

# SMN

**motralec**

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## Single-channel closed impeller

### General characteristics

- Single-channel closed impeller
- 22,0 kW motor power
- 4 poles
- DN150 ÷ DN250 delivery port
- max 130 mm free passage

### Electromechanical assembly

Electromechanical assembly in GJL-250 cast iron, for submerged operation. Seal set comprising 2 (two) opposing silicon carbide mechanical seals in inspectable oil sump. Ecological dry motor. Separate pump body. Series available in explosion-proof version.

### Applications

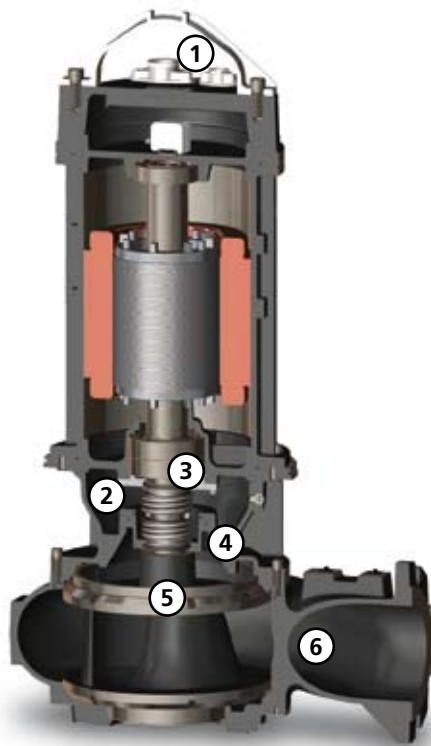
Designed for heavy-duty applications, they are generally used in civil and industrial wastewater treatment plants, for lifting in sewer systems and for pumping industrial sludges. Transporting rainwater containing solids and recycling raw or activated sludges and biological liquids. This series is prefitted for installation of the ZENIT cooling system for dry or semi-submerged installation.

### Construction materials

Case	Cast Iron EN-GJL 250
Impeller	Cast iron EN-GJL-250
Nuts and bolts	Stainless Steel - Class A2-70
Standard gasket	Rubber - NBR
Shaft	Stainless Steel - AISI 420
Cooling jacket	Carbon Steel - Fe360 ÷ Fe370
Set of standard mechanical seals	Two Silicon carbide mechanical seals (2SiC)

### operating limits

Maximum operating temperature	40 °C
PH of treated fluid	6 to 10 pH
Viscosity of treated fluid	1 mm <sup>2</sup> /s
Maximum immersion depth	20 m
Density of treated fluid	1 Kg/dm <sup>3</sup>
Maximum acoustic pressure	70 dB
max starts per hour	10



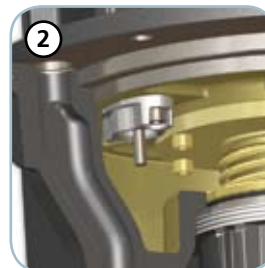
**Cooling by means of process liquid**

The rear of the impeller is specially shaped to convey some of the process liquid into the cavity between the body and the jacket to cool the motor. Once the cavity is full, the liquid is drawn into the pump body along a special pipe and then expelled.



**Cable Gland**

Cable gland system to guarantee perfect water-tightness. The universal thread ring-nut can be removed to fix a rigid or flexible duct to the cable gland to protect the power supply cable



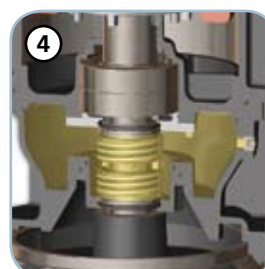
**Sensor**

Sensor for detecting water in the mechanical seal oil chamber. Connected to an electrical panel, the sensor provides immediate warning of wear on the first mechanical seal, preventing possible damage to the motor



**Mechanical seals**

Two mechanical seals in silicon carbide (2SiC)



