



Designation

	NCE EI 32 - 60 / 180
Series _____	_____
Version _____	_____
DN ports in mm _____	_____
Max. head in dm _____	_____
connection size mm _____	_____

Construction

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

Applications

Small domestic heating systems.
Floor heating systems.
Air conditioning systems.

Operating conditions

- Liquid temperature from +2 °C to +95 °C
- Ambient temperature from 0 °C to +40 °C
- Maximum permissible working pressure: 6 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: 0,5 bar at 95 °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 EEI ≤ 0,20.

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 EI** is the most compact circulating pump in the Calpeda range, and is amongst one of the most compact circulating pumps on the market today. This allows for easy installation in small domestic heating systems.

Easy to install and to adjust

Installing the **NCE EI** is considerably simplified by the quick setting and power installation plug. The adjustment is simple and intuitive thanks to the ability to be able to select the optimum working point or mode via a simple LED indicator and switch.

Reliable

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

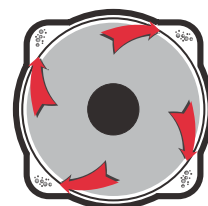
Ceramic shaft

Hydraulics components are completely painted with cataphoresis

Easy use

Operating range with fixed curves from 2 m to 6 m; possibility to choose proportional pressure curve and 2 constant pressure curves. Selection of the optimum working point.

Patented



Escape routes for impurities inside the rotor chamber

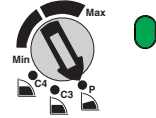
Operating modes



PROPORTIONAL CURVE PROGRAMMING $\Delta p-v$

(GREEN LED)

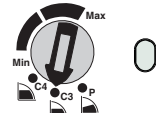
Moving the switch to the 'P' setting will allow the pump to operate against a proportional performance curve. This feature ensures maximum energy efficiency.



CONSTANT CURVE PROGRAMMING $\Delta p-c$ 3 m

(WHITE LED)

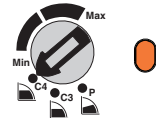
Moving the switch to the 'C' setting will allow the pump to operate against a constant performance curve (ideal for flow rates lower to 2 m³/h).



CONSTANT CURVE PROGRAMMING $\Delta p-c$ 4 m

(ORANGE LED)

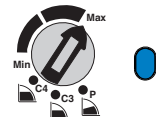
Moving the switch to the 'C' setting will allow the pump to operate against a constant performance curve (ideal for flow rates lower to 1.7 m³/h).



MANUAL PROGRAMMING

(BLUE LED)

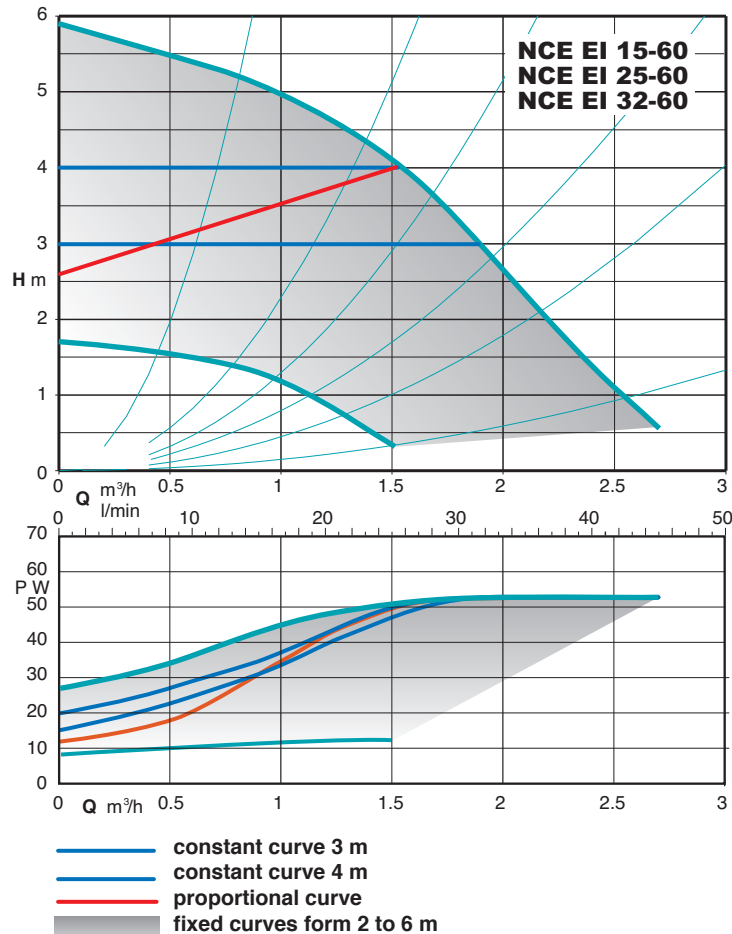
Setting the switch at any position between the MIN and MAX points will allow the pump to operate on fixed performance curves (classic form of Q/H).



