

# DC

Submersible drainage pumps



**MADE IN ITALY**

 **PEDROLLO**<sup>®</sup>  
*the spring of life*



## Submersible drainage pumps

 Clean water

 Civic use

 Industrial use

- ※ **DC** electric pumps are efficient, powerful and robust cast-iron drainage pumps, suitable for the most demanding applications and recommended for civic and industrial use in fixed installations.
- ※ **They are recommended for pumping rainwater, wastewater and drainage water with solid bodies up to 10 mm in diameter, in construction, underground car parks, outdoor areas, for emptying tanks and many other industrial and commercial applications.**
- ※ The careful choice of components, strict quality control and advanced manufacturing techniques grant a fully reliable and safe operation for every user.
- ※ The accurate fluid-dynamic design allows greater energy saving taking advantage of the high efficiency.



### PERFORMANCE RANGE

- Flow rate up to **550 l/min** (33 m<sup>3</sup>/h)
- Head up to **38 m**

### APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40°C**
- Passage of suspended solids up to **Ø 10 mm**
- Suction down to **17 mm, 25 mm** above ground level, (**DC 42-43-44**)
- Minimum immersion depth for continuous service: **220 mm, 300 mm (DC 42-43-44)**

### CONSTRUCTION AND SAFETY STANDARDS

- Power cable length **10 m**
- Float switch for single-phase versions

### INSTALLATION AND USE

**DC** submersible pumps, made of cast iron of considerable thickness, with exceptional strength, abrasion resistance and durability, are recommended for draining off **clean water** or slightly dirty water. They stand out for their robustness and reliability in fixed installations with automatic operation. **DC** series electric pumps can operate in continuous service even when partially uncovered.

### PATENTS - TRADEMARKS - MODELS

- Patent n° IT0001428923
- Registered community model n° 002501486-0001

### OPTIONS AVAILABLE ON REQUEST

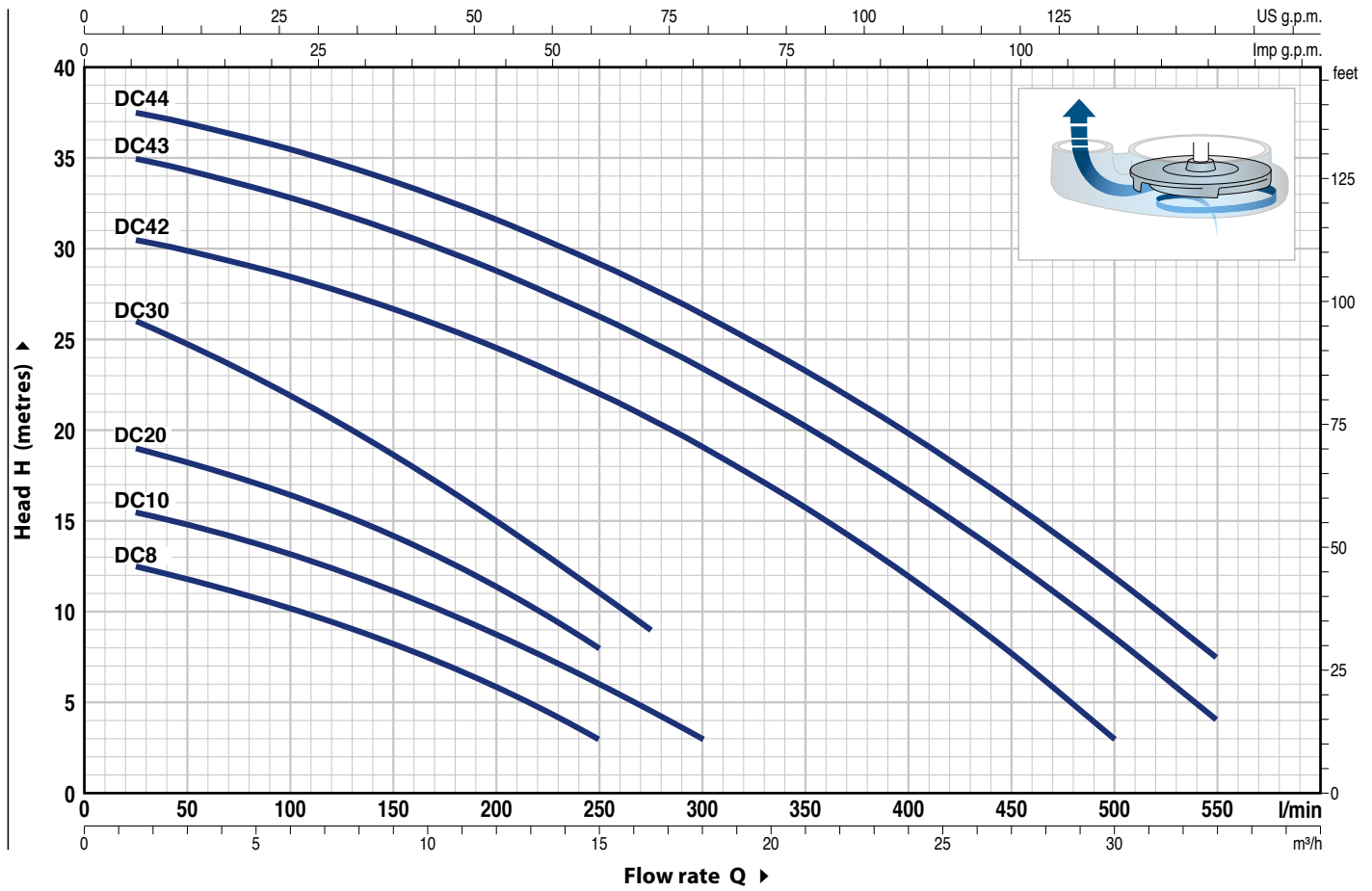
- Single-phase electric pumps without a float switch
- Other voltages or 60 Hz frequency

