50 Hz



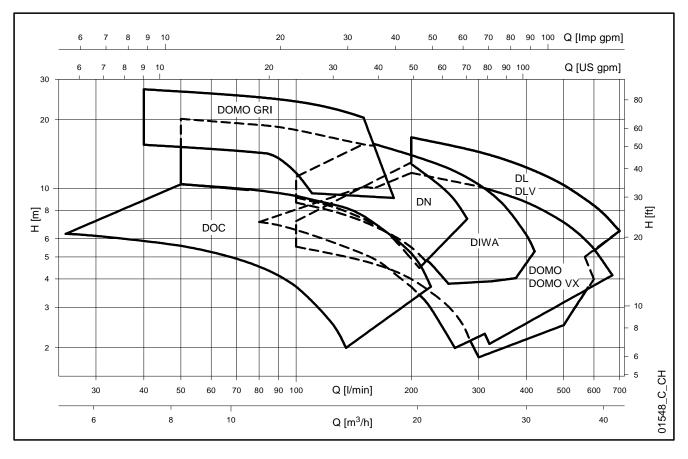
DOC - DIWA - DOMO DOMO GRI - DN - DL Series

DRAINAGE AND SEWAGE ELECTRIC PUMPS





DOC - DIWA - DOMO - DOMO GRI - DN - DL SERIES HYDRAULIC PERFORMANCE RANGE AT 50 Hz





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Submersible Electric Pumps for drainage of clean and dirty water DOC pumps are versatile, corrosion-resistant and compact.

Three basic versions are available with 0,25 to 0,55 kW power. A DOC 7VX version with Vortex impeller is available.

DOC Series



APPLICATIONS

- Emptying of residential sump pits, rainwater tanks or laundry drainage.
- Garden and lawn irrigation, with suction from rainwater tanks.
- Emergency draining of flooded basements and garages.
- Transfer of water from tanks and basins.

SPECIFICATIONS

- Maximum liquid temperature: 40°C.
- **Dry motor** cooled by the pumped liquid.
- Power cord:
- single-phase: with plug.
- three-phase: without plug.
- Insulation class 130°C (B).
- IPX8 protection.
- Maximum immersion depth: 5 m.
- The DOC3 pump features a flow rate up to 135 l/min, head up to 7 m, and passes suspended solids up to 10 mm in diameter.

Only available in single-phase version.

- The DOC7 pump features a flow rate up to 225 l/min, head up to 11 m, and passes suspended solids up to 10 mm in diameter.
- The DOC7VX pump features a flow rate up to 175 l/min, head up to 7 m, and can handle liquids with suspended solids up to 20 mm in diameter.
- Versions:
- Single-phase: 220-240V, 50Hz 2 poles.
- Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.
- The single-phase versions feature:
- **pre-assembled float switch** for automatic pump operation.
- built-in capacitor.
- thermal overload protection to stop pump supply in case of overheating.
- SG versions (single-phase without float switch), GW versions (single-phase with bell float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.
- A "**shallow-suction device**", that can be mounted on both the DOC3 and DOC7 models, is available on request. It ensures the complete drainage of flooded floors (down to 3 mm from floor).

SOS KIT

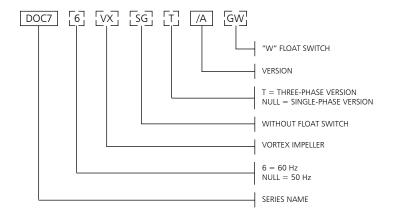
The **SOS Kit** is available, for quick emergency dewatering of flooded basements, garages and residential buildings.

The kit is composed of:

- a single-phase **DOC3** electric pump, equipped with float switch, 10 meters power cord with plug and a quick coupling already mounted for rapid hose connection.
- 6 meters long **flexible hose**, complete with quick coupling already mounted for rapid pump connection.
- **plastic box** that can be used to store the kit on a shelf when not in use, or as a strainer during operation.



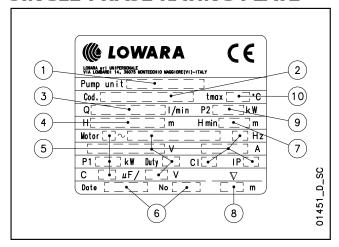
DOC SERIES IDENTIFICATION CODE



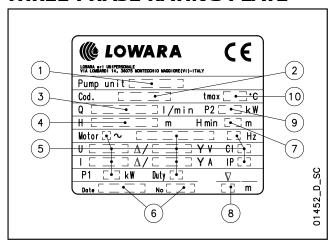
EXAMPLE: DOC 7VX/A

DOC 7 Series Electric pump, 50 Hz version, Vortex impeller, single-phase, /A version.

SINGLE-PHASE RATING PLATE



THREE-PHASE RATING PLATE

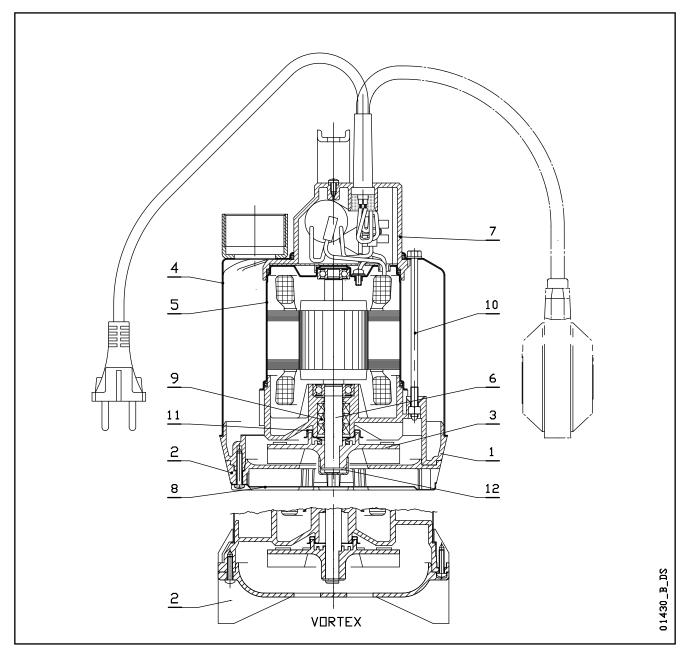


LEGEND

- 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
- 10 Maximum liquid temperature



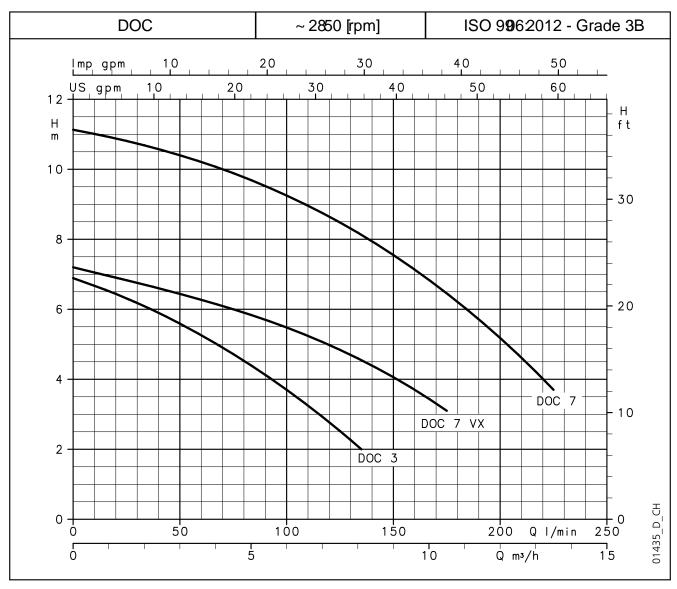
DOC SERIES LIST OF MODELS AND TABLE OF MATERIALS



REF.	NAME	MATERIAL	REFERENCE STAND	ARDS						
N.			EUROPE	USA						
1	Pump body	PPE + PS resin + 2	20 % GF							
2	Suction strainer	PPE + PS resin + 2	PPE + PS resin + 20 % GF							
2	Lower support	PPE + PS resin + 2	20 % GF							
3	Impeller DOC3	PPE + PS resin + 2	20 % GF							
5	Impeller DOC7 - DOC7VX	PA 66 + 30 % GF	'A 66 + 30 % GF							
4	External case	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304						
5	Internal motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304						
6	Shaft	Stainless steel	EN 10088-1-X12CrS13 (1.4005)	AISI 416						
7	Head	PPE + PS resin + 2	20 % GF							
8	Lower cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304						
9	Elastomers	NBR								
10	Tie-rod and screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304						
11	Double wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304						
12	Impeller fixing ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304						



DOC SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RA	RATED					Q =	DELIVERY	,			
	PO	POWER		0	25	50	75	100	125	135	175	225
			m³/h	0	1,5	3	4,5	6	7,5	8,1	10,5	13,5
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER									
DOC3	0,25	0,33		6,9	6,3	5,6	4,7	3,7	2,5	2,0		
DOC7(T)	0,55	0,75		11,1	10,8	10,4	9,9	9,3	8,5	8,1	6,5	3,7
DOC7VX(T)	0,55	0,75		7,2	6,8	6,4	6,0	5,5	4,8	4,5	3,1	

These performances are valid for liquids with density $\rho=$ 1,0 kg/dm³ and kinematic viscosity $\nu=$ 1 mm²/s.

doc-2p50-en_b_th

ELECTRICAL DATA TABLE

PUMP TYPE SINGLE-PHASE	ABSORBED POWER*	ABSORBED CURRENT* 220-240 V	CAPACITOR
	kW	Α	μF / 450 V
DOC 3	0,31	1,43	6,3
DOC 7	0,78	3,47	16
DOC 7VX	0,66	2,96	16

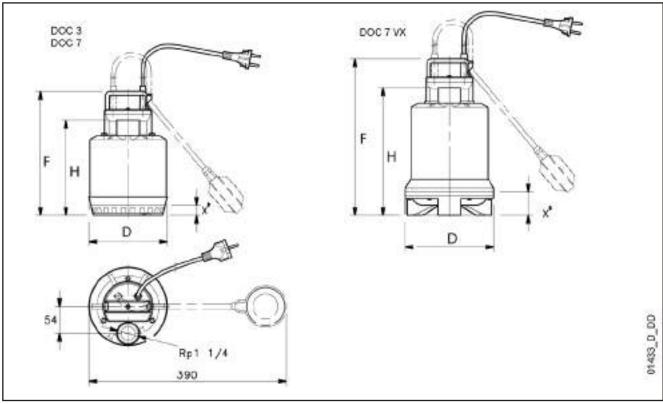
PUMP TYPE	ABSORBED	ABSORBED	ABSORBED
	POWER*	CURRENT*	CURRENT*
THREE-PHASE		220-240 V	380-415 V
	kW	Α	Α
-	-	-	-
DOC 7T	0,79	2,82	1,63
DOC 7VXT	0,66	2,68	1,55

*Maximum values within operating range

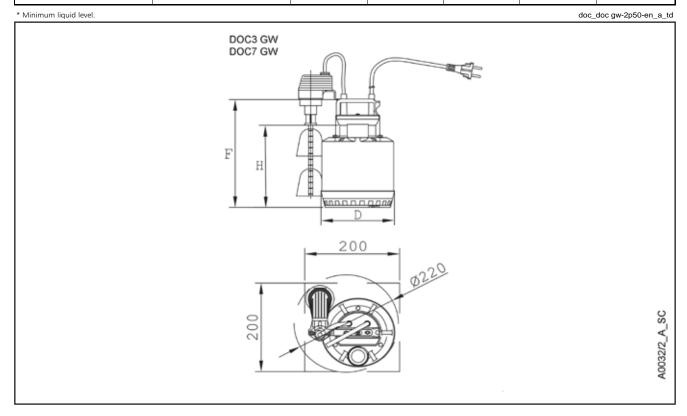
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DOC SERIES DIMENSIONS AND WEIGHTS

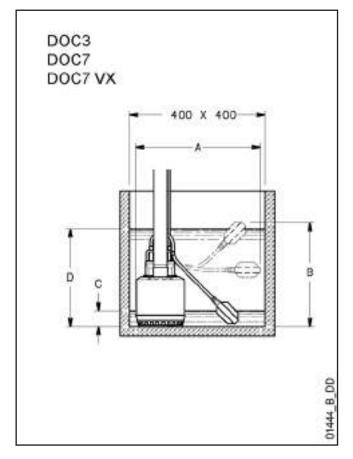


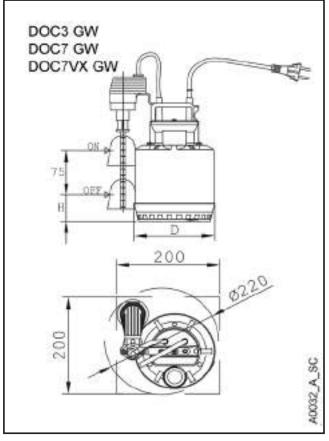
РИМІ		DIMENSIO	ONS (mm)		WEIGHT	
		F	н	D	X*	kg
DOC3	DOC3 GW	245	188	155	20	4
DOC7	DOC7 GW	285	228	155	20	6
DOC7VX	-	310	252	175	45	6





DOC SERIES INSTALLATION EXAMPLES



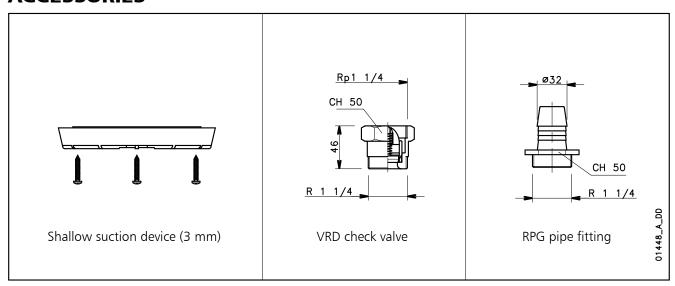


PUMP TYPE		DIMENSIO	ONS (mm)	MINIMUM WATER LEVEL	MAXIMUM WATER LEVEL	MINIMUM WATER LEVEL
		Α	В	C*	D*	н
DOC3	DOC3 GW	390	330	50	310	75
DOC7	DOC7 GW	390	370	90	350	75
DOC7VX	-	390	395	115	375	125
-	DOC7VX GW	390	370	90	350	100

^{*} Indicative values depending on the float switch adjustment.

doc_docliv gw-2p50-en_a_td

ACCESSORIES





Submersible Electric Pumps for drainage of clean and slightly dirty water

DIWA Series



Submersible pumps for clean and slightly dirty water manufactured in AISI 304 stainless steel. Head up to 20 metres, delivery up to 420 l/min (25,2 m³/h). Four basic models with 0,55 to 1,5 kW.

