

GXR, GXV

Submersible Pumps
in stainless steel



Construction

Single-impeller submersible pumps in chrome-nickel stainless steel, with vertical delivery port.

GXR: with open impeller.

GXV: with free-flow (vortex) impeller.

Motor cooled by the pumped water passing between the motor jacket and the external jacket.

Double shaft seal with oil chamber.

Applications

- GXR:**
- 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.

- GXV:**
- For clean or slightly dirty water, containing solids up to 25 mm grain size.
 - Particularly suitable for liquids with a high solid content.

For outdoor use a power supply cable of not less than 10 m should be used in accordance with: EN 60 335-2-41.

Operating conditions

Liquid temperature up to 50° C.

Maximum immersion depth: 5 m.

Minimum water level with float: GXR = 70 mm, GXV = 130 mm.

Minimum water level manual operation: GXR = 15 mm, GXV = 30 mm.

Continuous duty.

Materials

Component	Material
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Strainer	
Impeller	
Motor jacket	
Pump jacket	
Handle	Polypropylene
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Mechanical seal	Ceramic alumina/Carbon/NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).

GXR, GXV: three-phase 230 V ± 10%;
three-phase 400 V ± 10%;

GXRM, GXVM: single-phase 230 V,
with float switch and thermal protector.
Incorporated capacitor.

Insulation class F.

Protection IP X8 (for continuous immersion)

Double impregnation humidity-proof dry winding.

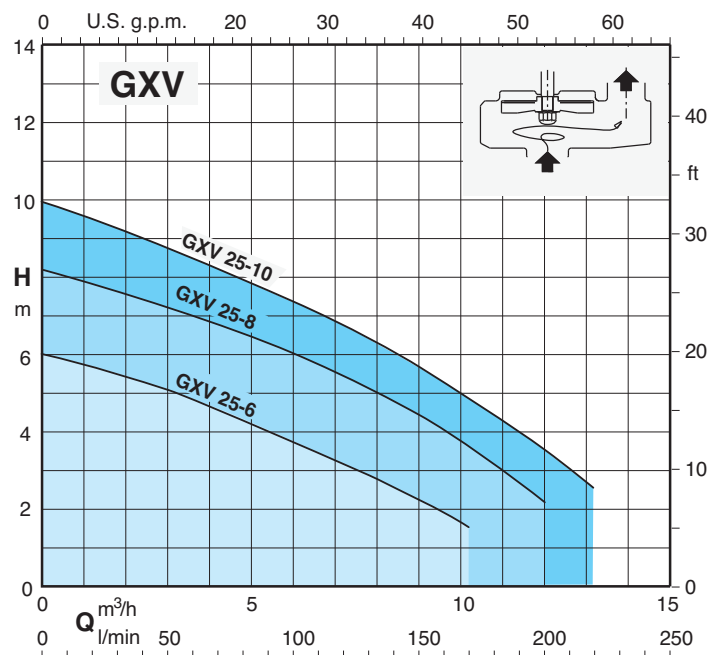
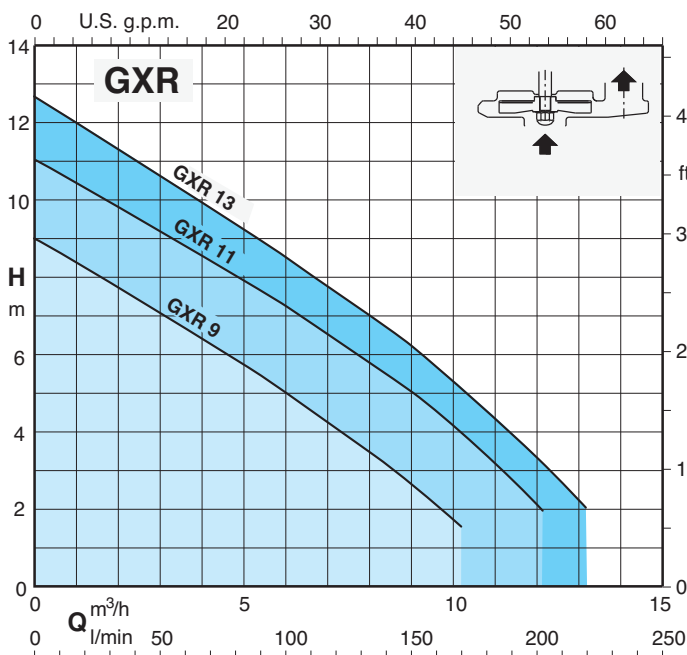
Constructed in accordance with: EN 60034-1;

