

EVMS16CT-R0E

EBARA VERTICAL MULTISTAGE PUMP

Model EVMS



FIELDS OF APPLICATIONS



INDUSTRY

- **Water treatment**
reverse osmosis
ultra-filtration
water purification
micro-filtration
softening, ionizing
and demineralising systems
swimming pools
separators
- **Boiler feeding**
steam systems
condensate systems

- **Wash and clean**
vehicle washing systems
industrial part washing
laundry systems
supply of liquids with acids and bases
supply of chemical liquids
- **Chilling**
handling of refrigerants for cooling
thermal control systems
industrial cooling
laser cooling

- **Machine tooling**
cooling lubricant supply for tooling machines
- **Pressure boosting**
pressure boosting for industrial use
- **Food & beverage**
food washing systems
bottle wash systems
- **Pharmaceutical industries**
- **Marine applications**
freshwater, deckwash, high fog and fire fighting on ships



BUILDING SERVICE

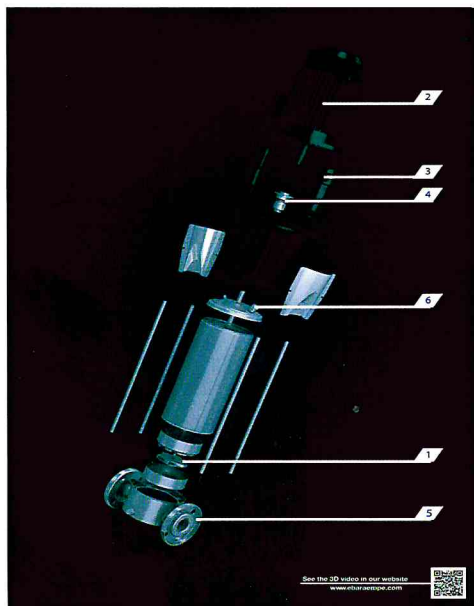
- **Pressure boosting**
pressure boosting for buildings
pressure boosting for high rise buildings/hotels
- **Sprinkler systems**
- **Fire fighting systems**
jockey pump
- **District heating**
- **Heat exchangers / fan heaters**
- **Air conditioning systems**
- **Heating systems**



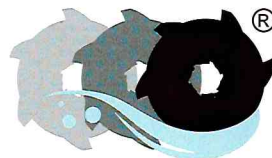
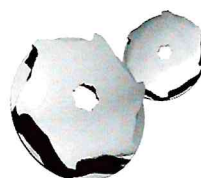
WATER SUPPLY

- **Water treatment**
water treatment plants filtration
water treatment plants transfer
- **Pressure boosting**
transfer from water treatment plants (mains)
- **Irrigation**
golf course / sport fields irrigation
- **Agriculture**
sprinkler irrigation
drip irrigation

MAIN PRODUCT FEATURES



1



Shurricane

Innovative hydraulic solutions

Any motor, anywhere.

- **Commercial motors** can be fitted to all of the pump models without any modifications thanks to low pump axial thrust load
- **Long life of the motor bearing**
- **High pump efficiency** classified in MEI > 0.7 as the most efficient models
- **Patent Application n.VI2014A000271**

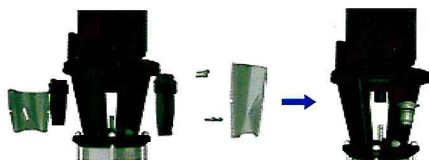
2



Energy saving

- High efficiency IE3 motor starting from 0.75 kW complied with the EuP 2005/32/EC and ErP 2009/125/EC directives
- **The VFD (Variable frequency drive) and the commercial sensor** can be directly mounted on EVMS to **maintain physical constant operations** such as pumping pressure depending on the conditions of use

3



Easy maintenance

- **The cartridge shaft seal** enables the **plug in replacement** of the shaft seal without disassembling the motor bracket
- **The spacer coupling** allows easy maintenance without having to remove heavy motors over 5.5 kW.

