

## Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use



### PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m<sup>3</sup>/h)
- Head up to **15 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 50 mm**
- Minimum immersion depth for continuous service: **300 mm**

### CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1  
IEC 60335-1  
CEI 61-150

EN 60034-1  
IEC 60034-1  
CEI 2-3



### CERTIFICATIONS

Company with management system certified DNV  
ISO 9001: QUALITY  
ISO 14001: ENVIRONMENT AND SAFETY



### INSTALLATION AND USE

**MC** series pumps, made from heavy gauge cast iron offering exceptional sturdiness, abrasion resistance and durability, come equipped with a **DOUBLE-CHANNEL** impeller and are capable of pumping liquids containing short fibred suspended solids up to Ø 50 mm.

Recommended for conveying **drained water and sewage, waste water, water mixed with mud, groundwater and surface water** for applications in blocks of flats, industries, multi-storey and underground car parks, wash areas, etc.

### PATENTS - TRADE MARKS - MODELS

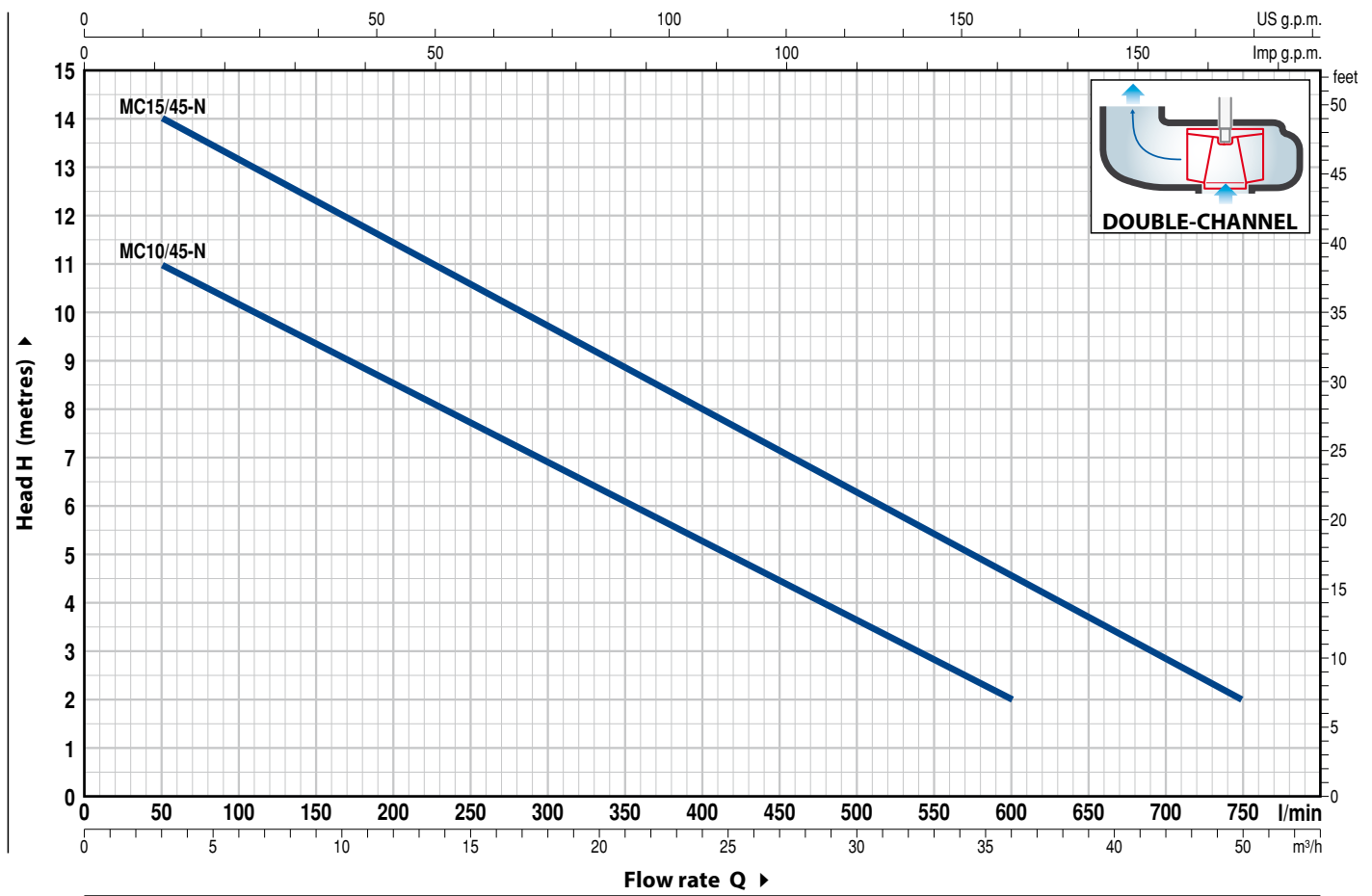
- Patent Pending n. BO2015A000116
- Registered EU Design n. 002501486-0003

