



Surface Pumps

MARO

QB

Peripheral Pump



PERFORMANCE RANGE

- Flow rate up to **60 l/min** (3.6 m³/h)
- Head up to **65 m**

INSTALLATION AND USE

- Suitable for pure water without abrasive particles and liquids that are not chemically aggressive to pump materials.
- Due to their reliability and the fact that they are easy to use and economical, they are very suitable for household use, especially in combination with small pressure tanks to distribute water and irrigate gardens and orchards.
- The pump should be installed in a closed environment, or avoid the influence of bad weather.

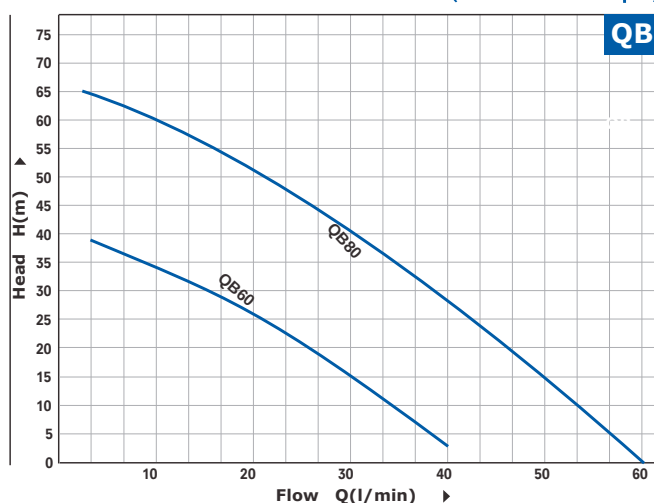
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **6 bar**
- Voltage fluctuation: **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

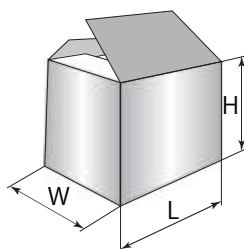
Model	Power(P ₂)		Max. Flow l/min	Max. Head m	Inlet/Outlet inch	Head Range m	Max. Suction m
	kW	HP					
QB60	0.37	0.5	40	38	1×1	1~38	8
QB80	0.75	1	60	65	1×1	3~65	8

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment				
2	MOTOR BRACKET	Aluminium with SS304 insert, reduces the risk of impeller seizure				
3	IMPELLER	Brass with peripheral radial vanes				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		QB60-80	301-12	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		QB60	6201-2RZ/6201-2RZ			
		QB80	6202-2RZ/6202-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		QB60	10μF-450VL			
		QB80	20μF-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal ovreload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
QB60	285×155×190	6.1
QB80	340×215×240	10.2



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **44 m**

INSTALLATION AND USE

- Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made.
- Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped.
- The pump comes complete with a flap-check valve. The pump should be installed in an enclosed environment or sheltered from inclement weather.

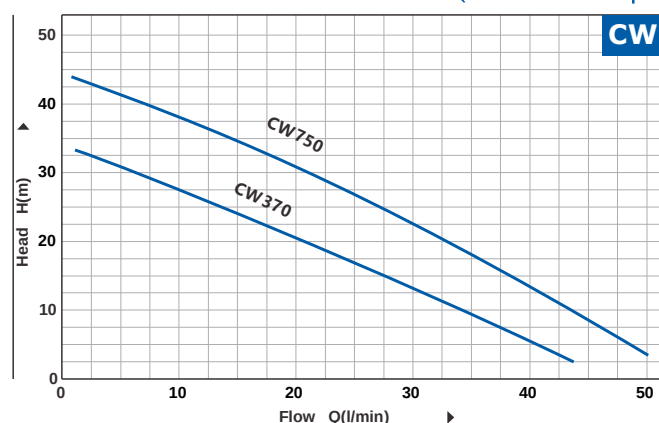
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **6bar**
- Voltage fluctuation: **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

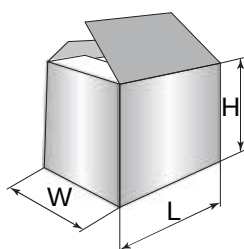
Model	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP					
Single-phase			l/min	m	inch	m	m
CW370	0.37	0.7	43	33	1×1	1~33	8
CW750	0.75	1	50	44	1×1	1~44	8

