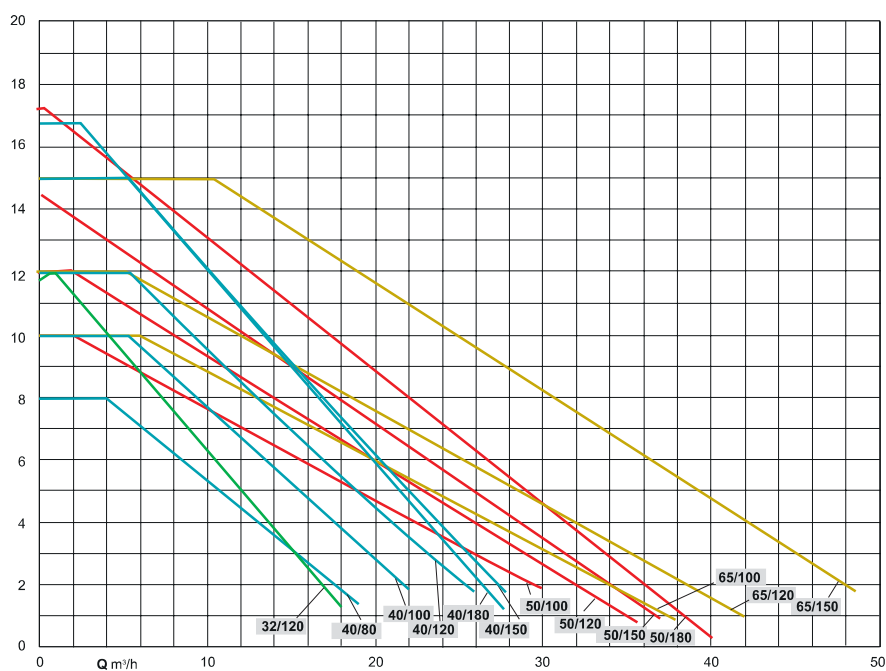




Coverage chart



Energy saving circulating pumps
with flanges

NCE HQ2



Construction

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

- Dry running detection
- Automatic venting function

Digital input and output

- Start / stop input
- Relay output
- 0-10V input
- 4-20 mA input
- Modbus (RS485 and TCP / IP)

Applications

The energy-efficient circulation pump is designed for water circulation in heating systems.

Underfloor heating systems

Single-pipe systems

Two-pipe systems

Pumping liquid:

Clean, non-aggressive and non-explosive liquids, not containing solid particles, fibers or mineral/vegetable oil

In heating systems, water must meet the requirements of accepted standards of water quality in heating systems.

Operating conditions

- Liquid temperature from -10 °C to +110 °C
- Ambient temperature from 0 °C to +40 °C
- Maximum permissible working pressure: 10 bar
- Storage: -10°C/+50°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
- Sound pressure ≤ 65 dB (A).
- Max. quantity of ethylene glycol: 40%
- EMC according to: EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3.
- Flanged connection DN 32,40,50,65 PN 6/10
- The energy efficiency index of circulators is $IEE \leq 0.23$.
- The benchmark for most efficient circulators is $EEI \leq 0.20$.

Motor

- Synchronous motor with permanent magnet.

Motor: variable speed

- Standard voltage: single-phase 230 V (-10%;+6%)

- Frequency: 50-60 Hz

- Protection: IP 44

- Insulation class: F

- Overload protection (integrated).

- Cable: phases and neutral.

- Constructed in accordance with: EN 60335-1, EN 60335-2-51.

Designation

NCE HQ2 40F - 100 / 220

NCE = Series

HQ2 = Version

40 = DN ports in mm

F = Flanged connection

100 = Max. head in dm

220 = connection size mm

Materials

Component	Material
Pump casing	Cast iron with cataphoresis coating
Impeller	Composite PES
Shaft	Ceramic
Ball bearings	Ceramic
Thrust bearing	Graphite carbon
Rotor	Stainless steel jacket
Electronic card	..

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 proportionally to the current flow.

The pressure value can be adjusted on three curves.



Constant pressure mode:

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

The pressure value can be adjusted on three curves.



Fixed speed mode:

The circulator works with constant curve and the curve could be changed over three curves.



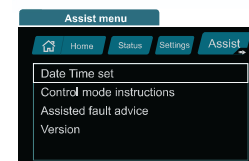
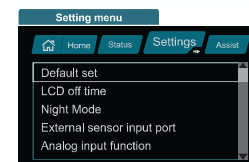
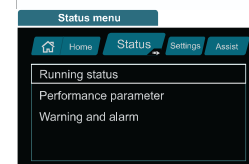
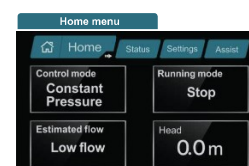
Night mode:

The pump is changed to an automatic deceleration curve at night, so that it runs at low performance and low energy consumption.