### OPTIONS AVAILABLE ON REQUEST

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

### CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



| MODEL        |             | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |    |     |      |     |     |     |     |     |     |    |  |  |  |
|--------------|-------------|-------------------------|-----|----------|-------------------|----|-----|------|-----|-----|-----|-----|-----|-----|----|--|--|--|
| Single-phase | Three-phase | kW                      | HP  |          | m <sup>3</sup> /h | 0  | 3   | 6    | 12  | 18  | 24  | 30  | 36  | 42  | 45 |  |  |  |
| MCm 10/45-N  | MC 10/45-N  | 0.75                    | 1   | l/min    | 0                 | 50 | 100 | 200  | 300 | 400 | 500 | 600 | 700 | 750 |    |  |  |  |
|              |             |                         |     | H metres | 12                | 11 | 10  | 8.5  | 7   | 5   | 3.5 | 2   |     |     |    |  |  |  |
| MCm 15/45-N  | MC 15/45-N  | 1.1                     | 1.5 |          | 15                | 14 | 13  | 11.5 | 9.7 | 8   | 6.3 | 4.5 | 3   | 2   |    |  |  |  |

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 228/1 |
| 2 | <b>BASE</b>               | Stainless steel AISI 304   |
| 3 | <b>IMPELLER</b>           | Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type  |
| 4 | <b>MOTOR CASING</b>       | Cast iron with an Epoxy Electro Coating treatment  |
| 5 | <b>MOTOR CASING PLATE</b> | Stainless steel AISI 304   |
| 6 | <b>MOTOR SHAFT</b>        | Stainless steel EN 10088-3 - 1.4104  |

### 7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

| Seal Model  | Shaft Diameter | Position   | Materials       |                 |           |
|-------------|----------------|------------|-----------------|-----------------|-----------|
|             |                |            | Stationary ring | Rotational ring | Elastomer |
| MG1-14D SIC | Ø 14 mm        | Motor side | Silicon carbide | Graphite        | NBR       |
|             |                | Pump side  | Silicon carbide | Silicon carbide | NBR       |

### 8 BEARINGS 6203 ZZ / 6203 ZZ

### 9 CAPACITOR

| Pump         | Capacitance      |                |
|--------------|------------------|----------------|
| Single-phase | (230 V or 240 V) | (110 V)        |
| MCm 10/45-N  | 20 µF 450 VL     | 30 µF - 250 VL |
| MCm 15/45-N  | 25 µF 450 VL     | -              |

