

-  Sewage
-  Domestic use
-  Industrial use



TRm 1.3



TRm 2.2 AP

### PERFORMANCE RANGE

- Flow rate up to **410 l/min** (24.6 m<sup>3</sup>/h)
- Head up to **44.5 m**

### INSTALLATION AND USE

The **TRITUS** is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. The pumps are equipped with a robust, **hardened stainless steel blade**, expertly designed to cut through solids and fibers found in **domestic and civil** wastewater and sewage, for pressurized transfer of materials into sewage systems via small-diameter piping

### INCLUDES

- ✳ Power cable length **10 m**
- ✳ Float switch (exclusive to single-phase models)
- ✳ Switchbox compatible with single-phase versions

### APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Draining capability from bottom up to:
  - **85 mm** for 0.75, 0.9, 1.1, 1.3
  - **95 mm** for 1.5, 2.2, TR 2.2 AP, TR 3 AP, TR 3, TR 4
- **Minimum immersion for continuous service:**
  - **300 mm** for 0.75, 0.9, 1.1, 1.3
  - **350 mm** for 1.5, 2.2, TR 2.2 AP, TR 3 AP, TR 3, TR 4

### AVAILABLE UPON REQUEST

- ✳ Different voltage requirements 60 Hz frequency

### WARRANTY

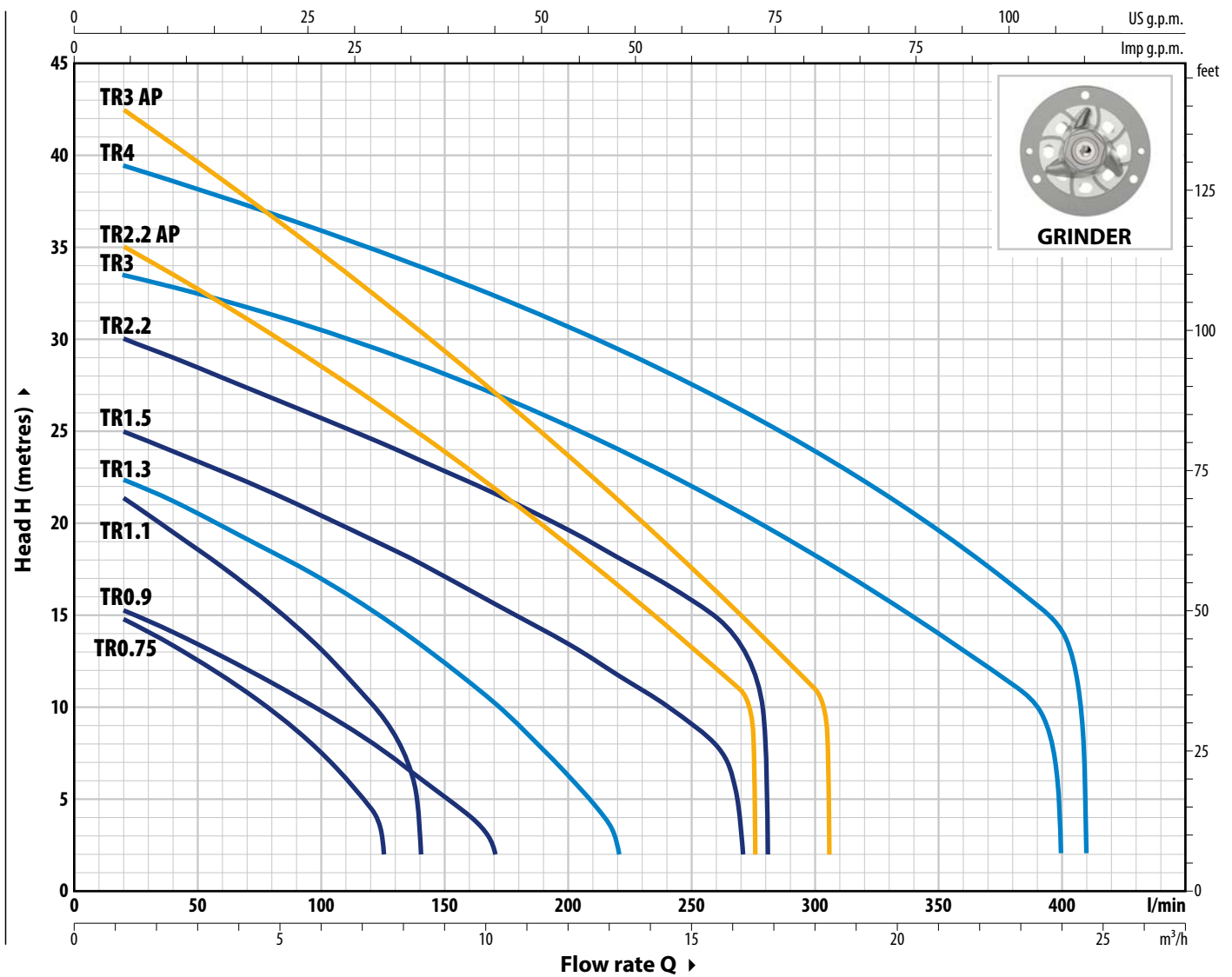
- ✳ **The warranty for the Three-Phase TR 1.5, TR 2.2, TR 2.2 AP, TR3 AP, TR3, TR 4 models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability.**

### PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Registered Community Model No. 002501486-0002, 008625685-0005, 008625685-0006
- TRITUS® Registered Trade mark No. 013017181

### CURVES AND PERFORMANCE DATA

50 Hz



TYPE		POWER (P <sub>2</sub> )		Q	Flow rate															
Single-ph.	Three-ph.	kW	HP		m <sup>3</sup> /h	0	1.2	3	4.8	6	7.5	8.4	10.2	12	13.2	14.4	16.2	16.8		
				l/min	0	20	50	80	100	125	140	170	200	220	240	270	280			
TRm 0.75	TR 0.75	0.75	1	H metres	16.5	15	12.7	10	7.5	2										
TRm 0.9	TR 0.9	0.9	1.25		16	15	13.2	11	9.6	7.5	6	2								
TRm 1.1	TR 1.1	1.1	1.5		23	21.5	18.6	15.5	13	9.5	2									
TRm 1.3	TR 1.3	1.3	1.75		23.5	22.5	20.6	18.4	17	14.8	13.4	10.2	6.2	2						
TRm 1.5	TR 1.5	1.5	2		26	25	23.4	21.7	20.4	18.8	17.8	15.6	13.4	11.7	10	2				
-	TR 2.2	2.2	3		31	30	28.4	26.8	25.7	24.3	23.5	21.5	19.5	18	16.5	13.2	2			

TYPE		POWER (P <sub>2</sub> )		Q	Flow rate											
Single-ph.	Three-ph.	kW	HP		m <sup>3</sup> /h	0	1.2	3	6	9	12	15	16.5	18	18.3	
				l/min	0	20	50	100	150	200	250	275	300	305		
TRm 2.2 AP	TR 2.2 AP	2.2	3	H metres	36.5	35	33	28.5	23.8	18.7	13.2	2				
-	TR 3 AP	3	4		44.5	42.5	40	35	29.5	23.7	17.5	14.3	11	2		

TYPE		POWER (P <sub>2</sub> )		Q	Flow rate										
Three-phase		kW	HP		m <sup>3</sup> /h	0	1.2	3	6	9	12	15	18	21	24
				l/min	0	20	50	100	150	200	250	300	350	400	410
TR 3		3	4	H metres	34.5	33.5	32.5	30.4	28	25.2	22	18.4	14.2	2	
TR 4		4	5.5		40	39.5	38	35.7	33.3	30.6	27.4	23.8	19.4	14.3	2

Q = Flow rate H = Total manometric head

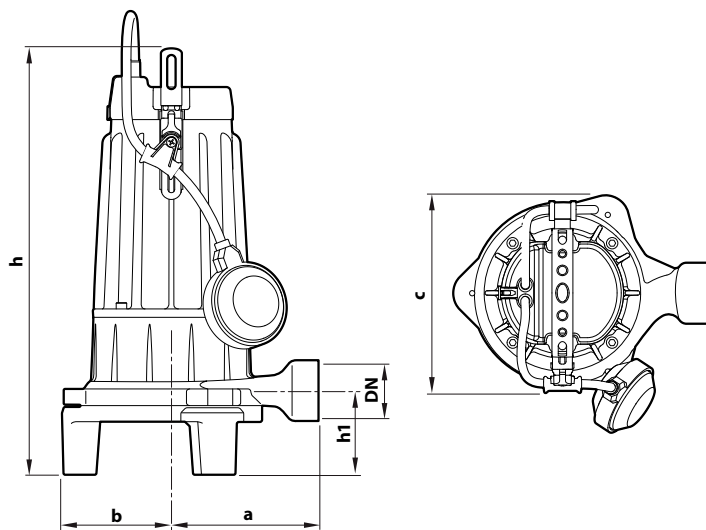
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

### ABSORPTION

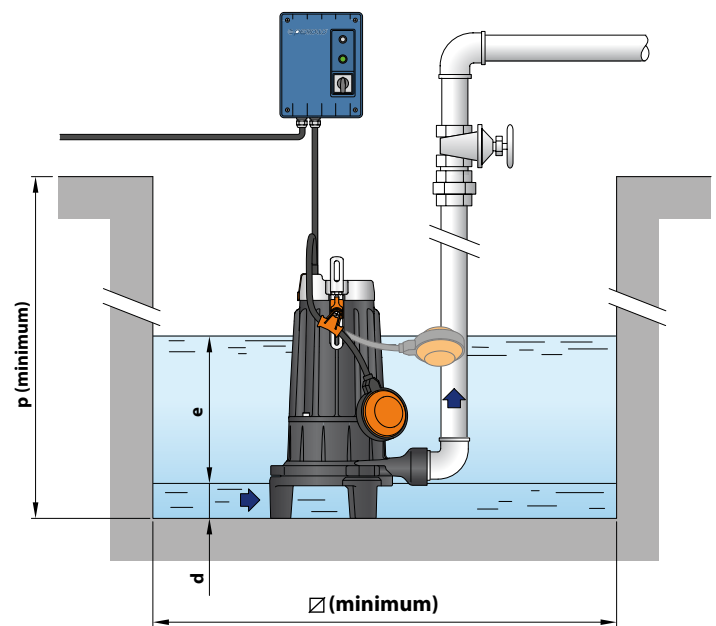
TYPE	VOLTAGE
<b>Single-phase</b>	<b>230 V</b>
<b>TRm 0.75</b>	5.5 A
<b>TRm 0.9</b>	6.0 A
<b>TRm 1.1</b>	7.4 A
<b>TRm 1.3</b>	9.0 A

