

N 816 SERIES VACUUM PUMPS



N 816 KNE



N 816 KN.29 DC-B-M



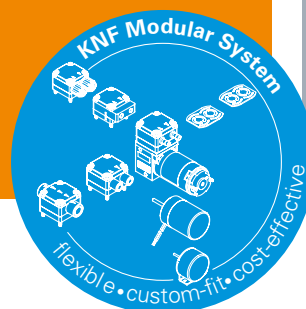
N 816 KN.29 DC-B

ADVANTAGES

- High level of performance in a compact size
- Copes well with vapor and condensation
- High-performing collecting containers are evacuated quickly and reliably
- Robust and compact
- Analog or digital control
- Readout of pump parameters
- Safety functions

POSSIBLE AREAS OF USE

- Diagnostics – disposal of sample waste
- Medical technology – especially autoclaves
- Mobile/portable gas measurement technology
- Stationary emission measurement technology (CEMS)



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PERFORMANCE DATA

Series model	N 816					
	KNE	KTE	KN.29 DC-B-M	KT.29 DC-B-M	KN.29 DC-B	KT.29 DC-B
Pump head	PPS					
Diaphragm	EPDM	PTFE-coated	EPDM	PTFE-coated	EPDM	PTFE-coated
Valves	EPDM	FFPM	EPDM	FFPM	EPDM	FFPM
Flow rate at atm. pressure (l/min) ¹⁾³⁾	14.0	13.0	3.5–16.0	3.5–14.0	4.5–16.0	4.2–14.0
Ultimate vacuum (mbar abs.) ¹⁾	100	140	100	140	100	140
Max. operating pressure (bar rel./psig) ¹⁾²⁾	0.5/7.3				2.0/29.0	
Permissible ambient temperature (°C/°F) ¹⁾	+5 °C ... +40 °C / 41 °F ... 104 °F					
Permissible media temperature (°C/°F) ¹⁾	+5 °C ... +40 °C / 41 °F ... 104 °F					
Weight (kg/lbs)	1.8/4.0		1.1/2.4		1.3/2.9	

ELECTRICAL DATA

Voltage (V)	100	115	220	230	24		
Motor	Capacitor motor				Brushless DC motor, PWM-signal: 20...100 %	Brushless DC motor, default control voltage: 0.1...5 V or PWM-signal 1...99 %	
Protection class motor	IP 00				IP 30	IP 20	
Frequencies (Hz)	50/60	60		50	-		
Power P ₁ (W)							
N 816 KN	75.0/64.0	64.0	64.0	79.0	31.0		55.0
N 816 KT	78.0/63.0	61.0	65.0	76.0		26.0	31.0
I _{max} (A)							
N 816 KN	0.90/0.70	0.60	0.35	0.45	1.3		2.25
N 816 KT	1.00/0.70	0.60	0.35	0.50		1.1	1.3

¹⁾ expanded performance available upon request

²⁾ bar rel relative to 1013 hPa

³⁾ Flow rate determined at 20 °C, 1000 mbar abs. (Pressure 0 to 1000 mbar abs. in accordance with ISO 21360/ISO 8778)

N 816 KNE | KTE

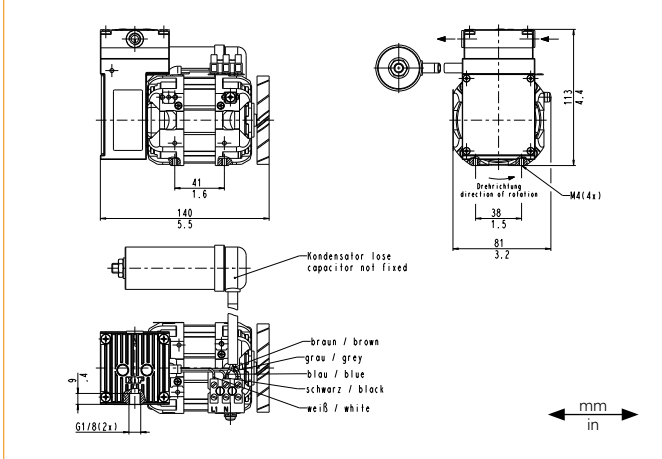
PERFORMANCE DATA

Series model	Flow rate at atm. pressure (l/min) ³⁾	Max. operating pressure (bar rel./psig) ²⁾	Ultimate vacuum (mbar abs.)
N 816 KNE	14.0	0.5/7.3	100
N 816 KTE	13.0	0.5/7.3	140

