

# Submersible Electric Pumps for Dirty Water

## DN SERIES



Drainage pumps with up to 20 metre head and up to 280 l/min (17 m<sup>3</sup>/h) capacity.  
This range consists of three pumps with up to 0.75 kW (1HP) rated power.



### APPLICATIONS

- Draining of flooded excavations and marshy ground.
- Irrigation from rainwater reservoirs, ditches, ponds and watercourses.

### SPECIFICATIONS

- Open impeller with abrasion-resistant rubber coating.
- Handles suspended solids up to 5 mm in diameter.
- Squirrel cage motor (2 poles – 2850 rpm) in a dielectric non-toxic oil bath, which ensures the lubrication of the ball bearings and more efficient cooling.

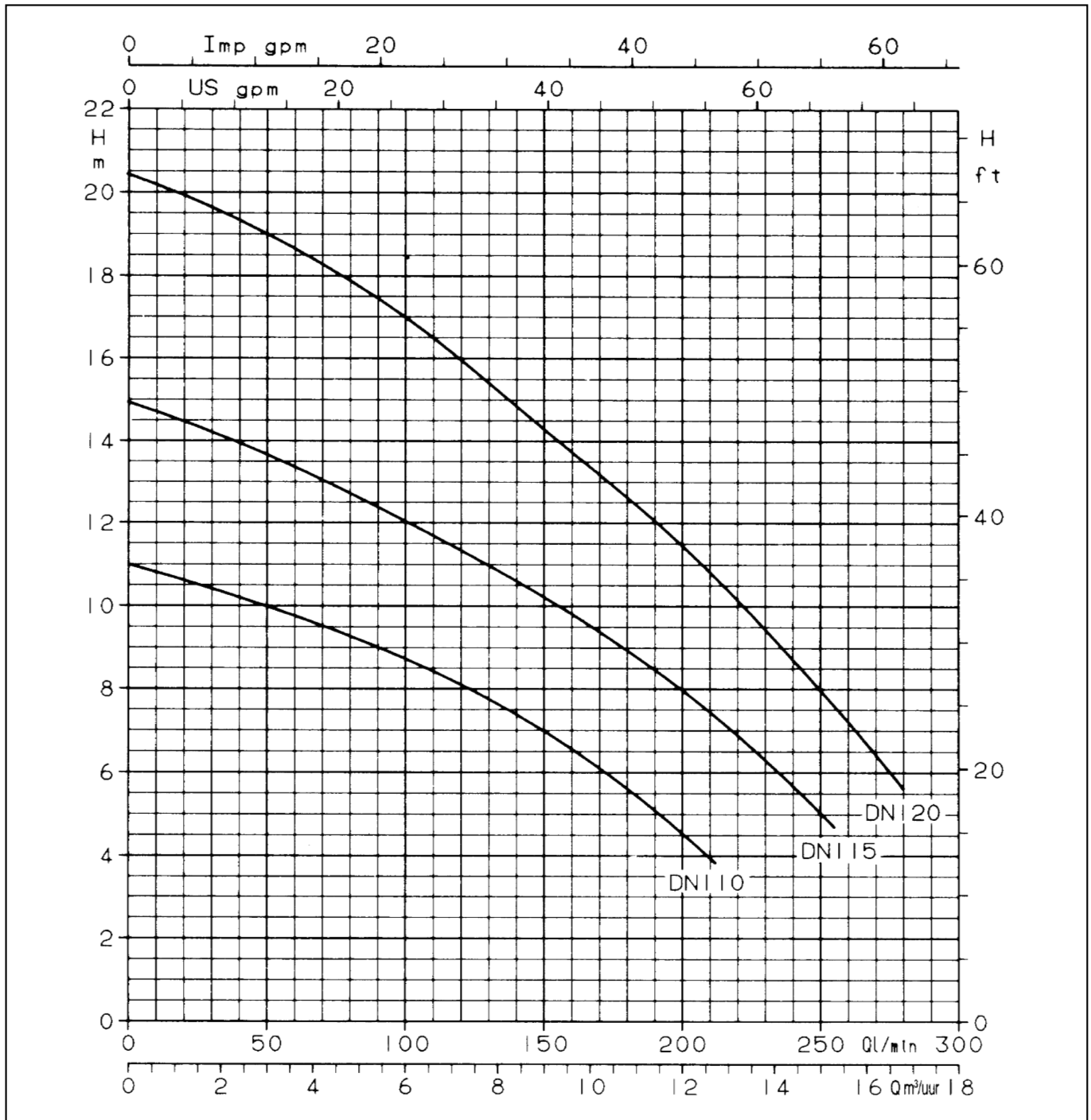
- Mechanical seal protected by sand labyrinth.
- Maximum immersion depth: 5 m.
- Maximum liquid temperature: 50°C with fully submerged pump. 25°C with partially submerged pump.
- Versions:  
Single-phase 220-240 V 50 Hz, with built-in automatic reset overload protection and capacitor housed in a control panel on the cable.  
Three-phase 220-240 or 380-415 V 50 Hz.  
Overload protection to be provided by user and installed in the control panel.  
The control panel is available on request.
- 5 metres of HO7RN-F cable (the single-phase versions are also equipped with a control panel housing the capacitor + 1.5 m cord with plug).
- Motor insulation: class F.
- 60 Hz versions available on request.
- Pre-assembled float available on request (CG version).
- Clockwise rotation when looking at pump from above.