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

Other features on request

- Other voltages. - Frequency 60 Hz. - Other mechanical seal. - Cable length 10 m.
- Vertical magnetic float switch. - Motor suitable for operation with frequency converter.

Characteristic curves n ≈ 2900 rpm



Performance n ≈ 2900 rpm

3~	230V 400V		1~	230V Capacitor			P1			P2			Q	m³/h								
	A	A		A	µf	Vc	kW	kW	HP	m³/h	l/min	0		1,2	3	4,5	6	7,5	9	10,2	12	13,2
GXR 9	1,6	0,9	GXRM 9	2,5	8	450	0,5	0,25	0,33	H m	9	8,3	7	6	4,8	3,6	2,5	1,7				
GXR 11	2,3	1,3	GXRM 11	3,5	12,5	450	0,7	0,37	0,5		11	10,4	9,5	8,5	7,5	6,5	5,3	4,2	2,2			
GXR 13	2,8	1,6	GXRM 13	4,5	16	450	0,95	0,45	0,6		12,7	11,7	10,7	9,7	8,5	7,3	6,3	5,2	3,2	2		

3~	230V 400V		1~	230V Capacitor			P1			P2			Q	m³/h								
	A	A		A	µf	Vc	kW	kW	HP	m³/h	l/min	0		1,2	3	4,5	6	7,5	9	10,2	12	13,2
GXV 25-6	1,6	0,9	GXVM 25-6	2,5	8	450	0,5	0,25	0,33	H m	6	5,7	5,2	4,5	3,8	3	2,2	1,5				
GXV 25-8	2,3	1,3	GXVM 25-8	3,5	12,5	450	0,7	0,37	0,5		8,2	7,8	7,2	6,7	6,1	5,4	4,5	3,6	2,2			
GXV 25-10	2,8	1,6	GXVM 25-10	4,5	16	450	0,95	0,45	0,6		10	9,5	8,7	8	7,3	6,5	5,7	4,9	3,7	2,6		

P1 Max. power input.

P2 Rated motor power output.