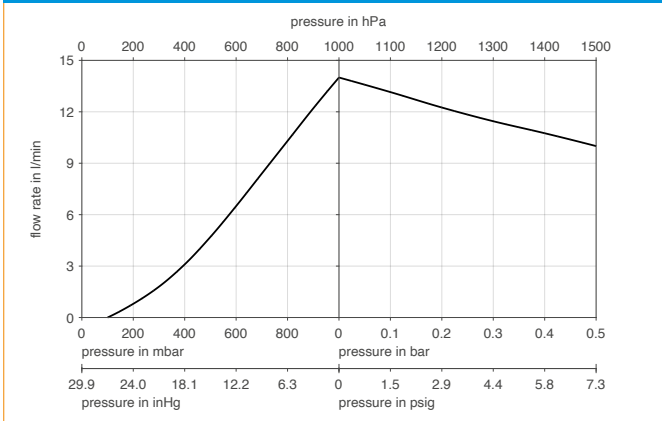
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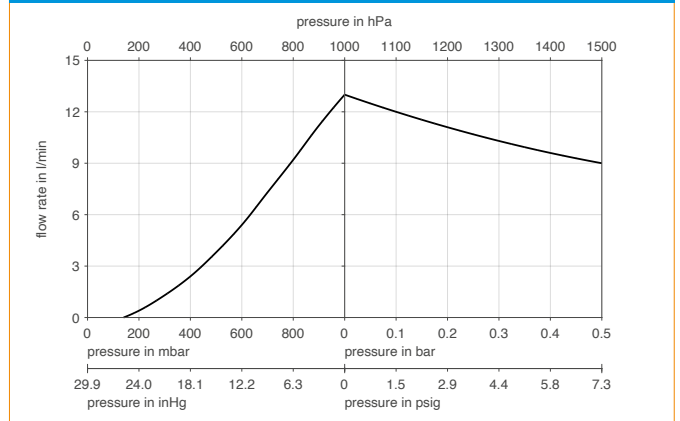
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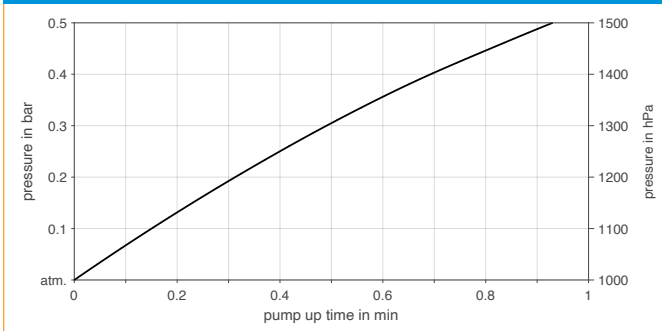
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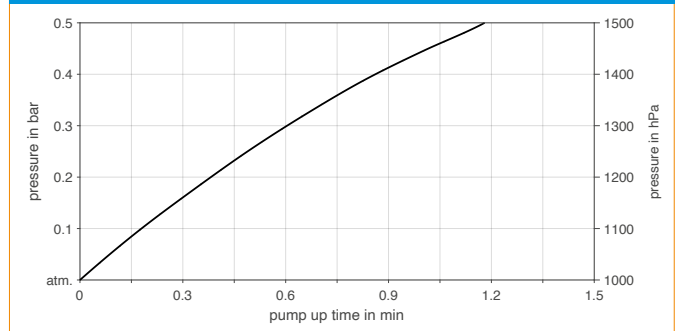
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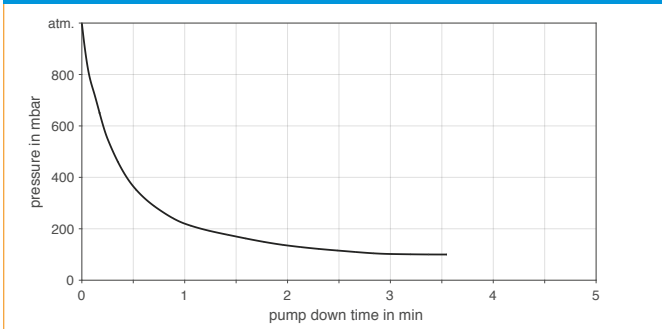
N 816 KNE | PUMP UP TIME FOR 5 LITER VESSEL



