

JES - JE

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
- Pumping 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

- IE3 high energy-efficiency motors 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

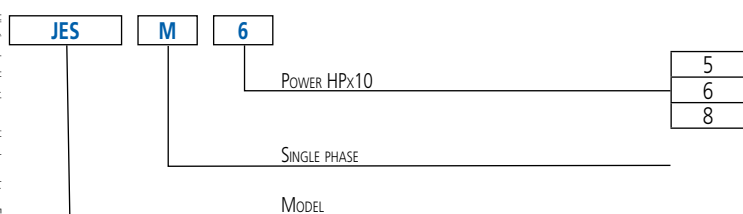
MATERIALS

- Pump body, motor bracket, seal housing disc, motor case and fan cover in AISI 304
- Shaft in AISI 303 (part in contact with the liquid)
- Impeller in AISI 304 for JE, in PPE + PS reinforced with fibreglass for JES
- Mechanical seal in Ceramic/Carbon/NBR

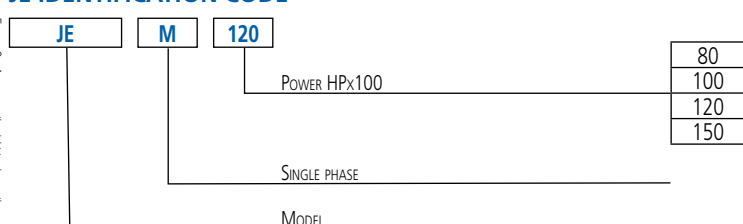
ACCESSORIES (On request)

- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-drive - Frequency converter

JES IDENTIFICATION CODE



JE IDENTIFICATION CODE

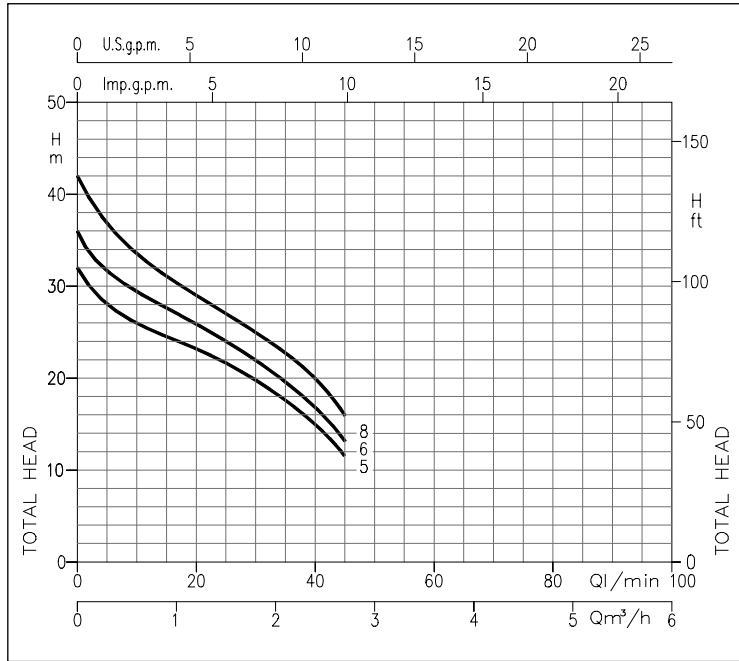


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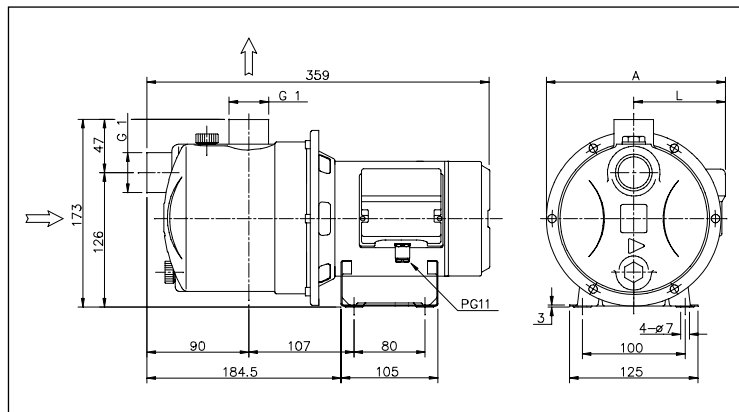
PERFORMANCE CURVES (according to ISO 9906 Attachment 3B)



JES PERFORMANCE CHART

Model		P ₂		Q = Flow Rate				
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min m³/h	5 0.3	20 1.2	40 2.4	45 2.7
				H=Head [m]				
JES(M) 5	JES 5	0.5	0.37	28.0	23.0	15.0	11.5	
JES(M) 6	JES 6	0.6	0.44	31.5	26.0	17.0	13.5	
JES(M) 8	JES 8	0.8	0.6	37.0	29.0	20.0	16.0	

