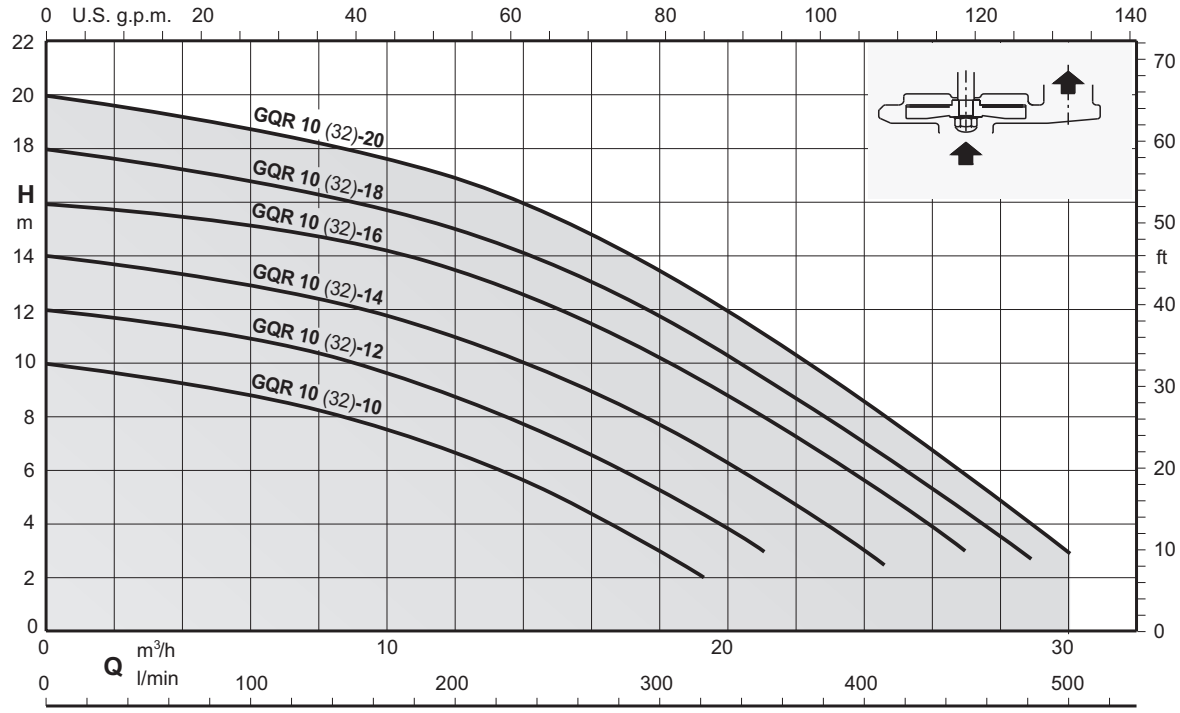
GQR

(patented system)

Coverage chart n ≈ 2900 rpm



Submersible drainage pumps

GQR

Construction

Single-impeller submersible drainage pump, with open impeller.
GQR: with threaded vertical delivery port (G1 1/2).
GQR 10 32: with horizontal flanged and threaded delivery port (DN 32, PN 6 - G 1 1/2).
Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

For clean water with suspended solids up to a diameter of 10 mm.
Emptying of flooded rooms or tanks.
Extraction of water from ponds, flowing water or pits for collection of rain water.
For irrigation purposes.

Operating conditions

Liquid temperature up to 35° C.
Maximum immersion depth: 5 m.
Minimum immersion depth: 205 mm.
Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50Hz (n ≈ 2900 1/min).
GQR: three-phase 230V ± 10%
400V ± 10%
Cable: H07RN-F, 4G1 mm2, length 10 m, without plug.
GQRM: single-phase 230V ± 10%
with float switch and thermal protector.
Incorporated capacitor
Cable: H07RN-F, 3G1 mm2, 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.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 20 m.
With switch and fixed float (magnetic).
Motor set up for operation with inverter.
Three-phase pumps with built-in switch and float.

