

Construction

Submersible borehole pumps for 6" wells (DN 150 mm), 8" (DN 200 mm) and 10" (DN 250 mm), with stages in cast iron or in bronze, on request.

Impellers: - mixed flow impellers.

Connection: - screwed connection ISO 228 for 6SDS;
- flange with counter-flange for welding for 8SDS and 10SDS

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 25 °C.
Max. sand quantity into the water: 150 g/m³ (300 g/m³ high percentage of solids and sand).
Continuous duty.

Rewindable motor CS, CS-R series

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
With water wetted winding in rewindable execution.
Sized for connection to the pumps according to NEMA Standards.
Standard voltages:
- three-phase 400 V; 400/690 V.
Voltage tolerance : +6% / -10%.

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

Operating conditions motor

Motor	Max. Liquid temperature	Cooling: minimum flow velocity	Max. starts per hour	Motor P2
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
	40 °C	0,1 m/s	13	37 kW
		0,3 m/s	6	45 kW
8CS-R	25 °C	0,3 m/s	10	30÷45 kW
			8	51÷75 kW
			6	92 kW
10CS	25 °C	0,50 m/s	10	all types

Insulation class E for 6-8" motors, PVC coated wire for 10" 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

B 10 SDS 190 / 6

Bronze construction (on request)

