



*Close coupled centrifugal in-line pumps



NR, NR4

ORIGINAL OPERATING INSTRUCTIONS

made for your process

SUMMARY

- 1 General information
- 2 TECHNICAL DESCRIPTION
- 3 TECHNICAL FEATURES
- 4 SAFETY
- 5. TRANSPORTATION AND HANDLING
- 6. INSTALLATION
- 7. START-UP AND OPERATION
- 8. MAINTENANCE
- 9. DISPOSAL
- 10. SPARE PARTS
- 11. TROUBLESHOOTING
- 12. ANNEXES
- 12.1 Dimensions and weights
- 12.2 Designation of parts
- 12.3 Section

Copy of the declaration of conformity

1 GENERAL INFORMATION

Before using the product carefully read the information contained in this instruction manual, the manual should be kept for future reference.

Italian is the original language of this instruction manual, this language is the reference language in case of discrepancies in the translations.

This manual is part of the essential safety requirement and must be retained until the product is finally de-commissioned.

The customer, in case of loss, can request a copy of the manual by contacting Bedu Pompen or their agent, specifying the type of product data shown on the label of the machine (see 2.3 Marking)

Any changes, alterations or modifications made to the product or part of it, not authorized by the manufacturer, will revoke the "CE declaration" and warranty.

This appliance should not be operated by children younger than 8 years, people with reduced physical, sensory or mental capacities, or inexperienced people who are not familiar with the product, unless they are given close supervision or instructions on how to use it safely and are made aware by a responsible person of the dangers its use might entail.

Children must not play with the appliance.

It is the user's responsibility to clean and maintain the appliance. Children should never clean or maintain it unless they are given supervision.

Do not use in ponds, tanks or swimming pools or where people may enter or come into contact with the water.

Read carefully the installation section which sets forth:

- The maximum permissible structural working pressure (chapter 3.1).

- The type and section of the power cable (chapter 6.5).
- The type of electrical protection to be GB installed (chapter 6.5).

1.1 Symbols

To improve the understanding of the manual, below are indicated the symbols used with the related meaning.

 Information and warnings that must be observed, otherwise there is a risk that the machine could damage or compromise personnel safety.

 The failure to observe electrical information and warnings, could damage the machine or compromise personnel safety.

 Notes and warnings for the correct management of the machine and its parts.

 Operations that could be performed by the final user. After carefully reading of the instructions, is responsible for maintenance under normal conditions. They are authorized to affect standard maintenance operations.

 Operations that must be performed by a qualified electrician. Specialized technician authorised to affect all electrical operations including maintenance. They are able to operate with in the presence of high voltages.

 Operations that must be done performed by a qualified technician. Specialized technician able to install the device, under normal conditions, working during "maintenance", and allowed to do electrical and mechanical interventions for maintenance. They must be capable of executing simple electrical and mechanical operations related to the maintenance of the device.

 Indicates that it is mandatory to use individual protection devices - hand protection.

 Indicates that it is mandatory to use individual protection devices - eye protection.

 Operations that must be done with the device switched off and disconnected from the power supply.

 Operations that must be done with the device switched on.

1.2 Manufacturer name and address

Bedu Pompen B.V.

Poort van Midden Gelderland Rood 10
6666 LT HETEREN, The Netherlands

1.3 Authorized operators

The product is intended for use by expert operators divided into end users and specialized technicians. (see the symbols above).

 It's forbidden, for the end user, carry out operations which must be done only by specialized technicians. The manufacturer declines any liability for damage related to the non-compliance of this warning.

1.4 Warranty

For the product warranty refer to the general terms and conditions of sale.

 The warranty covers only the replacement and the repair of the defective parts of the goods (recognized by the manufacturer).

The Warranty will not be considered in the following cases:

- Whenever the use of the device does not conform to the instructions and information described in this manual.
- In case of changes or variations made without authorization of the manufacturer.
- In case of technical interventions executed by a non-authorized personnel.
- In case of failing to carry out adequate maintenance.

1.5 Technical assistance

Any further information about the documentation, technical assistance and spare parts, shall be requested from: Bedu Pompen BV (paragraph 1.2).