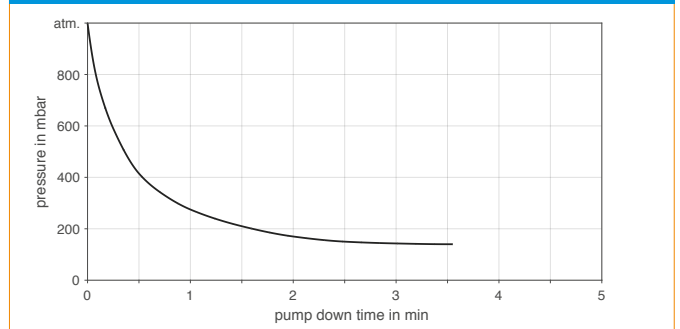
N 816 KTE | PUMP UP TIME FOR 5 LITER VESSEL



N 816 KNE | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KTE | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KN.29 DC-B-M | KT.29 DC-B-M

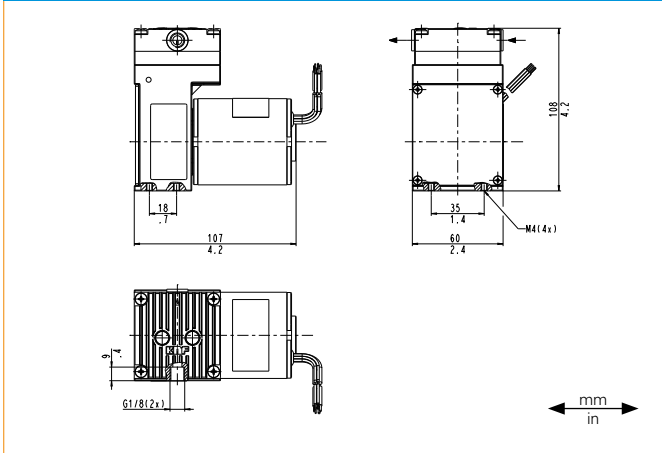
PERFORMANCE DATA

Series model	Flow rate at atm. pressure (l/min) ³⁾	Max. operating pressure (bar rel./psig) ²⁾	Ultimate vacuum (mbar abs.)
N 816 KN.29 DC-B-M	3.5–16.0	0.5/7.3	100
N 816 KT.29 DC-B-M	3.5–14.0	0.5/7.3	140