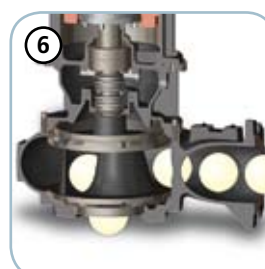
**Oil sump**

Large oil sump to guarantee longer mechanical seal lifetime



**Drive shaft**

Impeller connected to the drive shaft by means of tapered coupling



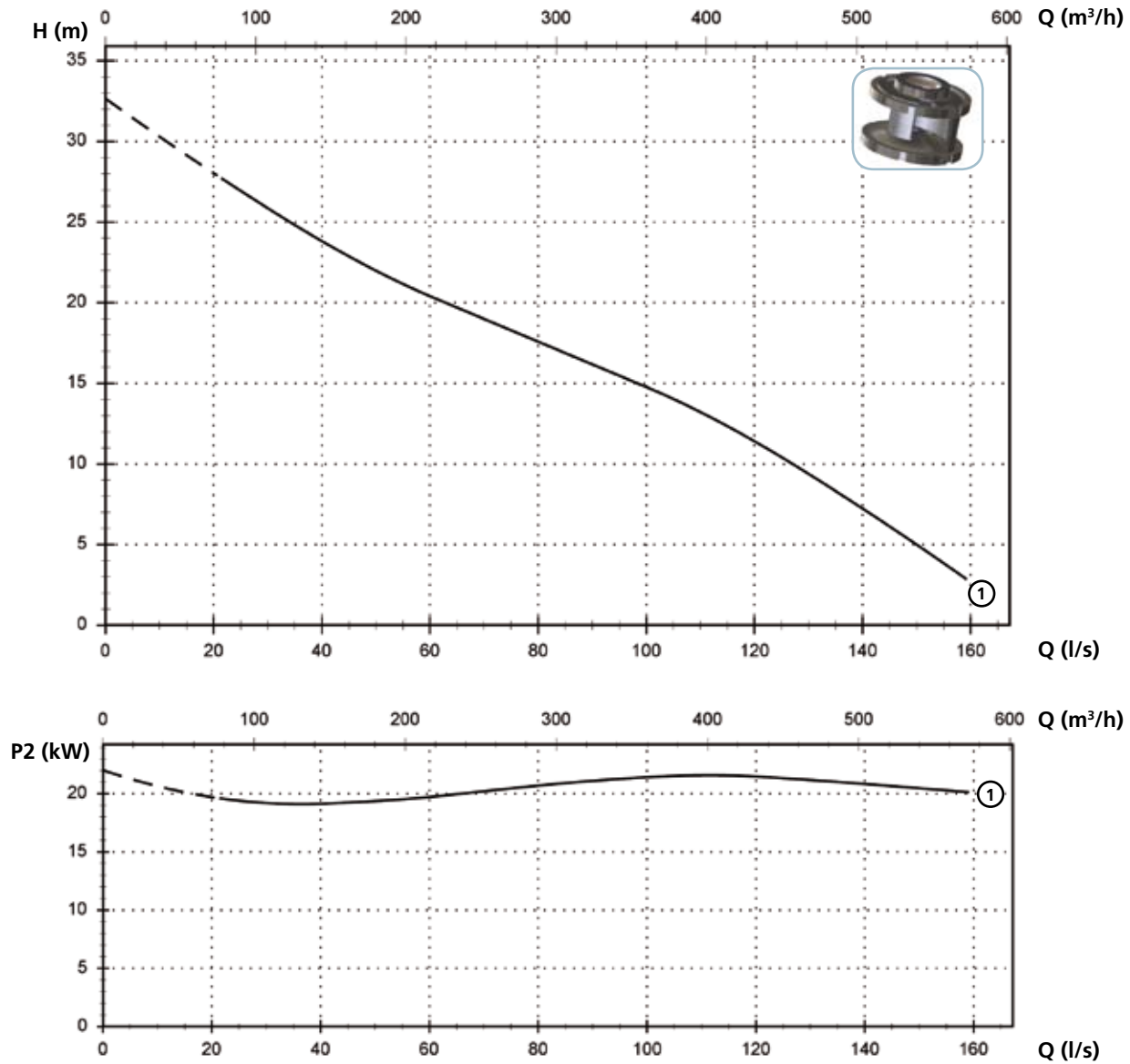
**Free passage**

Ample free passage allowing the expulsion of solids and preventing fouling of the impeller

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## Models with horizontal DN150 PN10-16 flanged delivery port - 4 poles

