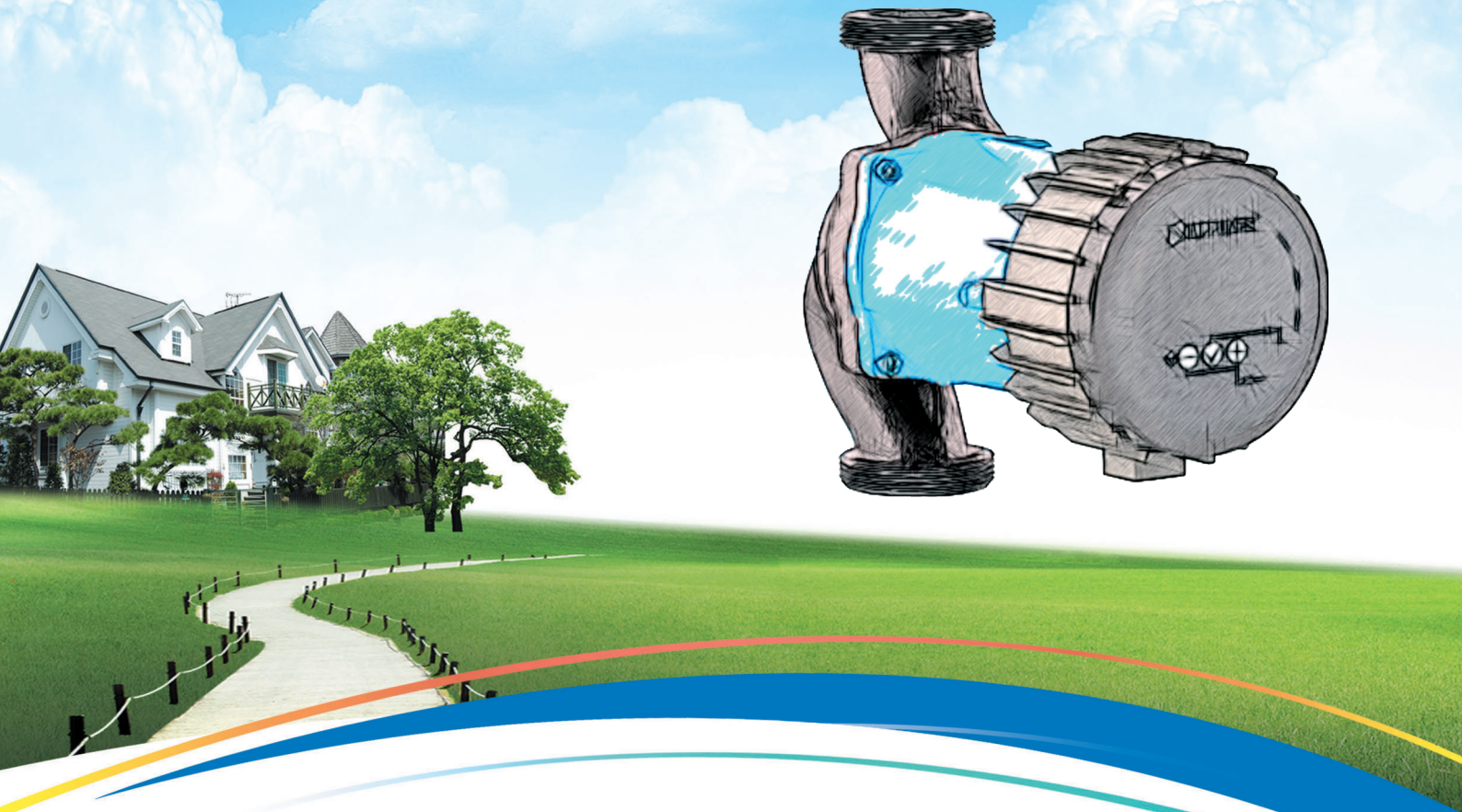
IMPPUMPS®
Intelligent Motor Pumps

www.imp-pumps.com



***Electronically controlled high-efficiency pumps for heating, air conditioning, cooling and sanitary water***

# TECHNICAL DATA

NMT NEW MOTOR TECHNOLOGY

ErP Ready NewMotorTechnolgy

*Investing in your future*
Operation Part Financed By The European Union
European Regional Development Fund

# INDEX



# ErP Regulation (Energy related Products)

**ErP Regulation (Energy related Products) translates as energy-relevant products. The objective of this Regulation 2009 125 EC, is to reduce energy consumption according to the environmental requirements that are being introduced in the EU in the field of circulation pumps in 2013. In the course of the next seven years the Regulation will be put into practice in the following three steps:**

• The first step from 01/08 in 2015 for the energy index up to (max.) 0.23 - Part 2

• The second step from 01/01/2020 for the energy index up to (max.) 0.23 - Part 2 – including pumps, which are being replaced in HVAC systems

The benchmark for most efficient cirulators is EEI ≤ 0,20 - Part 2.

**The IMP PUMPS meet environmental requirements according to ErP regulation with high-efficiency pumps with affordable prices.**

# GENERAL INFORMATION

ALL PRODUCTS AND COMPONENTS ARE MANUFACTURED FROM ENVIRONMENTALLY FRIENDLY MATERIALS.
UPON DISPOSAL INTERNAL ENVIRONMENTAL REGULATION MUST BE CONSIDERED.
FURTHER INFORMATION ON ALL PUMPING PROGRAMS WITH TECHNICAL DATA ARE AVAILABLE ON **WWW.IMP-PUMPS.COM**
GENERAL SALES CONDITIONS AND TERMS OF PAYMENT – DEPENDING ON THE AGREEMENT WITH THE FIRM IMP PUMPS.
IMAGES IN CATALOGUE ARE FOR ILLUSTRATIVE PURPOSES ONLY.
TECHNICAL ADJUSTMENTS AND REVISIONS ARE NOT PERMITTED!

# ABOUT US

IMP PUMPS is Slovenian manufacturer of pumps and pumping systems located in Komenda in Slovenia. Company designs, develops, manufactures, distributes and maintains pumps and pumping systems. With products and services of its own and from strategic partners, company is positioned as provider of integrated solutions. With specialized skills company resolves the problems relating to the transportation of liquid media. This ensures the comfort of home environment and optimal working conditions in the industry.

IMP PUMPS increased turnover in 2014 for 23%. More than 95 % of production is sold in over 60 countries around the world. Company is innovator in the field of electro commutated submersible motors and has the quality certificate ISO 9001:2008.

## History

IMP PUMPS was founded in 1947 and has existed as part of the IMP until the late 1980s. Company successfully survived the change of the economic system and the turbulent nineties and stood on its own feet. Company was privatized in 1997 and 1999. In the year 2000, the company was restructured and renamed in IMP PUMPS d.o.o.. Slovenia's entry into the EU was another initiative for IMP PUMPS intensive development of the sales network in the changing European market, either directly or through its business partners.
At the same time investments in development, marketing, information technology, and philosophy of e-commerce were made.

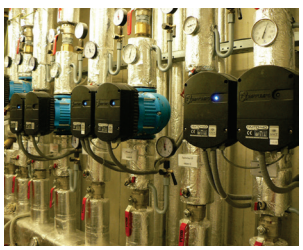
## Present

IMP PUMPS is present with its products and services in many world markets (Eastern and Western Europe, North America, Asia, North Africa and Australia). IMP PUMPS is also a member of EUROPUMP the European Association of Pump Manufacturers. In pump design, high priority is given to the improvement of the energy efficiency of pumps. Excellent results have been reached by the new NMT pump series, using permanent magnets technology for very high efficiency rates.
IMP PUMPS is one of the few European manufacturers, which over the years developed and launched a new generation of pumps with electronically controlled wet running motors. This is one of the main reasons that the company IMP PUMPS is ranked among Europe's technological elite.

Reference: http://imp-pumps.com/en/reference/

## Future

IMP PUMPS Company employees are aware they have become part of global development and the importance of the environment in which they live. Our products are energy efficient and environmentally friendly. We are constantly developing new and more cost effective pumps replacing the old types and investing in the development of intelligent pumps with an



emphasis on digitization and communication. The company plans to further expand its sales on foreign markets and enhance its position among the four largest manufacturer of circulator pumps in Europe.
In the spirit of its motto "The honest product for the honest price", IMP PUMPS intends to maintain the excellent quality of its products at the favorable prices for the customer, along with the application of the latest technologies and prompt service.

# Product overview

The basic production program of IMP PUMPS are circulating pumps for HVAC application. Pumps are flanged or threaded and single or double design with a bronze or cast iron hydraulic casing. All cast iron hydraulics are covered with cataphoresis.

## Wet running circulating pumps

### NMT (electronic savings, ECM, SAN circulation for sanitary water)

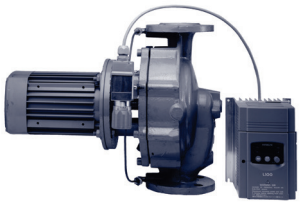



### SAN - for sanitary water



## Dry running circulating pump

### CL, CV, PV, NR (in-line, bloc, with frequency converter)

**Further range of forms**

- **Vertical / horizontal multistage Pumps**
- **Vertical submersible pumps**
- **Monoblock centrifugal pumps**
- **Automatic pressure stations**
- **Self-priming centrifugal pumps**
- **Pressure boosting units**
- **Waste water - sewage pumps**

# NMT PLUS (small pumps)



**NMT (D) (SAN) PLUS (ER) xx/xx - 180 (130)**

- **fitting length [mm]**
- **max head [m]**
- **connection size (DN) [mm]**
- **ER control (0-10V)**
- **model name**
- **bronze hydraulic casting**
- **twin pump**
- **type (new motor technology)**

## Electronically controlled wet running circulating pump

For all heating systems, air conditioning, closed cooling circuits and industrial systems, used in accordance with VDI 2035.

