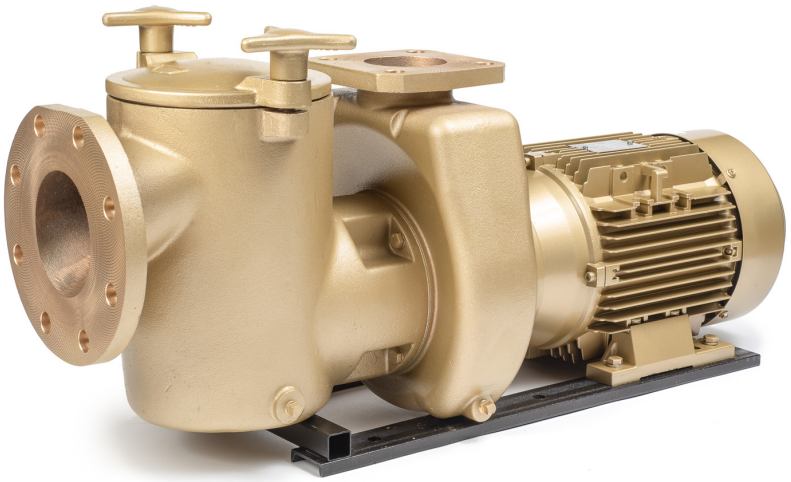
VM SERIES SELF-PRIMING PUMPS

FEATURES

- **Double-Volute Casing** allows rapid air-separation and water circulation during the priming cycle, and reduces the radial thrust on the impeller.
- **Closed Impeller** is mounted on the motor shaft and requires no adjustment to maintain performance.
- **Mechanical shaft seal** requires no attention and is ideal for continuous operation without supervision.
- **All Bronze** construction for strength and durability.
- **Flanged** 4” suction and 3” discharge connections.
- **TEFC JM Frame Motors** used all pump models. Premium Efficient Inverter Duty Rated motors with stainless steel shafts standard on all 3 phase models.
- **Flows up to 440 GPM (100 m3/h)**.



