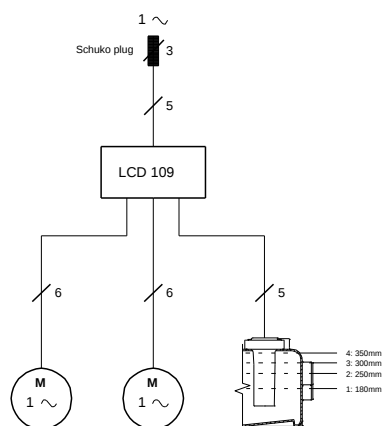
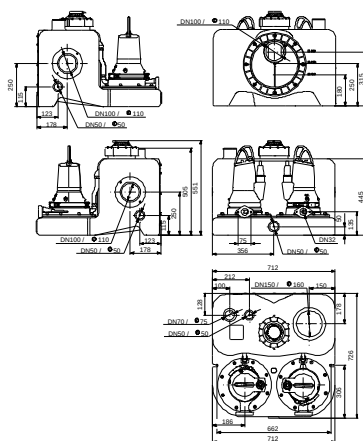
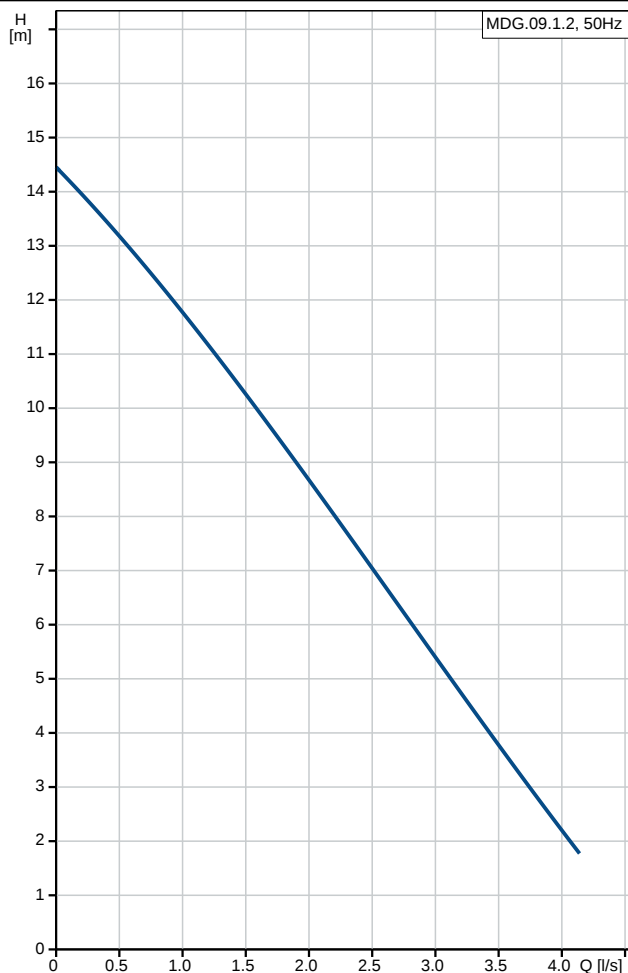
Position	Qty.	Description
		- highest measured motor current • alarm indication of: - pump status (running, fault) - phase-sequence fault and missing phase - thermal-switch failure - high-water alarm - time for service/maintenance (selectable). • selection of automatic alarm resetting • fault log of up to 20 alarms • selection between different start levels • selection of connected sensor type • calibration of sensor (preset) • selection of maintenance interval (0, 3, 6 or 12 months). As standard, the LC 221 has 4 potential-free outputs for: – pump running – pump failure – high water-level alarm – common fault. 6 digital inputs for the following functions: – connecting a pressure sensor board (pre-assembled) – connecting an analogue sensor (4-20mA or 0-5V) – connecting up to four level switches or pressure switches instead of analogue sensor – connecting a separate level switch to be used for flood detection outside the Multilift. Lifting stations are often installed in a sump inside the basement - the lowest point in the building. In case of e.g. groundwater inflow or water pipe burst, an alarm will be indicated by the controller. – connecting an external alarm reset – connecting the thermal switch of the motor. The Multilift range is designed due to the standard EN12050-1, approved and monitored by external institute LGA. Further approvals are VDE, GHOST, CB, EMV Technical: Type of impeller: GRINDER SYSTEM Materials: Gasket: SIC/SIC Liquid: Maximum liquid temperature: 40 °C Density: 998.2 kg/m³ Electrical data: Power input - P1: 2 x 1.4 kW Rated power - P2: 2 x 0.9 kW Mains frequency: 50 Hz Rated voltage: 1 x 230 V Voltage tolerance: +10/-10 % Max starts per. hour: 60 Rated current: 2 X 6,2 A Cos phi - power factor: 0.99 Rated speed: 2890 rpm Motor efficiency at full load: 71 % Capacitor size - run: 150 µF Number of poles: 2 Start. method: direct-on-line Enclosure class (IEC 34-5): IP68 Insulation class (IEC 85): F Type of cable plug: CEE 2P+PE Mains cable: 1.5 m Controls:

