

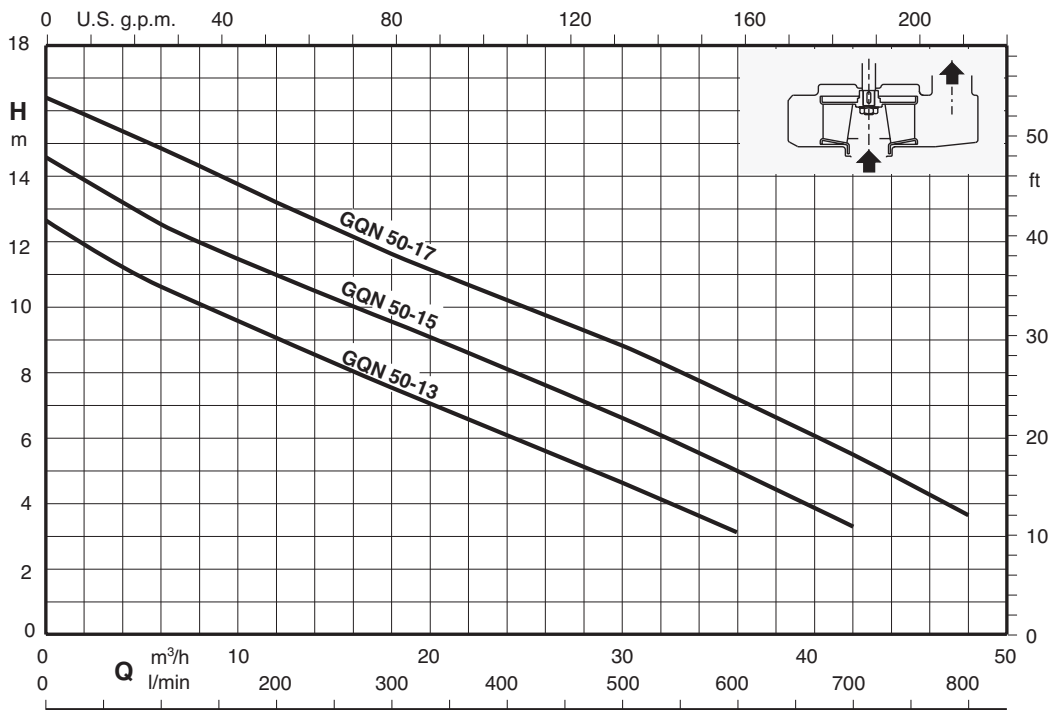
# GQN



(patented system)



Coverage chart  $n \approx 2900$  rpm



## Submersible sewage and drainage pumps

## Construction

Single-impeller submersible pumps, (with two-passage) with channels impeller with vertical threaded delivery port (G 2").

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

## Applications

For civil and industrial wastewater that is not aggressive to the pump materials, for dirty water even with solids with a diameter of 50 mm.

Emptying of flooded rooms or tanks.

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

## Operating conditions

Maximum liquid temperature: 35 °C

pH value: 6-11.

Immersion depth: 5 m max

Minimum immersion depth: 275 mm.

Continuous duty (with submerged motor).

## Motor

2-pole induction motor, 50Hz (n ≈ 2900 1/min).

**GQN:** three-phase 230V ± 10%  
400V ± 10%

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

**GQNM:** 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).

Cable length 20 m.

Motor suitable for operation with frequency converter.

Three-phase pumps with incorporated float switch.

## Designation

Example: GQNM 50-15

GQ = Series

N = channels impeller

M = Single-phase (without three-phase indication)

50 = Free passage diameter in mm

15 = Total head in m indoors

## Materials

Components	Materials
Pump casing	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561
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

## Coverage chart n ≈ 2900 rpm

### Three-phase

				Q = Flow											
				m <sup>3</sup> /h	0	3	6	12	18	24	30	36	42	48	
Model	400V			P2	l/min	0	50	100	200	300	400	500	600	700	800
	A	kW	HP												
H (m) = Total head															
GQN 50-13	2,3	0,9	1,2		12,7	11,6	10,6	8,9	7,7	6,3	4,7	3,1	-	-	
GQN 50-15	3,3	1,1	1,5		14,7	13,5	12,6	10,9	9,6	8,3	6,7	5	3,2	-	
GQN 50-17	4,5	1,5	2		16,4	15,7	14,9	13,2	11,7	10,3	8,9	7,3	5,5	3,6	