2 TECHNICAL DESCRIPTION

Close-coupled, single-impeller, centrifugal pumps; electric motor with extended shaft directly connected to the pump. Pump casing with suction and delivery connections with the same diameter and on the same axis (in-line).

2.1 Intended use

Standard construction

For clean liquids, without abrasives, which are non-aggressive for the pump materials (contents of solids up to 0.2%).

Liquid temperature from -10 °C to +90 °C.

Special construction

For clean liquids, without abrasives, which are non-aggressive for the pump materials (contents of solids up to 0.2%) with the following characteristics:

- Cooling mixtures with temperatures from 0 to -30 °C.
- Water with temperatures from 90 °C to 140 °C.
- Oil with temperature up to 200 °C and / or maximum density of 30 cSt.

2.2 Improper use

The device is designed and built only for the purpose described in paragraph 2.1.

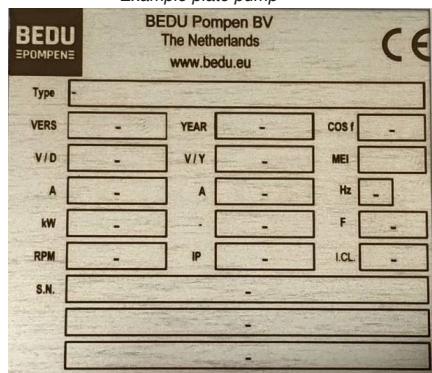
 Improper use of the device is forbidden, as is use under conditions other than those indicated in these instructions.

Improper use of the product reduces the safety and the efficiency of the device, Bedu shall not be responsible for failure or accident due to improper use.

2.3 Marking

The following picture is a copy of the name-plate that is on the external case of the pump.

Example plate pump



3 TECHNICAL FEATURES

3.1 Technical data

Dimensions and weight (paragraph 12.1).

Nominal speed 1450/1750/2900/3450 rpm

Protection IP54

Supply voltage / Frequency:

- up to 240V 1~ 50/60 Hz

- up to 480V 3~ 50/60 Hz

Check that the mains frequency and voltage correspond to the electrical characteristics shown on the indicator plate.

The electric data marked on the label are referred to the nominal power of the motor.

Rated motor power

NR (2900 1/min)	up to kW:	2,2	7,5	18,5
-----------------	-----------	-----	-----	------

NR4 (1450 1/min)	up to kW:	5,5		
------------------	-----------	-----	--	--

Sound pressure dB (A)	max:	68	72	78
-----------------------	------	----	----	----

Starts per hour	max:	20	16	12
-----------------	------	----	----	----

Maximum permissible working pressure up to 100 m (10 bar).

3.2 Operating conditions

Installation in well ventilated location protected from the weather, with a maximum ambient temperature of 40 °C.

4 SAFETY

4.1 General provisions

 Before using the product it is necessary to know all the safety indications.

Carefully read all operating instructions and the indications defined for the different steps: from transportation to disposal.

The specialized technicians must carefully comply with all applicable standards and laws, including local regulations of the country where the pump is sold.

The device has been built in conformity with the current safety laws. The improper use could damage people, animals and objects.

The manufacturer declines any liability in the event of damage due to improper use or use under conditions other than those indicated on the name-plate and in these instructions.

 Follow the routine maintenance schedules and the promptly replace damaged parts, this will allows the device to work in the best conditions. Use only original spare parts provided from Bedu Pompen or from an authorized distributor.

 Don't remove or change the labels placed on the device.

 Do not start the device in case of defects or damaged parts.

 Maintenance operations, requiring full or partial disassembly of the device, must be done only after disconnection from the supply.

4.2 Safety devices

The device has an external case that prevents any contact with internal parts.

4.3 Residual risks

The appliance, designed for use, when used in-line with the design and safety rules, doesn't have residual risks.

4.4 Information and Safety signals

For this kind of product there will not be any signals on the product.

4.5 Individual protection devices

During installation, starting and maintenance it is suggested to the authorized operators to consider the use of individual protection devices suitable for described activities.

During ordinary and extraordinary maintenance interventions, safety gloves are required.

Signal individual protection device**HAND PROTECTION**

(gloves for protection against chemical, thermal and mechanical risks).

**EYE PROTECTION**

(glasses for protection from chemical, thermal and biological risks).

