Technical data

Pump name OPTIMA M

Customer	Date 14-May-2020	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Pump type	SUBMERSIBLE SUMP PUMPS	Fluid		Water, clean
2	Number of pumps / Reserve	1 / 0	Liquid temperature	K	293
3	Flow l/min	0	Kin. viscosity	mm²/s	1
4	Head m	0	Vapour pressure	kPa	2.2
5	Geodetic head m	0	PH value		7
6	Inlet pressure (pin) kPa	10	Density	kg/m³	1000
7	Available system NPSH	0	Solids	Weight %	0
8	Ambient temperature K	290			

Pump

9	Pump name	OPTIMA M	Frequency		Hz	50
10	Design	SUBMERSIBLE SUMP PUMPS	Installation type			STANDARD
11	Manufacturer	EPE	Impeller Diameter	Max.	mm	80
12	Speed 1/min	2800		Designed	mm	80
13	No. of Stage	1		Min.	mm	80
14	Connection Suction side	Strainer	Flow	Operating	l/min	
15	Connection Discharge side	UNI ISO 228		Max-	l/min	150
16	Max Working Pressure kPa			Min-	l/min	20
17	Shut-off head kPa	74.26	Head	Operating	m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.)	m	1.5
19	Shaft power kW			- (Qmin.)	m	7.1
20			Max. Shaft Power at max. impeller		kW	
21	Required pump NPSH m		Efficiency		%	

Materials

22	Impeller	PPE+PS glass fiber reinforced		
23	Casing	AISI 304		
24	Shaft	AISI 303+AISI 303 ceramic coated shaft sleeve		
25				
26				
27				

Motor

28	Manufacturer	EPE Standard	Insulation class		F
29	Type	OPTIMA M_230_Single Phase	Phases		1~
30	Specific design	Submersible dry type / 50 Hz / Pole pairs 1	Frame size		
31	Rated power kW	0.25	Weight	kg	0
32	Number of poles	2	Electric voltage	V	230
33	Speed 1/min	2800	Electric current	A	1.9
34	Degree of protection	IP 68			
35					

Remarks

EBARA

Performance curve **Pump name** OPTIMA M

Customer	Date 14-May-2020	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Flow	l/min	0
2	Head	m	0
3	Geodetic head	m	0

Pump

Operating Flow	l/min		Frequency	Hz	50
Operating Head	m		Number of poles		2
Impeller Diameter	Designed mm	80	Speed	1/min	

