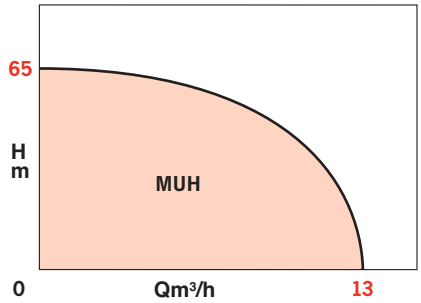
OPERATING LIMITS

Flow rates up to:	**13 m³/h**
Head up to:	**67 m CE**
Max. operating pressure:	**10 bar**
Max. suction pressure:	**6 bar**
Temperature range:	**– 15° to + 110°C**
Max. ambient temperature:	**+ 40°C**
ND of ports:	**G1" to G1"1/2**

MUH

MULTISTAGE HORIZONTAL PUMPS
2 pole - 50 Hz



APPLICATIONS

Pumping of clear non-loaded fluids in the housing, agricultural and industrial sectors:
- Conveyance - Overpressure
- Sprinkling - Irrigation
- Washing station
- Heating - Air conditioning

And incorporation in all modular systems. Catchment from a well, spring, river, pond, etc.

• MUH 902

• MUH 105

• MUH 504

• MUH 306

N.T. N° 141-11/ENG. - Ed.1/03-05

MUH

ADVANTAGES

- **Monobloc pump, compact, economical and silent.**
- **Impellers and hydraulic assembly in stainless steel, cast-iron pump casing with cataphoresis coating.**
- **Motor rolling bearing fitted in the front endshield, amply dimensioned and leaktight.**
- **Suction rings between very thick cells - insensitive to thermal expansion, elimination of risks of seizing up.**
- **Maximum reliability - high efficiency due to impeller profile limiting the number of stages, shaft size and axial thrust.**
- **Standardized mechanical seals. + 110°C maximum, maintenance free.**
- **Easy installation.**

DESIGN

• Hydraulic part

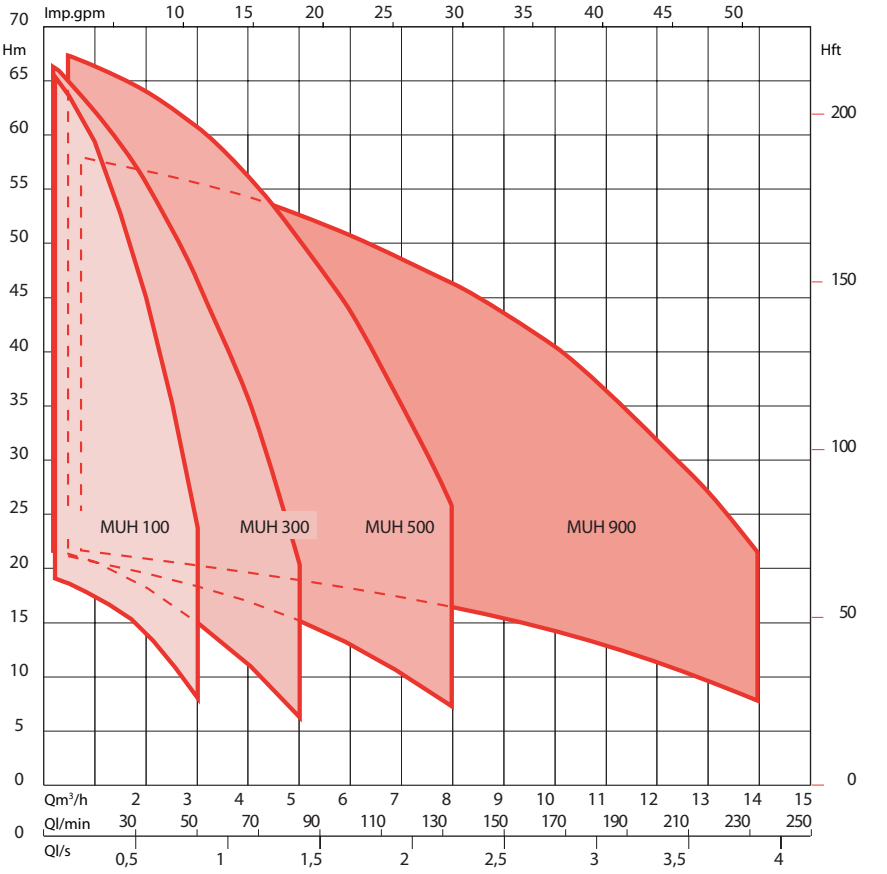
Horizontal, centrifugal, not self priming.
Multi-stage, from 2 to 7 stages.
Axial suction, vertical discharge upwards.
Impellers mounted directly on the motor shaft extension.
Shaft leaktightness by standardized mechanical seal.

