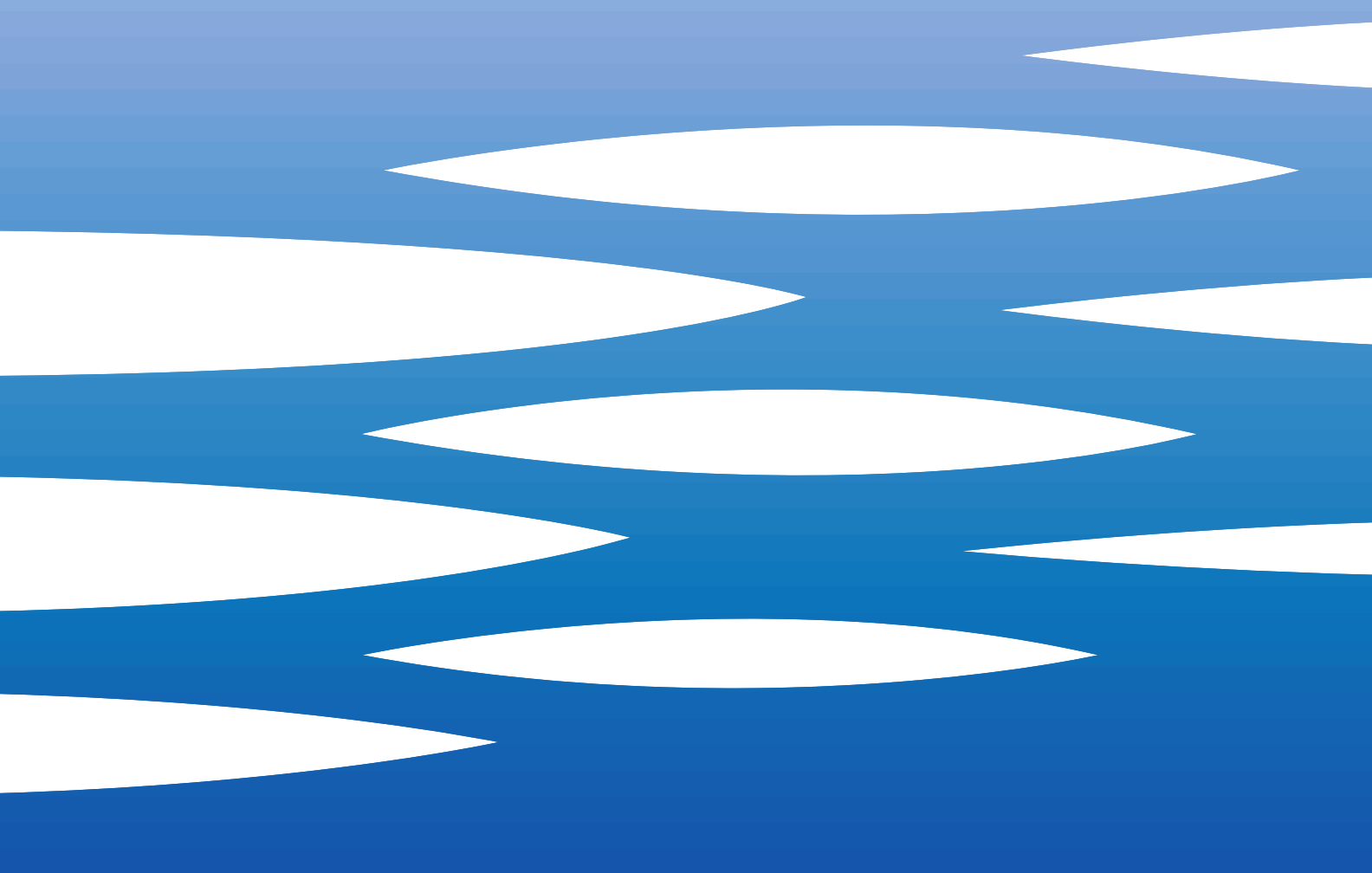




EBARA



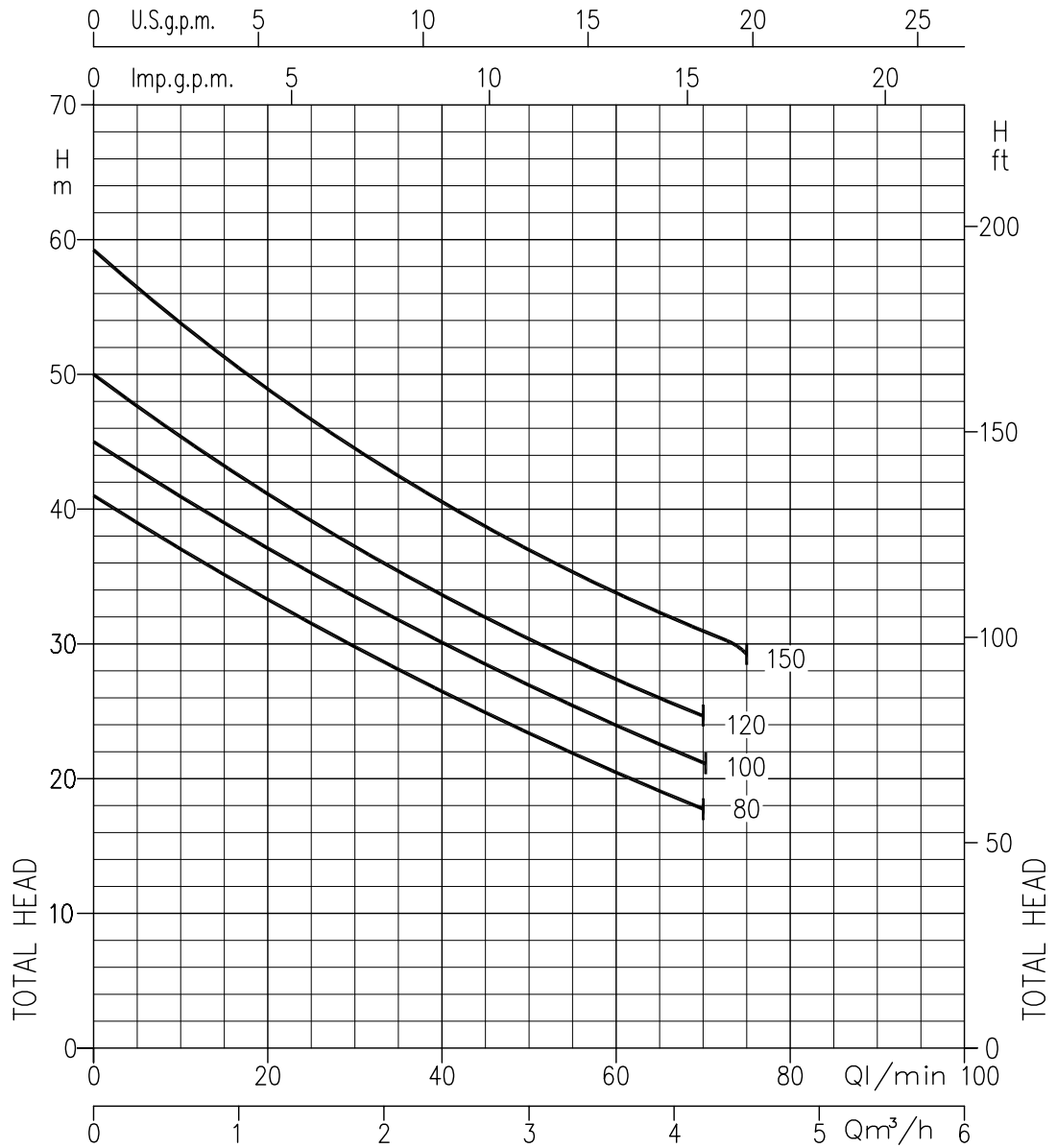
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SPECIFICATIONS

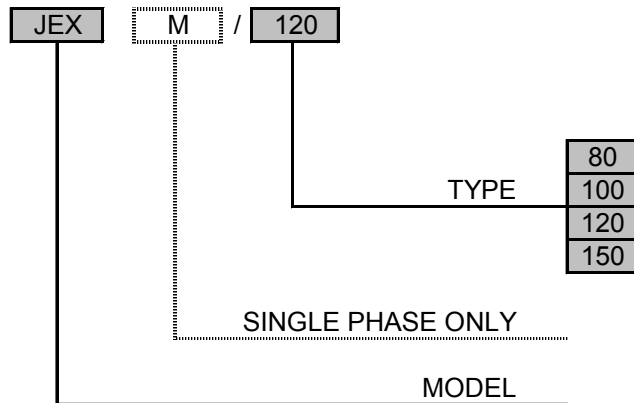
50Hz

PUMP		
Liquid Handled	Type of liquid	Clean water
	Max temperature [°C]	45
Maximum working pressure	[MPa]	0.6
Maximum suction depth	[m]	8
Construction	Impeller	Closed centrifugal type
	Shaft seal type	Mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction [inch]	G 1¼ UNI ISO 228
	Discharge [inch]	G 1 UNI ISO 228
Material	Casing	AISI 304
	Impeller	AISI 304
	Shaft seal	Ceramic/Carbon/NBR
	Casing cover	AISI 304
	Shaft	AISI 303 (Wet extension)
	Bracket	Aluminium
	Ejector	PPO mod. glass fibre reinforced
Diffuser	PPO mod. glass fibre reinforced	
Applicable standard of test		ISO 9906 – Annex A

MOTOR		
Type	Electric - TEFC	
	Single Phase	Three Phase
No. Of Poles	2	
Synchronous speed [min ⁻¹]	3000	
Insulation Class	F	
Protection degree	IP 54 IP 55 (on request)	
Power rating	[kW]	0.6 ÷ 1.1
	[HP]	0.8 ÷ 1.5
Frequency [Hz]	50	
Voltage [V]	230 ±10%	230/400 ±10%
Capacitor	Built in	-
Over load protection	Built in	Provided by the user
Casing material	Aluminium	
Base material/motor support	Aluminium	
Dimensions of cable entry	PG11 - PG13.5 (see dimensions page 400)	



Type pumps		Power		Q=Capacity							
Single Phase	Three Phase	kW	HP	l/min 20	30	40	50	60	70	75	
V 230	V 230/400			m³/h 1.2	1.8	2.4	3	3.6	4.2	4.5	
JEXM 80	JEX 80	0,6	0,8	33	29	26,5	23,5	20,5	18	-	
JEXM 100	JEX 100	0,75	1	37	33,5	30	27	24	21	-	
JEXM 120	JEX 120	0,88	1,2	41	37	34	30,5	27,5	24,5	-	
JEXM 150	JEX 150	1,1	1,5	49	44,5	40,5	37	34	31	29,5	



Curve specifications

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9906 Annex A

The curves refer to effective speed of asynchronous motors at 50 Hz

Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)

