



ITT

Lowara

Submersible Electric Pumps for clean and slight dirty water

Drainage pumps with up to 22 metres head and up to 280 l/min (16,8 m³/h) delivery.

This range consists of three pumps with up to 0,75 kW rated power.

DN Series



- **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
2 poles
with built-in automatic reset overload protection and capacitor housed in a control panel on the cable.
 - Three-phase: 220-240 V, 50 Hz
380-415 V, 50 Hz
2 poles.Overload protection to provided by user and installed in the control panel. The control panel is available on request.
- **5 metres** of **H07RN-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.

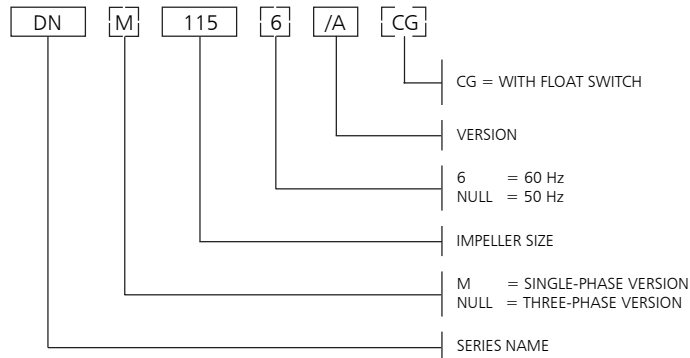
APPLICATIONS

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

SPECIFICATIONS

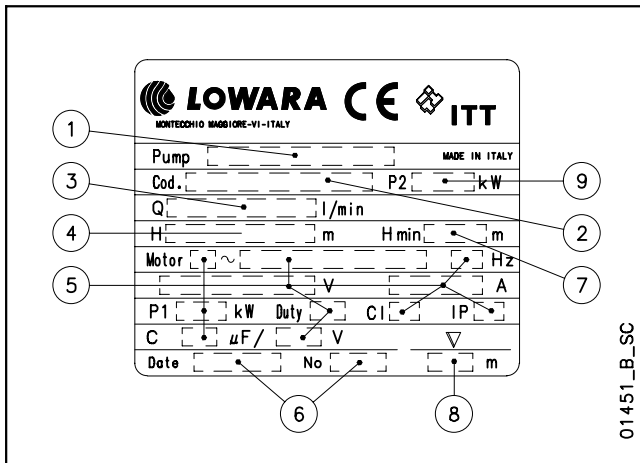
- Open **impeller** with **abrasion-resistant** rubber coating.
- Handles suspended solids up to 5 mm in diameter.
- Squirrel cage **motor** (2 poles - 2850 rpm) in a dielectric non-toxic **oil bath**, which ensures the lubrication of the ball bearings and more efficient cooling.

DN SERIES IDENTIFICATION CODE



EXAMPLE : DNM 115/A
DN Series Electric pump, impeller size 115,
50 Hz version, single-phase, /A version.

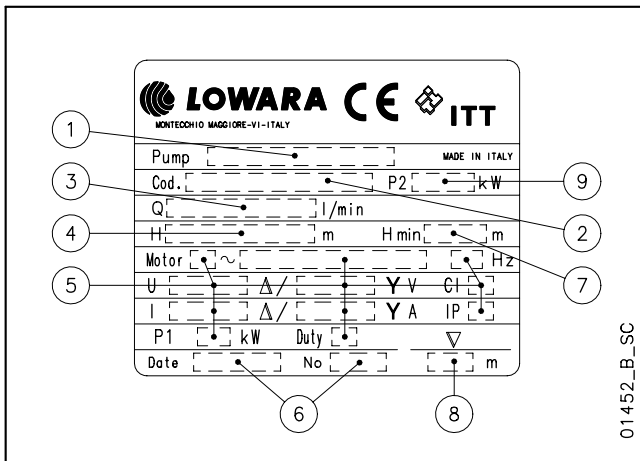
SINGLE-PHASE RATING PLATE



LEGEND

- 1 - Electric pump type
- 2 - Code
- 3 - Delivery range
- 4 - Head range
- 5 - Motor type
- 6 - Date of manufacture and serial number
- 7 - Minimum head
- 8 - Maximum immersion depth
- 9 - Rated output