TYPE	VOLTAGE
<b>Three-phase</b>	<b>400 V</b>
<b>TR 0.75</b>	2.5 A
<b>TR 0.9</b>	2.6 A
<b>TR 1.1</b>	3.0 A
<b>TR 1.3</b>	3.8 A

### DIMENSIONS AND WEIGHT



### Typical installation



TYPE		PORT DN	DIMENSIONS mm									kg *	
Single-ph.	Three-ph.		a	b	c	h	h1	d	e	p	Ø	1~	3~
<b>TRm 0.75</b>	<b>TR 0.75</b>	1 1/4"	140	104	186	406	80	85	adjustable	500	500	24.0	22.2
<b>TRm 0.9</b>	<b>TR 0.9</b>											23.9	22.2
<b>TRm 1.1</b>	<b>TR 1.1</b>											25.7	23.1
<b>TRm 1.3</b>	<b>TR 1.3</b>											25.5	23.1

(\* weight of pump without control panel)

### PALLET CAPACITY

TYPE	NO. OF PUMPS
<b>Single-ph.</b>	
<b>TRm 0.75</b>	36
<b>TRm 0.9</b>	36
<b>TRm 1.1</b>	36
<b>TRm 1.3</b>	36

TYPE	NO. OF PUMPS
<b>Three-ph.</b>	
<b>TR 0.75</b>	60
<b>TR 0.9</b>	60
<b>TR 1.1</b>	60
<b>TR 1.3</b>	60

## MATERIALS AND COMPONENTS

**1 Pump body** Cast iron with cataphoresis treatment

**2 Impeller** Open type in technopolymer

**3 Grinder** Hardened **AISI 440C** stainless steel

**4 Motor shaft** Stainless steel **AISI 431**

**5 Motor holder** Cast iron with cataphoresis treatment

### 6 Double mechanical seal in oil chamber

Seal	Shaft	Location	Materials
<b>MG1-14D SIC</b>	Ø 14 mm	Motor side	Silicon carbide / Graphite / NBR
		Pump side	Silicon carbide/Silicon carbide/NBR

### 7 Electric Motor

**TRm**: single-phase 230 V - 50 Hz with thermal motor protection

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

- Insulation: class F
- Protection rating: IP X8

### 8 Power cord

※ 10 metres 'H07 RN-F' type

### 9 Float switch

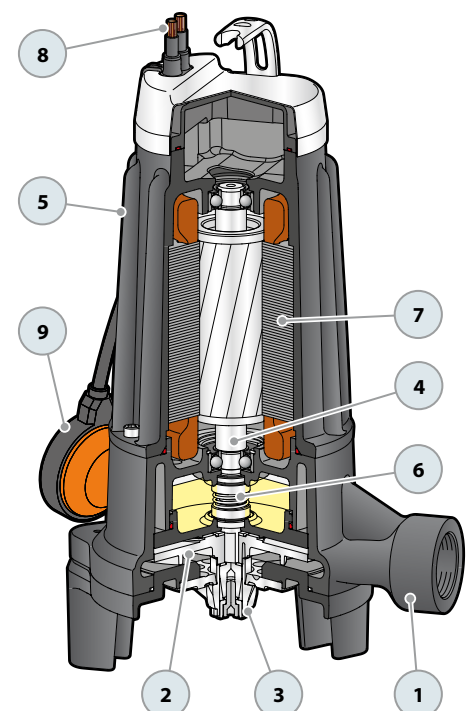
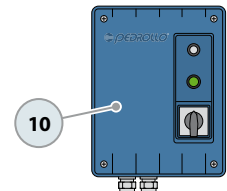
(exclusive to single-phase models)

### 10 Control panel (exclusive to single-phase models)

Including:

- ON/OFF switch
- manual reset motor protection
- operating capacitor (permanently switched on)
- starting capacitor