Ø of the well in inches _____

Series _____

Stage identification _____

Number of stages _____

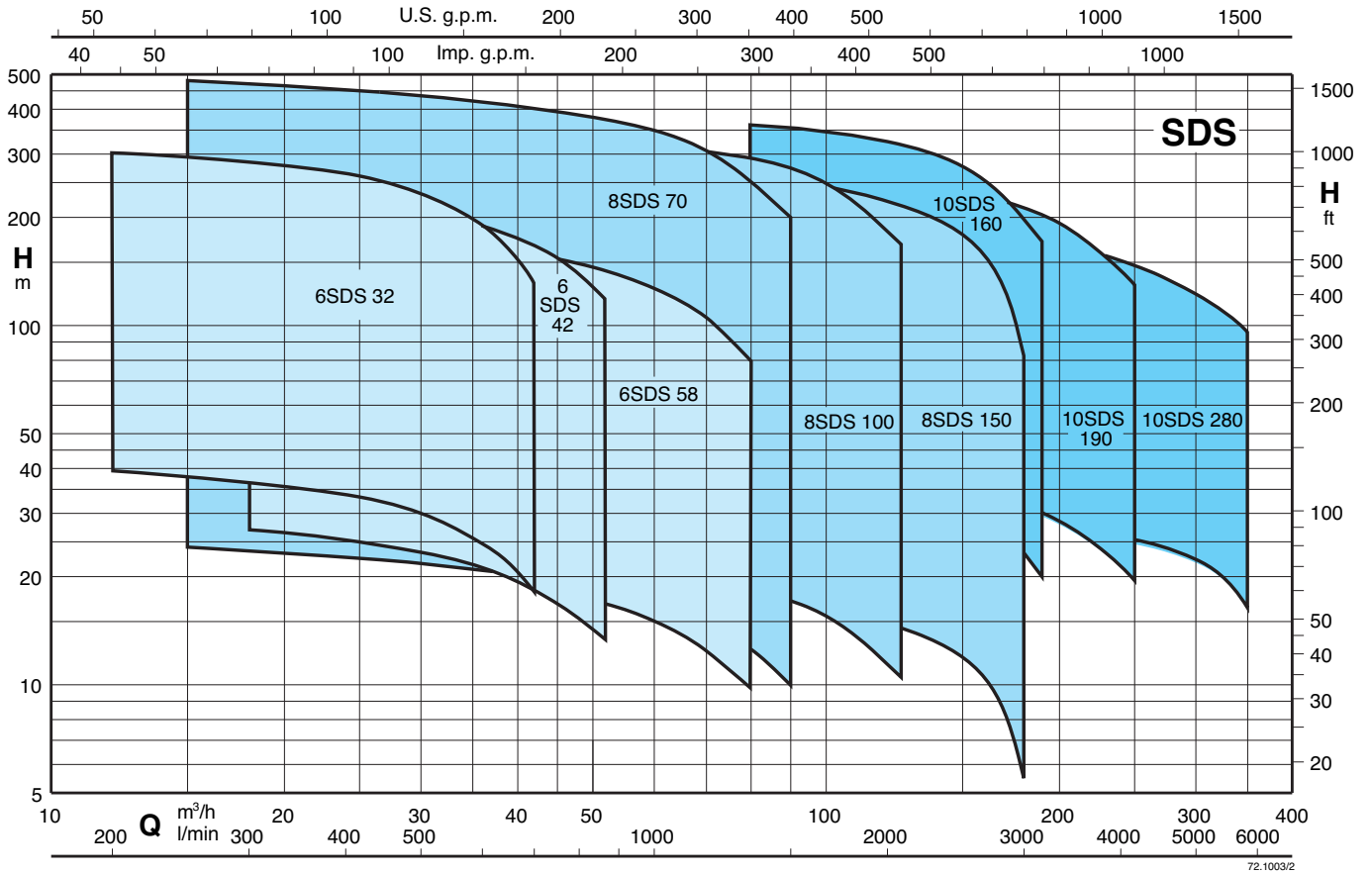
Materials

Components	Part Nr.	6, 8, 10SDS	B-6, B-8, B-10SDS
Stage casing	25.02	Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 EN 1982
Diffuser	26.00		
Impeller	28.00		
Wear ring		Rubber (Bronze for 10SDS 190-280)	
Shaft	64.00	6SDS e 8SDS: Steel AISI F51duplex 10SDS Cr steel AISI 420	Cr-Ni-Mo steel AISI 316
Shaft sleeve	64.08	Brass with chromate surface treatment (only for 10SDS)	
Delivery casing	12.01	Cast iron GJL 200 EN 1561	Bronze G-Cu Sn 10 EN 1982
Suction lantern	32.02		
Bearing bush	12.03-12.30	Rubber	
Strainer	15.50	Cr-Ni steel AISI 304	
Screws		Cr-Ni steel AISI 304	

CS, CS-R Motor

Components	CS-R 6", 8", CS 10" standard	I-CS-R 6", 8", I-CS 10" AISI 316
External frame	AISI 304 (AISI 316Ti for 10")	Cr-Ni-Mo steel AISI 316 Ti
Motor flange	Cast iron GJL 200 EN 1561	Cr-Ni-Mo steel AISI 316
Shaft end	Steel AISI 431 (AISI 329 for 10")	AISI 316 (AISI 630 from 30 to 93kW) (AISI 429 for 10")
Thrust bearing	Oscillating pads	Oscillating pads
Bushings	Graphite (Bronze for 8" motor)	Graphite (Bronze for 8" motor)

