

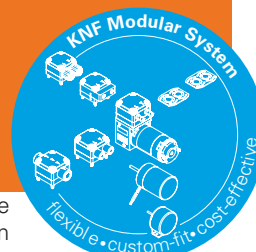
N 0150.3 SERIES

PROCESS VACUUM PUMPS



ADVANTAGES

- Additional containment diaphragm available to protect gas from escaping even in the event of a diaphragm fracture
- Deep ultimate vacuum of 29.3 inHg/ 25 mbar
- Class 1, Div 1, HazLoc versions available
- NPT threaded ports available
- Leakage per model type:
All .9 models $\leq 6 \times 10^{-3}$ mbar abs. l/s
EPDM .12/.13 $\leq 6 \times 10^{-6}$ mbar abs. l/s
PTFE .12/.13 $\leq 1 \times 10^{-5}$ mbar abs. l/s



POSSIBLE AREAS OF USE

- Handling rare, dangerous, or radioactive gases with minimal leakage
- Precious gas and solvent recovery
- Rapid response time for analysis
- Rapid evacuation
- Research and development

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www.knf.com to get more information

PERFORMANCE DATA

Series model	N 0150.3					
Material design	AP9 E	SP9 E	SP13 E	ST9 E	ST13 E	SP12 E
Pump head	Aluminum	Stainless steel				
Diaphragm	EPDM			PTFE-coated		EPDM
Valves	Stainless steel					
Flow rate at atm. pressure (l/min)	150.0 ± 10 %			120.0 ± 10 %		150.0 ± 10 %
Ultimate vacuum (mbar abs./inHg)	25/29.2			30/29.0		25/29.2
Max. operating pressure (bar g/psig)	0.5/7.3					
Permissible ambient temperature (°C/ °F)	5° C to 40° C / 41° F to 104° F					
Permissible media temperature (°C/ °F)	5° C to 40° C / 41° F to 104° F					

ELECTRICAL DATA

Weight (kg/lbs)	41.5/ 91.3	46.5/ 102.3	53.5/ 117.7	58.5/ 128.7	58.5/ 128.7	63.5/ 139.7
Voltage (V)	115	230/ 400	115	230/ 400	115	230/ 400
Motor	Capacitor motor	Three-phase motor	Capacitor motor	Three-phase motor	Capacitor motor	Three-phase motor
Motor protection class	IP 55					
Frequency (Hz)	60					
Power P ₁ (kW)	1.5	1.4	1.5	1.4	1.5	1.4
I _{max} (A)	7.80	6.10/ 3.5	7.80	6.1/ 3.5	7.80	6.10/ 3.5

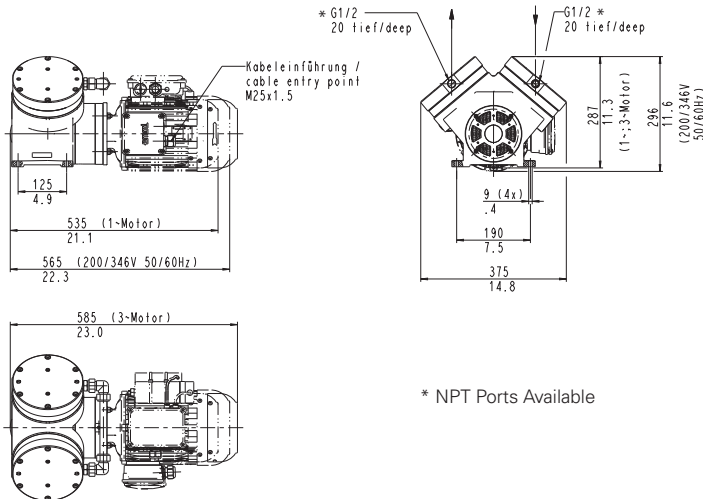
N 0150.3 AP.9 E | SP.9 E | SP.13 E | ST.9 E | ST.13 E

PERFORMANCE DATA

Series model	Flow rate at atm. pressure (l/min) ¹	Max. operating pressure (bar g/psig)	Ultimate vacuum (mbar abs./inHg)
N 0150.3 AP.9 E	150.0 ± 10 %	0.5/7.3	25/26.3
N 0150.3 SP.9 E	150.0 ± 10 %	0.5/7.3	25/26.3
N 0150.3 SP.13 E	150.0 ± 10 %	0.5/7.3	25/26.3
N 0150.3 ST.9 E	120.0 ± 10 %	0.5/7.3	30/26.1
N 0150.3 ST.13 E	120.0 ± 10 %	0.5/7.3	30/26.1