### WARRANTY

2 years as per our general terms and conditions of sale

### CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min<sup>-1</sup>



MODEL		POWER (P <sub>2</sub> )		Q	H metres																
Single-phase	Three-phase	kW	HP		0	1.5	3.0	6.0	9.0	12.0	15.0	16.5	18.0	21.0	24.0	27.0	30.0	33.0			
				l/min	0	25	50	100	150	200	250	275	300	350	400	450	500	550			
DCm 8	DC 8	0.55	0.75	H metres	13	12.5	11.8	10.2	8.2	5.8	3										
DCm 10	DC 10	0.75	1		16	15.5	14.8	13.2	11.2	8.8	6	4.5	3								
DCm 20	DC 20	0.75	1		20	19	18.5	16.5	14.3	11.5	8										
DCm 30	DC 30	1.1	1.5		26	26	24.8	22	18.7	15	11	9									
DCm 42	DC 42	1.5	2		31	30.5	30	28.4	26.5	24.3	21.6	20.2	18.6	15.3	11.6	7.5	3				
DCm 43	DC 43	2.2	3		35.5	35	34.4	32.9	31	28.8	26.3	25	23.5	20.3	16.7	12.8	8.5	4			
-	DC 44	3	4		38	37.5	37	35.5	33.7	31.6	29.2	27.8	26.4	23.3	19.9	16.1	12	7.5			

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## POS. COMPONENT

## CONSTRUCTION CHARACTERISTICS

1	<b>PUMP BODY</b>	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/11
2	<b>SUCTION FILTER</b>	AISI 304 stainless steel
3	<b>SUCTION PLATE</b>	AISI 304 stainless steel
4	<b>IMPELLER</b>	Technopolymer open type
5	<b>MOTOR CASING</b>	Cast iron with an Epoxy Electro Coating treatment
6	<b>MOTOR CASING PLATE</b>	AISI 304 stainless steel
7	<b>MOTOR SHAFT</b>	AISI 431 stainless steel

### 8 DOUBLE MECHANICAL SEAL IN OIL CHAMBER

<i>Electric pump Model</i>	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Position</i>	<i>Materials</i>		
				<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
<b>DC8</b>	<b>MG1-14D SIC</b>	<b>Ø 14 mm</b>	Motor side	Silicon carbide	Graphite	NBR
<b>DC10</b>			Pump side	Silicon carbide	Silicon carbide	NBR
<b>DC20</b>			Pump side	Silicon carbide	Silicon carbide	NBR
<b>(Double seal on shaft with a ring seal Ø 16 x Ø 24 x H 5 mm)</b>						
<b>DC30</b>	<b>ST1-14 SIC</b>	<b>Ø 14 mm</b>		Ceramic	Silicon carbide	NBR

### 9 BEARINGS

Type **6203 ZZ / 6203 ZZ**

**10 CAPACITOR EN 60252-1/A1**  
(only for single-phase versions)



### 11 ELECTRIC MOTOR

**DCm:** single-phase 230 V - 50 Hz  
with thermal overload protector incorporated into the winding

**DC:** three-phase 400 V - 50 Hz

– Insulation: class F

– Protection: IP X8

### 12 POWER CABLE

“H07 RN-F” type  
(with Schuko plug for single-phase versions only)