• Motor

Standard ventilated.
Extended shaft end.
Single-phase motor with integrated thermal protection, automatic reset.
Capacitor incorporated into the terminal box.
Guiding rolling bearings of the impeller shaft lubricated for life.

Rotation speed		: 2900 rpm
Windings	three-phase	: 230-400 V
	single-phase	: 230 V
Frequency		: 50 Hz (option 60 Hz)
Insulating category		: F
Protection index		: IP 54

HYDRAULIC PRESELECTION CHARTS

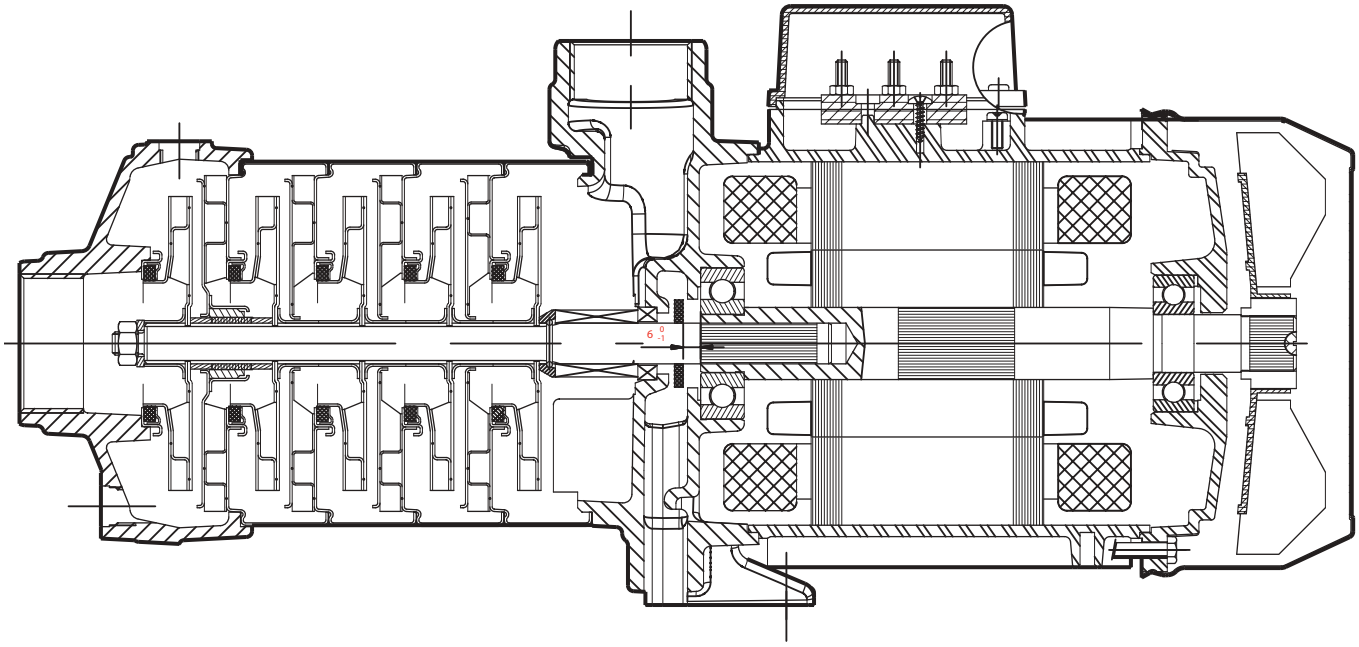


IDENTIFICATION

MUH - 30 2 - E - M / 6 / OEM / XX / B

- Pump family
- Nominal flow rates in m^3/h (at 50 hz / 2 pole)
- Number of stages
- E = O-rings: EPDM
  V = O-rings: VITON
- M = Single-phase
  M11 = Single-phase 110 V
  T = Three-phase
- 6 = 60 HZ
  Nothing = 50HZ (Multi-h/MHI)
- OEM : Original Equipment Manufacturer
- Technical definition code
- Technical change code