### TABLE OF MATERIALS

PART	MATERIAL
Pump body	200 UNI ISO 185 CAST IRON
Impeller	STEEL + NITRILE RUBBER
Wear flange Suction filter Motor casing	STAINLESS STEEL (AISI 304 - DIN 1.4301)
Mechanical seal	CARBON/CERAMIC NITRILE RUBBER
O-ring	NITRILE RUBBER
Shaft (extension)	STAINLESS STEEL (AISI 303 - DIN 1.4305)

\* Cast iron with polybutadiene coating through electrophoresis at 180°C.

## DN SERIES OPERATING CHARACTERISTICS AT 2850 rpm 50 Hz

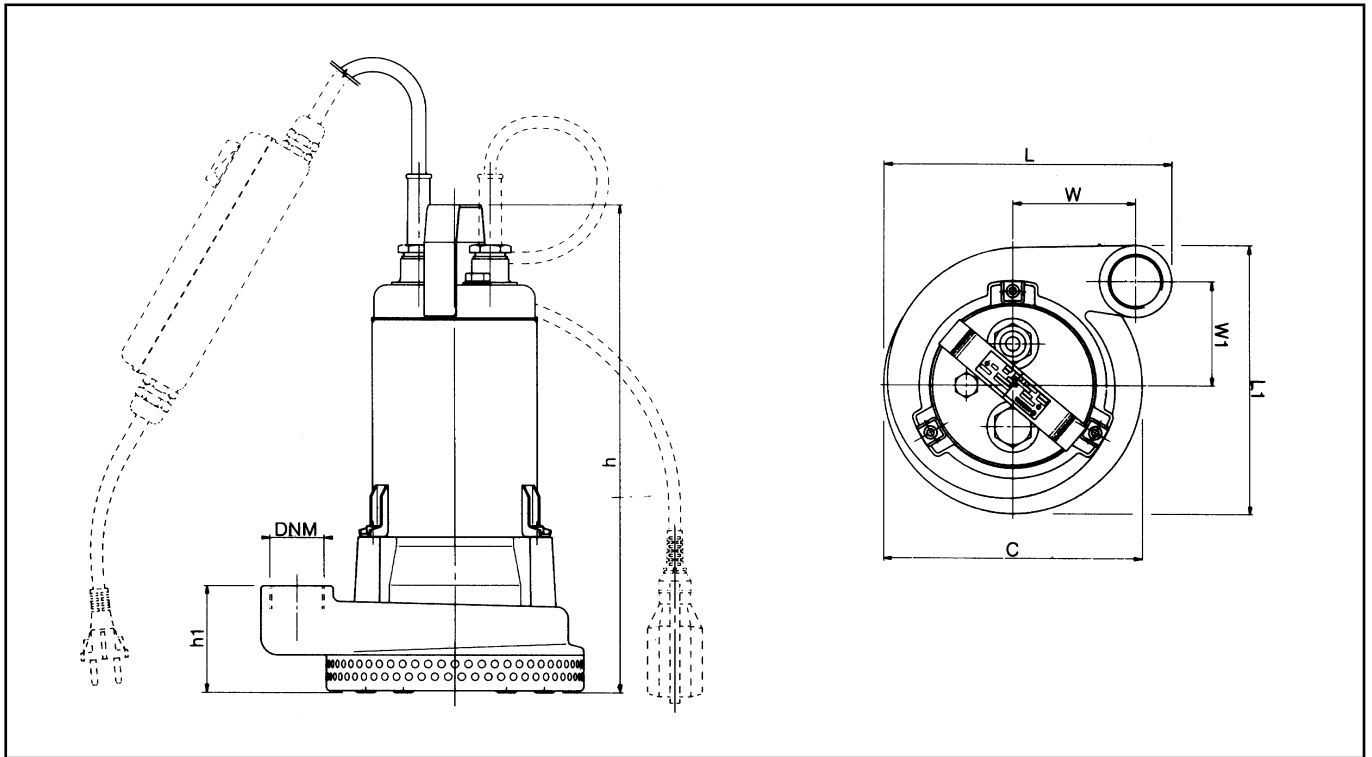


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PUMP TYPE		kW	HP	ABSORBED POWER		CAPACITOR		CORRENTE ASSORBITA IN Amp.			Q = DELIVERY					
SINGLE-PHASE 220-240 V 50 Hz	THREE-PHASE 220-240/ 380-415 V 50 Hz			SINGLE-PHASE	THREE-PHASE	μF	V	SINGLE-PHASE 220-240 V	220-240 V	380-415 V	l/min	50	100	150	200	250
											m³/h	3	6	9	12	15
												H = TOTAL HEAD METRES COLUMN OF WATER				
DNM 110	DN 110	0,6	0,8	0,75	0,65	20	450	4	2,8	1,6	10	8,7	7	4,5	–	
DNM 115	DN 115	0,6	0,8	0,95	0,85	20	450	4,7	3,1	1,8	13,7	12	10,5	8	5	
DNM 120	DN 120	0,75	1	1,2	1,1	25	450	5,8	3,6	2,1	19	17	14,3	11,4	8	

Performances, obtained with cold water, meet UNI-ISO 2548 specifications for class C standard pumps. These performances are valid for liquids with density  $\rho = 1.0 \text{ kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{sec}$ .

