

SELF-PRIMING ELECTRIC PUMPS

in AISI 304



Self-priming electric pumps in AISI 304 stainless steel.

APPLICATIONS

- Supply of drinking water
- Domestic pressure boosting
- Small-scale garden irrigation
- Emptying reservoirs and swimming pools
- Moving clean water in general

TECHNICAL DETAILS

- Practical
- Light and easy to transport

PUMP TECHNICAL DATA

- Maximum working pressure: 6 bar
- Maximum temperature of the liquid: 45°C
- Maximum suction depth: 8 m
- G1 suction connection for JES, G1¼ for JE
- G1 discharge connection

MOTOR TECHNICAL DATA

- High efficiency motors IE2 starting from 0,75kW
- 2 poles self-ventilated closed asynchronous motor with internal ventilation
- Class of insulation F
- Protection degree IP44 (on request IP55)
- 230V ± 10%, 50Hz single phase voltage
- 230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-ampereometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

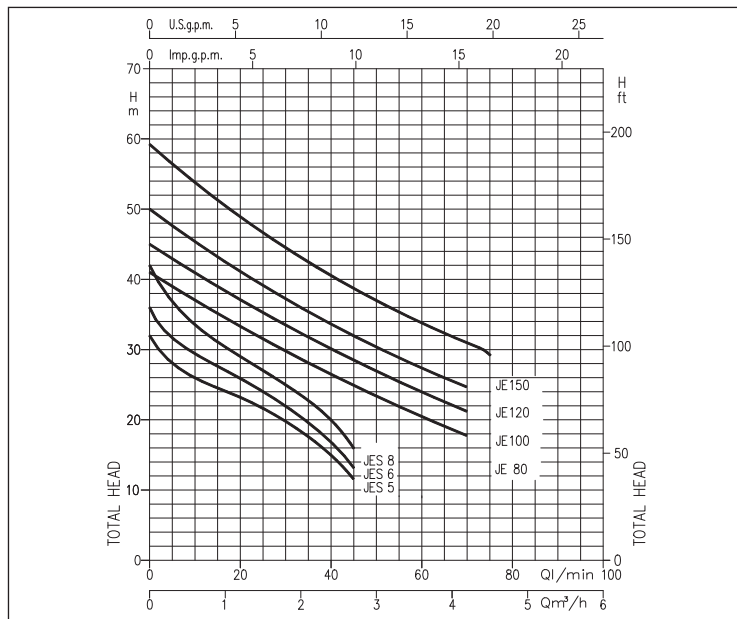
MATERIALS

- Pump body, motor bracket, seal housing disc, motor case and fan cover in AISI 304
- AISI 303 shaft (part in contact with the liquid)
- Impeller in AISI 304 for JE, in PPE reinforce

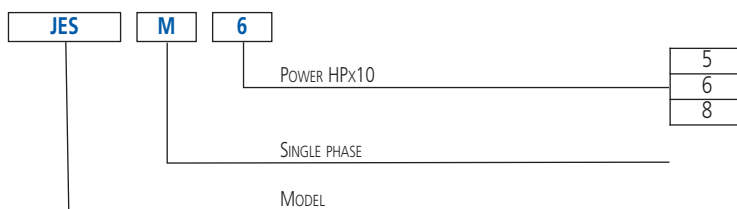
ACCESSORIES (on request)

- 5 litre 10 bar ¾ EPDM vessel
- 24 litre 8 bar 1" EPDM vessel
- 24 litre 10 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼ F pressure switch
- FYG-22 2.8÷7 bar G¼ F pressure switch
- Presscomfort - Pressure regulator
- Press•o•Matic - Variable speed control system (230V±10% single phase - power supply three phase 220V output – maximum motor power 2.2 kW - 3 HP)