**Control panel**  
(standard for single-phase versions)

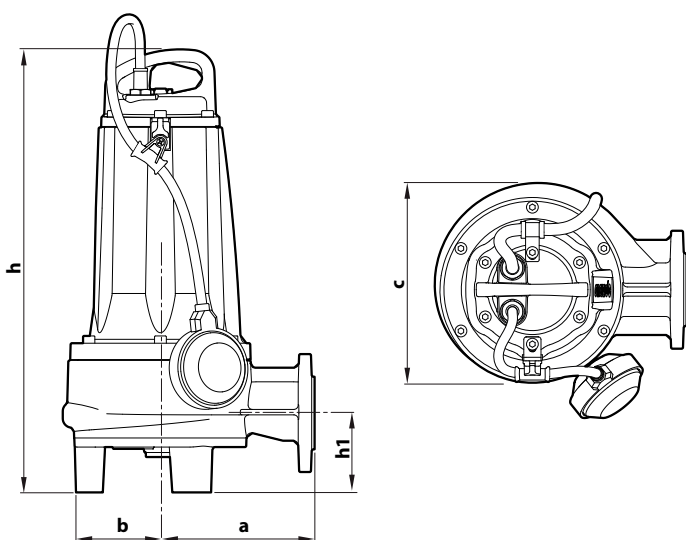


### ABSORPTION

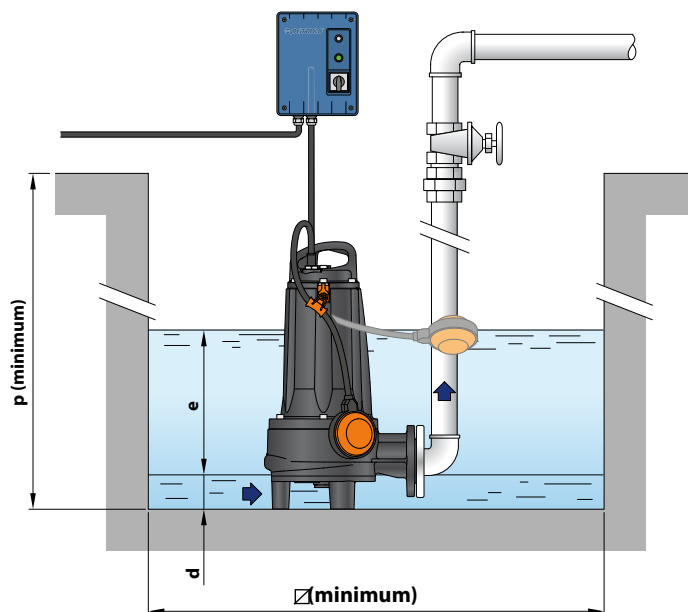
TYPE	VOLTAGE
<b>Single-phase</b>	<b>230 V</b>
<b>TRm 1.5</b>	10.0 A

TYPE	VOLTAGE
<b>Three-phase</b>	<b>400 V</b>
<b>TR 1.5</b>	3.7 A
<b>TR 2.2</b>	5.5 A

### DIMENSIONS AND WEIGHT



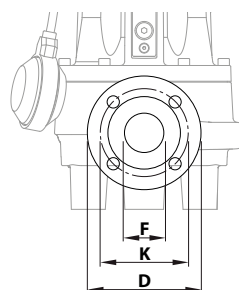
### Typical installation



TYPE		DIMENSIONS mm									kg	
Single-phase	Three-phase	a	b	c	h	h1	d	e	p	∅	1~	3~
<b>TRm 1.5</b>	<b>TR 1.5</b>	172	105	221	489	87.5	95	adjustable	800	800	45.0	44.0
-	<b>TR 2.2</b>										-	44.0

### PORT FLANGE

TYPE		FLANGE	F	K	D	HOLES	
Single-phase	Three-phase	DN	mm	mm	N°	∅ (mm)	
<b>TRm 1.5</b>	<b>TR 1.5</b>	<b>40</b> (PN6)	1½"	100	130	4	14
-	<b>TR 2.2</b>						



### PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-phase	Three-phase	
<b>TRm 1.5</b>	<b>TR 1.5</b>	12
-	<b>TR 2.2</b>	12

## MATERIALS AND COMPONENTS

**1 Pump body** Cast iron with cataphoresis treatment

**2 Impeller** Micro-cast **AISI 304** stainless steel

**3 Grinder** Hardened **AISI 440C** stainless steel

**4 Motor shaft** Stainless steel **AISI 431**

**5 Motor holder** Cast iron with cataphoresis treatment

### 6 Double mechanical seal with interposed oil chamber

Seal	Shaft	Location	Materials
<b>STA-20</b>	Ø 20 mm	Motor side	Ceramic / Graphite / NBR
<b>STA-19</b>	Ø 19 mm	Pump side	Silicon carbide/Silicon carbide/NBR

### 7 Electric Motor

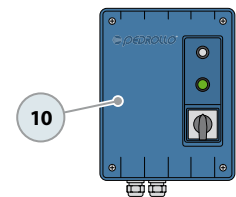
**TRm:** single-phase 230 V - 50 Hz with thermal motor protection

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

✘ with winding integrated thermal motor protection to be connected to the control panel