4



Shaft seal solutions

- **Shaft seal material:**
B: Resin impregnated carbon graphite
Q: Sintered silicon carbide
Qg: Silicon carbide with carbon graphite
Carbon or graphite inclusions with silicon carbide can be used as **dry lubricant to reduce friction**.
- It's conforming to EN12756 (ex DIN 24960)

5

Piping connection options

- The various pipe connections are available depending on the application requirements
- The external dimensions can be adjusted to the replacement of the existing pump in the wide majority

Material

AISI304/
AISI316

Cast Iron

Round flange DIN

(incl. ANSI depending on models)



Loose Flange DIN

(incl. ANSI depending on models)



Oval Flange



Plug-In connection (Victaulic®, Clamp)



6 Smart plug solutions



Air ventilation plug



Water filling
& sensor plug



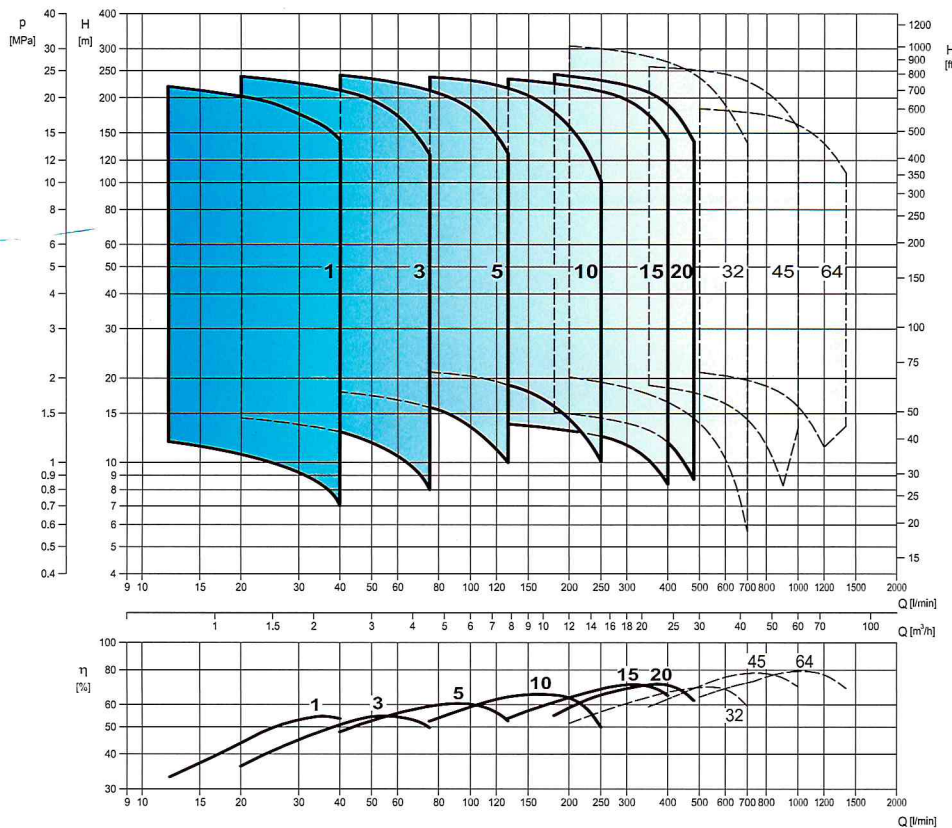
Commercial sensor
fitting



Measurements for suction
and discharge pressure / drain

PERFORMANCE RANGE

EVMS 1-3-5-10-15-20



Minimum efficiency index (MEI)

Pump type	MEI
EVMS(.)1	> 0.70
EVMS(.)3	> 0.70
EVMS(.)5	> 0.70
EVMS(.)10	> 0.70
EVMS(.)15	> 0.70
EVMS(.)20	> 0.70

