

# SIRIO

## Electronic Variable Speed Pump Controller.

Sirio is an electronic device based on inverter technology that maintains constant system pressure by regulating the starting and speed of the pump.

Inverter technology modulates the frequency (Hz) of the current to the motor which changes the speed (rpm) to suit the water demand from the system. This means that water is delivered to the user at a constant pressure and the motor power consumption is always in proportion to the system demand, saving energy.



### FUNCTIONALITY

- Adjustable pressure set-point (Pmax), i.e. pressure value which will be held constant subject to the capability of the pump.
- Adjustable start pressure (Pmin).
- Protection from dry running in case of water supply failure.
- Automatic reset following shutdown caused by dry running, The restart parameters can also be adjusted.
- Leak detection function: Small system leaks are indicated on the display panel without interfering with system operation, large leaks can cause frequent pump starts and in this case the Sirio shuts down the pump to prevent damage. This function can be disabled.
- Alphanumeric back lighted display with real time indication of the system pressure and of the pump motor speed.
- Customizable menu in 5 different languages.
- LED Indicators: green : network voltage red: alarm/leakage/dry running yellow: pump on
- Remote connection for the remote supervision of the system
- Reversal of phase automatic and adjustable by the display

### TECHNICAL DATA

Power mains supply:	single-phase, 230Vac $\pm$ 10% - 50/60Hz
Motor power supply:	three-phase 220V~
Maximum power absorption:	2200W –3Hp
Max. line absorption:	16A @ 230V~
Max. allowable pressure:	800 KPa (8 bar)
Max. liquid temperature:	50°C
Max. theoretical flow rate:	150 l/min –9m <sup>3</sup> /h –9000 l/h
Set-point adjustment range:	1,5÷7 bar
Start pressure adjustment range:	1÷6,7 bar
Hydraulic connection:	1”¼ male-male
Frequency modulation range:	25÷50 Hz (30-60Hz optional)
Degree of protection:	IP X5

# 3-4CR

**multi-impeller centrifugal electropumps**  
stainless steel pump body

**Electropumps for domestic use, particularly silent-running, characterised by high yields and low consumption**



## RANGE OF PERFORMANCE

Flow rate up to 120 l/min (7.2 m<sup>3</sup>/h)  
Head up to 50 m

## LIMITS OF USE

Manometric suction height up to 7 m  
Liquid temperature up to + 40°C  
Environment temperature up to + 40°C

## EXECUTION AND SAFETY STANDARDS

EN 60 335-1  
IEC 335-1  
CEI 61-150

EN 60034-1  
IEC 34-1  
CEI 2-3



## USES AND INSTALLATIONS

They are recommended for pumping clean water and liquids that are chemically non aggressive for the materials of which the pump is made. **FOR THEIR RELIABILITY AND SILENT RUNNING THEY ARE WIDELY USED IN THE DOMESTIC SECTOR AND IN PARTICULAR FOR DISTRIBUTING WATER IN COMBINATION WITH SMALL OR MEDIUM AUTOCLAVES, FOR IRRIGATING GARDENS, ETC.**

The pumps must be installed in enclosed places, or at least protected against inclement weather.