5. TRANSPORTATION AND HANDLING

The product is packed to maintain the content intact. During transportation avoid to stack excessive weights. Ensure that during the transportation the packed cannot move. The transport vehicles must comply, for the weight and dimensions, with the chosen product (see paragraph 12.1 dimensions and weights).

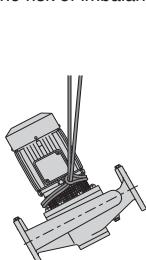
5.1 Handling

Handle with care, the packages must not receive impacts.

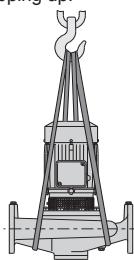
Avoid to impact onto the package materials that could damage the pump.

If the weight exceeds 25 Kg the package must be handled by two person at the same time (see paragraph 12.1 dimensions and weights).

Raise the pump-motor unit slowly (fig.1), making sure it does not move from side to side in an uncontrolled way, to avoid the risk of imbalance and tipping up.



(fig. 1)

**6 INSTALLATION****6.1 Dimensions**

For the dimensions of the device refer to the annex "Dimensions" (paragraph 12.1 Annexes).

6.2 Ambient requirements and installation site dimensions

The customer has to prepare the installation site in order to guarantee the right installation and in order to fulfill the device requirements (electrical supply, etc...).

The place where the device will be installed must fulfill the requirements in the paragraph 3.2.

It's **Absolutely forbidden** to install the machine in an environment with potentially explosive atmosphere.

6.3 Unpacking

Inspect the device in order to check any damages which may have occurred during transportation.

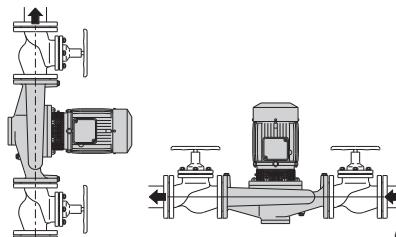
Package material, once removed, must be discarded/recycled according to local laws of the destination country.

Raise the pump-motor unit slowly (see paragraph 12.2 fig.1), making sure it does not move from side to side in an uncontrolled way, to avoid the risk of imbalance and tipping up.

6.4. Installation

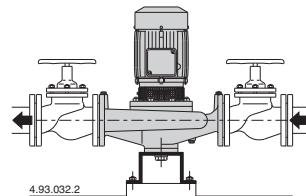
The **NR, NR4 (NRM, NR4M** with single phase motor) close coupled pumps have suction and delivery connections with the same diameter and on the same axis (in-line), so that they may be inserted into a straight pipe like a gate valve.

Into stable and rigid pipelines the pump can be supported directly through the flanges (fig. 2).



(fig. 2)

If the pipe is not stable enough, the pump must be fastened and supported by the suitable threaded holes on the pump casing (fig. 3).



(fig. 3)

4.93.032.2

The **NR, NR4** in-line pumps can be flanged in the pipe at any angle.

For safety reasons avoid the position with the motor under the pump.

For installation in a position other than with a vertical rotor axis, care must be taken to see that a **drain and condensation water hole** is provided at the lowest point of the motor.

Provide enough clearance around the unit for **motor ventilation**, for inspections, to check the rotation of the shaft and for filling and draining the pump.

6.4.1. Pipes

Ensure the insides of pipes are clean and unobstructed before connection.

ATTENTION: The pipes connected to the pump should be secured to rest clamps so that they do not transmit stress, strain or vibrations to the pump.

The inside diameter of the pipe-work depends on the desired flow.

Provide a diameter assuring a liquid flow not greater than 1.5 m/s for suction and 3 m/s for delivery.

The pipe diameters must never be smaller than the pump connection ports.

6.4.2. Suction pipe

The suction pipe must be perfectly airtight and be led upwards in order to avoid air pockets.

With a **pump located above the water level** (suction lift operation), fit a **foot valve** or a **check valve** on the suction connection.

With a **pump located below water level** (inflow under positive suction head) install a gate valve.

6.4.3. Delivery pipe

Fit a gate valve in the delivery pipe to adjust delivery, head, and absorbed power.

Install a pressure gauge.

With a geodetic head of over 15 m fit a check valve between the pump and the gate valve in order to protect the pump from water hammering.

