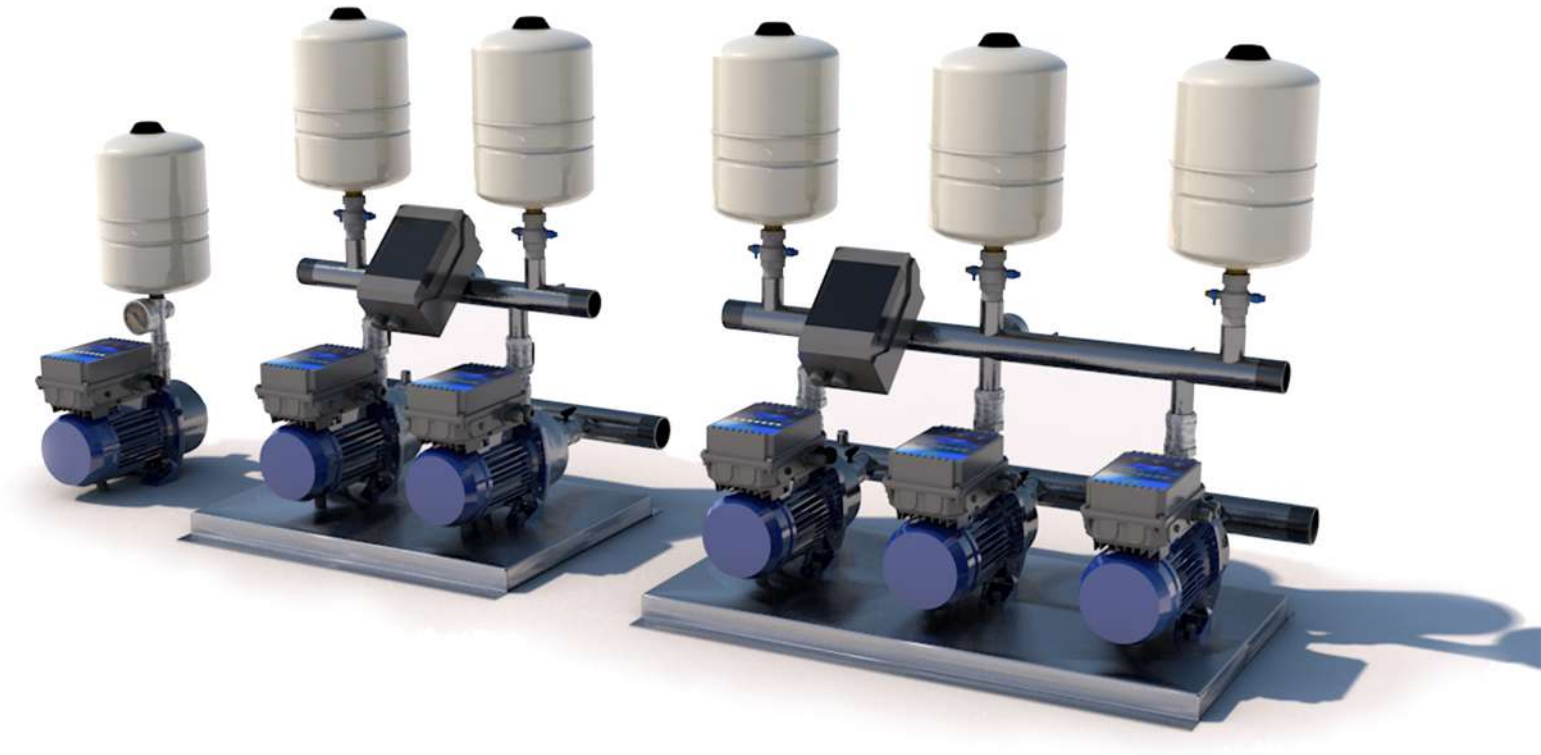

Vari-RS Booster Set

In single, twin, and triple configuration with variable speed inverters


dP&t
LTD
100
120
80
60
140
160
bar
psi

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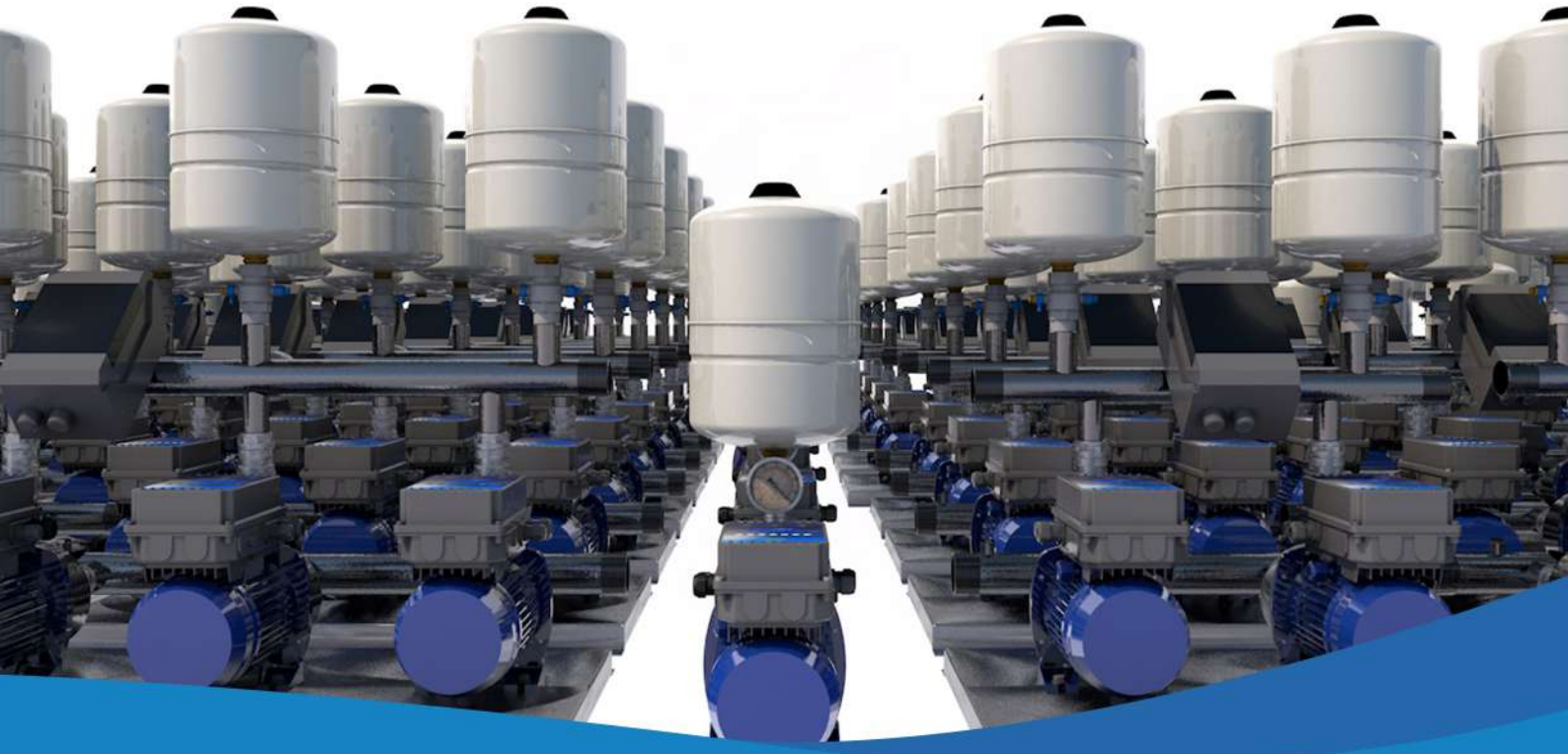


Product Overview

The Vari-RS Booster Set is a compact and cost-effective cold water booster set ideal for residential and light commercial installations. Despite its compact design, the Vari-RS Booster Set includes advanced features normally found on larger booster sets including fault signals and an error code display as standard.

Product Application Examples

- Building services
- Air conditioning
- Heating
- Water lifting and handling
- Irrigation
- Washing systems

Operation

The Vari-RS cold water booster set uses the RS variable speed inverter and is installed onto the Motor Connection Box of each pump in the set. The inverter regulates the rotational speed of the pump using the electrical frequency. The inverter operates at a minimal value that meets the users demand.

In simple terms, once the pressure drops, the inverter recognises the drop in pressure and instructs the pumps to increase speed in order to meet the proportional demand.