### Performances



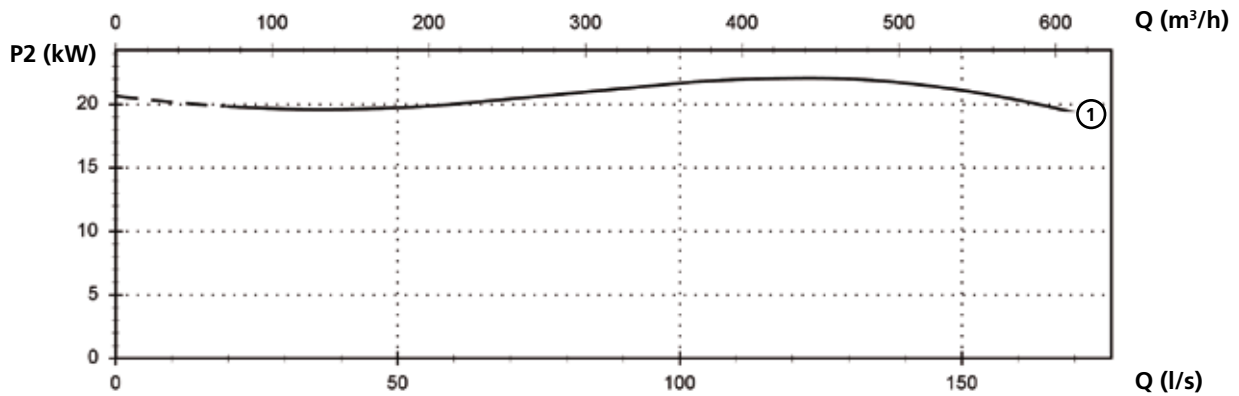
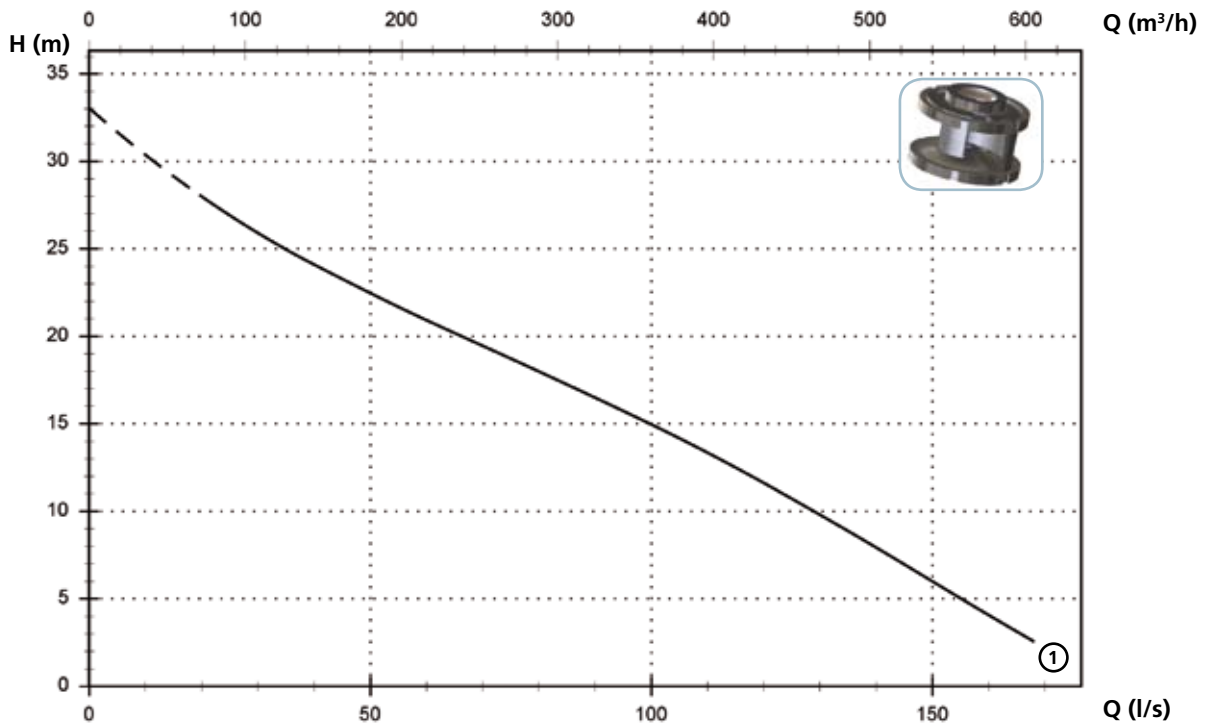
### Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Ø	Cable (*)	Free passage
① SMN 3000/4/150 A1LT/50	400	3	25.3	22	43.5	1450	DN150 PN10-16	A	100x130 mm

