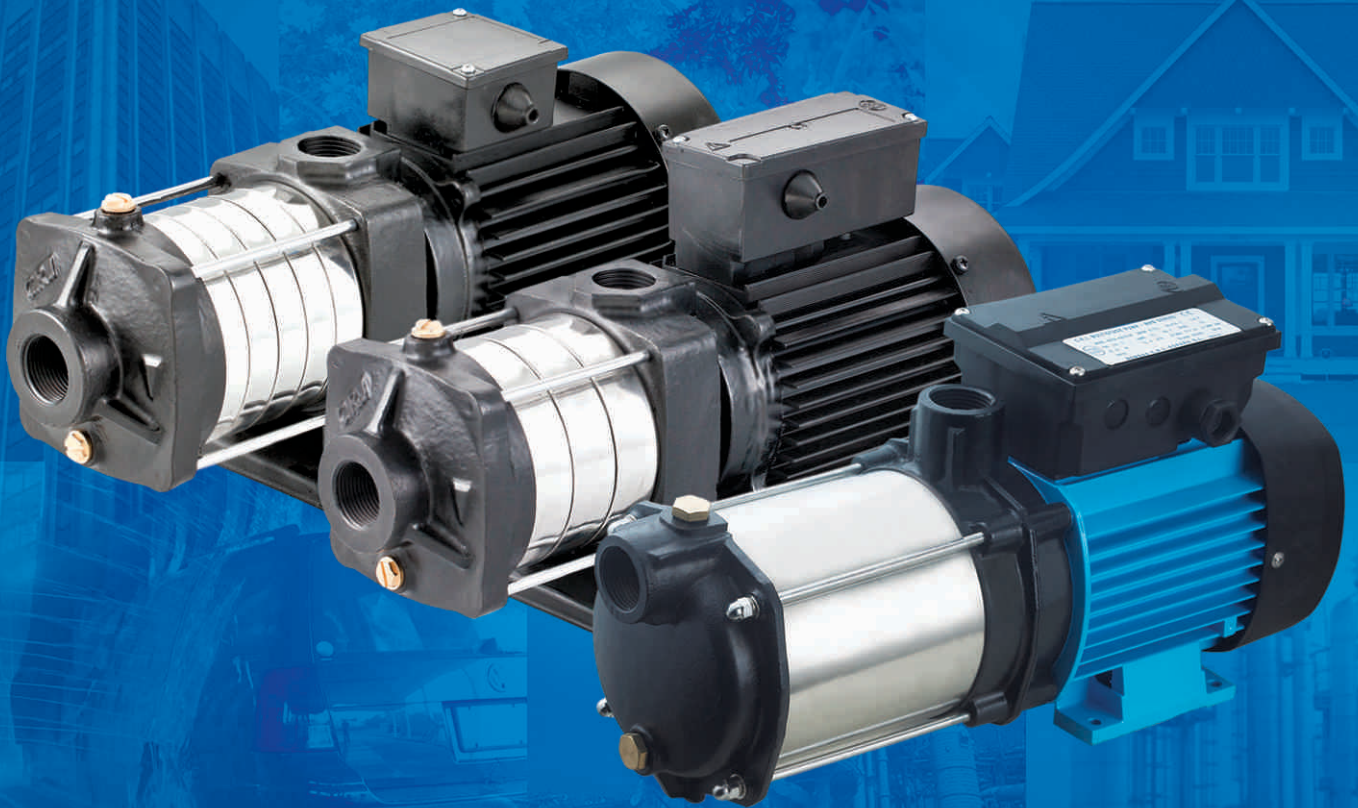


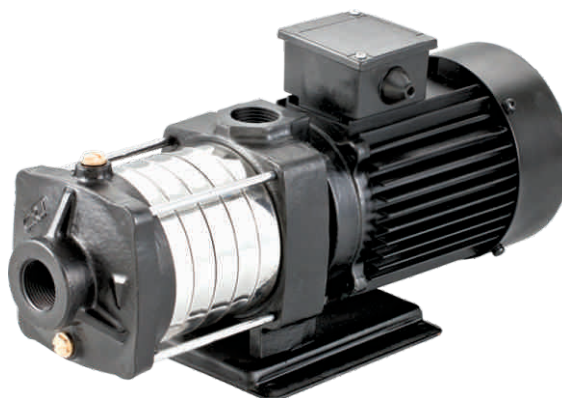
HORIZONTAL MULTISTAGE PUMPS - 50Hz

MH - SERIES



MH Series

C.R.I. Horizontal Multistage MH series pump is non-self priming, axial suction and vertical radial delivery type with threaded ports. All wetted components like impellers, diffusers and shaft of these pumps are made of corrosion resistant AISI stainless steel and designed to deliver the best possible hydraulic efficiency. The pump and motor are connected with a single drive shaft to eliminate any transmission loss. As the shaft, Impeller, diffusers and other vital components of the pump are made up of high grade stainless Steel AISI 304/316, these pumps can be used to pump high aggressive water and quite hygienic to use in drinking water systems too. Wear resistant bearings ensure better hydraulic efficiency and noiseless operation and the pump casing & brackets are made of high quality cast iron. 