

# **FUTURE JET**<sup>®</sup>

Self-priming "JET" pumps

**INTERNATIONAL  
PATENT**

**ENERGY SAVING  
UP TO 50%**



**MADE IN ITALY**

 **PEDROLLO**<sup>®</sup>  
*the spring of life*

**60 Hz**



-  Clean water
-  Civil use
-  Domestic use

## From an evolution of the classic JET concept a SUPER JET was born. The self-priming pump of the future!

Our Research and Development department has accomplished the evolution of the classic self-priming pump and designing the **FUTURE JET**.

**FUTURE JET**, which has an internationally filed patent, is able to obtain the same pressure as a classic JET whilst at the same time doubling its capacity and achieving a reduction in energy consumption of up to 50%.

- ※ High hydraulic efficiency
- ※ Energy savings up to 50%
- ※ Reduction of turbulence for a very stable operation of the pump
- ※ A better power/flow ratio



### A BRIEF HISTORY

Self-priming ejector pumps were designed about 60 years ago. These types of pumps were a great success, mainly for two reasons:

1. self-priming up to 9 metres in depth
2. an increase in pressure because of the internal recirculation of a part of the water already under pressure thanks to the impeller

On the other hand the greatest limit of this pump is the low flow rate, actually a half of what can be reached with a classic centrifugal pump of the same power. A classic JET pump will take twice the time of a centrifugal pump to process the same amount of water, thus doubling the energy consumption.

※ ***This limitation no longer applies with the new FUTURE JET.***

### PERFORMANCE RANGE

Flow rate up to **120 l/min (7.2 m<sup>3</sup>/h)**  
Head up to **58 m**

### APPLICATION LIMITS

Manometric suction lift up to **9 m (HS)**  
Liquid temperature between **-10 °C** and **+40 °C**  
Ambient temperature up to **+40 °C**  
Max. working pressure in pump body **6 bar**  
Continuous service **S1**

### INSTALLATION AND USE

Suitable for pumping clean water and liquids which are not chemically aggressive for the materials of the pump.

The self-priming **FUTURE JET** pumps are designed to pump water even in cases where air is present. Because of their reliability and the fact that they are easy to use, they are recommended for use in do-

mestic applications such as the distribution of water coupled with small or medium-sized pressure tanks for irrigating vegetable gardens or gardens, etc. Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

### PATENTS - TRADE MARKS - MODELS

- ※ **FUTURE JET® Registered Trade Mark n° 018198453**
- ※ **Registered EU design n° 002218610**
- ※ **Patent n° PCT/IT2019/050168**