## Product details

- ECM permanent magnet technology with energy efficiency
- proportional pressure control
- constant speed
- built-in electric protection
- easy installation and quiet operation
- automatic air venting
- quality and compact construction for durability

| | |
|---|---|
| **NMT PLUS ER** | - communication with the control module, analog 0-10V |
| **NMTD PLUS** | - twin pump |
| **NMT PLUS SAN** | - bronzed body (for sanitary water) |
| **NMT PLUS PWM** | - solar profile<br>- heating profile |

**Simple control - all in one button:**
button flashes - proportional mode
briefly pressing for switching between curves, then holding approx 5s
button light is on - constant mode
briefly pressing for switching between curves

## Minimum inlet pressure

0.05 bar <75 ° C (fluid temperature)
0.28 bar <90 ° C (fluid temperature)

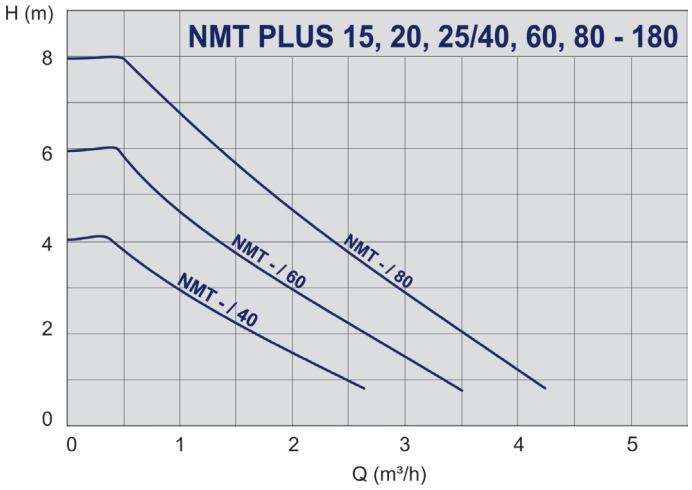
| Material | |
|---|---|
| Hydraulic casing | cast iron/bronze |
| Impeller | polyamid |
| Shaft | ceramics |
| Bearings | ceramics |
| Rotor can | stainless steel AISI 316 |

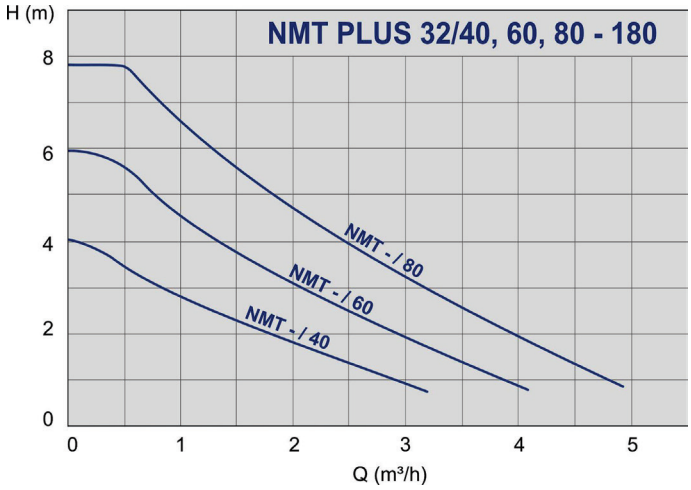
| Technical specification | |
|---|---|
| Qmax | up to 6 m³/h |
| Hmax | up to 8 m |
| DN | 15/20/25/32 |
| Pipe connection | Rp ½ / Rp ¾ / Rp 1/ Rp 1¼ |
| Insulation class | F |
| Degree of protection | IP 44 |
| Voltage | 1 ~ 230V, 50 Hz |

## Permissible mediums

Water, mixed with glycol, parameters must be checked in the mixture of water with over 20% of glycol.
Pure, non-explosive liquid media free of mineral oils and solid particles. Medium temperature from + 5°C to + 110°C, ambient temperature with max. surroundings temperature 40°C.

## Performance range




## NMT PLUS

| Code | Type | EEI | Fitting length [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523951 | NMT PLUS 15/40-130 | 0,17 | 130 | Rp ½ | 20 | 2,0 |
| 979523841 | NMT PLUS 20/40-130 | 0,16 | 130 | Rp ¾ | 20 | 2,1 |
| 979523842 | NMT PLUS 25/40-130 | 0,16 | 130 | Rp 1 | 20 | 2,2 |
| 979523843 | NMT PLUS 15/60-130 | 0,19 | 130 | Rp ½ | 35 | 2,0 |
| 979523844 | NMT PLUS 20/60-130 | 0,18 | 130 | Rp ¾ | 35 | 2,1 |
| 979523845 | NMT PLUS 25/60-130 | 0,18 | 130 | Rp 1 | 35 | 2,2 |
| 979523846 | NMT PLUS 15/80-130 | 0,20 | 130 | Rp ½ | 55 | 2,0 |
| 979523847 | NMT PLUS 20/80-130 | 0,20 | 130 | Rp ¾ | 55 | 2,1 |
| 979523848 | NMT PLUS 25/80-130 | 0,20 | 130 | Rp 1 | 55 | 2,2 |
| 979523849 | NMT PLUS 20/40-180 | 0,16 | 180 | Rp ¾ | 20 | 2,3 |
| 979523850 | NMT PLUS 25/40-180 | 0,16 | 180 | Rp 1 | 20 | 2,4 |
| 979523851 | NMT PLUS 32/40-180 | 0,17 | 180 | Rp 1¼ | 20 | 2,5 |
| 979523852 | NMT PLUS 20/60-180 | 0,18 | 180 | Rp ¾ | 35 | 2,3 |
| 979523853 | NMT PLUS 25/60-180 | 0,18 | 180 | Rp 1 | 35 | 2,4 |
| 979523854 | NMT PLUS 32/60-180 | 0,19 | 180 | Rp 1¼ | 35 | 2,5 |
| 979523855 | NMT PLUS 20/80-180 | 0,20 | 180 | Rp ¾ | 55 | 2,3 |
| 979523856 | NMT PLUS 25/80-180 | 0,20 | 180 | Rp 1 | 55 | 2,4 |
| 979523857 | NMT PLUS 32/80-180 | 0,20 | 180 | Rp 1¼ | 55 | 2,5 |

## NMTD PLUS - twin pump

| Code | Type | EEI | Fitting length [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523937 | NMTD PLUS 25/40-180 | 0,17 | 180 | Rp 1 | 2x20 | 4,9 |
| 979523938 | NMTD PLUS 32/40-180 | 0,16 | 180 | Rp 1¼ | 2x20 | 5,1 |
| 979523939 | NMTD PLUS 25/60-180 | 0,19 | 180 | Rp 1 | 2x35 | 4,9 |
| 979523940 | NMTD PLUS 32/60-180 | 0,20 | 180 | Rp 1¼ | 2x35 | 5,1 |
| 979523941 | NMTD PLUS 25/80-180 | 0,23 | 180 | Rp 1 | 2x55 | 4,9 |
| 979523942 | NMTD PLUS 32/80-180 | 0,22 | 180 | Rp 1¼ | 2x55 | 5,1 |

## NMT PLUS ER - 0-10V analog input

| Code | Type | EEI | Fitting length [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523870 | NMT PLUS ER 15/40-130 | 0,17 | 130 | Rp ½ | 20 | 2,0 |
| 979523871 | NMT PLUS ER 20/40-130 | 0,16 | 130 | Rp ¾ | 20 | 2,1 |
| 979523872 | NMT PLUS ER 25/40-130 | 0,16 | 130 | Rp 1 | 20 | 2,2 |
| 979523873 | NMT PLUS ER 15/60-130 | 0,19 | 130 | Rp ½ | 35 | 2,0 |
| 979523874 | NMT PLUS ER 20/60-130 | 0,18 | 130 | Rp ¾ | 35 | 2,1 |
| 979523875 | NMT PLUS ER 25/60-130 | 0,18 | 130 | Rp 1 | 35 | 2,2 |
| 979523876 | NMT PLUS ER 15/80-130 | 0,20 | 130 | Rp 1 | 55 | 2,0 |
| 979523877 | NMT PLUS ER 20/80-130 | 0,20 | 130 | Rp ¾ | 55 | 2,1 |
| 979523878 | NMT PLUS ER 25/80-130 | 0,20 | 130 | Rp 1 | 55 | 2,2 |
| 979523879 | NMT PLUS ER 20/40-180 | 0,16 | 180 | Rp ¾ | 20 | 2,3 |
| 979523880 | NMT PLUS ER 25/40-180 | 0,16 | 180 | Rp 1 | 20 | 2,4 |
| 979523881 | NMT PLUS ER 32/40-180 | 0,17 | 180 | Rp 1¼ | 20 | 2,5 |
| 979523882 | NMT PLUS ER 20/60-180 | 0,18 | 180 | Rp ¾ | 35 | 2,3 |
| 979523883 | NMT PLUS ER 25/60-180 | 0,18 | 180 | Rp 1 | 35 | 2,4 |
| 979523884 | NMT PLUS ER 32/60-180 | 0,19 | 180 | Rp 1¼ | 35 | 2,5 |
| 979523885 | NMT PLUS ER 20/80-180 | 0,20 | 180 | Rp ¾ | 55 | 2,3 |
| 979523886 | NMT PLUS ER 25/80-180 | 0,20 | 180 | Rp 1 | 55 | 2,4 |
| 979523887 | NMT PLUS ER 32/80-180 | 0,20 | 180 | Rp 1¼ | 55 | 2,5 |

## NMT PLUS PWM SOLAR - digital input

| Code | Type | EEI | Fitting length [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523891 | NMT PLUS PWM S 15/40-130 | 0,17 | 130 | Rp ½ | 20 | 2,0 |
| 979523893 | NMT PLUS PWM S 20/40-130 | 0,16 | 130 | Rp ¾ | 20 | 2,1 |
| 979523895 | NMT PLUS PWM S 25/40-130 | 0,16 | 130 | Rp 1 | 20 | 2,2 |
| 979523897 | NMT PLUS PWM S 15/60-130 | 0,19 | 130 | Rp ½ | 35 | 2,0 |
| 979523899 | NMT PLUS PWM S 20/60-130 | 0,18 | 130 | Rp ¾ | 35 | 2,1 |
| 979523901 | NMT PLUS PWM S 25/60-130 | 0,18 | 130 | Rp 1 | 35 | 2,2 |
| 979523903 | NMT PLUS PWM S 15/80-130 | 0,20 | 130 | Rp 1 | 55 | 2,0 |
| 979523905 | NMT PLUS PWM S 20/80-130 | 0,20 | 130 | Rp ¾ | 55 | 2,1 |
| 979523907 | NMT PLUS PWM S 25/80-130 | 0,20 | 130 | Rp 1 | 55 | 2,2 |
| 979523909 | NMT PLUS PWM S 20/40-180 | 0,16 | 180 | Rp ¾ | 20 | 2,3 |
| 979523911 | NMT PLUS PWM S 25/40-180 | 0,16 | 180 | Rp 1 | 20 | 2,4 |
| 979523913 | NMT PLUS PWM S 32/40-180 | 0,17 | 180 | Rp 1¼ | 20 | 2,5 |
| 979523915 | NMT PLUS PWM S 20/60-180 | 0,18 | 180 | Rp ¾ | 35 | 2,3 |
| 979523917 | NMT PLUS PWM S 25/60-180 | 0,18 | 180 | Rp 1 | 35 | 2,4 |
| 979523919 | NMT PLUS PWM S 32/60-180 | 0,19 | 180 | Rp 1¼ | 35 | 2,5 |
| 979523921 | NMT PLUS PWM S 20/80-180 | 0,20 | 180 | Rp ¾ | 55 | 2,3 |
| 979523923 | NMT PLUS PWM S 25/80-180 | 0,20 | 180 | Rp 1 | 55 | 2,4 |
| 979523925 | NMT PLUS PWM S 32/80-180 | 0,20 | 180 | Rp 1¼ | 55 | 2,5 |