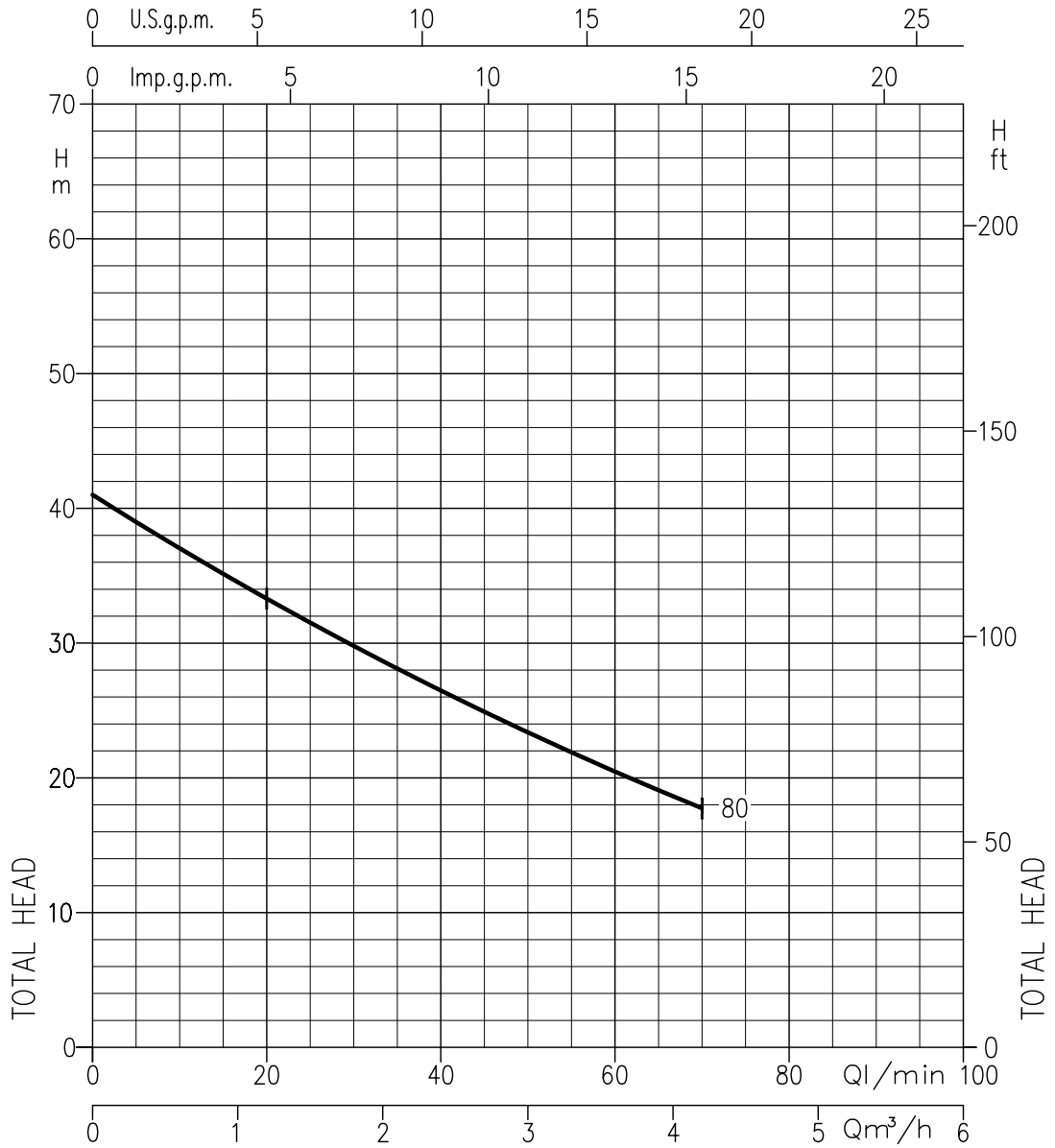
In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

Symbols explanation:

Q = volume flow rate

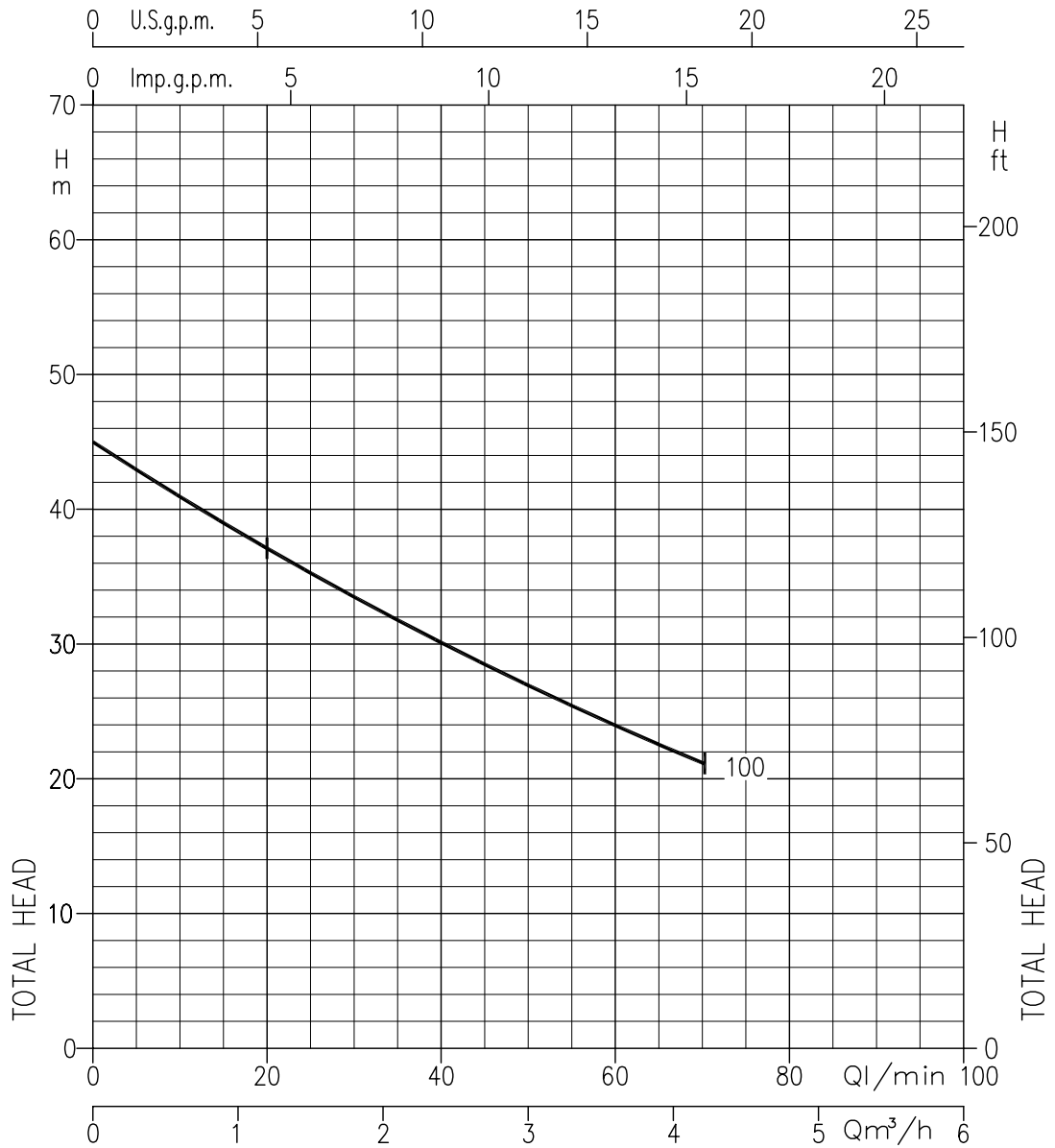
H = total head

JEX 80 (0.6 kW)



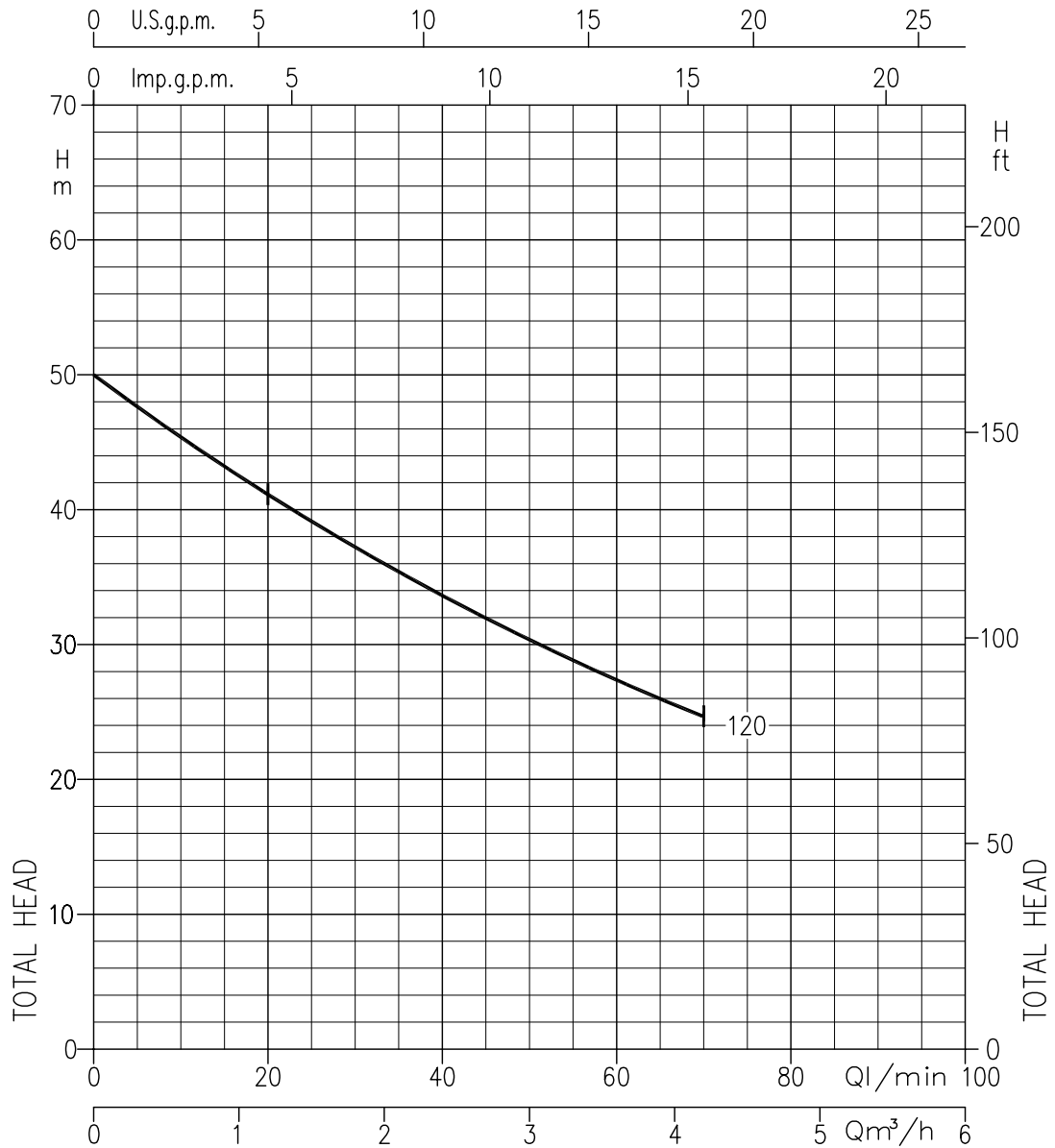
Impeller diameter = 132 mm
 Applicable standard of test: ISO 9906 – Annex A