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment				
2	MOTOR BRACKET	Aluminium with SS304 insert, reduces the risk of impeller seizure				
3	IMPELLER	Brass with peripheral radial vanes				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		CW370 - 750	301-12	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		CW370	6201-2RZ/6201-2RZ			
		CW750	6202-2RZ/6202-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		CW370	10µ F-450VL			
		CW750	12µ F-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal ovreload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
CW370	300×230×300	8.1
CW750	330×250×330	11

MRI

Automatic self-priming Pump



PERFORMANCE RANGE

- Flow rate up to **108 l/min** (6.48 m³/h)
- Head up to **55 m**

INSTALLATION AND USE

- Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made.
- Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped.
- The pump comes complete with a flap-check valve . The pump should be installed in an enclosed environment or sheltered from inclement weather.

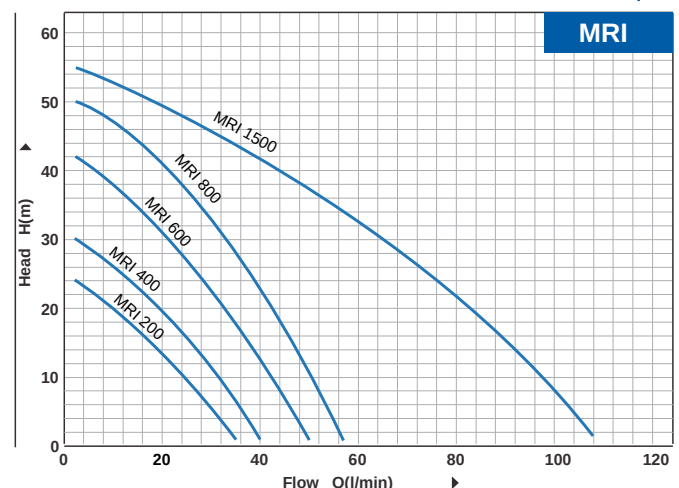
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **6bar**
- Voltage fluctuation: **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

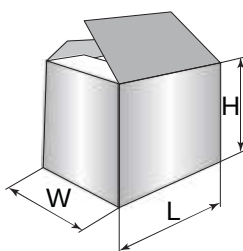
Model Single-phase	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP	l/min	m	inch	m	m
MRI 200	0.2	0.28	35	24	1×1	1~24	8
MRI 400	0.4	0.55	40	30	1×1	1~30	8
MRI 600	0.6	0.8	50	42	1×1	1~42	8
MRI 800	0.8	1.1	57	50	1×1	1~50	8
MRI 1500	1.5	2	108	55	1×1	1~55	8

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment				
2	MOTOR BRACKET	Aluminium with SS304 insert, reduces the risk of impeller seizure				
3	IMPELLER	Brass with peripheral radial vanes				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		MRI 200-400-600 800-1500	301-12	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		MRI 200-400-600	6201-2RZ/6201-2RZ			
		MRI 200-400-600	6202-2RZ/6202-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		MRI 200	6μF-450VL			
		MRI 400	10μF-450VL			
		MRI 600	12μF-450VL			
		MRI 800	18μF-450VL			
		MRI 1500	25μF-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal ovreload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
MRI 200	300×230×300	8.5
MRI 400	300×230×300	8.9
MRI 600	310×240×320	12
MRI 800	310×240×320	13
MRI1500	370×280×360	27



PERFORMANCE RANGE

- Flow rate up to **35 l/min** (2.1 m³/h)
- Head up to **35 m**

INSTALLATION AND USE

- Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made.
- Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped.
- The pump comes complete with a flap-check valve . The pump should be installed in an enclosed environment or sheltered from inclement weather.