SECTIONAL DRAWING

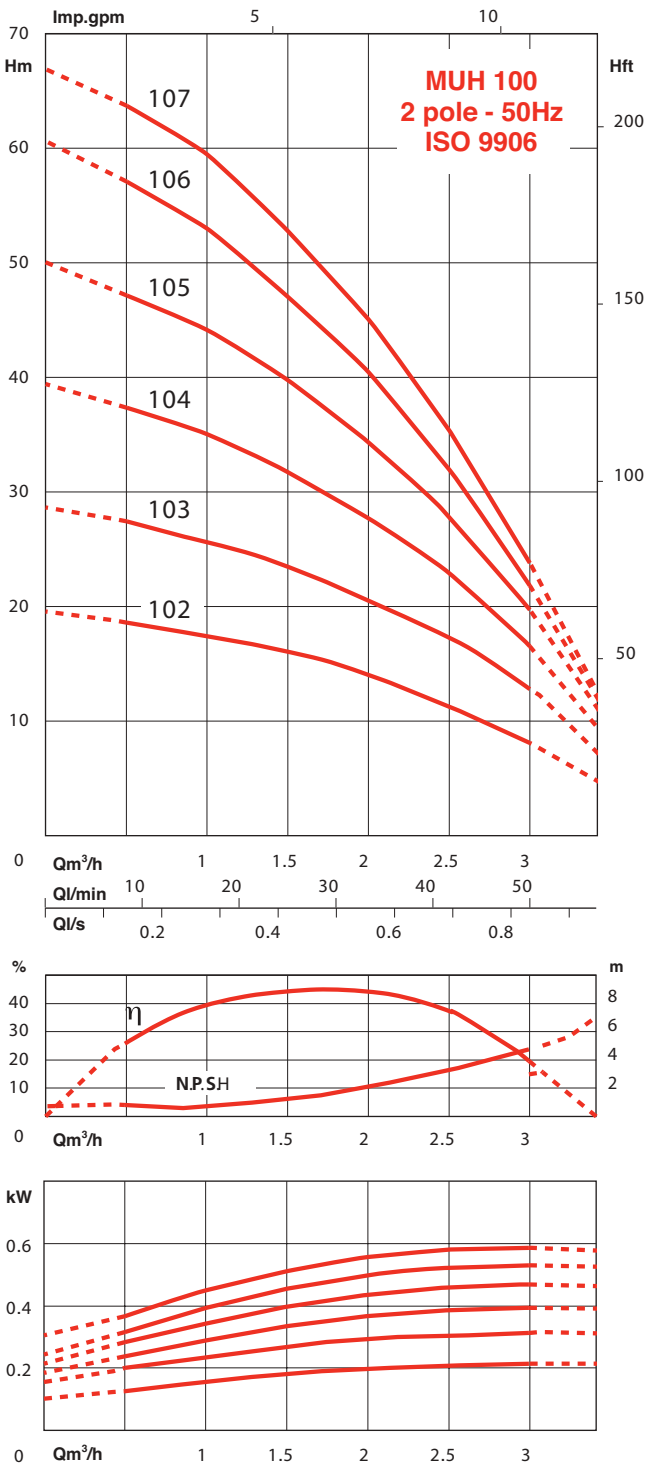


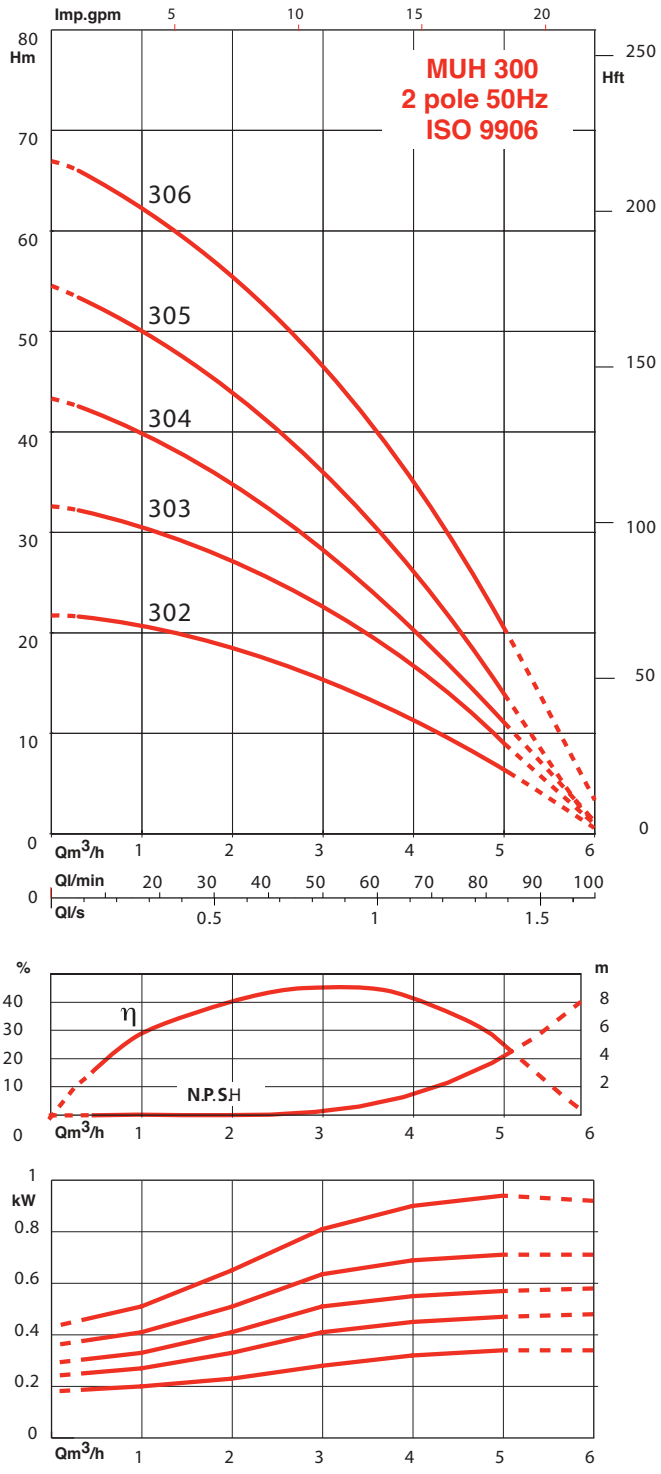
STANDARD CONSTRUCTION

Main components	Material
Body casing	FGL250 cataphoresis
Impellers	304 stainless steel
Cells (stage casing)	304 stainless steel