DRIVELUB SEAL SYSTEM.

Diffuser plate coated with polyurethane for the maximum resistance to abrasion.

APPLICATIONS

- Draining of cellars, garages, basements.
- Draining of construction sites.
- Emptying of tanks and reservoirs.
- Lawn and garden irrigation.
- Pumping of domestic wastewater washing machines, showers, sinks.
- Emptying of tanks in industrial and ecological applications.

SPECIFICATIONS

- Maximum liquid temperature: 50°C.
- Open impeller.
- Minimum level of pumped liquid: **25 mm**.
- Maximum dimensions of suspended solids: 8 mm.
- **Dry motor** cooled by the pumped liquid.
- Power cord: H07RN-F, 10 m.
 - single-phase: with plug.
- three-phase: without plug.
- Insulation class 155°C (F).
- IPX8 protection.
- Maximum immersion depth:
 7 m.

• Versions:

Single-phase: 220-240V, 50Hz 2 poles.
 Three-phase: 220-240V, 50Hz 2 poles.
 380-415V, 50Hz 2 poles.

Motor power:

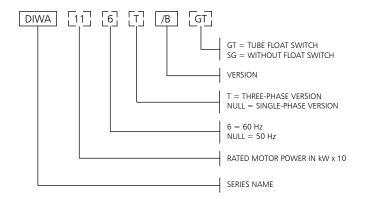
- Single-phase: **0,55 to 1,1 kW**.
- Three-phase: **0,55 to 1,5 kW**.
- The single-phase versions feature:
- pre-assembled float switch for automatic pump operation.
- built-in capacitor.
- thermal overload protection to stop pump supply in case of overheating.
- SG versions (single-phase without float switch), GT versions (single-phase with pre-assembled tube float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.

DRIVELUB SEAL SYSTEM

 Watertight electric motor protected by multiple seal system with oil chamber.
 A V-ring and silicon carbide mechanical seal (extremely resistant to wear and abrasion), as well as a lip seal which is continuosly lubricated by the DRIVELUB system, provide an extreme barrier against infiltration.



DIWA SERIES IDENTIFICATION CODE

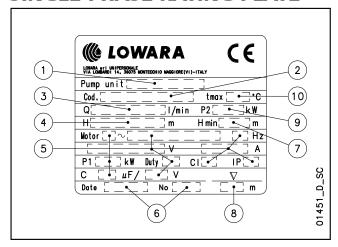


EXAMPLE : DIWA 11/B

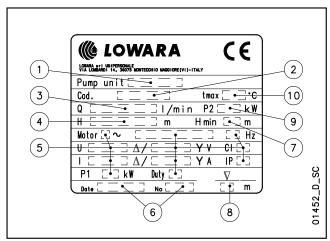
DIWA Series Electric pump, rated motor power 1,1 kW,

50 Hz version, single-phase, /B version.

SINGLE-PHASE RATING PLATE



THREE-PHASE RATING PLATE

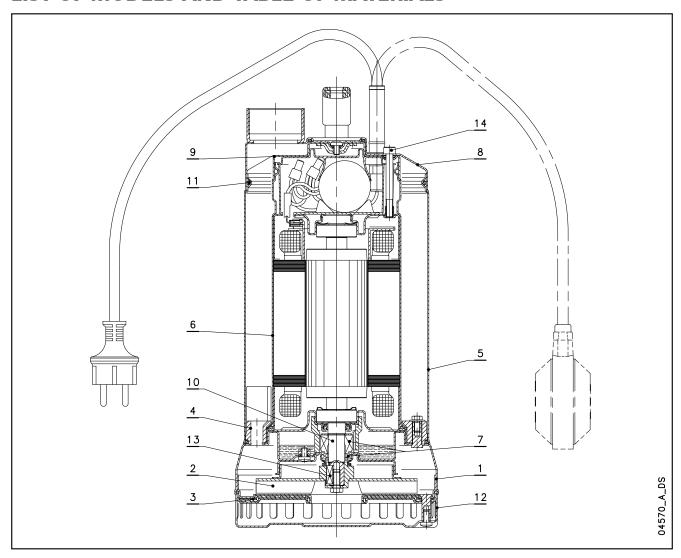


LEGEND

- 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
- 10 Maximum liquid temperature



DIWA SERIES LIST OF MODELS AND TABLE OF MATERIALS

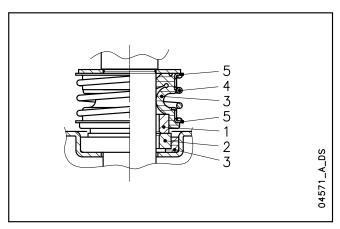


REF.	NAME	MATERIAL	REFERENCE STAND	DARDS					
N.			EUROPE	USA					
1	Pump body	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
2	Impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
3	Suction hange	Thermoplastic pol	yurethane TPU						
4	Diffuser	PA 66 + 30 % GF	A 66 + 30 % GF						
5	Sleeve	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
6	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
7	Mechanical seal	Silicon carbide / S	ilicon carbide / NBR (standard version)						
8	Cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
9	Upper cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
10	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
11	Elastomers	NBR (standard ve	NBR (standard version)						
12	Strainer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					
13	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316					
14	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304					

diwa-en_b_tm



DIWA SERIES MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
Q1 : Silicon carbide	P : NBR	G : AISI 316
	V : FPM	

diwa_ten-mec-en_a_tm

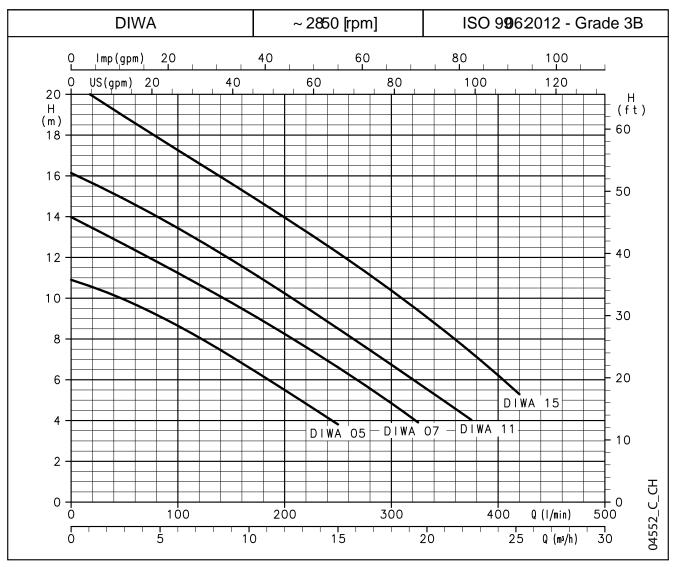
SEAL TYPES

		TEMPERATURE						
TYPE	TYPE 1		3	4	5	(℃)		
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	()		
STANDARD MECHANICAL SEAL								
Q_1Q_1PGG	PGG Q ₁		Р	G	G	0 +50		
		OTHER ME	CHANICAL SEAL	TYPES				
Q_1Q_1VGG	Q_1	Q_1	V	G	G	0 +50		

diwa_tipi-ten-mec-en_b_tc



DIWA SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RA	TED					C) = DELI	VERY					
	PO	WER	l/min	100	125	150	175	200	225	250	300	325	375	420
			m³/h	o 6	7,5	9	10,5	12	13,5	15	18	19,5	22,5	25,2
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER											
DIWA 05(T)	0,55	0,75	10	9 8,6	7,9	7,1	6,3	5,5	4,7	3,8				
DIWA 07(T)	0,75	1	14	0 11,2	10,5	9,8	9,0	8,3	7,4	6,6	4,8	3,9		
DIWA 11(T)	1,1	1,5	16	1 13,4	12,7	11,9	11,1	10,2	9,4	8,5	6,7	5,8	4,0	
DIWA 15T	1,5	2	20	6 17,3	16,4	15,6	14,8	14,0	13,1	12,2	10,4	9,4	7,3	5,3

These performances are valid for liquids with density $r=1.0\ kg/dm^3$ and kinematic viscosity $n=1\ mm^2/s$.

diwa-2p50-en_a_th

ELECTRICAL DATA TABLE

PUMP TYPE	ABSORBED	ABSORBED	CAPACITOR
	POWER*	CURRENT*	
SINGLE-PHASE		220-240 V	
	kW	Α	μF / 450 V
DIWA 05	0,79	3,92	16
DIWA 07	1,25	6,20	22
DIWA 11	1,53	6,83	30
_	_	_	_

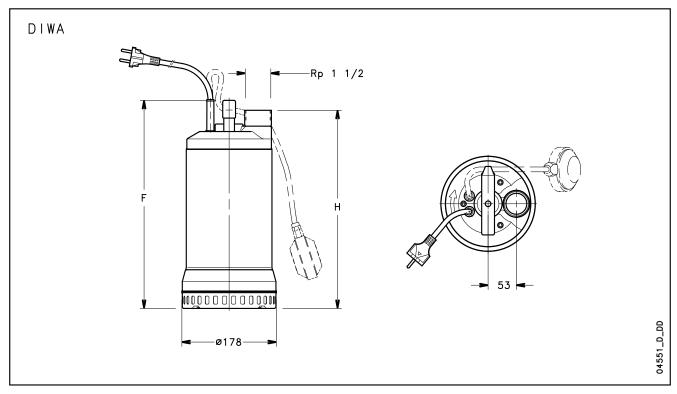
PUMP TYPE	ABSORBED	ABSORBED	ABSORBED
	POWER*	CURRENT*	CURRENT*
THREE-PHASE		220-240 V	380-415 V
	kW	Α	Α
DIWA 05T	0,72	2,56	1,48
DIWA 07T	1,2	4,26	2,46
DIWA 11T	1,44	4,64	2,68
DIWA 15T	2,05	6,74	3,89

diwa-2p50-en_a_te

^{*}Maximum values within operating range



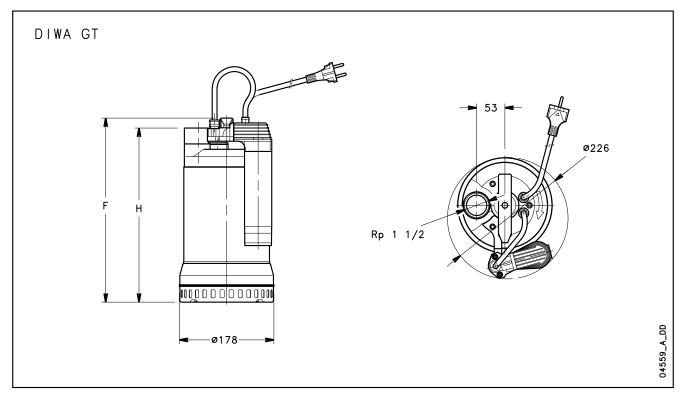
DIWA SERIES DIMENSIONS AND WEIGHTS



1	TYPE E-PHASE	DIMENSIO	WEIGHT	
		F	н	kg
DIWA05	DIWA05 GT	348	330	12
DIWA07	DIWA07 GT	393	375	14,3
DIWA11	DIWA11 GT	393	375	17
-	-	-	-	-