6.5 Electrical connection

Electrical connection must be carried out only by a qualified electrician in accordance with local regulations.

Follow all safety standards.

The unit must be properly earthed (grounded).
Connect the earthing (grounding) conductor to the terminal with the \ominus marking.
Compare the frequency and mains voltage with the name-plate data and connect the supply conductors to the terminals in accordance with the appropriate diagram inside the terminal box cover.

ATTENTION: with motor power rating ≥ 5.5 kW avoid direct starting. Provide a control panel with star-delta starting or an other starting device.



ATTENTION: never allow washers or other metal parts to fall into the internal cable opening between the terminal box and stator. If this occurs, dismantle the motor to recover the object which has fallen inside.

If the terminal box is provided with an inlet gland, use a flexible power supply cord of the H07 RN-F type with section of cable not less than (par. 12.5 TAB 1).

If the terminal box is provided with an inlet bushing, connect the power supply cord through a conduit.

For use in swimming pools (not when persons are in the pool), garden ponds and similar places, a **residual current device** with I_{AN} not exceeding 30 mA must be installed in the supply circuit.

Install a **device for disconnection from the mains** (switch) with a contact separation of at least 3 mm in all poles. With a three-phase motor install an overload protection device with curve D appropriate for the rated current of the pump.

Single-phase NRM, NR4M, are supplied with a capacitor connected to the terminals and (for 220-240 V - 50 Hz) with an incorporated thermal protector.

6.6 Operation with frequency converter

Adjust the frequency converter so that the limiting values of min. 25 Hz and max. f_N Hz will not be exceeded.

7 STARTUP AND OPERATION

7.1 Preliminary checks before start-up of the pump

Do not start-up the device in case of damaged parts.

7.2 First starting



ATTENTION: never run the pump dry. Start the pump after filling it completely with liquid.

When operating under a positive suction head, fill the pump by opening the suction gate valve slowly and completely, keeping the delivery gate valve and the vent holes (14.42) open to release the air.

For water circulation in a closed circuit, open both gate valves completely by releasing the air.

Check that the shaft turns by hand.

With a three-phase motor check that the direction of rotation is as shown by the arrow on the pump casing, otherwise, disconnect electrical power and reverse the connections of two phases.

With a suction lift operation it may be necessary to wait a few minutes for the pump to prime.

Check that the pump works within its field of performance, and that the absorbed current shown on the name-plate is not exceeded.

Otherwise adjust the delivery gate valve.



Do not touch the fluid when its temperature is higher than 50 °C.



Burn hazard. Due to high temperature of the fluid, the pump casing and the motor may reach temperatures higher than 50°C.



DO NOT TOUCH these parts unless with suitable protective devices or wait and make sure they have completely cooled.

7.3 Switch off of the pump



ON



The appliance must be switch off every time there are faults. (see troubleshooting).

The product is designed for a continuous duty, the switch off is performed by disconnecting the power supply by means the expected disconnecting devices. (see paragraph "6.5 Electrical connection").

8 MAINTENANCE

Before any operations it's necessary to disconnect the power supply.

If required ask to an electrician or to an expert technician.



Every maintenance operations, cleaning or reparation executed with the electrical system under voltage, it could cause serious injuries to people.



If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

In case of extraordinary maintenance, or maintenance operations that require part-removing, the operator must be a qualified technician able to read schemes and drawings.

It is suggest to register all maintenance operation executed.



During maintenance keep particular attention in order to avoid the introduction of small external parts, that could compromise the device safety.



It is forbidden to execute any operations with the direct use of hands. Use water-resistant, anti-cut gloves to disassemble and clean the filter or in other particular cases.



During maintenance operations external personnel is not allowed.

Maintenance operations that are not described in this manual must be made only by special personnel authorized by Bedu Pompen BV

For further technical information regarding the use or the maintenance of the device, contact Bedu Pompen BV

8.1 Routine maintenance (Standard construction)



OFF



Before every maintenance operations disconnect the power supply and make sure that the device could not accidentally operate.



Burn hazard. Due to high temperature of the fluid, the pump casing and the motor may reach temperatures higher than 50°C.



DO NOT TOUCH these parts unless with suitable protective devices or wait and make sure they have completely cooled.