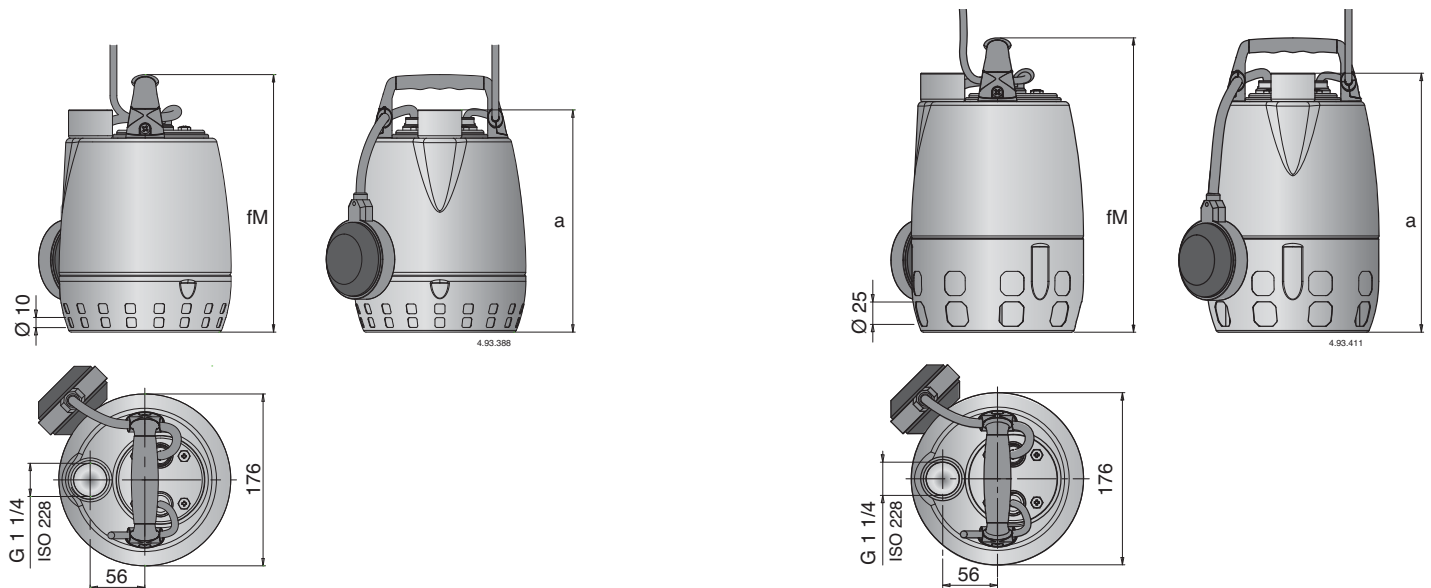
Density $\rho = 1000 \text{ kg/m}^3$.

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

Tolerances according to UNI EN ISO 9906:2012

Pump type	Power supply cable				Float switch	
	Cable material	Section	Length	Plug CEE 7(VII)	Cable material	Section
GXRM 9 GXVM 25-6	H05RN-F	3G0,75 mm²	5 m	YES	H07RN-F	3G1 mm²
GXRM 11, 13 GXVM 25-8, 25-10	H07RN-F	3G1 mm²	5 m	YES	H07RN-F	3G1 mm²
GXR 9 GXV 25-6	H05RN-F	4G0,75 mm²	5 m	NO	NO	-
GXR 11, 13 GXV 25-8, 25-10	H07RN-F	4G1 mm²	5 m	NO	NO	-

