

MC

Submersible pumps **DOUBLE-CHANNEL**

 Sewage water

 Domestic use

 Civil use

 Industrial use

- ※ An innovative project by Pedrollo's Research and Development department, has resulted in the new **MC**, a complete range of extremely robust and reliable electric pumps.
- ※ Thanks to the enhanced oversizing of the oil-bath electric motor, shaft and bearings, the new **MC** electric pumps guarantee an unprecedented service life, with high hydraulic performance, low operating costs and easy maintenance. The oil-bath motor also allows continuous operation of the electric pump, even if partially uncovered.
- ※ They are recommended in all installations for pumping waste water with suspended solid bodies up to 65 mm diameter.
- ※ The **MC** series is equipped with a double-channel impeller, ideal for the discharge of large volumes of waste water.



PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 m³/h)
- Head up to **25 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 50 mm** for MC /50
 - up to **Ø 65 mm** for MC /65
- Minimum immersion depth for continuous service:
 - **320 mm** for MC /50
 - **360 mm** for MC /65

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- External float switch and control box for single-phase versions

INSTALLATION AND USE

MC series pumps, made from heavy gauge robust cast iron, resistant to abrasion and long-lasting, are fitted with a **DOUBLE-CHANNEL** impeller and are capable of pumping liquids containing short fibred suspended solids. They are ideal for pumping **sewage, waste water, water mixed with mud, groundwater and surface water** in locations such as blocks of flats, public buildings, factories, multi-storey and underground car parks, washing areas, etc.

PATENTS - TRADE MARKS - MODELS

- Patent n° IT0001428923

OPTIONS AVAILABLE ON REQUEST

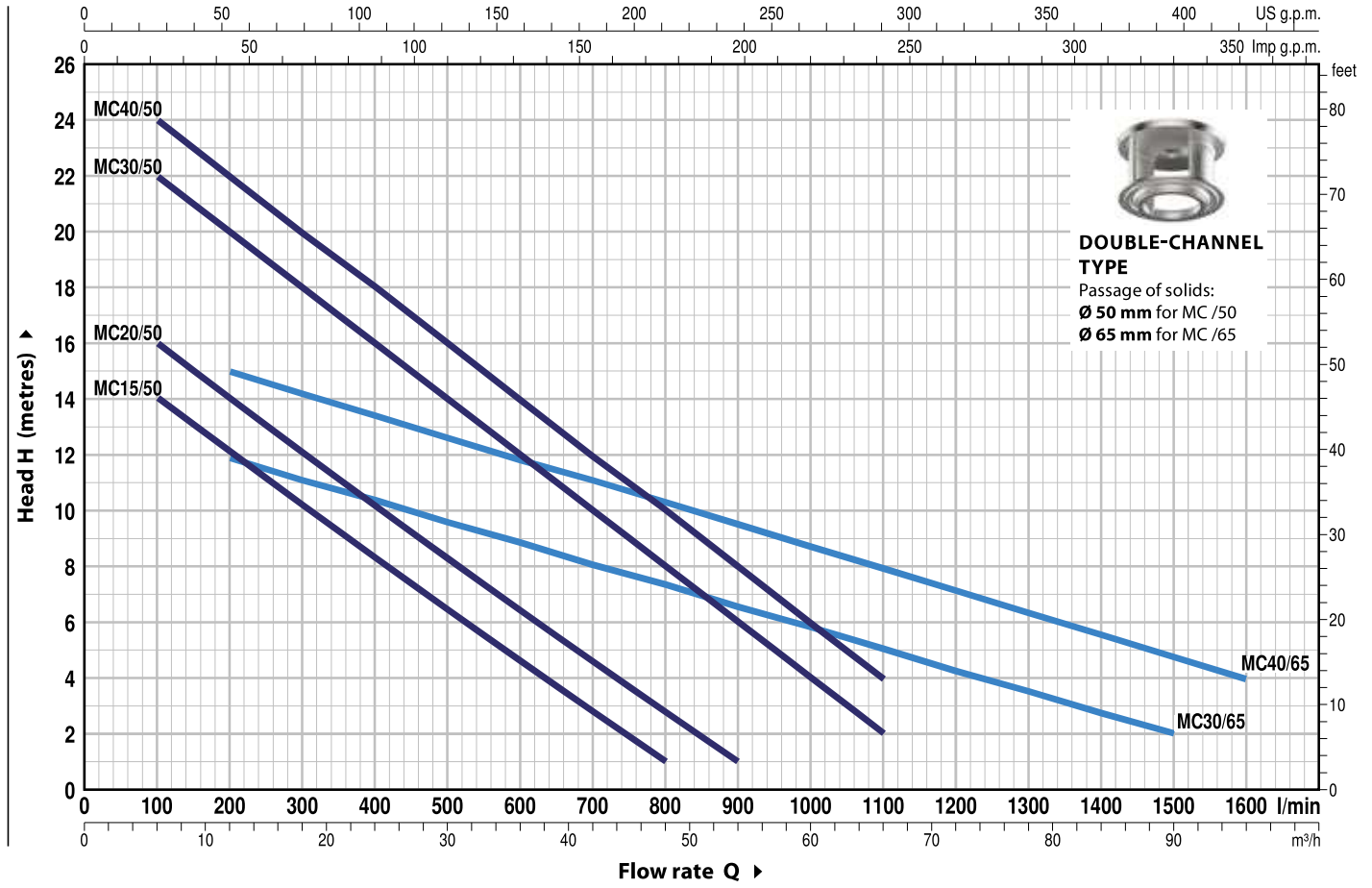
- **QES** control box for three-phase pumps
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