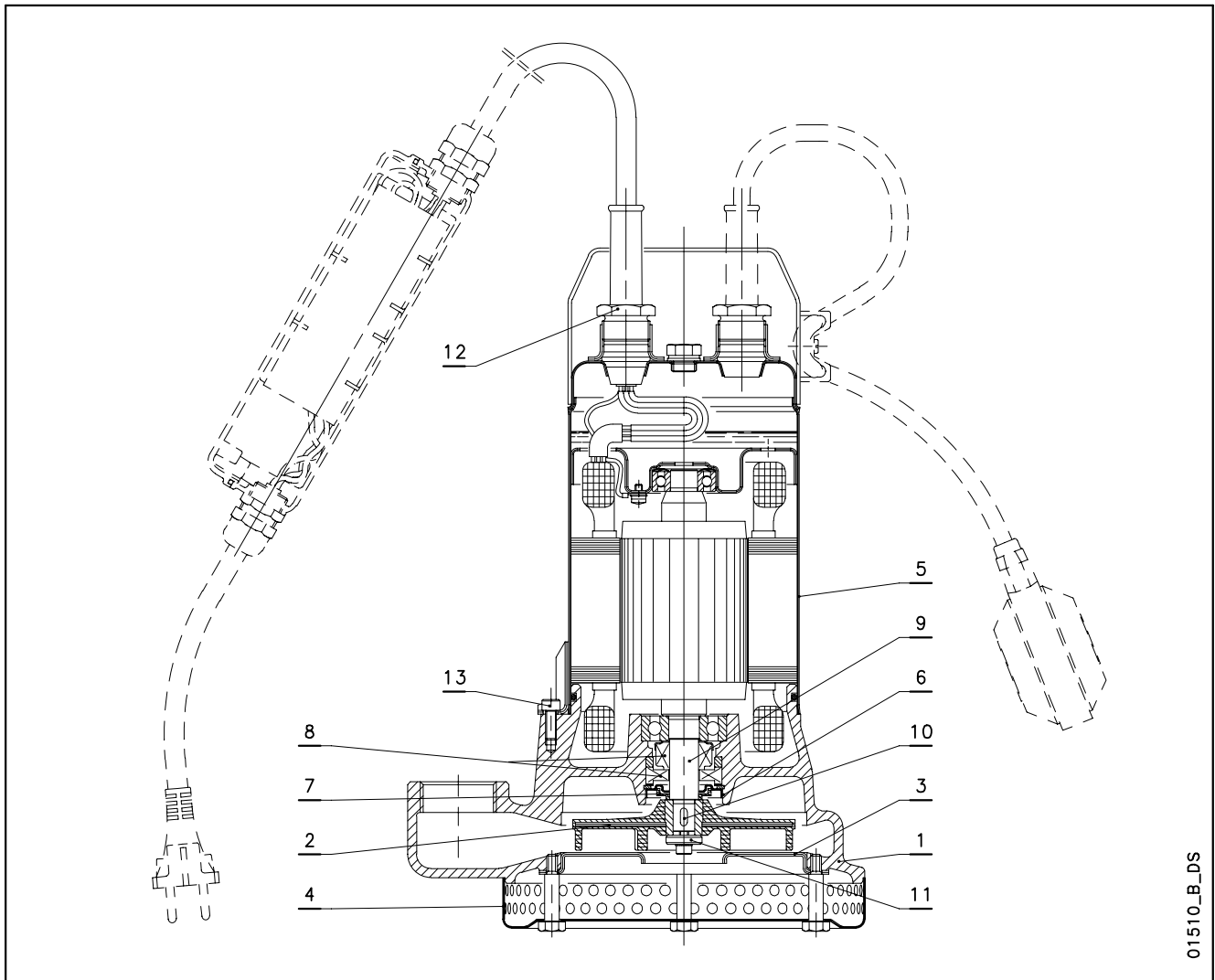
THREE-PHASE RATING PLATE





DN SERIES

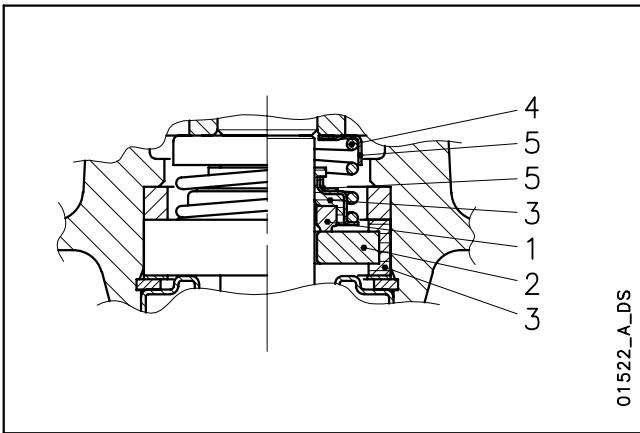
LIST OF MODELS AND TABLE OF MATERIALS



01510_B_DS

REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
2	Impeller	Steel + Nitrile Rubber XNBR		
3	Wearing flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
4	Suction strainer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Labyrinth cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
7	Labyrinth insert	NBR (standard version)		
8	Mechanical seal	Carbon / Ceramic Alumina / NBR (standard version)		
9	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
11	Washer	Stainless steel		AISI 303
12	Cable gland	Brass		
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

dn-en_b_tm

**DN SERIES
MECHANICAL SEAL**

LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Carbon	P : NBR	F : AISI 304
V : Ceramic Alumina	V : FPM	
U ₃ : Tungsten Carbide		

dn-dl-dlv_ten-mec-en_b_tm

SEAL TYPES

TYPE	POSITION					TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS	
STANDARD MECHANICAL SEAL						
BVPFF	B	V	P	F	F	-5 +50
OTHER MECHANICAL SEAL TYPES						
U ₃ U ₃ VFF	U ₃	U ₃	V	F	F	-5 +50