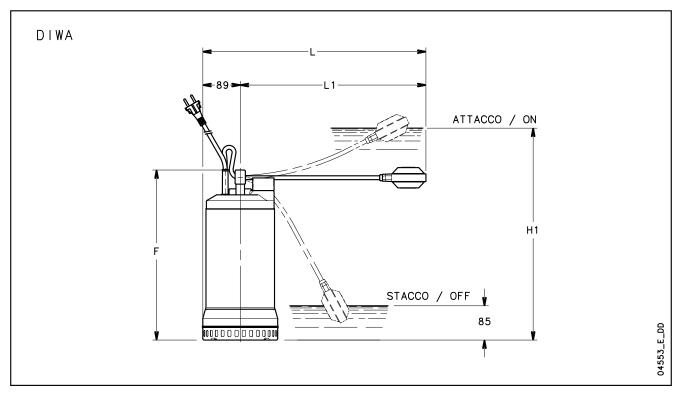
PUMP TYPE THREE-PHASE	DIMENSIO	WEIGHT	
	F	н	kg
DIWA05T	348	330	11
DIWA07T	363	345	13
DIWA11T	393	375	15
DIWA15T	393	375	16,5

diwa-2p50-en_b_td



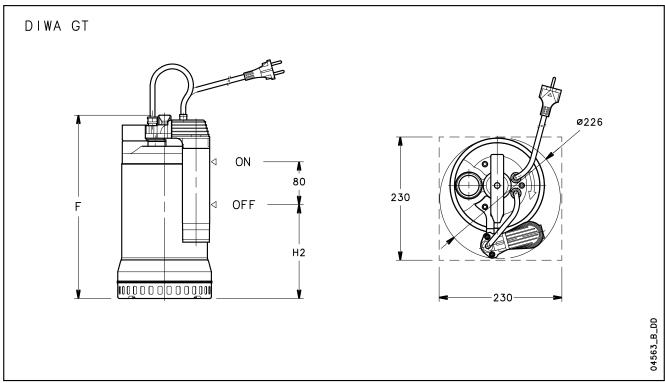


DIWA SERIES INSTALLATION EXAMPLES



PUMP TYPE			DIMENSIONS (mm)					
		F	L	L1	H1	H2		
DIWA05	DIWA05 GT	348	459	370	430	180		
DIWA07	DIWA07 GT	393	504	415	490	180		
DIWA11	DIWA11 GT	393	524	435	490	180		

diwaliv-2p50-en_d_td







Submersible Electric Pumps for drainage of dirty water The DOMO series electric pumps are available with **twin-channel** or **vortex** impeller (DOMO VX). Designed to handle liquids with suspended solids up to 50 mm in diameter (35 mm for DOMO 7 and DOMO 7VX). Four basic models with 0,55 to 1,5 kW.

DOMO Series



APPLICATIONS

• Pumping of effluent (VX model handles also suspended filaments).

DRIVELUB SEAL SYSTEM.

- Emptying of septic tanks and residential sumps.
- Draining of flooded basements and garages.

SPECIFICATIONS

- Maximum liquid temperature: 35°C with fully submerged pump.
- Dry motor.
- Power cord: H07RN-F
- single-phase: with plug.three-phase: without plug.
- Insulation class 155°C (F).
- IPX8 protection.
- Maximum immersion depth: 5 m.
- Versions:
- Single-phase: 220-240V, 50Hz 2 poles.
- Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.
- Motor power:
- single-phase: **0,55 to 1,1 kW**.
- three-phase: 0,55 to 1,5 kW.

- The single-phase versions feature:
- **pre-assembled float switch** for automatic pump operation.
- built-in capacitor.
- thermal overload protection to stop pump supply in case of overheating.
- The DOMO 7 and DOMO 7VX models feature:
- **Rp 1"1/2 threaded delivery port** (female gas).
- handling of liquids with suspended **solids up to 35 mm** in diameter.
- **fiberglass-reinforced technopolymer impeller** (DOMO S7 and DOMO S7VX models with stainless steel impeller are also available).
- The **DOMO 10-15-20** and **DOMO 10-15-20 VX** models feature:
 - **Rp 2" threaded delivery port** female gas (can be turned into a flanged version if an optional accessory is installed).
 - handling of liquids with suspended solids up to 50 mm in diameter.
 - stainless steel twin-channel or vortex impeller.

DRIVELUB SEAL SYSTEM

 Watertight electric motor protected by multiple seal system with oil chamber. A V-ring and silicon carbide mechanical seal (extremely resistant to wear and abrasion), as well as a lip seal which is continuosly lubricated by the



Submersible
Electric Pumps
for drainage
of dirty water
equipped with
grinder system

The DOMO GRI series electric pumps are equipped with an extremely efficient and highly reliable grinder system.

The grinder is able to macerate all the solids present in the sewage and to pass it through small discharge pipes (25 mm diameter). DOMO GRI is available in the 1,1 kW and 1,5 kW power.

DRIVELUB SEAL SYSTEM.

DOMO GRI Series



APPLICATIONS

- Pumping of sewage with suspended solids.
- Emptying of septic tanks and residential sumps.
- Draining of flooded areas.
- Pumping water from a pressurized sewer network.

SPECIFICATIONS

- Maximum liquid temperature:
 35°C with fully submerged pump.
- Dry motor.
- Power cord: H07RN-F
 - single-phase: with plug.
 - three-phase: without plug.
- Insulation class 155°C (F).
- IPX8 protection.
- Maximum immersion depth: 5 m.
- Versions:
 - Single-phase: 220-240V, 50Hz 2 poles.
 Three-phase: 220-240V, 50Hz 2 poles.
 380-415V, 50Hz 2 poles.
- Motor power:
 - **1,1 kW** single-phase and three-phase.
 - 1,5 kW single-phase and three-phase.

- The single-phase versions feature:
 - **pre-assembled float switch** for automatic pump operation.
 - built-in capacitor (only for 1,1 kW).
 - thermo-amperometric overload protection to stop pump supply in case of overheating.
- **DOMO GRI** pumps feature:
 - **Rp 1" threaded delivery port (female gas)** for 1,1kW (11/A).
 - **Rp 1"1/4 threaded delivery port (female gas)** for 1,1kW (11/HF) and 1,5kW (15).
 - technopolymer PBT **Impeller**.
 - high resistance stainless steel **grinder**.

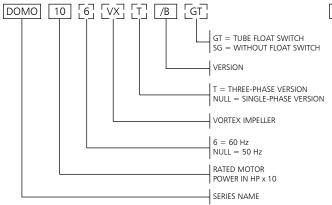
DRIVELUB SEAL SYSTEM

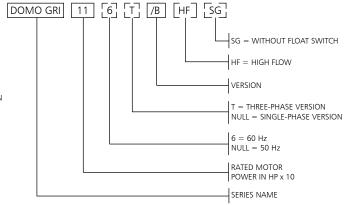
Watertight electric motor protected by multiple seal system with **oil chamber**. A **V-ring** and **silicon carbide mechanical seal** (extremely resistant to wear and abrasion), as well as a **lip seal** which is continuosly lubricated by the **DRIVELUB system**, provide an extreme barrier against infiltration.



DOMO SERIES IDENTIFICATION CODE

DOMO GRI SERIES IDENTIFICATION CODE





EXAMPLE: DOMO 10/B

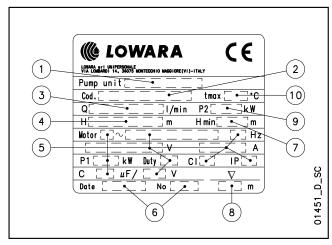
DOMO Series Electric pump, rated motor power 1 HP, 50 Hz version, single-phase, /B version.

EXAMPLE: DOMO GRI 11

DOMO GRI (grinder) Series Electric pump,

rated motor power 1,1 kW, 50 Hz version, single-phase.

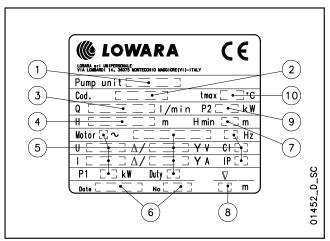
SINGLE-PHASE RATING PLATE



LEGEND

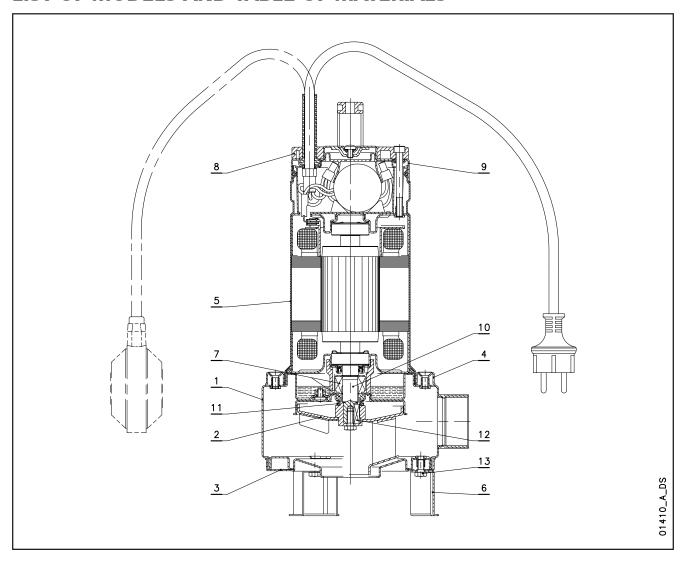
- 1 Electric pump type
- 2 Code
- 3 Delivery range
- 4 Head range
- 5 Motor type
- 6 Date of manufacture and serial number
- 7 Minimum head
- 8 Maximum immersion depth
- 9 Rated output
- 10 Maximum liquid temperature

THREE-PHASE RATING PLATE





DOMO SERIES LIST OF MODELS AND TABLE OF MATERIALS

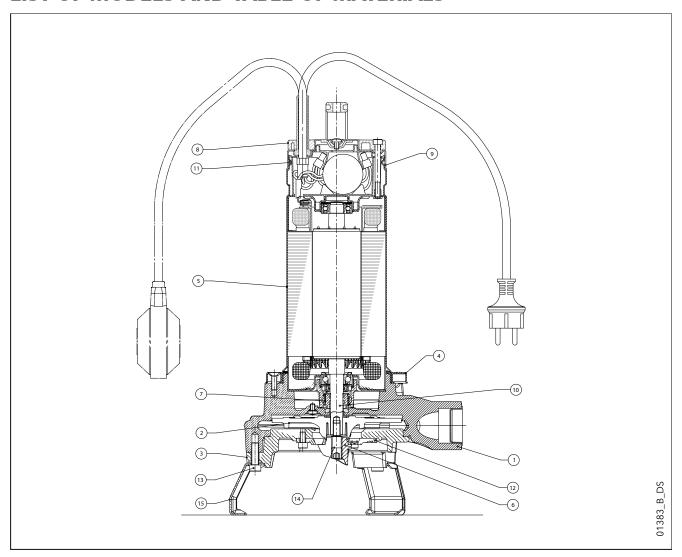


REF.	NAME	MATERIAL	REFERENCE STAND	ARDS		
N.			EUROPE	USA		
1	Pump body	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304		
2	Impeller	PA 66 + 30 % GF				
	Impeliel	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304		
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304		
4	Fixing ring	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	Support foot	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304		
7	Mechanical seal	Silicon carbide / S	ilicon carbide / NBR (standard version)			
8	Handle	PA 66 + 30 % GF				
9	Upper cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304		
10	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304		
11	Elastomers	NBR (standard version)				
12	Key	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316		
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304		

domo-en_b_tm



DOMO GRI SERIES LIST OF MODELS AND TABLE OF MATERIALS

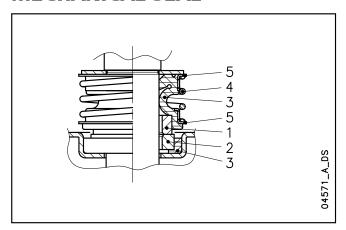


REF.	NAME	MATERIAL	REFERENCE STAND	ARDS
N.			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200 (JL1030)	ASTM Class 30
2	Impeller	PBT		
3	Suction cover	Cast iron	EN 1561-GJL-200 (JL103)	ASTM Class 30
4	Fixing ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Cutter wheel	Stainless steel	X95CrMoV17 (DIN 1.4535)	-
7	Mechanical seal	Silicon carbide / Si	licon carbide / NBR (standard version)	
8	Handle	PA 66 + 30 % GF		
9	Upper cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
10	Shaft end	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
11	Elastomers	NBR (standard ver	rsion)	
12	Cutter ring	Stainless steel	X95CrMoV17 (DIN 1.4535)	-
13	Screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
14	Impeller fixing screw + wheel	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431
15	Support foot	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

domo-gri-en_d_tm



DOMO SERIES - DOMO GRI MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
Q1 : Silicon carbide	P : NBR	G : AISI 316
	V : FPM	

diwa_ten-mec-en_a_tm

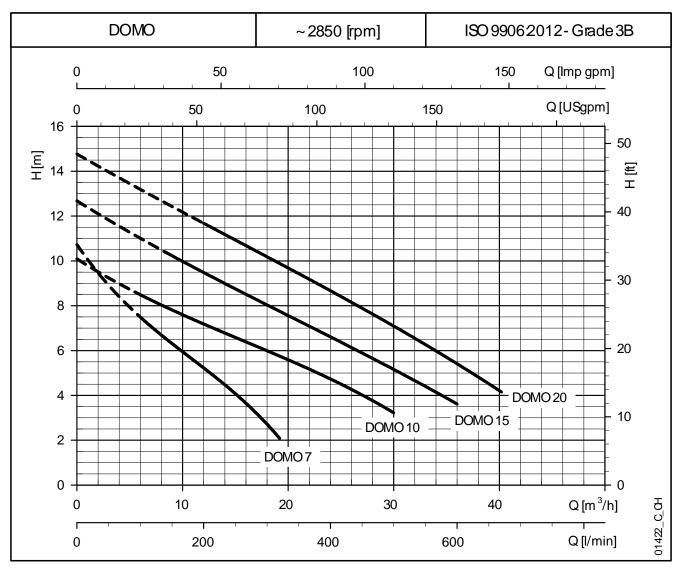
SEAL TYPES

POSITION					TEMPERATURE			
TYPE	1	2	3	4	5	(℃)		
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	()		
	STANDARD MECHANICAL SEAL							
Q_1Q_1PGG	Q_1	Q_1	Р	G	G	0 +35		
		OTHER ME	CHANICAL SEAL	TYPES				
Q_1Q_1VGG	Q_1	Q_1	V	G	G	0 +35		

domo_tipi-ten-mec-en_b_tc



DOMO SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RATED Q = DELIVERY												
	POWER		l/min (100	150	200	250	300	320	400	500	600	670
			m³/h (6	9	12	15	18	19,2	24	30	36	40,2
	kW	HP		H = TOTAL HEAD METRES COLUMN OF WATER									
DOMO 7(T) - S7(T)	0,55	0,75	10,	7 7,5	6,3	5,2	4,1	2,7	2,1				
DOMO 10(T)	0,75	1	10,	1 8,5	7,8	7,2	6,6	6,0	5,8	4,7	3,2		
DOMO 15(T)	1,1	1,5	12,	7 11,0	10,2	9,5	8,8	8,0	7,8	6,6	5,2	3,6	
DOMO 20T	1,5	2	14,	8 13,2	12,4	11,7	10,9	10,2	9,9	8,7	7,1	5,4	4,2