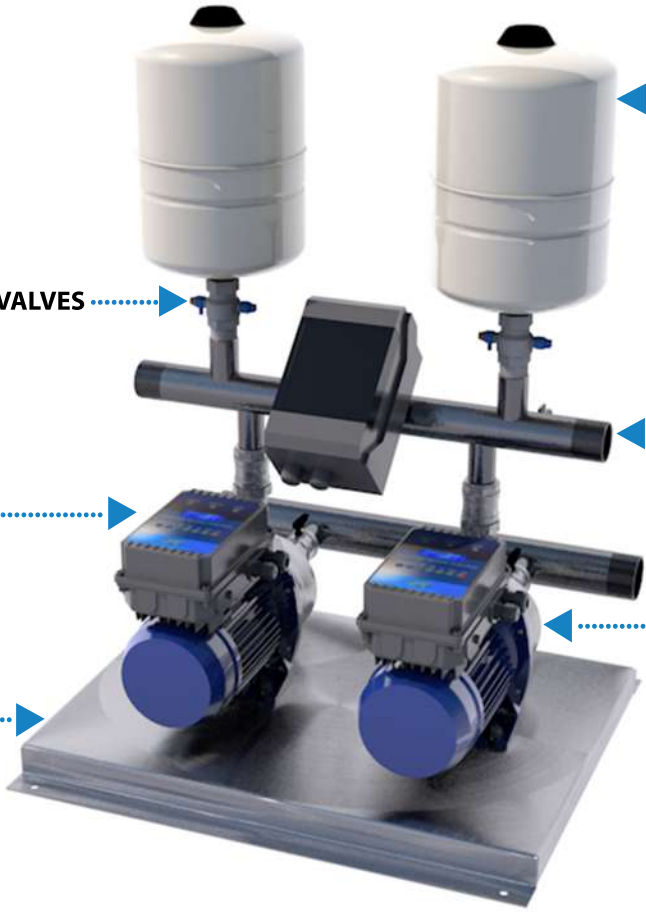
The RS inverter works in a “master/slave” arrangement and shares the operational duty in 60 minute cycles, this ensures joint usage across the system.

Tank Options

Direct Pumps and Tanks provide a vast array of WRAS approved cold water storage tanks, brass equilibrium ball valves, GRP enclosures for external housing of the booster system.

These enclosures can come fully insulated with encapsulated base boards for added thickness and stability and even drip trays, complete with overflow by-laws and CAT 4 (AG) or 5 (AB) air gap water protection.

Vari-RS Booster Set
Features at a Glance



8L WRAS APPROVED EXPANSION VESSEL

DRAIN DOWN VALVES

PRESSURE RANGE 2 BAR TO 9 BAR TO MEET SPECIFIC REQUIREMENTS

VARIABLE SPEED INVERTERS

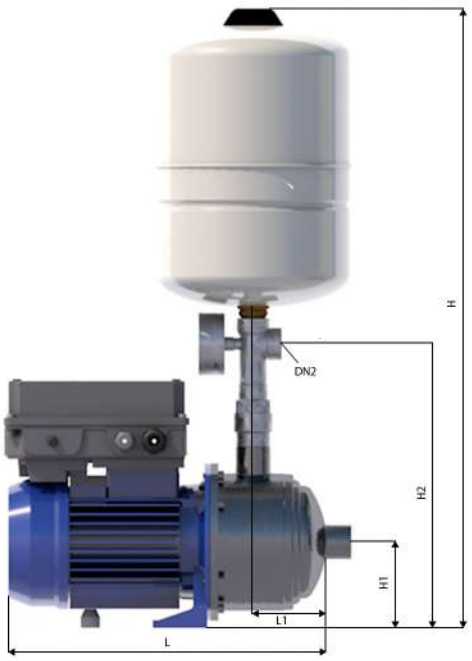
WRAS APPROVED HORIZONTAL MULTI-STAGE PUMP(S)

