NCE GS.F Energy saving circulating pumps with flanges for sanitary hot water





Construction

Energy saving variable speed circulating pump driven by a permanent magnet synchronous motor (pm) controlled by on board inverter. Bronze pump casing.

Applications

Sanitary hot water systems.

Operating conditions

- Liquid temperature from -10 °C to +110 °C
- Ambient temperature from 0 °C to +40 °C
- Maximum permissible working pressure: 6/10 bar
- Storage: -20°C/+70°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
- Sound pressure ≤ 54 dB (A).
- Minimum suction pressure: 0,5 bar at 50 °C.
 - 0,8 bar at 80 °C.
 - 1,4 bar at 110 °C.
- Maximum glycol quantity: 20%.
- EMC according to: EN 55014-1, EN 55014-2 EN 61000-3-2, EN 61000-3-2.
- Connections: Flanges according to PN 6/10, EN 1092-2, DN 40, 50, 65, 80, 100.
- The benchmark for most efficient circulators is EEI ≤ 0,20.

Designation

NCE GS 40 F - 120 / 250

Series _______

Version for sanitary hot water ______

DN ports in mm _____

With flanges _____

Max. head in dm _____

connection size mm _____

Motor

Synchronous motor with permanent magnet.

- Motor: variable speed
- Standard voltage: single-phase 230 V (-10%;+6%)
- Frequency: 50 Hz
- Protection: IP 44
- Insulation class: H.
- Overload protection (integrated).
- Cable: phases and neutral.
- Constructed in accordance with: EN 60335-1, EN 60335-2-51.

Features

Smart pump

NCE GS.F adapt its functions to the system: the circulator measures the pressure and the flow and adjusts the speed to the selected pressure.

Easy use

There are different operating modes selectable from the control panel.

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Operating modes



Automatic mode

(factory setting):

In this mode the pump automatically sets the operating pressure, depending on the hydraulic system. This mode is recommended in most systems.



Proportional pressure mode:

The circulator changes the pressure propotionally to the current flow.

The pressure value can be adjusted with the + and - buttons.



Constant pressure mode:

The circulator mantains the pressure constant when the reference flow changes.

The pressure value can be adjusted with the + and - buttons.



Fixed speed mode:

The circulator works with constant curve and the curve could be changed using + e - buttons.



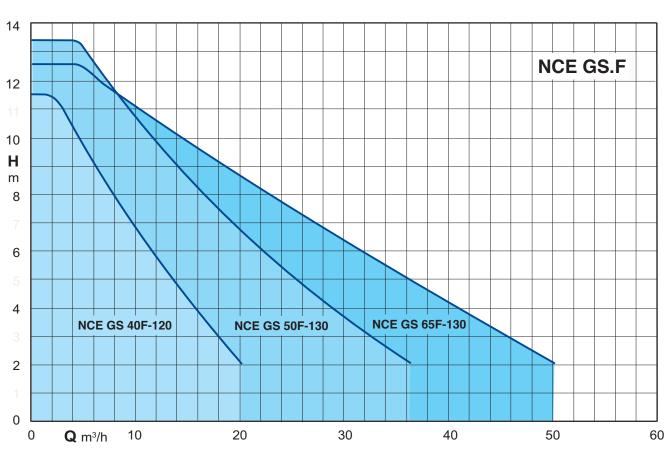
Operating mode-control panel

NCE GS.F could works in:

- automatic mode
- proportional pressure mode
- constant pressure mode
- fixed speed mode
- night mode

The night mode could be selected with any operating mode.

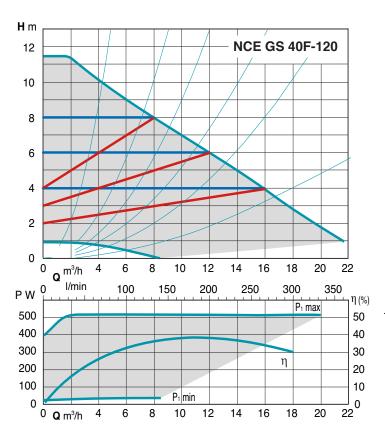
Coverage chart

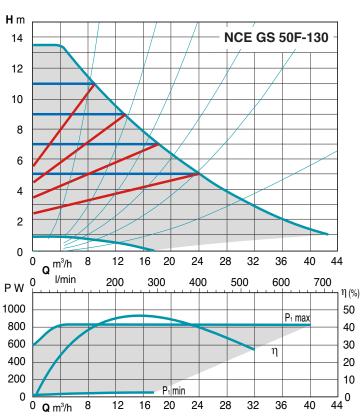


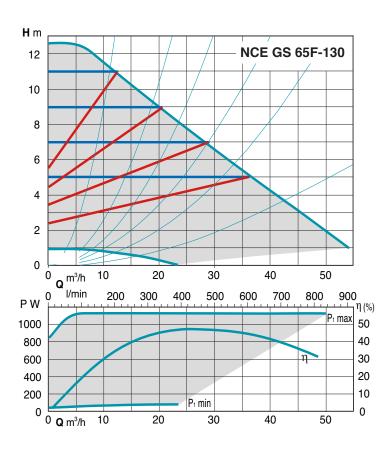
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Characteristic curves



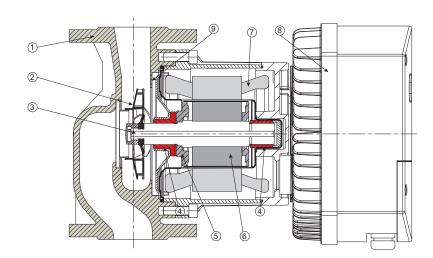




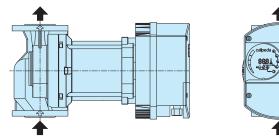


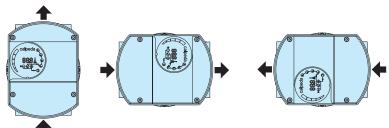
Materials

Component	Pos.	Material
Pump casing	1	Brass
Impeller	2	Stainless steel
Shaft	3	Stainless steel
Bearings	4	Carbon
Thrust bearing	5	Steel
Rotor	6	Stainless steel jacket
Winding	7	Copper wire
Electronic card	8	-
Gasket	9	EPDM

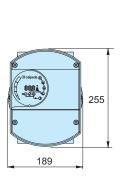


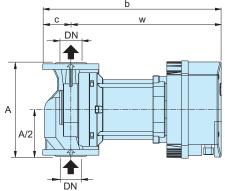
Examples of installations



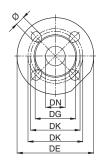


Dimensions and weights





TYPE		н	Q	1~ 2	230 V	P	1		mn	n		
1112	DN	m	m³/h	A min	A max	W min	W max	Α	b	С	w	kg
NCE GS 40F-120/250	40	12	25	0,18	2,2	20	500	250	386	65	321	26
NCE GS 50F-130/280	50	13	39	0,23	3,5	26	800	280	425	70	355	33
NCE GS 65F-130/340	65	13	65	0,33	4,8	38	1100	340	449	80	369	38,5



		514		hol	holes			
DN	DE	DK	DG	N.	Ø			
40	150	100/110	80	4	14/19			
50	165	110/125	90	4	14/19			
65	185	130/145	110	4	14/19			