

50 Hz



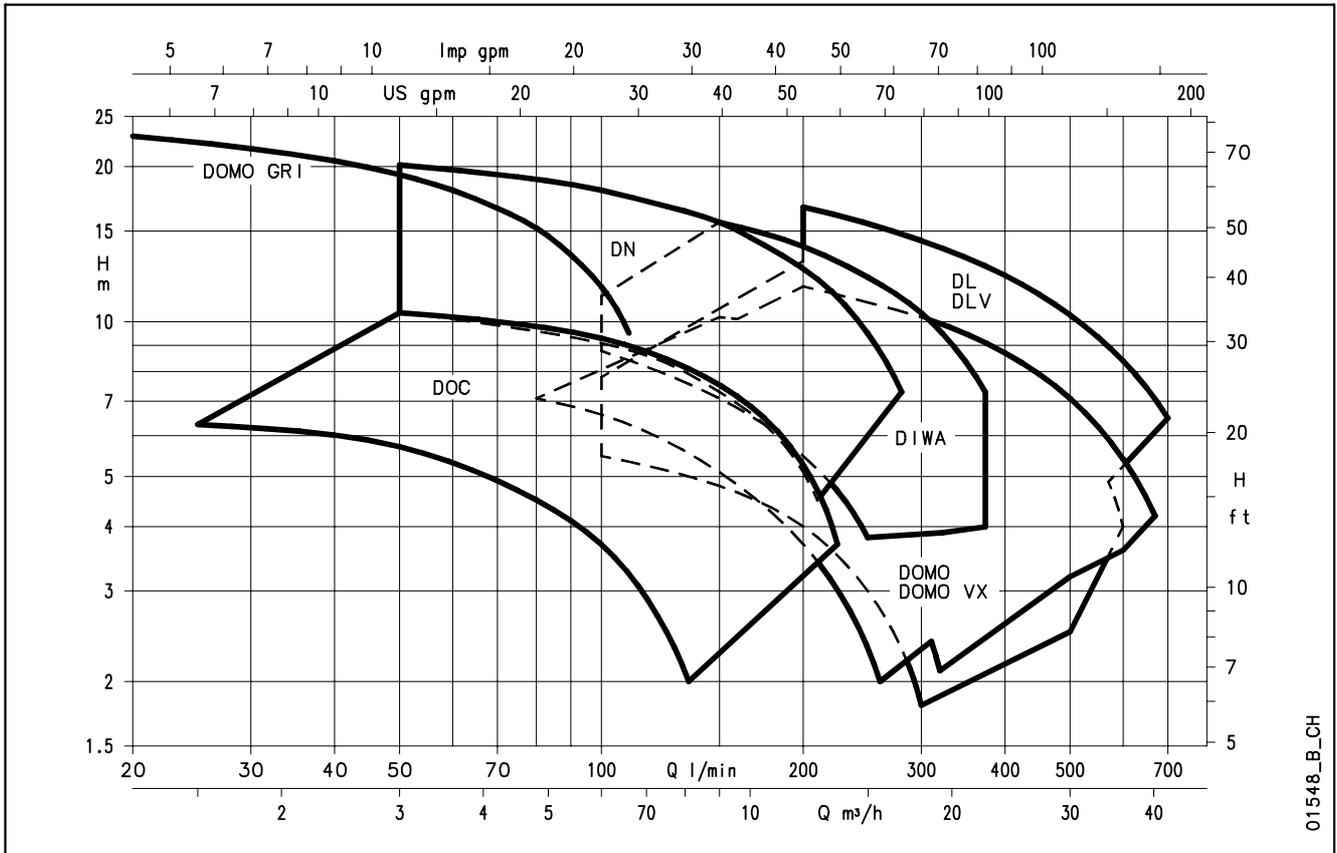
DOC - DIWA - DOMO DOMO GRI - DN - DL Series

DRAINAGE AND SEWAGE
ELECTRIC PUMPS

Cod. 191004441 Rev.B Ed.08/2012

 **LOWARA**
a xylem brand

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



**Submersible
Electric Pumps
for drainage
of clean and
dirty water
DOC Series**



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.

