

# BC

DOUBLE-CHANNEL submersible pumps



**MADE IN ITALY**

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

## DOUBLE-CHANNEL

- ※ **BC** electric pumps are **DOUBLE CHANNEL** pumps, specially designed and made using the most advanced expertise of Pedrollo that can rely on 50 years of experience in pump construction.
- ※ **Made from stainless steel and exceptionally sturdy, abrasion-resistant, long-lasting, heavy-gauge cast iron, BC series pumps feature high-efficiency DOUBLE CHANNEL type impellers for high flow rates. They are therefore suitable for draining foul and waste water, sewage, water mixed with solids, activated and putrid sludge with solids in suspension up to 50 mm in diameter.**
- ※ Thanks to enhanced oversizing of the electric motor, shaft and bearings, these new **BC** electric pumps guarantee unprecedented service life, high hydraulic performance, low operating costs and easy maintenance. The sturdy electric motor construction allows continuous mode operation even if partially uncovered.



### PERFORMANCE RANGE

- Flow rate up to **2300 l/min** (138 m<sup>3</sup>/h)
- Head up to **31 m**

### APPLICATION LIMITS

- **10 m** maximum immersion depth below the water level (with a properly long power cable)
  - Maximum liquid temperature **+40 °C**
  - Passage of suspended solids:
    - up to **Ø 35 mm** for BC 35
    - up to **Ø 50 mm** for BC 50
- Minimum immersion depth for continuous service: **500 mm**

### CONSTRUCTION AND SAFETY STANDARDS

- **10 m** power cable length

### INSTALLATION AND USE

Made from stainless steel and exceptionally sturdy, abrasion-resistant, long-lasting, heavy-gauge cast iron, the **BC** pump series features a **DOUBLE-CHANNEL** impeller and is therefore suitable for draining **dirty, sewage and waste water, and water mixed with putrid sludge.**

The pumps are suitable for installation in sewers, tunnels, excavations, canals, underground car parks, etc.

### PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 003863158-0001

### OPTIONS AVAILABLE ON REQUEST

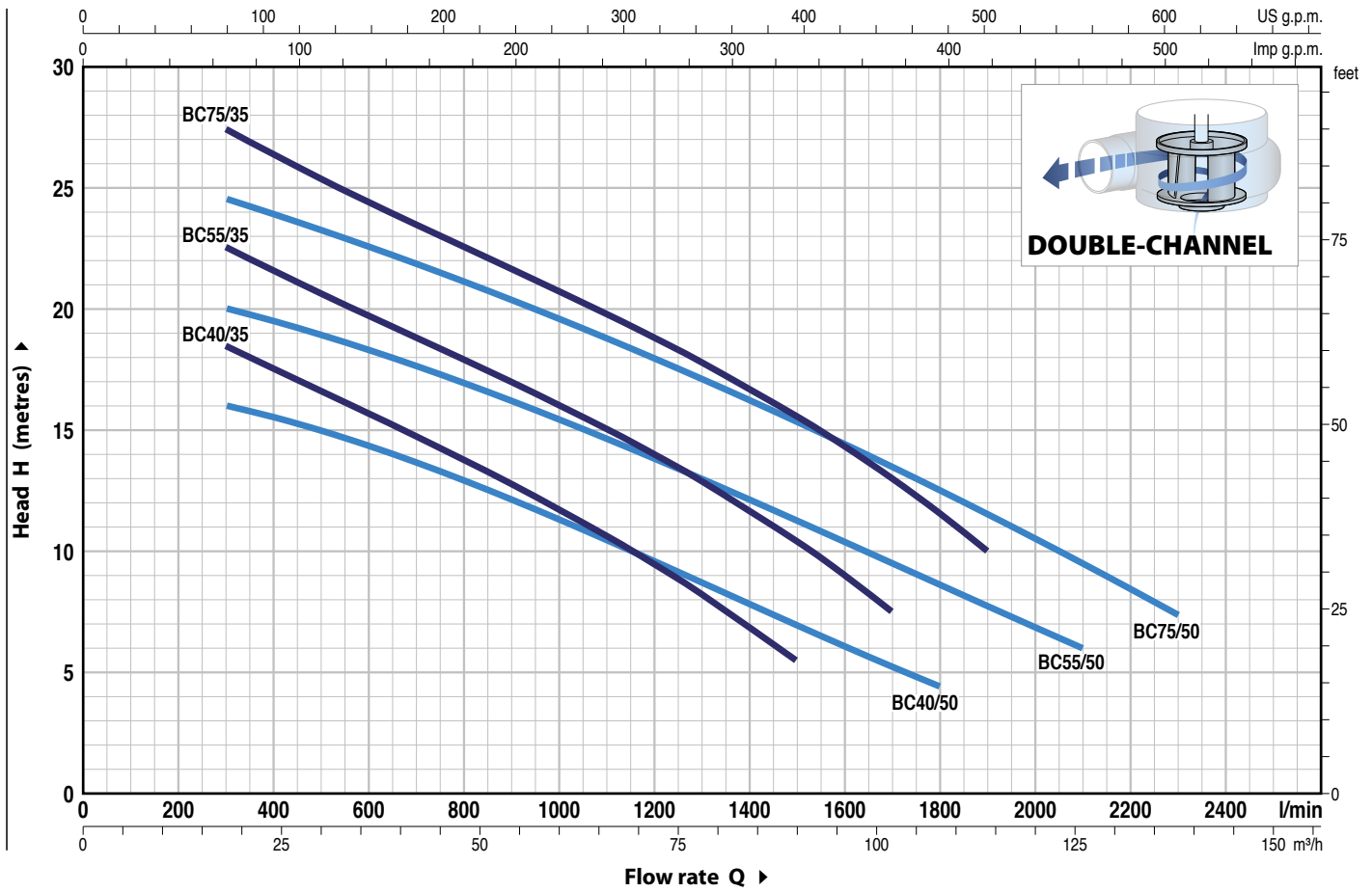
- Other voltage ratings or 60 Hz frequency