Dimensions and weights



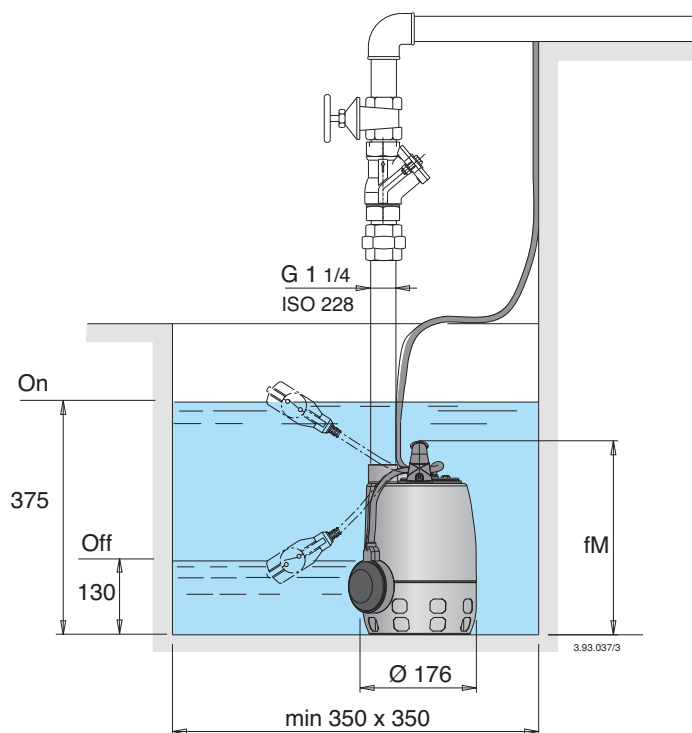
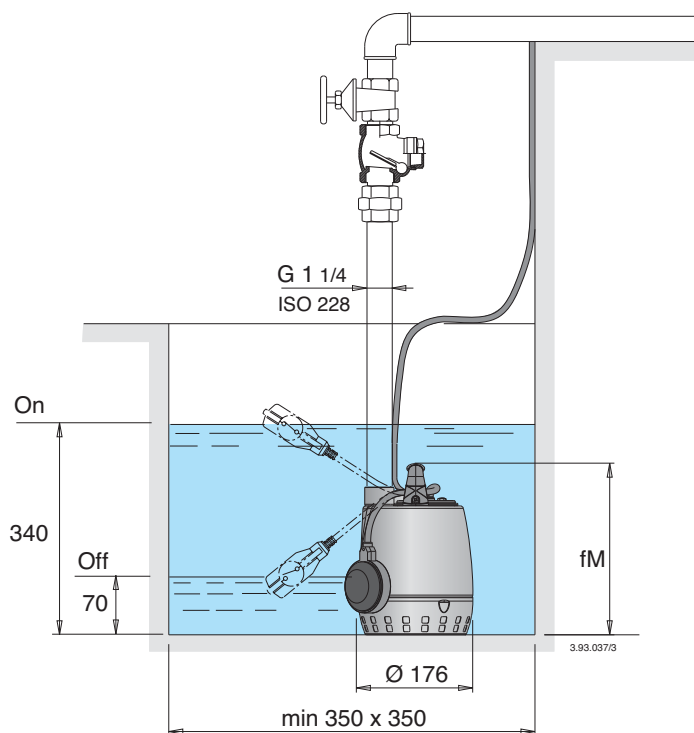
TYPE	Dimensions mm		(1) kg	
	fM	a	GXR	GXRM
GXR 9 - GXRM 9	265	230	5	5,2
GXR 11 - GXRM 11	300	265	6,2	6,5
GXR 13 - GXRM 13	300	265	6,7	7,2

(1) With cable length: 5 m

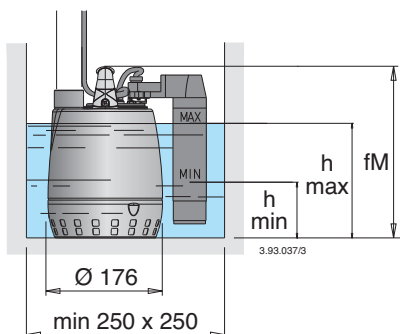
TYPE	Dimensions mm		(1) kg	
	fM	a	GXV	GXVM
GXV 25-6 - GXVM 25-6	302	267	5,1	5,3
GXV 25-8 - GXVM 25-8	337	302	6,3	6,6
GXV 25-10 - GXVM 25-10	337	302	6,8	7,3

(1) With cable length: 5 m

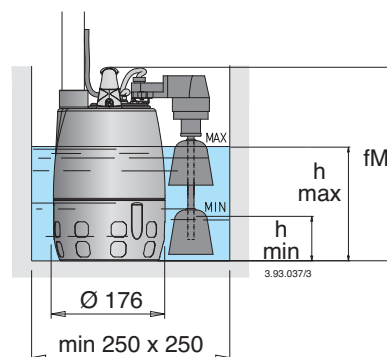
Installation examples



Installation examples with vertical magnetic float switch



TYPE	mm		
	fM	h min	h max
GXRM 9 GF	265	100	190
GXRM 11 GF	300	135	225
GXRM 13 GF	300	135	225



TYPE	mm		
	fM	h min	h max
GXVM 25-6 GFA	302	70	150
GXVM 25-8 GFA	337	70	185
GXVM 25-10 GFA	337	70	185

GXR, GXV

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Features

PATENTED

G 1 1/4 vertical, upward delivery port for installation in small pits, without the need for an elbow on the pump.