Test standard: ISO 9906:2012 - Grade3B

Water, clean [100%] ; 293K; 998.3kg/m³; 1mm²/s

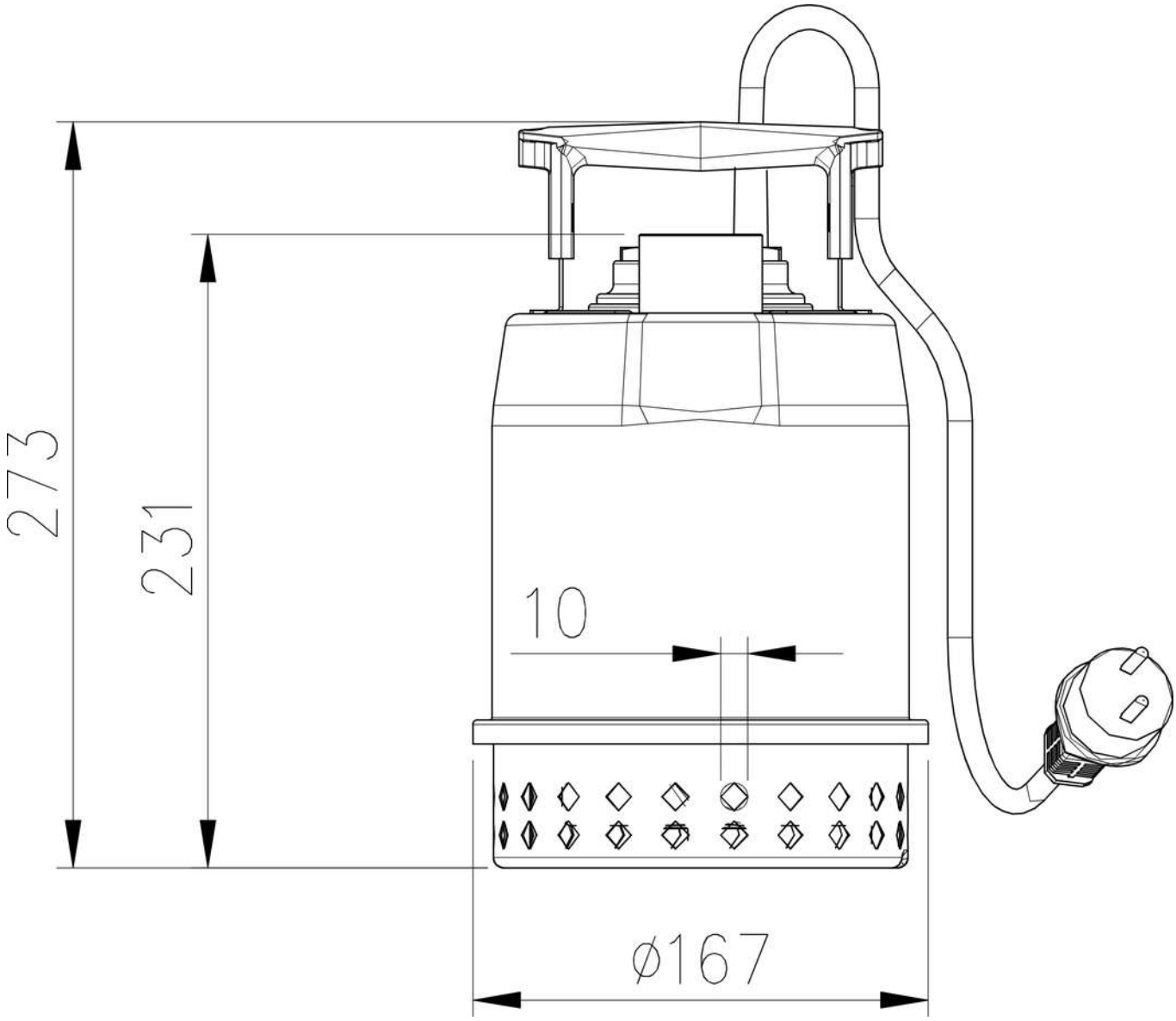


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Dimensions

Pump name OPTIMA M

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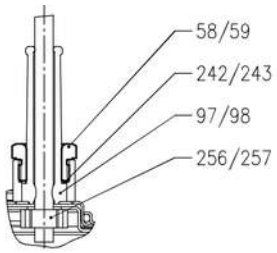


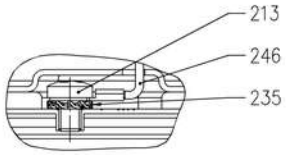
Dimensions in mm								
1	Weight PUMP	4.2 kg						

