

**Date:** 21/03/2019

Qty. | Description

1 NB 80-160/147-127 ASF2ABQQE



Note! Product picture may differ from actual product

Product No.: 98447791

Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733 (10 bar).

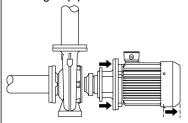
Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

The unbalanced rubber bellows seal is according to DIN EN 12756.

The pump is close-coupled to a fan-cooled asynchronous motor.

The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

The back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipe work.



Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

#### **Pump**

The pump housing has both a priming and a drain hole closed by plugs.

The impeller is a closed impeller with double-curved blades with smooth surfaces. The impeller is statically balanced according to ISO 1940-1 class G6.3 and hydraulically balanced to compensate for axial thrust. Wear rings used in pump housing and for impeller are made of bronze/brass or cast iron.

Motor stool and pump cover are made of cast iron (EN-GJL-250). Coupling guards are fitted to the motor stool. The pump cover is provided with a manual air vent screw for venting of the pump housing and the shaft seal chamber.

The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.

Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)



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This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

The pump housing has no feet.

### Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

# Further product details

#### **Technical data**

**Controls:** 

Frequency converter: NONE

Liquid:

Pumped liquid: Water
Liquid temperature range: -25 .. 120 °C
Liquid temperature during operation: 20 °C
Density: 998.2 kg/m³

Technical:

Rated flow: 163 m³/h
Rated head: 17.06 m
Actual impeller diameter: 147-127 mm
Nominal impeller diameter: 160 mm



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Shaft seal arrangement: Single Code for shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B

Materials:

Pump housing: Cast iron

EN-GJL-250 ASTM class 35

Wear ring: Brass
Impeller: Cast iron
EN-GJL-200

ASTM class 30

Shaft: Stainless steel

EN 1.4301 AISI 304

#### Installation:

Maximum ambient temperature: 60 °C
Maximum operating pressure: 16 bar
Pipe connection standard: EN 1092-2
Size of inlet connection: DN 100
Size of outlet connection: DN 80
Pressure rating for pipe connection: PN 16

Pump housing with feet: N

#### **Electrical data:**

IE Efficiency class: IE3
P2: 11 kW
Mains frequency: 50 Hz

Rated voltage: 3 x 380-415D/660-690Y V Rated current: 20,8-19,8/12,0-11,8 A

Starting current: 660-780 %

Cos phi - power factor: 0.88-0.84

Rated speed: 2940-2950 rpm

Efficiency: IE3 91,2%

Motor efficiency at full load: 91.2 %

Motor efficiency at 3/4 load: 91.8 %

Motor efficiency at 1/2 load: 91.3 %

Number of poles: 2

Enclosure class (IEC 34-5): 55 Dust/Jetting

Insulation class (IEC 85): F

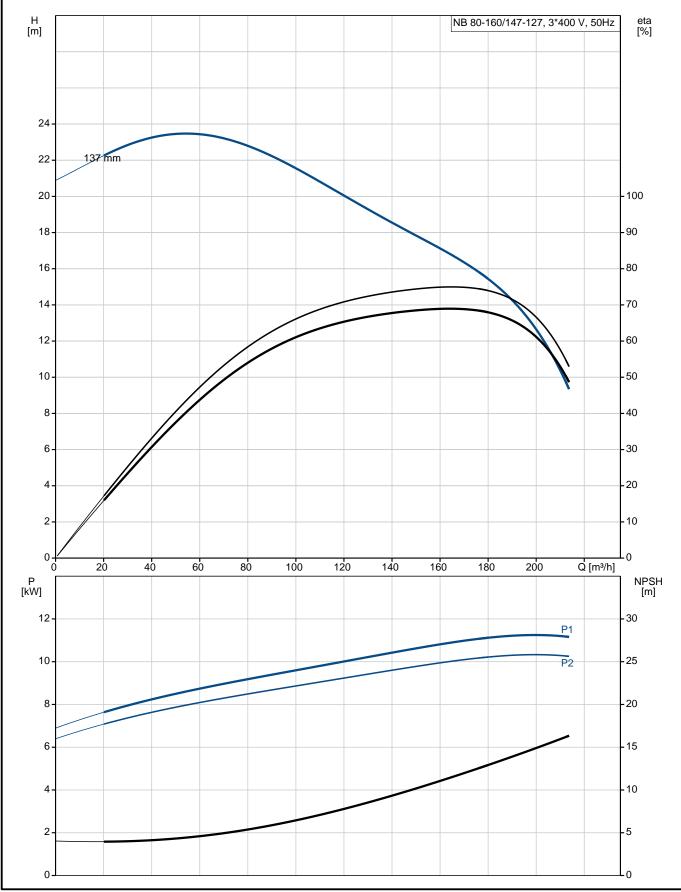
#### Others:

Minimum efficiency index, MEI â%¥: 0.70
Net weight: 152 kg
Gross weight: 177 kg
Shipping volume: 0.707 m³
Country of origin: HU
Custom tariff no.: 84137051



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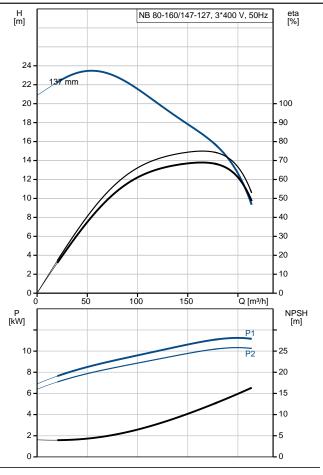
# 98447791 NB 80-160/147-127 ASF2ABQQE 50 Hz

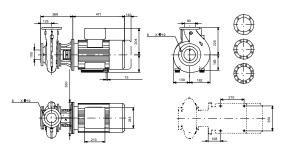


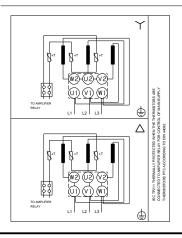


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| Description                          | Value                          |
|--------------------------------------|--------------------------------|
| General information:                 |                                |
| Product name:                        | NB 80-160/147-127<br>ASF2ABQQE |
| Product No:                          | 98447791                       |
| EAN number:                          | 5711495200565                  |
| Price:                               | 3.474,00 GBP                   |
| Technical:                           |                                |
| Rated flow:                          | 163 m³/h                       |
| Rated head:                          | 17.06 m                        |
| Actual impeller diameter:            | 147-127 mm                     |
| Nominal impeller diameter:           | 160 mm                         |
| Shaft seal arrangement:              | Single                         |
| Shaft diameter:                      | 24 mm                          |
| Code for shaft seal:                 | BQQE                           |
| Curve tolerance:                     | ISO9906:2012 3B                |
| Pump version:                        | AS                             |
| Materials:                           |                                |
| Pump housing:                        | Cast iron                      |
|                                      | EN-GJL-250                     |
|                                      | ASTM class 35                  |
| Wear ring:                           | Brass                          |
| Impeller:                            | Cast iron                      |
|                                      | EN-GJL-200                     |
|                                      | ASTM class 30                  |
| Shaft:                               | Stainless steel                |
|                                      | EN 1.4301                      |
|                                      | AISI 304                       |
| Material code:                       | A                              |
| Installation:                        |                                |
| Maximum ambient temperature:         | 60 °C                          |
| Maximum operating pressure:          | 16 bar                         |
| Pipe connection standard:            | EN 1092-2                      |
| Size of inlet connection:            | DN 100                         |
| Size of outlet connection:           | DN 80                          |
| Pressure rating for pipe connection: | PN 16                          |
| Pump housing with feet:              | N                              |
| Connect code:                        | F2                             |
| Liquid:                              |                                |
| Pumped liquid:                       | Water                          |
| Liquid temperature range:            | -25 120 °C                     |
| Liquid temperature during operation: | 20 °C                          |
| Density:                             | 998.2 kg/m³                    |
| Electrical data:                     |                                |
| IE Efficiency class:                 | IE3                            |
| P2:                                  | 11 kW                          |
| Mains frequency:                     | 50 Hz                          |
| Rated voltage:                       | 3 x 380-415D/660-690Y V        |
| Rated current:                       | 20,8-19,8/12,0-11,8 A          |
| Starting current:                    | 660-780 %                      |
| Cos phi - power factor:              | 0.88-0.84                      |
| Rated speed:                         | 2940-2950 rpm                  |
| Efficiency:                          | IE3 91,2%                      |
| Motor efficiency at full load:       | 91.2 %                         |
| Motor efficiency at 3/4 load:        | 91.8 %                         |
| Motor efficiency at 1/2 load:        | 91.3 %                         |
| Number of poles:                     | 2                              |
| Enclosure class (IEC 34-5):          | 55 Dust/Jetting                |









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| Description                      | Value    |
|----------------------------------|----------|
| Insulation class (IEC 85):       | F        |
| Motor protec:                    | PTC      |
| Motor No:                        | 87420028 |
| Mount. design. acc. IEC 34-7:    | IM B35   |
| Controls:                        |          |
| Frequency converter:             | NONE     |
| Others:                          |          |
| Minimum efficiency index, MEI ≥: | 0.70     |
| Net weight:                      | 152 kg   |
| Gross weight:                    | 177 kg   |
| Shipping volume:                 | 0.707 m³ |
| Country of origin:               | HU       |
| Custom tariff no.:               | 84137051 |



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