Minimum dimension and high levels of performance, for use in many different applications, head up to 12,7 m and flow rates up to 220 liters/min.

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

Handle in polypropylene.

Easy inspection of the capacitor area.

Shaft in chrome-nickel stainless steel.

Motor cooled by the pumped water passing between the motor jacket and the external jacket.

Ceramic stainless steel shaft sleeve.

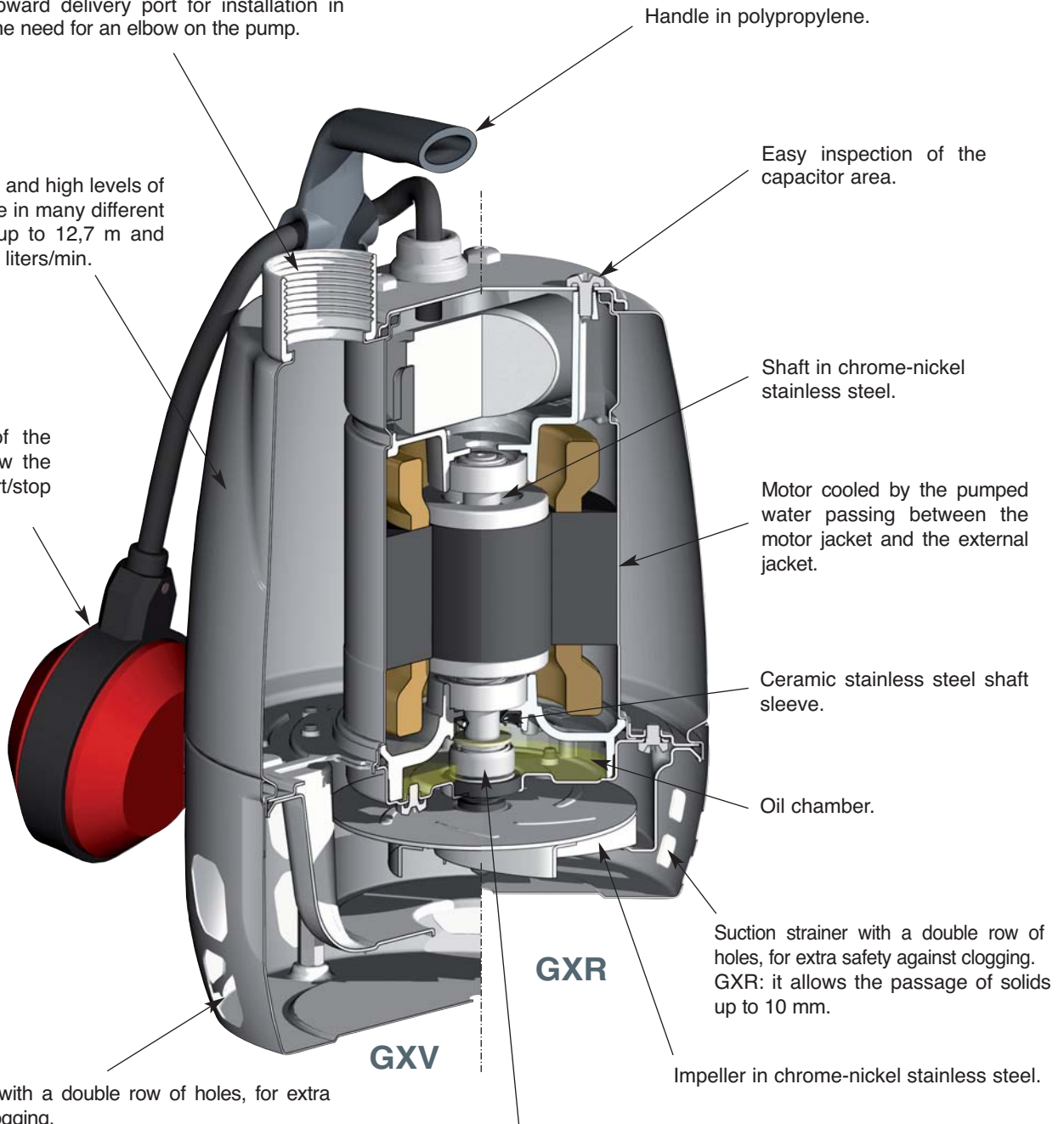
Oil chamber.