SELECTION CHART

EVMS(.)1-3-5

Pump Type *		Motor kW HP Size			Maximum working pressure (MPa)	Q=Capacity									
						l/min m³/h	0 0	12 0.72	20 1.2	30 1.8	40 2.4	60 3.6	75 4.5	100 6	130 7.8
Single phase		Three phase			H=Total manometric head in meters										
1	EVMSJ1 20.37M	EVMSJ1 20.37	0.37	0.5	71	1.6	119	112	104	9.1	7.1	-	-	-	-
	EVMSJ1 30.37M	EVMSJ1 30.37	0.37	0.5	71		179	168	156	13.6	10.6	-	-	-	-
	EVMSJ1 40.37M	EVMSJ1 40.37	0.37	0.5	71		238	224	208	18.2	14.2	-	-	-	-
	EVMSJ1 50.37M	EVMSJ1 50.37	0.37	0.5	71		30	28	26	22.7	17.7	-	-	-	-
	EVMSJ1 60.37M	EVMSJ1 60.37	0.37	0.5	71		358	336	312	27.3	21.2	-	-	-	-
	EVMSJ1 70.37M	EVMSJ1 70.37	0.37	0.5	71		415	392	364	31.8	24.8	-	-	-	-
	EVMSJ1 80.37M	EVMSJ1 80.37	0.37	0.5	71		475	445	415	36.4	28.3	-	-	-	-
	EVMSJ1 90.55M	EVMSJ1 90.55	0.55	0.75	71		535	505	47	41	31.8	-	-	-	-
	EVMSJ1 10/0.55M	EVMSJ1 10/0.55	0.55	0.75	71		596	56	52	45.5	35.4	-	-	-	-
	EVMSJ1 11/0.55M	EVMSJ1 11/0.55	0.55	0.75	71		655	615	57	50	38.9	-	-	-	-
	EVMSJ1 12/0.55M	EVMSJ1 12/0.55	0.55	0.75	71		715	67	625	54.5	42.5	-	-	-	-
	EVMSJ1 13/0.55M	EVMSJ1 13/0.55	0.55	0.75	71	775	73	675	59	46	-	-	-	-	
	EVMSJ1 14/0.75M	EVMSJ1 14/0.75	0.75	1	80	835	785	73	63.5	49.5	-	-	-	-	
	EVMSJ1 16/0.75M	EVMSJ1 16/0.75	0.75	1	80	955	895	83	72.5	56.5	-	-	-	-	
	EVMSJ1 18/1.1M	EVMSJ1 18/1.1	1.1	1.5	80	107	101	935	82	63.5	-	-	-	-	
	EVMSJ1 20/1.1M	EVMSJ1 20/1.1	1.1	1.5	80	119	112	104	91	71	-	-	-	-	
	EVMSJ1 22/1.1M	EVMSJ1 22/1.1	1.1	1.5	80	131	123	114	100	78	-	-	-	-	
	EVMSJ1 24/1.1M	EVMSJ1 24/1.1	1.1	1.5	80	143	135	125	109	85	-	-	-	-	
	EVMSJ1 26/1.1M	EVMSJ1 26/1.1	1.1	1.5	80	155	146	135	118	92	-	-	-	-	
	EVMSJ1 27/1.5M	EVMSJ1 27/1.5	1.5	2	90 S	161	151	140	123	95.5	-	-	-	-	
	EVMSJ1 29/1.5M	EVMSJ1 29/1.5	1.5	2	90 S	173	163	151	132	103	-	-	-	-	
	EVMSJ1 32/1.5M	EVMSJ1 32/1.5	1.5	2	90 S	191	179	166	145	113	-	-	-	-	
EVMSJ1 34/1.5M	EVMSJ1 34/1.5	1.5	2	90 S	203	191	177	155	120	-	-	-	-		
EVMSJ1 37/2.2M	EVMSJ1 37/2.2	2.2	3	90 L	221	207	192	168	131	-	-	-	-		
EVMSJ1 39/2.2M	EVMSJ1 39/2.2	2.2	3	90 L	232	219	203	177	138	-	-	-	-		
3	EVMSJ3 20.37M	EVMSJ3 20.37	0.37	0.5	71	1.6	147	-	141	13.6	12.9	109	8.3	-	-
	EVMSJ3 30.37M	EVMSJ3 30.37	0.37	0.5	71		221	-	211	20.4	19.4	164	12.5	-	-
	EVMSJ3 40.37M	EVMSJ3 40.37	0.37	0.5	71		295	-	282	27.1	25.8	219	16.7	-	-
	EVMSJ3 50.55M	EVMSJ3 50.55	0.55	0.75	71		369	-	352	33.9	32.3	274	20.9	-	-
	EVMSJ3 60.55M	EVMSJ3 60.55	0.55	0.75	71		442	-	425	40.5	38.8	328	25	-	-
	EVMSJ3 70.75M	EVMSJ3 70.75	0.75	1	80		515	-	495	47.5	45	383	29.2	-	-
	EVMSJ3 80.75M	EVMSJ3 80.75	0.75	1	80		59	-	565	54.5	51.5	44	33.4	-	-
	EVMSJ3 91.1M	EVMSJ3 91.1	1.1	1.5	80		665	-	635	61	58	49	37.6	-	-
	EVMSJ3 10/1.1M	EVMSJ3 10/1.1	1.1	1.5	80		735	-	705	68	64.5	54.5	41.5	-	-