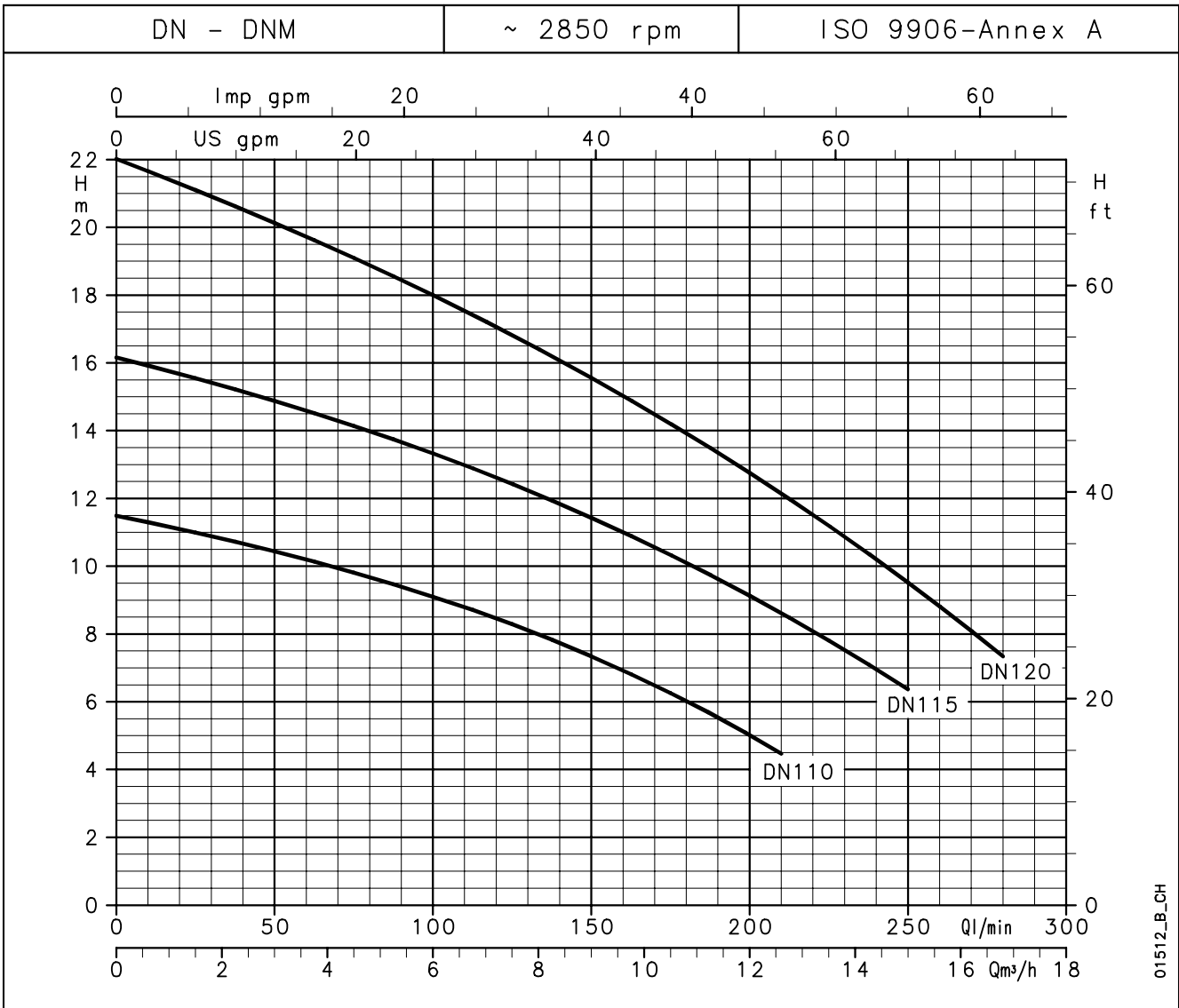
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DN SERIES OPERATING CHARACTERISTICS AT 50 Hz



01512_B_CH

HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED POWER		Q = DELIVERY												
			l/min	0	25	50	75	100	125	150	175	210	225	250	280
			m ³ /h	0	1,5	3	4,5	6	7,5	9	10,5	12,6	13,5	15	16,8
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER												
DN(M) 110	0,6	0,8	11,5	11,0	10,4	9,8	9,1	8,3	7,3	6,3	4,5				
DN(M) 115	0,6	0,8	16,2	15,6	14,9	14,1	13,3	12,4	11,4	10,3	8,6	7,8	6,4		
DN(M) 120	0,75	1	22,0	21,1	20,1	19,1	18,0	16,8	15,6	14,2	12,1	11,2	9,5	7,3	

These performances are valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

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ELECTRICAL DATA TABLE

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE	kW	220-240 V A	$\mu\text{F} / 450 \text{ V}$
DNM 110	0,68	3,56	25
DNM 115	0,90	4,28	25
DNM 120	1,03	4,77	25

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE	kW	220-240 V A	380-415 V A
DN 110	0,66	3,46	2,00
DN 115	0,93	3,81	2,20
DN 120	1,09	4,05	2,34

*Maximum values within operating range.