(\*) A = H07RN-F 4G6 + H07RN-F 4G6 + H07RN-F 4G1.5 - 10 m

**Models with horizontal DN200 PN10 flanged delivery port - 4 poles**

**Performances**



**Technical data**

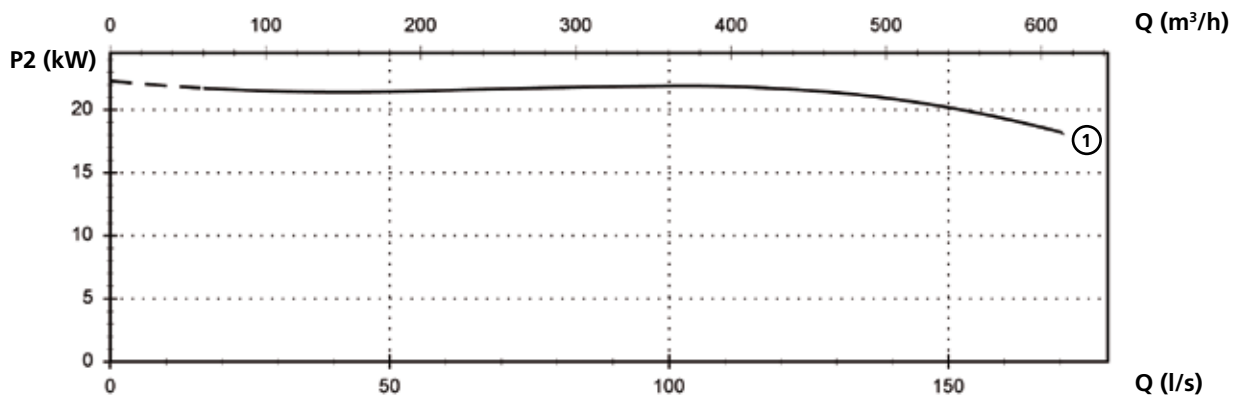
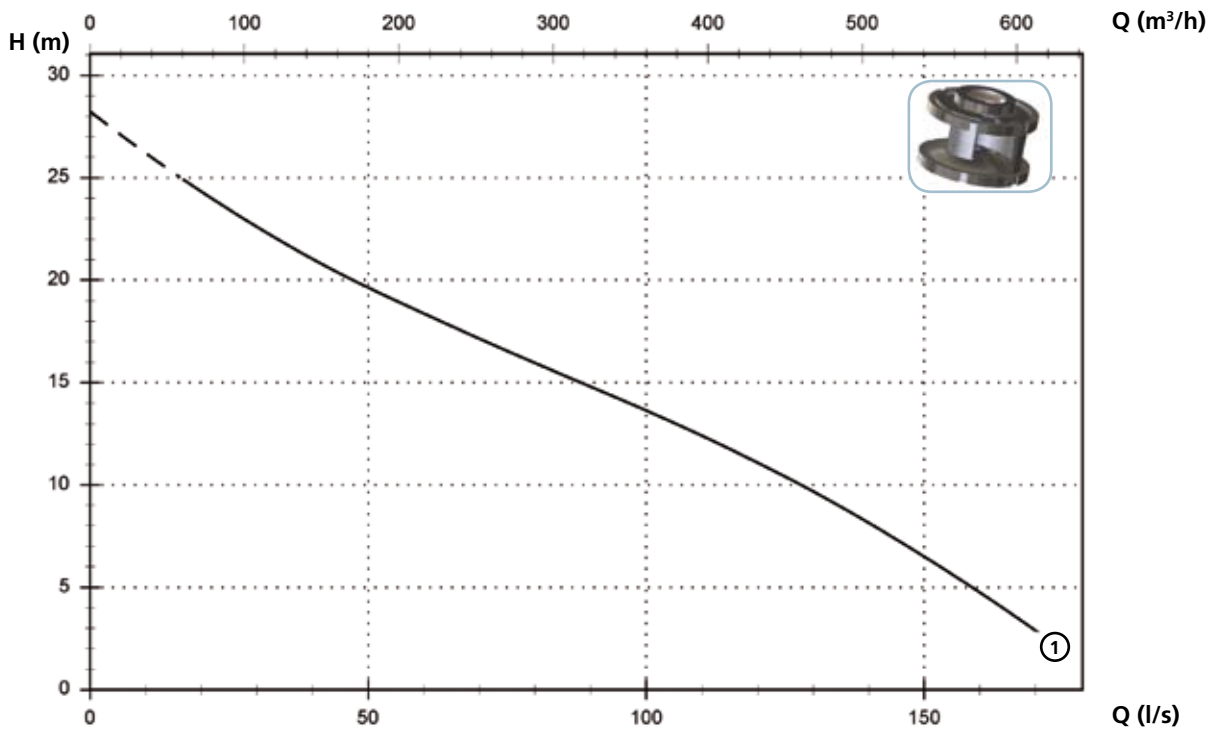
	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Ø	Cable (*)	Free passage
① SMN 3000/4/200A1LT/50	400	3	25.3	22	43.5	1450	DN200 PN10	A	100x130 mm

