

# PERFORMANCE RANGE

- Flow rate up to **1000 l/min** (60 m<sup>3</sup>/h)
- Head up to 390 m

## **APPLICATION LIMITS**

- Maximum liquid temperature +35 °C
- Maximum sand content 100 g/m<sup>3</sup>
- 100 m immersion limit
- Installation:
  vertical
  - horizontal, with the following limits: up to **12 stages** or **11 kW**
- Starts/hour: 20 at regular intervals
- Minimum flow rate for motor cooling 16 cm/s (0.5 m/s for 30 kW)
- Continuous service **S1**

# **CONSTRUCTION AND SAFETY STANDARDS**

#### ELECTRIC MOTOR

– Three-phase 400 V - 50 Hz

**4 m** long power cable

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



# INSTALLATION AND USE

Suitable for use with clean water with a sand content of no more than 100 g/m<sup>3</sup>. As a result of their high efficiency and reliability, they are suitable for use in civil, agricultural and industrial applications such as for the distribution of water in combination with pressure sets, for irrigation and for pressure boosting in fire-fighting sets, etc.



SP 6

1990

HILLI

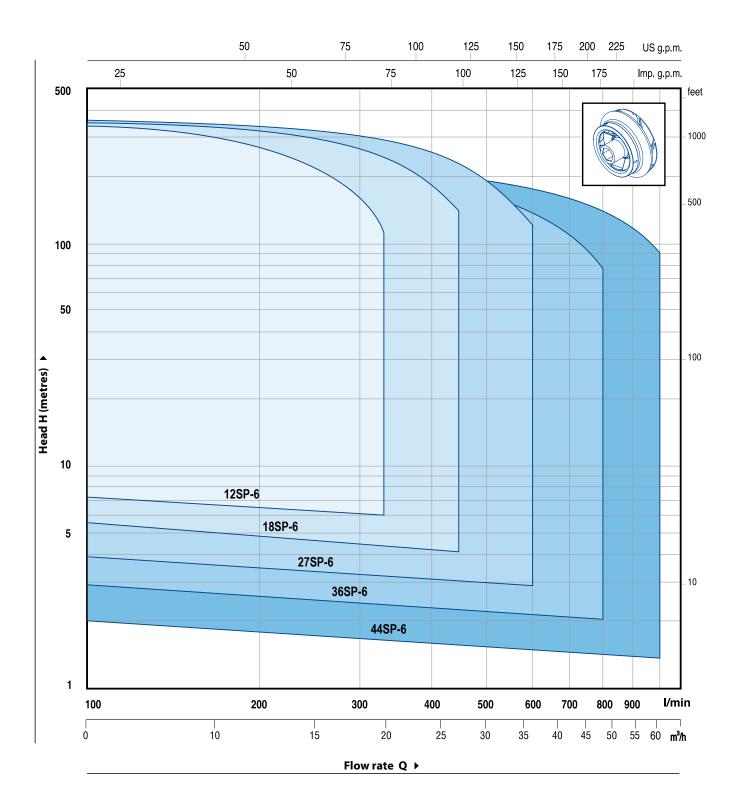
#### **OPTIONALS AVAILABLE ON REQUEST**

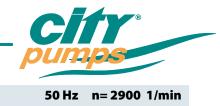
- SP-6/WE pumps with double cable cover suitable for adual voltage 400/690 V (star/delta) motors from 11 kW to 30 kW
- Other voltages or 60 Hz frequency