### OPTIONS AVAILABLE ON REQUEST

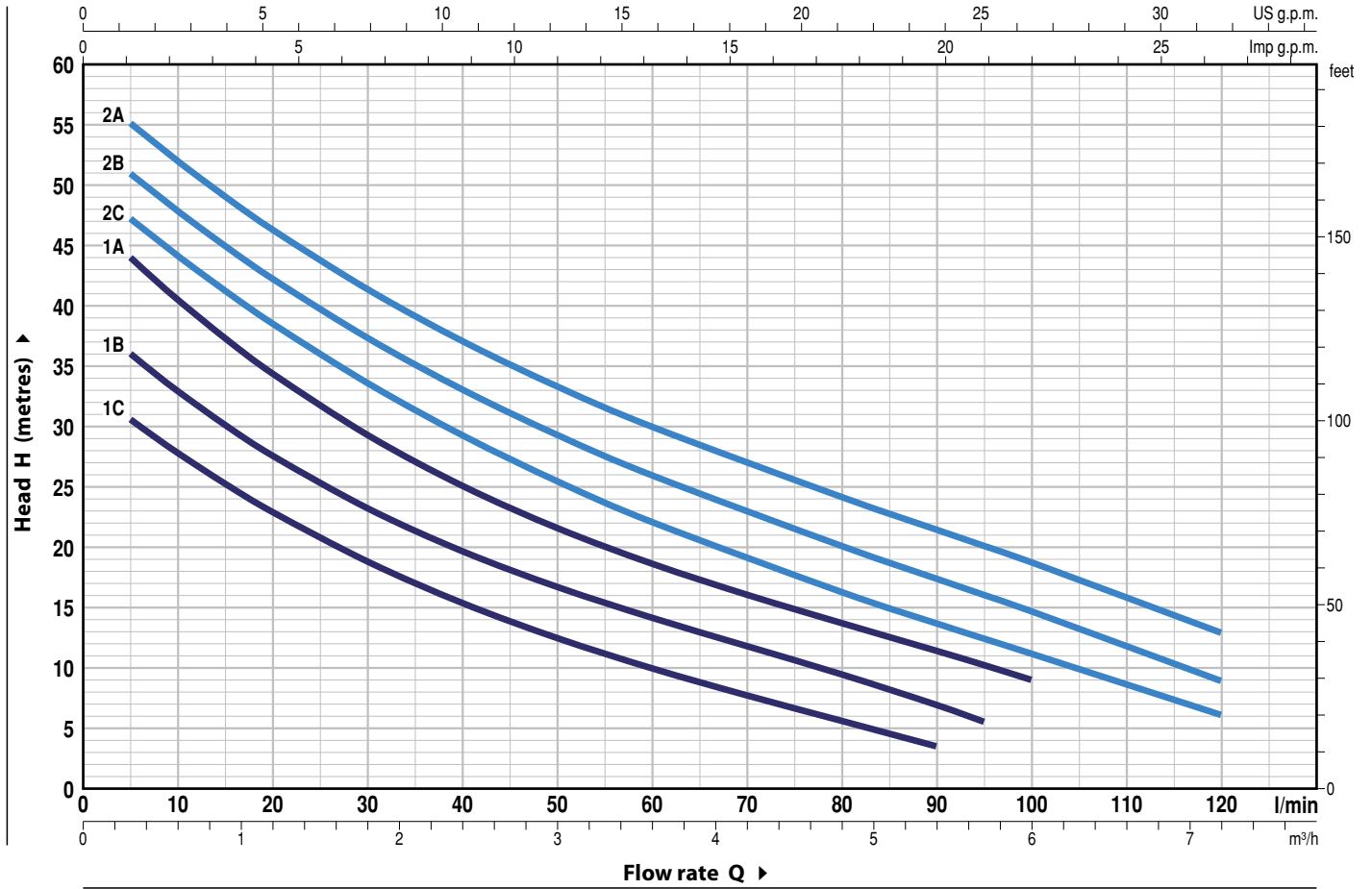
- Other voltages
- Pumps with impeller in technopolymer