'O' rings and gaskets prevent leakage at the intermediate casing during high pressure. Mechanical seals of these pumps are made of ceramic and carbon graphite to ensure reliability and easy replacement. These pumps are reliable, easy to install and designed for high end user comfort.

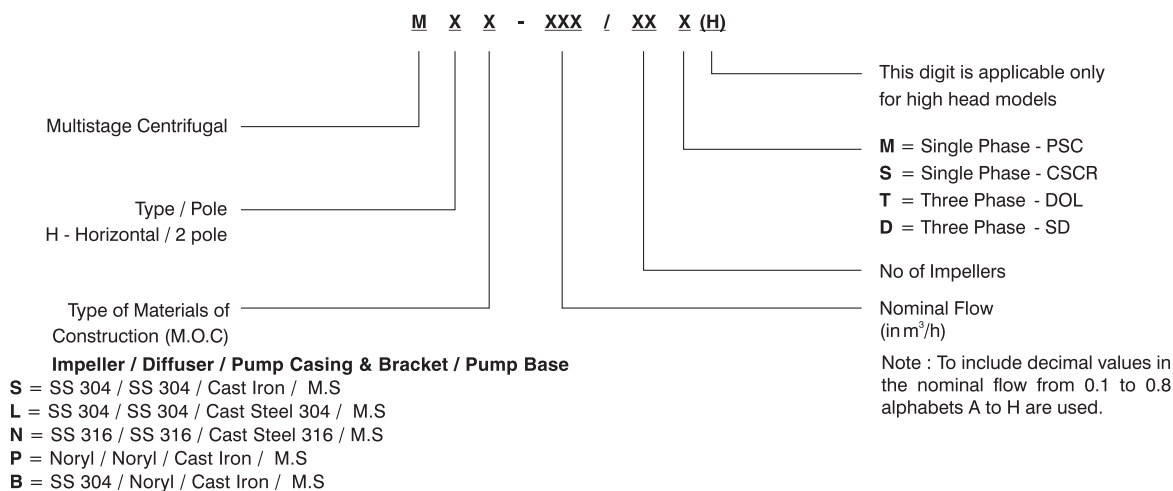


C.R.I. Horizontal Multistage centrifugal pumps are powered by a Totally Enclosed Fan Cooled, A.C. induction motor, suitable for continuous duty. Motor stator is made of low watt loss steel laminations assembled under pressure and rigidly locked in the frame. Dynamically balanced rotor ensures vibration and noise free operation and the varnished impregnated windings made of enameled copper wire offer excellent resistance.