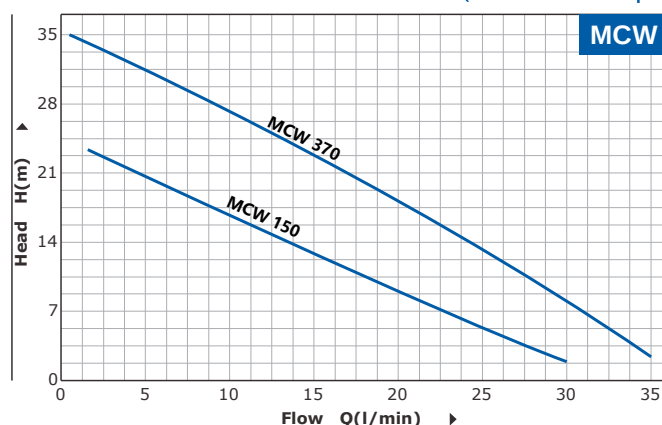
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **6bar**
- Voltage fluctuation: **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

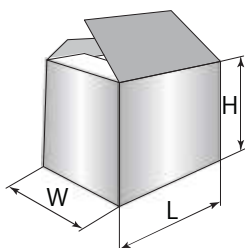
Model	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP					
Single-phase			l/min	m	inch	m	m
MCW 150	0.15	0.2	30	23	1×1	1~23	8
MCW 370	0.37	0.5	35	35	1×1	1~35	8

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment				
2	MOTOR BRACKET	Aluminium with SS304 insert, reduces the risk of impeller seizure				
3	IMPELLER	Brass with peripheral radial vanes				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		MCW 150 - 370	301-12	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		MCW 150 - 370	6201-2RZ/6201-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		MCW 150	8μF-450VL			
		MCW 370	10μF-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal ovreload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
MCW 150	305×220×310	7.9
MCW 750	305×220×310	8.1



PERFORMANCE RANGE

- Flow rate up to **140 l/min** (8.4 m³/h)
- Head up to **54 m**

INSTALLATION AND USE

- They are recommended for pumping clean water without abrasive particles and liquids that are chemically non-aggressive to the materials from which the pump is made.
- Due to their reliability and ease of use, they are widely used in the civil, agricultural and industrial sectors, for water supply, for air conditioning or cooling systems, for irrigation, etc.
- The installation is to be carried out in closed places or in any case protected from bad weather.

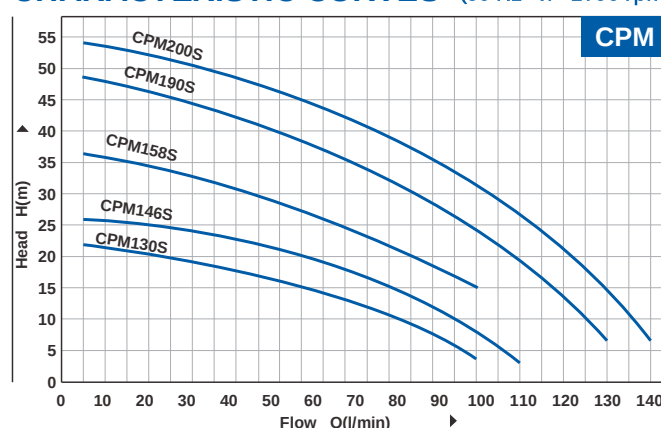
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure:
 - **6 bar** for CPM130S, CPM146S, CPM158S
 - **8 bar** for CPM190S, CPM200S
- Voltage fluctuation **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

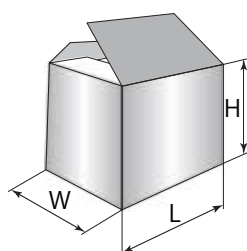
Model	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP					
Single-phase			l/min	m	inch	m	m
CPM130S	0.37	0.5	100	22	1×1	3~20	8
CPM146S	0.55	0.75	110	26	1×1	4~26	8
CPM158S	0.75	1	100	36	1×1	7~36	8
CPM190S	1.1	1.5	130	40	1×1	5~38	8
CPM200S	1.5	2	130	48	1×1	6~46	8

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment				
2	MOTOR BRACKET	Aluminium				
3	IMPELLER	Brass				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		CPM130S	301-12	Ceramic	Graphite	NBR
		CPM146S-158S	301-14	Ceramic	Graphite	NBR
		CPM190S-200S	301-16	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		CPM130S	6201-2RZ/6201-2RZ			
		CPM146S-158S	6202-2RZ/6202-2RZ			
		CPM190S-200S	6204-2RZ/6303-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		CPM130S	12μF-450VL			
		CPM146S	18μF-450VL			
		CPM158S	25μF-450VL			
		CPM190S	40μF-450VL			
		CPM200S	45μF-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal ovreload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
CPM130S	290×180×230	8
CPM146S	340×210×270	11.6
CPM158S	340×210×270	13.2
CPM190S	385×245×295	22.5
CPM200S	385×245×295	23.4



PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **24 m**

INSTALLATION AND USE

- Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made.
- Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped.
- The pump comes complete with a flap-check valve . The pump should be installed in an enclosed environment or sheltered from inclement weather.