### WARRANTY

2 years in accordance with our general conditions of sale

**CHARACTERISTIC CURVES AND PERFORMANCE DATA**

60 Hz n= 3450 min<sup>-1</sup> HS= 0 m



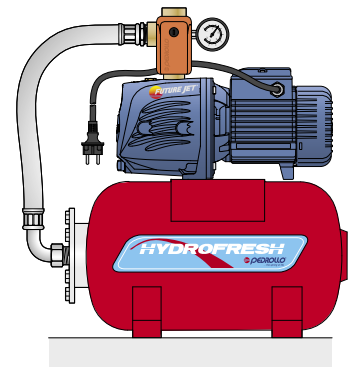
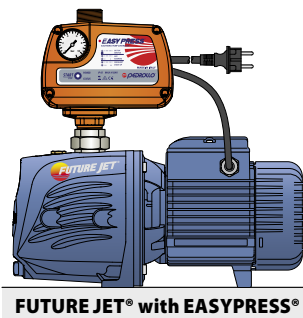
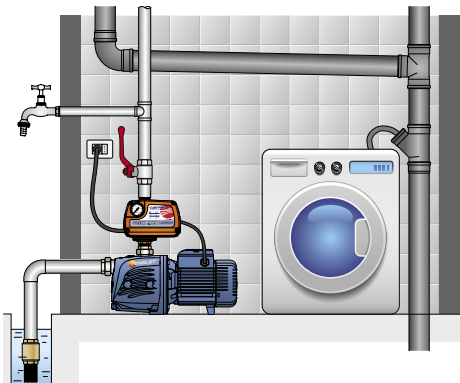
MODEL		POWER (P <sub>2</sub> )		Q	H metres												
Single-phase	Three-phase	kW	HP ▲		IE2	0	0.3	0.6	1.2	2.4	3.6	4.8	5.4	5.7	6	7.2	
					0	5	10	20	40	60	80	90	95	100	120		
FUTURE JETm 1C	FUTURE JET 1C	0.37	0.50	IE2	33.5	30.5	27.7	22.9	15.4	10	6	3.5					
FUTURE JETm 1B	FUTURE JET 1B	0.48	0.65		39.5	36	33	27.6	19.7	14.2	9.5	7	5.5				
FUTURE JETm 1A	FUTURE JET 1A	0.55	0.75		48	44	40.6	34.5	25.2	18.7	13.7	11.4	10.2	9			
FUTURE JETm 2C	FUTURE JET 2C	0.75	1	IE3	50	47	43.8	38.3	29	22	16.2	13.5	12.3	11	6		
FUTURE JETm 2B	FUTURE JET 2B	0.90	1.25		54	51	47.8	42.2	33	26	20.2	17.5	16	14.7	9		
FUTURE JETm 2A	FUTURE JET 2A	1.1	1.5		58	55	51.8	46.2	37	30	24.2	21.5	20	18.8	13		

Q = Flow rate H = Total manometric head HS = Suction height

▲ Three-phase motor efficiency class (IEC 60034-30-1)

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

**STANDARD INSTALLATION**



**COMPONENT                      CONSTRUCTION CHARACTERISTICS**

**PUMP BODY**                      Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1 (for **FUTURE JET 1**)  
Cast iron, with threaded ports in compliance with ISO 228/1 (for **FUTURE JET 2**)

**BODY BACKPLATE**              Stainless steel AISI 304

**NOZZLE ASSEMBLY**            Noryl

**IMPELLER**                      Stainless steel AISI 304

**MOTOR SHAFT**                 Stainless steel AISI 431

<b>MECHANICAL SEAL</b>	<i>Pump</i>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
	<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotating ring</i>	<i>Elastomer</i>
	<b>FUTURE JET 1</b>	<b>AR-12</b>	<b>Ø 12 mm</b>	Ceramic	Graphite	NBR
	<b>FUTURE JET 2</b>	<b>AR-14</b>	<b>Ø 14 mm</b>	Ceramic	Graphite	NBR

<b>BEARINGS</b>	<i>Pump</i>	<i>Model</i>
	<b>FUTURE JET 1</b>	<b>6201 ZZ / 6201 ZZ</b>
	<b>FUTURE JET 2</b>	<b>6203 ZZ / 6203 ZZ</b>

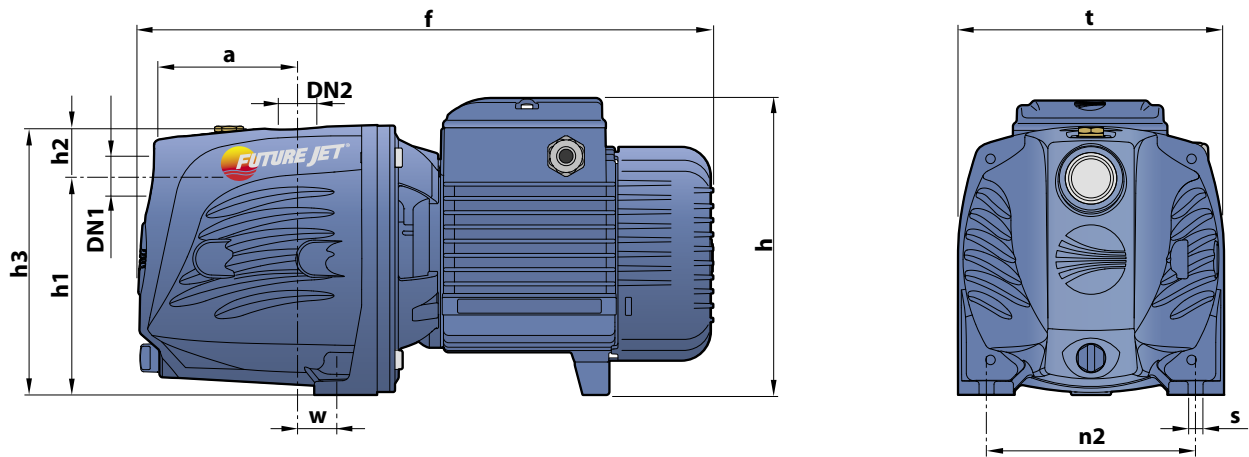
**FUTURE JETm:** single-phase 220 V - 60 Hz with thermal overload protector incorporated into the winding.  
**FUTURE JET:** three-phase 220 /380 V - 60 Hz or 220/440 V - 60Hz.

