# N 630.3 SERIES
# EXPLOSION PROOF PUMPS

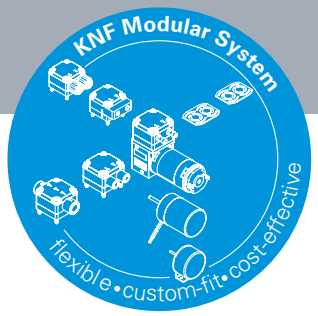
N 630.3 ST.9 E Ex

## ADVANTAGES

- High chemical resistance
- Durable even with difficult operating conditions
- High gas tightness up to 5 x $10^{-5}$ mbar x l/s as a standard
- Flameproof motor with intrinsically safe terminal box for simple installation
- .12 version with additional safety diaphragm for preventing gas from escaping through cracks in the working diaphragm

## POSSIBLE AREAS OF USE

- Environmental monitoring – especially in potentially explosive fields
- Process industry
- Chemical industry
- Energy technology
- Maritime – especially for engine monitoring and emission measurement

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| PERFORMANCE DATA | | | | |
|---|---|---|---|---|
| **Series model** | **N 630.3 - 50 Hz Version** | | **N 630.3 - 60 Hz Version** | |
| **Material design** | **ST.9 E Ex** | **ST.12 E Ex** | **ST.9 E Ex** | **ST.12 E Ex** |
| Pump head | Stainless steel | | | |
| Diaphragm | PTFE-coated | | | |
| Valves | Stainless steel | | | |
| Flow rate at atm. pressure (l/min) | 30.0 | | 35.0 | |
| Ultimate vacuum (mbar abs.) | 25 | | | |
| Max. operating pressure (bar rel./psig) | 0.5/7.3 | | | |
| Permissible ambient temperature (°C) | +5 ... +40 | | | |
| Permissible media temperature (°C) | +5 ... +40 | | | |
| Gas tightness (mbar x l/s) | 6 x $10^{-3}$ | 5 x $10^{-5}$ | 6 x $10^{-3}$ | 5 x $10^{-5}$ |
| Weight (kg/lbs) | 47.5/104.7 | 49.5/109.1 | 47.5/104.7 | 49.5/109.1 |
| **ELECTRICAL DATA** | | | | |
| Voltage (V) | 230/400 | 200/346 | 220/380 | 277/480 |
| Motor | Three-phase motor | | | |
| Protection class motor | IP 55 | | | |
| Protection class pump | IP 20 | | | |
| Frequency (Hz) | 50 | 50/60 | 60 | |
| Power $P_2$ (W) | 370 | | | |
| Explosion protection three-phase motor | Ex II 2G Ex de IIC T4 Gb | | | |
| $I_N$ (A), 50 Hz | 1.65/0.95 | 1.92/1.11 | - | |
| $I_N$ (A), 60 Hz | - | 1.8/1.04 | 1.73/1.0 | 1.44/0.83 |
| Explosion protection pump parts | Ex II 2G Ex h IIB+H2 T3 Gb | | | |