JES DIMENSIONS

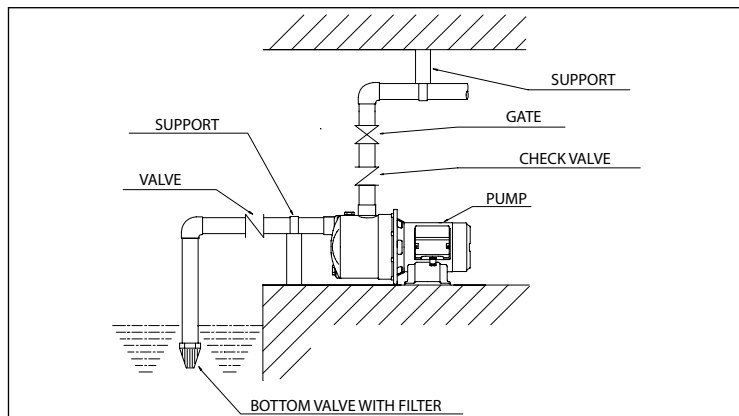


DIMENSIONS TABLE

Model	Dimensions [mm]				Weight [kg]
	[2]	A	[1]	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



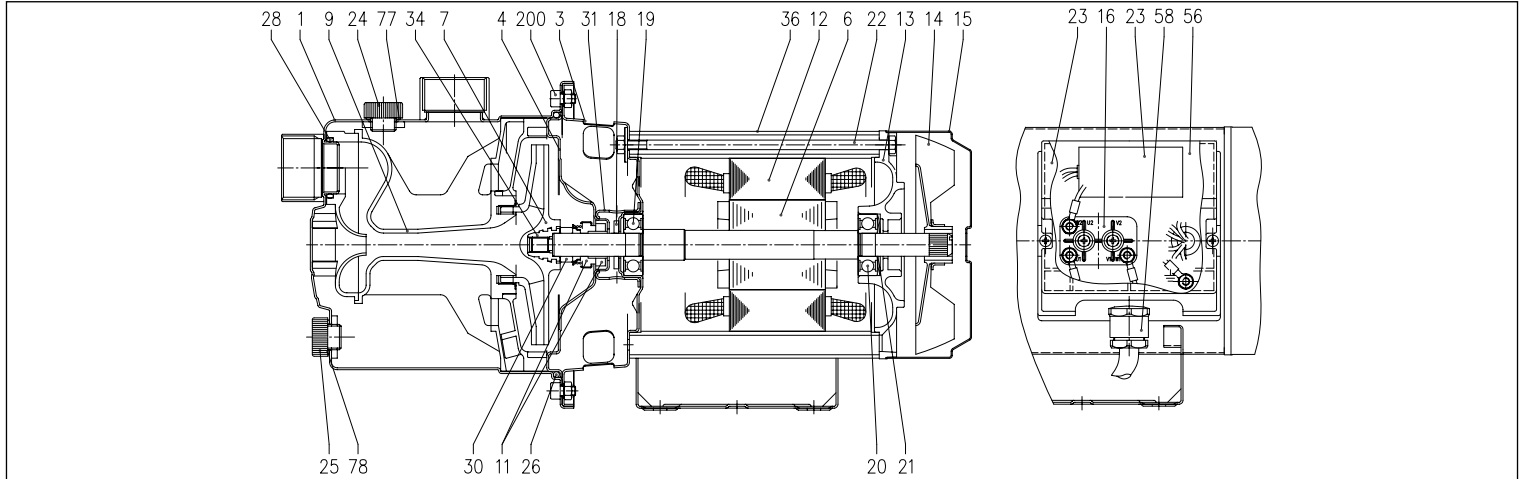
For correct installation of the system, it is recommended to fit a foot valve on the suction and support/anchorage for the piping.

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JES SECTIONAL VIEW

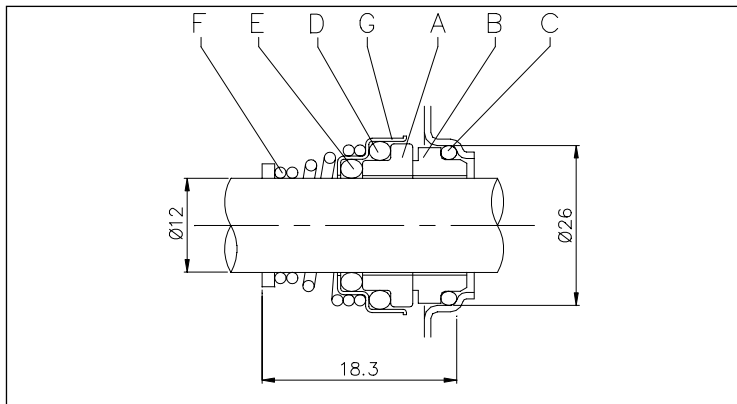


MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	AISI 304	21	Adjustment 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	Ceramic/Carbon/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)	Stainless steel A2 UNI7323

