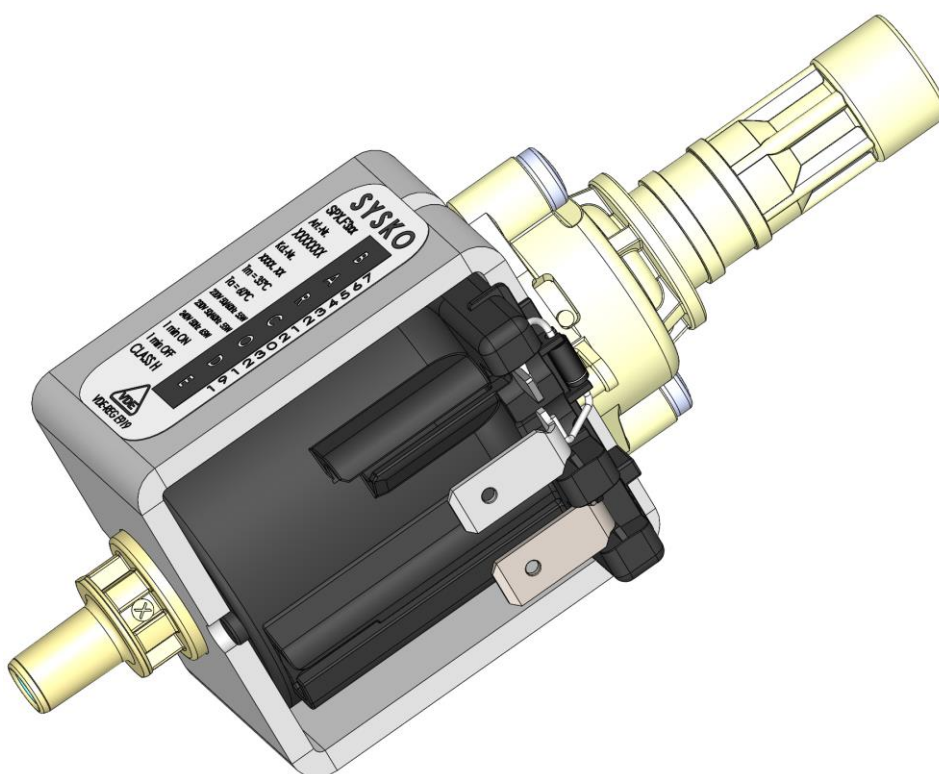


## SPX.N3xx - Oscillating Piston Pump



## 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

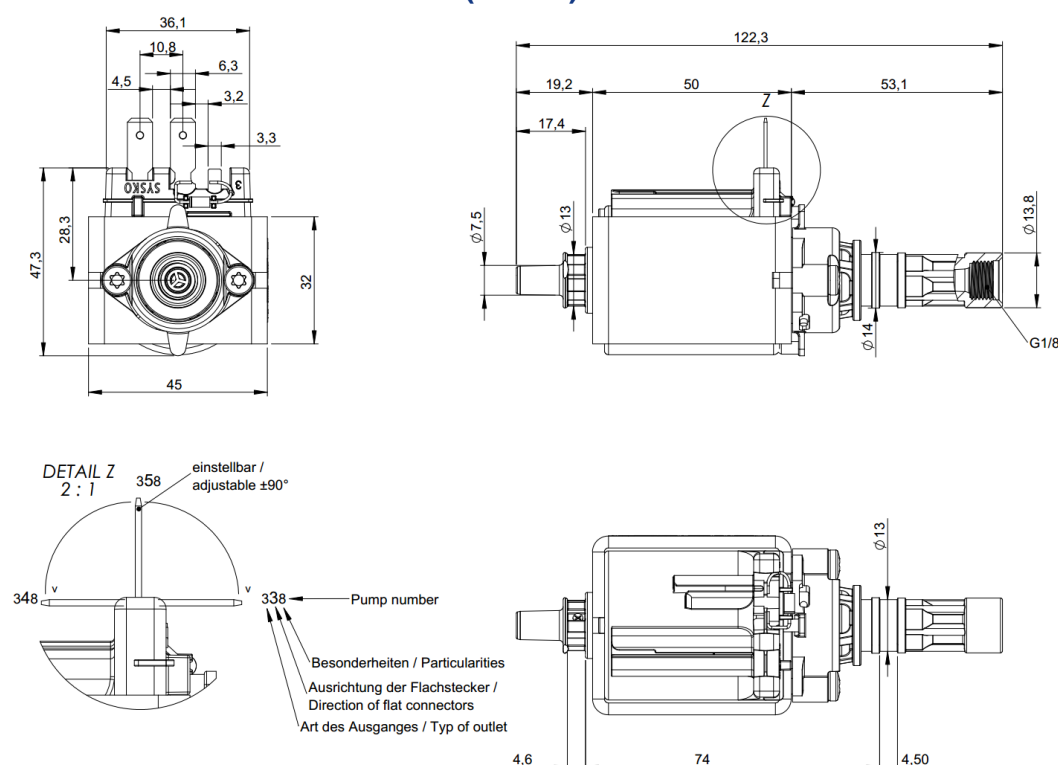
Pump SPX.N3 with or without diode  
with thermostat or with thermal fuse (upon request)

#### 2.1.2 Voltage versions

**Nominal voltages:**

EU:	220/230V 50/60 Hz and 240V 50Hz
BR:	120/127V 50/60Hz
UL:	110/120V 60Hz
JP:	100V 50/60Hz / 110V/60Hz

### 2.2 Mechanical dimensions (in mm):



## 2.3 Electrical connection:

Flat tabs: flat connector 6,3x0,8 (option 4.8x0.8) possible plug-in direction +/-90° upon request