	Pump Type					Maximum working pressure (MPa)	Q=Capacity											
	Single phase		Three phase		kW		Motor HP	Size	l/min	0	12	20	30	40	60	75	100	130
									m³/h	0	0.72	1.2	1.8	2.4	3.6	4.5	6	7.8
							H=Total manometric head in meters											
3	EVMSJ3 11/1.1M	EVMSJ3 11/1.1	1.1	1.5	80	1.6	81	-	-	77.5	74.5	71	60	46	-	-	-	
	EVMSJ3 12/1.1M	EVMSJ3 12/1.1	1.1	1.5	80		88.5	-	-	84.5	81.5	77.5	65.5	50	-	-	-	
	EVMSJ3 13/1.5M	EVMSJ3 13/1.5	1.5	2	90 S		96	-	-	91.5	88	84	71	54.5	-	-	-	
	EVMSJ3 14/1.5M	EVMSJ3 14/1.5	1.5	2	90 S		103	-	-	98.5	95	90.5	76.5	58.5	-	-	-	
	EVMSJ3 15/1.5M	EVMSJ3 15/1.5	1.5	2	90 S		111	-	-	106	102	97	82	62.5	-	-	-	
	EVMSJ3 16/1.5M	EVMSJ3 16/1.5	1.5	2	90 S		118	-	-	113	109	103	87.5	67	-	-	-	
	EVMSJ3 17/2.2M	EVMSJ3 17/2.2	2.2	3	90 L		125	-	-	120	115	110	93	71	-	-	-	
	EVMSJ3 19/2.2M	EVMSJ3 19/2.2	2.2	3	90 L		140	-	-	134	129	123	104	79.5	-	-	-	
	EVMSJ3 21/2.2M	EVMSJ3 21/2.2	2.2	3	90 L	2.5	155	-	-	148	142	136	115	87.5	-	-	-	
	EVMSJ3 23/2.2M	EVMSJ3 23/2.2	2.2	3	90 L		170	-	-	162	156	149	126	96	-	-	-	
	EVMSJ3 24/2.2M	EVMSJ3 24/2.2	2.2	3	90 L		177	-	-	169	163	155	131	100	-	-	-	
	-	EVMSJ3 25/3.0	3.0	4	100 L		184	-	-	176	170	161	137	104	-	-	-	
	-	EVMSJ3 27/3.0	3.0	4	100 L		199	-	-	190	183	174	148	113	-	-	-	
	-	EVMSJ3 29/3.0	3.0	4	100 L		214	-	-	204	197	187	159	121	-	-	-	
	-	EVMSJ3 31/3.0	3.0	4	100 L		229	-	-	218	210	200	170	129	-	-	-	
	-	EVMSJ3 33/3.0	3.0	4	100 L		243	-	-	232	224	213	181	138	-	-	-	
5	EVMSJ5 20.37M	EVMSJ5 20.37	0.37	0.5	71	1.6	19	-	-	-	-	18	17.1	16	138	10.2	-	
	EVMSJ5 30.55M	EVMSJ5 30.55	0.55	0.75	71		28.4	-	-	-	-	26.9	25.6	23.9	207	15.3	-	
	EVMSJ5 40.75M	EVMSJ5 40.75	0.75	1	80		37.9	-	-	-	-	35.9	34.1	31.9	276	20.4	-	
	EVMSJ5 51.1M	EVMSJ5 51.1	1.1	1.5	80		47.5	-	-	-	-	45	42.5	39.9	345	25.5	-	
	EVMSJ5 61.5M	EVMSJ5 61.5	1.5	2	90 S		57	-	-	-	-	54	51	48	415	30.6	-	
	EVMSJ5 71.5M	EVMSJ5 71.5	1.5	2	90 S		66.5	-	-	-	-	63	59.5	56	485	35.7	-	
	EVMSJ5 82.2M	EVMSJ5 82.2	2.2	3	90 L		76	-	-	-	-	72	68	64	55	41	-	
	EVMSJ5 92.2M	EVMSJ5 92.2	2.2	3	90 L		85.5	-	-	-	-	81	77	72	62	46	-	
	EVMSJ5 10/2.2M	EVMSJ5 10/2.2	2.2	3	90 L		95	-	-	-	-	90	85.5	80	69	51	-	
	EVMSJ5 11/2.2M	EVMSJ5 11/2.2	2.2	3	90 L		104	-	-	-	-	98.5	94	87.5	76	56	-	
	-	EVMSJ5 12/3.0	3.0	4	100 L		114	-	-	-	-	108	102	95.5	83	61	-	
	-	EVMSJ5 13/3.0	3.0	4	100 L		123	-	-	-	-	117	111	104	89.5	66.5	-	
	-	EVMSJ5 14/3.0	3.0	4	100 L	133	-	-	-	-	126	119	112	96.5	71.5	-		
	-	EVMSJ5 15/3.0	3.0	4	100 L	142	-	-	-	-	135	128	120	104	76.5	-		
	-	EVMSJ5 17/4.0	4.0	5.5	112 M	161	-	-	-	-	153	145	136	117	86.5	-		
	-	EVMSJ5 19/4.0	4.0	5.5	112 M	180	-	-	-	-	171	162	152	131	97	-		
	-	EVMSJ5 20/4.0	4.0	5.5	112 M	190	-	-	-	-	179	171	160	138	102	-		
	-	EVMSJ5 23/5.5	5.5	7.5	132 S	218	-	-	-	-	206	196	183	159	117	-		
	-	EVMSJ5 25/5.5	5.5	7.5	132 S	237	-	-	-	-	224	213	199	173	127	-		
	-	EVMSJ5 27/5.5	5.5	7.5	132 S	256	-	-	-	-	242	230	215	186	138	-		