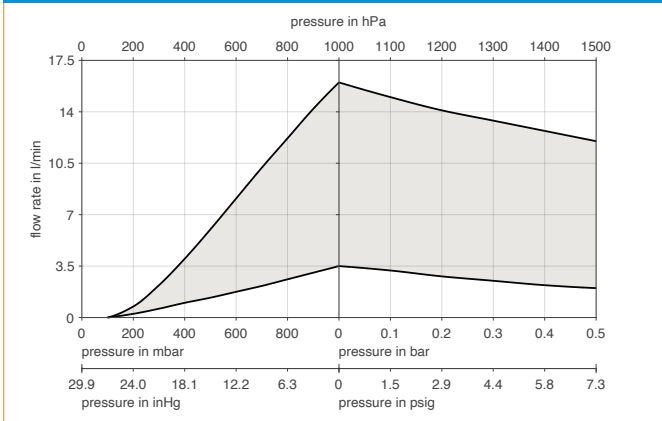
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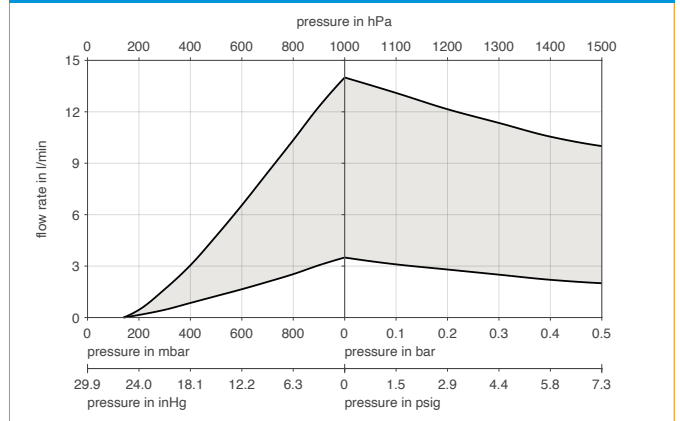
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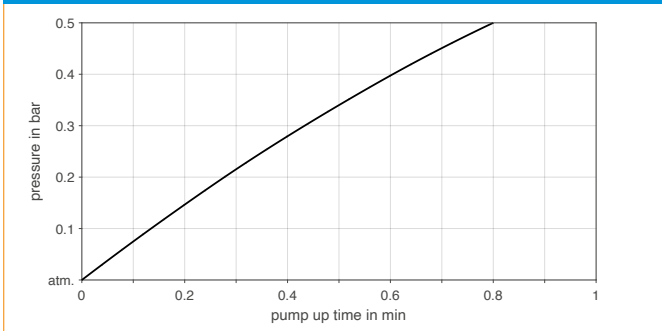
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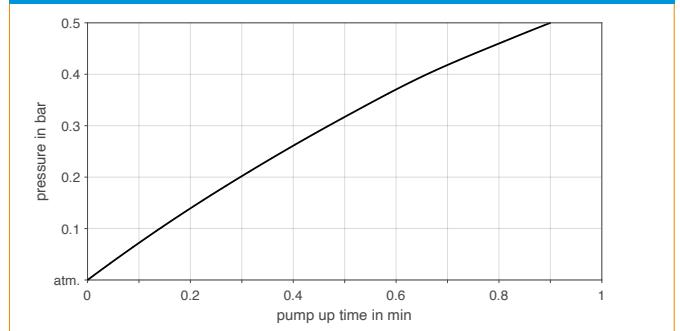
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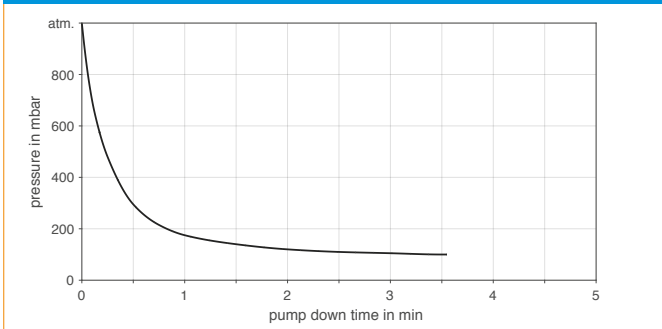
N 816 KN.29 DC-B-M | PUMP UP TIME FOR 5 LITER VESSEL



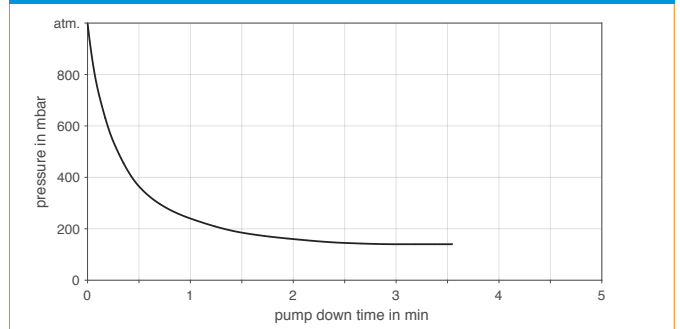
N 816 KT.29 DC-B-M | PUMP UP TIME FOR 5 LITER VESSEL