## NMT PLUS PWM HEATING - digital input

| Code | Type | EEI | Fitting length [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523890 | NMT PLUS PWM H 15/40-130 | 0,17 | 130 | Rp ½ | 20 | 2,0 |
| 979523892 | NMT PLUS PWM H 20/40-130 | 0,16 | 130 | Rp ¾ | 20 | 2,1 |
| 979523894 | NMT PLUS PWM H 25/40-130 | 0,16 | 130 | Rp 1 | 20 | 2,2 |
| 979523896 | NMT PLUS PWM H 15/60-130 | 0,19 | 130 | Rp ½ | 35 | 2,0 |
| 979523898 | NMT PLUS PWM H 20/60-130 | 0,18 | 130 | Rp ¾ | 35 | 2,1 |
| 979523900 | NMT PLUS PWM H 25/60-130 | 0,18 | 130 | Rp 1 | 35 | 2,2 |
| 979523902 | NMT PLUS PWM H 15/80-130 | 0,20 | 130 | Rp ½ | 55 | 2,0 |
| 979523904 | NMT PLUS PWM H 20/80-130 | 0,20 | 130 | Rp ¾ | 55 | 2,1 |
| 979523906 | NMT PLUS PWM H 25/80-130 | 0,20 | 130 | Rp 1 | 55 | 2,2 |
| 979523908 | NMT PLUS PWM H 20/40-180 | 0,16 | 180 | Rp ¾ | 20 | 2,3 |
| 979523910 | NMT PLUS PWM H 25/40-180 | 0,16 | 180 | Rp 1 | 20 | 2,4 |
| 979523912 | NMT PLUS PWM H 32/40-180 | 0,17 | 180 | Rp 1¼ | 20 | 2,5 |
| 979523914 | NMT PLUS PWM H 20/60-180 | 0,18 | 180 | Rp ¾ | 35 | 2,3 |
| 979523916 | NMT PLUS PWM H 25/60-180 | 0,18 | 180 | Rp 1 | 35 | 2,4 |
| 979523918 | NMT PLUS PWM H 32/60-180 | 0,19 | 180 | Rp 1¼ | 35 | 2,5 |
| 979523920 | NMT PLUS PWM H 20/80-180 | 0,20 | 180 | Rp ¾ | 55 | 2,3 |
| 979523922 | NMT PLUS PWM H 25/80-180 | 0,20 | 180 | Rp 1 | 55 | 2,4 |
| 979523924 | NMT PLUS PWM H 32/80-180 | 0,20 | 180 | Rp 1¼ | 55 | 2,5 |

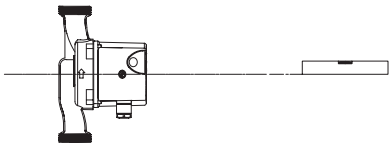
## NMT SAN PLUS - for sanitary hot water systems

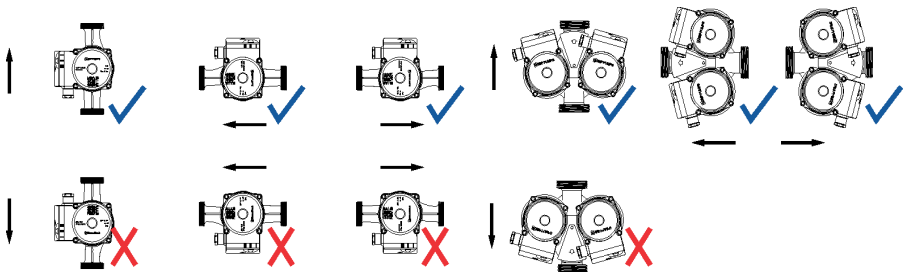
| Code | Type | EEI | Fitting length [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523931 | NMT SAN PLUS 20/40-130 | 0,15 | 130 | Rp ¾ | 20 | 2,25 |
| 979523932 | NMT SAN PLUS 25/40-130 | 0,15 | 130 | Rp 1 | 20 | 2,25 |
| 979523933 | NMT SAN PLUS 20/60-130 | 0,17 | 130 | Rp ¾ | 35 | 2,25 |
| 979523934 | NMT SAN PLUS 25/60-130 | 0,17 | 130 | Rp 1 | 35 | 2,25 |
| 979523935 | NMT SAN PLUS 20/80-130 | 0,19 | 130 | Rp ¾ | 55 | 2,25 |
| 979523936 | NMT SAN PLUS 25/80-130 | 0,19 | 130 | Rp 1 | 55 | 2,25 |

# Installation

After installing the pump, the motor shaft have to remain in horizontal position.

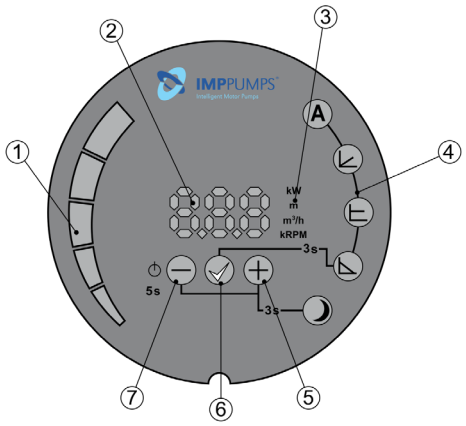
NMT(D) (SAN) PLUS (ER/PWM)





# DISPLAY OPERATION (NMT SMART, NMT MAX, NMT LAN)

With the use of the display panel, you can control and overview pump modes, on/off control, pump parameters and errors.




1. Bar graph display of pump parameters
2. Numeric display of values
3. Display of selected parameter
4. Display of selected mode
5. Selection key
6. Confirmation key
7. Selection key

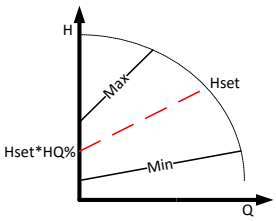
The pump can operate in 5 different modes. We can set the pump in the most appropriate mode, depending on the system where the pump operates.

## Automatic mode

In automatic mode the pump automatically sets the operating pressure, depending on the hydraulic system. By doing so, the pump finds the optimal operating position.
This mode is recommended in most systems.

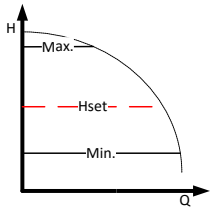
## Proportional pressure

The pump maintains the pressure with relation to the current flow. The pressure is equal to the set pressure (Hset on the drawing) at maximum power; at 0 flow it is equal to HQ % (default 50%, HQ % can be set on the pump webpage) of the set pressure. In between, the pressure changes linearly, relative to the flow. In regulated mode we can only set the pump pressure (Hset on the drawing).



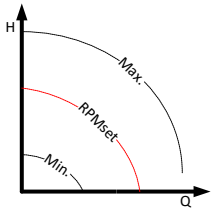

## Constant pressure

The pump maintains the currently set pressure (Hset on the drawing), from 0 flow to maximum power, where the pressure begins to drop.
At constant pressure, we can only set the pressure (Hset on the drawing) which the pump will maintain.




## Constant speed

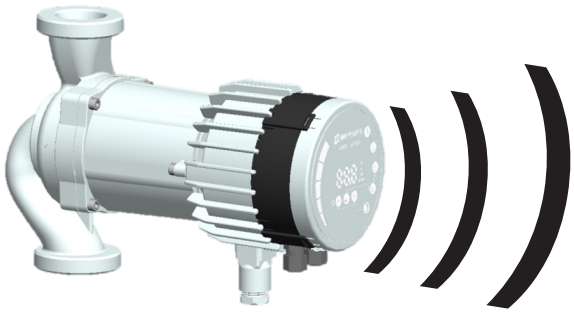
The pump operates with the currently set speed (RPMset on the drawing).
In the unregulated mode, we can only set the speed at which the pump will operate.




## Night mode

Night mode can be activated in combination with any of the operating modes listed above, and allows the circulator to operate at a minimum curve (therefore with very low consumption) when it detects a decrease in liquid temperature of 15-20° C. When temperature rises, it automatically returns to normal operating curve (according to the selected mode).

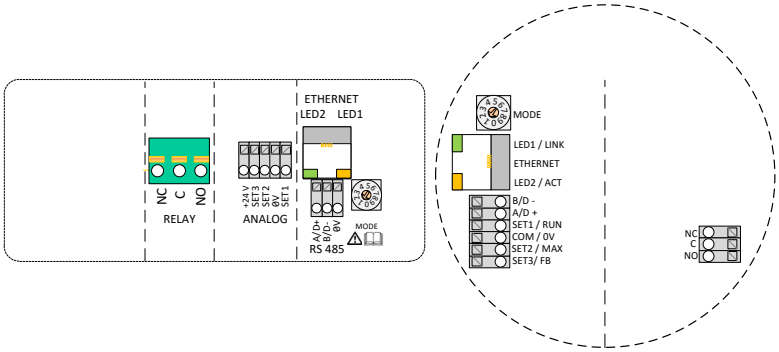
# Communication module



NMTC module can be optionally connected to:
- NMT SMART
- NMT MAX

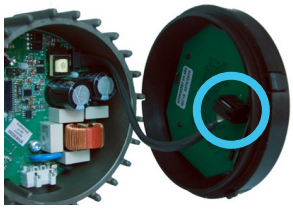
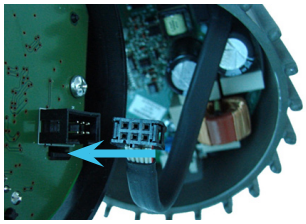
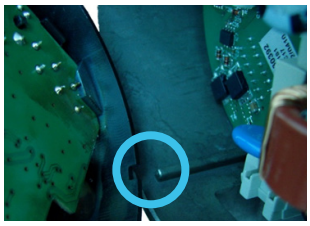
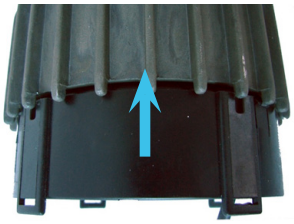
NMTC module can be attached to the pump:
1. At the purchase (different code of the pump):
   - NMT SMART C
   - NMT MAX C
   - MMT LAN C
2. Later after the pump is already running:
   - NMT SMART ⟶ NMT SMART C
   - NMT MAX ⟶ NMT MAX C

This module is used for various remote control applications, including:
- REMOTE ON/OFF
- ANALOG 0-10V VOLTAGE CONTROL
- MODBUS REMOTE CONTROL
- STATUS RELAY FEEDBACK
- WEB ACCESS OVER ETHERNET




## EASY 10 STEP INSTALATION:

- You can attach the C MODULE, even after the pump is already installed and running.
- For the installation you need only 2.4 mm wide flat-bladed screwdriver (more in the photos below).

1. 
2. 
3. 
4. 
5. 
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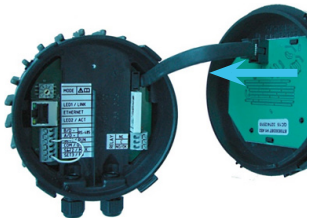
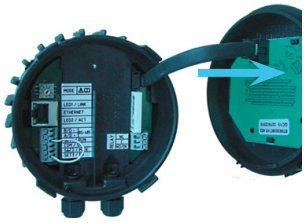
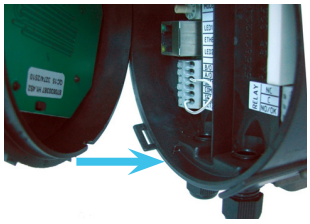
7. 
8. 
9. 
10. 