**GUARANTEE 2 YEARS** according to our general terms of sale.

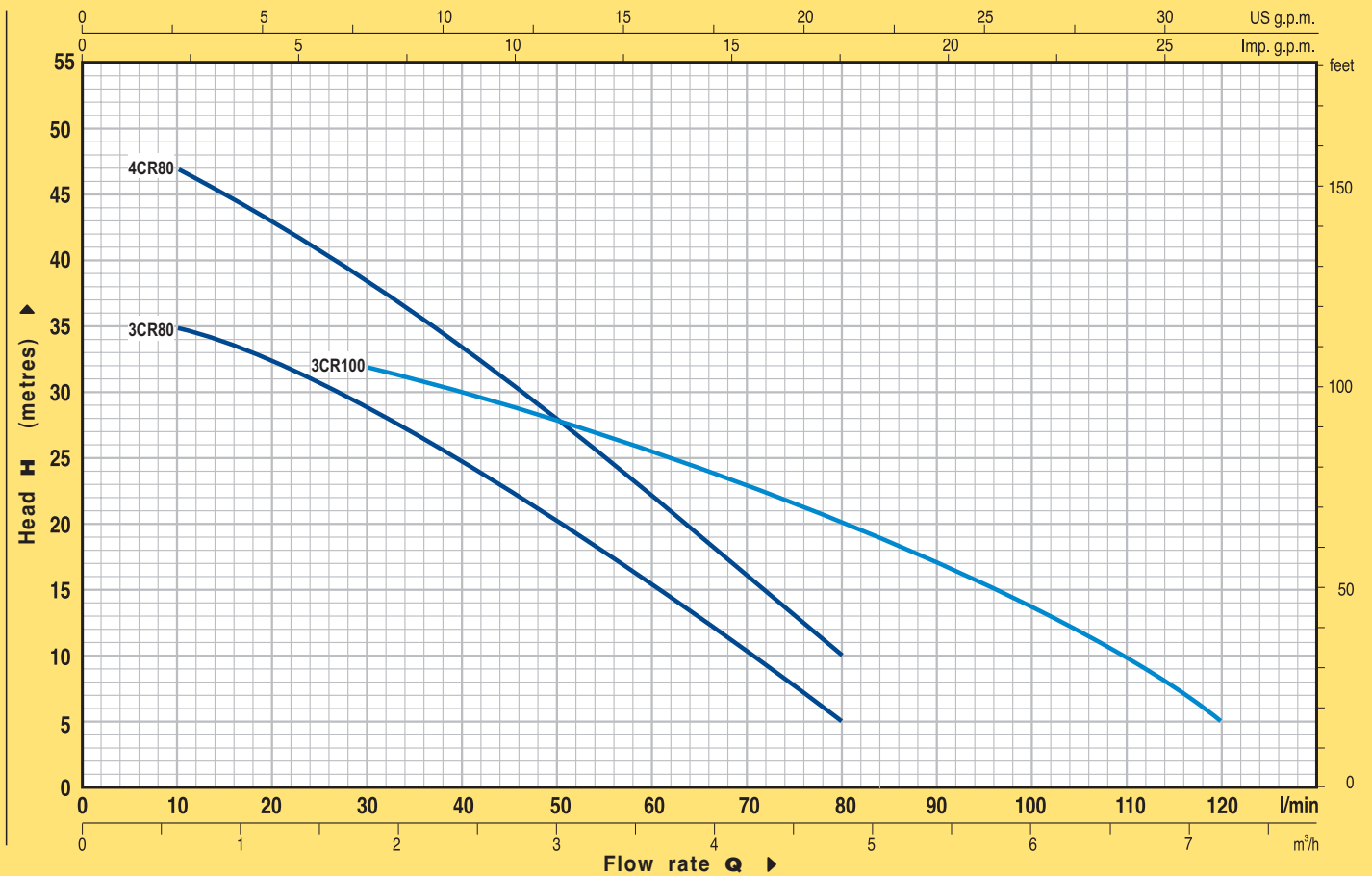
## CONSTRUCTION CHARACTERISTICS

- **PUMP BODY:** stainless steel AISI 304, with threaded inlets ISO 228/1.
- **PUMP BODY COVER:** stainless steel AISI 304.
- **IMPELLERS:** of the type with centrifugal radial flow, made of technopolymer (certified for drinking water).
- **MOTOR SHAFT:** stainless steel EN 10088-3 - 1.4104.
- **MECHANICAL SEAL:** ceramic - graphite - NBR.
- **ELECTRIC MOTOR:** the pumps are coupled to a PEDROLLO electric motor with specially calculated dimensions, silent-running, closed, with external ventilation, suitable for continuous duty.  
**3-4CRm:** single-phase 230 V - 50 Hz with condenser and thermal overload protector built into the winding .  
**3-4CR:** three-phase 230/400 V - 50 Hz.
- **INSULATION:** class F. ● **PROTECTION:** IP 44.

## EXECUTIONS ON REQUEST

- ⇒ special mechanical seal
- ⇒ other voltages or frequency 60 Hz

**CURVES AND PERFORMANCE DATA AT n= 2900 1/min**

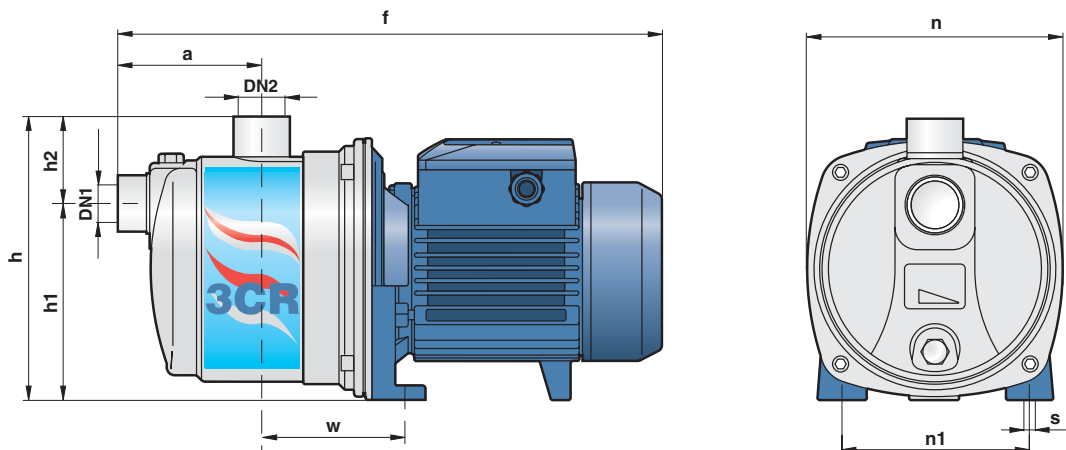


TYPE		POWER		Q	Flow rate																
Single-phase	Three-phase	MW	HP		m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2
3CRm 80	3CR 80	0.45	0.60	l/min	0	5	10	15	20	25	30	40	50	60	70	80	90	100	110	120	
				H metres	38	36	35	34	32.5	31	29	25	20	15.5	10	5					
				H metres	50	48	47	45	43	40.5	38.5	33.5	28	22.5	16	10					
				H metres	36	35.5	35	34	33.5	32.5	32	30	28	25.5	23	20	17	13.5	10	5	

Q = Flow rate H = Total manometric head

Tolerance of the performance curves according to EN ISO 9906 App. A.

**DIMENSIONS AND WEIGHTS**



TYPE		INLETS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~	
3CRm 80	3CR 80	1"	1"	90	345	174	122	52	160	120	95	9	6.9	6.3	
4CRm 80	4CR 80				353/345								7.6	6.9	
3CRm 100	3CR 100				7.5								6.9		