➡ **the three-phase pumps are fitted with high performance motors up to P<sub>2</sub>=0.55 kW in class IE2 and from P<sub>2</sub>=0.75 kW in class IE3 (IEC 60034-30-1)**

- Insulation: class F
- Protection: IP X4



## DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	t	n2	w	s	1~	3~
FUTURE JETm 1C	FUTURE JET 1C	1"	1"	94	357	171	127	35	162	158	124	24	10	9.7	9.7
FUTURE JETm 1B	FUTURE JET 1B													9.8	9.8
FUTURE JETm 1A	FUTURE JET 1A													10.7	9.8
FUTURE JETm 2C	FUTURE JET 2C			96	389	200*	147	33	180	180	142	22	10	13.4	13.4
FUTURE JETm 2B	FUTURE JET 2B													14.0	14.0
FUTURE JETm 2A	FUTURE JET 2A													15.0	14.0

(\*) h=220 mm for single-phase version at 110 V

## ELECTRICAL INPUTS

MODEL	VOLTAGE		
	220 V	110 V	127 V
Single-phase	220 V	110 V	127 V
FUTURE JETm 1C	3.0 A	6.0 A	5.2 A
FUTURE JETm 1B	3.3 A	6.6 A	5.7 A
FUTURE JETm 1A	4.0 A	8.0 A	6.9 A
FUTURE JETm 2C	5.0 A	10.0 A	9.0 A
FUTURE JETm 2B	6.7 A	13.4 A	11.6 A
FUTURE JETm 2A	6.9 A	13.8 A	12.9 A

MODEL	VOLTAGE			
	220 V	380 V	220 V	440 V
Three-phase	220 V	380 V	220 V	440 V
FUTURE JET 1C	2.0 A	1.15 A	1.7 A	1.1 A
FUTURE JET 1B	2.3 A	1.3 A	2.1 A	1.2 A
FUTURE JET 1A	3.1 A	1.8 A	2.6 A	1.5 A
FUTURE JET 2C	3.8 A	2.2 A	3.6 A	2.0 A
FUTURE JET 2B	5.3 A	3.0 A	3.7 A	2.1 A
FUTURE JET 2A	5.8 A	3.3 A	5.5 A	3.1 A

## CAPACITORS

MODEL	CAPACITANCE	
	(220 v)	(110 v)
Single-phase	(220 v)	(110 v)
FUTURE JETm 1C	10 μF - 450 VL	25 μF - 250 VL
FUTURE JETm 1B	12.5 μF - 450 VL	25 μF - 250 VL
FUTURE JETm 1A	14 μF - 450 VL	25 μF - 250 VL
FUTURE JETm 2C	20 μF - 450 VL	60 μF - 300 VL
FUTURE JETm 2B	25 μF - 450 VL	60 μF - 300 VL
FUTURE JETm 2A	25 μF - 450 VL	60 μF - 300 VL

**Pedrollo S.p.A.**

Via Enrico Fermi, 7 - 37047 San Bonifacio (Verona) Italy

tel. +39 045 6136311 - fax +39 045 7614663

vendite@pedrollo.com - sales@pedrollo.com - www.pedrollo.com

**MADE IN ITALY**

Z-DPL20010UK6