When the pump remains inactive it must be emptied completely if there is a risk of freezing.

Before restarting the unit, check that the shaft is not jammed and fill the pump casing completely with liquid.

8.1.1 Routine maintenance (Special construction)



OFF



Before every maintenance operations disconnect the power supply and make sure that the device could not accidentally operate.



Burn hazard. Due to high temperature of the fluid, the pump casing and the motor may reach temperatures higher than 50°C.



DO NOT TOUCH these parts unless with suitable protective devices or wait and make sure they have completely cooled.

When the pump remains inactive it must be emptied completely if there is a risk of freezing.

Before restarting the unit, check that the shaft is not jammed and fill the pump casing completely with liquid.

8.2 Dismantling the system

Close the suction and delivery gate valves and drain the pump casing before dismantling the pump.

8.3. Dismantling the pump



Close the suction and delivery gate valves and drain the pump casing before dismantling the pump.

For dismantling and reassembly see construction in the cross section drawing.

The motor and all internal parts can be dismantled without removing the pump casing and pipes.

By removing the nuts (14.28) the motor can be taken out complete with the impeller.

GB

9. DISPOSAL



The final disposal of the device must be done by specialized company.

Make sure the specialized company follows the classification of the material parts for the separation.

Observe the local regulations and dispose the device accordingly with the international rules for environment protection.

10 SPARE PARTS

10.1 Spare-parts request

When ordering spare parts, please quote their designation, position number in the cross section drawing and rated data from the pump name plate.

The spare parts request shall be sent to BEDU

Pompen by phone, fax, e-mail.

Changes reserved.

11. Troubleshooting



WARNING: Turn off the power supply before performing any operations.

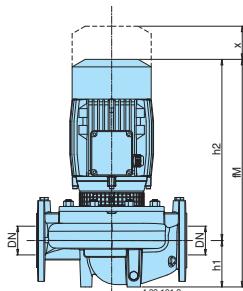
Do not allow the pump or motor to run, when dry even for a short period

Strictly follow the user instructions and if necessary contact an authorised service centre

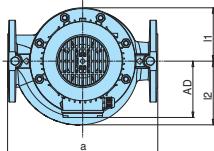
PROBLEM	PROBABLE CAUSES	POSSIBLE REMEDIES
1) The engine does not start	1a) Unsuitable power supply 1b) Incorrect electrical connections 1c) Engine overload protective device cuts in. 1d) Blown or defective fuses 1e) Shaft blocked 1f) Motor failed	1a) Check that the mains frequency and voltage are suitable. 1b) Connect the power supply cable correctly. Check the setting of the thermal overload protection. 1c) Check the power supply and make sure that the pump shaft is turning freely. Check the setting of the thermal overload protection. 1d) Replace the fuses, check points a) and c) 1e) See "Blocked pump" instruction booklet 1f) Repair or replace the engine.
2) Pump blocked	2a) Prolonged periods of inactivity . 2b) Presence of solid bodies in the impeller 2c) Bearings blocked	2a) Unblock the pump by using a screw driver to turn the relevant notch on the back of the shaft. 2b) Remove any solid foreign bodies inside the impeller 2c) Replace the bearings.
3) The pump functions but no water comes out	3a) Presence of air inside the pump or suction pipe 3b) Possible infiltration of air. 3c) Foot valve blocked or suction pipe not fully immersed in liquid 3d) Suction filter blocked	3a) Release the air from the pump using the delivery control valve. 3b) Check which part is not tight and seal the connection. 3c) Clean or replace the bottom valve and use a suitable suction pipe . 3d) Clean the filter, if necessary, replace it . See point 2b) also.
4) Insufficient flow	4a) Pipes and accessories with diameter too small 4b) Presence of deposits or solid bodies in the impeller 4c) Rotor deteriorated 4d) Worn rotor and pump case 4e) Gases dissolved in the water 4f) Excessive viscosity of the liquid pumped 4g) Incorrect direction of rotation	4a) Use pipes and accessories suitable for the specific application 4b) Clean the impeller and install a suction filter 4c) Replace the impeller 4d) Replace the impeller and the pump casing 4e) Perform the opening and closing manoeuvres through the feeder gate 4f) The pump is unsuitable 4g) Invert the electrical connections in the terminal board
5) Noise and vibrations from the pump	5a) Worn bearings 5b) Unbalanced power supply	5a) Replace the bearings 5b) Check that the mains voltage is right
6) Leakage from the mechanical seal	6a) The mechanical seal has functioned when dry or has stuck 6b) Mechanical seal scored by presence of abrasive parts in the liquid pumped 6c) Mechanical seal unsuitable for the type of application 6d) Slight initial drip during filling or on first start-up	In cases 6a), 6b) and 6c), replace the seal 6a) Make sure that the pump casing is full of liquid and that all the air has been expelled. 6b) Install a suction filter and use a seal suited to the characteristics of the liquid being pumped. 6c) Choose a seal with characteristics suitable for the specific application 6d) Wait for the seal to adjust to the rotation of the shaft. If the problem persists, see points 6a), 6b) or 6c).