JEX 100 (0.75 kW)



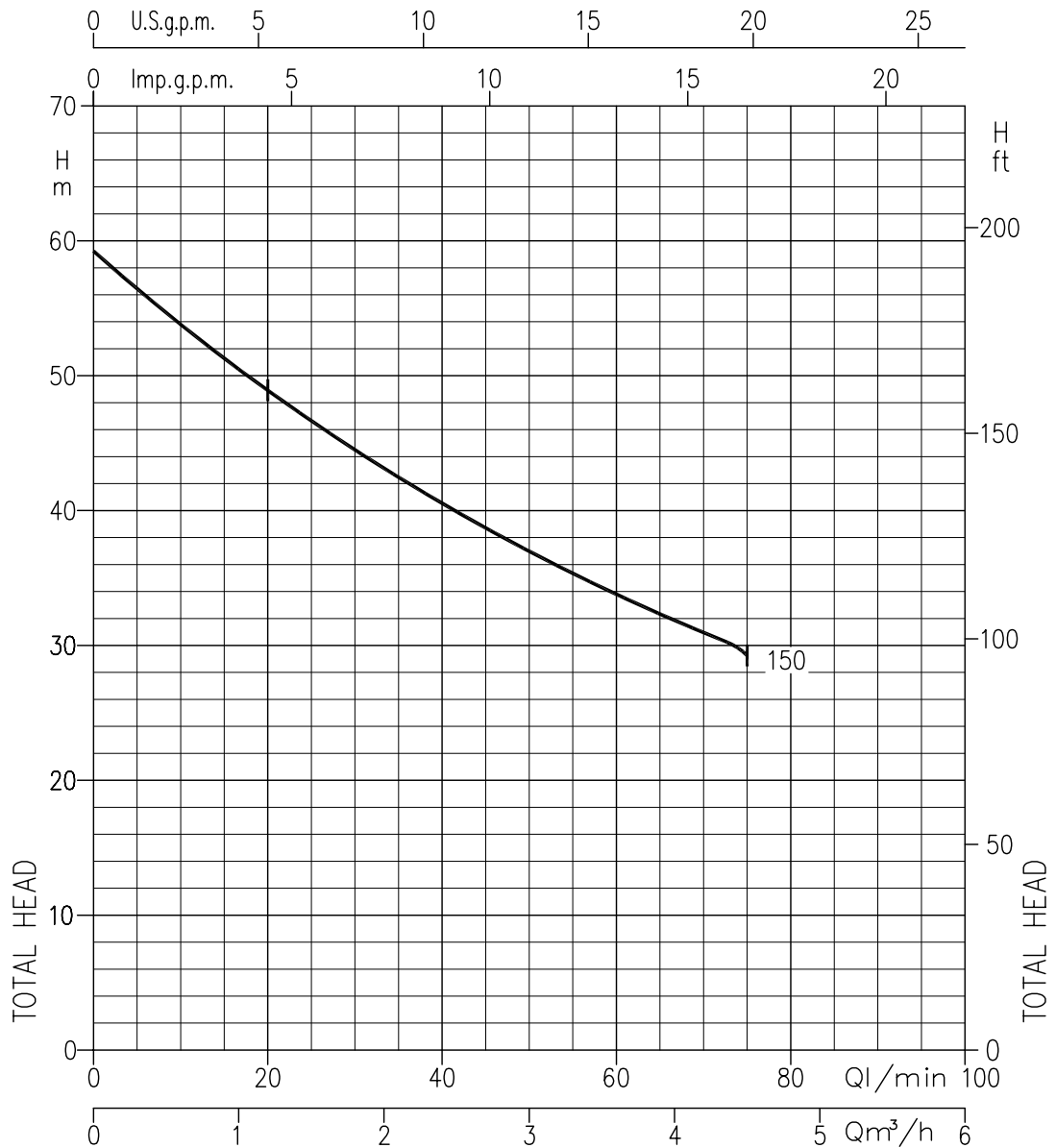
Impeller diameter = 141 mm
Applicable standard of test: ISO 9906 - Annex A

JEX 120 (0.88 kW)