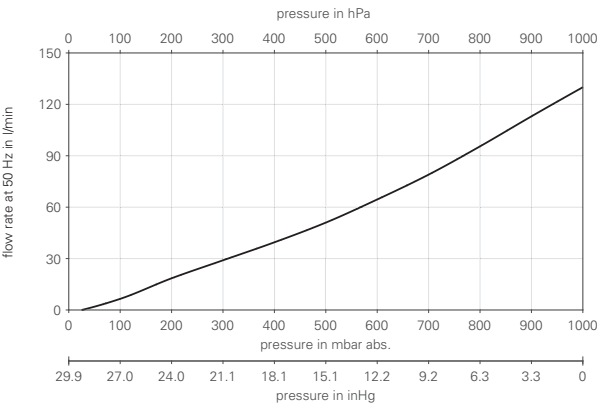
¹) Flow rate determined at 20°C/68°F, 1013 mbar abs.

N 0150.3 __.9 E | S_.13 E

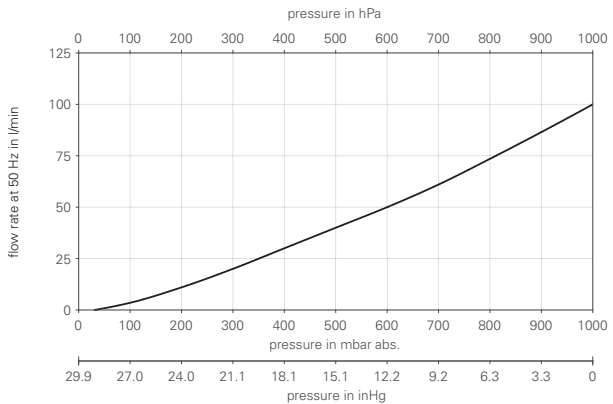


Flow rate on 60Hz versions will be ~ 20% higher than shown in the following 50Hz performance curves

N 0150.3 _P_ E

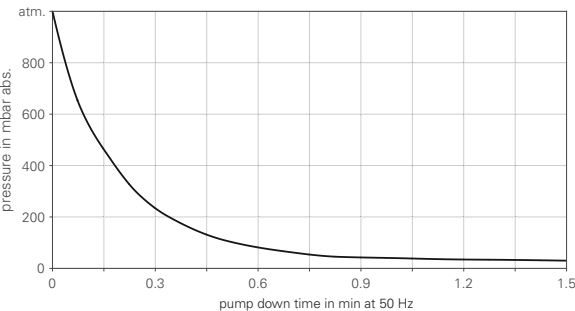


N 0150.3 _T_ E

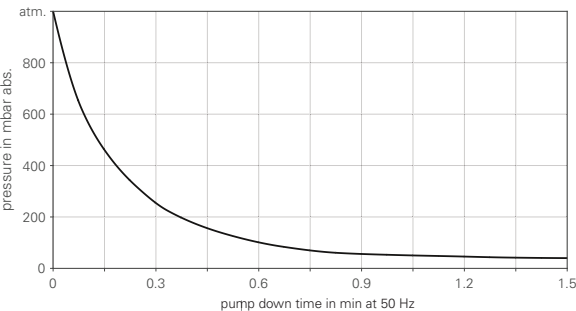


Pump down times on 60Hz version will be ~ 20% less than shown in the following 50Hz version curve

N 0150.3 _P_ E | PUMP DOWNTIME FOR 20 LITER VESSEL



N 0150.3 _T_ E | PUMP DOWNTIME FOR 20 LITER VESSEL



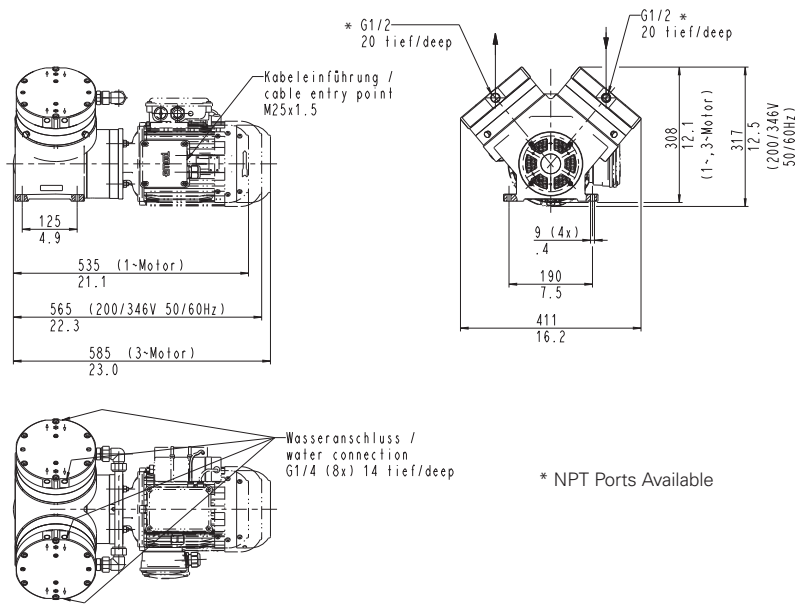
N 0150.3 SP.12 E

PERFORMANCE DATA

Series model	Flow rate at atm. pressure (l/min) ¹⁾	Max. operating pressure (bar g/psig)	Ultimate vacuum (mbar abs./inHg)
N 0150.3 SP.12 E	150.0 ± 10 %	0.5/7.3	25/29.1