# NMT SMART



**NMT (D) (SAN) SMART (C) xx/xx - 180 (F)**

- flange connection
- fitting length [mm]
- max head [m]
- connection size (DN) [mm]
- communication
- model name
- bronze hydraulic casting
- twin pump
- type (new motor technology)

## Electronically controlled wet running circulating pump

For all heating systems, air conditioning, closed cooling circuits and industrial systems, used in accordance with VDI 2035 and ErP.

## High efficient wet running pump with auto adapt function

- ECM permanent magnet technology with high energy efficiency
- LED display for control
- built-in electric protection
- easy handling and instalation, low noise operation and automatic venting
- robust and compact construction for long life

### Automatic operation

- Immediate adaptation to the system

### Manual adjustment

- Proportional pressure, constant pressure, constant speed, night mode

## Communication

SMART C - with NMTC communication module (option): Ethernet, Modbus RTU, analog control input 0-10V, 3 analog inputs/outputs, 1 rele output

## Minimum inlet pressure

0.05 bar <75 ° C (fluid temperature)
0.28 bar <90 ° C (fluid temperature)

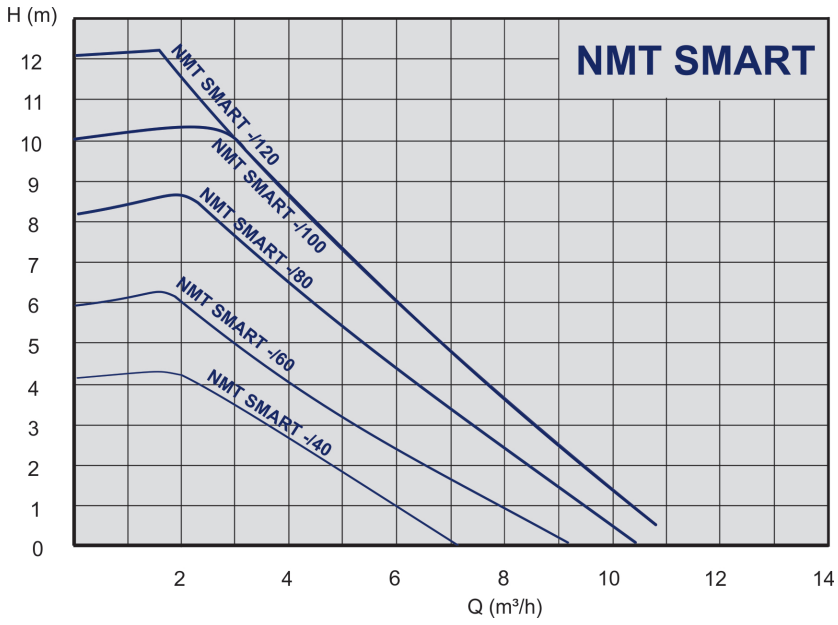
| Material | |
|---|---|
| Hydraulic casing | cast iron/bronze |
| Impeller | PES |
| Shaft | stainless steel AISI 316 |
| Bearings | grafit |
| Rotor can | stainless steel AISI 316 |

| Technical specification | |
|---|---|
| Qmax | up to 12 m³/h |
| Hmax | up to 12 m |
| P | PN10 bar |
| DN | 25/32/40/50 |
| Pipe connection | Rp 1/ Rp 1¼ |
| Installation | flange, threaded |
| Insulation class | F |
| Degree of protection | IP 44 |
| Voltage | 1 ~ 230V, 50 Hz |

## Permissible mediums

Water, mixed with glycol, parameters must be checked in the mixture of water with over 20% of glycol.
Pure, non-explosive liquid media free of mineral oils and solid particles. Medium temperature from + 2°C to + 110°C, ambient temperature with max. surroundings temperature 40°C.

## Performance range




## NMT SMART - threaded pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523477 | NMT SMART 25/40-180 | ≤ 0,20 | 180 | Rp 1 | 60 | 3,25 |
| 979523480 | NMT SMART 25/60-180 | ≤ 0,20 | 180 | Rp 1 | 90 | 3,25 |
| 979523484 | NMT SMART 25/80-180 | ≤ 0,20 | 180 | Rp 1 | 140 | 3,25 |
| 979523301 | NMT SMART 25/100-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,25 |
| 979523664 | NMT SMART 25/120-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,25 |
| 979523478 | NMT SMART 32/40-180 | ≤ 0,20 | 180 | Rp 1¼ | 60 | 3,4 |
| 979523481 | NMT SMART 32/60-180 | ≤ 0,20 | 180 | Rp 1¼ | 90 | 3,4 |
| 979523485 | NMT SMART 32/80-180 | ≤ 0,20 | 180 | Rp 1¼ | 140 | 3,4 |
| 979523216 | NMT SMART 32/100-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 3,4 |
| 979523771 | NMT SMART 32/120-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 3,4 |

## NMT SMART C - threaded pumps with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523488 | NMT SMART C 25/40-180 | ≤ 0,20 | 180 | Rp 1 | 60 | 3,5 |
| 979523491 | NMT SMART C 25/60-180 | ≤ 0,20 | 180 | Rp 1 | 90 | 3,5 |
| 979523495 | NMT SMART C 25/80-180 | ≤ 0,20 | 180 | Rp 1 | 140 | 3,5 |
| 979523371 | NMT SMART C 25/100-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,5 |
| 979524538 | NMT SMART C 25/120-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,5 |
| 979523489 | NMT SMART C 32/40-180 | ≤ 0,20 | 180 | Rp 1¼ | 60 | 3,65 |
| 979523492 | NMT SMART C 32/60-180 | ≤ 0,20 | 180 | Rp 1¼ | 90 | 3,65 |
| 979523496 | NMT SMART C 32/80-180 | ≤ 0,20 | 180 | Rp 1¼ | 140 | 3,65 |
| 979523367 | NMT SMART C 32/100-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 3,65 |
| 979524539 | NMT SMART C 32/120-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 3,65 |

## NMTD SMART - threaded pumps, twin version

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523546 | NMTD SMART 32/40-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x60 | 7,75 |
| 979523547 | NMTD SMART 32/60-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x90 | 7,75 |
| 979523548 | NMTD SMART 32/80-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x140 | 7,75 |
| 979523549 | NMTD SMART 32/100-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x180 | 7,75 |
| 979524592 | NMTD SMART 32/120-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x180 | 7,75 |

## NMTD SMART C - threaded pumps, twin version with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523554 | NMTD SMART C 32/40-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x60 | 8 |
| 979523555 | NMTD SMART C 32/60-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x90 | 8 |
| 979523556 | NMTD SMART C 32/80-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x140 | 8 |
| 979523557 | NMTD SMART C 32/100-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x180 | 8 |
| 979524593 | NMTD SMART C 32/120-180 | ≤ 0,21 | 180 | Rp 1¼ | 2x180 | 8 |

## NMT SMART F - flanged pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523479 | NMT SMART 32/40 F220 | ≤ 0,20 | 220 | DN32 | 60 | 6,45 |
| 979523482 | NMT SMART 32/60 F220 | ≤ 0,20 | 220 | DN32 | 90 | 6,45 |
| 979523486 | NMT SMART 32/80 F220 | ≤ 0,20 | 220 | DN32 | 140 | 6,45 |
| 979523284 | NMT SMART 32/100 F220 | ≤ 0,20 | 220 | DN32 | 180 | 6,45 |
| 979523667 | NMT SMART 32/120 F220 | ≤ 0,20 | 220 | DN32 | 180 | 6,45 |
| 979523514 | NMT SMART 40/40 F220 | ≤ 0,20 | 220 | DN40 | 60 | 7,65 |
| 979523483 | NMT SMART 40/60 F220 | ≤ 0,20 | 220 | DN40 | 90 | 7,65 |
| 979523487 | NMT SMART 40/80 F220 | ≤ 0,20 | 220 | DN40 | 140 | 7,65 |
| 979523285 | NMT SMART 40/100 F220 | ≤ 0,20 | 220 | DN40 | 180 | 7,65 |
| 979524541 | NMT SMART 40/120 F220 | ≤ 0,20 | 220 | DN40 | 180 | 7,65 |
| 979523286 | NMT SMART 50/100 F240 | ≤ 0,20 | 240 | DN50 | 180 | 9,2 |
| 979524542 | NMT SMART 50/120 F240 | ≤ 0,20 | 240 | DN50 | 180 | 9,2 |

## NMT SMART C F - flanged pumps with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523490 | NMT SMART C 32/40 F220 | ≤ 0,20 | 220 | DN32 | 60 | 6,7 |
| 979523493 | NMT SMART C 32/60 F220 | ≤ 0,20 | 220 | DN32 | 90 | 6,7 |
| 979523497 | NMT SMART C 32/80 F220 | ≤ 0,20 | 220 | DN32 | 140 | 6,7 |
| 979523368 | NMT SMART C 32/100 F220 | ≤ 0,20 | 220 | DN32 | 180 | 6,7 |
| 979524540 | NMT SMART C 32/120 F220 | ≤ 0,20 | 220 | DN32 | 180 | 6,7 |
| 979523515 | NMT SMART C 40/40 F220 | ≤ 0,20 | 220 | DN40 | 60 | 7,9 |
| 979523494 | NMT SMART C 40/60 F220 | ≤ 0,20 | 220 | DN40 | 90 | 7,9 |
| 979523498 | NMT SMART C 40/80 F220 | ≤ 0,20 | 220 | DN40 | 140 | 7,9 |
| 979523369 | NMT SMART C 40/100 F220 | ≤ 0,20 | 220 | DN40 | 180 | 7,9 |
| 979524543 | NMT SMART C 40/120 F220 | ≤ 0,20 | 220 | DN40 | 180 | 7,9 |
| 979523370 | NMT SMART C 50/100 F240 | ≤ 0,20 | 240 | DN50 | 180 | 9,45 |
| 979524544 | NMT SMART C 50/120 F240 | ≤ 0,20 | 240 | DN50 | 180 | 9,45 |

## NMTD SMART F - flanged pumps, twin version

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523550 | NMTD SMART 40/40 F220 | ≤ 0,21 | 220 | DN40 | 2x60 | 11,25 |
| 979523551 | NMTD SMART 40/60 F220 | ≤ 0,21 | 220 | DN40 | 2x90 | 11,25 |
| 979523552 | NMTD SMART 40/80 F220 | ≤ 0,21 | 220 | DN40 | 2x140 | 11,25 |
| 979523553 | NMTD SMART 40/100 F220 | ≤ 0,21 | 220 | DN40 | 2x180 | 11,25 |
| 979524545 | NMTD SMART 40/120 F220 | ≤ 0,21 | 220 | DN40 | 2x180 | 11,25 |

## NMTD SMART C F - flanged pumps, twin version with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979523558 | NMTD SMART C 40/40 F220 | ≤ 0,21 | 220 | DN40 | 2x60 | 11,75 |
| 979523559 | NMTD SMART C 40/60 F220 | ≤ 0,21 | 220 | DN40 | 2x90 | 11,75 |
| 979523560 | NMTD SMART C 40/80 F220 | ≤ 0,21 | 220 | DN40 | 2x140 | 11,75 |
| 979523561 | NMTD SMART C 40/100 F220 | ≤ 0,21 | 220 | DN40 | 2x180 | 11,75 |
| 979524546 | NMTD SMART C 40/120 F220 | ≤ 0,21 | 220 | DN40 | 2x180 | 11,75 |

