



# Standard solar pumps, speed step switch (3-step)

HUPA-Solar series, H product group



Series HUPA-Solar must only be used in the European Union in primary circuits of solar thermal systems.

## Flow media

- heating water as per VDI 2035
- pure, thin, non-aggressive and non-explosive, mineral oil-free media without solid or long-fibre components
- media with a max. viscosity of 10 mm<sup>2</sup> / s
- operating data must be checked above 20 % glycol

## Temperature range

Ambient temperature: 0 °C to +40 °C

Temperature class: TF 110

Media temperature: +2 °C to +110 °C (short-term up to 130 °C)

## Ambient temperature

To avoid the build-up of condensation, the ambient temperature must always be lower than the media temperature.

## Technical data

Rate of flow: up to 3.8 m<sup>3</sup> / h

Pressure head: up to 7.0 m

Media temperature: +2 °C to +110 °C (short-term up to 130 °C)

Installation length: 130 and 180 mm

Threaded connection: 1", 1½" and 2"

Protection class: IP 44

Insulation class: H

Nominal pressure: PN 10

Control: 3-step switch with manual speed selection

## Product features

- manual start-up feature
- energy-optimised
- space-saving axially integrated terminal box
- cathodoretic coated pump housing

## Use

The HUPA solar pumps are wet rotor circulators designed for primary circuits of solar systems.

## Materials

| Component     | Material               | Material no. |
|---------------|------------------------|--------------|
| Pump housing  | Grey-cast iron         | 0.6020       |
| Impeller      | Polyamide (PA - GF 35) |              |
| Shaft         | Ceramic                |              |
| Bearing       | Ceramic                |              |
| Bearing plate | Stainless steel        | 1.A301       |
| Can           | Stainless steel        | 1.A301       |

| Ambient temp. | Media temp. min. | Media temp. max. |
|---------------|------------------|------------------|
| 0             | 2                | 110              |
| 10            | 10               | 110              |
| 20            | 20               | 110              |
| 30            | 30               | 110              |
| 35            | 35               | 110              |
| 40            | 40               | 110              |

## Motor protection

External motor protection is not required.

## Speed switching

The respective speed is set via a rotary switch integrated in the axial terminal box.

## Minimum inflow pressure

Please determine the minimum inflow pressure for corresponding temperature from the following table.

|                         |          |         |          |
|-------------------------|----------|---------|----------|
| Media temperature       | < 85 °C  | 90 °C   | 110 °C   |
| Minimum inflow pressure | 0.05 bar | 0.3 bar | 1.10 bar |

## Sound pressure level

The sound pressure level is < 45 dB (A)

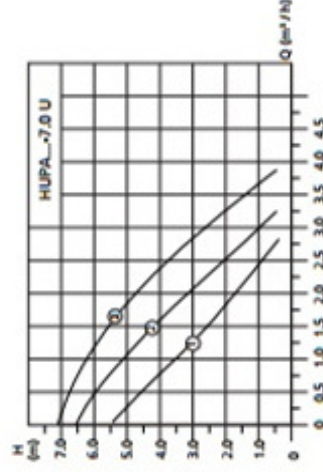
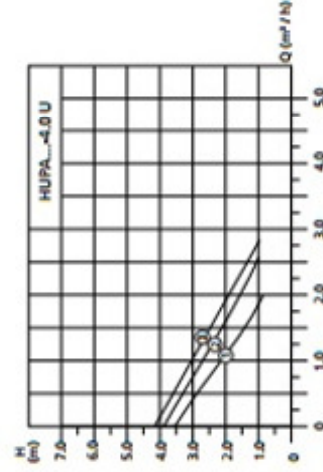
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## Technical data

| Type                       | Connection pipe | Threaded connection | Installation length (mm) | Voltage (V) | P1 (W)    | In (A)        | Weight (kg) | Product no. |
|----------------------------|-----------------|---------------------|--------------------------|-------------|-----------|---------------|-------------|-------------|
| HUPA-Solar<br>15-4.0 U 130 | 1/2"            | 1"                  | 130                      | 230         | 33 ... 44 | 0.14 ... 0.19 | 2.6         | 0311-23004  |
| HUPA-Solar<br>15-7.0 U 130 | 1/2"            | 1"                  | 130                      | 230         | 54 ... 93 | 0.24 ... 0.41 | 2.6         | 0311-23007  |
| HUPA-Solar<br>20-4.0 U 130 | 3/4"            | 1 1/8"              | 130                      | 230         | 33 ... 44 | 0.14 ... 0.19 | 2.6         | 0312-23004  |
| HUPA-Solar<br>20-7.0 U 130 | 3/4"            | 1 1/8"              | 130                      | 230         | 54 ... 93 | 0.24 ... 0.41 | 2.6         | 0312-23007  |
| HUPA-Solar<br>25-4.0 U 130 | 1"              | 1 1/2"              | 130                      | 230         | 33 ... 44 | 0.14 ... 0.19 | 2.6         | 0313-23004  |
| HUPA-Solar<br>25-6.0 U 130 | 1"              | 1 1/2"              | 130                      | 230         | 43 ... 80 | 0.19 ... 0.34 | 2.6         | 0313-23006  |
| HUPA-Solar<br>25-7.0 U 130 | 1"              | 1 1/2"              | 130                      | 230         | 54 ... 93 | 0.24 ... 0.41 | 2.6         | 0313-23007  |
| HUPA-Solar<br>25-4.0 U 180 | 1"              | 1 1/2"              | 180                      | 230         | 33 ... 44 | 0.14 ... 0.19 | 2.7         | 0313-23204  |
| HUPA-Solar<br>25-6.0 U 180 | 1"              | 1 1/2"              | 180                      | 230         | 43 ... 80 | 0.19 ... 0.34 | 2.8         | 0313-23206  |
| HUPA-Solar<br>25-7.0 U 180 | 1"              | 1 1/2"              | 180                      | 230         | 54 ... 93 | 0.24 ... 0.41 | 2.8         | 0313-23207  |
| HUPA-Solar<br>30-4.0 U 180 | 1 1/8"          | 2"                  | 180                      | 230         | 33 ... 44 | 0.14 ... 0.19 | 2.8         | 0314-23204  |
| HUPA-Solar<br>30-6.0 U 180 | 1 1/8"          | 2"                  | 180                      | 230         | 43 ... 80 | 0.19 ... 0.34 | 2.8         | 0314-23206  |
| HUPA-Solar<br>30-7.0 U 180 | 1 1/8"          | 2"                  | 180                      | 230         | 54 ... 93 | 0.24 ... 0.41 | 2.8         | 0314-23207  |



## Dimensions

| Type       | L1        | L2 | L3  | L4  |
|------------|-----------|----|-----|-----|
| HUPA-Solar | 130 / 180 | 98 | 108 | 145 |

## Dimension illustration