Pump shaft	Stainless steel
Cell centring	304 stainless steel
Mechanical seal	Carbon/silicon carbide
O-rings	EPDM ethylene propylene
Fixing-support bearing	FGL250 cataphoresis

MUH

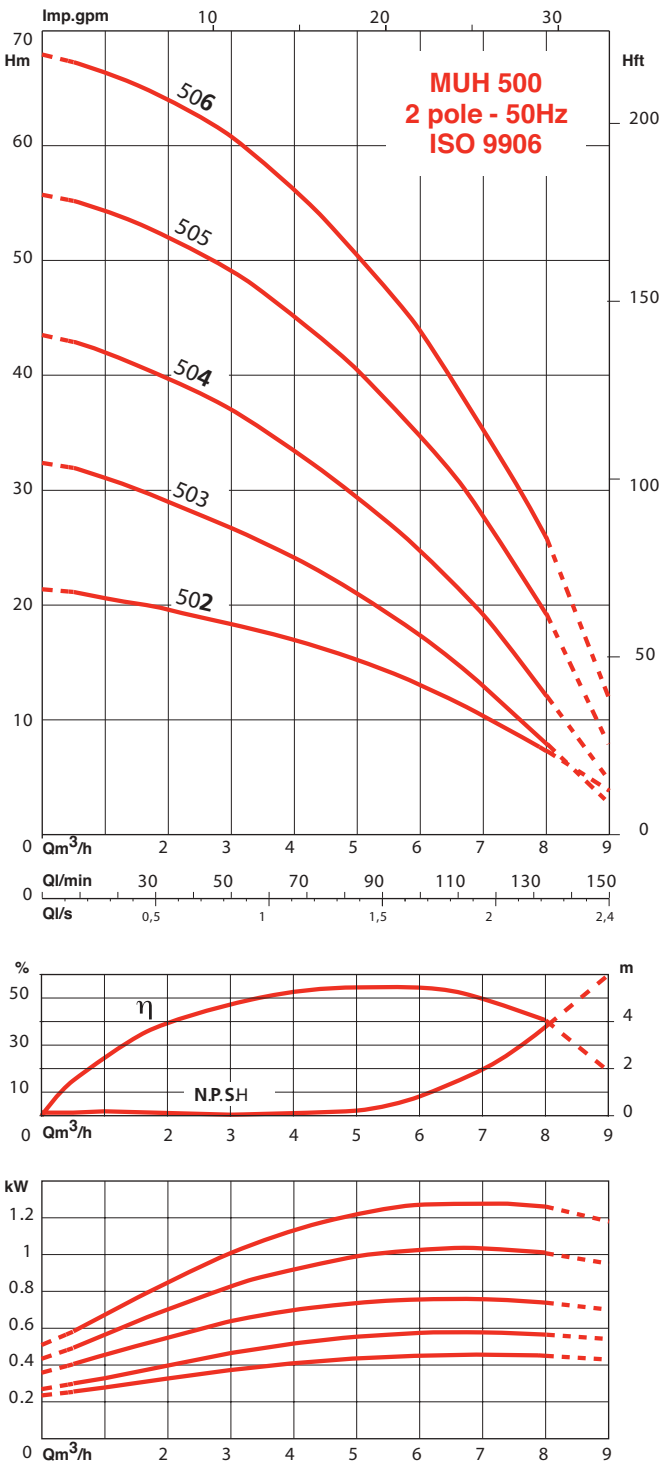
HYDRAULIC PERFORMANCES - 100 AND 300 SERIES