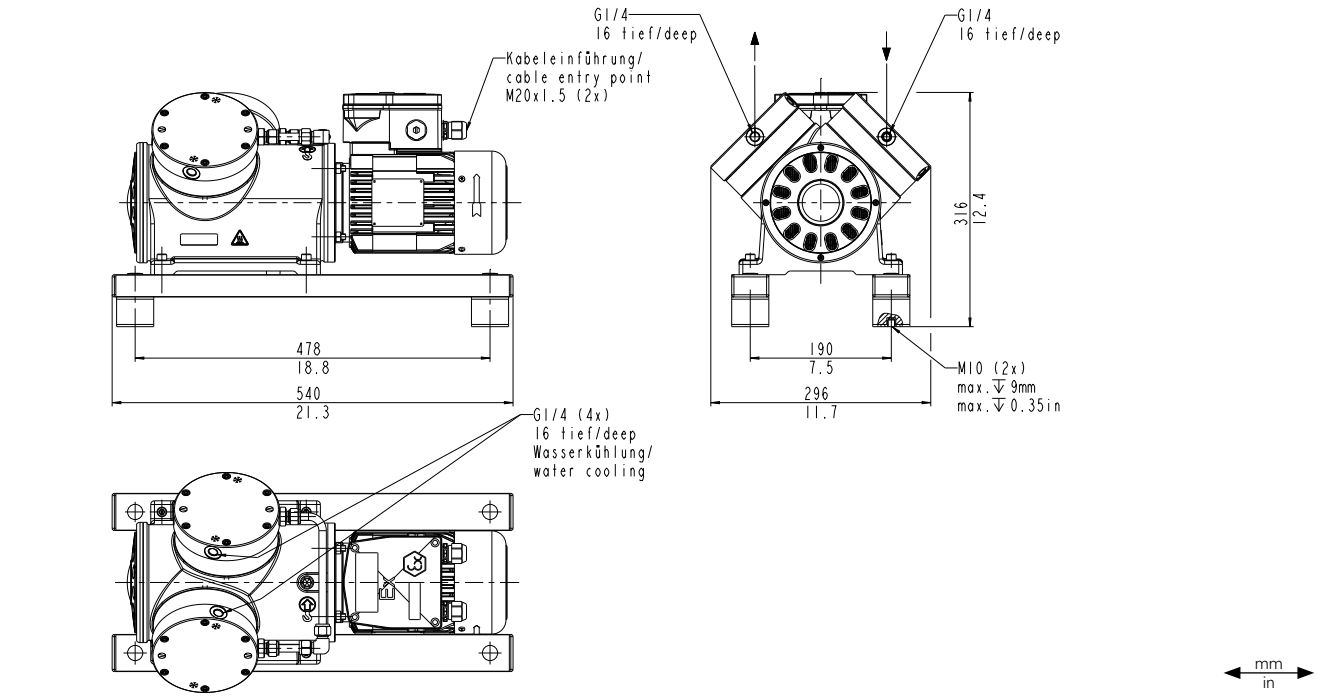
# N 630.3 ST.9 E EX

## PERFORMANCE DATA

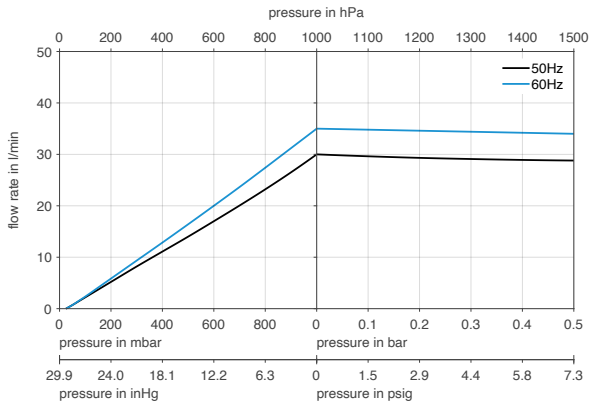
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel./psig) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| N 630.3 ST.9 E Ex - 50 Hz | 30.0 | 0.5/7.3 | 25 |
| N 630.3 ST.9 E Ex - 60 Hz | 35.0 | 0.5/7.3 | 25 |

Flow rate determined at 20 °C, 1013 mbar abs.
(Pressure 0 to 1013 mbar abs. in accordance with ISO 21360-1/2)

