

RE

Energy Saving Circulation Pumps



**ErP
READY
2015**

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PRODUCTS

Construction

RE series is high efficiency, A-class pump for water circulation which has well designed features as compact structure, energy saving variable speed pump driven by permanent magnet synchronous motor controlled by on board inverter.

Application

- Heating systems (constant and/or variable flow)
- Air-conditioning system
- Industrial circulation system
- Domestic hot water and drinking water supply system
- Floor heating system

Operating Conditions

Liquid temperature from +2 °C to +110 °C
 Ambient temperature from 0 °C to +40 °C
 Maximum system pressure ≤ 10 bar
 Storage: -20 °C / + 70 °C max. relative humidity 95% at 40 °C
 Certifications in conformity with CE requirements
 Sound pressure ≤ 43 dB(A)
 Minimum suction pressure: 0,05 bar < 85 °C
 1 bar at 110 °C
 Maximum glycol quantity: 40%
 EMC according to: EN 55014-1, EN 55014-2 and EN 61000-3-2,
 EN61000-3-3
 Connections: threaded parts ISO 228: G11/2"
 Circulator pump can consume low the power, with the EEI ≤ 0,23
 The benchmark for most efficient circulators is EEI ≤ 0,20

Motor

Synchronous motor with permanent magnet
 Motor: variable speed
 Standard voltage: single phase 230V (+6%, -10%)
 Frequency: 50-60 Hz
 Protection: IP42
 Insulation Class: H
 Class II appliance
 Cable: phases and neutral and earth
 Constructed in accordance with: EN 60335-1, EN 60335-2-51

Materials

Pump Casing	Cast iron
Impeller	Composite
Shaft	Ceramic
Bearings	Carbon
Thrust Bearing	Ceramic
Rotor	Composite
Winding	Copper wire
Gasket	EPDM

Designation



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Operating Modes / Structural Design of Pump Control



Factory settings= AUTO (autoadaptation mode)
Recommended and available settings of pump

Position	System type	Settings of electric pump	
		Optimal settings	Or other optional settings
A	Floor heating system	AUTO	HD1/HD2
B	Dual pipeline heating system	AUTO	BL1/BL2
C	Single pipeline heating system	BL1	BL1/BL2

No.	Explanation
1	Electric pump automatic gearshift display (AUTO)
2	Electric pump gear shifting button
3	Electric pump proportion gear display (BL1/BL2)
4	Electric pump night mode button and display
5	Electric pump constant voltage gear display (HDI/HD2)
6	Electric pump power display
7	Electric pump constant speed display (HS1/HS2/HS3)

- AUTO (autoadaptation) mode shall adjust the pump performance automatically according to the actual heat demand of system. Since performance is adjusted gradually, it is recommended that leave it in the AUTO (autoadaptation) mode for at least a week before changing the settings of pump.
- If you choose to change back to AUTO (autoadaptation) mode, RE series pump can remember the set points of its previous AUTO mode and continue to adjust the performance automatically.
- Pump settings change from optimal settings to other optional settings

Heating system is a slow system, it is impossible to achieve optimal operation mode within several minutes or hours. If the optimal settings of pump fail to achieve ideal heat distribution for each room, you should change the pump settings to other settings.

During the operation of pump, control it according to "proportional pressure control" (BL) principle or "constant pressure control" (HD) principle.

In these two control modes, the performance of pump and corresponding power consumption should be adjusted according to the heat demand of system.

Constant pressure control

In this control mode, the pressure difference on both ends of the electric pump remains constant, having nothing to do with flow. In **Q/H** figure, constant pressure curve is a level performance curve, represented by HD1/HD2 (Section 11.3).

RE series circulating pump has 9 kinds of settings, which can be selected by buttons.

The setting of electric pump is indicated by the light lit of 9 locations:

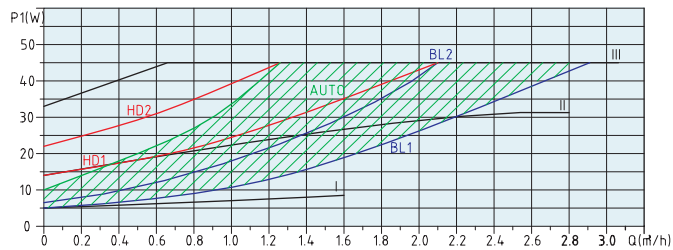
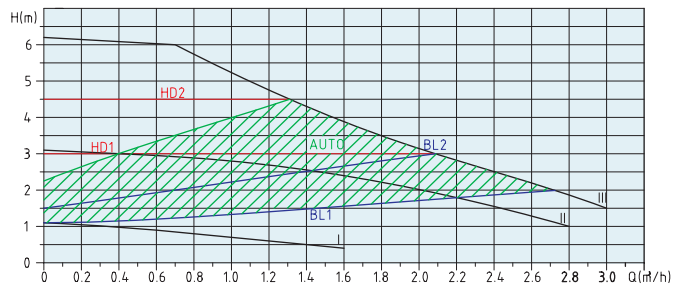
Key position	Number of times of key	Fixed light area	Explanation
2	0	AUTO	Auto adaptation
	1, 2	BL1/BL2	Proportional pressure curve
	3, 4	HD1/HD2	Constant pressure curve
	5, 6, 7	HS1/HS2/HS3	Constant speed curve
4	Switch on/off	Night mode	Night mode curve