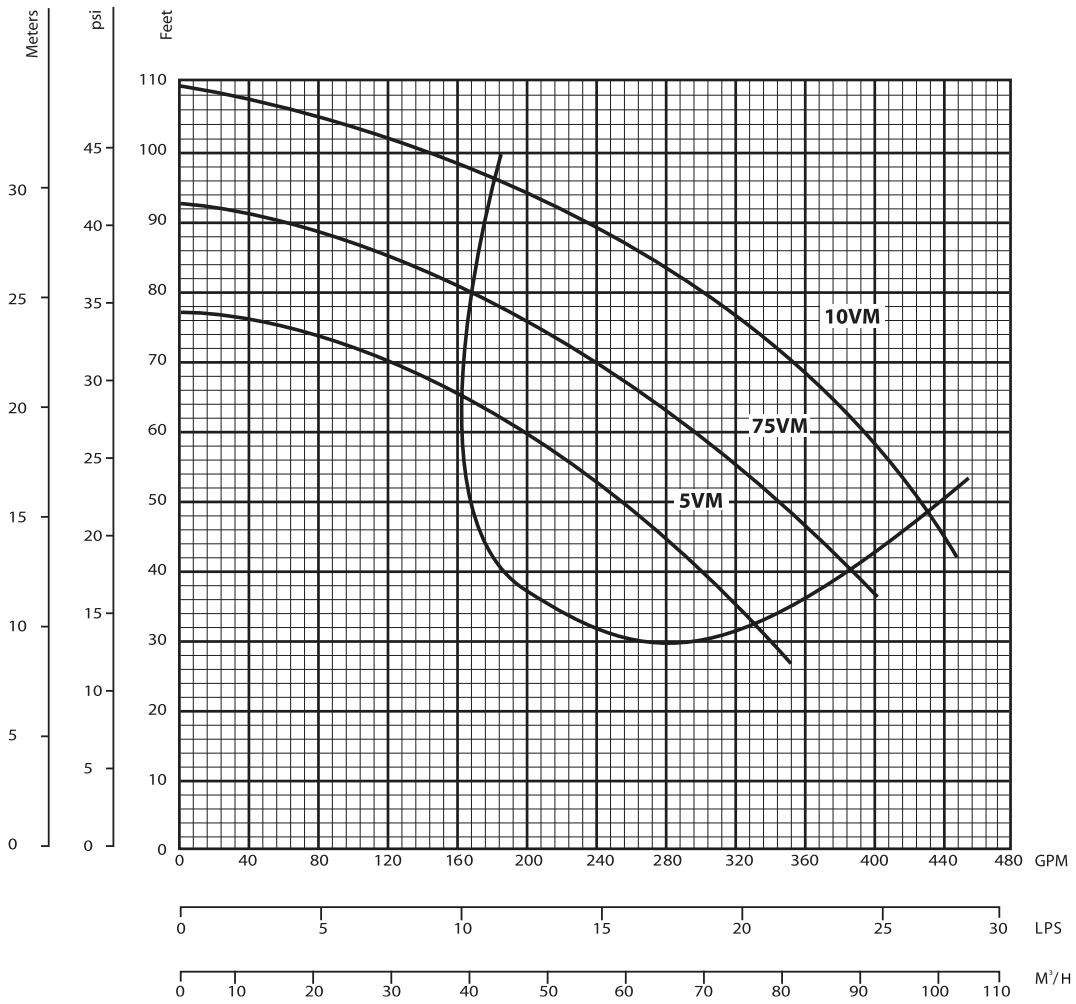
PERFORMANCE

3500 RPM 60 Hz

10VM
Impeller 8283
5.085 in. (129.16 mm) DIA

75VM
Impeller 8283
4.84 in. (122.94 mm) DIA

5VM
Impeller 8320
4.50 in. (114.3 mm) DIA



VM SERIES SELF-PRIMING PUMPS

ENGINEERS SPECIFICATIONS

The pumping unit shall consist of a self-priming, single-suction, centrifugal pump with built-on hair and lint strainer, close-coupled to an electric motor.

The pump case, hair and lint strainer, impeller, and pump-motor bracket shall be machined from bronze (Series VMB) castings.

The pump case shall be of double-volute design for self-priming action and for keeping unbalanced radial thrust to a minimum. The pump case shall carry the discharge flange, and shall be fitted with a renewable bronze wear ring, to provide a running fit with the eye of the impeller.

The hair and lint strainer shall be bolted to the pump case, and shall carry the suction flange. The stainless steel strainer basket shall be fabricated from wound wedge wire screen with perforated sheet bottom plate, and shall have a capacity of 225 cu.in. (3687 cm^3) with an open area equal to eight times that of a 4 in. (102 mm) suction pipe. The strainer cover shall be of the quick-release type, and shall have an O-ring gasket.

The impeller shall be of the closed type with external radial vanes for keeping the axial thrust to a minimum. It shall be keyed and locked directly to the motor shaft.

The pump-motor bracket shall incorporate the seal housing which shall have stationary diversion vanes to ensure a constant flow of fresh water past the seal. The 1.25 in. (32mm) dia. mechanical seal shall have stationary and rotating faces of ceramic and carbon respectively.

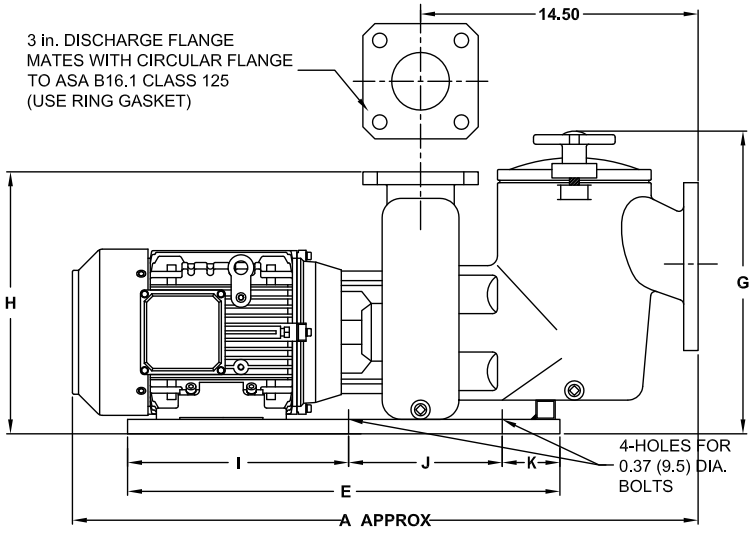
The motor shall be a .....H.P. (kW) close-coupled pump motor of CEMA Type JM with shaft extension and face mounting flange for attatching directly to the pump. It shall be suitable for .....volts, ...-phase, 60 hertz power supply. The motor shall have mounting feet and Totally Enclosed Fan Cooled (TEFC) enclosure.

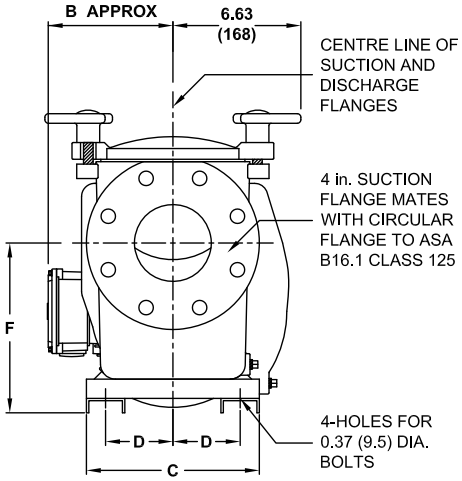
The pump-motor assembly shall be mounted on a structural steel base arranged for easy removal of the motor without disconnecting the pipework from the pump.

