

# Lowara circulators – an A-to-Z

A guide to ITT's range for a comfortable and economic indoor climate











# The right pumps for comfort - and the wallet

It should be possible to enjoy a comfortable indoor climate during cold winter nights or boiling hot summer days, but without noticing it when the electricity bill arrives. It is important therefore to have circulators that are up to the job, and save energy at the same time.

The choice of pump is based on the head in the system, the flow to be generated and in some cases the type of fluid to be circulated.

With the right pumps, neither the head nor the volumes to be circulated matter. This brochure provides you with all the information you need about Lowara's range in order to choose the right pump.

If you own or manage properties, it is not just a matter of creating a comfortable indoor climate – it also has to be economical.



# A-class, cost-saving energy labelling

The EU's energy labelling system has been helping consumers for years to buy home appliances that cost less to run. Since 2005 there has also been a similar energy-labelling system for circulators, and it has now started to gain recognition in the market. An A-class circulator can help you save up to 80% of your energy costs compared with an average class D pump.

Since the cost of energy is by far the greatest cost component during a circulator's life cycle, A-classification provides in most cases a radically reduced overall cost. And by saving energy, you are also helping to save the environment.



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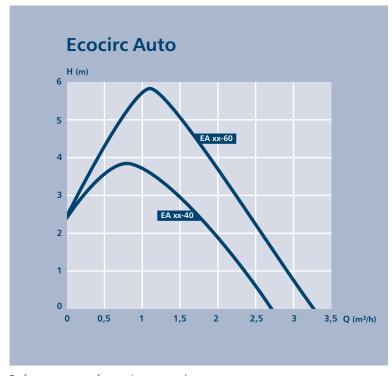




Lowara Ecocirc Auto is one of our new A-class circulators for heating buildings with large variations in flow requirements (e.g. radiator systems with thermostatic valves). Automatic speed control means that the pump operates with a minimal energy consumption without compromising on comfort. Compared with older conventional fixed-speed pumps, energy savings of up to 80 % can be achieved.

Lowara

Your Ecocirc pump is an investment that becomes more profitable the longer it is in use.





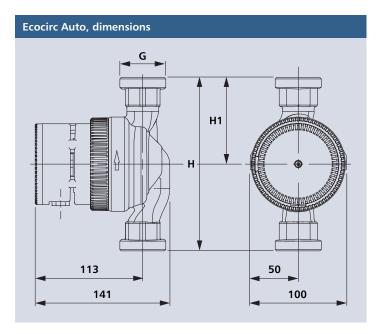
# **INNOVATIVE SPHERICAL MOTOR DESIGN**

The new, innovative Lowara Ecocirc Auto pumps are very simply designed with a minimum of moving parts. This makes them extremely reliable, meaning that you save on maintenance costs.

The ceramic bearing ball with its minimal contact surface develops a very low torque when starting up. It also makes the motor blockage-free and it starts smoothly even after long idle periods.

The pump's high efficiency is achieved as a result of its permanent magnet motor, which is electronically commutated (ECM). A microprocessor generates and controls a rotating magnetic field of varying frequency in the stator winding, which causes the rotor with its permanent magnets to rotate. Compared with an ordinary asynchronous motor, this consumes much less energy.





# **ACCESSORIES**

# Screwed union

## Steel

DN 15 for 1/2" pipes DN 20 for 3/4" pipes DN 25 for 1" pipes DN 32 for 1 1/4" pipes

## Brass

DN 15 for 1/2" pipes DN 20 for 3/4" pipes DN 25 for 1" pipes DN 32 for 1 1/4" pipes

Pipes			Energy class	Rated current*	Thread (see diagram)	in r	Dimensions in mm (see diagram)	
<u>=</u>	Pump type	Power	声号	1~, 230 V	G	Н	H1	Weight
DN 15	EA 15-4/130	9-35 W	А	0,28 A	ISO G 1" A	130	65	2,8 kg
DN 🔀	EA 15-6/130	9-63 W	А	0,43 A				
DN 20	EA 20-4/130	9-35 W	А	0,28 A	ISO G 1 <sup>1</sup> / <sub>4</sub> " A	130	65	2,8 kg
NO %	EA 20-6/130	9-63 W	А	0,43 A				
=	EA 25-4/130	9-35 W	А	0,28 A	ISO G 1 <sup>1</sup> / <sub>2</sub> " A	130	65	2,8 kg
25 1"	EA 25-4/180	9-35 W	А			180	90	
DN	EA 25-6/130	9-63 W	Α	0,43 A		130	65	
_	EA 25-6/180	9-63 W	А			180	90	
DN 32	EA 32-4/180	9-35 W	А	0,28 A	ISO G 2" A	180	90	2,8 kg
DN _	EA 32-6/180	9-63 W	А	0,43 A				

<sup>\*</sup> At maximum speed.