## NMT SAN SMART - threaded bronze hydraulic pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979524527 | NMT SAN SMART 25/40-180 | ≤ 0,20 | 180 | Rp 1 | 60 | 3,73 |
| 979524528 | NMT SAN SMART 25/60-180 | ≤ 0,20 | 180 | Rp 1 | 90 | 3,73 |
| 979524529 | NMT SAN SMART 25/80-180 | ≤ 0,20 | 180 | Rp 1 | 140 | 3,73 |
| 979524530 | NMT SAN SMART 25/100-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,73 |
| 979524531 | NMT SAN SMART 25/120-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,73 |
| 979524479 | NMT SAN SMART 32/40-180 | ≤ 0,20 | 180 | Rp 1¼ | 60 | 3,75 |
| 979524480 | NMT SAN SMART 32/60-180 | ≤ 0,20 | 180 | Rp 1¼ | 90 | 3,75 |
| 979524481 | NMT SAN SMART 32/80-180 | ≤ 0,20 | 180 | Rp 1¼ | 140 | 3,75 |
| 979524482 | NMT SAN SMART 32/100-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 3,75 |
| 979524483 | NMT SAN SMART 32/120-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 3,75 |

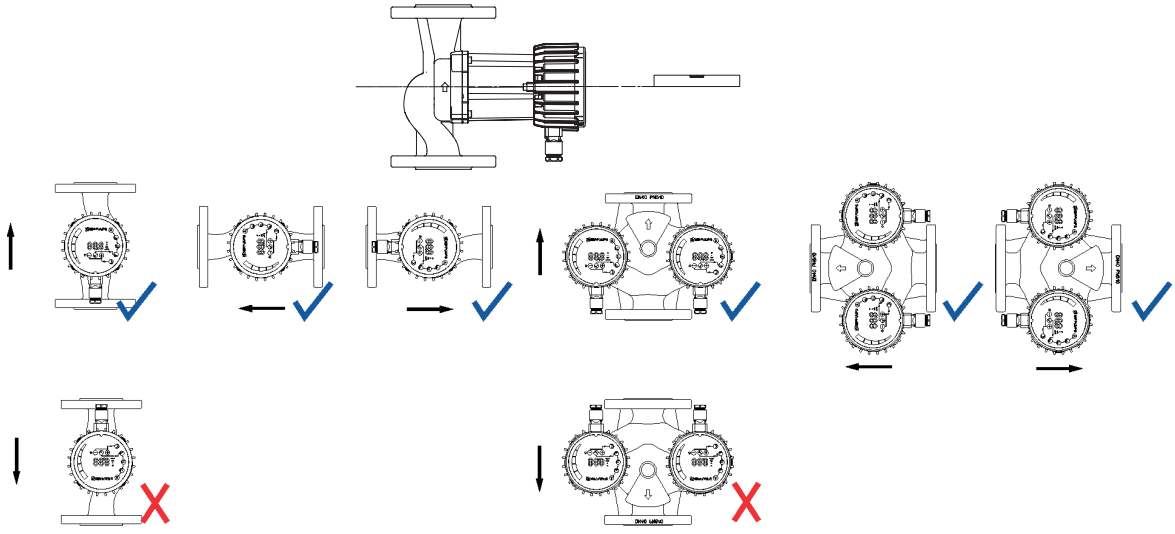
## NMT SAN SMART C - threaded bronze hydraulic pumps with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979524532 | NMT SAN SMART C 25/40-180 | ≤ 0,20 | 180 | Rp 1 | 60 | 3,98 |
| 979524533 | NMT SAN SMART C 25/60-180 | ≤ 0,20 | 180 | Rp 1 | 90 | 3,98 |
| 979524534 | NMT SAN SMART C 25/80-180 | ≤ 0,20 | 180 | Rp 1 | 140 | 3,98 |
| 979524535 | NMT SAN SMART C 25/100-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,98 |
| 979524536 | NMT SAN SMART C 25/120-180 | ≤ 0,20 | 180 | Rp 1 | 180 | 3,98 |
| 979524484 | NMT SAN SMART C 32/40-180 | ≤ 0,20 | 180 | Rp 1¼ | 60 | 4 |
| 979524485 | NMT SAN SMART C 32/60-180 | ≤ 0,20 | 180 | Rp 1¼ | 90 | 4 |
| 979524486 | NMT SAN SMART C 32/80-180 | ≤ 0,20 | 180 | Rp 1¼ | 140 | 4 |
| 979524487 | NMT SAN SMART C 32/100-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 4 |
| 979524488 | NMT SAN SMART C 32/120-180 | ≤ 0,20 | 180 | Rp 1¼ | 180 | 4 |

# Installation

After installing the pump, the motor shaft have to remain in horizontal position.

NMT(D) (SAN) SMART (C) (F)



# NMT MAX




**NMT (D) (SAN) MAX (C) xx/xxx (F)**

- flange connection
- max head [m]
- connection size (DN) [mm]
- communication
- model name
- bronze hydraulic casting
- twin pump
- type (new motor technology)

## Electronically controlled wet running circulating pump

For all heating systems, air conditioning, closed cooling circuits and industrial systems, used in accordance with VDI 2035 and ErP.

## High efficient wet running pump with auto adapt function

- ECM permanent magnet technology with high energy efficiency
- LED display for control
- built-in electric protection
- easy handling and instalation, low noise operation and automatic venting
- robust and compact construction for long life

### Automatic operation

- Immediate adaptation to the system

### Manual adjustment

- Proportional pressure, constant pressure, constant speed, night mode

## Communication

MAX C - with NMTC communication module (option): Ethernet, Modbus RTU, analog control input 0-10V, 3 analog inputs/outputs, 1 rele output

## Minimum inlet pressure

0.05 bar <75 ° C (fluid temperature)
0.28 bar <90 ° C (fluid temperature)

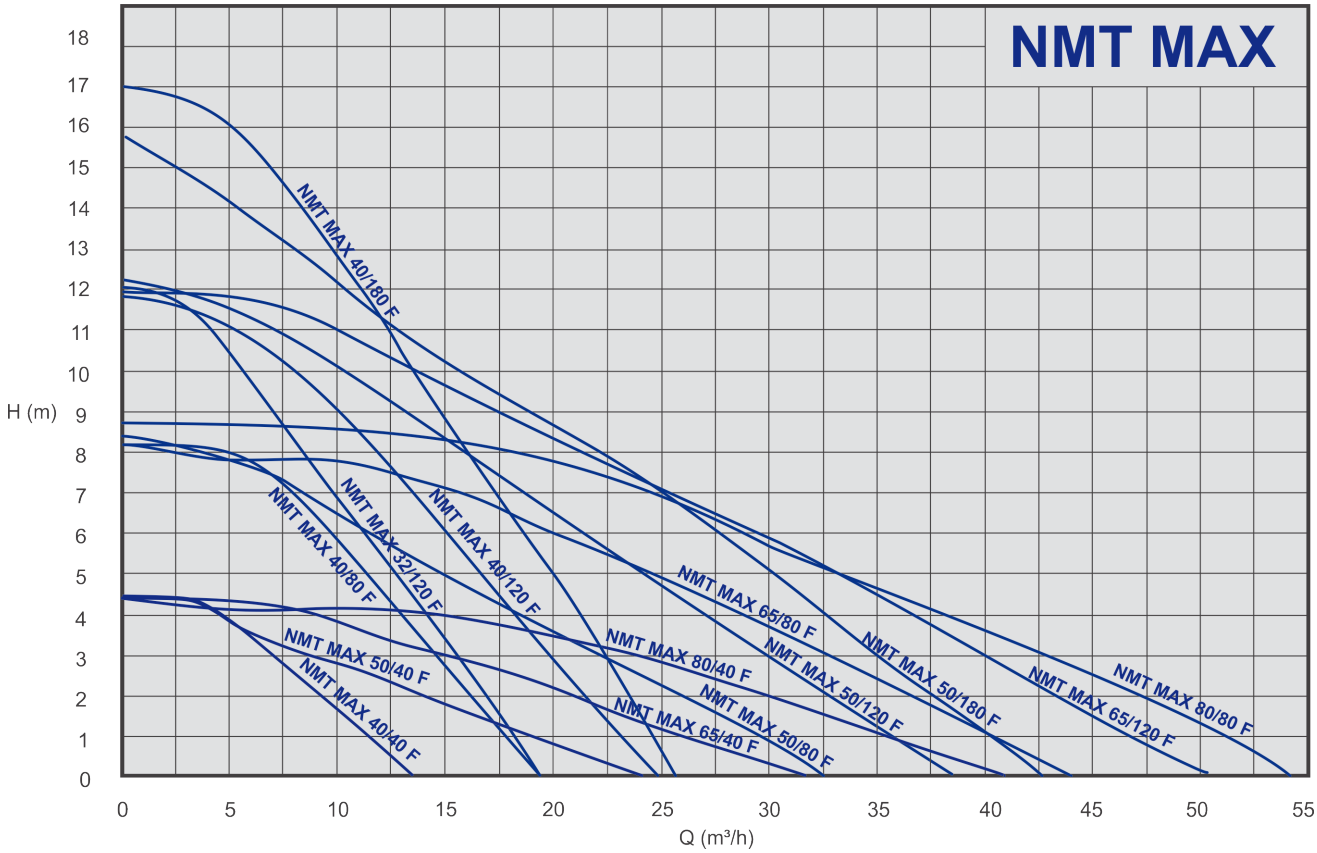
| Material | |
|---|---|
| Hydraulic casing | cast iron/bronze |
| Impeller | PES |
| Shaft | stainless steel AISI 316 |
| Bearings | grafit |
| Rotor can | stainless steel AISI 316 |

| Technical specification | |
|---|---|
| Qmax | up to 55 $m^3/h$ |
| Hmax | up to 16,5 m |
| p | PN 6/10 bar |
| DN | 40/50/65/80 |
| Installation | flange |
| Insulation class | F |
| Degree of protection | IP 44 |
| Voltage | 1 ~ 230V, 50 Hz |

## Permissible mediums

Water, mixed with glycol, parameters must be checked in the mixture of water with over 20% of glycol. Pure, non-explosive liquid media free of mineral oils and solid particles. Medium temperature from + 2°C to + 110°C, ambient temperature with max. surroundings temperature 40°C.