Shaft of ample size made of quality steel and precisely ground is used for transmitting the rated Horsepower. Construction of motor frames and usage of quality materials result in high performance and low temperature rise thereby increasing the life cycle of the motor. Thermal over load protector (motor protector) is incorporated in single phase motors. These pumps require an adequate motor protection control panel.

Applications : | Residential & Industrial Pressure Boosting | Small farms | Washing systems | Industrial water supply | HVAC | Reverse Osmosis systems | Food processing industries | Golf course.

MODEL IDENTIFICATION CODE



TECHNICAL DATA

Power Range : 0.22 to 2.2kW
 Speed : 2900 rpm
 Degree of protection : IP 54
 Insulation class : B (Optional F)
 Versions : Single Phase 220 / 240V,
 50Hz, A.C. Supply (Permanent Split Capacitor-PSC)
 Incorporated with thermal protector.
 Three Phase 380 / 415V
 Sealing : Mechanical seal
 Direction of rotation : Counter clockwise viewed from driving end
 Type of Duty : S1 (continuous)
 Nom. Suc. x Del. Size : 1" x 1" ; 1½" x 1¼", 1½" x 1½"

MATERIALS OF CONSTRUCTION	
Pump Casing & Bracket	S.S. 304 / Cast Iron
Impeller	S.S. 304
Diffuser	S.S. 304
Motor Frame	Aluminum
Shaft	S.S. 410
Sealing	Mechanical Seal
Base Plate	Mild Steel

CHARACTERISTICS OF PUMPED LIQUIDS	
a) Temperature	90°C (max.)
b) Permissible amount of sand	25 gm / m ³ (max.)
c) Chlorine ion density	500 ppm (max.)
d) Allowable solids	3000 ppm (max.)
e) Specific gravity	1.004 (max.)
f) Hardness (Drinking water)	300 (max.)
g) Viscosity	1.75 x 10 ⁻⁶ m ² / Sec. (max.)
h) Turbidity	50 ppm silica scale (max.)
i) pH	6.5 to 8.5

OPERATING LIMITS

Maximum Liquid Temperature : 90° C
 Maximum Ambient Temperature : 40° C
 Maximum Operating Pressure : 0.55 Mpa (5.5 bar)

Max. Operating Pressure	1 mpa (10bar)	0.6 mpa (6bar)
MH-2E & 5	0°C to 40°C	41°C to 90°C
MH-8 & 12	0°C to 55°C	56°C to 90°C

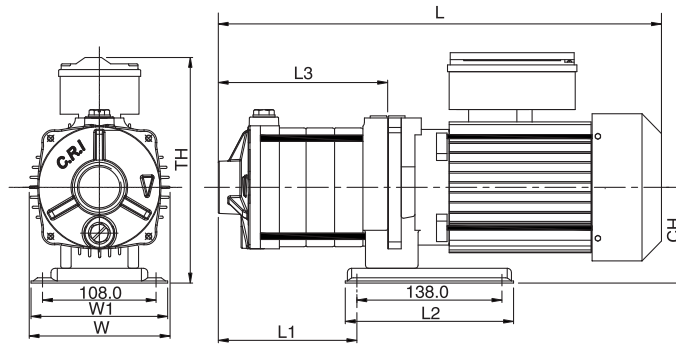
Min. Inlet pressure : As per NPSH Curve + Safety Margin 1metre.
 Max. Inlet pressure : Limited by max. operating pressure.

PERFORMANCE CURVE CONDITIONS

- The conditions below apply to the curves shown on the following pages.
- Curve tolerance are according to ISO 9906, Grade 2B.
- The performance are taken at rated voltage & speed that are only indicative.
- Actual discharge depends on availability of water in well / tank, height of water column from the suction pipe end.
- The measurements were made with airless water at 20°C. When pumping liquids with a density higher than of water, motors with correspondingly higher outputs must be used.
- The bold curves indicate the recommended performance range.
- Pipe fiction losses have not been included in the performance curves & performance tables.