Position	Qty.	Description
		Type of control box: LC221.2 Tank: Total volume of tank(s): 93 l Total effective volume of collecting tank at 180 mm inlet: 23 l Total effective volume of collecting tank at 250 mm inlet: 37 l Total effective volume of collecting tank at 315 mm inlet: 50 l

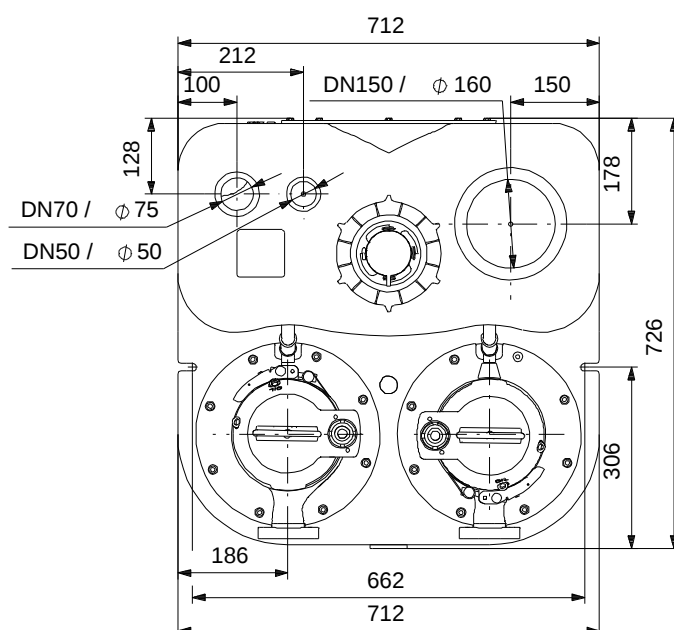
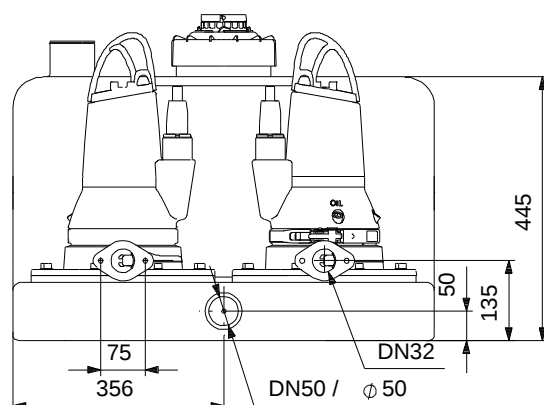
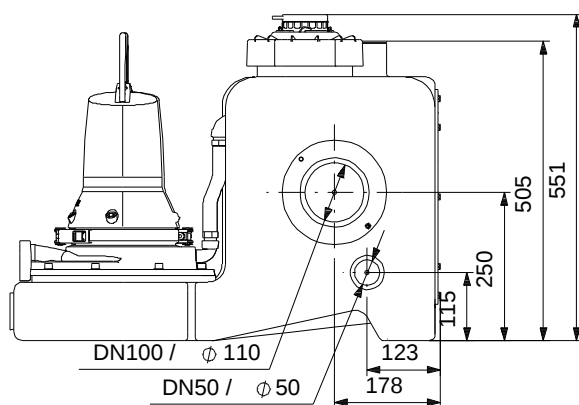
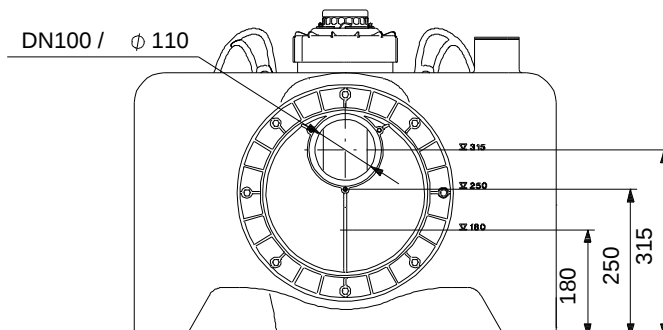
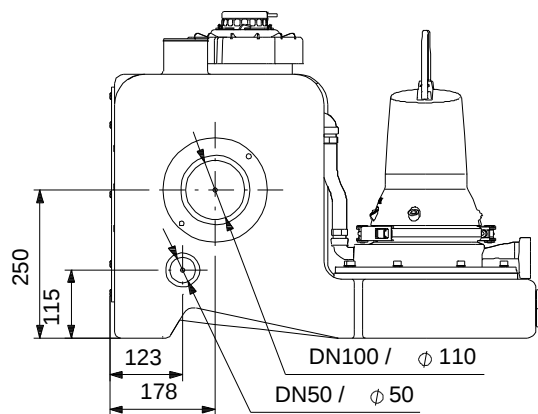
On request MDG.09.1.2 50 Hz