Coverage chart $n \approx 2900$ rpm

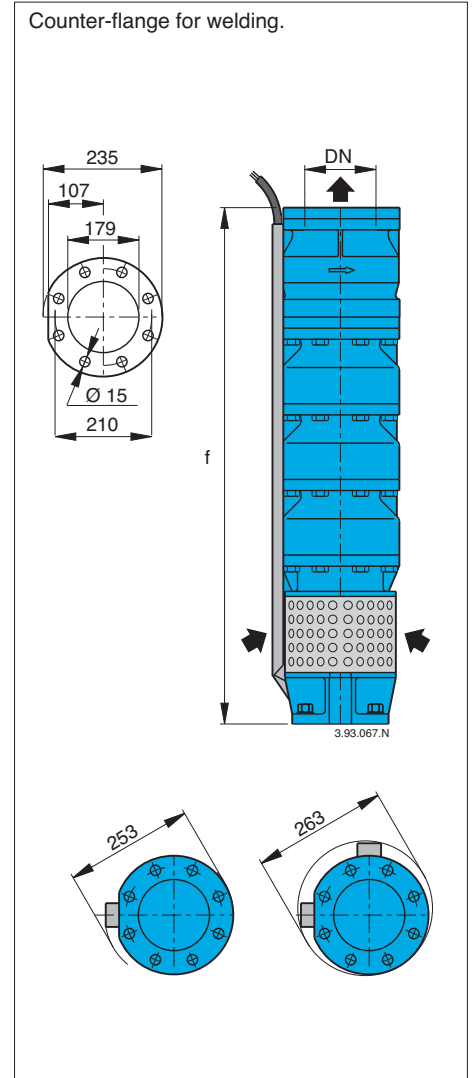
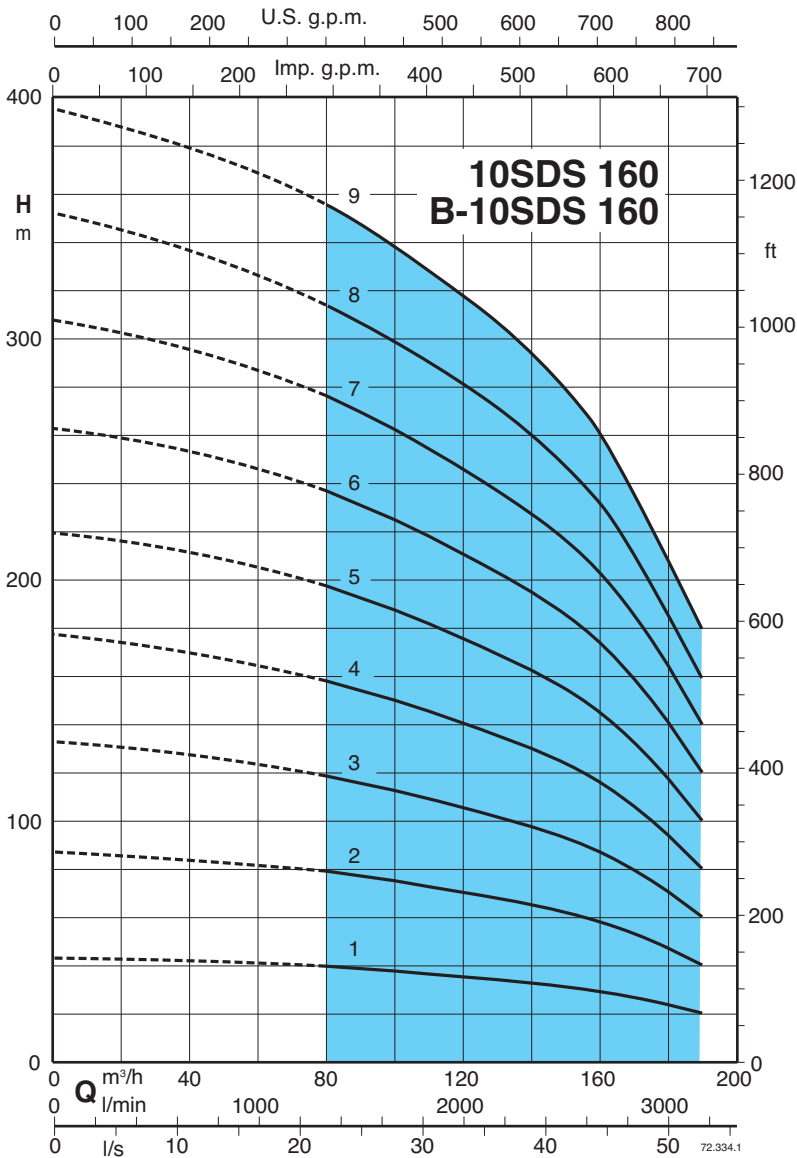


10SDS 160

Submersible borehole pumps for 10" wells



Characteristic curves, performance $n \approx 2900$ rpm, dimensions and weights



3 ~	P ₂		Q	n ≈ 2900 rpm												DN	Motor		f	10SDS	B-10SDS	
	kW	HP		m³/h													CS-R	FK				
					mm	mm	mm	kg	kg													
			l/min	1333	1500	1666	1833	2083	2333	2500	2666	2833	3000	3166	175	145	137	865	77	87		
10SDS 160/1 - B-10SDS 160/1	18,5	25	39,5	38	37,5	36	34,5	32,5	31	29	26,5	22	20	6"	6"	1035	103	114				
10SDS 160/2 - B-10SDS 160/2	37	50	78,5	76,5	74,5	72,5	69	65	62	58,5	53,5	44	40	8"	196	1205	126	141				
10SDS 160/3 - B-10SDS 160/3	55	75	118	114	112	108	104	98	92,5	87,5	80	66,5	60	8"	8"	1375	150	169				
10SDS 160/4 - B-10SDS 160/4	75	100	157	153	149	145	138	130	123	117	107	88,5	80	8"	8"	1545	173	195				
10SDS 160/5 - B-10SDS 160/5	92	125	196	191	186	181	173	163	154	146	134	111	100	10"	8"	1715	197	222				
10SDS 160/6 - B-10SDS 160/6	110	150	236	229	224	217	207	195	185	175	160	133	120	10"	8"	1885	220	249				
10SDS 160/7 - B-10SDS 160/7	130	175	275	267	261	253	242	228	216	204	187	155	140	10"	8"	2055	244	276				
10SDS 160/8 - B-10SDS 160/8	150	200	314	305	298	289	276	260	246	233	213	177	160	10"	8"	2225	268	303				
10SDS 160/9 - B-10SDS 160/9	185	250	356	342	338	324	311	293	279	261	239	198	180	10"	-	-	-	-				

P₂ Rated motor power output

(...) FK motor rated power output

H Total head in m

Tolerances according to UNI EN ISO 9906:2012