1.6 MPa=16 bar ; 2.5 MPa=25 bar

EVMS(.)10- 15-20

Pump Type		Motor HP Size		Maximum working pressure (MPa)	Q=Capacity														
					l/min m/h	0	75	100	130	150	180	200	250	300	350	400	450	480	
Single phase		Three phase			H=Total manometric head in meters														
10	EVMSJ10 2/0.75M	EVMSJ10 2/0.75	0.75	1	80	21.8	21.2	20.8	19.7	18.7	16.6	14.9	9.8	-	-	-	-	-	-
	EVMSJ10 3/1.5M	EVMSJ10 3/1.5	1.5	2	90 S	32.7	31.8	31.2	29.6	28.0	24.9	22.4	14.7	-	-	-	-	-	-
	EVMSJ10 4/2.2M	EVMSJ10 4/2.2	2.2	3	90 L	43.6	42.4	41.7	39.5	37.3	33.2	29.8	19.6	-	-	-	-	-	-
	EVMSJ10 5/2.2M	EVMSJ10 5/2.2	2.2	3	90 L	54.5	53	52	49.3	46.7	41.5	37.3	24.6	-	-	-	-	-	-
	EVMSJ10 6/2.2M	EVMSJ10 6/2.2	2.2	3	90 L	65.5	63.5	62.5	59	56	50	45	29.5	-	-	-	-	-	-
	-	EVMSJ10 7/3.0	3.0	4	100 L	76.5	74	73	69	65.5	58	52	34.4	-	-	-	-	-	-
	-	EVMSJ10 8/3.0	3.0	4	100 L	87.0	84.5	83.5	79	74.5	66.5	59.5	39.3	-	-	-	-	-	-
	-	EVMSJ10 9/4.0	4.0	5.5	112 M	98	95.5	93.5	89	84	74.5	67	44	-	-	-	-	-	-
	-	EVMSJ10 10/4.0	4.0	5.5	112 M	109	106	104	98.5	93.5	83	74.5	49	-	-	-	-	-	-
	-	EVMSJ10 11/4.0	4.0	5.5	112 M	120	116	115	109	103	91.5	82	54	-	-	-	-	-	-
	-	EVMSJ10 12/5.5	5.5	7.5	132 S	131	127	125	118	112	99.5	89.5	59	-	-	-	-	-	-
	-	EVMSJ10 14/5.5	5.5	7.5	132 S	153	148	146	138	131	116	104	68.5	-	-	-	-	-	-
	-	EVMSJ10 15/5.5	5.5	7.5	132 S	163	159	156	148	140	124	112	73.5	-	-	-	-	-	-
	-	EVMSJ10 16/7.5	7.5	10	132 S	174	169	167	158	149	133	119	78.5	-	-	-	-	-	-
	-	EVMSJ10 18/7.5	7.5	10	132 S	196	191	187	178	168	149	134	88.5	-	-	-	-	-	-
	-	EVMSJ10 19/7.5	7.5	10	132 S	207	201	198	188	177	158	142	93.5	-	-	-	-	-	-
	-	EVMSJ10 21/7.5	7.5	10	132 S	229	222	219	207	196	174	157	103	-	-	-	-	-	-
	-	EVMSJ10 22/11	11	15	160 M	240	233	229	217	205	183	164	108	-	-	-	-	-	-
	-	EVMSJ10 23/11	11	15	160 M	251	244	240	227	215	191	172	113	-	-	-	-	-	-
	15	EVMSJ15 1/1.1M	EVMSJ15 1/1.1	1.1	1.5	80	14.9	-	-	13.3	13	12.4	12.1	10.8	9.5	7.5	4.8	-	-
EVMSJ15 2/2.2M		EVMSJ15 2/2.2	2.2	3	90 L	29.5	-	-	27.5	27.1	26	26.1	24.9	23.1	20.4	16.8	-	-	-
-		EVMSJ15 3/3.0	3.0	4	100 L	44.5	-	-	41.5	40.5	39.7	39.1	37.3	34.7	30.6	25.2	-	-	-
-		EVMSJ15 4/4.0	4.0	5.5	112 M	59	-	-	55	54.5	53	52	50	46.5	41	33.6	-	-	-