# Lowara Ecocirc Vario

# Cost-effective variablespeed circulator

The Lowara Ecocirc Vario is ideally suited for use in heating systems with only a small flow variation, e.g. in older properties with shunting. Its stepless variable speed adjustment allows the optimum speed to be set for the system, thus allowing noticeable savings to be achieved compared to fixed-speed pumps. The Lowara Ecocirc Vario is the cost-effective alternative for a comfortable indoor climate. Just like the Lowara Ecocirc Auto, it has an innovative spherical motor design, which gives the pump a longer life and allows for simpler maintenance (see page 5).



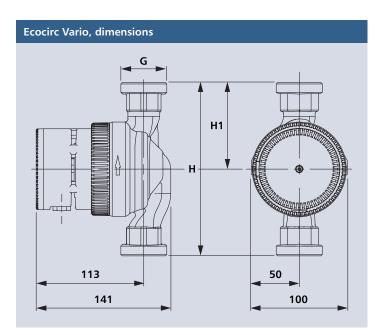
Performance curve for maximum speed. xx = Pipe diameter; DN 15, DN 20, DN 25 or DN 32.





# **Heating for people**

There are a lot of ways to maintain a comfortable indoor climate in a building. However, what all heating systems have in common is that they have to be able to compensate for heat losses, while avoiding so much overcapacity that the heat is wasted. It is important therefore to select a circulator that can transport just the right amount of heat – no more and no less.



# **ACCESSORIES**

# Screwed union

## Steel

DN 15 for 1/2" pipes DN 20 for 3/4" pipes DN 25 for 1" pipes DN 32 for 1 1/4" pipes

# Brass

DN 15 for 1/2" pipes DN 20 for 3/4" pipes DN 25 for 1" pipes DN 32 for 1 1/4" pipes

Pipes	Pump type	Power	Energy class	Rated current* 1~, 230 V	Thread (see diagram) G	Dimensions in mm (see diagram) H H1		Weight
15	EV 15-4/130	9-35 W	А	0,28 A	ISO G <sup>3</sup> / <sub>4</sub> " A	130	65	2.8 kg
DN 15	EV 15-6/130	9-63 W	В	0,43 A				
20	EV 20-4/130	9-35 W	А	0,28 A	ISO G 1" A	130	65	2.8 kg
DN 20	EV 20-6/130	9-63 W	В	0,43 A				
_	EV 25-4/130	9-35 W	А	0,28 A	ISO G <sup>1</sup> / <sub>4</sub> " A	130	65	2.8 kg
25 1"	EV 25-4/180	9-35 W	А	0,28 A		180	90	
DN	EV 25-6/130	9-63 W	В	0,43 A		130	65	
_	EV 25-6/180	9-63 W	В	0,43 A		180	90	
DN 32	EV 32-4/180	9-35 W	А	0,28 A	ISO G <sup>1</sup> / <sub>2</sub> " A	180	90	2.8 kg
DN _	EV 32-6/180	9-63 W	В	0,43 A				

<sup>\*</sup> At maximum speed.



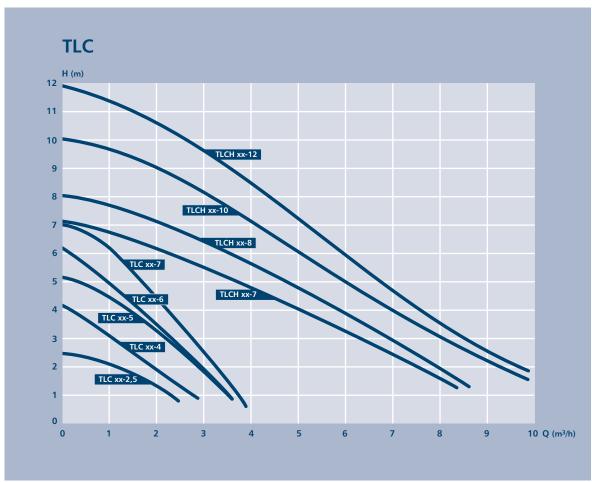


# Lowara TLC

# Traditional circulators for most types of building

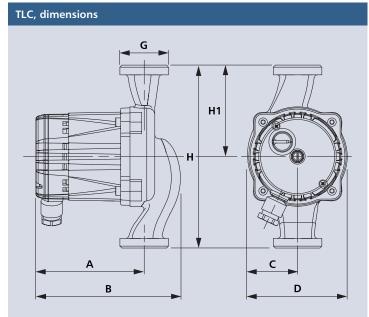
The Lowara TLC pumps have long formed the bulk of our range of circulators. The reason for this is their reliability, their low energy consumption, the fact that they represent good value for money and they can be used in most circulation systems for heating or cooling. The pump has a three-stage manual speed control and it can be fitted to either horizontal or vertical pipes.





Performance curve for maximum speed. xx = Pipe diameter; DN 15, DN 20, DN 25 or DN 32.





