



Designation

NCE EA 32 - 60 / 180

Series _____

Version _____

DN ports in mm _____

Max. head in dm _____

connection size mm _____

Construction

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

Applications

Small domestic heating systems.
Floor heating systems.

Operating conditions

- Liquid temperature from +2 °C to +110 °C
- Ambient temperature from 0 °C to +40 °C
- Maximum permissible working pressure: 10 bar
- Storage: -20°C/+70°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
- Sound pressure ≤ 43 dB (A).
- Minimum suction pressure:
 - 0,3 bar at 50 °C
 - 1,0 bar at 95 °C
 - 1,5 bar at 110 °C
- Maximum glycol quantity: 40%
- EMC according to: EN 55014-1, EN 61000-3-2, EN 55014-2
- Connections: threaded ports ISO 228: G 1, G 1 1/2, G 2
- The benchmark for most efficient circulators is EEL ≤ 0,20.
- Minimum power: 3 W.

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
- Class II appliance
- Overload protection (jammed rotor):
 - 1) automatic protection with electronic rotor release
 - 2) Overload thermal protector
- Cable: phases and neutral
- Constructed in accordance with: EN 60335-1, EN 60335-2-51.

Special features on request

Brass or cast iron unions.

Features

Compact design

The space saving **NCE EA** is a very compact circulating pump, allows inr easy installation in small domestic heating systems.

Easy to install and to adjust

Installing the **NCE EA** is considerably simplified by the quick setting and power installation plug.

Reliable

Like all our electronic circulating pumps, the **NCE EA** features the patented self-cleaning square chamber design, which eliminates any possibility of rotor blockage.

Ceramic shaft

Hydraulics components are completely painted with cataphoresis.

Program for automatic routine vent and release.

Easy use

Operating range with fixed curves from 0,5 m to 7 m; possibility to choose 3 (1-2-3) proportional pressure curves and 3 (I-II-III) constant pressure curves.

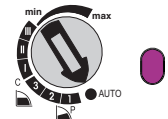
Operating modes



AUTO CURVE PROGRAMMING Automatic mode

(VIOLET LED)

Moving the switch to the AUTO setting, the pump finds the best working point and it controls it at any time.



PROPORTIONAL CURVE PROGRAMMING $\Delta p-v$

(GREEN LED)

Moving the switch to the 1, 2 or 3 setting, the pump operates with the proportional curve. This mode ensures maximum energy efficiency.



CONSTANT CURVE PROGRAMMING $\Delta p-c$

(ORANGE LED)

Moving the switch to the I, II or III setting, the pump operates with a constant curve according to the selected flow rates.



MANUAL PROGRAMMING

(BLUE LED)

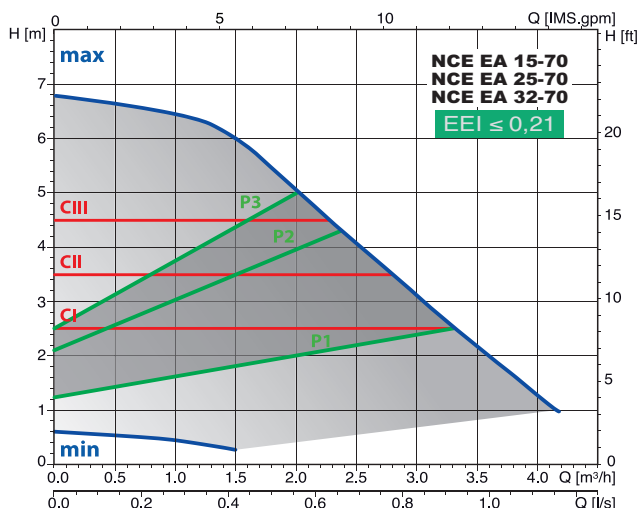
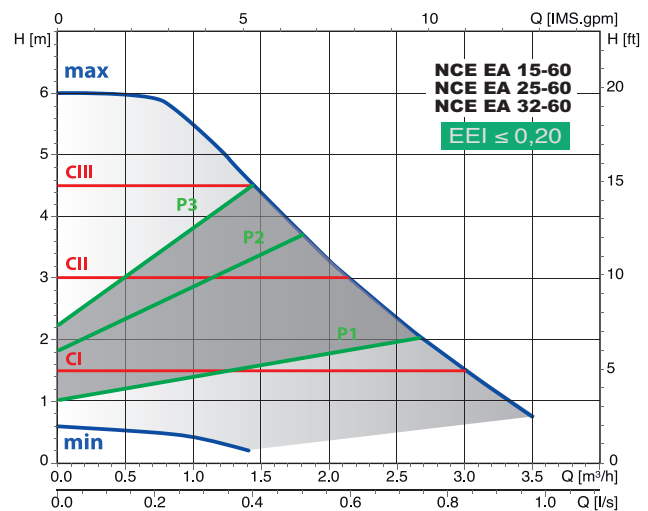
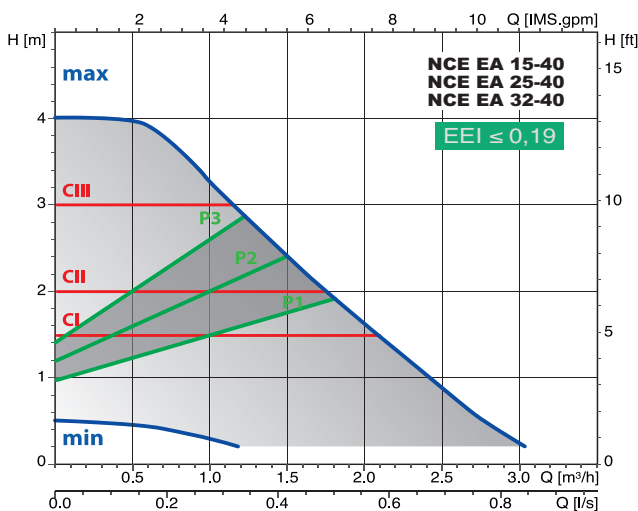
Setting the switch in any position between the MIN and MAX points, the most suitable operating curve for the installation is manually selected.