12.

12.1 Dimensions and weights



TYPE	mm										kg
	DN	a	fM	h1	h2	Øb	AD	I1	I2	x	
NR 50D/A-C/B	50	320	360	90	270	98	111	93	100	70	29,5-30,8
NR 32/160A/A-B/A	32	340	421	80	341	-	128	102	102	60	
NR 32/200B	32	440	469	85	384	-	128	126	126	60	- 36,3
NR 32/200A/A-S/A	32	440	495	85	410	-	138	126	126	60	
NR 40/125A/A-B/A-C	40	320	420	81	339	-	128	93	98	70	29,5-27,5-26,5
NR 40/160B/A	40	320	430	81	349	-	128	119	119	75	35,0
NR 40/160A/A	40	320	470	81	389	-	128	119	119	75	40,0
NR 40/200A/A-B	40	440	496	81	430	-	138	140	140	75	57,5 - 57
NR 50/125C/A-F/A	50	340	437	90	347	-	128	96	115	75	31,5-29,5
NR 50/125A/B	50	340	477	90	387	-	128	96	115	75	36,1
NR 50/160C/B	50	340	480	90	390	-	128	120	128	75	41,6
NR 50/160A/B-B/A	50	340	506	90	416	-	138	120	128	75	51,8-50,5
NR 50/200D/B	50	440	516	100	416	-	138	140	140	80	59,7
NR 50/200A/A-B/A	50	440	544	100	444	-	160	140	140	80	77,2-69,7
NR 50/250C/B	50	440	657	100	557	-	185	175	175	85	114
NR 50/250B/B	50	440	707	100	557	-	185	175	175	85	121
NR 50/250A/B	50	440	732	100	632	-	185	175	175	85	149,5
NR 65/125F/B	65	340	494	105	389	-	128	121	145	95	46
NR 65/125S/B-A/B-D/A	65	340	520	105	415	-	138	121	145	95	56,1-56,1-54,6
NR 65/160A/A-B/A	65	340	552	105	447	-	160	121	142	70	74-67,5
NR 65/200B/B	65	475	666	105	561	-	185	140	153	90	108
NR 65/200A/B	65	475	716	105	611	-	185	140	153	90	114
NR 65/200S/B	65	475	741	105	636	-	185	140	153	90	142,5
NR 65/250C/B	65	475	722	105	567	-	185	175	175	90	134
NR 65/250A/B-B/B	65	475	747	105	642	-	185	175	175	90	161-155