Designation

GQRM 10 32-12
GQ = Series
R = with open impeller.
M = Single-phase (without three-phase indication)
10 = Free passage
32 = Delivery port diameter in mm (value for flanged pumps only)
12 = Max. head

Materials

Components	Materials
Pump casing	Cast iron GJL EN 1561
Impeller	Cast iron GJL EN 1561
Filter	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame made of 1.4301 EN 10088 (AISI 304)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

GQR

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow											
				m³/h	0	3	6	9	12	15	18	21	24	27	30
Model	400V	P2		l/min		50	100	150	200	250	300	350	400	450	500
	A	kW	HP	H (m) = Total head											
GQR 10-10	1,2	0,45	0,6		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQR 10-12	1,4	0,55	0,75		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQR 10-14	1,6	0,75	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQR 10-16	2,3	0,9	1,2		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQR 10-18	2,8	1,1	1,5		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQR 10-20	3,8	1,5	2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

Single-phase

							Q = Flow										
							m³/h	0	3	6	9	12	15	18	21	24	27	30
Model	230V	Capacitor		P2		P1	l/min		50	100	150	200	250	300	350	400	450	500
	A	Vc	uf	kW	HP	kW	H (m) = Total head											
GQRM 10-10	3,1	450	12,5	0,45	0,6	0,7		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQRM 10-12	3,6	450	16	0,55	0,75	1		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQRM 10-14	4,5	450	16	0,75	1	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQRM 10-16	6	450	25	0,9	1,2	1,3		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQRM 10-18	8	450	30	1,1	1,5	1,7		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQRM 10-20	13	450	35	1,5	2	2,2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

Three-phase

				Q = Flow											
				m³/h	0	3	6	9	12	15	18	21	24	27	30
Model	400V	P2		l/min		50	100	150	200	250	300	350	400	450	500
	A	kW	HP	H (m) = Total head											
GQR 10-32-10	1,2	0,45	0,6		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQR 10-32-12	1,4	0,55	0,75		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQR 10-32-14	1,6	0,75	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQR 10-32-16	2,3	0,9	1,2		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQR 10-32-18	2,8	1,1	1,5		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQR 10-32-20	3,8	1,5	2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

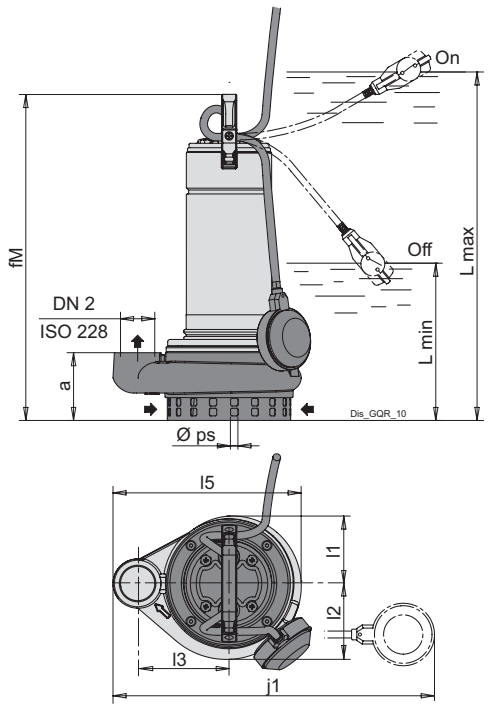
Single-phase

							Q = Flow										
							m³/h	0	3	6	9	12	15	18	21	24	27	30
Model	230V	Capacitor		P2		P1	l/min		50	100	150	200	250	300	350	400	450	500
	A	Vc	uf	kW	HP	kW	H (m) = Total head											
GQRM 10-32-10	3,1	450	12,5	0,45	0,6	0,7		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQRM 10-32-12	3,6	450	16	0,55	0,75	1		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQRM 10-32-14	4,5	450	16	0,75	1	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQRM 10-32-16	6	450	25	0,9	1,2	1,3		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQRM 10-32-18	8	450	30	1,1	1,5	1,7		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQRM 10-32-20	12	450	35	1,5	2	2,2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GQR