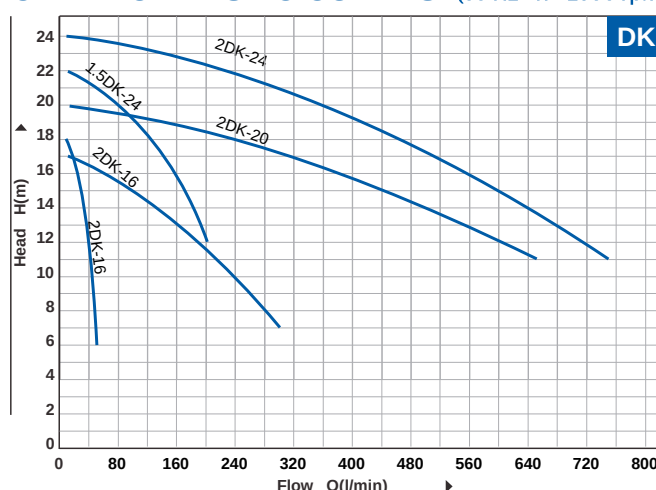
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **6bar**
- Voltage fluctuation: **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

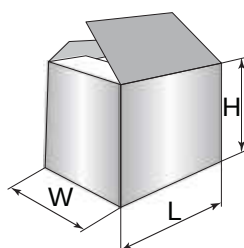
Model Single-phase	Power(P ₂)		Max. Flow l/min	Max. Head m	Inlet/Outlet inch	Head Range m	Max. Suction m
	kW	HP					
1DK-18	0.37	0.5	50	18	1×1	5.5~18	8
1.5DK-24	0.75	1	200	22	1½×1½	8~22	8
2DK-16	0.90	1.2	300	16	2×2	8~16	8
2DK-20	1.1	1.5	650	20	2×2	7~20	8
2DK-24	1.5	2	750	24	2×2	6.5~24	8

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment				
2	MOTOR BRACKET	Aluminium				
3	IMPELLER	Brass				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal/Shaft	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		1DK-18	301-12	Ceramic	Graphite	NBR
		1.5DK-24	301-12	Ceramic	Graphite	NBR
		2DK-16-20-24	301-14	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		1DK-18	6201-2RZ/6201-2RZ			
		1.5DK-24	6202-2RZ/6202-2RZ			
		2DK-16-20-24	6204-2RZ/6204-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		1DK-18	10μF-450VL			
		1.5DK-24	10μF-450VL			
		2DK-16	12μF-450VL			
		2DK-20	30μF-450VL			
		2DK-24	50μF-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal oveeload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
1DK-18	285×180×200	7.3
1.5DK-24	340×200×220	10.7
2DK-16	425×255×250	16
2DK-20	310×240×330	17
2DK-24	450×250×280	26



PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **46 m**

INSTALLATION AND USE

- Suitable for use with clean water and liquids that are not chemically aggressive towards the materials from which the pump is made.
- The self-priming JET-M pumps are designed to pump water even in cases where air is present. As a result of their reliability and the fact that they are easy to use, they are recommended for use in domestic applications such as the distribution of water in combination with small or medium sized pressure sets, and for the irrigation of gardens and allotments, etc.

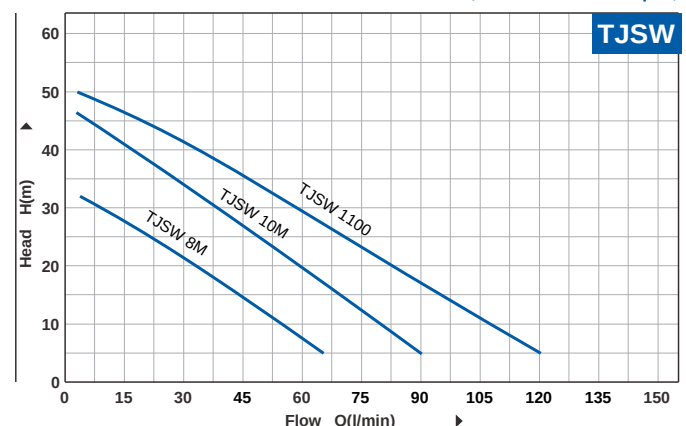
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **8bar**
- Voltage fluctuation: **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

