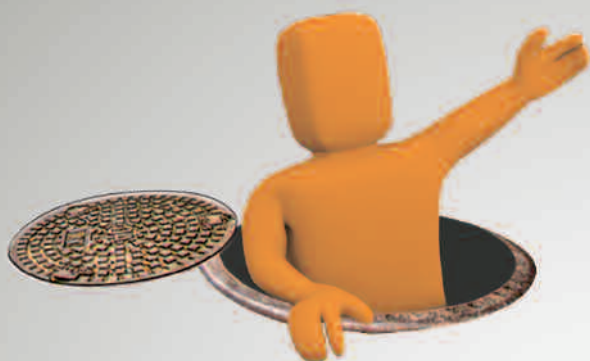




EBARA

OPTIMA
SUBMERSIBLE ELECTRIC PUMPS

60 Hz



SUBMERSIBLE ELECTRIC PUMPS

in AISI 304



Submersible electric pumps for clean water with hydraulics in AISI 304 stainless steel.

APPLICATIONS

- Draining wells, garages, cellars or places subject to flooding
- Irrigation of gardens and vegetable patches
- Movement of seepage water or draining of unfoul waste water

TECHNICAL DETAILS

- Equipped with mechanical seal as per standard
- Reliable and corrosion proof
- Highly versatile
- They can be used in fixed or mobile installations
- Equipped with 5 m of H05RN-F power supply cable only for internal usage (10 m for outdoor use), with or without float switch

TECHNICAL DATA

- Maximum immersion: 5 m
- Maximum temperature of the liquid: 50°C
- Max. solids size for passage: 10 mm
- Asynchronous motor, 2 poles
- Class of insulation F
- IPX8 Protection rating
- 110-115V ±6%, 60 Hz single phase voltage
- 220-230V ±6%, 60 Hz single phase voltage
- Discharge connection G1¼

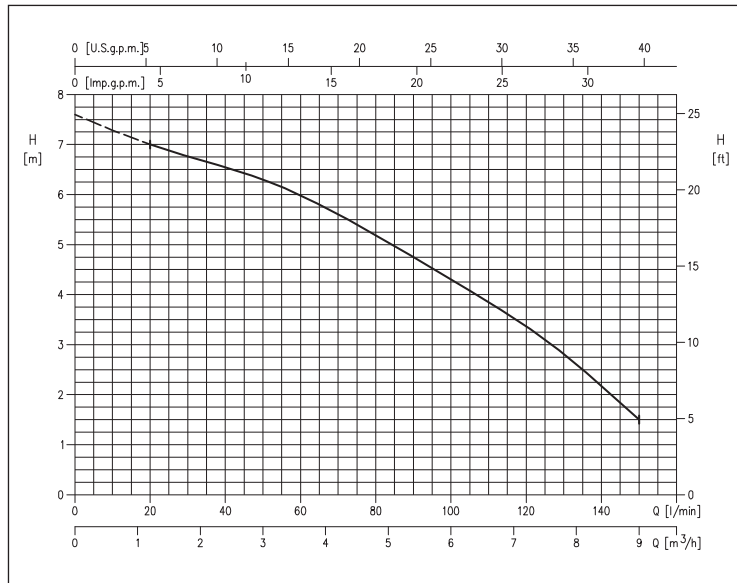
MATERIALS

- Pump body, suction cover, casing cover in AISI 304
- Impeller in PPE+PS reinforced with fibreglass
- Shaft in AISI 303
- Standard mechanical seal (Carbon/Ceramic/NBR)

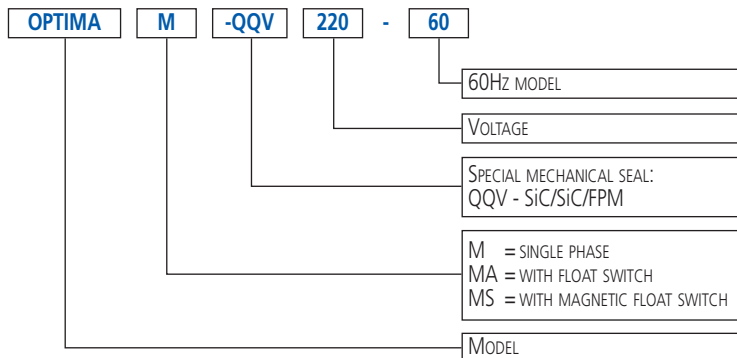
SPECIAL VERSIONS

- MS version with small MS (Magnetic Switch) vertical magnetic float switch for clean waters
- MA version with float switch