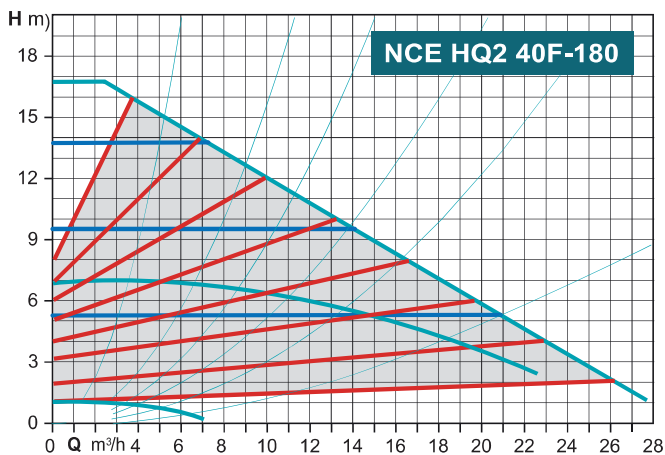
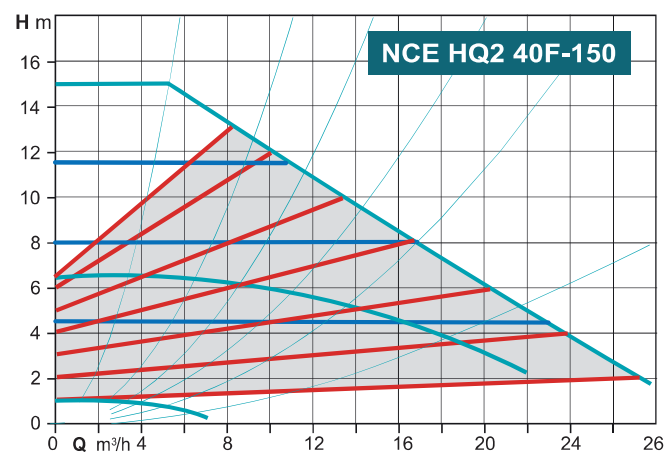
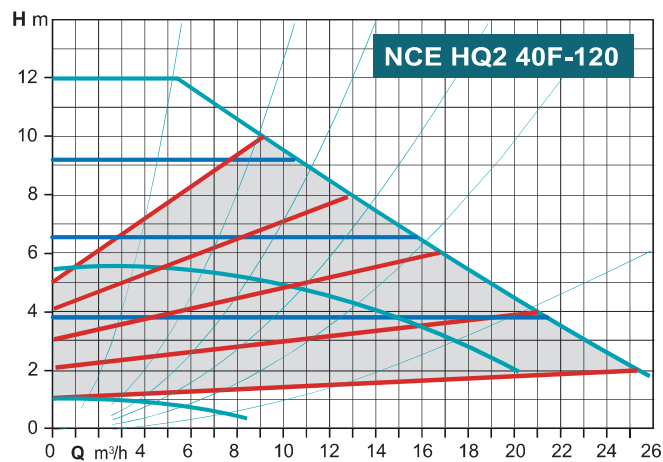
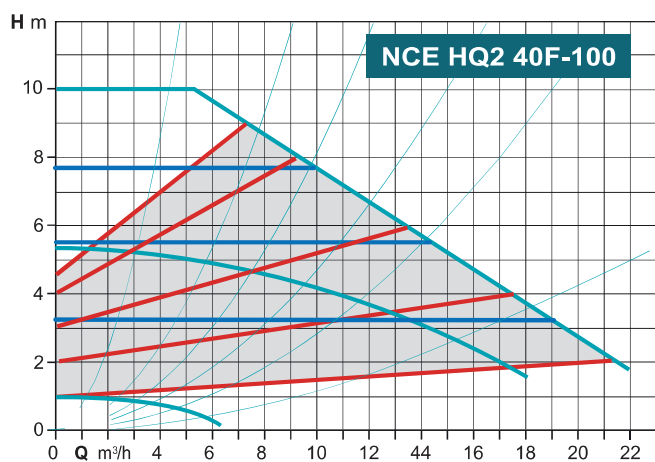
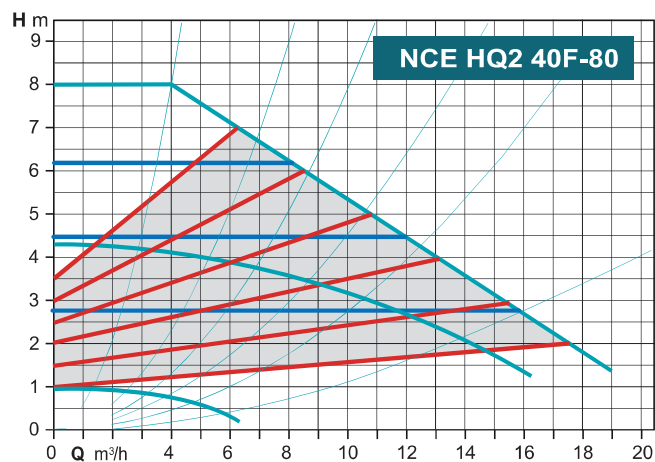
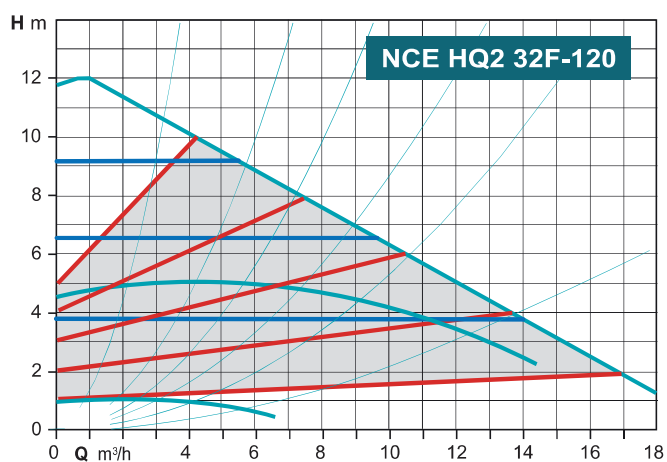


