

## CPAE 35-XX PWM CPAE 55-XX PWM



# EC Declaration of Conformity

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Subject of the declaration: Heat circulation pump

Type: CPAE

Design: 35-xx PWM, 55-xx PWM,

We declare with sole responsibility that the products specified above, to which this EC Declaration of Conformity refers, fulfil the following standards and guidelines:

**Electromagnetic Compatibility Directive 2004/108/EG**

**EN 55014-1 : 2006 + A1 : 2009 + A2 : 2011**

**EN 55014-2 : 1997 + A1 : 2001 + A2 : 2008**

**EN 61000-3-2 : 2006 + A1 : 2009 + A2 : 2009**

**EN 61000-3-3 : 2008**

**Low Voltage Guideline 2006/95/EG**

**Guideline for Energy-Consuming Products 2009/125/EG**

**Eco-design requirements 641/2009 and 622/2012**

**EN 16297-1 : 2012**

**EN 16297-2 : 2012**

**EN 60335-1 : 2012**

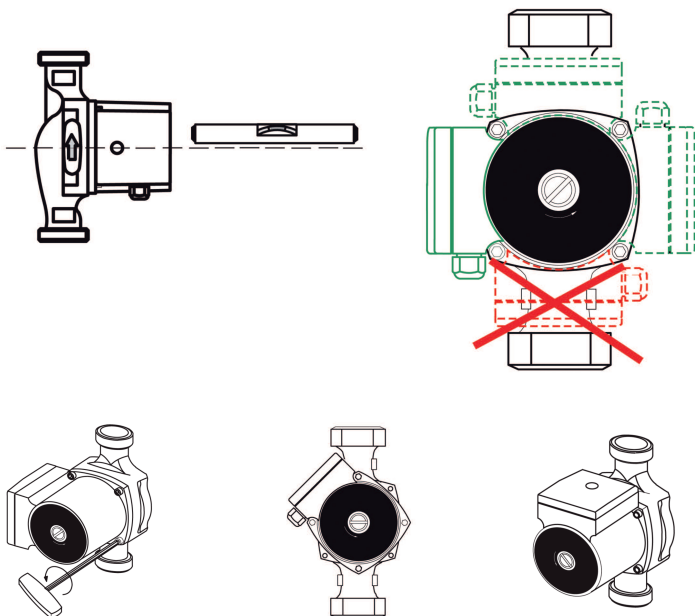
**EN 60335-2-51 : 2003 + A1 : 2008 + A2 : 2012**

Hess. Oldendorf, 13.10.2014

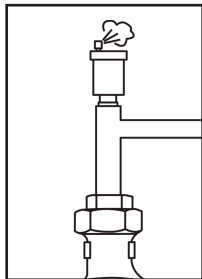
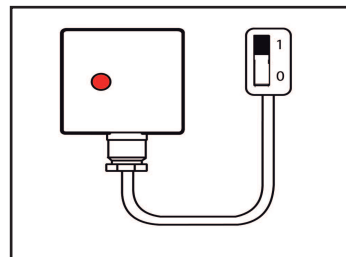
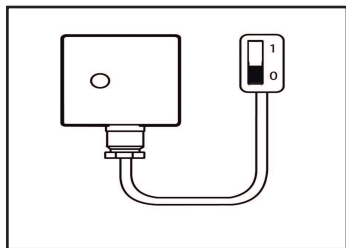
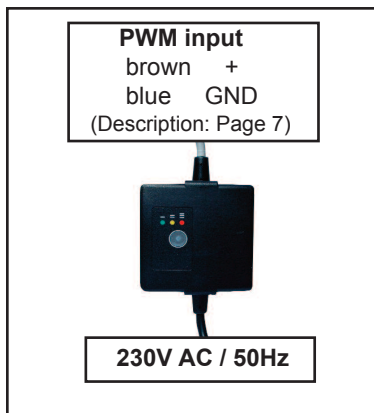
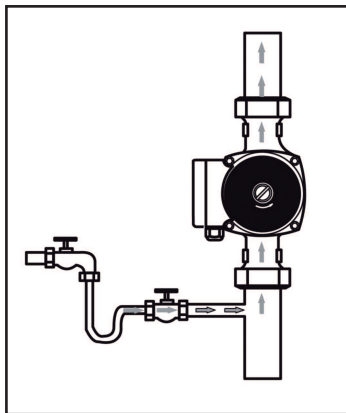
You can select six different power curves successively by one touch on the touch operation. Besides the three characteristic lines, which operate on the proportional pressure method can be selected with three other constant characteristic. The selected curve is indicated by the colored light in the button. Green indicates the lowest and red the highest curve.



## Installation



# Electrical connection



Change between the modes of operation by repeatedly pressing the key.

### **LED lights up red = Mode 1**

- Between 0 and 20% PWM signal the pump rotates at minimum speed.
- Between 20 -100% PWM signal the speed increases gradually up to the maximum value.

### **LED flashes red = Mode 2**

- Between 0 and 20% PWM signal the pump rotates at minimum speed.
- Between 20 -100% PWM signal the speed decreases gradually from maximum value to minimum value.

### **LED lights up yellow = Mode 3**

- Between 0 and 20% PWM signal the pump is switched off.
- Between 20 -100% PWM signal the speed increases gradually from minimum value to the maximum value.

### **LED flashes yellow = Mode 4**

- Between 0 and 20% PWM signal the pump is switched off.
- Between 20 -100% PWM signal the speed decreases gradually from maximum value to minimum value.

Without PWM signal connected, the pump rotates in Mode 1 and 2 at minimum speed. It is switched off in Mode 3 and 4.

The individual regulation time for changes in speed is about 2 seconds.

