



### Construction

Submersible borehole pumps for 4" wells (DN 100 mm), and 6" (DN 150 mm), with external jacket in stainless steel AISI 304 and stages in polycarbonate for 4SD pumps and in noryl for 4SDF, 6SD, 6SDN pumps.

### Impellers

radial floating impellers	4SDF 16, 22, 36, 46, 54
radial impellers	4SD 31, - 6SDN 12, 16, 21
mixed flow impellers	4SD 10, 15 - 6SD 18, 19, 20

**Connection:** screwed connection ISO 228.  
Delivery casing with built-in non-return valve.

### Applications

- For water supply.
- For civil and industrial applications.
- For fire fighting applications.
- For irrigation.

### Operating conditions

- Liquid temperature: - up to a 35 °C for 4" motors  
- up to a 25 °C for 6-8-10" motors.
- Max. sand quantity into the water: 150 g/m<sup>3</sup> (300 g/m<sup>3</sup> high percentage of solids and sand).
- Continuous duty.

### Rewindable motor CS series

- 2-pole induction motor, 50 Hz (n ≈ 2900 rpm).  
Sized for connection to the pumps according to NEMA Standards.  
Standard voltages:
- single-phase 230 V up to 2,2 kW for 4" motors.
  - three-phase 230 V; 400 V, for 4" motors.
  - three-phase 400 V; 400/690 V, for 6" motors.
- Voltage tolerance : +6% / -10%.

In order to limit both current and torque at each starting, for rated motor powers equal to or higher than 7.5 kW, one of the following types of starting is necessary: star/delta, soft starter, stator impedance or autotransformer.

The electropumps 4SD31, 4SDF series comply with the European Regulation no. 547/2012.

### Materials

Components	Part Nr.	4SD, 4SDF	6SD, 6SDN
External jacket	14.02	Cr-Ni steel	AISI 304
Stage casing (4SDF)	25.02	Cr-Ni steel	AISI 304
Stage casing (4,6SD)	25.02	Polycarbonate	(Lexan 141 R)
Diffuser	26.00		GFN2V* (NORYL®)
Impeller	28.00	GFN2V* (NORYL®)* for 4SDF	
Wear ring		Cr-Ni steel	AISI 304
Shaft	64.00	Cr steel	AISI 430 F
Delivery casing	12.01	Cr-Ni steel	Bronze
Suction lantern	32.02	AISI 304	G-Cu Sn 10 EN 1982
Bearing bush	12.03-12.30	Thermoplastic	Rubber
Strainer	15.50	Cr-Ni steel	AISI 430
Screws		Cr-Ni steel	AISI 304

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Components	4CS	6CS-R
External frame	Cr-Ni steel	AISI 304
Shaft	Cr-Ni-Mo steel AISI 316 (shaft end)	Cr steel AISI 431
Thrust bearing	Oil wetted ball type	Oscillation pads
Bearing bush	Oil wetted ball type	Graphite

### Operating conditions motor

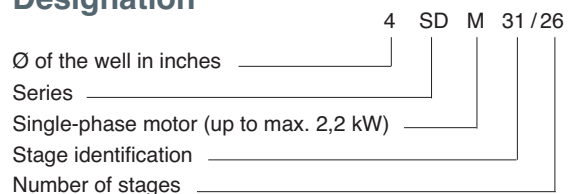
Motor	Max. Liquid temperature	Cooling: minimum flow velocity	Max. starts per hour	Motor P2
4CS	35 °C	0,08 m/s	20	all types
6CS-R	30 °C	0,1 m/s	15	4÷11 kW
		0,2 m/s	15	13÷15 kW
	25 °C	0,2 m/s	15	18,5 kW
		0,2 m/s	13	22÷30 kW

Insulation class F for 4" motors, class E for 6" motors.  
Motor suitable operation with frequency converter .  
Protection IP 68.

### Special features on request

- Other voltages.
- 60 Hz frequency.
- Other temperatures.
- Encapsulated motor **FK series**.

### Designation



### Coverage chart $n \approx 2900$ rpm