DIMENSIONAL DRAWING & DATA

MHS - 2.5 & 5

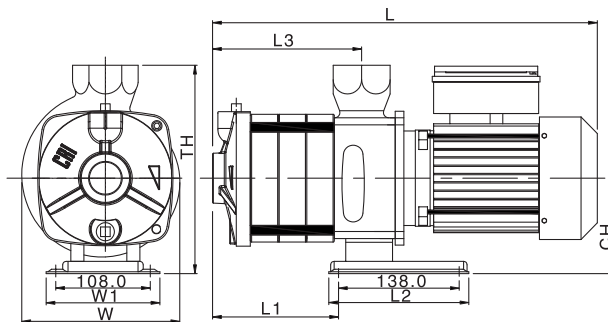


DIMENSIONAL & WEIGHT

Model	L		L1	L2	L3	W	W1	TH	CH	Approx. Weight in kg
	1Ph	3Ph								
MHS-2E/02M	320	320	70	160	99	134	130	215	90	12
MHS-2E/03M	338	343	89	160	118	134	130	215	90	13
MHS-2E/04M	362	362	108	160	137	134	130	215	90	14
MHS-2E/05M	390	400	127	160	156	134	130	215	90	15
MHS-2E/06M	409	419	146	160	175	134	130	215	90	16

Model	L		L1	L2	L3	W	W1	TH	CH	Approx. Weight in kg
	1Ph	3Ph								
MHS-5/02M	329	333	79	160	108	134	130	215	90	12
MHS-5/03M	371	381	107	160	135	134	130	215	90	14
MHS-5/04M	414	424	135	160	162	134	130	215	90	15
MHS-5/05M	461	471	163	160	190	134	130	215	90	18
MHS-5/06M	514	514	191	160	217	134	130	215	90	20

MHS - 8 & 12



DIMENSIONAL & WEIGHT

Model	L		L1	L2	L3	W	W1	TH	CH	Approx. Weight in kg
	1Ph	3Ph								
MHS-8/01M	339	339	52	160	72	181	130	238	109	16
MHS-8/02M	399	399	82	160	102.5	181	130	238	109	20
MHS-8/02M-H	414	414	82	160	102.5	181	130	238	109	20.5
MHS-8/03M	467	467	114	160	133	181	130	238	109	25
MHS-8/03M-H	460	460	114	160	133	181	130	238	109	28.5

Model	L		L1	L2	L3	W	W1	TH	CH	Approx. Weight in kg
	1Ph	3Ph								
MHS-12/01M	349	349	52	160	72	181	130	238	109	18
MHS-12/02M	414	414	82	160	102.5	181	130	238	109	20.5
MHS-12/02M-H	430	430	82	160	102.5	181	130	238	109	28.5
MHS-12/03M	476	476	114	160	133	181	130	238	109	30.5
MHS-12/03M-H	496	496	114	160	133	181	130	238	109	34

* All Dimensions are in mm.



MH Series - Type B

C.R.I. MH series pumps are designed to deliver the best possible hydraulic efficiency. The pump and the motor are connected with a single shaft to eliminate any transmission loss. Wear resistant bearings ensure better hydraulic efficiency and noiseless operation and the pump casing & bracket are made of high quality cast-iron. Dynamically balanced rotor ensure vibration and noise free operation. Shaft of ample size made of quality steel and precisely ground is used for transmitting the rated horsepower. Thermal over load protector is incorporated in single phase motors. These pumps are reliable, easy to install and high end user comfort.

TECHNICAL DATA

Power range	: 0.25 kW to 2.2 kW
Speed	: 2900rpm
Version	: Single Phase 230V, 50Hz A.C Supply (0.25-1.8kW), Three Phase 380V, 50Hz A.C Supply (0.25-2.2kW).
Degree of protection	: IP 55
Insulation class	: F
Type of duty	: S1 (Continuous)
Number of pole	: 2 poles
Nominal Suc. x Del. size	: 1" x 1", 1¼" x 1¼"

Applications : Residential & Industrial Pressure Boosting | Small farms | Washing systems | Industrial water supply | HVAC | Reverse Osmosis systems | Food processing industries | Golf course.