- 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), 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.
- 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).

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.

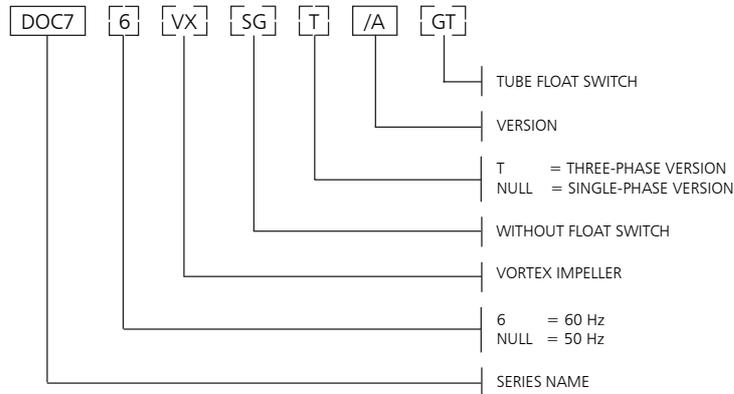
SOS KIT

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

The kit is composed of:

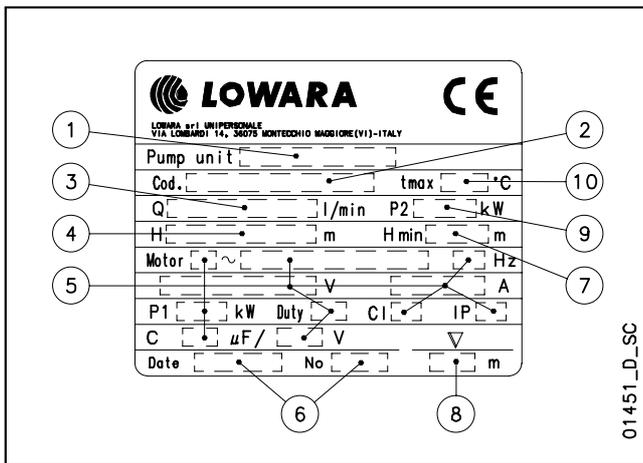
- a single-phase **DOC3** electric pump, equipped with float switch, 10 meters power cord with plug and a quick coupling already mounted for rapid hose connection.
- 6 meters long **flexible hose**, complete with quick coupling already mounted for rapid pump connection.
- **plastic box** that can be 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.