### WARRANTY

2 years in accordance with our general terms of sale

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



MODEL Three-phase	POWER (P <sub>2</sub> )		Q	Flow rate										
	kW	HP		m <sup>3</sup> /h	0	18	30	42	54	66	78	90	102	114
BC 40/35	3	4	H metres	0	300	500	700	900	1100	1300	1500	1700	1900	
BC 55/35	4	5.5		21.4	18.5	16.6	14.7	12.8	10.6	8.2	5.5			
BC 75/35	5.5	7.5		25.8	22.5	20.6	18.8	17	15	12.9	10.4	7.5		

MODEL Three-phase	POWER (P <sub>2</sub> )		Q	Flow rate										
	kW	HP		m <sup>3</sup> /h	0	18	30	45	60	75	90	108	126	138
BC 40/50	3	4	H metres	0	300	500	750	1000	1250	1500	1800	2100	2300	
BC 55/50	4	5.5		16.5	16	14.8	13.1	11.1	9	6.8	4.5			
BC 75/50	5.5	7.5		21.5	20	19.1	17.5	15.6	13.5	11.3	8.7	6		

Q = Flow rate H = Total manometric head

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

**POS. COMPONENT CONSTRUCTION CHARACTERISTICS**

<b>1 PUMP BODY</b>	Cast iron with Epoxy Electro Coating treatment, with flanged and threaded port in compliance with ISO 228/1
<b>2 IMPELLER</b>	Cast iron with Epoxy Electro Coating treatment DOUBLE-CHANNEL type
<b>3 MOTOR CASING</b>	AISI 304 stainless steel
<b>4 MOTOR CASING PLATE</b>	Cast iron with Epoxy Electro Coating treatment
<b>5 MOTOR SHAFT</b>	AISI 431 stainless steel

**6 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER**

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
AR-27	Ø 27 mm	Motor side	Silicon carbide	Graphite	NBR
AR-25	Ø 25 mm	Pump side	Silicon carbide	Silicon carbide	NBR