# **ACCESSORIES**

# Screwed union

**Steel**DN 15 for 1/2" pipes
DN 25 for 1" pipes
DN 32 for 1 1/4" pipes

Brass
DN 25 for 1" pipes and 22 mm and 28 mm copper pipes
DN 32 for 11/4" pipes

											_	
S		er*	93	Rated	Thread				ns in agrar			
Pipes	Pump type	Power*	Energy class	current* 1~, 230 V	(see diagram) G	Α	В	С	D	,   н	H1	Weight
	TLC 15-2.5	35 W	В	0,15 A	ISO G 1" A		148	49	98	130	65	2,6 kg
1/2"	TLC 15-2.5	44 W	В		130 G 1 A	110	140	49	90	130	05	2,6 kg
	TLC 15-4	77 W	С	0,19 A								
DN 15	TLC 15-5	80 W	C	0,34 A 0,34 A								
Δ		89 W	D	0,34 A 0,39 A	ISO C 1 1/ " A							
	TLC 15-7		D									
	TLC 25-2.5L	35 W	В	0,15 A	ISO G 1 <sup>1</sup> / <sub>2</sub> " A	110	148	49	98	180	90	2,7 kg
	TLC 25-4	44 W	В	0,19 A						130	65	
	TLC 25-4L									180	90	
	TLC 25-5	77 W	C	0,34 A						130	65	
=	TLC 25-5L									180	90	
. 52	TLC 25-6	80 W	C	0,34 A						130	65	
DN 25	TLC 25-6L									180	90	
	TLC 25-7L	89 W	D	0,39 A								
	TLCH 25-7L	260 W	Е	1,12 A		168	208	73	137			6,5 kg
	TLCH 25-8L	286 W	Е	1,04 A								
	TLCH 25-10L	357 W	D	0,96 A								
	TLCH 25-12L	400 W	Е	1,07 A								
	TLC 32-2.5L	35 W	В	0,15 A	ISO G 2" A	110	148	49	98	180	90	2,8 kg
	TLC 32-4L	44 W	В	0,19 A								
	TLC 32-5L	77 W	C	0,34 A								
32 1 1/4"	TLC 32-6L	80 W	C	0,34 A								
22 1	TLC 32-7L	89 W	D	0,39 A								
DN	TLCH 32-7L	260 W	Е	1,12 A		168	208	73	137			6,6 kg
_	TLCH 32-8L	286 W	Е	1,04 A								
	TLCH 32-10L	357 W	D	0,96 A								
	TLCH 32-12L	400 W	Е	1,07 A								

<sup>\*</sup> At maximum speed.



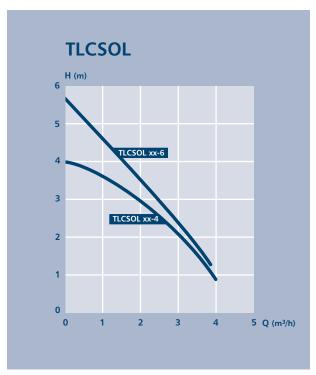




# Lowara TLCSOL

# For systems running on solar panels

Lowara TLCSOL is specially suited for solar panel systems. Compared with conventional heating systems, the temperature of the liquid in solar panel systems is higher and more variable – and it often contains a small proportion of glycol. Lowara TLCSOL is able to cope with liquid temperatures ranging from -10 °C to +110 °C (with peaks up to +130 °C). The motor is also insulated against condensation, which can otherwise be a considerable problem in this area of application.



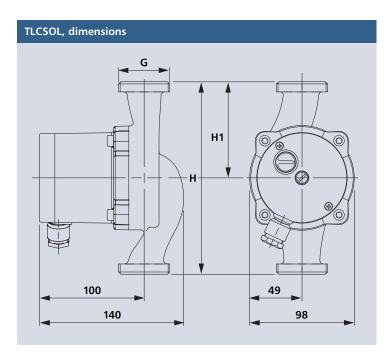
Performance curve for maximum speed. xx = Pipe diameter; DN 15 or DN 25.





# Heat from solar energy

Heating systems running on solar panels are water-based and require a circulator that can handle considerable temperature variations, since part of the circuit is located outdoors. Normally, solar panels are placed on the roof and the water contains some glycol or similar in order to prevent frost damage during the winter. The glycol slightly increases the density and viscosity of the water, thus placing particular demands on the pump.



# **ACCESSORIES**

Screwed union Steel DN 25 for 1" pipes Brass DN 25 for 1" pipes

Pipes	Pump type	Power*	Rated current* 1~, 230 V	Thread (see diagram) G	Dimer in r (see dia H	nm	Weight
DN 15	TLCSOL 15-4	70 W	0,33 A	ISO G 1" A	130	65	3 kg
DN /	TLCSOL 15-6	100 W	0,44 A				
25	TLCSOL 25-4L	70 W	0,33 A	ISO G 1 <sup>1</sup> / <sub>2</sub> " A	180	90	3 kg
DN 25	TLCSOL 25-6L	100 W	0,44 A				

<sup>\*</sup> At maximum speed.