Temperature mode

This control mode is suitable for systems with fixed system characteristic curves, and the pump can be controlled based on feedback from the system temperature sensor to operate under the working conditions required by the user.

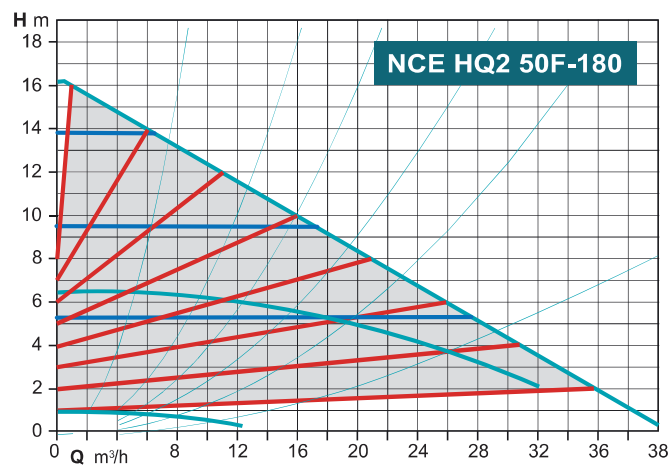
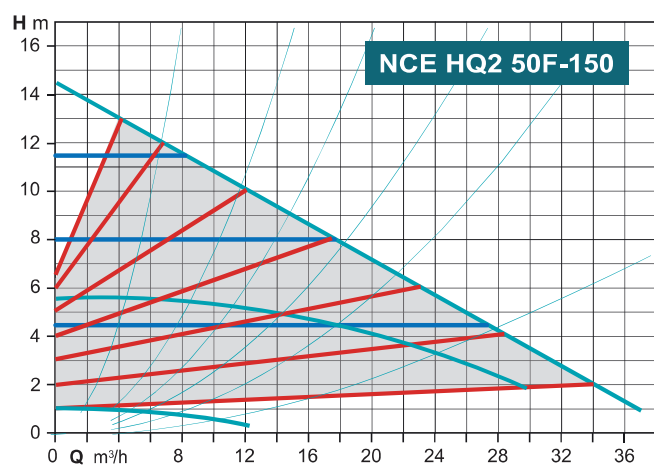
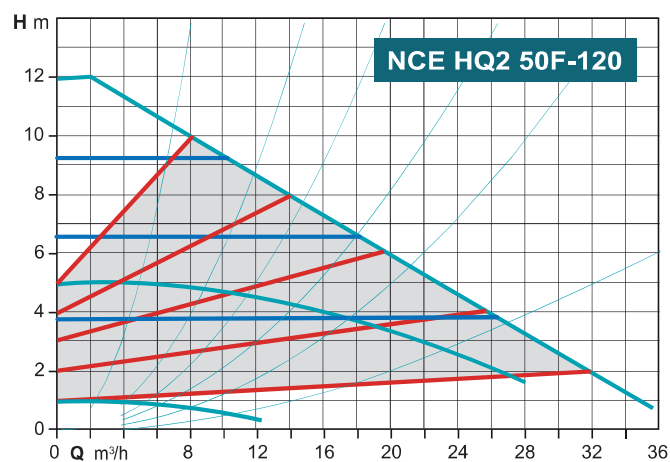
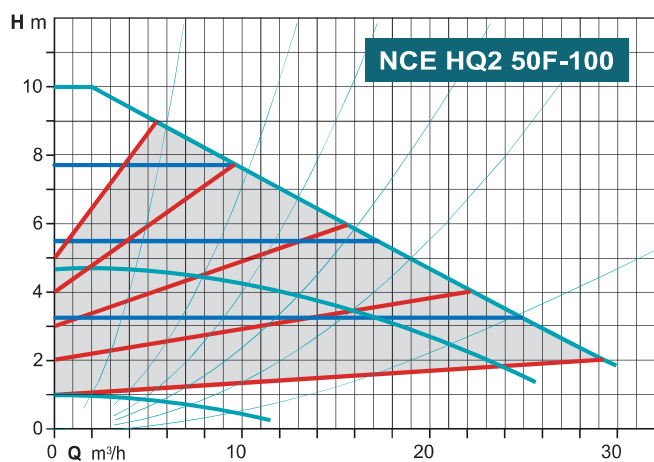


