

# EGN – SUBMERSIBLE DRAINAGE PUMPS FOR CLEAN WATER

## CONSTRUCTION

- Single-impeller submersible drainage pump, with open impeller with vertical threaded delivery port (G 1" ½)
- 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 recovery

## OPERATING CONDITIONS

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

## MOTOR SPECIFICATION

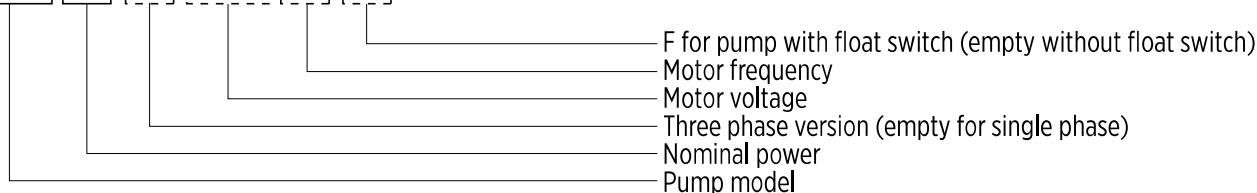
- 2-pole induction motor, 50 Hz (n ≈ 2900 rpm)
- **EGN:** Single-phase 230 V ± 10%, with float switch and thermal protector  
Incorporated capacitor  
Cable: H07Rn-F, 3G1 mm<sup>2</sup>, length 10 m, with plug  
Cel-UnaL 47166; 5 m for ED5/EDV5
- **EGNT:** Three-phase 230 V ± 10%; Three-phase 400 V ± 10%  
Cable: H07Rn-F, 4G1 mm<sup>2</sup>, length 10 m, without plug
- Insulation class F
- Protection IPX8 (for continuous immersion)
- Triple impregnation humidity-proof dry winding
- Constructed in accordance with: EN 60034-1; EN 60335-1, EN 60335-2-41

## AVAILABLE 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

## PUMP IDENTIFICATION CODE

EGN 7 T 400 50 F



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# EGN

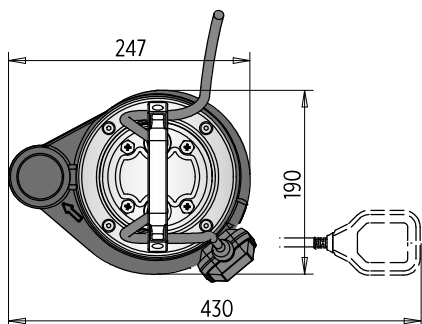
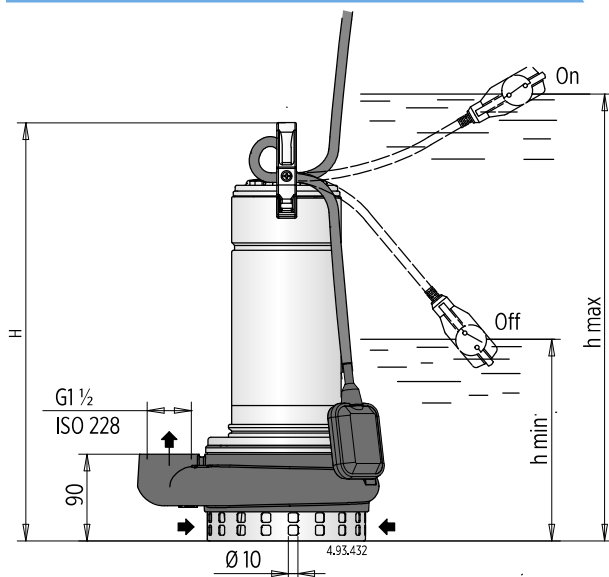
## MATERIALS TABLE

Components	Materials
Pump casing / Impeller	Cast iron GJL 200 EN 1561
Motor jacket / Jacket cover / Casing cover	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 / Mechanical seal lower	Ceramic alumina / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