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Construction

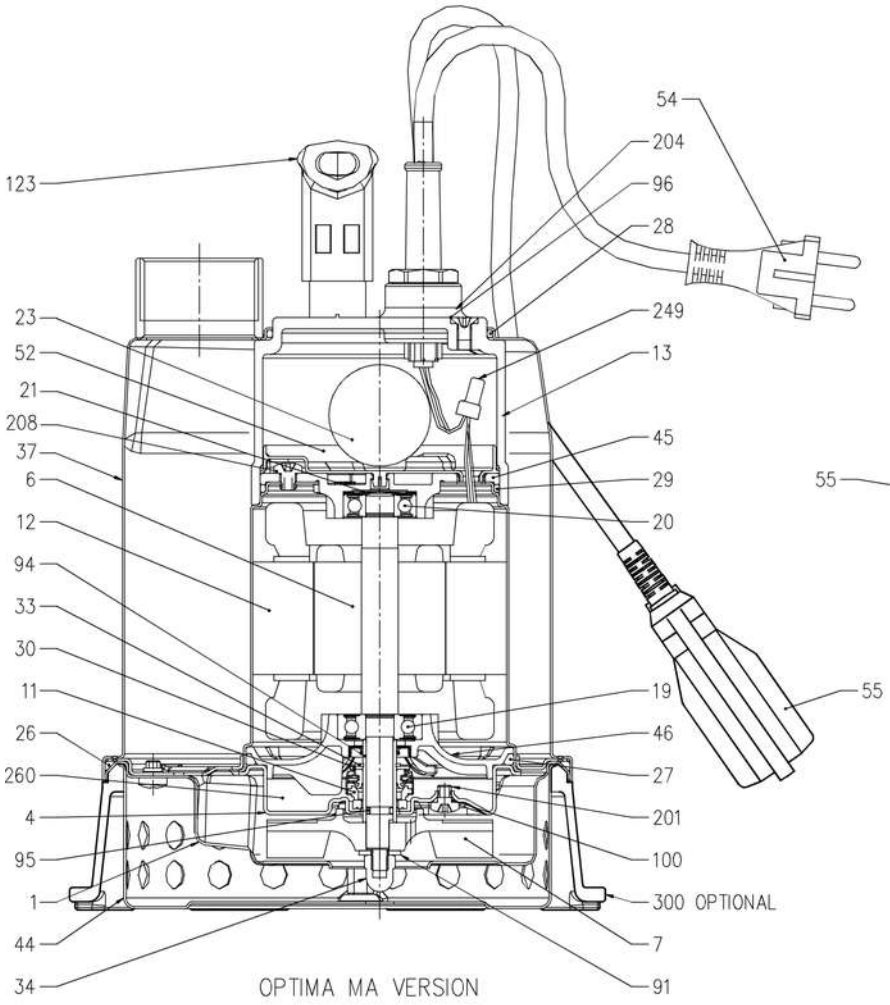
Pump name OPTIMA M

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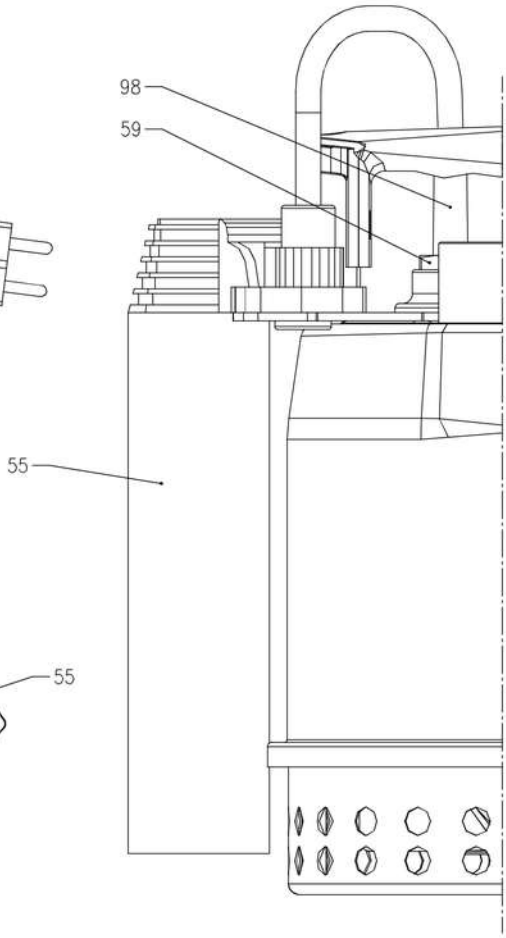