These performances are valid for liquids with density $\rho=1.0\ kg/dm^3$ and kinematic viscosity $\nu=1\ mm^2/s$.

domo-2p50-en_b_th

ELECTRICAL DATA TABLE

PUMP TYPE	ABSORBED	ABSORBED	CAPACITOR
	POWER*	CURRENT*	
SINGLE-PHASE		220-240 V	
	kW	Α	μF / 450 V
DOMO 7 - (S7)	0,8 (0,76)	3,94 (3,83)	16
DOMO 10	1,14	5,84	22
DOMO 15	1,58	7,02	30
-	-	-	-

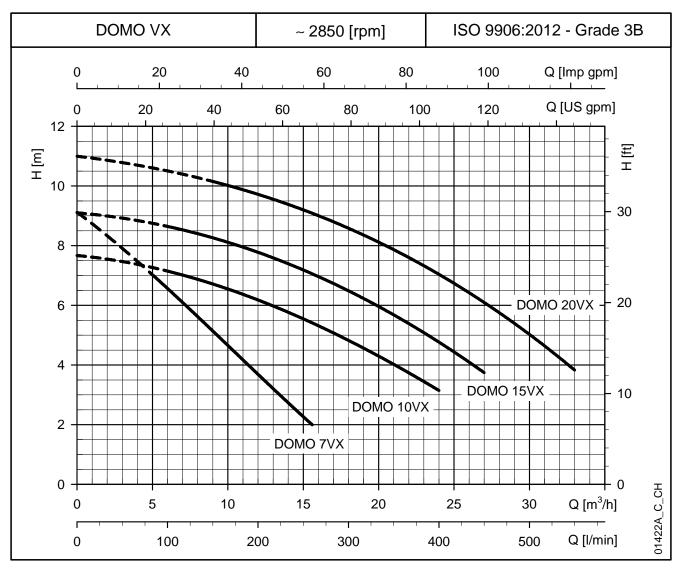
PUMP TYPE THREE-PHASE	ABSORBED POWER*	ABSORBED CURRENT* 220-240 V	ABSORBED CURRENT* 380-415 V
THREE-PHASE	kW	220-240 V A	380-415 V A
DOMO 7T - (S7T)	0,73 (0,68)	2,58	1,49
DOMO 10T	1,09	4,09	2,36
DOMO 15T	1,49	4,73	2,73
DOMO 20T	1,96	6,6	3,81

domo-2p50-en_b_te

^{*}Maximum values within operating range



DOMO VX SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RA	ΓED						C) = DELI	VERY					
	POWER		l/min	0 8) 10	00	150	175	200	225	260	300	400	450	550
			m³/h	0 4,	8 (6	9	10,5	12	13,5	15,6	18	24	27	33
	kW	HP		H = TOTAL HEAD METRES COLUMN OF WATER											
DOMO 7VX(T) - S7VX(T)	0,55	0,75	9	1 7,	1 6	6,6	5,1	4,4	3,7	3,0	2,0				
DOMO 10VX(T)	0,75	1	7	7 7,	3 7	7,1	6,7	6,5	6,2	5,9	5,4	4,8	3,1		
DOMO 15VX(T)	1,1	1,5	9	1 8,	8 8	3,6	8,3	8,0	7,8	7,5	7,1	6,5	4,8	3,7	
DOMO 20VXT	1,5	2	11	0 10	,6 10	0,5	10,2	9,9	9,7	9,5	9,1	8,6	7,0	6,1	3,8

These performances are valid for liquids with density $\rho=$ 1,0 kg/dm³ and kinematic viscosity $\nu=$ 1 mm²/s.

domovx-2p50-en_b_th

ELECTRICAL DATA TABLE

PUMP TYPE	ABSORBED	ABSORBED	CAPACITOR
	POWER*	CURRENT*	ļ
SINGLE-PHASE		220-240 V	
	kW	Α	μF / 450 V
DOMO 7VX - (S7VX)	0,79 (0,83)	3,91 (4,03)	16
DOMO 10VX	1,15	5,88	22
DOMO 15VX	1,36	6,11	30
_	_	_	_

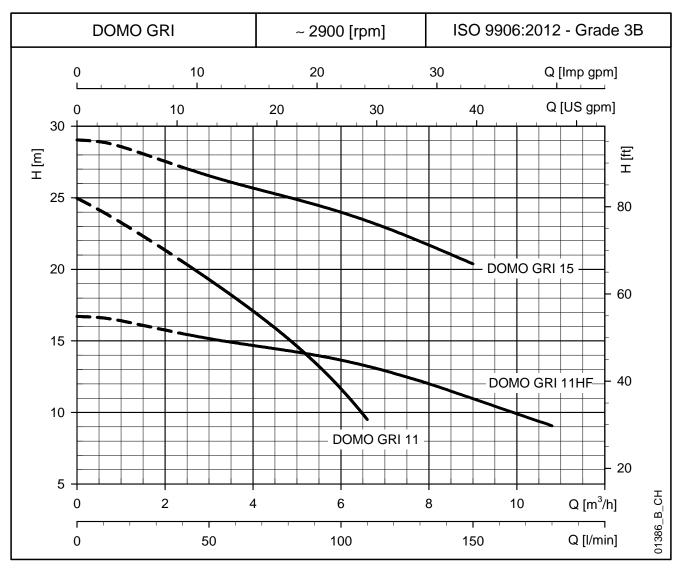
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE	POWER	220-240 V	380-415 V
	kW	Α	Α
DOMO 7VXT - (S7VXT)	0,71 (0,76)	2,56 (2,63)	1,48 (1,52)
DOMO 10VXT	1,10	4,09	2,36
DOMO 15VXT	1,26	4,31	2,49
DOMO 20VXT	1.74	6.22	3,59

domovx-2p50-en_b_te

^{*}Maximum values within operating range



DOMO GRI SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RA	TED					Q	= DELIVE	RY				
	POWER		Vs 0	0,7	0,9	1,1	1,7	1,9	2,2	2,4	2,6	2,8	3,0
			m³/h 0	2,4	3,2	3,9	6,2	7,0	7,7	8,5	9,3	10,0	10,8
	kW	HP		H = TOTAL HEAD METRES COLUMN OF WATER									
DOMO GRI 11/A (SG)	1,1	1,5	25,0	20,5	18,9	17,3	10,9						
DOMO GRI 11T/A	1,1	1,5	25,0	20,5	18,9	17,3	10,9						
DOMO GRI 11 HF (SG)	1,1	1,5	16,7	15,5	15,1	14,7	13,5	12,9	12,3	11,5	10,7	9,9	9,1
DOMO GRI 11T HF	1,1	1,5	16,7	15,5	15,1	14,7	13,5	12,9	12,3	11,5	10,7	9,9	9,1
DOMO GRI 15 (SG)	1,5	2	29,0	27,1	26,4	25,7	23,8	23,0	22,0	21,0			
DOMO GRI 15T	1,5	2	29,0	27,1	26,4	25,7	23,8	23,0	22,0	21,0			

These performances are valid for liquids with density $r = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $n = 1 \text{ mm}^2/\text{s}$.

domo-gri-2p50-en_b_th

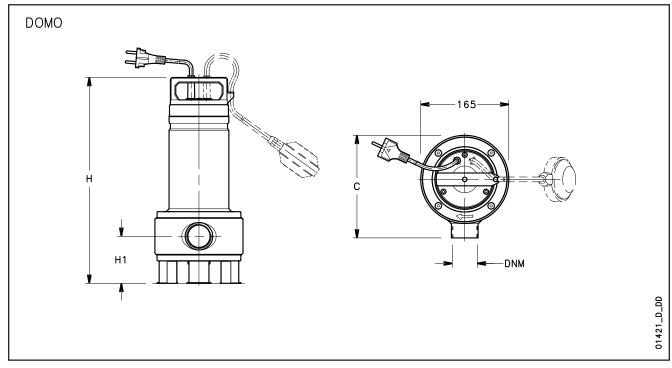
ELECTRICAL DATA TABLE

PUMP TYPE	ABSORBED	ABSORBED	CAPACITOR	PUMP TYPE	ABSORBED	ABSORBED	ABSORBED
	POWER*	CURRENT*			POWER*	CURRENT*	CURRENT*
SINGLE-PHASE		220-240 V		THREE-PHASE		220-240 V	380-415 V
	kW	Α	μF / 450 V		kW	Α	Α
DOMO GRI 11/A (SG)	1,50	6,84	30	DOMO GRI 11T/A	1,39	4,55	2,63
DOMO GRI 11HF	1.09	4,97	30	DOMO GRI 11T HF	0,96	3,81	2,2
DOMO GRI 15 (SG)	1,93	8,44	40	DOMO GRI 15T	1,57	5,94	3,43

* Maximum value in specified range domo-gri-2p50-en_c_te



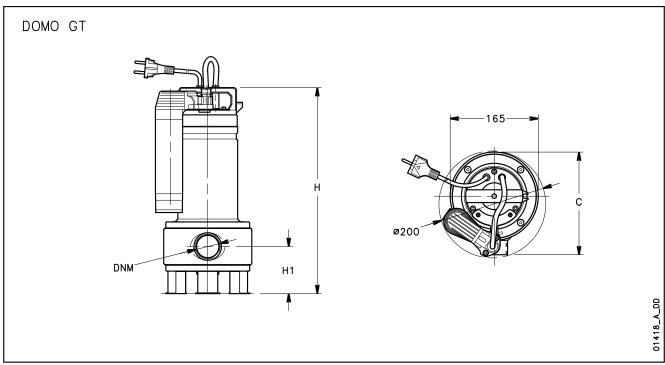
DOMO SERIES DIMENSIONS AND WEIGHTS



PUM	IP TYPE	DIME	NSIONS	DNM	WEIGHT	
SINGL	-E-PHASE					
		н	H1	С		kg
DOMO 7	DOMO 7 GT	391	88	193	Rp1½	10.2
DOMO 7VX	DOMO 7VX GT	391	00	195	NP 1-72	10,2
DOMO10	DOMO10 GT	468	111,5	198	Rp2	13,6
DOMO10VX	DOMO10VX GT	400	111,5	130	ΝρΖ	13,0
DOMO15	DOMO15 GT	468	111,5	198	Rp2	15,3
DOMO15VX	DOMO15VX GT	400	111,5	190	ΝρΖ	د,د ا
-	-	-	-	-	-	-