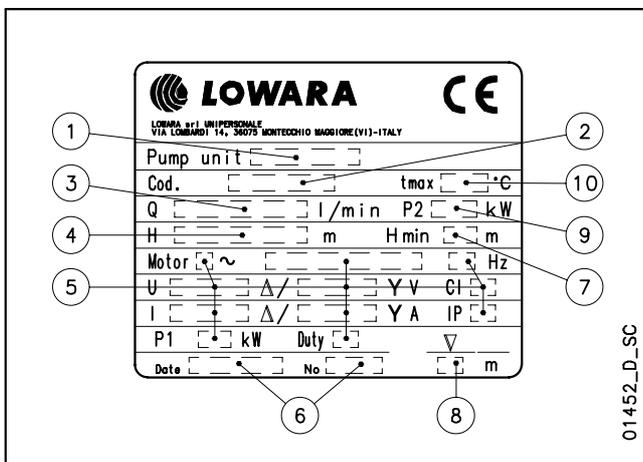
SINGLE-PHASE RATING PLATE



LEGEND

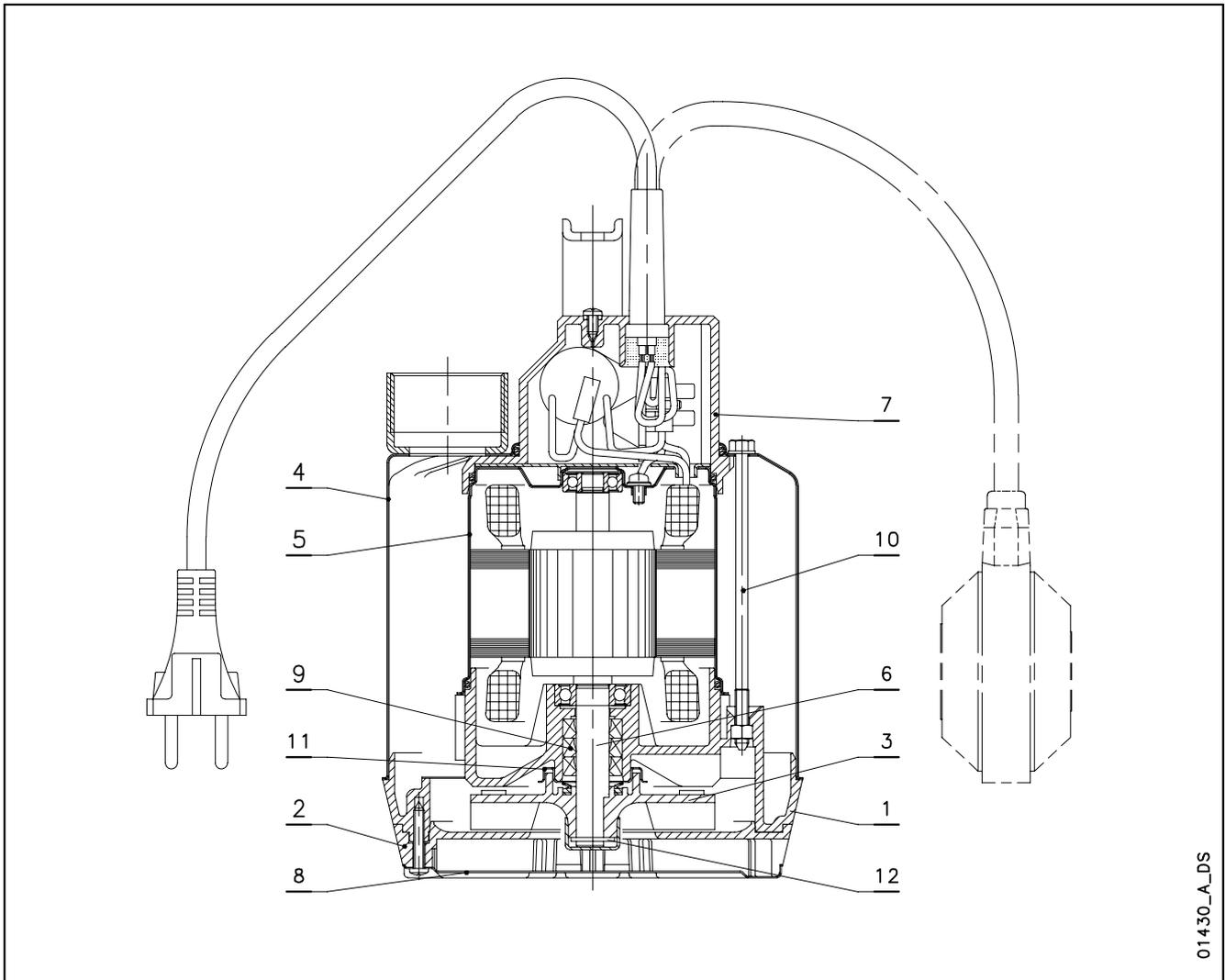
- 1 - Electric pump type
- 2 - Code
- 3 - Delivery range
- 4 - Head range
- 5 - Motor type
- 6 - Date of manufacture and serial number
- 7 - Minimum head
- 8 - Maximum immersion depth
- 9 - Rated output
- 10 - Maximum liquid temperature