## DIMENSIONS AND WEIGHTS

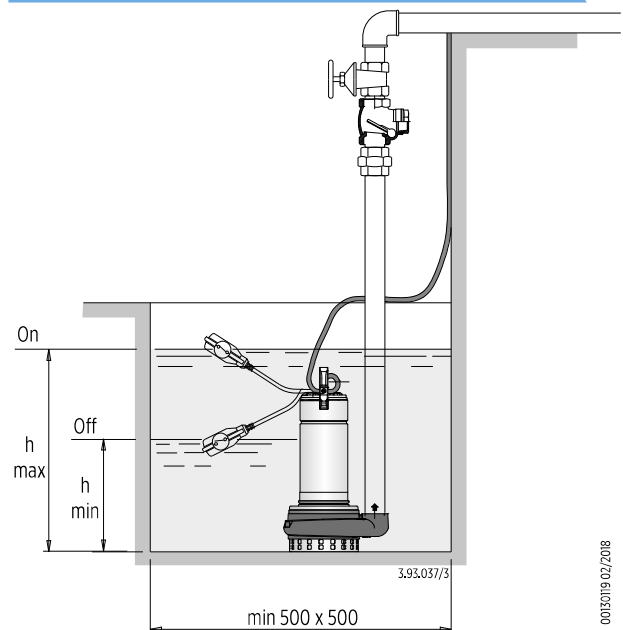
Pump model	Dimensions [mm]			Weight [kg]	
	H	h max	h min	1 ~	3 ~
EGN4(T)	390	410	205	15	14
EGN5(T)	405	425	220	15,5	14,5
EGN7(T)	405	425	220	15,5	14,5
EGN9(T)	430	450	245	18	16
EGN11(T)	450	470	265	19	17,5
EGN15T	450	470	265	-	19
EGN15	480	500	295	20,5	-

## DIMENSIONS DRAWINGS



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## INSTALLATION



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# EGN

TABLE OF HYDRAULIC PERFORMANCE  $n \approx 2900$  1/min

Pump model	1x230 V			Capacitor		P <sub>2</sub>		Q = DELIVERY									
	[A]	[µf]	[Vc]	[kW]	[HP]	l/min	50	100	150	200	250	300	350	400	450	500	
						0	3	6	9	12	15	18	21	24	30	30	
EGN 4	3.1	12.5	450	0.45	0.6	10	9.5	8.8	8	6.7	5	3	-	-	-	-	
EGN 5	3.6	16	450	0.55	0.75	12	11.6	11	10.2	9	7.5	5.5	3.2	-	-	-	
EGN 7	4.6	16	450	0.75	1	14	13.5	12.8	12	10.8	9.3	7.5	5.5	3	-	-	
EGN 9	6	25	450	0.9	1.2	16	15.5	15	14.2	13.2	11.8	10.2	8	5.5	2.3	-	
EGN 11	8	30	450	1.1	1.5	18	17.5	17	16.2	15	13.7	11.8	9	7	4.3	1.5	
EGN 15	12	35	450	1.5	2	20	19.5	18.8	18	16.8	15.2	13.2	10.8	8.4	5.7	3	

Pump model	3x230 V		3x400 V		P <sub>2</sub>		Q = DELIVERY									
	[A]	[A]	[kW]	[HP]	l/min	50	100	150	200	250	300	350	400	450	500	
					0	3	6	9	12	15	18	21	24	30	30	
EGN 4 T	2	1.2	0.45	0.6	10	9.5	8.8	8	6.7	5	3	-	-	-	-	
EGN 5 T	2.4	1.4	0.55	0.75	12	11.6	11	10.2	9	7.5	5.5	3.2	-	-	-	
EGN 7 T	2.8	1.6	0.75	1	14	13.5	12.8	12	10.8	9.3	7.5	5.5	3	-	-	
EGN 9 T	4	2.3	0.9	1.2	16	15.5	15	14.2	13.2	11.8	10.2	8	5.5	2.3	-	
EGN 11 T	4.8	2.8	1.1	1.5	18	17.5	17	16.2	15	13.7	11.8	9	7	4.3	1.5	
EGN 15 T	6.6	3.8	1.5	2	20	19.5	18.8	18	16.8	15.2	13.2	10.8	8.4	5.7	3	