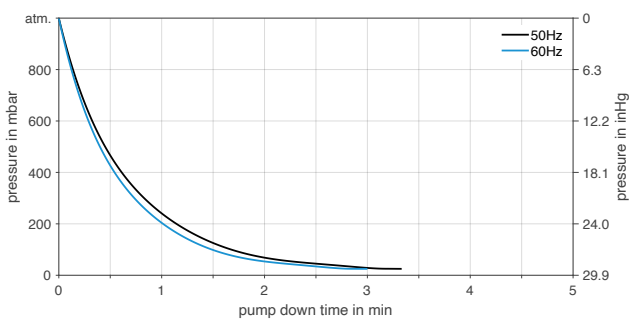
## N 630.3 ST.9 E EX



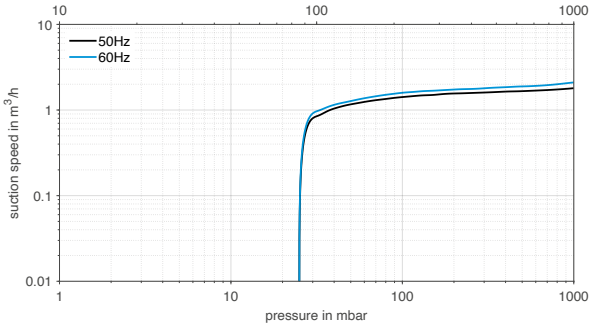

## N 630.3 ST.9 E EX




## N 630.3 ST.9 E EX | PUMP DOWN TIME FOR 20 LITER VESSEL




## N 630.3 ST.9 E EX | SUCTION PUMPING SPEED



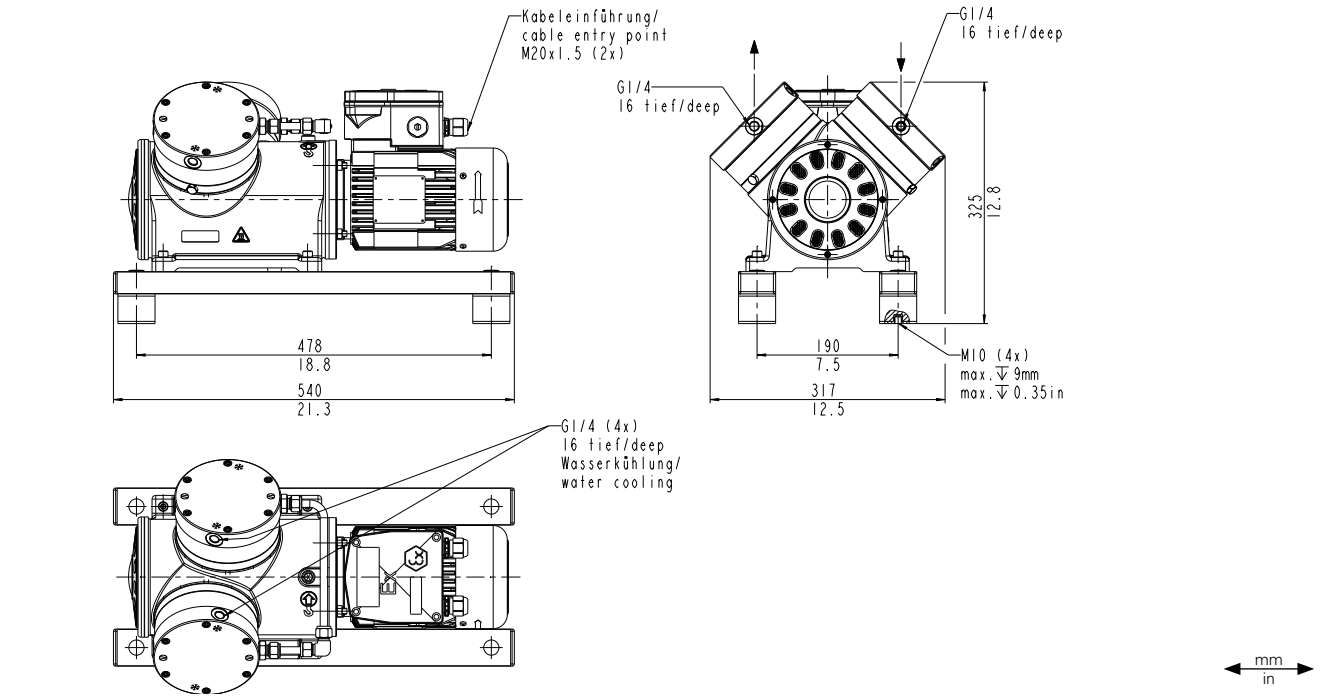
# N 630.3 ST.12 E EX

## PERFORMANCE DATA

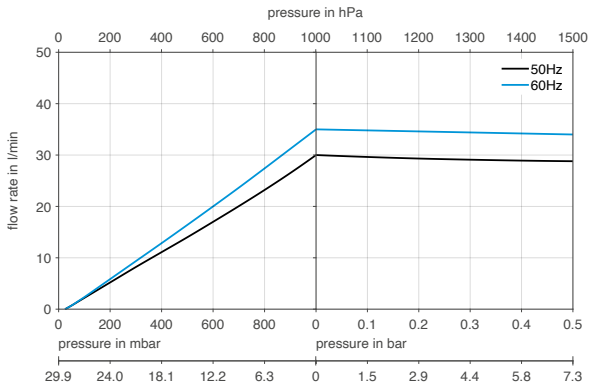
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel./psig) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| N 630.3 ST.12 E Ex - 50 Hz | 30.0 | 0.5/7.3 | 25 |
| N 630.3 ST.12 E Ex - 60 Hz | 35.0 | 0.5/7.3 | 25 |