MATERIALS OF CONSTRUCTION

Impeller	SS 304
Shaft	SS 420
Diffuser	Noryl
Pump body	SS 304
Pump bracket	Cast iron/Casted S.S
Motor frame	Aluminium
Mechanical seal	Carbon and ceramic

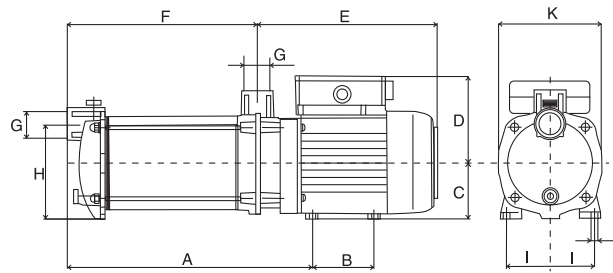
OPERATING LIMITS

Maximum Liquid Temperature	: 90° C
Maximum Ambient Temperature	: 40° C
Maximum Operating Pressure	: 0.55 Mpa (5.5 bar)

Note : Appropriate size of foot-valve to be adopted in suction pipe for better suction lift.

* In view of continuous development, the information / descriptions / specifications / illustrations are subject to change without notice.

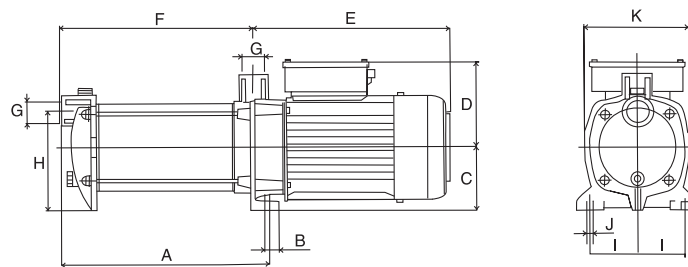
DIMENSIONAL DRAWING & DATA



Model	A	B	C	D	E	F	G	H	I	J	K	kg
MHB-2D/02M	228	74	63	102	247	166	1"	112	50	10	130	8.2
MHB-2D/03M	252	74	63	102	247	190	1"	112	50	10	130	9.0
MHB-2D/04M	276	74	63	102	247	214	1"	112	50	10	130	9.8
MHB-2D/05M	300	74	63	102	247	238	1"	112	50	10	130	10.6

Model	A	B	C	D	E	F	G	H	I	J	K	kg
MHB-3/02M	198	82	71	115	235	142	1¼"	130	59	8	140	12
MHB-3/03M	219	82	71	115	235	163	1¼"	130	59	8	140	12.6
MHB-3/04M	240	82	71	115	235	184	1¼"	130	59	8	140	14
MHB-3/05M	261	82	71	115	235	205	1¼"	130	59	8	140	17

Model	A	B	C	D	E	F	G	H	I	J	K	kg
MHB-4B/02M	226	82	71	115	230	175.5	1"	130	59	8	140	12
MHB-4B/03M	252	82	71	115	230	202	1"	130	59	8	140	12.6
MHB-4B/04M	279	82	71	115	230	228.5	1"	130	59	8	140	14
MHB-4B/05M	328	82	71	126	251	276	1"	130	59	8	140	17



Model	A	B	C	D	E	F	G	H	I	J	K	kg
MHB-6/02M	237	18	90	105	275	207	1¼"	145	60	11	160	19.0
MHB-6/03M	263.5	18	90	105	275	234.5	1¼"	145	60	11	160	20.1
MHB-6/04M	290	18	90	105	275	262	1¼"	145	60	11	160	21.4
MHB-6/05T	337.5	18	90	105	296	289.5	1¼"	145	60	11	160	21.6

* All Dimensions are in mm.