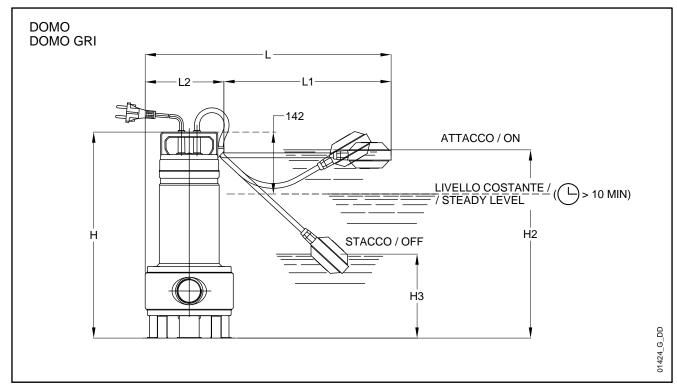
PUMP TYPE THREE-PHASE	DIME	NSIONS	DNM	WEIGHT	
	н	H1	С		kg
DOMO 7T DOMO 7VXT	391	88	193	Rp11/2	8,9
DOMO10T DOMO10VXT	438	111,5	198	Rp2	11,6
DOMO15T DOMO15VXT	468	111,5	198	Rp2	13,6
DOMO20T DOMO20VXT	468	111,5	198	Rp2	14,6

domo-2p50-en_c_td



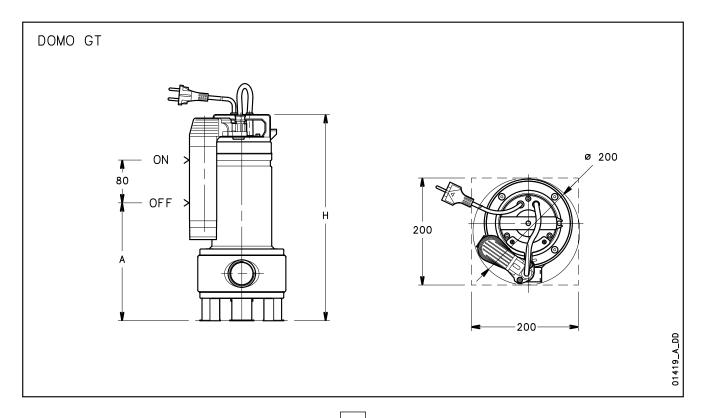


DOMO - DOMO GRI SERIES INSTALLATION EXAMPLES



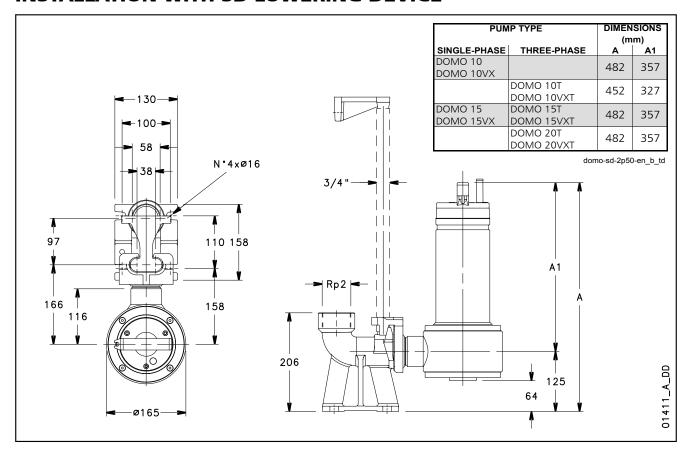
PU	PUMP TYPE				DIMENSIONS (mm)								
			H2	Н3	L	L1	L2	Α					
DOMO 7 - DOMO 7 GT	DOMO 7VX - DOMO 7VX GT	391	375	155	420	275	145	225					
DOMO10 - DOMO10 GT	DOMO10VX - DOMO10VX GT	468	420	155	495	350	145	255					
DOMO15 - DOMO15 GT	DOMO15VX - DOMO15VX GT	468	420	155	495	350	145	255					
DOMO GRI 11/A	-	442	394	129	535	350	185	-					
DOMO GRI 11HF	-	444	396	131	535	350	185	-					
DOMO GRI 15	-	462	414	149	535	350	185	-					

domoliv-2p50-en_e_td



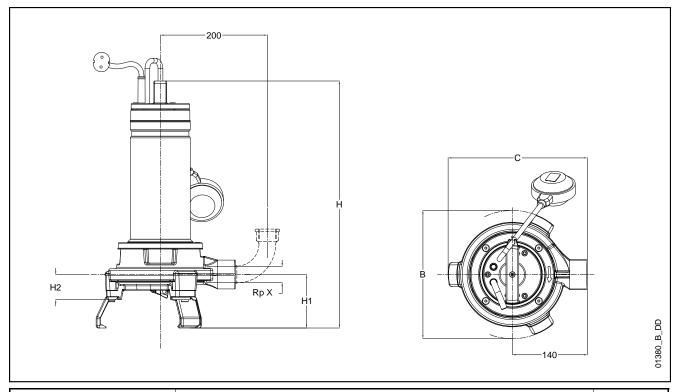


DOMO SERIES INSTALLATION WITH SD LOWERING DEVICE





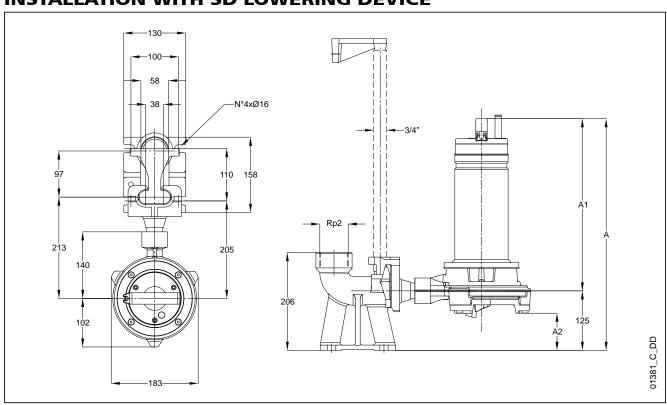
DOMO GRI SERIES DIMENSIONS AND WEIGHTS



PUMP		DIMENSIONS (mm)								
TYPE	В	С	H1	H2	Н	X	kg			
DOMO GRI 11/A (SG)	240	260	100	47	442	Rp 1"	20,8 (20,6)			
DOMO GRI 11T/A	240	260	100	47	442	Rp 1"	20,1			
DOMO GRI 11HF (SG)	240	260	100	47	444	Rp 1" 1/4	20,8 (20,6)			
DOMO GRI 11T HF	240	260	100	47	444	Rp 1" 1/4	20,1			
DOMO GRI 15 (SG)	240	260	100	47	462	Rp 1" 1/4	23 (22,8)			
DOMO GRI 15T	240	260	100	47	442	Rp 1" 1/4	22,3			

INSTALLATION WITH SD LOWERING DEVICE

domo-gri-en_c_td







Submersible Electric Pumps for drainage of clean and slightly 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



APPLICATIONS

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

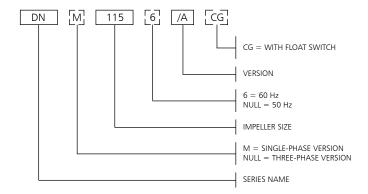
SPECIFICATIONS

- Maximum liquid temperature:
- **50°C** with fully submerged pump.
- **25°C** with partially submerged pump.
- Open impeller with abrasionresistant rubber coating.
- **Mechanical seal** protected by **sand labyrinth**.

- Maximum dimension of suspended solids: 5 mm.
- Motor in a dielectric non-toxic
 oil bath, which ensures the lubrification
 of the ball bearings and a more efficient
 cooling.
- Power cord: H07RN-F.
- single-phase: with plug.
- three-phase: without plug.
- Insulation class 155°C (F).
- IPX8 protection.
- Maximum immersion depth: 5 m.
- Versions:
- Single-phase: 220-240V, 50Hz 2 poles.
- Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.
- The single-phase versions feature:
 - capacitor housed in a box on the power cord + 1,5 m. power cord with plug.
 - thermal overload protection to stop pump supply in case of overheating.
- CG versions (single-phase with pre-assembled float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.



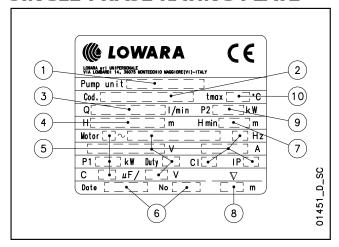
DN SERIES IDENTIFICATION CODE



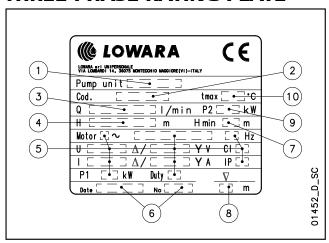
EXAMPLE: DNM 115/A

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

SINGLE-PHASE RATING PLATE



THREE-PHASE RATING PLATE

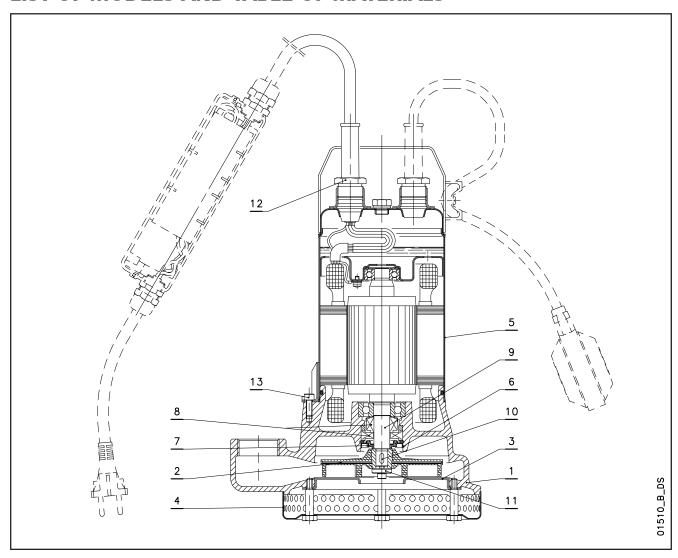


LEGEND

- 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
- 10 Maximum liquid temperature



DN SERIES LIST OF MODELS AND TABLE OF MATERIALS

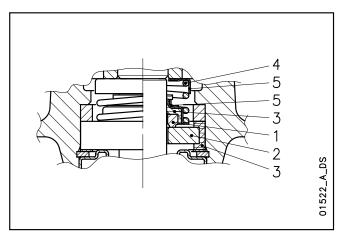


REF.	NAME	MATERIAL	REFERENCE STANI	DARDS			
N.			EUROPE	USA			
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25			
2	Impeller	Steel + Nitrile Rubber XNBR					
3	Wearing flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304			
4	Suction strainer	Stainless steel	EN 10088-1-X5CrNi18-10 (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 ve	ersion)				
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		

dn-dl-dlv_ten-mec-en_c_tm

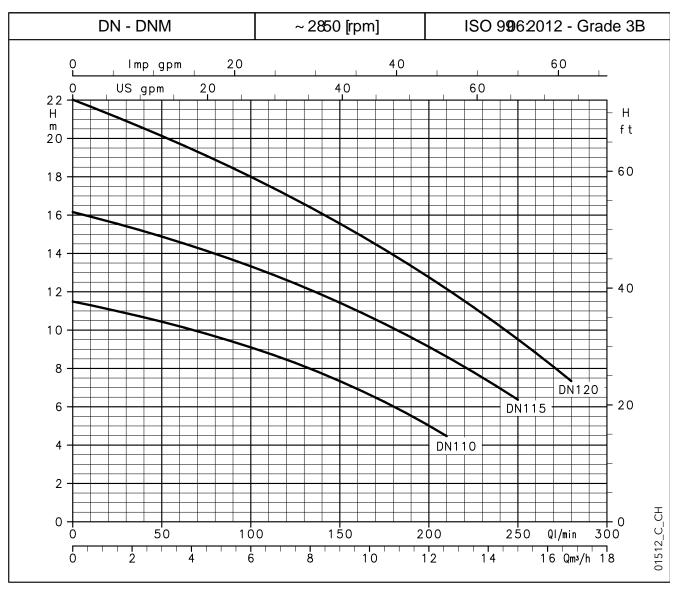
SEAL TYPES

			POSITION			TEMPERATURE			
TYPE	1	2	3	4	5	(℃)			
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	()			
STANDARD MECHANICAL SEAL									
BVPFF	В	V	Р	F	F	0 +50			

dn-dl-dlv_tipi-ten-mec-en_b_tc



DN SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RA	TED	Q = DELIVERY											
	POWER		l/min (25	50	75	100	125	150	175	210	225	250	280
			m³/h (1,5	3	4,5	6	7,5	9	10,5	12,6	13,5	15	16,8
	kW	HP		,	н	= TOTA	L HEAD	METRES	COLUN	IN OF W	ATER			
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,	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,	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 kg/dm³ and kinematic viscosity $\nu=$ 1 mm²/s.

dn-2p50-en_a_th

ELECTRICAL DATA TABLE

PUMP TYPE SINGLE-PHASE	ABSORBED POWER*	ABSORBED CURRENT* 220-240 V	CAPACITOR
	kW	Α	μF / 450 V
DNM 110	0,68	3,56	25
DNM 115	0,90	4,28	25
DNM 120	1,03	4,77	25

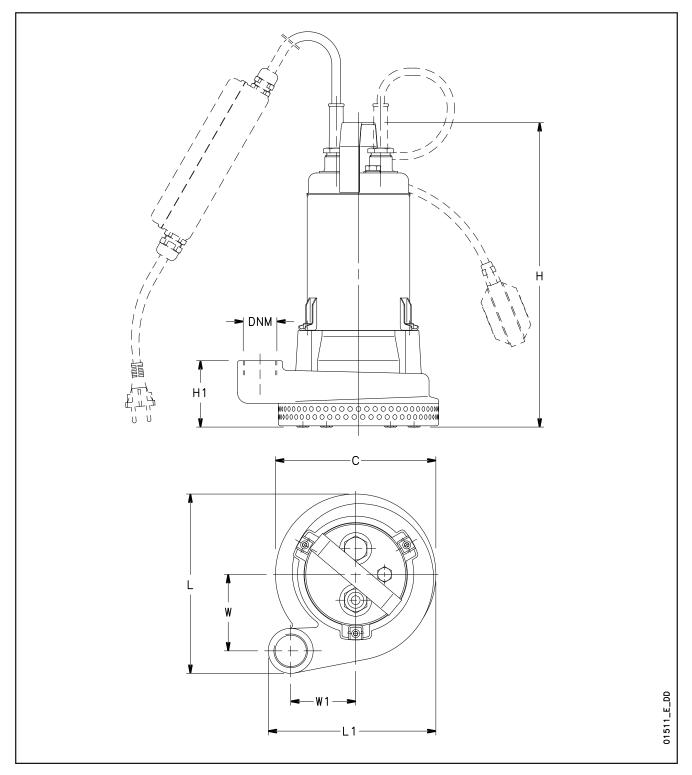
PUMP TYPE	ABSORBED	ABSORBED	ABSORBED
	POWER*	CURRENT*	CURRENT*
THREE-PHASE		220-240 V	380-415 V
	kW	Α	Α
DN 110	0,66	3,46	2,00
DN 115	0,93	3,81	2,20
DN 120	1,09	4,05	2,34

dn-2p50-en_b_te

 $^{{}^{\}star}\text{Maximum values within operating range}.$



DN SERIES DIMENSIONS AND WEIGHTS



PUMP TYPE		DIMENSIONS (mm)							WEIGHT
	С	н	H1	L	L1	w	W1		kg
DNM110-DN110	Ø 200	380	81	223	209	95	81	Rp 11/4	18,5
DNM115-DN115	Ø 200	380	81	223	209	95	81	Rp 11/4	18,5
DNM120-DN120	Ø 200	380	81	223	209	95	81	Rp 11/4	19,5

dn-2p50-en_b_td



Submersible Electric Pumps for pumping sewage

The DL series electric pumps come with single-channel or Vortex impeller (DLV), and are designed to handle solids-laden wastewater, with up to 22 m head and 42 m³/h delivery. 0,6 kW to 1,5 kW rated power. Solids handled up to 50 mm in diameter.