Flow rate determined at 20 °C, 1013 mbar abs.
(Pressure 0 to 1013 mbar abs. in accordance with ISO 21360-1/2)

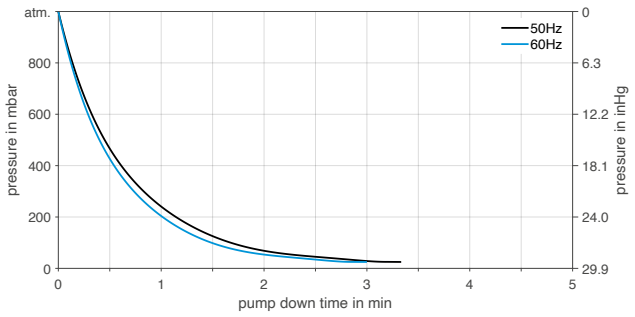
## N 630.3 ST.12 E EX



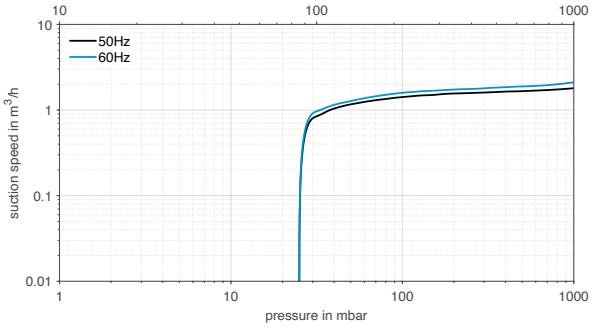

## N 630.3 ST.12 E EX

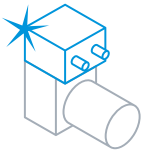
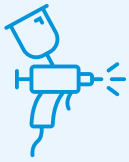



## N 630.3 ST.12 E EX | PUMP DOWN TIME FOR 20 LITER VESSEL




## N 630.3 ST.12 E EX | SUCTION PUMPING SPEED



| OPTIONS | | |
|---|---|---|
| **Description** | **Illustration** | **Details** |
| Mechanical adjustment of pumping capacity |  | The pumping capacity can be adjusted at the factory for accurate alignment with the customer's system |
| Versions for special gases |  | Adjustment of the pump head for use with highly corrosive gases, for example with certain ozone or chlorine concentrations. Options include Hastelloy or PTFE pump head components or SilcoTek™ coating |
| Cleaned contact material parts |  | For the use of the pump with gases with high oxygen concentrations the parts that come into contact with the medium can be cleaned using a certified process |
| Special coating |  | Special coatings for high corrosion protection (C4) for use in industrial areas and coastal areas with moderate salinity, such as maritime applications |
| Certified head components |  | The components that come into contact with the medium are available with material certificates |
| Country-specific Ex certificates |  | Pumps with certificates for NEC Ex, KOSHA, PESO, NEPSI and JIS are also available |

## ACCESSORIES

| Description | Illustration | Part No. |
|---|---|---|
| Connection water cooling device N 630.3 ST.9 E Ex |  | 310443 |
| Connection water cooling device N 630.3 ST.12 E Ex |  | 310444 |
| Inlet filter |  | 316661 |
| Wrench for retainer plate |  | 321664 |
| Retainer plate screw N 630.3 ST.9 E Ex |  | 314279 |
| Retainer plate screw N 630.3 ST.12 E Ex |  | 314280 |
| Sprocket for coupling |  | 322095 |
| Test adapter for coupling |  | 322184 |

## SPARE PARTS

| Description | Part No. |
|---|---|
| Spare parts kit N 630.3 ST.9 E Ex | 321882 |
| Spare parts kit N 630.3 ST.12 E Ex | 325527 |

The performance values for the series models shown on this data sheet were determined under test conditions.
The actual performance values may differ and depend in particular on the usage conditions and therefore on the specific application, on the parameters of the components involved in the user's system and on any technical modifications carried out which deviate from the standard configuration or the as delivered condition.

If individual designs have been created for specific customers on the basis of series models, other technical performance data may apply.
Before operation begins, the relevant operating instructions and/or assembly or installation instructions should be read and the safety information contained in these instructions should be noted.
KNF reserves the right to make changes to the product and the associated documentation without prior notice to the customer.

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