THREE-PHASE RATING PLATE



DOC SERIES

LIST OF MODELS AND TABLE OF MATERIALS

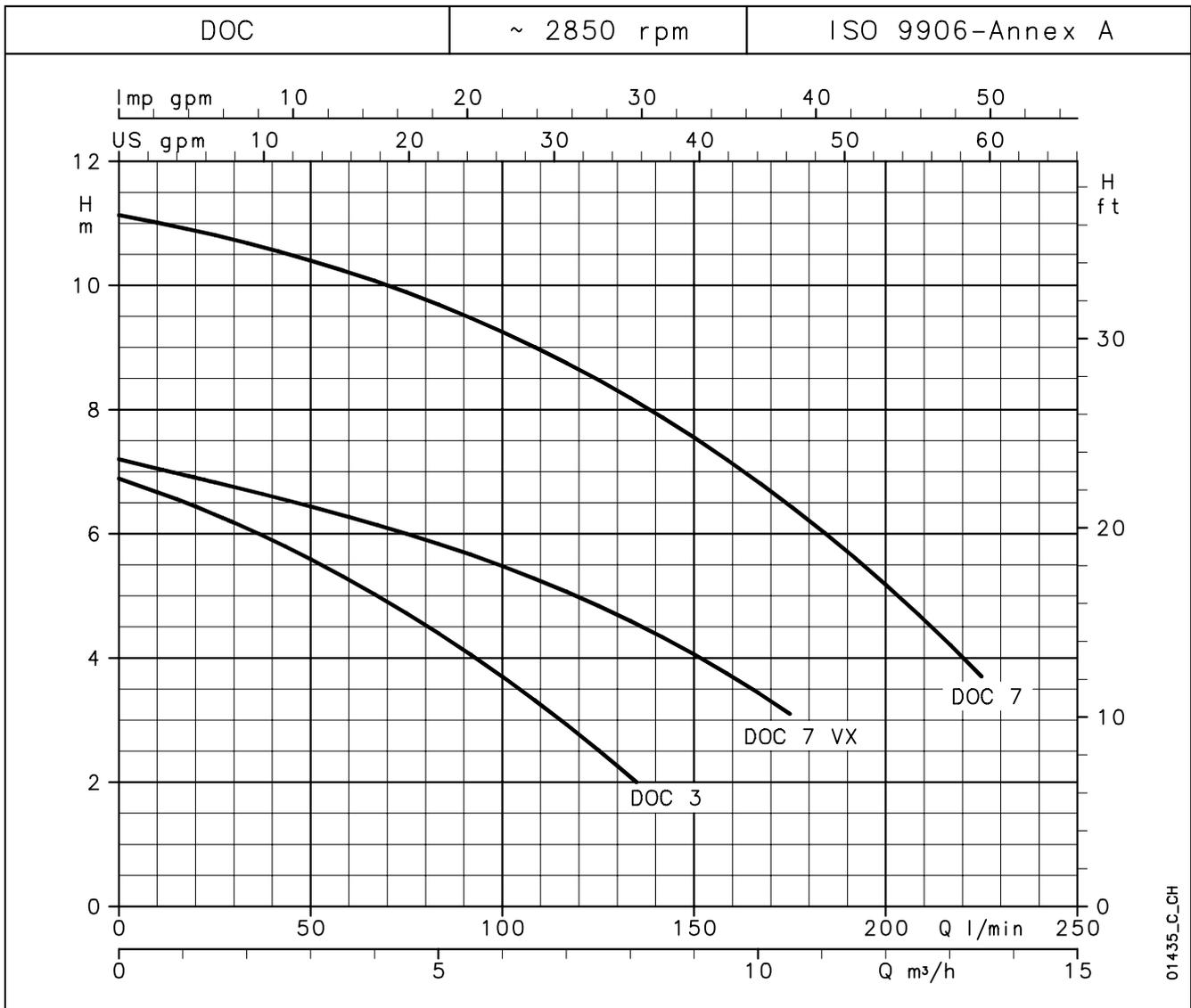


01430_A_DS

| REF. N. | NAME | MATERIAL | REFERENCE STANDARDS | |
|---------|------------------------|---------------------|---------------------------------|----------|
| | | | EUROPE | USA |
| 1 | Pump body | PPO resin + 20 % GF | | |
| 2 | Suction strainer | PPO resin + 20 % GF | | |
| 3 | Impeller DOC3 | PPO resin + 20 % GF | | |
| | Impeller DOC7 - DOC7VX | PA 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 | PPO resin + 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-en_b_tm

