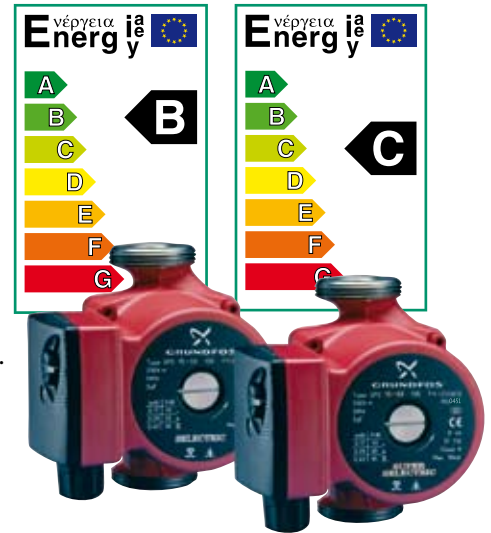


UPS 15-50 Selectric and UPS 15-60 Super Selectric circulators are designed to cater for the majority of domestic wet central heating systems up to 35kW.

The UPS 15-50 Selectric covers virtually all standard systems whilst the higher head UPS 15-60 can accommodate larger domestic systems and higher resistance circuits (eg microbore).

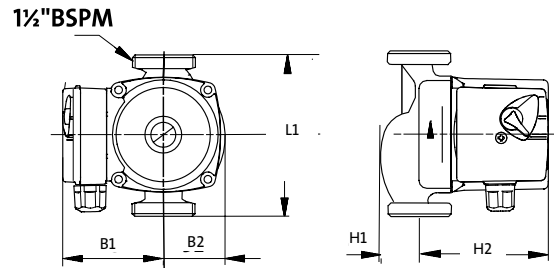
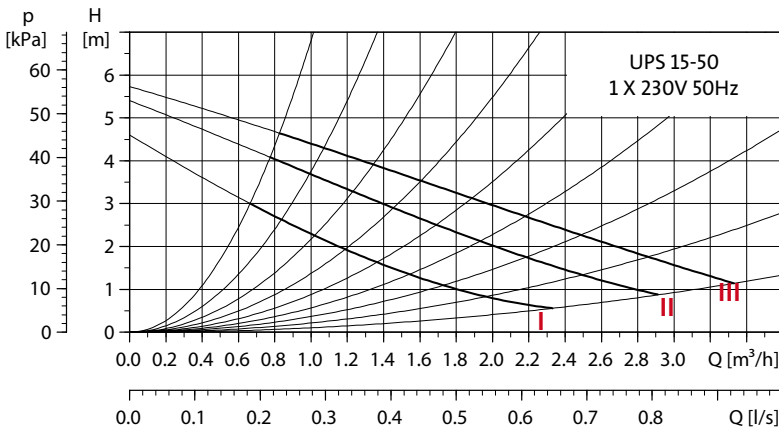
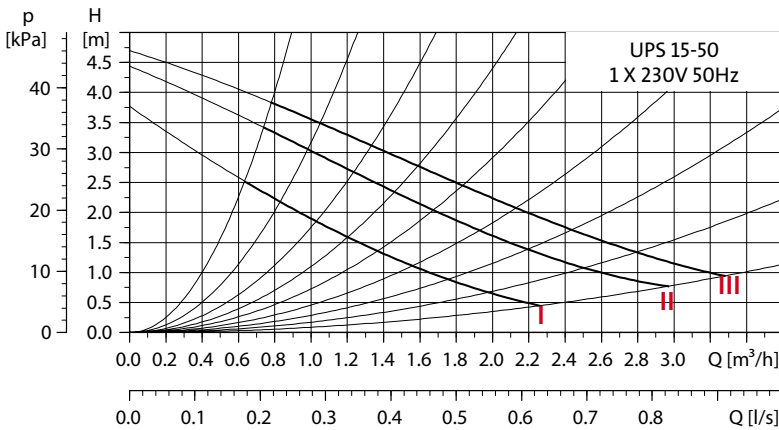
The pumps incorporate a new energy saving three speed motor for pump to system matching and consequent reduction of hydraulic noise.

The very highest quality pump components provide long life and maximum resistance to corrosion. Standard port to port dimensions make these pumps interchangeable when replacing the vast majority of old pumps.



