

PATENTED



Materials

Component	Material
Pump casing Impeller	Cast iron GJL 200 EN 1561
Strainer Motor jacket Jacket cover Casing cover	Chrome-nickel steel AISI 304
Handle	Polypropylene (with frame in AISI 304)
Shaft	Chrome-nickel steel AISI 304
Mechanical seal: upper lower	Ceramic alumina/Carbon/NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

Construction

Single-impeller submersible drainage pump, with vertical delivery port.

GQR: with open impeller.

Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

For clean water containing solids up to 10 mm grain size.

For draining rooms or emptying tanks.

Extraction of water from ponds, streams or pits and for rainwater collection.

For irrigation purposes.

Operating conditions

Liquid temperature up to 35° C.

Maximum immersion depth: 5 m.

Minimum immersion depth: see dimensional table.

Continuous duty (with submerged motor).

Motor

2-pole induction motor, 60 Hz ($n \approx 3450$ rpm).

GQR: three-phase 220 V;

three-phase 380 V;

Cable: H07RN-F, 4G1 mm², length 10 m, without plug.

GQRM: single-phase 220 V,

with float switch and thermal protector.

Incorporated capacitor.

Cable: H07RN-F, 3G1 mm² (3G1,5 mm² for GMRM 10-20-60), length 10 m, with plug CEI-UNEL 47166.

Insulation class F.

Protection IP X8 (for continuous immersion)

Triple impregnation humidity-proof dry winding.

Constructed in accordance with: EN 60034-1;

EN 60335-1, EN 60335-2-41.

Other features on request

- Other voltages. - Other mechanical seal.

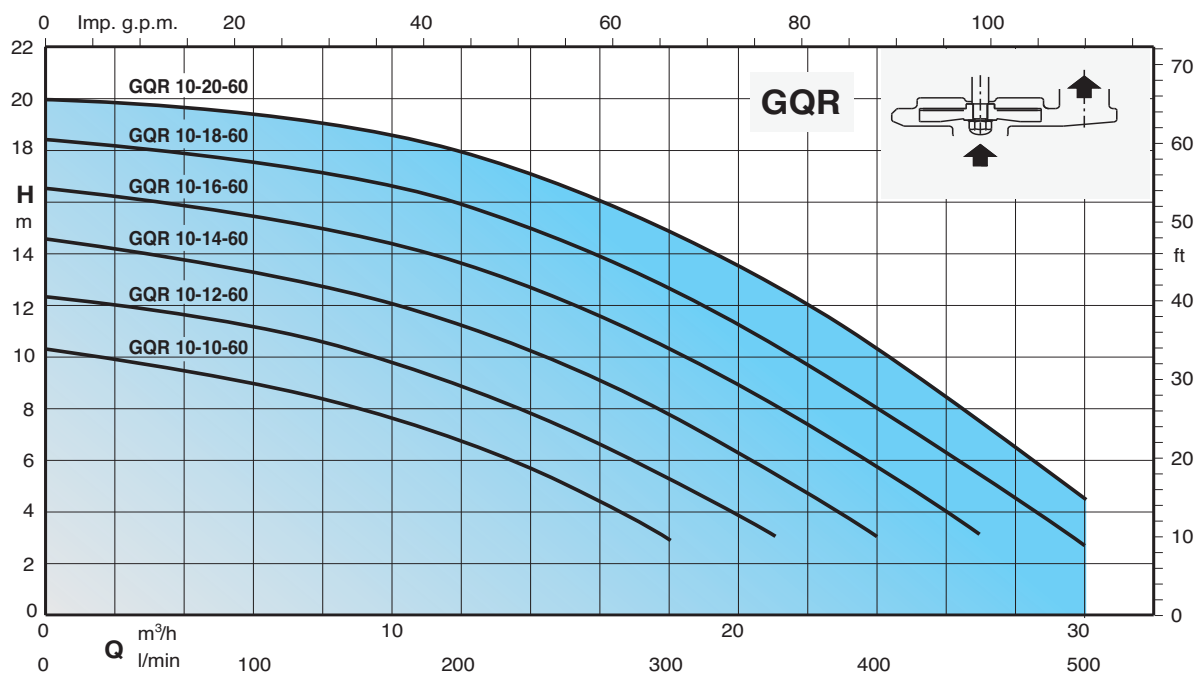
- Cable length 20 m.