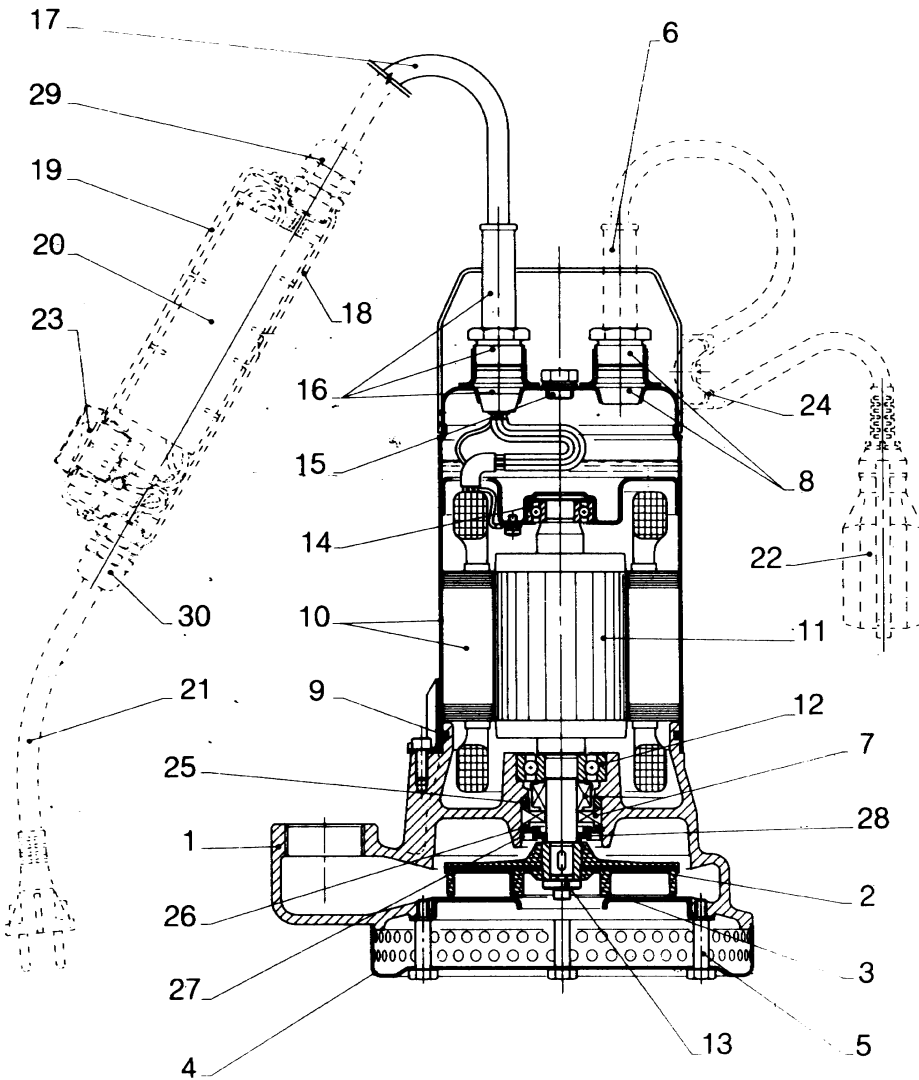
**DN SERIES DIMENSIONS AND WEIGHTS**



PUMP TYPE	DIMENSIONS IN mm							DNM	WEIGHT kg
	C	h	H1	L	L1	W	W1		
DN 110 - DNM 110	Ø 200	380	81	209	223	81	95	Rp 1"1/4	18,5
DN 115 - DNM 115	Ø 200	380	81	209	223	81	95	Rp 1"1/4	18,5
DN 120 - DNM 120	Ø 200	380	81	209	223	81	95	Rp 1"1/4	19,5

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**PUMP SECTION AND LIST OF MAIN COMPONENTS**



RIF. N.	DESCRIPTION
1	Pump body
* 2	Impeller
3	Wear flange
4	Suction filter
5	Flange/filterfastening screw
6	Float cable gland
* 7	Mechanical seal
8	Insert and plug for coupling
* 9	O-ring
10	Motor casing with wound stator
11	Shaft with rotor
* 12	Lower bearing
13	Impeller lock washer
* 14	Upper bearing
15	Plug with washer
16	Supply cable gland
17	Supply cable
18	Control box base
19	Control box cover
20	Capacitor
21	Cord with plug
22	Float
23	Switch with cap
24	Cable fastener with base
25	Mechanical seal spacer
26	Seal shoulder washer
27	Labyrinth cap
28	Labyrinth insert
29	Cable gland (pump cable)
30	Cable gland (cable with plug)

\* Recommended spare parts

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