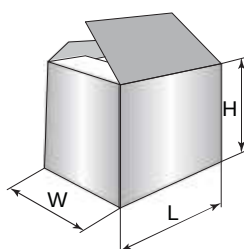
Model	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP	l/min	m	inch	m	m
TJSW 8M	0.37	0.5	65	32	1×1	3~32	8
TJSW 10M	0.75	1	90	46	1×1	3~46	8
TJSW 1100	1.1	1.5	120	50	1×1	3~50	8

COMPONENT

CONSTRUCTION CHARACTERISTICS

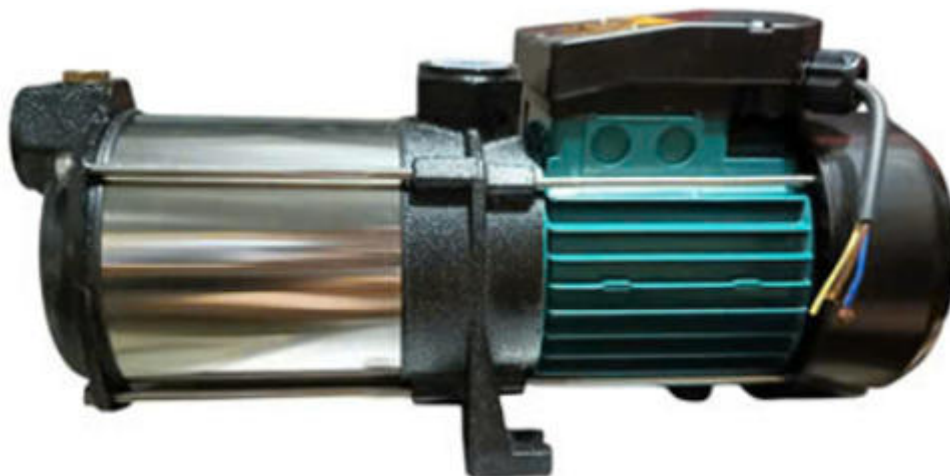
1	PUMP BODY	Stainless steel AISI 304				
2	MOTOR BRACKET	Aluminium				
3	IMPELLER	Brass (TJSW 8M - 10M), PPO (TJSW 1100)				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		TJSW 8M	301-12	Ceramic	Graphite	NBR
		TJSW 10M	104-14	Ceramic	Graphite	NBR
		TJSW 1100	104-14	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		TJSW 8M - 1100	6202-2RZ/6202-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		TJSW 8M	10μF-450VL			
		TJSW 10M	16μF-450VL			
		TJSW 1100	23μF-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal ovreload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
TJSW 8M	450×200×230	14.2
TJSW 10M	470×200×230	14
TJSW 1100	490×210×230	18

Horizontal Multistage Centrifugal Pump



PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 m³/h)
- Head up to **50 m**

INSTALLATION AND USE

- Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made.
- As a result of their quietness these pumps are widely used in domestic applications such as the distribution of water in combination with small and medium sized pressure tanks, and for the irrigation of gardens and orchards, etc.
- Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

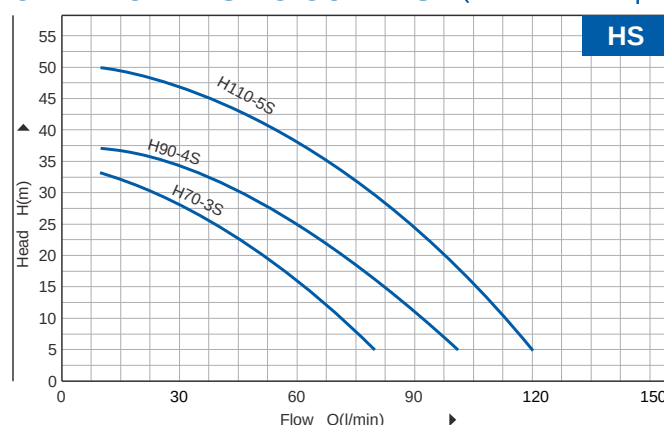
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+80°C**
- Ambient temperature up to **+40°C**
- Max. working pressure:
 - **6 bar** for H70-3S
 - **8 bar** for H90-4S, H110-5S
- Voltage fluctuation: **±10%**