-		EVMSJ15 5/5.5	5.5	7.5	132 S	73.5	-	-	69	68	66	65	62	58	51	42	-	-	-
-		EVMSJ15 6/5.5	5.5	7.5	132 S	88.5	-	-	82.5	81.5	79.5	78	74.5	69.5	61	50.5	-	-	-
-		EVMSJ15 7/7.5	7.5	10	132 S	103	-	-	96.5	95.0	92.5	91	87	81	71.5	58.5	-	-	-
-		EVMSJ15 8/7.5	7.5	10	132 S	118	-	-	110	109	106	104	99.5	92.5	81.5	67	-	-	-
-		EVMSJ15 9/11	11	15	160 M	133	-	-	124	122	119	117	112	104	92	75.5	-	-	-
-		EVMSJ15 10/11	11	15	160 M	147	-	-	138	136	132	130	124	116	102	84	-	-	-
-		EVMSJ15 11/11	11	15	160 M	162	-	-	151	149	146	143	137	127	112	92.5	-	-	-
-		EVMSJ15 12/11	11	15	160 M	177	-	-	165	163	159	156	149	139	122	101	-	-	-
-		EVMSJ15 13/11	11	15	160 M	191	-	-	179	176	172	169	162	150	133	109	-	-	-
-		EVMSJ15 15/15	15	20	160 M	221	-	-	206	203	199	195	187	174	153	126	-	-	-
-	EVMSJ15 17/15	15	20	160 M	250	-	-	234	231	225	221	211	197	173	143	-	-	-	
20	EVMSJ20 1/1.5M	EVMSJ20 1/1.5	1.5	2	90 S	17.2	-	-	-	-	14.3	13.9	12.8	11.3	9.6	7.3	4.3	2.4	
	-	EVMSJ20 2/3.0	3.0	4	100 L	33.7	-	-	-	-	30.4	29.9	28.9	27.7	26.2	23.6	19.9	17.4	
	-	EVMSJ20 3/4.0	4.0	5.5	112 M	50.5	-	-	-	-	46	45	43.4	41.6	39.2	35.5	29.9	26.2	
	-	EVMSJ20 4/5.5	5.5	7.5	132 S	67.4	-	-	-	-	61	60	58	55.4	52.3	47.3	39.8	34.9	
	-	EVMSJ20 5/7.5	7.5	10	132 S	84.2	-	-	-	-	76.0	75	72.3	69.3	65.4	59	49.8	43.6	
	-	EVMSJ20 6/7.5	7.5	10	132 S	101	-	-	-	-	91.2	90	87	83.1	78.5	71	59.7	52.3	
	-	EVMSJ20 7/11	11	15	160 M	118	-	-	-	-	106	105	101	97	91.5	82.7	70	61.1	
	-	EVMSJ20 8/11	11	15	160 M	135	-	-	-	-	122	120	116	111	105	95	80	70	
	-	EVMSJ20 9/11	11	15	160 M	152	-	-	-	-	137	135	130	125	118	106	89.6	79	
	-	EVMSJ20 10/11	11	15	160 M	168	-	-	-	-	152	150	145	139	131	118	100	87	
	-	EVMSJ20 11/15	15	20	160 M	185	-	-	-	-	167	165	159	152	144	130	110	96	
	-	EVMSJ20 12/15	15	20	160 M	202	-	-	-	-	182	179	173	166	157	142	119	105	
	-	EVMSJ20 13/15	15	20	160 M	219	-	-	-	-	198	194	188	180	170	154	129	113	
	-	EVMSJ20 14/18.5	18.5	25	160 L	236	-	-	-	-	213	209	202	194	183	166	139	122	
	-	EVMSJ20 15/18.5	18.5	25	160 L	253	-	-	-	-	228	224	217	208	196	177	149	131	
	-	EVMSJ20 16/18.5	18.5	25	160 L	270	-	-	-	-	243	239	231	222	209	189	159	140	