WARNING!

- The red LED indicates that the pump is not rotating but is still under tension.
- White flashing LED : plant degassing requirement, air in the system.

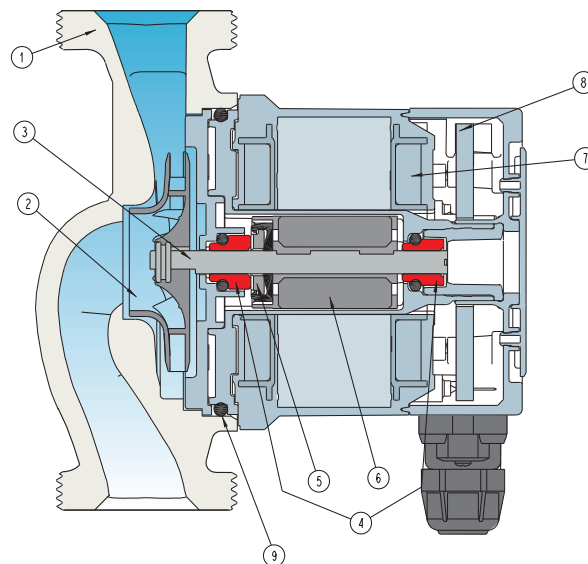
Characteristic curves



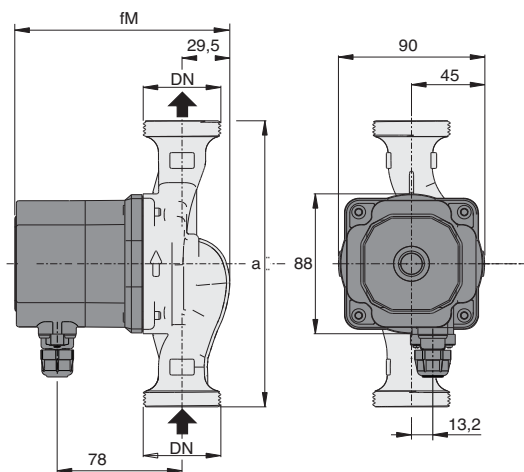
CI-CII-CIII constant curve
P1-P2-P3 proportional curve
min-max n fixed curves

Materials

Component	Pos.	Material
Pump casing	1	Cast iron GJL 200 EN 1561
Impeller	2	Composite
Shaft	3	Ceramic
Bearings	4	Carbon
Thrust bearing	5	Ceramic
Rotor	6	Composite / Ferrite
Winding	7	Copper wire
Electronic card	8	-
Gasket	9	EPDM

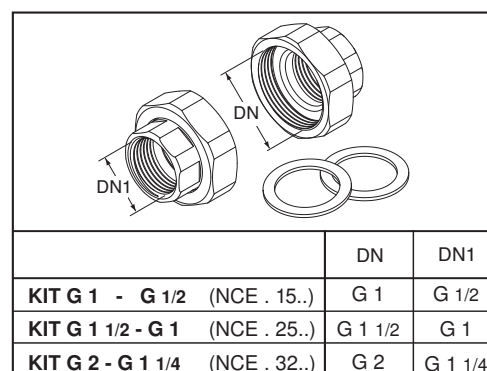


Dimensions and weights



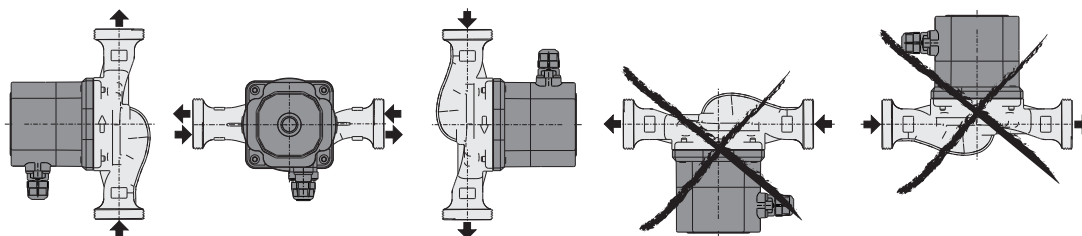
TYPE	DN	230V		P1		mm		kg
		A max	A min	W max	W min	fM	a	
NCE EA 15-40/130	G 1	0,17	0,03	22	3	134	130	1,67
NCE EA 25-40/130	G 1 1/2						130	1,81
NCE EA 25-40/180	G 1 1/2						180	1,96
NCE EA 32-40/180	G 2	0,33	0,03	42	3	134	180	2,10
NCE EA 15-60/130	G 1						130	1,67
NCE EA 25-60/130	G 1 1/2						130	1,81
NCE EA 25-60/180	G 1 1/2	0,44	0,03	56	3	144	180	1,96
NCE EA 32-60/180	G 2						180	2,10
NCE EA 15-70/130	G 1						130	1,91
NCE EA 25-70/130	G 1 1/2	0,44	0,03	56	3	144	130	2,05
NCE EA 25-70/180	G 1 1/2						180	2,20
NCE EA 32-70/180	G 2						180	2,34

Unions (on request)



Examples of installations

Installation



Terminal box arrangement (on request)