## 2.4 Technical characteristics

### 2.4.1 Power consumption

voltage version	
220V 50/60 Hz	55 Watt
230V 50/60 Hz	55 Watt
240V 50 Hz	65 Watt
100V 50/60 Hz	55 Watt
110V 60 Hz	55Watt
120V 50/60 Hz	55 Watt
127V 50/60 Hz	55 Watt
110V 60Hz	55Watt
120V 60Hz	55Watt

### 2.4.2 ON-OFF interval times / operating times

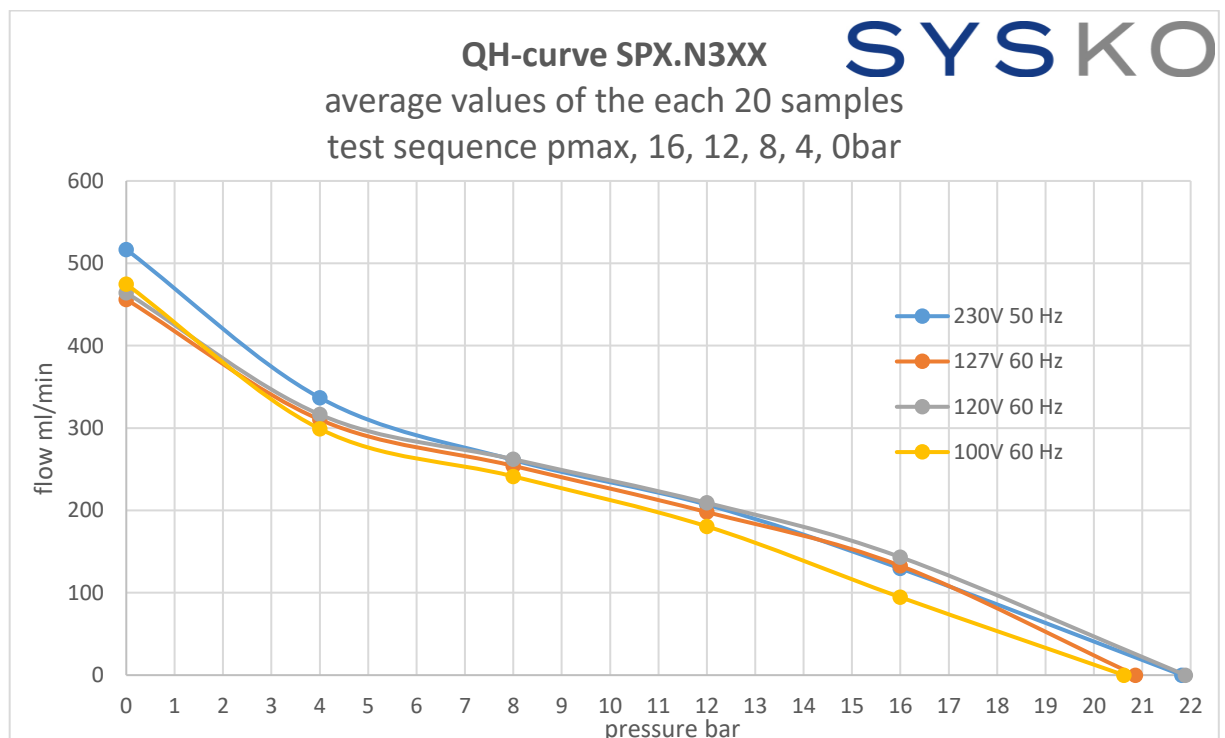
voltage version	
220/230V 50-60Hz / 240V 50Hz	1min on / 1min off
100V 50/60 Hz / 110V 60Hz	1min on / 1min off
120/127V 50/60Hz	1min on / 1min off
110/120V	1min on / 1min off

## 2.4.3 Type labels



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

pressure bar	0	4	8	12	16
flowrate max ml/min	605	385	275	220	110
nominal flow ml/min	550	350	250	200	100
flowrate min ml/min	500	315	225	180	90
max pressure bar	20 +3/-2				



### 2.5.1 Measuring method

Outputs are measured with a scale  
Test sequence pmax , 16, 12, 8, 4, 0 bar each 30 sec,  
ml/min by doubling the weight

## 2.6 Self-priming ability of the pump

### 2.6.1 Demands for SPX.N3xx

suction height min. 50 mbar or 50 cm water column  
suction pressure of the pump with air or water-air mixture must be > 1,5 bar

## 2.7 Overtemperature protection

Thermal Fuse welded with connector after over moulding of the coil (only possible without diode). Alternatively, a thermostat can also be mounted on the coil.  
Protection of the pump against overtemperature by improper operation must be determined by measurements in the device.

## 2.8 Sound level (sound pressure level / not enclosed in a housing)

Sound pressure level  
< 61 dB(A) 0-4 bar (distance microphone 28cm)  
< 59 dB(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 UL

Compliant with: UL 778 - Motor-Operated Water Pumps,  
CSA C22.2 No. 108-14 - Liquid Pumps

## 3.3 Food requirements

All components and materials which come into contact with water meet food-grade and the EU Drinking water Directive.  
NSF in progress.

## 4 General conditions

### 4.1 Temperatures

Ambient temperature:  $T_U < 60^{\circ}\text{C}$

Max / min water temperature:  $T_m < 35^{\circ}\text{C} / > 2^{\circ}\text{C}$

### 4.2 Ideal fluids

Water: drinking water quality / tap water quality

## 5 Quality

### 5.1 Validation plan

Upon request only