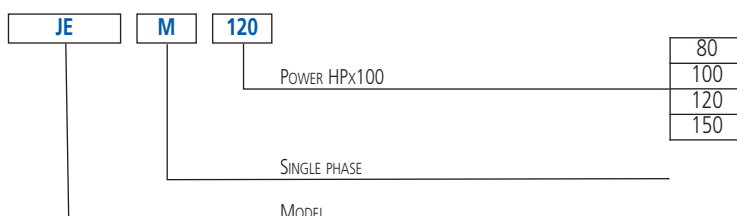
PERFORMANCE CURVES (according to ISO 9906 Attachment A)



JES IDENTIFICATION CODE



JE IDENTIFICATION CODE



The contents of this publication must not be regarded as binding. EBARA Pumps Europe S.p.A. reserves the right to effect any modification it deems necessary without prior notice.

JES - JE

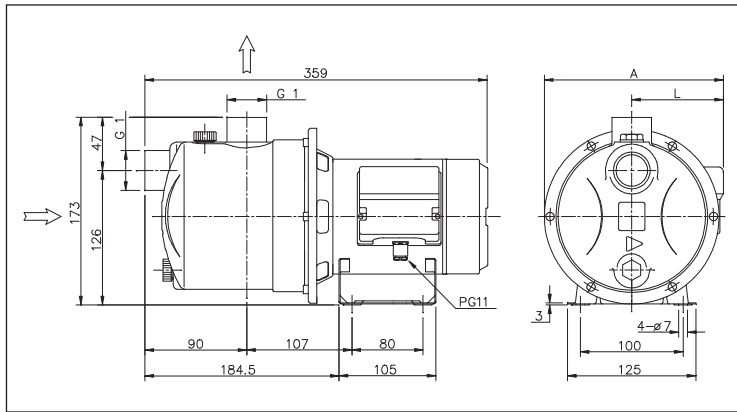
SELF-PRIMING ELECTRIC PUMPS

in AISI 304

JES PERFORMANCE TABLE

Single phase 230V	Model	Three phase 230/400V	P ₂		Q=Flow rate				
			[HP]	[kW]	l/min	20	40	45	
					m ³ /h	0,3	1,2	2,4	2,7
					H=Head [m]				
JESM 5	JES 5		0,5	0,37	28,0	23,0	15,0	11,5	
JESM 6	JES 6		0,6	0,44	31,5	26,0	17,0	13,5	
JESM 8	JES 8		0,8	0,6	37,0	29,0	20,0	16,0	

JES DIMENSIONS

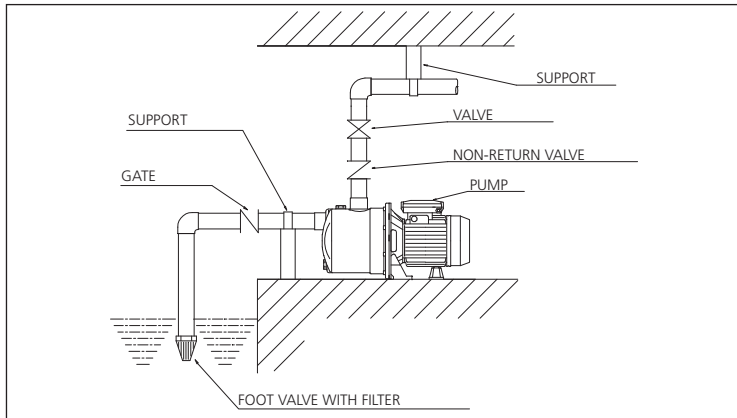


DIMENSIONS TABLE

Model	Dimensions [mm]					Weight [kg]
	[2]	A	[1]	[2]	L	
JES(M) 5	181		177	96	92	5,6
JES(M) 6	181		177	96	92	5,8
JES(M) 8	181		177	96	92	6,0