## Performance range




## NMT MAX - flanged pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979524665 | NMT MAX 32/120 F220 | ≤ 0,22 | 220 | DN32 | PN6/10 | 370 | 9,1 |
| 979523694 | NMT MAX 40/40 F220 | ≤ 0,20 | 220 | DN40 | PN6/10 | 110 | 7,75 |
| 979524027 | NMT MAX 40/40 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 110 | 8,2 |
| 979523863 | NMT MAX 40/80 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 270 | 9,15 |
| 979523861 | NMT MAX 40/80 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 270 | 9,6 |
| 979523839 | NMT MAX 40/120 F220 | ≤ 0,20 | 220 | DN40 | PN6/10 | 480 | 9,5 |
| 979523502 | NMT MAX 40/120 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 480 | 9,95 |
| 979524492 | NMT MAX 40/180 F220 | ≤ 0,23 | 220 | DN40 | PN6/10 | 680 | 13,85 |
| 979524490 | NMT MAX 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 680 | 14,2 |
| 979524522 | NMT MAX 50/40 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 160 | 10,8 |
| 979524547 | NMT MAX 50/80 F280 | ≤ 0,22 | 280 | DN50 | PN6/10 | 370 | 12,35 |
| 979523869 | NMT MAX 50/120 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 560 | 13 |
| 979524898 | NMT MAX 50/180 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 830 | 15,9 |
| 979524756 | NMT MAX 65/40 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 230 | 15,95 |
| 979524757 | NMT MAX 65/80 F340 | ≤ 0,22 | 340 | DN65 | PN6/10 | 560 | 16,65 |
| 979524758 | NMT MAX 65/120 F340 | ≤ 0,20 | 340 | DN65 | PN6/10 | 810 | 19,3 |
| 979524774 | NMT MAX 80/40 F360 PN6 | ≤ 0,20 | 360 | DN80 | PN6 | 390 | 23,4 |
| 979524780 | NMT MAX 80/40 F360 PN10 | ≤ 0,20 | 360 | DN80 | PN10 | 390 | 23,4 |
| 979524775 | NMT MAX 80/80 F360 PN6 | ≤ 0,20 | 360 | DN80 | PN6 | 800 | 25,85 |
| 979524781 | NMT MAX 80/80 F360 PN10 | ≤ 0,20 | 360 | DN80 | PN10 | 800 | 25,85 |

## NMT MAX C - flanged fump with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979524666 | NMT MAX C 32/120 F220 | ≤ 0,22 | 220 | DN32 | PN6/10 | 370 | 9,35 |
| 979524026 | NMT MAX C 40/40 F220 | ≤ 0,20 | 220 | DN40 | PN6/10 | 110 | 8 |
| 979523695 | NMT MAX C 40/40 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 110 | 8,45 |
| 979523867 | NMT MAX C 40/80 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 270 | 9,4 |
| 979523865 | NMT MAX C 40/80 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 270 | 9,85 |
| 979523840 | NMT MAX C 40/120 F220 | ≤ 0,20 | 220 | DN40 | PN6/10 | 480 | 9,75 |
| 979523503 | NMT MAX C 40/120 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 480 | 10,2 |
| 979524493 | NMT MAX C 40/180 F220 | ≤ 0,23 | 220 | DN40 | PN6/10 | 680 | 14,1 |
| 979524491 | NMT MAX C 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 680 | 14,45 |
| 979524523 | NMT MAX C 50/40 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 160 | 11,05 |
| 979524548 | NMT MAX C 50/80 F280 | ≤ 0,22 | 280 | DN50 | PN6/10 | 370 | 12,6 |
| 979524028 | NMT MAX C 50/120 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 560 | 13,25 |
| 979524939 | NMT MAX C 50/180 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 830 | 16,15 |
| 979524762 | NMT MAX C 65/40 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 230 | 16,2 |
| 979524763 | NMT MAX C 65/80 F340 | ≤ 0,22 | 340 | DN65 | PN6/10 | 560 | 16,9 |
| 979524764 | NMT MAX C 65/120 F340 | ≤ 0,20 | 340 | DN65 | PN6/10 | 810 | 19,55 |
| 979524777 | NMT MAX C 80/40 F360 PN6 | ≤ 0,20 | 360 | DN80 | PN6 | 390 | 23,65 |
| 979524783 | NMT MAX C 80/40 F360 PN10 | ≤ 0,20 | 360 | DN80 | PN10 | 390 | 23,65 |
| 979524778 | NMT MAX C 80/80 F360 PN6 | ≤ 0,20 | 360 | DN80 | PN6 | 800 | 26,1 |
| 979524784 | NMT MAX C 80/80 F360 PN10 | ≤ 0,20 | 360 | DN80 | PN10 | 800 | 26,1 |

## NMTD MAX - twin pump

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979524667 | NMTD MAX 32/120 F220 | ≤ 0,22 | 220 | DN32 | PN6/10 | 2x370 | |
| 979524032 | NMTD MAX 40/40 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 2x110 | |
| 979524034 | NMTD MAX 40/40 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 2x110 | 14,25 |
| 979524518 | NMTD MAX 40/80 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 2x270 | |
| 979524519 | NMTD MAX 40/80 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 2x270 | 16,7 |
| 979523708 | NMTD MAX 40/120 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 2x480 | |
| 979523710 | NMTD MAX 40/120 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 2x480 | 16,85 |
| 979524496 | NMTD MAX 40/180 F220 | ≤ 0,23 | 220 | DN40 | PN6/10 | 2x680 | |
| 979524494 | NMTD MAX 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 2x680 | 25 |
| 979524524 | NMTD MAX 50/40 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 2x160 | 19,56 |
| 979524549 | NMTD MAX 50/80 F280 | ≤ 0,22 | 280 | DN50 | PN6/10 | 2x370 | 22,38 |
| 979523997 | NMTD MAX 50/120 F280 | ≤ 0,21 | 280 | DN50 | PN6/10 | 2x560 | 23,55 |
| 979524940 | NMTD MAX 50/180 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 2x830 | 28,8 |
| 979524768 | NMTD MAX 65/40 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 2x230 | 32,15 |
| 979524769 | NMTD MAX 65/80 F340 | ≤ 0,22 | 340 | DN65 | PN6/10 | 2x560 | 32,7 |
| 979524770 | NMTD MAX 65/120 F340 | ≤ 0,20 | 340 | DN65 | PN6/10 | 2x810 | 38,4 |
| 979524786 | NMTD MAX 80/40 F360 PN6 | ≤ 0,22 | 360 | DN80 | PN6 | 2x390 | |
| 979524792 | NMTD MAX 80/40 F360 PN10 | ≤ 0,22 | 360 | DN80 | PN10 | 2x390 | |
| 979524787 | NMTD MAX 80/80 F360 PN6 | ≤ 0,20 | 360 | DN80 | PN6 | 2x800 | |
| 979524793 | NMTD MAX 80/80 F360 PN10 | ≤ 0,20 | 360 | DN80 | PN10 | 2x800 | |

## NMTD MAX C - twin pump with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979524668 | NMTD MAX C 32/120 F220 | ≤ 0,22 | 220 | DN32 | PN6/10 | 2x370 | |
| 979524033 | NMTD MAX C 40/40 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 2x110 | |
| 979524035 | NMTD MAX C 40/40 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 2x110 | 14,75 |
| 979524520 | NMTD MAX C 40/80 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 2x270 | |
| 979524521 | NMTD MAX C 40/80 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 2x270 | 17,2 |
| 979523709 | NMTD MAX C 40/120 F220 | ≤ 0,21 | 220 | DN40 | PN6/10 | 2x480 | |
| 979523711 | NMTD MAX C 40/120 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 2x480 | 17,35 |
| 979524497 | NMTD MAX C 40/180 F220 | ≤ 0,23 | 220 | DN40 | PN6/10 | 2x680 | |
| 979524495 | NMTD MAX C 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 2x680 | 25,5 |
| 979524525 | NMTD MAX C 50/40 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 2x160 | 20,06 |
| 979524550 | NMTD MAX C 50/80 F280 | ≤ 0,22 | 280 | DN50 | PN6/10 | 2x370 | 22,88 |
| 979524029 | NMTD MAX C 50/120 F280 | ≤ 0,21 | 280 | DN50 | PN6/10 | 2x560 | 24,05 |
| 979524941 | NMTD MAX C 50/180 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 2x830 | 29,3 |
| 979524771 | NMTD MAX C 65/40 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 2x230 | 32,65 |
| 979524772 | NMTD MAX C 65/80 F340 | ≤ 0,22 | 340 | DN65 | PN6/10 | 2x560 | 33,2 |
| 979524773 | NMTD MAX C 65/120 F340 | ≤ 0,20 | 340 | DN65 | PN6/10 | 2x810 | 38,9 |
| 979524789 | NMTD MAX C 80/40 F360 PN6 | ≤ 0,22 | 360 | DN80 | PN6 | 2x390 | |
| 979524795 | NMTD MAX C 80/40 F360 PN10 | ≤ 0,22 | 360 | DN80 | PN10 | 2x390 | |
| 979524790 | NMTD MAX C 80/80 F360 PN6 | ≤ 0,20 | 360 | DN80 | PN6 | 2x800 | |
| 979524796 | NMTD MAX C 80/80 F360 PN10 | ≤ 0,20 | 360 | DN80 | PN10 | 2x800 | |

## NMT SAN MAX - bronze hydraulic pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979524892 | NMT SAN MAX 40/40 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 110 | 10,35 |
| 979524556 | NMT SAN MAX 40/80 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 270 | 11,75 |
| 979524557 | NMT SAN MAX 40/120 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 480 | 12,1 |
| 979524891 | NMT SAN MAX 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 680 | 16,35 |
| 979524896 | NMT SAN MAX 50/40 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 160 | |
| 979524560 | NMT SAN MAX 50/80 F280 | ≤ 0,22 | 280 | DN50 | PN6/10 | 370 | |
| 979524561 | NMT SAN MAX 50/120 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 560 | 16,5 |
| 979524942 | NMT SAN MAX 50/180 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 830 | |
| 979524759 | NMT SAN MAX 65/40 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 230 | |
| 979524760 | NMT SAN MAX 65/80 F340 | ≤ 0,22 | 340 | DN65 | PN6/10 | 560 | |
| 979524761 | NMT SAN MAX 65/120 F340 | ≤ 0,20 | 340 | DN65 | PN6/10 | 810 | |