### 10 ELECTRIC MOTOR

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

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

- Insulation: class F
- Protection: IP X8

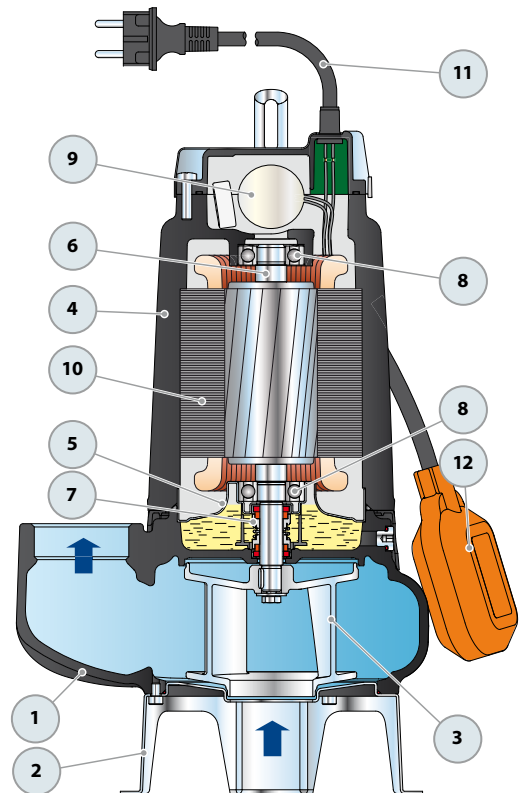
### 11 POWER CABLE

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

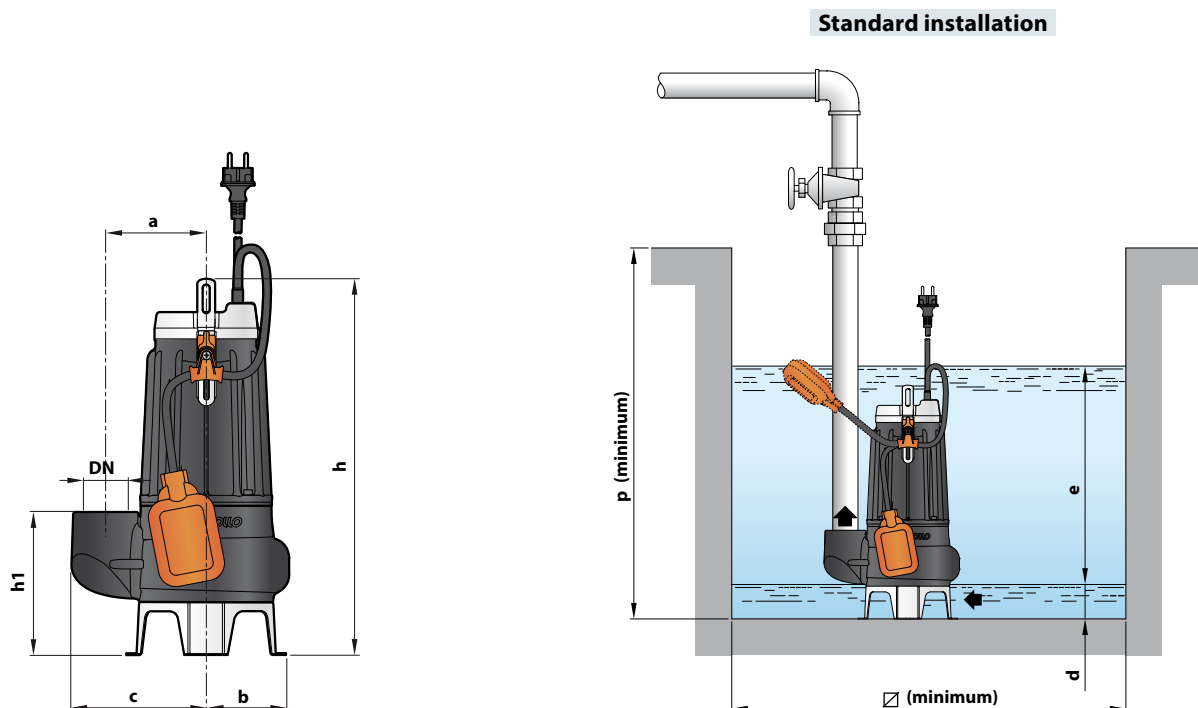
**Standard length 10 metres**

### 12 FLOAT SWITCH

(only for single-phase versions)



## DIMENSIONS AND WEIGHT



| MODEL        |             | PORT<br>DN | Passage<br>of solids | DIMENSIONS mm |    |     |     |     |    |          |     |     |      | kg   |      |
|--------------|-------------|------------|----------------------|---------------|----|-----|-----|-----|----|----------|-----|-----|------|------|------|
| Single-phase | Three-phase |            |                      | a             | b  | c   | h   | h1  | d  | e        | p   | ∅   | 1~   | 3~   |      |
| MCm 10/45-N  | MC 10/45-N  | 2"         | Ø 50 mm              | 115           | 95 | 155 | 413 | 164 | 60 | variable | 500 | 500 | 19.0 | 17.9 |      |
| MCm 15/45-N  | MC 15/45-N  |            |                      |               |    |     | 428 |     |    |          |     |     |      |      | 20.2 |

## ABSORPTION

| MODEL       | VOLTAGE |       |        |
|-------------|---------|-------|--------|
|             | 230 V   | 240 V | 110 V  |
| MCm 10/45-N | 5.0 A   | 4.8 A | 10.0 A |
| MCm 15/45-N | 8.2 A   | 7.9 A | -      |

| MODEL      | VOLTAGE |       |       |       |
|------------|---------|-------|-------|-------|
|            | 230 V   | 400 V | 240 V | 415 V |
| MC 10/45-N | 3.7 A   | 2.1 A | 3.5 A | 2.0 A |
| MC 15/45-N | 5.6 A   | 3.2 A | 5.4 A | 3.1 A |

## PALLETIZATION

| MODEL        |             | GROUPAGE<br>n. pumps | CONTAINER<br>n. pumps |
|--------------|-------------|----------------------|-----------------------|
| Single-phase | Three-phase |                      |                       |
| MCm 10/45-N  | MC 10/45-N  | 54                   | 72                    |
| MCm 15/45-N  | MC 15/45-N  | 54                   | 72                    |