DOC SERIES OPERATING CHARACTERISTICS AT 50 Hz



HYDRAULIC PERFORMANCE TABLE

| PUMP TYPE | RATED POWER | | Q = DELIVERY | | | | | | | | | |
|-----------|-------------|------|---------------------------------------|------|------|-----|-----|-----|-----|-----|------|------|
| | | | l/min | 0 | 25 | 50 | 75 | 100 | 125 | 135 | 175 | 225 |
| | | | m ³ /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 $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{s}$.

doc-2p50-en_b_th

ELECTRICAL DATA TABLE

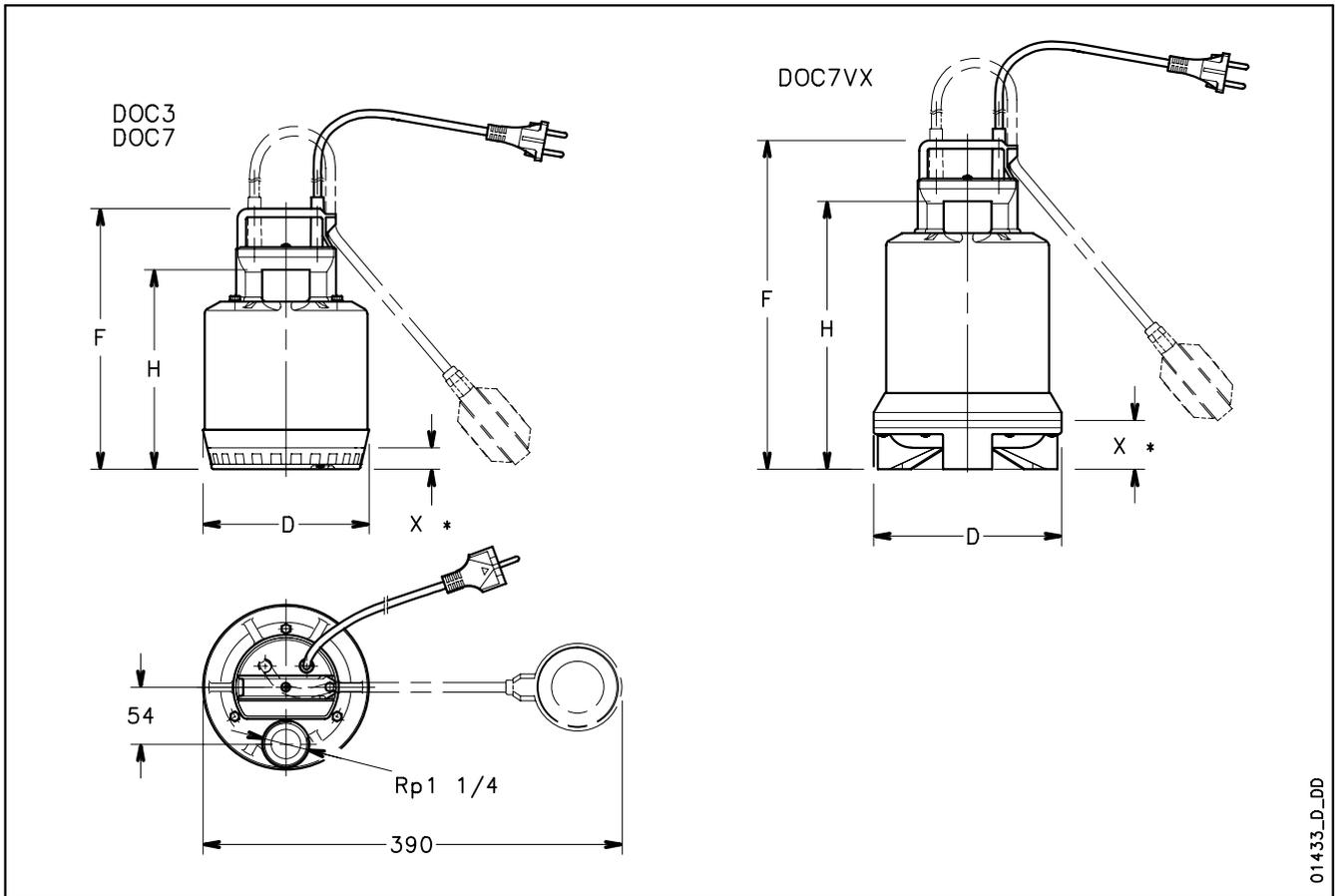
| PUMP TYPE | ABSORBED POWER* | ABSORBED CURRENT* | CAPACITOR |
|--------------|-----------------|-------------------|-------------------------------|
| SINGLE-PHASE | | 220-240 V | |
| | kW | A | $\mu\text{F} / 450 \text{ V}$ |
| DOC 3 | 0,31 | 1,43 | 6,3 |
| DOC 7 | 0,78 | 3,47 | 16 |
| DOC 7VX | 0,66 | 2,96 | 16 |