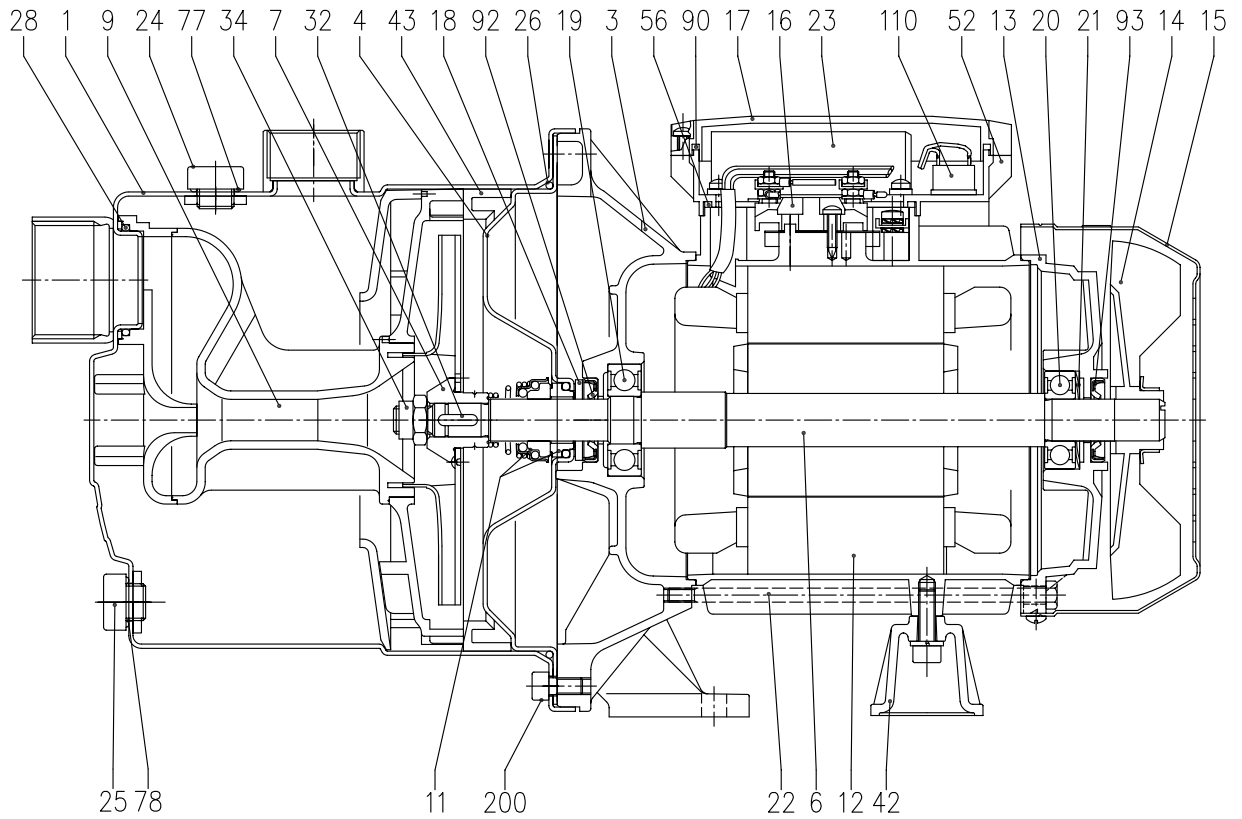
Impeller diameter = 141 mm
 Applicable standard of test: ISO 9906 – Annex A

JEX 150 (1.1 kW)



Impeller diameter = 141 mm
Applicable standard of test: ISO 9906 – Annex A

SECTIONAL VIEW



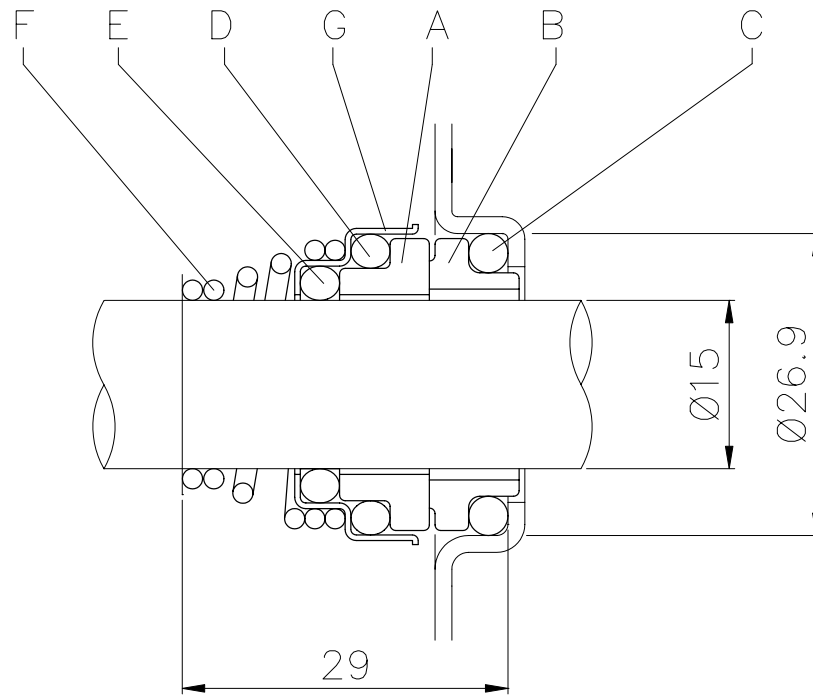
N°	PART NAME	MATERIAL	Q.TY	N°	PART NAME	MATERIAL	Q.TY
1	Casing	AISI 304	1	23	Capacitor [1]	-	1
3	Motor bracket	Aluminium	1	24	Priming plug	PA6	1
4	Casing cover	AISI 304	1	25	Drain plug	PA6	1
6	Shaft with rotor	AISI 303 (Wet extension)	1	26	O-ring	NBR	1
7	Impeller	AISI 304	1	28	O-ring	NBR	1
9	Diffuser Venturi tube	PPO mod. glass fibre reinforced	1	32	Key	AISI 304	1
11	Mechanical seal	Carbon/Ceramic/NBR	1	34	Impeller nut	AISI 304	1
12	Motor frame with stator	-	1	42	Motor support	Aluminium	1
13	Motor cover	Aluminium	1	43	Space diffuser	PPO mod. glass fibre reinforced	1
14	Fan	PA6	1	52	Terminal box [1]	ABS	1
15	Fan cover	Fe P04 Zinked	1	56	Box gasket	NBR	1
16	Terminal board	-	1	77	O-ring	NBR	1
17	Terminal box cover [2]	Aluminium	1	78	O-ring	NBR	1
18	Splash ring	NBR	1	90	Cover gasket [1] [3]	NBR	1
19	Pump side ball bearing	-	1	92	Lip seal [3]	-	1
20	Fan side ball bearing	-	1	93	Lip seal [3]	-	1
21	Adjusting ring	Steel C70	1	110	Protector [1]	-	1
22	Tie rod	Fe 42 Zinked	4	200	Screw	Stainless steel A2 UNI7323	8