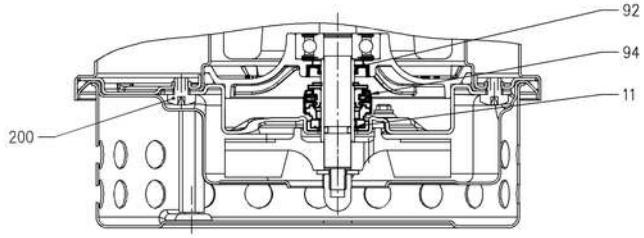
GROUND WIRE



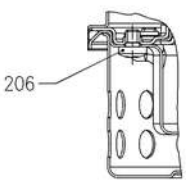
OPTIMA MA VERSION



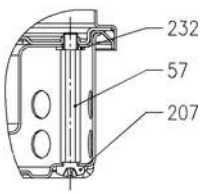
OPTIMA MS VERSION



MOTOR FIXING



SUCTION COVER FIXING



STRAINER FIXING

EBARA

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Construction

Pump name OPTIMA M

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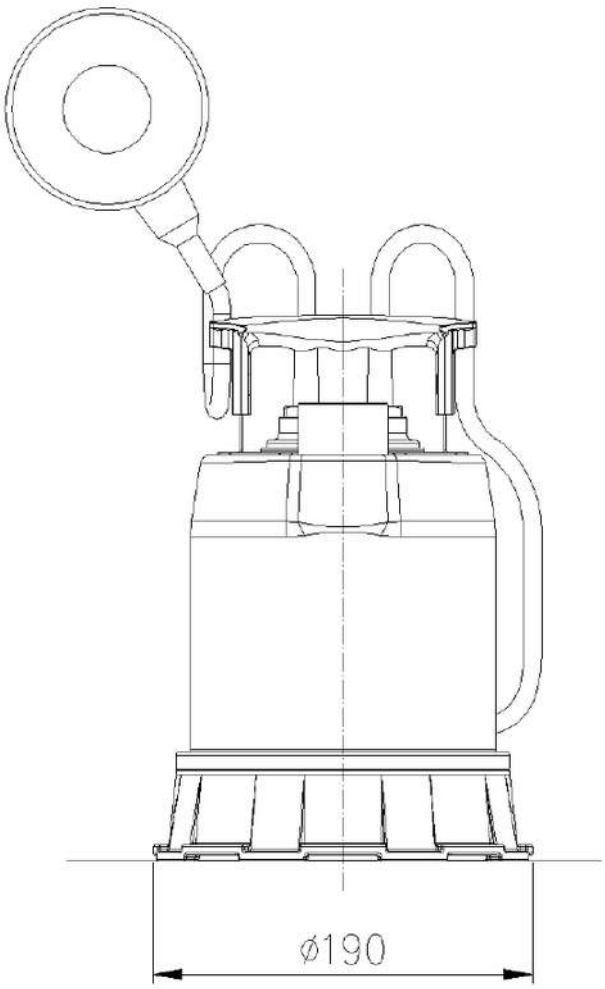
N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Suction cover	EN 1.4301 (AISI 304)	-	-	1
4	Casing cover	EN 1.4301 (AISI 304)	-	-	1
6	Shaft with rotor	EN 1.4305 (AISI 303)	-	-	1
7	Impeller	PPE+PS-HI-GF20	-	-	1
11	Mechanical seal [1]	[1]	[1]	-	1
12	Motor frame with stator	EN 1.4301 (AISI 304)	-	-	1
13	Motor cover	PP-GF30 class V-0	-	-	1
19	Lower ball bearing	-	-	-	1
20	Upper ball bearing	-	-	-	1
21	Adjusting ring	-	-	-	1
23	Capacitor	-	-	-	1
26	O-ring	NBR	159,5x3	-	1
27	O-ring	NBR	88,5x3,53	-	1
28	O-ring	NBR	75,87x2,62	-	1
29	O-ring	NBR	75,87x2,62	-	1
30	Washer	EN 1.4301 (AISI 304)	12x21x1	-	1
33	Seeger ring	Carbon steel TC80	12	UNI 7435	1
34	Impeller nut	A2 - 70 UNI 7323	M6	UNI 5721	1
37	Outer casing	EN 1.4301 (AISI 304)	-	-	1
44	Strainer	EN 1.4301 (AISI 304)	-	-	1
45	Upper bearing housing	EN 1706 AC-46000 D	-	-	1
46	Lower bearing housing	EN 1706 AC-46000 D	-	-	1
52	Terminal insulating base	PA6 class V-0	-	-	1
54	Power cable	-	-	-	1
55	Switch [2] [3]	-	-	-	1
57	Spacer	EN 1.4301 (AISI 304)	-	-	2
58	Power cable connector	PA66-GF30	-	-	1
59	Switch cable connector [2]	PA66-GF30		-	1
91	Washer	EN 1.4301 (AISI 304)	-	-	1
92	Lip seal	NBR	22x12x4	-	1
94	Shaft sleeve	EN 1.4305 (AISI 303) ceramic coated	-	-	1
95	O-ring	NBR	6,07x1,78	-	1
96	O-ring	NBR	4,48x1,78	-	1
97	Power cable boot	NBR	-	-	1
98	Switch cable boot [2]	NBR	-	-	1
100	O-ring	NBR	4,48x1,78	-	1
123	Handle	PP	-	-	1
200	Screw	A2 - 70 UNI 7323	M5x6	UNI 7687	4
201	Screw	A2 - 70 UNI 7323	M5x6	UNI 7687	1
204	Screw	A2 - 70 UNI 7323	M5x6	UNI 7687	1
206	Screw	A2 - 70 UNI 7323	M5x6	UNI 7687	3
207	Screw	A2 - 70 UNI 7323	M5x6	UNI 7687	2
208	Screw	A2 - 70 UNI 7323	M5x6	UNI 7687	3
213	Screw	A2 - 70 UNI 7323	M4x6	UNI 7687	1
232	Washer	PA6	5,5x10x1	-	2
235	Washer	Zinked Steel	4	UNI 8842	1
242	Washer	EN 1.4301 (AISI 304)	13,4x15,9x1	-	1
243	Washer [2]	EN 1.4301 (AISI 304)	13,4x15,9x1	-	1
246	Ground wire	-	-	-	1
249	Cap Terminal	-	-	-	4
256	Cable holder	-	-	-	1
257	Cable holder [2]	-	-	-	1
260	Oil	Esso Marcol 152	-	-	40 cc
300	Minimum suction system [4]	Thermoplastic elastomer vulcanizate	-	-	-