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

Impeller in chrome-nickel stainless steel.

Suction strainer with a double row of holes, for extra safety against clogging. GXV: it allows the passage of solids up to 25 mm.

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



GXR 12

Submersible Pumps
in stainless steel



Materials

Component	Material
Pump casing Strainer Impeller Motor jacket Pump jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame in AISI 304)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Mechanical seal: upper lower	Ceramic alumina/Carbon/NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

Construction

Single-impeller submersible pumps in chrome-nickel stainless steel, with vertical delivery port.

GXR: with open impeller.

Motor cooled by the pumped water passing between the motor jacket and the external jacket.

Double shaft seal with oil chamber.

Applications

- For clean water containing solids up to 12 mm grain size.
- For draining rooms or emptying tanks.
- Extraction of water from ponds, streams or pits and for rainwater collection.
- For irrigation purposes.

For outdoor use a power supply cable of not less than 10 m should be used in accordance with: EN 60335-2-41.

Operating conditions

Liquid temperature up to 40° C.

Maximum immersion depth: 5 m.

Minimum water level with float: 70 mm.

Minimum water level manual operation: 15 mm.

Continuous duty.

Motor

2-pole induction motor, 50 Hz ($n \approx 2900$ rpm).

GXR: three-phase 230 V $\pm 10\%$;

three-phase 400 V $\pm 10\%$;

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

GXRM: single-phase 230 V,

with float switch and thermal protector.

Incorporated capacitor.

Cable: H07RN-F, 3G1 mm² (3G1,5 mm² for 1,1 kW, 3G2,5 mm² for 1,5 kW), length 10 m, with plug CEI-UNEL 47166.

Insulation class F.

Protection IP X8 (for continuous immersion)

Double impregnation humidity-proof dry winding.

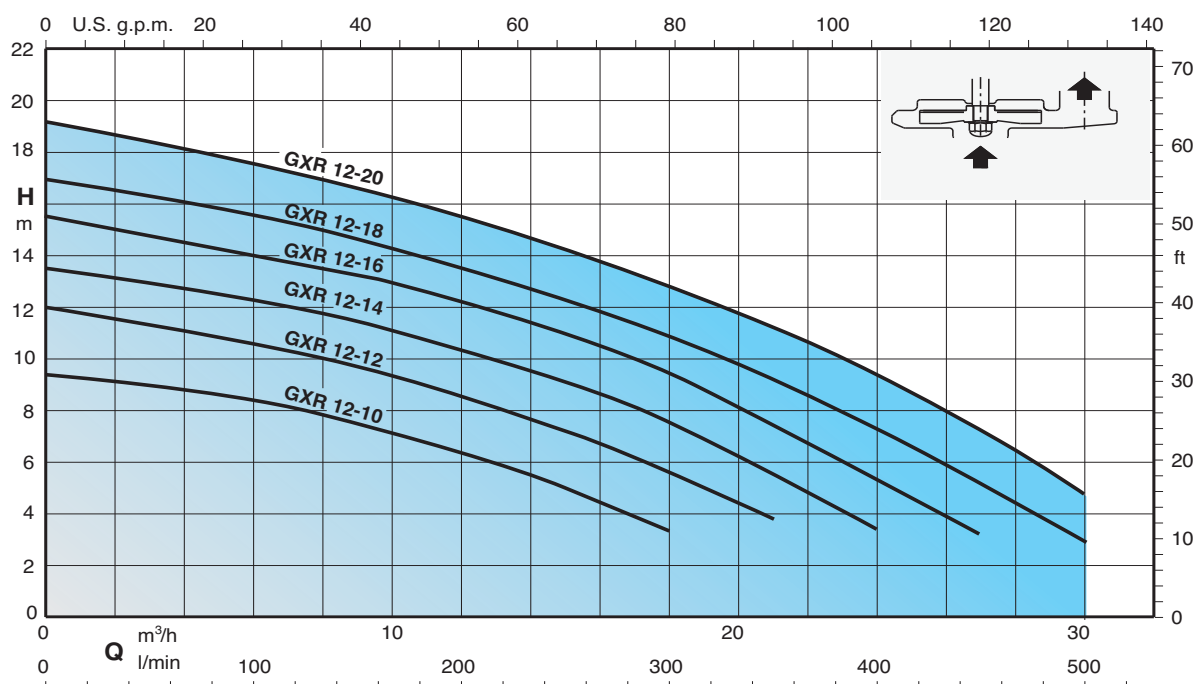
Constructed in accordance with: EN 60034-1;