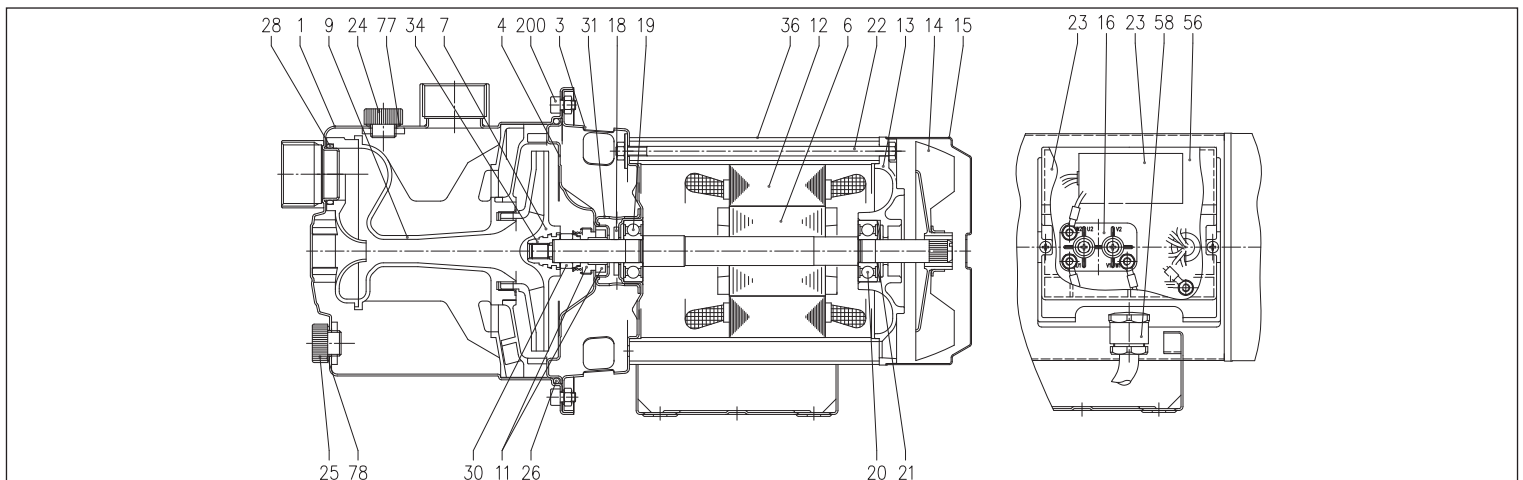
[1]= Three phase only
[2]= Single phase only

INSTALLATION



For correct installation of the system, it is recommended to fit a foot valve on the suction and support/anchorage for the piping.