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

Model	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP					
Single-phase			l/min	m	inch	m	m
H70-3S	0.6	0.8	80	33	1×1	11~33	8
H90-4S	0.75	1	100	37	1×1	9~37	8
H110-5S	0.9	1.25	120	50	1×1	5~50	8

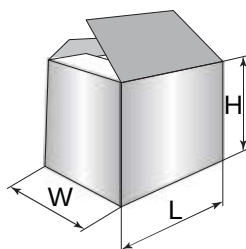
Horizontal Multistage Centrifugal Pump

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment and Stainless steel AISI 304				
2	MOTOR BRACKET	Aluminium				
3	IMPELLER	PPO				
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304				
5	MECHANICAL SEAL	Pump	Seal	Materials		
		Model	Model	stationary ring	Rotational ring	Elastomer
		H70-3S	301-12	Ceramic	Graphite	NBR
		H90-4S	301-12	Ceramic	Graphite	NBR
		H110-5S	301-14	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model			
		H70-3S	6202-2RZ/6302-2RZ			
		H90-4S	6202-2RZ/6302-2RZ			
		H110-5S	6202-2RZ/6302-2RZ			
7	CAPACITOR	Pump	Capacitance			
		Single-phase	220V			
		H70-3S	10μF-450VL			
		H90-4S	15μF-450VL			
		H110-5S	30μF-450VL			
8	ELECTRIC MOTOR	Sigle-phase 220V-50HZ with thermal ovreload protector incorporated into the winding				
		-Insulation: class B				
		-Protection: IP X4				
		-Continuous service S1				

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
H70-3S	420×190×210	11.4
H90-4S	440×190×210	13
H110-5S	470×190×210	14

MRF

Permanent Magnet Variable Inverter SS Multi-Stage Pump



PERFORMANCE RANGE

- Flow rate up to **105 l/min** (6.48 m³/h)
- Head up to **60 m**

INSTALLATION AND USE

- Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made.
- Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped.
- The pump comes complete with a flap-check valve. The pump should be installed in an enclosed environment or sheltered from inclement weather.

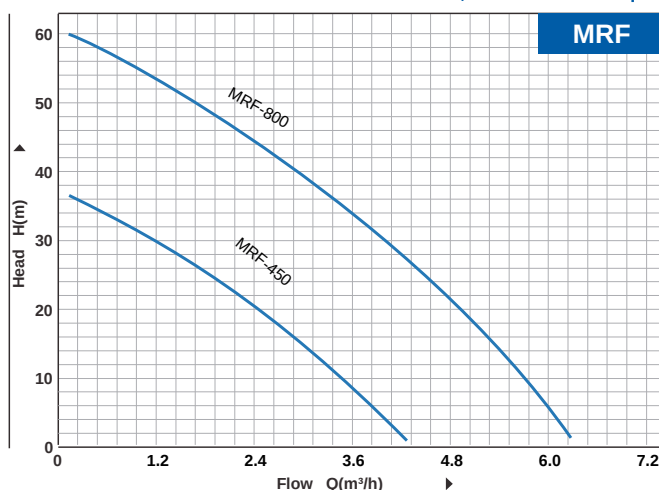
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+100°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **6bar**
- Voltage fluctuation: **±10%**
- Multifunctional Variable Frequency Controller
- High efficiency stainless steel impellers & flow channel

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

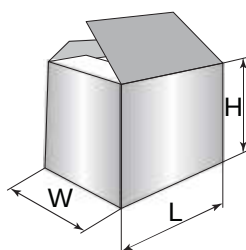
(50 Hz n= 2900 rpm)

Model	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP	m ³ /h	m	inch	m	m
Single-phase							
MRF-450	0.45	0.6	4.3	36.5	1×1	1~36.5	8
MRF-800	0.8	1.1	6.3	60	1×1	1~60	8