- Insulation: class F
- Protection rating: IP X8

**Control panel**  
(standard for single-phase versions)



### 8 Power cord

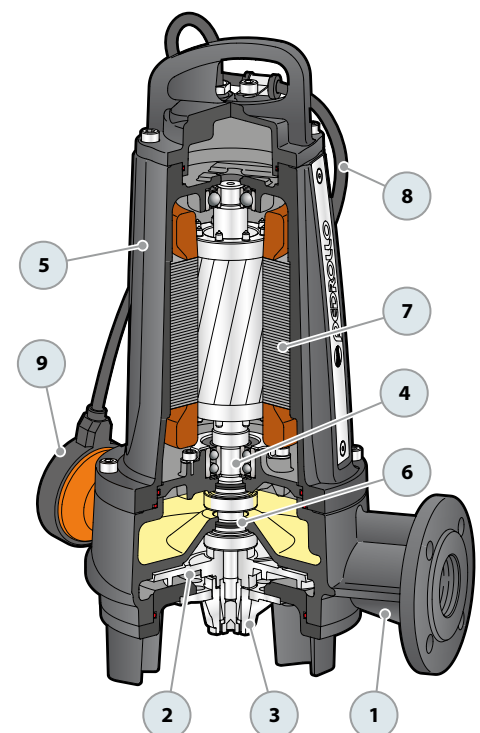
✘ 10 metres 'H07 RN-F' type

### 9 Float switch

(exclusive to single-phase models)

### 10 Control panel (exclusive to single-phase models)

- Including:
- ON/OFF switch
  - manual reset motor protection
  - operating capacitor (permanently switched on)
  - starting capacitor

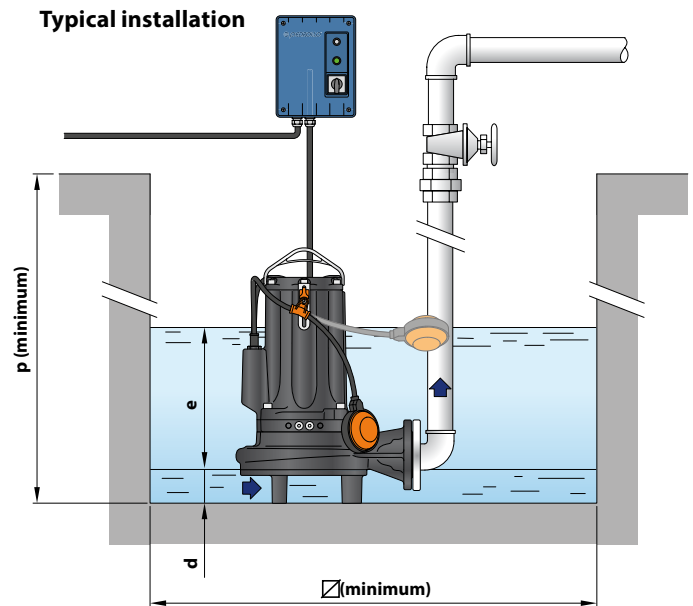
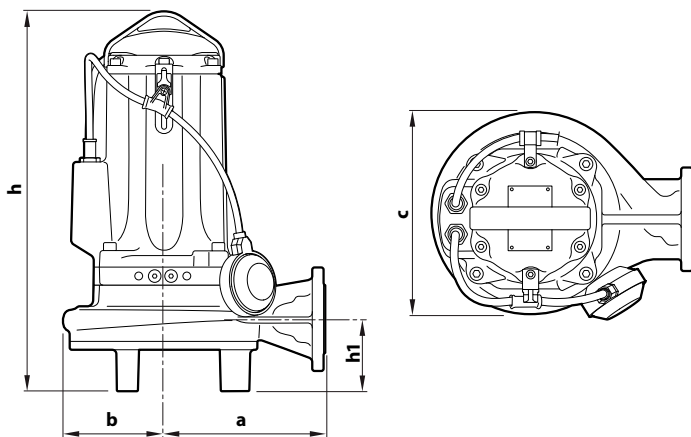


### ABSORPTION

TYPE	VOLTAGE
<b>Single-phase</b>	<b>230 V</b>
<b>TRm 2.2 AP</b>	14.0 A

TYPE	VOLTAGE
<b>Three-phase</b>	<b>400 V</b>
<b>TR 2.2 AP</b>	5.5 A
<b>TR 3 AP</b>	6.3 A
<b>TR 3</b>	6.3 A
<b>TR 4</b>	7.5 A

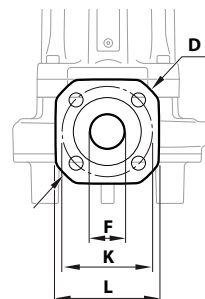
### DIMENSIONS AND WEIGHT



TYPE		DIMENSIONS mm									kg	
Single-phase	Three-phase	a	b	c	h	h1	d	e	p	Ø	1~	3~
<b>TRm 2.2 AP</b>	<b>TR 2.2 AP</b>	203	126	256	480   453	90	95	adjustable	800	800	53.5	47.0
-	<b>TR 3 AP</b>				480						-	53.0
-	<b>TR 3</b>				-						-	53.0
-	<b>TR 4</b>				-						-	54.0

### PORT FLANGE

TYPE		FLANGE DN	F	K mm	D mm	L mm	HOLES	
Single-phase	Three-phase						N°	Ø mm
<b>TRm 2.2 AP</b>	<b>TR 2.2 AP</b>	<b>40</b> (PN10)	1½"	110	150	130	4	18
-	<b>TR 3 AP</b>							
-	<b>TR 3</b>							
-	<b>TR 4</b>							



### PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-phase	Three-phase	
<b>TRm 2.2 AP</b>	<b>TR 2.2 AP</b>	18
-	<b>TR 3 AP</b>	18
-	<b>TR 3</b>	18
-	<b>TR 4</b>	18

## MATERIALS AND COMPONENTS

<b>1 Pump body</b>	Cast iron with cathoporesis treatment
<b>2 Impeller</b>	Open type in micro-cast <b>AISI 304</b> stainless steel
<b>3 Grinder</b>	Hardened <b>AISI 440C</b> stainless steel
<b>4 Motor shaft</b>	Stainless steel <b>AISI 431</b>
<b>5 Motor holder</b>	Cast iron with cathoporesis treatment
<b>6 Motor bracket</b>	Cast iron with cathoporesis treatment

### 7 Double mechanical seal with interposed oil chamber

Seal	Shaft	Location	Materials
<b>STA-24</b>	Ø 24 mm	Motor side	Ceramic / Graphite / NBR
<b>STA-22 SIC</b>	Ø 22 mm	Pump side	Silicon Carbide/Silicon Carbide/NBR

### 8 Electric Motor

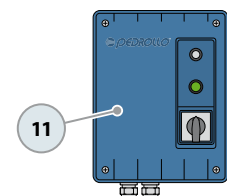
**TRm:** single-phase 230 V - 50 Hz with thermal motor protection

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

✘ with winding integrated thermal motor protection to be connected to the control panel

- Insulation: class F
- Protection rating: IP X8

**Control panel**  
(standard for single-phase versions)



### 9 Power cord

✘ 10 metres 'H07 RN-F' type

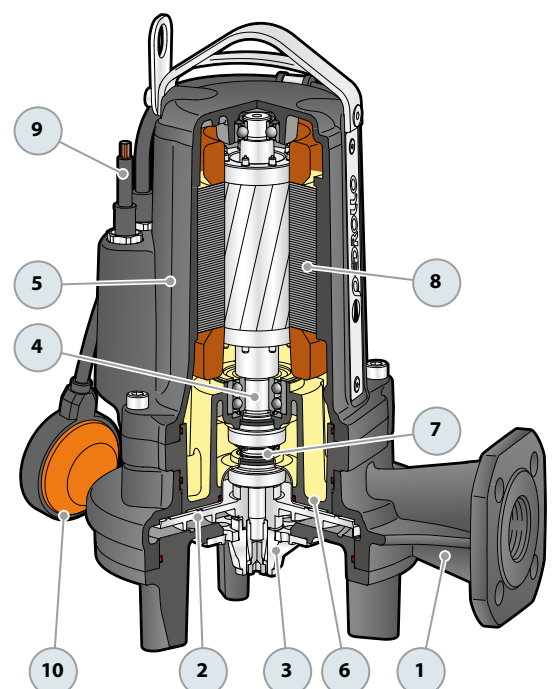
### 10 Float switch

(exclusive to single-phase models)

### 11 Control panel (exclusive to single-phase models)

Including:

- ON/OFF switch
- manual reset motor protection
- operating capacitor (permanently switched on)
- starting capacitor





# SEWAGE LIFTING SYSTEM (TRITUS 0.75 - 2.2)

## VERSION WITH HORIZONTAL DELIVERY AND 3/4" GUIDE PIPES

For TR 0.75, 0.9, 1.1, 1.3	Code ASSPTRITUS11	DN 2"
For TR 1.5, 2.2	Code ASSPTRITUS22	DN 2"

※ Kit consisting of:



Coupling foot



Guide rail



Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND 3/4" GUIDE PIPES

For TR 0.75, 0.9, 1.1, 1.3	Code ASSPTRITUS11V	DN 2 1/2"
For TR 1.5, 2.2	Code ASSPTRITUS22V	DN 2 1/2"

※ Kit consisting of:



Coupling foot complete with counter-flange



Guide rail



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

※ For TR 0.75, 0.9, 1.1, 1.3	Code ASSFL003
※ For TR 1.5, 2.2	Code ASSFL004

Complete with ring nut and gasket for 0.75, 0.9, 1.1, 1.3

Complete with screws and seals for TR 1.5, 2.2

### GUIDE TUBE SUPPORT

※ For Ø 3/4 " guide tubes	Code 859SV340INTFA
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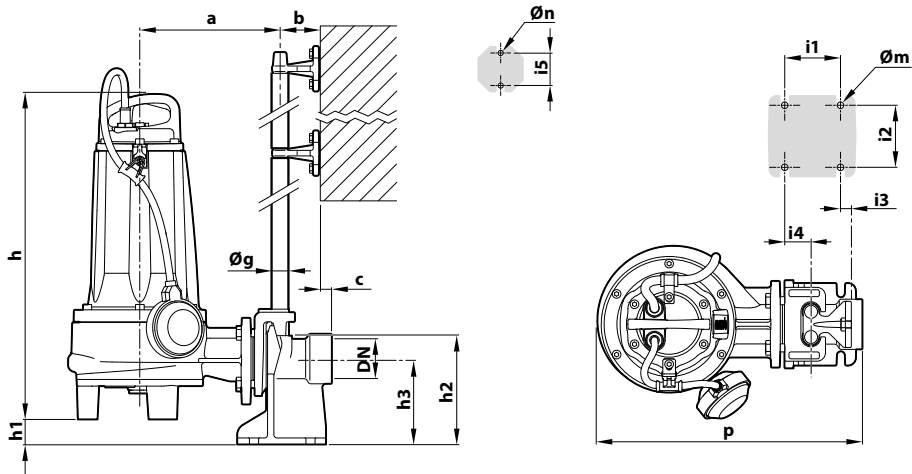
To ensure stability, insert a support every 2 metres along the guide tube

### GUIDE TUBE (AISI 304 stainless steel)

※ 2 metres Ø 3/4" guide tube	Code 54SARTG0052F
※ 3 metres Ø 3/4" guide tube	Code 54SARTG0053F
※ 6 metres Ø 3/4" guide tube	Code 54SARTG0056F

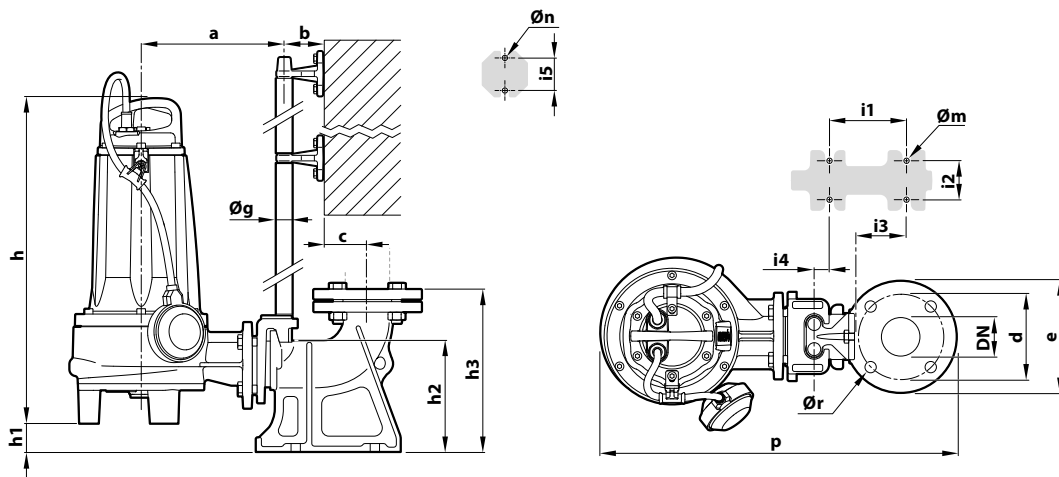


### DIMENSIONS (Version with horizontal outlet)



TYPE		PORT DN	Solid bodies	DIMENSIONS mm														
Single-ph.	Three-ph.			a	b	c	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn
TRm 0.75	TR 0.75	2"	Ø 7 mm	212	61	17	395	50	165	130	85	94	16	40	50	¾"	14	11
TRm 0.9	TR 0.9																	
TRm 1.1	TR 1.1																	
TRm 1.3	TR 1.3																	
TRm 1.5	TR 1.5	2"	Ø 7 mm	215	61	17	400	42.5	165	130	85	94	16	40	50	¾"	14	11
-	TR 2.2																	

### DIMENSIONS (Version with vertical delivery)



TYPE		PORT DN	Solid bodies	DIMENSIONS mm																	
Single-ph.	Three-ph.			a	b	c	d	e	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
TRm 0.75	TR 0.75	2½"	Ø 7 mm	206	61	51.5	125	165	505	48	163.5	215.5	120	72	62	3	50	¾"	14	11	18
TRm 0.9	TR 0.9																				
TRm 1.1	TR 1.1																				
TRm 1.3	TR 1.3																				
TRm 1.5	TR 1.5	2½"	Ø 7 mm	211	61	51.5	125	165	514	40	163.5	215.5	120	72	62	3	50	¾"	14	11	18
-	TR 2.2																				

# SEWAGE LIFTING SYSTEM (TRITUS 2.2 AP - 3 AP - TR3 - TR4)

## VERSION WITH HORIZONTAL DELIVERY AND 3/4" GUIDE PIPES

For TR 2.2 AP, 3 AP, 3, 4	Code ASSPTRITUS61	DN 2"
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※ Kit consisting of:



Coupling foot



Guide rail



Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND 3/4" GUIDE PIPES

For TR 2.2 AP, 3 AP, 3, 4	Code ASSPTRITUS61V	DN 2 1/2"
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※ Kit consisting of:



Coupling foot complete with counterflange



Guide rail



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

※ For TR 2.2 AP, 3 AP, 3, 4	Code ASSFL014
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Complete with screws and seals