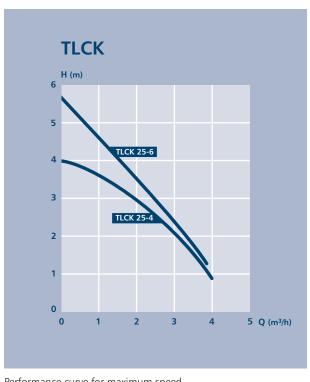




# **Lowara TLCK**

# For a wide range of cooling systems

For most types of cooling systems requiring fluid circulation, Lowara TLCK is both a costeffective and reliable option. Whether these are systems for air-conditioning or cooling, or geothermal systems, the Lowara TLCK keeps them running. Thanks to the condensationinsulated motor among other things, the pump is able to circulate fluids that are as cold as -25°C and with a glycol content as high as 50%.



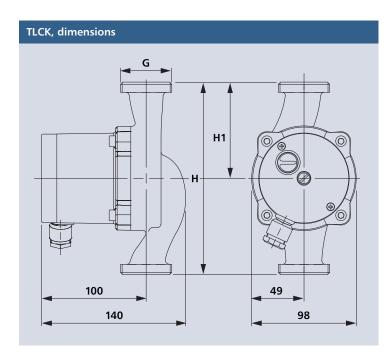
Performance curve for maximum speed.





# **Coolness for comfort**

The way a cooling system is designed depends largely on the type of fluid you intend to use in the system, the most commonly used being a mixture of water and glycol. Different fluids have different densities and also cause different friction losses in the pipes, so you should bear in mind the fluid you intend to use when choosing a circulator.



# **ACCESSORIES**

Screwed union Steel DN 25 for 1" pipes Brass

DN 25 for 1" pipes

Pipes	Pump type	Power*	Rated current* 1~, 230 V	Thread (see diagram) G	in r	Dimensions in mm (see diagram) H H1	
25	TLCK 25-4L	70 W	0,33 A	ISO G 1 <sup>1</sup> / <sub>2</sub> " A	180	90	3 kg
NO _	TLCK 25-6L	100 W	0,44 A				

<sup>\*</sup> At maximum speed.





# Lowara Ecocirc Bronze

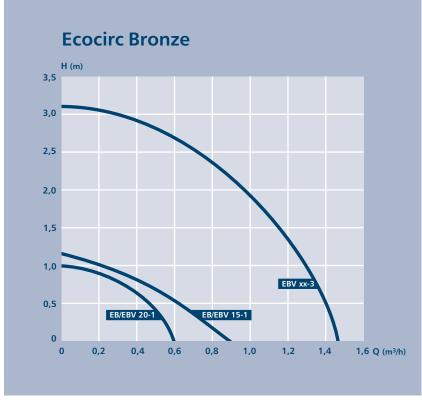
# The low-energy way of pumping domestic hot water

The Lowara Ecocirc Bronze is a highly efficient circulator for domestic hot water which ensures the user never has to shower in cold water. Thanks to the innovative spherical motor and the stepless variable speed setting, the pump only uses 2–8 W compared with 25 W for standard pumps. You can expect significantly reduced energy costs when you change to the Ecocirc Bronze.

Choose the EBV model with manually adjustable speed for minimum energy consumption. Available with or without a timer (switches off the pump when there is no need for hot water).

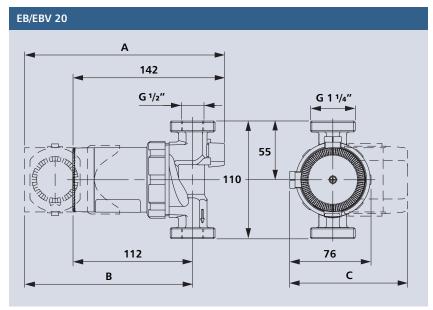
Or select the EB model with fixed speed and temperature sensor (switches off the pump when the water is hot enough – adjustable  $20-70^\circ$ ). Available with or without a timer.

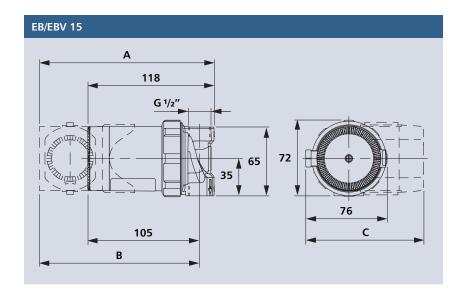




Performance curve for maximum speed. xx = Pipe diameter; DN 15 or DN 20.