[1] Only for single phase

[2] Only for three phase

[3] Only for IP55

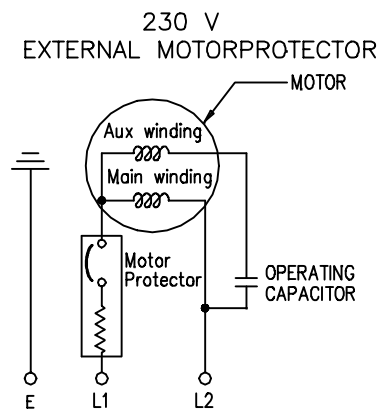
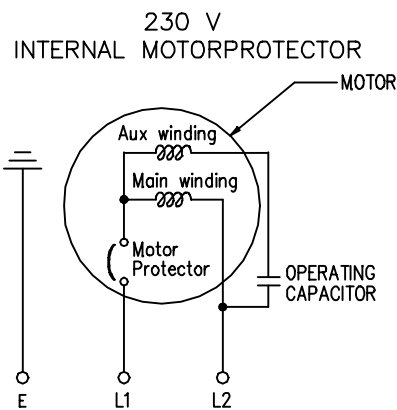
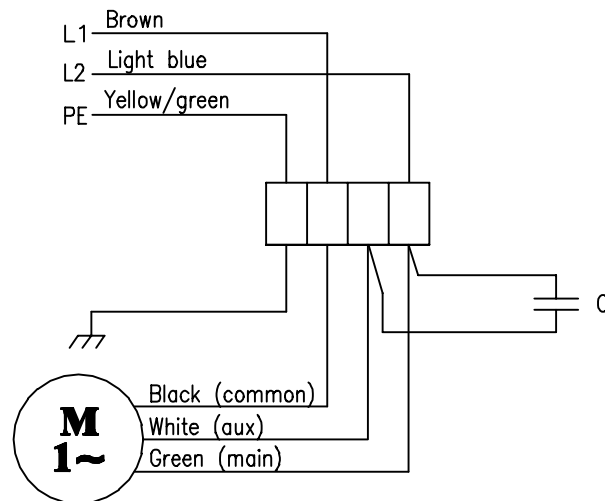
MECHANICAL SEAL



REF	PART NAME	MATERIAL
A	Rotary seal ring	Ceramic
B	Stationary seal ring	Carbon graphite
C	O Ring	NBR
D	O Ring	NBR
E	O Ring	NBR
F	Self driving spring	AISI 316
G	Frame	AISI 304

DIAGRAM AND ELECTRIC CONNECTIONS

SINGLE PHASE MOTOR



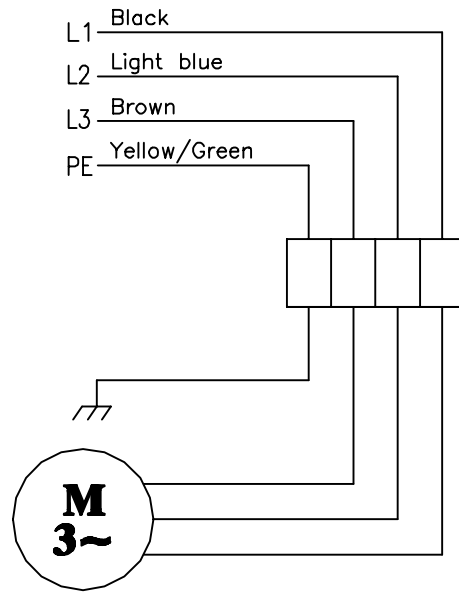
For model

JEXM 80
 JEXM 100
 JEXM 120

JEXM 150

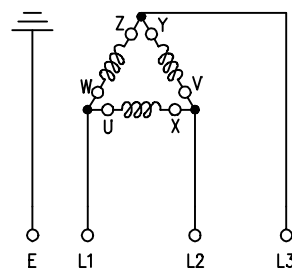
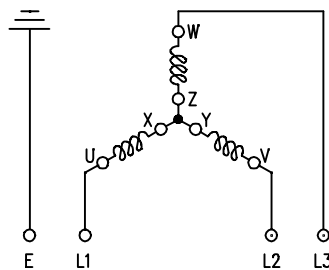
DIAGRAM AND ELECTRIC CONNECTIONS