DL Series



APPLICATIONS

- Pumping of sewage with suspended solids and filaments.
- Emptying of sumps, septic tanks and wastewater discharge tanks.
- Draining of flooded excavations and marshy ground.

SPECIFICATIONS

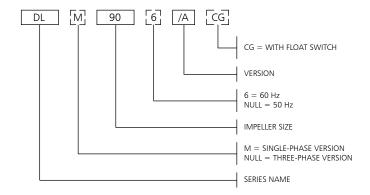
- Maximum liquid temperature:
- 50°C with fully submerged pump.
- Mechanical seal protected by sand labyrinth.
- Maximum dimension of suspended solids:
- 45 mm for DL80, DL90, DL105, **MINIVORTEX, VORTEX.**
- 50 mm for DL109, DL125, DLV100, DLV115.
- Motor in a dielectric non-toxic oil **bath**, which ensures the lubrification of the ball bearings and a more efficient cooling.

• Power cord: H07RN-F.

- single-phase: with plug.
- three-phase: without plug.
- Insulation class 155°C (F).
- IPX8 protection.
- Maximum immersion depth: 5 m.
- Versions:
- Single-phase: 220-240V, 50Hz 2 poles.
- Three-phase: 220-240V, 50Hz 2 poles. 380-415V, 50Hz 2 poles.
- **25°C** with partially submerged pump. **The single-phase versions** feature:
 - capacitor housed in a box on the power cord + 1,5 m. power cord with
 - thermal overload protection to stop pump supply in case of overheating.
 - CG versions (single-phase with pre-assembled float switch), 60 Hz single-phase and three-phase versions, versions with various power cord lengths and various plugs are available on request.



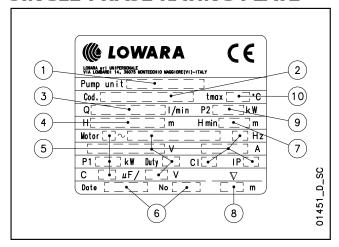
DL - DLV SERIES IDENTIFICATION CODE



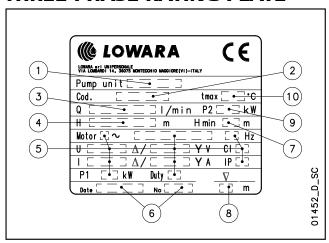
EXAMPLE: DLM 90/A

DL Series electric pump, impeller size 90, 50 Hz version, single-phase, /A version.

SINGLE-PHASE RATING PLATE



THREE-PHASE RATING PLATE

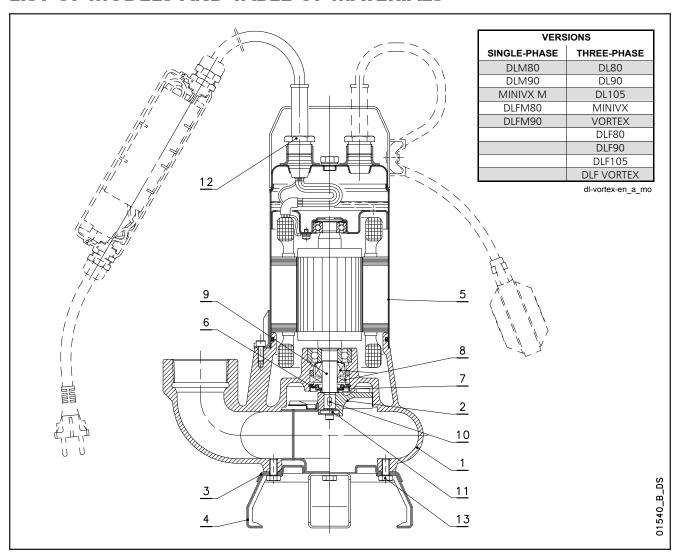


LEGEND

- 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
- 10 Maximum liquid temperature



DL - VORTEX SERIES LIST OF MODELS AND TABLE OF MATERIALS

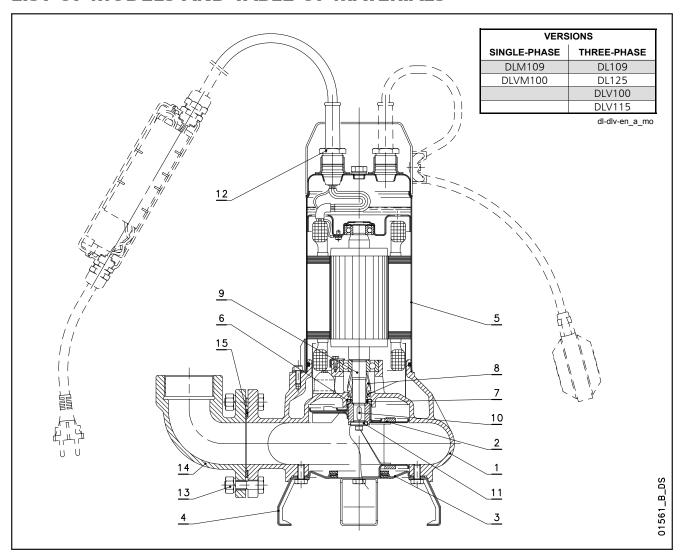


REF.	NAME	MATERIAL	REFERENCE STAND	DARDS
N.			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
2	Vortex impeller	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
	Single-channel impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
4	Support foot	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 ve	ersion)	
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

dl-vortex-en_b_tm



DL - DLV SERIES LIST OF MODELS AND TABLE OF MATERIALS

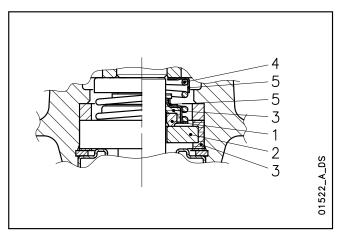


REF.	NAME	MATERIAL	REFERENCE STANI	DARDS
N.			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
2	Vortex impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Single-channel impeller	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
3	Suction flange	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
4	Support foot	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	V-RING Cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
7	V16A Seal ring	NBR (standard ve	rsion)	
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
14	Delivery connection	Cast iron	EN 1561-GJL-200(JL1030)	ASTM Class 25
15	Delivery connction gasket	Nitrile rubber		

dl-dlv-en_b_tm



DL80 - DL90 - DL105 - MINIVORTEX - VORTEX SERIES MECHANICAL SEAL



LIST OF MATERIALS

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

dn-dl-dlv_ten-mec-en_c_tm

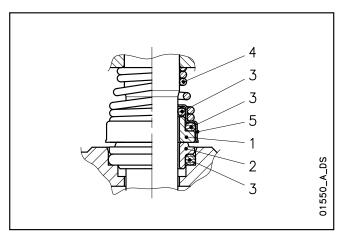
SEAL TYPES

		TEMPERATURE							
TYPE	1	2 3		4	5	(℃)			
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	()			
	STANDARD MECHANICAL SEAL								
BVPFF	В	V	Р	F	F	0 +50			

dn-dl-dlv_tipi-ten-mec-en_b_tc



DL109 - DL125 - DLV100 - DLV115 SERIES MECHANICAL SEAL



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Carbon	P : NBR	G : AISI 316
U ₃ : Tungsten Carbide	V : FPM	F : AISI 304
V : Ceramic Alumina		

dl-dlv_ten-mec-en_a_tm

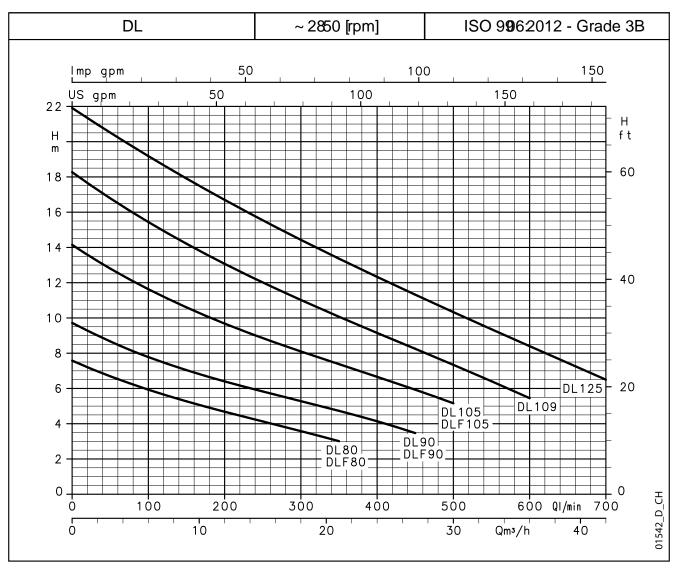
SEAL TYPES

			TEMPERATURE							
TYPE	1	2	3	4	5	(℃)				
	ROTATING ASSEMBLY	FIXED ASSEMBLY	ELASTOMERS	SPRINGS	OTHER COMPONENTS	()				
STANDARD MECHANICAL SEAL										
VBPGF	V	В	Р	G	F	0 +50				
	OTHER MECHANICAL SEAL TYPES									
U ₃ U ₃ VFF	U ₃	U ₃	V	F	F	0 +50				

dl-dlv_tipi-ten-mec-en_b_tc



DL SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RA	TED	Q = DELIVERY											
	POWER		l/min 0	100	150	200	250	300	350	400	450	500	600	700
			m³/h 0	6	9	12	15	18	21	24	27	30	36	42
	kW	HP	H = TOTAL HEAD METRES COLUMN OF WATER											
DL(M) 80-DLF(M) 80	0,6	0,8	7,6	5,9	5,3	4,7	4,1	3,6	3,0					
DL(M) 90-DLF(M) 90	0,6	0,8	9,7	7,8	7,0	6,4	5,8	5,3	4,7	4,1	3,5			
DL 105 - DLF105	1,1	1,5	14,1	11,6	10,6	9,7	8,9	8,1	7,4	6,7	5,9	5,2		
DL(M) 109	1,1	1,5	18,3	15,4	14,2	13,1	12,0	11,0	10,1	9,2	8,2	7,3	5,4	
DL 125	1,5	2	21,9	19,2	17,9	16,7	15,5	14,4	13,4	12,3	11,3	10,3	8,4	6,5

These performances are valid for liquids with density $\rho=$ 1,0 kg/dm³ and kinematic viscosity $\nu=$ 1 mm²/s.

dl-2p50-en_b_th

ELECTRICAL DATA TABLE

		,	•
PUMP TYPE	ABSORBED	ABSORBED	CAPACITOR
	POWER*	CURRENT*	
SINGLE-PHASE		220-240 V	
	kW	Α	μF / 450 V
DLM80-DLFM80	0,79	3,91	25
DLM90-DLFM90	0,89	4,27	25
-	-	-	-
DLM109	1,55	6,87	35
-	-	-	-

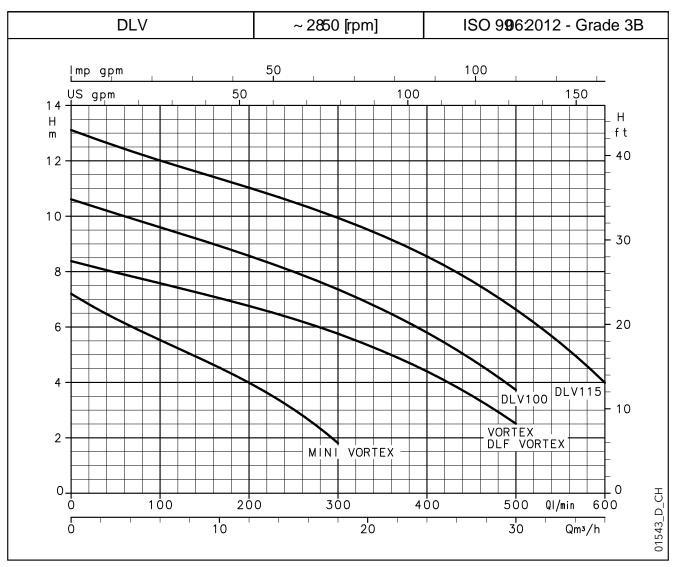
PUMP TYPE THREE-PHASE	ABSORBED POWER*	ABSORBED CURRENT* 220-240 V	ABSORBED CURRENT* 380-415 V
	kW	Α	Α
DL80-DLF80	0,8	-	2,09
DL90-DLF90	0,92	3,81	2,2
DL105-DLF105	1,43	4,66	2,69
DL109	1,54	5,44	3,14
DL125	2,14	6,58	3,8

dl-2p50-en_b_te

^{*}Maximum values within operating range.