### GUIDE TUBE SUPPORT

※ For Ø 3/4 " guide tubes	Code 859SV340INTFA
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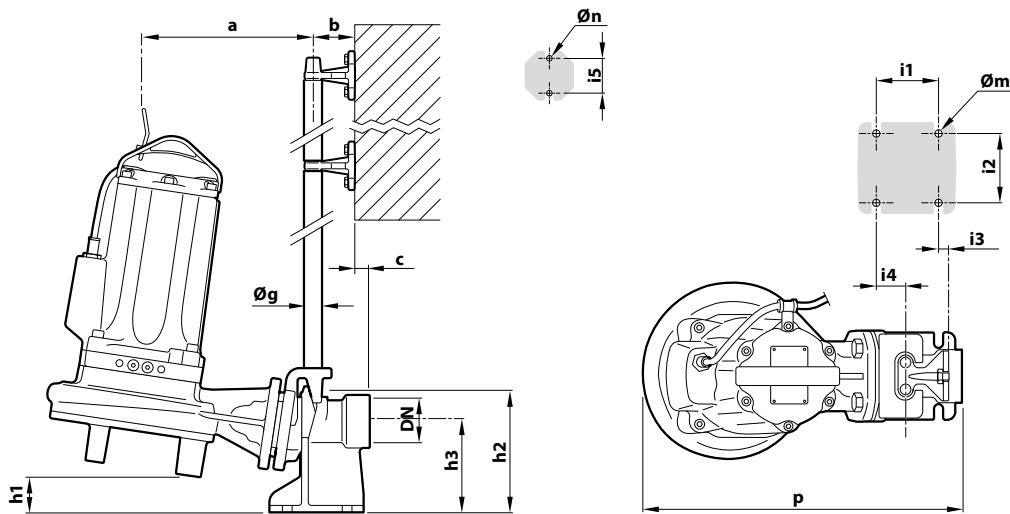
To ensure stability, insert a support every 2 metres along the guide tube

### GUIDE TUBE (AISI 304 stainless steel)

※ 2 metres Ø 3/4" guide tube	Code 54SARTG0052F
※ 3 metres Ø 3/4" guide tube	Code 54SARTG0053F
※ 6 metres Ø 3/4" guide tube	Code 54SARTG0056F

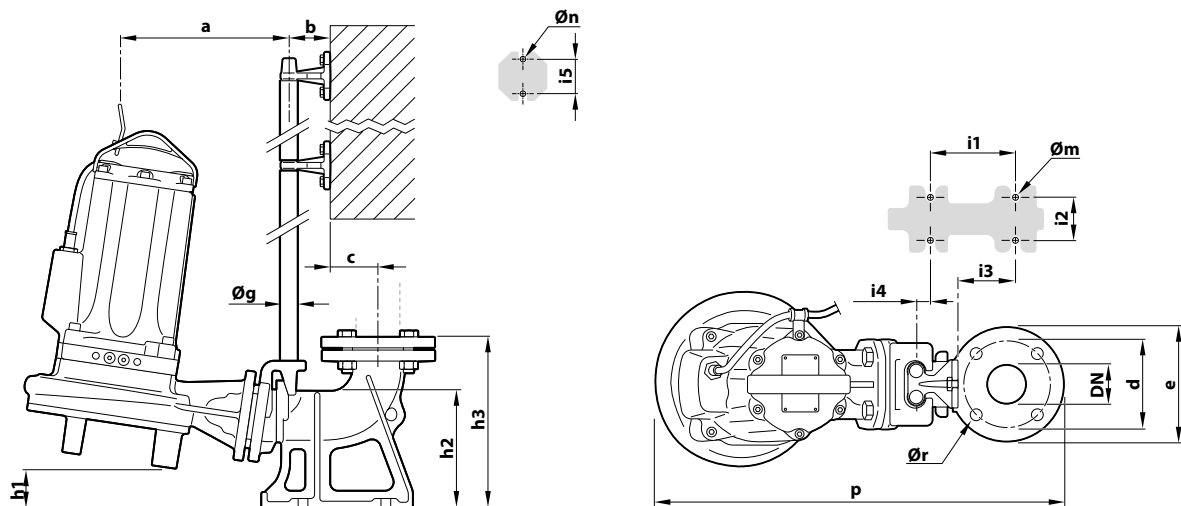


## DIMENSIONS (Version with horizontal outlet)



TYPE	PORT DN	Solid bodies	DIMENSIONS mm															
			a	b	c	p	h1	h2	h3	h	i1	i2	i3	i4	i5	Øg	Øm	Øn
TR 2.2 AP	2"	Ø 7 mm	228	61	17	455	71	165	130	85	94	16	40	50	3/4	14	11	
TR 3 AP																		
TR 3																		
TR 4																		

## DIMENSIONS (Version with vertical delivery)



TYPE	PORT DN	Solid bodies	DIMENSIONS mm																	
			a	b	c	d	e	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
TR 2.2 AP	2½"	Ø 7 mm	225	61	51.5	125	165	569	69	163.5	215.5	120	72	62	3	50	3/4	14	11	18
TR 3 AP																				
TR 3																				
TR 4																				