[1]= Three phase only
[2]= 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		
		Single phase	Three phase	Single phase	Three phase	Single phase	Three phase	Three phase
230V	[HP]	µF	V _c	[kW]	[kW]	230V	230V	400V
JESM 5	0.5	10	450	0.37	0.44	2.1	1.5	0.85
JESM 6	0.6	10	450	0.45	0.54	2.4	1.9	1.1
JESM 8	0.8	12.5	450	0.6	0.63	3.0	2.25	1.3

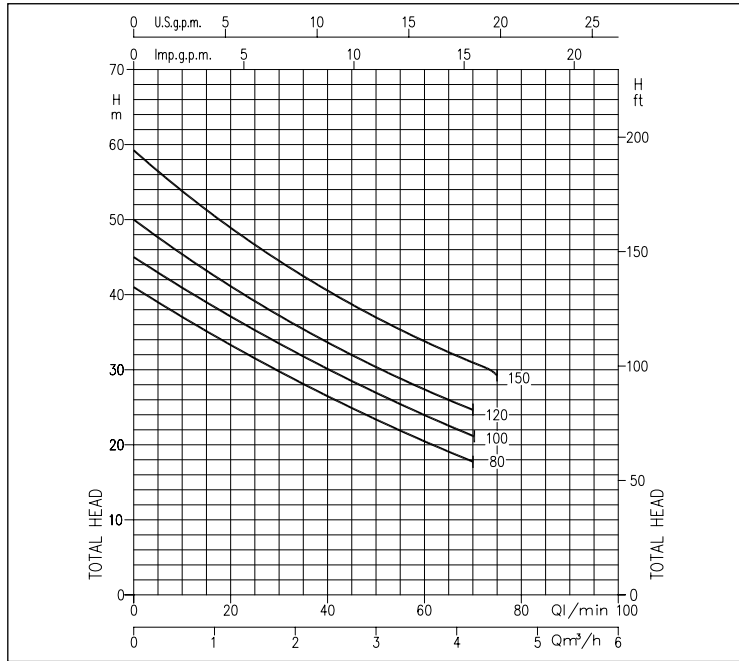
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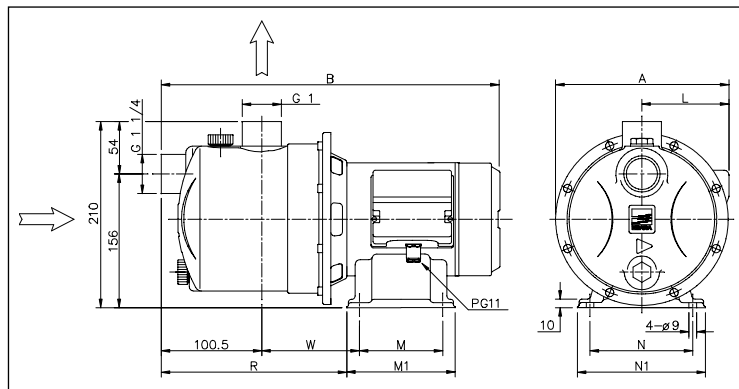
PERFORMANCE CURVES (according to ISO 9906 Attachment 3B)



JES PERFORMANCE CHART

Model	P ₂	Q = Flow Rate									
		Single phase 230V		Three phase 230/400V		[HP]		[kW]		H=Head [m]	
		l/min	20	30	40	50	60	70	75		
		m ³ /h	1.2	1.8	2.4	3	3.6	4.2	4.5		
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

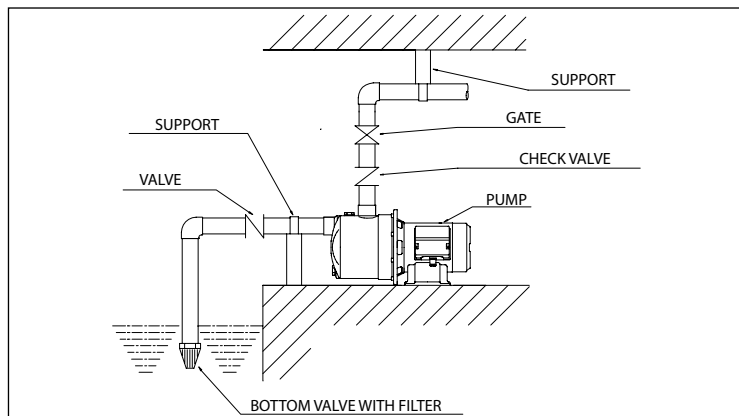


DIMENSIONS TABLE

Model	Dimensions [mm]												Weight [kg]	
	A [2]	[1]	B [2]	[1]	L [2]	[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	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	17,3	16,4