(\*) A = H07RN-F 4G6 + H07RN-F 4G6 + H07RN-F 4G1.5 - 10 m

# SMN

## Models with horizontal DN250 PN10 flanged delivery port - 4 poles

### Performances



### Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Ø	Cable (*)	Free passage
① SMN 3000/4/250 A1LT/50	400	3	25.3	22	43.5	1450	DN250 PN10	A	100x130 mm

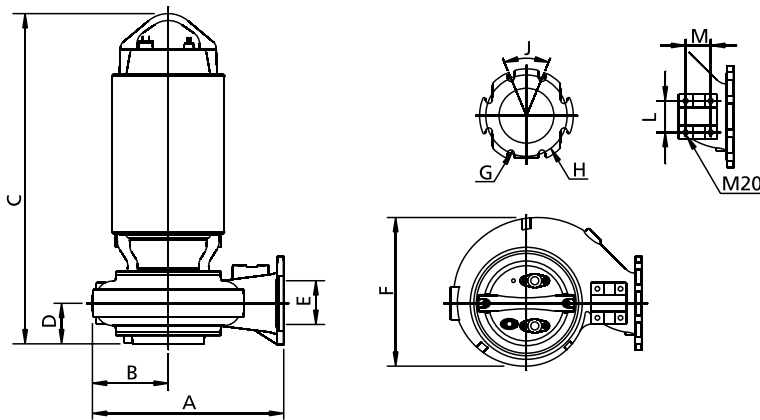
(\*) A = H07RN-F 4G6 + H07RN-F 4G6 + H07RN-F 4G1.5 - 10 m

**Versions available**

(Key to versions on page 15)

	Electrical variants											Cooling		Mechanical seals					
	N A E	T C	T C D	T C D T	T C D G T	T C G	T C S T	T C S G T	T S	T R	T R G	F T	C G F T	N	CC	2SIC	SICM	SICAL	2SICAL
SMN 3000/4/150 A1LT/50									●					●	●	●			
SMN 3000/4/200A1LT/50								●						●	●	●			
SMN 3000/4/250 A1LT/50								●						●	●	●			

**Overall dimensions and weights**

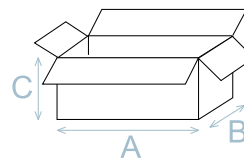


	A	B	C	D	E	F	G	H	J	L	M	kg
SMN 3000/4/150 A1LT/50	650	255	1200	140	150	505	24	240	45°	109	79	392
SMN 3000/4/200A1LT/50	695	275	1200	145	200	540	24	295	45°	109	79	393
SMN 3000/4/250 A1LT/50	785	310	1200	145	250	610	24	350	30°	109	79	402

Measurements in mm

**Packaging dimension**

	A	B	C
SMN 3000/4/150 A1LT/50	1080	1245	1135
SMN 3000/4/200A1LT/50	1080	1245	1135
SMN 3000/4/250 A1LT/50	1080	1245	1135



Dimension in mm

**Installations available**