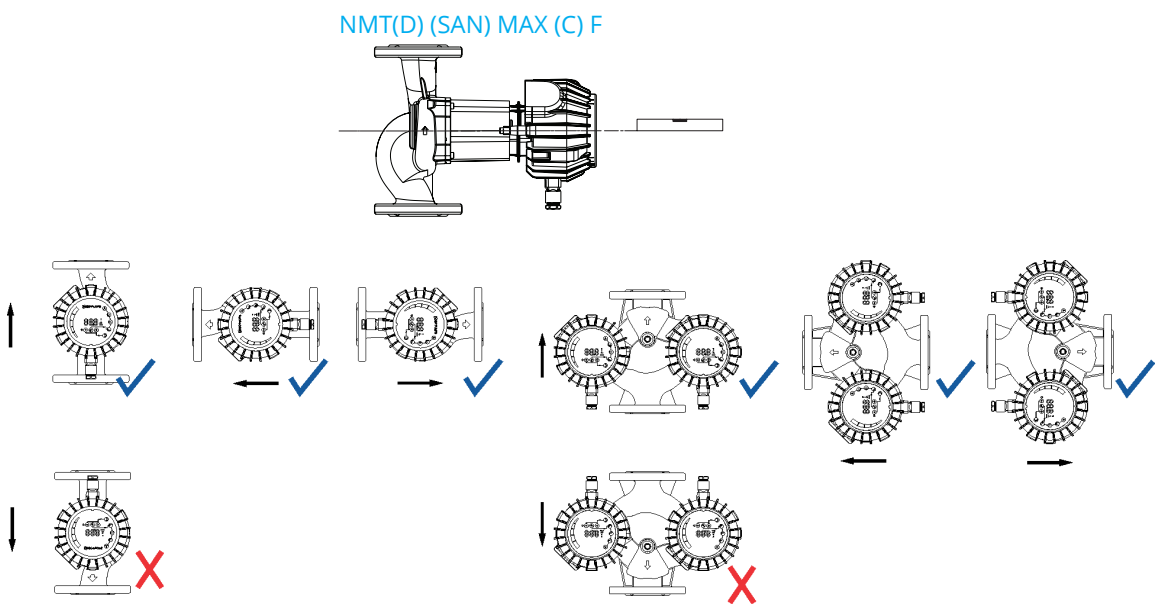
## NMT SAN MAX C - bronze hydraulic pumps with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979524894 | NMT SAN MAX C 40/40 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 110 | 10,6 |
| 979524558 | NMT SAN MAX C 40/80 F250 | ≤ 0,21 | 250 | DN40 | PN6/10 | 270 | 12 |
| 979524559 | NMT SAN MAX C 40/120 F250 | ≤ 0,20 | 250 | DN40 | PN6/10 | 480 | 12,35 |
| 979524893 | NMT SAN MAX C 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 680 | 16,6 |
| 979524897 | NMT SAN MAX C 50/40 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 160 | |
| 979524562 | NMT SAN MAX C 50/80 F280 | ≤ 0,22 | 280 | DN50 | PN6/10 | 370 | |
| 979524563 | NMT SAN MAX C 50/120 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 560 | 17 |
| 979524943 | NMT SAN MAX C 50/180 F280 | ≤ 0,20 | 280 | DN50 | PN6/10 | 830 | |
| 979524765 | NMT SAN MAX C 65/40 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 230 | |
| 979524766 | NMT SAN MAX C 65/80 F340 | ≤ 0,22 | 340 | DN65 | PN6/10 | 560 | |
| 979524767 | NMT SAN MAX C 65/120 F340 | ≤ 0,20 | 340 | DN65 | PN6/10 | 810 | |

# Installation

After installing the pump, the motor shaft have to remain in horizontal position.

NMT(D) (SAN) MAX (C) F



# NMT LAN



**NMT (D) (SAN) LAN (C) xx/xxx (F)**

- flange connection
- max head [m]
- connection size (DN) [mm]
- communication
- model name
- bronze hydraulic casting
- twin pump
- type (new motor technology)

**Electronically controlled wet running circulating pump**
For all heating systems, air conditioning, closed cooling circuits and industrial systems, used in accordance with VDI 2035 and ErP.

**High efficient wet running pump with auto adapt function**
- ECM permanent magnet technology with high energy efficiency
- LED display for control
- Integrated web server for controlling pumps
- built-in electric and thermal protection
- easy handling and instalation, low noise operation and automatic venting
- robust and compact construction for long life

**Automatic operation**
- Immediate adaptation to the system

**Manual adjustment**
- Proportional pressure, constant pressure, constant speed, night mode

**Communication**
NMT LAN - Ethernet, 2 digital inputs, 1 relay output
NMT LAN C - Ethernet, Modbus RTU, 3 analog inputs/outputs (0-10V), 1 relay output

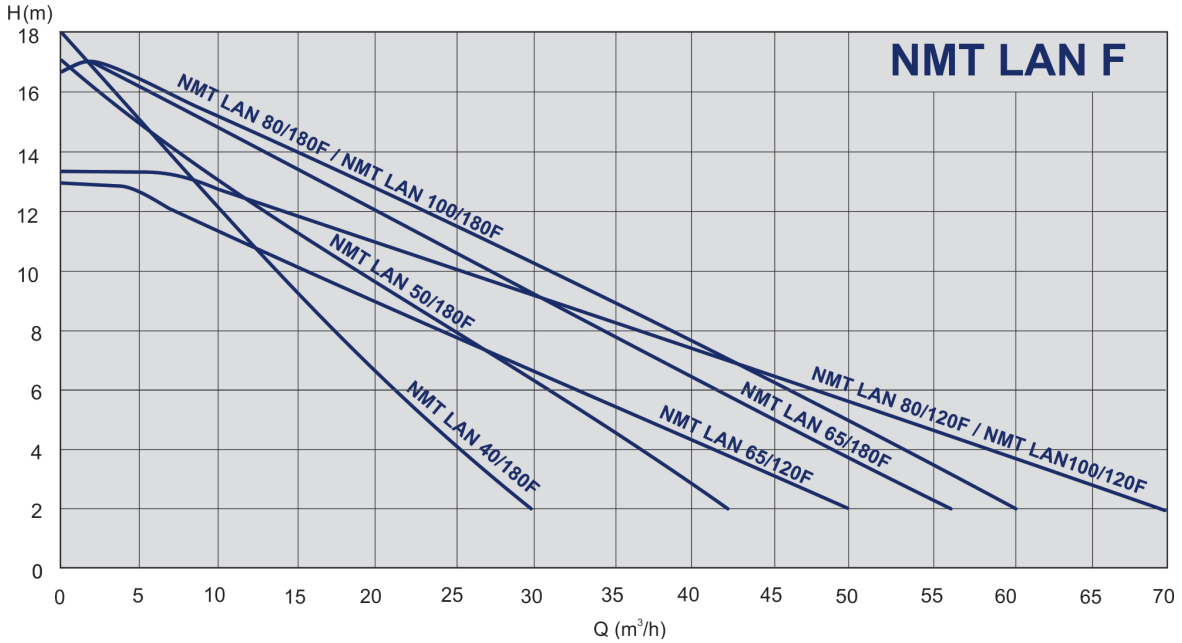
**Minimum inlet pressure**
0.05 bar < 50°C (fluid temperature)
0.8 bar < 80°C (fluid temperature)
1,4 bar < 110 (fluid temperature)

| Material | |
|---|---|
| Hydraulic casing | cast iron/bronze |
| Impeller | stainless steel AISI 316 |
| Shaft | stainless steel AISI 316 |
| Bearings | grafit |
| Rotor can | stainless steel AISI 316 |

| Technical specification | |
|---|---|
| Qmax | up to 78 $m^3/h$ |
| Hmax | up to 18 m |
| p | PN 6/10 bar |
| DN | 40/50/65/80/100 |
| Installation | flange |
| Insulation class | H |
| Degree of protection | IP 44 |
| Voltage | 1 ~ 230V, 50 Hz |

**Permissible mediums**
Water, mixed with glycol, parameters must be checked in the mixture of water with over 20% of glycol. Pure, non-explosive liquid media free of mineral oils and solid particles. Medium temperature from -10°C to +110°C, ambient temperature with max. surroundings temperature 40°C.

## Performance range




## NMT LAN xx F - flanged pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979523651 | NMT LAN 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 800 | 30,5 |
| 979523652 | NMT LAN 50/180 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 1100 | 35,2 |
| 979523462 | NMT LAN 65/120 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 1100 | 35,2 |
| 979523653 | NMT LAN 65/180 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 1500 | 42,1 |
| 979523463 | NMT LAN 80/120 F360 PN6 | ≤ 0,23 | 360 | DN80 | PN6 | 1600 | 42,1 |
| 979523464 | NMT LAN 80/120 F360 PN10 | ≤ 0,23 | 360 | DN80 | PN10 | 1600 | 42,1 |
| 979523654 | NMT LAN 80/180 F360 PN6 | ≤ 0,23 | 360 | DN80 | PN6 | 1600 | 42,1 |
| 979523655 | NMT LAN 80/180 F360 PN10 | ≤ 0,23 | 360 | DN80 | PN10 | 1600 | 42,1 |
| 979523465 | NMT LAN 100/120 F360 PN6 | ≤ 0,23 | 360 | DN100 | PN6 | 1600 | 42,1 |
| 979523466 | NMT LAN 100/120 F360 PN10 | ≤ 0,23 | 360 | DN100 | PN10 | 1600 | 42,1 |
| 979523656 | NMT LAN 100/180 F360 PN6 | ≤ 0,23 | 360 | DN100 | PN6 | 1600 | 42,1 |
| 979523657 | NMT LAN 100/180 F360 PN10 | ≤ 0,23 | 360 | DN100 | PN10 | 1600 | 42,1 |

## NMT LAN C xx F - flanged pumps with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979523714 | NMT LAN C 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 800 | 30,5 |
| 979523715 | NMT LAN C 50/180 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 1000 | 35,2 |
| 979523614 | NMT LAN C 65/120 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 1100 | 35,2 |
| 979523716 | NMT LAN C 65/180 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 1500 | 42,1 |
| 979523615 | NMT LAN C 80/120 F360 PN 6 | ≤ 0,23 | 360 | DN80 | PN6 | 1600 | 42,1 |
| 979523616 | NMT LAN C 80/120 F360 PN 10 | ≤ 0,23 | 360 | DN80 | PN10 | 1600 | 42,1 |
| 979523717 | NMT LAN C 80/180 F360 PN 6 | ≤ 0,23 | 360 | DN80 | PN6 | 1600 | 42,1 |
| 979523718 | NMT LAN C 80/180 F360 PN 10 | ≤ 0,23 | 360 | DN80 | PN10 | 1600 | 42,1 |
| 979523617 | NMT LAN C 100/120 F360 PN 6 | ≤ 0,23 | 360 | DN100 | PN6 | 1600 | 42,1 |
| 979523618 | NMT LAN C 100/120 F360 PN 10 | ≤ 0,23 | 360 | DN100 | PN10 | 1600 | 42,1 |
| 979523719 | NMT LAN C 100/180 F360 PN 6 | ≤ 0,23 | 360 | DN100 | PN6 | 1600 | 42,1 |
| 979523720 | NMT LAN C 100/180 F360 PN 10 | ≤ 0,23 | 360 | DN100 | PN10 | 1600 | 42,1 |

## NMTD LAN xx F - twin pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979523658 | NMTD LAN 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 2x800 | 73,7 |
| 979523659 | NMTD LAN 50/180 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 2x1100 | 73,7 |
| 979523469 | NMTD LAN 65/120 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 2x1100 | 73,7 |
| 979523660 | NMTD LAN 65/180 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 2x1500 | 73,7 |
| 979523470 | NMTD LAN 80/120 F360 PN 6 | ≤ 0,23 | 360 | DN80 | PN6 | 2x1600 | 87,2 |
| 979523471 | NMTD LAN 80/120 F360 PN 10 | ≤ 0,23 | 360 | DN80 | PN10 | 2x1600 | 87,2 |
| 979523661 | NMTD LAN 80/180 F360 PN 6 | ≤ 0,23 | 360 | DN80 | PN6 | 2x1600 | 87,2 |
| 979523662 | NMTD LAN 80/180 F360 PN 10 | ≤ 0,23 | 360 | DN80 | PN10 | 2x1600 | 87,2 |