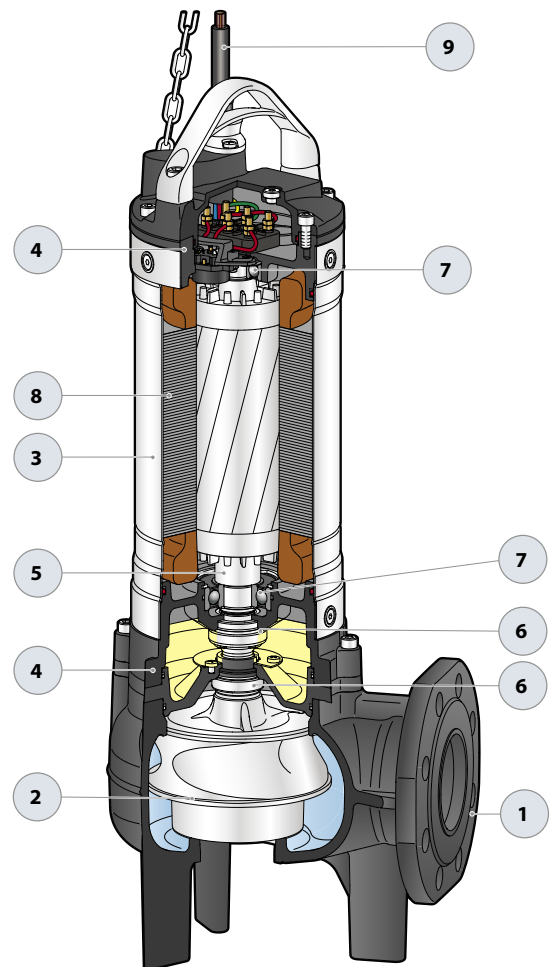
**7 BEARINGS 6306 ZZ C3 / 6304 ZZ C3**

**8 ELECTRIC MOTOR**  
three-phase 400 V - 50 Hz

**with automatically resettable thermal motor protector built into the motor (THREE-PHASE)**

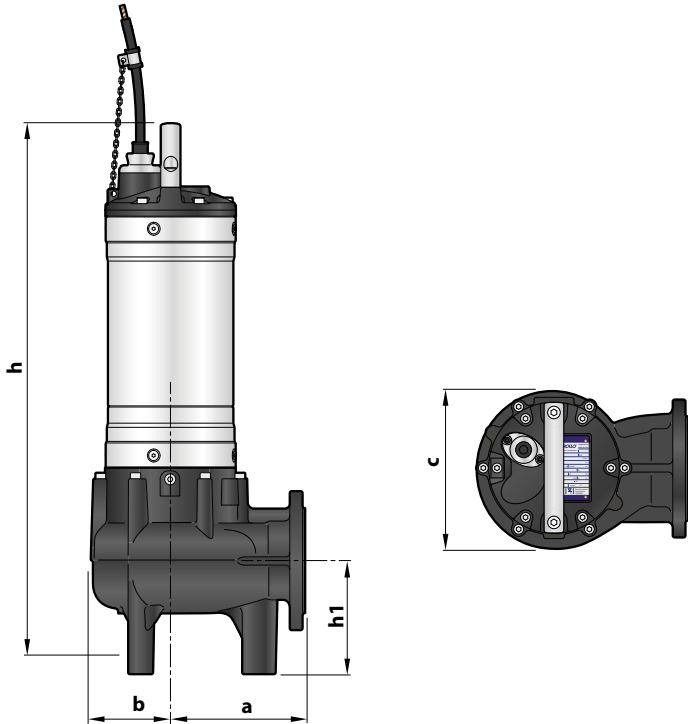
- Insulation: class F
- Protection: IP X8

**9 POWER CABLE**  
"H07 RN-F" type  
**Standard length 10 metres**

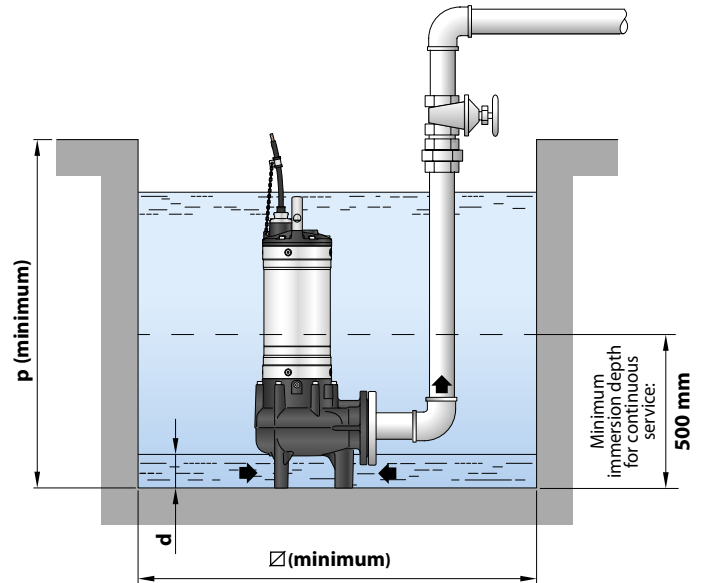


# BC 35 - 50

## DIMENSIONS AND WEIGHT



Typical installation



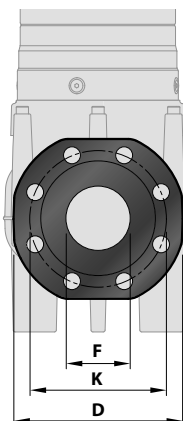
MODEL	Passage of solids	DIMENSIONS mm								
		a	b	c	h	h1	d	p	Ø	3~
BC 40/35	Ø 35 mm	170	113	225	595	100	40	800	500	56.0
BC 55/35					635					
BC 75/35					665					
BC 40/50	Ø 50 mm	178	107	210	655	150	85	800	500	58.5
BC 55/50					695					
BC 75/50					725					