PRODUCT SPECIFICATIONS

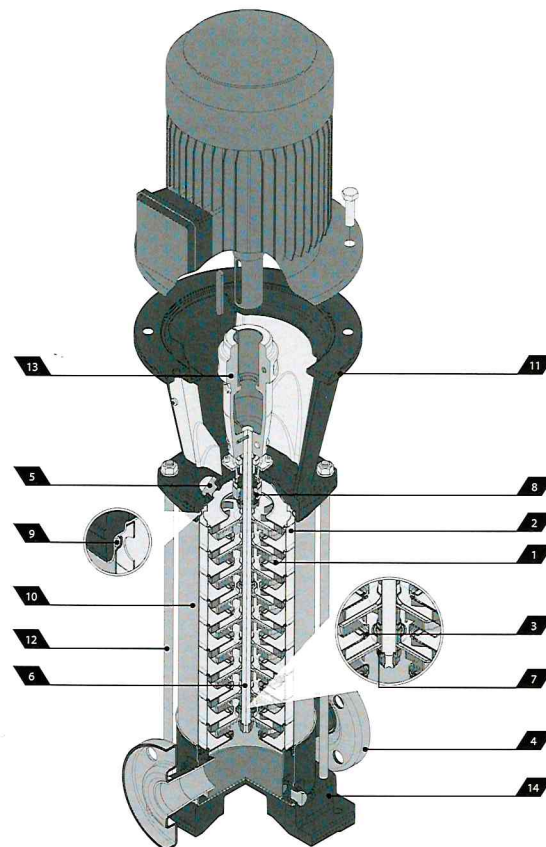
Pump

Version	EVMS						EVMS						EVMS					
	1	3	5	10	15	20	1	3	5	10	15	20	1	3	5	10	15	20
Operating range																		
Nominal flow rate (m³/h)	1.6/2.5 MPa (16 bar/25 bar)																	
Maximum working pressure	-30° to 140° C																	
Maximum liquid temperature range																		
1. Impeller	EN 1.4301 (AISI 304)						EN 1.4401 (AISI 316)											
2. Intermediate casing	EN 1.4301 (AISI 304)						EN 1.4401 (AISI 316)											
3. Liner	EN 1.4301 (AISI 304) + PPS						EN 1.4401 (AISI 316) + PPS											
4. Bottom casing	Cast Iron						EN 1.4301 (AISI 304)						EN 1.4401 (AISI 316)					
5. Casing cover	EN 1.4301 (AISI 304)												EN 1.4401 (AISI 316)					
Key Component Materials	EN 1.4301 (AISI 304)						EVMS (G) 1-3-10											
							EV MSG 5-15-20 (depend on models)											
	EN 1.4404 (AISI 316L)						EV MSL 1-3-10											
							EV MSL5-15-20 (depend on models)											
	EN 1.4460 (AISI 329A)						EVM S(G/L) 5-1 5-20 (depend on models)											
							Tungsten carbide											
							Please see the shaft seal options on page 18.											
	EPDM																	
	FPM																	
							EN 1.4301 (AISI 304)						EN 1.4404 (AISI 316L)					
10. Outer casing																		
11. Motor bracket							Cast Iron											
12. Tie rod							Galvanized steel 6.8 strength class ISO 898/1											
13. Coupling							Die cast aluminium (up to 4 kW), Cast iron (from 5.5 kW)											
14. Base							Cast iron						Die cast aluminium					
Pipe Connection	Oval flange	up to 16 bar	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Round flange DIN (EVMSL 1-3-5 DIN ANSI)	up to 16 bar	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		from 16 bar to 25 bar	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Loose Flange DIN (EVMSL 1-3-5 DIN ANSI)	up to 16 bar								○	○	○	○	○	○	○	○	○
		from 16 bar to 25 bar								○	○	○	○	○	○	○	○	○
	Victaulic®	up to 25 bar								○	○	○	○	○	○	○	○	○
	Clamp	up to 25 bar								○	○	○	○	○	○	○	○	○