Features



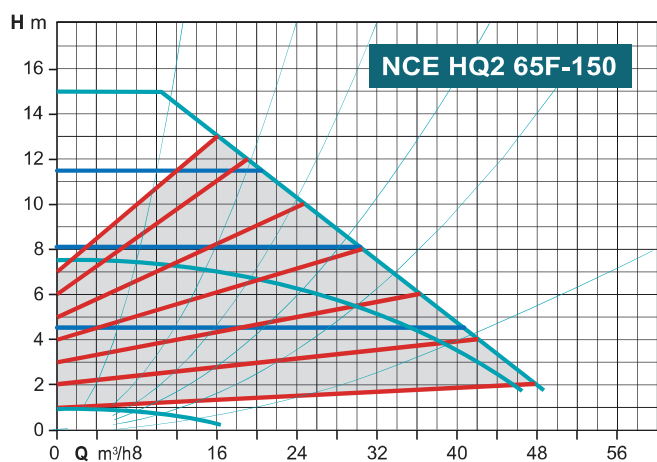
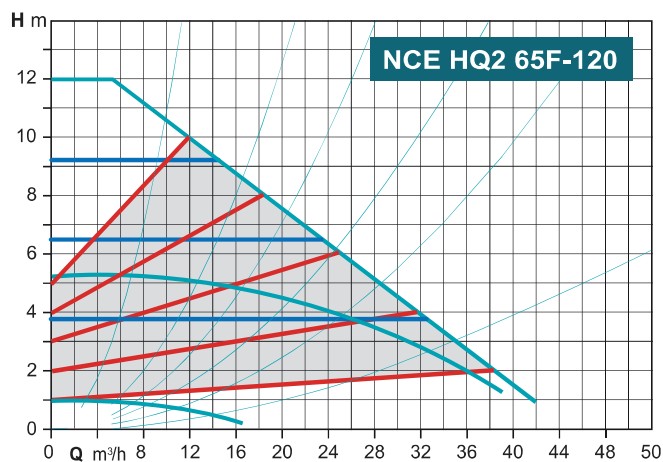
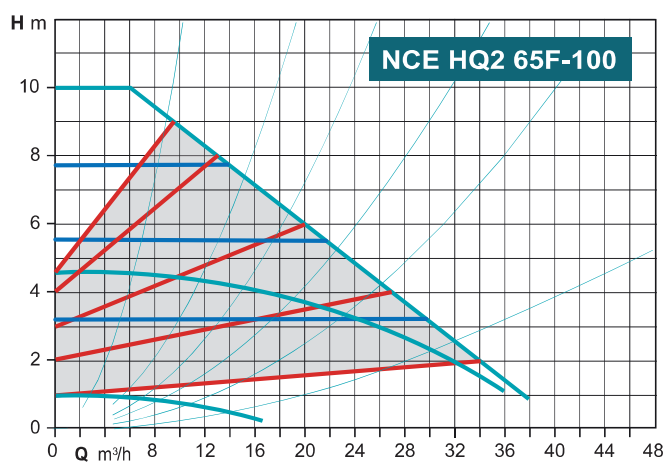
■ Proportional pressure ■ Constant pressure ■ Constant speed ■ AUTOADAPT