COMPACT FOOTPRINT TO SAVE SPACE

Bluetooth®

Single Vari-RS Booster Set

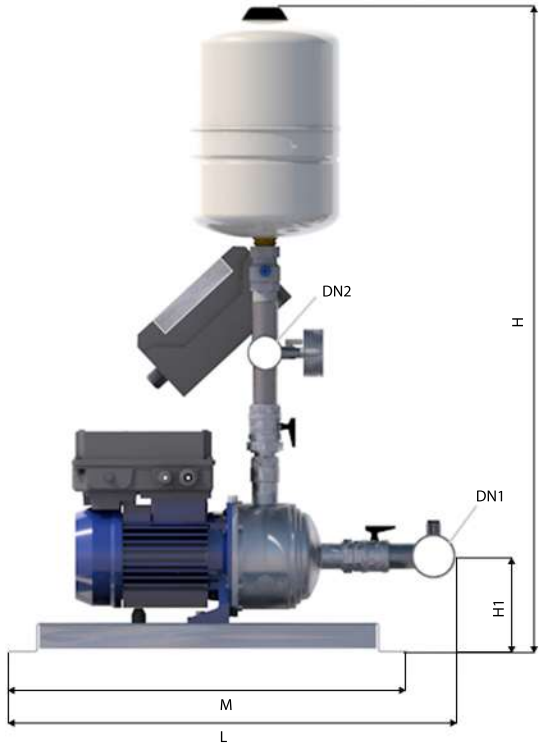
With Variable Speed Inverter



Model Ref	DN1	DN2	H	H1	H2	L	Power Supply	kW	HP	FLC (amp)
1MX3-2RS	1"	1"	700	80	310	360	1x240v	0.45	0.6	2.3
1MX3-5RS	1"	1"	700	80	310	408	1x240v	0.75	1.0	3.0
1MX3-6RS	1"	1"	700	80	310	444	1x240v	0.9	1.2	4.3
1MX3-7RS	1"	1"	700	80	310	518	1x240v	1.3	1.8	5.6
1MX3-8RS	1"	1"	700	80	310	542	1x240v	1.3	1.8	5.6
1MX5-2RS	1¼"	1"	700	80	310	360	1x240v	0.45	0.6	2.3
1MX5-5RS	1¼"	1"	700	80	310	470	1x240v	1.3	1.8	5.6
1MX5-6RS	1¼"	1"	700	80	310	498	1x240v	1.3	1.8	5.6
1MX5-7RS	1¼"	1"	700	80	310	519	1x240v	1.5	2.0	6.3
1MX5-8RS	1¼"	1"	700	80	310	543	1x240v	2.2	3.0	8.2
1MX10-2RS	1½"	1¼"	700	80	310	379	1x240v	0.75	1.0	3.0
1MX10-3RS	1½"	1¼"	700	80	310	441	1x240v	1.3	1.8	5.6
1MX10-4RS	1½"	1¼"	700	80	310	472	1x240v	1.5	2.0	6.3
1MX10-5RS	1½"	1¼"	700	80	310	502	1x240v	2.2	3.0	8.2
1MX10-6RS	1½"	1¼"	700	80	310	532	1x240v	2.2	3.0	8.2