- Vertical magnetic float switch.

- Motor suitable for operation with frequency converter.

- Three-phase pumps with incorporated float switch.

Characteristic curves $n \approx 3450$ rpm



Performance $n \approx 3450$ rpm

3~	220V 380V			1~	220V Capacitor				P ₂		Q m ³ /h l/min	0	3	6	9	12	15	18	21	24	27	30
	A	A	IA/IN		A	μf	Vc	IA/IN	kW	HP		0	50	100	150	200	250	300	350	400	450	500
GQR 10-10-60	2,6	1,5	3,5	GQRM 10-10-60	3,5	12,5	450	2,9	0,45	0,6	H _m	10,3	9,8	9	8	6,7	5	3	-	-	-	-
GQR 10-12-60	3,3	1,9	4	GQRM 10-12-60	4,3	16	450	4,2	0,55	0,75		12,3	11,8	11	10,2	9	7,5	5,5	3,2	-	-	-
GQR 10-14-60	4,1	2,4	3,2	GQRM 10-14-60	5,5	16	450	3	0,75	1		14,5	14,2	13,5	12,5	11,2	9,7	7,8	5,7	3	-	-
GQR 10-16-60	4,6	2,7	3,9	GQRM 10-16-60	7	25	450	3,3	0,9	1,2		16,5	16,2	15,7	14,9	13,7	12,3	10,5	8,3	5,7	2,7	-
GQR 10-18-60	5,6	3,2	4,1	GQRM 10-18-60	9,6	30	450	5	1,1	1,5		18,5	18,2	17,7	17	16	14,5	12,7	10,5	8	5,3	2,5
GQR 10-20-60	8,7	5	3,2	GQRM 10-20-60	12,5	35	450	5	1,5	2		20	19,8	19,5	19	18	16,5	14,7	12,7	10,5	7,7	4,5

P₂ Rated motor power output.

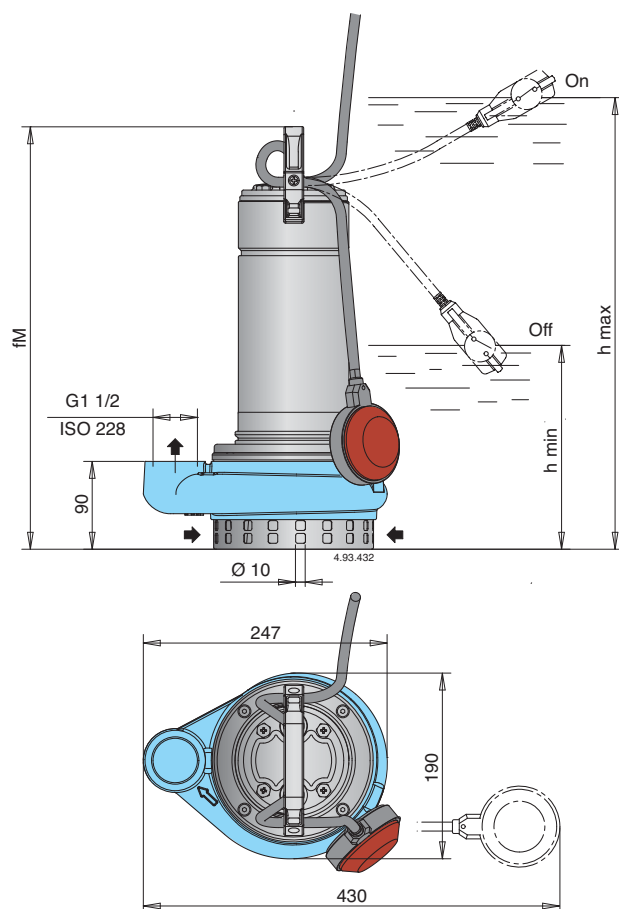
Density $\rho = 1000 \text{ kg/m}^3$.