N 816 KN.29 DC-B-M | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KT.29 DC-B-M | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KN.29 DC-B | KT.29 DC-B

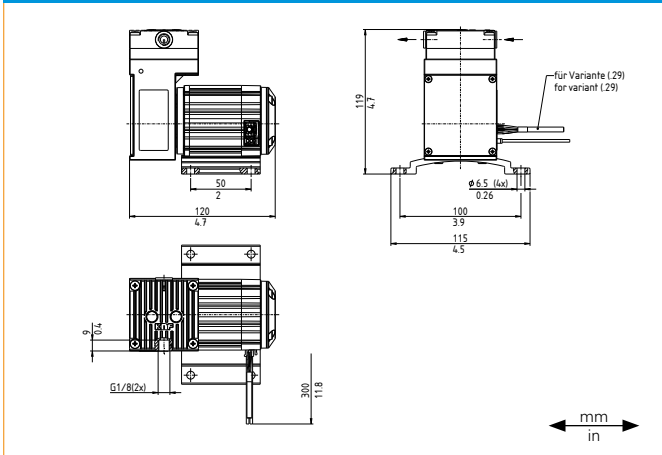
PERFORMANCE DATA

Series model	Flow rate at atm. pressure (l/min) ³⁾	Max. operating pressure (bar rel./psig) ²⁾	Ultimate vacuum (mbar abs.)
N 816 KN.29 DC-B	4.5–16.0	2.0/29.0	100
N 816 KT.29 DC-B	4.2–14.0	2.0/29.0	140

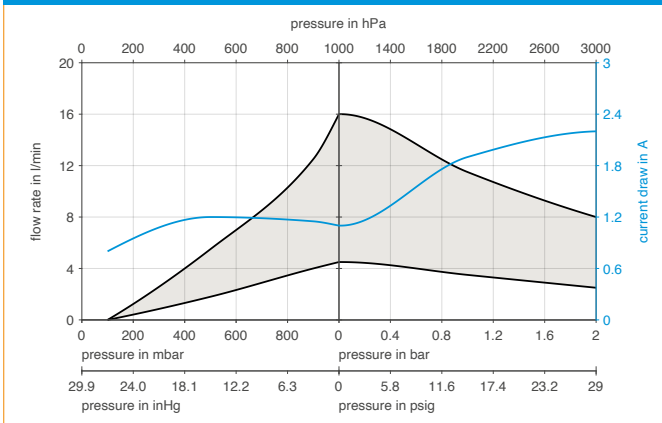
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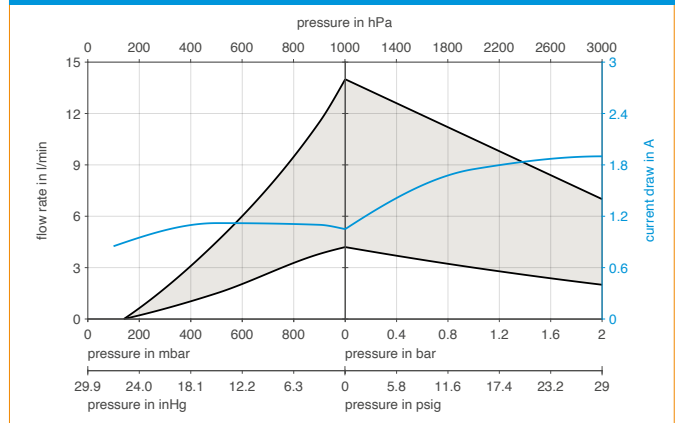
N 816 K_.29 DC-B