WARNING!

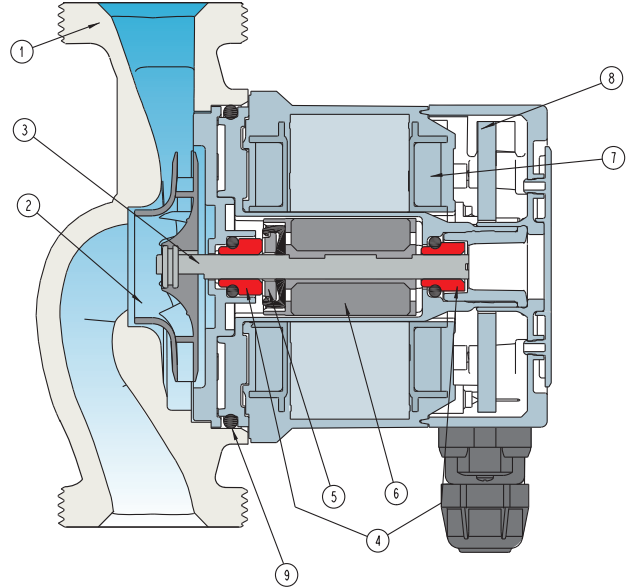
The red LED indicates that the pump is not rotating but is still under tension.

Characteristic curves

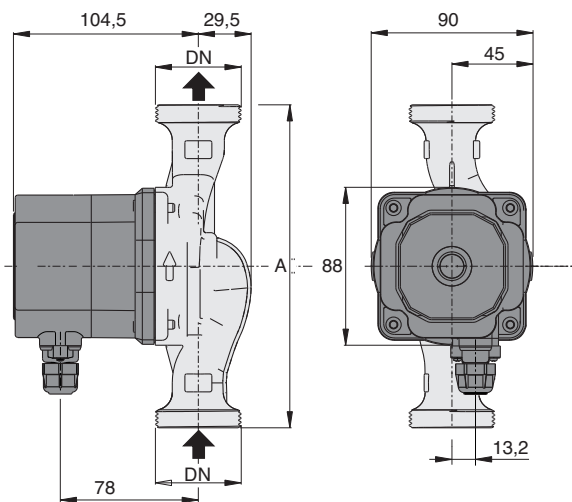


Materials

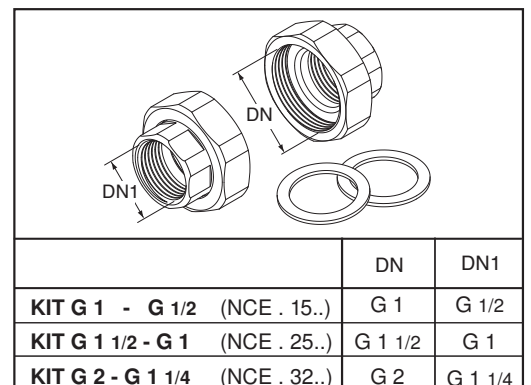
Component	Pos.	Material
Pump casing	1	Cast iron GJL 200 EN 1561
Impeller	2	Composite
Shaft	3	Ceramic
Bearings	4	Carbon
Thrust bearing	5	Ceramic
Rotor	6	Composite / Ferrite
Winding	7	Copper wire
Electronic card	8	-
Gasket	9	EPDM



Dimensions and weights



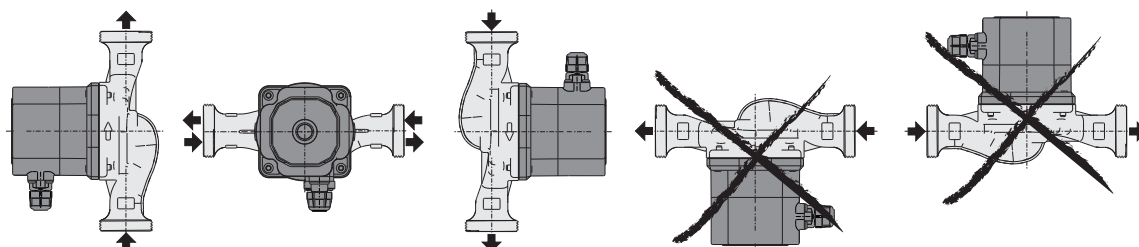
Unions (on request)



TYPE	DN	230V		P1		mm A	Net weight kg
		A max	A min	W max	W min		
NCE EI 15-60/130	G 1	0,40	0,08	53	8,4	130	1,70
NCE EI 25-60/130	G 1 1/2	0,40	0,08	53	8,4	130	2,05
NCE EI 25-60/180	G 1 1/2	0,40	0,08	53	8,4	180	2,20
NCE EI 32-60/180	G 2	0,40	0,08	53	8,4	180	2,33

Examples of installations

Installation



Terminal box arrangement (on request)