GUARANTEE

- ▮ **For the following versions, to validate the guarantee, the built-in thermal overload protector must be connected to the control box:**
 - three-phase
 - **MC 15-20-30-40/50**
 - **MC 30-40/65**

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



MODEL		POWER (P ₂)		Q	H metres																
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	12	18	24	30	36	42	48	54	60	66	72	90	96	
				l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1600		
MCm 15/50	MC 15/50	1.1	1.5	H metres	16	14	12.5	10.5	8.5	6.5	4.5	3	1								
MCm 20/50	MC 20/50	1.5	2		18	16	14	12.5	10.5	8.5	6.5	5	3	1							
MCm 30/50	MC 30/50	2.2	3		24	22	20	18	16	14	12	10	8	6	4	2					
-	MC 40/50	3	4		25	24	22	20	18	16	14	12	10	8	6	4					
MCm 30/65	MC 30/65	2.2	3		13	-	12	11	10.5	9.7	9	8	7.5	6.5	6	5	4.5	2			
-	MC 40/65	3	4		17	-	15	14	13.5	12.5	12	11	10.5	9.5	8.5	8	7	4.8	4		

Q = Flow rate H = Total manometric head

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

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1
2 IMPELLER	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type
3 MOTOR CASING	Cast iron with an Epoxy Electro Coating treatment
4 MOTOR CASING PLATE	Cast iron with an Epoxy Electro Coating treatment
5 MOTOR SHAFT	Stainless steel AISI 431

6 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-22	Ø 22 mm	Motor side	Ceramic	Graphite	NBR
STA-20	Ø 20 mm	Pump side	Silicon carbide	Silicon carbide	NBR

7 BEARINGS 6305 CM D 6 / 6204 ZZ - C3

8 ELECTRIC MOTOR

MCm 15-20-30: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding

MC: three-phase 400 V - 50 Hz. with thermal overload protector incorporated into the winding to be connected to the control box (supplied on demand)

- Insulation: class F
- Protection: IP X8

9 POWER CABLE

10 metres long "H07 RN-F" cable

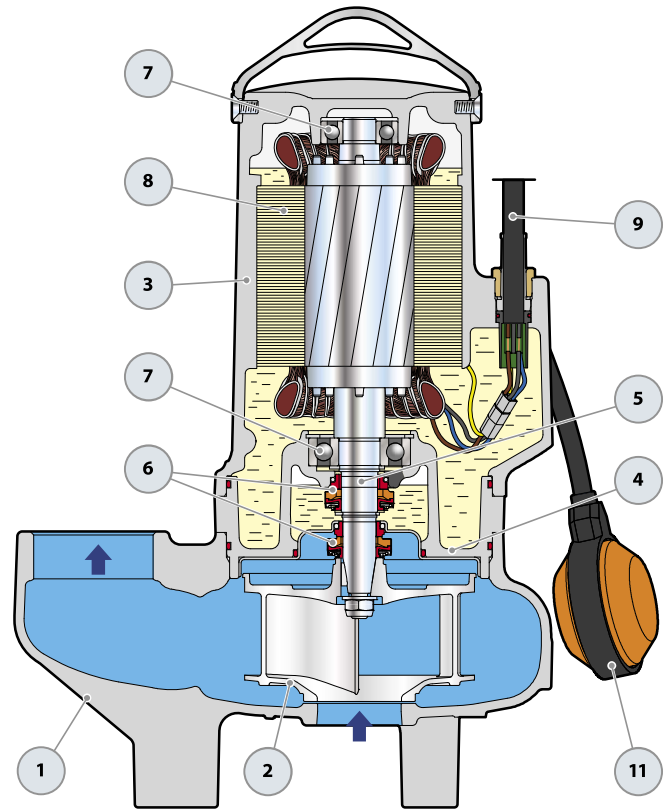
10 CONTROL BOX for MCm 15-20-30

(only for single-phase versions)