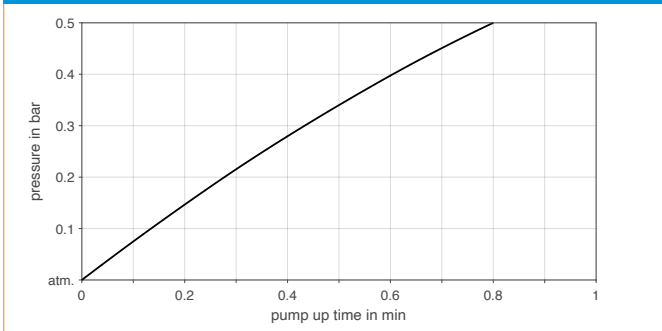
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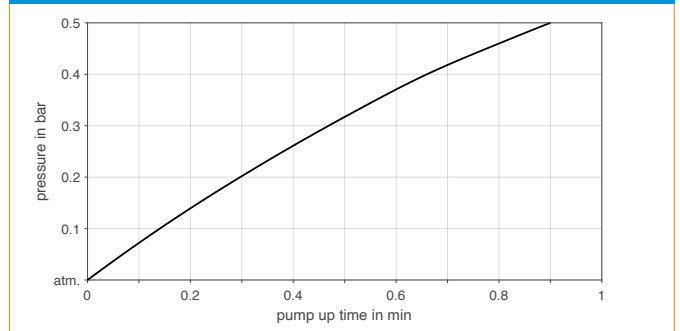
N 816 KT.29 DC-B



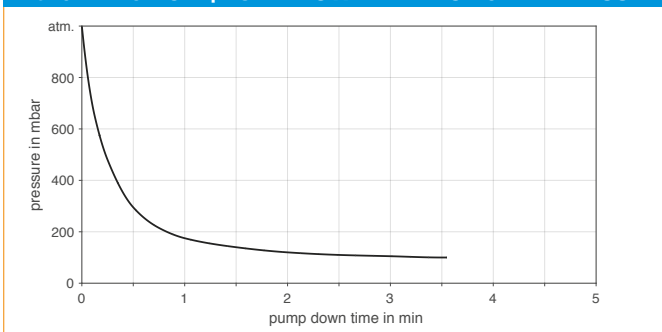
N 816 KN.29 DC-B | PUMP UP TIME FOR 5 LITER VESSEL



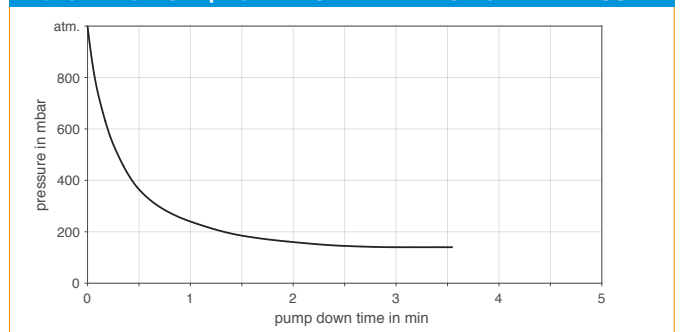
N 816 KT.29 DC-B | PUMP UP TIME FOR 5 LITER VESSEL



N 816 KN.29 DC-B | PUMP DOWN TIME FOR 5 LITER VESSEL








N 816 KT.29 DC-B | PUMP DOWN TIME FOR 5 LITER VESSEL







DIGITAL CUSTOMIZATION

Thanks to digital technology, this pump can be quickly adapted to the customer's system. This is done by parametrizing the firmware of the motor at KNF.

ACCESSORIES			
Description	Illustration	Part No.	Details
Silencer/Inlet filter		000346	G 1/8 outside thread, inner diameter 6 mm
Hose connector		000360	R 1/8, PA
Hose connector		123363	G 1/8 OT, PVDF
Vibration dampening (4 pieces necessary per pump, for use with motor mounting plate)		014114	D 20x15 mm, 2x M6x10 mm outside thread
Vibration dampening (4 pieces necessary per pump, use for direct mounting without mounting plate)		124782	D 15x15 mm, M4x6 mm outside thread/M4x6 mm inside thread

SPARE PARTS			
Description	Illustration	Part No.	Details
Spare parts kit N 816 KN		342875	Spare parts kit consists of: 1x diaphragm, 2x valve plate. This set is required to maintain the pump.
Spare parts kit N 816 KT		342835	Spare parts kit consists of: 1x diaphragm, 2x valve plate. This set is required to maintain the pump.

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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