The pump shall be rated for.....US gpm (L/min) at .....feet T.D.H. (kPa) and shall not load ther motor beyond service factor rating at any point on the performance curve. The suction and discharge shall have 4 in. (102 mm) and 3 in. (76 mm) flanged connections respectively, which shall mate with 125 lb/sq.in. (862 kPa) standard pipe flanges.

The pumping unit shall be VM Model ....., or approved equal.

DIMENSIONS





Pump Series	Motor HP (kW)	Phase	Motor Frame	DIMENSIONS – inch (mm) *varies with make of motor										
				A*	B*	C	D	E	F	G	H	I	J	K
5VM-S2	5 (3.73)	1	184JM	35.00 (889)	8.50 (216)	9.50 (241)	3.75 (953)	22.50 (572)	8.87 (225)	15.75 (400)	13.75 (349)	11.50 (292)	8.00 (203)	3.00 (76)
75VM-S2	7.5 (5.59)	1	215JM	37.00 (940)	9.50 (241)	10.50 (267)	4.25 (108)	26.00 (660)	9.37 (238)	16.25 (413)	14.25 (362)	15.75 (400)	6.25 (159)	4.00 (102)
10VM-S2	10 (7.46)	1	215JM	37.00 (940)	9.50 (241)	10.50 (267)	4.25 (108)	26.00 (660)	9.37 (238)	16.25 (413)	14.25 (362)	15.75 (400)	6.25 (159)	4.00 (102)
5VM-T2,T4,T5	5 (3.73)	3	184JM	33.00 (838)	6.50 (165)	9.50 (241)	3.75 (953)	22.50 (572)	8.87 (225)	15.75 (400)	13.75 (349)	11.50 (292)	8.00 (203)	3.00 (76)
75VM-T2,T4,T5	7.5 (5.59)	3	184JM	33.00 (838)	6.50 (165)	9.50 (241)	3.75 (953)	22.50 (572)	8.87 (225)	15.75 (400)	13.75 (349)	11.50 (292)	8.00 (203)	3.00 (76)
10VM-T2,T4,T5	10 (7.46)	3	215JM	35.30 (897)	7.50 (191)	10.50 (267)	4.25 (108)	26.00 (660)	9.37 (238)	16.25 (413)	14.25 (362)	15.75 (400)	6.25 (159)	4.00 (102)

VM SERIES SELF-PRIMING PUMPS

MODEL NO.	ITEM NO.	HERTZ CYCLES	VOLTAGE (V)	HP (HP)	SERVICE FACTOR	FULL LOAD AMPS	WEIGHT LBS (KG)
NEMA RATED STANDARD EFFICIENCY • SINGLE PHASE • CAST BRONZE PUMP							
5VMB-S2	9402-9803	60	230	5	1.15	26	210 (95.3)
75VMB-S2	9402-9806	60	230	7-1/2	1.15	39	265 (120.2)
10VMB-S2	9402-9809	60	230	10	1.15	42	285 (129.3)
NEMA RATED PREMIUM EFFICIENCY • 200 VOLT • 3 PHASE • CAST BRONZE PUMP							
5VMB-T2	9402-9813	60	200	5	1.25	16.6	190 (86.2)
75VMB-T2	9402-9815	60	200	7-1/2	1.25	22.0	215 (97.5)
10VMB-T2	9402-9817	60	200	10	1.25	29.0	245 (111.3)
NEMA RATED PREMIUM EFFICIENCY • 230/460 VOLT • 3 PHASE • CAST BRONZE PUMP							
5VMB-T4	9402-9804	60	230/460	5	1.25	13.2/6.6	190 (86.2)
75VMB-T4	9402-9807	60	230/460	7-1/2	1.25	19.0/9.5	215 (97.5)
10VMB-T4	9402-9810	60	230/460	10	1.25	27.0/13.5	245 (111.3)
NEMA RATED PREMIUM EFFICIENCY • 575 VOLT • 3 PHASE • CAST BRONZE PUMP							
5VMB-T5	9402-9805	60	575	5	1.25	5.2	190 (86.2)
75VMB-T5	9402-9808	60	575	7-1/2	1.25	7.7	215 (97.5)
10VMB-T5	9402-9811	60	575	10	1.25	10.2	245 (111.3)

MOTOR VOLTAGE DESIGNATIONS

Model S2 = 230 Volt, Single Phase
Model T2 = 200 Volt, 3 Phase (Use for 208 Volt applications)
Model T4 = 230/460 Volt, 3 Phase
Model T5 = 575 Volt, 3 Phase