Legend: ● Standard ○ Options

Motor

Power Source	Frequency	50 Hz	
	Phase	Single Phase	Three Phase
	Rotation Speed	~ 2900 min⁻¹	
	Power Rating	0.37 ÷ 2.2 kW 0.5 ÷ 3.0 HP	0.37 ÷ 18.5 kW 0.5 ÷ 25 HP
	Voltage	230 ± 10%	230/400 ± 10% (up to 4kW) 400/690 ± 10% (above 5.5 kW)
Type	Type	Electric - TEF C	
	Efficiency	from 0.37 to 2.2 kW	from 0.37 to 0.55 kW IE3 from 0.75 to 18.5 kW
	No. of poles	2	
	Protection Degree	IP 55	
	Insulation Class	F (temperature rise class B)	
Others	Thermal Protection	PTC as standard for the above 1.5 kW	
	Casing Material	Aluminium	
	Flange Mount (IEC motor)	IM B14 (up to 4 kW) IM B5 (above 5.5 kW)	



PIPE CONNECTION DATA

Oval Flange (N)		Maximum operating pressure		Dimensions		EVMS (AISI 1.4301), EVMSL (AISI 1.4401) EVMSG (Cast Iron)			
						1/3	5	10	15/20
PN16				D	G1	G1 ¼	G1½	G2	
				L	160	160	200	200	
				B1 / B2	100/180	100/180	130/215	130/215	
				H	50	50	80	90	
Round Flange (F)		Maximum operating pressure		Dimensions		EVMS (AISI 1.4301), EVMSL (AISI 1.4401) EVMSG (Cast Iron)			
						1/3	5	10	
PN25				D	DN25	DN32	DN40		
				L	250	250	280		
				B1 / B2	100/180	100/180	130/215		
				H	75	75	80		
Loose Flange (LF)		Maximum operating pressure		Dimensions		EVMS (AISI 1.4301) EVMSL (AISI 1.4401)			
						1/3	5	10	
PN25				D	DN25	DN32	DN40		
				L	250	250	280		
				B1 / B2	100/180	100/180	130/215		
				H	75	75	80		

Optional : Clamp (C) and Victaulic® (V) is available on request

RELIABILITY IS MADE BY NUMBERS



1
Million

Cycles of the endurance test*

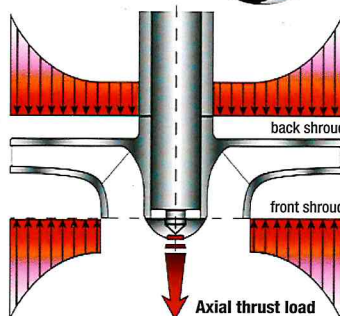
2
Times

Higher test criteria than nominal operating conditions*

3
Times

Much less axial thrust load than common pumps

Solve axial thrust load



The pump axial thrust load is caused by the unbalance of the static pressure between a front shroud and a back shroud of an impeller. That always causes the reduction of the bearing life of the motor.

General methods to work with the axial thrust load are as below.

- Increasing the size of motor bearing or using enhanced motor bearings.
- Mounting additional ball bearings on the pump bracket. These measurements are historically known to cause complicated mechanical structures.

EBARA now designed impeller "Shurricane" can reduce the pump axial thrust load with high pump efficiency by means of the innovative hydraulic design method.

EVMS can accept the common motors without any modifications and improve the maintenance cycles of motor bearing.

Any motor, anywhere.

* for main components

CERTIFICATIONS

Drinking water approval	DM174/2004 	ACS 	KTW* 
<u>Mechanical seal</u>	SiC/Carbon_EPDM	SiC/Carbon_EPDM	SiC with graphite/SiC_EPDM
EVMSG	●	-	-
EVMS	●	●	○
EVMSL	●	●	○

Note: * KTW is certified for components.

● Standard
○ On request

Conform to the provisions of the European directives



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