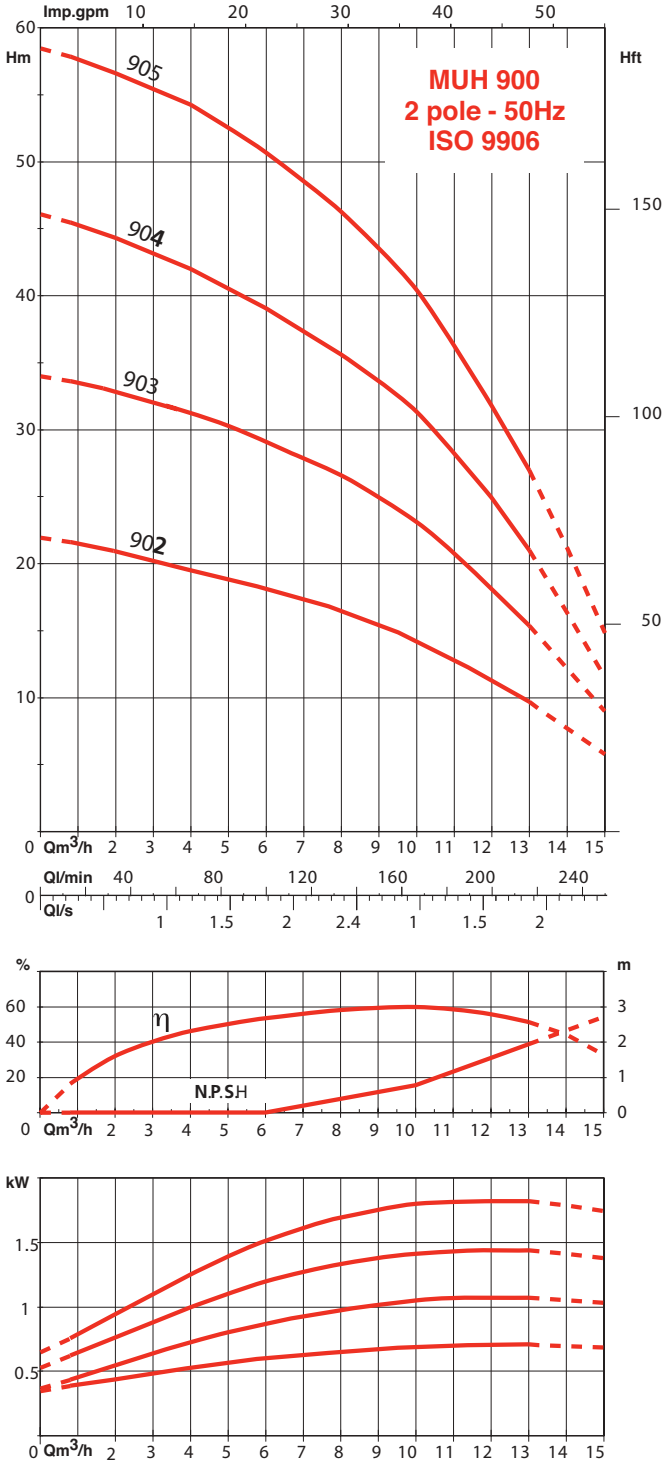




Hydraulic performances at actual speed.

