

# UPS Solar

The UPS Solar pumps are of the canned rotor type, i.e. pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid.

The pumps are characterized by:

- Ceramic shaft and radial bearings.
- Carbon thrust bearing.
- Stainless steel rotor can and bearing plate.
- Impeller in corrosion-resistant material.
- Glycol resistant components.
- Pump housing in cataphoresis treated cast iron.

## Applications

UPS Solar pumps are suitable for circulation of water in residential solar thermal heating systems.

## Pumped liquids

UPS Solar pumps are designed for the following liquids:

- Thin, clean, non-aggressive and non-explosive liquids without solid particles or fibres.
- Cooling liquids, not containing mineral oil.
- Softened water.

The kinematic viscosity of water is 1 cSt (1 mm<sup>2</sup>/s) at 20°C. If the circulator pump is used for a liquid with a higher viscosity, the hydraulic performance of the pump will be reduced.

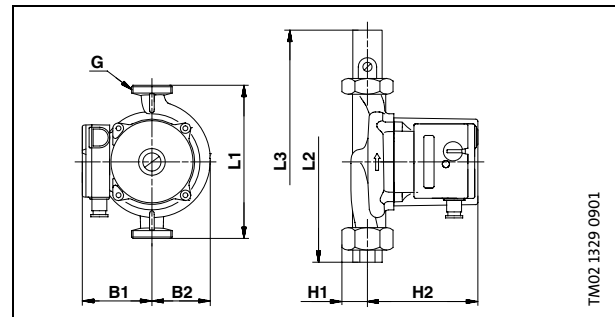
**Example:** 50% glycol at 20°C means a viscosity of approx. 10 cSt and a reduction of pump performance by approx. 15%.

When selecting a pump, the viscosity of the pumped liquid must be taken into consideration.

## Electrical data

Supply voltage:	1 x 230 V +6%/–10%, 50 Hz, PE.
Motor protection:	The pump requires no external motor protection.
Enclosure class:	IP 42.
Insulation class:	F/H.
Relative humidity:	Max. 95%.
Ambient temperature:	0°C to +40°C.
Temperature class:	According to CEN 335-2-51.
EMC (electromagnetic compatibility):	EN 50 081-1. EN 50 082-1.
Sound pressure level:	≤ 43 dB(A).

## Dimensional drawing



## Dimensions

Dimensions	25-40	25-60	15-80	25-120
L1 [mm]	180	180	130	180
L2 [mm]	236	236	186	236
L3 [mm]	290	290	240	290
H1 [mm]	32	32	32	32
H2 [mm]	102	102	103	130
B1 [mm]	75	75	75	82
B2 [mm]	51	51	54	69
G	1 1/2	1 1/2	1	1 1/2

## Liquid temperature

Temperature range: +2°C to +95°C or 110°C

The ambient temperature should always be lower than the liquid temperature, as otherwise condensation may form in the stator housing.

## System pressure

Pump with unions PN 10: 1.0 MPa (10 bar).

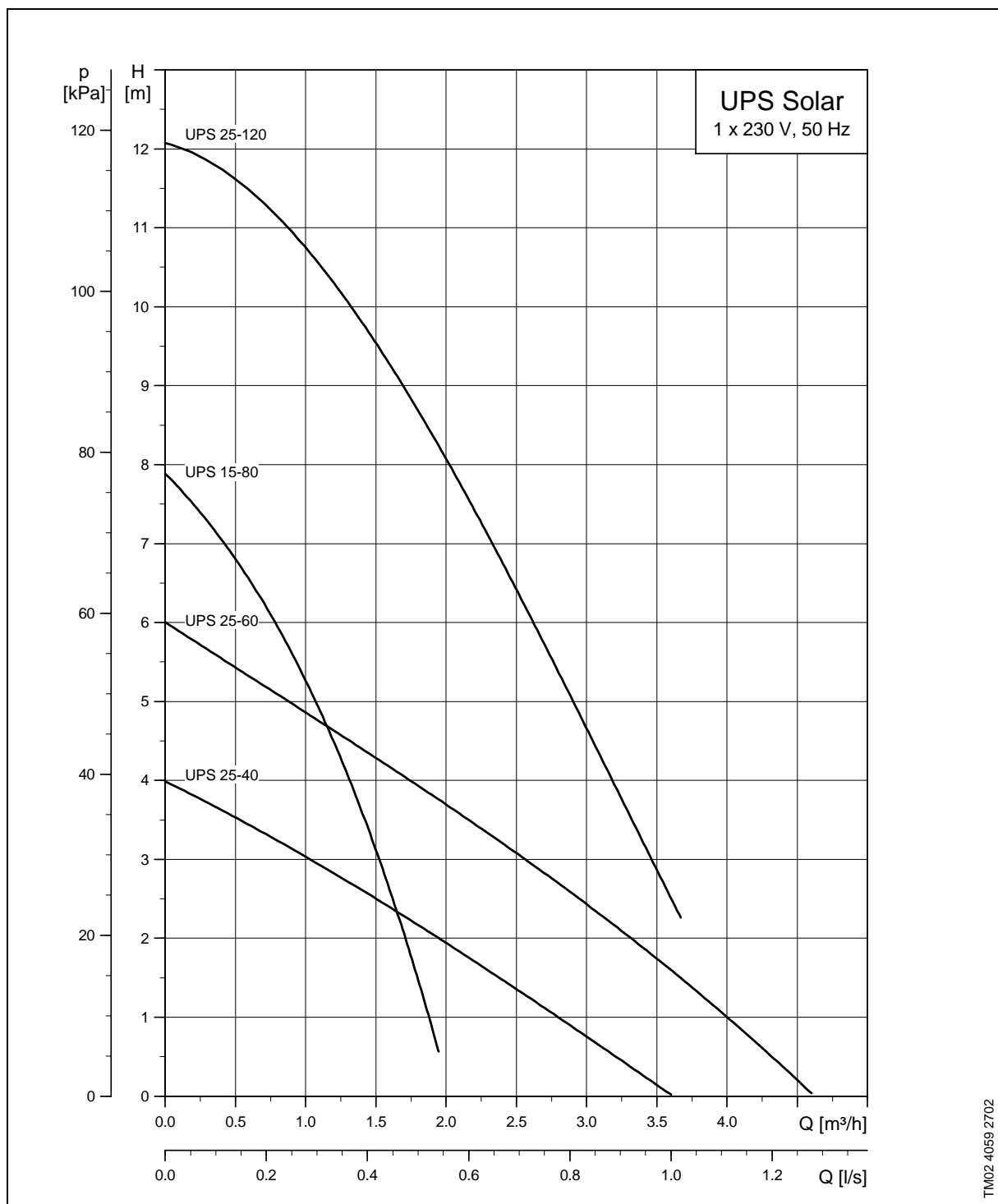
## Inlet pressure

To avoid cavitation noise and damage to the pump bearings, the following minimum pressures are required at the pump suction port:

Liquid temperature	85°C	90°C	110°C
Inlet pressure	0.5 m head	2.8 m head	11.0 m head
	0.049 bar	0.27 bar	1.08 bar

## Product range

Pump type	Port-to-port length [mm]	Connection	Max. head [m]	Product number	Temperature class
UPS 25-40	180	G 1½	4	59544183	TF110
UPS 25-60	180	G 1½	6	59546639	TF110
UPS 15-80	130	G 1	8	59508500	TF95
UPS 25-120	180	G 1½	12	52588352	TF95



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Subject to alterations.