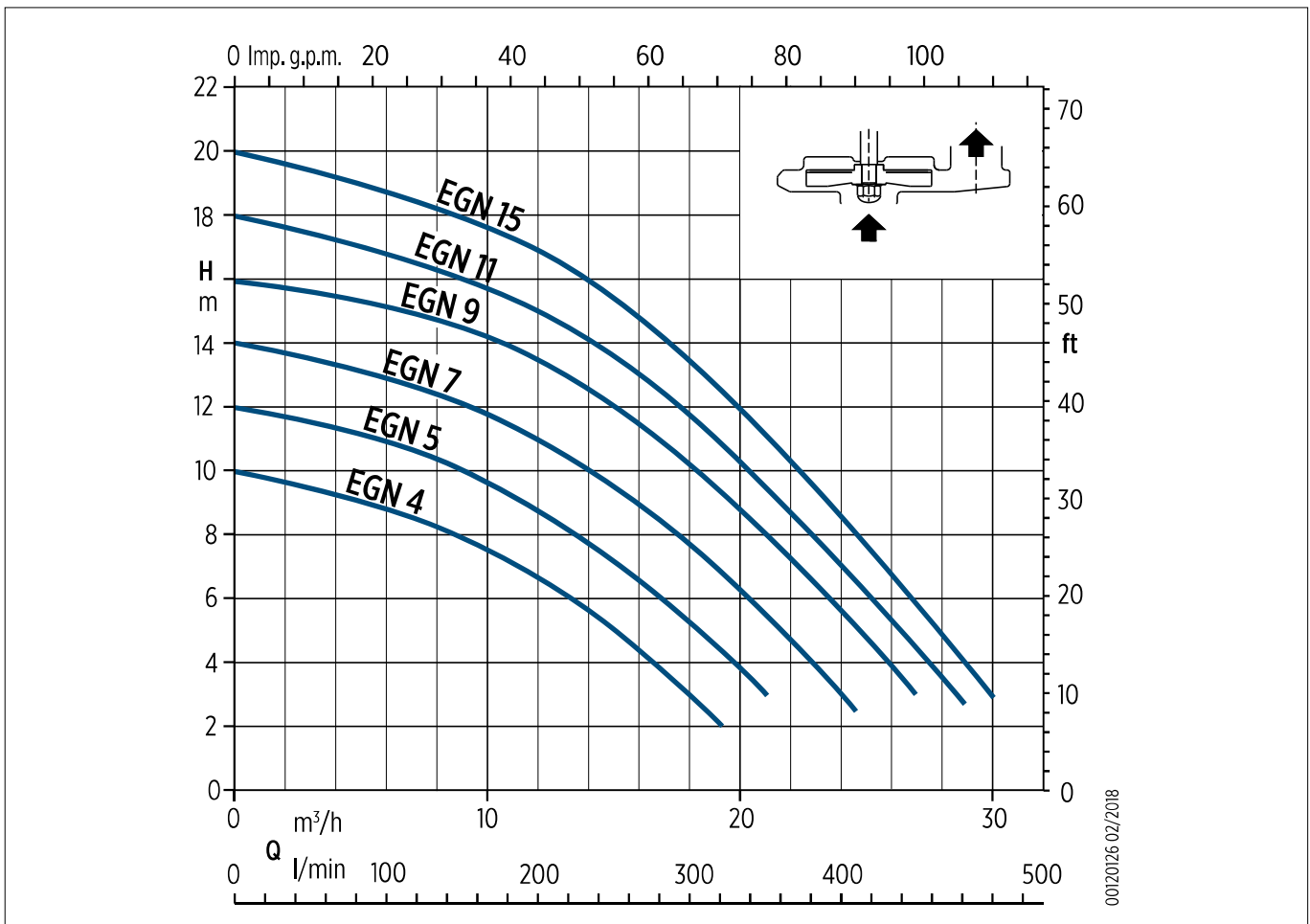
P<sub>1</sub>: Max absorbed power

P<sub>2</sub>: Motor nominal power

Density  $\rho = 1000$  Kg/m<sup>3</sup>

Viscosity kinematic  $\nu = \max 20$  mm<sup>2</sup>/sec

PERFORMANCE CURVES  $n \approx 2900$  rpm



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## EGN - FEATURES

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 ½ vertical, upward  
delivery port for installation  
in small pits, without the  
need for an elbow on the  
pump

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

Chamber with  
food/ pharma-ceutical  
machinery oil

Shaft in chrome-nickel  
stainless steel

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

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