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

INSTALLATION



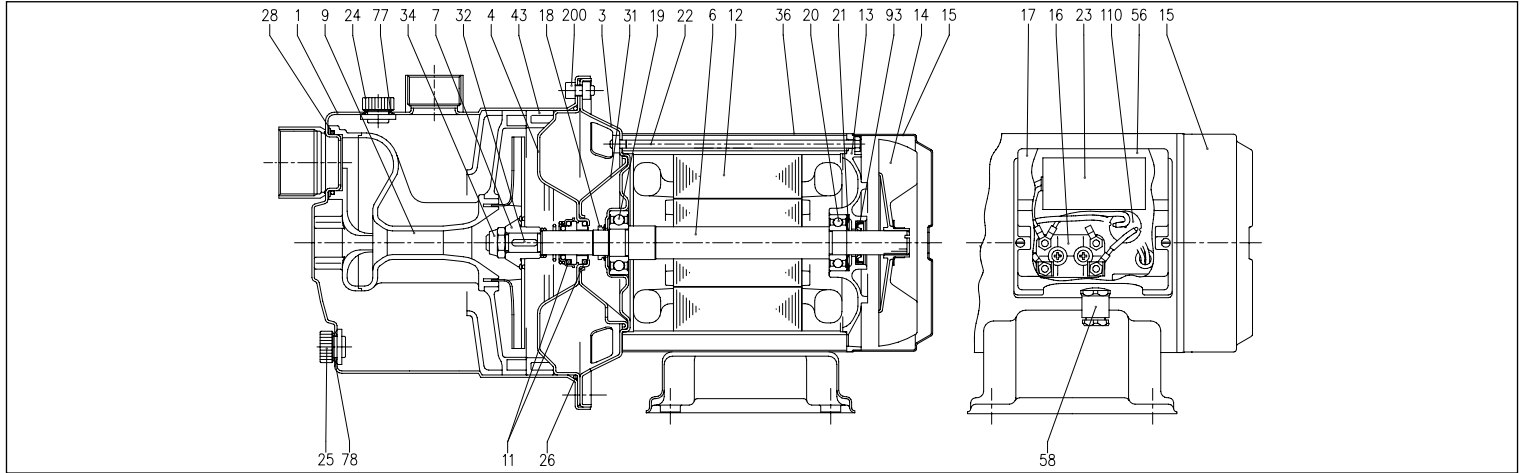
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JE SECTIONAL VIEW

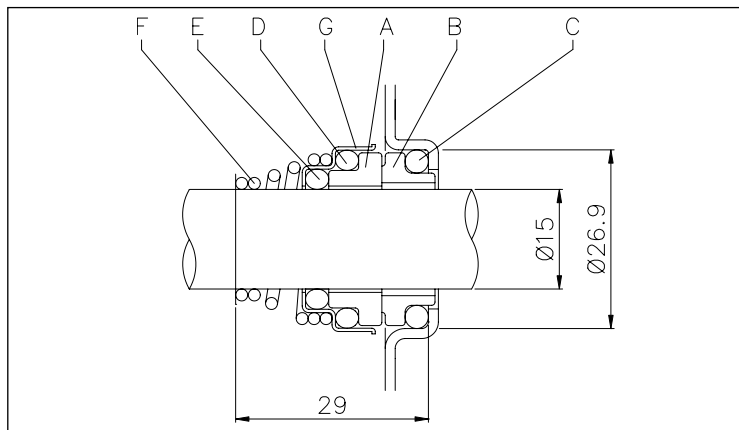


MATERIALS TABLE

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	Ceramic/Carbon/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	Motor protector [2]	-
21	Adjustment ring	Steel C70	200	Screw (pump body)	Stainless steel A2 UNI7323
22	Tie-rod	Galvanised Fe 42			

[1] = For IP 55 only
[2] = 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

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JE ELECTRIC DATA TABLE

Model		P ₂		Efficiency		Capacitor		Efficiency (%)			P ₁		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	Single phase µF	V _c	Three phase			Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V 400V	
								50%	75%	100%					
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	0.75	-	IE3	20	450	80.9	82.3	82.1	1.33	1.15	6.4	3.6	2.1
JEM 120	JE 120	1.2	0.88	-	IE3	20	450	80.9	82.3	82.1	1.39	1.15	6.7	3.6	2.1
JEM 150	JE 150	1.5	1.1	-	IE3	35	450	83.5	84.3	84.6	1.70	1.77	7.6	5.8	3.3

JE NOISE DATA TABLE

Model		P ₂		L _{PA} - dB(A)*
Single phase 230V	Three phase 230/400V	[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

* Average noise level measured at 1 m from the motor pump.
Tolerance ± 2.5 dB.