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

*Maximum values within operating range

doc-2p50-en_a_te

**DOC SERIES
DIMENSIONS AND WEIGHTS**

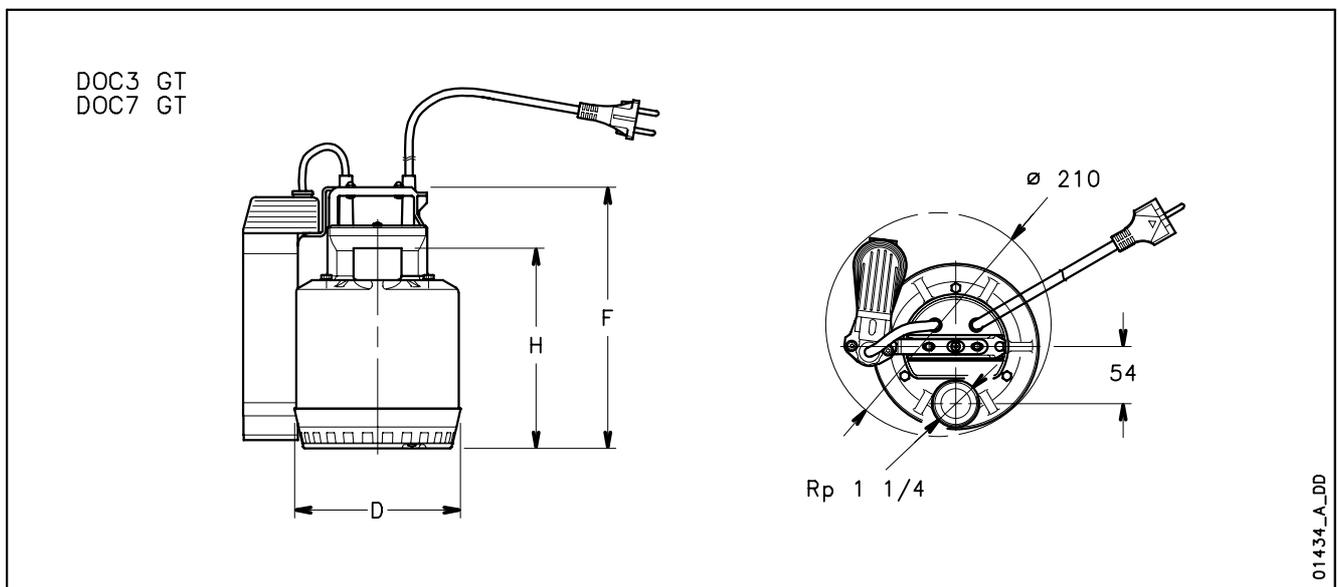


01433_D_DD

| PUMP TYPE | | DIMENSIONS (mm) | | | | WEIGHT |
|-----------|------------|-----------------|-----|-----|----|--------|
| | | F | H | D | X* | kg |
| DOC3 | DOC3 GT | 245 | 188 | 155 | 20 | 4 |
| DOC7(T) | DOC7(T) GT | 285 | 228 | 155 | 20 | 6 |
| DOC7VX(T) | - | 310 | 252 | 175 | 45 | 6 |