PERFORMANCE CURVE (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



SUBMERSIBLE ELECTRIC PUMPS

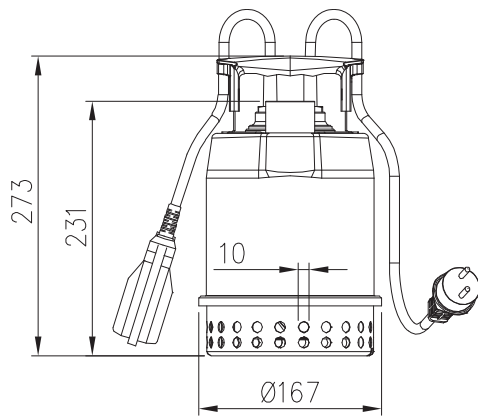
in AISI 304

PERFORMANCE TABLE

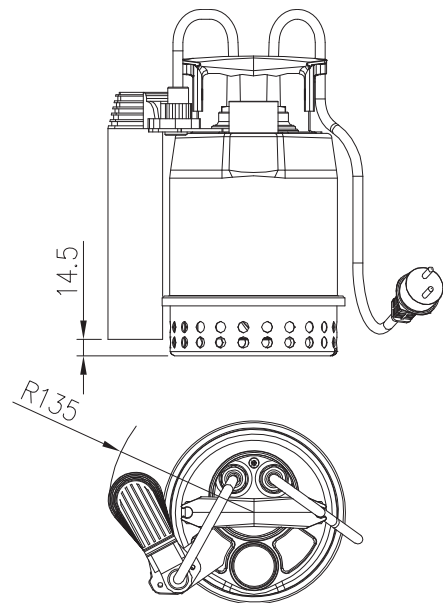
Model	P ₂		Capacitor				Abs. curr.		Q=Flow rate					Weight [kg]	
	[HP]	[kW]	110-115V μF	220-230V Vc	220-230V μF	220-230V Vc	110-115V [A]	220-230V [A]	l/min m ³ /h	20 1,2	50 3	75 4,5	100 6		125 7,5
OPTIMA M	0,33	0,25	20	250	6,3	450	4,2	2,1	7,0	6,3	5,4	4,3	3,1	1,5	4,2
OPTIMA MA	0,33	0,25	20	250	6,3	450	4,2	2,1	7,0	6,3	5,4	4,3	3,1	1,5	4,4
OPTIMA MS	0,33	0,25	20	250	6,3	450	4,2	2,1	7,0	6,3	5,4	4,3	3,1	1,5	4,6