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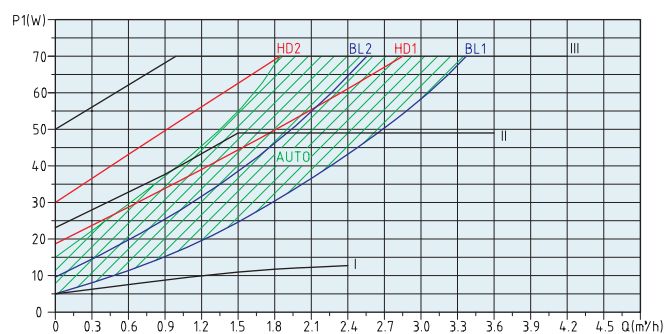
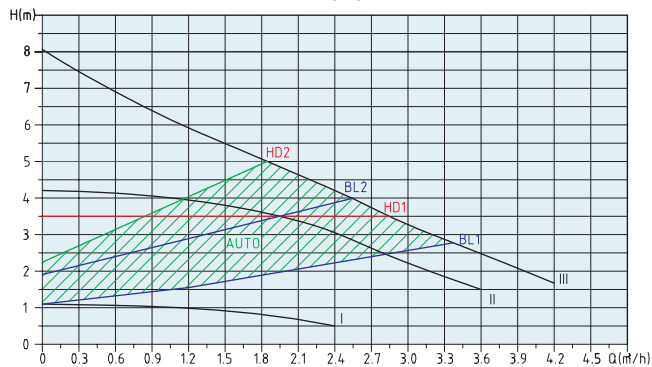
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Characteristic Curves

RE 25-6



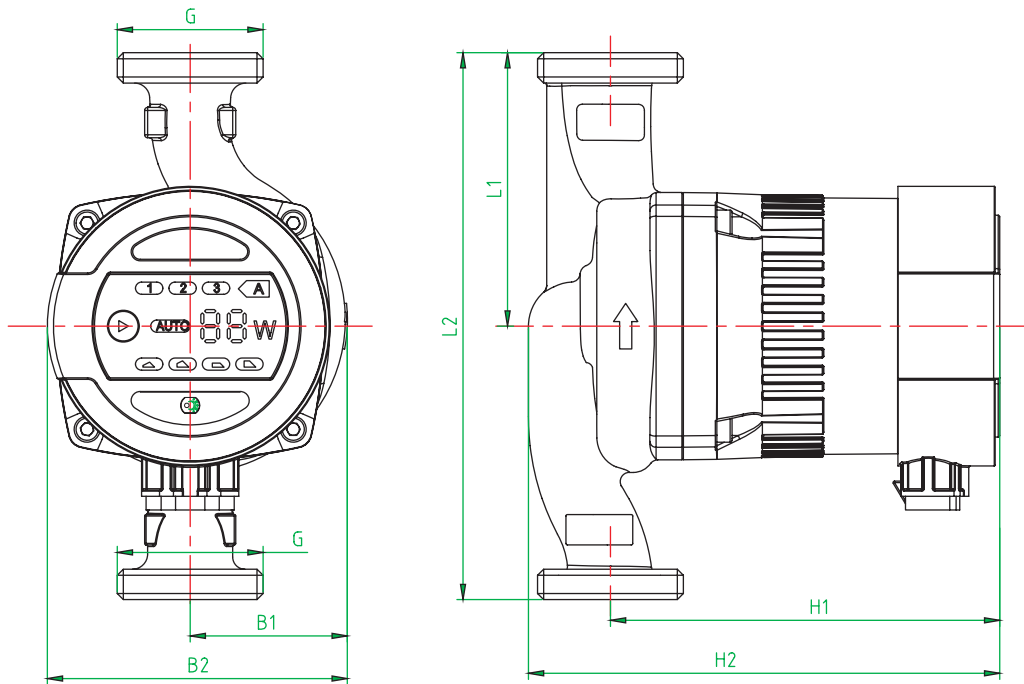
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Overall Dimensions



Model	Max. Flow (m ³ /h)	Max. Head (m)	Current (A)	Dimension (mm)							Wt. (kg)	
				L1	L2	B1	B2	H1	H2	G	G.W.	N.W.
RE 25-6/180	3.2	6	0.05-0.38	65	130	82	130	103	130	1½"	2.9	2.1
				75	150	82	130	103	130		3.1	2.3
				90	180	82	130	103	130		3.2	2.4
RE 25-8/180	3.2	6	0.05-0.38	65	130	82	130	103	130	1½"	2.9	2.1
				75	150	82	130	103	130		3.1	2.3
				90	180	82	130	103	130		3.2	2.4