[1] See CONSTRUCTION 4
[2] Only for automatic version
[3] It could be floating or magnetic type
[4] See CONSTRUCTION 3

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Construction

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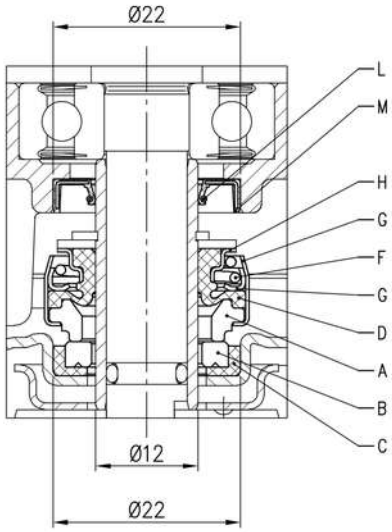
LEVEL	
Minimum starting suction level	10 mm
Minimum suction level capability	3 mm

COMPATIBILITY			
Type pumps	Version		
	M	MA	MS
OPTIMA	✓	✓	×

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Construction

Pump name OPTIMA M

Customer	Date 14-May-2020	Company
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REF	PART NAME	MATERIAL Standard version
A	Rotary seal ring	Carbon graphite
B	Stationary seal ring	Ceramic
C	Gasket	NBR
D	Bellows	NBR
F	Self driving spring	EN 1.4301 (AISI 304)
G	Frame	EN 1.4301 (AISI 304)
H	Retainer ring	EN 1.4301 (AISI 304)
L	Spring	EN 1.4318 (AISI 302)
M	Lip	NBR