Description	Value
General information:	
Product name:	MDG.09.1.2
Product No:	On request
EAN number:	On request
Technical:	
Max flow:	4.1 l/s
Head max:	14.4 m
Type of impeller:	GRINDER SYSTEM
Materials:	
Gasket:	SIC/SIC
Liquid:	
Maximum liquid temperature:	40 °C
Density:	998.2 kg/m ³
Electrical data:	
Power input - P1:	2 x 1.4 kW
Rated power - P2:	2 x 0.9 kW
Mains frequency:	50 Hz
Rated voltage:	1 x 230 V
Voltage tolerance:	+10/-10 %
Max starts per. hour:	60
Rated current:	2 X 6,2 A
Cos phi - power factor:	0.99
Rated speed:	2890 rpm
Motor efficiency at full load:	71 %
Capacitor size - run:	150 µF
Number of poles:	2
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Motor protec:	THERMAL SWITCH
Motor cable:	10 m
Cable type:	H07RN-F
Type of cable plug:	CEE 2P+PE
Mains cable:	1.5 m
	H05 VV-F
Controls:	
Type of control box:	LC221.2
Operation mode:	S3-35%, 1MIN
Tank:	
Total volume of tank(s):	93 l
Total effective volume of collecting tank at 180 mm inlet:	23 l
Total effective volume of collecting tank at 250 mm inlet:	37 l
Total effective volume of collecting tank at 315 mm inlet:	50 l