Kinematic viscosity $\nu = \max 20 \text{ mm}^2/\text{sec}$.

Tolerances according to UNI EN ISO 9906:2012.

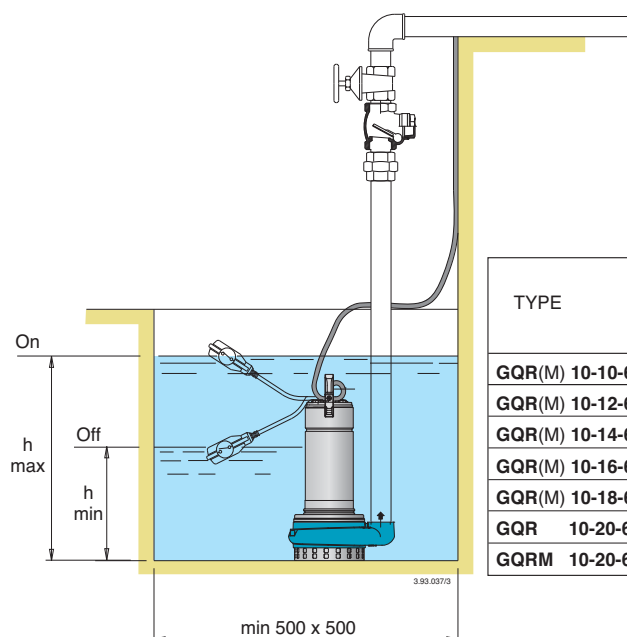
IA/IN = D.O.L. starting current / Rated current.

Dimensions and weights

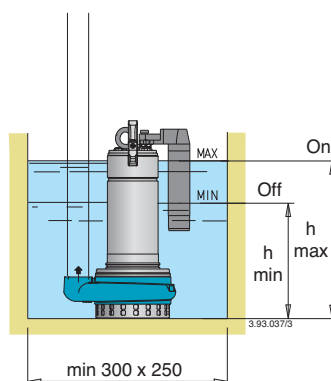


TYPE	mm			kg	
	fM	h max	h min	GQR	GQRM
GQR(M) 10-10-60	390	410	205	14	15
GQR(M) 10-12-60	405	425	220	14,5	15,5
GQR(M) 10-14-60	405	425	220	14,5	15,5
GQR(M) 10-16-60	430	450	245	16	18
GQR(M) 10-18-60	450	470	265	17,5	19
GQR 10-20-60	450	470	265	19	-
GQR(M) 10-20-60	480	500	295	-	20,5

Installation examples with vertical magnetic float switch



TYPE	mm	
	h min	h max
GQR(M) 10-10-60	205	410
GQR(M) 10-12-60	220	425
GQR(M) 10-14-60	220	425
GQR(M) 10-16-60	245	450
GQR(M) 10-18-60	265	470
GQR 10-20-60	265	470
GQRM 10-20-60	295	500



TYPE	mm	
	h min	h max
GQRM 10-10-60 GF	225	315
GQRM 10-12-60 GF	240	330
GQRM 10-14-60 GF	240	330
GQRM 10-16-60 GF	265	355
GQRM 10-18-60 GF	285	375

Features

PATENTED

Cable length 10 m, pump single-phase with plug

Handle in polypropylene, with frame in stainless steel.

Easy inspection of the capacitor area.

Easy adjustment of the float switch: to allow the adjustment of start/stop pump levels.

Ring against accidental extraction of the cable.

Relief valve: the pump is fitted to a relief valve for air release around the impeller granting a proper pump priming also after long standstill periods.

The double shaft seal with oil chamber separates the motor from the water and provides further protection against accidental operation when dry.

G 1 1/2 vertical, upward delivery port for installation in small pits, without the need for an elbow on the pump.

Chamber with food/pharmaceutical machinery oil

Shaft in chrome-nickel stainless steel.

Pump casing with epoxy cataphoresis treatment joined to the external paint for a greater protection against the rust.

Suction strainer with a double row of holes, for extra safety against clogging: it allows the passage of solids up to 10 mm.

Impeller with epoxy cataphoresis treatment for a greater protection against the rust.