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

Other features on request

- Other voltages. - Frequency 60 Hz.
- 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 $n \approx 2900$ rpm



GXR 12

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Performance $n \approx 2900$ rpm

3~	230V 400V		1~	230V	Capacitor	P ₁	P ₂			Q	H _m											
	A	A					A	μf	Vc		kW	kW	HP	m ³ /h	l/min	0	3	6	9	12	15	18
GXR 12-10	2,6	1,5	GXR 12-10	4	12,5	450	0,85	0,45	0,6	H _m	9,3	9	8,3	7,5	6,3	5	3,3	-	-	-	-	-
GXR 12-12	3,3	1,9	GXR 12-12	5,2	16	450	1,1	0,55	0,75		12	11,3	10,6	9,6	8,5	7,2	5,6	3,7	-	-	-	-
GXR 12-14	3,8	2,2	GXR 12-14	6	20	450	1,3	0,75	1		13,5	13	12,2	11,4	10,4	9	7,5	5,6	3,3	-	-	-
GXR 12-16	4,8	2,8	GXR 12-16	7,4	25	450	1,6	0,9	1,2		15,5	14,7	14	13,2	12,2	11	9,4	7,5	5,4	3,2	-	-
GXR 12-18	5,8	3,3	GXR 12-18	9,5	30	450	2	1,1	1,5		17	16,3	15,5	14,6	13,5	12,3	10,8	9,2	7,3	5,2	3	-
GXR 12-20	6,9	4	GXR 12-20	13	35	450	2,2	1,5	2		19,2	18,4	17,5	16,5	15,5	14,2	12,8	11,2	9,3	7,2	4,7	-

P₁ Max. power input.

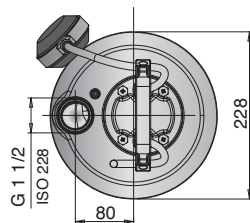
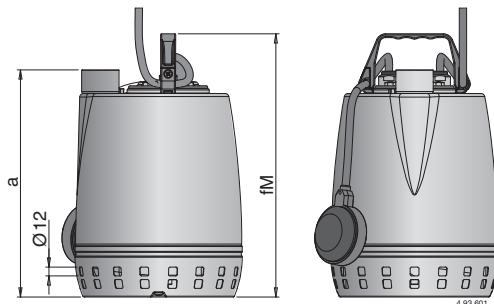
P₂ Rated motor power output.

Density $\rho = 1000$ kg/m³.

Kinematic viscosity $\nu = \max 20$ mm²/sec.