**Standard length 10 metres**

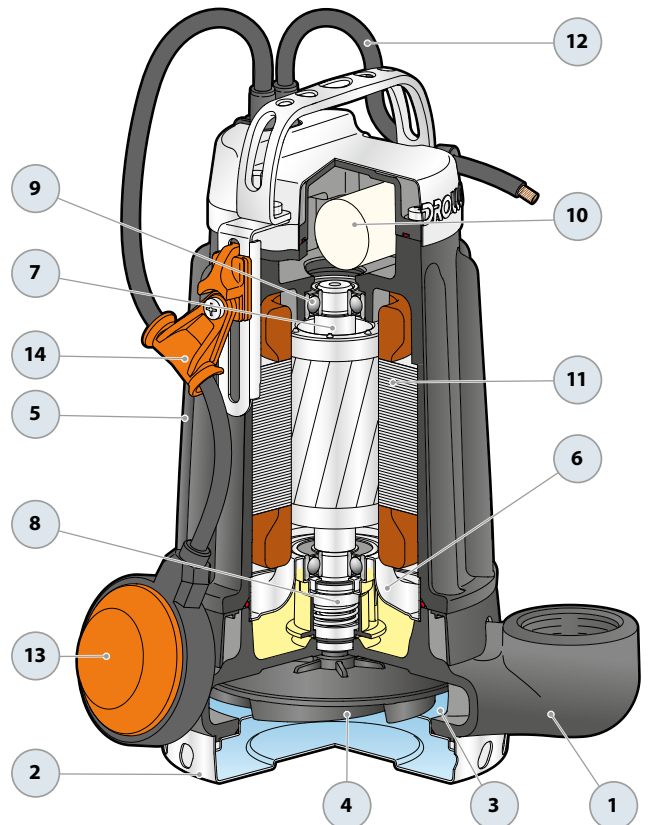
### 13 EXTERNAL FLOAT SWITCH

(only for single-phase versions)

### 14 TILTING DEVICE FOR THE FLOAT CABLE

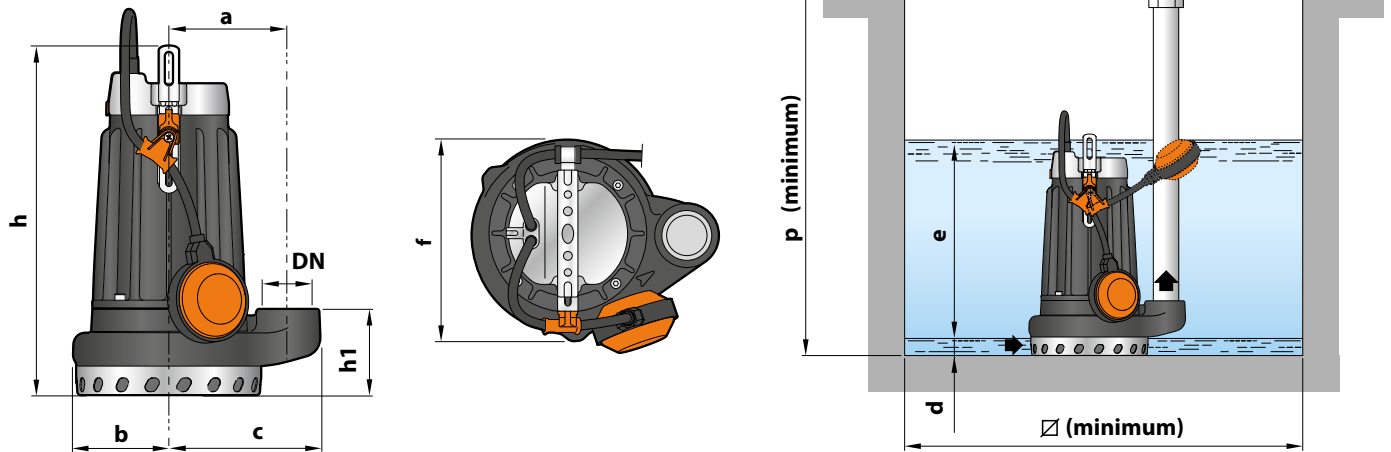
(only for single-phase versions)

Patent n° IT0001428923



## DIMENSIONS AND WEIGHTS

### Standard installation



MODEL		PORT	DIMENSIONS mm										kg	
Single-phase	Three-phase	DN	a	b	c	f	h	h1	d	e	p	∅	1~	3~
DCm 8	DC 8	1½"	115	85	147	177	324	73	17	adjustable	500	500	15.8	15.8
DCm 10	DC 10												16.9	15.8
DCm 20	DC 20			17.0	15.9									
DCm 30	DC 30			18.8	17.7									

## ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
DCm 8	3.2 A	3.1 A
DCm 10	4.7 A	4.5 A
DCm 20	5.7 A	5.6 A
DCm 30	7.2 A	7.0 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
DC 8	2.8 A	1.6 A	2.6 A	1.5 A
DC 10	3.5 A	2.0 A	3.3 A	1.9 A
DC 20	4.2 A	2.4 A	4.0 A	2.3 A
DC 30	5.2 A	3.0 A	5.0 A	2.9 A

## CAPACITORS

MODEL	CAPACITY
Single-phase	(230 V or 240 V)
DCm 8	20 µF - 450 VL
DCm 10	
DCm 20	
DCm 30	25 µF - 450 VL

## POS. COMPONENT

## CONSTRUCTION CHARACTERISTICS

<b>1 PUMP BODY</b>	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1				
<b>2 SUCTION FILTER</b>	AISI 304 stainless steel				
<b>3 SUCTION PLATE</b>	Cast iron with an Epoxy Electro Coating treatment				
<b>4 IMPELLER</b>	Open made of microcast AISI 304 stainless steel				
<b>5 MOTOR CASING</b>	Cast iron with an Epoxy Electro Coating treatment				
<b>6 MOTOR CASING PLATE</b>	Cast iron with an Epoxy Electro Coating treatment				
<b>7 MOTOR SHAFT</b>	AISI 431 stainless steel				
<b>8 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER</b>					
<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Position</i>	<i>Stationary ring</i>	<i>Materials Rotational ring</i>	<i>Elastomer</i>
STA-24	Ø 24 mm	Motor side	Ceramic	Graphite	NBR
STA-22 SIC	Ø 22 mm	Pump side	Silicon carbide	Silicon carbide	NBR
<b>9 BEARINGS</b>	<b>3305B 2RS/6204 ZZ</b>				

**10 CAPACITOR EN 60252-1/A1**  
(only for single-phase versions)



**11 ELECTRIC MOTOR**  
DCm42-43: single-phase 230 V - 50 Hz  
DC: three-phase 400 V - 50 Hz

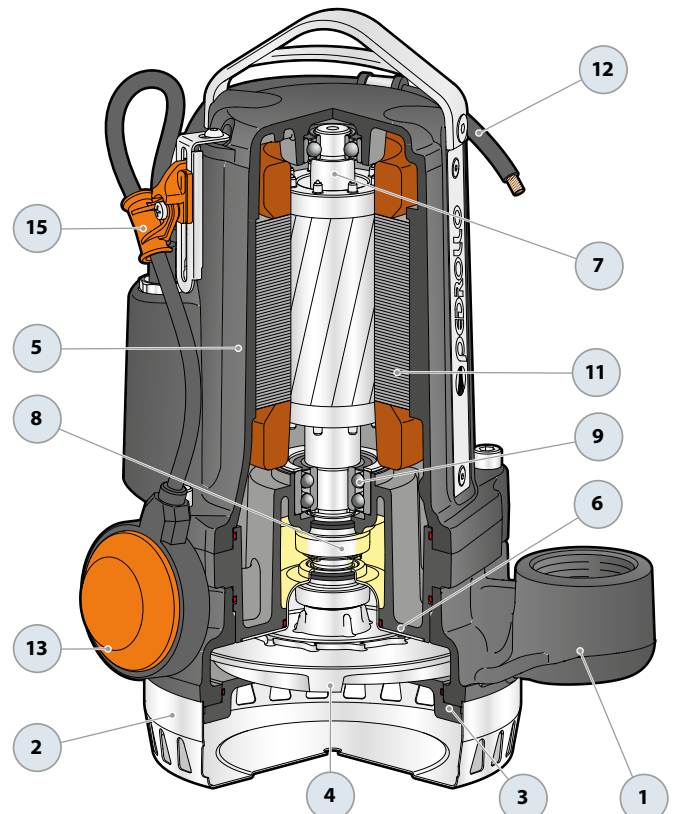
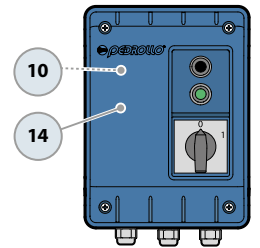
**12 POWER CABLE**  
Of 10 metres type "H07 RN-F"