TYPE	mm										kg
	DN	a	fM	h1	h2	Øb	AD	I1	I2	x	
NR4 50/A-B/A-C/A	50	320	360	90	270	98	111	93	100	70	24-24-24
NR4 65/A-B/A-C/A	65	360	370	100	270	118	111	102	114	70	28-28-28
NR4 100/A-B/B-C/B	100	500	549	150	399	162	138	153	173	105	67-59-59
NR4 125C/B	125	600	589	170	419	194	138	172	195	120	91,5
NR4 125A/A-B/A	125	600	608	160	438	194	160	172	195	120	110-108
NR4 32/160A-B	32	340	421	80	341	-	128	102	102	60	23-22,9
NR4 32/200B-C	32	440	429	85	344	-	128	126	126	60	
NR4 32/200A/A	32	440	469	85	344	-	128	126	126	60	
NR4 40/160A-B	40	320	430	81	349	-	128	119	119	75	31,5 - 31
NR4 40/200B	40	440	430	81	349	-	128	140	140	75	39,5
NR4 40/200A/A	50	440	470	81	349	-	128	140	140	75	43
NR4 50/160B-C	50	340	440	90	350	-	128	120	128	75	35,5-33,5
NR4 50/160A/B	50	340	480	90	350	-	128	120	128	75	37,5
NR4 50/200A-B/B/B	50	440	516	100	416	-	138	140	140	80	56
NR4 50/250C/B	50	440	516	100	416	-	138	175	175	85	77,5
NR4 50/250A/A-B/B	50	440	545	100	445	-	160	175	175	85	93,5-80
NR4 65/125D-F	65	340	454	105	349	-	128	121	145	95	39-37
NR4 65/125S/B-A/B	65	340	494	105	349	-	128	121	145	95	42-41,5
NR4 65/160A/B-B/B	65	340	504	105	399	-	138	121	142	95	42-74,25
NR4 65/200C/B	65	475	536	105	431	-	138	140	153	90	52
NR4 65/200B/B	65	475	536	105	431	-	138	140	153	90	60
NR4 65/200A/B	65	475	552	105	447	-	160	140	153	90	64,5
NR4 65/250C/B-D/B	65	475	555	105	450	-	160	175	175	90	75,5-75,5
NR4 65/250A/A-B/A	65	475	555	105	450	-	160	175	175	90	98-85

12.

