

N 680.15 SERIES

PROCESS VACUUM PUMPS AND COMPRESSORS



N 680.15 ST.9 E

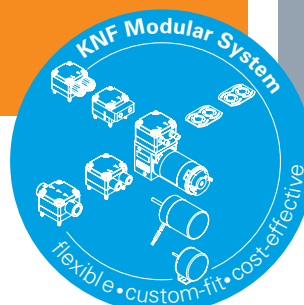
ADVANTAGES

- High chemical resistance
- Durable even with difficult operating conditions
- High gas tightness up to 6×10^{-6} mbar x l/s as a standard
- High operating pressure of max. 12 bar rel.

POSSIBLE AREAS OF USE

- Environmental monitoring
- Process industry
- Chemical industry
- Energy technology – e.g. pressure increase for natural gas
- Gas recovery

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PERFORMANCE DATA

Series model	N 680.15	
Material design	ST.9 E / ST.13 E	SP.9 E / SP.13 E
Pump head	Stainless steel	
Diaphragm	PTFE-coated	EPDM
Valves	Stainless steel	
Flow rate at atm. pressure (l/min) ¹⁾	110 @ 50 Hz / 130 @ 60 Hz	120 @ 50 Hz / 140 @ 60 Hz
Ultimate vacuum (mbar abs.)	100	
Max. operating pressure (bar rel./psig)	12.0 / 174.0	
Permissible ambient temperature (°C)	+5 ... +40	
Permissible media temperature (°C)	+5 ... +40	
Level of gas tightness (mbar x l/s) .9 .13	$6 \times 10^{-3} / 5 \times 10^{-5}$	
Weight (kg/lbs)	101.0 / 223.0	

ELECTRICAL DATA

Voltage (V)	230/400		200/346		230/400		200/346	
Motor	Three-phase motor							
Protection class motor	IP 55							
Protection class pump	IP 20							
Frequency (Hz)	50	60	50	60	50	60	50	60
Power P ₁ (W)	1100	1300	1100	1300	1100	1300	1100	1200
I _N (A)	6,6/3,8	6/3,5	7,1/4,1	7/4,1	6,5/3,8	6,1/3,6	7,1/4,1	7,1/4,1

¹⁾ Liters in the standard state (based on ISO 8778 and ISO 21360-1/2) (1000 hPa, 20°C)