HYDRAULIC PERFORMANCES - 500 AND 900 SERIES



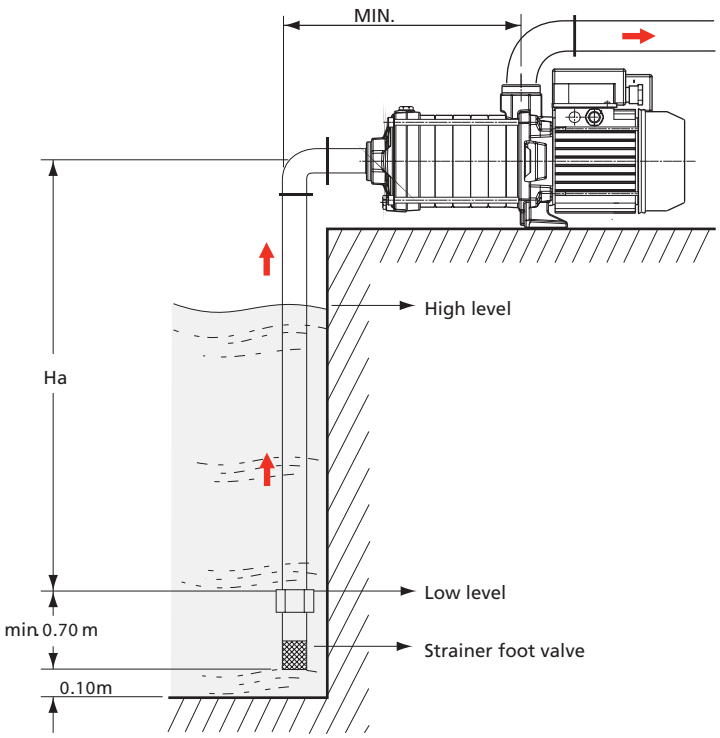


Hydraulic performances at actual speed.