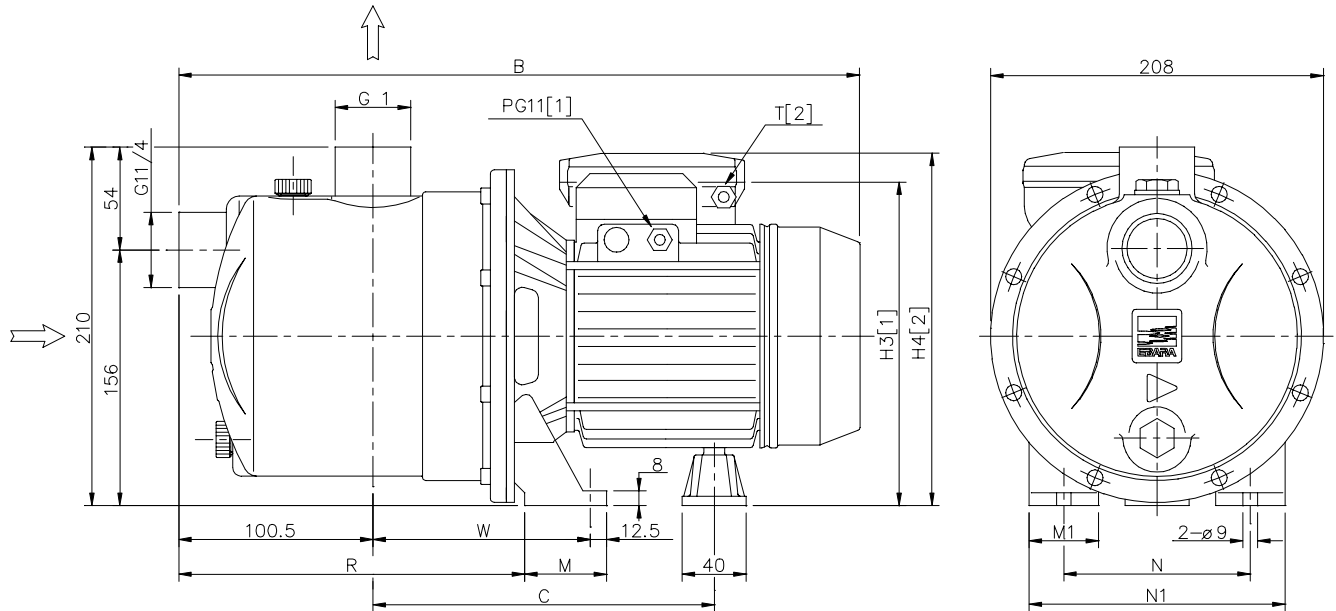
THREE PHASE MOTOR



400 V
STAR CONNECTION

230 V
DELTA CONNECTION

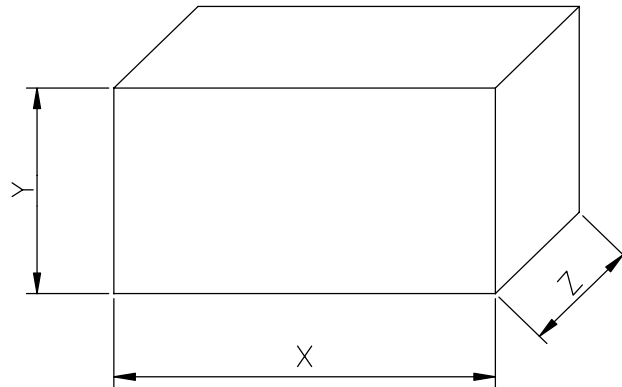




Pump type JEXM-JEX	Dimensions in mm										
	B	C	H3	H4	M	M1	N	N1	R	T	W
80	417	230	206	215	50	38	120	160	206	PG11	143
100	417	230	206	215	50	38	120	160	206	PG11	143
120	417	230	206	215	50	38	120	160	206	PG11	143
150	445	250	216	240	55	40	140	180	203.5	PG13.5	145.5

[1] = Only for three phase

[2] = Only for single phase



Type pumps		PACKING [mm]			WEIGHT [kg]	
Single Phase	Three Phase	X	Y	Z	Single Phase	Three Phase
JEXM 80	JEX 80	222	265	462	10.3	10.3
JEXM 100	JEX 100	222	265	462	10.8	10.8
JEXM 120	JEX 120	222	265	462	11.5	11.5
JEXM 150	JEX 150	222	265	462	14.1	14.1

TECHNICAL DATA

50 Hz

Type pumps		kW	HP	Capacitor		Input [kW]		Full load current [A]			Locked rotor current		
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz			Single Phase μF	Vc	Single Phase	Three Phase	Single Phase	Three Phase 230 V	400 V	Single Phase 230 V 50 Hz	Three Phase 230 V 50 Hz	400 V 50 Hz
JEXM 80	JEX 80	0.6	0.8	16	450	1.05	0.97	4.7	3.3	1.9	16.1	16.8	9.7
JEXM 100	JEX 100	0.75	1	20	450	1.33	1.25	6.4	4.5	2.6	22.7	24.2	14
JEXM 120	JEX 120	0.88	1.2	20	450	1.39	1.30	6.7	4.7	2.7	22.7	24.2	14
JEXM 150	JEX 150	1.1	1.5	31.5	450	1.70	1.58	7.6	5.9	3.3	32.5	32.9	19

Type pumps		Ball Bearing	
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz	Pump side	Fan side
JEXM 80	JEX 80	6203 ZZ	6202 ZZ
JEXM 100	JEX 100	6203 ZZ	6202 ZZ
JEXM 120	JEX 120	6203 ZZ	6202 ZZ
JEXM 150	JEX 150	6204 ZZ	6203 ZZ

If you use this pump on suction condition, it tends to breathe the air from outside because the pressure in pump becomes vacuum condition when it stopped. So water in the pump sometimes fall down to breath the air from pipe connection. If it is used to operate continuously under this condition, this is the cause of breakdown to overheat inside the pump.



So please install foot valve or check valve at suction pipe in order to prevent the pump from such a condition. And moreover will you please support the suction pipe and the delivery one to prevent the pump from leaning the weight of pipe.