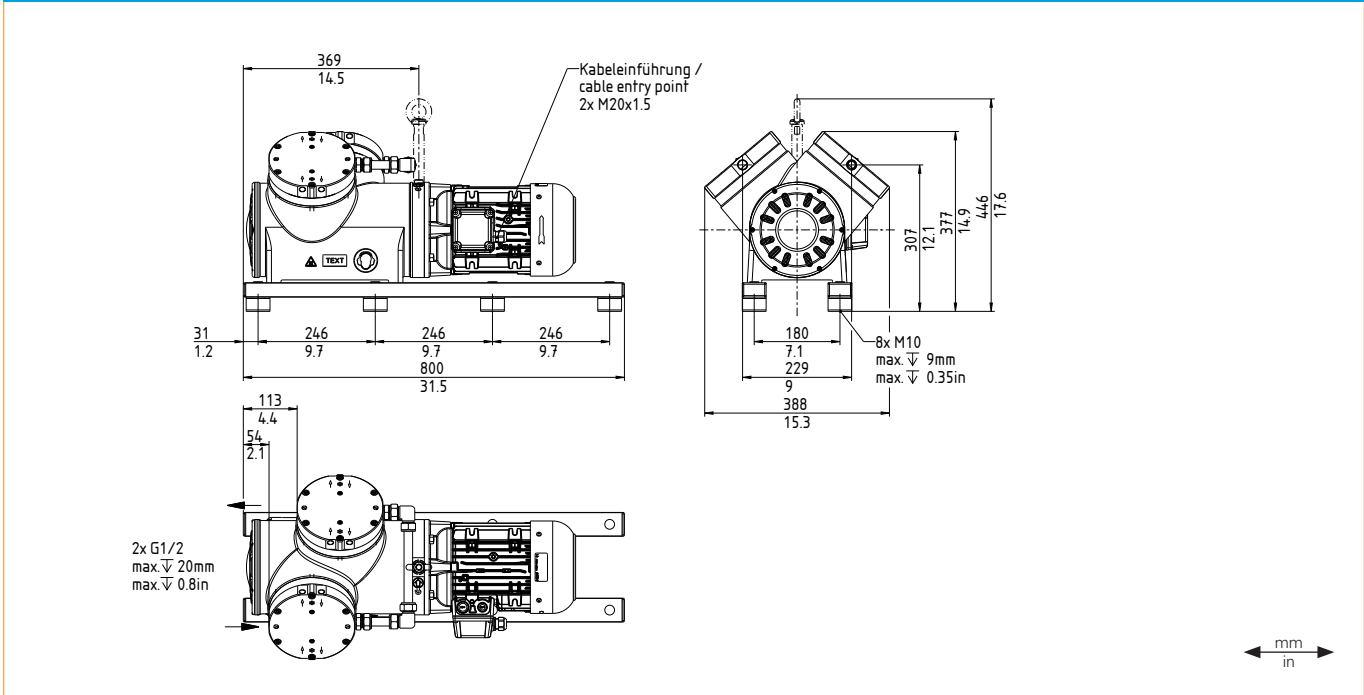
N 680.15 ST.9 E | ST.13 E

PERFORMANCE DATA

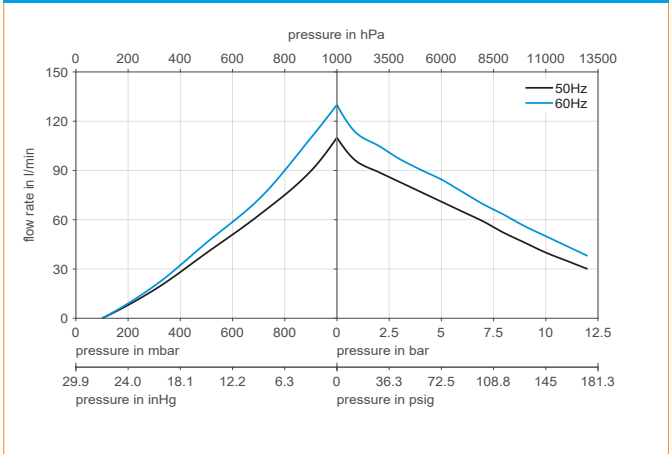
Series model	Flow rate at atm. pressure (l/min) ¹⁾	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 680.15 ST.9 E- 50 Hz	110	12.0/174.0	100
N 680.15 ST.13 E- 60 Hz	130	12.0/174.0	100

¹⁾ Liters in the standard state (based on ISO 8778 and ISO 21360-1/2) (1000 hPa, 20°C)

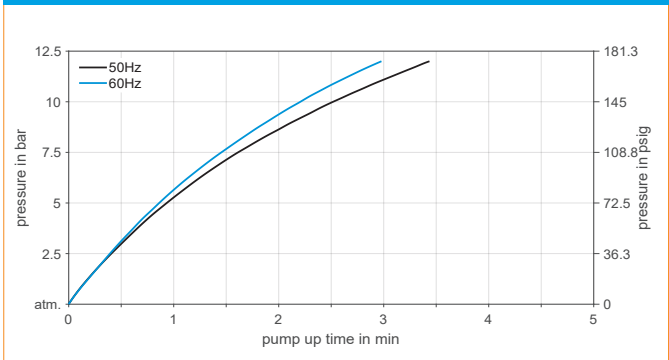
N 680.15 ST.9 E | ST.13 E



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N 680.15 ST.9 E | ST.13 E
PUMP UP TIME FOR 20 LITER VESSEL



