SPX.Y High Pressure - Oscillating Piston Pump
1 GENERAL

Important: the values given in the following specification relate exclusively to the pump alone and not installed in the device. The suitability and long-term durability of the pump in the appliance must be tested separately and is in the sole responsibility of the appliance manufacturer.

1.1 Application of the pump

For various appliances like coffee machines, capsule machines, vending- and multi-beverage machines, steam iron and other applications.

2 TECHNICAL SPECIFICATION

2.1 Pump types

2.1.1 Standard

Pump SPX.Y with or without diode (type: 1N4007) upon request
with thermal fuse: only without diode

2.1.2 Voltage versions

Nominal voltages:
EU: 230V / 50Hz for 220-230V 50/60 Hz and 240V 50Hz
other voltages/frequencies: on request

2.2 Mechanical dimensions (in mm):
Design shown with piston cone valve. Other pump-outlet upon request.

pump weight ca 330 gram

Length with classical piston valve +4mm = 121.4mm
2.3 Electrical connection
Flat tabs: flat connector 4,8x0,8 or 6,3x0,8 possible plug-in direction +/-90° upon request

2.4 Technical characteristics

2.4.1 Power consumption

<table>
<thead>
<tr>
<th>voltage version</th>
<th>watt</th>
</tr>
</thead>
<tbody>
<tr>
<td>220-230V 50-60Hz / 240V 50Hz</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>65</td>
</tr>
</tbody>
</table>

Other voltages on request

2.4.2 ON-OFF interval times / operating times

<table>
<thead>
<tr>
<th>voltage version</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EU and other 220-230V 50-60Hz / 240V 50Hz</td>
<td>1min on / 1min off</td>
</tr>
</tbody>
</table>

2.5 Backpressure-flow-diagram (measured with manual operated test bench)

QH-curves (230V 50 Hz)

![Pressure-flowrate diagram](chart.png)
2.5.1 **Measuring method**
Outputs are measured with a scale

2.6 **Overtemperature protection for the 230V version**
Thermostat TB02-B-B8D (L/B/H 15 x 5.4 x 2.4mm)
BR-B3D (L/B/H 18 x 8 x 4mm) or
Thermal Fuse welded with connector after over moulding of the coil

2.7 **Sound level (sound pressure level / not enclosed in a housing)**
Sound pressure level with conical piston valve
< 58 dB(A) 0-4 bar (distance microphone 28cm)
< 54dB(A) >4 bar distance microphone 28cm)

Sound pressure level with classical piston valve
< 62 dB(A) 0-4 bar (distance microphone 28cm)
< 60dB(A) >4 bar (distance microphone 28cm)

3 **Approvals**

3.1 **CE**
Compliant with EN 60335-1 / EN 60335-2-41 / EN 62233
Testing institut: VDE with CB-Report und factory inspection
Electrical isolation: protection class 2, isolation class H (180°C)

3.2 **Food requirements**
All components and materials which come into contact with water meet food-grade and the EU Drinking water Directive.

4 **General conditions**

4.1 **Temperatures**
Ambient temperature:  $T_u < 60^\circ C$
Max / min water temperature: $T_m < 35^\circ C / >2^\circ C$

4.2 **Ideal fluids**
Water: drinking water quality / tap water quality