Twin Vari-RS Booster Set

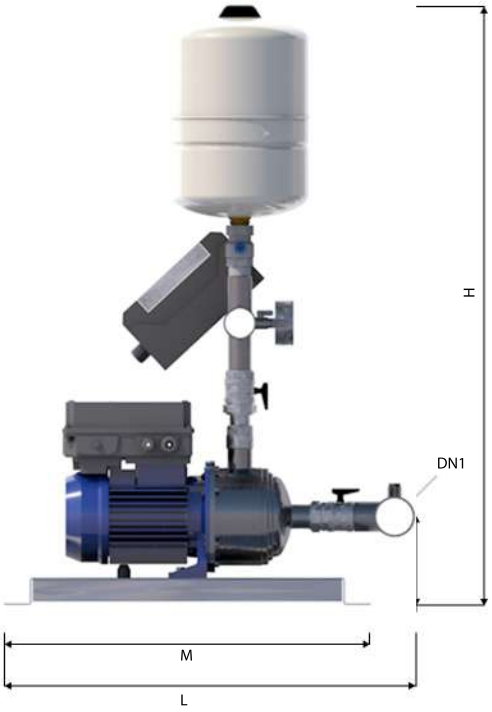
With Variable Speed Inverter



Model Ref	DN1	DN2	B	H	H1	L	M	Power Supply	kW	HP	FLC (amp)
2MX3-2RS	2"	1¼"	640	900	135	608	540	1x240v	2x0.45	2x0.6	2x2.3
2MX3-5RS	2"	1¼"	640	900	135	656	540	1x240v	2x0.75	2x1.0	2x3.0
2MX3-6RS	2"	1½"	640	800	135	680	540	1x240v	2x0..9	2x1.2	2x4.3
2MX3-7RS	2"	1¼"	640	900	135	704	540	1x240v	2x1.3	2x1.8	2x5.6
2MX3-8RS	2"	1¼"	640	900	135	728	540	1x240v	2x1.3	2x1.8	2x5.6
2MX5-2RS	2"	1¼"	640	900	135	608	540	1x240v	2x0.45	2x0.6	2x2.3
2MX5-5RS	2"	1¼"	640	900	135	656	540	1x240v	2x1.3	2x1.8	2x5.6
2MX5-6RS	2"	1¼"	640	900	135	680	540	1x240v	2x1.3	2x1.8	2x5.6
2MX5-7RS	2"	1¼"	640	900	135	704	540	1x240v	2x1.5	2x2.0	2x6.3
2MX5-8RS	2"	1¼"	640	900	135	728	540	1x240v	2x2.2	2x3.0	2x8.2
2MX10-2RS	2½"	2"	640	950	135	627	540	1x240v	2x0.75	2x1.0	2x3.0
2MX10-3RS	2½"	2"	640	950	135	689	540	1x240v	2x1.3	2x1.8	2x5.6
2MX10-4RS	2½"	2"	640	950	135	708	540	1x240v	2x1.5	2x2.0	2x6.3
2MX10-5RS	2½"	2"	640	950	135	722	540	1x240v	2x2.2	2x3.0	2x8.2
2MX10-6RS	2½"	2"	640	950	135	739	540	1x240v	2x2.2	2x3.0	2x8.2