Features



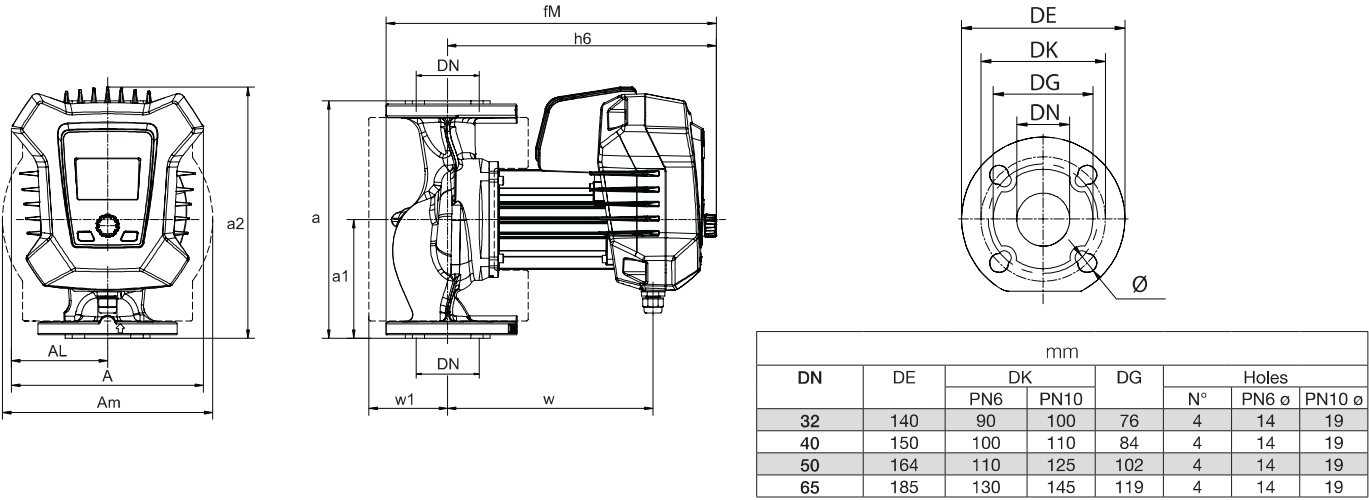
■ Proportional pressure ■ Constant pressure ■ Constant speed ■ AUTOADAPT

Features



■ Proportional pressure ■ Constant pressure ■ Constant speed ■ AUTOADAPT

Dimensions and weights



TYPE	DN	H max	Q max	1~230 V	1~230 V	P1	P1	mm									kg
								a	a1	a2	fM	A	AL	Am	h6	w	
NCE HQ2 32F-120/220	32	12	17	0.17	1.48	15	329	220	110	266	379	226	113	212	312	242	16.4
NCE HQ2 40F-80/220	40	8	19	0.19	1.18	17	267	220	110	266	382	226	113	212	312	242	16.7
NCE HQ2 40F-100/220	40	10	22	0.19	1.65	17	370	220	110	266	382	226	113	212	312	242	16.7
NCE HQ2 40F-120/250	40	12	24	0.18	2.05	15	463	250	125	281	382	226	113	212	312	242	17.2
NCE HQ2 40F-150/250	40	15	26.2	0.18	2.71	16	615	250	125	281	382	226	113	212	312	242	17.2
NCE HQ2 40F-180/250	50	18	26.2	0.22	2.71	16	615	250	125	281	382	226	113	212	312	242	17.2
NCE HQ2 50F-100/280	50	10	30	0.22	1.9	21	425	280	140	296	389	226	113	248	312	242	18.8
NCE HQ2 50F-120/280	50	12	33	0.22	2.37	20	533	280	140	296	389	226	113	248	312	242	19
NCE HQ2 50F-150/280	50	15	35	0.24	2.87	22	649	280	140	296	389	226	113	248	312	242	19.7
NCE HQ2 50F-180/280	50	18	37.5	0.24	3.4	22	769	280	140	296	389	226	113	248	312	242	19.7
NCE HQ2 65F-100/340	65	10	37	0.26	2.73	25	619	340	170	326	399	226	113	266	320	250	21.3
NCE HQ2 65F-120/340	65	12	40	0.26	3.42	24	774	340	170	326	399	226	113	266	320	250	21.3
NCE HQ2 65F-150/340	65	15	49	0.31	5.53	31	1263	340	170	326	399	226	113	266	320	250	21.3

Examples of installations