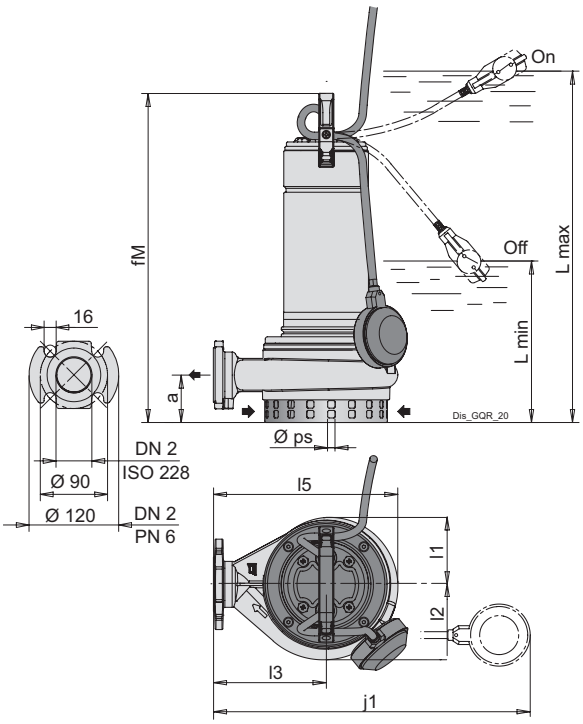
Dimensions and weights



TYPE	ISO 228	mm							kg
	DN2	a	fM	l1	l2	l5	l5	ps	Weight
GQR 10-10	G1 1/2	90	390	89	100	120	247	10	12.8
GQR 10-12	G1 1/2	90	405	89	100	120	247	10	14.3
GQR 10-14	G1 1/2	90	405	89	100	120	247	10	14.3
GQR 10-16	G1 1/2	90	430	89	100	120	247	10	16
GQR 10-18	G1 1/2	90	450	89	100	120	247	10	17.5
GQR 10-20	G1 1/2	90	450	89	100	120	247	10	18.3

TYPE	ISO 228	mm										kg
	DN2	a	fM	j1	l1	l2	l5	l5	Lmax	Lmin	ps	Weight
GQRM 10-10	G1 1/2	90	390	430	89	100	120	247	410	205	10	13.8
GQRM 10-12	G1 1/2	90	405	430	89	100	120	247	425	220	10	15.5
GQRM 10-14	G1 1/2	90	430	430	89	100	120	247	425	220	10	15.5
GQRM 10-16	G1 1/2	90	430	430	89	100	120	247	450	245	10	17
GQRM 10-18	G1 1/2	90	450	430	89	100	120	247	470	265	10	19
GQRM 10-20	G1 1/2	90	480	430	89	100	120	247	500	295	10	20.3

weights With cable length: 10 m



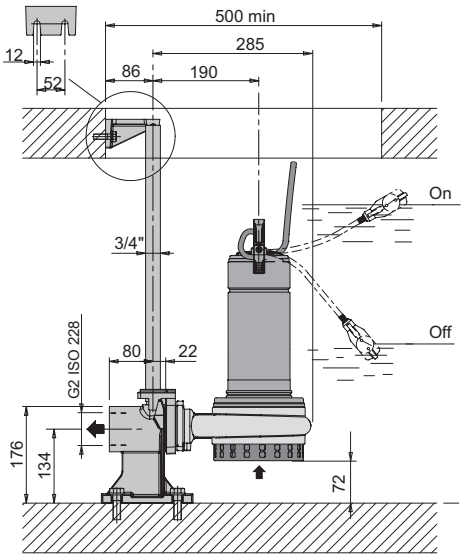
TYPE		mm								kg
	DN2	a	fM	l1	l2	l5	l5	ps	s	Weight
GQR 10-32-10	G1 1/2 (DN32)	62	395	89	100	120	245	10	16	13.4
GQR 10-32-12	G1 1/2 (DN32)	62	410	89	100	120	245	10	16	14.5
GQR 10-32-14	G1 1/2 (DN32)	62	410	89	100	120	245	10	16	14.5
GQR 10-32-16	G1 1/2 (DN32)	62	435	89	100	120	245	10	16	15.5
GQR 10-32-18	G1 1/2 (DN32)	62	455	89	100	120	245	10	16	17.2
GQR 10-32-20	G1 1/2 (DN32)	62	455	89	100	120	245	10	16	18.7