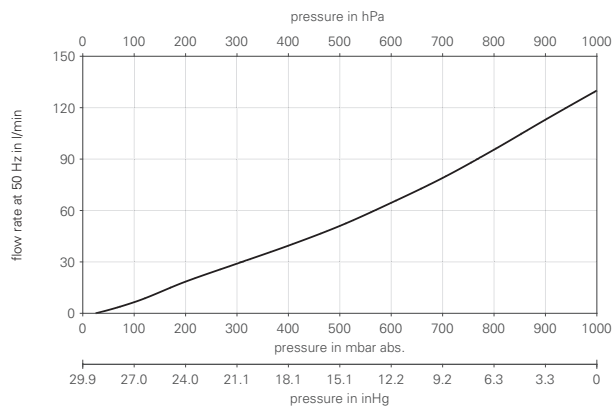
¹⁾ Flow rate determined at 20°C/68°F, 1013 mbar abs.

N 0150.3 SP.12 E



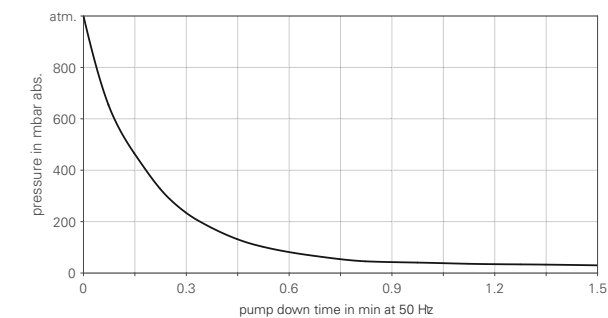
Flow rate on 60Hz versions will be ~ 20% higher than shown in the following 50Hz performance curves

N 0150.3 SP.12 E



Pump down times on 60Hz version will be ~ 20% less than shown in the following 50Hz version curve

N 0150.3 SP.12 E | PUMP DOWN TIME FOR 20 LITER VESSEL



OPTIONS			
Description	Illustration	Part No.	Details
ACCESSORIES			
Description	Illustration	Part No.	Details
Base plate with shock mounts		304463	
Base plate with shock mounts N 0150.3 SP.12 E		304476	
Connection water cooling (only in combination with stainless steel pump heads)			
N 0150.3 S_.9 E S_.13 E		306765	
N 0150.3 SP.12 E		306766	
Wrench for retainer plate		128753	
O-ring for lock screw (.12)		026056	
SPARE PARTS			
Description	Illustration	Part No.	Details
N 0150.3 _P.9 E SP.13 E			
Diaphragm		047013	requires 2
Reed valve for suction side		043951	requires 2
Reed valve for pressure side		043949	requires 2
O-ring D55x3.0 EPDM		047016	requires 4
O-ring (.13 only) D150x3.0 EPDM		047372	requires 2
O-ring (.13 only) D34x3.0 EPDM		047373	requires 2
Full repair kit (valve plate, diaphragm, O-ring)		315473	contains all necessary spare parts in one package
Full repair kit with screws (valve plate, diaphragm, O-ring)		315474	contains all necessary spare parts in one package
N 0150.3 ST.9 E ST.13 E			
Diaphragm		116991	requires 2
Reed valve for suction side		043951	requires 2
Reed valve for pressure side		043949	requires 2
O-ring D55x3.0 FPM		002458	requires 4
O-ring (.13 only) D150x3.0 FPM		002461	requires 2
O-ring (.13 only) D34x3.0 FPM		045499	requires 2
Full repair kit (valve plate, diaphragm, O-ring)		315476	contains all necessary spare parts in one package
Full repair kit with screws (valve plate, diaphragm, O-ring)		315477	contains all necessary spare parts in one package
N 0150.3 SP.12 E			
Working diaphragm		047013	requires 2
Safety diaphragm		047379	requires 2
Reed valve for suction side		343951	requires 2
Reed valve for pressure side		343949	requires 2
O-ring D55x3.0 EPDM		047016	requires 4
O-ring D150x3.0 EPDM		047372	requires 4
O-ring D34x3.0 EPDM		047373	requires 4
Full repair kit (valve plate, diaphragm, O-ring)		315475	contains all necessary spare parts in one package

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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