### Single-phase

							Q = Flow											
							m <sup>3</sup> /h	0	3	6	12	18	24	30	36	42	48	
Model	230V	Capacitor		P2		P1	l/min	0	50	100	200	300	400	500	600	700	800	
		A	Vc	uf	kW													HP
H (m) = Total head																		
GQNM 50-13	6,6	450	25	0,9	1,2	1,45		12,7	11,6	10,6	8,9	7,7	6,3	4,7	3,1	-	-	
GQNM 50-15	8,4	450	30	1,1	1,5	1,8		14,7	13,5	12,6	10,9	9,6	8,3	6,7	5	3,2	-	
GQNM 50-17	12	450	35	1,5	2	2,2		16,4	15,7	14,9	13,2	11,7	10,3	8,9	7,3	5,5	3,6	

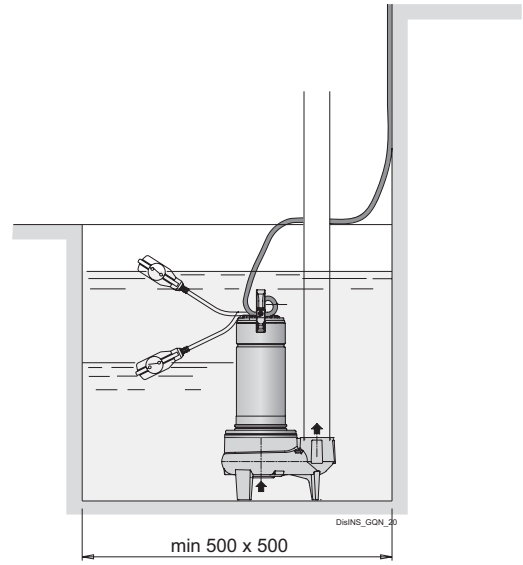
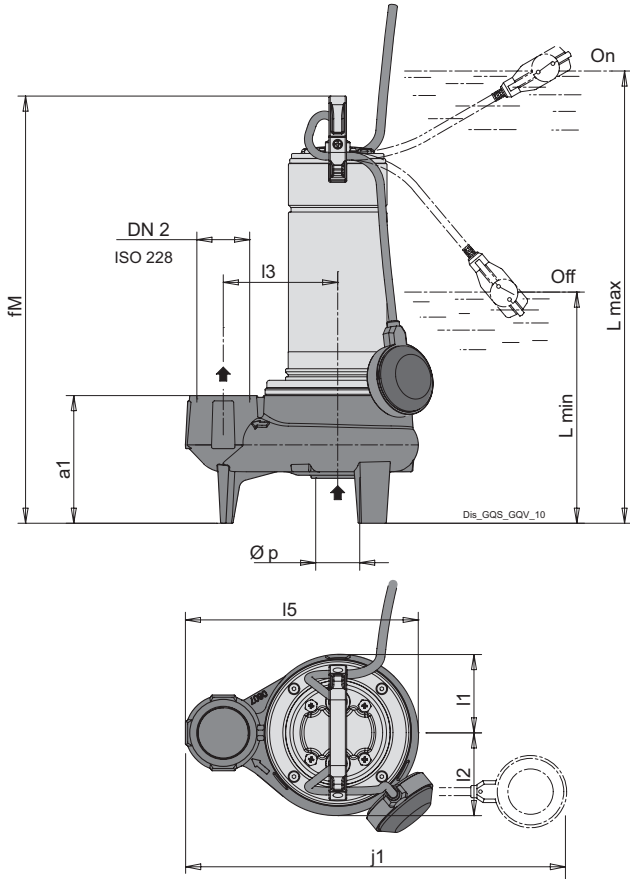
**P2:** Rated motor power output.

**P1:** Maximum power input.

**Head and power values valid for liquids with density  $\rho = 1,0 \text{ kg/dm}^3$  and kinematic viscosity  $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$ . Total head in m**

## Dimensions and weights

## Installation examples



TYPE	DN2	mm								kg
		a1	fM	j1	l1	l2	l5	l5	p	Weight
GQN 50-13	G 2 (DN50)	152.5	493	452	92	104	130	272	50	16.4
GQN 50-15	G 2 (DN50)	152.5	513	452	92	104	130	272	50	18.2
GQN 50-17	G 2 (DN50)	152.5	513	452	92	104	130	272	50	19

TYPE	DN2	mm									kg	
		a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GQNM 50-13	G 2 (DN50)	152.5	493	452	92	104	130	272	568	308	50	18.5
GQNM 50-15	G 2 (DN50)	152.5	513	452	92	104	130	272	588	328	50	19.6
GQNM 50-17	G 2 (DN50)	152.5	543	452	92	104	130	272	618	358	50	22.3

weights With cable length: 10 m

## Examples of installations