FEATURES AND BENEFITS

- Cater for all domestic systems up to 35kW
- Compact size and standard port to port dimensions for easy fitting and for interchange with old pumps
- Three speed motor for energy efficiency and precise system matching
- Energy labelled products - 'B' rated UPS 15-50, 'C' rated UPS 15-60



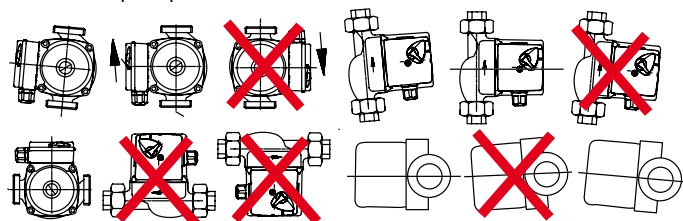
Dimensions					Weight kg	
L1	B1	B2	H1	H2	net	gross
130	75	51	32	102	2.5	2.7

PUMP	SPEED SET AT:	SPEED RPM	INPUT PI (W)	FLC (A)	LOCKED ROTOR CURRENT (A)
UPS 15-50	I	1700	35	0.16	0.20
	II	2100	45	0.20	0.25
	III	2300	50	0.23	0.30
UPS 15-60	I	1450	50	0.22	0.25
	II	1850	60	0.27	0.30
	III	2100	70	0.30	0.40

INSTALLATION

It is preferable to install Grundfos circulators in a vertical pipe pumping upwards. This position ensures that the pump shaft is horizontal, which reduces the thrust bearing load and ensures positive air purging from both the rotor chamber and impeller housing.

Pumping downwards in a vertical pipe is not recommended as this may lead to air locking of the pump, with resultant loss of performance. However, pumping downwards is acceptable provided an effective air vent is incorporated in the system, before the pump.



Where pumps can only be installed in horizontal pipework, it is imperative that the pump shaft is horizontal, or slightly higher at the vent plug end.

The shaft must not fall below the horizontal plane, even by a few degrees, as this causes premature wear of the top bearing and shaft.

Pumps should not be installed with the shaft in a vertical plane, as this may lead to dry running of the top bearing, noise and possible pump failure.

To avoid cavitation noise and risk of damage to the bearings the minimum pump inlet pressure should be 1.4m at 82°C (water temperature).

MAXIMUM PERMISSABLE OPERATING TEMPERATURES

System Water Temp °C	110	105	100	90	80
Ambient Temperature °C	40	40	40	40	40

MAXIMUM OPERATING CONDITIONS

Water Temperature Range: +15°C to 110°C.

To avoid condensation in the motor windings the pumped liquid temperature must always be higher than the ambient temperature.

Pressures up to 10 Bar (145 psig).

Maximum ambient temperature 40°C.

APPLICATIONS

The pumps may be used in heating systems containing glycol based anti-freeze with corrosion inhibitors up to a maximum of 50% solution but with a 15% performance reduction. However, if the liquid temperature remains lower than the ambient temperature during operation, condensation may form in the stator housing and, may short circuit the motor windings.

FLOW ADJUSTMENT

UPS15-50 -Selectric and UPS15-60 Super Selectric have a three speed selector switch on the terminal box. Please refer to performance curve to select duty required.

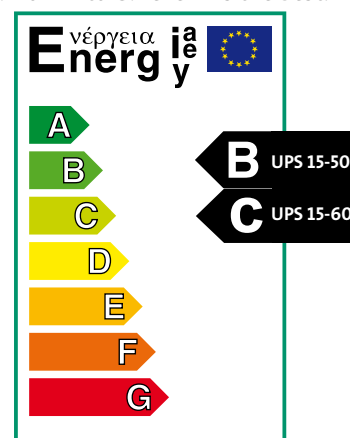
MATERIAL SPECIFICATION

Pump Housing	Cast Iron
Stator Housing	Aluminium
Rotor Can	Stainless Steel
Rotor Cladding	Stainless Steel
Air Vent Screw	Stainless Steel
Bearing Plate	Stainless Steel
Bearing	Ceramic/Carbon
Shaft	Ceramic
Storing	Composite
Impeller	Composite
Neckring	Stainless Steel
Terminal Box	Composite
Gaskets	EPDM Rubber

ENERGY LABELLING

Grundfos circulators are provided with an energy label which indicates the energy saving potential. The energy classification scheme has seven levels i.e. from A to G. Level A is the best.

The energy label can be used to compare pumps of the same type and size. ALPHA Pro and ALPHA+ are alternative circulators with A and B ratings respectively and have both fixed and variable speed adjustment.



BYPASS ARRANGEMENTS

PART L requires an Automatic Bypass Valve (ABV) to be fitted where the boiler manufacturer stipulates a minimum flow rate. Please ensure the ABV is correctly set for either fixed or variable speed operation, in accordance with manufacturers instructions.