Triple Vari-RS Booster Set

With Variable Speed Inverter

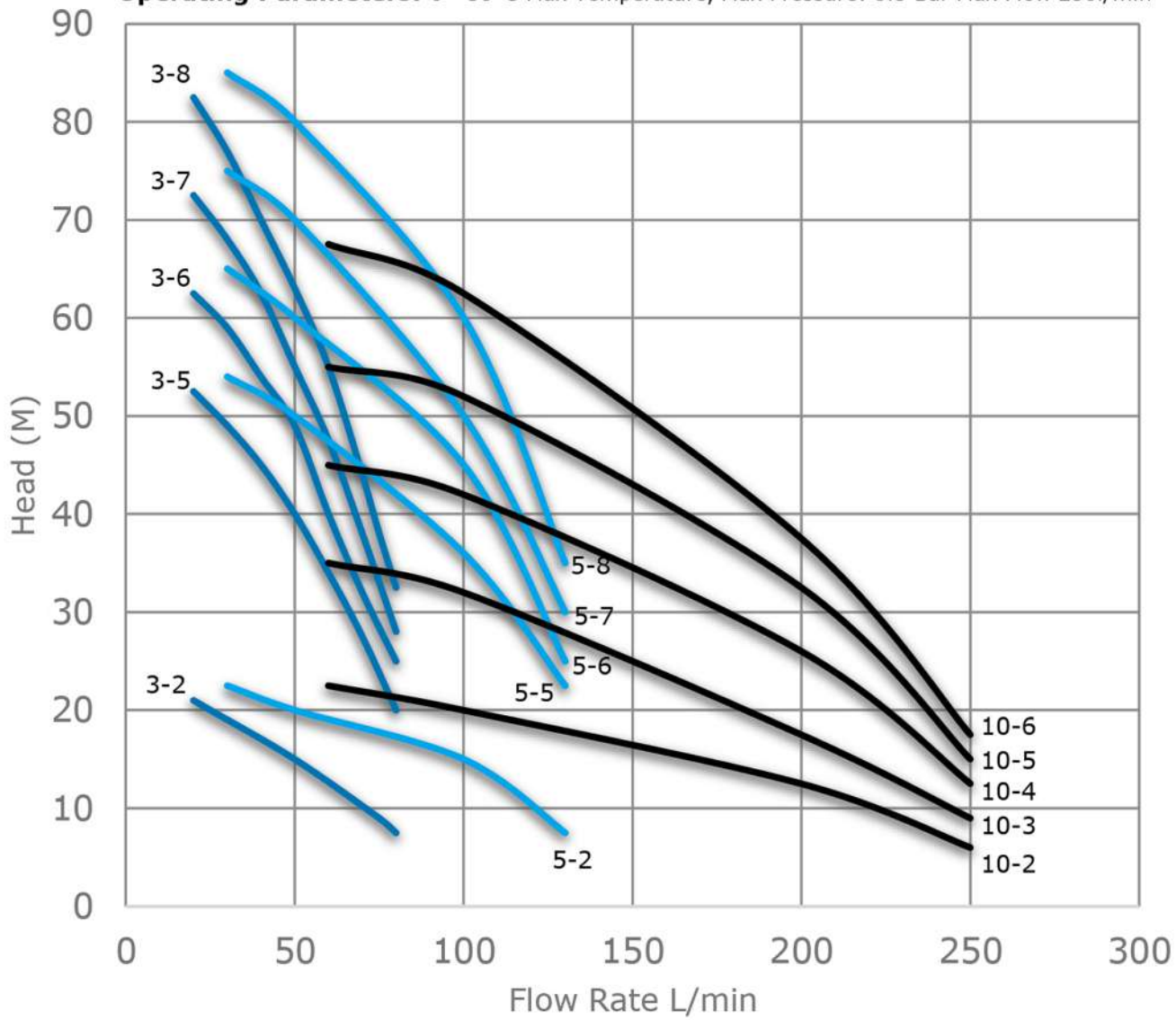


Model Ref	DN1	DN2	B	H	H1	L	M	Power Supply	kW	HP	FLC (amp)
3MX3-2RS	2½"	2"	900	920	130	608	540	1x240v	3x0.45	3x0.6	3x2.3
3MX3-5RS	2½"	2"	900	920	130	656	540	1x240v	3x0.75	3x1.0	3x3.0
3MX3-6RS	2½"	2"	900	920	130	680	540	1x240v	3x0.9	3x1.2	3x4.3
3MX3-7RS	2½"	2"	900	920	130	704	540	1x240v	3x1.3	3x1.8	3x5.6
3MX3-8RS	2½"	2"	900	920	130	728	540	1x240v	3x1.3	3x1.8	3x5.6
3MX5-2RS	2½"	2"	900	920	130	627	540	1x240v	3x0.45	3x0.6	3x2.3
3MX5-5RS	2½"	2"	900	920	130	689	540	1x240v	3x1.3	3x1.8	3x5.6
3MX5-6RS	2½"	2"	900	920	130	708	540	1x240v	3x1.3	3x1.8	3x5.6
3MX5-7RS	2½"	2"	900	920	130	722	540	1x240v	3x1.5	3x2.0	3x6.3
3MX5-8RS	2½"	2"	900	920	130	739	540	1x240v	3x2.2	3x3.0	3x8.2
3MX10-2RS	2½"	2"	900	920	130	676	540	1x240v	3x0.75	3x1.0	3x3.0
3MX10-3RS	2½"	2"	900	920	130	725	540	1x240v	3x1.3	3x1.8	3x5.6
3MX10-4RS	2½"	2"	900	920	130	760	540	1x240v	3x1.5	3x2.0	3x6.3
3MX10-5RS	2½"	2"	900	920	130	834	540	1x240v	3x2.2	3x3.0	3x8.2
3MX10-6RS	2½"	2"	900	920	130	858	540	1x240v	3x2.2	3x3.0	3x8.2

Single Vari-RS Booster Set

Pump Curve Data

Operating Parameters: 0 - 50°C Max Temperature, Max Pressure: 8.5 Bar Max Flow 250l/min