## NMTD LAN C xx F - twin pumps with communication module

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979523721 | NMTD LAN C 40/180 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 2x800 | 73,7 |
| 979523722 | NMTD LAN C 50/180 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 2x1000 | 73,7 |
| 979523627 | NMTD LAN C 65/120 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 2x1100 | 73,7 |
| 979523723 | NMTD LAN C 65/180 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 2x1500 | 73,7 |
| 979523628 | NMTD LAN C 80/120 F360 PN 6 | ≤ 0,23 | 360 | DN80 | PN6 | 2x1600 | 87,2 |
| 979523629 | NMTD LAN C 80/120 F360 PN 10 | ≤ 0,23 | 360 | DN80 | PN10 | 2x1600 | 87,2 |
| 979523724 | NMTD LAN C 80/180 F360 PN 6 | ≤ 0,23 | 360 | DN80 | PN6 | 2x1600 | 87,2 |
| 979523725 | NMTD LAN C 80/180 F360 PN 10 | ≤ 0,23 | 360 | DN80 | PN10 | 2x1600 | 87,2 |

## NMT SAN LAN xx F - bronze hydraulic pumps

| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979523606 | NMT SAN LAN 40/120 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 500 | |
| 979523607 | NMT SAN LAN 50/120 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 800 | |
| 979523608 | NMT SAN LAN 65/120 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 1100 | |

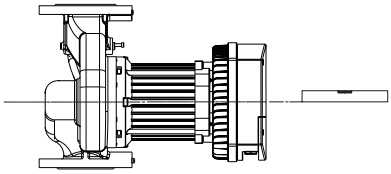
## NMT SAN LAN C xx F - bronze hydraulic pumps with communication module

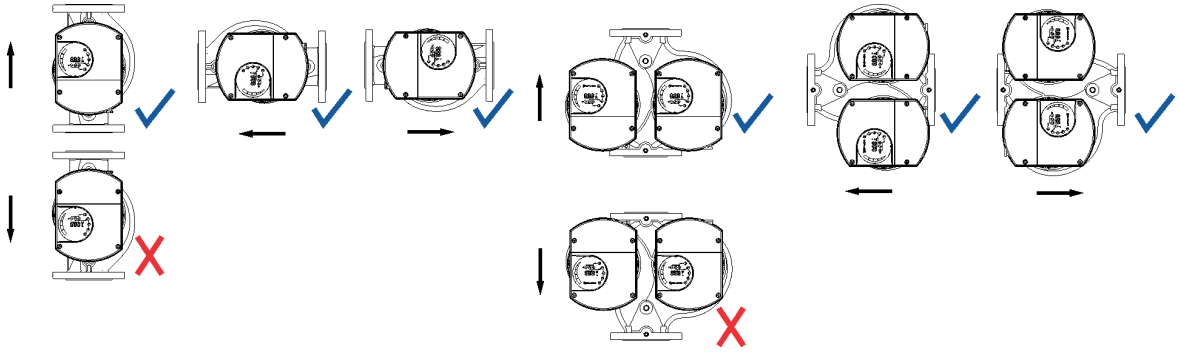
| Code | Type | EEI | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| 979523609 | NMT SAN LAN C 40/120 F250 | ≤ 0,23 | 250 | DN40 | PN6/10 | 500 | |
| 979523610 | NMT SAN LAN C 50/120 F280 | ≤ 0,23 | 280 | DN50 | PN6/10 | 800 | |
| 979523611 | NMT SAN LAN C 65/120 F340 | ≤ 0,23 | 340 | DN65 | PN6/10 | 1100 | |

# Installation

After installing the pump, the motor shaft have to remain in horizontal position.

NMT(D) (SAN) LAN (C) F





# SAN (small pumps) - pumps for sanitary water

## SAN (ECO) xx/xx - 130 (180)

- **fitting length [mm]**
- **max head [m]**
- **connection size (DN) [mm]**
- **3 speed pump for sanitary water**

**SAN ECO 15/15**
High efficient, manually adjustable circulating pumps for hot water.
The spherical motor - without shaft, bronzed body.

**4 versions of pumps:**

| | |
|---|---|
| B | basic version |
| BU | with timer |
| BTU | with thermostat and timer |
| BT | with thermostat (range 20 - 70°C) |

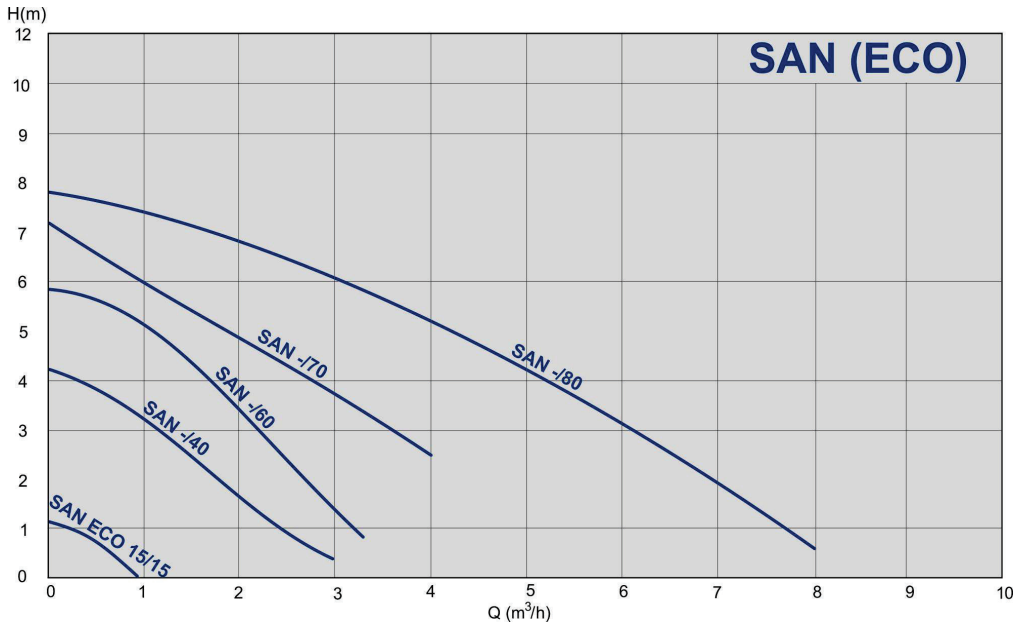
**SAN xx / xx - 130 (180)**
3-speed pump for circulating water
Bronze body, robust construction, maintenance-free operation

**Minimum inlet pressure**
0.05 bar < 75°C (fluid temperature)
0.28 bar < 90°C (fluid temperature)

| Material | |
|---|---|
| Hydraulic casing | bronze |
| Impeller | polyamid, PES |
| Shaft | stainless steel AISI 316/ceramics |
| Bearings | grafit/ceramics |
| Rotor can | stainless steel AISI 316 |

| Technical specification | |
|---|---|
| Qmax | up to 8,4 m³/h |
| Hmax | up to 8 m |
| DN | 15/20/25/32 |
| Pipe connection | Rp ½ / Rp ¾ / Rp 1/ Rp 1¼ |
| Installation | threaded |
| Insulation class | H |
| Degree of protection | IP 44 |
| Voltage | 1 ~ 230V, 50 Hz |

## Performance range




## SAN - 3-speed pumps for sanitary water (bronze hydraulic)

| Code | Type | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|
| 979521765 | SAN 15/40-130 | 130 | Rp ½ | 50 | 2,4 |
| 979521766 | SAN 20/40-130 | 130 | Rp ¾ | 50 | 2,4 |
| 979521767 | SAN 25/40-130 | 130 | Rp 1 | 50 | 2,45 |
| 979521768 | SAN 15/60-130 | 130 | Rp ½ | 90 | 2,5 |
| 979521769 | SAN 20/60-130 | 130 | Rp ¾ | 90 | 2,4 |
| 979521770 | SAN 25/60-130 | 130 | Rp 1 | 90 | 2,5 |
| 979522018 | SAN 20/70-130 | 130 | Rp ¾ | 140 | 2,55 |
| 979522006 | SAN 25/70-130 | 130 | Rp 1 | 140 | 2,45 |
| 979523510 | SAN 32/80-180 | 180 | Rp 1¼ | 210 | 5 |

## SAN ECO - circulating pumps for sanitary water

| Code | Type | Fitting length L [mm] | Pipe connection | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|
| 979523230 | SAN ECO 15/15 B | 65 | Rp ½ | 2 - 8 | 0,65 |
| 979523231 | SAN ECO 15/15 BU | 65 | Rp ½ | 2 - 8 | 0,65 |
| 979523232 | SAN ECO 15/15 BTU | 65 | Rp ½ | 2 - 8 | 0,75 |
| 979523233 | SAN ECO 15/15 BT | 65 | Rp ½ | 2 - 8 | 0,65 |

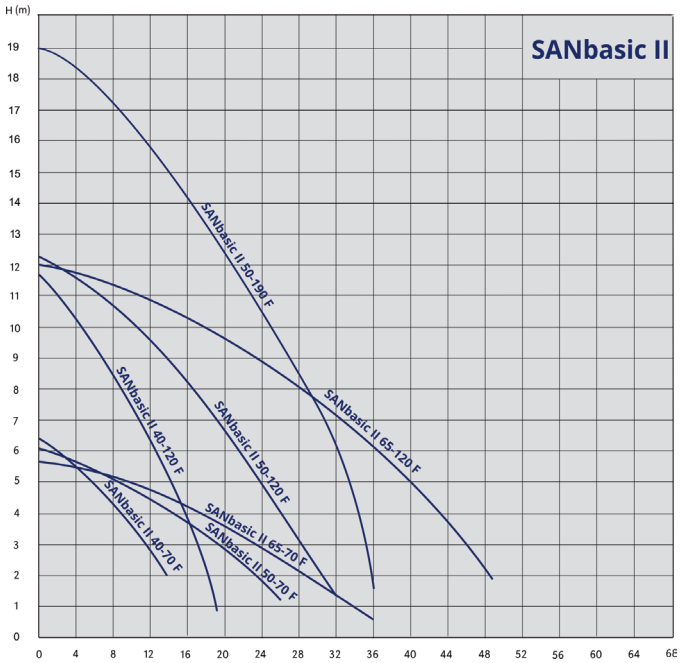
# SANbasic II F – Flange pump for sanitary water

**SANbasic II xx/xxx F**

- F — flange connection
- xxx — max head [m]
- xx — connection size (DN) [mm]
- SANbasic II — 3 speed pump for sanitary water

3-speed pumps for sanitary water
Flanged, bronze hydraulic, standard voltage 400V (230V optional)

## Performance range




## SANbasic II - 3-speed flange pumps

| Code | Type | Fitting length L [mm] | Pipe connection | PN | Pmax [W] | Weight [kg] |
|---|---|---|---|---|---|---|
| 979524616 | SANbasic II 40-120 F250 | 250 | DN40 | PN6/10 | 578 | |
| 979524617 | SANbasic II 40-70 F250 | 250 | DN40 | PN6/10 | 295 | |
| 979524622 | SANbasic II 50-190 F280 | 280 | DN50 | PN6/10 | 1596 | |
| 979524618 | SANbasic II 50-120 F280 | 280 | DN50 | PN6/10 | 1020 | |
| 979524619 | SANbasic II 50-70 F280 | 280 | DN50 | PN6/10 | 470 | |
| 979524620 | SANbasic II 65-120 F340 | 340 | DN65 | PN6/10 | 1560 | |
| 979524621 | SANbasic II 65-70 F340 | 340 | DN65 | PN6/10 | 600 | |

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