Pipes	Pump type	Power	Rated current* 1~, 230 V		nsions i e diagra B		Weight
	EBV 15-1/65	2–8 W	0,10 A	_	_	_	0,7 kg
/2"	EBV 15-1/65R			163	150	110	, 3
15 1/2"	EBV 15-1/65U			-	_	-	0,8 kg
DN	EBV 15-1/65RU			163	150	110	
	EBV 15-3/65	3-28 W	0,20 A	-	-	-	0,9 kg
	EBV 20-1/110*	2-7 W	0,10 A	-	-	-	1,1 kg
1/2" 3/4"	EB 20-1/110R*			187	157	110	
15 ½	EBV 20-1/110U*			-	-	-	1,2 kg
N N	EB 20-1/110RU*			187	157	110	
	EBV 20-3/110*	3-28 W	0,20 A	-	-	-	1,3 kg

<sup>\*</sup> With integrated non-return and shut-off valve



# Every shower is a hot shower

The most important function provided by a domestic hot water system is quite simply to ensure there is always hot water coming from the tap. Another important function is to keep the water circulating in order to prevent harmful microorganisms, for example legionnella, becoming established in the system. Good circulators therefore do not just keep the water luxuriously hot, but they also make sure it stays clean!

**R** = pump with temperature sensor

**U** = pump with timer

**RU** = pump with both temperature sensor and timer

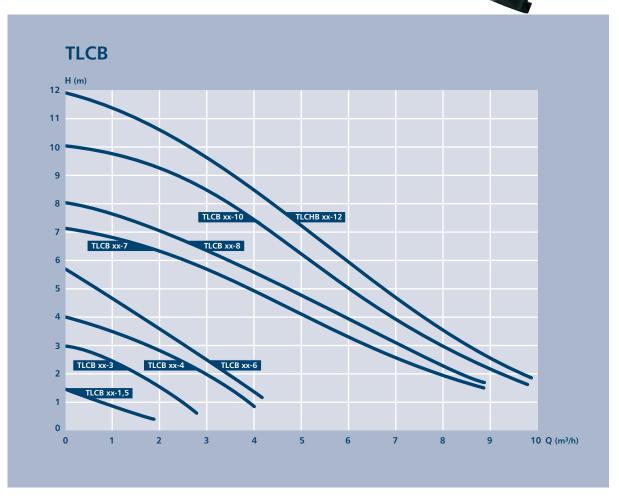


# FOR DOMESTIC HOT WATER SYSTEMS

# Lowara TLCB

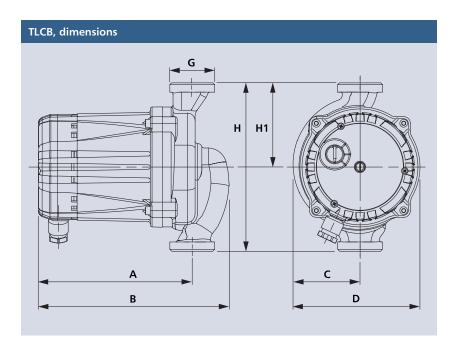
# Reliable bronze pumps for domestic hot water systems

The Lowara TLCB ensures a reliable and energyefficient supply of hot tap water, as soon as you open the tap. The speed is manually adjustable, so you get the right circulation with the lowest possible energy consumption, and without the noisy pipes normally caused by high flow rates. The pump housing is made of bronze to prevent corrosion.



Performance curve for maximum speed. xx = Pipe diameter; DN 15, DN 20 or DN 25.





# **ACCESSORIES**

# Screwed union

Steel
DN 15 for 1/2" pipes
DN 20 for 3/4" pipes
DN 25 for 1" pipes

Brass DN 15 for 1/2" pipes DN 20 for 3/4" pipes DN 25 for 1" pipes

es		Power*	Rated current*	Thread		Dime		ns in agran			
Pipes	Pump type	Pov	1~, 230 V	(see diagram) G	Α	В	С	D	н	Н1	Weight
٤	TLCB 15-1.5	58 W	0,28 A	ISO G 1" A	110	148	49	98	130	65	2,9 kg
DN 15 1/2"	TLCB 15-3	63 W	0,30 A								
N N	TLCB 15-4	70 W	0,33 A								
	TLCB 15-6	100 W	0,44 A								
	TLCB 20-1.5M	58 W	0,28 A	ISO G 1 <sup>1</sup> / <sub>4</sub> " A	110	148	49	98	150	75	3 kg
	TLCB 20-3M	63 W	0,30 A								
= .	TLCB 20-4M	70 W	0,33 A								
DN 20 3/4"	TLCB 20-6M	100 W	0,44 A								
N 2	TLCHB 20-7L	260 W	1,13 A		168	208	73	137	180	90	6,7 kg
	TLCHB 20-8L	286 W	1,25 A								
	TLCHB 20-10L	357 W	1,56 A								
	TLCHB 20-12L	400 W	1,73 A								
	TLCB 25-1.5	58 W	0,28 A	ISO G 1 <sup>1</sup> / <sub>2</sub> " A	110	148	49	98	150	75	3 kg
	TLCB 25-3	63 W	0,30 A								
	TLCB 25-4	70 W	0,33 A								
-	TLCB 25-4L	70 W	0,33 A						180	90	3,1 kg
1 25	TLCB 25-6L	100 W	0,44 A								
DN	TLCHB 25-7L	260 W	1,13 A		168	208	73	137	180	90	6,7 kg
	TLCHB 25-8L	286 W	1,25 A								
	TLCHB 25-10L	357 W	1,56 A								
	TLCHB 25-12L	400 W	1,73 A								

<sup>\*</sup> At maximum speed.