## PORT FLANGE

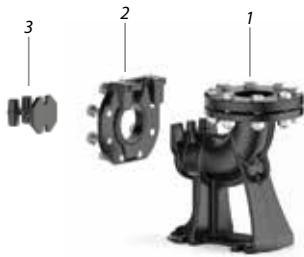
MODEL	FLANGE DN	F	K mm	D mm	HOLES	
					N°	Ø (mm)
BC 40/35	65 (PN10)	2½"	145	185	4	18
BC 55/35						
BC 75/35						
BC 40/50	80 (PN10)	3"	160	200	8	18
BC 55/50						
BC 75/50						

## ABSORPTION

MODEL	VOLTAGE
Three-phase	400 V
BC 40/35	6.2 A
BC 55/35	8.3 A
BC 75/35	13.5 A
BC 40/50	7.0 A
BC 55/50	9.0 A
BC 75/50	13.5 A



# SEWAGE LIFTING SYSTEM



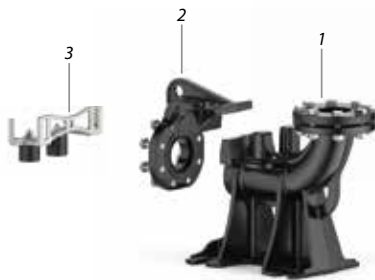
(B)

## VERTICAL DELIVERY VERSION WITH 3/4" GUIDE TUBES (B)

For <b>BC /35</b>	Code ASSPVX653V	DN <b>3"</b>
For <b>BC /50</b>	Code ASSVXCF071V	DN <b>3"</b>

### Kit comprising:

1. footing connection complete with counterflange;
2. slide guide with screws and seals;
3. support for guide tubes.



(C)

## VERTICAL DELIVERY VERSION WITH 2" GUIDE TUBES (C)

For <b>BC /35</b>	Code ASSPVX65V	DN <b>3"</b>
For <b>BC /50</b>	Code ASSVXCF0705V	DN <b>3"</b>

### Kit comprising:

1. footing connection complete with counterflange;
2. slide guide with screws and seals;
3. support for guide tubes.

## ACCESSORIES AVAILABLE ON ORDER

### SLIDE GUIDE (Can also be ordered separately)

For <b>BC /35</b> with guide tubes Ø 3/4"	Code ASSFL010
For <b>BC /50</b> with guide tubes Ø 3/4"	Code ASSFL0018
For <b>BC /35</b> with guide tubes Ø 2"	Code ASSFL065
For <b>BC /50</b> with guide tubes Ø 2"	Code ASSFL072

- Complete with screws and seals



### INTERMEDIATE SUPPORT (on request)

For guide tubes Ø 3/4"	Code 859SV340INTFA
For guide tubes Ø 2"	Code 859SV349INTFA



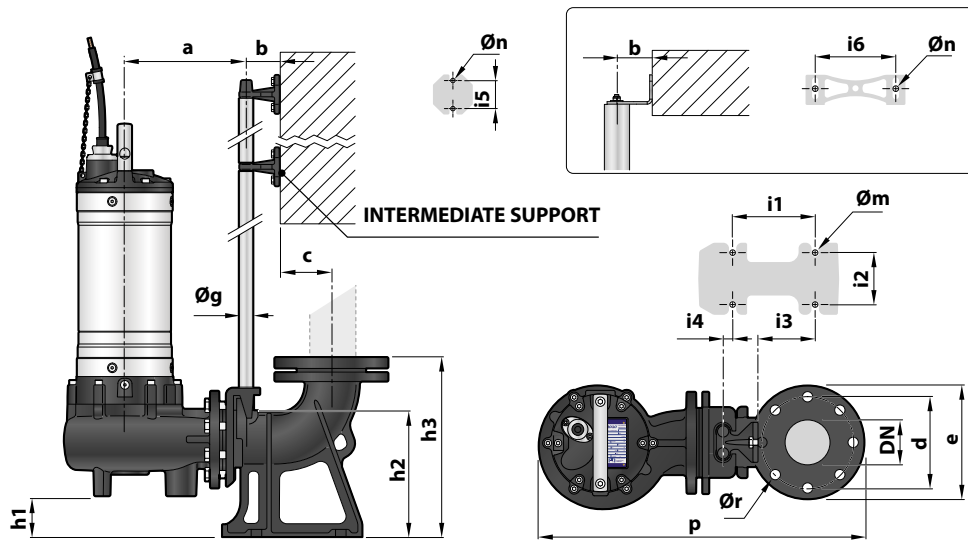
### GUIDE TUBES (AISI 304 stainless steel)