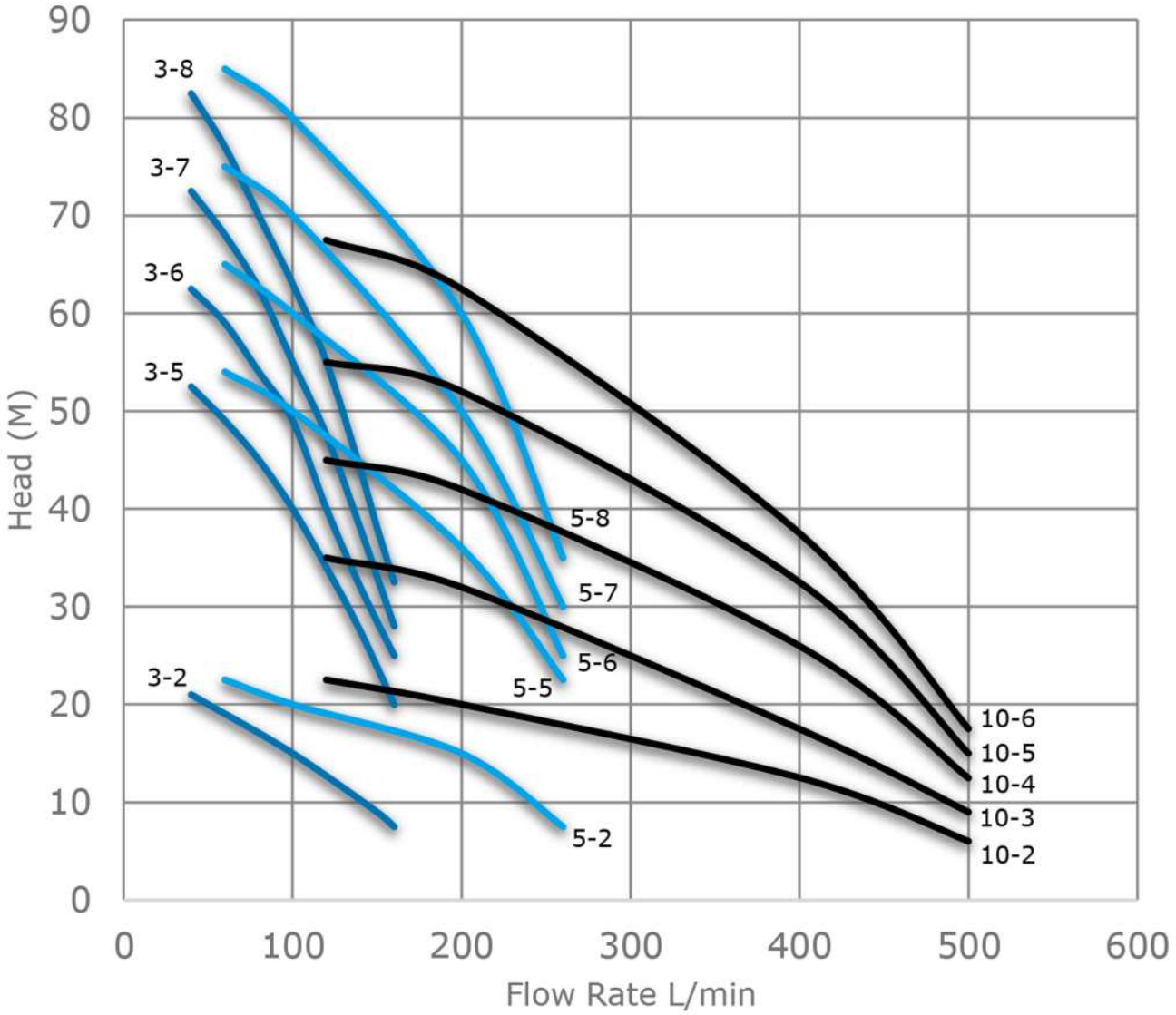
All systems set at mid curve efficiency during first activation on wet test using the RS variable speed inverter at closed valve up to max pressure. The performance curves are based on kinematic viscosity values = 1/mm2/s and density equivalent to 1000kg/m3.

Curve tolerance according to ISO9906, data extracted directly from Ebara data. Each pump operates within a 60-65dB noise rating at max speed, data recorded from 1m distance to a +- 2.5dB fluctuation.

Twin Vari-RS Booster Set

Pump Curve Data

Operating Parameters: 0 - 50°C Max Temperature, Max Pressure: 8.5 Bar Max Flow 500l/min