## Special funktion bleeding program

Pressing the key for a longer period ( $> 5$  sec) will start a bleeding program which lasts about 4,5 minutes. The display LED lights up green during this, and the program runs through several stages at different speeds and different lengths of time. The workflow can be terminated early by pressing the key. The pump then returns to the previously selected mode of operation.

### Description of the bleeding program:

Stage	Duration
III	15 sec.
I	30 sec.
III	15 sec.
I	30 sec.
II	60 sec
off	30 sec.
II	30 sec.
I	10 sec
III	5 sec.
I	5 sec.
III	5 sec.
I	5 sec.
II	5 sec.
off	5 sec.
II	5 sec.
I	5 sec.

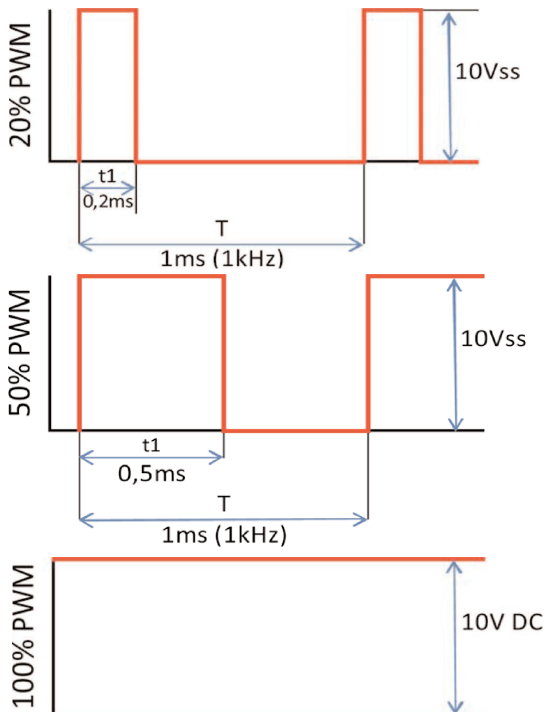
Total duration  
approx. 260 sec.

	Stage I	Stage II	Stage III
<b>UE 35A PWM</b>	950 UPM	1850 UPM	2600 UPM
<b>UE 55A PWM</b>	950 UPM	2250 UPM	3500 UPM

**Connection of the PWM cable:**

blue = PWM ground

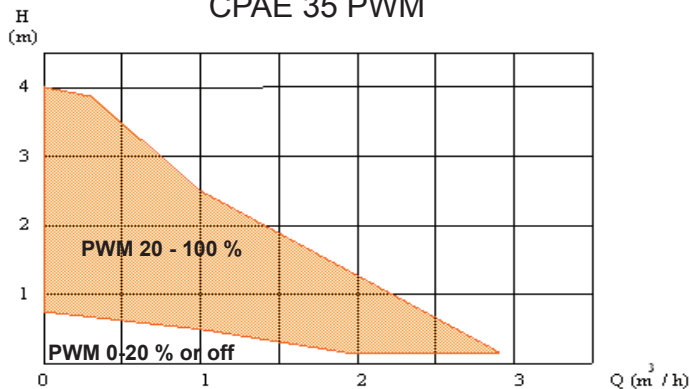
brown = PWM (+)



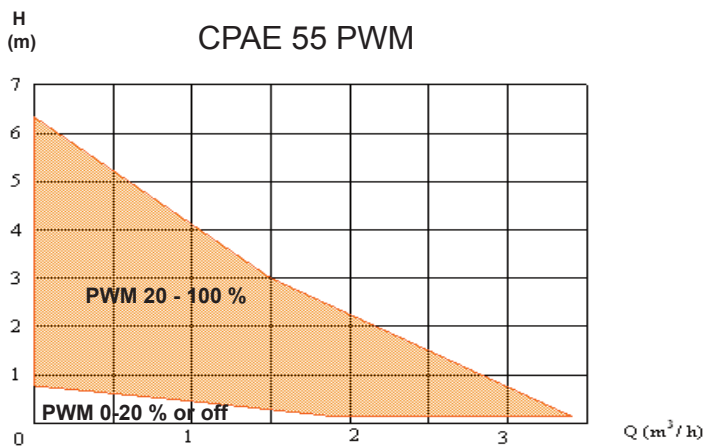
PWM: 20% bis 100%, ~ 100Hz - 4kHz

# Characteristic curves

## CPAE 35 PWM



## CPAE 55 PWM





## CPAE 35-XX PWM

Maximum delivery head	4,0 m
Maximum flow	2600 l/h
Power consumption P1 (W)	3 - 23
Speed (rpm)	950 - 2600
Supply voltage	1x230 V 50Hz
Motor protection	No external motor protection necessary
Protective rating	IP 42
Thermal class	F
Operating temperature	0°C bis +40°C
Fluid temperature	+5°C bis +110°C
Temperature class	TF 110
Max. system pressure	10 bar
Connection sizes	DN 15, DN 20, DN 25, DN 32
Installation lengths	110, 130, 180 mm
Weight	approx. 2,46 kg

## CPAE 55-XX PWM

Maximum delivery head	6,0 m
Maximum flow	3200 l/h
Power consumption P1 (W)	3 - 38
Speed (rpm)	950 - 3500
Supply voltage	1x230 V 50Hz
Motor protection	No external motor protection necessary
Protective rating	IP 42
Thermal class	F
Operating temperature	0°C bis +40°C
Fluid temperature	+5°C bis +110°C
Temperature class	TF 110
Max. system pressure	10 bar
Connection sizes	DN 15, DN 20, DN 25, DN 32
Installation lengths	110, 130, 180 mm
Weight	approx. 2,46 kg