## **GUARANTEE**

2 years subject to terms and conditions

# PERFORMANCE RANGE

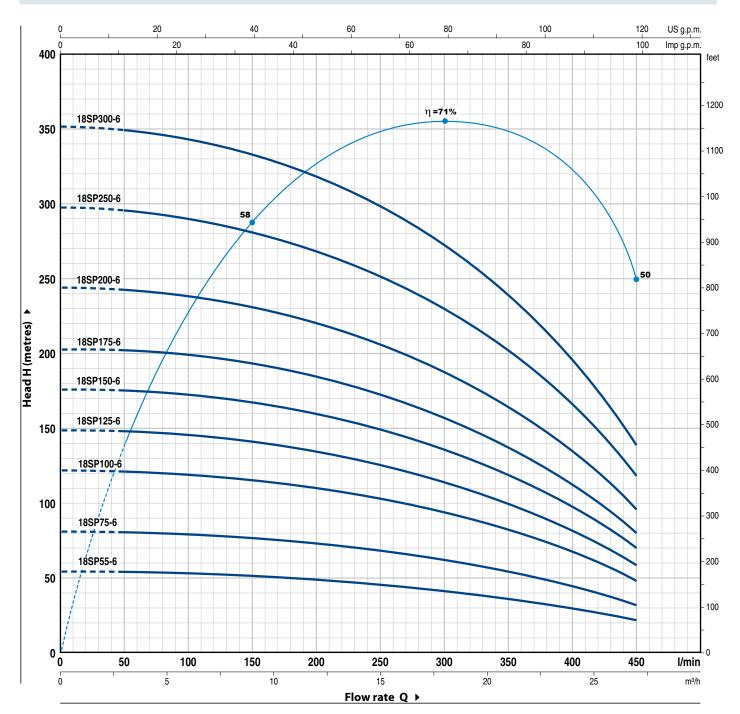






## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 1/min



MODEL	POWER		m³/h	0	3	6	9	12	15	18	21	24	27
Three-phase	kW	HP	<b>Q</b> //min	0	50	100	150	200	250	300	350	400	450
18SP55-6	4	5.5	H metres	54	53.8	53	51	49	46	42	37	30	22
18SP75-6	5.5	7.5		81	80.5	79	77	74	69	63	55	45	32
18SP100-6	7.5	10		122	121	119	116	111	103	94	83	68	48
18SP125-6	9.2	12.5		149	148	145.5	141	135	126	115	101	83	59
18SP150-6	11	15		176	175	172	167	160	149	136	120	98	70
18SP175-6	13	17.5		203	202	199	193	185	172	157	138	113	80
18SP200-6	15	20		244	242	238	231	221	206	188	165	135	96
18SP250-6	18.5	25		298	296	291	282	270	252	230	202	165	118
18SP300-6	22	30		352	350	344	334	320	298	272	239	195	139

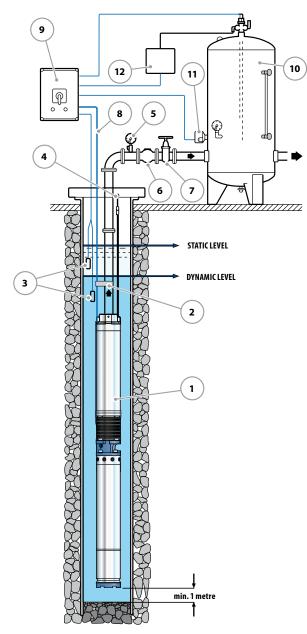
 $\mathbf{Q} = Flow rate \quad \mathbf{H} = Total manometric head$ 

Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.





## **INSTALLATION EXAMPLE**

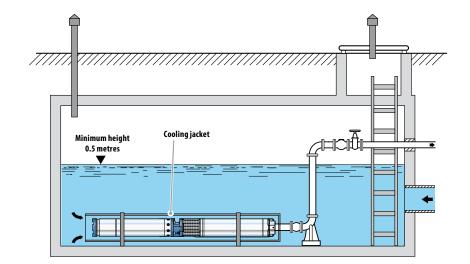


**Vertical installation** 

The SP-6 series pumps should be installed in boreholes of at least 6" (150 mm) in diameter. The pump should be lowered into the borehole, by means of the delivery pipe, to such a depth (min. 50 cm and at least one metre from the bottom) that it is completely immersed during operation when the level of water in the borehole may reduce. It is good practice to secure the pump by attaching a stainless steel cable to the anchorage points present on the delivery body.

## COMPONENTS

- 1) Submersible pump
- 2) Power cable clamps
- 3) Level probes
- 4) Pump anchorage
- 5) Pressure gauge
- 6) Non-return valve
- 7) Gate valve; for flow rate regulation
- 8) Power cable
- 9) Control box
- 10) Pressure vessel
- 11) Pressure switch
- 12) Electro valve/electro-compressor



## **Cooling jacket**

It is necessary to fit the pump with a cooling jacket in installations in storage tanks, rivers and lakes in order to prevent the motor from overheating.

# 12-18-27 SP-6 (Radial impellers)

POS	. COMPONENT	CONSTRUCTION CHARACTERISTICS
1	DELIVERY BODY	Nickel-plated cast iron complete with thread- ed delivery port in compliance with ISO 228/1
2	NON-RETURN VALVE	Stainless steel AISI 304
3	MOTOR BRACKET	Nickel-plated cast iron, in compliance with NEMA standards
4	IMPELLERS	Special-rubber coated Noryl GFN2V
5	DIFFUSERS	Noryl GFN2V
6	DIFFUSOR CASING	Stainless steel AISI 304
7	PUMP SHAFT	Stainless steel AISI 304
8	PUMP BEARINGS	Special elastomer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing
9	DRIVE COUPLING	Stainless steel AISI 420
10	FILTER	Stainless steel AISI 304
11	CABLE COVER	Stainless steel AISI 304
12	MOTOR 6"	SM-6R = "REWINDABLE IN OIL BATH"