DIMENSIONS

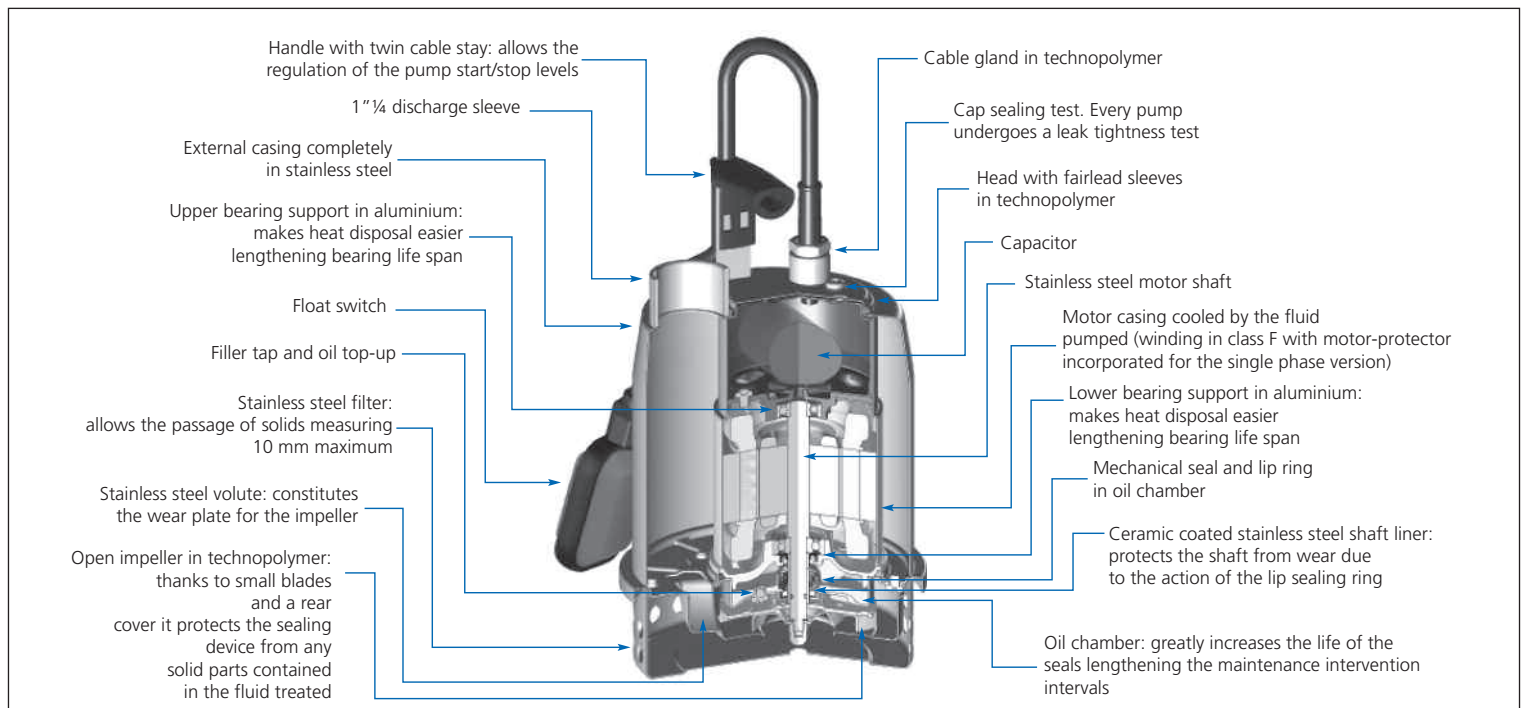
OPTIMA MA



OPTIMA MS

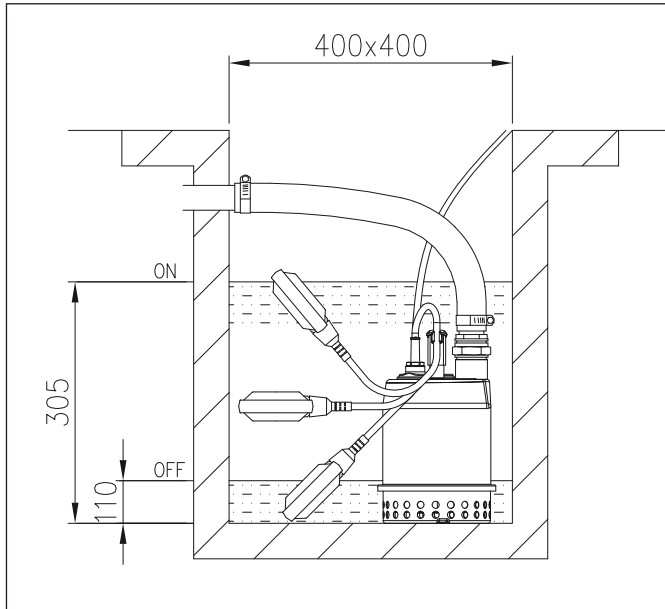


SECTIONAL VIEW

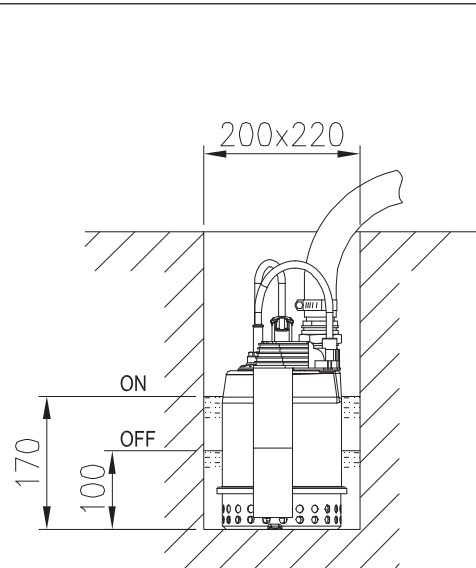


INSTALLATION

OPTIMA MA



OPTIMA MS



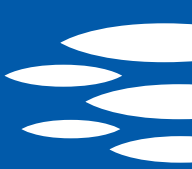
OPTIONAL

MINIMUM SUCTION DEVICE



The minimum suction device allows to pump the liquid down to 3 mm from the ground (starting from at least 10 mm).

It is easily mounted on the OPTIMA, by simply pressing. The automatic playing of the pump with float switch doesn't allow to the minimum suction device to suck out the liquid up to 3 mm from ground level.



SPECIFIC PERFORMANCE

The specifications given refer to the curves illustrated in our catalogues and Data Book (see www.ebara-europe.com). All of the performance curves are calculated according to ISO 9906 Attachment A.

Tolerance according to ISO 9906 Annex A.

The curves refer to an effective speed of the 60 Hz asynchronous motors.

The measurements are made with water temperature of 20°C and cinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt).

In order to prevent the risk of overheating, the pumps must not be used at a flow rate below 10% of the maximum efficiency flow rate. During selection of the pumps, there is a safety margin of at least 1 m.

- Symbols:
- Q = Flow rate [m^3/h]
 - H = Head [m]
 - P₁ = Power absorbed by the electric line
 - P₂ = Power yielded to the motor axis (power absorbed by the pump)



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