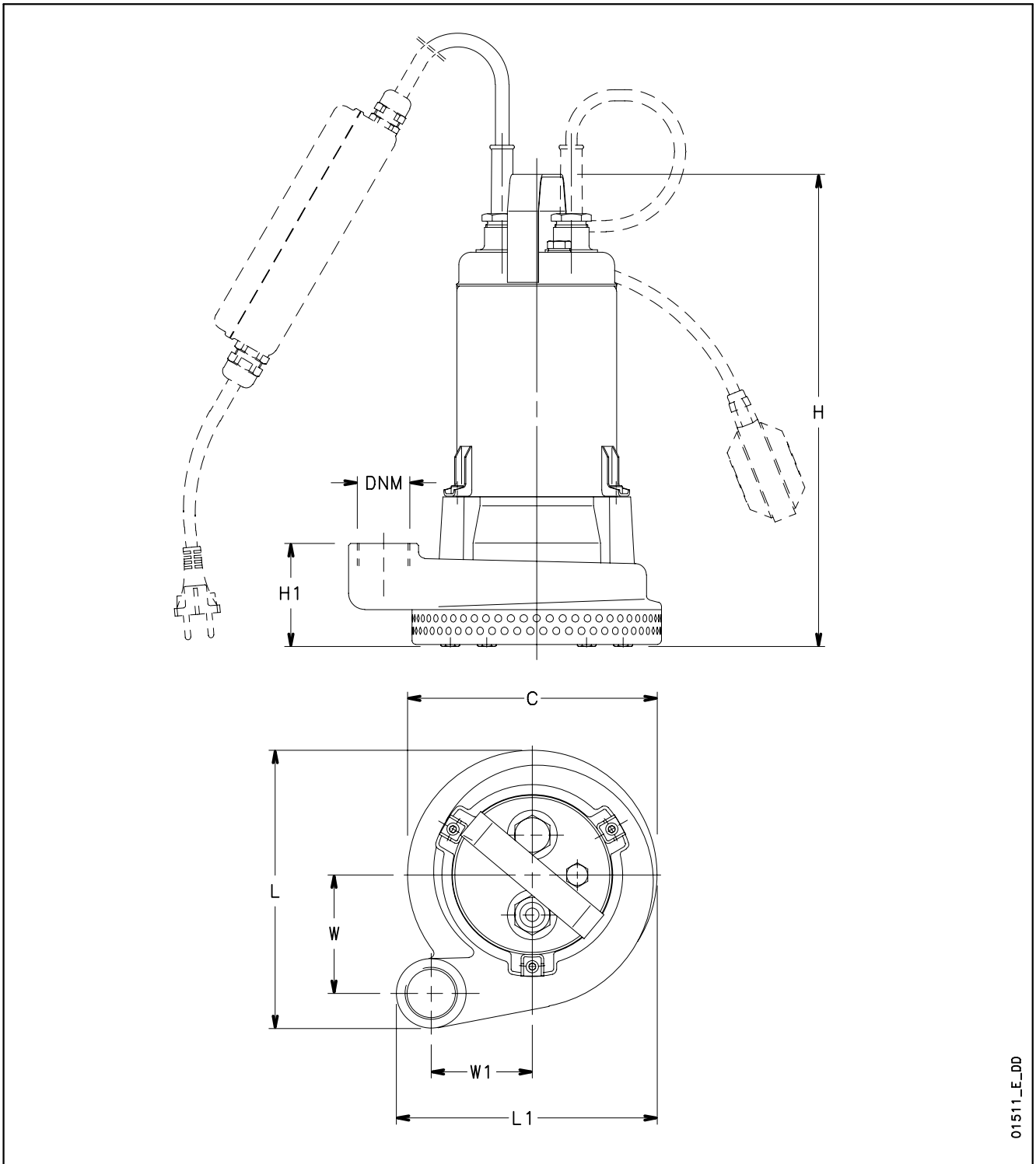
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DN SERIES DIMENSIONS AND WEIGHTS



01511_E_DD

PUMP TYPE	DIMENSIONS (mm)							DNM	WEIGHT kg
	C	H	H1	L	L1	W	W1		
DNM110-DN110	Ø 200	380	81	223	209	95	81	Rp 1¼	18,5
DNM115-DN115	Ø 200	380	81	223	209	95	81	Rp 1¼	18,5
DNM120-DN120	Ø 200	380	81	223	209	95	81	Rp 1¼	19,5

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