JES SECTIONAL VIEW



SELF-PRIMING ELECTRIC PUMPS

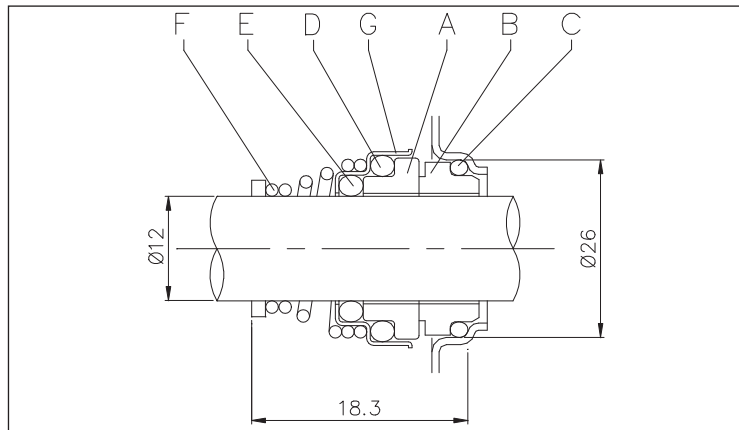
in AISI 304

MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	AISI 304	21	Adjusting ring	Steel C70
3	Motor support	AISI 304	22	Tie-rod	Galvanised Fe 42
4	Seal housing disc	AISI 304	23	Capacitor [2]	-
6	Rotor shaft	AISI 303 (part in contact with the liquid)	24	Filler cap	PA6
7	Impeller	PPE+PS reinforced with fibreglass	25	Drain plug	PA6
9	Venturi Unit + nozzle	PPE+PS reinforced with fibreglass	26	O-Ring	NBR
11	Mechanical seal	Carbon/Ceramic/NBR	28	O-Ring	NBR
12	Motor case	-	30	Mechanical seal spacer	Brass
13	Motor cover	Aluminium	31	Disc/seal spacer	AISI 304
14	Fan	PA6	34	Impeller nut [1]	AISI 304
15	Fan cover	Galvanised Fe P04	36	Motor casing	AISI 304
16	Terminal box	-	56	Terminal box cover gasket	NBR
17	Terminal box cover	PA66 reinforced with fibreglass	58	Cable gland	-
18	Spray protector washer	NBR	77	O-Ring	NBR
19	Bearing (pump side)	-	78	O-Ring	NBR
20	Bearing (motor side)	-	200	Screw (Pump body)	A2 UNI7323 stainless steel

[1]= For three phase only
[2]= For single phase only

JES MECHANICAL SEAL



MATERIALS TABLE

Ref.	Name	Material
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

JES ELECTRIC DATA TABLE

Model	P ₂	Capacitor		P ₁	Absorbed Current [A]					
		Single phase	V _c		Single phase	Three phase	Three phase			
Single phase 230V	Three phase 230/400V	[HP]	[kW]	µF	Single phase [kW]	Three phase [kW]	Single phase 230V	230V	400V	
JESM 5	JES 5	0,5	0,37	10	450	0,44	0,43	2,1	1,5	0,85
JESM 6	JES 6	0,6	0,44	10	450	0,54	0,49	2,4	1,9	1,1
JESM 8	JES 8	0,8	0,6	12,5	450	0,63	0,58	3,0	2,25	1,3

JES - JE

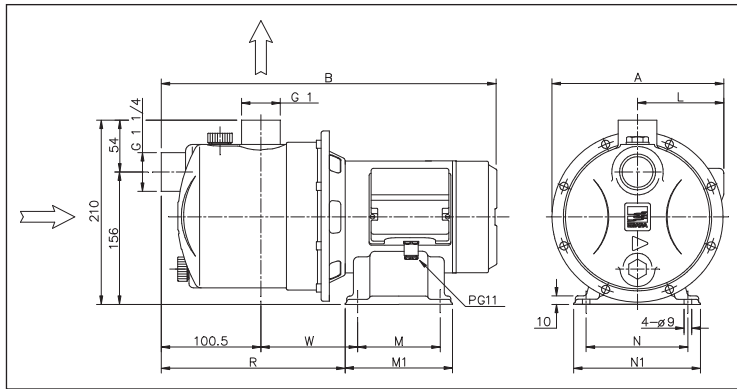
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in AISI 304

JE PERFORMANCE TABLE

Single phase 230V	Model Three phase 230/400V	P ₂		l/min m ³ /h	Q=Flow rate							
		[HP]	[kW]		20	30	40	50	60	70	75	
									H=Head [m]			
JEM 80	JE 80	0,8	0,6	33,0	29,0	26,5	23,5	20,5	18,0	-		
JEM 100	JE 100	1	0,75	37,0	33,5	30,0	27,0	24,0	21,0	-		
JEM 120	JE 120	1,2	0,88	41,0	37,0	34,0	30,5	27,5	24,5	-		
JEM 150	JE 150	1,5	1,1	49,0	44,5	40,5	37,0	34,0	31,0	29,5		