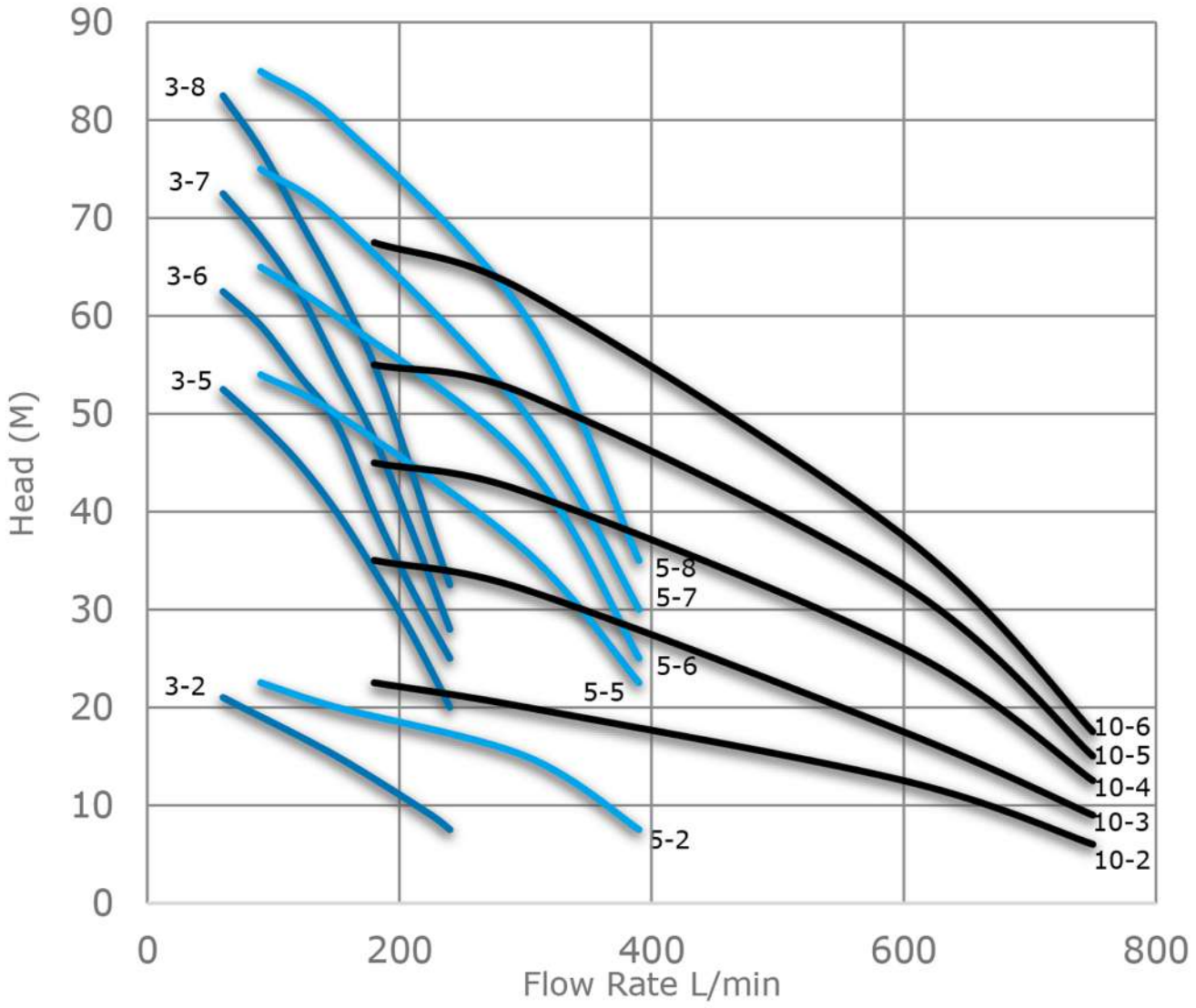
All systems set at mid curve efficiency during first activation on wet test using the RS variable speed inverter at closed valve up to max pressure. The performance curves are based on kinematic viscosity values = 1/mm2/s and density equivalent to 1000kg/m3.

Curve tolerance according to ISO9906, data extracted directly from Ebara data. Each pump operates within a 60-65dB noise rating at max speed, data recorded from 1m distance to a +- 2.5dB fluctuation.

Triple Vari-RS Booster Set

Pump Curve Data

Operating Parameters: 0 - 50°C Max Temperature, Max Pressure: 8.5 Bar Max Flow 750l/min



All systems set at mid curve efficiency during first activation on wet test using the RS variable speed inverter at closed valve up to max pressure. The performance curves are based on kinematic viscosity values = 1/mm2/s and density equivalent to 1000kg/m3.

Curve tolerance according to ISO9906, data extracted directly from Ebara data. Each pump operates within a 60-65dB noise rating at max speed, data recorded from 1m distance to a +- 2.5dB fluctuation.

Pump and Vessel

Technical Data

	Description	Values
Pump Data	Operating Range	0.5 m3/hr - 45m3/hr
	Pumped Liquid	Clean potable ground or mixed water
	Liquid Solids	Water must be free of solid and fibrous suspensions.
	Chemical Handling	No
	Weather Protection	Must be protected from weather and above freezing temperatures.
	Pumped Liquid Temperature Range	0 - 50°c
	Ambient Operating Temperature Range	-40°c max 1km above sea-level
	Maximum Operating Pressure	PN10 / 10 bar
Vessel data	Expansion Vessel	Included as standard
	Single Pump Set	1 x 8L
	Twin Pump Set	2 x 8L & AISI 304 stainless suction and discharge manifold
	Triple Pump Set	3 x 8L & AISI 304 stainless suction and discharge manifold

Pump Material

Technical Data

Pump Material Data	
Description	**Values**
Casing	EN 1.4301 (AISI 304)
Impeller	
Casing Cover	
Shaft Seal	Ceramic / Carbon / EPDM
Bracket	EN AB AISI 11CU2(FE) Die Cast Aluminium
Suction	G1" G1¼" G1½" G2" G2½" UNI ISO 228
Discharge	G1" G1¼" G1½" G2" G2½" UNI ISO 228

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