**13 EXTERNAL FLOAT SWITCH**  
(only for single-phase versions)

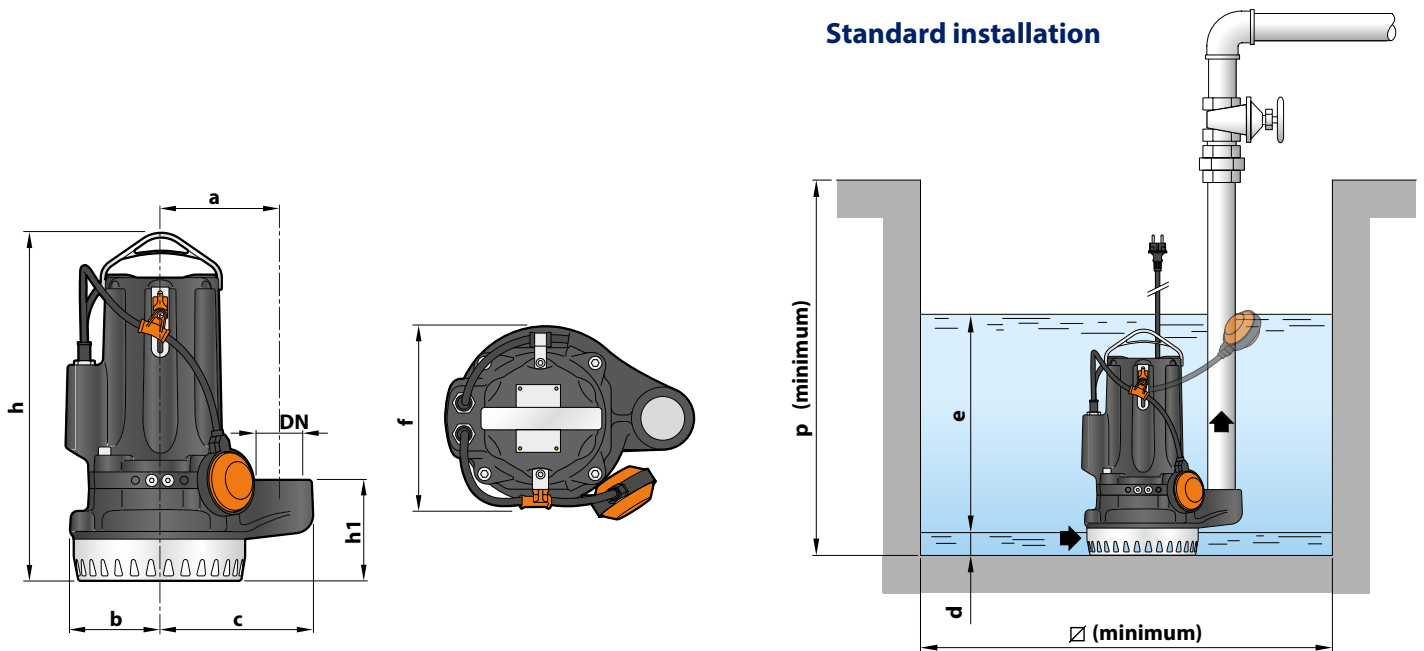
**14 ELECTRICAL PANEL FOR DCm42-43**  
(only for single-phase versions)

**15 TILTING DEVICE FOR THE FLOAT CABLE**  
(only for single-phase versions)  
Patent n° IT0001428923

Standard equipment  
Electrical panel  
(only for single-phase versions)



## DIMENSIONS AND WEIGHTS



MODEL		PORT DN	DIMENSIONS mm										kg	
Single-phase	Three-phase		a	b	c	h	h1	f	d	e	p	Ø	1~	3~
DCm 42	DC 42	2"	150	112	190	434	125	230	25	adjustable	800	800	43.0	41.0
DCm 43	DC 43					460   434							48.0	42.0
-	DC 44					460							-	47.0

## ABSORPTION

MODEL	VOLTAGE	
	Single-phase	230 V
DCm 42	13 A	12.5 A
DCm 43	16 A	14 A

MODEL	VOLTAGE			
	Three-phase	230 V	400 V	240 V
DC 42	9.0 A	5.2 A	8.6 A	5.0 A
DC 43	10.7 A	6.2 A	10.3 A	6.0 A
DC 44	11.8 A	6.8 A	11.3 A	6.5 A

## CAPACITOR

MODEL	CAPACITY
Single-phase	(230 V or 240 V)
DCm 42	50 µF - 450 VL
DCm 43	60 µF - 450 VL

*The features and specifications here in stated are in no way binding for the manufacturer.  
Pedrollo S.p.A. is free to modify the product in order to improve its production at any time without previous notice.*

**Pedrollo S.p.A.**

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