JE DIMENSIONS

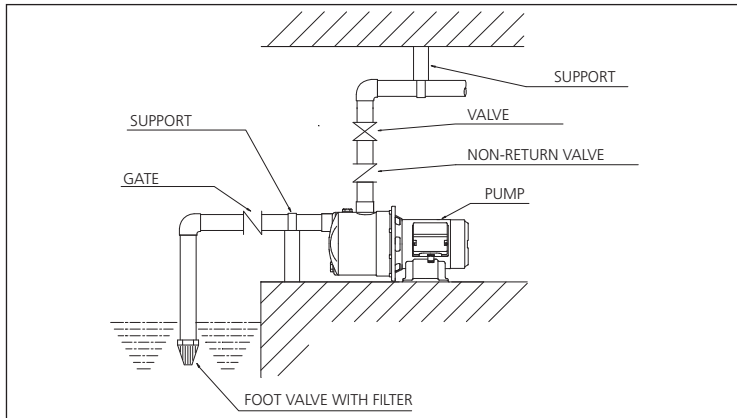


DIMENSIONS TABLE

Model	Dimensions [mm]												Weight [kg]	
	A [2]	A [1]	B [2]	B [1]	L [2]	L [1]	M	M1	N	N1	R	W	[2]	[1]
JE(M) 80	211	208	396	396	107	103	100	131	120	150	213	128	10,5	10,5
JE(M) 100	211	208	426	426	107	103	100	131	120	150	228	143	12,0	12,0
JE(M) 120	211	208	426	426	107	103	100	131	120	150	228	143	12,5	12,5
JE(M) 150	215,5	215,5	433,5	433,5	111,5	111,5	120	150	140	170	231	145,5	14,1	16,4

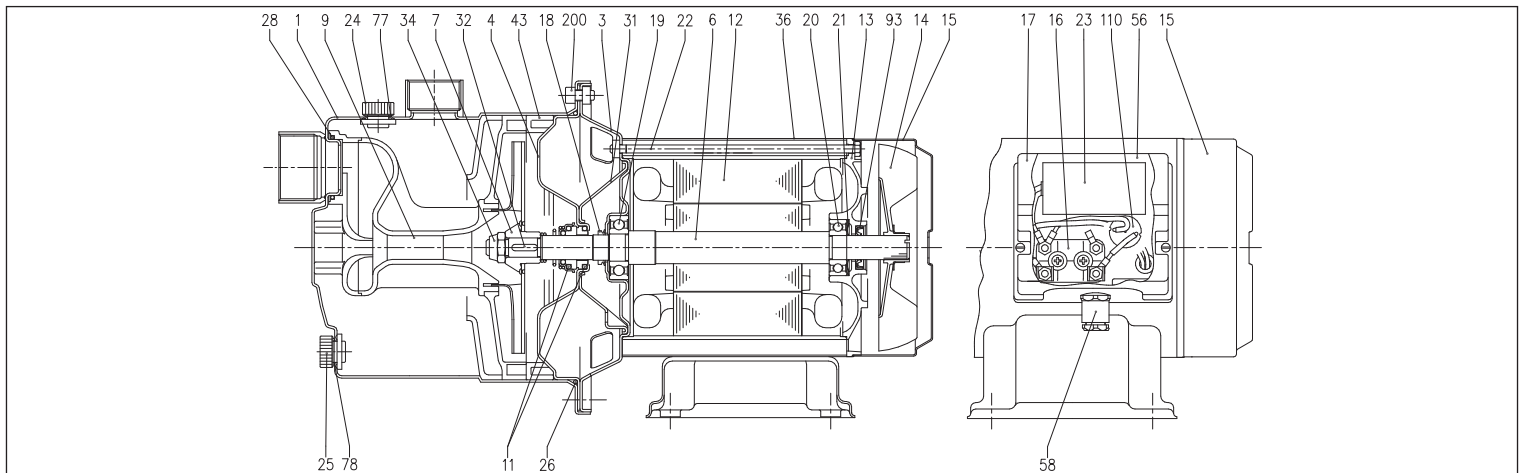
[1]= Three phase only
[2]= Single phase only

INSTALLATION



For correct installation of the system, it is recommended to fit a foot valve on the suction and support/anchorage for the piping.