## **GUIDES**

# **Pump selection guide**

When selecting a pump, you should start by determining the flow and the head. Pipe dimensions, pipe length and the number of radiators are important factors when calculating the head.

A good rule-of-thumb then is to find a pump where the duty point you are looking for is within 10 % either side of the best efficiency point of the pump. If you select a pump with insufficient capacity, you risk getting a too small flow and poor heating/cooling/water supply. If you select a too big pump you will be paying for more energy than you will be benefiting from.

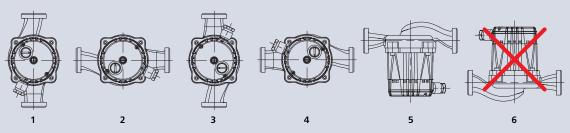
You can read more about this in our brochure *Pumps and pipes in theory and in practice*. A simple way of finding the right pump is to use ITT's pump selection program, an easy-to-use piece of software in which you just enter your specifications and the software suggests a pump.

If you are choosing pumps for a fairly small system, you should find the pump selection tables given here perfectly adequate. Just keep to the stated rules-of-thumb, and start with the size of the building and the distance to the uppermost tap, and you cannot go wrong.

# **Installation locations**

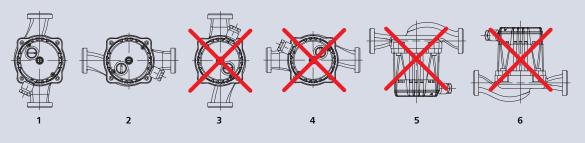
## Lowara Ecocirc Auto / Ecocirc Vario / Ecocirc Bronze

The circulatior can be installed in the manner shown in Illustrations 1 to 5. The pump should never be installed with the motor facing up, as shown in illustration 6.



## Lowara TLC / TLCSOL / TLCK / TLCB

The circulator should always be installed with its motor shaft horizontal and with the cable fed in from below, as shown in Illustrations 1 and 2. The pump should never be installed in the manner shown in illustrations 3 to 6.





# Lowara pumps used in circulation systems

		EA	EV	EBV	TLC	TLCK	TLCSOL	TLCB
Heating systems	Standard pump							
	Energy-saving pump							
Cooling systems	Standard pump							
	Energy-saving pump							
Solar panel systems	Standard pump							
	Energy-saving pump							
Domestic hot water	Standard pump							
systems	Energy-saving pump							

Most suitablesuitable

# Lowara pumps used in domestic buildings

For buildings up to a certain size, we recommend using the following pumps:

		Radiator system	Under floor heating system			
Area to be heated	Standard pump	Energy saving pump	Automatic energy saving pump	Standard pump	Energy saving pump	
$-30 \text{ m}^2$	_	Lowara EBV xx-3	-	_	Lowara EBV xx-3	
30-120 m <sup>2</sup>	Lowara TLC xx-4	Lowara EV xx-4	Lowara EA xx-40	Lowara TLC xx-4	Lowara EV xx-4	
120-200 m <sup>2</sup>	Lowara TLC xx-4	Lowara EV xx-4	Lowara EA xx-40	Lowara TLC xx-6	Lowara EV xx-6	
200-250 m <sup>2</sup>	Lowara TLC xx-6	Lowara EV xx-6	Lowara EA xx-60	Lowara TLCH xx-7	-	

Larger buildings contain more complex systems and careful analysis is required to determine the best pump solution. Feel free to contact ITT if you need any help.

# Lowara pumps for domestic hot water systems

The pipe dimension and the distance to the furthest tap point are of decisive importance when selecting a circulator for a domestic hot water system.

	The greatest distance to the furthest tap point with:						
Pipes	EBV 15-1/65	EBV 20-1/110	EBV 15-3/65	EBV 20-3/110			
Galv. steel pipe 1/2"	35	m	110 m				
Copper pipe 10 mm	20	m	55 m				
Copper pipe 12 mm	30	m	85	m			
Copper pipe 15 mm	40	m	110	) m			
Copper pipe 18 mm	50	m	160	) m			
Copper pipe 22 mm	50 m 160 m						
PEX pipe 15 mm	35	m	110 m				
PEX pipe 18 mm	50	m	160	) m			

The distance is for systems with one loop. For more complex systems and greater distances, a more careful analysis is required. Feel free to contact ITT if you need any help.