Guide tubes Ø 3/4"	Code 54SARTG005
Guide tubes Ø 2"	Code 54SARTG006

- To ensure stability, install the intermediate support:
  - every 2 metres with 3/4" guide tubes (mandatory);
  - every 3 metres with 2" guide tubes (recommended).
- Maximum length of the tube plank: 6 metres



## DIMENSIONS (Horizontal delivery version)



### Version with 3/4" guide tubes

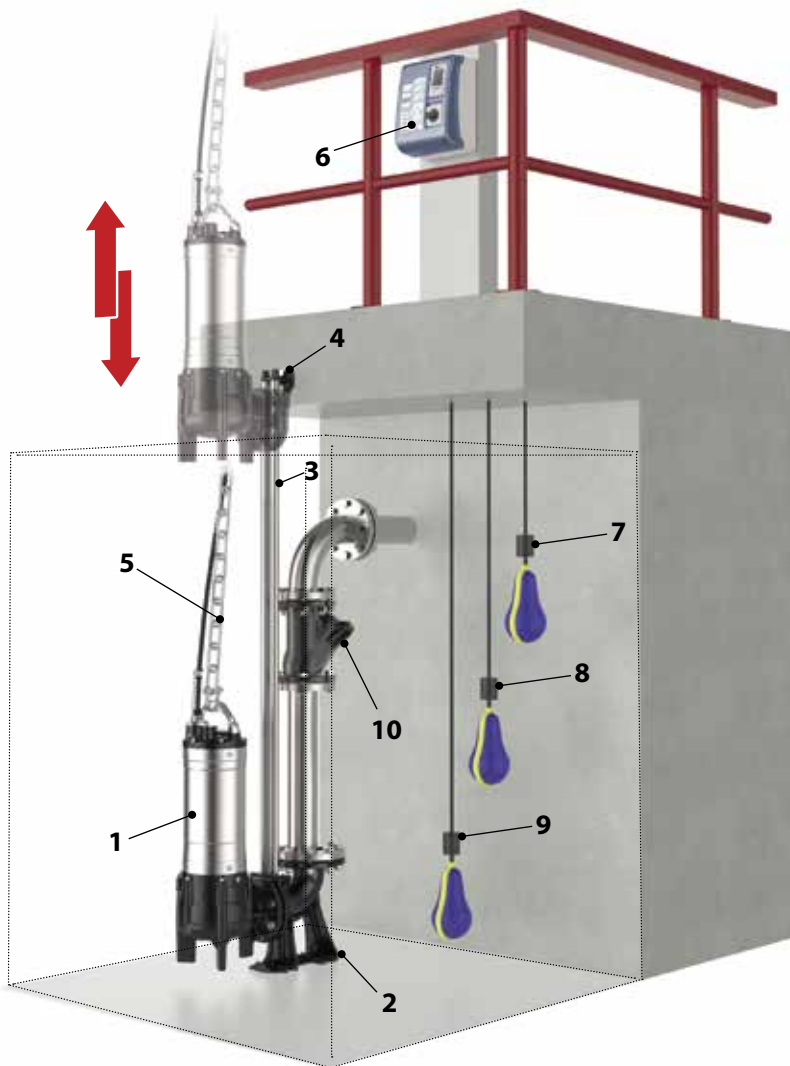
MODEL	Passage of solids mm	PORT DN	DIMENSIONS mm																	
			a	b	c	d	e	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
BC /35	Ø 35	3"	231	61	69	150	190	550	69	216	280	130	112	84	15	50	3/4"	14	11	18
BC /50	Ø 50		222					553	19											

### Version with 2" guide tubes

MODEL	Passage of solids mm	PORT DN	DIMENSIONS mm																		
			a	b	c	d	e	p	h1	h2	h3	i1	i2	i3	i4	i5	i6	Øg	Øm	Øn	Ør
BC /35	Ø 35	3"	319	86	95	160	200	710	107	264	392	250	150	34	-	80	186	2"	22	13.5	18
BC /50	Ø 50		328					714	57												

## TYPICAL INSTALLATION

1. Pump
2. Footing connection
3. Guide tubes
4. Support for guide tubes
5. Lifting chain
6. Control box
7. Alarm float switch
8. Starting float switch
9. Stop float switch
10. Non-return valve



*The features and specifications here in are in no way binding for the manufacturer.*

*Pedrollo S.p.A. reserves the right to modify the product in accordance with its production improvement policy at any time and without prior notice.*

### **Pedrollo S.p.A.**

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