JE SECTIONAL VIEW



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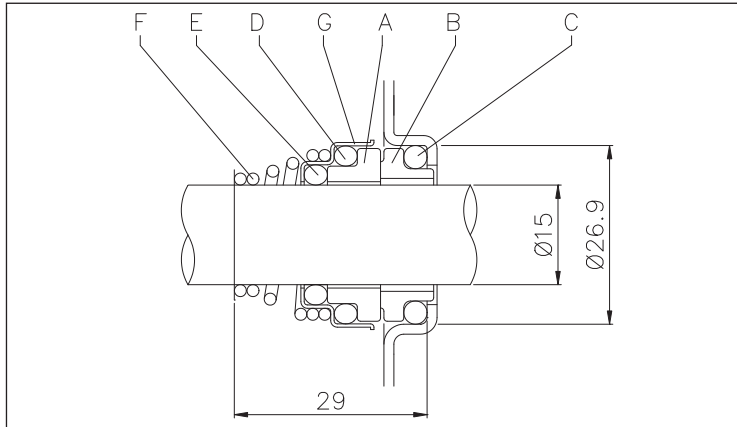
MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	AISI 304	23	Capacitor [2]	-
3	Motor support	AISI 304	24	Filler cap	PA6
4	Seal housing disc	AISI 304	25	Drain plug	PA6
6	Rotor shaft	AISI 303 (part in contact with the liquid)	26	O-Ring	NBR
7	Impeller	AISI 304	28	O-Ring	NBR
9	Venturi Unit + nozzle	PPE+PS reinforced with fibreglass	31	Disc/seal spacer	AISI 304
11	Mechanical seal	Carbon/Ceramic/NBR	32	Key	AISI 304
12	Motor case	-	34	Impeller nut	AISI 304
13	Motor cover	Aluminium	36	Motor casing	AISI 304
14	Fan	PA6	43	Nozzle spacer	PPE+PS reinforced with fibreglass
15	Fan cover	AISI 304	56	Terminal box cover gasket	NBR
16	Terminal box	-	58	Cable gland	-
17	Terminal box cover	PA66 reinforced with fibreglass	77	O-Ring	NBR
18	Spray protector washer	NBR	78	O-Ring	NBR
19	Bearing (pump side)	-	93	Sealing ring [1]	NBR
20	Bearing (motor side)	-	110	Motorprotector [2]	-
21	Adjusting ring	Steel C70	200	Screw (Pump body)	A2 UNI7323 stainless steel
22	Tie-rod	Galvanised Fe 42			

[1]= For IP 55 only

[2]= For single phase only

JE MECHANICAL SEAL



MATERIALS TABLE

Ref.	Name	Material
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

JE ELECTRIC DATA TABLE

Model	Single phase 230V	Three phase 230/400V	P ₂		Efficiency		Capacitor		Efficiency (%)			P ₁		Absorbed Current [A]		
			[HP]	[kW]	Single phase	Three phase	Single phase μF	V _c	Three phase η %			Single phase [kW]	Three phase [kW]	[A]		
									50%	75%	100%			Single phase 230V	230V	400V
JEM 80	JE 80		0,8	0,6	-	-	16	450	-	-	-	1,05	0,97	4,7	3,3	1,9
JEM 100	JE 100		1	0,75	-	IE2	20	450	77,2	80,9	81,3	1,33	1,13	6,4	3,5	2,0
JEM 120	JE 120		1,2	0,88	-	IE2	20	450	77,2	80,9	81,3	1,39	1,15	6,7	3,6	2,1
JEM 150	JE 150		1,5	1,1	-	IE2	31,5	450	79,7	82,5	83,0	1,70	1,80	7,6	5,5	3,2

JE NOISE DATA TABLE

Model	Single phase 230V	Three phase 230/400V	P ₂		L _{pA} - dB(A)*
			[HP]	[kW]	
JEM 80	JE 80		0,8	0,6	71
JEM 100	JE 100		1	0,75	71
JEM 120	JE 120		1,2	0,88	71
JEM 150	JE 150		1,5	1,1	76

* Mean value of several measures at 1m distance around the pump.
Tolerance $\pm 2,5$ dB.