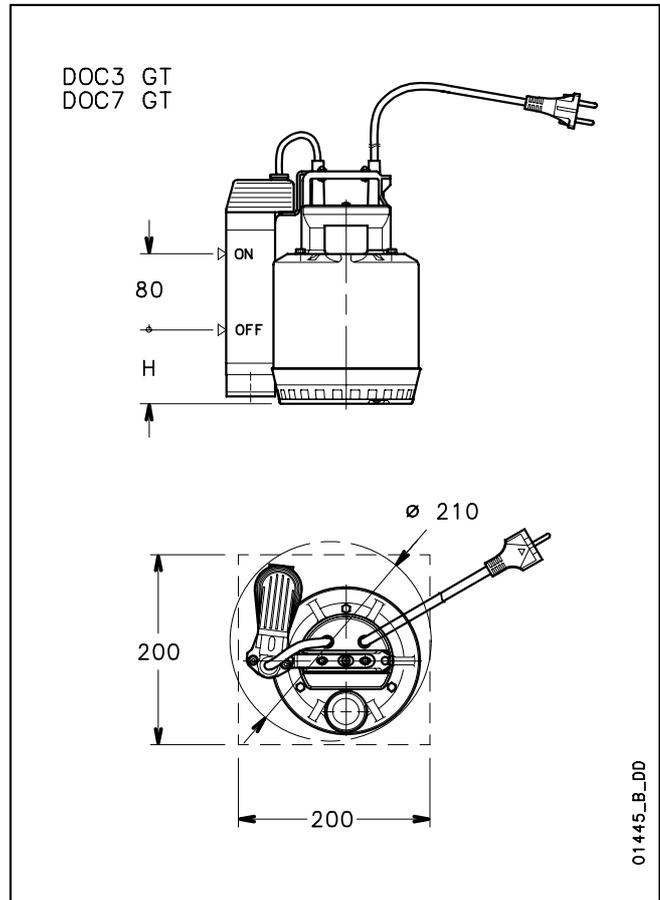
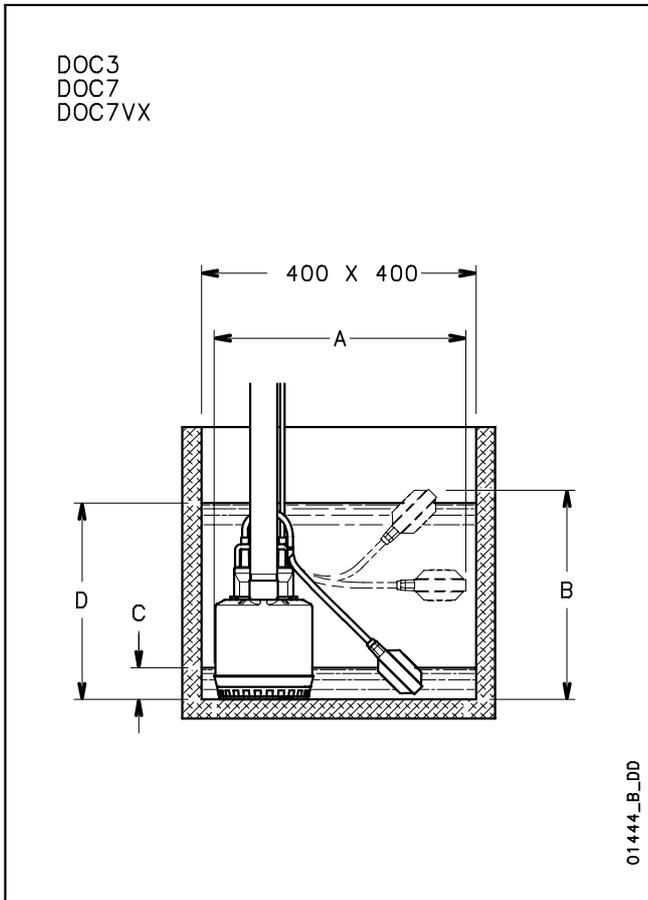
* Minimum liquid level.