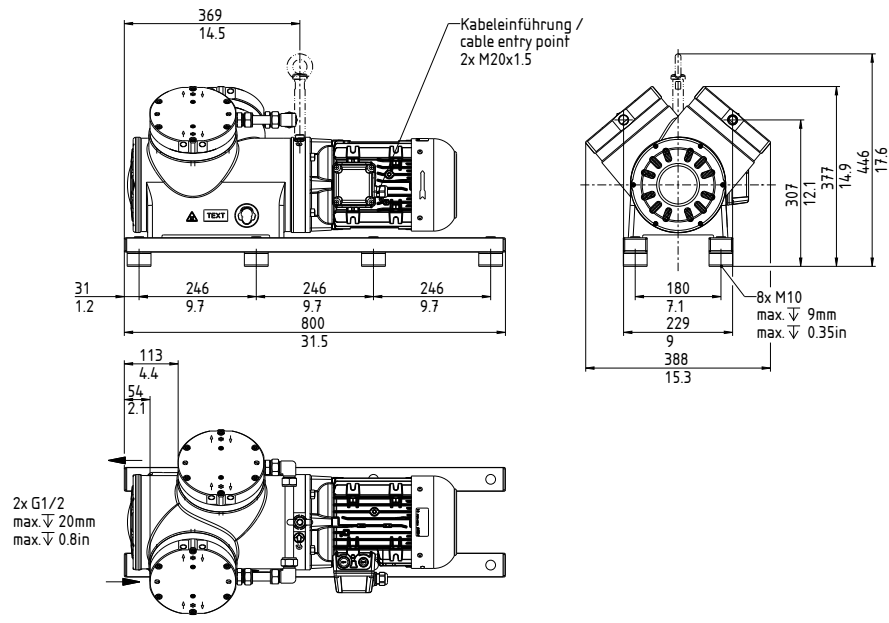
N 680.15 SP.9 E | SP.13 E

PERFORMANCE DATA

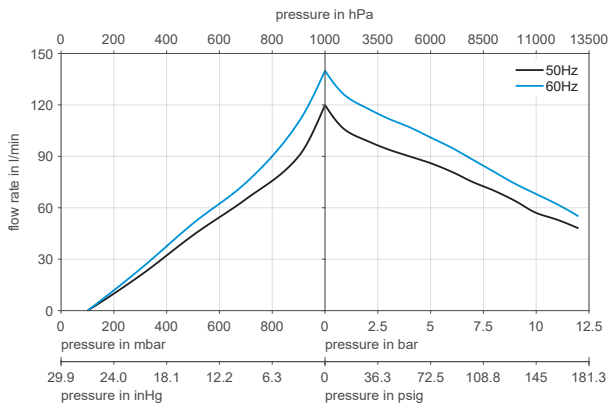
Series model	Flow rate at atm. pressure (l/min) ¹⁾	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 680.15 SP.9 E- 50 Hz	120	12.0/174.0	100
N 680.15 SP.13 E- 60 Hz	140	12.0/174.0	100

¹⁾ Liters in the standard state (based on ISO 8778 and ISO 21360-1/2) (1000 hPa, 20°C)

N 680.15 SP.9 E | SP.13 E

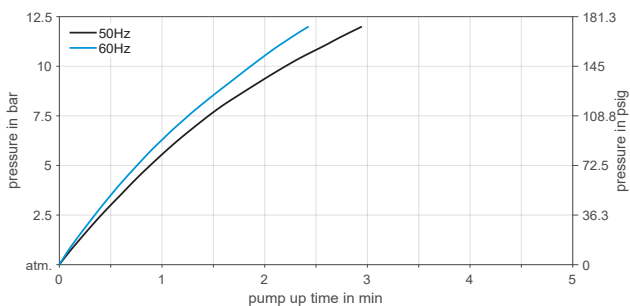


N 680.15 SP.9 E | SP.13 E

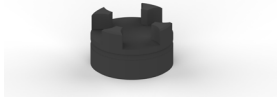


N 680.15 SP.9 E | SP.13 E

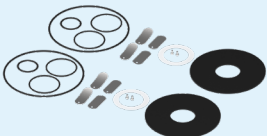
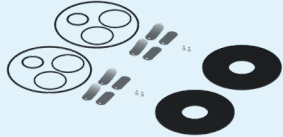
PUMP UP TIME FOR 20 LITER VESSEL



ACCESSORIES

Description	Illustration	Part No.
Ring corrugated hose for pneumatic connection; length 500 mm		333224
Ring corrugated hose with certificate for pneumatic connection; length 500 mm		333226
Water cooling connection .9 / .13		329236
Transport eyebolt		311535
Wrench for retainer plate		128753
Sprocket for coupling		322343
Test adapter for coupling		322339

SPARE PARTS

Description	Illustration	Part No.	Details
Spare parts kit N 680.15 ST.9 E		333499	Spare parts kit consists of: 2x diaphragm, 4x reed valve, 4x valve stopper, 2x PTFE washer, 4x O-rings, 4x screws. This set is required to maintain the pump.
Spare parts kit N 680.15 ST.13 E		344881	Spare parts kit consists of: 2x diaphragm, 4x reed valve, 4x valve stopper, 2x PTFE washer, 8x O-rings, 4x screws. This set is required to maintain the pump.
Spare parts kit N 680.15 SP.9 E		333500	Spare parts kit consists of: 2x diaphragm, 4x reed valve, 4x valve stopper, 4x O-rings, 4x screws. This set is required to maintain the pump.
Spare parts kit N 680.15 SP.13 E		344243	Spare parts kit consists of: 2x diaphragm, 4x reed valve, 4x valve stopper, 8x O-rings, 4x screws. 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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