Tolerances according to UNI EN ISO 9906:2012

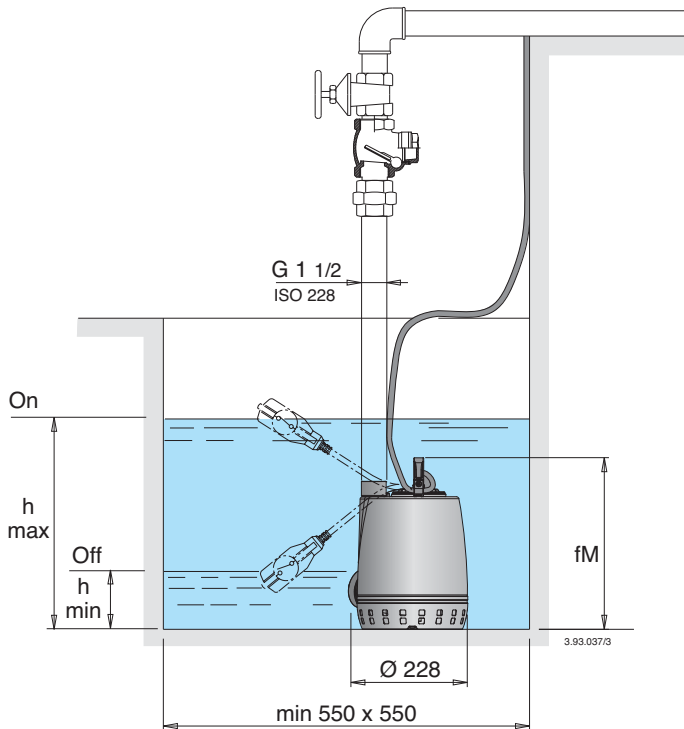
Dimensions and weights



TYPE	mm		kg ⁽¹⁾	
	fM	a	GXR	GXRM
GXR 12-10 - GXRM 12-10	360	310	10,3	11,3
GXR 12-12 - GXRM 12-12	375	325	11,5	12,5
GXR 12-14 - GXRM 12-14	400	350	13	14
GXR 12-16 - GXRM 12-16	400	350	13,6	14,6
GXR 12-18 - GXRM 12-18	420	370	14,4	15,9
GXR 12-20 - GXRM 12-20	450	400	16	17,5

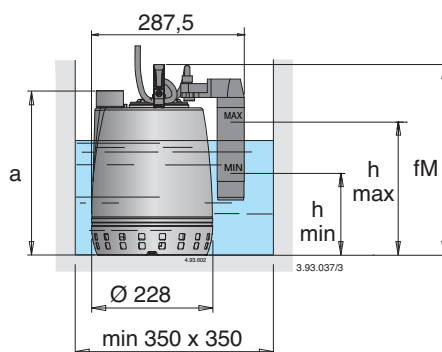
(1) With cable length: 10 m

Installation examples



TYPE	mm		
	fM	h min	h max
GXR 12-10 - GXRM 12-10	360	175	435
GXR 12-12 - GXRM 12-12	375	190	450
GXR 12-14 - GXRM 12-14	400	215	475
GXR 12-16 - GXRM 12-16	400	215	475
GXR 12-18 - GXRM 12-18	420	235	495
GXR 12-20 - GXRM 12-20	450	265	525

Installation examples with vertical magnetic float switch



TYPE	mm			
	fM	a	h min	h max
GXRM 12-10 GF	360	310	180	270
GXRM 12-12 GF	375	325	195	285
GXRM 12-14 GF	400	350	220	310
GXRM 12-16 GF	400	350	220	310

GXR 12

Submersible Pumps
in stainless steel

Raydar AB



Features

PATENTED

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

Handle in polypropylene, with frame in stainless steel.

Easy inspection of the capacitor area.

Shaft in chrome-nickel stainless steel.

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

Motor cooled by the pumped water passing between the motor jacket and the external jacket.

Chamber with food/pharmaceutical machinery oil

Impeller in chrome-nickel stainless steel.

Suction strainer with a double row of holes, for extra safety against clogging with the passage of solids up to 12 mm grain size.

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