# **GUIDES**

# Replacement guide

Here is a guide for anyone who needs to know which pump in ITT's range corresponds to a specific pump in another manufacturer's range:

	Replacing	Port-to-	Choose Lo	wara	Port-to-	
ı	Wilo	port length (mm)	Standard	Energy saving	port length (mm)	Note
ı	Smart 25/4	130		EV 25-4/130	130	
ı	Smart 25/4	180		EV 25-4/180	180	
ı	Smart 25/6	130		EV 25-6/130	130	
ı	Smart 25/6	180		EV 25-6/180	180	
ı	Smart 30/4	180		EV 32-4/180	180	
ı	Smart 30/6	180		EV 32-6/180	180	
ı	Star-E 25/1-3	130		EV 25-4/130	130	
ı	Star-E 25/1-3	180		EV 25-4/180	180	
ı	Star-E 25/1-5	130		EV 25-6/130	130	
ı	Star-E 25/1-5	180		EV 25-6/180	180	
ı	Star-E 30/1-3	180		EV 32-4/180	180	
	Star-E 30/1-5	180		EV 32-6/180	180	
S	Star-RS 15/4	130	TLC 15-4		130	
MP	Star-RS 15/6	130	TLC 15-6		130	
HEATING PUMPS	Star-RS 25/4	130	TLC 25-4	EV 25-4/130	130	
Ĭ	Star-RS 25/4	180	TLC 25-4L	EV 25-4/180	180	
ĘĄ.	Star-RS 25/6	130	TLC 25-6	EV 25-6/130	130	
Ť,	Star-RS 25/6	180	TLC 25-6L	EV 25-6/180	180	
ı	Star-RS 25/7	180	TLC 25-7L		180	
ı	Star-RS 30/4	180	TLC 32-4L		180	
1	Star-RS 30/6	180	TLC 32-6L	EV 32-4/180	180	
ı	Star-RS 30/7	180	TLC 32-7L	EV 32-6/180	180	
ı	Star-ST 25/4	180	TLCSOL 25-4L		180	
1	Star-ST 25/6	180	TLCSOL 25-6L		180	
1	Stratos-ECO 25/1-3	130		EA 25-4/130	130	
1	Stratos-ECO 25/1-3	180		EA 25-4/180	180	
ı	Stratos-ECO 25/1-5	130		EA 25-6/130	130	
ı	Stratos-ECO 25/1-5	180		EA 25-6/180	180	
ı	Stratos-ECO 30/1-3	180		EA 32-4/180	180	
	Stratos-ECO 30/1-5	180	EA 32-6/180	EA 32-6/180	180	
S	Star Z 15	84		EBV 15-1/65	65	*
JM	Star-Z 15 A	138		EBV 15-1/110	110	*
R P	Star-Z 15 TT	138		EBV 15-1/110 RU	110	
ATE	Star-Z 20/4	150	TLC 20-4M		150	
<b>≯</b>	Star-Z 20/5	150	TLC 20-6M		150	
HOH	Star-Z 20/7	150	TLC 20-7M		150	
STIC	Star-Z 25/3	150	TLC 20-4M		150	
DOMESTIC HOT WATER PUMPS						
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## Notes:

<sup>\*</sup> Requires the pipe system to be re-built or an EBV 1/00 replacement drive unit.



	B 1 :	Port-to-	Choose Lo	NAVOKO	Port-to-	
	Replacing Grundfos	port length (mm)	Standard	Energy saving	port length (mm)	Note
HEATING PUMPS	Alpha2 25-40	130		EA 25-4/130	130	
	Alpha2 25-40	180		EA 25-4/180	180	
	Alpha2 25-60	130		EA 25-6/130	130	
	Alpha2 25-60	180		EA 25-6/180	180	
	Alpha2 32-40	180		EA 32-4/180	180	
	Alpha2 32-60	180		EA 32-6/180	180	
	Alpha+ 25-40	130		EA 25-4/130	130	
	Alpha+ 25-40	180		EA 25-4/180	180	
	Alpha+ 25-60	130		EA 25-6/130	130	
	Alpha+ 25-60	180		EA 25-6/180	180	
	Alpha+ 32-40	180		EA 32-4/180	180	
	Alpha+ 32-60	180		EA 32-6/180	180	
	UPS 25-25	180	TLC 25-2.5L		180	
	UPS 25-40	130	TLC 25-4	EV 25-4/130	130	
	UPS 25-40	180	TLC 25-4L	EV 25-4/180	180	
	UPS 25-40 K	180	TLCK 25-4L	, , , 30	180	
	UPS 25-50	130	TLC 25-5	EV 25-6	130	
	UPS 25-55	180	TLCH 25-7	2, 23 0	180	
	UPS 25-60	130	TLC 25-6	EV 25-6/130	130	
	UPS 25-60	180	TLC 25-6L	EV 25-6/180	180	
	UPS 25-60 K	180	TLCSOL 25-6L	2. 25 6, . 66	180	**
	UPS 25-80	180	TLCH 25-8L		180	
	UPS 32-30	180	TLC 32-2.5L	EV 32-4/180	180	
	UPS 32-40	180	TLC 32-4L	EV 32-4/180	180	
	UPS 32-50	180	TLC 32-5L	EV 32-6/180	180	
	UPS 32-60	180	TLC 32-6L	EV 32-6/180	180	
	UPS 32-80	180	TLCH 32-8L	21 32 3, 133	180	
	UPS 25-120	180	TLCH 25-10L		180	
	UPS 25-125	180	TLCH 25-12L		180	
	UPS Solar 25-40	180	TLCSOL 25-4L		180	
	UPS Solar 25-60	180	TLCSOL 25-6L		180	
			.100012001			
DOMESTIC HOT WATER PUMPS	UP 15-14 B	80		EBV 15-1/65	65	*
	UP 15-14 BU	80		EBV 15-1/65R	65	***
	UP 15-14 BT	80		EBV 15-1/65U	65	***
	UP 15-14 BUT	80		EBV 15-1/65RU	65	***
	UP 20-14 BX	110		EBV 20-1/110	110	*
	UP 20-14 BXU	110		EBV 20-1/110R	110	
	UP 20-14 BXT	110		EBV 20-1/110U	110	
	UP 20-14 BXUT	110		EBV 20-1/110RU	110	
	UP 20-07 N 150	150	TLCB 20-1.5M		150	****
	UP 20-15 N 150	150	TLCB 20-1.5M		150	****
	UP 20-30 N 150	150	TLCB 20-3M		150	****
	UP 20-45 N 150	150	TLCB 20-4M		150	****
	UPS 25-40 B	180	TLCB 25-4L		180	
	UPS 25-60 B 180	180	TLCB 25-6L		180	
	UPS 25-60 B 180	180	TLCB 25-8L		180	