DLV SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

PUMP TYPE	RA	TED					C) = DELI	/ERY					
	PO	WER	l/min 0	50	100	150	200	250	300	350	400	450	500	600
			m³/h 0	3	6	9	12	15	18	21	24	27	30	36
	kW	HP			н	= TOTA	L HEAD	METRES	COLUN	IN OF W	ATER			•
MINI VORTEX(M)	0,6	0,8	7,2	6,3	5,5	4,8	4,0	3,0	1,8					
VORTEX-DLF VORTEX	1,1	1,5	8,4	8,0	7,6	7,2	6,8	6,3	5,8	5,1	4,4	3,5	2,5	
DLV(M) 100	1,1	1,5	10,6	10,1	9,6	9,1	8,6	8,0	7,4	6,6	5,8	4,8	3,7	
DLV 115	1,5	2	13,1	12,5	12,0	11,5	11,0	10,5	9,9	9,3	8,5	7,7	6,6	4,0

These performances are valid for liquids with density $\rho=$ 1,0 kg/dm³ and kinematic viscosity $\nu=$ 1 mm²/s.

dlv-2p50-en_b_th

ELECTRICAL DATA TABLE

PUMP TYPE	ABSORBED	ABSORBED	CAPACITOR
	POWER*	CURRENT*	
SINGLE-PHASE		220-240 V	
	kW	Α	μF / 450 V
MINI VORTEX M	1,05	4,82	25
-	-	-	-
DLVM100	1,64	7,30	35
-	-	_	-

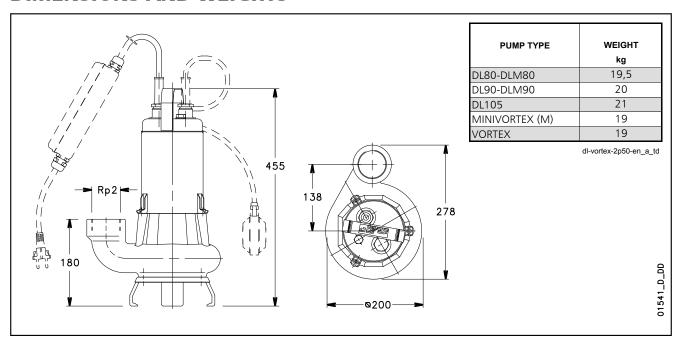
PUMP TYPE THREE-PHASE	ABSORBED POWER*	ABSORBED CURRENT* 220-240 V	ABSORBED CURRENT* 380-415 V
	kW	Α	Α
MINI VORTEX	1,10	-	2,36
VORTEX-DLF VORTEX	1,66	5,11	2,95
DLV 100	1,65	5,63	3,25
DLV 115	2,25	6,81	3,93

dlv-2p50-en_b_te

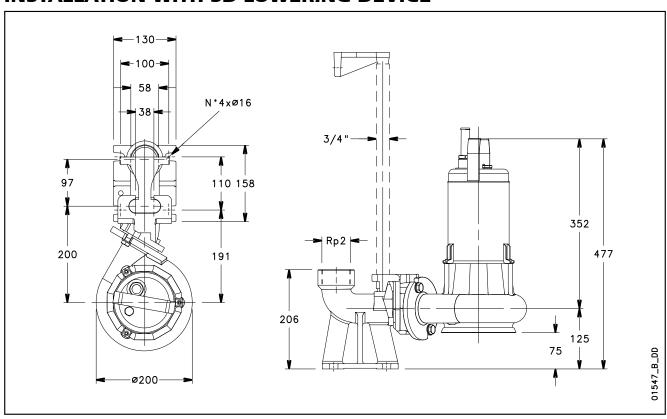
^{*}Maximum values within operating range.



DL - VORTEX SERIES DIMENSIONS AND WEIGHTS

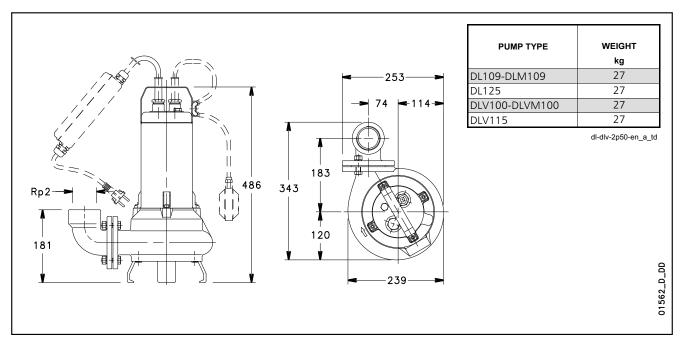


DLF SERIES INSTALLATION WITH SD LOWERING DEVICE

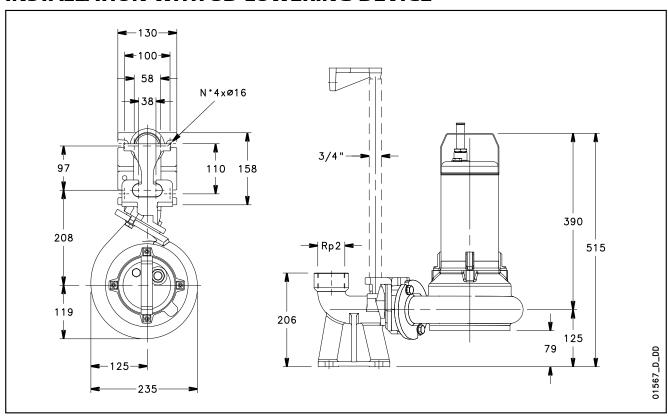




DL-DLV SERIES DIMENSIONS AND WEIGHTS



DL-DLV SERIES INSTALLATION WITH SD LOWERING DEVICE





TECHNICAL APPENDIX



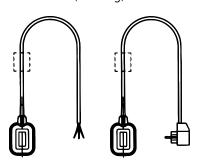
LEVEL REGULATORS

SMALL MODEL (floating)



For single function (draining). Cable lengths 1.5, 5, 10 m. Counterweight available on request for versions with 5 and 10 m cable.

KEY MODEL (floating)



For dual function (draining/filling). Cable lengths: 1.5, 5, 10, 20 m. Counterweight available on request for versions with 5 and 10 m cable.

Version with plug and socket for single-phase pumps up to 1 kW.

RDN-10 MODEL (tilting)



For solids-laden water. Cable lengths: 10, 13, 15, 20, 30, 50 m.

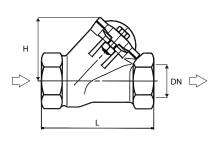
BALL CHECK VALVES FOR WASTEWATER

No-clog, maximum reliability, low flow resistance. Maximum operating pressure: 10 bar. Maximum temperature: 85°C.

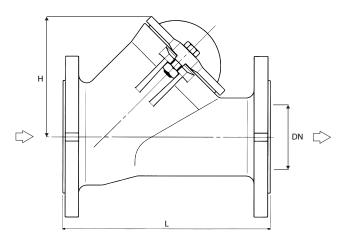
Horizontal and vertical operating position.

MODEL	DI	MENSIONS (m	m)	WEIGHT
	Ø BALL	L	н	kg
Rp 1 1/4	48	140	80	2
Rp 1 1/2	50	140	80	4
Rp 2	60	200	98	5,5
DN 65	95	230	148	12
DN 80	95	260	148	13
DN 100	120	300	182	18
DN 150	175	400	251	37,5
DN 200	240	500	333	70
DN 250	300	600	406	128

Valv-palla-en_a_td



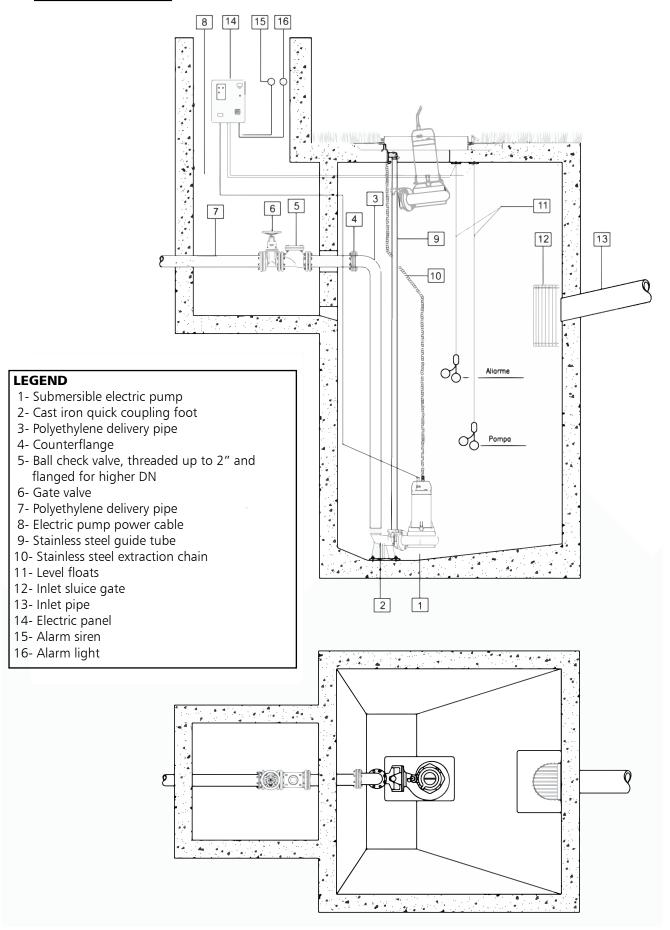
Rp 1 1/4 - 1 1/2 - 2 MODEL



65 - 80 - 100 - 150 - 200 - 250 MODEL

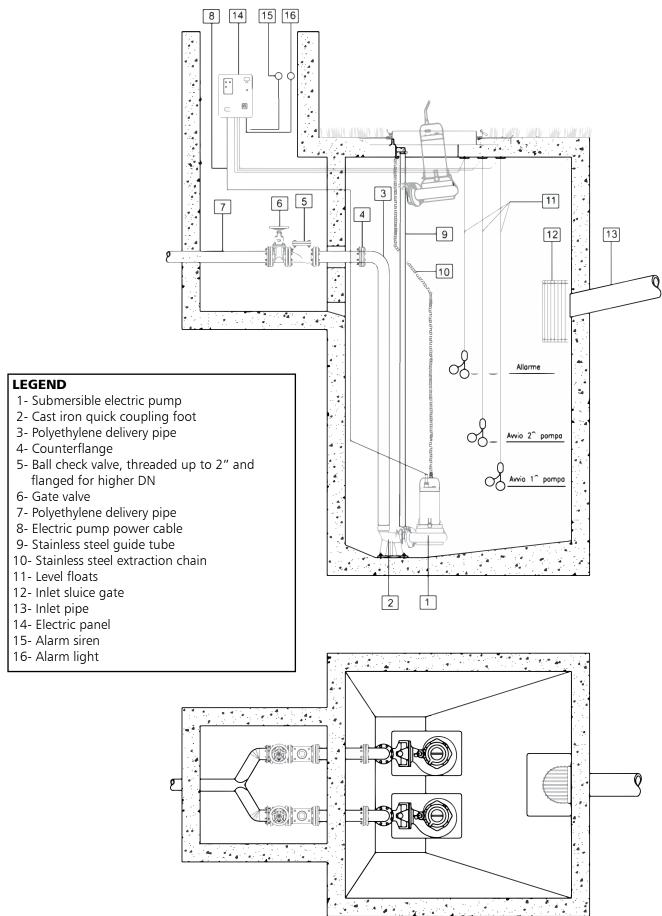


EXAMPLE OF INSTALLATION OF SINGLE-PUMP SYSTEM





EXAMPLE OF INSTALLATION OF TWO-PUMPS SYSTEM WITH THREE LEVEL REGULATORS





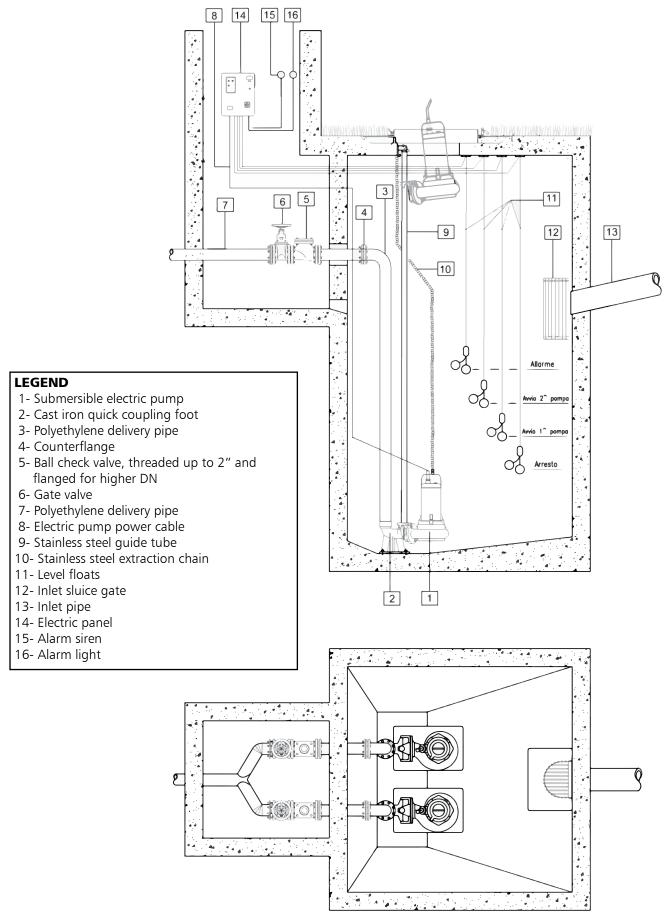




TABLE OF FLOW RESISTANCE IN 100 m OF STRAIGHT CAST IRON PIPELINE (HAZEN-WILLIAMS FORMULA C=100)