MUH

SECTIONAL VIEW OF THE INSTALLATION

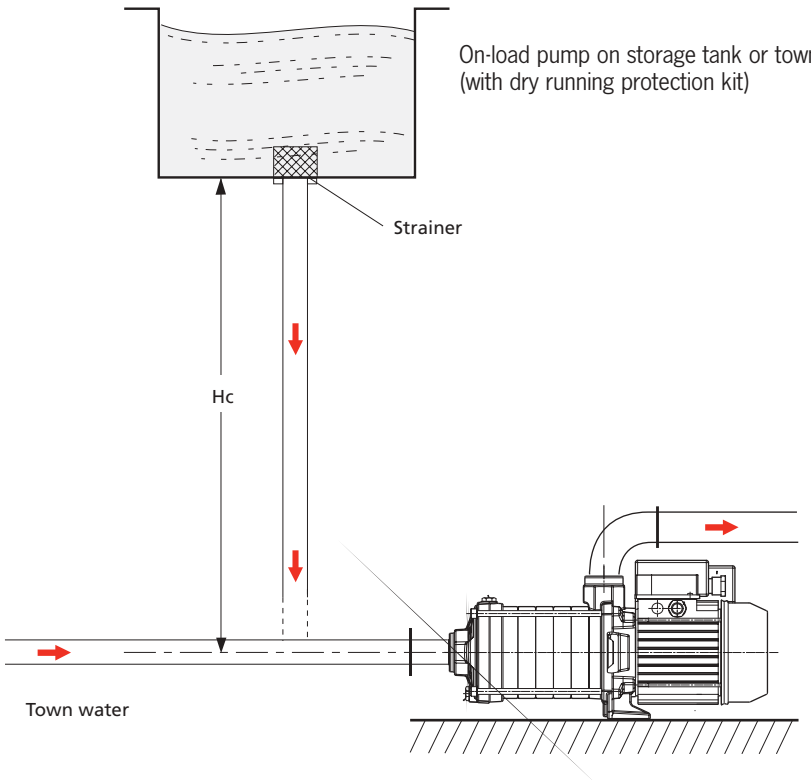
Suction pump



Max. suction head (Ha) and minimum pump head (Hc) at nominal pump flow rate

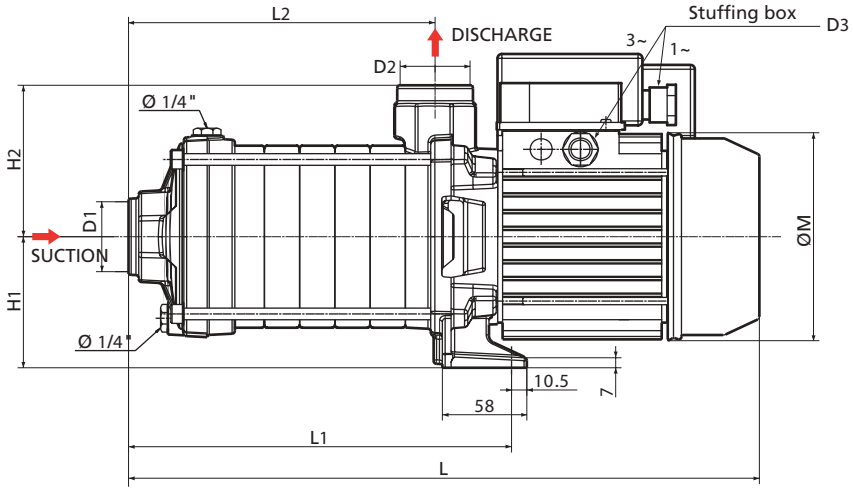
Fluid	MULTi-H 200		MULTi-H 400/800/1600	
temperature	Ha mCL	Hc mCL	Ha mCL	Hc mCL
+ 20°C	7	---	7	---
+ 50°C	6	---	6	---
+ 80°C	2.2	---	3	---
+ 110°C	---	8.1	---	7

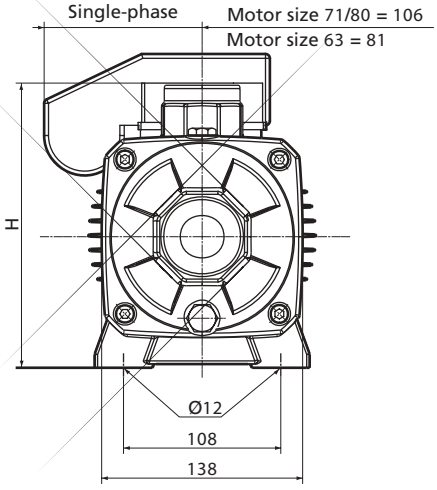
These values do not take into account load losses in the suction pipe.



On-load pump on storage tank or town water network (with dry running protection kit)