Permanent Magnet Variable Inverter SS Multi-Stage Pump

COMPONENT		CONSTRUCTION CHARACTERISTICS			
1	PUMP BODY	Stainless steel AISI 304			
2	MOTOR BRACKET	Aluminium			
3	IMPELLER	PPO			
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304			
5	MECHANICAL SEAL	Pump	Materials		
		Model	stationary ring	Rotational ring	Elastomer
		MRF-450	Ceramic	Graphite	NBR
		MRF-800	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model		
		MRF-450	6202-2RZ/6302-2RZ		
		MRF-800	6202-2RZ/6302-2RZ		
7	ELECTRIC MOTOR	Sigle-phase 180-220V-50HZ with thermal ovreload protector			
		-Insulation: class B			
		-Protection: IP X4			
		-Continuous service S1			

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
MRF-450	440×300×350	7
MRF-800	440×300×350	8

MRA

Permanent Magnet Variable Inverter Self-Priming Pump



PERFORMANCE RANGE

- Flow rate up to **42 l/min** (2.5 m³/h)
- Head up to **50 m**

INSTALLATION AND USE

- Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made.
- Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped.
- The pump comes complete with a flap-check valve. The pump should be installed in an enclosed environment or sheltered from inclement weather.

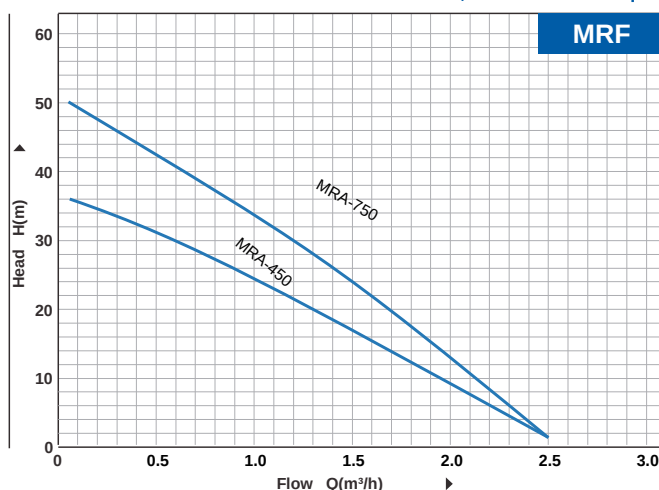
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal, bearing, shaft
- Other voltages or **60 Hz** frequency

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **0°C** and **+100°C**
- Ambient temperature up to **+40°C**
- Max. working pressure: **6bar**
- Voltage fluctuation: **±10%**
- Multifunctional Variable Frequency Controller
- Special anti-rust treatment for cast iron pump body

CHARACTERISTIC CURVES (50 Hz n= 2900 rpm)



PERFORMANCE DATA

(50 Hz n= 2900 rpm)

Model Single-phase	Power(P ₂)		Max. Flow m ³ /h	Max. Head m	Inlet/Outlet inch	Head Range m	Max. Suction m
	kW	HP					
MRA-450	0.45	0.6	2.5	36	1×1	1~30	8
MRA-750	0.75	1.0	2.5	50	1×1	1~50	8

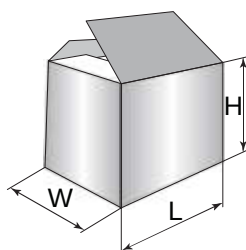
Permanent Magnet Variable Inverter SS Multi-Stage Pump

COMPONENT

CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304			
2	MOTOR BRACKET	Aluminium			
3	IMPELLER	Stainless steel AISI 304			
4	MOTOR SHAFT	Steel 45# welding Stainless steel AISI 304			
5	MECHANICAL SEAL	Pump	Materials		
		Model	stationary ring	Rotational ring	Elastomer
		MRA-450	Ceramic	Graphite	NBR
		MRA-750	Ceramic	Graphite	NBR
6	BEARINGS	Pump	Model		
		MRA-450	6202-2RZ/6302-2RZ		
		MRA-750	6202-2RZ/6302-2RZ		
7	ELECTRIC MOTOR	Sigle-phase 180-220V-50HZ with thermal ovreload protector			
		-Insulation: class B			
		-Protection: IP X4			
		-Continuous service S1			

DIMENSIONS AND WEIGHT



Model	L×W×H	G.W
Single-phase	mm	kg
MRA-450	320×320×320	6
MRA-750	320×320×320	7