# Notes:

- \* Requires the pipe system to be re-built or an EBV 1/00 replacement drive unit.
- \*\* The Lowara pump is single phase.
- \*\*\* Requires the pipe system to be re-built.
- \*\*\*\* The Lowara pump has a bronze pump housing.



# When you wish to circulate large quantities of fluid

In order to keep heating and cooling systems working in larger properties, it is important to choose circulators with sufficient capacity to distribute the heating or cooling effect throughout the system. Below is a brief presentation of our most important ranges of pumps for larger properties. You can find further details at www.lowara.com.

# Wet rotor circulators

Often the initial cost of a wet rotor circulator is lower than that of a dry motor in-line pump. Along with the relatively low purchase price, the major benefits are ease of operation, silent running and the fact that they are leakage-free.



# Lowara FLC / Lowara FLCT

A simple and robustly built circulator available in both single and twin head versions. Able to operate at temperatures from -15 °C to +120 °C.

Connections: DN 40-80 Power 128-2 537 W

Max Q: 80 m<sup>3</sup>/hr (twin head version 150 m<sup>3</sup>/hr)

Max H: 14 m



# Lowara EFLC / Lowara EFLCT

A simple and flexible circulator in energy class B, available in both single and twin head versions. You can set the pump to either fixed or automatic speed control.

Connections: DN 40-80 Power 25-1 080 W

Max Q: 35 m<sup>3</sup>/hr (twin head version 39 m<sup>3</sup>/hr)

Max H: 11 m



# Dry motor in-line pumps

For properties with large heating or cooling systems where it is difficult to keep the water clean, we recommend dry motor in-line pumps. They may have a higher purchase price than wet rotor circulators, but higher efficiency and operations reliability mean they are more cost-effective in the long term.

## Lowara FC / Lowara FCT

These pumps are available in single and twin head versions, with standard motors and motors with extended motor shafts.

Connections: DN 40-100 Power 0.37-22 kW

Max Q: 190 m<sup>3</sup>/hr (twin head version 360 m<sup>3</sup>/hr)

Max H: 89 m

# Lowara FCH / Lowara FCTH

For maximum energy-saving, the FCH/FCTH series is available in a design with an integral Lowara Hydrovar pump control unit that can be programmed for any operating condition. The solution is supplied complete with a frequency converter, a transmitter and a programmable control unit – no other components required.

The same performance as the FC/FCT.



# Lowara Hydrovar® pump control unit

The Lowara Hydrovar unit automatically controls the pump pressure in the property's heating system, so it's never too high or too low. This allows you to make savings not just on energy consumption (as much as 70 %) but also on reduced maintenance costs, since the pumps are prone to less wear. Savings are in many cases so great that the investment pays for itself in less than a year.

Shown here is the Lowara FCH package solution with a pump control unit. The Lowara Hydrovar unit can also be bought separately to upgrade older pumps.





ITT-Lowara (www.lowara.com), headquarters of "Residential and Commercial Water - EMEA" part of the ITT Corporation and located in Montecchio Maggiore, Vicenza - Italy, is a leading manufacturer of hydraulic pumps and water handling and control systems. It has 1.819 employees in Europe, 675 operating in Italy. In 2009 its consolidated sales totalled about 286 million €, or over 396 million \$. ITT Corporation is a high-technology engineering and manufacturing company operating on all seven continents in three vital markets: water and fluids management, global defense and security, and motion and flow control. With a heritage of innovation, ITT partners with its customers to deliver extraordinary solutions that create more livable environments, provide protection and safety and connect our world. Headquartered in White Plains, N.Y., the company generated 2009 revenue of \$10.9 billion.

# ITT RESIDENTIAL AND COMMERCIAL WATER DIVISION - EMEA

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