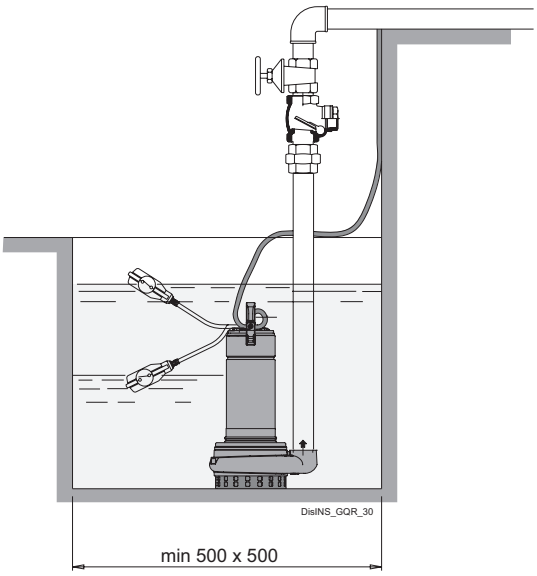
TYPE		mm									kg
	DN2	a	fM	j1	l1	l2	l5	l5	Lmax	Lmin	ps	Weight
GQRM 10-32-10	G1 1/2 (DN32)	62	395	430	89	100	120	245	415	210	10	14.5
GQRM 10-32-12	G1 1/2 (DN32)	62	410	430	89	100	120	245	430	225	10	15.6
GQRM 10-32-14	G1 1/2 (DN32)	62	410	430	89	100	120	245	430	225	10	15.5
GQRM 10-32-16	G1 1/2 (DN32)	62	435	430	89	100	120	245	455	250	10	17.7
GQRM 10-32-18	G1 1/2 (DN32)	62	455	430	89	100	120	245	475	270	10	19.2
GQRM 10-32-20	G1 1/2 (DN32)	62	485	430	89	100	120	245	505	300	10	21.3

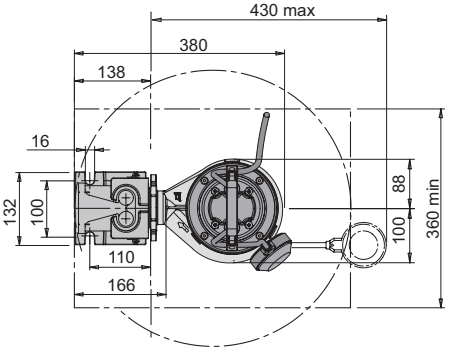
weights With cable length: 10 m

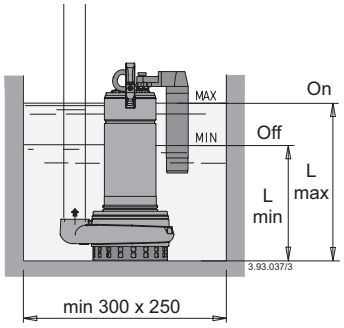
GQR

Installation examples









Installation examples with vertical magnetic float switch

TYPE		mm		kg
	DN2	Lmax	Lmin	Weight
GQRM 10-10 GF	G1 1/2	410	205	14.1
GQRM 10-12 GF	G1 1/2	425	220	15
GQRM 10-14 GF	G1 1/2	425	220	15.5
GQRM 10-16 GF	G1 1/2	450	245	17.4
GQRM 10-18 GF	G1 1/2	470	265	19

Examples of installations