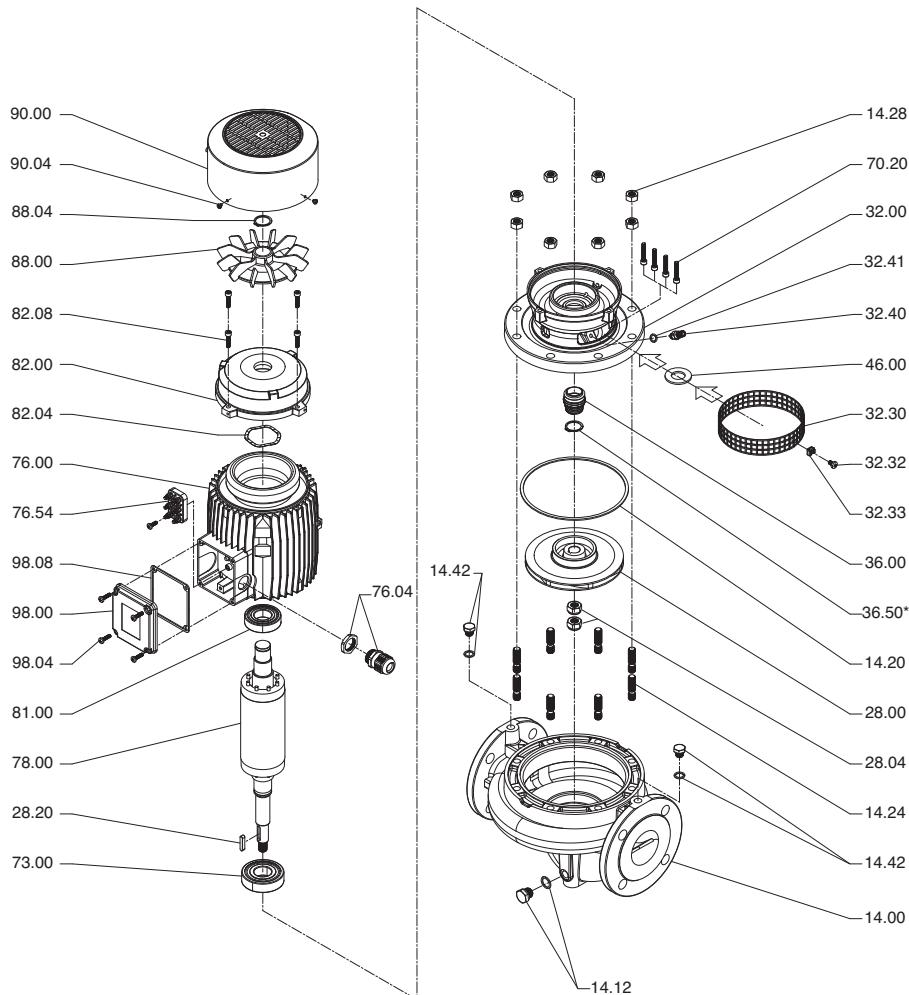
12.3 Designation of parts

English _____

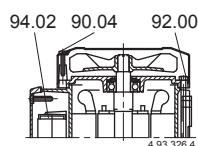
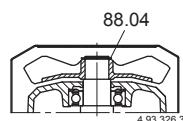
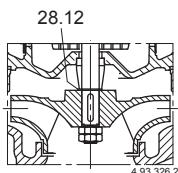
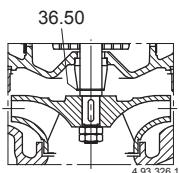
Nr.	Designation
14.00	Pump casing
14.12	Plug (draining)
14.20	O-ring
14.24	Screw
14.28	Nut
14.42	Plug (filling)
28.00	Impeller
28.04	Impeller nut
28.12	Circlip
32.00	Lantern bracket
32.30	Guard
32.32	Screw
32.33	Caged Nut
36.00	Mechanical seal
36.50	Shoulder ring
46.00	Deflector
70.20	Screw
73.00	Pump-side bearing
76.00	Motor casing with winding
76.04	Cable gland
76.54	Terminal box, set
78.00	Shaft with rotor packet
81.00	Fan-side bearing
82.00	Motor end shield, fan side
82.04	Compensating spring
88.00	Motor fan
90.00	Fan cover
92.00	Tie-bolt
94.00	Capacitor
94.02	Capacitor gland
98.00	Terminal box cover
98.04	Screw

12.4.

Drawing for dismantling and assembly



* NR4 65/200 A-B



12.5. Minimum cross-sectional area of conductors

Tab. 1

TAB 1IEC 60335-1

Rated current of appliance	Nominal cross-sectional area
A	mm ²
>0,2 ÷ ≤3	0,5 ^a
>3 ÷ ≤6	0,75
>6 ÷ ≤10	1,0
>10 ÷ ≤16	1,5
>16 ÷ ≤25	2,5
>25 ÷ ≤32	4
>32 ÷ ≤40	6
>40 ÷ ≤63	10

a These cords may only be used if their length does not exceed 2 m between the point where the cord or cord guard enters the appliance and the entry to the plug.



EC - Declaration of Conformity

Manufacturer Details

Tradename

Bedu Pompen BV

Address

Poort van Midden Gelderland Rood 10, 6666 LT, Heteren, Netherlands

Product Details

Product Name

Centrifugal pumps

Model (+series) Name

NR, NR4 series

Applicable Standards Details

Directives

2006/42/EC (Machinery Directive)

2014/35/EU (Low Voltage Directive)

2014/30/EU (Electromagnetic compatibility)

Standards

EN-ISO 12100:2010

EN-IEC 60204-1:2006

EN 809+A1/C1

Additional information

No further details.

Declaration

We hereby declare under our sole responsibility that the product(s) mentioned above to which this declaration relates complies with the above mentioned standards and Directives.

Business Unit Manager: Issued Date:

01/10/2024

Marco van Damme

Signature of representative(s)

BEDU Pompen BV

Poort van Midden Gelderland Rood 10
6666 LT Heteren

Tel : +31 (0)88 - 4802 900
Fax : +31 (0)88 - 4802 901
E-mail : info@bedu.nl
Website : www.bedu.eu



made for your process

- Expert advice
- A customer-oriented organization that adapts to the requirements and wishes of your organization
- Innovative and customized solutions
- Breakdownservice, 24 hours a day, 7 days a week
- Technical service with extensive test facilities, working from our own workplace or at your location
- A fast and appropriate solution for all your issues
- Wide range of liquid pumps
- Repair, maintenance and revision

BEDU POMPEN B.V.
Poort van Midden Gelderland Rood 10
6666 LT HETEREN
Nederland
Telefoon +31 (0)88 4802 900
E-mail sales@bedu.eu

WWW.BEDU.NL

BEDU BELGIUM B.V.B.A.
Industriepark-West 75
9100 SINT-NIKLAAS
België
Telefoon +32 (0)3 80 87 980
E-mail sales@bedu.eu

WWW.BEDU.BE