On request MDG.09.1.2 50 Hz



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

Exploded view

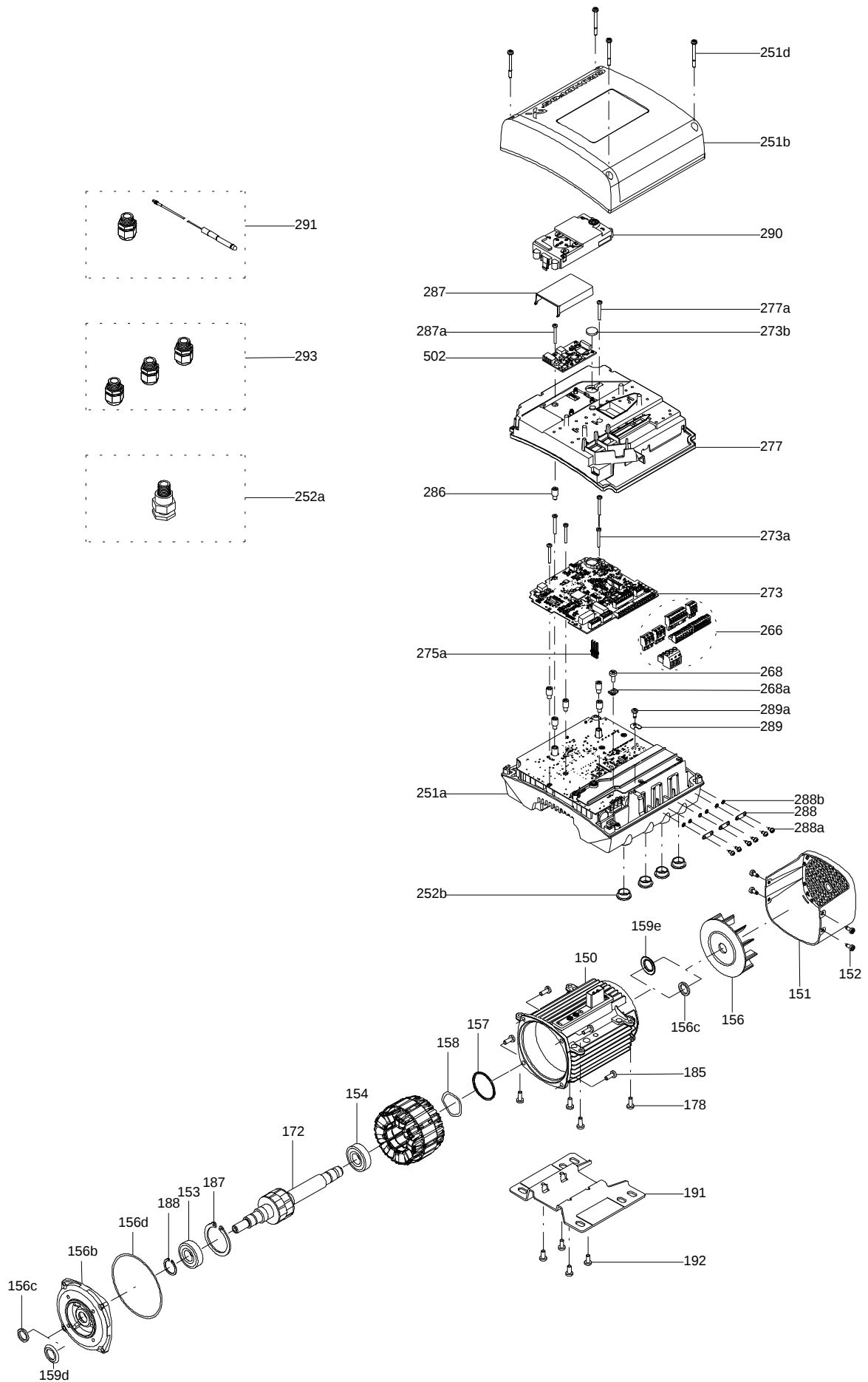


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list MDG.09.1.2, Product No. On request
Valid from 1.7.2012 (1226)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
6a	Pin				1	pcs
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			
44	Grinder ring				1	pcs
45	Grinder head				1	pcs
49	Impeller				1	pcs
66	Wedge lock washer		Designation: M8 A4		1	pcs
68	Adjustment nut				1	pcs
76	Nameplate				1	pcs
+ 92	Strap cpl.				1	pcs
102	O-ring		Diameter: 16		1	pcs
			Material type: NBR			
			Thickness: 1.5			
103	Bush				1	pcs
- 105	Shaft seal				1	pcs
58	Retainer for seal ring				1	
104	Seal ring				1	
105.a	Shaft seal		Material type: BQQP		1	
107	O-ring		Diameter: 47		1	
			Material type: NBR			
			Thickness: 3			
108	O-ring		Diameter: 50		1	
			Material type: NBR			
			Thickness: 3			
107	O-ring		Diameter: 47		1	pcs
			Material type: NBR			
			Thickness: 3			
- 150a	Stator w/housing cpl.				1	pcs
48	Stator		Winding resistance: 4,68		1	
48a	Cover				1	
55	Stator housing				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			
153	Ball bearing		Designation: 6303 2RS C3 SYN		1	pcs
154	Ball bearing				1	pcs
155	Oil chamber				1	pcs
158	Waved washer				1	pcs
172	Shaft w/rotor				1	pcs
- 181	Cable cpl.				1	pcs

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
198	O-ring		Diameter: 34.2		1	
			Material type: NBR			
			Thickness: 3			
188.a	Hex socket head cap screw		Length (mm): 25		9	pcs
			Thread: M8			
190	Lifting bracket				1	pcs
193	Hex socket head cap screw		Designation: A2-70		2	pcs
			Length (mm): 20			
			Thread: M12			
194	Washer		Internal diameter: 19		2	pcs
			Outer diameter: 12.2			
			Thickness: 4.4			

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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info@lenntech.com

<https://www.lenntech.com>

tel. +31 152 610 900

fax. +31 152 616 289