ELECTRICAL DATA AND DIMENSIONS





Order reference	~	HzV	V	V	A 1x230V 3x230V	A 400V	P2 kW	conden sator	H	H1	H2	L	L 1	L 2	M	D 1	D 2	D 3	mass
MUH102-E-M	1	50	230		3.81		0.55	12.5	190	90	104	321.2	156.2	102.7	126	1"	1"	PG11	10.6
MUH103-E-M	1	50	230		3.81		0.55	12.5	190	90	104	341.4	176.4	122.9	126	1"	1"	PG11	11.2
MUH104-E-M	1	50	230		3.81		0.55	12.5	190	90	104	361.6	196.6	143.1	126	1"	1"	PG11	11.8
MUH105-E-M	1	50	230		3.81		0.55	12.5	190	90	104	381.5	216.8	163.3	126	1"	1"	PG11	12.4
MUH106-E-M	1	50	230		3.81		0.55	12.5	190	90	104	402	237	183.5	126	1"	1"	PG11	13
MUH107-E-M	1	50	230		3.81		0.55	12.5	190	90	104	422.2	257.2	203.7	126	1"	1"	PG11	13.6
MUH302-E-M	1	50	230		3.81		0.55	12.5	190	90	104	332.2	167.2	113.7	126	1"	1"	PG11	10.8
MUH303-E-M	1	50	230		3.81		0.55	12.5	190	90	104	356.4	191.4	137.9	126	1"	1"	PG11	11.5
MUH304-E-M	1	50	230		3.81		0.55	12.5	190	90	104	380.6	215.6	162.1	126	1"	1"	PG11	12.5
MUH305-E-M	1	50	230		4.86		0.75	16	216	90	104	409	239.8	186.3	145	1"	1"	PG13.5	17.8
MUH306-E-M	1	50	230		6.86		1.1	30	224	90	104	458	264	210.5	162	1"	1"	PG13.5	17.6
MUH502-E-M	1	50	230		3.81		0.55	12.5	190	90	104	332.2	167.2	113.7	126	1"1/4	1"	PG11	10.9
MUH503-E-M	1	50	230		3.81		0.55	12.5	190	90	104	356.4	191.4	137.9	126	1"1/4	1"	PG11	11.6
MUH504-E-M	1	50	230		4.86		0.75	16	216	90	104	393.8	215.6	162.1	145	1"1/4	1"	PG13.5	17.1
MUH505-E-M	1	50	230		6.86		1.1	30	224	90	104	433.8	239.8	186.3	162	1"1/4	1"	PG13.5	16.7
MUH506-E-M	1	50	230		8.76		1.5	40	224	90	104	458	264	210.5	162	1"1/4	1"	PG13.5	17.7
MUH902-E-M	1	50	230		4.86		0.75	16	216	90	104	342.4	173.2	119.7	145	1"1/2	1"1/4	PG13.5	15.5
MUH903-E-M	1	50	230		6.86		1.1	30	224	90	104	397.4	203.4	149.9	162	1"1/2	1"1/4	PG13.5	14.6
MUH904-E-M	1	50	230		8.76		1.5	40	224	90	104	428.6	233.6	180.1	162	1"1/2	1"1/4	PG13.5	16.7
MUH102-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	321.2	156.2	102.7	126	1"	1"	PG11	10.6
MUH103-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	341.4	176.4	122.9	126	1"	1"	PG11	11.2
MUH104-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	361.6	196.6	143.1	126	1"	1"	PG11	11.8
MUH105-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	381.5	216.8	163.3	126	1"	1"	PG11	12.4
MUH106-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	402	237	183.5	126	1"	1"	PG11	13
MUH107-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	422.2	257.2	203.7	126	1"	1"	PG11	13.6
MUH302-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	332.2	167.2	113.7	126	1"	1"	PG11	10.8
MUH303-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	356.4	191.4	137.9	126	1"	1"	PG11	11.5
MUH304-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	380.6	215.6	162.1	126	1"	1"	PG11	12.5
MUH305-E-T	3	50	Δ230	Y400	3.43	1.98	0.75		192	90	104	409	239.8	186.3	145	1"	1"	PG11	17.8
MUH306-E-T	3	50	Δ230	Y400	5.05	2.91	1.1		192	90	104	433.2	264	210.5	145	1"	1"	PG11	18.8
MUH502-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	332.2	167.2	113.7	126	1"1/4	1"	PG11	10.9
MUH503-E-T	3	50	Δ230	Y400	2.86	1.65	0.55		190	90	104	356.4	191.4	137.9	126	1"1/4	1"	PG11	11.6
MUH504-E-T	3	50	Δ230	Y400	3.43	1.98	0.75		192	90	104	393.8	215.6	162.1	145	1"1/4	1"	PG11	17.1
MUH505-E-T	3	50	Δ230	Y400	5.05	2.91	1.1		192	90	104	409	239.8	186.3	145	1"1/4	1"	PG11	17.9
MUH506-E-T	3	50	Δ230	Y400	6.29	3.63	1.5		206	90	104	458	264	210.5	162	1"1/4	1"	PG13.5	17.7
MUH902-E-T	3	50	Δ230	Y400	3.43	1.98	0.75		192	90	104	342.4	173.2	119.7	145	1"1/2	1"1/4	PG11	15.5
MUH903-E-T	3	50	Δ230	Y400	5.05	2.91	1.1		192	90	104	372.6	203.4	149.9	145	1"1/2	1"1/4	PG11	16.6
MUH904-E-T	3	50	Δ230	Y400	6.29	3.63	1.5		206	90	104	428.6	233.6	180.1	162	1"1/2	1"1/4	PG13.5	16.7
MUH905-E-T	3	50	Δ230	Y400	8.14	4.7	1.85		206	90	104	458.8	263.8	210.3	162	1"1/2	1"1/4	PG13.5	17.5

MUH

ACCESSORIES

• **ACSON**: ON/OFF control device and protection against lack of water

• Three-phase motor protection **overload cut-out**

• **Check valve**

• **Strainer foot valve**

• **Shut-off valve**

• **Anti-vibratory sleeves**

• **Water hammer tank**

• **Bladder tank**

FEATURES

a) Electrical

- **"T"** Types: 1-phase 230-400 V - 50 Hz
- **"M"** Types: 3-phase 230 V - 50 Hz with capacitor integrated in terminal box.
- Motor protection by overload cut-out essential for three-phase motor.
- Connections to the motor terminal by stuffing-box.

b) Installation

- On the solid base with fixing by foundation bolts.
- Suction pump assembly with compulsory strainer foot valve, or on-load pump on storage tank or on town water network with protection system against lack of water.
- Pump connection through flexible or rigid piping.

c) Packaging

Pump supplied in cardboard packaging, without connection accessories.

OPTIONS & ACCESSORIES

- Shut-off valves
- Check valves
- Strainer foot valve
- Anti-vibratory sleeves
- Suction kit
- Bladder or galvanized tanks
- Water hammer tanks
- ME dry running protection kit
- ACSON: ON/OFF control device and protection against lack of water
- 3-phase overload cut-out motor protection, etc...

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