Complete with capacitor and manual reset motor protector

11 FLOAT SWITCH

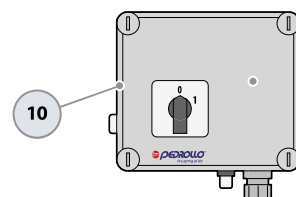
(only for single-phase versions)



OPTIONAL – Supporting Base

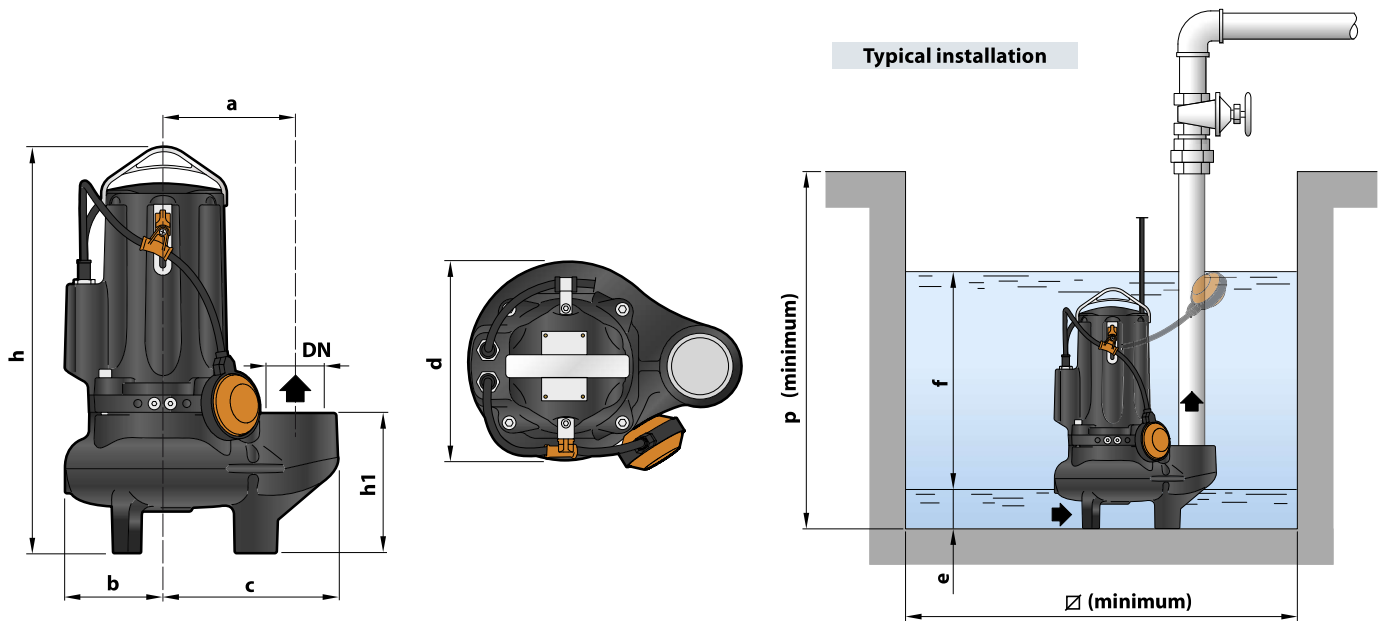


Standard Equipment



Control Box
(only for single-phase versions)

DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids mm	DIMENSIONS mm										kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	f	p	Ø	1~	3~
MCm 15/50	MC 15/50	2½"	Ø 50	162	119	212	487	167	242	75	variable	800	800	42.0	40.5
MCm 20/50	MC 20/50						513 487							43.0	42.0
MCm 30/50	MC 30/50						513							48.0	43.0
-	MC 40/50						513							-	48.0
MCm 30/65	MC 30/65	3"	Ø 65	180	120	240	547 521	201	246	85	variable	800	800	50.0	45.0
-	MC 40/65						547							-	50.0

ABSORPTION AND CAPACITORS

MODEL	VOLTAGE	
	Single-phase	230 V
MCm 15/50	10.5 A	10.1 A
MCm 20/50	14.0 A	13.4 A
MCm 30/50	18.0 A	17.3 A
MCm 30/65	14.0 A	13.4 A

MODEL	VOLTAGE		
	Three-phase	230-240 V	400-415 V
MC 15/50	7.8 A	4.5 A	2.6 A
MC 20/50	8.7 A	5.0 A	2.9 A
MC 30/50	11.2 A	6.5 A	3.7 A
MC 40/50	12.1 A	7 A	4.1 A
MC 30/65	11.2 A	6.5 A	3.7 A
MC 40/65	13.0 A	7.5 A	4.3 A

MODEL	CAPACITANCE CAPACITORS
	Single-phase
MCm 15/50	50 µF 450 VL
MCm 20/50	50 µF 450 VL
MCm 30/50 MCm 30/65	60 µF 450 VL