Fig.	FLOW	RATF								NOMINA	L DIAM	ETER ir	nm an	d inches						
1.0	_	1 1		15	20	25	32	40	50	1 1		1	1	1	1	200	250	300	350	400
1			V						2	2 1/2"	3"	4"	5"	6"	7"	8"	10"	12"	14"	16"
1	0,6	10	hr	16	3,94	1,33	0,40	0,13								I				
1.	0,9	15									The hr	values	must be	multiplie	a by:					
1.5	1,2	20									0,71 fc	or galvan	ized or p	ainted s	teel pipe	s				
1.8 30	1.5	25	٧	2,36	1,33	0,85	0,52	0,33	0,21		0.54 fc	or stainle	ss steel	or coppe	er pipes					
2.1			V	2,83			0,62	0,40	0,25											
1											0,47 to	or PVC o	r PE pipe	es						
1	2,1	35			40,0	13,5	4,06	1,37	0,46	0.20										
1	2,4	40	hr		51,2	17,3	5,19	1,75	0,59	0,16										
14.2 70	3	50																		
4.2 70	3,6	60																		
4,8 80 No	4.2	70	V		3,72	2,38	1,45	0,93	0,59	0,35										
5.4 90			V		4,25	2,72	1,66	1,06	0,68	0,40										
15					185						0,30									
No. No.			hr			77,5	23,3	7,85	2,65	0,74	0,27									
1.5	6	100	hr			94,1	28,3	9,54	3,22	0,90	0,33									
19	7,5	125	hr		L		42,8	14,4	4,86	1,36	0,49									
10.5	9	150																		
12 200	10,5	175	٧				3,63	2,32	1,49	0,88	0,58	0,37								
15	12	200	V				4,15	2,65	1,70	1,01	0,66	0,42								
18													0,34	-						
18 300							154													
124 410	18	300	hr					72,8	24,6	6,85	2,49	0,84	0,28	0.00						
187 63.2 17.6 64.1 2.16 0.73 0.30 0.00 0	24	400	hr					124	41,8	11,66	4,24	1,43	0,48	0,20						
198 100	30	500																		
42 700	36	600										1,27								
1	42	700	V						5,94	3,52	2,32	1,49	0,95	0,66	0,49					
1	48	800	V						6,79	4,02	2,65	1,70	1,09	0,75	0,55					
100																				
1000									188							0.53	_			
1250	60	1000	hr							63,5	23,1	7,79	2,63	1,08	0,51	0,27				
1500	75	1250	hr							96,0	34,9	11,8	3,97	1,63	0,77	0,40				
1750 1750	90	1500																		
120 2000	105	1750]			
150 2500 10 10 10 10 10 10 10	120	2000	V								6,63	4,25	2,72	1,89	1,39	1,06				
180 3000			V								8,29	5,31	3,40	2,36	1,73	1,33	0,85	1		
180 3000 hr 59,5 20,1 8,26 3,90 2,03 0,69 0,28											126							0,71		
10 3500			hr									59,5	20,1	8,26	3,90	2,03	0,69	0,28		
101 34,2 14,1 6,64 3,46 1,17 0,48	210	3500	hr									79,1	26,7	11,0	5,18	2,71	0,91	0,38	<u> </u>	
Solid Soli	240	4000											34,2	14,1	6,64	3,46	1,17	0,48		
360 6000 V	300	5000																		
420 7000 V	360	6000	V										8,15	5,66	4,16	3,18	2,04	1,42	İ	
480 8000 V Nr			V										12,3	6,61	4,85	3,72	2,38	1,65		
480 8000 hr 50,7 23,9 12,49 4,21 1,73 0,82 540 9000 V 8,49 6,24 4,78 3,06 2,12 1,56 1,19 610 1,000 V 63,0 29,8 15,5 5,24 2,16 1,02 0,53 610 1,000 V 6,93 5,31 3,40 2,36 1,73 1,33																				
540 9000 hr 63,0 29,8 15,5 5,24 2,16 1,02 0,53														50,7	23,9	12,49	4,21	1,73	0,82	1 19
600 10000	540	9000	hr												29,8	15,5	5,24	2,16	1,02	0,53
	600	10000				L	L							L						

hr = flow resistance for 100 m of straight pipeline (m)

V = water speed (m/s)



FLOW RESISTANCE IN BENDS, VALVES AND GATES IN cm OF COLUMN OF WATER

		SH	ARP BEN	DS			SMC	OOTH BEI	NDS		ш		
WATER SPEED		α		<u>-</u>			(Ta	⁄ 3•		STANDARD GATE VALVES	FOOT VALVES	CHECK VALVES
m/sec	a = 30°	a = 40°	a = 60°	a = 80°	a = 90°	$\frac{d}{R} = 0.4$	$\frac{d}{R} = 0.6$	$\frac{d}{R} = 0.8$	$\frac{d}{R} = 1$	$\frac{d}{R} = 1,5$			
0,1	0,03	0,04	0,05	0,07	0,08	0,007	0,008	0,01	0,0155	0,027	0,03	30	30
0,15	0,06	0,07	0,1	0,14	0,17	0,016	0,019	0,024	0,033	0,06	0,033	31	31
0,2	0,11	0,13	0,18	0,26	0,31	0,028	0,033	0,04	0,058	0,11	0,058	31	31
0,25	0,17	0,21	0,28	0,4	0,48	0,044	0,052	0,063	0,091	0,17	0,09	31	31
0,3	0,25	0,3	0,41	0,6	0,7	0,063	0,074	0,09	0,13	0,25	0,13	31	31
0,35	0,33	0,4	0,54	0,8	0,93	0,085	0,1	0,12	0,18	0,33	0,18	31	31
0,4	0,43	0,52	0,71	1	1,2	0,11	0,13	0,16	0,23	0,43	0,23	32	31
0,5	0,67	0,81	1,1	1,6	1,9	0,18	0,21	0,26	0,37	0,67	0,37	33	32
0,6	0,97	1,2	1,6	2,3	2,8	0,25	0,29	0,36	0,52	0,97	0,52	34	32
0,7	1,35	1,65	2,2	3,2	3,9	0,34	0,4	0,48	0,7	1,35	0,7	35	32
0,8	1,7	2,1	2,8	4	4,8	0,45	0,53	0,64	0,93	1,7	0,95	36	33
0,9	2,2	2,7	3,6	5,2	6,2	0,57	0,67	0,82	1,18	2,2	1,2	37	34
1	2,7	3,3	4,5	6,4	7,6	0,7	0,82	1	1,45	2,7	1,45	38	35
1,5	6	7,3	10	14	17	1,6	1,9	2,3	3,3	6	3,3	47	40
2	11	14	18	26	31	2,8	3,3	4	5,8	11	5,8	61	48
2,5	17	21	28	40	48	4,4	5,2	6,3	9,1	17	9,1	78	58
3	25	30	41	60	70	6,3	7,4	9	13	25	13	100	71
3,5	33	40	55	78	93	8,5	10	12	18	33	18	123	85
4	43	52	70	100	120	11	13	16	23	42	23	150	100
4,5	55	67	90	130	160	14	21	26	37	55	37	190	120
5	67	82	110	160	190	18	29	36	52	67	52	220	140

¹⁾ Flow resistance in bends is due to the contraction of th eliquid threads resulting from the change of direction: the development of the bends must therefore be included in the length of the pipeline.

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²⁾ Flow resistance in valves and gates was determined on the basis of practical tests.



VOLUMETRIC CAPACITY

Litres	Cubic metres	Cubic feet	Cubic feet	Imperial gallon	U.S. gallon
per minute	per hour	per hour	per minute	per minute	per minute
l/min	m³/h	ft³/h	ft³/min	Imp. gal/min	US gal/min
1,0000	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	1,0000	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	1,0000	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	1,0000	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	1,0000	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	1,0000

PRESSURE AND HEAD

Newton per square metre	kilo Pascal	bar	Pound force per square inch	Metre of water	Millimetre of mercury
N/m ²	kPa	bar	psi	m H ₂ O	mm Hg
1,0000	0,0010	1 x 10 ⁻⁵	1,45 x 10 ⁻⁴	1,02 x 10 ⁻⁴	0,0075
1 000,0000	1,0000	0,0100	0,1450	0,1020	7,5006
1 x 10 ⁵	100,0000	1,0000	14,5038	10,1972	750,0638
6 894,7570	6,8948	0,0689	1,0000	0,7031	51,7151
9 806,6500	9,8067	0,0981	1,4223	1,0000	73,5561
133,3220	0,1333	0,0013	0,0193	0,0136	1,0000

LENGTH

Millimetre	Centimetre	Metre	Inch	Foot	Yard
mm	cm	m	in	ft	yd
1,0000	0,1000	0,0010	0,0394	0,0033	0,0011
10,0000	1,0000	0,0100	0,3937	0,0328	0,0109
1 000,0000	100,0000	1,0000	39,3701	3,2808	1,0936
25,4000	2,5400	0,0254	1,0000	0,0833	0,0278
304,8000	30,4800	0,3048	12,0000	1,0000	0,3333
914,4000	91,4400	0,9144	36,0000	3,0000	1,0000

VOLUME

Cubic metre	Litre	Millilitre	Imperial gallon	U.S. gallon	Cubic foot
m³	L	ml	imp. gal.	US gal.	ft³
1,0000	1 000,0000	1 x 10 ⁶	219,9694	264,1720	35,3147
0,0010	1,0000	1 000,0000	0,2200	0,2642	0,0353
1 x 10 ⁻⁶	0,0010	1,0000	2,2 x 10 ⁻⁴	2,642 x 10 ⁻⁴	3,53 x 10 ⁻⁵
0,0045	4,5461	4 546,0870	1,0000	1,2009	0,1605
0,0038	3,7854	3 785,4120	0,8327	1,0000	0,1337
0,0283	28,3168	28 316,8466	6,2288	7,4805	1,0000

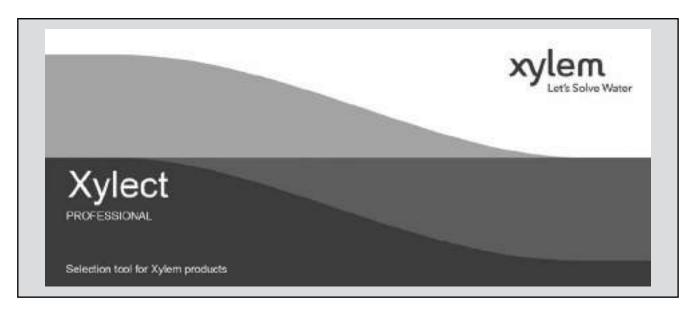
TEMPERATURE

Water	Kelvin	Celsius	Fahrenheit
	K	°C	°F
icing	273,1500	0,0000	32,0000
boiling	373,1500	100,0000	212,0000

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FURTHER PRODUCT SELECTION AND DOCUMENTATION Xylect™



Xylect™ is pump solution selection software with an extensive online database of product information across the entire Lowara range of pumps and related products, with multiple search options and helpful project management facilities. The system holds up-to-date product information on thousands of products and accessories.

The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect[™] gives a detailed output:

- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



The search by application guides users not familiar with the product range to the right choice.



FURTHER PRODUCT SELECTION AND DOCUMENTATION Xylect™



The detailed output makes it easy to select the optimal pump from the given alternatives.

The best way to work with Xylect™ is to create a personal account. This makes it possible to:

- Set own standard units
- Create and save projects
- Share projects with other Xylect[™] users

Every registered user has a proper space, where all projects are saved.

For more information about Xylect™ please contact our sales network or visit www.xylect.com.



Dimensional drawings appear on the screen and can be downloaded in dxf format.

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

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