doc-2p50-en_b_td



01434_A_DD

**DOC SERIES
INSTALLATION EXAMPLES**

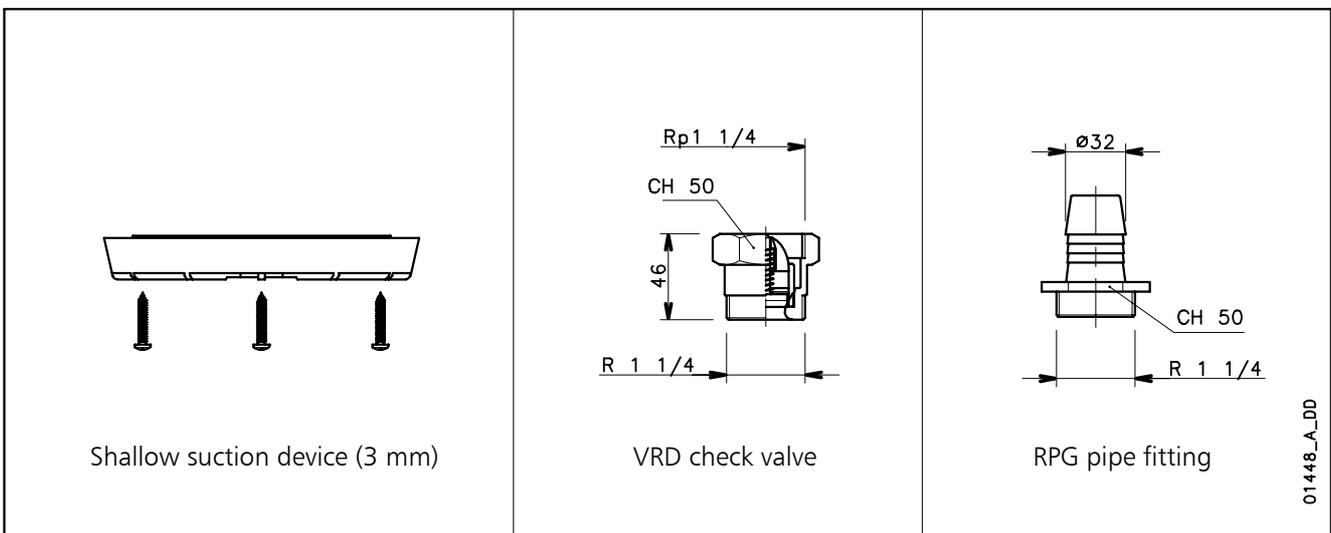


| PUMP TYPE | | DIMENSIONS (mm) | | MINIMUM WATER LEVEL | MAXIMUM WATER LEVEL | MINIMUM WATER LEVEL |
|-----------|---------|-----------------|-----|---------------------|---------------------|---------------------|
| | | A | B | C* | D* | H |
| DOC3 | DOC3 GT | 390 | 330 | 50 | 310 | 90 |
| DOC7 | DOC7 GT | 390 | 370 | 90 | 350 | 90 |
| DOC7VX | - | 390 | 395 | 115 | 375 | - |

* Indicative values depending on the float switch adjustment.

docliv-2p50-en_d_td

ACCESSORIES

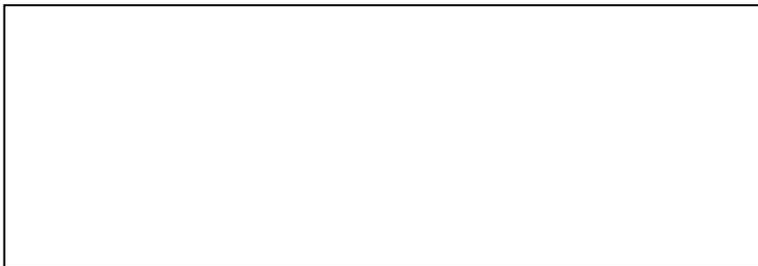


Xylem |'zīləm|

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

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. 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, backed by a legacy of innovation.

For more information on how Xylem can help you, go to xyleminc.com.



Headquarters

LOWARA S.r.l. Unipersonale
Via Vittorio Lombardi 14
36075 Montecchio Maggiore - Vicenza - Italy
Tel. (+39) 0444 707111 - Fax (+39) 0444 492166
e-mail: lowara.mkt@xyleminc.com
web: www.lowara.com - www.completewatersystems.com

LOWARA reserves the right to make modification without prior notice.
LOWARA is a trademark of Xylem Inc. or one of its subsidiaries.